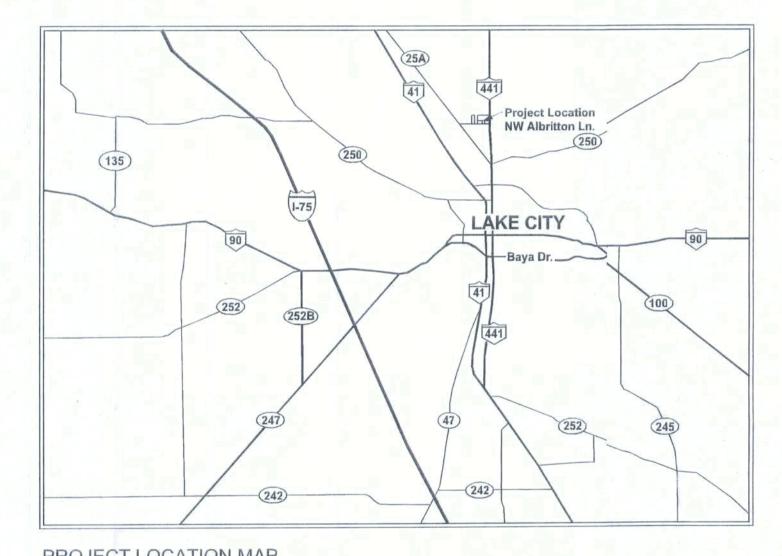
# Addition for: Family Health Center of Columbia County

# Blake Construction

NW Albritton Ln. Columbia County, Florida



#### INDEX TO SHEETS

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#### REVISIONS

REQUIREMENTS FOR INTERIOR WALL & CEILING FINISHES INTERIOR WALL AND CEILING FINISHES SHALL BE CLASSIFIED IN ACCORDANCE WITH ASTM E 84. SUCH INTERIOR FINISH MATERIALS SHALL BE GROUPED IN THE FOLLOWING CLASSES IN ACCORDANCE WITH THEIR FLAME SPREAD AND SMOKE-DEVELOPED INDEX.

FLAME SPREAD INDEX 0-25; SMOKE-DEVELOPED INDEX 0-450.

FLAME SPREAD INDEX 26-75; SMOKE-DEVELOPED INDEX 0-450.

FLAME SPREAD INDEX 76-200; SMOKE-DEVELOPED INDEX 0-450.

GROUP	VERTICAL EXITS AND EXIT PASSAGEWAYS (SEE NOTES 1 & 2)	EXIT ACCESS CORRIDORS AND OTHER EXITWAYS	ROOMS AND ENCLOSED SPACES (SEE NOTE 3)
В	CLASS A	CLASS B	CLASS C

#### TABLE NOTES:

1. CLASSIC INTERIOR FINISH MATERIALS SHALL BE PERMITTED FOR WAINSCOTTING OR PANELING OF NOT MORE THAN 1,000 SQUARE FEET OF APPLIED SURFACE AREA IN THE GRADE LOBBY WHERE APPLIED DIRECTLY TO A NONCOMBUSTIBLE BASE OR OVER FURRING STRIPS APPLIED TO A NONCOMBUSTIBLE BASE AND FIREBLOCKED AS REQUIRED BY FBC04, SECTION 803.3.1.

2. IN VERTICAL EXITS OF BUILDINGS LESS THAN THREE STORIES IN HEIGHT OF OTHER THAN GROUP I-3, CLASS B NTERIOR FINISH FOR UNSPRINKLERED BUILDINGS AND CLASS C INTERIOR FINISH FOR SPRINKLERED BUILDINGS

3. REQUIREMENTS FOR ROOMS AND ENCLOSED SPACES SHALL BE BASED UPON SPACES ENCLOSED BY PARTITIONS, WHERE A FIRE-RESISTANCE RATING IS REQUIRED FOR STRUCTURAL ELEMENTS, THE ENCLOSING PARTITIONS SHALL EXTEND FROM THE FLOOR TO THE CEILING. PARTITIONS THAT DO NOT COMPLY WITH THIS SHALL BE CONSIDERED ENCLOSING SPACES AND THE ROOMS OR SPACES ON BOTH SIDES SHALL BE CONSIDERED ONE. IN DETERMINING THE APPLICABLE REQUIREMENTS FOR ROOMS AND ENCLOSED SPACES, THE SPECIFIC OCCUPANCY THEREOF SHALL BE THE GOVERNING FACTOR REGARDLESS OF THE GROUP CLASSIFICATION OF THE

4. CLASS B MATERIAL REQUIRED WHERE BUILDING EXCEEDS TWO STORIES

5. CLASS C INTERIOR FINISH MATERIALS SHALL BE PERMITTED IN ROOMS WITH A CAPACITY OF FOUR PERSONS OR

6. CLASS B MATERIALS SHALL BE PERMITTED AS WAINSCOTTING EXTENDING NOT MORE THAN 48 INCHES ABOVE

#### REUIREMENTS FOR INTERIOR FLOOR FINISHES

INTEIOR FLOOR FINISH AND FLOOR COVERING MATERIALS SHALL COMPLY WITH THE FOLIWING EXCEPT FOR FLOORS AND FLOOR COVERINGS OF A TRADITIONAL TYPE. SUCH AS DOD, VINYL, LINOLEUM OR TERRAZO, AND RESILIENT FLOOR COVERING MATERIALS WHH ARE NOT COMPRISED OF FIBERS.

INTFIOR FLOOR FINISH AND FLOOR COVERING MATERIALS REQUIRED BY FBC04, SECTION 804.1 TO BE OF CLASS I OR II MATERIALS SHALL BE CLASSIFIED IN ACCORDANCE WITH NFP253. THE CLASSIFICATION REFERRED TO HEREIN CORRESPONDS TO THE CLASIFICATIONS DETERMINED BY NFPA 253 AS FOLLOWS: CLASS I, 0.45 WATTS/CM2 OR GRETER: CLASS II, 0.22 WATTS/CM2 OR GREATER.

IN A OCCUPANCIES, INTERIOR FLOOR FINISH IN VERTICAL EXITS, EXIT PASSAGEWAYS, EXILCCESS CORRIDORS AND ROOMS OR SPACES NOT SEPARATED FROM EXIT ACCESS CORDORS BY FULL-HEIGHT PARTITIONS EXTENDING FROM THE FLOOR TO THE UNERSIDE OF THE CEILING SHALL WITHSTAND A MINIMUM CRITICAL RADIANT FLUX AS

INTEOR FLOOR FINISH IN VERTICAL EXITS, EXIT PASSAGEWAYS AND EXIT ACCESS COFIDORS SHALL NOT BE LESS THAN CLASS I IN GROUPS I-2 AND I-3 AND NOT LESS THAN CLA; II IN GROUPS A, B, E, H, I- 4, M, R-1, R-2 AND S. IN ALL OTHER AREAS, THE INTERIOR FLOR FINISH SHALL COMPLY WITH THE DOC FF-1 "PILL TEST" (CPSC 16 CFR, PART 1630).

## LIST OF APPLICABLE COUDES

2007 FLORIDA EXISTING BUILDING CODIDE. (INCLUDING 2009 REVISIONS) NFPA 70, NATIONAL ELECTRICAL CODE, E, EXCEPT ARTICAL 80, 2008 EDITION

2007 FLORIDA BUILDING CODE, FUEL GAS

2007 FLORIDA BUILDING CODE, BUILDINING

2007 FLORIDA BUILDING CODE, MACHAI'ANICAL

2007 FLORIDA BUILDING CODE, PLUMBISING

FLORIDA FIRE PREVENTION CODE, 200707 NFPA 101 2003 EDITION AND NFPA 1 200303 EDITION

2007 FLORIDA ENERGY EFFICIENCY COLODE

2007 FLORIDA ACCESSIBILITY CODE FOIOR BUILDING CONSTRUCTION

## LIST OF DELEGATIONS

ELECTRICAL SYSTEM DESIGN:

TO BE FURNISHED BY THE ELECTRICAL CONTRACTOR

PLUMBING SYSTEM DESIGN: TO BE FURNISHED BY THE PLUMBING CONTRACTOR

FIRE SPRINKLER SYSTEM DESIGN:

NOT APPLICABLE

HVAC SYSTEM DESIGN: TO BE FURNISHED BY THE HVAC CONTRACTOR

SPECIALIZED SYSTEMS: NOT APPLICABLE

LIFE SAFETY REVIEW: IT IS THE CONTRACTOR / OWNER'S RESPONSIBILITY TO REQUEST A LIFE SAFETY REVIEW BY THE FIRE MARSHAL. LIFE SAFETY PLAN IS SUGGESTION ONLY, ACTUAL REQUIREMENTS TO BE DETERMINED BY FIRE MARSHAL BEFORE ORDERING ANY MATERIALS OR STARTING CONSTRUCTION.

ENERGY EFFICIENCY CALCULATION: TO BE FURNISHED BY THE BUILDER. SIGNED AND SEALED BY: ARCHITECT, ENGINEER, AIR CONDITIONING OR MECHANICAL CONTRATOR, OR CERTIFIED COMMERICAL ENGERY

TRUSSES SHALL BE DESIGNED BY A FLORIDA LICENSED ENGINEER IN ACCORDANCE WITH THE FBC 2004. TRUSS ENGINEERING SHALL INCLUDE TRUSS DESIGN, PLACEMENT PLANS, TEMPORARY AND PERMANENT BRACING DETAILS, TRUSS-TO-TRUSS CONNECTIONS, AND UPLIFT AND REACTION LOADS FOR ALL BEARING LOCATIONS. TRUSS ENGINEERING IS THE RESPONSIBILITY OF THE TRUSS MANUFACTURER AND SHALL BE SIGNED & SEALED BY THE MANUFACTURER'S DESIGN ENGINEER. IT IS THE BUILDER'S RESPONSIBILITY VERIFY THE TRUSS DESIGNER FULLY SATISFIED ALL THE ABOVE REQUIREMENTS AND TO SELECT UPLIFT CONNECTIONS BASED ON TRUSS ENGINEERING UPLIFT AND PROVIDE FOOTINGS FOR INTERIOR BEARING WALLS. BUILDER IS TO FURNISH TRUSS ENGINEERING TO THE ENGINEER OF RECORD FOR REVIEW OF TRUSS REACTIONS ON THE BUILDING STRUCTURE

NOTE: IT IS THE RESPONSIBILITY OF THE BUILDING DEPARTMENT AND BUILDER TO MAKE SURE DELEGATED PLANS ARE COMPLETED AND APPROVED BY THE ENGINEER OF RECORD, THE OWNER, AND THE BUILDING OFFICIAL. PRIOR TO CONSTRUCTION OR

ORDERING ANY MATERIALS. ENGINEER OF RECORD DOES NOT HAVE CONSTRUCTION MANAGEMENT AUTHORITY.

**BUILDING DESIGN DATA** 

1. SITE REQUIREMENTS: - THIS BUILDING PLAN DOES NOT INCLUDE SITE PLAN.

- ADDITION BUILDING AREA: 1.158 SF

- TOTAL UNDER ROOF AREA: 9,175 SF < 19,000 SI

2. OCCUPANCY GROUP REQUIREMENTS: - BUILDING GROUP: B, BUSINESS OCCUPANCY (CLINIC-OUTPATIENT)

3. MINIMUM TYPE OF CONSTRUCTION: - TYPE OF CONSTRUCTION: TYPE III B (TYPE III CONSTRUCTION IS THAT TYPE OF CONSTRUCTION IN WHICH THE EXTERIOR WALLS ARE OF NONCOMBUSTIBLE MATERIALS AND THE INTERIOR BUILDING ELEMENTS ARE OF ANY MATERIAL PERMITTED - MAXIMUM HIGHT & AREA PER TABLE 503: 4 STORY / 19,000 (PER FLOOR) - EXISTING / ADDITION HEIGHT: 1 STORY EXISTING BUILDING AREA: 8,016 SF

4. FIRE RESISTANT CONSTRUCTION REQUIREMENTS: - RATING REQUIREMENTS FOR BUILDING ELEMENTS (PER TABLE 601 & 602) TYPE III B CONSTRUCTION

COLUMNS GIRDERS TRUSSES) NON-BEARING WALLS - EXTERIOR NON-BEARING WALLS - INTERIOR SUPPORTING BEAM & JOISTS) ROOF CONSTRUCTION (INCLUDING SUPPORTING BEAM & JOISTS)

- FIRE SEPARATION DISTANCE = >3 - MAXIMUM AREA OF EXTERIOR WALL OPENING (PER TABLE 704.80): PROTECTED OR UNPROTECTED - NO LIMIT

5. FIRE SUPPRESSION SYSTEM

6. LIFE SAFETY SYSTEMS

7. OCCUPANCY LOAD / EGRESS REQUIREMENTS - OCCUPANCY LOAD = 9 PERSONS (ADDITION ONLY) EXISTING = 1/2 OF 60' x 78' / 100 GROSS (OUTPATIENT) = 27 PERSONS (BASED ON TABLE 1004.1.1, SEE SHEET 2 FOR CALCULATIONS) - EXIT CAPACITY (BASED ON TABLE 1005.1, HEALTH CARE) TOTAL EXIT WIDTH 72" / .5" = 144 PERSONS > 9 + 27 PERSONS MINIMUN NUMBER OF EXITS (PER 1015.1) PROVIDED = 2 - MAXIMUM EXIT ACCESS TRAVEL DISTANCE (PER TABLE 1016.1)

ALLOWABLE = 200' ACTUAL = 43' (EXISTING +/- 75') STRUCTURAL REQUIREMENTS: - ASSUMED SOIL BEARING CAPACITY = 1000PSF IT IS THE BUILDERS RESPONSIBILITY TO PROVIDE SOIL BREARING TESTS FOR REVIEW BY THE ENGINEER OF RECORD, AND BUILDING OFFICIAL PRIOR TO CONSTRUCTION OR ORDERING ANY MATERIALS.

- DESIGN LOADS: FLOOR: 100 PSF UNIFORM LOAD, 300LB CONSTRATED LOAD OVER 4 IN2) STAIRWAY: 100 PSF UNIFORM LOAD.

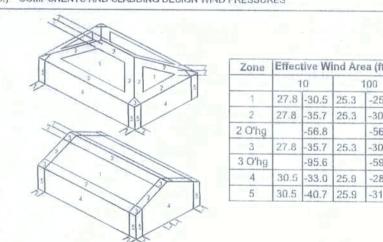
ROOF: 20 PSF UNIFORM LOAD

WIND LOADS PER FLORIDA BUILDING CODE 2007, SECTION 1609: (ENCLOSED SIMPLE DIAPHRAGM BUILDINGS WITH FLAT, HIPPED, OR GABLE ROOFS: MEAN ROOF HEIGHT NOT EXCEEDING LEAST HORIZONTAL DIMENSION OR 60 FT; NOT ON UPPER HALF OF HILL OR ESCARPMENT 60FT IN EXP. B, 30FT IN EXP. C AND >10% SLOPE AND UNOBSTRUCTED UPWIND FOR 50x HEIGHT OR 1 MILE WHICHEVER IS LESS.) BUILDING IS NOT IN THE HIGH VELOCITY HURRICANE ZONE BUILDING IS NOT IN THE WIND-BORNE DEBRIS REGION

) BASIC WIND SPEED = 110 MPH WIND IMPORTANCE FACTOR = 1.0 BUILDING CATEGORY = II

MEAN ROOF HEIGHT = <30 FT INTERNAL PRESSURE COEFFICIENT = N/A (ENCLOSED BUILDING) COMPONENTS AND CLADDING DESIGN WIND PRESSURES

ROOF ANGLE = 10-45 DEGREES



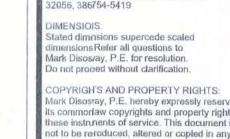
MATERIALS AND FINISHES - THIS PLAN DOES NOT INCLUDE DETAILED FINISH SPECS. IT IS THE BUILDERS RESPONSIBILITY TO VERIFY THAT ALL MATERIALS AND FINISHES USED COMPLY WITH THE FBC 2007 AND THE 2007 FFPC.

10. ACCESSIBILITY REQUIREMENTS: - SHEET 2

11. INTERIOR FINISH REQUIREMENTS: - SHEET 0

12. SPECIAL SYSTEMS: - BUILDER IS TO PROVIDE SHOP DRAWING AND DETAILED SPECS OF ANY SPECIAL SYSTEMS.

13. SWIMMING POOLS:



E No.5395, POB 868, Lake City, FL

REVISIONS

SOFTPLAN

at to be reroduced, altered or copied in any rm or maner without first the express writte nission and consent of Mark Disosway. over Shee, Sheet A-0, attached, comply with pplicable prtions of the Florida Building Cod

007, to thebest of my knowledge. MITATIOI: This design is valid for one uilding at secified location. In case of contural requirements, scope of work, and der responsibilities control

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Blace Construction Addition for:

Famly Health Center of Columbia County ADDRESS:

NW Albritton Ln. Coambia County, Florida Mak Disosway P.E.

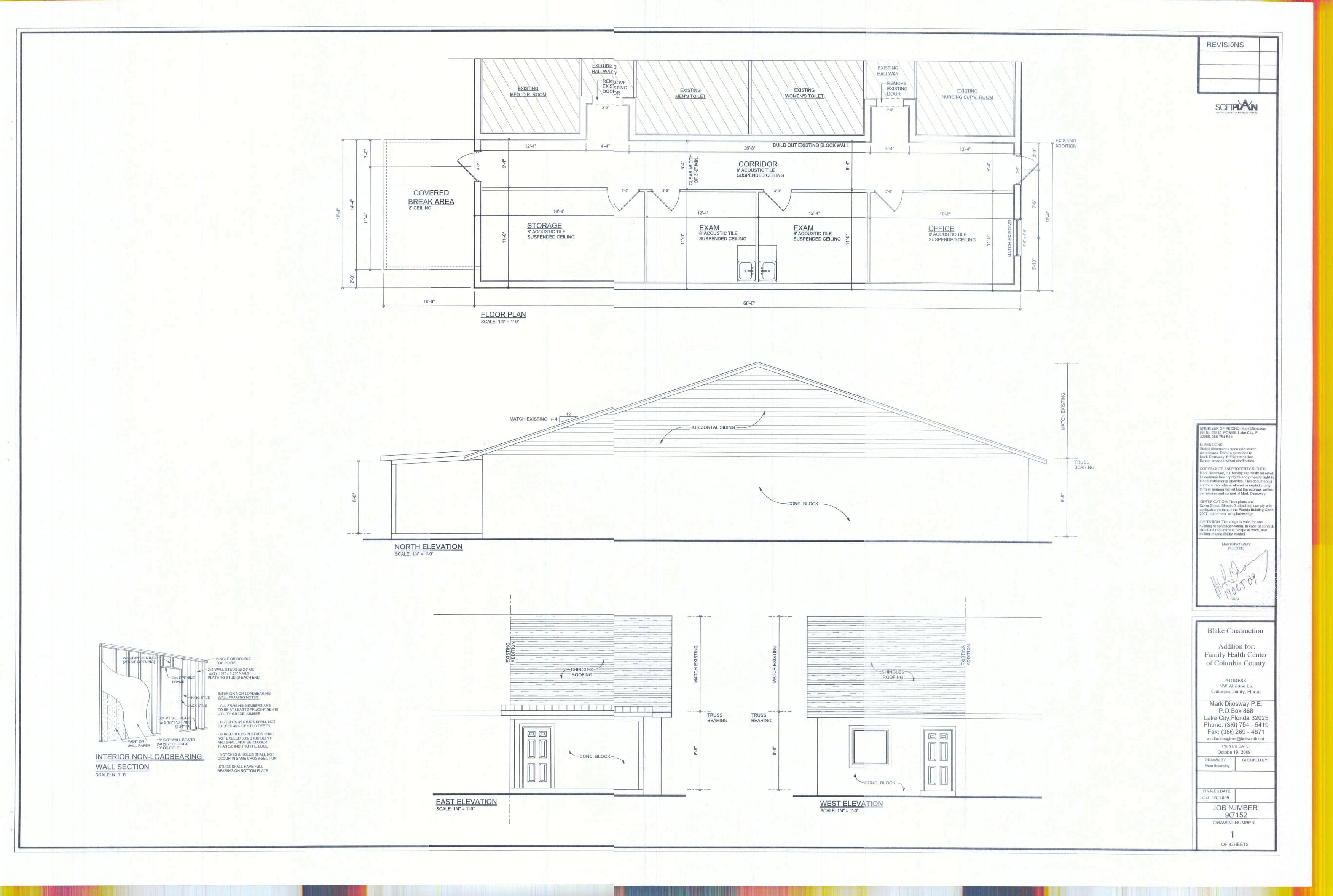
P.O. Box 868 LakeCity, Florida 32025 Phore: (386) 754 - 5419 Fax (386) 269 - 4871 windladengineer@bellsouth.net

PRINTED DATE: October 19, 2009 CHECKED BY: DRAWI BY: Evan Bamsley

> FINALE: DATE: Oct. 16,2009

> > JOB NUMBER: 907152 DIAWING NUMBER

OF 8 SHEETS



SOFTPLAN

#### MEANS OF EGRESS ILLUMINATION REQUIREMENTS

(PER FBC07 SEC. 1006.1 - 1006.3.9)

ILLUMINATION OF MEANS OF EGRESS SHALL BE PROVIDED IN ACCORDANCE WITH THIS SECTION FOR EVERY BUILDING AND STRUCTURE, FOR HE PURPOSES OF THIS REQUIREMENT, EXIT ACCESS SHALL INCLUDE ONLY DESIGNATED STAIRS, AISLES, CORRIDORS, RAMPS, ESCALATORS AND PASSAGEWAYS LEADING TO AN EXIT. FOR THE PURPOSES OF THIS REQUIREMENT, EXIT DISCHARGE SHALL INCLUDE ONLY DESIGNATED STAIRS, AISLES, CORRIDORS, RAMPS, ESCALATORS, WALKWAYS AND EXIT PASSAGEWAYS LEADING TO A PUBLIC WAY.

1. WHEN APPROVED BY THE BUILDING OFFICIAL ILLUMINATION OF MEANS OF EGRESS SHALL NOT BE REQUIRED IN INDUSTRIAL AND STORAG OCCUPANCIES THAT ARE OCCUPIED ONLY DURING DAYLIGHT HOURS, WITH SKYLIGHTS OR WINDOWS ARRANGED TO PROVIDE THE REQUIRE LEVEL OF ILLUMINATION ON ALL PORTIONS OF THE MEANS OF EGRESS DURING THESE HOURS. 2. ASSEMBLY OCCUPANCY PRIVATE PARTY TENTS OF 1,200 SQUARE FEET (111 M2) OR LESS SHALL NOT BE REQUIRED TO PROVIDE

3. OPEN STRUCTURES SHALL NOT BE REQUIRED TO PROVIDE ILLUMINATION OF MEANS OF EGRESS. 4. TOWERS OCCUPIED BY NOT MORE THAN THREE PERSONS SHALL NOT BE REQUIRED TO PROVIDE ILLUMINATION OF MEANS OF EGRESS.

ILLUMINATION OF MEANS OF EGRESS SHALL BE CONTINUOUS DURING THE TIME THAT THE CONDITIONS OF OCCUPANCY REQUIRE THAT THE MEANS OF EGRESS BE AVAILABLE FOR USE, ARTIFICIAL LIGHTING SHALL BE EMPLOYED AT SUCH PLACES AND FOR SUCH PERIODS OF TIME A REQUIRED TO MAINTAIN THE ILLUMINATION TO THE MINIMUM CRITERIA VALUES HEREIN SPECIFIED. EXCEPTIONS: AUTOMATIC MOTION SENSOR-TYPE LIGHTING SWITCHES SHALL BE PERMITTED WITHIN THE MEANS OF EGRESS, PROVIDED THA SWITCH CONTROLLERS ARE EQUIPPED FOR FAIL-SAFE OPERATION. ILLUMINATION TIMERS ARE SET FOR A MINIMUM 15-MINUTE DURATION AN THE MOTION SENSOR IS ACTIVATED BY ANY OCCUPANT MOVEMENT IN THE AREA SERVED BY THE LIGHTING UNITS.

THE FLOORS AND OTHER WALKING SURFACES WITHIN AN EXIT AND WITHIN THE PORTIONS OF THE EXIT ACCESS AND EXIT DISCHARGE DESIGNATED IN SECTION 1006.1.1 SHALL BE ILLUMINATED TO VALUES OF AT LEAST 1 FOOTCANDLE (10 LUX) MEASURED AT THE FLOOR. DURIN CONDITIONS OF STAIR USE, THE MINIMUM ILLUMINATION FOR NEW STAIRS SHALL BE AT LEAST 108 LUX (10 FOOT-CANDLE), MEASURED AT THE WALKING SURFACE. EXCEPTION: IN ASSEMBLY OCCUPANCIES, THE ILLUMINATION OF THE FLOORS OF EXIT ACCESS SHALL BE AT LEAST 0.2 FOOTCANDLE (2 LUX) DURING PERIODS OF PERFORMANCES OR PROJECTIONS INVOLVING DIRECTED LIGHT.

REQUIRED ILLUMINATION SHALL BE ARRANGED SO THAT THE FAILURE OF ANY SINGLE LIGHTING UNIT WILL NOT RESULT IN AN ILLUMINATION LEVEL IN ANY DESIGNATED AREA OF LESS THAN 0.2 FOOTCANDLE (2 LUX).

THE EQUIPMENT OR UNITS INSTALLED TO MEET THE REQUIREMENTS OF SECTION 1006.3 SHALL BE PERMITTED ALSO TO SERVE THE FUNCTIO OF ILLUMINATION OF MEANS OF EGRESS, PROVIDED THAT ALL REQUIREMENTS OF SECTION 1006.1 FOR SUCH ILLUMINATION ARE MET.

- ILLUMINATION OF MEANS OF EGRESS SHALL BE FROM A SOURCE OF REASONABLY ENSURED RELIABILITY: - BATTERY-OPERATED ELECTRIC LIGHTS AND OTHER TYPES OF PORTABLE LAMPS OR LANTERNS SHALL NOT BE USED FOR PRIMARY LUMINATION OF MEANS OF EGRESS. BATTERY-OPERATED ELECTRIC LIGHTS SHALL BE PERMITTED TO BE USED AS AN EMERGENCY SOURCE TO THE EXTENT PERMITTED UNDER SECTION 1006.2.3.4.

EMERGENCY LIGHTING FACILITIES FOR MEANS OF EGRESS SHALL BE PROVIDED IN ACCORDANCE WITH THIS SECTION FOR THE FOLLOWING EVERY BUILDING OR STRUCTURE WHERE REQUIRED IN TABLE 1006. 2. WINDOWLESS AND UNDERGROUND STRUCTURES.

3. HIGH-RISE STRUCTURES. 4. AT DOORS EQUIPPED WITH DELAYED EGRESS LOCKS. THE STAIR SHAFT AND VESTIBULE OF SMOKEPROOF ENCLOSURES.

EXCEPTION: ONE- AND TWO-FAMILY DWELLINGS.

A STANDBY GENERATOR THAT IS INSTALLED FOR THE SMOKEPROOF ENCLOSURE MECHANICAL VENTILATION EQUIPMENT SHALL BE PERMITTE TO BE USED FOR SUCH STAIR SHAFT AND VESTIBULE POWER SUPPLY. FOR THE PURPOSES OF THIS REQUIREMENT, EXIT ACCESS SHALL INCLUDE ONLY DESIGNATED STAIRS, AISLES, CORRIDORS, RAMPS, ESCALATORS AND PASSAGEWAYS LEADING TO AN EXIT. FOR THE PURPOSES OF THIS REQUIREMENT, EXIT DISCHARGE SHALL INCLUDE ONLY DESIGNATED STAIRS, RAMPS, AISLES, WALKWAYS AND ESCALATORS LEADING TO A PUBLIC WAY.

1. TOWERS OCCUPIED BY THREE OR FEWER PERSONS SHALL BE EXEMPT FROM EMERGENCY LIGHTING REQUIREMENTS.

2. LOCATIONS IN TOWERS NOT ROUTINELY INHABITED BY HUMANS SHALL BE EXEMPT FROM EMERGENCY LIGHTING REQUIREMENTS. 3. WHEN APPROVED BY THE BUILDING OFFICIAL, ILLUMINATION OF MEANS OF EGRESS SHALL NOT BE REQUIRED IN TOWERS THAT ARE OCCUPIED ONLY DURING DAYLIGHT HOURS, WITH WINDOWS ARRANGED TO PROVIDE THE REQUIRED LEVEL OF ILLUMINATION ON ALL PORTIONS OF THE MEANS OF EGRESS DURING THESE HOURS. 4. WATER-SURROUNDED STRUCTURES IN LOCATIONS NOT ROUTINELY INHABITED BY HUMANS SHALL BE EXEMPT FROM EMERGENCY LIGHTIN REQUIREMENTS. 5. WHEN APPROVED BY THE BUILDING OFFICIAL, ILLUMINATION OF MEANS OF EGRESS SHALL NOT BE REQUIRED IN WATER-SURROUNDED STRUCTURES THAT ARE OCCUPIED ONLY DURING DAYLIGHT HOURS, WITH WINDOWS ARRANGED TO PROVIDE THE REQUIRED LEVEL OF ILLUMINATION ON ALL PORTIONS OF THE MEANS OF EGRESS DURING THESE HOURS.

WHERE MAINTENANCE OF ILLUMINATION DEPENDS UPON CHANGING FROM ONE ENERGY SOURCE TO ANOTHER, A DELAY OF NOT MORE THAN

- EMERGENCY ILLUMINATION SHALL BE PROVIDED FOR A PERIOD OF HOURS 11/2 IN THE EVENT OF FAILURE OF NORMAL LIGHTING. EMERGENC LIGHTING FACILITIES SHALL BE ARRANGED TO PROVIDE INITIAL ILLUMINATION THAT IS AT LEAST AN AVERAGE OF 1 FOOTCANDLE (10 LUX) ANI A MINIMUM AT ANY POINT OF 0.1 FOOTCANDLE (1 LUX) MEASURED ALONG THE PATH OF EGRESS AT FLOOR LEVEL. ILLUMINATION LEVELS SHALL BE PERMITTED TO DECLINE TO 0.6 FOOTCANDLE (6 LUX) AVERAGE AND A MINIMUM AT ANY POINT OF 0.06 FOOTCANDLE (0.6 LUX) AT TH END OF THE EMERGENCY LIGHTING TIME DURATION. A MAXIMUM-TO-MINIMUM ILLUMINATION UNIFORMITY RATIO OF 40:1 SHALL NOT BE

THE EMERGENCY LIGHTING SYSTEM SHALL BE ARRANGED TO PROVIDE THE REQUIRED ILLUMINATION AUTOMATICALLY IN THE EVENT OF AN INTERRUPTION OF NORMAL LIGHTING, SUCH AS ANY FAILURE OF PUBLIC UTILITY OR OTHER OUTSIDE ELECTRICAL POWER SUPPLY; OPENING OF A CIRCUIT BREAKER OR FUSE OR ANY MANUAL ACT(S), INCLUDING ACCIDENTAL OPENING OF A SWITCH CONTROLLING NORMAL LIGHTING FACILITIES - EMERGENCY GENERATORS PROVIDING POWER TO EMERGENCY LIGHTING SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 110.

STORED ELECTRICAL ENERGY SYSTEMS WHERE REQUIRED IN THIS CODE SHALL BE INSTALLED AND TESTED IN ACCORDANCE WITH NFPA 11 - BATTERY-OPERATED EMERGENCY LIGHTS SHALL USE ONLY RELIABLE TYPES OF RECHARGEABLE BATTERIES PROVIDED WITH SUITABLE FACILITIES FOR MAINTAINING THEM IN A PROPERLY CHARGED CONDITION. BATTERIES USED IN SUCH LIGHTS OR UNITS SHALL BE APPROVED FOR THEIR INTENDED USE AND SHALL COMPLY WITH CHAPTER 27 OF THE FLORIDA BUILDING CODE, BUILDING. - THE EMERGENCY LIGHTING SYSTEM SHALL BE EITHER CONTINUOUSLY IN OPERATION OR SHALL BE CAPABLE OF REPEATED AUTOMATIC OPERATION WITHOUT MANUAL INTERVENTION.

HIGH-RISE BUILDINGS SHALL BE PROVIDED WITH CLASS 1, TYPE 60 STANDBY POWER IN ACCORDANCE WITH CHAPTER 27 OF THE FLORIDA BUILDING CODE, BUILDING AND NFPA 110. THE STANDBY POWER SYSTEM SHALL HAVE A CAPACITY AND RATING SUFFICIENT TO SUPPLY ALL REQUIRED EQUIPMENT. SELECTIVE LOAD PICKUP AND LOAD SHEDDING SHALL BE PERMITTED IN ACCORDANCE WITH CHAPTER 27 OF THE FLORIDA BUILDING CODE, BUILDING. THE STANDBY POWER SYSTEM SHALL BE CONNECTED TO THE FOLLOWING:

2. AT LEAST ONE ELEVATOR SERVING ALL FLOORS AND TRANSFERABLE TO ANY ELEVATOR. 3. MECHANICAL EQUIPMENT FOR SMOKEPROOF ENCLOSURES. (SEE SECTION 403 FOR ADDITIONAL REQUIREMENTS FOR STANDBY POWER IN HIGH-RISE STRUCTURES.)

EXITS SHALL BE MARKED BY AN APPROVED SIGN READILY VISIBLE FROM ANY DIRECTION OF EXIT ACCESS. EVERY EXIT SIGN SHALL BE SUITABLY ILLUMINATED BY A RELIABLE LIGHT SOURCE. EXTERNALLY AND INTERNALLY ILLUMINATED SIGNS SHALL BE VISIBLE IN BOTH NORMA

EXCEPTION: MAIN EXTERIOR EXIT DOORS THAT OBVIOUSLY AND CLEARLY ARE IDENTIFIABLE AS EXITS.
- NEW SIGN PLACEMENT SHALL BE SUCH THAT NO POINT IN AN EXIT ACCESS CORRIDOR IS IN EXCESS OF THE RATED VIEWING DISTANCE OR 100 FEET (30 M) WHICHEVER IS LESS, FROM THE NEAREST SIGN. EVERY REQUIRED SIGN SHALL BE LOCATED AND OF SUCH SIZE, DISTINCTIVE COLOR AND DESIGN AS TO BE READILY VISIBLE AND SHALL PROVIDE CONTRAST WITH INTERIOR FINISH OR OTHER SIGNS. NO EQUIPMENT THAT IMPAIRS VISIBILITY OF AN EXIT SIGN SHALL BE PERMITTED, NOR SHALL THERE BE ANY BRIGHTLY ILLUMINATED SIGN OR OBJECT IN OR NEAR THE LINE OF VISION OF THE REQUIRED EXIT SIG OF SUCH A CHARACTER AS TO DETRACT ATTENTION FROM THE EXIT SIGN. FLOOR PROXIMITY SIGNS, WHERE REQUIRED, SHALL BE IN ACCORDANCE WITH SECTION 1006.3.8.2 OR 1006.3.8.3.

EXIT STAIR DOOR OR TACTILE SIGNAGE. TACTILE SIGNAGE STATING "EXIT" AND COMPLYING WITH ICC/ANSI A117.1, AMERICAN NATIONAL STANDARD FOR ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES, SHALL BE INSTALLED ADJACENT TO THE LATCH SIDE OF THE DOOR 60 INCHES (1524 MM) ABOVE THE FINISHED

EXTERNALLY ILLUMINATED SIGNS SHALL HAVE THE WORD "EXIT" OR OTHER APPROPRIATE WORDING IN PLAINLY LEGIBLE LETTERS NOT LES THAN 6 INCHES (15.2 MM) HIGH WITH THE PRINCIPAL STROKES OF LETTERS NOT LESS THAN ¾ INCHES (1.9 MM) WIDE. THE WORD "EXIT" SHALL HAVE LETTERS OF A WIDTH NOT LESS THAN 2 INCHES (51 MM), EXCEPT THE LETTER "I," AND THE MINIMUM SPACING BETWEEN LETTERS SHALI BE NOT LESS THAN 3/8 INCHES (10 MM). SIGNS LARGER THAN THE MINIMUM ESTABLISHED IN THIS PARAGRAPH SHALL HAVE LETTER WIDTHS, STROKES AND SPACING IN PROPORTION TO THEIR HEIGHT. EXTERNALLY ILLUMINATED SIGNS SHALL BE ILLUMINATED BY NOT LESS THAN 5 FOOTCANDLES (50 LUX) AT THE ILLUMINATED SURFACE AND SHALL HAVE A CONTRAST RATIO OF NOT LESS THAN 0.5.

MARKING REQUIRED BY SECTION 1009.5.3. 2. GROUP R3 AND GROUP R4 (SMALL FACILITY) OCCUPANCIES.

INTERNALLY ILLUMINATED SIGNS SHALL BE LISTED IN ACCORDANCE WITH UL 924, STANDARD FOR SAFETY EMERGENCY LIGHTING POWER EQUIPMENT. THE VISIBILITY OF AN INTERNALLY ILLUMINATED SIGN SHALL BE THE EQUIVALENT OF AN EXTERNALLY ILLUMINATED SIGN THAT COMPLIES WITH SECTION 1006.3.5.

1. MARKING REQUIRED BY SECTION 1009.5.3. 2. SIGNS IN COMPLIANCE WITH SECTIONS 1006.3.4 AND 1006.3.8.2.

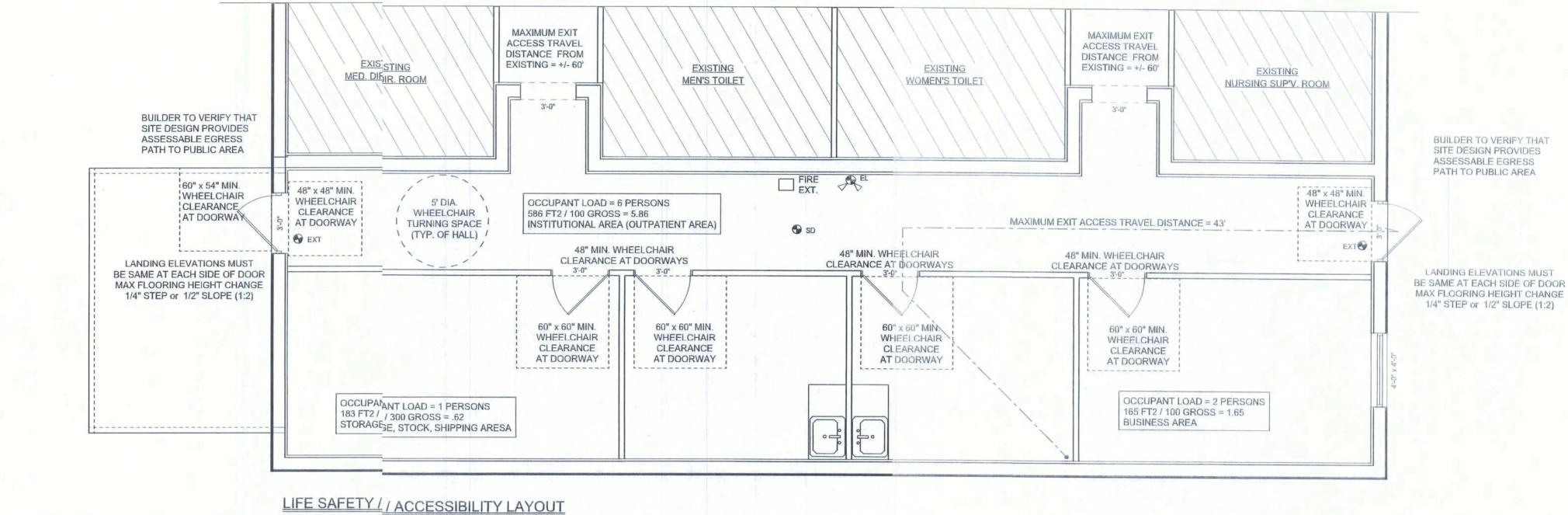
- WHERE EMERGENCY LIGHTING FACILITIES ARE REQUIRED BY SECTION 1006.2, THE EXIT SIGNS SHALL BE ILLUMINATED BY THE EMERGENCY LIGHTING FACILITIES. THE LEVEL OF ILLUMINATION OF THE EXIT SIGN SHALL BE AT THE LEVELS PROVIDED IN ACCORDANCE WITH SECTION 1006,3,5 FOR THE REQUIRED EMERGENCY LIGHTING TIME DURATION AS SPECIFIED IN SECTION 1006,2,3,1, BUT SHALL BE PERMITTED TO DECLINE TO 60 PERCENT OF THE ILLUMINATION LEVEL AT THE END OF THE EMERGENCY LIGHTING TIME DURATION.
- WHERE THE DIRECTION OF TRAVEL TO REACH THE NEAREST EXIT IS NOT APPARENT, A DIRECTIONAL SIGN COMPLYING WITH SECTIONS 1006,3,5 OR 1006,3,6 READING "EXIT," OR A SIMILAR DESIGNATION WITH A DIRECTIONAL INDICATOR SHOWING THE DIRECTION OF TRAVEL

SHALL BE PLACED IN EVERY LOCATION. DIRECTIONAL SIGNS SHALL BE LISTED. THE DIRECTIONAL INDICATOR SHALL BE LOCATED OUTSIDE OF THE "EXIT" LEGEND, NOT LESS THAN 3/8 INCHES (10 MM) FROM ANY LETTER. THE DIRECTIONAL INDICATOR SHALL BE OF A CHEVRON TYPE AND SHALL BE IDENTIFIABLE AS A DIRECTIONAL INDICATOR AT A MINIMUM DISTANCE OF 40 FEET (12.2 M). A DIRECTIONAL INDICATOR LARGER THAN THE MINIMUM ESTABLISHED IN THIS SECTION SHALL BE PROPORTIONATELY INCREASED IN HEIGHT, WIDTH AND STROKE. THE DIRECTIONAL INDICATORS SHALL BE LOCATED AT THE END OF THE SIGN FOR THE DIRECTION INDICATED.

WHERE FLOOR PROXIMITY EXIT SIGNS ARE REQUIRED, EXIT SIGNS SHALL BE PLACED NEAR THE FLOOR LEVEL IN ADDITION TO THOSE SIGNS REQUIRED FOR DOORS OR CORRIDORS. THESE SIGNS SHALL BE ILLUMINATED IN ACCORDANCE WITH SECTION 1006.3. EXTERNALLY ILLUMINATED SIGNS SHALL BE SIZED IN ACCORDANCE WITH SECTION 1006.3.5. THE BOTTOM OF THE SIGN SHALL BE AT LEAST 6 INCHES (152 MM) AND NO MORE THAN 8 INCHES (203 MM) ABOVE THE FLOOR. FOR EXIT DOORS, THE SIGN SHALL BE MOUNTED ON THE DOOR OR ADJACEN' TO THE DOOR WITH THE NEAREST EDGE OF THE SIGN WITHIN 4 INCHES (102 MM) OF THE DOOR FRAME. - WHERE FLOOR PROXIMITY EGRESS PATH MARKING IS REQUIRED, A LISTED AND APPROVED FLOOR PROXIMITY EGRESS PATH MARKING

SYSTEM THAT IS INTERNALLY ILLUMINATED SHALL BE INSTALLED WITHIN 18 INCHES (457 MM) OF THE FLOOR. THE SYSTEM SHALL PROVIDE A VISIBLE DELINEATION OF THE PATH OF TRAVEL ALONG THE DESIGNATED EXIT ACCESS AND SHALL BE ESSENTIALLY CONTINUOUS. EXCEPT AS INTERRUPTED BY DOORWAYS, HALLWAYS, CORRIDORS OR OTHER SUCH ARCHITECTURAL FEATURES. THE SYSTEM SHALL OPERATE CONTINUOUSLY OR AT ANY TIME THE BUILDING FIRE ALARM SYSTEM IS ACTIVATED. THE ACTIVATION, DURATION AND CONTINUITY OF

OPERATION OF THE SYSTEM SHALL BE IN ACCORDANCE WITH SECTION 1006.2. - SIGNS INSTALLED AS PROJECTIONS FROM A WALL OR CEILING WITHIN THE MEANS OF EGRESS SHALL PROVIDE VERTICAL CLEARANCE NO LESS THAN 80 INCHES (2134 MM) FROM THE WALKING SURFACE.



FIREBLOCKING REQUIREMENTS

(PER FBC07 SEC. 717.2)

FIREBLOCKING:

 IN COMBUSTIBLE CONSTRUCTION, FIREBLOCKING SHALL BE INSTALLED TO CUT OFF CONCEALED DRAFT OPENINGS (BOTH VERTICAL AND HORIZONTAL) AND SHALL FORM AN EFFECTIVE BARRIER BETWEEN FLOORS, BETWEEN A TOP STORY AND A ROOF OR ATTIC SPACE. - BATTS OR BLANKETS OF MINERAL OR GLASS FIBER OR OTHER APPROVED

NONRIGID MATERIALS SHALL BE ALLOWED AS FIREBLOCKING IN WALLS CONSTRUCTED USING PARALLEL ROWS OF STUDS OR STAGGERED STUDS. - FIREBLOCKING SHALL BE PROVIDED IN CONCEALED SPACES OF STUD WALLS AND PARTITIONS, INCLUDING FURRED SPACES, AND PARALLEL ROWS OF STUDS OR STAGGERED STUDS, AS FOLLOWS: A. VERTICALLY AT THE CEILING AND FLOOR LEVELS.

B. HORIZONTALLY AT INTERVALS NOT EXCEEDING 10 FEET. FIREBLOCKING SHALL BE PROVIDED AT INTERCONNECTIONS BETWEEN CONCEALED VERTICAL STUD WALL OR PARTITION SPACES AND CONCEALED HORIZONTAL SPACES CREATED BY AN ASSEMBLY OF FLOOR JOISTS OR TRUSSES, AND BETWEEN CONCEALED VERTICAL AND HORIZONTAL SPACES SUCH AS OCCUR AT SOFFITS, DROP CEILINGS, COVE CEILINGS AND SIMILAR

- FIREBLOCKING SHALL BE PROVIDED IN CONCEALED SPACES BETWEEN STAIR STRINGERS AT THE TOP AND BOTTOM OF THE RUN. ENCLOSED SPACES UNDER STAIRS SHALL ALSO COMPLY WITH FBC04 SECTION 1019.1.5. - CEILING AND FLOOR OPENINGS: WHERE ANNULAR SPACE PROTECTION IS PROVIDED IN ACCORDANCE WITH FBC07 EXCEPTION 6, SEC. 707.2, EXCEPTION 1, SEC. 712.4.2, OR SEC. 712.4.3, FIREBLOCKING SHALL BE INSTALLED AT OPENINGS AROUND VENTS, PIPES, DUCTS, CHIMNEYS AND FIREPLACES AT CEILING AND FLOOR LEVELS, WITH AN APPROVED MATERIAL TO RESIST THE FREE PASSAGE OF FLAME AND THE PRODUCTS OF COMBUSTION. FACTORY-BUILT CHIMNEYS AND FIREPLACES SHALL BE FIREBLOCKED IN ACCORDANCE WITH UL 103 AND UL 127. ARCHITECTURAL TRIM: FIREBLOCKING SHALL BE INSTALLED WITHIN

CONCEALED SPACES OF EXTERIOR WALL FINISH AND OTHER EXTERIOR ARCHITECTURAL ELEMENTS WHERE PERMITTED TO BE OF COMBUSTIBLE CONSTRUCTION AS SPECIFIED IN FBC04, SEC. 1406 OR WHERE ERECTED WITH COMBUSTIBLE FRAMES, AT MAXIMUM INTERVALS OF 20'. IF NONCONTINUOUS, SUCH ELEMENTS SHALL HAVE CLOSED ENDS, WITH AT LEAST 4" OF SEPARATION BETWEEN SECTIONS. FIREBLOCKING SHALL NOT BE REQUIRED WHERE INSTALLED ON NONCOMBUSTIBLE FRAMING AND THE FACE OF THE EXTERIOR WALL FINISH EXPOSED TO THE CONCEALED SPACE IS COVERED BY ONE OF THE FOLLOWING MATERIALS:

A. ALUMINUM HAVING A MINIMUM THICKNESS OF 0.019". B. CORROSION-RESISTANT STEEL HAVING A BASE METAL THICKNESS NOT LESS THAN 0.016" AT ANY POINT.

C. OTHER APPROVED NONCOMBUSTIBLE MATERIALS. WHERE WOOD SLEEPERS ARE USED FOR LAYING WOOD FLOORING ON MASONRY OR CONCRETE FIRE-RESISTANCE-RATED FLOORS, THE SPACE BETWEEN THE FLOOR SLAB AND THE UNDERSIDE OF THE WOOD FLOORING SHALL BE FILLED WITH AN APPROVED MATERIAL TO RESIST THE FREE PASSAGE OF FLAME AND PRODUCTS OF COMBUSTION OR FIREBLOCKED IN SUCH A MANNER THAT THERE WILL BE NO OPEN SPACES UNDER THE FLOORING THAT WILL EXCEED 100 SF IN AREA AND SUCH SPACE SHALL BE FILLED SOLIDLY UNDER PERMANENT PARTITIONS SO THAT THERE IS NO COMMUNICATION UNDER THE FLOORING BETWEEN ADJOINING ROOMS.

FIREBLOCKING MATERIALS: 2" NOMINAL LUMBER OR TWO THICKNESSES OF 1" NOMINAL LUMBER WITH BROKEN LAP JOINTS OR ONE THICKNESS OF 0.719" WOOD STRUCTURAL PANEL WITH JOINTS BACKED BY 0.719" WOOD STRUCTURAL PANEL OR ONE THICKNESS OF 0.75" PARTICLEBOARD WITH JOINTS BACKED BY 0.75" PARTICLEBOARD. GYPSUM BOARD, CEMENT FIBER BOARD, BATTS OR BLANKETS OF MINERAL WOOL OR GLASS FIBER OR OTHER APPROVED MATERIALS INSTALLED IN SUCH A MANNER AS TO BE SECURELY RETAINED IN PLACE SHALL BE PERMITTED AS AN ACCEPTABLE FIREBLOCK. BATTS OR BLANKETS OF MINERAL OR GLASS FIBER OR OTHER APPROVED NONRIGID MATERIALS SHALL BE PERMITTED FOR COMPLIANCE WITH THE 10' HORIZONTAL FIREBLOCKING IN WALLS CONSTRUCTED USING PARALLEL ROWS OF STUDS OR STAGGERED STUDS. LOOSE-FILL INSULATION MATERIAL SHALL NOT BE USED AS A FIREBLOCK UNLESS SPECIFICALLY TESTED IN THE FORM AND MANNER INTENDED FOR USE TO DEMONSTRATE ITS ABILITY TO REMAIN IN PLACE AND TO RETARD THE SPREAD OF FIRE AND HOT GASES. THE INTEGRITY OF FIREBLOCKS SHALL BE MAINTAINED.

#### DRAFTSTOP REQUIREMEENTS

(PER FBC07 SEC. 717.3-717.4)

DRAFTSTOPPING IN FLOORS:

DRAFTSTOPPING SHALL BE INSTALLED S SO THAT HORIZONTAL FLOOR AREAS DO NOT EXCEED 1,000 SF. (DRAFTSTOPP PING IS NOT REQUIRED IN BUILDINGS EQUIPPED THROUGHOUT WITH AN AUTOOMATIC SPRINKLER SYSTEM.)

- IN COMBUSTIBLE CONSTRUCTION DRAIAFTSTOPPING SHALL BE INSTALLED IN ATTICS AND CONCEALED ROOF SPACES:S, SUCH THAT ANY HORIZONTAL AREA

DOES NOT EXCEED 3,000 SF (DRAFTSTODPPING IS NOT REQUIRED IN BUILDINGS EQUIPPED THROUGHOUT WITH AN AUTOOMATIC SPRINKLER SYSTEM) - OPENINGS IN THE PARTITIONS SHALL B BE PROTECTED BY SELF-CLOSING DOORS WITH AUTOMATIC LATCHES CONSTRUCT, TED AS REQUIRED FOR THE PARTITIONS. DRAFTSTOPPING MATERIALS:

DRAFTSTOPPING MATERIALS SHALL NOT)T BE LESS THAN 0.5" GYPSUM BOARD, 0.375" WOOD STRUCTURAL PANEL, 0.375'5" PARTICLEBOARD OR OTHER APPROVED MATERIALS ADEQUATATELY SUPPORTED. THE INTEGRITY OF DRAFTSTOPS SHALL E BE MAINTAINED.

ACCESSIBLE RAMP REQUIJIREMENTS (SLOPES GREATER THAN 1:20 SHALL BE CONSIDERED A RAMP)

MAX RISE FOR ANY RUN = 30" MIN. CLEAR WIDTH = 44"

MAX. CROSS SLOPE = 1:50 - LANDINGS: RAMPS MUST HAVE LEVEL L LANDINGS AT TOP AND BOTTOM OF EACH RUN. ALL LANDINGS MUST BE AT LELEAST AS WIDE AS THE RAMP, AND NOT LESS THAT 60" AT TOP & 72" AT BOTTOM (1 OF STRAIGHT LEVEL CLEARANCE. IF RAMP CHANGES DIRECTION A MIN LANINDING OF 60" x 60" IS REQUIRED.
- HANDRAILS: IF RAMP RISE IS GRATER TITHAN 6" OR HORIZONTAL PROJECTION GREATER THAN 72" IT MUST HAVE CONTINUOUS HANDRAILS ON BOTH SIDES MOUNTED BETWEEN 34" - 38" ABOVE RAMMP SURFACES. - EDGE PROTECTION: RAMPS & LANDING GS WITH DROP-OFFS SHALL HAVE

CURBS, WALLS, RAILINGS, OR PROJECTE ED SURFACES. CURBS MUST BE A MIN. OF 2" HIGH. - APPROACHES TO OUTDOOR RAMPS MUIUST NOT ACCUMULATE WATER

#### LIFE SAFETY KEY

EMERGENCY LIGHT

● EXT LIGHTED EXIT SIGN

SMOKE DETECTOR

FIRE EXTINGUISHER

\* EXISTING FIRE SPRINKLER HEAD

#### LIFE SAFETY NOTE:

It is contractor / owner's responsibility to request life safety review by the fire marshal. All life safety requirements are to be as specified by the fire marshal. Emergency lighting and exit signs shall be provided as directed by the fire marshal and shall be wired per nec 700-12f. Emergency lighting and exit sign locations shown on the plans are suggestions only.

IGINEER OF RE'ORD: Mark Disosway E No.53915, POB868, Lake City, FL 32056, 386-754-549 Stated dimensions upercede scaled dimensions Refer I questions to not proceed witbut clarification OPYRIGHTS AND PROPERTY RIGHTS: lark Disosway, P.E hereby expressly res

s common law courights and property right not to be reproducel, altered or copied in any orm or manner without first the express writt ermission and conent of Mark Disosway. CERTIFICATION: Tiese plans and over Sheet, SheetA-0, attached, comply with

policable portions f the Florida Building Cod 007, to the best omy knowledge. MITATION: This esign is valid for one uilding at specifiedocation. In case of conf uctural requiremets, scope of work, and uilder responsibilités control.

> MARI DISOSWAY PE 53915

Blake Construction

Addtion for: Family Fealth Center of Columbia County

AIDRESS: NW Abritton Ln. ColumbiaCounty, Florida

Mark Disosway P.E. P.O.Box 868 Lake City, Florida 32025 Phone: (336) 754 - 5419 Fax: (38i) 269 - 4871 windloadengieer@bellsouth.net PRINTED DATE:

October 19, 2009 CHECKED BY: Evan Beamsley

FINALES DATE

Oct. 16, 2009 JOB NUMBER:

917152 DRAWING NUMBER

OF ESHEETS

REVISIONS

#### **ELECTRICAL DESIGN NOTE:**

The Florida Building Code 2007 and NFPA 70 shall govern the electrical systems in this building project. Where provisions conflict, FBC2007 shall govern.

Plans and design for electrical system in this building are to be furnished by the electrical contractor to the engineer of record, the owner, and the building official for approval prior to construction or ordering any materials.

FBC 2007, 105.3.1.2 Does not require sealed engineering documents to be prepared by or under the direction of an engineer registered under chapter 471Florida Statutes for electrical systems for any new building or addition which requires an aggregate service capacity of not more than 600 amperes (240 volts) on a residential electrical system or 800 amperes (240 volts) on a commercial or industrial electrical system and which costs not more than \$50,000.

The electrical plans should meet the following requirements:

1. Electrical: Services

Feeders and branch circuits Overcurrent protection Grounding Wiring methods and materials

Equipment 3. Special occupancies Emergency systems 5. Communication systems

Low voltage Load calculations

(1) Power systems convey or distribute electrical energy. Items to be included in the design and analysis of these systems are: steady state and transient loads, short circuit protection (design and analysis), load flow, voltage drop, harmonics, and protective device coordination.

(2) "Design" documents applicable to power systems shall at a minimum indicate the following:

(a) System Riser Diagram (b) Conductor Ampacities (sizes) and insulation type

(c) Protection devices and interrupting capability (d) Main and distribution panelboard locations and sizes

(e) Circuitry of all outlets and devices (f) Short circuit analysis (g) Load computations

(h) Electrical legend (i) Grounding and bonding

(j) Instrumentation control

(1) Lighting systems convert electrical energy into light. Items to be included in the lighting design and analysis are: Average illuminance, Equivalent spherical illuminance, Uniformity ratios, Visual comfort probability, special purpose lighting, and the requirements of the Florida Energy Efficiency

Code, part IX, Chapter 553, Florida Statutes. (2) "Design" documents for lighting systems shall, at a minimum, indicate the following:(a) Lighting fixture performance specifications and arrangements

(b) Emergency Lighting

(c) Exit Lighting (d) Lighting Control and circuiting

Design of Communications Systems: (1) Communications systems are utilized to convey messages or data. Items to be included in the design or analysis of these systems are: Human factors engineering, cabling requirements, installation requirements, performance requirements, backup power requirements, the interrelationship of the various systems, and applicable regulatory requirements. (2) "Design" documents for communications systems shall, at a minimum, indicate the following: (a) System riser diagram

(b) Equipment legend

(c) Conductor type and installation requirements (d) Device type and locations

(e) Backup power sources where applicable

Design of Alarm Systems:

(1) Alarm systems are used to monitor and alarm a fire or other emergency condition. Items to be included in the design or analysis of these systems are: structure alarm requirements, location and audibility, types of alarms and initiation devices, notification requirements, installation requirements, backup power requirements, applicable regulatory requirements, and the provisions of rule 61G15-32.007, F.A.C.

(2) Design documents for alarm systems shall, at a minimum, indicate the following: (a) System riser diagram

(b) Device types and locations

(c) Type of conductors and installation requirements including rating identification and listing (d) Notification requirements

(e) Backup power requirements (f) Where applicable, backup power sources and inter-ties to other systems/components

Design of Lightning Protection Systems.

(1) Lightning Protection Systems are passive systems used to protect building and structures from damage caused by lightning and static discharges. Items to be considered in the design or analysis of this system include the requirements of NFPA-78.

(2) "Design" documents for lightning protection systems shall indicate: (a) Air terminals height and spacing

(b) Arrangement of Main and Down conductors

(c) Grounding points and spacing

(e) Testing requirements of grounds

Design of Grounding Systems. (1) Grounding Systems are passive systems used to establish an electrical potential reference point in an electrical system for the proper dissipation of energy in case of abnormal or transient

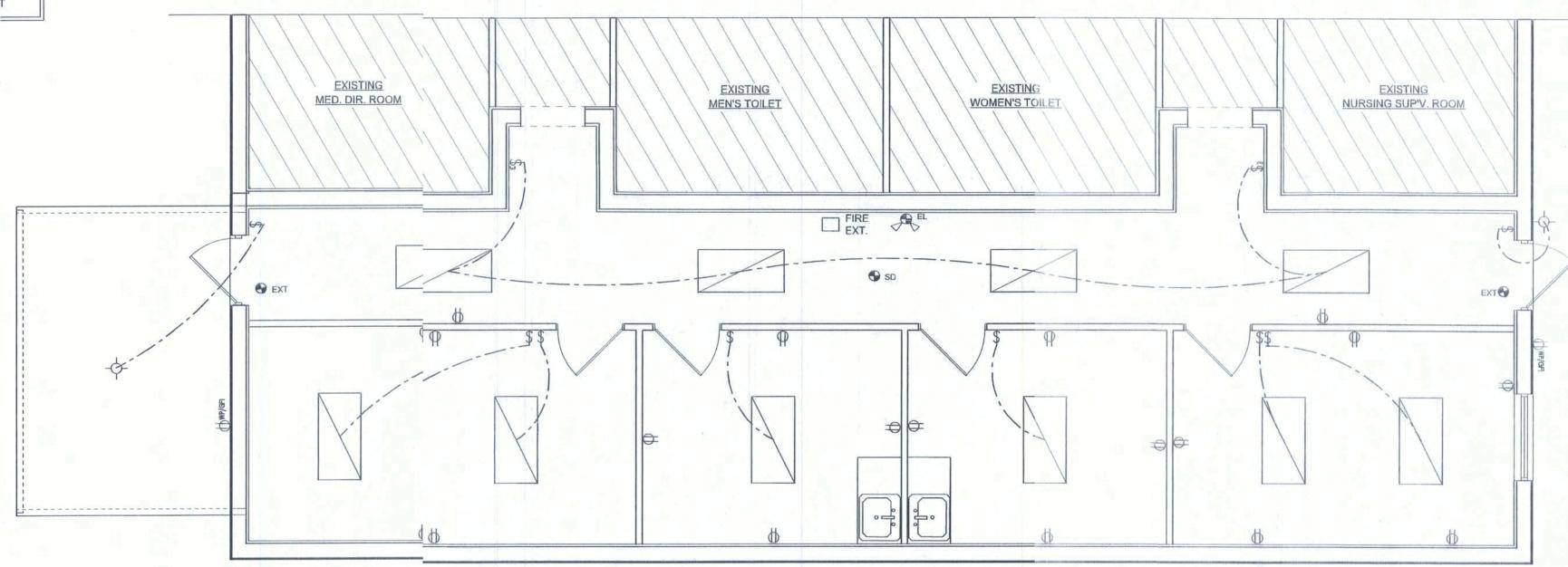
(2) Design documents for grounding systems shall indicate at a minimum the following:(a) type and location of grounding electrodes

(b) bonding requirements

(c) testing requirements

(d) conductor material type, size and protection requirements (e) separate grounding systems, properly bonded, per code and use requirements

	ELECTRICAL LEGEND
	CEILING FAN
QP	DOUBLE SECURITY LIGHT
	FLUORESCENT LIGHT FIXTURE
0	RECESSED CAN LIGHT
- <b>○</b>	BATH EXAUST FAN WITH LIGHT
₩	BATH EXAUST FAN
-	LIGHT FIXTURE
Ф	DUPLEX OUTLET
•	220v OUTLET
Фан	GFI DUPLEX OUTLET
\$	WALL SWITCH
\$3	3 WAY WALL SWITCH
Ф	WATER PROOF GFI OUTLET



ELECTRICAL PLAN SCALE: 1/4" = 1'-0"

Blake Construction

Addition for: Family Health Center of Coumbia County

ADDRESS: NW Albritton Ln. Columbia County, Florida

> Michael Smith **Bectric Inc**

IRINTED DATE: DRAWN B': CHECKED BY: Evan Beamley

FINALES DATE: Oct. 16, 2109

JOB NUMBER: 907152 DRAVING NUMBER

**OF 8 SHEETS** 

REVISIONS

SOFPLAN

#### PLUMBING NOTE:

The Florida Building Code 2007, Chapter 29, and Florida Building Code, Pluring shall govern plumbing fixtures and plumbing installations in this building project.

Plans and design for plumbing system in this building are to be furnished by tlplumbing contractor to the engineer of record, the owner, and the building official for approval prior to cotruction or ordering any materials.

FBC 2007, 105.3.1.2 Does not require sealed engineering documents to be pared by or under the direction of an engineer registered under chapter 471 Florida Statutes for plumbing systes for any new building or addition which requires a plumbing system with not more than 250 fixture units or whicosts not more than \$50,000.

The plumbing plans should meet the following requirements:

1. Minimum plumbing facilities

Fixture requirements

Water supply piping
 Sanitary drainage

5. Water heaters 6. Vents

7. Roof drainage 8. Back flow prevention

9. Irrigation

10. Location of water supply line 11. Grease traps

12. Environmental requirements 13. Plumbing riser

(1) Plumbing systems are those systems within a building that convey fluids, a gases generally as required by building codes.

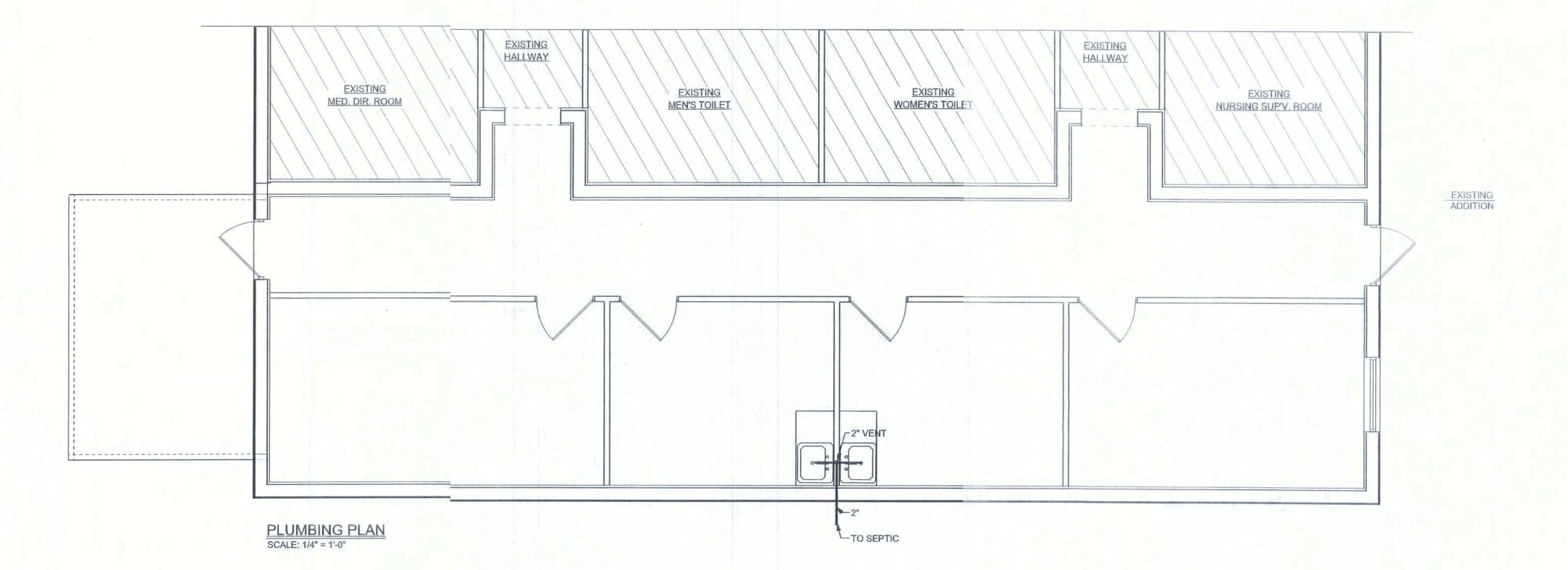
(2) "Design" documents applicable to Plumbing Systems shall when applicablinclude but are not limited to the

(a) Equipment schedules for all plumbing fixtures, water heaters, boilers, pum, grease traps, septic tanks, storage tanks, expansion tanks, compression tanks and roof and floor drains.
(b) Floor plans, site plans, and building and plumbing system elevations are aropriate.

(b) Floor plans, site plans, and building and planning system devalors are arbitrate.
(c) Isometric diagrams with pipe sizes and total water fixture units.
(d) Sanitary riser diagrams with pipe sizes and total sanitary waste fixture units.
(e) Storm riser diagrams with pipe sizes and cumulative drain area square focges.
(f) Cold water, hot water, sanitary, and storm drainage piping layouts.
(g) System isometrics and flow diagrams of other fluids and gases.

(h) Design data for septic tank, grease trap(s), drain field sizing, when applicas.
(i) List of ASHRAE, ASME, ASPE, ANSI and other applicable codes, design sidards, and requirements.
(j) Design shall be in accordance with handicap requirements adopted by the thority having jurisdiction.

(k) Instrumentation and Control Diagrams and sequence of operation.
(l) All plumbing fixtures, valves, pumps, tanks, accessories, specialties, encloses, and such equipment shall be described and located on the drawings.
(m) Materials for all plumbing systems shall be specified.



Blake Construction

Addtion for: Family Health Center of Columbia County

ADDRESS: NW Abritton Ln. ColumbiaCounty, Florida

Hometovn Plumbing Services LLC

PRINTED DATE: Octobir 19, 2009 CHECKED BY: DRAWN BY: Evan Beamsley

FINALES DATE Oct. 16, 2009

JOB NUMBER: 907152 DRAWING NUMBER

OF ESHEETS

REVISIONS	

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#### **HVAC DESIGN NOTE:**

The Florida Building Code 2007, Chapter 28 and Florida Building Code, Mechanical and Fuel Gas shall govern the heating, air conditioning, refrigeration, mechanical ventilation and plenums and the design and construction of factory-built chimneys, fireplaces and barbecues in this building.

Plans and design for HVAC system in this building are to be furnished by the HVAC contractor to the engineer of record, the owner, and the building official for approval prior to construction or ordering any

FBC 2007, 105.3.1.2 Does not require sealed engineering documents to be prepared by or under the direction of an engineer registered under chapter 471 Florida Statutes for heating, ventilation, and air-conditioning systems for any new building or addition which requires not more than a 15-ton-per-system capacity which is designed to accommodate less than 100 persons and for which the system costs not more than \$50,000. An air-conditioning system may be designed by an installing air-conditioning contractor certified under Chapter 489, Florida Statutes to serve any building or addition which is designed to accommodate fewer than 100 persons and requires an air-conditioning system with value of \$50,000 or less; and when a 15-ton-per system or less is designed for a singular space of a building and each 15-ton system or less has an independent duct system. Systems not complying with the above require design documents that are to be sealed by a professional engineer.

The mechanical plans should meet the following requirements: Energy calculations 2. Exhaust systems: Clothes dryer exhaust Kitchen equipment exhaust Specialty exhaust systems Equipment 4. Equipment location 5. Make-up air 6. Roof-mounted equipment 7. Duct systems 8. Ventilation 9. Combustion air 10. Chimneys, fireplaces and vents 11. Appliances 12. Boilers Refrigeration Bathroom ventilation 15. Laboratory

Gas plans should meet the following requirements: 1. Gas piping Venting 3. Combustion air 4. Chimneys and vents 5. Appliances Type of gas 7. Fireplaces

8. LP tank location

Design of Heating, Ventilation and Air Conditioning Systems.

(1) Heating, Ventilating, and Air Conditioning (HVAC) Systems are those systems that control the temperature and/or humidity of a particular space or building. Items to be considered in the design and analysis of these systems are ambient dry and wet bulb temperatures, inside dry and wet bulb temperatures, inside design humidity, fresh air makeup, internal heat gains from any sources. Ventilation systems shall be designed to remove foul odors from a space or building, or to remove space heat from equipment rooms. All HVAC systems shall be designed in accordance with the ASHRAE Standards and Building Code as adopted by the authority having jurisdiction. The HVAC systems shall be designed and operated such that the entire building is under positive or neutral pressure when all primary HVAC systems are operating.
(2) "Design" documents applicable to HVAC systems shall, where applicable, include but are not limited to the following: (a) Equipment selection schedule for each piece of mechanical equipment. All equipment shall have capacities listed including efficiencies, electrical or fuel requirements, static pressure and fan air quantities as applicable to the system, fluid flow and pressure head quantities as applicable to the system, and heat transfer capacities. (b) Floor plans; site plans; and building and mechanical system elevations as appropriate. (c) Outside (fresh) air make-up conditions.(d) Cooling coil requirements based on sensible heat, latent heat and

total heat gains.

(e) Heating equipment requirements. (f) Outside and inside design dry and wet bulb conditions. (g) Exhaust riser diagrams. (h) Outside air riser diagrams.

(i) Process flow diagrams with pipe sizes and fluid flow quantities. (j) Condensate discharge piping with pipe sizes. (k) Instrumentation and Control System diagrams and sequence of

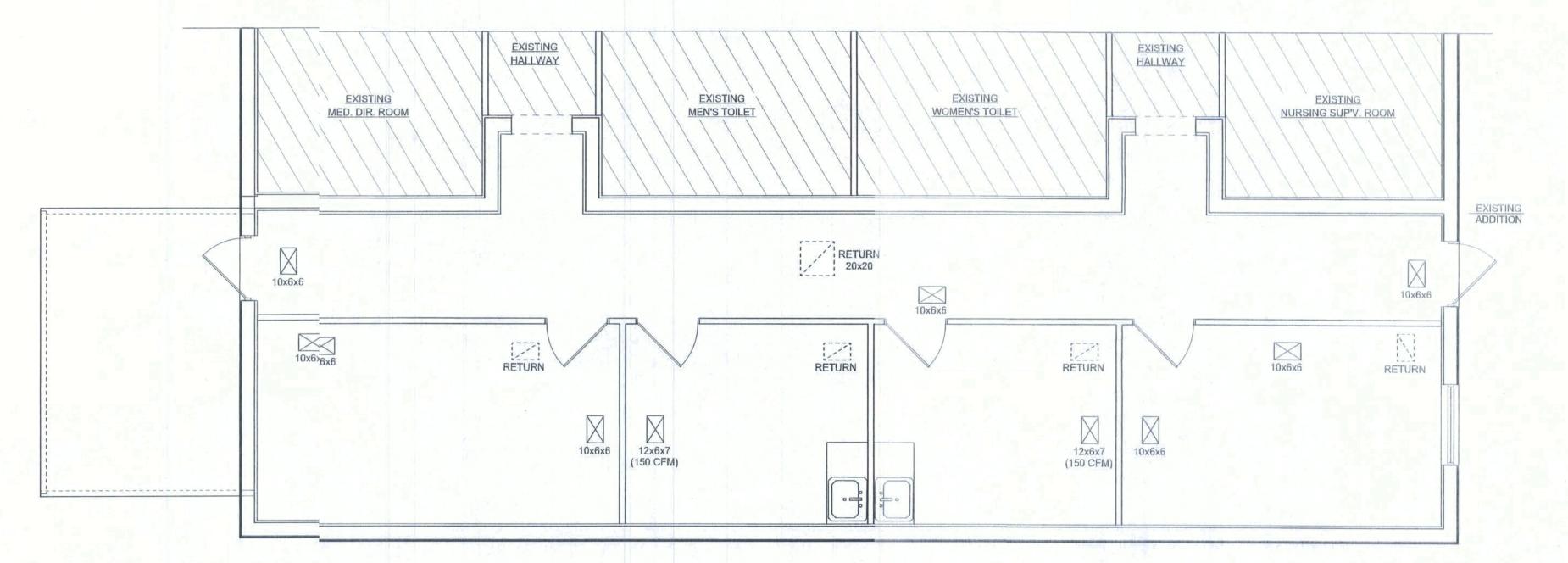
(I) Ductwork layout and sizing; insulation, supply, return, and exhaust inlet and outlet sizes; and outside air intake sizes. Air quantities shall be specified for inlets and outlets. (m) Florida Energy Code calculations as applicable.

(n) NFPA Standards and all required fire protection devices and

#### **ENERGY EFFICIENCY NOTE:**

The Florida Building Code 2004, Chapter 13, "Florida Energy Efficiency Code For Building Construction", shall govern design of building envelopes for adequate thermal resistance and low air leakage and design and selection of mechanical, electrical, and illumination systems and equipment which will enable the effective use of energy in this building project.

Important Note: A sealed copy of Form 400 for this project is incorporated in these plans by reference. There are equipment and material requirements and specifications in Form 400 which do not appear anywhere else in the plans. Construction must comply with the sealed Form 400. Conflicts between Form 400 and any other construction or contract documents are to be resolved by the builder prior to construction or ordering of materials.



Blake Construction

Addition for: Family Health Center of Columbia County

ADDRESS: NW Albritton Ln. ColumbiaCounty, Florida

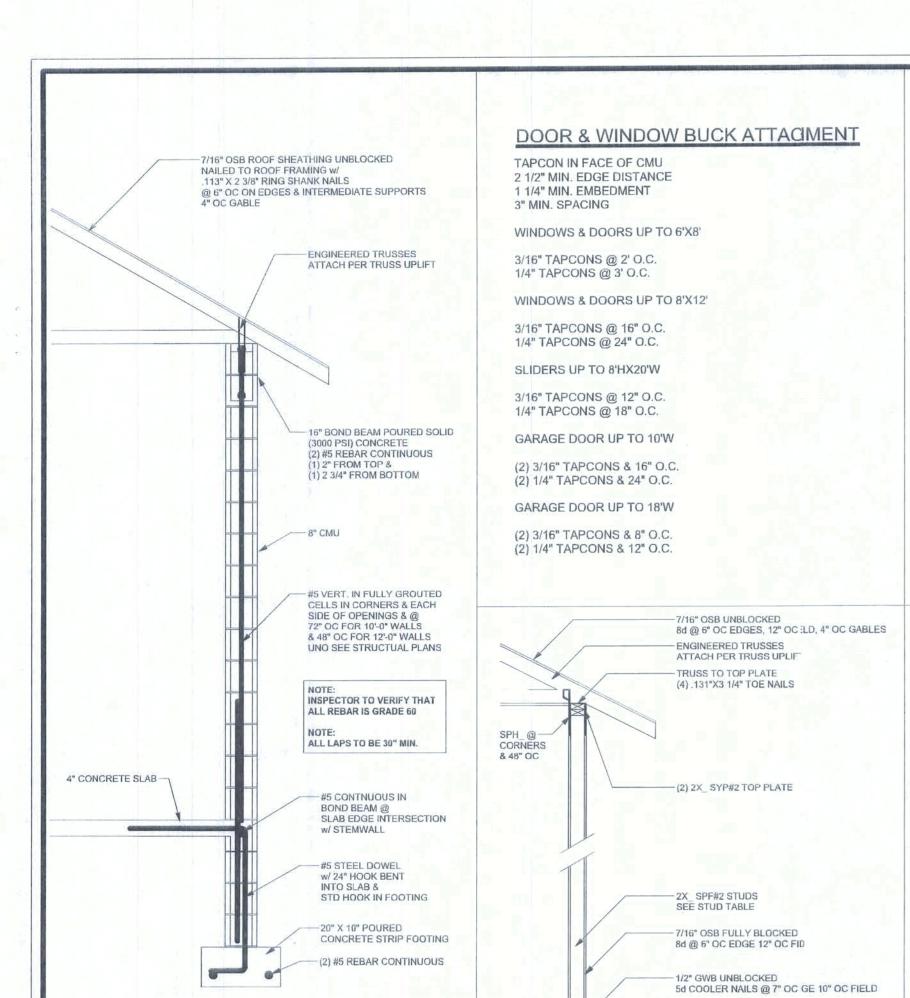
TOUCHSTONE **HEATNG & AIR** 386-496-3469

PRINTED DATE: October 19, 2009 DRAWN BY: CHECKED BY: Evan Beamsley

FINALES DATE Oct. 16, 2009

JOB NUMBER: 9)7152 DRAWING NUMBER

OF (SHEETS



#### 8F8-18-08 8F12-08 8F15-08 8F20-08 BF24-08 8F28-08 8F32-08 8F8-18-18 8F12-10(1967) 8F24-18 8F28-18 8F32-18 306369 605 6113 7547 8974 10394 11809 231 SYP 306369 605 6113 1-5547 8974 10394 11809 2'-10" (34") PRECAST 2x8 3'-6" (42") PRECAS 2x10 SYP#961 275975 3820 14890 4'-0" (48") PRECAS 2x12 5'-4" (64") PRECAST 5'-10" (70") PRECAS PSL 6'-6" (78") PRECAST 7'-6" (90") PRECAST 9'-4" (112") PRECAST 10'-6" (126") PRECAST 11'-4" (136") PRECAST 12'-0" (144") PRECAST 13'-4" (160") PRECAST 14'-0" (168") PRECAST 14'-8" (176") PRESTRESSED N.R. 15'-4" (184") PRESTRESSED N.R. 17'-4" (208") PRESTRESSED 19'-4" (232") PRESTRESSED N.R. 21'-4" (256") PRESTRESSED N.R. 22'-0" (264") PRESTRESSED N.R.

SAFE GRAVITY LOADS FOR 8" | PRECAST & PRESTRESSED U-LINTELS

GRADE & SPECIES TABLE

STATE LOAD - POUNDS PER LINEAR FOOT

## < 420 H5A 3-8d < 455 4-8d < 265 123\( 238 \) 2177 3480 3031 3707 4383 5061 123\( 238 \) 2177 3480 5381 8360 10394(37) 8825 (14) 101\( 011 \) 1729 2632 2205 2698 3191 3685 101\( 011 \) 1729 2661 3898 5681 8467(44) 6472 (15) 699\( 99 \) 1160 1625 2564 3486 2818 3302 752\( 52 \) 1245 1843 2564 3486 4705(37) 6390(47) 535\( 35 \) 890 1247 2093 2777 2163 2536 643\( 43 \) 1052 1533 2093 2781 3643(38) 4754 (45) 582\( 82 \) 945 1366 1846 2423 3127 4006 582\( 82 \) 945 1366 1846 2423 3127 4006 540\( 40 \) 873 1254 1684 2193 2805 3552 540\( 4 540 873 1254 1684 2193 2805 3552 540 40 873 1254 1684 2193 2805 3552 471 71 755 1075 1428 1838 2316 2883 471 71 755 1075 1428 1838 2316 2883 424 24 706 1002 1326 1697 2127 2630 442 42 706 1002 1326 1697 2127 2630 NR NR NR NR NR NR NR NR 458 783 1370 1902 2245 2517 2712 NR NR NR NR NR NR NR 412 12 710 1250 1733 2058 2320 2513 NR NR NR NR NR NR NR 900 536 300<sub>00</sub> 536 950 1326 1609 1849 2047 235<sub>35</sub> 418 750 1037 1282 1515 1716 NR<sub>VR</sub> NR NR NR NR NR NR NR 180<sub>80</sub> 340 598 845 1114 1359 1468 NR<sub>VR</sub> NR NR NR NR NR NR 165<sub>65</sub> 315 550 784 1047 1285 1399 NR<sub>VR</sub> NR NR NR NR NR 24'-0" (288") PRESTRESSED N.R. 250 450 654 884 1092 SAFE UPLIFT LOADS FOR 8" PRECICAST & PRESTRESSED U-LINTELS

WOOD ANCHOR TABLE

OBTAIN UPLIFT REQUIREMENTS FROM TRUSS

UPLIFT LBS. SYP UPLIFT LBS. SPF TRUSS CONNECTOR\* TO PLATES TO RAFTER/TRUSS

MANUFACTURER'S ENGINEERING

<				SAFE LODAD - POUNDS PER LINEAR FOOT							
		TYPE	8F8-1T	8F12-2-1T	8F16-1T	8F20-1T	8F24-1T	8F28-1T	8F32-1T		
LENG	TH		8F8-2T	8F12-2-2T	8F16-2T	8F20-2T	8F24-2T	8F28-2T	8F32-2T		
01.400	(0.411)	DDECAGE	1972	317 173	4460	5747	7034	8321	9608		
2'-10"	(34")	PRECAST	1972	317:173	4460	5747	7034	8321	9608		
et et	(400)	DDEGLOT	1569	252524	3547	4569	5591	6613	7636		
3'-6"	(42")	PRECAST	1569	252524	3547	4569	5591	6613	7636		
41 00	(40")	DDECAST	1363	219,192	3079	3966	4853	5740	6627		
4'-0"	(48")	PRECAST	1363	219:192	3079	3966	4853	5740	6627		
4'-6"	(54")	PRECAST	1207	194640	2724	3503	4292	5077	5861		
4-0	(54)	FRECASI	1207	194(340	2724	3508	4292	5077	5861		
Ct dr	(0.411)	DDECAGE	1016	163532	2290	2949	3607	4265	4924		
5'-4"	(64")	PRECAST	1016	163,632	2290	2949	3607	4265	4924		
E! 10"	(70")	PRECAST	909	149492	2093	2694	3295	3897	4498		
5'-10"	(70")		929	149492	2093	2694	3295	3897	4498		
6'-6"	(78")	DDECAST	835 (12)		1880	2419	2959	3498	4038		
0-0	(10)	PRECAST	835	134(340	1880	2419	2959	3498	4038		
71 01	(0.08)	PRECAST	727 (23)	102 021	1634 (12)	2102 (11)			3508		
7'-6"	(90")		727	1164	1634	2102	2571	3039	3508		
01 411	9'-4" (112")	PRECAST	591	680 80	1133(15)	1471 (15)		-			
9-4			591	851351	1326	1705	2084	2463	2842		
401.01	0'-6" (126")	PRECAST	530	55252	914 (15)	1185 (15)			150000000000000000000000000000000000000		
10-6			530	686	1183	1526	1865	2204	2544		
		136") PRECAST	474	48585	798 (15)	1034 (15)	1272 (15)	-	1749 (15		
11'-4"	(136")		494	599	1028	1422	1738	2053	2369		
			470 (a)	44341	723 (14)	936 (14)	1151(15)		1582 (15		
12'-0"	(144")	PRECAST	470	54343	928	1349	1649	1948	2247		
	/ / nom)		418 (15)	37373	606 (14)	783 (14)		17.10	1321 (14		
13'-4"	(160")	PRECAST	428	45555	770	1145	1444	1718	1993		
			384 (15)	346	559 (14)				1218 (14		
14'-0"	(168")	PRECAST	410	420 20	709	1050	1434 (0)	1694 (8)	1954		
		DOCUMENT	239	323 23	519 (13)	671 (13)		976 (14)	1129 (14		
14'-8"	(1/6")	PRESTRESSED	246	39090	655	968	1324 (0)	1625 (11)	1874 (11		
5125-50	7.200	DDECTDECCE	224	30202	485 (13)	626 (13)	767 (13)	909 (13)	1052 (13		
15'-4"	(184")	PRESTRESSED	230	36464	609	897		Accessed to the con-			
A 100 A 10	(00000)		187	255 55	404 (12)	520 (12)	1224 (s)	754 (12)	1801 (14		
17'-4"	(208")	PRESTRESSED	192	30303	500	732	637 (12) 993 (a)		872 (12		
401.48	(DDON)	PRESTREAME	162	222 22	347 (11)	446 (11)	993 (a) 546 (12)	1268 (14)	1470 (14		
19'-4"	(232")	PRESTRESSED	166	261/61			004	646 (12)	746 (12		
041.4"	(DEOP)	DDEATDEAGE	142	198 98	424	616	831 (4)		1225 (14		
21-4"	(256")	PRESTRESSED	142	230,30	306 (11)	393 (11)	480 (11)	567 (11)	654 (11		
001.00	(00 (F)	DDFOTDFOOT	137	19292	369	531	713 (2)	903 (13)	1046 (13		
22'-0"	(264")	PRESTRESSED	137	22321	295 (10)	378 (11)	461 (10)	545 (11)	629 (11		
			124	175 75	354	508	681 (r)	861 (13)	997 (13		
24'-0"	(288")	PRESTRESSE	124	200 00	267 (10)	341 (10)	416 (10)	491 (10)	566 (10		
				200	316	450	600 (2)	756 (12)	875 (13		

		RAVITY LOAD		7)	LOAD									
FUG	TIL	TYPE	8RU6	8RF66-0B	8RF10-0B	8RF14-0B	8RF18-0B	8RF22-0B	8RF26-0B	8RF30-0B				
LENG	IH		UITOU	8RF6-:6-1B	8RF10-1B	8RF14-1B	8RF18-1B	8RF22-1B	8RF26-1B	8RF30-1B				
4'-4"	(52")	PRECAST	1635	174949	3355	3280	4349	5421	6493	7567				
7.7	(32)	THEOROT	FRECAGI	TRECAGI	THEOROT	1000	189391	3699	5206	6639	8069	9479	10893	
4'-6"	(54")	PRECAST	PRECAST	PRECAST	PRECAST	PRECAST	1494	159696	3063	2992	3968	4946	5924	6904
4-0	(34)						FRECASI	FRECAGI	1404	1756	3699	5206	6639	8060
5'-8"	(68")	) PRECAST	PRECAST	PRECAST	866	92020	1770	1716	2277	2839	3402	3966		
J-U	(00)			000	116767	2481	4567	6389	8060 (34)	7917 (19)	9311 (15			
5'-10"	(70")	PRECAST	810	85959	1653	1600	2124	2649	3174	3700				
0.10	(10)	THEONET	010	111313	2342	4242	6639 (10)	8060 (39)	7402 (19)	8706 (15				
6'-8"	(80")	PRECAST	707	901 01	1825	3120	5048	7747	9448	7360				
0-0	(00)	FRECASI	797	901 01	1825	3120	5048	7915	9479	10893 (32				
7'-6"	(90")	PRECAST	cco	755	1490	2459	3776	5743	7239	5623				
7-0	(90)	FINECAST	669	755	1490	2459	3776	5743	8998 (19)	10893				
9'-8"	(116")	PRECAST	444	466	999	1568	2253	3129	4091	3146				
0-0	(110)	TRECAUT	411	526 26	999	1568	2253	3129	4150	5891 (4)				

SAFE UPLIFT LOADS FO			FE LC <sub>OA</sub>	D - POL	INDS PI				
		TYPE	8RF6-1T	8RF10-10-1T	8RF14-1T	8RF18-1T	8RF22-1T	8RF26-1T	8RF30-1T
LENG	TH		8RF6-2T	8RF10-10-2T	8RF14-2T	8RF18-2T		8RF26-2T	
41 48	(E211)	DDECART	905	174848	2635	3522	4409	5296	6183
4'-4"	-4" (52") PRECAST	905	1748,48	2635	3522	4409	5296	6183	
AT CE	(54")	PRECAST	867	167575	2525	3374	4224	5074	5924
4'-6"	1-0 (54) FRECAST	867	167575	2525	3374	4224	5074	5924	
5'-8" (68") PRECAST	PRECAST	675	130301	1960	2618	3277	3935	4594	
J -0	3-B (OB) TRECAST	675	130'301	1960	2618	3277	3935	4594	
5'-10"	)" (70") PRECAST	PRECAST	655	126762	1900	2538	3176	3815	4453
0-10	(10)	TRECAGI	655	126562	1900	2538	3176	3815	4453
6'-8"	(80")	PRECAST	570	101512	1651	2204	2758	3312	3865
0-0	(60)	FINECAGI	570	1097,97	1651	2204	2758	3312	3865
7'-6"	(90")	PRECAST	506	79797	1462 (8)	1952 (7)	2442 (5)	2931 (5)	3257
1-0	(30)	TRECAGI	506	96767	1462	1952	2442	2931	3421
9'-8"	(116")	PRECAST	395	491,91	931 (12)	1301 (15)	1640 (15)	1980 (15	2322 (15
0 0	(110)	THEOROT	395	58989	1135	1514	1893	2272	2652

< 360	< 235	H4	4-8d 4-8d		
< 455	< 320	H3	4-8d	4-8d	
< 415	< 365	H2.5	5-8d	5-8d	*/
< 600	< 535	H2.5A	5-8d	5-8d	
< 950	< 820	H6	8-8d	8-8d	
< 745	< 565	H8	5-10d, 1 1/2"	5-10d, 1 1/2"	
< 1465	< 1050	H14-1	13-8d	12-8d, 1 1/2"	
< 1465	< 1050	H14-2	15-8d	12-8d, 1 1/2"	
< 990	< 850	H10-1	8-8d, 1 1/2"	8-8d, 1 1/2"	
< 760	< 655	H10-2	6-10d	6-10d	
< 1470	< 1265	H16-1	10-10d, 1 1/2"	2-10d, 1 1/2"	
< 1470	< 1265	H16-2	10-10d, 1 1/2"	2-10d, 1 1/2"	
< 1000	< 860	MTS24C	7-10d 1 1/2"	7-10d 1 1/2°	
< 1450	< 1245	HTS24	12-10d 1 1/2"	12-10d 1 1/2°	
< 2900	< 2490	2 - HTS24			
< 2050	< 1785	LGT2	14 - 16d	14 -16d	
		HEAVY GIRDER TIEDOWNS*			TO FOUNDATION
< 3965	< 3330	MGT	u -	22 -10d	1-5/8" THREADED ROD 12" EMBEDMENT
< 10980	< 6485	HGT-2		16 -10d	2-5/8" THREADED ROD 12" EMBEDMENT
< 10530	< 9035	HGT-3		16 -10d	2 5/8" THREADED ROD 12" EMBEDMENT
< 9250	< 9250	HGT-4		16 -10d	2-5/8" THREADED ROD 12" EMBEDMENT
		STUD STRAP CONNECTOR*			TO STUDS
< 435	< 435	SSP DOUBLE TOP PLATE	3 -10d		4 -10d
< 455	< 420	SSP SINGLE SILL PLATE	1 -10d		4 -10d
< 825	< 825	DSP DOUBLE TOP PLATE	6 -10d		8 -10d
< 825	< 600	DSP SINGLE SILL PLATE	2 - 10d		8 -10d
< 885	< 760	SP4			6-10d, 1 1/2"
< 1240	< 1065	SPH4			10-10d, 1 1/2"
< 885	< 760	SP6			6-10d, 1 1/2"
< 1240	< 1065	SPH6	1 1		10-10d, 1 1/2"
< 1235	< 1165	LSTA18	14-10d		- Arabira
< 1235	< 1235	LSTA21	16-10d		
< 1030	< 1030	CS20	18-8d		
< 1705	< 1705	CS16	28-8d		
Di AR		STUD ANCHORS*	TO STUDS		TO FOUNDATION
< 1350	< 1305	LTT19	8-16d		1/2" AB
< 2310	< 2310	LTTI31	18-10d, 1 1/2"		1/2" AB
< 2775	< 2570	HD2A	2-5/8" BOLTS		5/8" AB
< 4175	< 3695	HTT16	18 - 16d		5/8" AB
< 1400	< 1400	PAHD42	16-16d		
< 3335	< 3335	HPAHD22	16-16d		
< 2200	< 2200	ABU44	12-16d		1/2" AB
< 2300	< 2300	ABU66	12-16d		1/2" AB
< 2320	< 2320	ABU88	18 - 16d		2-5/8" AB

**OUANTITY OF #5 FIELD ADDED REBAR AT** 

QUANTITY OF #5 FIELD ADDED REBAR AT TOP

BOTTOM OF LINTEL CAVITY

< 3335	< 3335	HPAHD22	16-16d		
< 2200	< 2200	ABU44	12-16d		1/2" AB
< 2300	< 2300	ABU66	12-16d		1/2" AB
< 2320	< 2320	ABU88	18 - 16d		2-5/8" AB
Shore filled lini. Installation of I and/or structural. U-Lintels are nhe ends to acco. All lintels meet 17'-4" and longe exceed L/180 de. Bottom field acof the lintel cavit. 7/32" diameter oottom steel for Cast-in-place on lieu of concret	ortar bed and heatels as required, intel must comply I documents, nanufactured with modate vertical of or exceed L/360 er with a nominal heaflection, dded rebar to be I y, r wire stirrups are mechanical anche concrete may be the masonry units.	with the architectural of 5 1/2" long notches at cell reinforcing and grouting deflection, except lintels height of 8" meet or located at the bottom welded to the orage.  provided in composite linters	1. All nom Exce be no less 2. N. 3. Sa 4. Sa field 5. Or #5 n 6. Th load calculated and	values based on inal bearing. eption: Safe loads educed by 20% if I than 6 1/2 inches. R. = Not Rated ife loads are super ife loads based on rebar. he #7 rebar may be ebars in 8" lintels of the designer may even s from the safe load ulating the maximushear at d-away fro	for unfilled lintels must nearing length is rimposed allowable lo grade 40 or grade 6 e substituted for two only valuate concentrated d tables by im resisting moment om face of support.
ACI 318 and A	CI 530	nal design analysis per de County, Florida No.	use 8. Fo from	safe load from nex or lintels lengths no next longest leng	
		installed in exterior concre ing of stucco applied in	foot		s of pounds per linea
A CONTRACTOR OF THE PROPERTY O			10 1		

Applied vertical load
Safe vertical load
+ Applied horizontal load
Safe horizontal load Additional lateral load capacity can be obtained by the designer by providing additional reinforced concrete masonry above the lintel. See detail at right: **MATERIALS** 

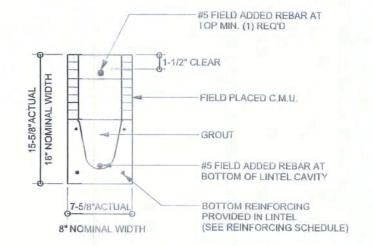
accordance with ASTM C-296 or other approved coating.

12. Lintels loaded simultaneously with vertical (gravity or

for the combined loading with the following equation:

uplift) and horizontal (lateral) loads should be checked

1. fc 8" precast lintel = 3500 psi 2. fc prestressed lintel = 6000 psi 3. Grout per ASTM C476 fc = 3000 psi w/ maximum 3/8 inch TYPE DESIGNATION aggregate & 8 to 11 inch slump 4. Concrete Masonry Units (CMU) per ASTM C90 w/minimum net area F = FILLED WITH GROUT / U = UNFILLED / S = SOLID compressive strength = 1900 psi 5. Rebar per ASTM A615 grade 60 Prestressing strand per ASTM A416 grade 270 low relaxation 7. Mortar per ASTM C270 type M or S NOMINAL WIDTH -



#### **GENERAL NOTES:**

TO STUDS

4-8d

TRUSSES: TRUSSES SHALL BE DESIGNED BY A FLORIDA LICENSED ENGINEER IN ACCORDANCE WITH THE FBCR 2007. TRUSS ENGINEERING SHALL INCLUDE TRUSS DESIGN, PLACEMENT PLANS, TEMPORARY AND PERMANENT BRACING DETAILS, TRUSS-TO-TRUSS CONNECTIONS, AND UPLIFT AND REACTION LOADS FOR ALL BEARING LOCATIONS. TRUSS ENGINEERING IS THE RESPONSIBILITY OF THE TRUSS MANUFACTURER AND SHALL BE SIGNED & SEALED BY THE MANUFACTURER'S DESIGN ENGINEER. IT IS THE BUILDER'S RESPONSIBILITY VERIFY THE TRUSS DESIGNER FULLY SATISFIED ALL THE ABOVE REQUIREMENTS AND TO SELECT UPLIFT CONNECTIONS BASED ON TRUSS ENGINEERING UPLIFT AND PROVIDE FOOTINGS FOR INTERIOR BEARING WALLS. BUILDER IS TO FURNISH TRUSS ENGINEERING TO WIND LOAD ENGINEER FOR REVIEW OF TRUSS REACTIONS ON THE BUILDING STRUCTURE. STRAP 2X6 RAFTERS WITH MIN UPLIFT CONNECTION 415LB EACH END; 2X8 RAFTERS 700 LB EACH END.

SITE PREPARATION: SITE ANALYSIS AND PREPARATION IS NOT PART OF THIS PLAN

FOUNDATION: CONFIRM THAT THE FOUNDATION DESIGN & SITE CONDITIONS MEET GRAVITY LOAD REQUIREMENTS (ASSUME 1000 PSF BEARING CAPACITY UNLESS VISUAL OBSERVATION OR SOILS TEST PROVES OTHERWISE

CONCRETE: MINIMUM COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAYS, F'c = 3000 PSI.

WELDED WIRE REINFORCED SLAB: 6" × 6" × 0" W1.4 × W1.4, FB = 85KSI, WELDED WIRE REINFORCEMENT FABRIC (W.W.M.) CONFORMING TO ASTM A185; LOCATED IN MIDDLE OF THE SLAB; SUPPORTED WITH APPROVED MATERIALS OR SUPPORTS AT SPACINGS NOT TO EXCEED 31.

FIBER CONCRETE SLAB: CONCRETE SLABS ON GROUND CONTAINING SYNTHETIC FIBER REINFORCEMENT. FIBER LENGTH 1/2 INCH TO 2 INCHES. DOSAGE AMOUNTS FROM 0.75 TO 1.5 POUNDS PER CUBIC YARD PER THE MANUFACTURER'S RECOMMENDATIONS. FIBERS TO COMPLY WITH ASTM C 1116. SUPPLIER TO PROVIDE ASTMIC 1116 CERTIFICATION OF COMPLIANCE WHEN REQUESTED BY BUILDING OFFICIAL

CONTROL JOINTS: WHERE SPECIFIED, SAWN CONTROL JOINTS IN SLAB-ON-GRADE SHALL BE CUT IN ACCORDANCE WITH ACI 302. JOINTS SHALL BE CUT WITHIN 12 HOURS OF SLAB PLACEMENT. THE LENGTH / WIDTH RATIOS OF SLAB AREAS SHALL NOT EXCEED 1.5 AND TYPICAL SPACING OF CUTS TO BE 12FT, DO NOT CUT WWM OR REINFORCING STEEL. (RECOMMENDED LOCATION OF CONTROL JOINTS IS SUBJECT TO NER AND CONTRACTOR'S APPROVAL. THE CONTROL JOINTS ARE NOT INTENDED TO PREVENT CRACKS BUT RATHER TO ENCOURAGE THE SLAB TO CRACK ON A GIVEN LINE.

REBAR: ASTM A 615, GRADE 60, DEFORMED BARS, FY = 60 KSI. ALL LAP SPLICES 40 \* DB (25" FOR #5 BARS); UNO. ALL REINFORCEMENT SHALL BE DETAILED AND PLACED IN ACCORDANCE WITH ACI 315-96, U.N.O.

GLULAM BEAMS: GLULAM BEAM, GLB, 24F-V3SP, Fb = 2.4ksi, E = 1800ksi; UNO, SUPPLIER MAY SUPPLY AN ALTERNATE BEAM WITH EQUAL PROPERTIES OR MAY SUBMIT THEIR OWN SIZING CALCS. ROOF SHEATHING: ALL ROOFS ARE HORIZONTAL DIAPHRAGMS; 7/16" OSB SHEATHING, UNBLOCKED, APPLIED PERPENDICULAR TO FRAMING, OVER A MINIMUM OF 3 FRAMING MEMBERS, WITH PANEL EDGES STAGGERED, FASTENED WITH 8d COMMON NAILS (.131), 6"OC PANEL EDGES, 12"0C INTERMEDIATE MEMBERS, GABLE ENDS AND DIAPHRAGM BOUNDARY; 4"OC, UNO.

STRUCTURAL CONNECTORS: MANUFACTURERS AND PRODUCT NUMBER FOR CONNECTORS, ANCHORS, AND REINFORCEMENT ARE LISTED FOR EXAMPLE NOT ENDORSEMENT. AN EQUIVALENT DEVICE OF THE SAME OR OTHER MANUFACTURER CAN BE SUBSTITUTED FOR ANY DEVICES LISTED IN THE EXAMPLE TABLES AS LONG AS IT MEETS THE REQUIRED LOAD CAPACITIES. MANUFACTURER'S INSTALLATION

INSTRUCTIONS MUST BE FOLLOWED TO ACHIEVE RATED LOADS. ANCHOR BOLTS: A-307 ANCHOR BOLTS WITH MINIMUM EMBEDMENT AS SPECIFIED IN DRAWINGS BUT NO

LESS THAN 7" IN CONCRETE OR REINFORCED BOND BEAM OR 15" IN GROUTED CMU. WASHERS: WASHERS USED WITH 1/2" BOLTS TO BE 2"  $\times$  2"  $\times$  9/64"; WITH 5/8" BOLTS TO BE 3"  $\times$  3"  $\times$  9/64"; WITH 3/4" BOLTS TO BE 3"  $\times$  3"  $\times$  9/64"; WITH 7/8" BOLTS TO BE 3"  $\times$  3"  $\times$  5/16"; UNO.

NAILS: ALL NAILS ARE COMMON NAILS UNLESS OTHERWISE SPECIFIED OR ACCEPTED BY FBC TEST REPORTS AS HAVING EQUAL STRUCTURAL VALUES.

#### BUILDER'S RESPONSIBILITY

THE BUILDER AND OWNER ARE RESPONSIBLE FOR THE FOLLOWING, WHICH ARE SPECIFICALLY NOT PART OF THE WIND LOAD ENGINEER'S SCOPE OF WORK.

CONFIRM SITE CONDITIONS, FOUNDATION BEARING CAPACITY, GRADE AND BACKFILL HEIGHT, WIND SPEED AND DEBRIS ZONE, AND FLOOD ZONE

PROVIDE MATERIALS AND CONSTRUCTION TECHNIQUES, WHICH COMPLY WITH FBCR 2004 REQUIREMENTS FOR THE STATED WIND VELOCITY AND DESIGN PRESSURES.

PROVIDE A CONTINUOUS LOAD PATH FROM TRUSSES TO FOUNDATION. IF YOU BELIEVE THE PLAN OMITS A CONTINUOUS LOAD PATH CONNECTION, CALL

VERIFY THE TRUSS MANUFACTURER'S SEALED ENGINEERING INCLUDES TRUSS DESIGN, PLACEMENT PLANS, TEMPORARY AND PERMANENT BRACING DETAILS,

TRUSS-TO-TRUSS CONNECTIONS, AND UPLIFT AND REACTION LOADS FOR ALL BEARING LOCATIONS

#### **ROOF SYSTEM DESIGN**

THE WIND LOAD ENGINEER IMMEDIATELY.

THE SEAL ON THESE PLANS FOR COMPLIANCE WITH FBCR 2007, SECTION R301.2.1 IS BASED ON REACTIONS, UPLIFTS, AND BEARING LOCATIONS IN TRUSS ENGINEERING SUBMITTED TO THE WIND LOAD ENGINEER, IT IS THE RESPONSIBILITY OF THE BUILDER TO CHECK ALL DETAILS OF THE COMPLETE ROOF SYSTEM DESIGN SUBMITTED BY THE TRUSS MANUFACTURER AND HAVE IT SIGNED, AND SEALED BY A DESIGN PROFESSIONAL FOR CORRECT APPLICATION OF FBCR 2007 REQUIRED LOADS AND ANY SPECIAL LOADS. THE BUILDER IS RESPONSIBLE TO REVIEW EACH INDIVIDUAL TRUSS MEMBER AND THE TRUSS ROOF SYSTEM AS A WHOLE AND TO PROVIDE RESTRAINT FOR ANY LATERAL DESIGN BECAUSE THE WIND LOAD ENGINEER IS SPECIFICALLY NOT RESPONSIBLE FOR THE TRUSS LAYOUT WHICH WAS CREATED BY THE TRUSS MANUFACTURER AND THE TRUSS DESIGNER ALSO DENIES RESPONSIBILITY FOR THE LAYOUT PER NOTES ON THEIR SEALED TRUSS SHEETS

MASONRY TRUSS ANCHOR TABLE **OBTAIN UPLIFT REQUIREMENTS FROM TRUSS** MANUFACTURER'S ENGINEERING

	UPLIFT LBS.	TRUSS CONNECTOR MASONRY *	
7. For composite listel beingte and alcount	. < 1205	TA22	10-10d x 1 1/2"
7. For composite lintel heights not shown, use safe load from next lower height shown.	< 1605	TA22	11-10d
8. For lintels lengths not shown, use safe load from next longest length shown	< 860	MTSM20	4 - 1/4"x2 1/4" TITEN IN BLOCK 7 - 10d IN TRUSS
9. All safe loads in units of pounds per linear foot 10. All safe loads based on simply supported span.	< 1175	HTSM20	4 - 1/4"x2 1/4" TITEN IN BLOCK 10 - 10d IN TRUSS
	< 1040	META20	7-10d, 1 1/2"
11. The number in the the parenthesis	< 1490	META20	10-10d, 1 1/2"
indicates the percent reduction for grade 40 field added rebar.	< 1780	HETA20	7-16d
Example 7'-6" lintel type 8F32-1B safe gravity load = 6472\H0.0469;(15)\H0.0781; w/ 15%	< 1780	LGT2	7 - 1/4"x2 1/4" TITEN IN BLOCK 14 - 16d SINKER IN GIRDER
reduction 6472 ⇒ (.85) = 5501 plf	< 2130	HHETA20	17-10d, 1 1/2"
	< 2310	HHETA24	21-10d, 1 1/2"
	< 3965	MGT	22-10d TO TRUSS 5/8 AB TO WALL 15" EMBEDMENT
	< 10980	HGT-2	15-10d IO IRUSS (2) 3/4 AB TO WALL 15" EMBEDMENT
	< 10530	HGT-3	16-10d TO TRUSS (2) 3/4 AB TO WALL 15" EMBEDMENT

#### MASONRY NOTES:

MASONRY CONSTRUCTION AND MATERIALS FOR THIS PROJECT SHALL CONFORM TO ALL REQUIREMENTS OF "SPECIFICATION FOR MASONRY STRUCTURES" (ACI 530.1/ASCE 6/TMS 602). THE CONTRACTOR AND MASON MUST IMMEDIATELY, BEFORE PROCEDING, NOTIFY THE ENGINEER OF ANY CONFLICTS BETWEEN ACI 530.1-02 AND THESE DESIGN DRAWINGS.

1	ACI530.1-02 Section	Specific Requirements
1.4A	Compressive strength	8" block bearing walls F'm = 1500 psi
2.1	Mortar	ASTM C 270, Type N, UNO
2.2	Grout	ASTM C 476, admixtures require approva
2.3	CMU standard	ASTM C 90-02, Normal weight, Hollow, medium surface finish, 8"x8"x16" running bond and 12"x12" or 16"x16" column block
2.3	Clay brick standard	ASTM C 216-02, Grade SW, Type FBS, 5.5"x2.75"x11.5"
2.4	Reinforcing bars, #3 - #11	ASTM 615, Grade 60, Fy = 60 ksi, Lap splices min 48 bar dia. (30" for #5)
2.4F	Coating for corrosion protection	Anchors, sheet metal ties completely embedded in mortar or grout, ASTM A525, Class G60, 0.60 oz/ft2 or 304SS
2.4F	Coating for corrosion protection	Joint reinforcement in walls exposed to moisture or wire ties, anchors, sheet meta ties not completely embedded in mortar or grout, ASTM A153, Class B2, 1.50 oz/ft2 or 304SS
3.3.E.2	Pipes, conduits, and accessories	Any not shown on the project drawings require engineering approval.
3.3.E.7	Movement joints	Contractor assumes responsibility for type and location of movement joints if not detailed on project drawings.

REVISIONS

SOFTPLAIN

GINEER OF RECORD: Mark Disosway E No.53915, POB 86, Lake City, FL 2056, 386-754-5419 Stated dimensions suprcede scaled ensions. Refer all destions to

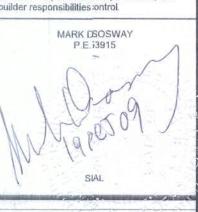
not proceed withouclarification.

ark Disosway, P.E. hreby expressly reser common law copyrihts and property right se instruments of sevice. This document at to be reproduced, atered or copied in any orm or manner withoufirst the express writte mission and conser of Mark Disosway. RTIFICATION: Thee plans and

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over Sheet, Sheet A-, attached, comply wit applicable portions of te Florida Building Cod 2007, to the best of m knowledge. MITATION: This desin is valid for one

ailding at specified loation. In case of confi ictural requirements scope of work, and uilder responsibilities ontrol.



Blake Construction

Addition for: Family Health Center of Columbia County

> ADDRESS: NW Alkitton Ln. Columbia Cunty, Florida

Mark Discsway P.E. P.O. Eox 868 Lake City, Florida 32025 Phone: (38f) 754 - 5419 Fax: (386)269 - 4871 windloadenginer@bellsouth.net PRINTED DATE:

October 9, 2009 DRAWN BY: CHECKED BY Evan Beamsley

FINALES DATE: Oct. 16, 2009 JOB NUMBER: 907152

> **S-1** OF 8 SHEETS

DRAWINGNUMBER

#### - ADDITIONAL TOP REBAR IF RQD FOR UPLIFT MUST EXTEND 24" PAST OPENING - KNOCK - OUT BLOCK BOND BEAMEBAR CONTINUOUS OVER WALLDPENING STD. 90" HOOK -PRECAST LINTEL NOTCH LINT WHERE REQUIRED FOR CONCRE PLACEMENT \_OPENING NOTES: 1. FILL LINTEL AND ALL CELLS ABOVE LINTEL. 2. VERIFY THAT ALL REINFORCEMENT HAS BEEN PLACED PROPERLY 3. SEE LINTEL TYPE DESIGNATION TABLE FOR ADDITIONAL INFORMATION. -FILLED CELL WITH #5 VERTICAL -SEE STRUCTRUAL PLANS FOR LOCATIONS - CLEAN OUT RQD FOR GROUT LIFT > 5'-0" -TYPICAL FILLED LINTEL ASSEMBL' w/ STD HOOK CMU WALL SCALE: 1/2" = 1'-0"

SPH\_@-CORNERS

& 48" OC

**EXTERIOR WALL A-A** 

ONE STORY CMU

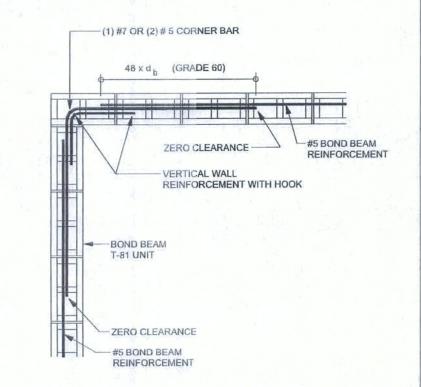
SCALE: 1/2" = 1'-0"

- 2X PT SYP#2 PLATE 1/2" ANCHOR

YP.) EXTERIOR WAL

@ 48" OC & 8" FROM CORNS

ONE STORY WOOD FRAME w/ STR'S & ANCHORS



EXTERIOR WALL STUD TABLE

FOR SPF #2 STUDS

(1) 2x4 @ 16" OC TO 10'-9" WALL HEIGHT

(1) 2x4 @ 12" OC TO 13'-0" WALL HEIGHT

(1) 2x6 @ 16" OC TO 18'-10' WALL HEIGHT

(1) 2x6 @ 12" OC

TO 20.0' WALL HEIGHT

TYPICAL BOND BEAM CORNER

SCALE: 1/2" = 1'-0"

SCALE: 1/2 = 1-0		
GABLE TRUSS		
FULL DEPTH BLOCKING @ 4'-0" o.c. FOR FOUR FRAMING SPACES FROM EACH END		
NAIL TRUSS TO PLATE WITH		
2X8 SYP #2 PLATE  MPSON STRONG TIE LSTA30 W/ 7-10d		
LS IN 2"X4" & (7) 3/16" DIA. 2 1/4" TAP CONS INTO MASONRY		
2-16d (TYP.)		
ANCHOR BOLT 1/2" x 10" @ 48" OC		
BOND BEAM		2X4X8' @ 6'-0" o.c. MIN. BLOC NAILED TO EACH TRUSS OR CEILING JOIST w/ 2-16d NAIL EACH MEMBER
NAIL @ 7" oc 5d COOLER NAILS OR GWB54 FASTENED DIRECTLY	2-16d	(TYP.)
TO BOTTOM CHORD OF TRUSSES OR CEILING JOISTS, AND TO ALL BLOCKING MEMBERS	1/2" MIN. GYPSUM CEILING DIAPHRAGM	DATA FROM FIGS. 206B 806C OF "STANDARD FOR HURRICANRESISTANT CONST."- SBCC SSTD0-97
(TYP.) GABLE BRACE DETAIL		

DIRECT TRUSS TO MASONRY CONNECTION ENDWALL FOR GYPSUM CEILING DIAPHRAGM

