# Royal Palm Beach Commons for the village of PO (PUBLIC OWNERSHIP) Royal Palm Beach

REQUIRED PARKING (SITE TOTAL): REQUIRED 178 PROVIDED 213

OCCUPANCY: "A2" OCCUPANCY

LAND USE:

PUBLIC PARK

163,47 ACRES

SIZE OF SITE:

BUILDING TYPE:

PROPOSED BUILDING TOTAL GROSS FLOOR AREA:

4.136 Square Feet Interio

SECOND FLOOR 4,082 SQUARE FEET INTERIOR SQUARE FEET EXTERIOR SOUARE FEET TOTAL

SQUARE FEET INTERIOR

SQUARE FEET EXTERIOR SOLIARE FEET TOTAL

OCCUPANCY LOAD FIRST FLOOR 4.136 / 300 = 14 PERSONS SECOND FLOOR 4.082 / 30 = 138 PERSONS

THIRD FLOOR 650 / 15 = 44 PERSONS

PLUMBING FIXTURE CALCULATIONS

138 PERSONS / 2 = 69 FEMALE AND 69 MALE FEMALE REQUIRED 2 WC 1 LAV

PROVIDED 3 WC 4 LAV

REOUIRED 1 WC 1 LAV PROVIDED 1 WC 2 LAV 1 URINAL

44 PERSONS / 2 = 22 FEMALE AND 22 MALE FEMALE

REQUIRED 1 WC 1 LAV PROVIDED 3 WC 3 LAV

REQUIRED 1 WC 1 LAV

PROVIDED 1 WC 2 LAV 1 URINAL

900 ROYAL PALM BEACH BLVD., ROYAL PALM BEACH, FL 33411

> **Project Architect** IBI Group, Inc. 2200 Park Central Blvd. N Suite 100 Pompano Beach, Florida 33064 (954) 974-2200

Structural - Mechanical - Electrical - Plumbing Engineers **DeRose Design Consultants**, Inc. 470 South Andrews Avenue, Pompano Beach, FL 33069 (954) 942-7703

**December 01, 2008 BID SET** 

# Index of Drawings

COVER SHEET FIRE RATING / EGRESS PLANS FIRST FLOOR PLAN

SECOND FLOOR PLAN

A-SL3 THIRD FLOOR PLAN

FIRST FLOOR RCP

SECOND FLOOR RCP THIRD FLOOR RCP

A-S1 6 A-S1.7 ROOF PLAN / DETAILS

EXTERIOR ELEVATIONS

EXTERIOR ELEVATIONS

SECTIONS

A-S3.2 SECTIONS

A-S3 4 SECTION

SECTIONS / DETAILS

RESTROOM PLANS / INT. ELEVATIONS

RESTROOM DETAILS / ENLARGED STAIR PLANS

PARTITION TYPES

DOOR SCHEDULE / DETAILS

FINISH SCHEDULE AND SIGNAGE

RAILING DETAILS AND O.H. DOOR DETAILS

S-S0 1 STRUCTURAL NOTES

S-S0.2 STRUCTURAL NOTES

S-S1.1 FOUNDATION PLAN

S-S2.1 STRUCTURAL FIRST FLOOR PLAN

S-S3.1 STRUCTURAL SECOND FLOOR PLAN S-S4.1 STRUCTURAL ROOF PLAN

S-S5.1 STRUCTURAL SECTIONS

S-S5 3 STRUCTURAL SECTIONS

S-S5.4 STRUCTURAL SECTIONS

S-S6.1 STRUCTURAL DETAILS

M-S0.1 MECHANICAL NOTES

M-S2.1 FIRST AND SECOND FLOOR HVAC PLANS

M-S2 2 THIRD AND ROOF FLOOR HVAC PLANS

M-S6.0 MECHANICAL SCHEDULES M-S7.0 MECHANICAL DETAILS

E-S0.1 ELECTRICAL NOTES
E-S2.1 FIRST AND SECOND FLOOR LIGHTING PLANS

E-S3 1 FIRST AND SECOND FLOOR POWER PLANS

E-S3.2 THIRD FLOOR POWER PLAN

E-S5.1 ELECTRICAL PANEL SCHEDULES

P-S0.1 PLUMBING NOTES & DETAILS

P-S2.1 FIRST AND SECOND FLOOR SANITARY PLAN

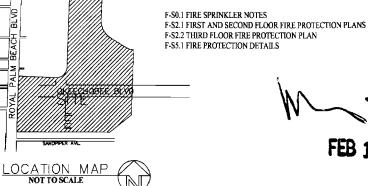
P-S2.2 THIRD FLOOR SANITARY PLAN

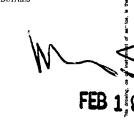
P-S3.1 FIRST AND SECOND FLOOR DOMESTIC WATER PLAN

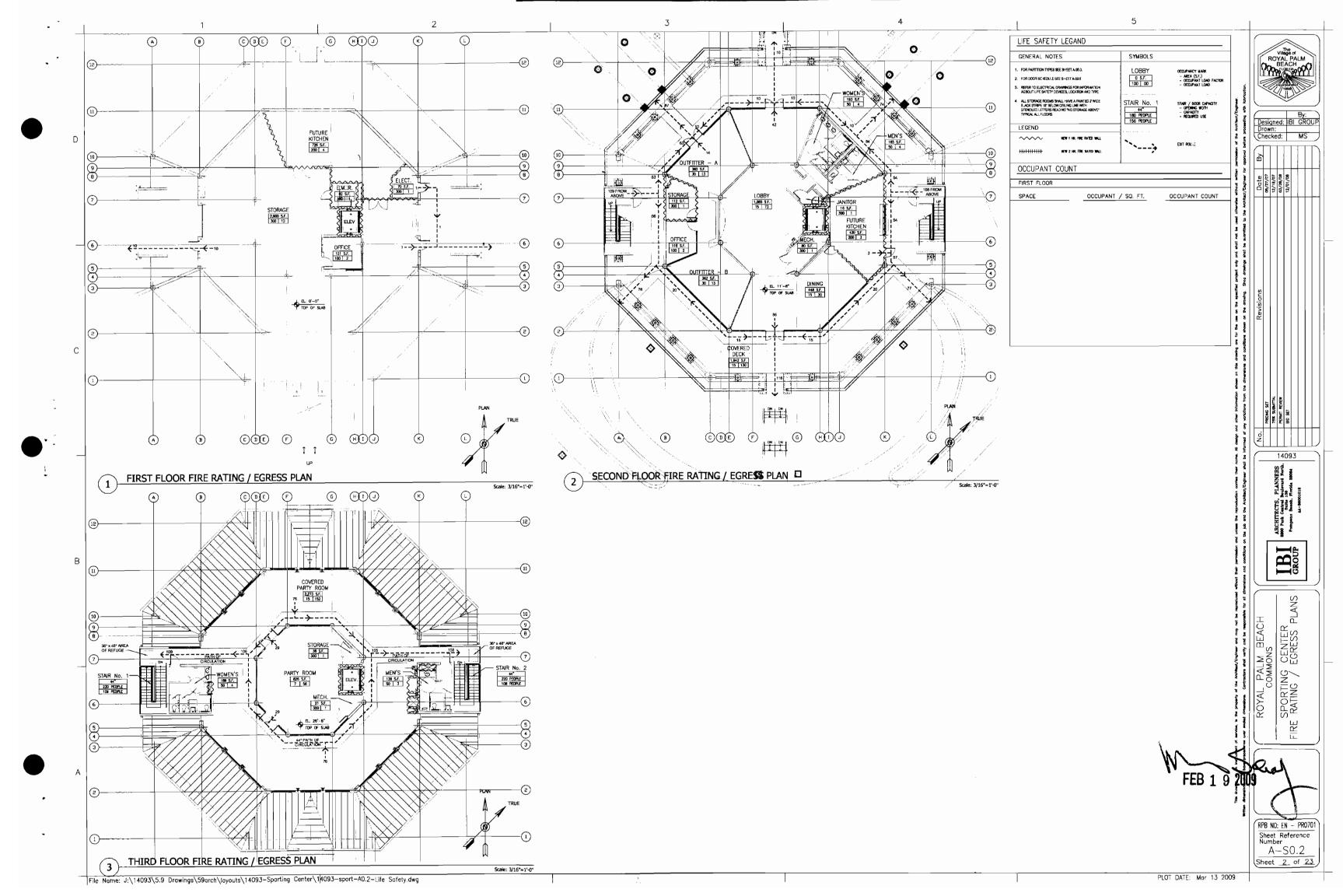
P-S3.2 THIRD FLOOR DOMESTIC WATER PLAN P-S5.1 PLUMBING RISER DIAGRAM

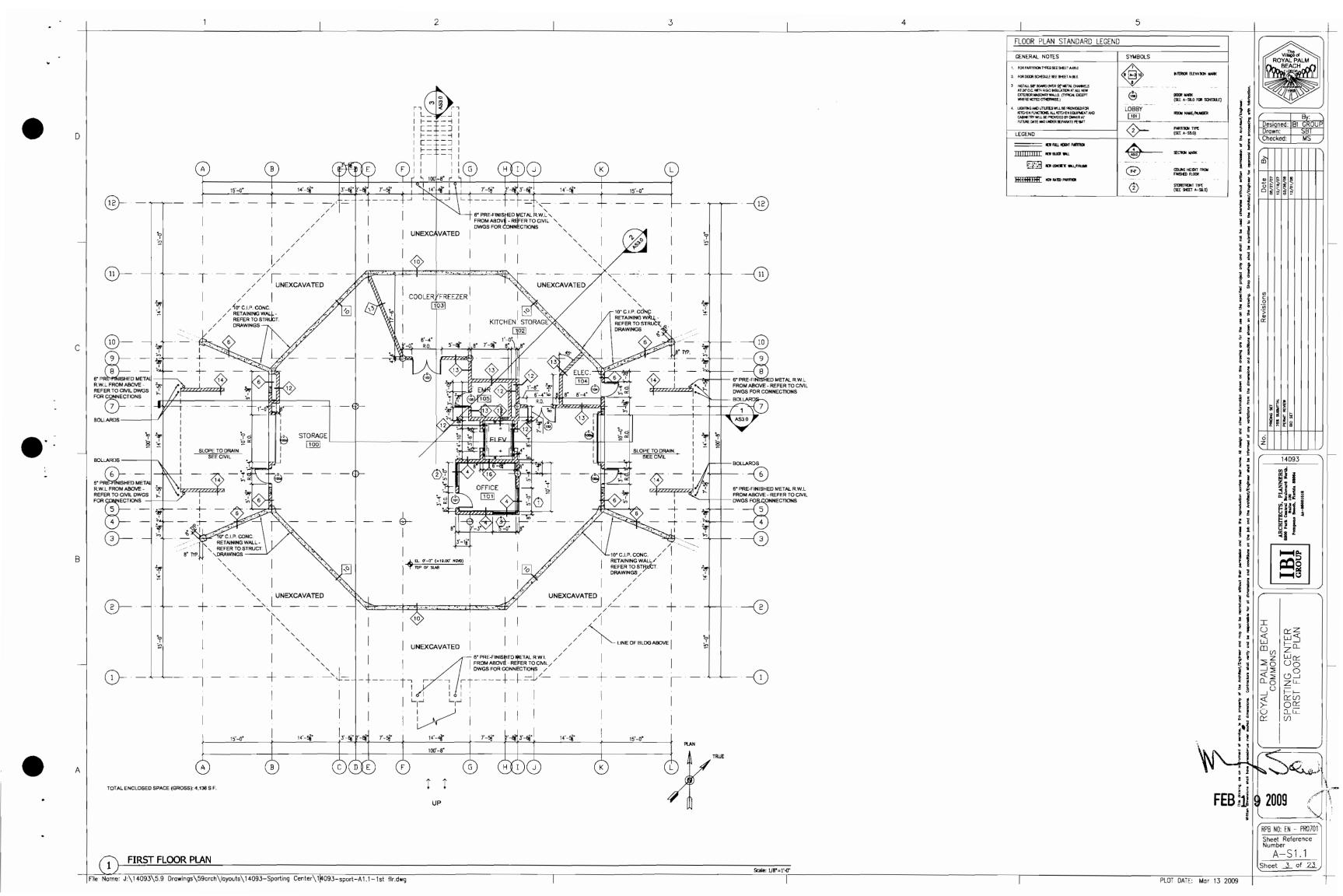
P-S5.2 PLUMBING RISER DIAGRAM

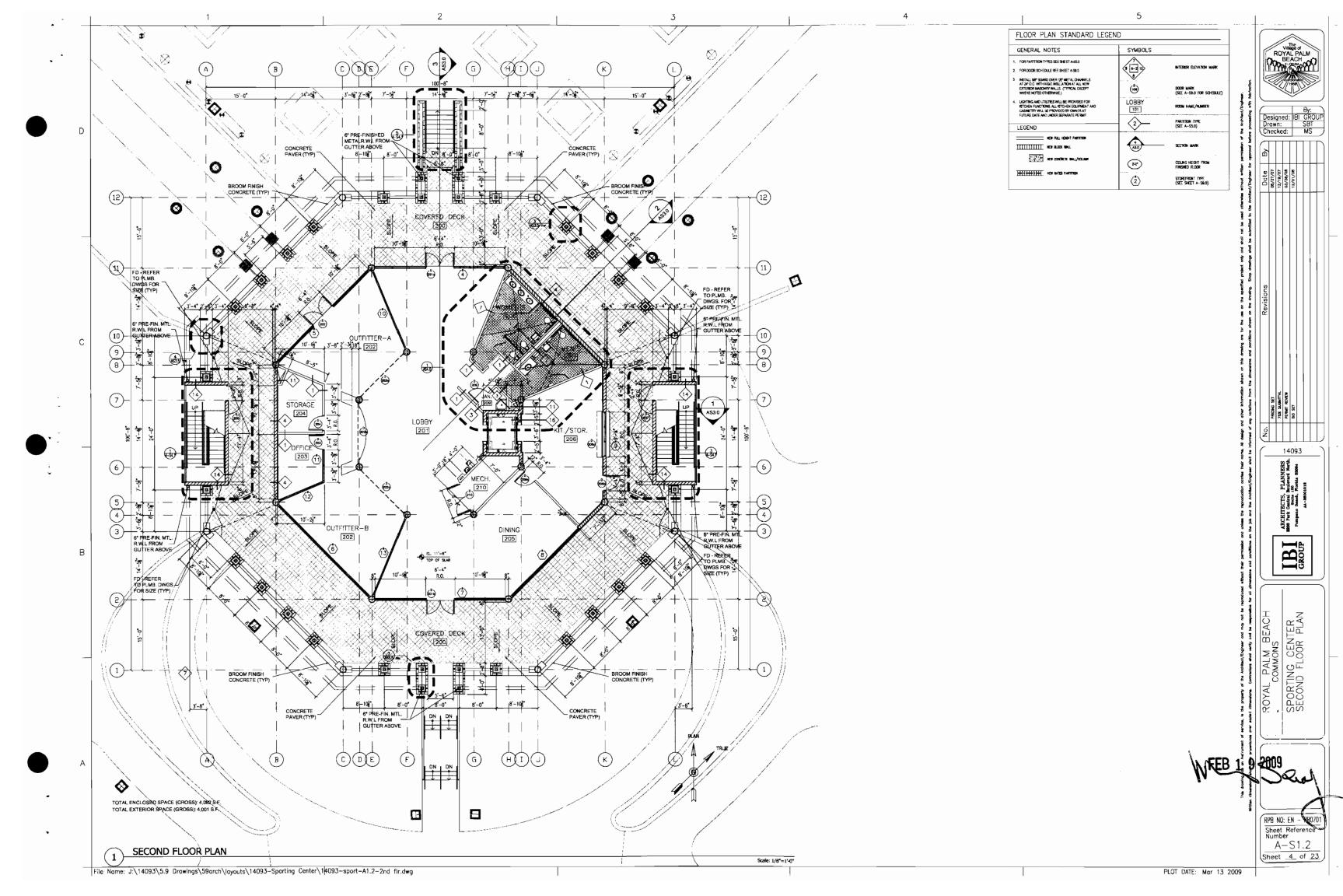
F-S2.2 THIRD FLOOR FIRE PROTECTION PLAN

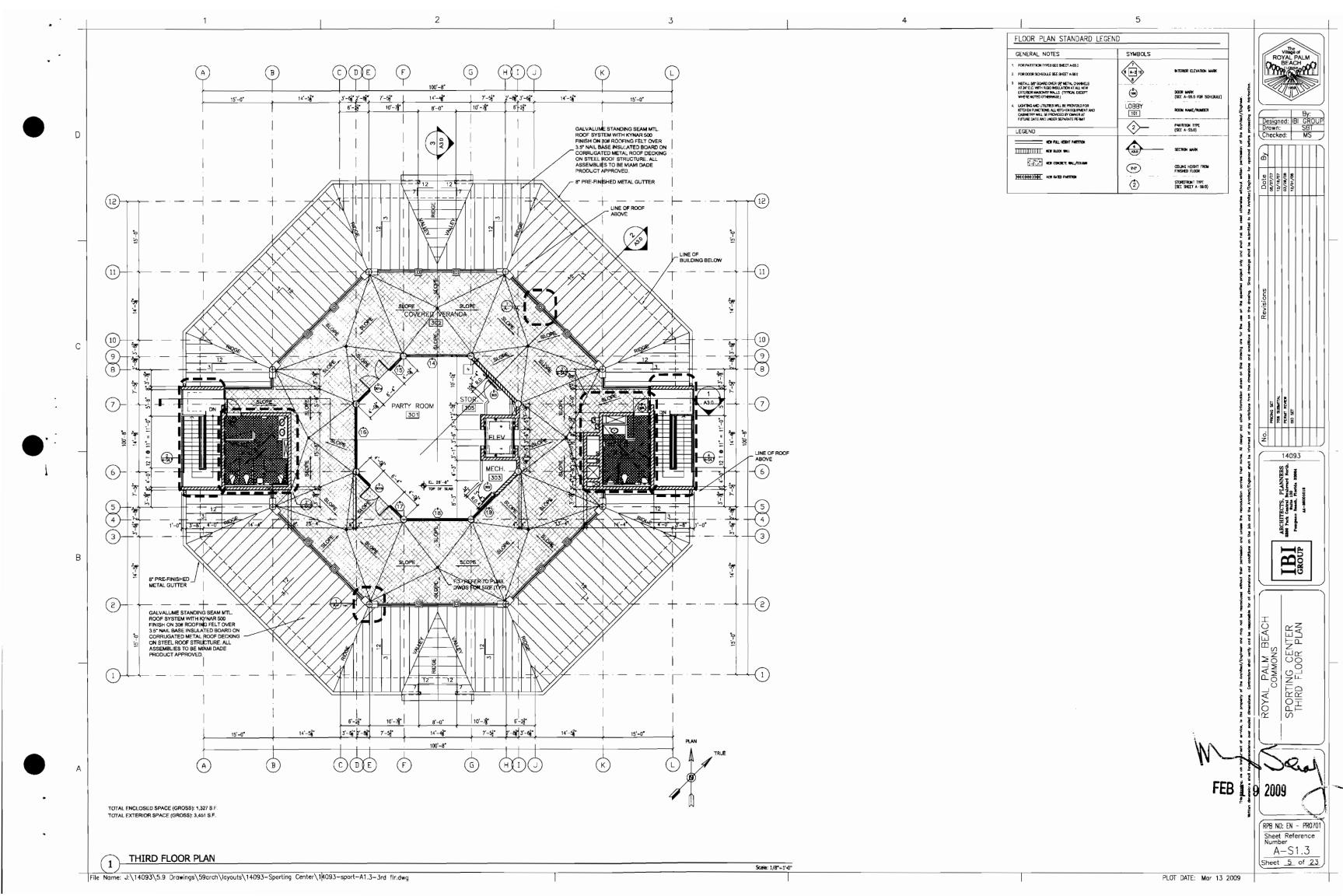












UNEXCAVATED UNEXCAVATED KITCHEN STORAGE COOLER/FREEZER 102 RETAINING WALL OSED CONCRETE ELEC. EMR<sup>1</sup> SMOOTH FINISH - STUCCO ON CONCRETE BEAM STORAGE 100 EXPOSED CONCRETE
SLAB ABOVE OFFICE — EXPOSED CONCRETE OTH FINISH JCCO ON RETE BEAM - RETAINING WALL RETAINING WALL -UNEXCAVATED UNEXCAVATED

|             | SYMBOLS LEGEND                                   |
|-------------|--|
|             | 2'x4' FLUORESCENT LIGHT FIXTURE (RECESSED)       |
|             | STRIP FLUORESCENT LIGHT FIXTURE (SURFACE MTD.)   |
| ❖           | EXIT LIGHT (CEILING MOUNTED)                     |
| €4          | EXIT LIGHT ( WALL MOUNTED)                       |
| 0           | DOWNLIGHT (SURFACE/RECESSED)                     |
| Ø           | EXTÉRIOR LIGHT FIXTURE CEILING MOUNTED (SURFACE) |
|             | EXTERIOR LIGHT FIXTURE WALL MOUNTED (SURFACE)    |
|             | •  |
| ₽           | ELEVATOR SHAFT LIGHT                             |
| <b>X</b>    | EXTERIOR / WET RATED CEILING FAN                 |
|             | 2x2* FLUORESCENT LIGHT FIXTURE (RECESSED)        |
| $\boxtimes$ | 2x2* SUPPLY AIR GRILLE                           |
|             | 25/2" RETURN AIR GRILLE                          |
| Ø           | EXHAUST AIR GRILLE                               |
| #           | 2'x2' HUMIDITY RESISTANT ACT AND CEILING GRID    |
| HOTEO.      |  |

NOTES:

1. SEE SHEET A7.1 FOR CEILING HEIGHT AND FINISHES INFORMATION

2. LIGHTING FIXTURES ON EXPOSED STRUCTURE AREAS ARE SURFACE MTD. OR PENDANT TYPE (SEE ELEC. DWGS.)

Scale: 1/8"=1'-0"

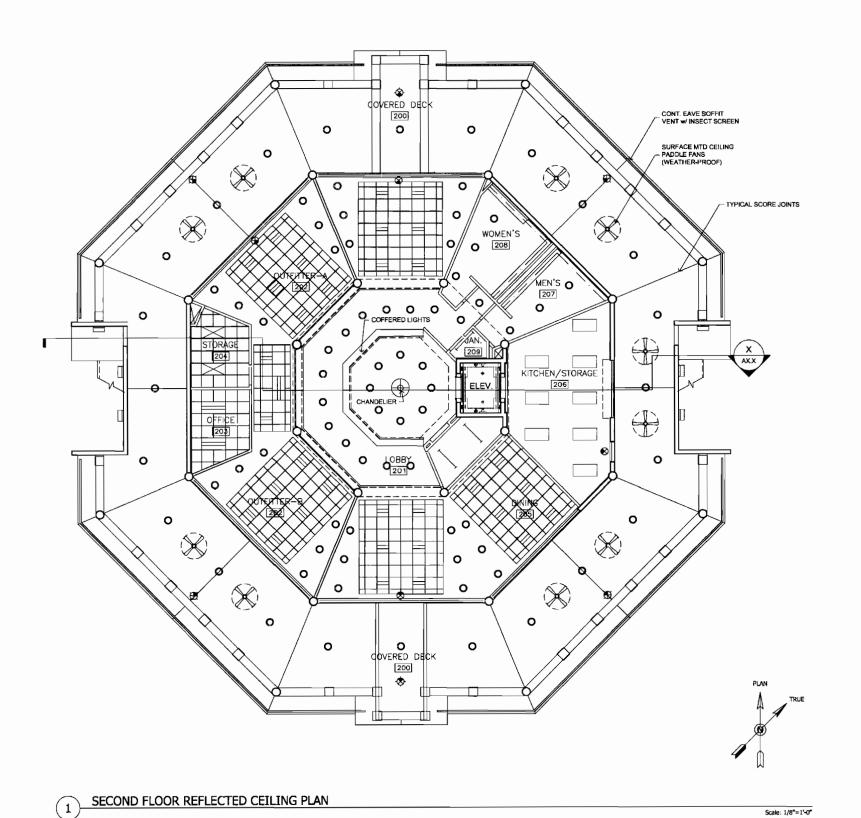
His district, Commission of white is the preparty of the Architect/Deplinar and may not be majorathis to the majorathis

RPB NO: EN - PR0701
Sheet Reference
Number
A-S1.4
Sheet 6 of 23

14093

IBI

FIRST FLOOR REFLECTED CEILING PLAN



SYMBOLS LEGEND

2x4' FLUORESCENT LIGHT FIXTURE (RECESSED)

STRIP FLUORESCENT LIGHT FIXTURE (SURFACE MTD.)

EXIT LIGHT (CEILING MOUNTED)

EXIT LIGHT (WALL MOUNTED)

O DOWNLIGHT (SURFACE/RECESSED)

EXTERIOR LIGHT FIXTURE CEILING MOUNTED (SURFACE)

EXTERIOR LIGHT FIXTURE WALL MOUNTED (SURFACE)

ELEVATOR SHAFT LIGHT

EXTERIOR / WET RATED CEILING FAN

2x2' FLUORESCENT LIGHT FIXTURE (RECESSED)

2x2' SUPPLY AIR GRILLE

Zx2' RETURN AIR GRILLE

EXHAUST AIR GRILLE

2x2' HUMIDITY RESISTANT ACT AND CEILING GRID

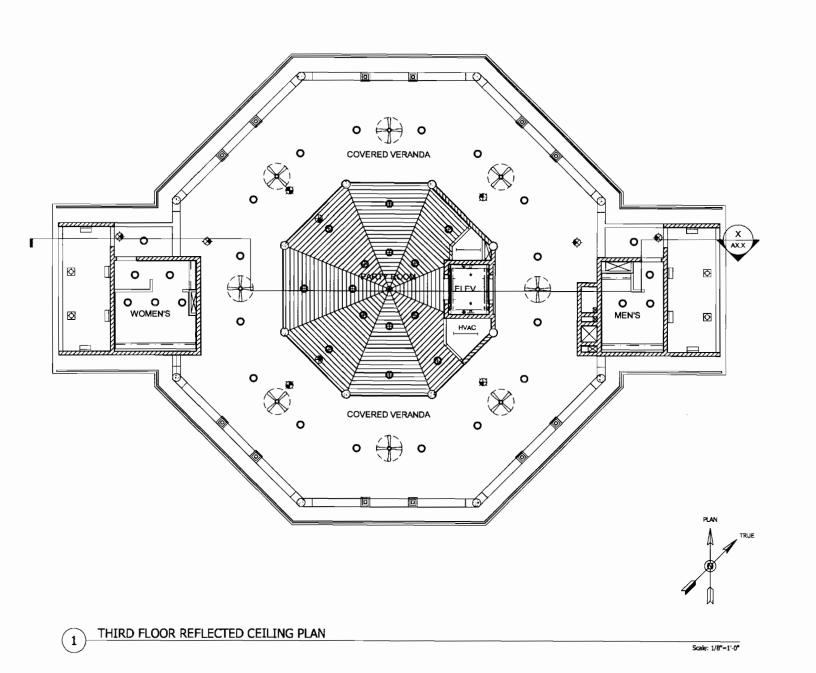
NOTES:

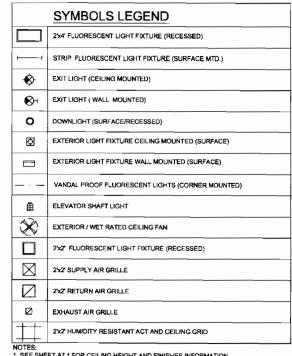
1. SEE SHEET A7.1 FOR CEILING HEIGHT AND FINISHES INFORMATION
2. LIGHTING FIXTURES ON EXPOSED STRUCTURE AREAS ARE SURFACE MTD. OR PENDANT TYPE (SEE FLEC. DWGS.)

FEB 1 9 2009

RPB NO: EN - PR0701
Sheet Reference
Number
A-S1.5
Sheet 7 of 23

IBI





NOTES:

1. SEE SHEET A7.1 FOR CEILING HEIGHT AND FINISHES INFORMATION

2. LIGHTING FIXTURES ON EXPOSED STRUCTURE AREAS ARE SURFACE MTD. OR PENDANT TYPE (SEE ELEC. DWGS.)

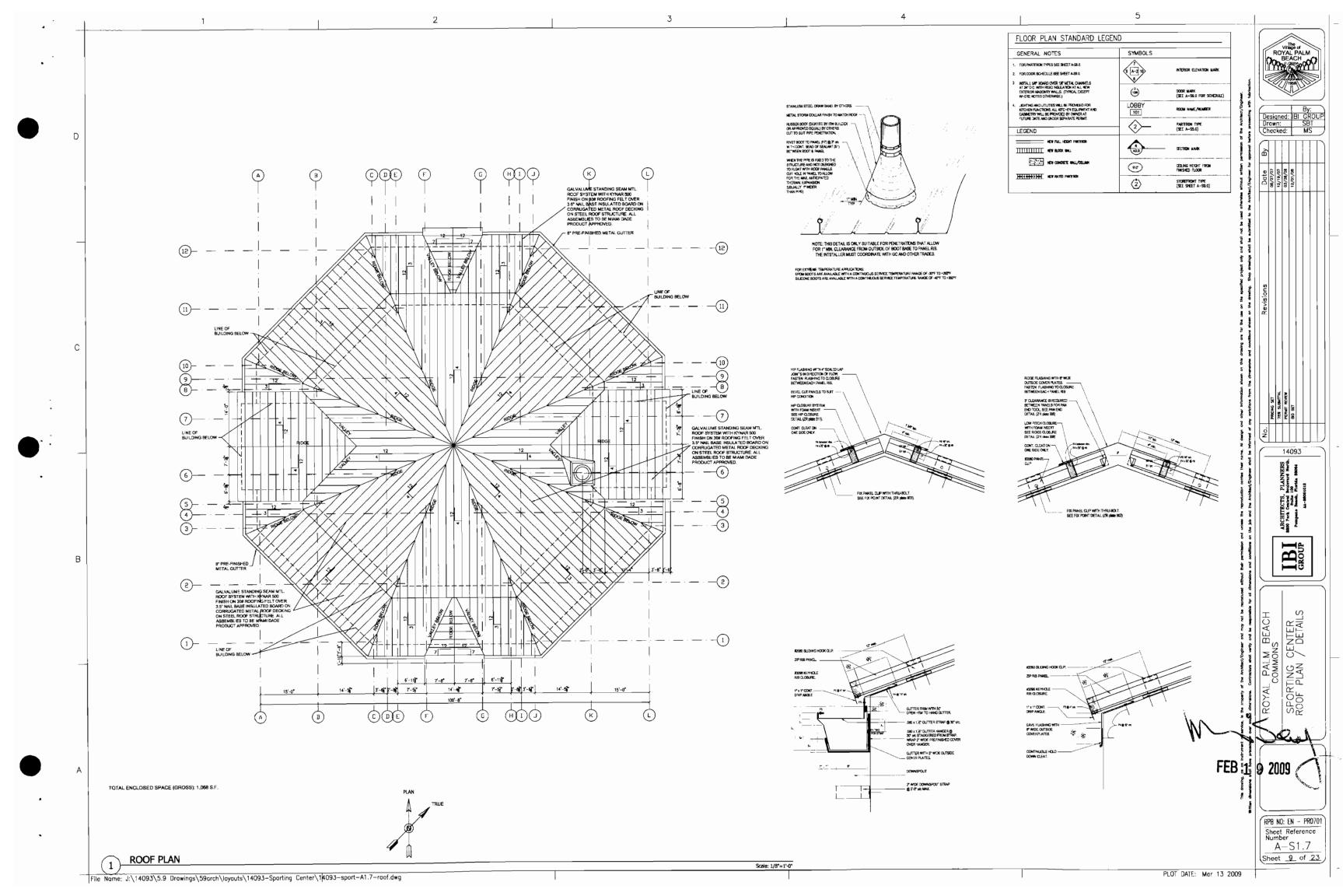
RPB NO: EN - PR0701
Sheet Reference
Number
A-S1.6 Sheet <u>8</u> of <u>23</u>

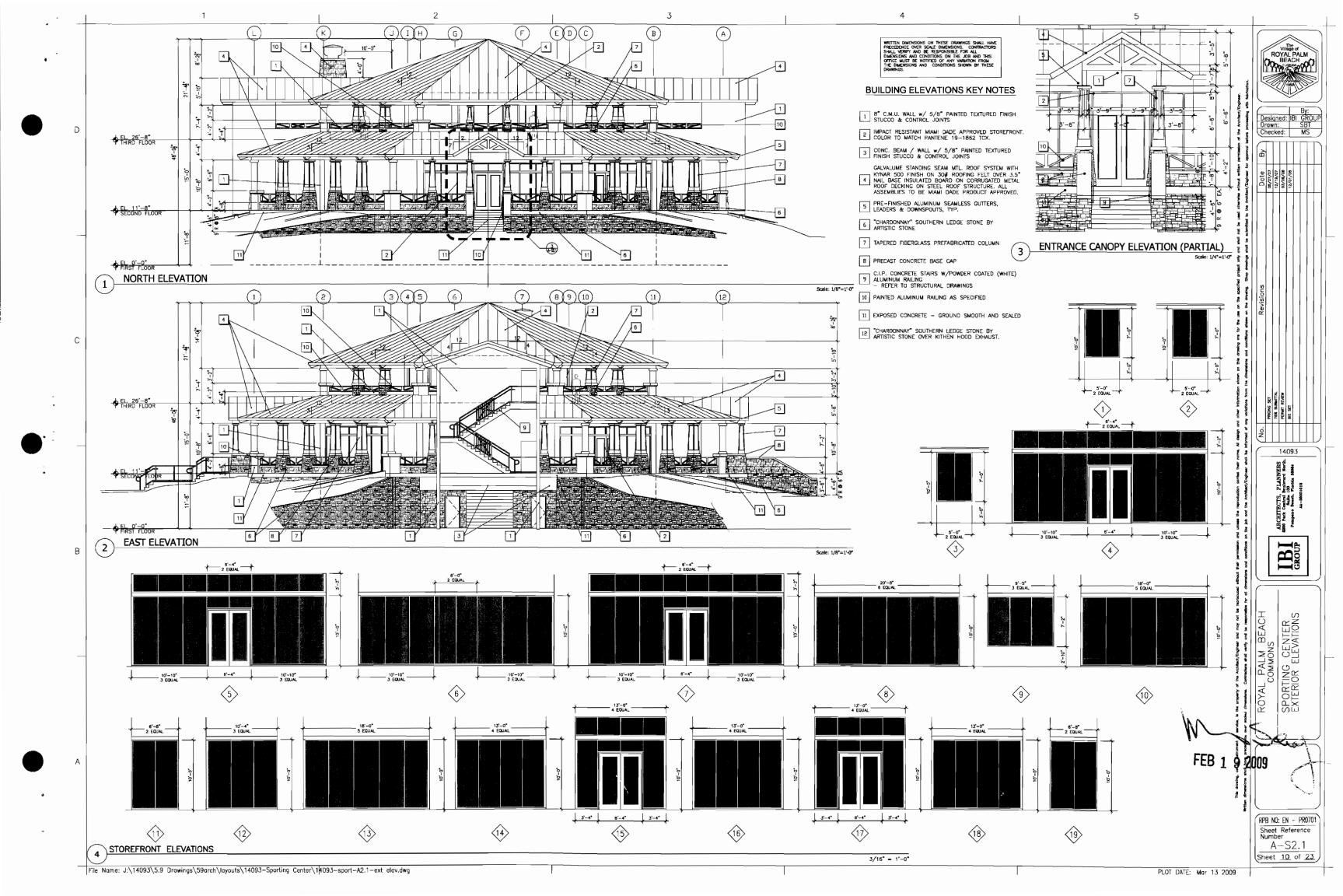
14093

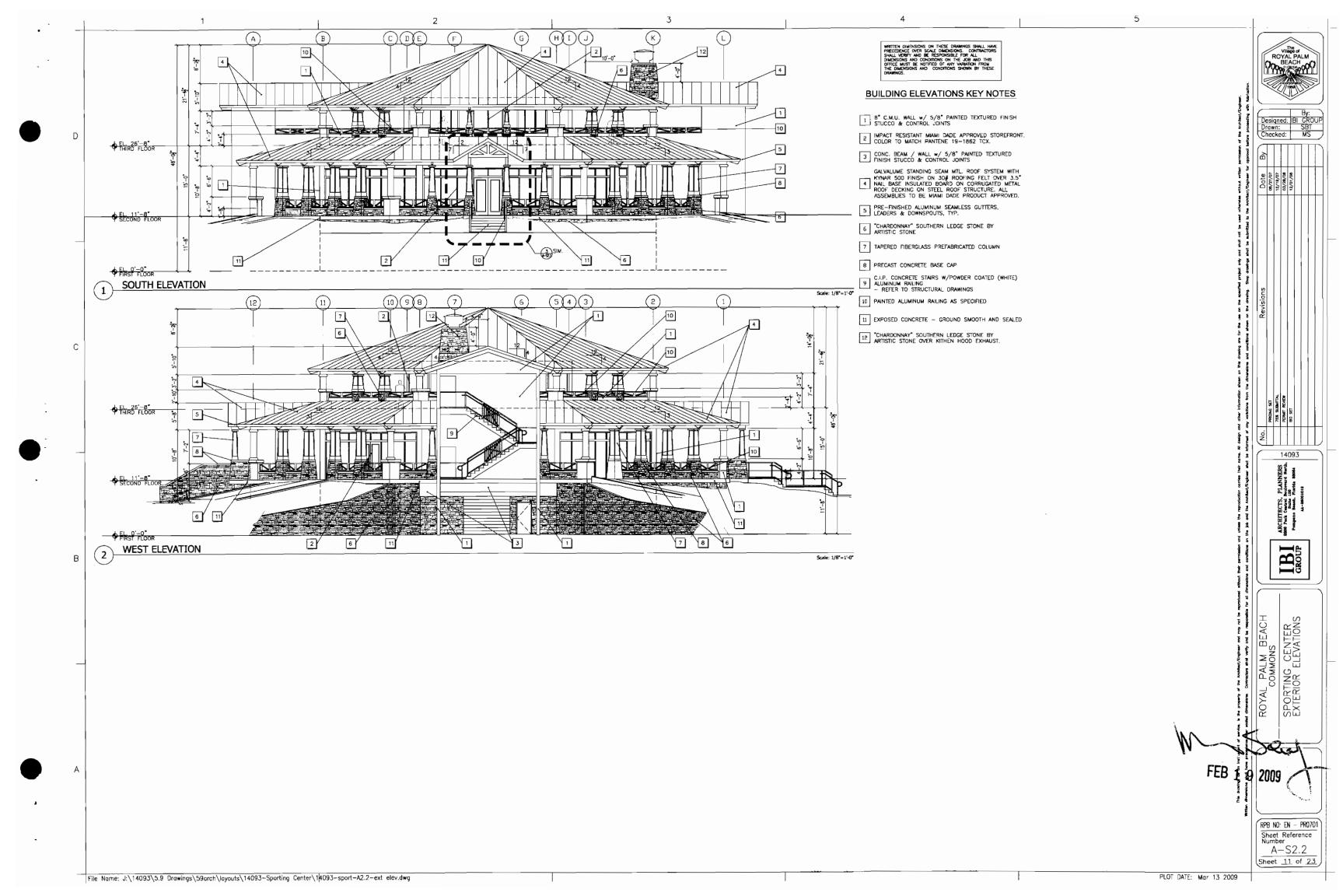
IBI

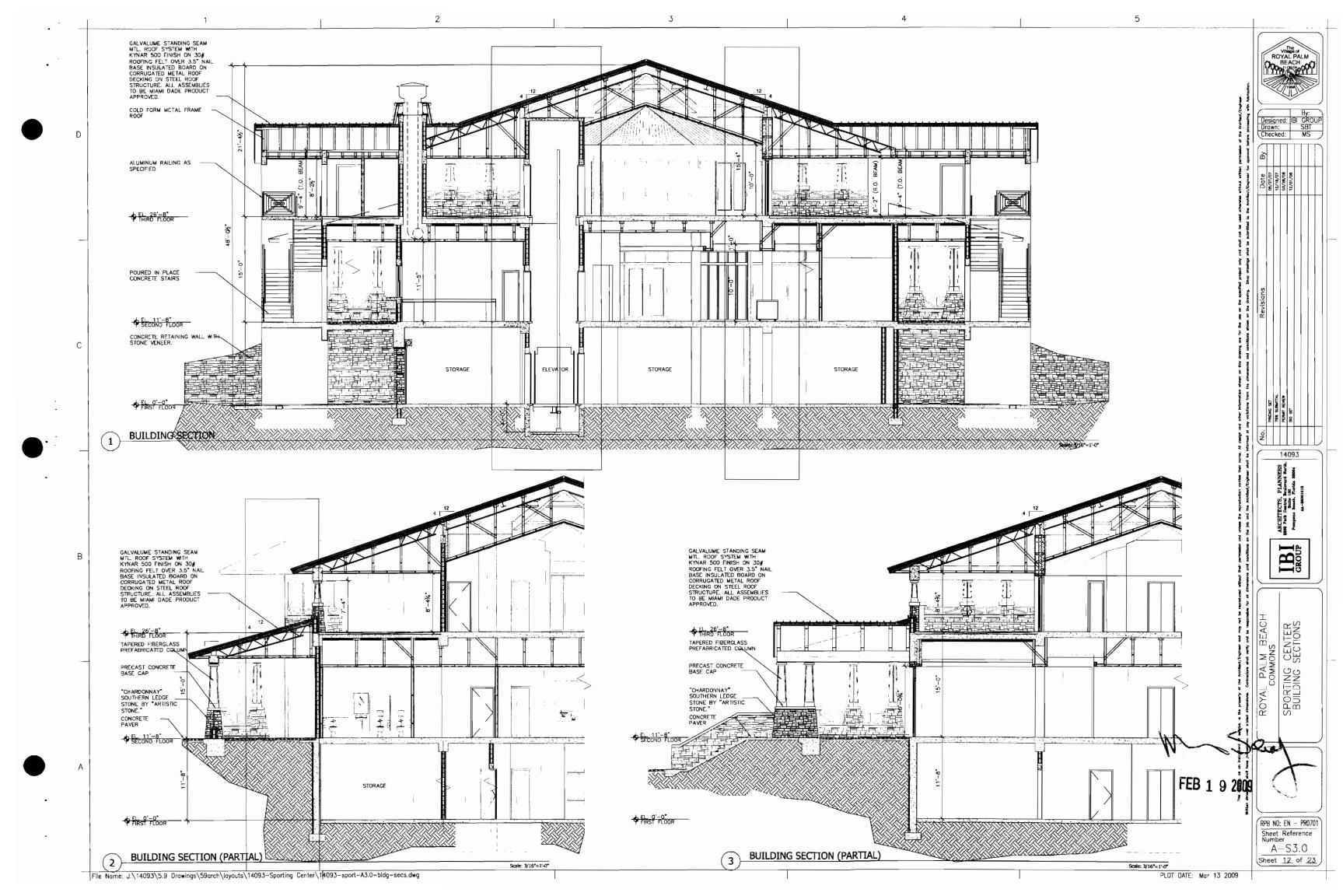
File Name: J:\14093\5.9 Drawings\59arch\layouts\14093-Sporting Center\14093-sport-A1.6-3rd-fir-RCP.dwg

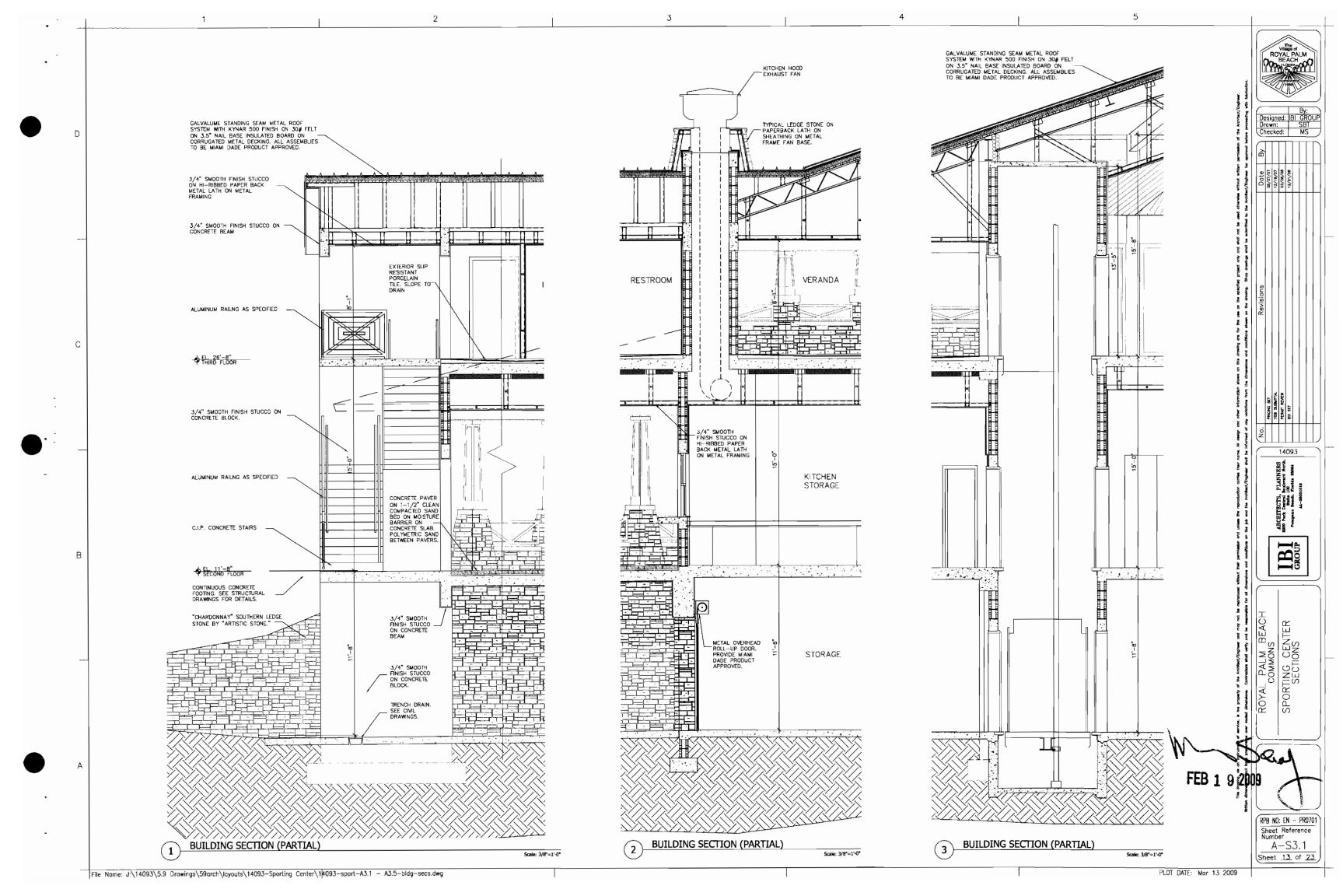
PLOT DATE: Mar 13 2009

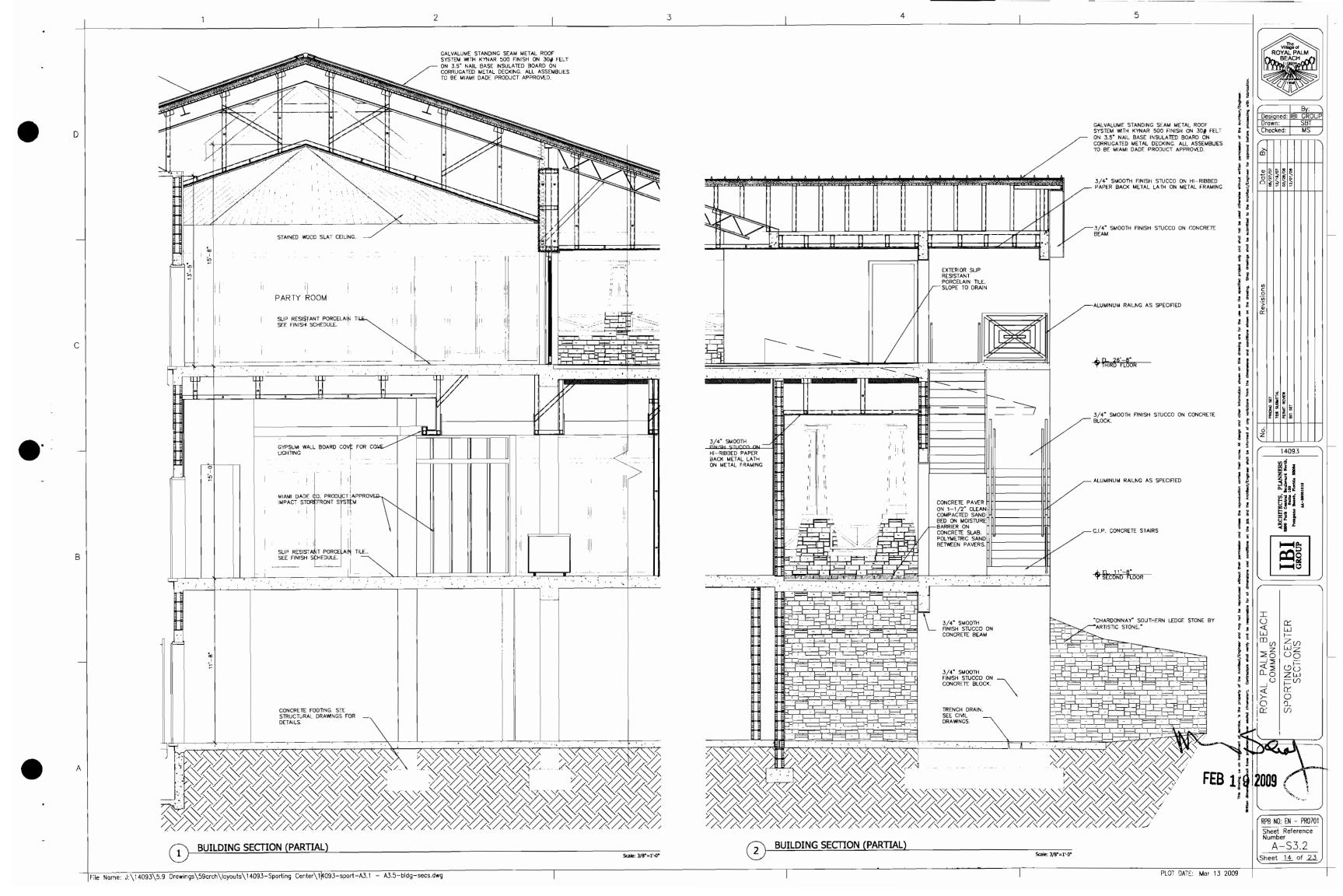


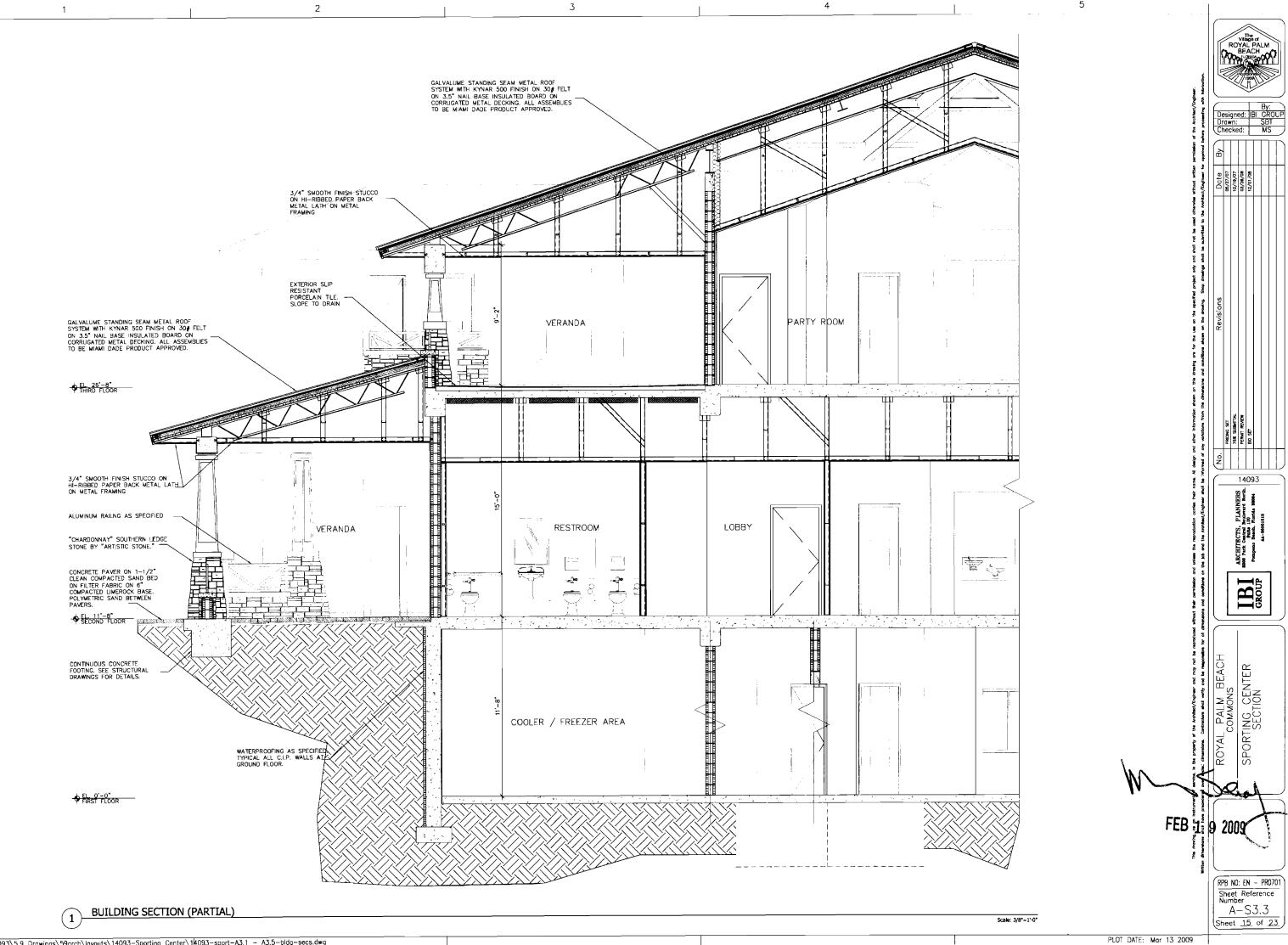


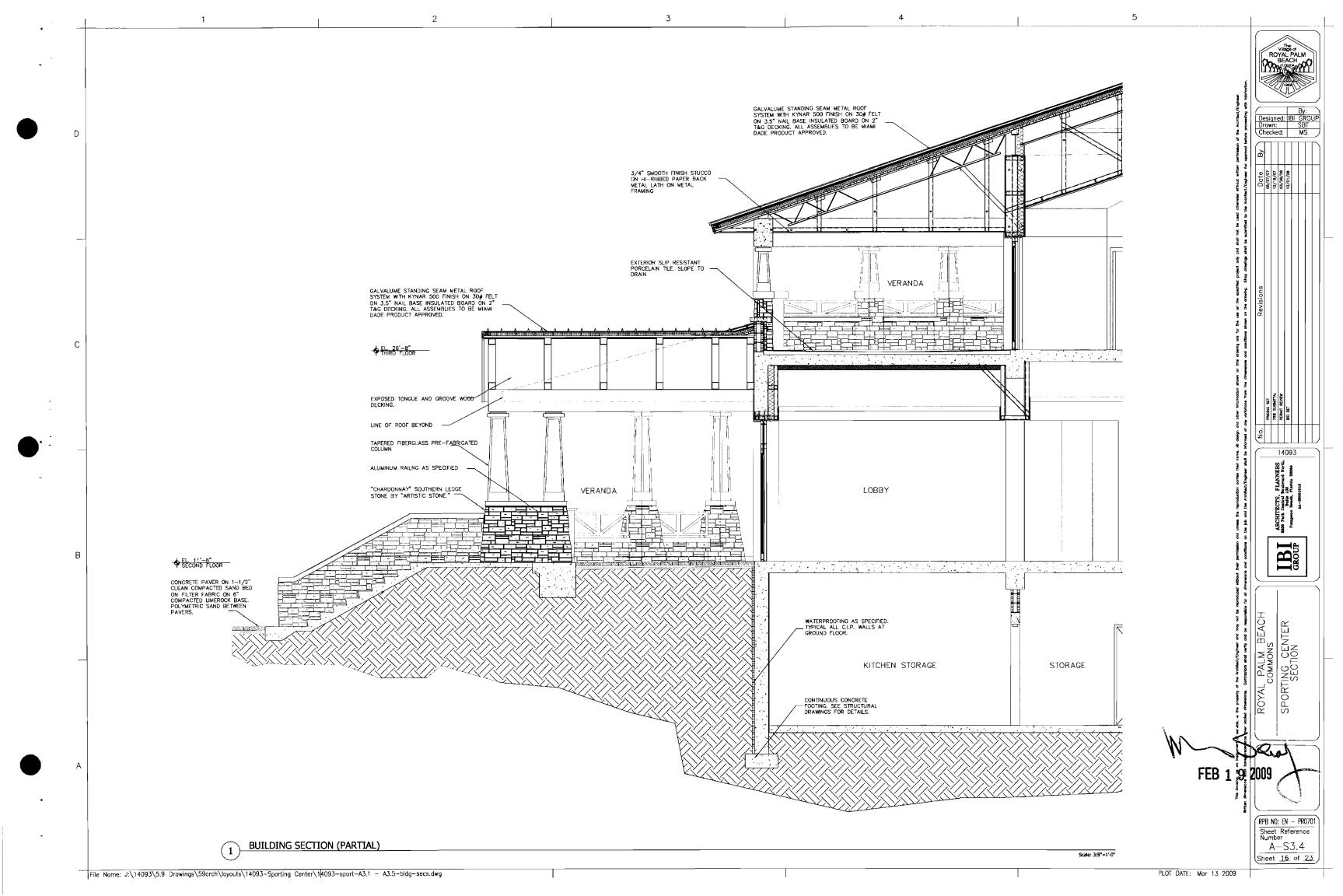


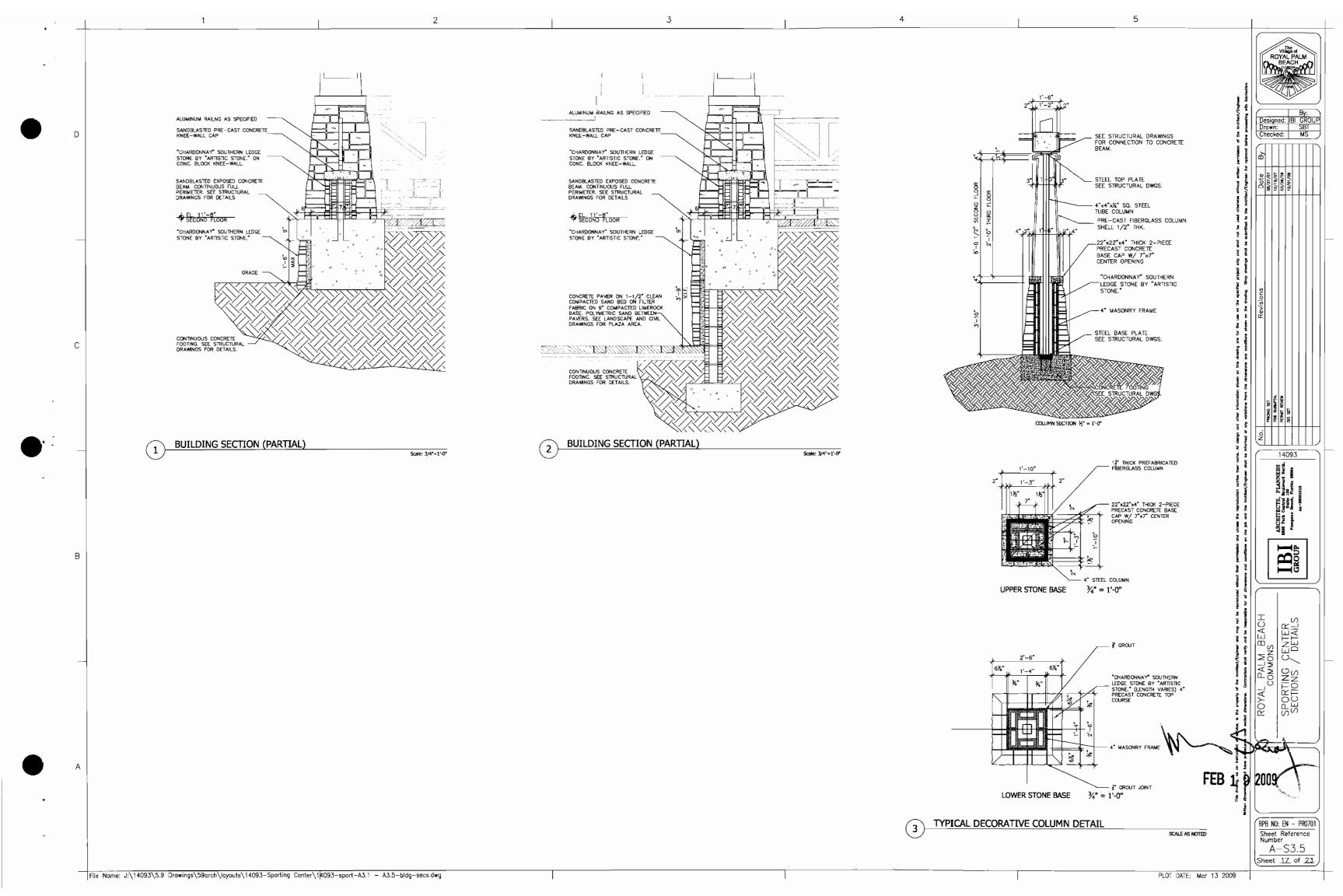


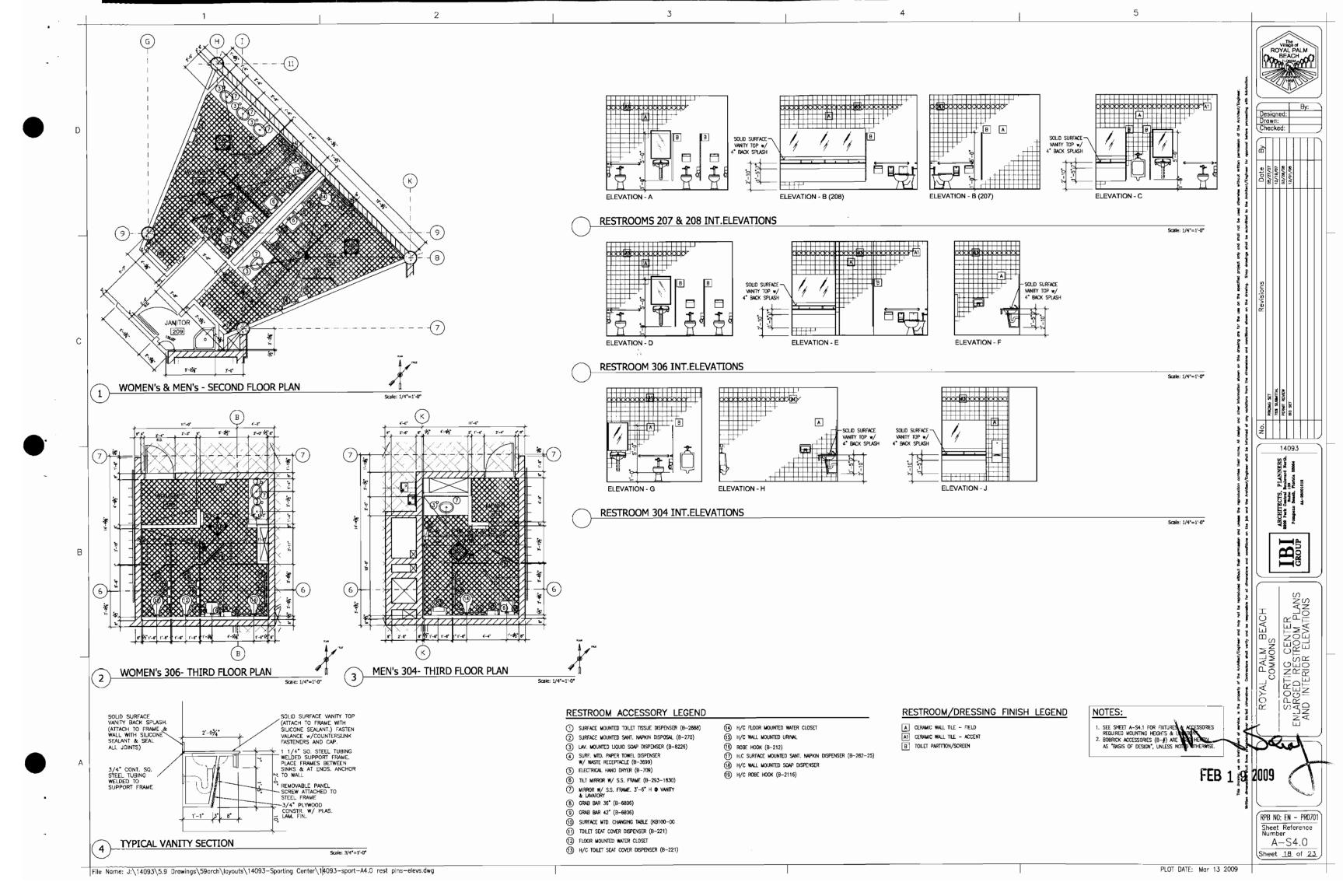


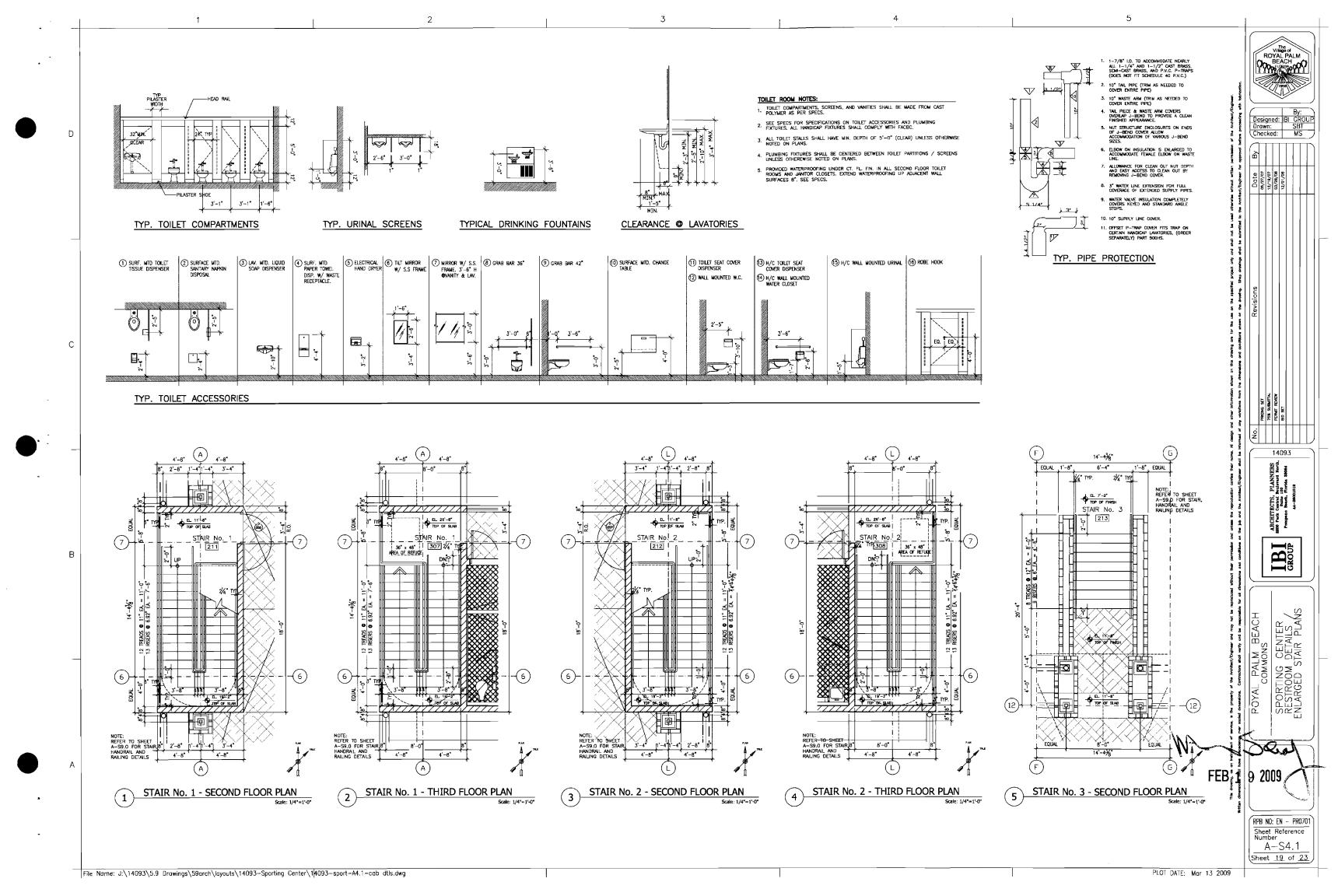


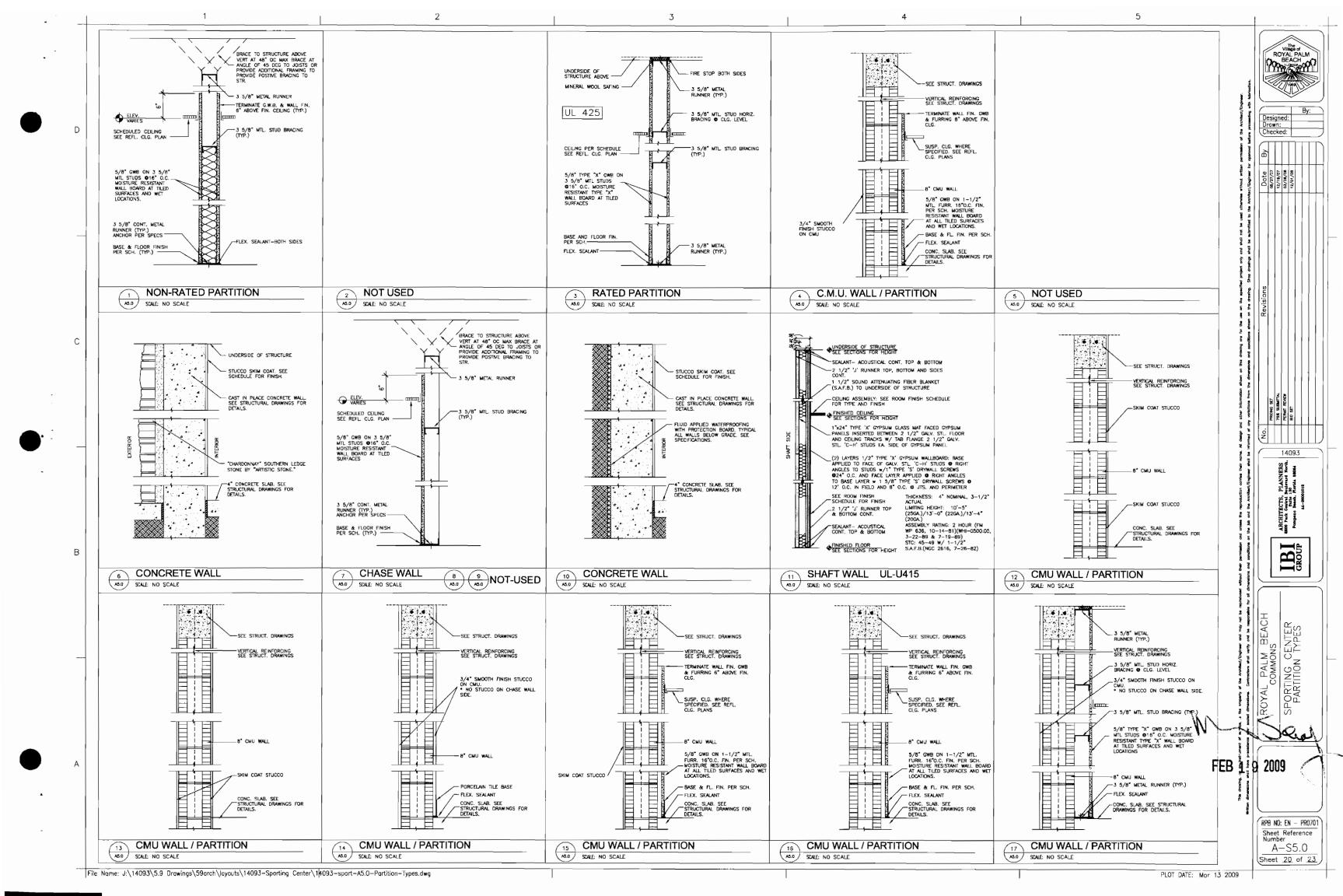


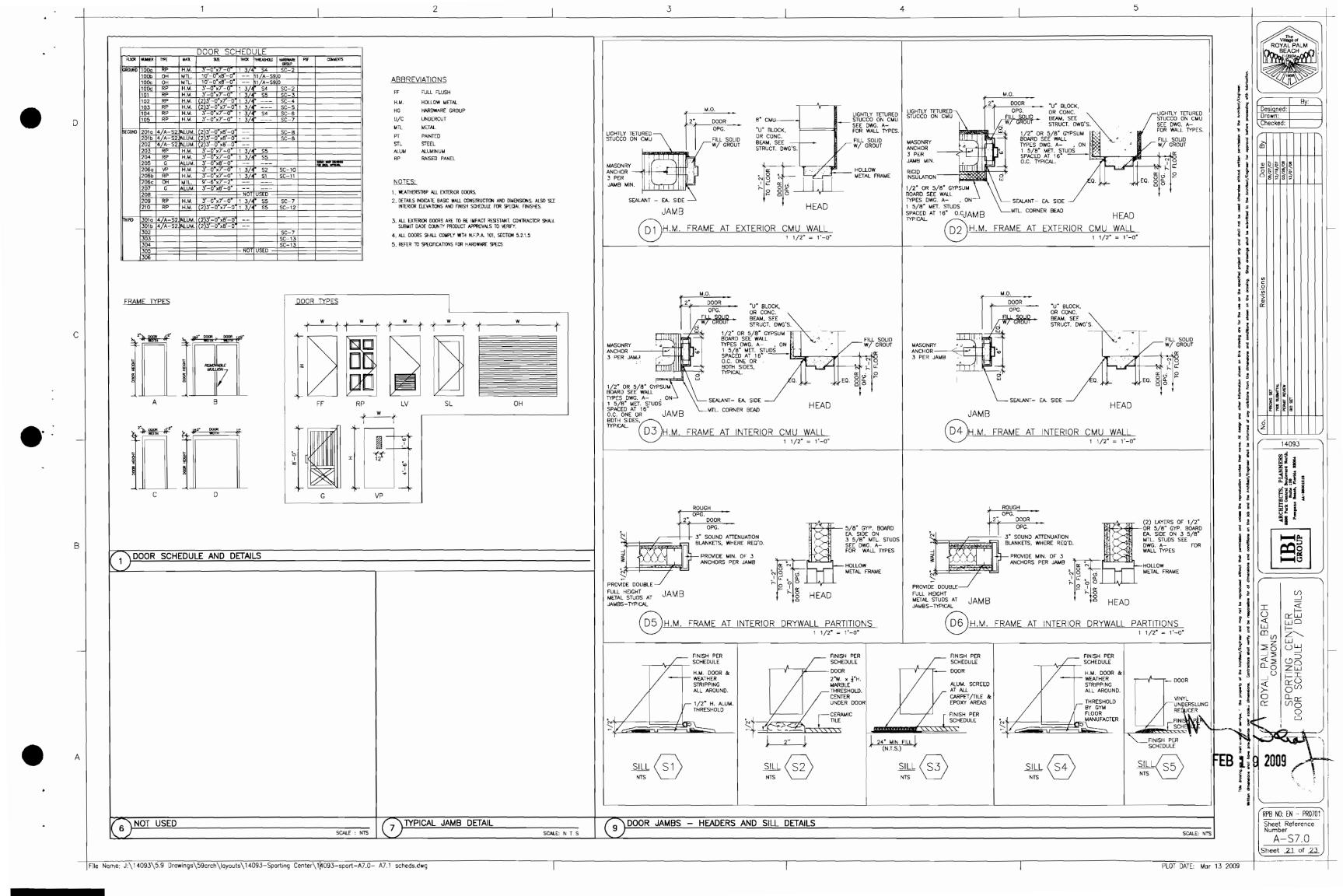


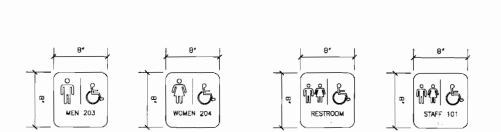






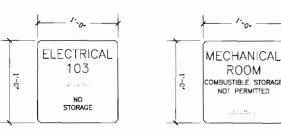


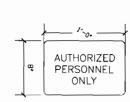




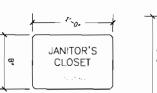
ROOM

123 ANY ROOM NAME



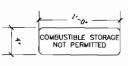


|    | /*-o+                               |
|----|-------------------------------------|
| æ, | MAXIMUM<br>OCCUPANCY<br>123 PERSONS |













1. ALL INTERIOR SIGNS TO BE BY "INTELLIGENT SIGNAGE OF SOUTH FLORIDA", 915 MIDDLE RIVER DRIVE, FORT LAUDERDALE. TEL. (954) 368-2255.

2. RAISED LETTERS, BRAILLE & SYMBOLS IN ACCORDANCE WITH ADA.

3. ALL CORNERS TO BE RADIUSED.

4. BACKGROUND AND LETTER COLORS TO BE SELECTED BY ARCHITECT.

5. MOUNTING HEIGHT TO BE 5'-0" A.F.F. TO ¢ OF SIGN

6. SUBMIT SHOP DRAWINGS FOR ARCHITECT'S APPROVAL PRIOR TO FABRICATION.

INTERIOR FINISH NOTES

ALL FINISHES COMPLY WITH N.F.P.A. 101 SEC. 8-3.3 AND S.F.B.C. SEC. 3708. N.F.P.A 1221 2-1.2.3. ALL FINISHES SHALL HAVE A FLAME SPREAD RATING OF 25 OR LESS AND A SMOKE DEVELOPMENT RATING OF 50 OR LESS

ALL TELEPHONE, DATA AND ELECTRIC ROOMS TO RECEIVE CONTINUOS 3/4" FIRE RATED BACKER BOARD ON ALL WALLS. FROM FINISH FLOOR TO 8"-0" AFF.

SIGNAGE

| NUMBER     | NAME                  | FLOOR      | BASE | NORTH WALL | EAST WALL | SOUTH WALL | WEST WALL | CEILING       | CEIL, HEIGHT      | REMARKS                   |
|------------|-----------------------|------------|------|------------|-----------|------------|-----------|---------------|-------------------|---------------------------|
| 100        | STORAGE               | CONC. SEAL |      | P-SKMCT    | P-SKMCT   | P-SKMCT    | P-SKMCT   | EX-STR        |                   |                           |
| 101        | OFFICE                | VCT        | V    | P-GWB      | P-GWB     | P-GWB      | P-GWB     | ACT-1         | 9'-0"             |                           |
| 102        | KITCHEN STORAGE       | QT         | QTCV | P-SKMCT    | P-SKMCT   | P-SKMCT    | P-SKMCT   | EX-STR        |                   | ENAMEL PAINT ON ALL WALLS |
| 103        | COOLER/FREEZER        | QT         | QTCV | P-SKMCT    | P-SKMCT   | P-SKMCT    | P-SKMCT   | EX-STR        |                   | ENAMEL PAINT ON ALL WALL  |
| 104        | ELECTRICAL ROOM       | CONC. SEAL |      | P-SKMCT    | P-SKMCT   | P-SKMCT    | P-SKMCT   | EX-STR        |                   |                           |
| 105        | ELEVATOR MACHINE RM.  | CONC. SEAL |      | P-SKMCT    | P-SKMCT   | P-SKMCT    | P-SKMCT   | EX-STR        |                   |                           |
| ROOM FI    | NISH SCHEDULE - SECON | D FLOOR    |      |            | _         |            |           |               |                   |                           |
| 200        | COVERED DECK          | CONC. PVR. |      | P-ST       | P-ST      | P-ST       | P-ST      | P-ST          |                   |                           |
| 201        | LOBBY                 | PT         | PT   | P-GWB      | P-GWB     | P-GWB      |           | ACT/P-GWB     | VARIES            |                           |
| 202A       | OUTFITTER-A           | PT         | PT   |            |           |            |           | ACT/P-GWB     | 10'-0"            |                           |
| 202B       | OUTFITTER-B           | PT         | PT   |            |           | P-GWB      |           | ACT/P-GWB     | 10'-0"            |                           |
| 203        | OFFICE                | С          | WD   | P-GWB      |           |            | P-GWB     | ACT           | 10'-0"            |                           |
| 204        | STORAGE               | VCT        | V    | P-GWB      | P-GWB     | P-GWB      | P-CWB     | ACT           | 10'-0"            |                           |
| 205        | DINING                | PT         | PT   | P-GWB      |           |            | P-GWB     | ACT/P-GWB     | 10'-0"            | <del></del>               |
| 206        | KITCHEN/STORAGE       | QT         | QT   | P-GWB      | P-GWB     | P-GWB      | P-GWB     | EX-STR        |                   | ENAMEL PAINT ON ALL WALL  |
| 207        | MEN'S                 | PT         | PT   | CT         | CT        | CT         | CT        | ACT/P-GWB     | 10'-0"            | ETANIEL FAITT ON ALL WALL |
| 208        | WOMEN'S               | PT         | PT   | CT         | CT        | CT         | CT        | ACT/P-GWB     | 10'-0"            |                           |
| 209        | JANITOR               | VCT        | V    | P-GWB      | P-GWB     | P-GWB      | P-GWB     | EX-STR        |                   | ENAMEL PAINT ON ALL WALL  |
| 210        | MECHANICAL            | CONC. SEAL |      | P-GWB      | P-GWB     | P-GWB      | P-GWB     | P-ST          | REFER TO SECTION  | CIVINEE THAT ON THE INCE  |
|            |                       |            |      |            |           |            |           |               | NEI BY TO SECTION |                           |
|            |                       |            |      |            |           |            |           |               |                   |                           |
| ROOM FI    | NISH SCHEOULE - THIRD | FLOOR      |      |            |           |            |           |               |                   |                           |
| 301        | PARTY ROOM            | PT         | PT   | P-GWB      | P-GWB     |            |           | WD            | VARIES            |                           |
| 302        | COVERED VERANDA       | PT         |      | P-ST       | P-ST      | P-ST       | P-ST      | P-ST          | REFER TO SECTION  |                           |
|            | MECHANICAL            | CONC. SEAL |      | P-GWB      | P-GWB     | P-GWB      | P-GWB     | EX-STR        |                   |                           |
| 303        |                       |            |      |            | - T       |            |           |               | 10'-0"            |                           |
| 304        | MEN'S                 | PT         | PT   | CT         | CT        | CT         | CT        | P-ST          |                   |                           |
|            |                       | PT<br>VCT  | PT V | P-GWB      | P-GWB     | P-GWB      | P-GWB     | P-SI<br>P-GWB | 10'-0"            |                           |
| 304        | MEN'S                 |            |      |            |           |            |           |               |                   |                           |
| 304<br>305 | MEN'S<br>STORAGE      | VCT        | V    | P-GWB      | P-GWB     | P-GWB      | PGWB      | P-GWB         | 10'-0"            |                           |
| 304<br>305 | MEN'S<br>STORAGE      | VCT        | V    | P-GWB      | P-GWB     | P-GWB      | PGWB      | P-GWB         | 10'-0"            |                           |
| 304<br>305 | MEN'S<br>STORAGE      | VCT        | V    | P-GWB      | P-GWB     | P-GWB      | PGWB      | P-GWB         | 10'-0"            |                           |
| 304<br>305 | MEN'S<br>STORAGE      | VCT        | V    | P-GWB      | P-GWB     | P-GWB      | PGWB      | P-GWB         | 10'-0"            |                           |
| 304<br>305 | MEN'S<br>STORAGE      | VCT        | V    | P-GWB      | P-GWB     | P-GWB      | PGWB      | P-GWB         | 10'-0"            |                           |
| 304<br>305 | MEN'S<br>STORAGE      | VCT        | V    | P-GWB      | P-GWB     | P-GWB      | PGWB      | P-GWB         | 10'-0"            |                           |

| FINISH LEGEN |   |
|--------------|---|
| FLOOR        |   |
| QT           | QUARRY TILE                                 |
| c            | CARPET                                      |
| VCT          | VINYL COMPOSITION TILE                      |
| CT           | CERAMIC TILE                                |
| EP           | EPOXY                                       |
| CONC         | CONCRETE                                    |
| CONC. SEAL   | CONCRETE SEALED                             |
| CONC. PVR.   | CONCRETE PAVER                              |
| PT           | PORCELAIN TILE                              |
| VRS          | VINYL REDUCER STRIP, CENTERED UNDER DOOR    |
| M-S          | MARBLE DOOR SILL, CENTERED UNDER DOOR       |
| MRS          | METAL REDUCER STRIP, CENTERED UNDER DOOR    |
| BASE         |   |
| PT           | PORCELAIN TILE                              |
| R            | RESILIENT                                   |
| CT           | CERAMIC TILE                                |
| WD           | WOOD  |
| V            | VINYL                                       |
| QTCV         | QUARRY TILE COVE                            |
| WALLS        |   |
| P-GWB        | PAINTED GYPSUM WALL BOARD                   |
| P-CMU        | PAINTED CONCRETE MASONRY UNIT               |
| P-SKMCT      | PAINTED CONCRETE MASONRY ONT                |
| CT CT        | CERAMIC TILE                                |
| CTW          | CERAMIC TILE WAINSCOTT                      |
| G            | GLAZING                                     |
| EIFS FIN.    | EIFS FINISH                                 |
| P-ST         | PAINTED STUCCO                              |
| -31          | FAINTED STOCCO                              |
| CEILINGS     |   |
| P-GWB        | PAINTED GYPSUM WALL BOARD                   |
| P-ST         | PAINTED STUCCO                              |
| ACT-1        | ACOUSTIC CEILING TILE 24 INCHES x 24 INCHES |
| EX-STR       | EXPOSED STRUCTURE                           |
| WD           | WOOD PLANKS                                 |

ROOM FINISH SCHEDULE - FIRST FLOOR

| MATERIAL                 | CLASSIFICATION |
|--------------------------|----------------|
| CARPET                   | Α              |
| ACOUSTIC CEILINGS        | A              |
| CERAMIC TILE FLOORING    | ASTM C650      |
| RESILIENT BASE           | В              |
| PAINTED GYPSUM WALLBOARD |                |

| FINISH PRO   | DDUCT SELECTIONS (COLOR, MODEL & MFG BASE OF DESIGN) |      |  |  |  |  |  |
|--------------|--|------|--|--|--|--|--|
| FLOOR        |  |      |  |  |  |  |  |
| CT-1         | 18"x18" CERAMIC TILE                                 | ——   |  |  |  |  |  |
| CT-2         | 18"x18" CERAMIC TILE EXTERIOR SLIP RESISTANT         |      |  |  |  |  |  |
| VCT-1        | 12"X12" VINYL COMPOSITION TILE                       |      |  |  |  |  |  |
| PT-1         | 18"X18" PORCELAIN TILE                               |      |  |  |  |  |  |
| PT-2         | 18"X18" PORCELAIN TILE EXTERIOR SLIP RESISTANT       |      |  |  |  |  |  |
|              |  | ==   |  |  |  |  |  |
| GROUT<br>G-1 | COLOR TO MATCH TILE, LATEX MODIFIED.                 |      |  |  |  |  |  |
|              | COLOR TO MATCH TILE. EATEX MODIFIED.                 | ==   |  |  |  |  |  |
| BASE         |  |      |  |  |  |  |  |
| R            | 4" RUBBER  |      |  |  |  |  |  |
| PF-3<br>CT-3 | 4" PORCELAIN TILE BASE 4" CERAMIC COVE BASE          |      |  |  |  |  |  |
| WALLS        | TO CERONAIC COVE BASE                                |      |  |  |  |  |  |
| WALLS        |  |      |  |  |  |  |  |
| P-1          | FIELD COLOR PAINT                                    |      |  |  |  |  |  |
| P-2          | ACCENT COLOR PAINT                                   |      |  |  |  |  |  |
| CT5          | 6"X6" CERAMIC WALL TILE                              |      |  |  |  |  |  |
| CT-6         | ACCENT CERAMIC WALL TILE                             |      |  |  |  |  |  |
| CT-7         | ACCENT CERAMIC WALL TILE                             |      |  |  |  |  |  |
| CT-8         | ACCENT CERAMIC WALL TILE                             |      |  |  |  |  |  |
| CT-9         | ACCENT CERAMIC WALL TILE                             |      |  |  |  |  |  |
|              |  |      |  |  |  |  |  |
| DOORS        |  |      |  |  |  |  |  |
|              | OOR FRAMES SEE DOOR SCHEDULE                         |      |  |  |  |  |  |
|              |  |      |  |  |  |  |  |
| FINISHES     |  |      |  |  |  |  |  |
| CEILINGS     |  |      |  |  |  |  |  |
| ACT-1        | ULTIMA ARMSTRONG 24"X24", WHITE                      |      |  |  |  |  |  |
|              | <del></del>  | ——   |  |  |  |  |  |
| PLASTIC LA   | MINATE   |      |  |  |  |  |  |
| PL-H1        | COUNTERTOP & SPLASH:                                 |      |  |  |  |  |  |
| PL-V1        | WALL & BASE CABINETS:                                |      |  |  |  |  |  |
|              |  |      |  |  |  |  |  |
| MISCELLANE   | COUS   |      |  |  |  |  |  |
| TOILET       | PARTITIONS SOLID SURFACE                             |      |  |  |  |  |  |
| VANITIE      |  |      |  |  |  |  |  |
| THREASHOLI   |  |      |  |  |  |  |  |
|              | ROOM DOORWAY MARBLE THRESHOLD                        |      |  |  |  |  |  |
| VCT TO       | CONCRETE VINYL REDUCER STRIP                         |      |  |  |  |  |  |
|              |  |      |  |  |  |  |  |
|              |  |      |  |  |  |  |  |
|              |  | PLOT |  |  |  |  |  |



Designed: Drawn: Checked:

14093 ARCHITECTS, PLANNE 8200 Park Central Boulevard N Pompeno Besch, Norda 550 Ast-Sections

IBI

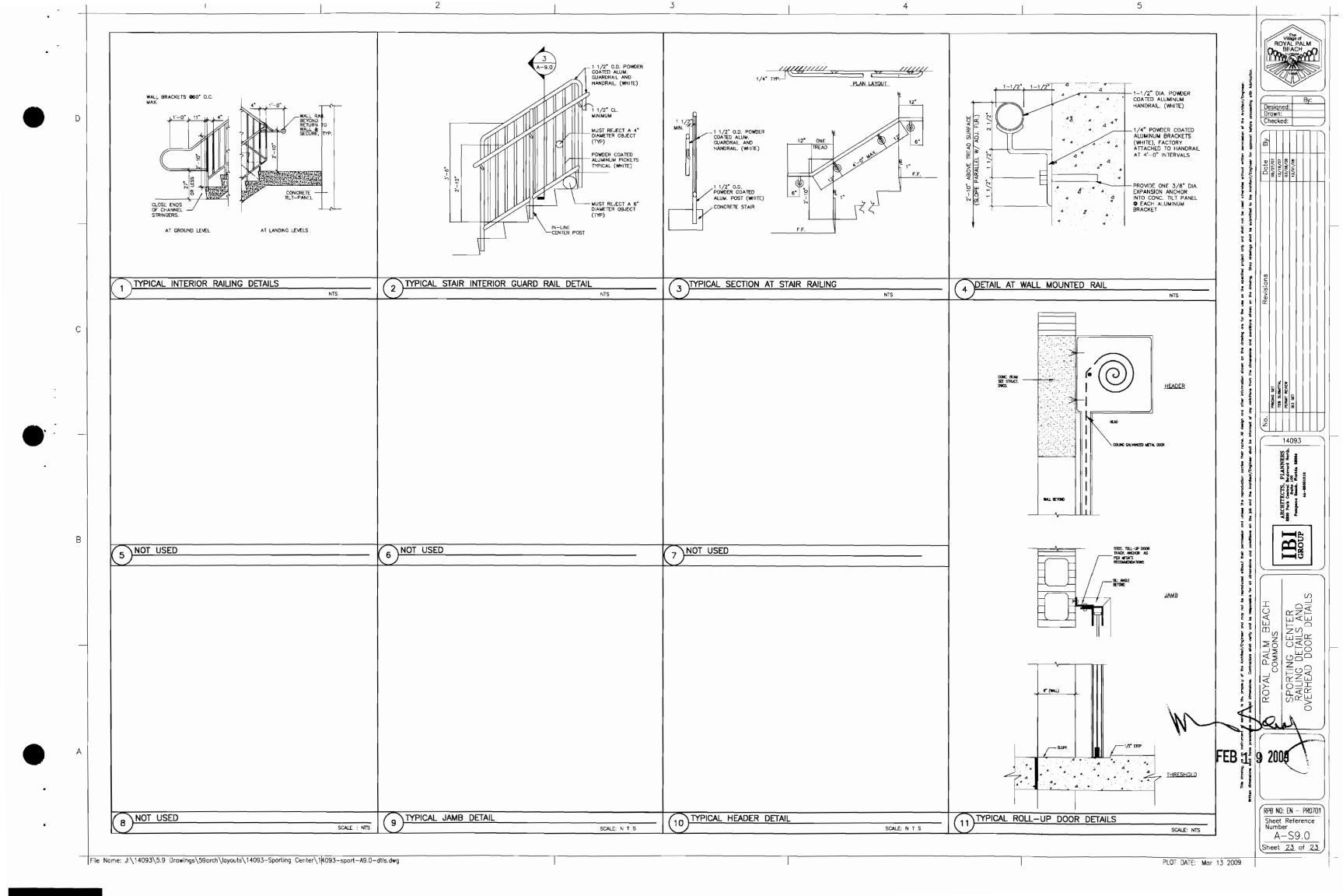
of works, is the property of the Architect/Doglines and may not be responsible for all offers on any angles of the set of the COMMONS

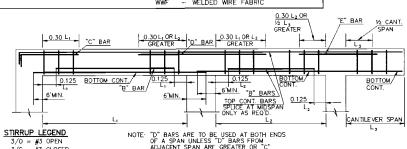
COMMONS SPORTING CENTER ROOM FINISH SCHEDULE AND SIGNAGE

FEB 1 9 2009

RPB NO: EN - PR0701 Sheet Reference Number A-\$7.1

Sheet <u>22</u> of <u>23</u>





### TYPICAL CONCRETE BEAM STEEL PLACEMENT

### DESIGN LOADS FOR THE PROJECT AS FOLLOWS:

MAIN FRAME SYSTEM WIND LOADS: STRUCTURE IS DESIGNED ACCORDING TO ANSI/ASCE 7-02 BASIC WIND SPEED BASIC WIND SPEED = 140 MPH.
STRUCTURE\_WIND IMPORTANCE FACTOR = 1.0

SITE WIND EXPOSURE = C
WIND DESIGN PRESSURE QN AT ROOF LEVEL = PSF ( n=41'-6") @ BUILDING
CRITICAL COMPONENT FRAMING WIND LOADS: ( a = 7' )

INTERNAL PRESSURE COEFFECIENT GC Di = + 0.1B

|      | AREA            |         |          |          |          |         |  |  |
|------|-----------------|---------|----------|----------|----------|---------|--|--|
| ZONE | COMPONENT       | 10      | 20       | 50       | 100      | 500     |  |  |
| 4    | WALL FIELD      | +62 -67 | +59 -65  | +56 -61  | +53 -58  | +46 -52 |  |  |
| 5    | WALL CORNER     | +62 -83 | +59 -78  | +56 -70  | +53 -65  | +46 -52 |  |  |
| 1    | ROOF FIELD      | +36 -57 | +33 -55  | +28 -53  | +25 -52  |         |  |  |
| 2    | ROOF EDGE       | +36 -99 | +33 -91  | +28-81   | +25 -73  |         |  |  |
| 3    | ROOF CORNER     | +3 -147 | +33 -137 | +28 -124 | +25 -115 |         |  |  |
| 2    | OVERHANG EDGE   | -116    | -116     | -116     | -116     |         |  |  |
| 3    | OVERHANG CORNER | -195    | -176     | -151     | -132     |         |  |  |

GENERAL STRUCTURAL NOTES

GOVERNING CODE: FLORIDA BUILDING CODE (FBC), 2004 EDITION.

ANSI / ASCE FOR WIND LOADS, LATEST EDITION.

2. <u>REFERENCE STANDARDS.</u> REFERENCE TO ASTM AND OTHER STAND-ARDS SHALL MEAN THE LATEST EDITION IN EFFECT ON THE BID DATE OR DATE OF OWNER-CONTRACTOR AGREEMENT UNLESS NOTED IN THESE DOCUMENTS OR DESIGNATED BY THE GOVERNING CODE.

NOTES. NOTES ON THE NDIVIDUAL STRUCTURAL DRAWINGS SHALL TAKE PRIORITY OVER STRUCTURAL NOTES ON THIS SHEET.

SPECIFICATIONS. WHEN PART OF THE CONTRACT DOCUMENTS, REFER TO THE SPECIFICATIONS FOR INFORMATION IN ADDITION TO THESE NOTES AND THE STRUCTURAL DRAWINGS.

ARCHITECTURAL REFER TO THE ARCHITECTURAL DRAWINGS FO ELEVATIONS, DOORS, WINDOWS, NON-BEARING WALLS, CURTAIN WALLS, ELEVATORS, STAIRS, SLOPES, CURES, DRAINS, DEPRESSIONS, RAILINGS, WATERPROOFING, FINISHES, ETC. REFER TO THE ARCHITECTURAL DRAWINGS FOR

DISCREPANCIES. IN CASE OF DISCREPANCIES BETWEEN THE PLANS, SPECIFICATIONS, REFERENCE STANDARDS AND GOVERNING CODE, THE MORE STRINGENT REQUIREMENTS SHALL GOVERN. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE WORK.

SITE VERIFICATION. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, AND SITE CONDITIONS BEFORE STARTING WORK, AND THE ENGINEER / ARCHITECT SHALL BE IMMEDIATELY NOTIFIED, IN WRITING, WANY DECREPANCIES. IN NO CASE SHALL DIMENSIONS BE SCALED FROM PLANS, SECTIONS, OR DETAILS ON THE STRUCTURAL DRAWINGS.

OMISSIONS/CONFLICTS. IN CASE OF OMISSIONS AND CONFLICTS
BETWEEN THE PLANS, SPECIFICATIONS, AND SITE CONDITIONS THE
ENGINEER SHALL BE NOTIFIED BEFORE PROCEEDING WITH THE

CONTRACTOR RESPONSIBILITIES. THE CONTRACTOR IS RESPONSIBLE FOR THE SAFTEY AT THE SITE AND FOR THE STRENGTH AND STABILITY OF ALL PARTLY COMPLETED STRUCTURE, INCLUDING SHORING AND TEMPORARY BRACING.

LOAD LIMITS. LOADS ON THE STRUCTURE SHALL NOT EXCEED THE DESIGN LOADS INDICATED IN THE DRAWINGS.

11. EXISTING FACILITIES, CONTRACTOR SHALL PROTECT EXISTING FACILITIES, STRUCTURES AND UTILITIES FROM DAMAGE; PROTECT THE WORK, ADJACENT PROPERTY, AND THE PUBLIC. CONTRACTOR IS SOLELY RESPONSIBLE FOR DAMAGE OR INJURY DUE TO HIS ACT OR NEGLECT.

SUBMITTALS. WHERE SHOP DRAWINGS, MILL TESTS, OR OTHER ITEMS ARE REQUESTED, SUBMITTAL SHALL BE MADE TO THE STRUCTURAL ENGINEER BEFORE FABRICATION OR INSTALLATION IN THE STRUCTURE, UNLESS SPECIFICALLY NOTED.

13. <u>ALTERNATES</u>, ALTERNATES FOR SPECIFIED ITEMS MAY BE SUBMITTED TO THE ENGINEER FOR APPROVAL, CONTRACTOR SHALL BUDGET FOR ASSOCIATED ENGINEERING FEES FOR REVIEWING THESE SUBMITTALS.

READ STRUCTURAL DRAWINGS IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS AND OTHER CONTRACT DOCUMENTS.

REFER TO ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR EXACT WEIGHT AND/ OR LOCATION OF PITS, DET TRENCHES, OPENINGS AND ROOF MOUNTED OR JOISTS SUSPENDED UNITS.

THE CONTRACTOR IS RESPONSIBLE FOR ADEQUATE VERTICAL AND HORIZONTAL SHORING WHICH SHALL BE PROVIDED TO SAFELY SUPPORT ALL CONSTRUCTION LOADS.

A MINIMUM OF ONE FIELD OBSERVATION BY THE ENGINEER OF RECORD IS REQUIRED NEAR THE COMPLETION OF THE BUILDING STRUCTURE AND PRIOR TO OCCUPANCY, FOR DETERMINING GENERAL PERFORMANCE OF THE DESIGN.

ADDITIONAL OBSERVATIONS SHALL BE ARRANGED AS DESCRIBED IN NOTE #18 BELOW

NO LATER THAN 24 HOURS IN ADVANCE, THE STRUCTURAL ENGINEER SHALL BE NOTIFIED TO OBSERVE THE WORK AS ARRANGED WITH THE BUILDING DEPARTMENT OR REQUIRED BY THE OWNER WHICH WILL BE DETERMINED AT THE PRE-CONSTRUCTION MEETINGS.

### SHOP DRAWING SUBMITTALS

19. REVIEW OF SUBMITTALS BY THE STRUCTURAL ENGINEER IS FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT AS PRESENTED BY THE CONTRACT DOCUMENTS. NO DETAILED CHECK OF QUANTITIES OR DIMENSIONS WILL BE MADE. ONLY THOSE SHOP DRAWINGS REQUIRED BY THE CONTRACT DOCUMENTS TO BE SUBMITTED WILL BE REVIEWED. ALL OTHERS WILL BE RETURNED WITHOUT COMMENT.

20. REVIEW OF SHOP DRAWINGS IS TO BE LIMITED TO TWO (2) REVIEWS PER SUBMITTAL WITHIN THE SCOPE OF BASIC SERVICES (I.E., INITIAL SUBMITTAL REVIEW AND ONE RESUBMITTAL, IF NECESSARY), REVIEW OF ADDITIONAL RESUBMITTALS WIL BE CONSIDERED ADDITIONAL SERVICES FOR WHICH THE GENERAL CONTRACTOR MAY BE HELD RESPONSIBLE. ADDITIONAL SERVICES COMPENSATION TO THE ENGINEER WILL BE IN ACCORDANCE WITH THE TERMS OF THE ARCHITECT-ENGINEER AGREEMENT FOR THIS PROJECT.

21. ALL SHOP DRAWINGS MUST BEAR EVIDENCE OF THE CONTRACTOR'S APPROVAL PRIOR TO SUBMITTING TO THE A/E

22. SUBMIT A MINIMUM OF 3 EA. BLACKLINE PRINTS TO THE ARCHITECT/ENGINEER FOR PEVIEW. THE ARCHITECT/ENGINEER WILL RETAIN 1 COPY EACH AFTER REVIEW AND RETURN THE REMAINDER.

 ALL CHANGES AND ADDITIONS MADE ON RESUBMITTALS MUST BE CLEARLY FLAGGED AND NOTED. THE PURPOSE OF THE RESUBMITTALS MUST BE CLEARLY NOTED ON THE LETTER OF TRANSMITTAL. ARCHITECT/ENGINEER REVIEW WILL BE LIMITED TO THOSE ITEMS CAUSING THE RESUBMITTAL.

24. SHOP DRAWINGS NOT MEETING THE ABOVE CRITERIA OR SUBMITTED AFTER FABRICATION WILL NOT BE REVIEWED.

### SHOP DRWG, REQUIRING ENG. INPUT BY SPECIALTY ENGINEER

25. SPECIALTY ENGINEER:

A.) DEFINITION — A FLORIDA REGISTERED PROFESSIONAL ENGINEER; NOT THE STRUCTURAL ENGINEER OF RECORD, WHO SPECIALIZES IN AND WHO UNDERTAKES THE DESIGN OF STRUCTURAL COMPONENTS OR STRUCTURAL SYSTEMS INCLUDED IN A SPECIFIC SUBMITTAL PREPARED FOR THIS PROPLET.

1. AN EMPLOYEE OR OFFICER OF A FABRICATOR.
2. AN EMPLOYEE OR OFFICER OF AN ENTITY SUPPLYING COMPONENTS TO A FABRICATOR.

3. AN INDEPENDENT CONSULTANT RETAINED BY THE FABRICATOR OR

THE FOLLOWING SYSTEMS AND COMPONENTS AS A MINIMUM REQUIRE FABRICATION AND ERECTION DRAWINGS WITH INPUT BY A SPECIALTY **ENGINEER** 

LIGHT GAGE STEEL EXTERIOR WALL SYSTEMS, ALUMINUM WALL SYSTEMS, GLAZED CURTAIN WALLS, PREFABRICATED STEEL STAIRS AND RAILINGS, ARCHITECTURAL PRECAST CONCRETE ELEMENTS, GLASS FIDER REINFORCED CONCRETE PANEL SYSTEMS, OPEN WEB STEEL JOISTS, STRUCTURAL STEEL CONNECTIONS REQUIRING ENGINEERING INPUT.

SUBMITTALS SHALL CLEARLY IDENTIFY THE SPECIFIC PROJECT AND APPLICABLE CODES, LIST THE DESIGN CRITERIA, AND SHOW ALL DETAILS AND PLANS NECESSARY FOR PROPER FABRICATION AND INSTALLATION. CALCULATIONS AND SHOP DRAWNOS SHALL IDENTIFY SPECIFIC PRODUCTS UTILIZED. GENERIC PRODUCTS WILL NOT BE

SHOP DRAWINGS AND CALCULATIONS MUST BE PREPARED UNDER THE DIRECT SUPERVISION AND CONTROL OF THE SPECIALTY ENGINEER.

SHOP DRAWINGS AND CALCULATIONS REQUIRE THE IMPRESSED SEAL, DATE AND SIGNATURE OF THE SPECIALTY ENGINEER. COMPUTER PRINTOUTS ARE AN ACCEPTABLE SUBSTITUTE FOR MANUAL COMPUTATIONS, PROVIDED THEY ARE ACCOMPANIED BY SUFFICIENT DESCRIPTIVE INFORMATION TO PERMIT THEIR PROPER EVALUATION. SUCH DESCRIPTIVE INFORMATION SHALL BEAR THE IMPRESSED SEAL AND SIGNATURE OF THE SPECIALTY ENGINEER AS AN INDICATION THAT HE HAS ACCEPTED RESPONSIBILITY FOR THE RESULTS. THE STRUCTURAL ENGINEER WILL RETAIN ONE SIGNED AND SEALED BLACKLINE PRINT FOR RECORD.

REVIEW OF SUBMITTALS BY THE ENGINEER OF RECORD IS LIMITED TO VERIFYING THE FOLLOWING:

A.) THAT THE SPECIFIED STRUCTURAL SUBMITTALS HAVE BEEN

THAT THE STRUCTURAL SUBMITTALS HAVE BEEN SIGNED AND SEALED BY THE SPECIALTY ENGINEER.

C.) THAT THE SPECIALTY ENGINEER HAS UNDERSTOOD THE DESIG INTENT AND HAS USED THE SPECIFIED STRUCTURAL CRITERIA. (NO DETAILED CHECK OF CALCULATIONS WILL BE MADE.)

D.) THAT THE CONFIGURATION SET FORTH IN THE STRUCTURA SUBMITTALS IS CONSISTENT WITH THE CONTRACT DOCUMENTS. (I DETAILED CHECK OF DIMENSIONS OR QUANTITIES WILL BE MADE.)

A LIST OF DRAWINGS SHALL BE PREPARED AND MAINTAINED BY THE GENERAL CONTRACTOR FOR ALL SHOP DRAWINGS REQUIRING PARTICIPATION OF A SPECIALTY ENGINEER. THE LIST SHALL CONTAIN PROJECT NAME, NAME OF SENERAL CONTRACTOR, NAME OF SUBCONTRACTOR, NAME OF SPECIALTY ENGINEER, DRAWING NUMBER, DRAWING TITLE AND LATEST REVISION NUMBER AND DATE. FOR PARTIAL SUBMITTALS, THE LIST SHALL CONTAIN ALL ANTICIPATED DRAWING NUMBERS AND TITLES REQUIRED TO COMPLETE. THE CONTRACT. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR SUBMITTING THE LATEST UPDATED LIST OF DRAWINGS WITH EACH SUBMITTING THE LATEST UPDATED LIST OF DRAWINGS WITH EACH SUBMITTING THE LATEST UPDATED LIST OF DRAWINGS WITH EACH

### MILD REINFORCING STEEL:

REFERENCE STANDARDS. ACI 301, CHAPTER 5. "ACI DETAILING MANUAL" (SP-66). CRSI "PLACING REINFORCING BARS". CRSI "MANUAL OF STANDARD PRACTICE" (MSP-1).

2. MATERIALS.

REINFORCING BARS: ASTM A615, GRADE 60, DEFORMED BARS, UNLESS NOTED.

<u>WELDED WIRE FABRIC:</u> SMOOTH FABRIC: ASTM A185. DEFORMED FABRIC: ASTM A497.

DEFURMED FABRIC: ASTM A497.
FIBROUS REINFORCEMENT. FIBRILIATED POLYPROPYLENE REINFORCEMENT SHALL BE USED WHERE NOTED ON PLAN SUBMIT PROPOSED PRODUCT TO ENGINEER PRIOR TO USE ADD FIBERS TO THE CONCRETE: MIX AND FINISH IN STRIC ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

BAR SUPPORTS: CONFORM TO CHAPTER 3, CRSI MSP-TIE WIRE: 16 1/2 GAUGE OR HEAVIER, BLACK ANNEALED.

BENDING. BARS SHALL BE BENT COLD. BARS PARTIALLY EMBEDDED IN CONCRETE SHALL NOT BE FIELD BENT UNLESS NOTED OR AUTHORIZED BY THE ENGINEER.

4. <u>WELDING.</u> DO NOT WELD BARS UNLESS NOTED OR AUTHORI. THE ENGINEER. WHEN AUTHORIZED, CONFORM TO AWS D1.4.

5. <u>PLACING.</u> PLACE BARS IN ACCORDANCE WITH CRSI "PLACING REINFORCING BARS". SUPPORT AND TIE TO PREVENT DISPLACEMENT. ALL REINFORCEMENT STEEL SHALL BE ACCURATELY PLACED, RIGIDLY SUPPORTED, AND FIRMLY TIED IN PLACE WITH BAR SUPPORTS AND SPACERS, IN ACCORDANCE WITH THE REQUIREMENTS OF ACI 301 AND ACI 318.

ALL REINFORCING STEEL SHALL BE ASSEMBLED AS CAGES OR MATS, WITH BARS EQUALLY SPACED AND TIED TOOETHER AT EACH INTERSECTION BEFORE CONCRETE IS PLACED.

ALL ACCESSORIES SHALL HAVE UPTURNED LEGS AND BE PLASTIC DIPPED AFTER FABRICATION, ACCESSORIES FOR REINFORCING SHALL BE IN ACCORDANCE WITH ACI CURRENT EDITION.

A MINIMUM OF 3 INDIVIDUAL HIGH CHAIRS FOR EACH SUPPORT BAR SHALL BE PROVIDED FOR TOP REINFORCING.

6. SURFACE CONDITIONS. REINFORCEMENT SHALL BE FREE OF MUD, OIL OR OTHER MATERIALS THAT REDUCE BOND. RUST OR MILL SCALE IS ALLOWED PROVIDED BAR WEIGHT AND DIMENSIONS CON-FORM TO ASTM SPECIFICATIONS.

7. PLACING TOLERANCES. PLACE BARS TO THE FOLLOWING TOLERANCES: 

8. <u>CONCRETE COVER</u>. MINIMUM CONCRETE COVER FOR REINFORCEMENT SHALL BE AS FOLLOWS, UNLESS NOTED.

.2. .1 1/2" .3/4" .3/4" SLAB BOTTOM BARS.

SPACER TIES SHALL BE PROVIDED FOR VERTICAL COLUMN REINFORCING STEEL SUCH THAT 2" MINIMUM CLEARANCE IS MAINTAINED UNLESS OTHERWISE NOTED ON PLANS.

9. TENSION AND TENSION LAP DEVELOPMENT LENGTHS.

A. THE MINIMUM REQUIRED TENSION DEVELOPMENT LENGTHS FOR REINFORCING BARS SHALL BE BASED ON THE FOLLOWING FOR THE PURPOSE OF ESTIMATE BAR EXTENSION OR

EMBEDMENT LENGTHS FOR CONCRETE STRENGTHS OF f'c=4000PSI OR LESS; ALL BARS ARE #9 OR SMALLER WITH fy=60KSI; CONCRETE COVER MIN OF ARE #9 OR SMALLER WITH 19-BOKS; CONCRETE COVER MIN OF ONE BAR DIAMETER MINIMUM; CLEAR SPACING OF ONE BAR DIAMETER MINIMUM; CLEAR SPACING OF ONE BAR DIAMETER AND COLUMN TIES OR BEAM STRRUPS ARE PROVIDED THEN THE DEVELOPMENT LENGTH SHALL BE 38 BAR DIAMETERS. LARGER BARS; OR IF TIES OR STIRRUPS ARE NOT SPECIFIED, OR FOR TOP BARS; OR CONCRETE COVER TO REINFORCEMENT IS LESS THAN ONE BAR DIAMETER THEN THE DEVELOPMENT LENGTH SHALL BE INCREASED TO 57 BAR DIAMETERS.

C. FOR CONCRETE STRENGTHS GREATER THAN 16=4000PSI BUT LESS THAN 6-3500 PSI USE THE FOLLOWING CHART FOR TENSION DEVELOPMENT LENGTH. ALL BEAMS COLUMNS AND WALLS SHALL HAVE A MINIMUM CONCRETE COVER OF 1.4 BAR DIAMETERS AND HAVE A MIN #4 BAR TIES/STIRRUPS AT A MAXIMUM SPACING OF BEAM/COLUMN DEPTH (d).

| $\overline{}$ | * TENSION LAP SPLICE SCHEDULE |                                   |                       |                         |  |  |  |  |  |
|---------------|-------------------------------|-----------------------------------|-----------------------|-------------------------|--|--|--|--|--|
|               | LESS<br>7500 P.S              | GREATER THAN<br>7500 P.S.I. CONC. |                       |                         |  |  |  |  |  |
| BAR<br>SIZE   | TOP BAR<br>LAP LENGTH         | OTHER BAR<br>LAP LENGTH           | TOP BAR<br>LAP LENGTH | OTHER BAR<br>LAP LENGTH |  |  |  |  |  |
| <b>#</b> 3    | 12"                           | 12"                               | 16"                   | 16*                     |  |  |  |  |  |
| #4            | 14"                           | 12"                               | 17 <b>"</b>           | 16"                     |  |  |  |  |  |
| <b>#</b> 5    | 18"                           | 14"                               | 22"                   | 17"                     |  |  |  |  |  |
| #6            | 21*                           | 16"                               | 26"                   | 20"                     |  |  |  |  |  |
| #7            | 25*                           | 19"                               | 30"                   | 23"                     |  |  |  |  |  |
| #8            | 30"                           | 23"                               | 36"                   | 28"                     |  |  |  |  |  |
| #9            | 38"                           | 29"                               | 46"                   | 35"                     |  |  |  |  |  |
| #10           | 48"                           | 37"                               | 58"                   | 45"                     |  |  |  |  |  |
| #11           | 58"                           | 45"                               | 71"                   | 55"                     |  |  |  |  |  |

+ FOR BUNDLES OF THREE BARS OR LESS INCREASE LENGTHS SHOWN BY 20% FOR THE INDIVIDUAL BAR. NO LAP SPLICES SHALL BE PLACED WITHIN THE PRIMARY TENSION ZONE OF THE MEMBER.

). <u>MECHANICAL CONNECTIONS</u>. MECHANICAL CONNECTIONS MAY SUBSTITUTED FOR LAP SPLICES IF APPROVED BY THE ENGINEER SUCH CONNECTIONS SHALL CEVELOP AT LEAST 125% OF T SPECIFIED YIELD STRENGTH OF THE BAR. MECHANICAL CONNECTIONS MAY BE

WIRE FABRIC SUBSTITUTION. WELDED DEFORMED WIRE FABRIC MAY BE SUBSTITUTED FOR REINFORCING BARS. CONSULT ENGINEER FOR REQUIRED STEEL AREAS AND ADDITIONAL REQUIREMENTS.

PLACEMENT DRAWINGS AND BAR LISTS SHALL CONFORM WITH ACI 318.
 "MANUAL FOR STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES". ALL SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW.
 (ONE PAPER SEPIA AND ONE PRINT OF EACH DRAWING.)

13. DETAILS FOR CONCRETE REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE CONCRETE REINFORCEMENT STEEL INSTITUTE "MANUAL OF STANDARD PRACTICE", UNLESS OTHERWISE INDICATED.

I. HOOK ALL COLUMN VERTICAL REINFORCING INTO SLAB/BEAM ABOVE WHERE COLUMN TERMINATES.

15. PROVIDE HORIZONTAL CORNER BARS AT ALL CONCRETE TIE BEAM INTERSECTIONS. BARS SHALL BE SAME SIZE AND OUANTTY AS BEAM REINFORCING LAPPING 30" MINIMUM IN BOTH DIRECTIONS.

### STEEL JOISTS AND JOIST GIRDERS

OPEN WEB STEEL JOISTS (OWST) SHALL BE DESIGNED AND FABRICATED IN ACCORDANCE WITH THE STEEL JOIST INSTITUTE STANDARDS FABRICALTION USING ELECTRICAL RESISTANCE WELDING IS PROHIBITED.

JOIST/GIRDER FABRICATOR SHALL SUBMIT DESIGN DATA AND ERECTION DIAGRAMS. SHOP DRAWINGS SHALL BE PREPARED UNDER THE SUPERVISIOF AND SIGNED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER.

MAXIMUM DEFLECTION OF JOISTS AND ROOF DECK 1/360 OF SPAN UNDER LIVE LOAD. UNLESS OTHERWISE NOTED ON PLAN.

WELD OR BOLT EVERY OWSJ TO SUPPORTING STEEL AND/OR WALL PLATES

5. MINIMUM BEARINGS OWSJ SHALL BE:
ON MASONRY ON CONCRETE

K SERIES ------ 4" ------ 4"
LH SERIES ----- 6"

6. CAMBER JOISTS FOR DEAD LOAD.

STEEL FABRICATOR SHALL ADD WEIGHTS OF ALL MECHANICAL ROOF UNITS IN THE DESIGN LOAD OF OWSJ AND VERIFY WITH OWNER OR MECHANICAL ENGINEER THE EXACT SIZE AND LOCATION.

B. ALL CONNECTIONS SHALL BE WELDED IN ACCORDANCE WITH AWS D1.1, STRUCTURAL WELDING CODE" USE FOXX ELECTRODE. ALL WELDERS TO BE CERTIFICATE NEEDS TO BE FILED WITH CITY PRIOR TO WELDING.

9. ALL FIELD BOLTS SHALL BE ASTM A-325N BOLTS.

TOPS OF ROOF MEMBERS SUPPORTING STEEL JOISTS ARE 2 1/2" FOR K SERIES AND 5" FOR IT & DUH SERIES BELOW UNDERSIDE OF ROOF DECK UNLESS NOTED OTHERWISE.

IN STEEL FRAMING, WHERE BAR JOISTS ARE UTILIZED, AND COLLIMNS ARE NOT FRAMED IN AT LEAST TWO DIRECTIONS WITH STRUCTURAL STEEL MEMBERS, A BAR JOISTS SHALL BE FIELD-BOLTED AT COLUMNS TO PROVIDE LATERAL STABILITY DURING CONSTRUCTION.

12. WELD EACH SIDE OF EACH JOIST TO STEEL BEAM, JOIST GIRDER, WELD EACH SIDE OF EACH JOIST TO STEEL BEAM, JOIST GROBES SHELF ANGLE, OR BEARING PLATE SUPPORT WITH 2 — 1/6" x 1" FILLET WELDS, MIN, FOR 'K' SERIES AND WITH 2 — 1/4" x 4" FILLET WELDS, MIN, FOR 'SLH' JOISTS SEE STRUCTURAL DRAWINGS FOR ANCHORAGE FOR LIPLIFT. IN ADDITION, FIELD CONNECTION OF JOIST BOTTOM CHORDS IS TO BE PROVIDED AS SHOWN ON STRUCTURAL DRAWINGS.

PROVIDE ADDITIONAL JOISTS FOR MOVABLE PARTITIONS, MASON WALLS, AIR CONDITIONING UNITS, OR OTHER SUPERIMFOSED LO

DESIGN ROOF JOISTS FOR A NET UPLIFT AS INDICATED ON

MAY 1 9 2009



Designed: LDR
Drawn: MK
Checked: RW

PLANN Boulevart 100 Florida ECTS, entral suite Beach,

 $\mathbf{H}^{\mathbf{e}}$ 

MO PLANESS - CAVE. - STREETHEA ROMAINT - ELECTRICAL - MICHAEL AVE. E. ANDERSON AVENUE ELITE DOS PCHETARO BEACH, PLOTEA SECUR-MINO 642-7700

RPB\_NO: EN-PR070 Sheet Reference Number

Sheet <u>1</u> of <u>11</u>

S-S0.1

CONCRETE WORK SHALL BE PROPORTIONED IN ACCORD WITH ACI 301, "SPECIFICATIONS FOR STRUCTURAL CONCRETE" AND ACI 211.11, "RECOMMENDED PRACTICE FOR SELECTING PROPORTIONS FOR NORMAL WEIGHT CONCRETE" TO PRODUCE THE FOLLOWING:

MATERIALS.

| CEMENT:     | AS IM. CISU          |
|-------------|----------------------|
| AGGREGATES: | ASTM.C33             |
| ADMIXTURES: | .ACI. 301, SECT. 2.2 |
| WATER:      | ASTM.C94             |
|             |                      |

| LOCATION                     | STRENGTH<br>(PSI) | TEST<br>AGE<br>(DAYS) | MAX<br>AGGR.<br>SIZE | MAX<br>W/C<br>RATIO | MINIMUM<br>CEMENT<br>(PER CU. YD.) | MINIMUM<br>STRENGTH AT<br>STRESSING |
|------------------------------|-------------------|-----------------------|----------------------|---------------------|------------------------------------|-------------------------------------|
| FOUNDATIONS                  | 3000              | 28                    | 1"                   | .50                 | 475 LBS.                           | -                                   |
| FILLED CELLS<br>COURSE GROUT | 3000              | 28                    | 3/8"                 | -                   | 560 LBS.                           |                                     |
| SLAB , BEAMS<br>AND COLUMNS  | 3000              | 28                    | ¥4"                  | .50                 | 475 LBS.                           |                                     |

THE USE OF A SUPERPLASTICIZER IS ALLOWED BUT NOT REQUIRED. SHRINKAGE FOR THIS MIX SHALL BE LIMITED TO 0.035% AT 28 DAYS AS TESTED BY ASTM C157.

CONFLICTS. DESIGN MIXES SHALL MEET OR EXCEED EACH REQUIREMENT SPECIFIED. WHERE BOTH STRENGTH AND MAXIMUM WATER-CEMENT RATIO ARE SPECIFIED, THE MOST STRINGENT SHALL APPLY. FOR EXAMPLE, MAXIMUM WATER-CEMENT RATIO MIGHT RESULT IN A STRENGTH GREATER THAN THE MINIMUM SPECIFIED. LIKEMSE, A LOWER WATER-CEMENT RATIO THAN SPECIFIED MAY BE REQUIRED IN ORDER TO ACHIEVE THE REQUIRED STRENGTH.

WATER/CEMENT RATIO. W/C RATIO SHALL BE BASED ON TOTAL CEMENTITIOUS MATERIAL. IF NOT SHOWN ABOVE, W/C RATIO SHALL BE DETERMINED BY SUPPLIER BASED ON STRENGTH REQUIREMENTS.

- AIR CONTENT. ENTRAINED AIR IS NOT REQUIRED UNLESS SHOWN ABOVE. WHERE AIR CONTENT IS SPECIFIED AND CONCRETE IS BEING POUPED, TESTING SHALL BE PERFORMED AT THE DISCHARGE END OF THE PUMP OR HOSE. TOLERANCE FOR AIR CONTENT SHALL BE + OR 1 1/2%.
- SLUMP. SLUMP SHALL BE PROPOSED BY THE CONTRATOR IN THE MIX DESIGN SUBMITTALS. ACCEPTANCE OF PROPOSED SLUMP SHALL BE OBTAINED FROM THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK. TOLERANCE FOR SLUMP SHALL CONFORM TO ASTM C94.
- MIX DESIGN.
  SUBMIT A MIX DESIGN FOR EACH CLASS OF CON-CRETE TO THE ENGINEER FOR REVIEW . AND APPROVAL.

С

В

- EMBEDDED ITEMS. VERIFY LOCATION OF EMBEDDED ITEMS WITH SUPPLIER'S OR DESIGN CONSULTANT'S DRAWINGS BEFORE PLACING CONCRETE. LOCATION OF EMBEDDED ITEMS NOT CONFORMING TO DRAWINGS SHALL BE REVIEWED BY THE ENGINEER (BEFORE PLACING CONCRETE) SLEEVE ALL PIPES THROUGH SLABS INDIVIDUALLY, UNLESS CONCRETE, SLEEVE ALL PHES THROUGH SLABS INIVIDUALLY, UNLESS OTHERWISE APPROVED BY ENGINEER, WHERE PIPES OR DUCTS PENETRATE SLABS, A MAXIMUM OF TWO (2) BARS EACH WAY MAY BE CUT, PROVIDED SPLICE BARS OF EQUIVAENT AREA TO THE CUT BARS ARE PLACED ALONGSIDE OPENING WITH LAP LENGTH OF 36 X BAR & PLACE ALL OPENINGS LARGER THAN 6" THAT ARE NOT SHOWN ON STRUCTURAL PLANS AND ALL CONDUITS IN SLAB IN ACCORDANCE WITH ACI—318 CH.6.3 AND SUBMIT SHOP DRAWINGS SHOWING SIZE AND LOCATION FOR STRUCTURAL ENGINEER'S REVIEW PROVIDE 1-#5 x 6' EACH WAY PLACED DIAGONALLY AT MID-DEP AROUND ALL OPENINGS LARGER THAN 12", U.O.N.
- MIXING. CONCRETE SHALL BE BATCHED, MIXED AND TRANSPORTED IN ACCORDANCE WITH ACI 301, CHAPTER 7.
- PLACING. CONFORM TO ACI 301, CHAPTER 8.
- 10. CONSOLIDATION. CONFORM TO ACI 301, SECTION 8.3.4.
- CURING. MAINTAIN CONCRETE IN A MOIST CONDITION FOR A SUITABLE PERIOD AFTER PLACEMENT, IN ACCORDANCE WITH ACI 301, CHAPTER 12.
- WEATHER CONDITIONS, ADEQUATE PRECAUTIONS SHALL BE TAKEN DURING HOT AND COLD WEATHER IN ACCORDANCE WITH ACI 301, 12, SECTIONS 8.4.3 AND 12.3.
- CONSTRUCTION JOINTS. CONFORM TO ACI 301, SECTION 6.1 AND SECTION 8.5. EXCEPT KEYWAYS ARE NOT REQUIRED UNDER SECTION 6.1.2. ALI JOINTS SHALI BE THOROUGHLY CLEANED, LAITANCE REMOVED AND DAMPENED. SPECIAL BONDING METHODS SPECIFIED IN SECTION 6.1.4 ARE NOT REQUIRED UNLESS SPECIFICALLY SHOWN ON THE PLANS.
- NO WATER SHALL BE ADDED TO THE CONCRETE MIX AT THE JOB SITE WITHOUT APPROVAL OF THE ENGINEER.
- MAXIMUM AGGREGATE SIZE SHALL 1 INCH. ALL AGGREGATES SHALL CONFORM TO ASTM C-33.
- ADMIXTURES MAY BE USED ONLY AFTER APPROVAL BY THE ENGINEER ALL CONCRETE TO BE PUMPED SHALL BE DESIGNED ACCORDINGLY AND SHALL COMPLY WITH SLUMP LIMITATIONS STATED HEREIN ABOVE AND WITH ACI 301, "SPECIFICATIONS FOR STRUCTURAL CONCRETE" AND ACI 304, "PLACING CONCRETE BY PUMPING METHODS COMMITTEE REPORT". 17.
- 18. A MINIMUM OF A 3 INCH INSIDE DIAMETER PUMP AND PIPE SHALL BE USED TO TRANSPORT CONCRETE.
- ALL CONCRETE SHALL BE CONSOLIDATED THROUGH USE OF MECHANICAL VIBRATOR'S.

CONCRETE COVER FOR REINFORCING SIEEL SHALL BE IN ACCORD WITH ACI 318, AND SHALL BE A MINIMUM AS FOLLOWS, U.N.O.: SI ASE SI ASE.

UNFORMED CONCRETE BELOW GRADE = 3"

TIE BEAM SIZES SHALL BE INCREASED AS REQUIRED FOR ARCHITECTURAL DETAILS OR TO FIT BLOCK COURSING (28" MAXIMUM) AND ADD 2#5 IF

ALL STRUCTURAL CONCRETE IS TO BE CURED IN ACCORDANCE WITH ACI 318-83 SEC. 5.5. COMPOUND SHALL BE APPLIED THE SAME DAY AS THE POUR AND IMMEDIATELY UPON HARDENING WHEN WIND /HUMIDITY DICTATE. SPRAY COMPOUND WITH MINIMUM TWO PASSES AT PERPENDICULAR PLACEMENT

SHORING SYSTEMS

THE FORM AND SHORING SYSTEM SHALL BE DESIGNED BY A FLORIDA REGISTERED ENGINEER IN ACCORDANCE WITH ACI 347
"RECOMMENDED PRACTICE FOR CONCRETE FORMING".
THE REGISTERED ENGINEER SHALL SUBMIT A DIAGRAMATIC DRAWING SHOWING THE SHORING AND RESHORING SEQUENCE AND PROPOSED POURING CYCLE INTENDED FOR THE PROJECT. HE SHALL ALSO SUBMIT, FOR REVIEW, CALCULATIONS SUBSTANTIATING THAT THE STRUCTURE MILL NOT BE OVERSTRESSED BY THE INTENDED SHORING SEQUENCE.

- RESHORING. WHEN REQUIRED, SHALL CONFORM TO ACI SUBMIT PROPOSED RESHORING PLANS TO THE ENGINEER FOR REVIEW
- 25. FINAL SIGNED AND SEALED SHORING AND RESHORING DRAWINGS SHALL BE ISSUED TO THE ENGINEER OF RECORD FOR THE PROJECT AND THE THRESHOLD BUILDING INSPECTOR FOR HIS USE TO ENSURE COMPLIANCE WITH THESE DRAWINGS.
- 26. FORMWORK. CONFORM TO ACI 301, CHAPTER 4.
- 27. REMOVAL OF FORMS.

CONVENTIONALLY REINFORCED CONCRETE: KEEP FORMS SUPPORTING BEAMS AND SLABS IN PLACE UNTIL CONCRETE HAS REACHED 75% OF THE SPECIFIED STRENGTH.

<u>POST-TENSIONED CONCRETE</u>: KEEP FORMS SUPPORTING POST-TENSIONED BEAMS AND SLABS IN PLACE UNTIL TENDONS HAVE BEEN STRESSED.

GROUT, USE NON-SHRINK GROUT FOR PATCHWORK WITH MINIMUM COMPRESSIVE STRENGTH OF 6000 PSI AT 28 DAYS UNLESS NOTED.

IESTING: MAKE ONE TEST FOR EACH 50 CU YD. OR ANY SINGLE POUR, FOR EACH MIX DESIGN PLACED EACH DAY. A "TEST" SHALL BE THE AVERAGE STRENGTHS OF TWO CYLINDERS MADE FROM THE SAME SAMPLE AND TESTED AT THE SPECIFIED AGE. ADDITIONAL CYLINDERS MAY BE MADE FOR INFORMATION FOR POST—TENSIONING, FORM REMOVAL, STRENGTH DEVELOPMENT, OR OTHER PURPOSES. A MINIMUM OF 4 CYLINDERS IS REQUIRED PER TEST.

ACCEPTANCE: CONCRETE IS ACCEPTABLE IF 1) NO TEST FALLS MORE THAN 500 PSI BELOW THE SPECIFIED STRENGTH, AND 2) THE AVERACE OF ALL SETS OF 3 CONSECUTIVE TESTS DOES NOT FALL BELOW THE SPECIFIED STRENGTH. CONCRETE NOT MEETING THE ABOVE CRITERIA MAY BE SUBJECT TO FURTHER TESTING OR REMOVAL AT CONTRACTOR'S EXPENSE.

CONCRETE SLUMP LIMITATIONS.

GROUT: 8" MAXIMUM

CONCRETE CYLINDER AND SLUMP TEST

- a. AT LEAST ONE SET OF CYLINDERS SHALL BE PROVIDED FOR STRENGTH AND ONE SLUMP TEST PER POUR, OR MAXIMUM 50 CUBIC YARDS OF CONCRETE WHICHEVER IS LESS.
- PROVIDE THE FOLLOWING TESTS FOR EACH POUR TO THIS ENGINEER:

  (A) ONE (1) SET OF FIVE (5) CYLINDERS.

  (A) ONE (1) FOR 3 DAY TEST.

  - (B) ONE (1) FOR 7 DAY TEST. (C) TWO (2) FOR 28 DAY TEST.
    (D) ONE (1) SPARE.
- (B) ONE SLUMP TEST.
- c. AT LEAST TWO SETS OF TESTS ARE RECOMMENDED FOR COLUMN POURS.
- ALL EXTERIOR CONCRETE SURFACES SHALL HAVE A LIGHT BROOM FINISH & ALL INTERIOR SURFACES SHALL HAVE A SMOOTH TROWEL FINISH. REFER TO ARCH. DRWGS. FOR SUPPLEMENTAL CONC. FINISHES FOR HARD FLOORING COMPATIBILITY.

### REINFORCED CONCRETE MASONRY:

- HOLLOW MASONRY UNITS SHALL CONFORM TO ASTM C-90, TYPE 1, GRADE N, WITH A MINIMUM AVERAGE CONCRETE STRENGTH ON GROSS AREA OF 1000 P.S.I. (COMP STRENGTH ON NET AREA = Fc' = 1900 PSI). EXCEPTION MASONRY FOR FIRE RATINGS OF 2 HOURS OR MORE
- MORTAR SHALL CONFORM TO ASTM C-476, TYPE "M" WITH A 28-DAY STRENGTH OF 2,500 PSI. GROUT SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF 3000 PSI AND CONFORM TO
- LAY ALL MASONRY WITH FULL FACE HEAD JOINTS AND WITH FACE SHELL MORTAR BEDDING.
- MASONRY ANCHORAGE TO SUPERSTRUCTURE SHALL BE PROVIDED IN ACCORDANCE WITH STRUCTURAL DRAWINGS AND DETAILS.
- THE USE OF ADMIXTURES SHALL NOT BE PERMITTED WITHOUT PRIOR APPROVAL OF THE ENGINEER.

- VERTICAL REINFORCING:

  (A) ASTM A 615-60 PER REINFORCING SECTION.

  (B) WHEN A FOUNDATION DOWEL DOES NOT LINE UP WITH A VERTICAL CORE IT SHALL NOT BE SLOPED MORE THAN ONE HORIZONTAL IN SIX VERTICAL FOR ALIGNMENT, EVEN THOUGH IT IS AN ADJACENT CELL TO THE VERTICAL WALL REINFORCING.
- REINFORCING.

  VERTICAL REINFORCING STEEL SHALL HAVE A MINIMUM CLEARANCE OF ONE—QUARTER INCH FROM THE MASONRY.

  ADDITIONAL VERTICAL REINFORCEMENT IS REQUIRED AT EACH SIDE OF OPENINGS IN WALL, AT WALL INTERSECTIONS, CORNERS AND ENDS. THIS REINFORCING SHALL BE THE SAME SIZE AS THE SCHEDULED WALL REINFORCING FOR THE PARTICULAR WALL BUT NEVER LESS THAN 1 \$5 UNILESS NOTED OTHERWISE. SPECIAL CARE SHALL BE TAKEN TO INSURE THAT CELLS TO BE GROUTED LINE UP PROPERLY.
- TERMINATE ALL VERTICAL REINFORCING INTO HIGHEST CONCRETE OR MASONRY BEAM ABOVE AND PROVIDE HOOK BAR ENDS WHERE FILLED CELL TERMINATES.

- PROVIDE HORIZONTAL CORNER BARS AT ALI MASONRY BEAM INTERSECTIONS. BARS SHALL BE SAME SIZE AND QUANTITY AS BEAM REINFORCING EXTENDING, 30" IN BOTH DIRECTIONS.
- 10. PROVIDE 1/8" WHE REINFORCING LADDER TYPE IN ALL WALLS, 6" O.C VERTICAL IN 8" BLOCK.
- 11. WALL DESIGN IS BASED UPON ACI 530-02 / ASCE 5-02 AND SPECIFICALLY THE ELASTIC ANALYSIS SECTIONS.
- 12. MASONRY SHALL BE CHECKED FOR COMPRESSIVE STRENGTH BASED ON THE PRISM TEST METHOD AS MODIFIED IN CONFORMANCE WITH ACI 530.1-88 ART. 1.6.3.2. PROVIDE A SINGLE TEST SET OF THREE (3) PRISMS FOR EACH 5000 SOUARE FEET OF MASONRY. ONE TEST SHALL BE PERFORMED PRIOR TO CONSTRUCTION
- 13. MASONRY SHALL BE FILLED WITH FINE GROUT TYPE AND TESTED WITH 2" CUBES AT 7 AND 28 DAYS. A MINIMUM OF 4 CUBES IS REQUIRED FOR EACH TEST.
- REFERENCE STANDARDS. FBC, CHAPTER 35. ACI 530.1-02 "SPECIFICATIONS FOR CONCRETE MASONRY CONSTRUCTION.
- 15. ANCHOR ALL MASONRY CONCRETE TO POURED CONCRETE COLUMNS WITH DOVE TAIL ANCHORS OR SERRATED BLOCK TIES FASTENED WITH POWDER ACTUATED FASTENERS AT VERTICAL SPACING TO MATCH THE JOINT
- 16. ALL MASONRY BLOCK SHALL BE FABRICATED IN CONFORMANCE WITH THE FIRE RATED MATERIAL SPECIFICATION. REFER TO ARCHITECTURAL DOCUMENTS FOR RATING REQUIREMENTS.
- ALL SILLS SHALL BE "H" BLOCK, GROUT FILLED, WITH 1-#4 H CONT. EXTENDING 4" MINIMUM INTO GROUT FILLED JAMB CELLS.
- 18. UNLESS OTHERWISE NOTED USE 8"x8" PRECAST CONCRETE LINTELS WITH CAPACITIES CLEARLY PRINTED WITHIN VIEW AS FOLLOWS MINIMUM CAPACITY

FROM 4'-0" 150 PLF 4'-0" 6'-0" 200 PLF 250 PLF 8'-0"

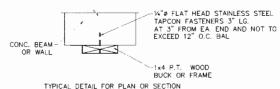
WHEN OPENING IS ADJACENT TO A CONCRETE COLUMN USE 8"v8" POURED IN PLACE LINTEL WITH 2#4 MIDBEAM (6'-0" MAX CLEAR SPAN.) FOR ALL LINTEL HEADERS GREATER THAN 8'-0" LONG, HANG MASONRY OR FILL CONCRETE WITH #3 VERT. BARS AT 24" O.C. THROUGH A 3"0 SLEEVE L CONCRETE WITH #3 VERT. BARS AT 24" O.C. THROUGH A SLAB ABOVE. PLACE 1—#5 HORIZ. FOR FULL SPAN LENGTH

### FOUNDATION AND CONCRETE SLAB ON FILL:

- ALL SLABS ON FILL SHALL BE PLACED ON CLEAN, NON-ORGANIC FILL.
- FILL SHALL BE THOROUGHLT MOTO IS PLACED AS DESCRIBED BELOW. SHALL BE THOROUGHLY MOISTENED IMMEDIATELY BEFORE CONCRETE
- COLUMNS, BEAMS, WALLS, OR ANY OTHER STRUCTURAL MEMBER PENETRATING SLABS ON FILL SHALL BE ISOLATED BY PREMOLDED JOINT FILLER (1/2" THICK) COMPLYING WITH ASTM D 1752, TYPE
- SLABS SHALL BE SAWCUT, DAY OF POUR, IN A "CHECKERBOARD PATTERN"
- AT 15'x15' MAX. IN ALL FLOATING SLABS ON GRADE, OR AS SHOWN ON PLAN.
- ALL SLABS ON GRADE SHALL BE REINFORCED WITH FIBRILLATED POLYPROPYLENE FIBERS IN THE CONCRETE MIX AT A PROPORTION OF 11/2 POUNDS PER CUBIC YARD. ALTERNATIVELY, REINFORCE WITH WELDED WIRE FABRIC 6x6-W1.4x1.4
- CENTER ALL FOOTINGS ON WALLS, PIER, OR COLUMN ABOVE, UNLESS OTHERWISE INDICATED.
- ALL PLATES, ANGLES AND MISCELLANEOUS METAL ITEMS TO BE EMBEDDED IN CONCRETE SHALL BE SECURELY AND ACCURATELY FASTENED TO THE CONCRETE FORM WORK BY A MINIMUM OF TWO (2) FASTENERS PRIOR TO CONCRETE PLACEMENT.
- FILL MATERIAL SHALL BE PLACED IN LIFTS NOT TO EXCEED 12" AND COMPACTED TO 98% STANDARD PROCTOR (ASTM D 698, LATEST EDITION) AT COMPACIED TO 98% SIANDARD PROCIOR (ASIM D 598, LATEST EDITION) AT OPTIMUM MOISTURE CONTENT WITHIN A DISTANCE OF 5"-0" BEYOND ALL FOOTING EDGES. AT LEAST ONE FIELD DENSITY TEST SHALL BE PERFORMED FOR EACH 2500 SOUARE FFET OF AREA. DENSITY TEST SARE TO BE MADE 12" BELOW THE COMPACIED SURFACE. RESULTS OF PROCTOR TEST(S) SHALL BE FURNISHED TO THIS ENGINEER. REFER TO GEOTECHNICAL EXPLORATION PROJECT # 07-21-6719
- # 07-21-6719

  THE FOUNDATION SHALL BE PREPARED TO PERFORM WITH A SAFE SOIL BEARING CAPACITY OF 2500 PSF. THE PREPARATION MUST COMPLY WITH THE GEOTECHNICAL INVESTIGATION REPORT SUBMITTED BY DUNKKELBERGER ENGINEERING & TESTING, INC. , PROJECT # 07-21-6719, DATE: AUGST 1, 2007.

  VERIFY THAT PREPARATION IS SATISFACTORY TO OBTAIN THE REQUIRED BEARING VALUE WITH MINIMAL DIFFERENTIAL SETTLEMENT. CERTIFICATION SHALL BE PREPARED BY A REGISTERED PROFESSIONAL ENGINEER & SHALL BE PROVIDED TO CONSULTANT PRIOR TO BEGINNING FOUNDATION WORK.
- ALL EXTERIOR CONCRETE SURFACES SHALL HAVE A LIGHT BROOM FINISH AND ALL INTERIOR SURFACES SHALL HAVE A SMOOTH TROWEL FINISH, REFER TO ARCH. DRWG. FOR SUPPLEMENTAL CONC. FINISHES FOR HARD FLOORING COMPATIBILITY.
- EXTERIOR WALL EDGES TO BE RECESSED 34"x8" IN TOP OF SLAB. (U.N.O.)
- SOIL WITHIN BUILDING EXTENTS SHALL BE TREATED FOR TERMITES, CERTIFICATE OF PROTECTIVE TREATMENT SHALL BE POSTED ON SITE IN ACCORDANCE WITH FBC 104.2.6.
- 14. DEPRESS SLABS ON GRADE FOR FLOOR FINISHES AS PER ARCH DRAWINGS.
- MIN. STEEL CONCRETE COVER TO BE 3" FOR ALL FOUNDATION STRUCTURAL.



AT ROUGH WINDOW OR DOOR OPENING TYPICAL BUCK DETAIL

### STRUCTURAL STEEL

- STRUCTURAL STL CONSTR. SHALL CONFORM WITH THE REQUIREMENTS OF THE "AISC'S SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCT. STEEL FOR BUILDINGS", LATEST EDITION.

  15. REFER TO ARCHITECTURAL PLANS FOR FIREPROOFING OF STRUCTURAL STEEL MEMBERS.
- STRUCTURAL STEEL PLACEMENT DRAWINGS AND MATERIAL LISTS SHALL CONFORM TO AISC'S "STRUCTURAL STEEL DETAILING", LATEST EDITION. SHOP DIRAWINGS SHALL BE RREPARED UNDER THE SUPERVISION OF A REGISTERED ENGINEER & SUBMITTED FOR REVIEW PRIOR TO FABRICATION. (ONE PAPER SEPIA AND ONE PRINT OF EACH DRAWING.).
- ALL STRUCTURAL STEEL MEMBERS AND MISC. METALS SHALL CONFORM WITH THE FOLLOWING UNLESS OTHERWISE NOTED:

| STRUCTURAL SHAPE                 | ASTM SPECIFICATIONS                      | MIN FY (KSI) |
|----------------------------------|--|--------------|
| WSHAPE                           | A572                                     | 50           |
| CHANNEL                          | A36                                      | 36           |
| ANGLES                           | A36                                      | 36           |
| SQUARE AND<br>RECTANGULAR H.S.S. | A500, GRADE B                            | 46           |
| ROUND H.S.S.                     | A500, GRADE B                            | 42           |
| PLATE AND BARS                   | A36                                      | 36           |
| ANCHOR BOLTS                     | F 1554 WITH WELDABILITY<br>SUPPLEMENT SI | 55           |
|                                  | A 307, TENSILE STRENGTH                  | 50 KSI       |

- 4. ALL SHOP AND FIELD WELDING SHALL CONFORM TO THE LATEST THE AMERICAN WELDING SOCIETY (AWS). USE ELECTRODES
  CONFORMING TO AWS D1.1, E70 SERIES, U.O.N. SHOW ALL SHOP WELDS ON THE FABRICATION DRAWINGS AND ALL FIELD WELDS ON THE ERECTION DRAWINGS.
- ALL SHOP AND FIELD WELDERS, WELDING OPERATORS, AND TACKERS SHALL BE CERTIFIED ACCORDING TO AWS PROCEDURES FOR THE WELDING PROCESS AND WELDING POSITION USED.
- ALL JOINT WELDING PROCEDURES TO BE USED SHALL BE PREPARED BY THE FABRICATOR OR CONTRACTOR AS WRITTEN PROCEDURE SPECIFICATIONS. ALL JOINT WELDING PROCEDURES SHALL BE QUALIFIED PRIOR TO USE ACCORDING TO AWS PROCEDURES. PROPER DOCUMENTED EVIDENCE OF QUALIFICATION TESTS SHALL BE MAINTAINED BY THE CONTRACTOR.
- BOLTED CONNECTIONS SHALL BE MADE WITH A-325 BOLTS AS INDICATED, UNLESS OTHERWISE NOTED.
- A.) A-325 BOLTS SHALL CONFORM TO ASTM A-325 TYPE 1, HIGH STRENGTH BOLTS FOR STRUCTURAL STEEL JOINTS. NUTS SHALL CONFORM TO ASTM A-563.
- B.) USE HARDENED STEEL WASHERS CONFORMING TO ASTM F436 IN ALL CONNECTIONS REQUIRING A325 BOLTS. PLACE HARDENED STEEL WASHERS UNDER THE PART BEING TURNED AND UNDER BOLTS, NUTS AND/OR DIRECT TENSION INDICATORS BEARING ON OUTER PLIES OF STEEL HAVING OVERSIZE OR SHORT SLOTTED HOLES
- C.) ALL BOLTS SHALL BE NEW. DO NOT REUSE BOLTS. USE ONLY NON-GALVANIZED NUTS AND BOLTS THAT ARE CLEAN, RUST-FREE WELL LUBRICATED
- D.) BEARING TYPE BOLTS (A-325 N OR X) SHALL BE TIGHTENED BY AND THE TURN-OF-THE-NUT METHOD.
- E.) FRICTION TYPE BOLTS (A-325F) SHALL BE USED IN SUP-CRITICAL CONNECTIONS AND SHALL BE TIGHTENED TO THE MINIMUM FASTENER TENSION INDICATED IN "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A-325 OR ASTM A-490 BOLTS", SECTION 8, TABLE 4.
- F.) ALL FASTENERS, INCLUDING TENSION CONTROL FASTENERS, ARE SUBJECT TO FIELD VERIFICATION AND INSPECTION AND MUST BE ACCOMPANIED BY MANUFACTURERS CERTIFICATES.
- 8. THE NUMBER OF BOLTS REQUIRED FOR FIELD BEAM END
- CONNECTIONS SHALL BE A MINIMUM OF THE FOLLOWIN A.) NUMBER OF BOLTS SPECIFICALLY INDICATED BY NUMBER, SIZE AND TYPE ON PLANS AND DETAILS.
- B.) NUMBER OF BOLTS DETERMINED AS PER PLANS.
- C.) NUMBER SPECIFIED BY THE SPECIALTY ENGINEER (WHERE APPLICABLE).
- D.) USE A MINIMUM OF (2)—"4" DIAMETER A-325 BOLTS FOR ALL STRUCTURAL CONNECTIONS, EXCEPT WHERE ONLY ONE BOLT IS SPECIFIED FOR PARTICULAR CONNECTIONS. SHOP DRAWINGS SHALL CLEARLY SHOW THE TYPE OF BOLT USED IN EACH CONNECTION AND THE ALLOWABLE VALUES USED FOR EACH BOLT TYPE
- CONNECTIONS NOT COMPLETELY DETAILED ON STRUCTURAL DRAWINGS SHALL BE DESIGNED AND DETAILED BY FABRICATOR'S SPECIALTY ENGINEER ACCORDING TO AISC SPECIFICATIONS AND THE SPECIFIED LOADS AND IN COMPLIANCE WITH PARAGRAPHS 7 AND 8 OF
- 10 CUT DRILL OR PLINCH HOLES PERPENDICULAR TO METAL SURFACES. DO NOT FLAME CUT HOLES OR ENLARGE HOLES BY
- 11. SPLICING OF STRUCTURAL STEEL MEMBERS IN THE FIELD OR IN THE SHOP IS PROHIBITED EXCEPT WHERE INDICATED ON THE DRAWINGS.
- 12. FABRICATE AND ASSEMBLE STRUCTURAL COMPONENTS IN SHOP FABRICATE AND ASSEMBLE STRUCTURAL COMPONENTS IN SHOP TO THE GREATEST EXTENT POSSIBLE. FABRICATE ITEMS OF STRUCTURAL STEEL IN ACCORDANCE WITH AISC SPECIFICATION AND AS INDICATED ON FINAL SHOP DRAWINGS. FABRICATOR SHALL COORDINATE JOINT FIT—UP PROCEDLESS WITH ERECTOR. CONTRACTOR IS TO COORDINATE PROVISION OF ALL ERECTION BOLTS, LIFTING LUGS OR OTHER DEVICES REQUIRED FOR ERECTION WITH THE FABRICATOR AND THE ERECTOR.
- 13. PROPERLY MARK AND MATCH-MARK MATERIALS FOR FIELD ASSEMBLY FABRICATE FOR DELIVERY SEQUENCE, WHICH WILL EXPEDITE ERECTION AND MINIMIZE FIELD HANDLING OF MATERIALS.
- USE 34" DIAMETER WELDED STEEL STUDS @ 12" O/C MAXIMUM FOR ALL COMPOSITE STEEL JOISTS, U.O.N. LENGTHS OF STUDS SHALL CONFORM TO THE REQUIREMENTS OF COMMENTARY ON THE AISC SPECIFICATION, SECTION 15 FIGURE C-15.1. STUDS SHALL BE WELDED THROUGH THE STEEL DECK AS SPECIFIED IN AWS D1.1, SECTION 4,
- 15. REFER TO ARCHITECTURAL PLANS FOR FIREPROOFING OF STRUCTURAL STEEL MEMBERS.

- FOR MISCELLANFOUS STEEL NOT SHOWN ON STRUCTURAL DRAWINGS, SEE ARCHITECTURAL AND MECHANICAL DRAWINGS.
- ADHESIVES USED IN CONCRETE ELEMENTS TO ANCHOR STEEL ADHESIVES USED IN CONCRETE ELEMENTS TO ANNOUR SIEEL THREADED RODS, BOLTS, OR DEFORMED STEEL REINFORCING BARS SUBJECT TO LONG—TERM SUSTAINED TENSILE LOADS SHALL BE TESTED FOR CREEP AND QUALIFIED TO RESIST THE IMPOSED LONG TERM LOADS IN ACCORDANCE WITH THE INTERNATIONAL CODE COUNCIL EVALUATION SERVICE, INC. (ICC-ES) ACCEPTANCE CRITERIA ICC-ES AC58 OR ICC-ES AC308. ALSO, ANCHOR ADHESIVES INSTALLED IN CONCRETE IN TENSION ZONE SHALL BE QUALIFIED TO CONCRETE IN TENSION ZONE SHALL BE QUALIFIED TO RESIST THE IMPOSED LOADS IN SUCH CONDITION PER AC-308. ACCEPTABLE PRODUCT IS HILLT HIT-RE 500-SD OR EQUAL AS DESCRIBED HEREIN. ANCHOR ADHESIVES IN SUSTAINED TENSILE—LOAD OVERHEAD APPLICATIONS SHALL NOT BE PERMITTED IN ANY CASE, ANCHOR ADHESIVES MAY NOT BE USED TO RESIST, VIBRATORY, CYCLIC OR SHOCK LOADS UNLESS OTHERWISE SPECIFIED.
- 18. INSTALLATION OF ADHESIVE ANCHOR SYSTEMS SHALL STRICTLY FOLLOW THE MANUFACTURER INSTRUCTIONS, INSTALLATION PROCEDURES AND CONDITIONS OF USE DESCRIBED IN THE PRODUCT'S CORRESPONDING ICC-ES EVALUATION REPORT.
- DESCRIBED IN THE PRODUCTS CORRESPONDING ICCES
  EVALUATION REPORT.

  ANCHORS ARE NOT PERMITTED TO SUPPORT FIRE—
  RESISTANCE—RATED CONSTRUCTION. WHERE NOT OTHERWISE
  PROHIBITED BY THE CODE, ANCHORS ARE PERMITTED FOR
  INSTALLATION IN FIRE—RESISTANCE—RATED CONSTRUCTION
  PROVIDED THAT AT LEAST ONE OF THE FOLLOWING
  CONDITIONS IS FULFILLED:

  A. ANCHORS ARE USED TO RESIST WIND OR SEISMIC
  FORCES ONLY, OR

  B. ANCHORS THAT SUPPORT GRAVITY LOAD BEARING
  STRUCTURAL ELEMENTS ARE
  WITHIN A FIRE—RESISTANCE—RATED ENVELOPE OR A FIRE—
  RESISTANCE—RATED MEMBRANE, ARE PROTECTED BY
  APPROVED FIRE—RESISTANCE—RATED MATERIALS, OR HAVE
  BEEN EVALUATED FOR RESISTANCE TO FIRE EXPOSURE IN
  ACCORDANCE WITH RECOGNIZED STANDARDS.

### 20. STEEL ROOF DECK

- A. USE 11/2" DEEP WIDE RIB (TYPE B) STEEL DECK UNITS, FORMED OF 22 GAGE STEEL SHEETS CONFORMING TO ASTM A-446 HAVING A MIN. YIELD POINT OF 33 KSI, WITH A PROTECTIVE COATING OF ZINC CONFORMING TO ASTM A-525, G90.
- DESIGN AND MANUFACTURE THE DECK IN ACCORDANCE WITH THE "SPECIFICATIONS FOR DESIGN OF LIGHT GAGE COLD-FORMED STL. STRUCTURAL MEMBERS", AND CONFORM TO THE STEEL DECK INSTITUTE'S RECOMMENDED SPECIFICATIONS.
- ROOF DECKS SHALL BE EASTENED TO PERFORM AS HORIZONTAL DIAPHRAGM AS SHOWN ON THE PLAN
- PROVIDE DECK REINFORCING AT ALL ROOF OPENINGS UP TO  $12^{\prime\prime}$  AS INDICATED ON ARCHITECTURAL AND MECHANICAL DRAWINGS.
- FRAME ROOF OPENINGS LARGER THAN 12" x 12" WITH C 5x6.7 SADDLES UNLESS OTHERWISE NOTED.
- TOPS OF ROOF MEMBERS SUPPORTING STEEL JOISTS ARE 21/2" FOR K SERIES AND 5" FOR LH & DLH SERIES BELOW UNDERSIDE OF ROOF DECK UNLESS NOTED OTHERWISE.
- ALLOW FOR REINFORCING AT ALL ROOF OPENINGS UP TO 12" AS INDICATED ON ARCHITECTURAL AND MECHANICAL DRAWINGS.
- FRAME ROOF OPENINGS LARGER THAN 12" x 12" WITH C 5x6.7 SADDLES UNLESS OTHERWISE NOTED. ROOF DECK SHALL BE METAL 22 GAUGE, TYPE "B", PAINTED 1 1/2 ± CORR, (U.N.C.) BY "VULCRAFT" OR EQUAL ROOF DECKS SHALL BE FASTENED TO PERFORM AS HORIZONTAL DIAPHRAGM AS SHOWN ON PLAN.

### LIGHT GAGE COLD FORMED STEEL FRAMING (CFS)

- DESIGN, DETAIL, FABRICATE AND ERECT EXTERIOR STUD CONSTRUCTION IN ACCORDANCE WITH THE FLORIDA BUILDING CODE, LATEST EDITION AND AMERICAN IRON AND STEEL INSTITUTE
- STEEL STUD SYSTEM SHALL SAFELY WITHSTAND ALL LOADS SPECIFIED IN THE FLORIDA BUILDING CODE, INCLUDING WIND FORCES. DESIGN THE STEEL STUD SYSTEM SO AS TO LIMIT THE DEFLECTION TO L/360 MAX.
- SUBMIT COMPLETE SHOP DRAWINGS AND CALCULATIONS SHOWING METHOD OF FABRICATION, ERECTION PROCEDURES, ATTACHMENT OF THE SYSTEM TO THE BUILDING, JOINTS, CONNECTIONS AND FRAMING. CALCULATIONS AND SHOP DRAWINGS SHALL BE PREPARED, SIGNED AND SEALED BY A SPECIALTY ENGINEER. SEE SHOP DRAWINGS REQUIRING FROINDERS IN INDIT BY A SPECIAL ENGINEER SUBMIT CATALOG DATA FOR ALL STUDS AND CONNECTORS INDICATING ALLOWABLE WORKING LOADS AND SUBSTANTIATED BY A NATIONALLY RECOGNIZED AUTHORITY. GENERIC DATA WILL NOT BE ACCEPTED. ALL WELDING TO BE DONE BY CERTIFIED WELDERS.
- USE MIN. 6" SIZE AND MIN. 18 GAGE GALVANIZED STEEL "WC" STUDS FOR EXTERIOR WALLS UNLESS OTHERWISE NOTED.
- MAX. SPACING OF LATERAL BRIDGING FOR CFS STUDS SHALL BE 5'-0" FOR SPANS TEN (10) FEET OR GREATER AND MIDSPAN FOR SHORTER SPANS. LATERAL BRIDGING SHALL ALSO BE PROVIDED AT FREE ENDS OF CANTILEVERED PARAPETS AND NEAR THE SUPPORTS OF CONTINUOUS SPANS.
- CONNECTIONS TO STRUCTURAL FRAMING SHALL BE CAPABLE OF WITHSTANDING A MIN. 500 POUNDS FORCE IN ANY DIRECTION, BUT NOT LESS THAN THAT REQUIRED BY CALCULATIONS. CONNECT LCS FRAMING TO STRUCTURAL FRAME SO AS TO MINIMIZE INTRODUCTION OF FLEXTURAL AND TENSIONAL FORCES IN STRUCTURAL MEMBERS PROMDE STRUTS, KNEE BRACING, ETC., TO STABILIZE CFS FRAMING AS REQUIRED. REQUIRED.

MEGUINED.

DOOR AND WINDOW SILLS, HEADERS AND JAMBS SHALL BE DESIGN
TO RESIST WIND FORCES ON TRIBUTARY WINDOWS AND DOORS AND
TRANSMIT THESE FORCES TO STRUCTURAL CONCRETE, AND SPE
FRAMING, UMIT DEFLECTIONS, SO AS NOT TO JAMAGE CONNECTING
ADJACENT ELEMENTS AND JOINT SEALANTS.

LIGHT GAGE STEEL FRAMING DETAILS SHOWN F

LAWRENCE DeROSE, P.E LICENSED ENGINEER NO. 20169 STATE OF FLORIDA i.

DATE:
PROJ.# 07047
©ALL RIGHTS RESERVED

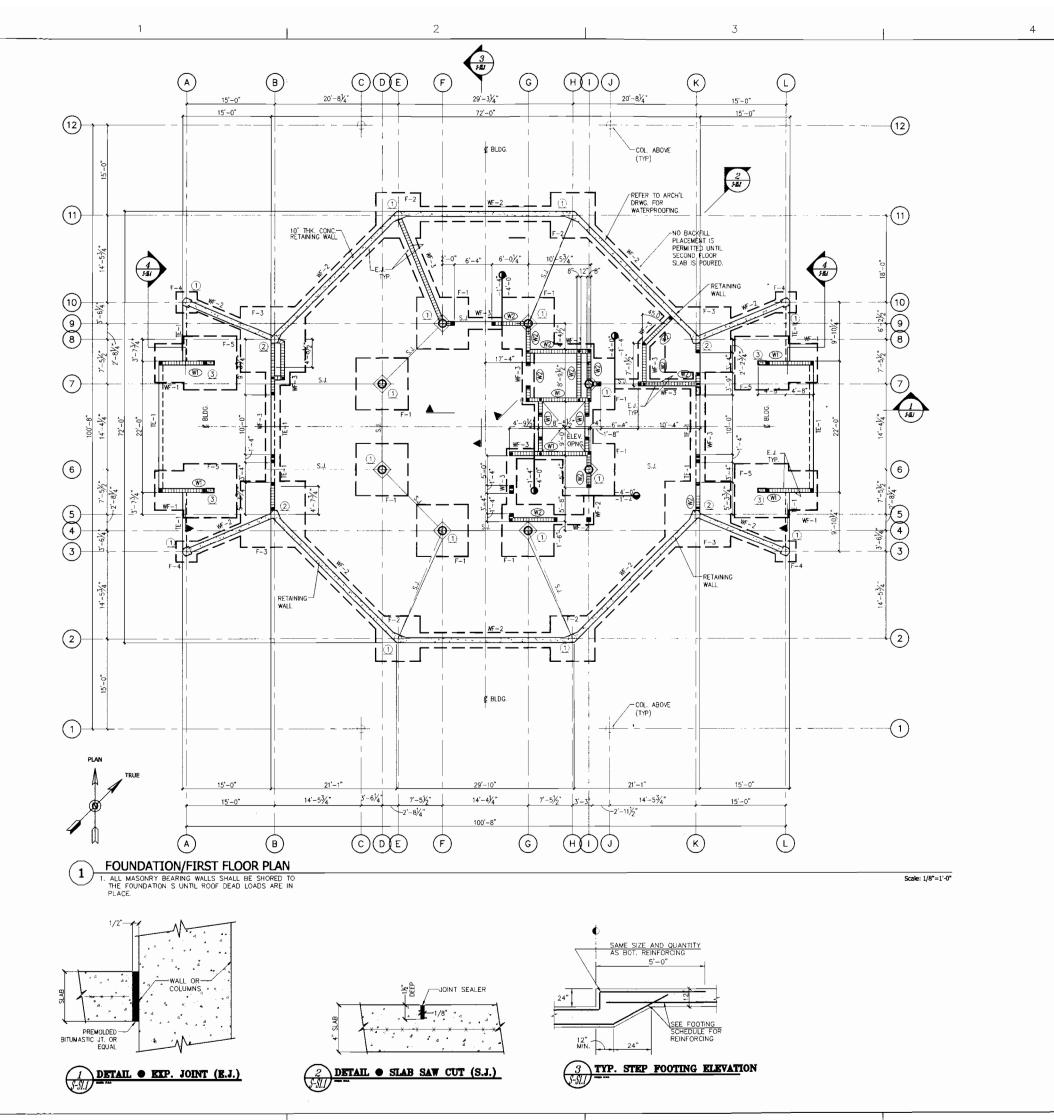
Village of ROYAL PALM
BEACH
ONE FLORIDATION

Designed:

**—**e

LAND PLANSAIN - CIVIL - STRUCTURY CTO & AMERICAN AVAILABLE STATE STATE STATE STATE STATE STATE ASSOCIATION OF THE PROPERTY OF TH

PB NO: EN-PR070 Sheet Reference Number S-S0.2 Sheet 2\_ of 11



FOOTING SCHEDULE REINFORCING REMARKS SIZE (W X D) (7)-#8 EA. WAY, BOTTOM P=228 K 9'-6" S0. X 20" F-1 P=123 K F-2 7'-0" SQ. X 16" (6)-#6 EA. WAY, BOTTOM F-3 11'-0" SQ. X 24" (8)-#8 EA. WAY, BOTTOM P=290 K 3'- 6" SQ. X 16" (4)-#5 EA. WAY, BOTTOM P=31 K F-5 9'-0" SQ. X 20" (7)-#7 EA. WAY, BOTTOM P=199.25 K WF-1 78" x 16" #5 @ 10" O.C. TRANSVERSE (5)-#7 CONT. WF-2 30" x 16" #6 @ 16" O.C. TRANSVERSE (3)-#5 CONT. ₩F-3 24" x 12" (2)-#5 CONT. TE-1 8" x 8" (1)-#5 CONT. POUR MONOLITHIC W/ SLAB (2)-#5 CONT. T&B W/ #3 STIRR. @ 24" OC TE-2 30" x 20"

| COLUMN SCHEDULE |                    |  |   |                              |  |  |  |
|-----------------|--------------------|--|---|------------------------------|--|--|--|
| COL.            | SIZE               | VÉRTICAL REINF'G<br>OR CAP PL &<br>BOLTS | COLUMN TIES OR<br>BASE PL & A.<br>BOLTS | REMARKS                      |  |  |  |
| 1               | 16" DIA            | (5)-#6                                   | #3 <b>@</b> 12" OC                      | CONCRETE COLUMN              |  |  |  |
| 2               | 16" DIA            | (6)-#11                                  | #3 <b>@</b> 16" OC                      | CONCRETE COLUMN              |  |  |  |
| 3               | 8" X 24"           | (6)-#7                                   | #3 <b>⊕</b> 8" OC                       | CONCRETE COLUMN              |  |  |  |
| 4               | 4" X 4" x 1/4"     | ₱ 10"x10"x3/8" W/<br>(4)-5/8" DIA ABx12" |   | EI O BIO O BREITTEIM SOLUMIN |  |  |  |
|                 | COLUMN MARK LEGEND |  |   |                              |  |  |  |
|                 | +10'-0" = COL      | UMN BELOW WITH ELEVATION                 | = COLUMN A                              | BOVE                         |  |  |  |
|                 | 0                  | UMN BELOW<br>UMN THROUGH                 | +10'-0" = COLUMN A                      | BOVE WITH ELEVATION          |  |  |  |

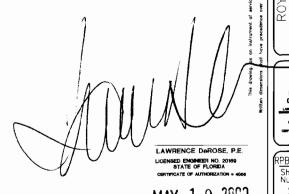


### **FOUNDATION PLAN NOTES:**

- 1. . INDICATES AN ADDITIONAL #5 VERTICAL IN FILLED CELL (UNO).
- FLOOR SHALL BE A 4" CONCRETE SLAB W/ 6x6-W1.4XW1.4 W.W.F. ON A 6 MIL VAPOR BARRIER ON WELL COMPACTED TERMITE TREATED SOIL.
- 3. IIIII INDICATES RUNNING BOND COMMON BLOCK.
- 4. INDICATES 10" POURED CONCRETE WALL
- 5. SEE PLAN FOR MASONRY WALL REINFORCING.
- 6. S.J. INDICATES SAW JOINT. SEE DETAIL 2 THIS SHEET.
- FOOTINGS ARE PROPORTIONED FOR AN ALLOWABLE BEARING CAPACITY OF 2500 PSF.
- 8. REFER TO ARCH. DRAWINGS FOR WINDOW & DOOR OPENING DIMENSIONS & LOCATIONS.
- 9. TOP OF FOOTINGS SHALL BE -1'-4" BELOW T/SLAB ELEV. 0'-0" (U.N.O.)
- 10. REFER TO FOUNDATION AND CONCRETE SLAB ON FILL NOTES ON SHT. S-0.2

### MASONRY WALL LEGEND

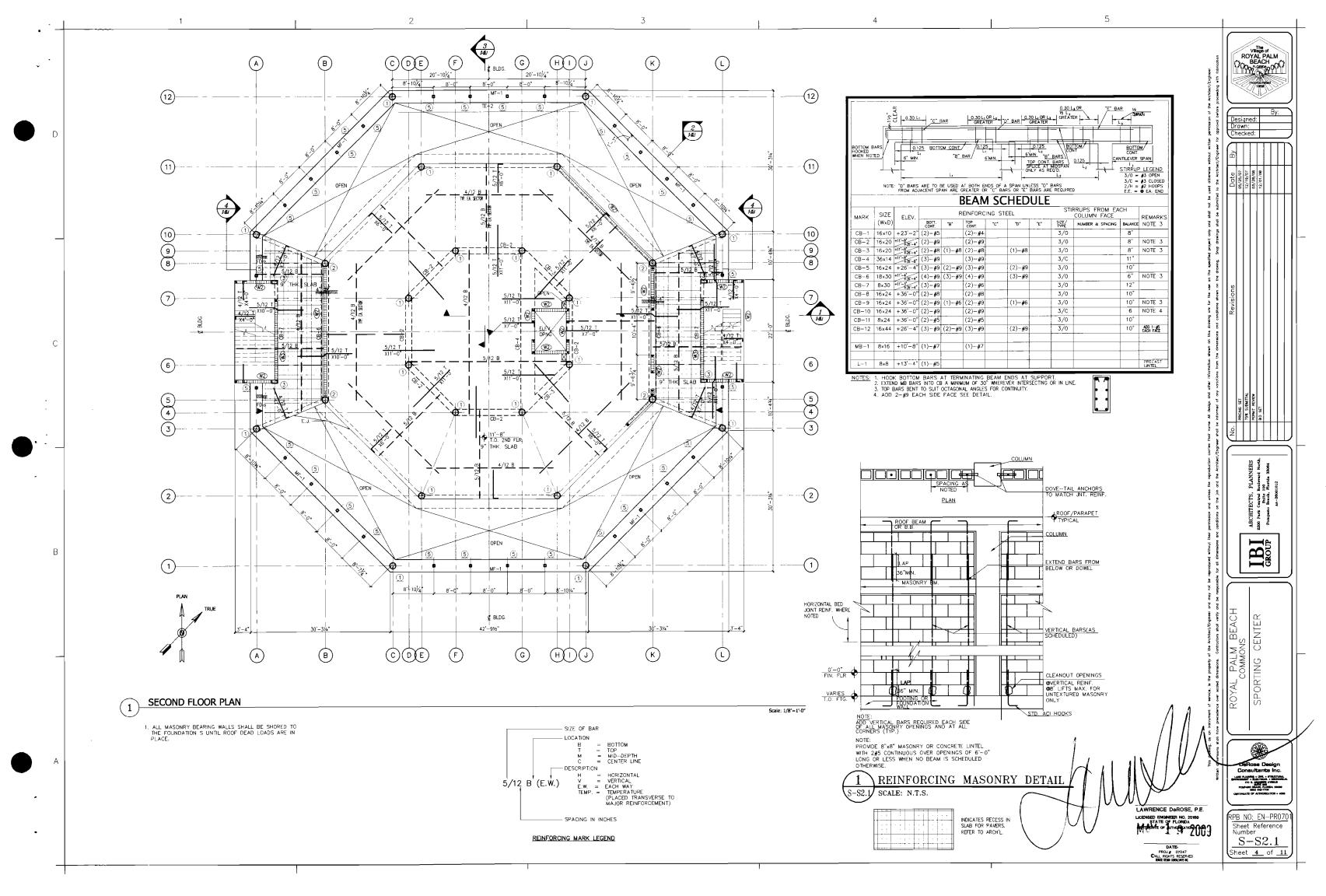
- (W1) INDICATES 1-#5 @ 8" O.C. IN GROUT FILLED CELLS.
- W2 INDICATES 1-#5 48" O.C. IN GROUT FILLED CELLS.
- W3 INDICATES 1-#5 16" O.C. IN GROUT FILLED CELLS.
- W4 INDICATES 1-#5 @ 32" O.C. IN GROUT FILLED CELLS.

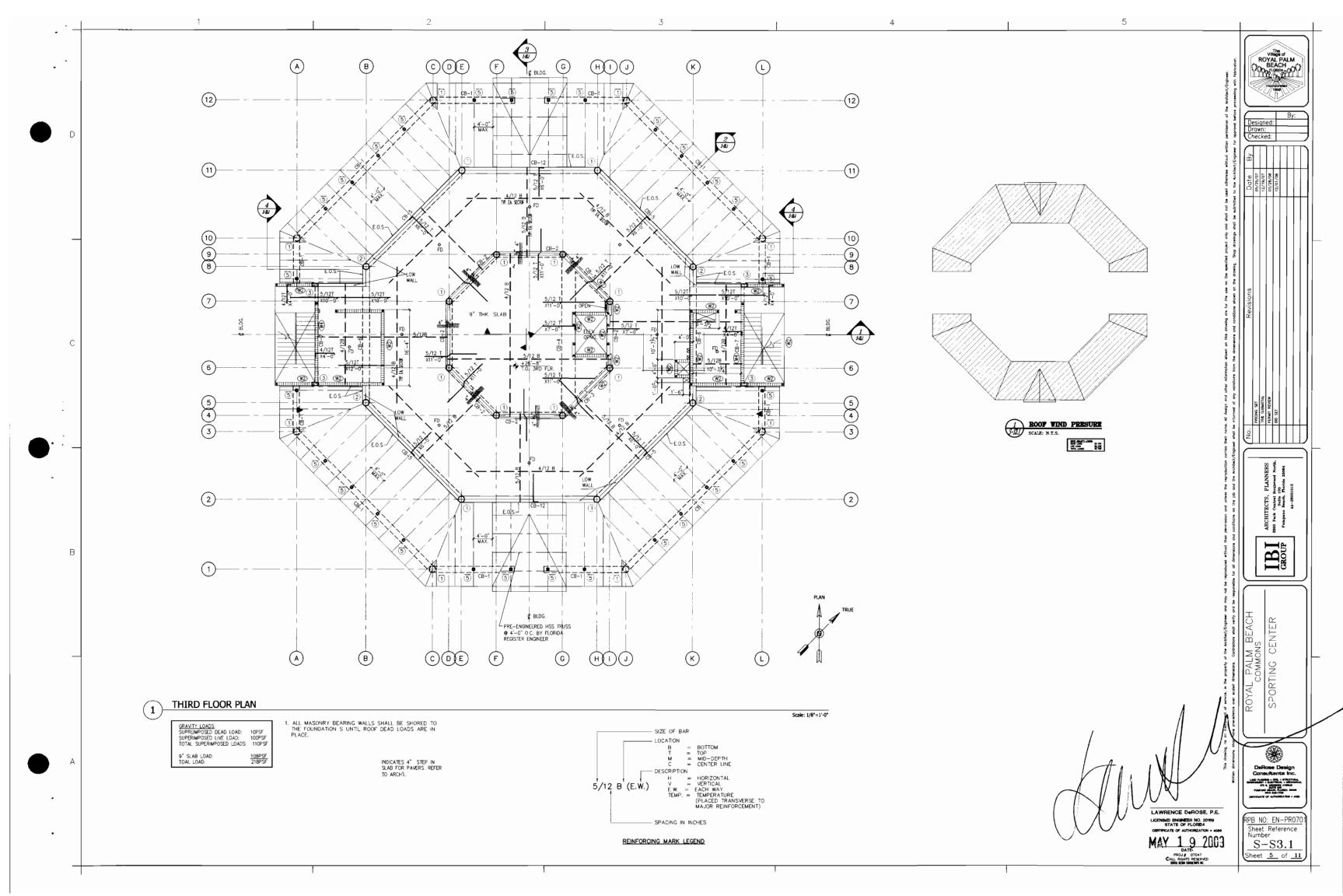


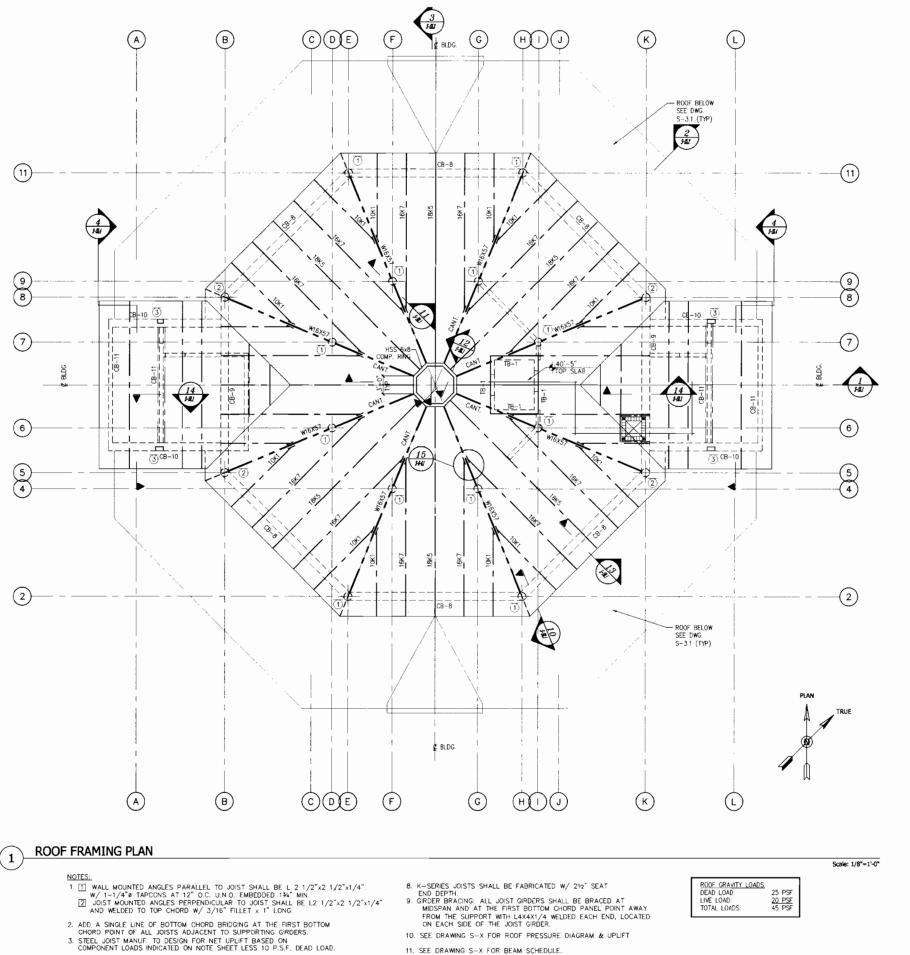
Sheet Reference Number S-S1.1

IBI

RPB NO: EN-PRO70 Sheet <u>3</u> of <u>11</u>

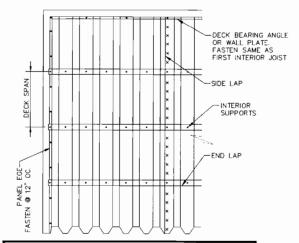






5

## ROOF WIND PRESURE SCALE: N.T.S.



| DENOTES 5/8" MIN. WELD     AT SUPPORTS  | 4 PER 36"  | 6" O.C. |
|---|------------|---------|
| × DENOTES #10 TEK SCREW SIDE<br>LAP FASTNERS  | 9 PER SPAN | 6" O.C. |
| 1 ½" CORRUGATED STL. ROOF DECK<br>SHALL BE 22 GA. "VULCRAFT" GALV.<br>1.5 B22 OR EQUAL. |            |         |

NOTE: CORRUGATED METAL SHALL BE 1/2" 20 GAGE ECONO-LAP

2 MTL ROOF DIAPHRAGM FASTENING LAYOUT SCALE: N.T.S.

ROYAL PALM
REACH

IBI



LAWRENCE DeROSE, P.E. LICENSED ENGINEER NO. 20169 STATE OF FLORIDA CERTIFICATE OF AUTHORIZATION • 400 MAY 1 Q 2003 PROJE J 07047 OAUL RICHTS RESERVED BOOK EDON CORUMN K

CONTROLLEGATES INC.

LASS PLANSING - CHILL - FRECTURAL

FOR AND BEACH ROMER

FOR AND BEACH ROMER

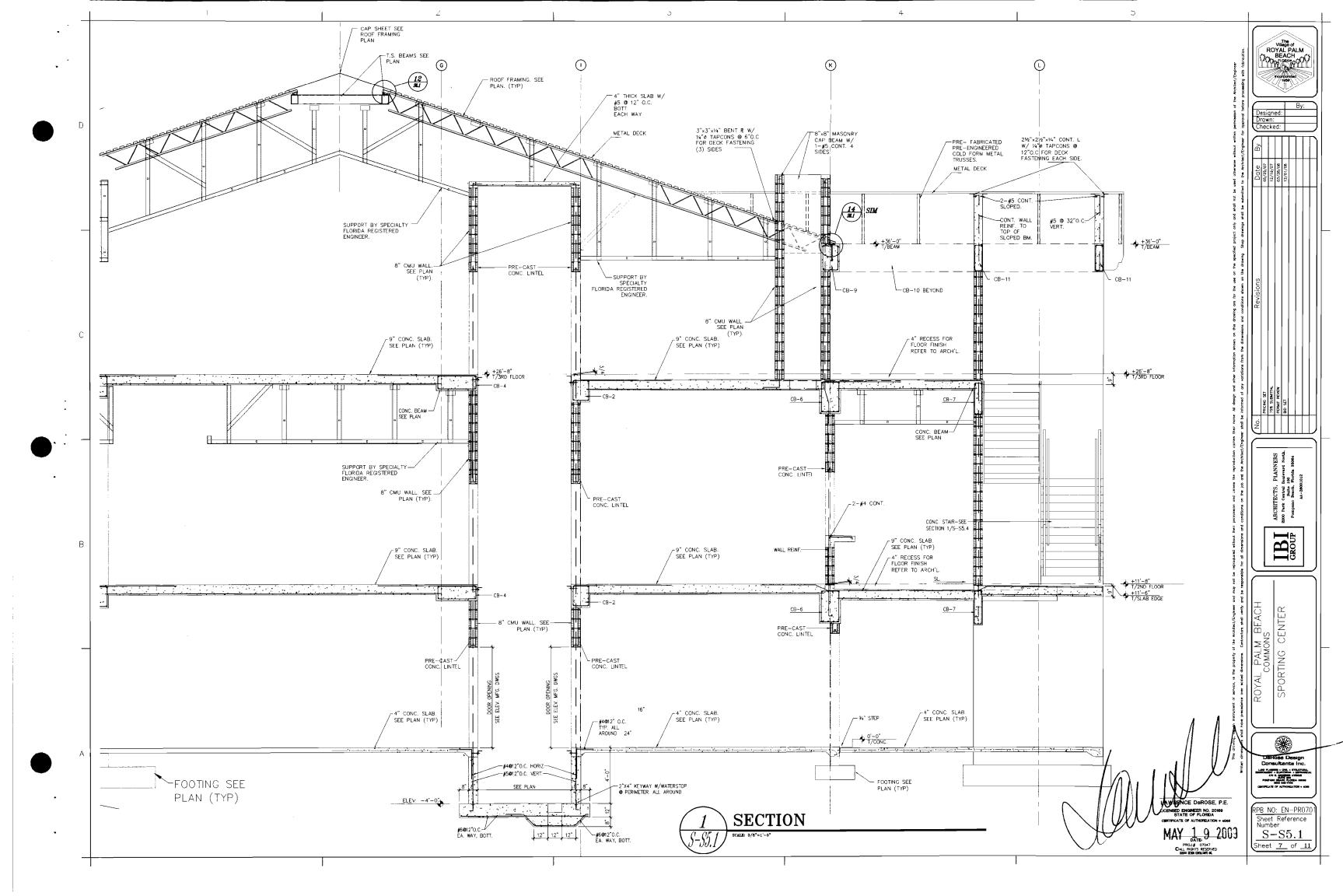
BEACH RATIONS

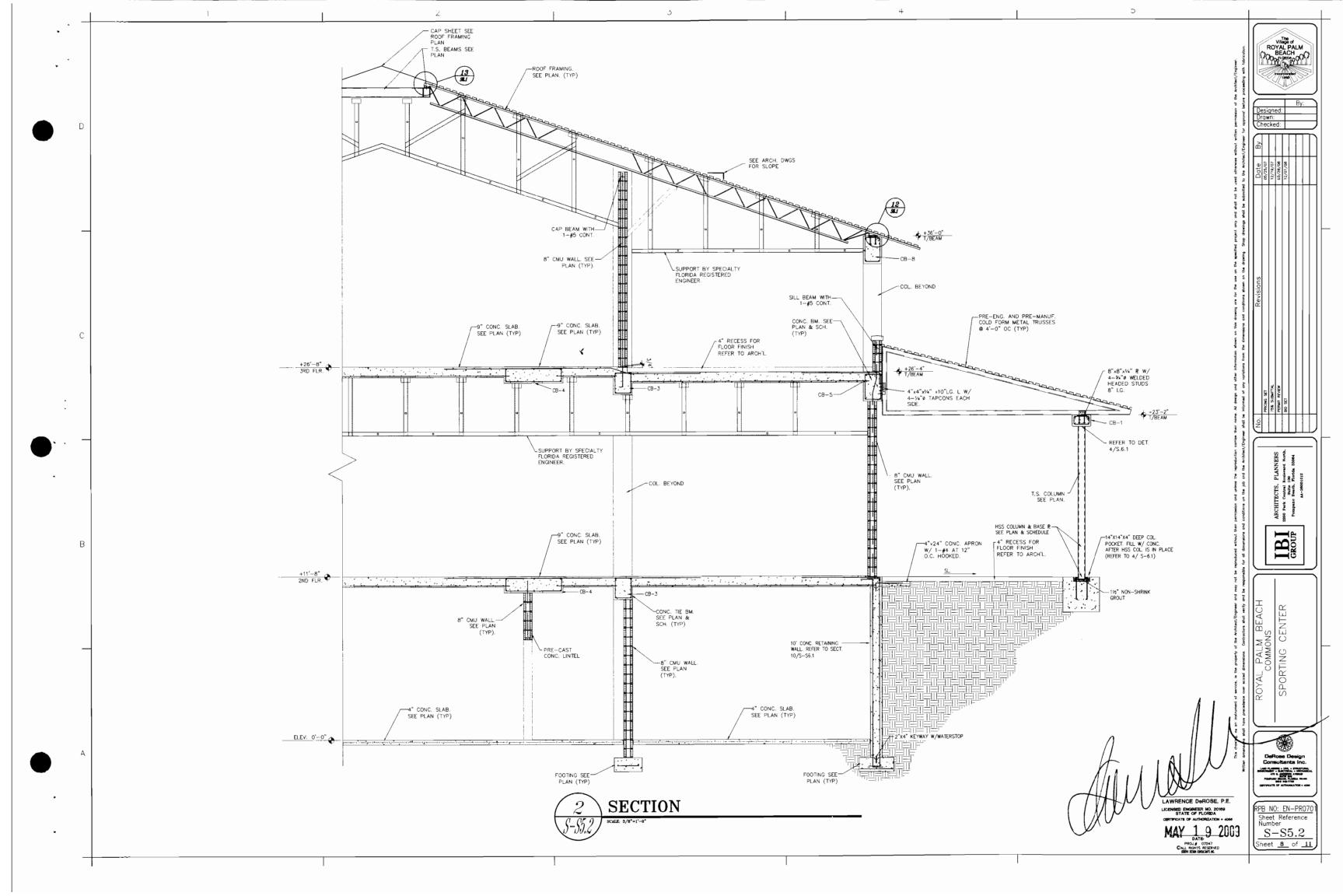
RPB NO: EN-PR070 Sheet Reference Number S-S4.1 Sheet <u>6</u> of <u>11</u>

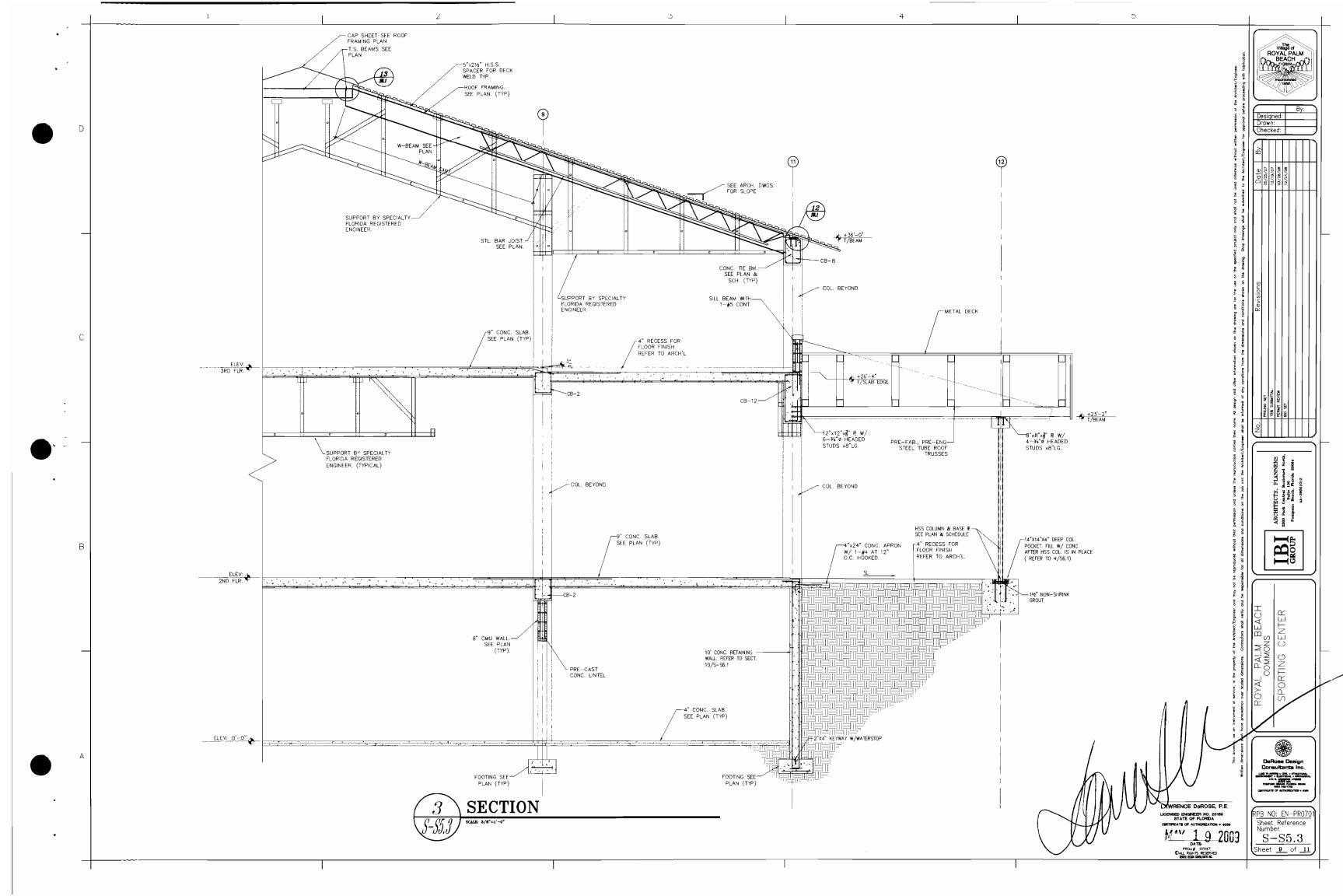
11. SEE DRAWING S-X FOR BEAM SCHEDULE.

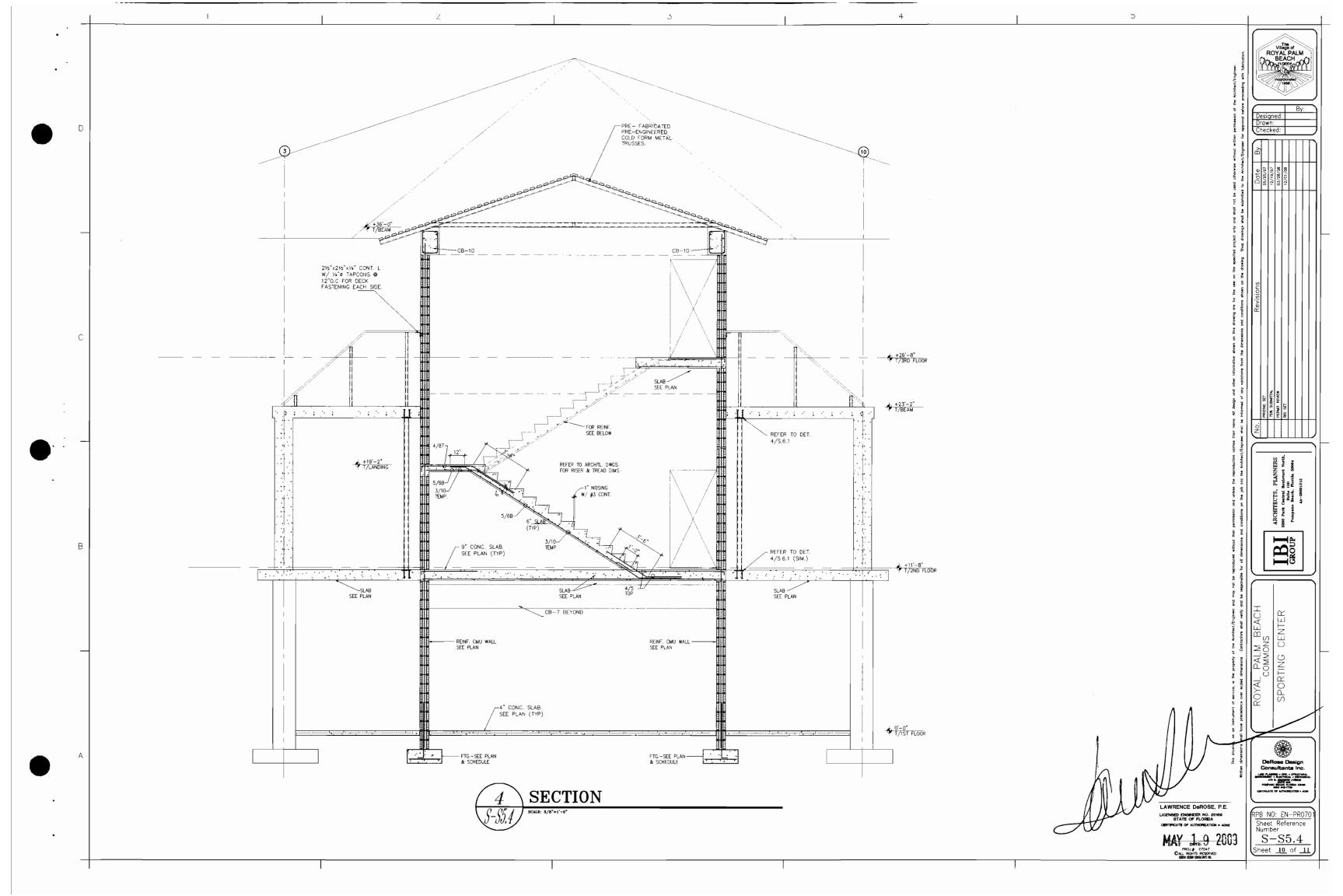
ALL TIE JOISTS SHALL BE DESIGNED FOR A TENSION TOP LIVE LOAD MOMENT OF 38.5 KIP-FT. AND A TENSION BOTTOM WIND LOAD UPLIFT MOMENT OF 36.4 KIP-FT.

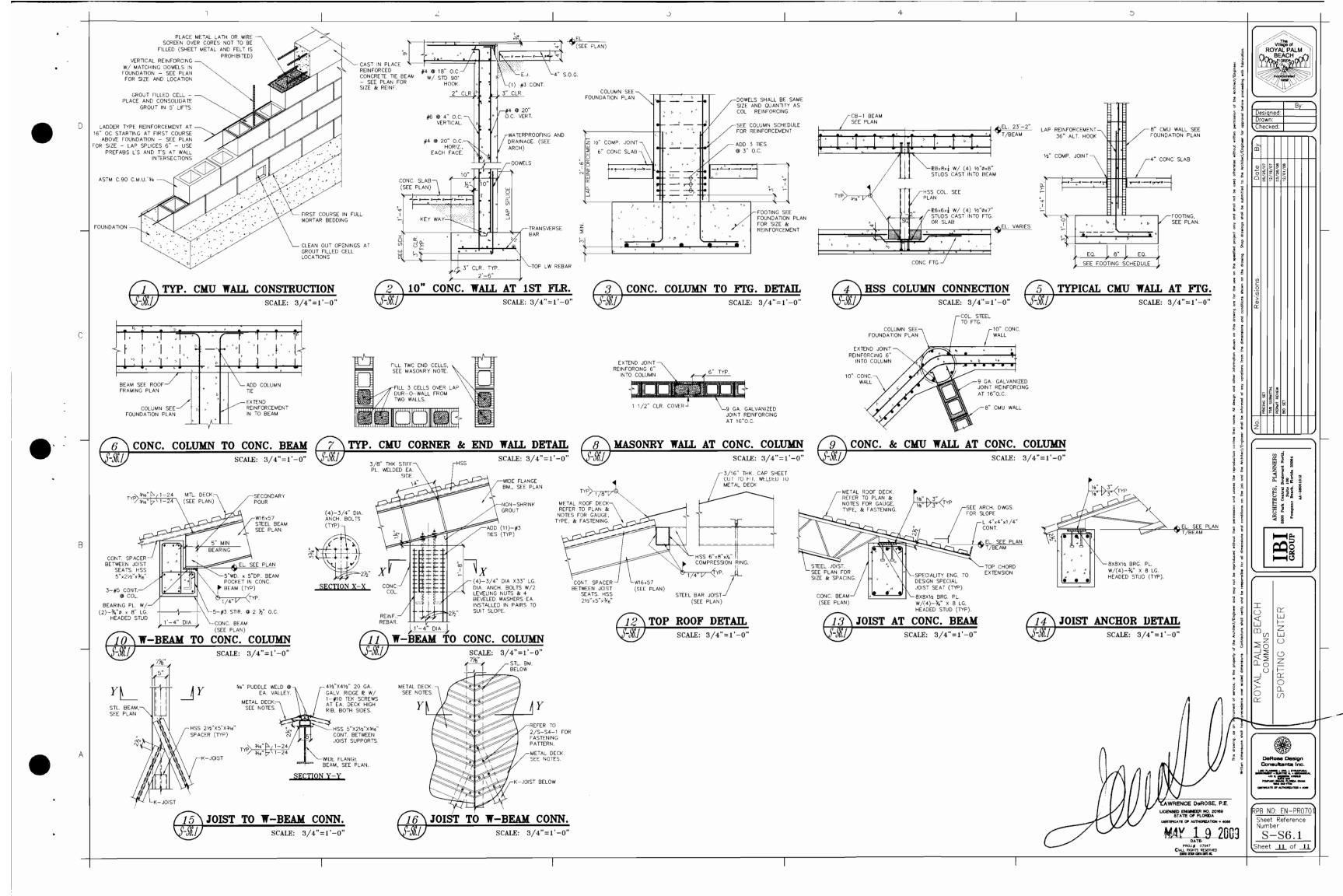
4. K-SERIES JOISTS SHALL BE BRACED W/ 3 ROWS OF HORIZ. BRIDGING USING L11/4x11/4x16. SEE BRIDGING DETAIL THIS SHEET. 5. SEE SHEET S-X FOR STEEL ROOF DECK FASTENING. ALL JOIST SHALL BE CAPABLE OF SUPPORTING AIR HANDLING UNIT OF WEIGHT =600# COORDINATE FINAL UNIT LOCATION W/ MECHANICAL DRAWINGS











HVAC **SPECIFICATIONS** 

THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS ON THE FOLLOWING PROPOSED EQUIPMENT WITH THE BID: RTU, SPLIT SYSTEMS SUPPLY AND EXHAUST FANS VAV/CONTROL BOXES GRILLES, DIFFUSERS, REGISTERS, LOUVERS AND CONTROL SYSTEMS.

- CONNECTION TO EQUIPMENT SHALL BE VERIFIED WITH MANUFACTURER'S CERTIFIED DRAWINGS. TRANSITIONS TO ALL EQUIPMENT SHALL BE VERIFIED AND PROVIDED FOR EQUIPMENT FURNISHED.
- A NEW SET OF ALL FILTERS SHALL BE PROVIDED AND INSTALLED IN ALL UNITS BY THE CONTRACTOR WHEN ALL CONSTRUCTION IS COMPLETED.
- SET, SHALL BE PROVIDED BY JOHNSON CONTROLS, INC. CONTRACTOR SHALL PROVIDE ALL EQUIPMENT AND DUCTWORK ACCESSORIES WITH ACCESS PANELS AS REQUIRED.
- 6. DUCTWORK DIMENSIONS ARE CLEAR INSIDE DIMENSIONS.
- ALL SUPPLY AND RETJRN DUCTWORK SHALL BE CONSTRUCTED OF GALVANIZED SHEET METAL, INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF SMACNA "HVAC DUCT CONSTRUCTION STANDARDS METAL AND FLEXIBLE".
- ALL EXHAUST DUCTWORK SHALL BE CONSTRUCTED OF GALVANIZED SHEET METAL AND INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF SMACNA "HVAC DUCT CONSTRUCTION STANDARDS, METAL AND FLEXIBLE".
- ALL FLEXIBLE DUCTS SHALL BE UL LISTED CLASS 1, AIR DUCT. THERMAFLEX TYPE OR EQUAL, FLEXIBLE DUCTS SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF SMACNA "HVAC DUCT CONSTRUCTION STANDARDS, METAL AND FLEXIBLE".
- PROVIDE MANUAL DAMPERS WHERE SHOWN ON THE DRAWINGS. DAMPERS SHALL BE MANUFACTURED ACCORDING TO SMACNA 'H DUCT CONSTRUCTION STANDARDS METAL AND FLEXIBLE, LATEST EDITION" AND SHALL HAVE LOCKING QUADRANT WITH WING NUT.
- ALL DUCTWORK SHALL BE INSULATED WITH EXTERNAL GLASS FIBER INSULATION FACED WITH PSK JACKET,  $R{=}4.2$  OR BETTER.
- 12. CONDENSATE DRAINS SHALL BE COPPER WITH CLOSED CELL INSULATION AND SHALL BE SIZED AS INDICATED ON THE DRAWINGS
- REFRIGERANT PIPING (FOR A1/B1 REFRIGERANTS) SHALL BE COPPE TYPE "ACR" COMPLYING WITH ASTM B 280 WITH WROUGHT COPPER SOLDER JOINT FITTINGS LINES; REFRIGERANT PIPING, AS SIZED PER ACTUAL SITE CONDITIONS PER EQUIPMENT MANUFACTURER, SHALL BE RUN IN SEAMLESS 3/4" WALL CLOSED CELL INSULATION, AEROCEL
- 14 ALL INTERIOR MILD STEEL (A-36) SUPPORTS SHALL BE PAINTED WITH DIRECT-TO-METAL "DTM" ACRYLIC COATING: CARBOLINE COMPANY, CARBOCRYLIC 3359 DTM OR EQUAL. SURFACE PREPARATION SHALL FOLLOW WRITTEN PAINT MANUFACTURER'S
- 15. STAINLESS STEEL (304 OR BETTER) AND ALUMINUM (6061T6 OR BETTER) ARE THE PREFERRED MATERIALS OF CONSTRUCTION FOR ALL OUTDOOR SUPPORTS. MILD STEEL (A-36) SUPPORTS CAN BE ACCEPTED IF THEY WERE HOT DIPPED GALVANIZED AS FULLY FABRICATED AND READY FOR ASSEMBLY/CONSTRUCTION ENTITIES I.E. NO FIELD WELDING AND/OR DRILLING, ETC IS PERMITTED.
- UPON COMPLETION OF THE INSTALLATION, AND BEFORE ISSUE OF FINAL C.O. FOR THE BUILDING, A TEST AND BALANCE "T&B" SHALL BE PERFORMED ON ALL UNITS, AS PER FBCM 13-410.1.ABCD.4, BY AN INDEPENDENT CERTIFIED AABC OR NEBB MEMBER CONTRACTOR.
- 17. SYSTEM BALANCING SHALL BE ACHIEVED USING THE DUCT BRANCH DAMPERS WITH ALL THE DIFFUSER DAMPERS REMAINING FULLY OPEN. THE REPORT SHALL BE APPROVED BY THE ENGINEER PRIOR TO THE JOB BEING ACCEPTED AS COMPLETE.
- 18. PRIOR TO DUCTWORK FABRICATION AND INSTALLATION, MECHANICAL CONTRACTOR SHALL COORDINATE WITH T&B CONTRACTOR LOCATIONS OF ALL TEST PORTS AND PITOT TRAVERSE READINGS.

### GENERAL NOTES

- THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, EQUIPMENT AND SERVICES NECESSARY FOR THE INSTALLATION OF A COMPLETE AND OPERABLE MECHANICAL SYSTEMS.
- ALL MATERIAL AND EQUIPMENT SHALL BE INSTALLED AND COMPLETED IN A FIRST CLASS WORKMANLIKE MANNER. ANY MATERIALS INSTALLED, WHICH SHALL NOT PRESENT AN ORDERLY AND REASONABLY NEAT OR WORKMANLIKE APPEARANCE, SHALL REMOVED AND REPLACED WHEN SO DIRECTED BY OWNER/ENGINEER
- ALL EQUIPMENT AND MATERIAL SHALL BE GUARANTEED FOR ONE YEAR AFTER DATE OF ACCEPTANCE BY THE OWNER.
- THE ENTIRE INSTALLATION SHALL COMPLY WITH FLORIDA BUILDING CODE 2004 AND ALL APPLICABLE NATIONAL, STATE AND LOCAL CODES, INCLUDING ALL LOCAL ROLLES, ORDINANCES AND AMENDMENTS OF SUCH EFFECTIVE 12/1/08.
- LOCATIONS AND DIMENSIONS ARE DIAGRAMMATIC IN NATURE, EXACT LOCATIONS SHALL BE VERIFIED IN THE FIELD PRIOR TO FABRICATION AND EQUIPMENT PROCUREMENT.
- SLIGHT VARIATION OF ROUTING AND/OR CONSTRUCTION SHOULD BE ANTICIPATED AND SHALL BE EXPRESSLY INCLUDED AS A PART OF THE WORK WHENEVER REQUIRED. ANY MODIFICATIONS RECUIRED AS A RESULT OF FIELD CONDITIONS ARE TO BE INCLUDED IN BASE CONTRACT.
- IGNORANCE ON THE PART OF THE CONTRACTOR WILL IN NO WAY EXCUSE HIM FROM THE OBLIGATIONS AND RESPONSIBILITIES OF THIS CONTRACT.
- ANY CONFLICTS OR DISCREPANCIES ON THESE DRAWINGS SHALL BE CALLED TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION. CONFLICTS OR DISCREPANCIES PRESENTED AFTER BID SHALL BE RESOLVED AT THE TIME OF DISCOVERY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH ALL OTHER TRADES FOR CLEARANCES AND USE OF AVAILABLE
- DEBRIS GENERATED BY THE MECHANICAL CONTRACTOR/WORKS SHALL BE PROPERLY DISPOSED OF: ANY APPLICABLE DISPOSAL FEE IS THE RESPONSIBILITY OF THE CONTRACTOR.
- VALUE ENGINEERING AND ENGINEERING EXPENSES THAT ARE INCURRED BY ENGINEER DUE TO REVISIONS OR SUBSTITUTIONS REQUESTED BY THE CONTRACTOR SHALL BE THE CONTRACTOR'S RESPONSIBILITY. ADDITIONAL SERVICES COMPENSATION TO THE ENGINEER FOR THE ABOVE EXPENSES MAY BE PAID FOR BY THE CONTRACTOR THRU A DEDUCTIBLE CHANGE ORDER.
- 13. IN ORDER FOR THE ENGINEER TO CONSIDER A SUBSTITUTE FOR THE SPECIFIED PRODUCT OR EQUIPMENT, THE CONTRACTOR MUST SUBMIT A SUBSTITUTE REQUEST PROVING THE EQUIVALENCE (E.G. MATERIAL, PERFORMANCE AND ETC) AND QUANTIFYING THE COST BENEFITS TO THE OWNER. THE SUBSTITUTE REQUEST MUST BE APPROVED BY THE ENGINEER BEFORE THE CONTRACTOR CAN PROCEED WITH MANUFACTURING AND/OR PROCUREMENT OF THE
- 14. THESE DRAWINGS, ALONG WITH ARCHITECTURAL DRAWINGS AND PROJECT SPECIFICATIONS, CONSTITUTE A SINGULAR CONTRACT DOCUMENT AND MUST BE USED TOGETHER IN THEIR ENTIRETY IN THE CONSTRUCTION OF THIS PROJECT.

### SHOP DRAWINGS

- REVIEW OF SUBMITTALS BY THE ENGINEER IS FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT AS PRESENTED BY THE CONTRACT DOCUMENTS. NO DETAILED CHECK OF QUANTITIES OR DIMENSIONS WILL BE MADE. ONLY THOSE SHOP DRAWINGS REQUIRED BY THE CONTRACT DOCUMENTS TO BE SUBMITTED WILL BE REVIEWED. ALL OTHERS WILL BE RETURNED WITHOUT COMMENT
- SHOP DRAWINGS FOR EQUIPMENT SHALL INCLUDE FACTORY SUPPLIED PERFORMANCE DATA AT DESIGN CONDITIONS; FANS & PUMPS TO INCLUDE PERFORMANCE CURVES.
- . REVIEW OF SHOP DRAWINGS IS TO BE LIMITED TO TWO (2) REVIEWS PER SUBMITTAL WITHIN THE SCOPE OF BASIC SERVICES (I.E., INITIAL SUBMITTAL REVIEW AND ONE RESUBMITTAL, IF NECESSARY). REVIEW OF ADDITIONAL RESUBMITTALS WILL BE CONSIDERED ADDITIONAL SERVICES, FOR WHICH THE GENERAL CONTRACTOR MAY BE HELD RESPONSIBLE. ADDITIONAL SERVICES COMPENSATION TO THE ENGINEER FOR REVIEWS OVER TWO MAY BE PAD FOR BY CONTRACTOR THRU A DEDUCTIBLE
- ALL SHOP DRAWINGS MUST BEAR EVIDENCE OF THE CONTRACTOR'S APPROVAL PRINTINGS MOST BEAR EVIDENCE OF THE CONTRACTOR'S RESPONSIBILITY TO DETAIL AND DESCRIBE ALL DISCREPANCIES BETWEEN THE CONTRACT DRAWNINGS AND SUBMITTAILS.
- . SUBMIT THREE COPIES OF ALL SUBMITTALS TO THE ARCHITECT/ENGINEER FOR REVIEW.
- 5. ALL CHANGES AND ADDITIONS MADE ON RESUBMITTALS MUST BE CLEARLY FLAGGED AND NOTED. THE PURPOSE OF THE RESUBMITTALS MUST BE CLEARLY NOTED ON THE LETTER OF TRANSMITTAL. ARCHITECT/ENGINEER REVIEW WILL BE LIMITED TO THOSE ITEMS CAUSING THE RESUBMITTAL.
- SHOP DRAWINGS NOT MEETING THE ABOVE CRITERIA OR SUBMITTED AFTER FABRICATION WILL NOT BE REVIEWED
- SHOP DRAWINGS REQUIRED FOR THIS SCOPE INCLUDE: EXHAUST FANS.

MARRIN/A. SÖLSKI, P.E LICENSE! ANDMENT NO. 65566 MAY 1 9 2009



Designed: Drawn: KLV Checked: MAS

<u>a</u>

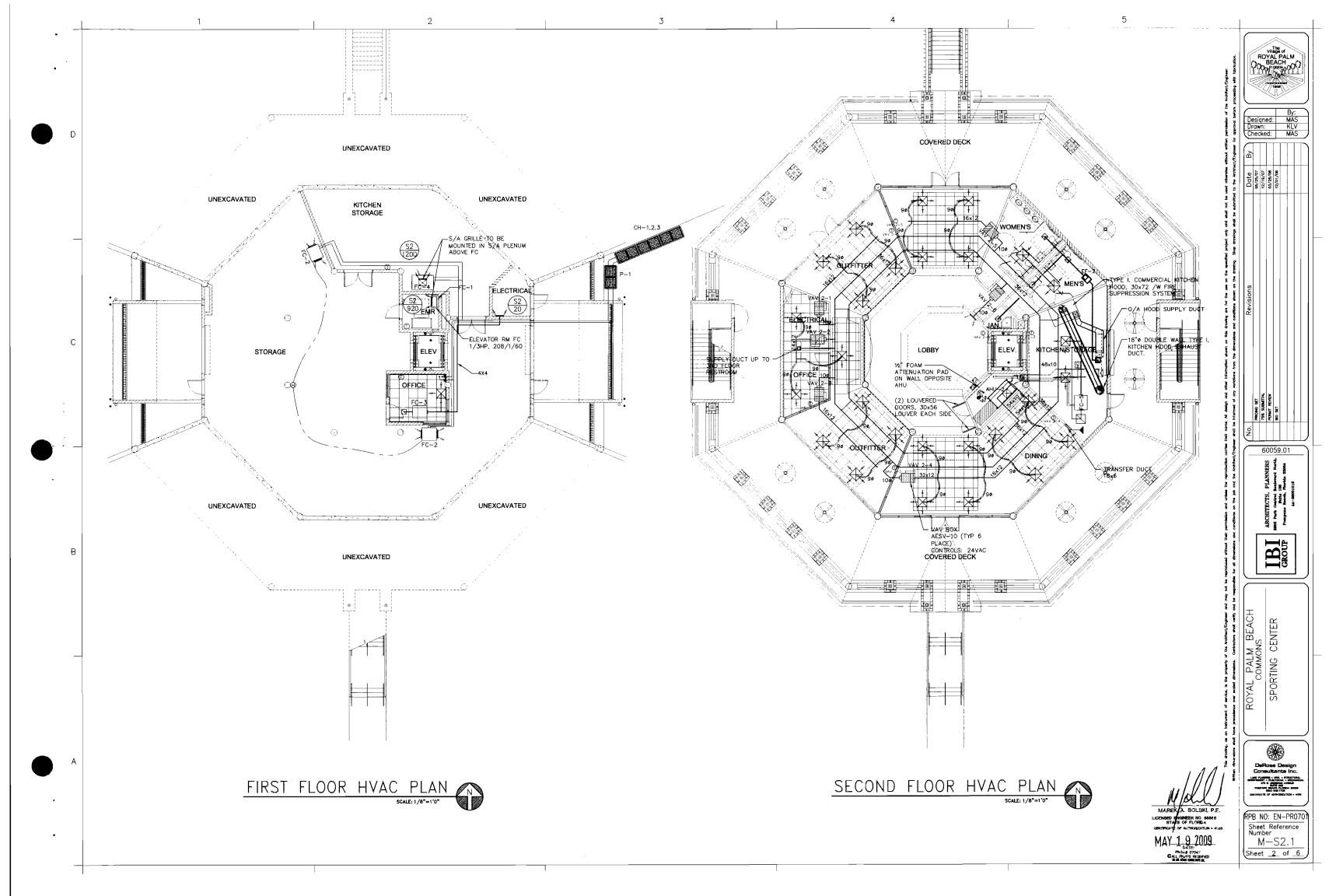
60059.01

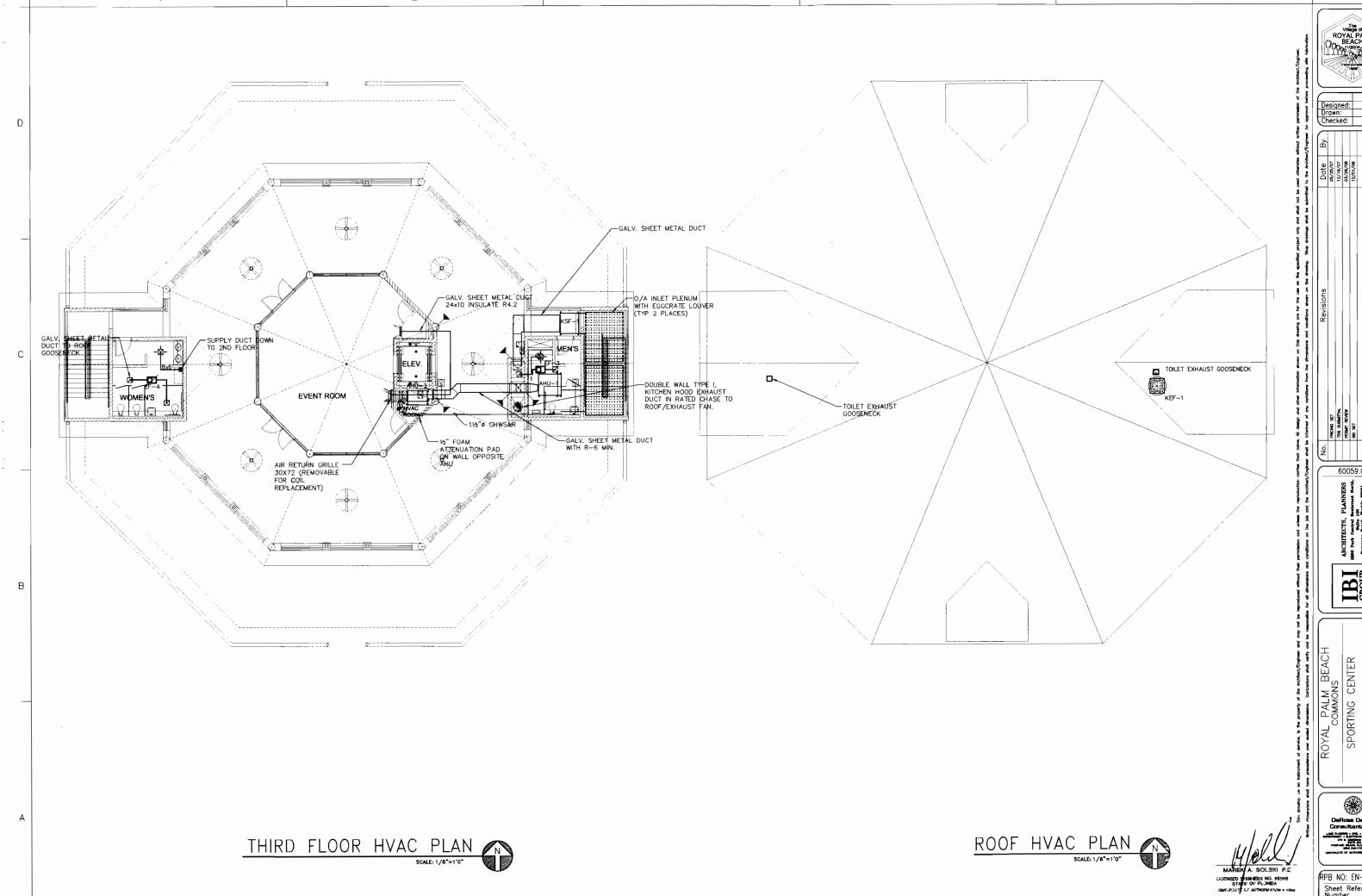
IBI GROUP

BEACH CENTER NO No No ROYAL

DeRose Design Consultants Inc TO PLANSING + CHILL - BETHLOTHERA ATO S. ADDRESS AVEILE SUPERIOR BOOK PROPERTY BOOK POSPARO BRACE FLORES SOOS BOOK NOT THE

ŔPB NO: EN−PR070 Sheet Reference M - S0.1Sheet <u>1</u> of <u>6</u>





60059.01 ARCHITECTS, PLANNERS 2000 Part Central Boolmart North, Pumpane Beach, Florida 25064 An-20001012

IBI GROUP

DeRose Design
Consultants Inc.

LAS PLANTON AND MICHAEL

OF B. ARTHUR AND MICHAEL

FOR AND

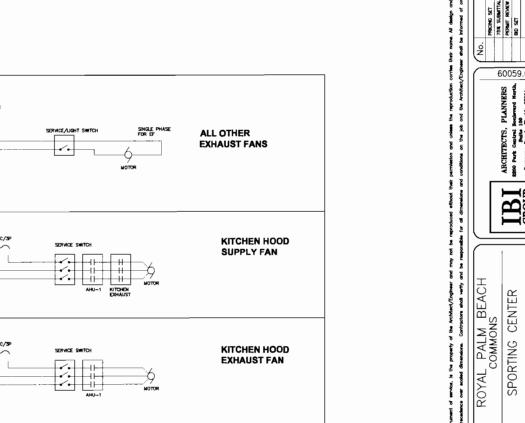
RPB NO: EN-PR0701 Sheet Reference Number M-S2.2
Sheet 3 of 6

120 VAC H N ALL OTHER **EXHAUST FANS** DA-VP WAA ZN-T WC-ADJ COOLING VAV TERMINAL BOXES: WHEN THE ZONE TEMPERATURE IS AT SETPOINT (INSIDE OF THE BIAS), THE PRIMARY AIR DAMPER WILL BE AT THE MINIMUM CPM.

ON A RISE IN ZONE TEMPERATURE ABOVE THE CCOLING SETPOINT, THE PRIMARY AIR DAMPER WILL INCREASE THE CPM.

ON A DROP IN ZONE TEMPERATURE THE DAMPER IS CONTROLLED TO PROVIDE A MINIMUM CPM.

IN THE EVENT THE SPACE TEMPERATURE EXCEEDS ITS SETPOINT BY +/- 4\*, A SERVICE ADVISORY SHALL BE PROVIDED TO A CENTRAL DISPATCH CENTER ROOM #... LOCATED ..., TEMPERATURE OUR OF RANGE". KITCHEN HOOD SUPPLY FAN CS-III, VAV TERMINAL BOX/COOLING ONLY CONTROL CONTROL DIAGRAM KITCHEN HOOD EXHAUST FAN CS-VII, EXHAUST FAN CONTROL DIAGRAM



Date 05/25/07 12/19/07 03/28/08 12/01/08

60059.01

IBI

DeRose Design
Consultants Inc.
Loss Automotive Consultants
On a Address Annua
- Saldress An

RFB NO: EN-PRO70 Sheet Reference Number M-S5.0 Sheet 4 of 6

|       | FAN SCHEDULE |                 |                  |                     |                    |                    |                |                           |       |  |  |  |  |  |  |
|-------|--------------|-----------------|------------------|---------------------|--------------------|--------------------|----------------|---------------------------|-------|--|--|--|--|--|--|
| MARK  | AREA SERVED  | AIR FLOW<br>CFM | E.S.P.<br>IN. WC | FAN<br>SPEED<br>RPM | MOTOR<br>HP<br>(W) | VOLTAGE<br>V/PH/Hz | LOCATION       | MANJFACTURER<br>MODEL NO. | NOTES |  |  |  |  |  |  |
| EF~1  | FIRST FLOOR  | 200             | 3/8              | TBC                 | 1/4                | 115/1/60           | CEILING        | GREENHECK                 | 00    |  |  |  |  |  |  |
| EF-2  | RESTROOM     | 300             | 3/8              | TBC                 | 1/4                | 115/1/60           | CEILING        | GREENHECK                 | 00    |  |  |  |  |  |  |
| EF-3  | RESTROOM     | 400             | 0.50             | TBC                 | (55)               | 115/1/60           | CEILING        | GREENHECK                 | 00    |  |  |  |  |  |  |
| EF-4  | RESTROOM     | 15              | 3/8              | TBC                 | (75)               | 115/1/60           | CEILING        | GREENHECK                 | 00    |  |  |  |  |  |  |
| KEF-1 | HOOD         | 1200            | 2.25"            | 2525                | 3 HP               | 208/3/60           | ROOF           | GREENHECK CUBE-161        | 0000  |  |  |  |  |  |  |
| KSF-1 | HOOD         | 960             | 1.00"            | 1100                | 1 HP               | 208/3/60           | CEILING 3RD FL | GREENHECK BCF-200         | 0     |  |  |  |  |  |  |

| NOTES: (I) INTERLOCK | WITH LIGHT | S          |          |                 |            |        |      |            |
|----------------------|------------|------------|----------|-----------------|------------|--------|------|------------|
| (2) HANG WITH        | FACTORY :  | SUPPLIED N | NEOPRENE | <b>ISOLATOR</b> | KIT.       |        |      |            |
| 3 PROVIDE W          | TH FACOTR  | Y SUPPLIE  | INSULAT  | ED CURB,        | COORDINATE | HEIGHT | WITH | ARCHITECT. |

③PROVIDE WITH FACOTRY SUPPLIED INSULATED CURB, COORDINATE HEIGHT WITH ARCHITECT.
⑤NOT USED.
⑤SUPPLY WITH GREASE TRAP, DRAIN CONNECTION, AND CLEAN OUT PORT; DRAIN CONNECTION TO DRAIN TO SANITARY AHEAD OF GREASE TRAP VIA INDIRECT CONNECTION; SEE PLUMBING
⑥UNIT TO HAVE TEFC MOTOR AND PRE-WIRED AND MOUNTED NEMA-1 SWITCH
⑥KEF-1 TO BE UL-762 LISTED

|        | PUMP SCHEDULE |      |        |          |           |      |       |                    |           |                   |         |  |  |  |  |
|--------|---------------|------|--------|----------|-----------|------|-------|--------------------|-----------|-------------------|---------|--|--|--|--|
| MARK   | SERVICE       | FLOW |        | N.P.S.H. |           |      | мотог | ₹                  | LOCATION  | MANUFACTURER      | NOTES   |  |  |  |  |
|        |               | GPM  | FI. WC | FT. WC   | TEMP<br>F | RPM  | HP    | VOLTAGE<br>V/PH/Hz |           | MODEL NO.         |         |  |  |  |  |
| P-1    | CHILLED WATER | 102  | 8C     | TBC      | 55*       | 1760 | 7.5   | 208/3/60           | MODULE PF | AIR STACK ASP-15A | 1,2,3,4 |  |  |  |  |
| NOTES: |               |      |        |          |           |      |       |                    |           |                   |         |  |  |  |  |

- TES:
  PUMPS TO BE MOUNTED ON STRUCTURAL BASE PART OF CHILLER PF
  MODULE.
  PROVIDE WITH MOTOR STARTER AND THERMAL OVERLOAD PROTECTION.

  3. PIPE ISOLATION TO BE DOUBLE SPHERE BY MASON INDUSTRIES, ALL PUMPS.
  4. TWO (2) PUMPS REQUIRED I.E. (1) OPERATING AND (1) STAND-BY.

| MARK   | AREA/UNIT SERVED | AIR FLOW     | MAXIMUM AIR<br>PD | CONNECT | ION SIZES | HEATER    | VOLTAGE  | MANUFACTURER<br>MODEL NO. | NOTES |
|--------|------------------|--------------|-------------------|---------|-----------|-----------|----------|---------------------------|-------|
|        |                  | RANGE<br>CFM | IN. WC            | INLET   | OUTLET    | - KW      | V/PH/Hz  | MODEL NO.                 |       |
| AV-I.1 | ROOMS            | 0-500        | 0.38              | 6"      | 12"×8"    | SEE PLANS | 120/1/60 | TITUS DESV                | 1,2,3 |
| AV-1.2 | ROOMS            | 0-900        | 0.50              | 8"      | 12"x10"   | SEE PLANS | 120/1/60 | TITUS DESV                | 1,2,3 |
| AV-1.3 | ROOMS            | 0-1400       | 0.63              | 10"     | 14"x12.5" | SEE PLANS | 120/1/60 | TITUS DESV                | 1,2,3 |
| AV-1.4 | ROOMS            | 0-2000       | 0.63              | 12"     | 16"x15"   | SEE PLANS | 120/1/60 | TITUS DESV                | 1,2,3 |
| AV-1.5 | ROOMS            | 0-3000       | 0.75              | 14"     | 20"x17.5" | SEE PLANS | 120/1/60 | TITUS DESV                | 1,2,3 |
|        |                  |              |                   |         |           |           |          |                           |       |
|        |                  |              |                   |         |           |           |          |                           |       |
|        |                  |              |                   |         |           |           |          |                           |       |

| OIL | .5:          |          |           |    |             |  |
|-----|--------------|----------|-----------|----|-------------|--|
|     | THERMOSTAT   | SHALL BE | PROVIDED  | BY | CONTRACTOR. |  |
|     | DROVIDE WITH | FIRER-F  | REE LINER |    |             |  |

В

3. PROVIDE WITH FACTORY MOUNTED DISCONNECT AND FUSES.

| MARK | CFM<br>RANGE | NECK<br>SIZE | FACE<br>SIZE | MANUFACTURER<br>& ACCESSORIES  |
|------|--------------|--------------|--------------|--|
| S-1  | 0-200        | 6"×6"        | 24"x24"      | SUPPLY DIFFUSER MODEL: TITUS TDCA—AA MATERIAL. ALUMINUM OPP. BLADE DAMPER: YES DEFLECTION: FIXED |
| S-2  | 150-400      | 9″x9"        | 24"x24"      | SUPPLY DIFFUSER MODEL: TITUS TDCA—AA MATERIAL: ALUMINUM OPP. BLADE DAMPER: YES DEFLECTION: FIXED |
| S-3  | 300-800      | 12"×12"      | 24"×24"      | SUPPLY DIFFUSER MODEL: TITUS TDCA—AA MATERIAL: ALUMINUM OPP. BLADE DAMPER: YES DEFLECTION: FIXED |
| S-4  | 0-280        | 6"x6*        | 6"x6"        | SUPPLY DIFFUSER MODEL: TITUS 8F MATERIAL: ALUMINUM OPP. BLADE DAMPER: YES DEFLECTION. FIXED      |
| R-1  | 0-300        | 6"x6"        | 24"×24"      | RETURN DIFFUSER<br>MODEL: TITUS PAR-NT<br>MATERIAL: ALUMINUM<br>OPP. BLADE DAMPER: NO            |
| R-2  | 200-700      | 10"×10"      | 24"×24"      | RETURN DIFFUSER<br>MODEL: TITUS PAR-NT<br>MATERIAL: ALUMINUM<br>OPP. BLADE DAMPER: NO            |
| R-3  | 500-1250     | 15"x15"      | 24"×24"      | RETURN DIFFUSER MODEL: TITUS PAR-NT MATERIAL: ALUMINUM OPP. BLADE DAMPER: NO                     |
| R-4  | 600-1800     | 18"×18"      | 24"×24"      | RETURN DIFFUSER MODEL: TITUS PAR-NT MATERIAL: ALUMINUM OPP. BLADE DAMPER: NO                     |
| E-1  | 0-280        | 6"×6"        | 6"x6"        | EXHAUST DIFFUSER MODEL: TITUS 8F MATERIAL: ALUMINUM OPP. BLADE DAMPER: NO                        |
| E-2  | 150-480      | 14"x6"       | 14"x6"       | EXHAUST DIFFUSER MODEL: TITUS 8F MATERIAL: ALUMINUM OPP. BLADE DAMPER: NO                        |
| E-3  | 400-1220     | 14"×14"      | 14"x14"      | EXHAUST DIFFUSER MODEL: TITUS 8F MATERIAL: ALUMINUM OPP. BLADE DAMPER: NO                        |

|       | CHILLED WATER AIR HANDLING UNITS |             |                            |                  |     |          |                |                   |              |              |             |       |                     |              |                      |                     |                     |        |     |                 |               |
|-------|----------------------------------|-------------|----------------------------|------------------|-----|----------|----------------|-------------------|--------------|--------------|-------------|-------|---------------------|--------------|----------------------|---------------------|---------------------|--------|-----|-----------------|---------------|
| MARK  | AREA SERVED                      |             | AIR HEATER DATA WATER SIDE |                  |     |          |                |                   | COIL DA      | ΓΑ           | WEIGHT      | MODEL | NOTES               |              |                      |                     |                     |        |     |                 |               |
|       |                                  | S.A.<br>CFM | O.A.<br>CFM                | E.S.P.<br>IN. WC |     | V/PH/Hz  | TOTAL<br>BTU/H | SENSIBLE<br>BTU/H | AET<br>DB/WB | ALT<br>DB/WB | POWER<br>KW | STEPS | WATER<br>ET/LT<br>F | WATER<br>GPM | WATER<br>DP<br>FT WC | FACE<br>AREA<br>FT2 | FACE<br>VEL.<br>FPM | ROW/FP | FR  | NO.             |               |
| AHU-1 | OA PRETREAT                      | 3320        | 3320                       | 1.0              | 3   | 208/3/60 | 286,030        | 130,030           | 91/79        | 55/55        | -           | -     | 44/54               | 57.2         | 3.0                  | TBC                 | 504                 | 8/11   | TBC | CARRIER 39LC 08 | 1,2,3,4,5,6   |
| AHU-2 | SECOND FLOOR                     | 6000        | 800                        | 1.0              | 5   | 208/3/60 | 183,222        | 150,070           | 78/64        | 55/53        | 28          | SCR   | 44/54               | 36.6         | 4.3                  | TBC                 | 536                 | 6/8    | TBC | CARRIER 39LD 12 | 1,2,3,4,5,6,7 |
| AHU-3 | THIRD FLOOR                      | 3000        | 2520                       | 1.0              | 3   | 208/3/60 | 85,310         | 72,670            | 78/64        | 55/54        | 14          | SCR   | 44/54               | 17.1         | 1.5                  | TBC                 | 508                 | 6/8    | TBC | CARRIER 39LC 06 | 1,2,3,4,5,6,7 |
| FC-1  | ELEVATOR MACH ROOM               | 482         | 0                          | 0.125            | 1/5 | 120/1/60 | 9,200          | 8,800             | 80/64        | 55/54        | _           | -     | 44/54               | 1.8          | 0.8                  | TBC                 | TBC                 | 2/TBC  | TBC | TITUS HHP06     | 2,3,5         |
| FC-2  | STORAGE                          | 600         | 0                          | 0.125            | 1/5 | 120/1/60 | 14,400         | 12,000            | 80/67        | 55/54        | -           | -     | 44/54               | 3.2          | 2.4                  | TBC                 | TBC                 | 2/TBC  | TBC | TITUS HHP06     | 2,3,5,7 OTY 2 |
| FC-3  | OFFICE 1ST FL                    | 200         | 50                         | 0.125            | 1/5 | 120/1/60 | 9,200          | 8,800             | 75/62        | 55/54        | 1           | 1     | 44/54               | 0.6          | 0.3                  | TBC                 | TBC                 | 2/TBC  | TBC | TITUS HHP06     | 2,3,4,5       |
| FC-4  | KITCHEN STORAGE                  | 700         | 0                          | 0.125            | 1/5 | 120/1/60 | 20,300         | 15,900            | 75/62        | 55/54        | 5           | 1     | 44/54               | 4.1          | 5.5                  | TBC                 | TBC                 | 2/TBC  | TBC | TITUS HHP08     | 2,3,5         |
| FC-5  | KITCHEN                          | 1700        | 240                        | 0.25             | 1/4 | 120/1/60 | 57,200         | 42,600            | 75/62        | 55/54        | -           | _     | 44/54               | 11.4         | 5.5                  | TBC                 | TBC                 | 4/TBC  | TBC | TITUS HHP20     | 2,3,5         |

- NOTES:

  1. PROVIDE WITH PREMIUM EFFICIENCY MOTOR AND VFD.

  2. PROVIDE WITH FACTORY MOUNTED UNIT DISCONNECT WIRED TO MOTOR.

  3. FAN/MOTOR SHALL BE INSTALLED ON VIBRATION ISOLATORS.

  4. PRETREATED OA FROM AHU-1.

- PROVIDE WITH PREFILTER MERV-6.
  INSTALL SUPPLY AND RETURN DUCT MOUNTED SMOKE DETECTORS.
  PROVIDE WITH HEAT PIPES AND ULTRAVIOLET LIGHTS ON COOLING COIL
  AIR LEAVING SIDE.

| MARK | CFM<br>RANGE | NECK<br>SIZE | FACE<br>SIZE | MANUFACTURER<br>& ACCESSORIES  |
|------|--------------|--------------|--------------|--|
| S-1  | 0-200        | 6"x6"        | 24"×24"      | SUPPLY DIFFUSER MODEL: TITUS TDCA—AA MATERIAŁ ALUMINUM OPP. BLADE DAMPER: YES DEFLECTION: FIXED  |
| S-2  | 150-400      | 9"x9"        | 24"×24"      | SUPPLY DIFFUSER MODEL: TITUS TDCA—AA MATERIAL: ALUMINUM OPP. BLADE DAMPER: YES DEFLECTION: FIXED |
| S-3  | 300-800      | 12"×12"      | 24"×24"      | SUPPLY DIFFUSER MODEL: TITUS TDCA—AA MATERIAL: ALUMINUM OPP. BLADE DAMPER: YES DEFLECTION: FIXED |
| S-4  | 0-280        | 6"x6*        | 6"x6"        | SUPPLY DIFFUSER MODEL: TITUS 8F MATERIAL: ALUMINUM OPP. BLADE DAMPER: YES DEFLECTION. FIXED      |
| R-1  | 0-300        | 6"x6"        | 24"×24"      | RETURN DIFFUSER MODEL: TITUS PAR-NT MATERIAL: ALUMINUM OPP. BLADE DAMPER: NO                     |
| R-2  | 200-700      | 10"×10"      | 24"×24"      | RETURN DIFFUSER<br>MODEL: TITUS PAR-NT<br>MATERIAL: ALUMINUM<br>OPP. BLADE DAMPER: NO            |
| R-3  | 500-1250     | 15"x15"      | 24"×24"      | RETURN DIFFUSER MODEL: TITUS PAR-NT MATERIAL: ALUMINUM OPP. BLADE DAMPER: NO                     |
| R-4  | 600-1800     | 18"×18"      | 24"×24"      | RETURN DIFFUSER MODEL: TITUS PAR-NT MATERIAL: ALUMINUM OPP. BLADE DAMPER: NO                     |
| E-1  | 0-280        | 6"×6"        | 6"x6"        | EXHAUST DIFFUSER<br>MODEL: TITUS 8F<br>MATERIAL: ALUMINUM<br>OPP. BLADE DAMPER: NO               |
| E-2  | 150-480      | 14°x6"       | 14"x6"       | EXHAUST DIFFUSER<br>MODEL: TITUS 8F<br>MATERIAL: ALUMINUM<br>OPP. BLADE DAMPER: NO               |
| E-3  | 400-1220     | 14"×14"      | 14"x14"      | EXHAUST DIFFUSER MODEL: TITUS 8F MATERIAL: ALUMINUM OPP. BLADE DAMPER: NO                        |

| VENTILATIO              | ON RAT        | TE PROC                                      | EEDUR               | E CALC.                       | & BUIL              | DING A                                 | AIR BAL                                | ANCE                               |
|-------------------------|---------------|--|---------------------|-------------------------------|---------------------|--|--|------------------------------------|
| AREA<br>SERVED          | AREA<br>SQ FT | DESIGN<br>OCCUPANT<br>LOAD PER 1000<br>SO FT | DESIGN<br>OCCUPANCY | OCCUPANCY 50%<br>RULE APPLIED | VENTILATION<br>RATE | REQUIRED<br>VENTILATION<br>RATE<br>CFM | PROVIDED<br>VENTILATION<br>RATE<br>CFM | PROVIDED<br>EXHAUST<br>RATE<br>CFM |
| 101 OFFICE              | 140           | 7  | 1                   | N                             | 20                  | 20                                     | 20                                     | -                                  |
| 102/103 KITCHEN STORAGE | 770           | 0  | 0                   | NA                            | 0.05                | 40                                     | 40                                     | -                                  |
| 104 ELECTRICAL ROOM     | 70            | 0  | 0                   | NA                            | 0                   | 0                                      | 0                                      | 30                                 |
| 105 ELEVATOR MACH. RM   | 70            | 0  | 0                   | NA .                          | 0                   | 0                                      | 0                                      | -                                  |
|                         |               | _  |                     | _                             |                     | TOTAL                                  | 60                                     | 30                                 |
| 201 LOBBY               | 1200          | 30   | 36                  | N                             | 15                  | 270                                    | 540                                    | -                                  |
| 202 OUTFITTER           | 900           | _  | _                   |                               | 0.20                | 180                                    | 180                                    | -                                  |
| 203 OFFICE              | 120           | 7  | 1                   | N                             | 20                  | 20                                     | 20                                     | -                                  |
| 204 ELECTRICAL ROOM     | 120           | -  | -                   | _                             | _                   | -                                      | -                                      | 30                                 |
| 205 DINNING             | 220           | 70   | 15                  | Y                             | 20                  | 150                                    | 150                                    | -                                  |
| 206 KITCHEN             | 450           | 20   | 9                   | N                             | 15                  | 135                                    | 240                                    | 240                                |
| 207 RESTROOM            | 160           | -  | 2 WC                | _                             | 50                  | 100                                    | - (3)                                  | 100                                |
| 208 RESTROOM            | 180           | _  | 3 WC                | _                             | 50                  | 150                                    | - (3)                                  | 150                                |
| 209 JANITOR             | 35            | -  | -                   | _                             | -                   | -                                      | -                                      | 20                                 |
|                         |               |  |                     |                               |                     | TOTAL                                  | 1130                                   | 540                                |
| 301 PARTY ROOM          | 850           | 70   | 60                  | -                             | 25                  | 1500                                   | 1500                                   | _                                  |
| 304 RESTROOMS           | 140           | -  | 2 WC                | _                             | 50                  | 100                                    | - (3)                                  | 100                                |

306 RESTROOMS TOTAL TE: TOTAL 1500

VENTILATION RATES PER ASHRAE STANDARD 62 AND FBC 2004

FOR AREAS SERVED WITH PEAK OCCUPANCIES OF LESS THAN THREE (3) HOURS DURATION. 50% RULE HAS BEEN APPLIED PER ASHRAE STANDARD 62, SECTION 61.3.4.

TRANSFER OF AIR IS PERMITTED RECIFICULATION OF AIR IS PROHIBITED.

MARK

| HEA <sup>-</sup>        | HEATING/COOLING LOAD DESIGN LOAD SUMMARY |                              |                               |                                    |                                |  |                                 |                                    |                                    |                          |  |  |  |  |  |
|-------------------------|--|------------------------------|-------------------------------|------------------------------------|--------------------------------|--|---------------------------------|------------------------------------|------------------------------------|--------------------------|--|--|--|--|--|
| A.C. UNIT/AREA SERVED   | FLOOR<br>AREA<br>SQ FT                   | OUTDOOR<br>TEMP<br>DB*F/WB*F | INDOOR<br>TEMP/RH<br>BD F/%RH | TOTAL<br>SENSIBLE<br>GAIN<br>BTU/H | TOTAL<br>LATENT GAIN<br>BTU/II | GRAINS OF<br>WATER DIFF.<br>GRAINS/MIN | TOTAL<br>OA<br>COOLING<br>BTU/H | TOTAL<br>COOLING<br>/W OA<br>BTU/H | TOTAL<br>HEATING<br>/W OA<br>BTU/H | SIZING<br>METHOD<br>USED |  |  |  |  |  |
| AHU1 OA PRETREATMENT    | 4840                                     | 91/79                        | 57/56                         | 121,300                            | 114,800                        | TBC                                    | 236,100                         | 236,100                            | 0                                  | Α                        |  |  |  |  |  |
| AHU-2 / SECOND FLOOR    | 3710                                     | 91/79                        | 75/62                         | 119,000                            | 16,800                         | TBC                                    | ~ (2)                           | 135,800                            | 14,600                             | Α                        |  |  |  |  |  |
| AHU-3 / THIRD FLOOR     | 990                                      | 91/79                        | 75/62                         | 70,200                             | 34,600                         | TBC                                    | ~ (2)                           | 104,800                            | 14,600                             | Α                        |  |  |  |  |  |
| FC-1 / ELEVATOR MACH RM | 70                                       | 91/79                        | 80/76                         | 6,200                              | 0                              | 0                                      | 0                               | 6,200                              | 0                                  | Α                        |  |  |  |  |  |
| FC-2 / STORAGE          | 3000                                     | 91/79                        | 80/67                         | 17,000                             | 6,000                          | TBC                                    | 0                               | 23,000                             | 0                                  | Α                        |  |  |  |  |  |
| FC-3 / OFFICE           | 140                                      | 91/79                        | 75/62                         | 3,100                              | 200                            | TBC                                    | - (2)                           | 3,300                              | 3,000                              | Α                        |  |  |  |  |  |
| FC-4 / KITCHEN STORAGE  | 770                                      | 91/79                        | 75/62                         | 17,100                             | 0                              | 0                                      | 0                               | 17,000                             | 0                                  | Α                        |  |  |  |  |  |
| FC-5 / KITCHEN          | 450                                      | 91/79                        | 75/62                         | 45,000                             | 10,600                         | TBC                                    | 20,720                          | 76,320                             | 0                                  | A                        |  |  |  |  |  |

PROJECT ADDRESS: REFER TO THE SHEET TITLE BLOCK.

1. PROVIDED AS PER FBC 2004, 13-407.1.ABC.1 SIZING/EXCEPTION 2. PRETREATED OA PROVIDED BY AHU-1 OA

| CONTROL DAMPERS SCHEDULE |                        |                                |            |                       |                  |                             |                           |       |  |  |  |  |  |  |
|--------------------------|------------------------|--------------------------------|------------|-----------------------|------------------|-----------------------------|---------------------------|-------|--|--|--|--|--|--|
| AREA/UNIT SERVED         | MAX AIR<br>FLOW<br>CFM | FULLY OPEN<br>AIR PD<br>IN. WC | OPERATION  | FAIL SAFE<br>POSITION | DUCT SIZE<br>WxH | ACTUATOR<br>TORGUE<br>IN-LB | MANUFACTURER<br>MODEL NO. | NOTES |  |  |  |  |  |  |
| O/A TO AHUs              | TBC                    | 0.125                          | CONTINUOUS | CLOSED                | TBC              | 40                          | TBC                       | 1     |  |  |  |  |  |  |

TBC

150

1500

TBC 0.125 CONTINUOUS OPEN R/A TO AHUs NOTES:

1. ACTUATORS SHALL BE PROVIDED BY CONTRACTOR AS PART OF AHU.

| SELEC       | TION BASED ON: (   | CAPTIVE-AIR      | E                        | KITO | CHE       | N   | НΟ      | OD   | S    | CHED              | )UL   | Ε |                         |      |                           |                         |               |
|-------------|--------------------|------------------|--------------------------|------|-----------|-----|---------|------|------|-------------------|-------|---|-------------------------|------|---------------------------|-------------------------|---------------|
| H00D<br>N0. | MODEL              | LENGTH           | MAX.<br>COOKING<br>TEMP. |      | E<br>MDTH |     | RISER(S |      | S.P. | TOTAL<br>SUP. CFM | WIDTH |   | Y PLE<br>ISER(S<br>DIA. | S.P. | HOOD<br>CONSTRUCTION      | HOOD C<br>END TO<br>END | ONFIG.<br>ROW |
| 1           | 4224<br>ND-2-PSP-F | 6' NOM.<br>6' OD | 450<br>Deg.              | 1200 | 10'       | 10* |         | 1200 | 3/8* | 960               |       |   |                         |      | 430 S.S.<br>WHERE EXPOSED | ALONE                   | NA            |

NOTES:
1. PROVIDE WITH ANSUL OR EQUAL FIRE SUPPRESSION SYSTEM AND PORTABLE FIRE EXTINGUISHERS FOR HOOD PER NFPA-460 AND IN COMPLIANCE WITH UL-300.



and shall d project only a

. All design and a linformed of any

150

250

60059.01 PLANN Boulerard 100 Florida S ECTS, Control IBI

nert of service, is the property of the Achillect/Displese and service core scaled dimensions. Contractors shall worth and ROYAL PALM BEACH COMMONS CENTER SPORTING

8 8

on instrument of service, is the property or have precedence over ecoled dimensions.

CAND PLANESS + ONE + STRUCTURE.

CHOOSING + EREPTION - HEXAMON

OF S. APPENDS AVOIDE

FOR MAD BRACK FLUTTION STORE

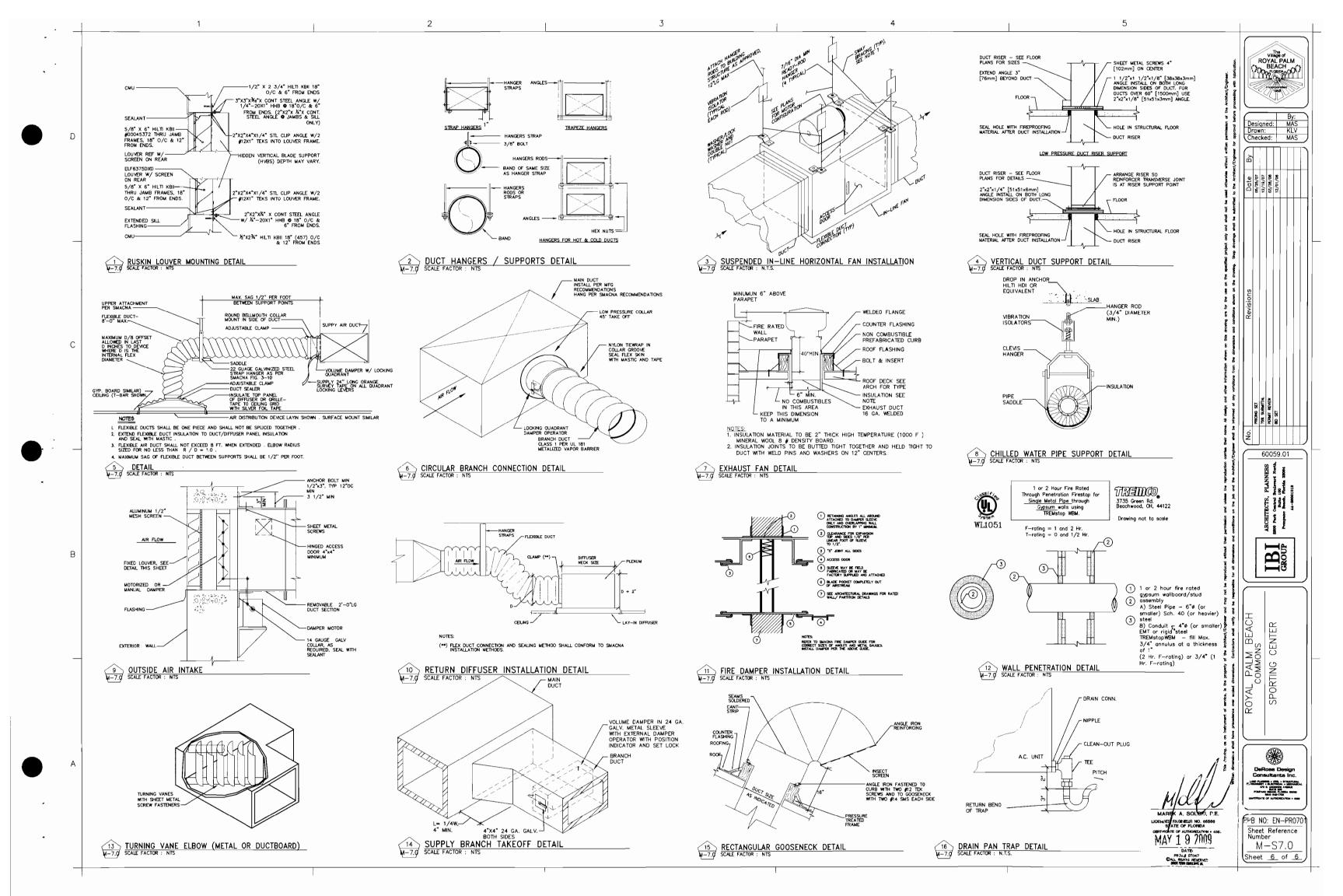
PORTMOD BRACK FLUTTION STORE

PORTMOD BRACK FLUTTION STORE

PORTMOD BRACK FLUTTION STORE

PORTMOD BRACK FLUTTION - 4000

RPB NO: EN-PR0701 Sheet Reference Number M-S6.0 Sheet <u>5</u> of <u>6</u>



THE WORK INCLUDED CONSISTS OF ALL SUPERVISION, LABOR, MATERIALS, EQUIPMENT FACILITIES AND INSTALLATION REQUIRED FOR THE COMPLETE SATISFACTORY AND APPROVED ELECTRICAL SYSTEMS AS INDICATED ON THE DRAWINGS AND CALLED FOR IN THIS SPECIFICATION, OR AS MAY BE REASONABLY IMPLIED BY ETHER.

ALL NOTES ON THE DRAWINGS PERTAINING TO THE WORK OF THIS TRADE SHALL BE CONSIDERED AS PART OF THIS SPECIFICATIONS AND CONTRACT.

THE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE DRAWINGS AND ANY APPLICABLE SPECIFICATIONS. IF A PROBLEM IS ENCOUNTERED IN COMPLYING WITH THIS REQUIREMENT, THE CONTRACTOR SHALL NOTIFY THE OWNER OR HIS REPRESENTATIVE AS SOON AS POSSIBLE AFTER DISCOVERY OF THE PROBLEM, AND SHALL NOT PROCEED WITH THAT PORTION OF THE WORK UNTIL THE OWNER HAS DIRECTED THE CORNEROUS ACTION OF THE WORK UNTIL THE OWNER HAS DIRECTED THE CONTRACTOR IS REFERRED TO THE ARCHITECTURAL AND MECHANICAL DRAWINGS AND SPECIFICATIONS. SUCH PLANS AND SPECIFICATIONS ARE TO BE CONSIDERED PART OF THE ELECTRICAL CONTRACT DOCUMENTS. DRAWINGS ARE DIAGRAMMATIC AND INTENDED TO SHOW APPROXIMATE LOCATIONS AND ARRANGEMENTS ONLY.

COORDINATE THE INSTALLATION OF REQUIRED SUPPORTING DEMCES, CONDUIT, AND SLEEVES WITH OTHER STRUCTURAL COMPONENTS, AS THEY ARE CONSTRUCTED. ALL SLAB AND FIRE WALL PENETRATIONS MUST FIRE RATED AND MUST CONFORM TO OWNER'S APPROVAL AS TO LOCATION AND CONSTRUCTION DETAILS.

2. MATERIALS: THE MATERIALS AND EQUIPMENT FURNISHED SHALL BE AS INDICATED ON THE DRAWINGS; SUBSTITUTIONS SHALL NOT BE MADE EXCEPT WHERE EXPRESSLY APPROVED BY THE OWNER OR HIS REPRESENTATIVE PRIOR TO STARTING INSTALLATION OF THE ITEMS. THE LECTRICAL MATERIALS AND EQUIPMENT FURNISHED SHALL BE LISTED OR LABELED BY UNDERWRITERS LABORATORIES OR OTHER RECOGNIZED TESTING ORGANIZATION, AND SHALL BE ACCEPTABLE TO THE LOCAL BUILDING AUTHORITY.

GROUNDING: GROUNDING SHALL BE IN ACCORDANCE WITH ARTICLE 250, NEC. PROVIDE GROUND WIRES IN ALL CONDUITS UNLESS OTHERWISE NOTED.

4. CONDUITS: ELECTRICAL METALLIC TUBING (ENT) SHALL BE INSTALLED ONLY IN ORY LOCATIONS, IN CONCRETE ABOVE GRADE, AND WHERE NOT SUBJECT TO PHYSICAL DAMAGE. ALL ABOVE CELLING CONDUITS SHALL BE ROUTED TIGHT AGAINST THE STRUCTURE AND SHALL BE PARALLEL OR PERPENDICULAR TO THE BUILDING FEATURES. NO NEW CONDUITS SHALL BE SUPPORTED BY EXISTING CONDUITS, CELLING SYSTEMS OR AIR CONDITIONING HANGERS OR OTHER SYSTEMS.

ALL EXPOSED CONDUITS SHALL BE RUN AS NEAT AND INCONSPICUOUS AS POSSIBLE AND PAINTED TO MATCH COLOR OF SURROUNDINGS.

ALL EMPTY CONDUITS SHALL HAVE PULLSTRING, BOTH ENDS CAPPED, LABELED WITH DESCRIPTION OF INTENDED FUTURE USE, AND BE STUBBED  $6^{\circ}$  OUT FROM WALLS/CEILING/FLOORS, UNLESS INDICATED OTHERWISE.

FLEXIBLE CONDUITS SHALL BE USED FOR CONNECTION TO ALL VIBRATING EQUIPMENT SUCH AS MOTORS, LICHTING FIXTURES, ETC. FLEXIBLE CONDUIT STALL HAVE ALUMINUM ARMOR & INTERNAL GROUND STRAP IN ADDITION TO EQUIPMENT GROUND. USE "LIQUID TIGHT" WHEN EXPOSED TO WEATHER.

5. CONDUCTORS SIZE #8 AND LARGER SHALL BE TYPE THWN STRANDED, COPPER. CONDUCTORS SIZE #10 AND SMALLER SHALL BE COPPER. TYPE THWN SOLID, UNLESS NOTED OTHERWISE. CONDUCTORS SHALL CONSIST OF 98% CONDUCTIVITY COPPER AS INDICATED. SIZES ARE AWG. ALL CONDUCTORS SHALL BE RUN IN COMDUIT EXCEPT AS NOTED ON PLANS.

POWER, LICHTING, AND GROUNDING CONDUCTORS SHALL NOT BE SMALLER THAN \$12 AWG. EXCEPT WHERE OTHERWISE INDICATED. CONTROL CONDUCTORS SHALL BOT DES SMALLES THAN \$14 AWG. CONDUCTORS SHALL BE CONTINUOUS FROM DEVICES WHOTOUS FLOCES EXCEPT WITHIN WIRE MAY OR JUNCTION BOXES. MARK CONDUCTORS IN PANILS, PULL BOXES OR WIREWAYS AND TERMINAL STRIP TERMINALS FOR IDENTIFICATION OF CIRCUITS.

CONDUCTORS SHALL BE JOINED USING COMPRESSION SPLICES, EXCEPT THAT CONDUCTORS (NO AND SMALLER MAY BE JOINED USING WRE NUT TYPE CONNECTORS. COMDUCTORS SHALL BE TERMINATED USING COMPRESSION SPLICES USED ON COMDUCTORS (NO AND USING MI) 333+ OR 488 PLASTIC THE SPLICES IN WET LOCATIONS SHALL BE INSULATED WITH ELECTRICAL TAPE AND ENCAPSULATED WITH SCOTCH CAST OR EQUAL POTTING COMPOUND.

FIRE ALARM SYSTEM NOTES

I. ENTIRE INSTALLATION SHALL COMPLY WITH NFPA 101, NFPA 72, N.E.C., FLORIDA BUILDING COUPMAN LATEST ADA STANDARDS. PROVIDE ALL NECESSARY JUNCTION BOXES AND BOOSTER CQUIPMAN TRECESSARY TO ACCOMPLISH THIS.

ACTUAL FIELD WIRING REQUIREMENTS SHALL BE AS INDICATED BY EQUIPMENT SUPPLIER ON PROVED SHOP DRAWINGS

ALL WIRING SHALL BE IN 3/4" CONDUIT MINIMUM. ALL WIRING TO BE FPL OR FPLE TYPE XIMUM CONDUIT FILL - 40% OF CONDUIT AREA.

5. ALL EQUIPMENT SHALL BE U.L. LISTED BY UNDERWRITER'S LABORATORIES FOR THE INTENDED USE AND SHALL MEET WITH THE APPROVAL OF THE LOCAL FIRE AUTHORITIES. THE COMPLETE INSTALLATION SHALL BE MADE IN ACCORDANCE WITH THE APPROVAL OF THE LOCAL FIRE AUTHORITIES. THE COMPLETE INSTALLATION SHALL BE MADE IN ACCORDANCE WITH N.F.P.A. #72 SERIES, ALL LOCAL CODES AND REQUIREMENTS N.F.P.A. #701 N.E.C. ARTICLE 760. AUDIO AND VSUAL SIGNALS MUST BE IN COMPLIANCE WITH ADP.A. #701 MOUNTING

A. THE ELECTRICAL CONTRACTOR SHALL COORDINATE AND COOPERATE FULLY WITH THE FIRE DEPARTMENT AND GIVE AT LEAST TWENTY—FOUR (24) HOURS NOTICE OF ALL WORK REQUIRING FIRE DEPARTMENT NOTIFICATION AND ASSISTANCE.

B. SUBMIT COMPLETE WIRING DIAGRAM SHOP DRAWINGS FOR APPROVAL BY THE FIRE MARSHALL PRIOR TO ANY WORK BEING PERFORMED.

. ACTIVATION OF ANY INITIATING DEVICE (MANUAL STATIONS AND SMOKE DETECTORS) SHALL OUND AN ALARM AT THE MAIN FIRE ALARM CONTROL PANEL STROBE LIGHTS SHALL BE CITYATED AT COMMON AREAS ONLY. THE MAIN FIRE ALARM CONTROL PANEL SHALL INDICATE HE ZONE IN ALARM.

ALL INITIATING DEVICES SHALL BE SUPERVISED AND ANY TROUBLE CONDITION SHALL SOUND I ALARM AT MAIN FIRE ALARM PANEL

9. THE SPEAKERS AND STROBE LIGHTS CIRCUIT SHALL BE ELECTRICALLY SUPERVISED (CLASS "B" LOOP) AND ANY TROUBLE CONDITION SHALL SOUND A BUZZER AT THE MAIN FIRE ALARM

D. INSTALL AUX. RELAY TO SHUT DOWN AHU'S AFTER ACTIVATION OF INITIATING DEVICES.

A/C DUCT SMOKE DETECTOR (SUPPLY SIDE) SHALL SHUT DOWN ITS CORRESPONDING AIR NOLING UNIT.

12. SMOKE DETECTORS SHALL NOT BE LOCATED CLOSER THAN 3 FEET FROM ANY AIR SUPPLY DIFFUSER OR WHERE BLOCKED BY CEILING PROTRUSION.

CONTRACTOR SHALL PROMDE CUT SHEETS OF ALL FIRE ALARM DEVICES, COMPLETE SHOP AMINGS INCLUDING BATTERY CALCULATIONS & NOTIFICATION CIRCUIT CALCULATIONS.

3. STROBES SHALL CONTINUE TO OPERATE ONCE ALARM IS SILENCED.

FIRE DEPARTMENT COORDINATION AND COOPERATION:

2. THE ELECTRICAL CONTRACTOR TO MAKE PROVISIONS FOR CONNECTION TO A 24 HOUR SUPERVISIORY CENTRAL STATION, U.L. APPROVED, IF OWNER CHOOSES TO INSTALL

LOW VOLTAGE CONDUCTORS RUN THROUGH THE RETURN AIR PLENUM SHALL BE PLENUM RATED.

RECEPTACLES SHALL BE 20A, 120V, 2 POLE, 3 WIRE SINGLE OR DUPLEX GROUND TYPE EXCEPT WHERE SPECIFIC PURPOSE, LOCKING OR HIGHER RATED RECEPTACLES ARE SHOWN ON THE DRAWINGS.

WALL SWITCHES SHALL BE OF THE TOTALLY ENCLOSED TUMBLER TYPE WITH BODIES OF PHENOLIC COMPOUND. HANDLES SHALL BE WHITE COLORED.

8. CONTRACTOR SHALL VERIFY ALL EQUIPMENT NAMEPLATE DATA FOR WIRING AND OVER CURRENT PROTECTION REQUIREMENTS BEFORE PERFORMING ROUGH—IN WORK.

PROWDE AND INSTALL JUNCTION AND PULL BOXES WHERE INDICATED AND WHERE NECESSARY TO TERMINATE. TAP OFF, OR REDIRECT MULTIPLE CONDUIT RUNS, OF SIZE INDICATED OR AS REQUIRED BY NEC. WHERE FEZDER SPLICES ARE TO BE MADE, INSTALL BOXES LARGE ENOUGH TO PROVIDE AMPLE WORK SPACE.

10. LIGHTING FIXTURES: LIGHTING FIXTURES SHALL BE AS INDICATED ON THE DRAWINGS AND SHALL BE INSTALLED COMPLETE WITH LAMPS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERHICATION OF CELLING CONSTRUCTION BEFORE ORDERING OR INSTALLING LIGHT FIXTURES.

11. CONTRACTOR SHALL M9T THE 9TE AND DETERMINE THE EXTENT OF REVISIONS TO EXISTING EQUIPMENT AND WRING TO ACCOMMODATE ARCHITECTURAL CHANGES AND ADDITIONS. ALL THE NECESSARY REQUIPMENT WANDS (T.C., SHALL BE INCLUDED IN THE SCOPE OF WORK. CONTRACTOR SHALL RESISTING EQUIPMENT AND MATERIALS THAT WILL NOT BE REUSED IN CONSTRUCTION INCLUDING PIPES, CONDUITS, WREES, TELEPHONE LINES, COMPUTER CABLE OR WRING THAT PASSED THROUGH THE SIZE OF THIS CONSTRUCTION AND RELOCATE THESE MATERIALS THAT SERVE ADJACENT BLDG. THAT ARE TO REMAIN.

12. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL NECESSARY CONTROL WRING FOR ALL EQUIPMENT. ELECTRICAL POWER AND CONTROL WRING FOR HYAC AND MECHANICAL EQUIPMENT SHALL BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR. SEE MECHANICAL DRAWNIGS AND SPECIFICATIONS FOR WRING DIAGRAMS AND REQUIREMENTS. MECHANICAL EQUIPMENT REQUIRING STATTER SHALL BE PROVIDED BY THE MECHANICAL CONTRACTOR AND INSTALLED BY THE ELECTRICAL CONTRACTOR.

13. PANEL DIRECTORIES SHALL BE TYPED ACCURATELY TO SHOW AS BUILT CONDITIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPERLY BALANCING ALL BRANCH CIRCUITS BETWEEN THE PHASES OF THE SYSTEM REGARDLESS OF CIRCUITING INDICATED. ELECTRICAL PANELS SHALL BE CONSTRUCTED WITH COPPER MAIN BUSSES AND TERMINALS.

14. ELECTRICAL CONTRACTOR SHALL COORDINATE HIS WORK WITH THE ARCHITECT BEFORE ROUGH INSTALLATION OF LIGHTS, RECEPTACLES AND SWITCHES FOR EXACT LOCATION.

15. ALL SERVICES INTERRUPTIONS SHALL BE SCHEDULED WITH THE AUTHORIZED REPRESENTATIVE OF THE LANDLORD. ALL REMOVAL AND DISPOSAL WORK SHALL BE COORDINATED WITH THE AUTHORIZED REPRESENTATIVE OF THE LANDLORD.

16. THE ENTIRE INSTALLATION SHALL BE PERFORMED IN A FIRST-CLASS WORK MANNER. THE CONTRACTOR SHALL TOUCH-UP OR REPINISH THE FACTORY FINISH OF EQUIPMENT MARRED DURING SHIPMENT OR INSTALLATION.

17. TESTS: AFTER EACH SYSTEM HAS BEEN COMPLETED, A FUNCTIONAL TEST SHALL BE PERFORMED TO DEMONSTRATE THAT THE SYSTEM OPERATES IN ACCORDANCE WITH THE REQUIREMENTS OF THE DRAWNIGS. THE TEST SHALL BE PERFORMED BY THE CONTRACTOR IN THE PRESENCE OF THE OWNER OR HIS REPRESENTATIVE. ALL WORK SHALL BE GUARANTEED FREE FROM DEFECTS FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE. AT THE CONFLICTION OF THE WORK, THE CONTRACTOR SHALL REMOVE ALL RUBBISH CAUSED BY HIS WORK AND SHALL THOROUGHLY CLEAN ALL ELECTRICAL EQUIPMENT.

18. IT IS THE INTENT OF THE DRAWINGS AND SPECIFICATIONS TO OBTAIN A COMPLETE AND SATISFACTORY INSTALLATION. AN ATTEMPT HAS BEEN MADE TO SEPARATE AND COMPLETELY DEFINE THE WORK IN SEPARATE SECTIONS OF THE SPECIFICATIONS; HOMEVER, SUCH SEPARATION SHALL NOT RELIEVE THE CONTRACTOR FROM FULL RESPONSIBILITY OF COMPLIANCE WITH THE WORK OF HIS/HET RTADE WHICH MAY BE INDICATED ON ANY OF THE DRAWINGS AND OTHER SECTIONS OF THE SPECIFICATIONS.

THE ARCHITECTURAL DRAWINGS SHALL TAKE PRECEDENCE OVER THE ELECTRICAL DRAWINGS WITH REFERENCE TO BUILDING CONSTRUCTION AND DIMENTIONS. THE ELECTRICAL DRAWINGS ARE DIAGRAMMATIC BUT ARE TO BE FOLLOWED AS CLOSELY AS THE ACTUAL CONSTRUCTION OF THE BUILDING AND THE WORK OF OTHER TRACES WILL PERMIT.

FIRE ALARM SYMBOL LEGEND

FIRE ALARM STROBE. PROVIDE WITH CANDELA RATING INDICATED. WHEELOCK "RSS-24MCW-FW" SERIES.

IONOZATION SMOKE DETECTOR. FCI "ASD-IL2" SERIES.

FIRE ALARM MANUAL PULL STATION. FCI "MS-7" SERIES.

TAMPER SWITCH, PROVIDED BY SPRINKLER CONTRACTOR.

FLOW SWITCH, PROVIDED BY SPRINKLER CONTRACTOR.

HEAT DETECTOR. FCI "ATD-L2" SERIES.

ы

FSA

WEATHER PROOF

3) PROVIDE ALL EXTERIOR DEVICES WITH LOCKABLE COVERS.

DUCT SMOKE DETECTOR. FCI "ADP" SERIES.

MONITOR MODULE. FCI "AMM-2F" SERIES.

FIRE ALARM SPEAKER/STROBE. PROVIDE WITH CANDELA RATING INDICATED. WHEELOCK "E70-24MCW-FW" SERIES.

ADDRESSABLE VOICE FIRE ALARM CONTROL PANEL. PROVIDE WITH 90 MINUTE BATTERY BACK-UP. FCI "E3" SERIES WITH "AM50" AMPLIFIER. PROVIDE ADDITIONAL REMOTE AMPLIFIERS AS REQUIRED.

FIRE ALARM POWER SUPPLY. WHEELOCK "PS-24-8MC" SERIES.

NOTE: PROVIDE ELEVATOR WARNING LIGHTS AS REQUIRED. COORDINATE EXACT TYPE WITH CONTRACTOR/ARCHITECT.

GENERAL NOTES

FIRE ALARM SYSTEM ANNUNCIATOR. FCI "NGA" SERIES.

| TYPE                | SYMBOL      | DESCRIPTION  | VOLTS |     | LAMP       | MOUNTING                 | REMARKS       |
|---------------------|-------------|--|-------|-----|------------|--------------------------|---------------|
| TIPE                | 3 IMBUL     | DESCRIPTION  | VOL15 | NO. | TYPE       | MOONTING                 | REMARKS       |
| (c)                 |             | EXTERIOR WALL SCONCE — VANDAL, TERON MAZ226XE—TP   | 120   | 2   | 26W<br>TBX | WALL<br>SURFACE          | 2             |
| F                   | <b></b>     | 4' FLUORESCENT VAPORTICHT,<br>METALUX (VT2-232DR-UNV-EBB1  | 120   | 2   | 32W<br>T8  | CEILING<br>SURFACE       | 1             |
| (FE)                | , EM        | 4' FLUORESCENT VAPORTICHT WITH 90-MINUTE 1400 LUMEN EMERGENCY<br>BALLAST, METALUX #VT2-2320R-UNV-EB81-EL-1232            | 120   | 2   | 32W<br>T8  | CEILING<br>SURFACE       |               |
| (C)                 | <b>=</b>    | ELEVATOR PIT LIGHT, LUMARK #PVLS-W-GG-42-UNV-LL  | 120   | 1   | 42W<br>PL  | WALL<br>SURFACE          |               |
| K                   |             | 2'x4' FLUORESCENT - INDIRECT,<br>NEORAY #244-TR-2T5HO-SR-1-EB-SCS  | 120   | 2   | 54W<br>T5  | CEILING<br>RECESSED      | •             |
| (KE)                |             | 2'x4' FLUDRESCENT - INDIRECT, WITH 90-MINUTE 1400 LUMEN EMERGENCY BALLAST, NEORAY \$244-TR-2T5HO-SR-1-EB-SCS-EBP-EL-1320 | 120   | 2   | 54W<br>T5  | CEILING<br>RECESSED      | •             |
| K1>                 |             | 2'x2' FLUORESCENT - INDIRECT,<br>NEORAY #242-TR-2T5HO-SR-1-EB-SCS  | 120   | 2   | 24W<br>T5  | CEILING<br>RECESSED      | •             |
| (K1E)               | 2           | 2'x2' FLUORESCENT - INDIRECT, WITH 90-MINUTE 1400 LUMEN EMERGENCY BALLAST, NEORAY \$242-TR-275H0-SR-1-EB-SCS-EBP-EL-1320 | 120   | 2   | 24W<br>T5  | CEILING<br>RECESSED      | •             |
| (N2)                | <b>(</b>    | CHANDELIER<br>SHAPER #444-34-CFL/4/42-120-   | 120   | 4   | 42W<br>DTT | CEIUNG<br>PENDANT        | BTTM @ 14' AF |
| (o)                 | Ф           | 6" RECESSED ADJUSTABLE DOWNLIGHT<br>HALO #CA7042-1042-7471-H-HB2C  | 120   | 1   | 42W<br>1TT | CEILING<br>RECESSED      | 4             |
| Œ\                  | •           | 6" RECESSED ADJUSTABLE DOWNLIGHT, WITH 90-MINUTE 1400 LUMEN EMERGENCY BALLAST, HALO #CA7042-1D42-7471-H-HB2C             | 120   | 1   | 42W<br>TTT | CEILING<br>RECESSED      | •             |
| R                   | $\boxtimes$ | 2'x4' FLUORESCENT,<br>METALUX #ZAC-228T5-UNV-EBT1-U  | 120   | 2   | 28W<br>15  | CEILING<br>RECESSED      |               |
| (RE)                |             | 2'x4' FLUORESCENT, WITH 90-MINUTE 1400 LUMEN EMERGENCY METALUX #ZAC-22815-UNV-EBT1-EL-1320-U                             | 120   | 2   | 28W<br>T5  | CEILING<br>RECESSED      |               |
| (s)                 |             | 2'x4' Fluorescent, with 90-minute 1400 lumen emergengy<br>METALUX #2FC-FA-GASKETED-232A125-UNV-EB81-U                    | 120   | 2   | 32W<br>TB  | CEILING<br>RECESSED      |               |
| (SE)                |             | 2'x4' FLUORESCENT,<br>METALUX #2FC-FA-GASKETED-232A125-UNV-EBB1-EL-1232-U  | 120   | 2   | 32W<br>TB  | CEJUNG<br>RECESSED       |               |
| $\langle T \rangle$ | Ø           | EXTERIOR CYUNDER DOWNUGHT ESCO #SO6024   | 120   | . 1 | 100W<br>MH | CEIUNG<br>SURFACE        |               |
| (U)                 |             | LINEAR FLUORESCENT COVE STRIP,<br>INSIGHT #CF5H0-CVM-XX-1-XX   | 120   | 1   | 28W<br>T5  | COVE<br>SURFACE          | 4             |
| (UI)                |             | UNEAR FLUORESCENT COVE WALLWASH, NEORAY #79PF-2T5-XX-1-EB-SI   | 120   | 2   | 28W<br>T5  | COVE<br>RECESSED         | •             |
| $\bigcirc$          | 0           | 6" RECESSED DOWNLIGHT,<br>HALO #AL-CA7042-1D42-AL-7471-H-HB2C  | 120   | 1   | 42W<br>TTT | CEILING<br>RECESSED      | 4             |
| ⟨VE⟩                | •           | 6" RECESSED DOWNLIGHT, WITH 90-MINUTE 700 LUMEN EMERGENCY BALLST, HALO #AL-CA7042-1D42-AL-7471-H-HB2C-EBT2               | 120   | 1   | 42W<br>TTT | CEILING<br>RECESSED      | 4             |
| <b>(X1)</b>         | •           | VANDAL EXIT WITH 90-MINUTE BATTERY BACK-UP, SELF DIAGNOSTIC, SURELITE #CX7170RWSDVS1                                     | 120   | -   | =          | CEILING /WALL<br>SURFACE | 3             |
| <b>X2</b>           | •           | EDGELIT EXIT WITH 90-MINUTE BATTERY BACK-UP, SELF DIAGNOSTIC, SURELITE JELX7270RCSD                                      | 120   | -   | =          | CEILING /WALL<br>SURFACE | 3             |

LIGHTING FIXTURE SCHEDULE

GENERAL NOTES:

1) VERRY ALL COLORS/PINISHES WITH ARCHITECT/INTERIOR DESIGNER.

2) WIRE ALL EXT SIGNS & EMERGENCY LIGHTING AHEAD OF SWITCH UNLESS INDICATED OTHERWISE.

3) WIRE ALL EMERGENCY BALLASTS TO BE SWITCHABLE UNLESS INDICATED OTHERWISE.

4) VERRY CEUING TYPES & CEAR CEBLIGS SPACE PRIOR TO BIOPURCHASE.

5) SPECIFY TANDEM QUANTITY AS MOICATED ON PLAN WHEN ORDERING TYPES "U & UI".

2 MOUNT BOTTOM AT 6" ABOVE OVERHEAD DOOR.

PROVIDE DIMMABLE BALLASTS WHERE WIRED THROUGH DIMMING SYSTEM. EMERGENCY BALLASTS SHALL BE "BONDINE" & WIRE FOR FULL ON DURING POWER OUTAGE.

# \$, $\otimes$ **①** Oн

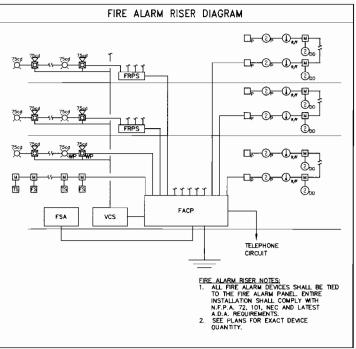
KEYED NOTES:

1 "V" DENOTES PROVIDE VANDAL VERSION.

3 WALL MOUNT ON 1FL CEILING MOUNT ON 2ND FL AND 3RD FL

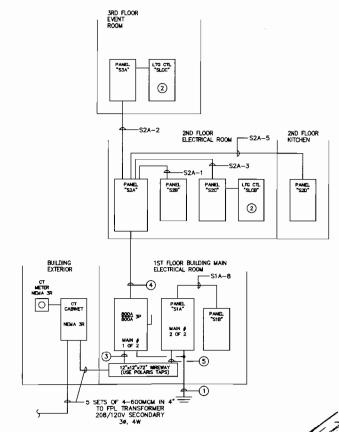
# ELECTRICAL SYMBOL LEGEND

- \$ 20A, 120V, SINGLE POLE LIGHT SWITCH. MOUNT CENTER AT 48" AFF.
  "L" DENOTES LOCKABLE.
- 20A, 120V, THREE-WAY SWITCH. MOUNT CENTER AT 48" AFF.
- SINGLE POLE MOTOR RATED SWITCH. MOUNT ADJACENT TO EQUIPMENT TO BE CONTROLLED. VERIFY AMPACITY WITH EQUIPMENT NAMEPLATE,
- 20A, 120V, SINGLE POLE TWIST TIMER SWITCH. MOUNT CENTER AT 48° AFF.
- LIGHTING SWITCH/DIMMING SYSTEM CONTROL STATION WITH BUTTON QUANITY INDICATED BY \$\rightarrow\$. CRESTRON "CNX" SERIES. SEACT TYPE WITH OWNER/ARCHITECT.
- 20A, 120V, SINGLE POLE DUAL TECHNOLOGY OCCUPANCY SENSOR SWITCH.
  MOUNT CENTER AT 48" AFF. WIRE DIRECTLY THROUGH CONTROL PANEL.
  SENSOR SWITCH #WS-PDT.
- CELING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR. WIRE DIRECTLY THROUGH CONTROL PANEL. SENSOR SWITCH #CMPDT1D.
- WALL MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR. WIRE DIRECTLY THROUGH CONTROL PANEL. SENSOR SWITCH #HW10-PDT.
- 20A, 120V, DUPLEX RECEPTACLE. WALL MOUNT CENTER AT 18" AFF.
- 20A, 120V, GFI, DUPLEX RECEPTACLE. WALL MOUNT CENTER AT 18" AFF.
- 20A, 120V, GFI, DUPLEX RECEPTACLE. WALL MOUNT CENTER AT 4" ABOVE COUNTER BACKSPLASH, COORDINATE WITH MILLWORK.
- 20A, 120V, QUADDRUPLEX RECEPTACLE. MOUNT CENTER AT 18" AFF.
- POWER CONNECTION FOR PLUMBING FIXTURE SENSOR. VERIFY EXACT REQUIREMENTS WITH CONTRACTOR.
- POWER CONNECTION FOR HAND DRYER. VERIFY EXACT REQUIREMENTS WITH CONTRACTOR.
- TELEPHONE/DATA OUTLET. WALL MOUNT AT 18" AFF. PROVIDE 3/4" CONDUIT WITH PULLSTRING TO TELEPHONE/CATV BACKBOARD. USE 1" CONDUIT FOR THOSE DENOTED WITH A "2". 4
- TELEPHONE/DATA OUTLET. RECESS FLOOR MOUNTED. PROVIDE 3/4" CONDUIT WITH PULLSTRING TO NEAREST WALL AND THEN 6" ABOVE CEILING. USE 1" CONDUIT FOR THOSE DENOTED WITH A "2". TV TELEVISION OUTLET. PROVIDE  $3/4^{\circ}$  CONDUIT WITH PULLSTRING TO TELEPHONE/CATV BACKBOARD.
- JUNCTION BOX FOR FUTURE SPEAKER. MOUNT CENTER AT +84" OUTSIDE AND +96" INSIDE. RUN 44" EMPTY CONDUIT TO HEAD END PA SYSTEM IN PRO SHOP COORDINATE EXACT REQUIREMENTS WITH CONTRACTOR/SYSTEM SUPPLIER.
- JOA SPCD DISCONNECT SAFETY SWITCH (3) POLES, 30A FRAME "\*\*" DENOTES CONTRACTOR TO PROVIDE FUSES PER MANUFACTURER'S NAMEPLATE, UNLESS NOTED OTHERWISE. "NF" DENOTES NOT FUSED. WHEN MOUNTING TO EQUIPMENT, AVOID ACCESS PARILS, AIR INTAKE, AND LOUVERS, ETC.
- -FLECTRICAL PANEL
- WEATHER PROOF
- GFI GROUND FAULT CIRCUIT INTERRUPTER
- AFF ABOVE FINISHED FLOOR



# PROVIDE THUNDERSTORM DETECTOR/PREDICTOR, SENSORS & WARNING DEVICES. COORDINATE ALL DEVICE LOCATIONS WITH OWNER/CONTRACTOR PRIOR TO INSTALLATION. 2) PROVIDE UL MASTER LABEL LIGHTNING PROTECTION SYSTEM. COORDINATE ALL DEVICE LOCATIONS WITH

- KEYED ELECTRICAL RISER NOTES 400 MCM COPPER GROUNDING ELECTRODE TO BUILDING GROUNDING ELECTRODE SYSTEM: 14" 6x10" COPPER GROUND ROD & BUILDING STRUCTURAL STEEL
- (2) CRESTRON "CAEN" DIMMING/SWITCHING LIGHTING CONTROL PANEL WITH "CLX" SERIES MODULES & "PAC2" PROCESSOR.
- (3) 2 SETS OF 4-600 MCM IN 4".
- 4) 2 SETS OF 4-600 MCM & 141/0G IN 4".
- (5) 3 SETS OF 4-600 MCM IN 4".



# **ELECRICAL RISER DIAGRAM**

MILTON KRAMER, P.E. BTATE OF FLORIDA MAY 1 9 2009



Designed: MK
Drawn: KLV
Checked: MK

ş ş

60059.01

PLA Solar Plent SCTS.

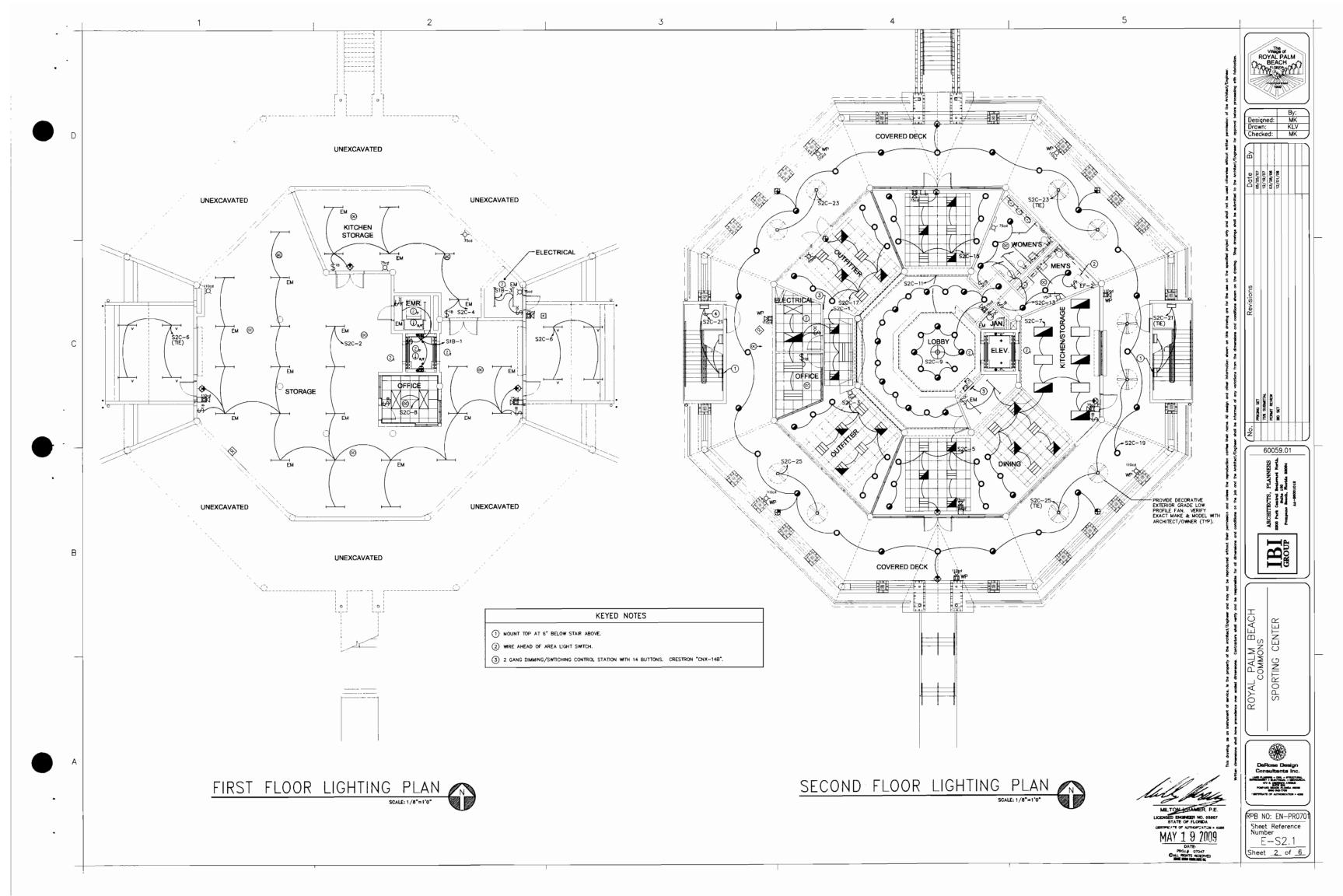
LE GEOU

M BEACH CENTER

SPORT ROYAL



RPB NO: EN-PRO701 Sheet Reference E-S0.1 Sheet <u>1</u> of <u>6</u>



COVERED VERANDA THIRD FLOOR LIGHTING PLAN SCALE: 1/8"=1"0"

KEYED NOTES

1) 1 GANG DIMMING/SWITCHING CONTROL STATION WITH 8 BUTTONS. CRESTRON "CNX-148".

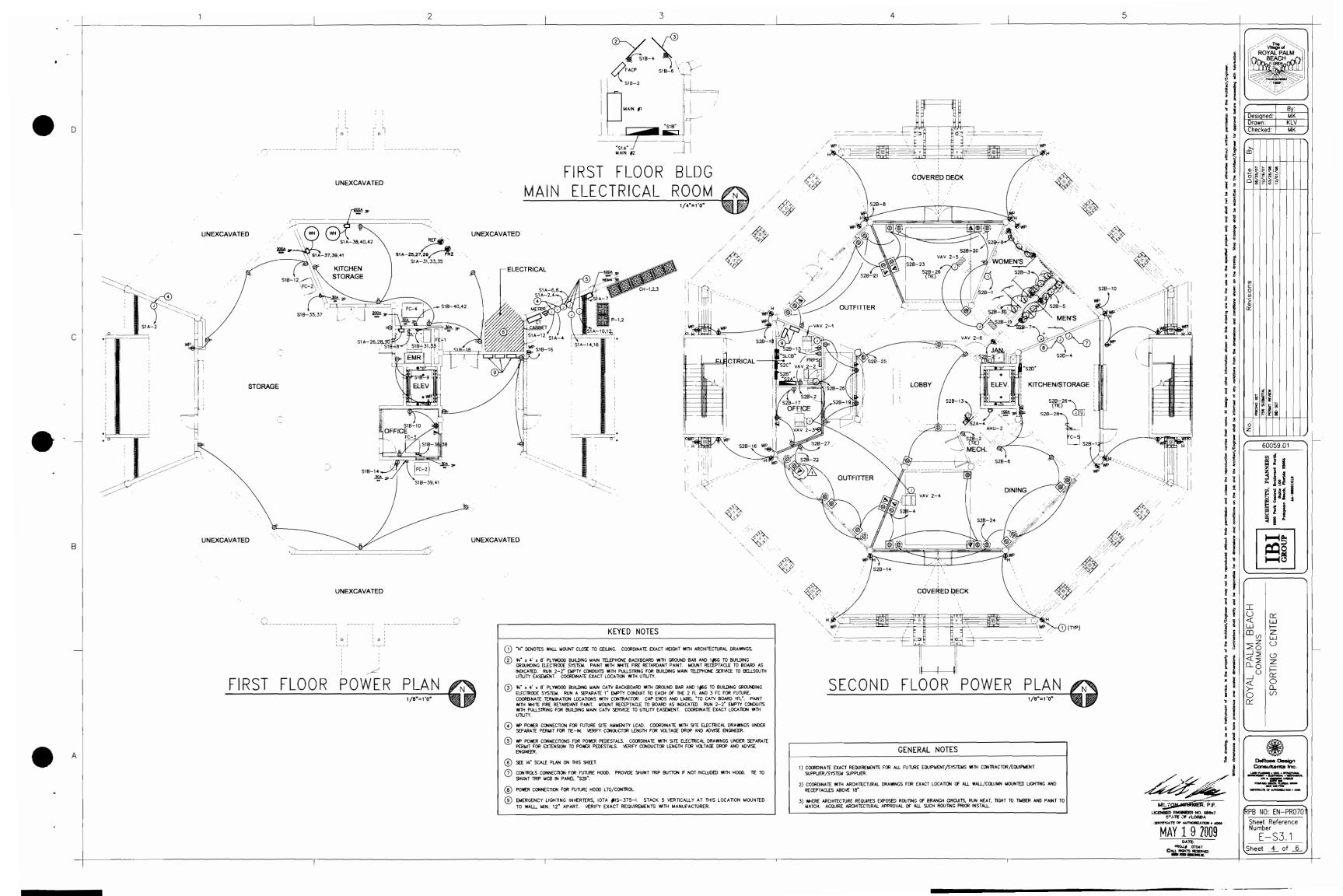


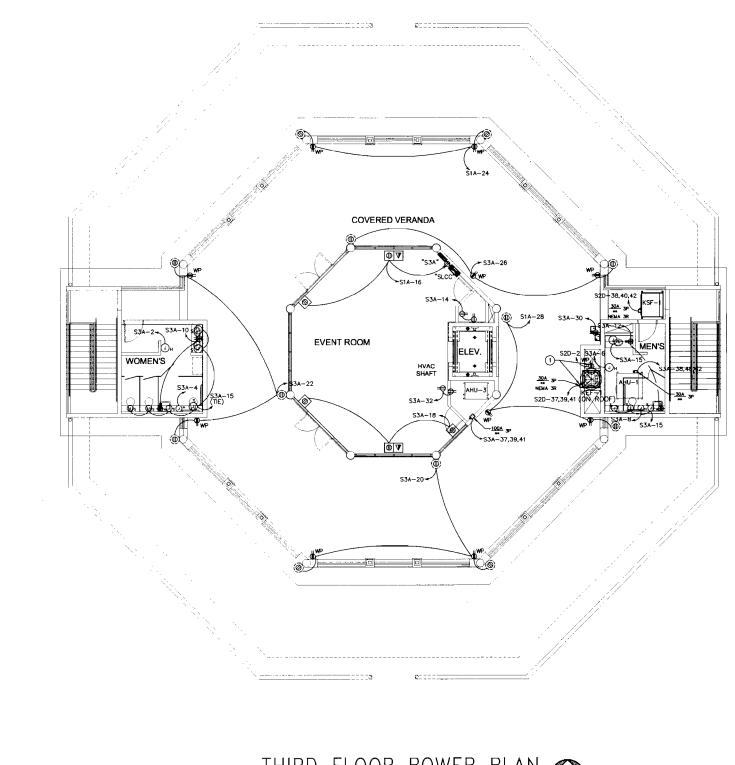
60059.01

IBI GROUP



RPB NO: EN-PR0701 Sheet Reference Number E-S2.2 Sheet 3 of 6







KEYED NOTES

1 MOUNT TO EQUIPMENT FRAME. AVOID ACCESS PANELS, AIR INTAKES AND LOUVERS.





|               | By:           |
|---------------|---------------|
| Designed:     | MÎD _         |
| Drawn:        | KLV           |
| Checked:      | MK )          |
| $\overline{}$ | $\overline{}$ |

60059.01

IBI



RPB NO: EN-PR0701
Sheet Reference
Number
E-S3.2
Sheet 5 of 6

| DISTR       | IBUTION PANE    | L "S      | 2A"    |             | MAIN:<br>MOUNTING:<br>SPEC: | SURFACE   |     |       |                     | DLTAGE: 208/120V, 30, 4 WIRE<br>C SYMM: 42,000 |
|-------------|-----------------|-----------|--------|-------------|-----------------------------|-----------|-----|-------|---------------------|--|
| DESCRIPTION | WRE/CND         | TR        | IP CKT | ØA KVA      | #B KVA                      | ØC KVA    | CKT | TRIP  | WIRE/CND            | DESCRIPTION                                    |
| PANEL "S2B" | 443/0 & 1416G I | N 214 20  | 0      | 10.6 . 19.6 |                             |           |     | 200   | 443/0 & 146G IN 214 | PANEL "S3A"                                    |
|             | 1               |           | 1      |             | 10.2 19.1                   |           | , 2 | 1     |                     |  |
|             |                 | - 1/      | 1      | _           |                             | 10.1 18.1 |     | / / ] |                     |  |
| PANEL "S2C" | ##3/0 & 1#16G I | N 212 20  | o : -  | 10.8 7.6    |                             |           | -   | .80   | 344 & 148G IN 114"  | AHU-2  |
|             |                 | 1         | : 3    |             | 9.1 7.6                     |           | 4   | 1     |                     |  |
|             |                 | 1         | 1      |             | <u> </u>                    | 7.9 7.6   | 1 ! |       |                     |  |
| PANEL "S2D" | 4 443/0 & 1416G | N 214 200 | 0      | 14.0   -    |                             |           | 1 : |       |                     | SPACE  |
|             |                 |           | 5      |             | 14.0                        | ,         | В   |       |                     | 1  |
|             |                 |           | 1      |             | !                           | 14.0 ~    | - : |       |                     | 1  |
| SPACE       |                 | - 1 -     |        |             | · ·-                        |           | T   | - 1   |                     | SPACE  |
|             |                 | - 1       | 7      |             | - : -                       |           | 8   |       |                     |  |
|             |                 |           |        |             |                             | - ; -     | . ! |       |                     |  |
| SPACE       |                 |           |        | - 1 -       |                             |           |     | -     |                     | SPACE  |
|             |                 |           | 9      |             |                             |           | 10  | i     |                     |  |
|             |                 |           | 1      | [           |                             |           | ٦ i | i     |                     |  |
| SPACE       |                 | 1-        | 1      | -   -       |                             |           | ,   | _     | -                   | SPACE  |
|             | !               | - :       | : 11   |             |                             |           | 12  |       |                     |  |
|             |                 | i         |        |             |                             | T - 1 -   | īπ  |       |                     |  |
| SPACE       |                 | -         |        | - T-        |                             | -         |     | -     |                     | SPACE  |
|             | ĺ               | - 1       | 13     |             | - ' -                       |           | 14  |       |                     |  |
|             |                 |           |        |             |                             |           | 1   |       |                     |  |
|             |                 |           |        | 62.6        | 60.0                        | 57.7      | KVA | PER   | PHASE               |  |
|             |                 |           |        | 522         | 500                         | 481       | AMP | S PER | PHASE               |  |
|             |                 |           |        |             | 180                         |           | TOT | AL KV | A                   |  |

| DISTRIBUT         | ION PANEL                | "S1  | Α"  |      |            | MAIN:<br>MOUN<br>SPEC | ITING:   | SURF | ACE  |     |      |                   | VOLTAGE:<br>AIC SYMM: |             | 4 WIRI |
|-------------------|--------------------------|------|-----|------|------------|-----------------------|----------|------|------|-----|------|-------------------|-----------------------|-------------|--------|
| DESCRIPTION       | WRE/CND                  | TRIP | CKT | #A   | KVA        | #8                    | KVA      | #C   | KVA  | скт | TRIP | WIRE/CND          |                       | DESCRIPTION |        |
| SPACE             | _                        | 7    | 1   |      | 6.0        | -                     | 6.0      |      | 6.0  | 2   | 60   | 3-                | KAYAK                 | LAUNCH      | [5     |
| SPACE             | -                        | [7   | 3   |      | 6.0        | -                     | 6.0      |      | 6.0  | 4   | 60   | 212               | BANQU                 | ET GARDEN   | [5     |
| SPACE             | -                        | [-/  | 5   | =    | ! -<br>= - | -                     | -<br>  - |      |      | 6   | /-   | -                 | SPACE                 |             |        |
| CHI-1, 2, 3 & P-1 | 3#4/0 &<br>1#4G IN 21/2" | 225/ | 7   | 23.5 | 9.4        | 23.5                  | 9.9      | 23.5 | 13.7 | 6   | 200  | 443/0 & 146G IN 2 | PANEL                 | *S18*       | _      |
| REFRIGERATOR      | 3#6 & 1#10G IN 1"        | 60 / | 9   | 5.5  | 16.3       | -                     | 16.3     |      | 16.3 | 10  | 200  | 3#3/0 & 1#6G IN : | ELEVAT                | ror         |        |
| FREEZER           | 346 & 1410G IN 1"        | 60 / | 11  |      | 15.0       |                       | 15.0     |      | 15.0 | 12  | 150  | 2 SETS OF 3"      | PLAZA                 |             | [3     |
| WATER HEATER      | 3#1 & 1#60 IN 11/2"      | 125. | 13  | -    | 10.0       | 10.0                  | 10.0     | 10.0 | _    | 14  |      | 3#1 & 1#6G IN 19  | water                 | HEATER      |        |
|                   |                          |      |     | _    | .1         | 107                   | .1       | 111  | 1    | +25 | % LG | PHASE<br>ST MOTOR |                       |             |        |
|                   |                          |      | į   | - 92 | 28         | 33                    |          | 96   | -    | -   | AL K | R PHASE<br>/A     |                       |             |        |

MAIN: 225A RATED BUS WITH 200A MCB VOLTAGE: 208/120V, 36, 4 WIRE

| BRANCH C           | IRCUIT PANEL        | "5   | 334 | \ <b>"</b> | MAIN:<br>MOUNTING:<br>SPEC: | SURFACE        | -   | -     |                     | LTAGE: 208/120V, 3#, 4 WIR<br>C SYMM: 10,000 |
|--------------------|---------------------|------|-----|------------|-----------------------------|----------------|-----|-------|---------------------|--|
| DESCRIPTION        | WRE/CND             | TRIP | СКТ | ØA KVA     | #B KVA                      | <b>#</b> C KVA | CKT | TRIP  | WIRE/CND            | DESCRIPTION                                  |
| LTG, PARTY         | 2412 & 1412G IN 12  | 20   | 1   | 1.6 1.5    | -                           |                | 2   | 20    | 2412 & 1412G IN 12" | HAND DRYER, WOMAN                            |
| LTG, VERANDA       | 2 12 a 1412G IN 12  | 20   | 3   |            | 0.8 1.5                     | _              | 4   | 20    | 2412 & 1412G IN 12  | HAND DRYER, WOMAN                            |
| LTG, VERANDA       | 2#12 & 1#12G IN 12" | 20   | 5   |            |                             | 0.9 1.5        | 6   | 20    | 2412 & 1412G IN 12" | HAND ORYER, MEN                              |
| LTG, VERANDA       | 2#12 & 1#12G IN 12" | 20   | 7   | 0.8 1.5    |                             |                | В   | 20    | 2412 & 1412G N 12   | HAND DRYER, MEN                              |
| LTG, VERANDA       | 2#12 & 1#12G IN 12" | 20   | 9   |            | 0.9 1.5                     |                | 10  | 20    | 2#12 & 1#120 IN 12" | RECEPTS, WOMEN                               |
| LTG, WOMEN/MEN     | 2#12 & 1#12G IN 12" | 20   | 11  |            |                             | 1.3 1.5        | 12  | 20    | 2#12 & 1#12G IN 12" | RECEPTS, MEN                                 |
| LTG, STAIR         | 2#12 & 1#12G IN 12" | 20   | 13  | 0.6 1.5    |                             |                | 14  | 20    | 2412 & 1412G IN 15" | RECEPTS, SOUND EQUIP                         |
| PLUMB FIXT SENSORS | 2#12 & 1#12G IN 12" | 20   | 15  |            | 0.2 1.5                     |                | 16  | 2D    | 2#12 & 1#12G IN 12" | RECEPTS, PARTY                               |
| SPARE              |                     | 20   | 17  |            |                             | 0.5 1.5        | 18  | 20    | 2#12 & 1#12G N 14"  | RECEPTS, PARTY                               |
| SPARE              | _                   | 20   | 19  | 0.5 1.0    |                             |                | 20  | 20    | 2412 & 1412G IN 12  | RECEPTS, VERANDA                             |
| SPARE              | -                   | 20   | 21  |            | 0.5 1.0                     |                | 22  | 2D    | 2#12 & 1#12G IN 14" | RECEPTS, VERANDA                             |
| SPARE              |                     | 20   | 23  |            | _                           | 0.5 0.8        | 24  | 20    | 2412 & 1412G IN 12" | RECEPTS, VERANDA                             |
| SPARE              |                     | 20   | 25  | 0.5 0.8    |                             | i —            | 26  | 2D    | 2#12 & 1#12G IN 12" | RECEPTS, VERANDA                             |
| SPACE              |                     | -    | 27  |            | - 0.8                       |                | 28  | 20    | 2412 & 1412G IN 12" | RECEPTS, VERANDA                             |
| SPACE              | -                   | -    | 29  |            |                             | - 0.8          | 30  | 20    | 2412 & 1412G IN 12" | DRINKING FOUNTAIN                            |
| SPACE              |                     | -    | 31  |            |                             | -              | 32  | 20    | 2412 & 1412G IN 12" | RECEPTS, MECH/PARTY                          |
| SPACE              |                     | _    | 33  |            |                             |                | 34  | 20    | -                   | SPACE  |
| SPACE              | -                   | -    | 35  |            |                             | - 1 -          | 36  | 20    | -                   | SPACE  |
| AHU-3              | 344 & 148G IN 114"  | 80/  | 37  | 7.2 1.7    |                             | _              | 38  | 20    | 3412 & 1412G IN 14" | AHU-1  |
|                    | J .                 | : /  | 39  |            | 7.2 1.7                     |                | 40  | 1     |                     |  |
|                    |                     | į.   | 41  |            |                             | 7.2 1.7        | 42  | \     |                     |  |
|                    |                     |      |     | 1.0        | 1.D                         | 1.0            | +25 | 5% CC | NT LOAD             |  |
|                    |                     |      |     | 19.6       | 19.1                        | 18.1           | KVA | PER   | PHASE               |  |
|                    |                     |      |     | 172        | 159                         | 160            | AMF | S PE  | R PHASE             |  |
|                    |                     |      |     |            | 58                          |                | тот | AL K  | /A                  |  |

|                      | IRCUIT PANEL        | _    |     |         | SPEC:   | SQUARE D      | TYPE | -NO  | DD", NEMA 3R    |             |                 |
|----------------------|---------------------|------|-----|---------|---------|---------------|------|------|-----------------|-------------|-----------------|
| DESCRIPTION          | WIRE/CND            | TRIP | СКТ | ØA KVA  | #B KVA  | <b>⊕C KVA</b> | CKT  | TRIP | WRE/CND         | ]           | DESCRIPTION     |
| HAND DRYER, WOMAN    | 2 12 & 1 12G IN 12" | 20   | 1   | 1.5 0.6 |         |               | . 2  | 20   | 2012 & 1012G N  | M' RECEPTS  | , MECH/JAN/FLEC |
| HAND DRYER, WOMAN    | 2 12 & 1 12G IN 15" | 20   | 3   |         | 1.5 0.8 | T'' = T''     | 4    | 20   | 2#12 & 1#12G IN | 14" RECEPTS | , E DINING      |
| HAND DRYER , MEN     | 2 12 & 1 12G IN 12" | 20   | 5   | _       |         | 1.5 1.0       | . 6  | 20   | 2#12 & 1#12G N  | M" RECEPTS  | , W DINING      |
| HAND DRYER , MEN     | 2#12 & 1#12G IN 12" | 20   | 7   | 1.5 1.0 |         |               | 8    | 20   | 2 12 & 1 12G N  | 14" RECEPTS | EXTERIOR        |
| RECEPTS, WOMAN       | 2412 & 1412G IN 12" | 2D   | 9   |         | 1.5 1.D |               | 10   | 20   | 2#12 & 1#12G IN | 12" RECEPTS | , EXTERIOR      |
| RECEPTS, MEN         | 2#12 & 1#12G IN 14" | 20   | 11  |         |         | 1.5 0.8       | 12   | 20   | 2012 & 1012G N  | 14" RECEPTS | EXTERIOR        |
| DRINKING FOUNTAIN    | 2 12 & 1 12 IN 12   | 20   | 13  | 8.0 8.0 |         |               | 14   | 20   | 2412 & 1412G IN | M" RECEPTS  | EXTERIOR        |
| SECURITY             | 2 12 & 1 12G IN 12" | 20   | 15  |         | 0.5 0.8 |               | 16   | 20   | 2412 & 1412G IN | 12" RECEPTS | EXTERIOR        |
| RECEPTS, OFF         | 2#12 & 1#12G IN 12" | 20   | 17  | -       |         | 1.0 0.8       | 18   | 20   | 2#12 & 1#126 IN | 14 RECEPTS  | , EXTERIOR      |
| RECEPTS, RECEPTION   | 2#12 & 1#12G IN 14" | 20   | 19  | 1.2 0.8 |         | ;             | 20   | 20   | 2#12 & 1#12G IN | M' RECEPTS  | , N SHOW WINDOW |
| RECEPTS, N OUTFITTER | 2412 & 1412G IN 12" | 20   | 21  |         | 0.8 0.6 |               | 22   | 20   | 2 12 & 1 12G N  | M' RECEPTS  | , S SHOW WINDOW |
| RECEPTS, N ENTRY     | 2 12 & 1 12G IN 12" | 26   | 23  |         |         | 1.0 0.8       | 24   | 20   | 2 12 & 1 12G IN | MECEPTS     | S SHOW WINDOW   |
| RECEPTS, LOBBY       | 2 12 & 1 12G IN 15" | 20   | 25  | 1.0 0.4 |         |               | 26   | 20   | 2 12 & 1 12G IN | 12" 2FL VAV | 'S & DAMPER     |
| RECEPTS, S OUTFITTER | 2#12 & 1#12G IN 14" | 20   | 27  |         | 1.0 0.7 | _             | 28   | 20   | 2412 & 1412G IN | 12" 2FL FC- | 5               |
| SPARE                | -                   | 20   | 29  |         |         | D.5 0.2       | 30   | 20   | 2#12 & 1#12G IN | 14" 2FL PLU | MB FIXT SENSORS |
| SPARE                |                     | 20   | 31  | 0.5 -   |         | -             | 32   | -    |                 | SPACE       |                 |
| SPARE                | -                   | 20   | 33  |         | 0.5 -   | -             | 34   | _    |                 | SPACE       |                 |
| SPARE                |                     | 20   | 35  |         |         | D.5 -         | 36   | -    |                 | SPACE       |                 |
| SPARE                |                     | 20   | 37  | 0.5 -   |         | T             | 38   | -    | _               | SPACE       |                 |
| SPARE                |                     | 20   | 39  |         | 0.5 -   |               | 40   | -    |                 | SPACE       |                 |
| SPARE                |                     | 20   | 41  |         |         | 0.5 -         | 42   | -    | -               | SPACE       |                 |
|                      |                     |      |     | 10.6    | 10.2    | 10.1          | KVA  | PER  | PHASE           |             |                 |
|                      |                     |      |     | 88      | 85      | : B4          | AME  | S PE | R PHASE         |             |                 |

| DESCRIPTION             | WRE/CND             | TRIP | CKT | #A KVA  | #8  | KVA | #C H     | (VA | СКТ | TRIP  | WRE/CNI      | )       | DESCRIPTIO          |
|-------------------------|---------------------|------|-----|---------|-----|-----|----------|-----|-----|-------|--------------|---------|---------------------|
| LTG/REC, ELEV PIT/MACH  | 2#12 & 1#12G IN 12" | 20   | 1   | 0.4 0.5 | -   | _   |          |     | 2   | 20    | 2#12 & 1#12G |         |                     |
| LTG, 1FL ELEC           | 2412 & 1412G IN 15" | 20   | 3   |         | 0.2 | 0.4 | -        | -   | 4   | 20    | 2412 & 1412G | IN 14"  | TELEPHONE           |
| RECEPTS, POWER PEDESTAL | 2412 & 1412G IN 12  | 20   | 5   | _       |     | _   | 0.8      | 0.4 | 6   | 20    | 2#12 & 1#12G | IN 1/2" | CATV                |
| RECEPTS, POWER PEDESTAL | 2#12 & 1#12G IN 12" | 20   | 7   | 0.8 1.0 | -   |     | _        |     | 8   | 20    | 2#12 & 1#12G | IN 14"  | ELEV CAB LT/FAN     |
| RECEPTS, POWER PEDESTAL | 2412 & 1412G IN 12" | 20   | 9   |         | 0.8 | 0.8 | <u> </u> |     | 10  | 20    | 2#12 & 1#12G | IN 14"  | RECEPTS, 1FL OFF    |
| RECEPTS, POWER PEDESTAL | 2#12 & 1#12G IN 12" | 20   | 11  |         | _   |     | 0.8      | 0.8 | 12  | 20    | 2#12 & 1#12G | IN W    | RECEPTS, 1FL STG    |
| RECEPTS, POWER PEDESTAL | 2#12 & 1#12G IN 14" | 20   | 13  | 0.8 1.0 | _   |     |          | -   | 14  | 20    | 2 12 & 1 12G | IN 14"  | RECEPTS, 1FL STG    |
| RECEPTS, POWER PEDESTAL | 2412 & 1412G IN 12  | 20   | 15  |         | 0.8 | 0.8 |          | -   | 16  | 20    | 2/12 & 1/12G | IN 15"  | RECEPTS, 1FL STG    |
| RECEPTS, POWER PEDESTAL | 2#12 & 1#12G IN 12" | 20   | 17  |         | -   |     | 0.8      | 1.2 | 18  | 20    | 2 12 & 1 12G | IN 14   | RECEPTS, 1FL KIT ST |
| RECEPTS, POWER PEDESTAL | 2412 & 1412G IN 12" | 20   | 19  | 0.8 -   | -   |     |          |     | 20  | -     | _            |         | SPACE               |
| SPARE                   | -                   | 20   | 21  |         | 0.5 | T-  |          | -   | 22  | -     | _            |         | SPACE               |
| SPARE                   | _                   | 20   | 23  |         |     |     | 0.5      | ~   | 24  | -     |              |         | SPACE               |
| SPARE                   | -                   | 20   | 25  | 0.5 -   | -   | -   | _        |     | 26  | -     | -            |         | SPACE               |
| SPARE                   | -                   | 20   | 27  |         | 0.5 | -   | _        |     | 28  | -     |              |         | SPACE               |
| SPARE                   | -                   | 20   | 29  | _       | _   |     | 0.5      | -   | 30  | -     | _            |         | SPACE               |
| FC-1, ELEV MACH RM      | 2#12 & 1#12G IN 14" | 20   | 31  | 0.4 -   | -   |     | -        | -   | 32  | -     | _            |         | SPACE               |
|                         |                     | /    | 33  | -       | 0.4 | -   |          | -   | 34  | -     | _            |         | SPACE               |
| FC-2, IFL N STG         | 2#10 & 1#10G IN %"  | 30 ´ | 35  | _       | -   | =   | 2.2      | 1.0 | 36  | 20    | 2#12 & 1#12G | IN 12°  | FC-3, 1FL OFF       |
|                         |                     | /    | 37  | 2.2 1.0 | _   |     |          | -   | 38  | ٠,    |              |         |                     |
| FC-2, IFL S STG         | 2410 & 1410G IN 14" | 30/  | 39  |         | 2.2 | 2.5 | _        |     | 40  | 30    | 2#10 & 1#10G | IN 14"  | FC-4, 1FL KIT STG   |
|                         |                     |      | 41  | _       | _   | -   | 2.2      | 2.5 | 42  |       |              |         | i                   |
|                         |                     |      |     | 9.4     | 9   | .9  | 13.      | 7   | KVA | PER   | PHASE        |         |                     |
|                         |                     |      |     | 78      |     | 33  | 114      | 4   | AMF | 'S PE | R PHASE      |         |                     |
|                         |                     |      |     |         |     | 53  |          |     | TOT | AL K  | /A           |         |                     |

| BRANCH (                | CIR | CUIT PANEL           | "5   | 320 | 3"      | MAIN:<br>MOUNTING:<br>SPEC: | SURFACE |      |       |                     | LTAGE: 208/120V, 30, 4 WIRE<br>C SYMM: 10,000 |
|-------------------------|-----|----------------------|------|-----|---------|-----------------------------|---------|------|-------|---------------------|---|
| DESCRIPTION             |     | WRE/CND              | TRIP | СКТ | ØA KVA  | #B KVA                      | #C KVA  | СКТ  | TRIP  | WRE/CND             | DESCRIPTION                                   |
| LTG, 2FL RECPT/OFF      | 2   | 2#12 & 1#12G IN 12"  | 20   | 1   | 0.8 1.6 |                             |         | . 2  | 20    | 2412 & 1412G IN 12" | LTG, IFL STG                                  |
| LTG, 2FL S OUTFITTER    | 2   | 2#12 & 1#12G IN 12"  | 20   | 3   |         | 1.2 0.7                     |         | 4    | 20    | 2#12 & 1#12G IN 12" | LTG, 1FL KIT STG                              |
| LTG, 2FL S ENTRY        | 2   | 2#12 & 1#12G IN 12"  | 20   | 5   |         |                             | 1.2 D.6 | 6    | 20    | 2 12 & 1 12G IN 12  | LTG, 1FL EXTERIOR 2                           |
| LTG, 2FL DINING/KITCHEN | 2   | 2#12 & 1#12G IN 12"  | 20   | 7   | 1.6 0.2 |                             |         | В    | 20    | 2 12 & 1 12G IN 12" | LTG, 1FL OFF                                  |
| LTG, 2FL LOBBY          | 2   | 2#12 & 1#12G IN 1/2" | 20   | 9   |         | 1.4 1 =                     |         | 10   | -     |                     | SPACE   |
| LTG, 2FL LOBBY COVE     | 2   | 2 12 & 1 12G IN 12"  | 20   | 11  |         |                             | 1.2 -   | 12   | _     | -                   | SPACE   |
| LTG, 2FL MEN/WOMEN      | 2   | 2#12 & 1#12G IN 12"  | 20   | 13  | 1.6 -   |                             | _       | 14   | -     |                     | SPACE   |
| LTG, 2FL N ENTRY        | 2   | 2412 & 1412G IN 14"  | 20   | 15  |         | 1.2 : -                     |         | 16   | -     | -                   | SPACE   |
| LTG, 2FL N OUTFITTER    | 2   | 2#12 & 1#12G IN 12"  | 20   | 17  |         |                             | 1.2 ~   | . 18 | -     |                     | SPACE   |
| LTG, 2FL EXTERIOR       | 2   | 2#12 & 1#12G IN 14"  | 20   | 19  | 1.2 -   |                             |         | 20   | _     |                     | SPACE   |
| LTG, 2FL STAIR          |     | 2412 & 1412G IN 12"  | 20   | 21  |         | 1.3 -                       |         | 22   | -     |                     | SPACE   |
| FANS, 2FL N EXTERIOR    | 2   | 2#12 & 1#12G IN 14"  | 20   | 23  |         |                             | 0.6     | 24   | -     | -                   | SPACE   |
| FANS, 2FL S EXTERIOR    | 2   | 2#12 & 1#12G IN 12   | 20   | 25  | 0.6 -   |                             |         | 26   |       | -                   | SPACE   |
| SPARE                   |     |                      | 20   | 27  |         | 0.5 -                       |         | 28   | -     |                     | SPACE   |
| SPARE                   |     |                      | 20   | 29  |         |                             | 0.5 -   | 30   | -     |                     | SPACE   |
| SPARE                   |     | -                    | 20   | 31  | 0.5 -   |                             |         | 32   | -     |                     | SPACE   |
| SPARE                   |     | -                    | 20   | 33  |         | 0.5 -                       |         | . 34 | -     |                     | SPACE   |
| SPARE                   |     |                      | 20   | 35  |         |                             | 0.5 -   | 36   | -     |                     | SPACE   |
| SPARE                   |     | -                    | 20   | 37  | 0.5 -   |                             |         | 38   | -     | ~                   | SPACE   |
| SPARE                   |     | -                    | 20   | 39  |         | 0.5 -                       |         | 40   | -     | _                   | SPACE   |
| SPARE                   |     | -                    | 20   | 41  |         |                             | D.5 -   | 42   | -     | _                   | SPACE   |
|                         |     |                      |      |     | 2.2     | 1.8                         | 16      | +2   | 5% CO | NT LOAD             |   |
|                         |     |                      |      |     | 10.8    | 9.1                         | 7.9     | KVA  | PER   | PHASE               |   |
|                         |     |                      |      |     | 90      | . 76                        | 66      | AMF  | S PE  | R PHASE             |   |
|                         |     |                      |      |     |         | 28                          |         | TOT  | AL K  | /A                  |   |

- 1 PROVIDE LOCK CLIP IN "ON" POSITION.
- 2 PROGRAM THROUGH LIGHTING CONTROL SYSTEM'S ASTRONOMICAL TIMECLOCK.
- 3 RUN ALL LIGHTING CIRCUITS THROUGH ADJACENT DIMMING/SWITCHING PANEL.
- 4 LOAD INDICATED IS FUTURE ANTICIPATED.
- [5] RUN EMPTY CONDUIT INDICATED FOR FUTURE LOAD UNDER SEPERATE PERMIT.

| MAIN LOA         | SUMMARY |      |
|------------------|---------|------|
| DESCRIPTION      | KVA     | Α    |
| DIST PANEL "SIA" | 339     | 942  |
| DIST PANEL "SZA" | 180     | 500  |
| 25% SPARE        | 130     | 362  |
| TOTAL            | 649     | 1803 |
| SERVICE          | 720     | 2000 |



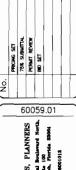


| $\overline{}$ | By: |
|---------------|-----|
| Designed:     | MK  |
| Drawn:        | KLV |
| Checked:      | MK  |

|        | 231    | qı r  | cu.    |       |   | PV1 | ` |   |
|--------|--------|-------|--------|-------|---|-----|---|---|
| Dr     | OW.    | vn:   |        | Т     |   | ΚL  | V |   |
| CI     | nec    | ke    | d:     | Т     |   | M   | < | _ |
| $\geq$ |        | _     | _      | Ė     | _ | _   |   | _ |
| â      |        |       |        |       |   |     |   | ľ |
| ate    | /25/07 | 19/07 | 728/08 | 01/08 |   |     |   |   |

| 9    |          |          |          | _        | _ | 141 | _ |  |
|------|----------|----------|----------|----------|---|-----|---|--|
| â    |          |          |          |          |   |     |   |  |
| Date | 05/25/07 | 12/19/07 | 03/28/08 | 12/01/08 |   |     |   |  |
|      |          |          |          |          |   |     |   |  |
|      |          |          |          |          |   |     |   |  |





corrise their name. All design and Engineer shall be informed of any





no instrument of service, is the property of the Architect/Displace and may have precidence over scaled dimensions. Controctors shall writy and be represented to the Control of the Contr CENTER





- ALL WORK SHALL BE PERFORMED BY A LICENSED CONTRACTOR IN A FIRST CLASS WORKMAN LIKE MANNER. SAID CONTRACTOR SHALL MEET ALL REQUIRMENTS SET FORTH BY ANY LOCAL ORDIANCE AND OR GOVERNING AUTHORITIES EFFECTIVE 12/1/08.
- ALL WORKMANSHIP AND MATERIALS SHALL BE IN STRICT ACCORDENCE WITH APPLICABLE NATIONAL, STATE, AND LOCAL CODES, AND ORDINANCES EFFECTIVE 12/1/08.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL LABOR, MATERIALS, AND SUPERVISION NECESSARY TO ACCOMPLISH THE WORK SHOWN AND/OR NOTED ON THE DRAWINGS.
- ALL REQUIRED INSURANCE SHALL BE PROVIDED FOR PROTECTION AGAINST PUBLIC LIABILITY AND PROPERTY DAMAGE FOR THE DURATION OF THE WORK
- CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO BID AND VERIFY ALL CONDITIONS, LOCATIONS, DIMENSIONS AND COUNTS AS SHOWN AND/OR NOTED ON THE DRAWINGS. THIS SHALL INCLUDE ANY AND ALL FABRICATIONS REQUIRED PRIOR TO INSTALLATION.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR FOR THE ADVANCED ORDERING OF LONG LEAD ITEMS AS NOT TO INTERFER WITH THE PRODUCTION OF OTHER TRADES RESULTING IN ANY DOWN OR LAG TIME.
- CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN (1) YEAR FROM DATE OF ACCEPTANCE, UNLESS INDICATED OR SPECIFIED ORTHERWISE.
- CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ADDITIONAL CHARGE AND SHALL INCLUDE REPLACEMENT OR REPAIR OF ANY OTHER PHASE OF THE INSTALLATION WHICH MAY HAVE BEEN DAMAGED THEREBY.
- THE CONTRACTOR SHALL BE RESPONABLE TO REPAIR TO ORIGINAL CONDITION ANY AND ALL DAMAGES TO BUILDING SURFACES, EQUIPMENT, AND FURNISHINGS CAUSED DURING PERFORMANCE OF WORK.
- O. LOCATION OF PLUMBING ROUGH—IN MAY CHANGE. VERIFY EXACT LOCATION WITH ARCHITECT/ENGINEER PRIOR TO INSTALLATION. DRAWINGS ARE DIAGRAMMATIC, DO NOT SCALE FOR THE EXACT LOCATION OF FIXTURES, PIPING, EQUIPMENT, ETC.
- ALL MATERIALS SHALL BE NEW AND SHALL BEAR UNDERWRITER'S LABEL WHERE APPLICABLE.
- THE COMPLETED SYSTEM SHALL BE FULLY OPERATIVE AND ACCEPTANCE BY ARCHITECT/ENGINEER MUST BE A CONDITION OF THE CONTRACT.
- ALL EXCAVATION AND BACKFILL AS REQUIRED FOR THIS PHASE OF CONSTRUCTION SHALL BE A PART OF THIS CONTRACT.
- 4. CONTRACTOR SHALL PAY FOR ALL PERMITS, FEES, INSPECTIONS, AND
- ARCHITECTURAL AND/OR ENGINEERING EXPENSES THAT ARE INCURRED DUE TO REVISIONS OR SUBSTITUTIONS REQUESTED BY THE CONTRACTOR SHALL BE PAID FOR BY THAT CONTRACTOR.
- DOMESTIC WATER PIPING TO BE IN ACCORDANCE WITH FLORIDA BUILDING PLUMBING CODE 610 DISINFECTION OF POTABLE WATER SYSTEM & CODE 606.6 WATER SYSTEM TEST.
- ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE WITH THE PROGRESS OF CONSTRUCTION.
- 18. VERIFY LOCATION, SIZE, ELEVATION, MATERIALS, AND PRESENT STATE OF ALL
- INSTALL READILY ACCESSIBLE GATE VALVES IN ALL BRANCH WATER LINES SERVING ANY ROOM HAVING PLUMBING FIXTURES. ALL FIXTURES SHALL BE PROVIDED WITH READILY ACCESSIBLE VALVES.
- 20. MAIN WATER SUPPLY SHALL BE EQUIPTED WITH A BACKFLOW PREVENTER
- 21. ALL THREADED WATER OUTLETS (EXCEPT FOR AUTOMATIC CLOTHES WASHERS) SHALL BE FURNISHED WITH WATTS #BA APPROVED VACUUM BREAKERS.
- 22. FURNISH AND INSTALL APPROVED WATER HAMMER ARRESTORS ON QUICK CLOSING VALVES NEAR THE FIXTURES IN AN EFFECTIVE RANGE.
- 3. WHERE DISSIMILAR METALS ARE TO BE JOINED, APPROVED INSULATING UNIONS
- 24. CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ADDITIONAL CHARGE AND SHALL INCLUDE REPLACEMENT OR REPAIR OF ANY OTHER PHASE OF THE INSTALLATION WHICH MAY HAVE BEEN DAMAGED THEREBY.
- 25. IF THE CONTRACTOR PROPOSES TO USE ANY ARTICLE, DEVICE, PRODUCT, OR MATERIALS WHICH IS NOT AS SPECIFIED, THE CONTRACTOR SHALL BE RESPONSIBILITY TO PROVE TO THE ARCHITECT/ENGINEER THAT THE PROPOSED SUBSTITUTION IS EQUAL.
- . THE CONTRACTOR SHALL KEEP ALL AREAS IN WHICH WORK IS BEING PERPFORMED, FREE FROM DEBRIS AT ALL TIMES AND SAID AREAS SHALL BE LEFT BROOM CLEAN AT THE END OF EACH WORKING DAY.
- THE CONTRACTOR SHALL FURNISH A COMPLETE SET OF AS-RUILT DRAWNGS, SHOWING ALL CHANGES AND DEVIATIONS, TO THE ARCHITECT/ ENGINEER PROIR TO COMPLETION OF THE PROJECT.

# GENERAL NOTES

- 1. DO NOT SCALE DRAWINGS FOR PARTITION LOCATION, CONSULT ARCHITECTURAL DRAWINGS FOR DIMENSIONS.
- 2. CONTRACTOR SHALL VISIT SITE TO VERIFY FIELD CONDITIONS & PHYSICAL LOCATIONS & SIZE OF EXISTING SERVICES.
- 3. SANITARY LINES LARGER THAN 21/2" TO SLOPE 1/6"/FOOT.
- I. SANITARY LINES 21/2" AND LESS TO SLOPE 14"/FOOT.
- CONSULT ARCHITECTURAL DRAWINGS FOR ALL FINISH FLOOR & GRADE ELEVATIONS.
- 6. SEE ARCHITECTURAL DRAWINGS FOR ROOF DRAINAGE.
- 7, IF CITY PRESSURE FALLS BELOW 65 PSI A BOOSTER PUMP WILL BE NEEDED

# PLUMBING LEGEND COLD WATER

SANITARY SOIL OR WASTE PIPING

- - VENT POINT OF CONNECTION TO NEW OR EXISTING

G.V. — GATE VALVE

B.V. - MI BALL VALVE

CO-O PRESSURE TEMPERATURE RELIEF

CH.V. SWING CHECK VALVE

BLV. -T- BALANCING VALVE

WASHING MACHINE PIPING TURN DOWN <del>--</del> **—**0 PIPING TURN UP

— FLANGED

C.O. ————— CLEAN—OUT

VALVED AND CAPPED END

CAPPED END

NOTE: THESE ARE STANDARD SYMBOLS AND MAY NOT APPEAR ON ALL PROSECT DRAWINGS

### HANGER SCHEDULE - ROD SIZE

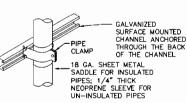
|   | PIPE   | ROD          | NOTE:                          |
|---|--------|--------------|--------------------------------|
|   | SIZE   | DIA.         | CONTRACTOR TO COMPLY WITH FBC  |
|   | 1/2"   | 3/8"         | SEC 308 & HANGER SPACING TABLE |
|   | 3/4"   | 3/8"         | 308.5                          |
|   | 1"     | 3/8"         |                                |
|   | 1-1/4" | 3/8"         |                                |
|   | 1-1/2" | 3/8"         |                                |
|   | 2*     | 3/8"         |                                |
|   | 2-1/2" | 1/2"         |                                |
| ĺ | 3"     | 1/2"         |                                |
|   | 3-1/2" | 1/2"         |                                |
|   | 4"     | 5/8"         |                                |
|   | 5"     | 5/ <b>8"</b> |                                |
|   | 6"     | 3/4"         |                                |
|   | 0"     | 7 /0"        |                                |

# PLUMBING DRAWING INDEX

| P-S0.1 | PLUMBING NOTES, LEGENDS, DETAILS AND SCHEDULES |
|--------|--|
| P-S2.1 | 1ST & 2ND FLOOR SANITARY PLANS                 |
| P-S2.2 | 3RD FLOOR SANITARY PLAN                        |
| P-S3.1 | 1ST & 2ND FLOOR DOMESTIC WATER PLANS           |
| P-S3.2 | 3RD FLOOR DOMESTIC WATER PLAN                  |
| P-S5.1 | PLUMBING RISER DIAGRAMS                        |
| P-S5.2 | PLUMBING RISER DIAGRAMS                        |

# MATERIAL SPECIFICATIONS

- DOMESTIC WATER PIPING SHALL BE HARD COPPER PIPE TYPE
  "L" ANSI / ASTM B-88 FOR 2" AND UNDER. WITH WROUGHT-COPPER
  SOLDER-JOINTS FITTINGS ASTM B-15.22. BELOW GRADE PIPING SHALL BE TYPE "K" ANSI / ASTM SOFT COPPER WITH NO JOINTS OR FITTINGS BELOW GRADE.
- . PIPING: SOIL, WASTE AND VENT PIPING SHALL BE POLYVINYL CHLORIDE . PIPING: SOIL, WASIE AND YENT PIPING SHALL BE POLYVINYL CHLORDIE SCHEDULE 40 (PVC) PLASTIC DRAIN, WASTE AND VENT PIPE AND FITTINGS. PIPES AND FITTINGS SHALL CONFORMING TO ANSI STANDARD K65.56-1971 AND ASTM STANDARD D2665-82. SOLVENT CEMENT FOR POLYVINYL CHLORDIC (PVC) PLASTIC PIPE AND INTITINGS SHALL CONFORM TO ANSI STANDARD B72.16-1971 AND ASTM STANDARD D2564-80.
- INSULATE ALL HOT WATER, UNES, AS FOLLOWS: HW SUPPLY 1" THICK PREFORMED ARMAFLEX PIPE INSULATION.



- 1. APPLICABLE FOR CONTROL TUBING
- 2. APPLICABLE FOR PIPING NO LARGER THAN 1-1/2"
- 3. APPLICABLE FOR HORIZONTAL TRAPEZE OR FOR VERTICAL PIPING

PIPE / TUBE SUPPORT

| FIXTURE SCHEDULE               |                                |      |                    |          |         |   |  |
|--------------------------------|--------------------------------|------|--------------------|----------|---------|---|--|
| EQUIPMENT SELECTION BASED ON : |                                |      | SYSTEM CONNECTIONS |          |         |   |  |
| SYMBOL                         | ITEM DESCRIPTION               | CW   | н₩                 | TRAP     | FIXTURE | REMARKS:  |  |
| P.1                            | WATER CLOSET (STD)             | 1"   |                    | INTEGRAL | 6       | FLUSH VALVE, FLOOR MOUNTED<br>SENSOR OPERATED HARD WIRED. LOW VOLUME. |  |
| P.2                            | WATER CLOSET (A.D.A.)          | 1"   |                    | INTEGRAL | 6       | FLUSH VALVE, FLOOR MOUNTED<br>SENSOR OPERATED HARD WIRED. LOW VOLUME. |  |
| P.3                            | LAVATORY (STD) & FAUCET        | 1/2" | 1/2"               | 1-1/2"   | 2       | COUNTER TOP<br>SENSOR OPERATED HARD WRED                              |  |
| P.4                            | LAVATORY (ADA) & FAUCET        | 1/2" | 1/2"               | 1-1/2"   | 2       | WALL HUNG SET RIM © 34" A.F.F.<br>SENSOR OPERATED HARD WIRED          |  |
| P.5                            | URINAL                         | 3/4" |                    | 2"       | 4       | WALL HUNG<br>SENSOR OPERATED HARD WIRED. LOW VOLUME.                  |  |
| P.6                            | DRINKING WATER COOLER (ADA)    | 1/2" |                    | 1-1/4"   | .5      | COMBINATION WASTED SEE NOTE: 6  |  |
| P.7                            | MOP SINK                       | 1/2" | 1/2"               | 3"       | 3       | FLOOR SINK<br>SEF NOTE 4  |  |
| P.8                            | HOSE BIBB                      | 3/4" |                    |          | 5       | SEE NOTE 3  |  |
| P.9                            | S.S. SINK & FAUCET (HAND SINK) | 1/2" | 1/2"               | 1-1/2"   | 2       | PROVIDED BY CONTRACTOR SEE KITCHEN CONTRACTOR'S DRAWINGS              |  |
| P.10                           | 3-COMP. S.S SINK & FAUCET      | 3/4" | 3/4"               | 2*       |         | PROVIDED BY CONTRACTOR SEE KITCHEN CONTRACTOR'S DRAWINGS              |  |
|                                |                                |      |                    |          |         |   |  |

PLUMBING FIXTURES SHOWN OR EQUAL SHALL BE PROVIDED BY PLUMBING CONTRACTOR WITH SHOP DRAWINGS ON EACH FIXTURE SUBMITTED FOR APPROVAL BY THE OWNER & ARCHITECT.

# NOTE: 1. PROVIDE ACCESS PANELS FOR EACH GANG OF VALVES.

- 2. PROVIDE AND INSTALL TRAP AND SUPPLY LINE INSULATION KIT.
- 3. HOSE BIBB WITH VACUUM BREAKER. WOODFORD MOOEL 24.
- 4. FIAT NO MSB-2424 FAUCET WITH VACUUM BREAKER. PLATE NO 830-AA. STRAINER PLATE NO 1453-BB-FLAT.
- 5. ALL PLUMBING FIXTURES & FIXTURE FITTINGS SHALL COMPLY WITH FBC PLUMBING TABLE SEC.604.4 & SEC.604.
- 6. BARRIER FREE HIGH/LOW WALL MOUNTED 7.5 GPH. FRONT PUSH BARS 115V. Ø1. 5.1 FLA. ₹ HP

|           | WATER HAMMER ARRESTOR - PIPING SCHEDULE              |         |          |          |          |          |  |  |
|-----------|--|---------|----------|----------|----------|----------|--|--|
| SELECTION | SELECTION BASE ON ZURN MANUFACTURING SHOKSTOP DATA : |         |          |          |          |          |  |  |
| MFG.CAT.  | TYPE NO.   | 100     | 200      | 300      | 400      | NOTE: ** |  |  |
| P. D. I.  | SYSTEM   | Α       | В        | C        | ٥        |          |  |  |
| FIXTURE   | UNIT RATING  | 1 - 11  | 12 - 32  | 33 - 60  | 60 113   | REMARKS: |  |  |
| SYMBOL    | Z-1700   | 88 F.U. | 256 F.U. | 490 F.U. | 904 F.U. | NOTE: ** |  |  |

NOTE: \*\* CONTRACTOR SHALL PROVIDE AND INSTALL WATER HAMMER ARRESTORS IN DOMESTIC PIPING SYSTEM AS PER FBC 604.9 AND PER MANUFACTURERS RECOMMENDATION

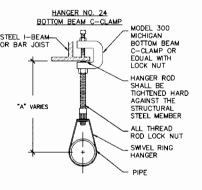
| FLOOR DRAIN ~ SCHEDULE |                     |            |      |                                 |  |  |  |
|------------------------|---------------------|------------|------|---------------------------------|--|--|--|
| SYMBOL                 | SELECTION BASED ON: |            |      |                                 |  |  |  |
|                        | MANUFACTURER        | MODEL NO.  | SIZE | REMARKS                         |  |  |  |
| FD                     | ZURN                | Z-415-6B-P | 3"   | ALL AREA - WHERE SHOWN ON PLANS |  |  |  |
| FS                     | ZURN                | Z-1900-P   | 3"   | WITH 1/2" GRATE                 |  |  |  |

- 1) ALL FLOOR DRAINS SHALL BE RESEALED BY MEANS OF A ZURN TRAP PRIMER VALVE INSTALLED IN COLD WATER SUPPLY UNE FROM THE NEAREST SINK OR LAVATORY AND WITH 1/2 INCH DRAIN SLOPED TO THE FLOOR DRAIN. OR BY APPROVED ALTERNATE METHOD EQUAL TO THE ABOVE.
- 2) COORDINATE METHOD EGOAL TO THE ADVISOR OF AREA FINISH; AND PROVIDE CORRECT TOP STYLE FOR CERANIC OR QUARRY TILE, ASPHALT OR VINYL TILE, TERRAZZO, POURED OR TRAMLED SYNTHETIC, FINISH CONCRETE, AND ALL PAVED AREAS; PROVIDE FOR FLOORS HAVING A WATERPROOF MEMBRANE, USE ZURN FLANGE CLAMPING RING.

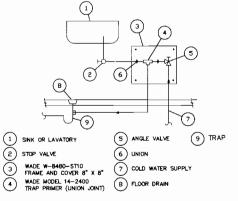
| ELECTRIC WATER HEATER SCHEDULE |              |         |         |        |    |       |    |                |
|--------------------------------|--------------|---------|---------|--------|----|-------|----|----------------|
| SYMBOL                         | MANUFACTURER | CAT NO. | TYPE    | VOLT\$ | PH | CYCLE | KW | REMARKS        |
| ¥                              | A.O. SMITH   | DSE-120 | 119 GAL | 208    | 3  | 60    | 30 | NOTE: 1 THRU 8 |

- NOTE: 1 PROVIDE HEATER TEMPERATURE/PRESSURE RELIEF LINE TO RUN TO FLOOR SLAB WITH 6" AIR GAP ABOVE SLAB AS PER F.B.C. PLUMBING 504.6.1
  - 2 SET WATER HEATER 140 DEGREES FAHRENHEIT.
  - 3 WITH FACTORY DIAL PRESS & TEMPERATURE GAUGE
  - 4 WITH SAFETY DOOR INTERLOCK
  - 5 WITH 24 HOUR TIME CLOCK
  - 6 CONTROL OPTION SHALL BE MAGNETIC CONTACTORS WITH IMMERSION THERMOSTAT
  - 7 MUST BE (ASME)
  - 8 WATER HEATER TO SIT ON A 4" HIGH BY 44" SOUARE HOUSE PAD.

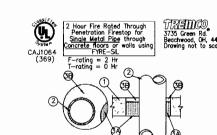
|        | MIXING VALVE - SCHEDULE |   |  |  |  |  |  |
|--------|-------------------------|---|--|--|--|--|--|
| SYMBOL | MANUFACTURER            | DESCRIPTION   |  |  |  |  |  |
| ΜV     | BRADLEY NAVIGATOR       | THERMOSTATIC HIGH-LOW MODEL HLBO, NO. S59-3080 TO SE SET @ 110F |  |  |  |  |  |



PIPE HANGER / SUPPORT



(ALTERNATE) TRAP PRIMER

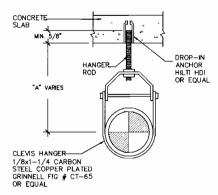


- 1 FLOOR OR WALL ASSEMBLY = 4.5" THICK CONCRETE COPPER TUBING 4" (OR SMALLER) TYPE L (OR (2) HEAVIER)
- COPPER. ANNULAR SPACE IS MIN. 1/2" TO MAX. 2 1/8"

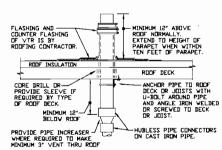
(3) A) PACKING MATERIAL - MIN. 3 1/2" THICKNESS (MIN. 6 PCF)
MINERAL WOOL INSULATION
B) MIN. 1/2" THICKNESS FYRE-SIL INSTALLED WITHIN ANNULUS

NOTE: FOR WALLS APPLY FYRE-SIL TO BOTH SURFACES OF WALL.

FLOOR PENETRATION

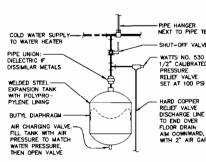


# PIPE HANGER / SUPPORT



REFER TO PLANS FOR VTR PIPE SIZES AND LOCATIONS. LOCATE VTR MINIMUM THREE FEET FROM PROPERTY LINE, OR TEN FEET HORIZONTAL OR THREE FEET VERTICAL ABOVE ANY BUILDING OPENING OR FRESH AIR TINTAKE, OR ONE FOOT FROM ANY VERTICAL SUFFACE. LOCATE VTR MINIMUM 19: FROM PARAPET, EXPANSION JOINT, EQUIPMENT CURB, ETC. OFFSET IN CELLING SPACE WHERE REQUIRED TO MEET THESE CONDITIONS.

VENT THRU ROOF (VTR)



UNIT SHALL BE FDA APPROVED FOR DOMESTIC WATER USE

EXPANSION TANK



P-S0.1 Sheet <u>1</u> of <u>7</u>



Checked: <u>&</u>

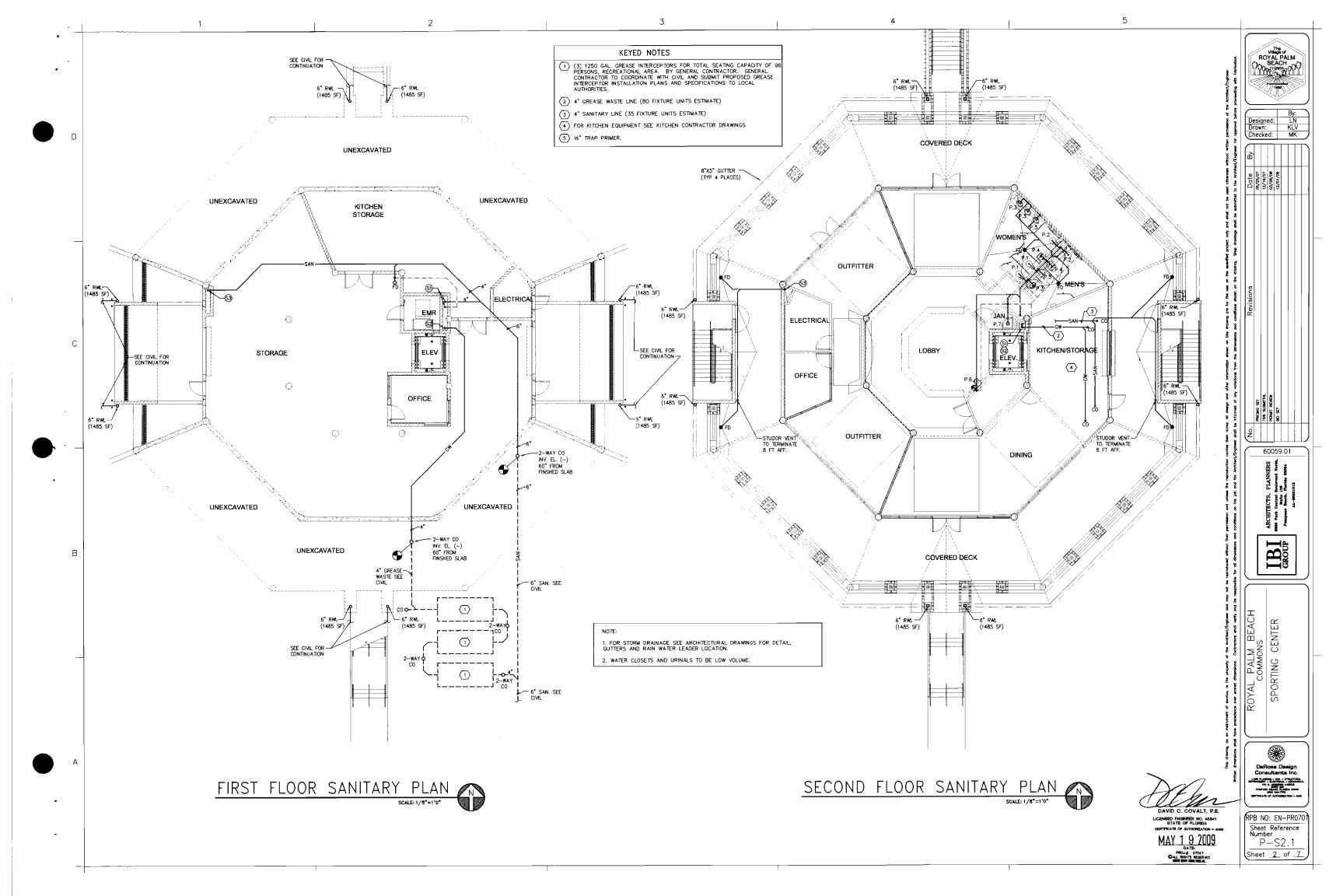
PRICING NO. 173% S. PERSUIT. BEID SE

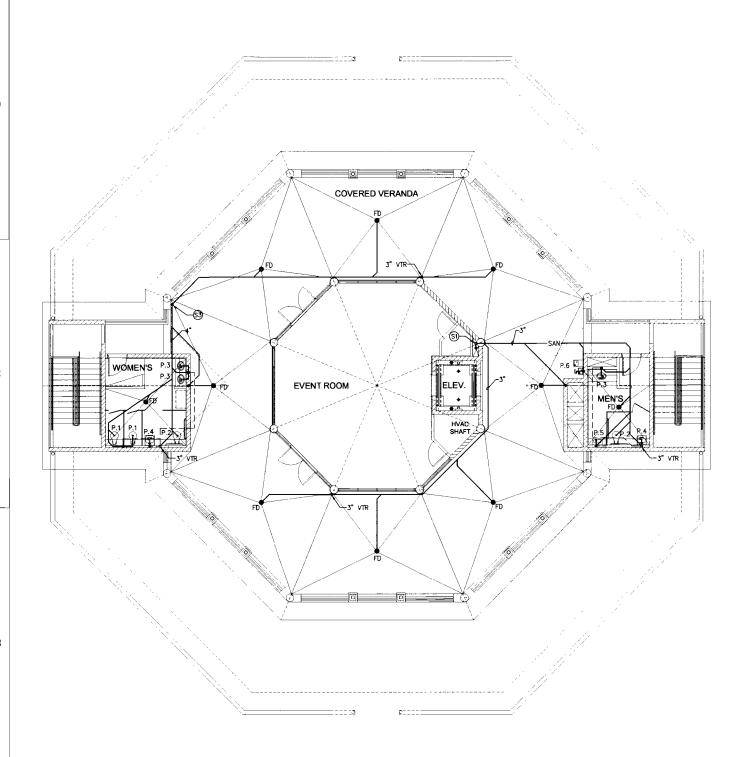
60059.01 CLE

BEACH CENTER TING

DeRose Design Consultants Inc OPPLANDER - CIVIL - STREETING CHARRY - BLECTHENAL - MICHARD 470 B. ANDERSON - MICHARD FORPANO BEACH, PLOTEIA RECORD MICHARD SUB-TORN

RPB NO: FN-PR070 Sheet Reference Number





THIRD FLOOR SANITARY PLAN

SCALE: 1/8\*=1'0\*

| ne Architact/Engineer.<br>proceeding with fabrication.  | Village of ROYAL PALM BEACH OF THE PALM SUBBROAD |  |  |  |  |  |
|---|--|--|--|--|--|--|
| n permission of the   | Designed: LN Drawn: KLV Checked: MK  |  |  |  |  |  |
| eithout writte  | (a)  |  |  |  |  |  |
| used otherwise at to the Architec   | Date<br>06/25/07<br>12/19/07<br>03/28/08<br>12/01/08   |  |  |  |  |  |
| ction contra that name. All design and other information abount on this drawing one for the use on the specified project only and shall not be used otherwise without written permission of the Architect/Drayment. | No.  |  |  |  |  |  |
| on comile<br>tect/Engin   | 60059.01   |  |  |  |  |  |
| ~ 1 4 4   | 22 1 1   |  |  |  |  |  |

RECHITECTS, PLAI

BOO Per Central Boulow

GROUP

Marganes Bench, Parcel

AL-BROGGES

ment of service, is the property of the Architect/Depletes and medical dimensions. Controllers shall sently and the ROYAL PALM BEACH COMMONS

SPORTING CENTER



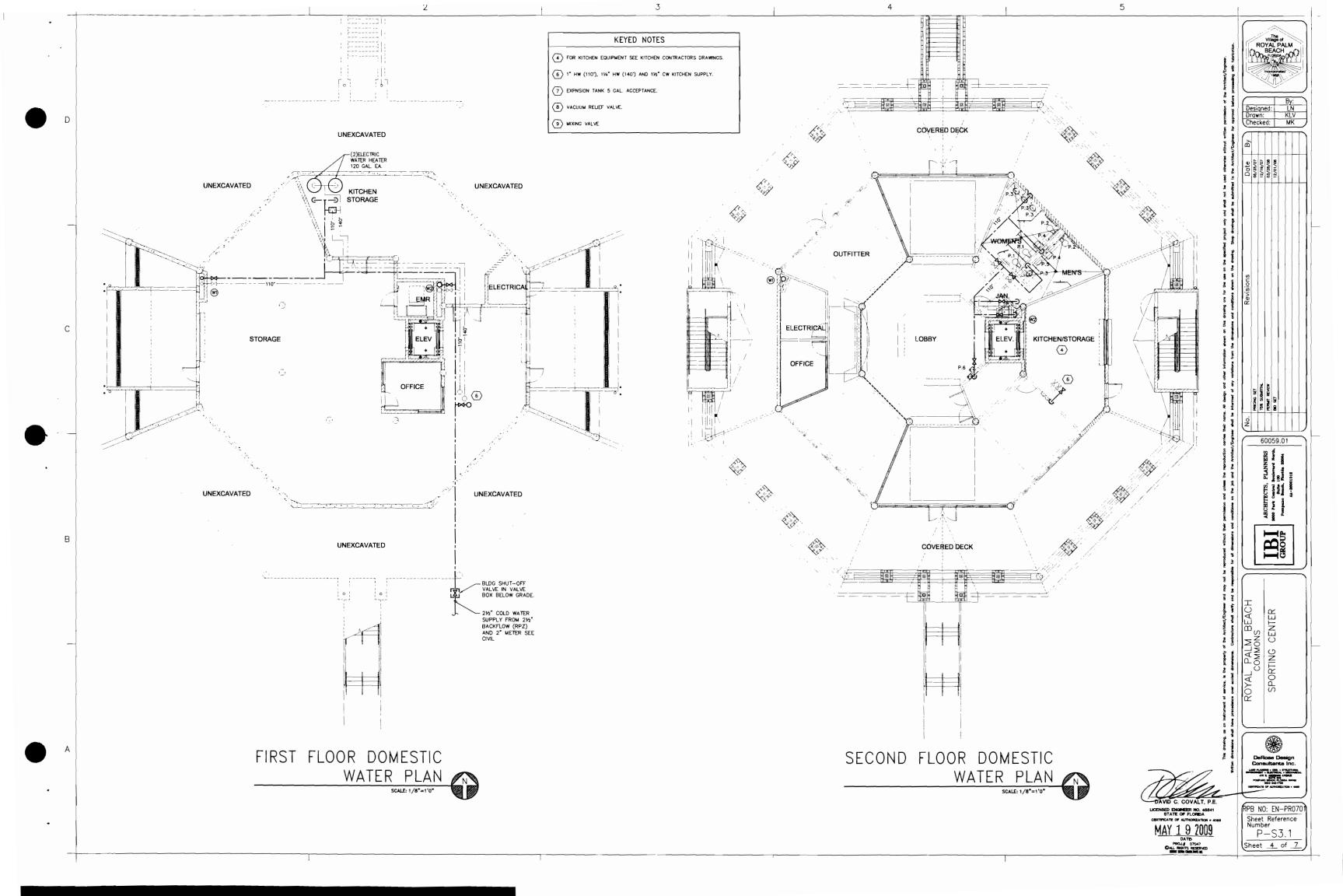
OVALT, P.E.

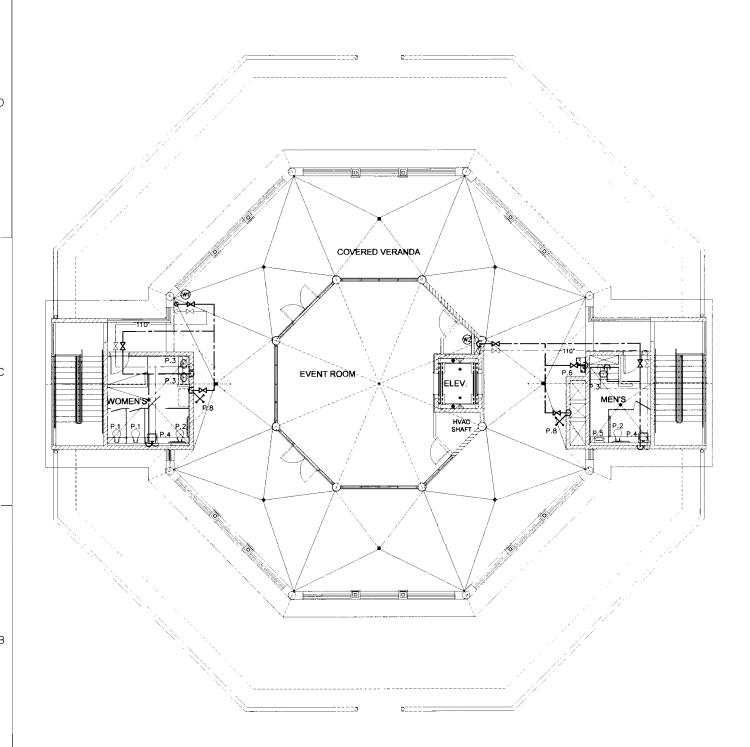
RPH NO: EN-PRO701

Sheet Reference
Number

P-\$2.2

Sheet 3 of 7

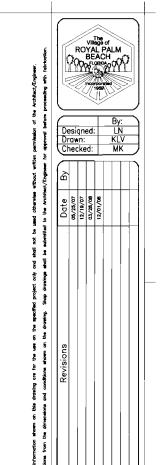




THIRD FLOOR DOMESTIC

WATER PLAN

SCALE: 1/8"=1"0"



Instituted of service, is the property of the Architect/Depineer and may not a proceedings over readed dimensions. Contractors shall welly and he made ROYAL PALM BEACH COMMONS

SPORTING CENTER



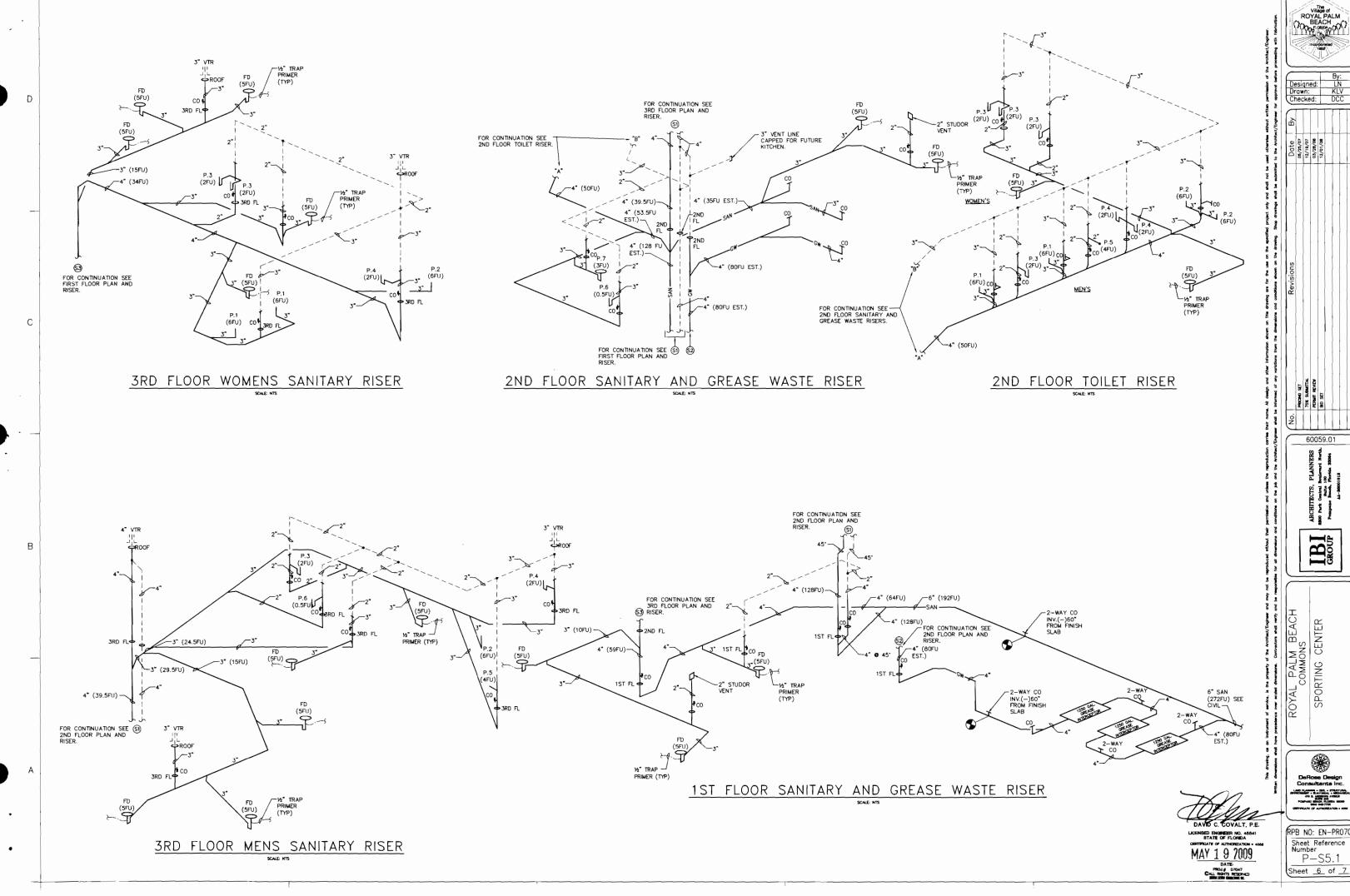
COVALT, P.E.

REDER NO. 45841

FROMON ASSA1

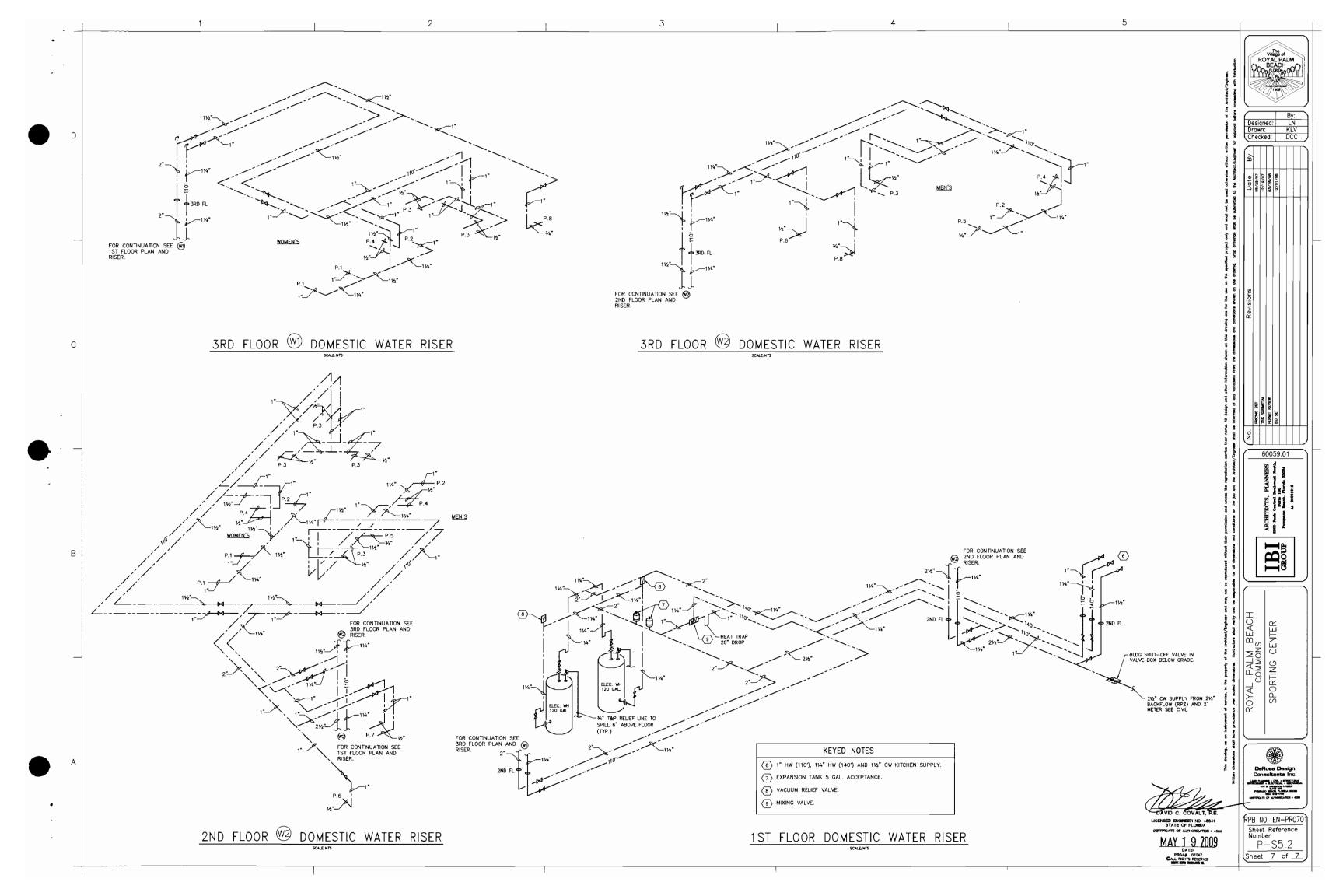
FROMON Sheet Reference Number P S 3.2

Sheet 5 of 7



5

RPB NO: EN-PR070



- A) AUTHORITY HAVING JURISDICTION.
- B) ENGINEER OF RECORD.
- 2. FIRE SPRINKLER SYSTEM SHALL BE IN FULL COMPLIANCE WITH APPLICABLE CODES AND AMENDMENTS OF SUCH EFFECTIVE 12/1/08 INCLUDING BUT NOT LIMITED TO:
- A) NFPA 13, 14, 20 AND 24.
- B) THE FLORIDA FIRE PREVENTION CODE.
- C) THE FLORIDA BUILDING CODE 2004
- 3. UNDERGROUND PIPING SHALL BE CLASS 52 DUCTILE IRON OR C-900 SDR 14 PVC 4" AND ABOVE. UNDERGROUND 3" BELQW CPVC ENCASED IN SCH 40 GALV. STEEL PIPE.
- ABOVE GRADE PIPING  $\mathbf{3}^\bullet$  AND LARGER SHALL BE SCH. 10 CONCEALED SCH 40 EXPOSED.
- ABOVE GRADE PIPING 3" AND SMALLER SHALL BE ALLIED XL. OR AMERICAN BLT, OR CPVC.
- 6. ALL PIPING SHALL BE HYDRAULICALLY SIZED PER NFPA 13 NFPA 24.
- 7. ALL PIPING SHALL BE HYDROSTATICALLY TESTED AT 200 PSI FOR
- 8. PENDANT HEADS SHALL BE 1/2" RECESSED TYPE RATED 155 DEGREES COMPLETE WITH CHROME FINISH.
- . Fire sprinkler heads in areas with finished ceiling will be symmetrical and centered on the tile are rough opening of tile grid.
- 10. SPRINKLER HEADS IN THE STORAGE AREA SHALL BE 1/2", 212" BRASS UPRIGHT EQUIPPED WITH HEAD GUARDS WHERE INSTALLED BELOW 7"-6"
- ALL PENETRATIONS OF STRUCTURAL MEMBERS SHALL BE COORDINATED WITH THE STRUCTURAL ENGINEER
- ALL CONTROL VALVES TO BE SUPERVISED IN ACCORDANCE WITH NFPA 13.
- HANGER TYPE AND SPACING SHALL BE IN ACCORDANCE WITH NFPA 13 PARA. 4-6.
- 14. ALL MATERIALS SHALL BE NEW AND LISTED FOR FIRE SERVICE.
- CONTRACTOR SHALL COORDINATE LOCATION OF PIPING AND COMPONENTS WITH OTHER TRADES.
- DESIGN BASED ON LIGHT HAZARD OCCUPANCY .1D/150D SQ. FT., FOR ASSEMBLY AREAS.
- 17. DESIGN BASED ON ORDINARY HAZARD I OCCUPANCY 0.15/1500 SQ. FT. FOR STORAGE AREA. STORAGE HEIGHT LIMITED TO 8'-D".
- 18. NOT USED.
- AUXILIARY DRAINS SHALL BE PROVIDED TO DRAIN SECTIONS OF PIPING THAT TRAP WATER, OR ARE NOT CAPABLE OF BEING DRAINED BY THE MAIN DRAIN IN ACCORDANCE WITH NFPA 13.
- ALL VALVES IN AREAS WHERE PRESSURE EXCEED 175 PSI SHALL BE PRESSURE REDUCING TYPE.
- 21. ALL CONTROL VALVES SHALL BE LOCATED 7'-0" AFF.
- 22. ALL HOSE VALVES TO BE LOCATED 5'-0" AFF.
- CLEAR SPACE OF 1'-6" TO BE MAINTAINED BETWEEN TOP OF STORAGE AND SPRINKLER DEFLECTOR.
- 24. CLEAR SPACE BETWEEN PARTITION DIMDERS AND CEILING TO BE MAINTAINED, ANY CONTINUATION OF DIVIDERS WITHIN 2'-0" OF CEILING SHOULD BE ACCOMPLISHED WITH A MESH ARRANGEMENT. MINIMUM MESH OPENINGS SHALL BE 1/2".
- 25 STANDPIPE SHALL PENETRATE THE ROOF WITH ROOF MANIFOLD 26. 395TEM DESIGNOF CRECULATIONS AND INSTALLATION SHALL BE IN FULL
- ACCORDANCE WITH NFPA 13, (1999) NFPA 14 (2000) AND LOCAL CODES. 27. INSTALLATION OF FIRE PROTECTION SIGNS SHALL BE IN ACCORDANCE
- WITH ANSI/ NFPA 13 AND ANSI/NFPA 14 REQUIREMENTS. INSTALL PIPE, TUBE, AND FITTINGS IN ACCORDANCE WITH DIVISION-15 BASIC MATERIALS AND METHODS SECTION "PIPE, PIPE FITTINGS".
- 28. ALL HANGING METHODS TO CONFORM TO NFPA 13 AND NFPA 14.
- ALL RATED WALLS PENETRATIONS TO BE PROPERLY SLEEVED AND SEALED.
- 30. 165' DEGREE HEADS W/ HEAD/SPLASH DEFECTORS GUARDS IN ELECTRICAL ROOMS.
- 31. FOR PIPE HANGER ARRANGEMENT, TYPE, SIZE, LOCATION AND MAXIMUM DISTANCE FOR SPACING. (SEE DRAWING SP.4 HANGER SCHEDULE.

# PIPE & FITTING SPECIFICATIONS

- SPRINKLER SYSTEM SHALL BE IN FULL COMPLIANCE WITH APPLICABLE CODES INCLUDING BUT NOT LIMITED TO:
- (A) NFPA 13 AND NFPA 20
- (B) THE STATE FIRE MARSHALL REQUIREMENTS
- (C) OWNER'S INSURANCE CARRIER
- ALL PIPING EXPOSED TO WEATHER SHALL BE SCH.40 GALVANIZED OR APPROVED CPVC.
- ABOVE GRADE PIPING 2" AND SMALLER SHALL BE ALLIED XL WITH SCREWED OR GROOVED FITTINGS OR APPROVED CPVC.
- 5. ALL MATERIAL SHALL BE NEW AND LISTED FOR FIRE SERVICE.
- 6. ALL PIPING HYDRAULICALLY SIZED PER NFPA 13.
- 7. PIPING SHALL BE HYDROSTATICALLY TESTED TO 200 PSI FOR TWO (2) HOURS.
- 8. ALL CONTROL VALVES TO BE SUPERVISED PER NFPA 13.
- 9. HANGER SPACING SHALL BE IN ACCORDANCE WITH NFPA 13 OR MANUFACTURER'S REQUIREMENTS.
- PENDENT HEADS IN FINISHED AREAS SHALL BE 1/2",165" CONCEALED PENDENT.
- . Sprinkler heads in unfinished areas shall be 1/2", 212' brass upright pendent heads in aresa exposed to weather shall be wax coated.
- 12. CONTRACTOR SHALL COORDINATE LOCATION OF PIPING AND COMPONENTS WITH OTHER TRADES PRIOR TO FABRICATION.
- UNDERGROUND PIPING SHALL BE CLASS 52 DUCTILE IRON OR C-900
   AND ABOVE, CPVC 3"ø BELOW ENCASED IN SCH 40 GALV. STEEL PIPE.

# CPVC PIPE HANGER - SCHEDULE

MAX SUPPORT SPACING DISTANCE END LINE SPRINKLER HEAD DROP BELOW

| SIZE (INCHES) | SYSTEM PRESSURE |           |  |  |  |
|---------------|-----------------|-----------|--|--|--|
| SIZE (INCHES) | < 100 PSI       | > 100 PSI |  |  |  |
| ¥4*           | 9"              | 6*        |  |  |  |
| 1*            | 12"             | 9"        |  |  |  |
| 11/4"         | 16"             | 12"       |  |  |  |
| 11/2" - 3"    | 24*             | 12*       |  |  |  |
| MOTE:         |                 |           |  |  |  |

|                     | MAX SUPPORT SPACING DISTANCE   |           |  |  |  |  |
|---------------------|--------------------------------|-----------|--|--|--|--|
| INLINE SPRINKLER HE | INLINE SPRINKLER HEAD DROP TEE |           |  |  |  |  |
| PIPE SIZE (INCHES)  | SYSTEM P                       | RESSURE   |  |  |  |  |
| PIPE SIZE (INCHES)  | < 100 PSI                      | > 100 PSI |  |  |  |  |
| *4*                 | 4'                             | 3'        |  |  |  |  |
| 1"                  | 5'                             | 4'        |  |  |  |  |
| 11/4"               | 6'                             | 5'        |  |  |  |  |
| 11/2" - 3"          | 7'                             | 7'        |  |  |  |  |
|                     |                                |           |  |  |  |  |
|                     |                                |           |  |  |  |  |

1. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR HANGER DISTANCES.

### AUTOMATIC FIRE SPRINKLER - SCHEDULE SELECTION BASES ON VIKING QUICK RESPONSE HEADS LOCATION TYPE OF CLG. FINISH MAKE & MODEL MECHANICAL ROOMS EXPOSED STRUCTURE UPRIGHT BRASS VK 145 K5.6 155T ELECTRICAL ROOMS EXPOSED STRUCTURE PENDENT BRASS VK 145 K5.6 155T EXTERIOR DOORS LAY-IN ACOUSTIC TILE SIDEWALL CHROME VK 630 K8.0 155F ELEVATOR SHAFTS EXPOSED STRUCTURE SIDEWALL BRASS VK 630 K8.0 155TF OTHER FIN. AREAS LAY-IN ACOUSTIC TILE PENDENT CHROME VK 60 K5.6 155%

- . CONTRACTOR SHALL PROVIDE DEFLECTORS TO KEEP SYSTEM FROM DISCHARGING ON ELECTRICAL
- 2. CONTRACTOR SHALL PROVIDE ALL ACCESS PANELS FOR VALVES, SWITCHES,ETC., COORDINATE LOCATION WITH ARCHITECTURAL PLANS.
- 3. LAYOUT SHOWN HERE-IN FOR BIDDING INFORMATION ONLY. CONTRACTOR SHALL PROVIDE A UNIT COST FOR THE ADDITION OR DELETIONS OF HEADS TO MEET BUILDING CONDITIONS UNIT COST SHALL INCLUDE CONCEALED, PENDANT AND SIDE-WALL HEAD INSTALLATION.

| 医间面   | SPRINKLER                                    | n realing |
|-------|--|-----------|
| L nwr | $\odot$ $\Gamma$ $M$ $M$ $M$ $M$ $G$ $G$ $M$ |           |

# SAMBOL FROUMD

- FIRE DEPT. SIAMESE
- DENOTES CONNECTION TO BRANCH
- DENOTES LOCATION OF SIDEWALL HEAD
- LOCATION OF PENDENT HEAD × × REMOVE EXISTING PIPE AS SHOWN
- DENOTES ROOM NUMBERS & NAMES
- $\bowtie$ LIGHTING FIXTURES
- $\boxtimes$ A/C DIFFUSER
  - NEW INTERIOR PIPING NEW EXTERIOR PIPING

--

# Sprinkler Head Summary

SPRINKLER HEADS SHALL BE QUICK RESPONSE - MKING OR EQUAL

- 1/2", BRASS UPRIGHT HEADS
- 1/2", BRASS PENDENT HEADS
- 1/2", VERTICAL / HORIZONTAL SIDEWALL HEADS
- 1/2", 155" SEMI RECESSED CONCEALED PENDENT HEADS

# fire pump flow test information

DATE: BY:
STATIC PSI: -RESIDUAL PSI: -FLOWING: --- GPM
OUTLET DIM.: - INCH
TEST HYDRANT ID:

# GENERAL NOTES:

- CONTRACTOR SHALL FURNISH AND INSTALL A HYDRAULICALLY DESIGNED AUTOMATIC FIRE SPRINKLER SYSTEM COMPLETE IN ALL RESPECTS.
- CONFORM TO ALL CODE REQUIREMENTS AND PROVIDE ALL NECESSARY SUBMITTALS TO ARCHITECT / ENGINEER TO OBTAIN APPROVALS. SHOP DRAWING AND CALCULATION SHALL BE SIGNED SEALED BY FLORIDA ENGINEER.
- . CONTRACTOR SHALL FURNISH ALL NECESSARY MATERIALS, EQUIPMENT, AND DESION EXPERTISE TO DESIGN AND CONSTRUCT AND INSTALLATION OF SPRINKLER HEADS, VALVES, SWITCHES, CONTROLS, TESTING FACILITIES, ETC. TO ACCOMPLISH REQUIRED BUILDING COVERAGE.
- 5. CONTRACTOR SHALL PROVIDE DEFLECTORS TO KEEP SYSTEM FROM DISCHARGING ON ELECTRICAL PANELS AND EQUIPMENT.
- 6. CONTRACTOR SHALL PROVIDE ALL ACCESS PANELS FOR VALVES, SWITCHES, ETC., COORDINATE LOCATION WITH DESIGN ENGINEER.
- I. FIRE DEPT. CONNECTION (FDV-1): PRESSURE RESTRICTING TYPE FIRE HOSE VALVE 2-1/2" VALVE WITH REMOVABLE 2-1/2" BY 1-1/2" REDUCER WITH PRESSURE LIMITER TO 100 PSIG; VALVE CAP & CHAIN.

# യ്ലിരിയി അയിയോഗത്തെ

- -SO.1 LEGENDS & SCHEDULES
- F-S2.1 FIRE SPRINKLER 1ST & 2ND FLOOR PLANS
- F-S2.2 FIRE SPRINKLER 3RD FLOOR PLAN
- F-S5.1 FIRE SPRINKLER DETAILS

Villege of ROYAL PALM BEACH



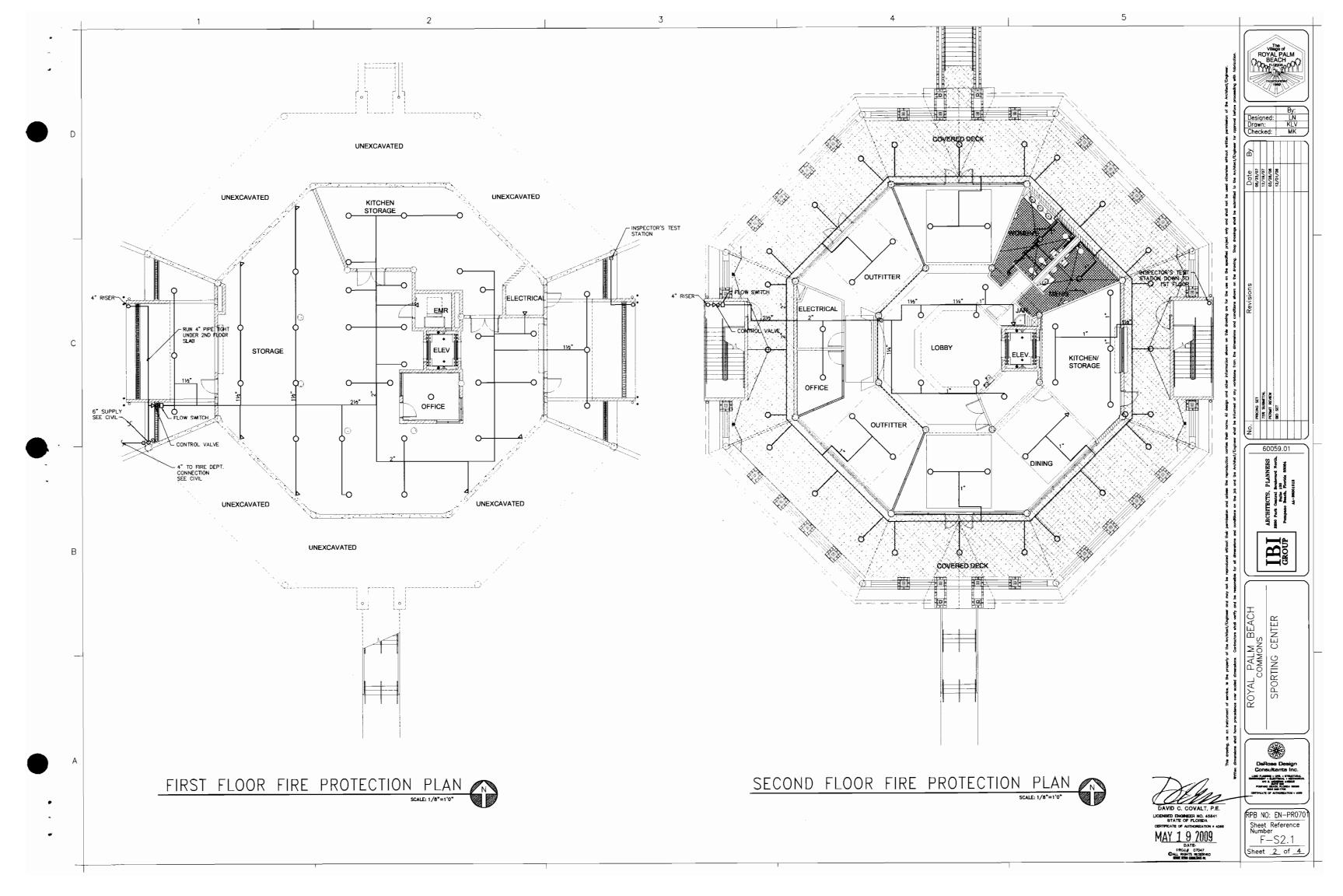
60059.01

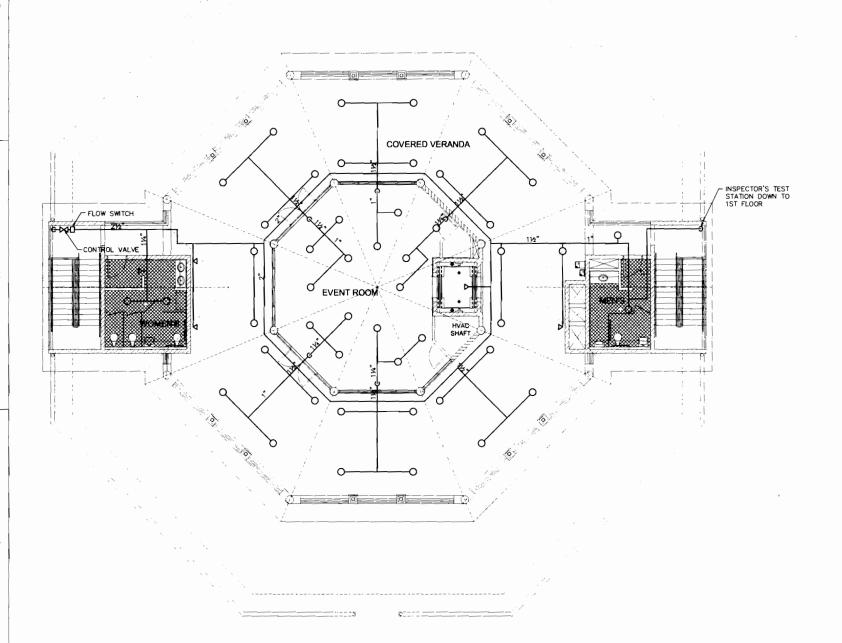
BEACH CENTER PALM E SPORT ROYAL

> DeRose Design Consultante Ind LAND FLAMBRIE + CHILL + STELCTURA BYROTHERST + ELECTRICAL + MECHANIC 470 E. AUGUSTUS AVEILE SAFE EXIS PORPARIO BEACH, FLOREA ANDRE BILL 946-7705

STATE OF FLORIDA MAY 1 9 2009

RPB NO: EN-PR070 Sheet Reference Number F-S0.1 Sheet <u>1</u> of <u>4</u>

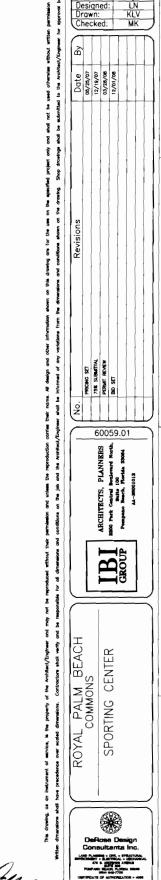




3

4

THIRD FLOOR FIRE PROTECTION PLAN SCALE: 1/8"=1"0"



5

DAVIS C. COVALT, P.E.

LICENSED ENGNEER NO. 45541

STATE OF FLOREA

GENTERCATE OF AUTHOREATION + 0040

MAY 1 9 2009

DATE

PROLE 07047

GAL BOSTS RESERVED

BER EEEE CALLER &

RPB NO: EN-PR070
Sheet Reference
Number
F-S2.2
Sheet 3 of 4

