

NC DEPT. OF INSURANCE 2012 APPENDIX B BUILDING CODE SUMMARY FOR COMMERCIAL PROJECTS **NC**

Name of Project: **CASINO PARTY ACES**
 Address: **252 Jarco Dr., Fuquay-Varina NC**
 Proposed Use: **OFFICES & WAREHOUSE**
 Owner Or Authorized Agent: **Weeks Turner Architecture** Phone: (919) 779-9797 E-mail: **ganderson@weeksturner.com**
 Owned By: City/County Private State
 Code Enforcement Jurisdiction: City/County Town/Fuquay-Varina County - **Harnett** State

LEAD DESIGN PROFESSIONAL: **WEEKS TURNER ARCHITECTURE, PA**
 Design: **FIRM NAME LIC # TELEPHONE E-MAIL**
 Architectural: **Weeks Turner Arch. Ginger Anderson 11075 (919) 779-9797 ganderson@weeksturner.com**
 Civil: **Burke Design Group Benjamin E Burke 22038 ben@bdg-nc.com**
 Electrical: **Burke Design Group Benjamin E Burke 22038 ben@bdg-nc.com**
 Fire Alarm: **Burke Design Group Benjamin E Burke 22038 ben@bdg-nc.com**
 Plumbing: **Burke Design Group Benjamin E Burke 22038 ben@bdg-nc.com**
 Mechanical: **Burke Design Group Benjamin E Burke 22038 ben@bdg-nc.com**
 Sprinkler - Standpipe: **William Ratterree William Ratterree**
 Structural: **William Ratterree**
 Retaining Walls > 5' High: **William Ratterree**
 Other: **William Ratterree**

2012 EDITION OF NC CODE FOR: New Construction Addition Upfit
EXISTING: Reconstruction Alteration Repair
CONSTRUCTED ORIGINAL USE RENOVATED CURRENT USE PROPOSED USE

BUILDING DATA
CONSTRUCTION TYPE: I-A II-A III-A IV I-V-A
 I-B II-B III-B I-V-B
MIXED CONSTRUCTION: NO YES TYPES: NFPA 13R NFPA 13D
SPRINKLERS: NO PARTIAL YES NFPA 13R NFPA 13D
STANDPIPES: NO YES CLASS I II III WET DRY
FIRE DISTRICT: NO YES **FLOOD HAZARD AREA:** NO YES
BUILDING HEIGHT: 26'-0" FEET NUMBER OF STORIES: **2**
MEZZANINE: NO YES
GROSS BUILDING AREA

	EXISTING (SF)	NEW (SF)	SUB-TOTAL	TENANT
3RD FLOOR	---	---	---	---
2ND FLOOR	---	---	---	---
MEZZANINE	---	5,000	5,000	---
1ST FLOOR	---	---	---	---
BASEMENT	---	---	---	---
TOTAL	---	5,000	5,000	---

ALLOWABLE AREA:
PRIMARY OCCUPANCY:
 ASSEMBLY BUSINESS BUSINESS
 EDUCATIONAL FACTORY/INDUSTRIAL HIGH-HAZARD INSTITUTIONAL
 MERCHANTILE RESIDENTIAL STORAGE UTILITY AND MISC
 REPAIR GARAGE
SECONDARY OCCUPANCY: S-1

ACCESSORY OCCUPANCY:
 FURNACE ROOM WHERE ANY PIECE OF EQUIPMENT IS OVER 400,000 BTUH INPUT
 ROOMS WITH BOILERS WHERE LARGEST PIECE OF EQUIPMENT OVER 15 PSI AND 10 HORSEPOWER
 REFRIGERANT MACHINE ROOM
 HYDROGEN CUTOFF ROOMS, NOT CLASSIFIED AS GROUP H
 INCINERATOR ROOMS, NOT CLASSIFIED AS GROUP H
 PAINT SHOPS, NOT CLASSIFIED AS GROUP H, LOCATED IN OCCUPANCIES OTHER THAN GROUP F
 LABORATORIES AND VOCATIONAL SHOPS, NOT CLASSIFIED AS GROUP H, LOCATED IN GROUP E OR I-2
 LAUNDRY ROOMS OVER 100 SQ FT
 GROUP I-3 CELLS EQUIPPED WITH PADDED SURFACES
 GROUP I-2 WASTE AND LINEN COLLECTION ROOMS
 STATIONARY STORAGE BATTERY SYSTEMS HAVING A LIQUID ELECTROLYTE CAPACITY OF MORE THAN 50 GAL. OR A LIMITED CAPACITY OF 1,000 LBS USED FOR FACILITY STANDBY POWER, EMERGENCY POWER OR UNINTERRUPTED POWER SUPPLIES
 ROOMS CONTAINING FIRE PUMPS
 GROUP I-2 STORAGE ROOMS OVER 100 SQUARE FEET
 GROUP I-2 COMMERCIAL KITCHENS
 GROUP I-2 LAUNDRIES EQUAL TO OR LESS THAN 100 SQUARE FEET
 GROUP I-2 ROOMS OR SPACES THAT CONTAIN FUEL-FIRED HEATING EQUIPMENT

SPECIAL OCCUPANCY: 402 403 404 405 406 407 408 409 410 411
 412 413 414 415 416 417 418 419 420 421
 422 423 424 425 426 427
SPECIAL PROVISIONS: 509.2 509.3 509.4 509.5 509.6 509.7 509.8 509.9
MIXED OCCUPANCY: NO YES SEPARATION: NA HR. EXCEPTION: ---
 Incidental Use Separation (508.2.5)
 This separation is not exempt as a Non-Separated Use (see exceptions)

Non-separated Mixed Occupancy (508.3.2)
 The Required Type Of Construction For The Building Shall Be Determined By Applying The Height And Area Limitations For Each Of The Applicable Occupancies To The Entire Building. The Most Restrictive Type Of Construction, So Determined, Shall Apply To The Entire Building
 Separated Mixed Occupancy (508.3.3) - See Below For Area Calc.
 For Each Story, The Area Of The Occupancy Shall Be Such That The Sum Of The Ratios Of The Actual Floor Area Of Each Use Divided By The Allowable Floor Area For Each Use Shall Not Exceed 1.

ACTUAL AREA OF OCCUPANCY A + **ACTUAL AREA OF OCCUPANCY B** **<= 1**
ALLOWABLE AREA OF OCCUPANCY A + **ALLOWABLE AREA OF OCCUPANCY B**
 + + + + + <= 1.00

STORY NO.	DESCRIPN AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 503 AREA	(C) AREA FOR OPEN SPACE INCREASE 1	(D) AREA FOR SPRINKLER INCREASE 2	(E) ALLOWABLE UNLIMITED	(F) MAXIMUM BUILDING AREA
1	S1	3,750	23,000	17,200	---	40,250	40,250
---	B	2,100	17,500	13,125	---	30,625	30,625
---	---	---	---	---	---	---	---

- Open Space Area Increases From Section 506.2 Are Computed Thus:
 A. Perimeter Which Fronts A Public Way Or Open Space Having 20 Ft Min. Width = ---- (F).
 B. Total Building Perimeter = ---- (P).
 C. Ratio (F/P) = ----
 D. W = Minimum Width Of Public Way = ---- (W).
 E. Percent Of Frontage Increase Is = 100 (F/P - 0.25) X W/30 = ---- (%).
- The Sprinkler Increase Per Section 506.3 Is As Follows:
 A. Multi-story Building Is = 200 %
 B. Single Story Building Is = 300 %
- Unlimited Area Applicable On Conditions Of Section 507
- Max. Building Area = Total No. Of Stories In The Building X E (506.4)
- The Maximum Area Of Open Parking Garages Must Comply With 406.3.5. The Maximum Area Of Air Traffic Control Towers Must Comply With 412.1.2.

ALLOWABLE HEIGHT
 TYPE OF CONSTRUCTION: **TYPE IIB**

	ALLOWABLE (TABLE 503)	INCREASE FOR SPRINKLERS	SHOWN ON PLANS	CODE REFERENCE
BUILDING HEIGHT IN FEET	55	---(H+20)	26 (FT)	---
BUILDING HEIGHT IN STORIES	2 (STORIES)	---(STORIES + 1)	2 (STORIES)	---

NC DEPT. OF INSURANCE 2012 APPENDIX B BUILDING CODE SUMMARY **CONTINUED**

FIRE PROTECTION REQUIREMENTS

BUILDING ELEMENT	FIRE SEPN REQ'D (FT)	RATING	RATING PROV'D (W/REDUCTION)	DETAIL # AND SHEET #	DES. # FOR RATED ASSY	DES. # FOR RATED PENETN	DES. # FOR RATED JOINTS
STRUCTURAL FRAME, INCLUDING COLUMNS, GIRDERS, TRUSSES	---	0	---	---	---	---	---
BEARING WALLS	---	0	---	---	---	---	---
EXTERIOR	---	0	---	---	---	---	---
NORTH	---	0	---	---	---	---	---
EAST	---	0	---	---	---	---	---
WEST	---	0	---	---	---	---	---
SOUTH	---	0	---	---	---	---	---
INTERIOR	---	0	---	---	---	---	---
NONBEARING WALLS AND PARTITIONS	---	0	---	---	---	---	---
EXTERIOR	---	0	---	---	---	---	---
NORTH	---	0	---	---	---	---	---
EAST	---	0	---	---	---	---	---
WEST	---	0	---	---	---	---	---
SOUTH	---	0	---	---	---	---	---
INTERIOR WALL & PARTITIONS	---	0	---	---	---	---	---
FLOOR CONSTRUCTION INCLUDING SUPPORTING BEAMS AND JOISTS	---	0	---	---	---	---	---
ROOF CONSTRUCTION INCLUDING SUPPORTING BEAMS AND JOISTS	---	0	---	---	---	---	---
SHAFTS ENCLOSURES-EXIT	---	---	---	---	---	---	---
SHAFTS ENCLOSURES-OTHER	---	0	---	---	---	---	---
CORRIDOR SEPARATION	---	---	---	---	---	---	---
OCCUPANCY SEPARATION	---	---	---	---	---	---	---
PARTY/FIRE WALL SEPARATION	---	---	---	---	---	---	---
SMOKE BARRIER SEPARATION	---	1	1	---	U419	---	---
TENANT SEPARATION	---	---	---	---	---	---	---
INCIDENTAL USE SEPARATION	---	---	---	---	---	---	---

*INDICATE SECTION NO. PERMITTING REDUCTION

LIFE SAFETY SYSTEM REQUIREMENTS
 EMERGENCY LIGHTING: YES NO SMOKE DETECTION SYSTEMS: YES NO PARTIAL
 EXIT SIGNS: YES NO PANIC HARDWARE: YES NO
 FIRE ALARM: YES NO

LIFE SAFETY PLAN REQUIREMENTS SHEET NUMBER AO.2
 FIRE AND/OR SMOKE RATED WALL LOCATIONS (CHAPTER 7)
 ASSUMED AND REAL PROPERTY LINE LOCATIONS
 EXTERIOR WALL OPENING AREA WITH RESPECT TO DISTANCE TO ASSUMED PROPERTY LINES (705.8)
 OCCUPANCY PLAN TYPES FOR EACH AREA AS IT RELATES TO OCCUPANT LOAD CALCULATION (TABLE 1001.1.1)
 OCCUPANT LOADS FOR EACH AREA
 EXIT ACCESS TRAVEL DISTANCES (1016)
 EXISTING STRUCTURES WITHIN 30 FT OF THE PROPOSED BUILDING
 COMMON PATH OF TRAVEL DISTANCES (1014.3. & 1028.8)
 DEAD END LENGTHS (1018.4)
 CLEAR EXIT WIDTHS FOR EACH EXIT DOOR
 MAXIMUM CALCULATED OCCUPANT LOAD CAPACITY EACH EXIT DOOR CAN ACCOMMODATE BASED ON EGRESS WIDTH (1005.1)
 ACTUAL OCCUPANT LOAD FOR EACH DOOR
 A SEPARATE SCHEMATIC PLAN INDICATING WHERE FIRE RATED FLOOR/CEILING AND/OR ROOF STRUCTURE IS PROVIDED FOR PURPOSES OF OCCUPANCY SEPARATION
 LOCATION OF DOORS WITH PANIC HARDWARE (1008.1.10)
 LOCATION OF DOORS WITH DELAYED EGRESS LOCKS AND THE AMOUNT OF THE DELAY (1008.1.9.7)
 LOCATION OF DOORS WITH ELECTROMAGNETIC EGRESS LOCKS (1008.1.9.8)
 THE SQUARE FOOTAGE OF EACH SELF-CLOSING HOLD-OPEN DEVICES
 LOCATION OF EMERGENCY ESCAPE WINDOWS (1029)
 THE SQUARE FOOTAGE OF EACH FIRE AREA (902)
 THE SQUARE FOOTAGE OF EACH SMOKE COMPARTMENT (407.4)
 NOTION ON ANY CODE EXCEPTIONS OR TABLE NOTES UTILIZED REGARDING THE ITEMS ABOVE

ACCESSIBLE DWELLING UNITS (SECTION 1107)

	TOTAL UNITS	ACCESSIBLE UNITS REQ'D	ACCESSIBLE UNITS PROV'D	TYPE A UNITS REQ'D	TYPE B UNITS REQ'D	TYPE B UNITS PROV'D	TOTAL ACCESSIBLE UNITS PROV'D
TOTAL UNITS	---	---	---	---	---	---	---

ACCESSIBLE PARKING - SEE ATTACHED SITE PLAN

LOT OR PARKING AREA	TOTAL # OF SPACES	# OF ACCESSIBLE SPACES PROVIDED	REG. WITH 5' ACCESS AISLE	VAN SPACES WITH 8' ACCESS AISLE	TOTAL # ACCESSIBLE PROVIDED
---	---	---	---	---	---
TOTAL	---	---	---	---	---

STRUCTURAL DESIGN SEE STRUCTURAL DRAWINGS
DESIGN LOADS:
 IMPORTANCE FACTORS: WIND (I W) --- SNOW (I S) --- SEISMIC (I E) ---
 LIVE LOADS: ROOF --- psf MEZZANINE --- psf FLOOR --- psf
 GROUND SNOW LOAD: --- psf
 WIND LOAD: BASIC WIND SPEED --- mph (ASCE-7) EXPOSURE CATEGORY --- WIND BASE SHEARS (for MWFRS) Vx = --- Vt = ---
SEISMIC DESIGN CATEGORY A B C D
 PROVIDE THE FOLLOWING SEISMIC DESIGN PARAMETERS:
 SEISMIC USE GROUP ---
 SPECTRAL RESPONSE ACCELERATION Sa --- %g S1 --- %g SITE CLASSIFICATION --- Field Test --- Presumptive --- Historical Data
 BASIC STRUCTURAL SYSTEM (check one) --- BEARING WALL --- DUAL W/SPECIAL MOMENT FRAME --- BUILDING FRAME --- DUAL/WINTERMEDIATE R/C OR SPECIAL STEEL --- MOMENT FRAME
 SEISMIC BASE SHEAR Vx = --- Vt = --- ANALYSIS PROCEDURE --- SIMPLIFIED --- EQUIVALENT LATERAL FORCE --- MODAL ARCHITECTURAL MECHANICAL COMPONENTS ANCHORED? ---
 LATERAL CONTROL: EARTHQUAKE --- WIND ---
 SOIL BEARING CAPACITIES: FIELD TEST (PROVIDE COPY OF TEST REPORT) --- psf PRESUMPTIVE BEARING CAPACITY --- psf PILE SIZE, TYPE, AND CAPACITY ---
SPECIAL APPROVALS
 Special Approval: (Local Jurisdiction, dept of insurance, OSC, DPI, DHHS, ICC, etc., describe below)
BUILDING FIXTURE REQUIREMENT SEE LIFE SAFETY PLAN

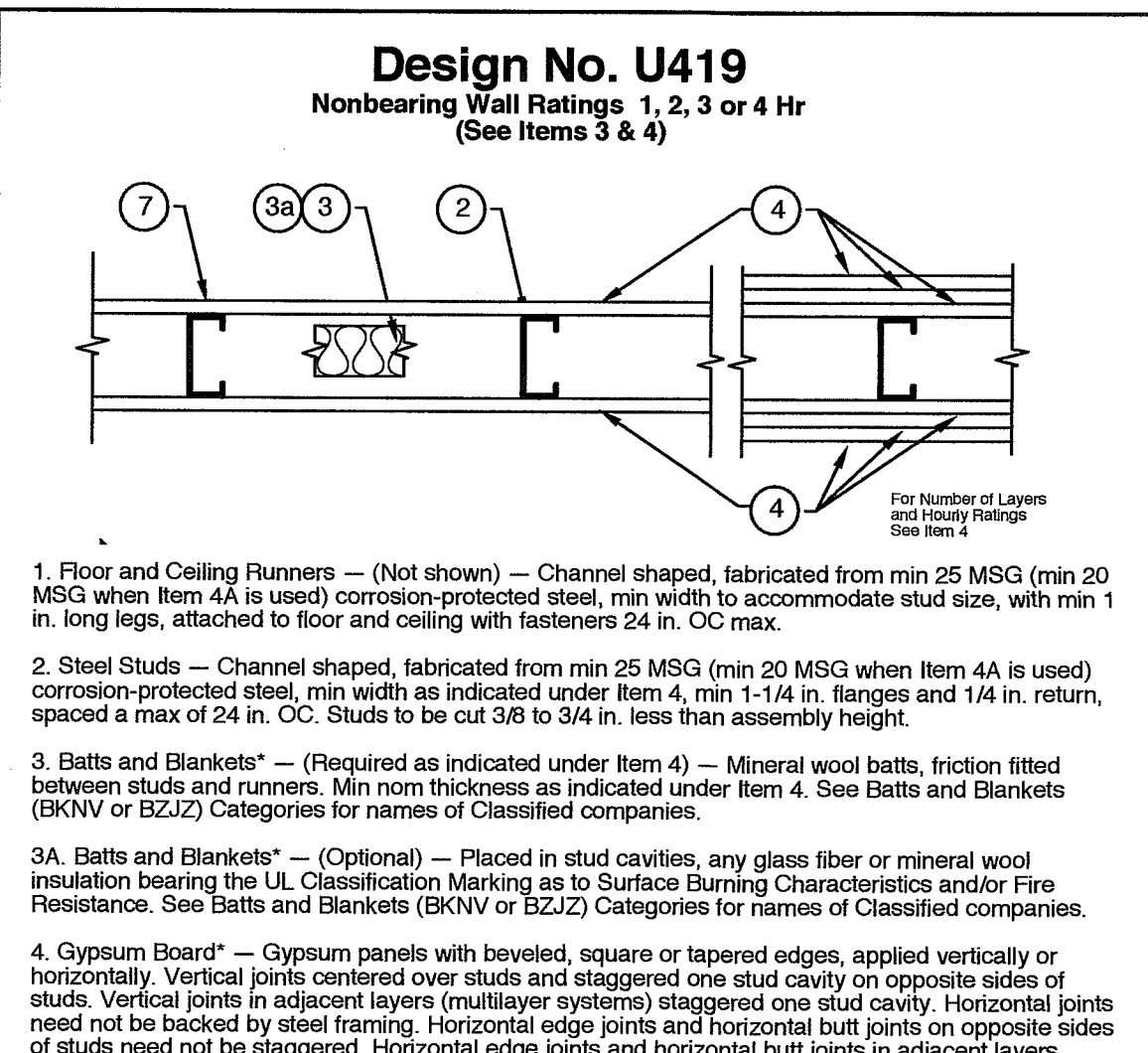
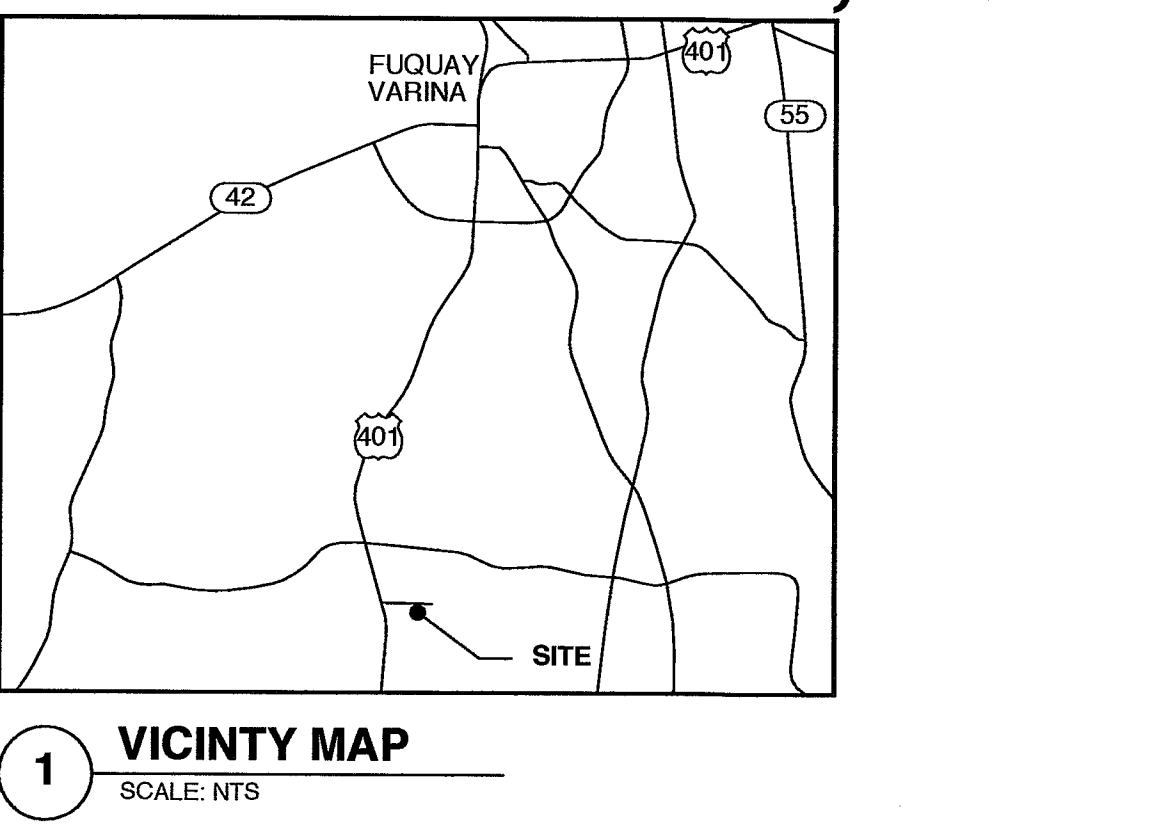
USE	WATERCLOSETS	URINALS	LAVATORIES	SHOWERS /TUBS	DRINKING FOUNTAINS
---	---	---	---	---	---
EXISTING	---	---	---	---	---
NEW	---	---	---	---	---
REQUIRED	---	---	---	---	---

ENERGY CODE: ENVELOPE
 SEE SUMMARY AT RIGHT
ENERGY CODE: MECHANICAL
 SEE MECHANICAL SHEETS
ENERGY CODE: ELECTRICAL
 SEE ELECTRICAL SHEETS

CASINO PARTY ACES

252 JARCO DR. FUQUAY-VARINA, NC

Approved By: **Rodney Daniels, Chief Deputy Fire Marshal**
 12/04/2017 4:15:43 PM



Wallboard Protection on Each Side of Wall

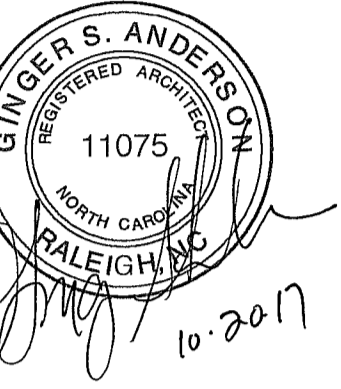
Rating	Depth	Min Stud/No. of Layers & Thickness of Insulation	Min Thicks of Insulation
1	3-1/2	1 layer, 5/8 in. thick	Optional (Item 3)
1	2-1/2	1 layer, 1/2 in. thick	Optional
1	1-5/8	1 layer, 3/4 in. thick	Optional
2	1-5/8	2 layers, 1/2 in. thick	Optional
2	1-5/8	2 layers, 5/8 in. thick	Optional
2	3-1/2	1 layer, 3/4 in. thick	3 in.
3	1-5/8	3 layers, 1/2 in. thick	Optional
3	1-5/8	3 layers, 3/4 in. thick	Optional
3	1-5/8	3 layers, 5/8 in. thick	Optional
4	1-5/8	4 layers, 5/8 in. thick	Optional
4	1-5/8	4 layers, 1/2 in. thick	Optional
4	2-1/2	2 layers, 3/4 in. thick	2 in.

CANADIAN GYPSUM COMPANY - 1/2 in. thick Type C, IP-X2 or IPC-AR; WRC, 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRX or WRC; 3/4 in. thick Type IP-X3, ULTRACODE, ULTRACODE SHC or ULTRACODE WRC.
 UNITED STATES GYPSUM CO - 1/2 in. thick Type C, IP-X2, IPC-AR or WRC; 5/8 in. thick Type SCX, SHX, WRX, IP-X1, AR, C, WRC, FRX-G, IP-AR, IP-X2, IPC-AR; 3/4 in. thick Type IP-X3, ULTRACODE, ULTRACODE SHC or ULTRACODE WRC.
 USG MEXICO S A DE CV - 1/2 in. thick Type C, IP-X2, IPC-AR or WRC; 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRX, WRC or 3/4 in. thick Type IP-X3, ULTRACODE, ULTRACODE SHC or ULTRACODE WRC.

4A. Gypsum Board* - (As an alternate to Item 4) - 5/8 in. thick gypsum panels, installed as described in Item 4 with Type S-12 steel screws. The length and spacing of the screws as specified under Item 5.
 CANADIAN GYPSUM COMPANY - Type FRX
 UNITED STATES GYPSUM CO - Type FRX
 4B. Gypsum Board* - (As an alternate to Items 4 and 4A) - 5/8 in. thick, 2 ft. wide, tongue and groove edges, applied horizontally as the outer layer to one side of the assembly. Secured as described in Item 5. Joint covering (Item 7) not required.
 CANADIAN GYPSUM COMPANY - Type SHX
 UNITED STATES GYPSUM CO - Type SHX
 USG MEXICO S A DE CV - Type SHX.
 5. Fasteners - (Not shown) - Type S or S-12 steel screws used to attach panels to studs (Item 2) or furring channels (Item 6). Single layer systems: 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 8 in. OC when panels are applied horizontally, or 8 in. OC along vertical and bottom edges and 12 in. OC in the field when panels are applied vertically. Two layer systems: First layer: 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC. Second layer: 1-5/8 in. long for 1/2 in., 5/8 in. thick panels or 2-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC with screws offset 6 in. from first layer. Three-layer systems: First layer: 1 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Second layer: 1-5/8 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Third layer: 2-1/4 in. long for 1/2 in., 5/8 in. thick panels or 2-5/8 in. long for 3/4 in. thick panels, spaced 24 in. OC. Fourth layer: 2-5/8 in. long for 1/2 in. thick panels or 3 in. long for 3/4 in. thick panels, spaced 12 in. OC. Screws offset min 6 in. from first layer below.
 6. Furring Channels - (Optional, not shown, for single or double layer systems) - Resilient furring channels fabricated from min 25 MSG corrosion-protected steel, spaced vertically a max of 24 in. OC. Flange portion attached to each intersecting stud with 1/2 in. long Type S-12 steel screws. Not for use with Item 4A.
 7. Joint Tape and Compound - Vinyl or casein, dry or pre-mixed joint compound applied in two coats to joints and screw heads of outer layers. Paper tape, nom 2 in. wide, embedded in first layer of compound over all joints of outer layer panels. Paper tape and joint compound may be omitted when gypsum panels are supplied with a square edge.
 8. Siding, Brick or Stucco - (Optional, not shown) - Aluminum, vinyl or steel siding, brick veneer or stucco, meeting the requirements of local code agencies, installed over gypsum panels. Brick veneer attached to studs with corrugated metal wall ties attached to each stud with steel screws, not more than each sixth course of brick.
 9. Caulking and Sealants* - (Optional, not shown) - A bead of acoustical sealant applied around the partition perimeter for sound control.
 UNITED STATES GYPSUM CO - Type AS
 *Bearing the UL Classification Mark

ENERGY SUMMARY
ENERGY REQUIREMENTS:
 The following data shall be considered minimum and any special attribute required to meet the energy code shall also be provided. Each Designer shall furnish the required portions of the project information for the plan data sheet. If energy cost budget method, state the annual energy cost budget vs allowable annual energy cost budget.
THERMAL ENVELOPE
Method of Compliance:
 Prescriptive --- % Glazed Wall Area
 Performance --- [] Energy Cost Budget
Roof/Ceiling Assembly (each assembly)
 Description of assembly **R-11+19 LINER SYSTEM W/ R-5 THERMAL BLOCKS**
 U-Value of total assembly
 R-Value of insulation
 Skylights in each assembly
 U-Value of skylight
 Total square footage of skylights in each assembly
Exterior Walls (each assembly)
 Description of assembly **AT METAL BUILDING**
 U-Value of total assembly
 R-Value of insulation **R-19**
 Openings (windows or doors with glazing)
 U-Value of assembly 0.45
 Shading coefficient
 Projection factor
 Low-e required, if applicable
 Door R-Values **0.50 OPAQUE 0.45 STOREFRONT 0.77 ENTRANCE**
Walls adjacent to unconditioned space (each assembly)
 Description of assembly **DIVIDING OFFICE AND WAREHOUSE AREAS**
 U-Value of total assembly **R-19**
 U-Value of insulation
 Openings (windows or doors with glazing)
 U-Value of assembly
 Low-e required, if applicable
 Door R-Values **0.50**
Walls below grade (each assembly)
 Description of assembly
 U-Value of total assembly
 R-Value of insulation
Floors over unconditioned space (each assembly)
 Description of assembly
 U-Value of total assembly
 R-Value of insulation
Floors slab on grade (each assembly)
 Description of assembly **SLAB ON GRADE**
 U-Value of total assembly **R-10**
 R-Value of insulation
 Horizontal/Vertical requirement
 Slab heated

GENERAL NOTES
I: FOR THIS PROJECT:
A) A PROJECT EXPEDITOR SHALL BE DESIGNATED BY THE OWNER TO PROVIDE GENERAL ADMINISTRATION OF THESE DOCUMENTS FOR THE OWNER. PROJECT EXPEDITOR SHALL BE THE OWNER UNLESS OTHERWISE DESIGNATED BY WRITTEN AGREEMENT WITH ANOTHER PARTY.
B) THESE DOCUMENTS ARE SCHEMATIC IN NATURE AND ARE INTENDED TO CONVEY THE DESIGN INTENT OF THE ARCHITECT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY DIMENSIONS, FIELD CONDITIONS, ETC. AS REQUIRED FOR THE PROPER IMPLEMENTATION OF THESE DRAWINGS. DO NOT SCALE THE DRAWINGS.
C) THE ARCHITECTS SCOPE OF WORK DOES NOT INCLUDE CONSTRUCTION OBSERVATION UNLESS OTHERWISE DESIGNATED IN WRITING BY THE OWNER.
 THE CONTRACTOR IS IN CHARGE OF THE WORK AND COMPLIANCE WITH THESE DOCUMENTS IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE ARCHITECT WILL BEAR NO RESPONSIBILITY FOR FAILURE OF THE CONTRACTOR TO FULLY COMPLY WITH ALL INCLUSIVE DOCUMENTS.
 USE OF THESE DOCUMENTS WILL CONSTITUTE AGREEMENT BY THE CONTRACTOR TO THESE CONDITIONS.
D) "THE GENERAL CONDITIONS OF THE CONTRACT FOR THE CONSTRUCTION OF THE BUILDINGS" OF THE AMERICAN INSTITUTE OF ARCHITECTS DOCUMENT A-201, LATEST EDITION, ARE HEREBY MADE PART OF THE DOCUMENTS. IN THE EVENT OF A CONFLICT, THESE GENERAL NOTES AND CONTRACT SUPERSIDE "AIA DOCUMENT A-201".
E) PER NC GENERAL STATUTE SECTION 44A-11.21(a): THE PROJECT EXPEDITOR SHALL APPOINT A MECHANICS' LIEN AGENT. SEE NC DOI WEBSITE FOR MORE INFORMATION PER THE FOLLOWING LINKS: OFFICE OF THE STATE FIRE MARSHAL -> ENGINEERING AND CODES -> CODE ENFORCEMENT RESOURCES -> LIEN AGENT TO



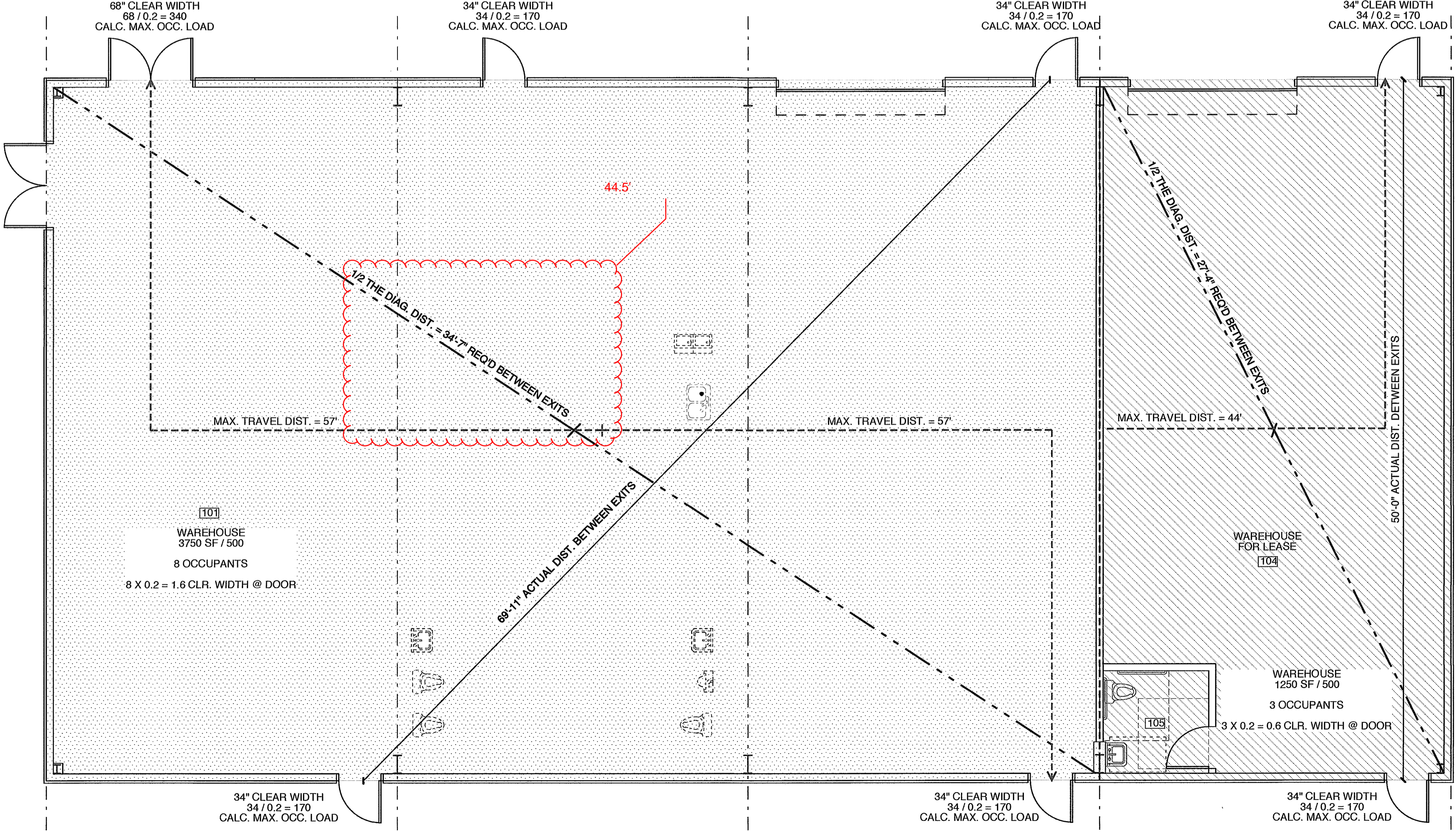
EGRESS REQ. & CODE REF.

DOORS TO HAVE 32" MIN. CLR. PER 404.2.2 OF ANSI A117.1

THE CLEAR WIDTH OF INTERIOR ACCESSIBLE ROUTE IS 36" MIN. PER 403.5 OF ANSI A117.1

48" CLR. WIDTH REQ'D BETWEEN HANDRAILS.

See Plan Review
Notes



WALL LEGEND

	EXT. METAL PANEL WALL
	EXT. EIFS WALL
	1 HR. RATED TENANT SEPARATION WALL (U419)
	INTERIOR WALL-FULL HEIGHT
	INTERIOR WALL-9'-0" HT.

**FOR PERMIT
PROCESS ONLY**

PROJECT TITLE
CASINO PARTY ACES

252 JARCO DRIVE
FUGUAY-VARINA, NORTH CAROLINA

PROJECT NO.
1640

DRAWING TITLE
LIFE SAFETY PLAN

SHEET 2 OF 6

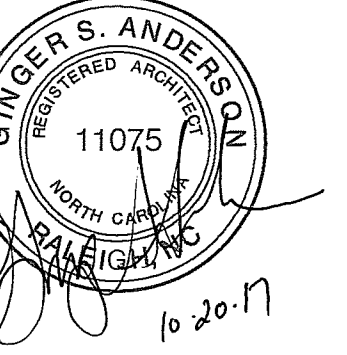
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PLOT DATE 10/20/17
REVISION 00/00/14

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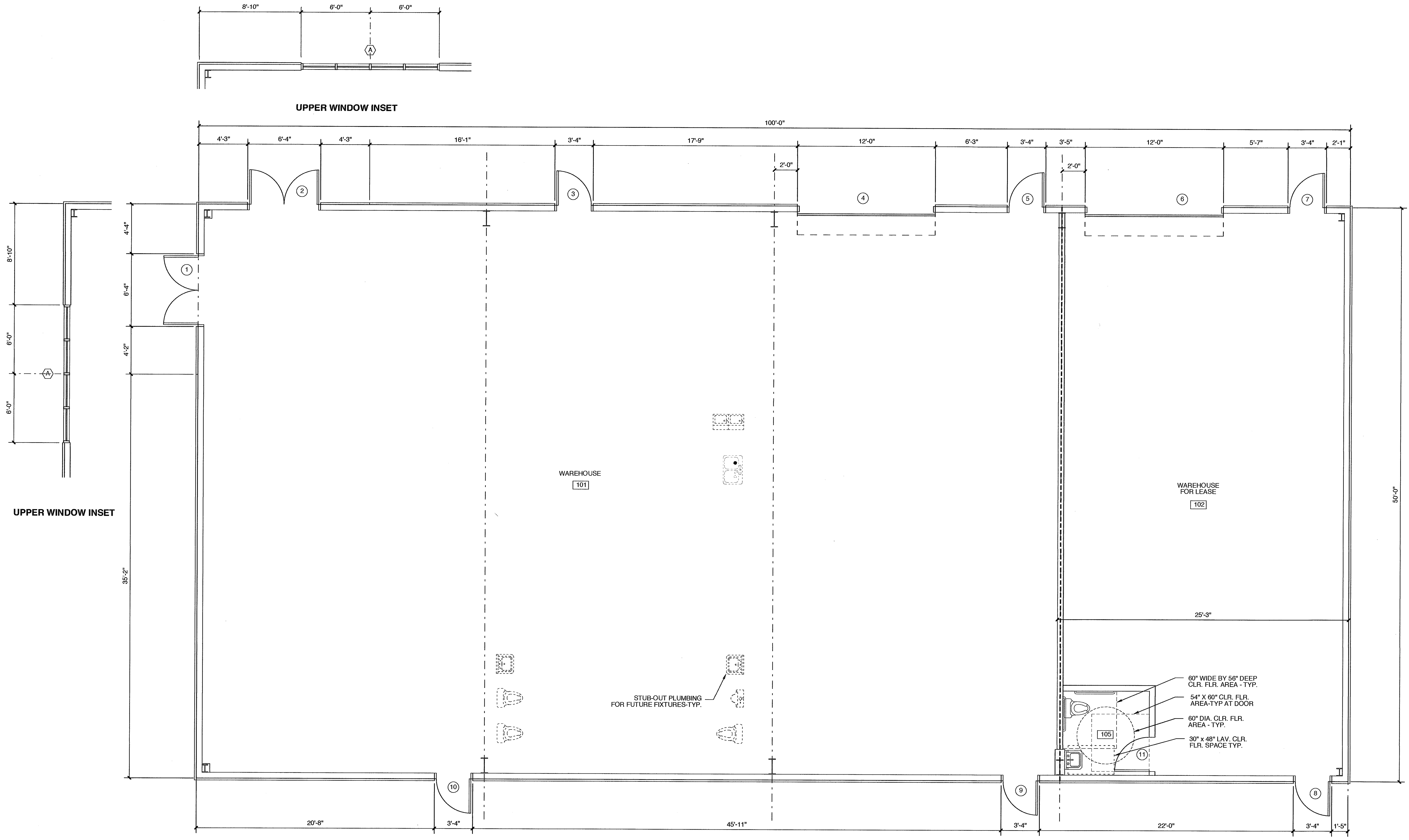
1 FIRST FLOOR LIFE SAFETY PLAN
SCALE: 3/16" = 1'-0"





ROOM FINISH SCHEDULE										
MARK	ROOM NAME	FLOOR	BASE	WALL			CEILING		REMARKS / NOTES	
				N	E	S	W	WAINSCOT		MATERIAL
101	WAREHOUSE	CONC.	RUBBER	DTD	DTD	DTD	---	---	OPEN	---
102	WAREHOUSE	CONC.	RUBBER	DTD	DTD	DTD	---	---	OPEN	---
105	REST ROOM	"	"	"	"	"	"	"	9'-0"	

NOTE:
CONFIRM FINISHES WITH OWNER



WALL LEGEND	
	EXT. METAL PANEL WALL
	EXT. EIFS WALL
	1 HR. RATED TENANT SEPARATION WALL (U419)
	INTERIOR WALL-FULL HEIGHT
	INTERIOR WALL-9'-0" HT.

**FOR PERMIT
PROCESS ONLY**

PROJECT TITLE
CASINO PARTY ACES

252 JARCO DRIVE
FUQUAY-VARINA, NORTH CAROLINA

PROJECT NO.
1640

DRAWING TITLE
MAIN FLOOR PLAN

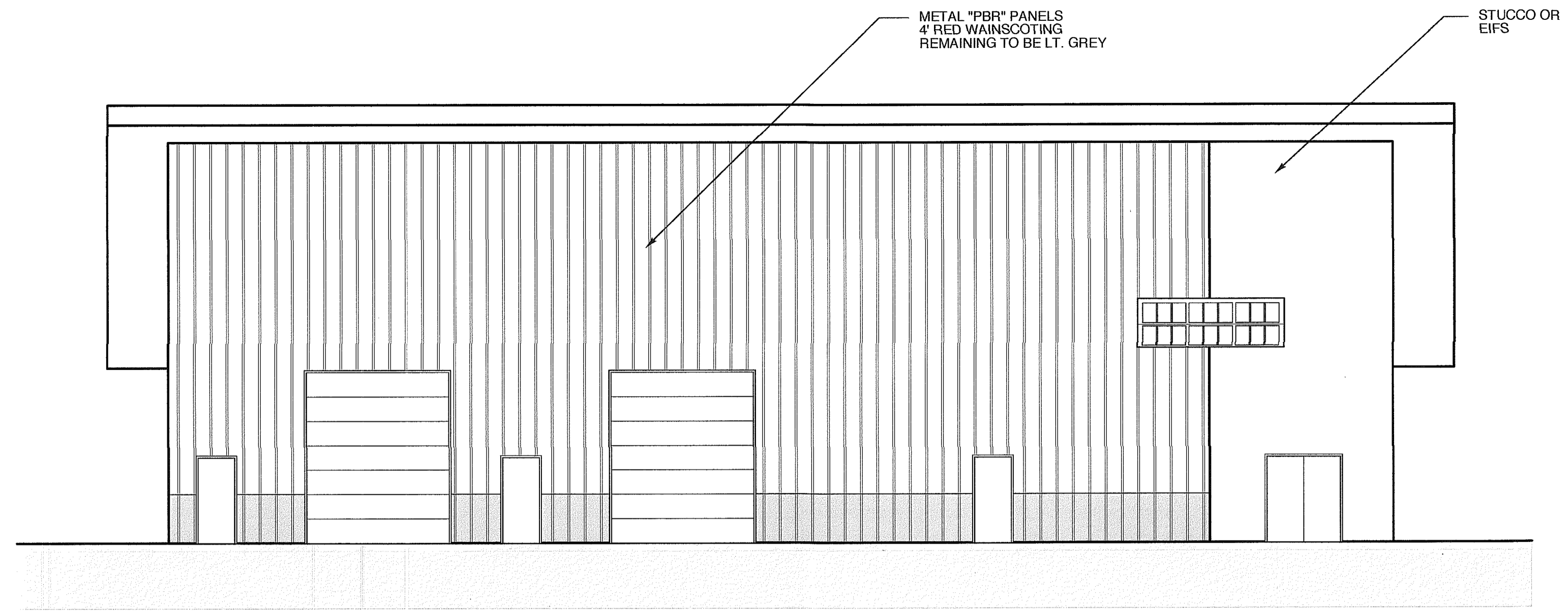
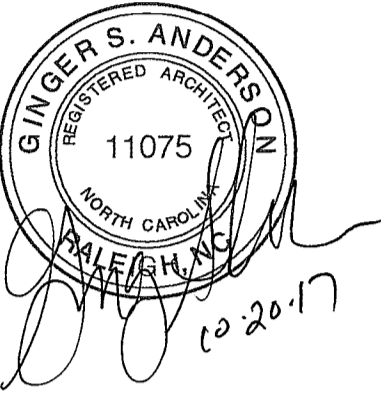
SHEET 3 OF 6



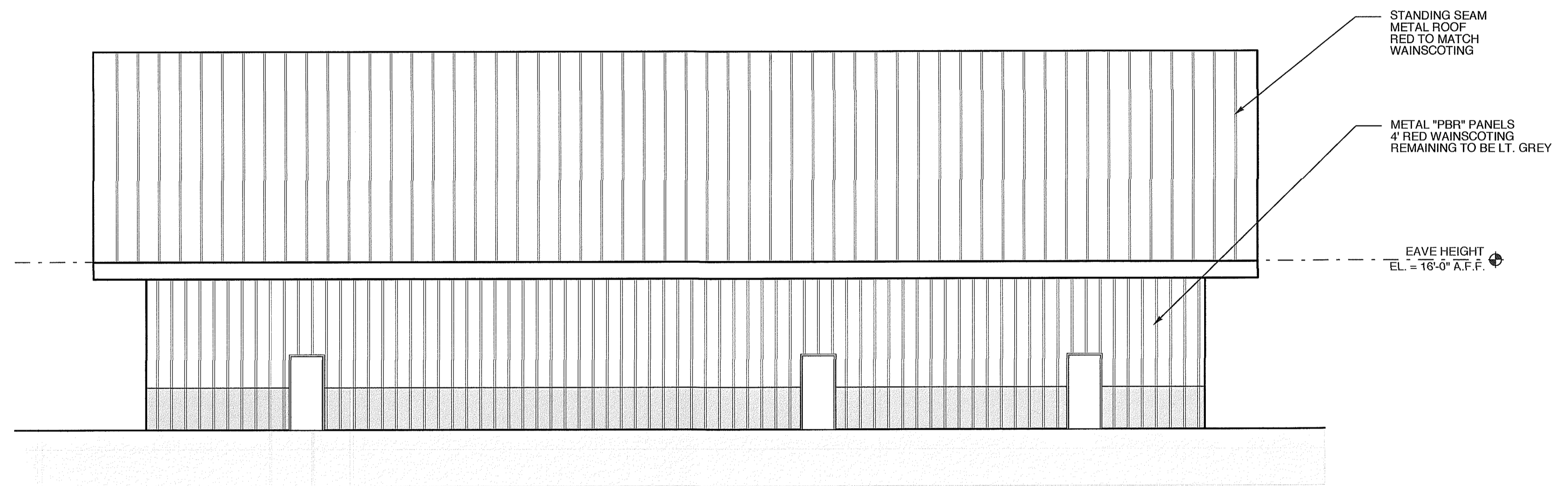
PLOT DATE 10/20/17
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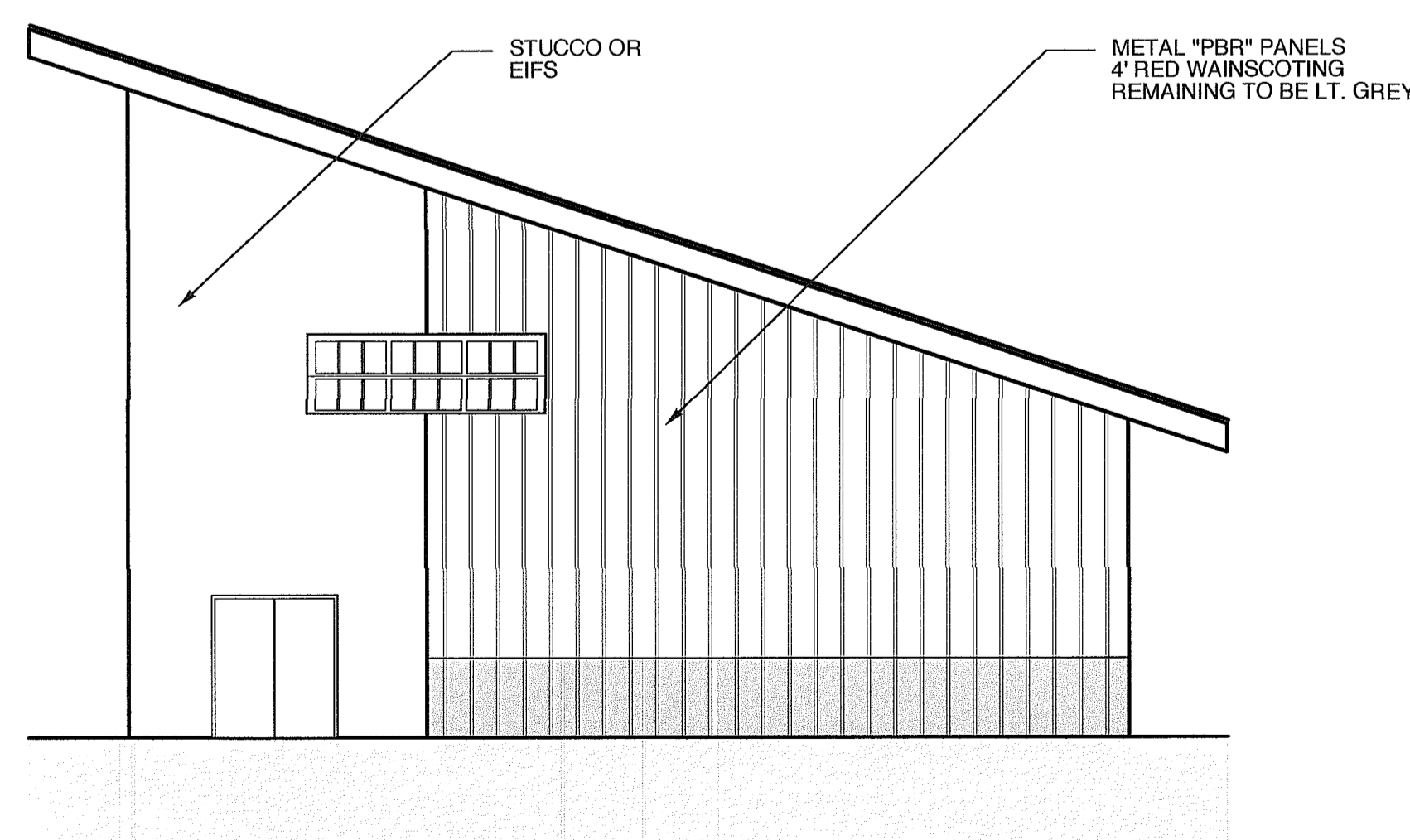
1 FIRST FLOOR PLAN
SCALE: 1/4" = 1'-0"



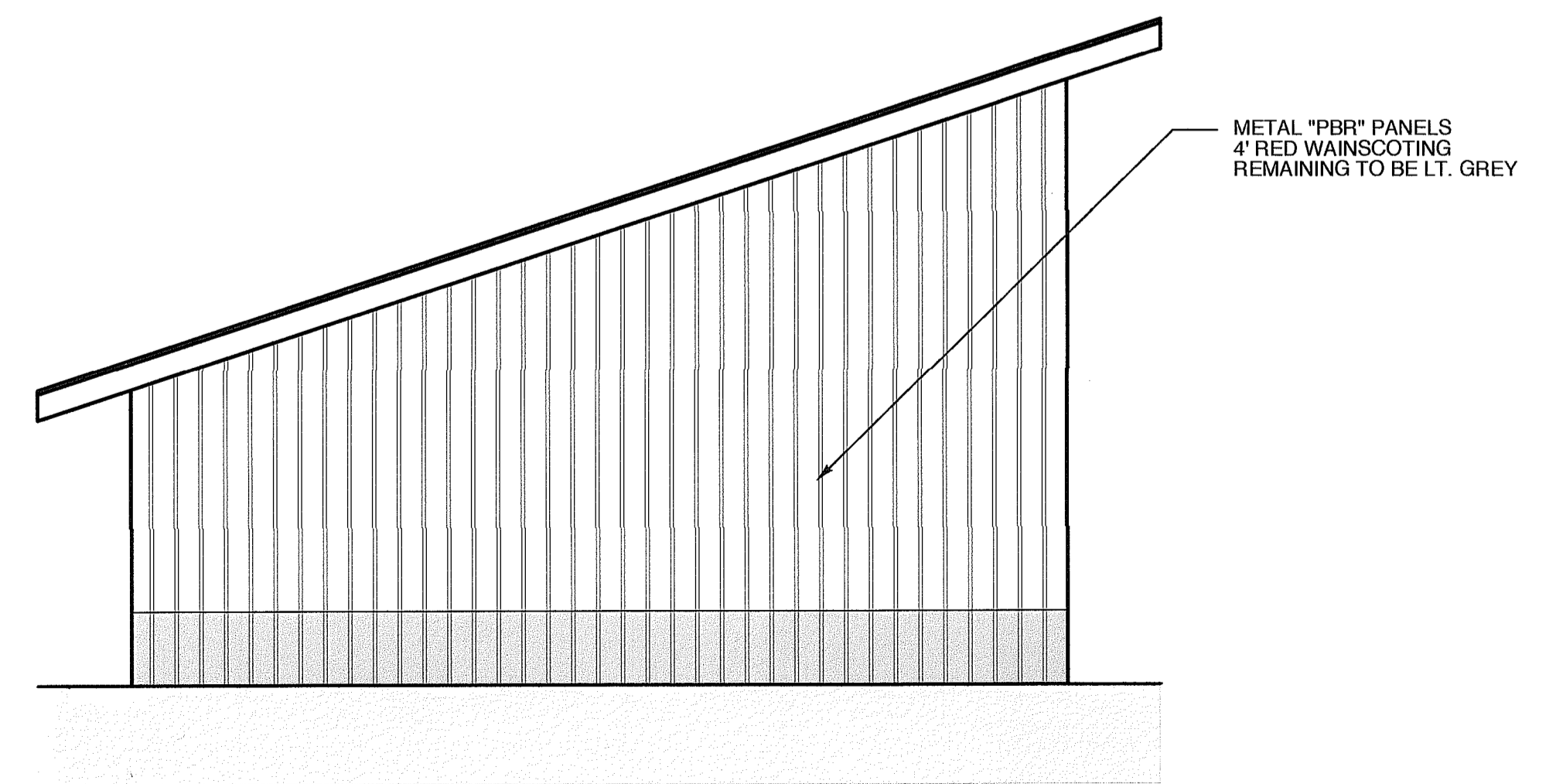
4 EAST ELEVATION
SCALE: 1/8" = 1'-0"
10' 0' 2' 4' 6' 8' 10'



3 WEST ELEVATION
SCALE: 1/8" = 1'-0"
10' 0' 2' 4' 6' 8' 10'



2 NORTH ELEVATION
SCALE: 1/8" = 1'-0"
10' 0' 2' 4' 6' 8' 10'



1 SOUTH ELEVATION
SCALE: 1/8" = 1'-0"
10' 0' 2' 4' 6' 8' 10'

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PROJECT TITLE
CASINO PARTY ACES
252 JARCO DRIVE
FUGUAY-VARINA, NORTH CAROLINA

PROJECT NO.
1640

DRAWING TITLE
ELEVATIONS

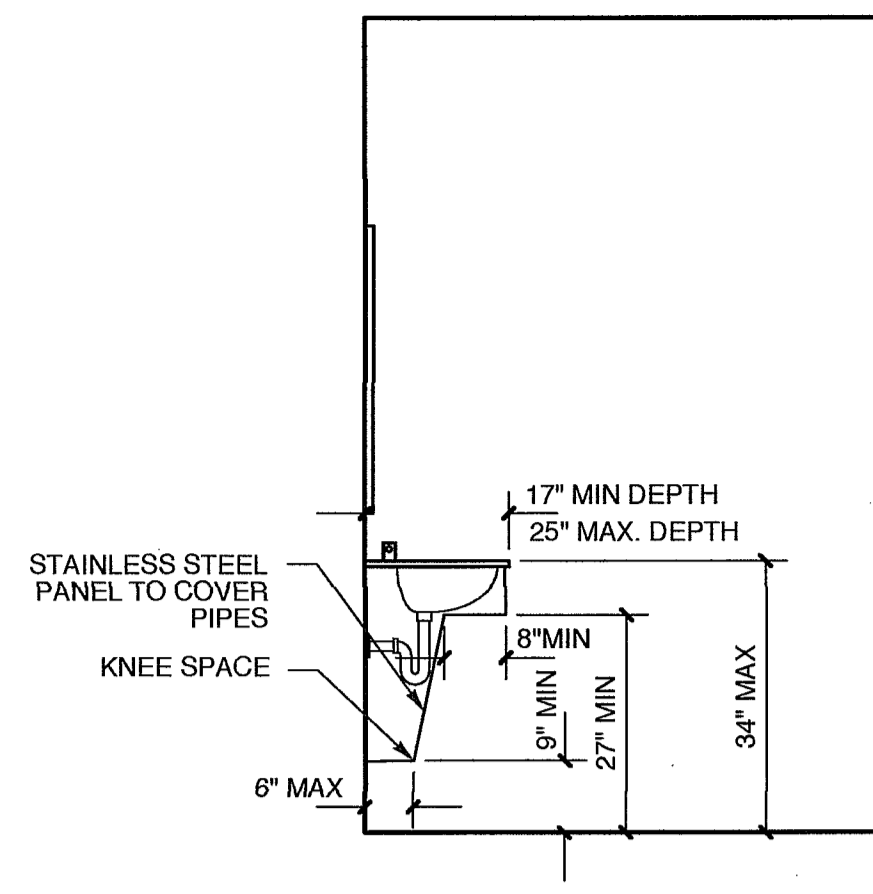
SHEET 5 OF 6

A2

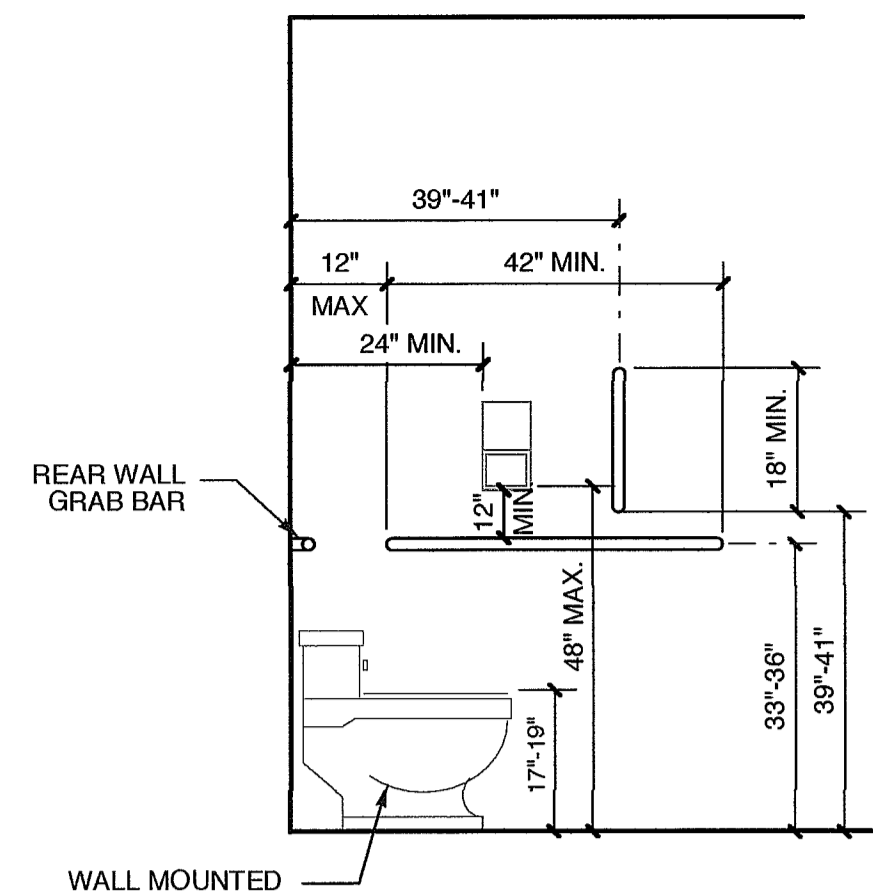
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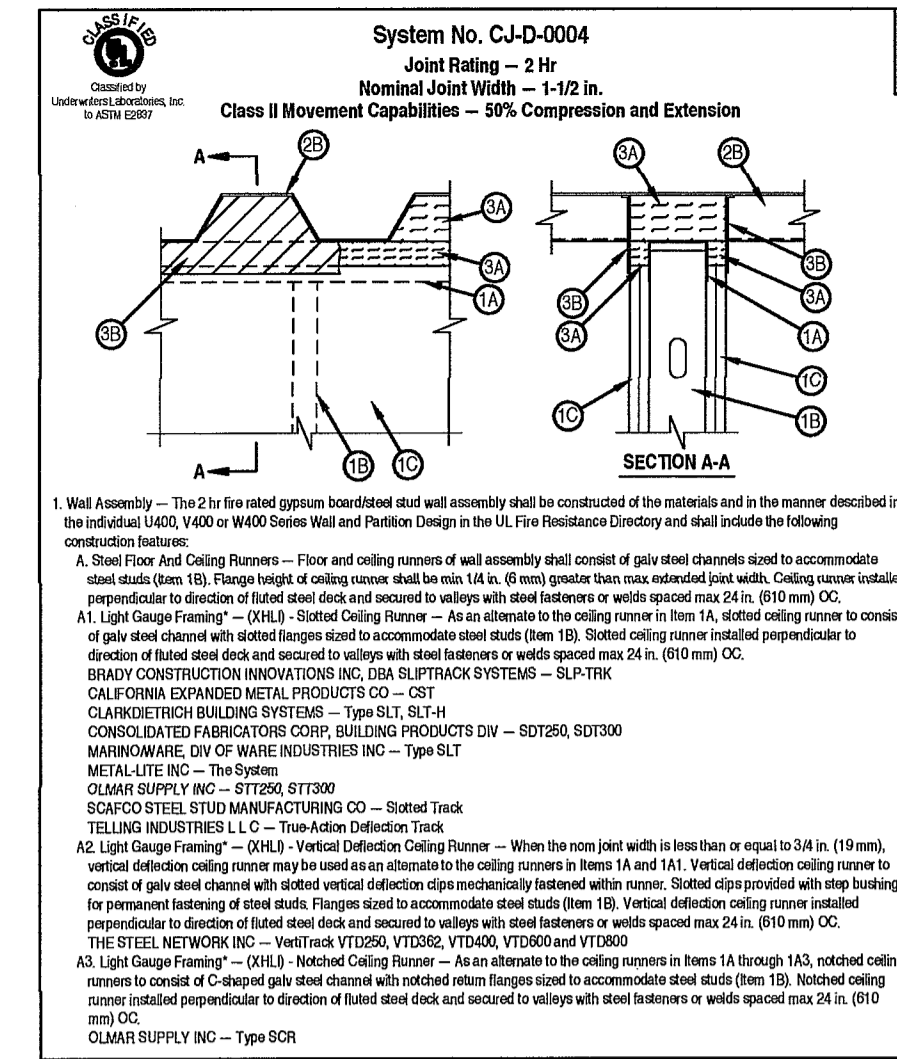
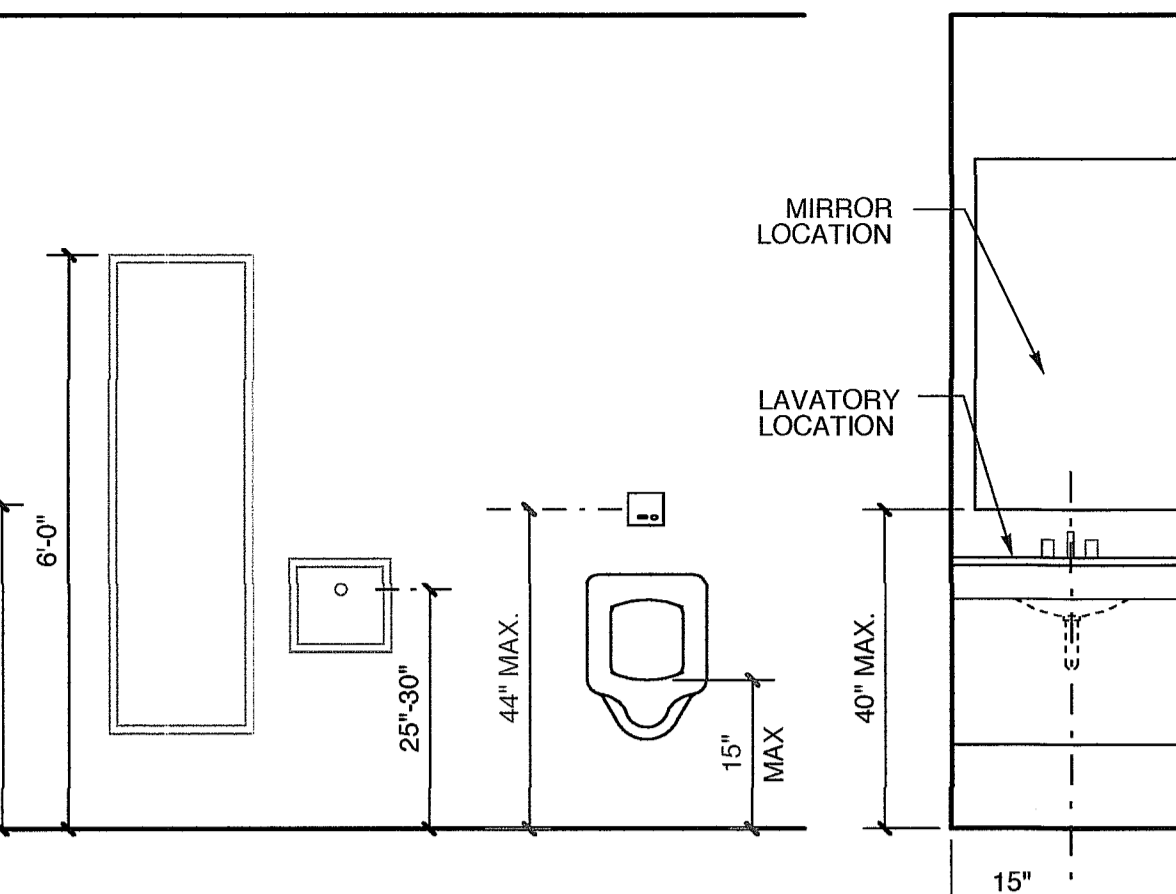
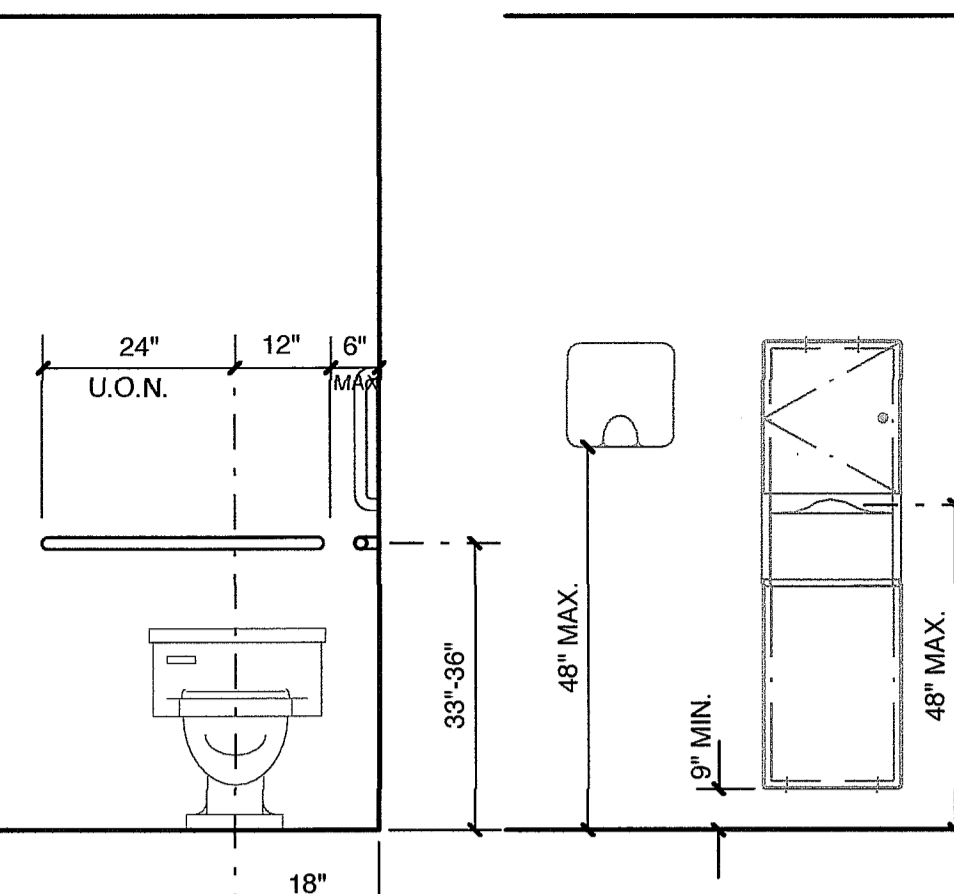
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8 LAV. SECTION
SCALE: 1/2" = 1'-0"



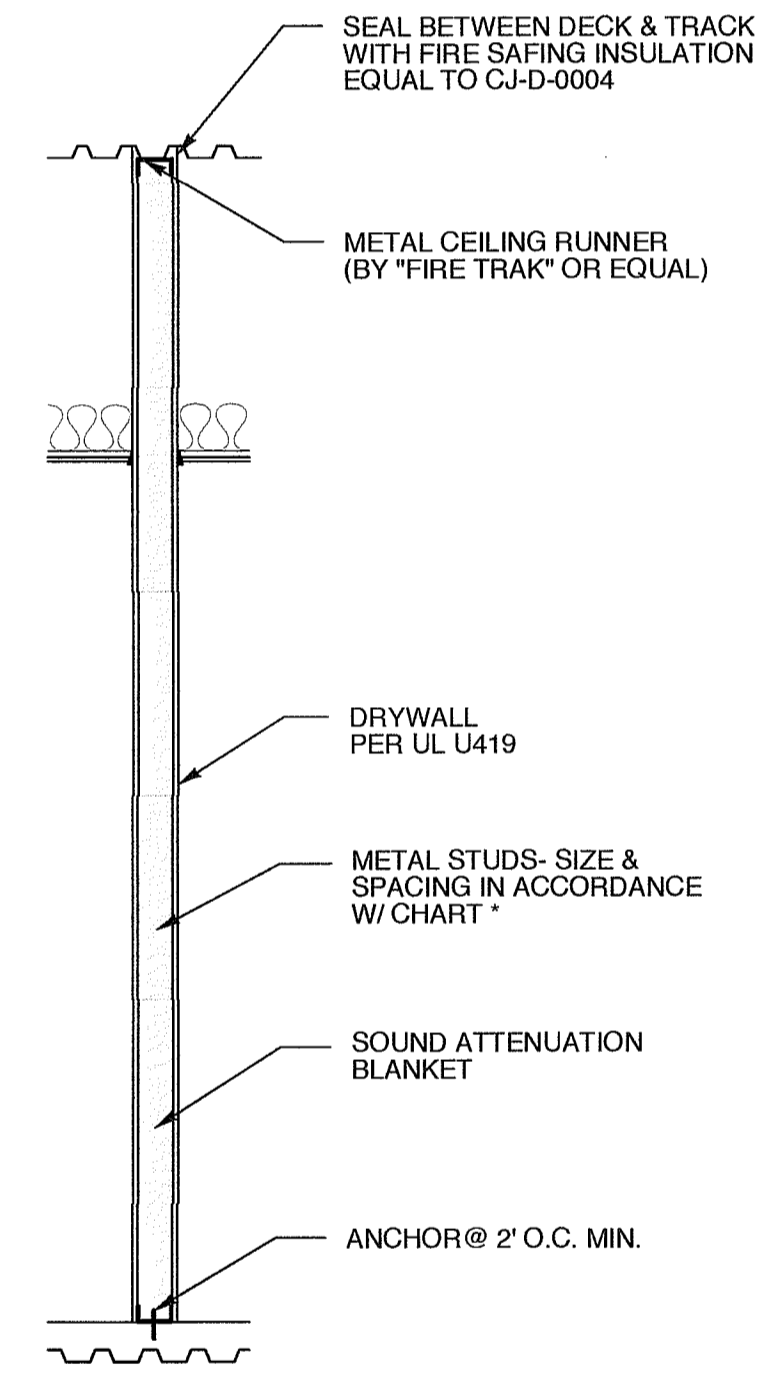
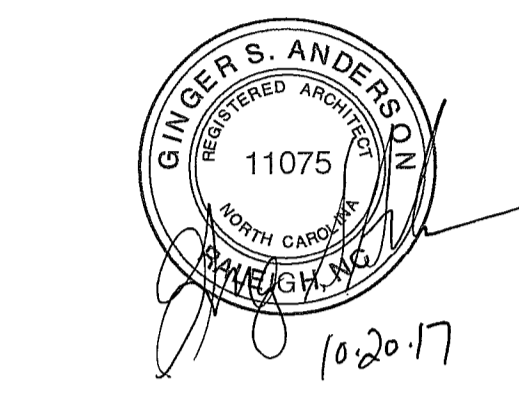
7 TYPICAL HEIGHTS



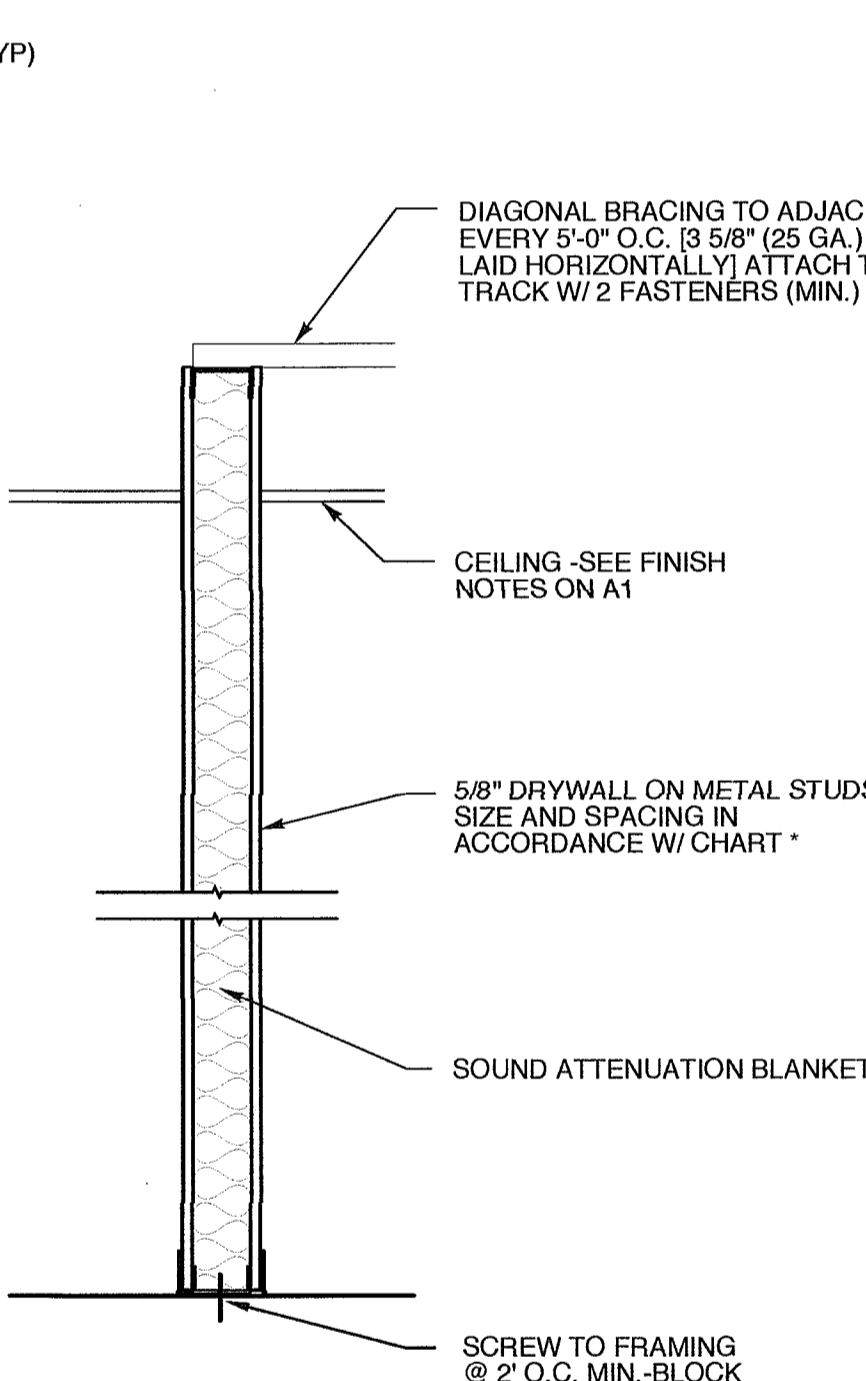
1. Wall Assembly - This 2 to the steel gage panel and wall assembly shall be constructed of the materials and in the manner described in the individual U.O.N., U.O.N. or W.O.D. Series Wall and Partition Design in the U.S. Fire Protection Directory and shall include the following construction features:
A. Steel Floor and Ceiling Runners - Floor and ceiling runners of wall assembly shall consist of galvne steel channels used to accommodate steel studs (Item 10). Flange height of ceiling runner shall be min. 1 1/2 in. (1 1/2) min. from base of runner to top of flange. Ceiling runner installed perpendicular to direction of floor deck and secured to ceiling with steel fasteners or walls spaced max. 24 in. (24) min. O.C.
A1. Light Gauge Framing - (DLG) - Steel Ceiling Runner - As an alternative to the ceiling runner in Item 1A, light gauge framing shall consist of galvne steel channels with spaced flanges used to accommodate steel studs (Item 10). Spaced ceiling runner installed perpendicular to direction of floor deck and secured to ceiling with steel fasteners or walls spaced max. 24 in. (24) min. O.C.
B. Stud Deck - Max. 3/4 in. (3/4) min. depth by min. 20 MBS galvne steel deck, 1/4 in. (1/4) min. O.C. on concrete. Welded or mechanically fastened to supports (Item 2A).
C. Concrete Slab Finish - (Optional) - Steel deck may be topped with reinforced concrete. Thickness of concrete may vary.
3. Joint System - Max. separation between bottom of steel deck and top of wall assembly at line of installation of joint system is 1-1/2 in. (1 1/2) min. Joint system designed to accommodate a max. 50 percent compression or extension to its installed width. The joint system consists of forming material and a fill material, as follows:
A. Forming Material - Item 10 (DLG) Light Gauge Framing shall be installed and spaced at 24 in. (24) min. from the bottom and a length appropriate to the overall thickness of the wall. Multiple pieces shall be top to top of each other, as needed, and then compressed 50 percent in thickness and secured into the bottom of the steel deck above the top of the ceiling runner. The runner work shall include the proper bearing work side of the ceiling runner. Both wall and ceiling. Additional 1/4 in. (1/4) min. depth edge of steel. (DLG) Light Gauge Framing shall be installed and secured to the top of the galvne steel deck and bottom of the steel deck. The edge of runner work is compressed 50 percent and fully packed, on edge first, into the gap between the top of the galvne steel deck and bottom of the steel deck on both sides of the wall.
ROCK WOOL MANUFACTURING CO. - Dura Board
ROCK WOOL MANUFACTURING CO. - Safe
THE MASONRY INC. - Type S
A1. Forming Material - (Optional, Not Shown) Preferred material wood plugs, formed to the shape of the flat steel deck units, extend full to completely fill the gap above the ceiling channel. The plugs shall project beyond level side of the ceiling runner. Both wall and ceiling.
**Additional forming material, described in Item 3A2, to be used in conjunction with the plugs to fill the gap between the top of galvne steel deck and bottom of steel deck.
A2. Filling Material - (Optional, Not Shown) Max. 1 1/2 in. (1 1/2) min. wide steel deck and steel studs. The studs are compressed 50 percent and fully packed, on edge first, into the gap between the top of the galvne steel deck and bottom of the steel deck on both sides of the wall.
HELIX CONSTRUCTION CHEMICALS, DIV OF HLT, INC. - CP 702 Squared Plug
HELIX CONSTRUCTION CHEMICALS, DIV OF HLT, INC. - CP 702 Squared Plug
B. Fill Void or Cavity Material - Min. 1 1/2 in. (1 1/2) min. depth by thickness (1/8 in. x 3/2 min. width) of 10 material applied or troweled on each side of the wall to completely cover channel work between panels and to overlap a min. 1/2 in. (1/2) min. into galvne steel deck and steel deck on both sides of wall.
HELIX CONSTRUCTION CHEMICALS, DIV OF HLT, INC. - CP-84 WB Firestop-Joint Spray
*Using the U.S. Classification Mark.**

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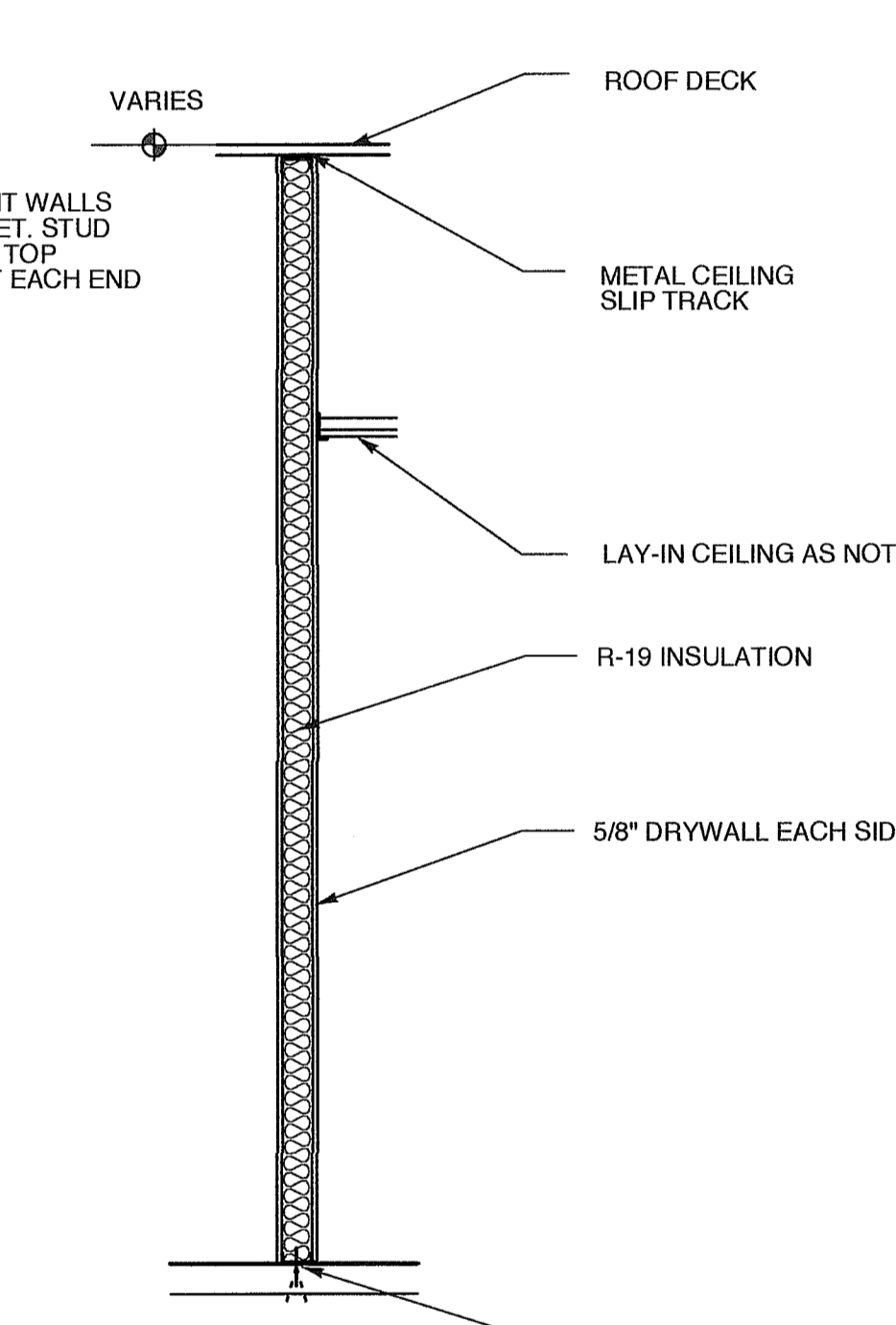
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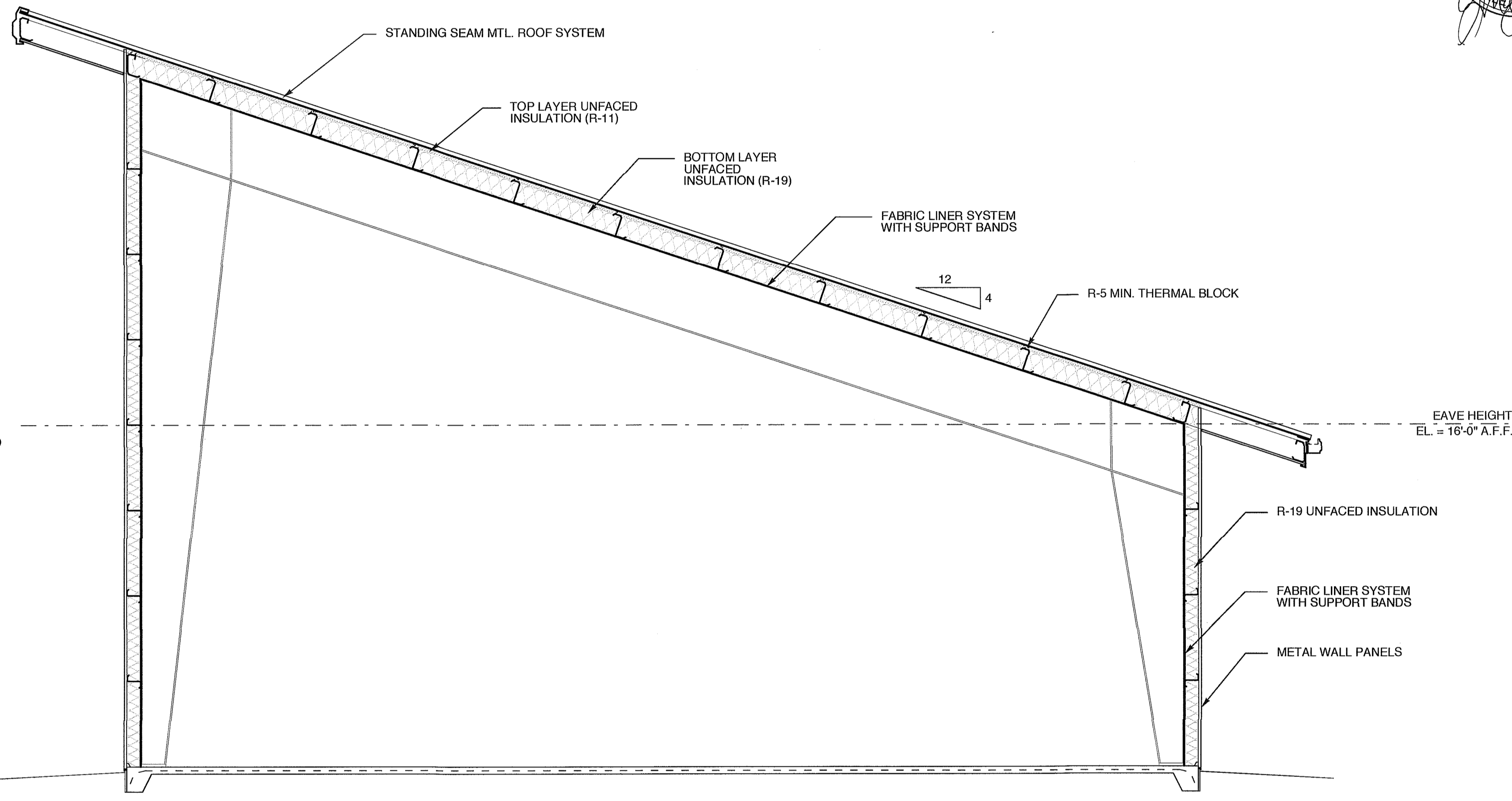
6 RATED WALL
SCALE: 1/2" = 1'-0"



5 NON-RATED WALL SECTION
SCALE: NTS



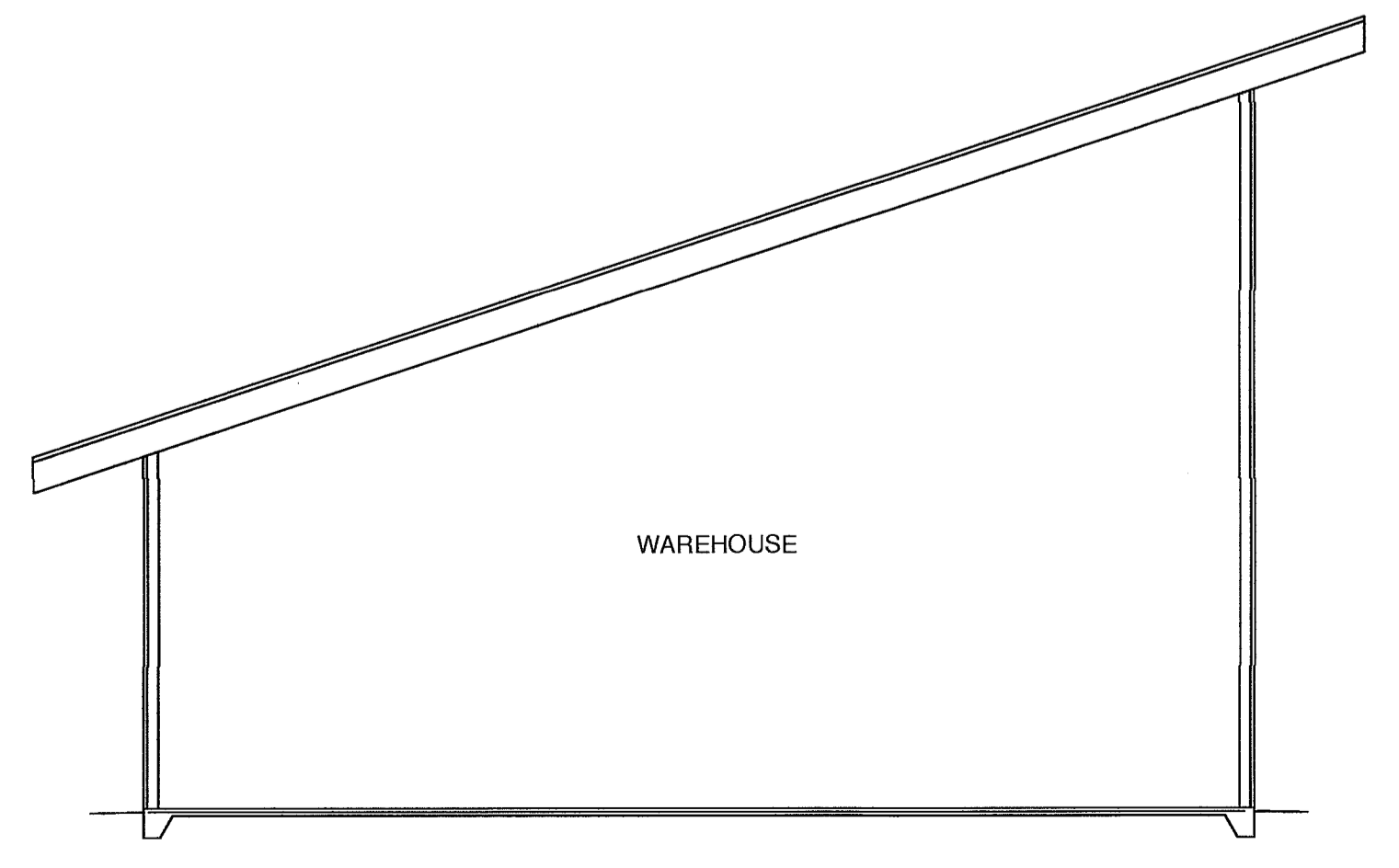
4 FULL HEIGHT WALL SECTION
SCALE: 1/2" = 1'-0"



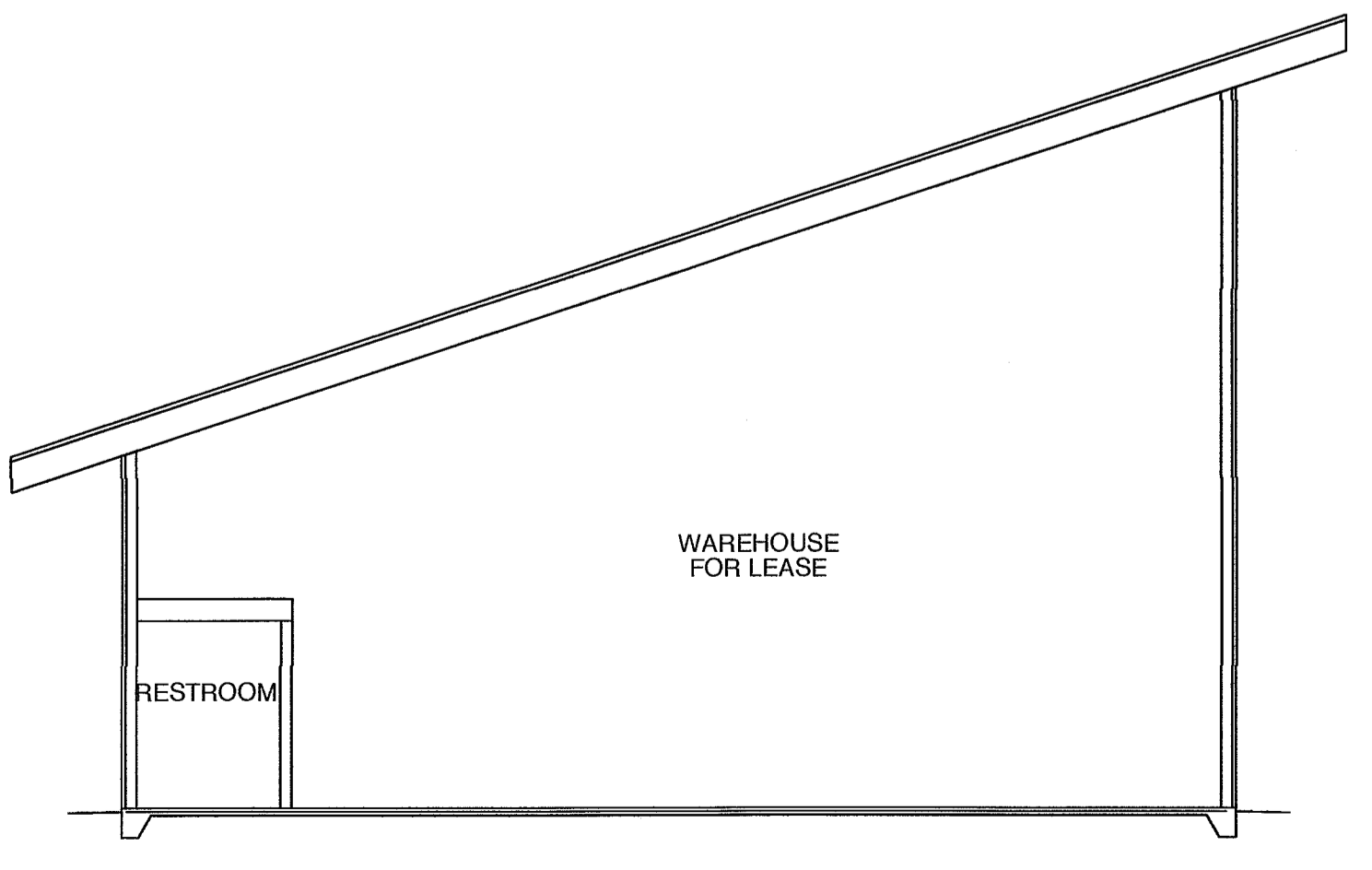
3 BLDG. SECTION
SCALE: 1/4" = 1'-0"

MAXIMUM STUD HEIGHTS FOR INTERIOR TENANT SEPARATION WALLS			
Size	Gauge	O.C. Spacing	Max. Height
2 1/2"	20 ga.	12"	13'-11"
		16"	12'-8"
		24"	11'-1"
3 5/8"	20 ga.	12"	18'-6"
		16"	16'-10"
		24"	14'-8"
3 1/2"	20 ga.	12"	18'-0"
		16"	16'-4"
		24"	14'-4"
6"	20 ga.	12"	27'-7"
		16"	26'-0"
		24"	21'-10"
8"	20 ga.	12"	34'-10"
		16"	31'-7"
		24"	27'-7"

Top track by Fire Trak Corp. or equal and of same gauge as stud
 * Based upon information furnished by Dietrich for CWN type steel studs. (alternate stud types and gauges shall be approved by the architect)



2 DIAGRAM SECT.-BAY 1
SCALE: 1/8" = 1'-0"



1 DIAGRAM SECT.-BAY 4
SCALE: 1/8" = 1'-0"

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PROJECT TITLE
CASINO PARTY ACES
252 JARCO DRIVE
FUGUAY-VARINA, NORTH CAROLINA

PROJECT NO.
1640
DRAWING TITLE
BUILDING SECTION

SHEET 5 OF 6

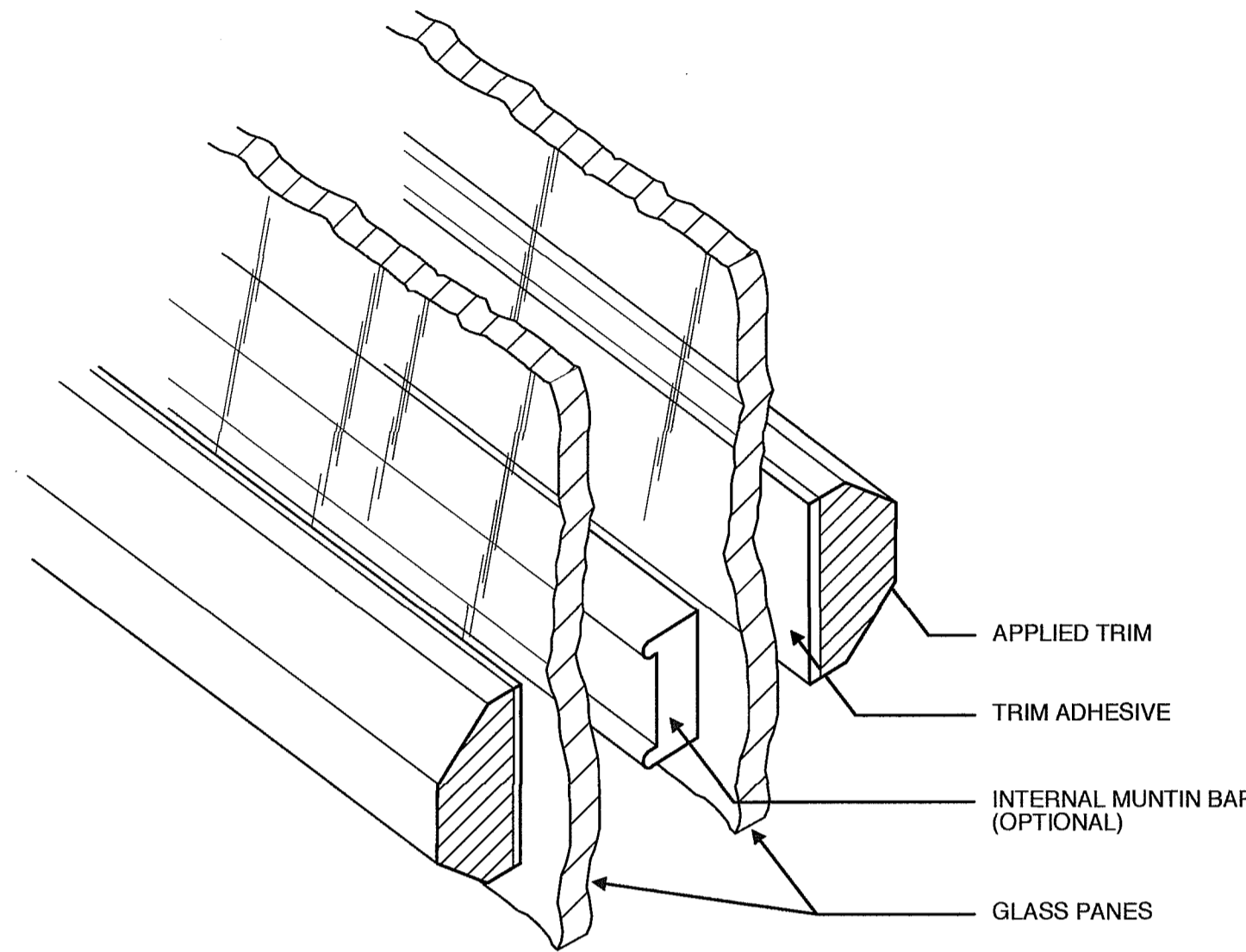
A3

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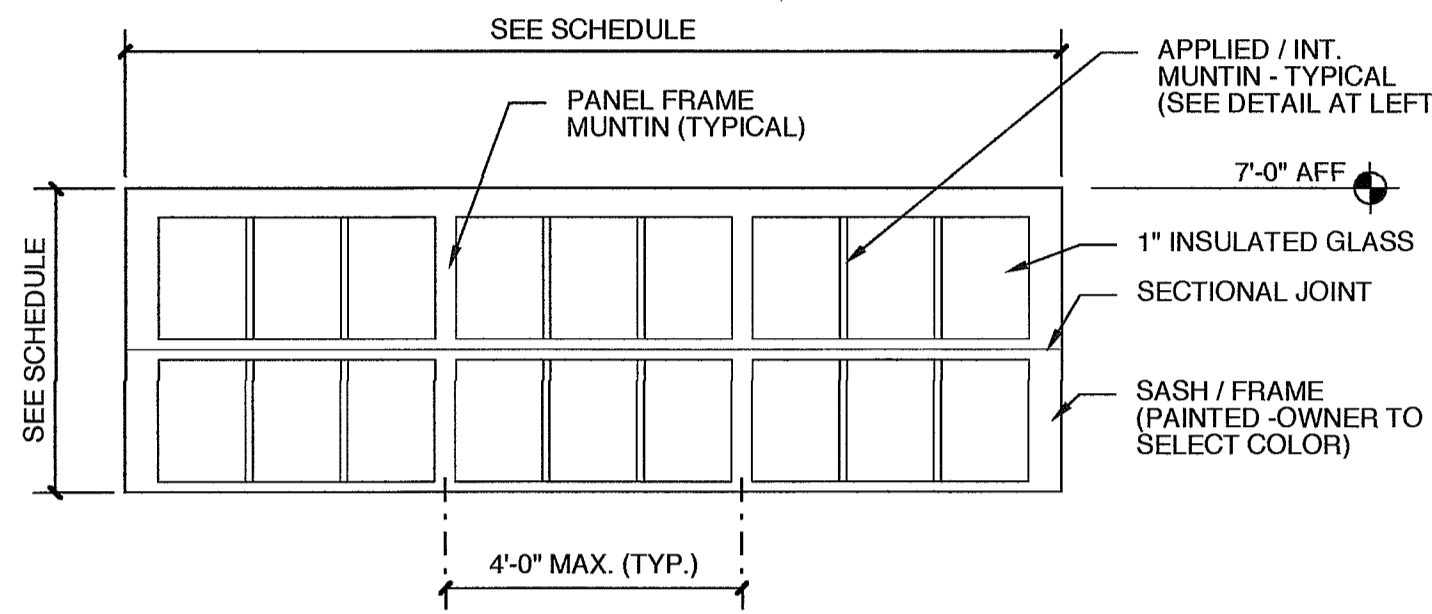
INSULATED WINDOW ASSEMBLY WITH APPLIED MUNTIN BARS
 ALL OVERHEAD DOOR / GLAZING DETAILS TO BE VERIFIED WITH DOOR FABRICATOR. CONTRACTOR SHALL PROVIDE OWNER WITH SHOP DRAWINGS FOR APPROVAL SHOWING OVERHEAD DOORS TO BE INSTALLED PRIOR TO START OF CONSTRUCTION.

ABSTRACT:
 A TRUE DIVIDED LOOK IS PROVIDED IN AN INSULATED TWO-PANE WINDOW ASSEMBLY THROUGH THE USE OF A RESILIENT SILICONE FOAM INTERNAL MUNTIN BAR GRID. INTERNAL MUNTIN IS LOW IN THERMAL CONDUCTIVITY TO LIMIT HEAT TRANSFER BETWEEN PANES. THE GRID IS SECURED BY ADHESIVE ON ONE SIDE OF ONLY ONE PANE OF GLASS, THEREBY ALLOWING NATURAL EXPANSION AND CONTRACTION OF THE GLASS PANES. THE RESILIENT MUNTIN BAR INCLUDES THE RESILIENT MUNTIN BAR BEING U-SHAPED WITH LEGS EXTENDING FROM BASE, WHICH ARE COMPRESSIBLE AND ADAPTED TO MOVE LATERALLY IN RESPONSE TO PRESSURE FROM PANES DUE TO CHANGING THERMAL CONDITIONS, BONDING OF EXTERNAL WOODEN MUNTIN BARS TO THE PANES, OR WIND LOAD. MOVEMENT OF THE PANES TOWARD EACH OTHER WOULD BE LIMITED BY BOTTOMING OUT AGAINST THE BASE OF THE RESILIENT MUNTIN BAR.



8 APPLIED MUNTIN DETAIL
 SCALE: NOT TO SCALE

WINDOW SCHEDULE					
MARK	W	H	TYPE	MATERIAL	REMARKS
⊕	12'-0"	4'-0"	1	OH DOOR	1" INSUL. LOW E GLASS

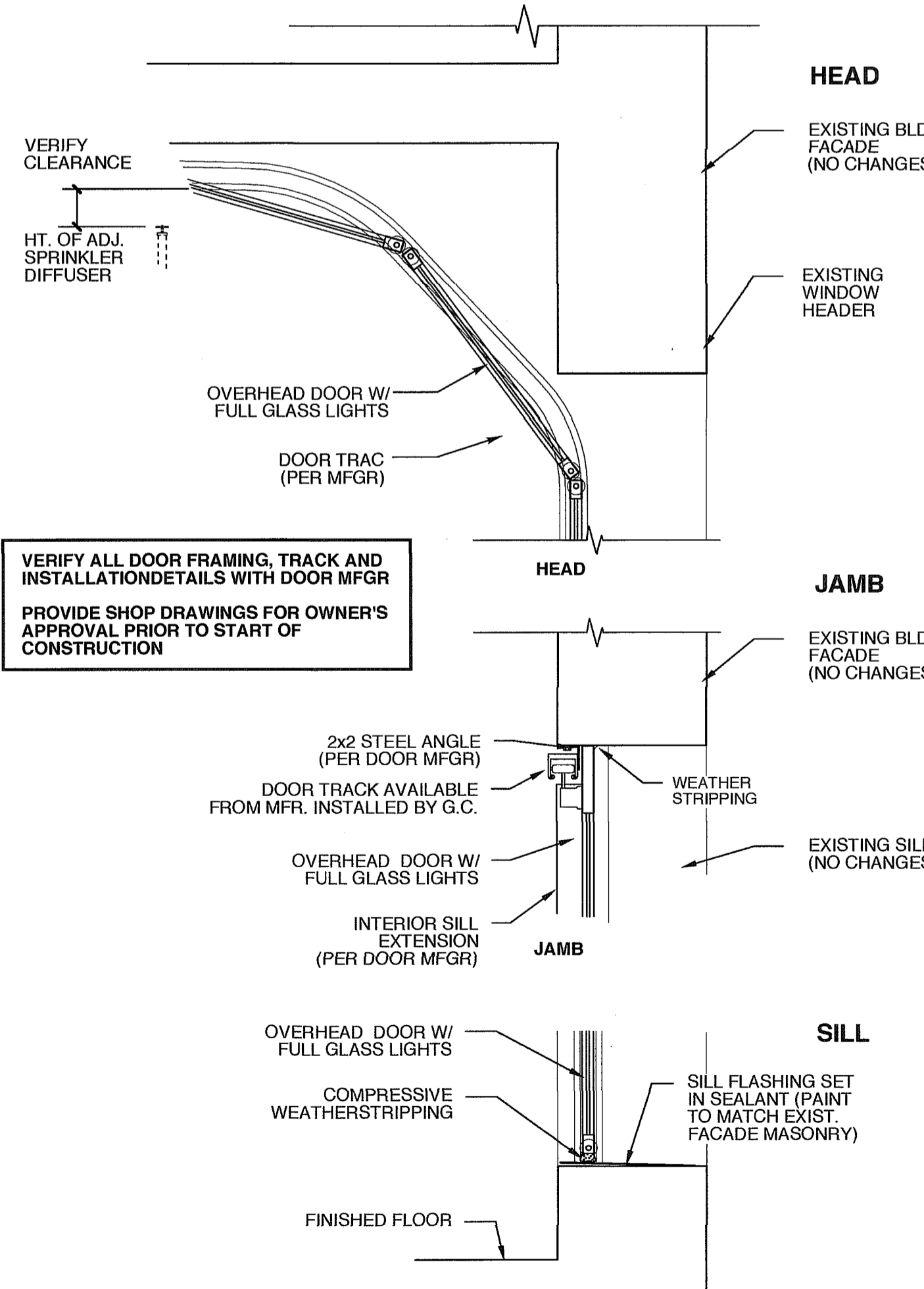


7 O.H. DOOR
 SCALE: 3/8" = 1'-0"

DOOR SCHEDULE							
MARK	DOOR			FRAME		HWWR SET NO.	REMARKS
	SIZE	MAT'L	TYPE	TYPE	DETAILS		
①	2'-3"-0" x 7'-0" x 1'-3/4"	INSUL HM	A	A	---	---	---
②	2'-3"-0" x 7'-0" x 1'-3/4"	INSUL HM	A	A	---	---	---
③	3'-0" x 7'-0" x 1'-3/4"	INSUL HM	A	A	---	---	---
④	12'-0" x 14'-0" x 2"	INSUL. O.H.	D	---	---	---	---
⑤	3'-0" x 7'-0" x 1'-3/4"	INSUL HM	A	A	---	---	---
⑥	12'-0" x 14'-0" x 2"	INSUL. O.H.	D	---	---	---	---
⑦	3'-0" x 7'-0" x 1'-3/4"	INSUL HM	A	A	---	---	---
⑧	3'-0" x 7'-0" x 1'-3/4"	INSUL HM	A	A	---	---	---
⑨	3'-0" x 7'-0" x 1'-3/4"	INSUL HM	A	A	---	---	---
⑩	3'-0" x 7'-0" x 1'-3/4"	INSUL HM	A	A	---	---	---
⑪	3'-0" x 7'-0" x 1'-3/4"	SC WD	B	B	---	---	---

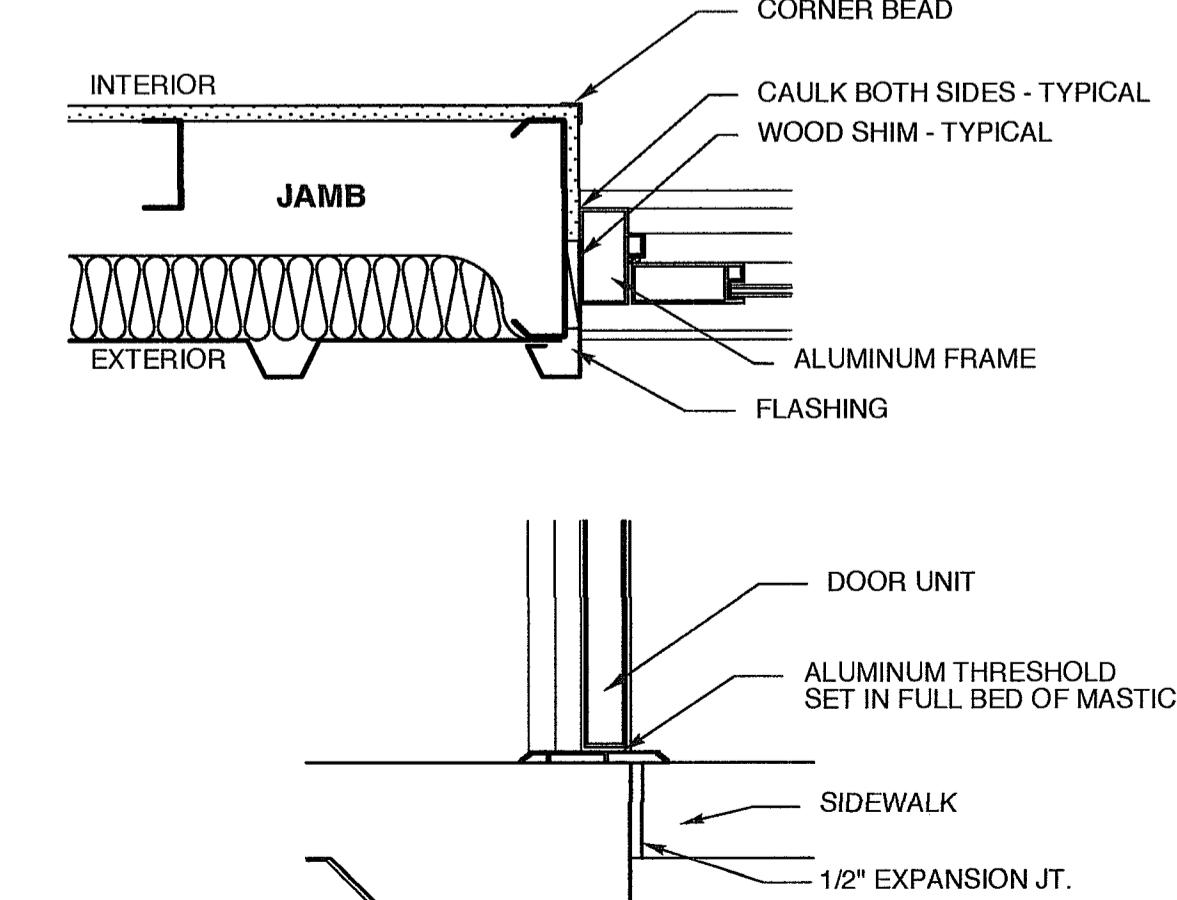
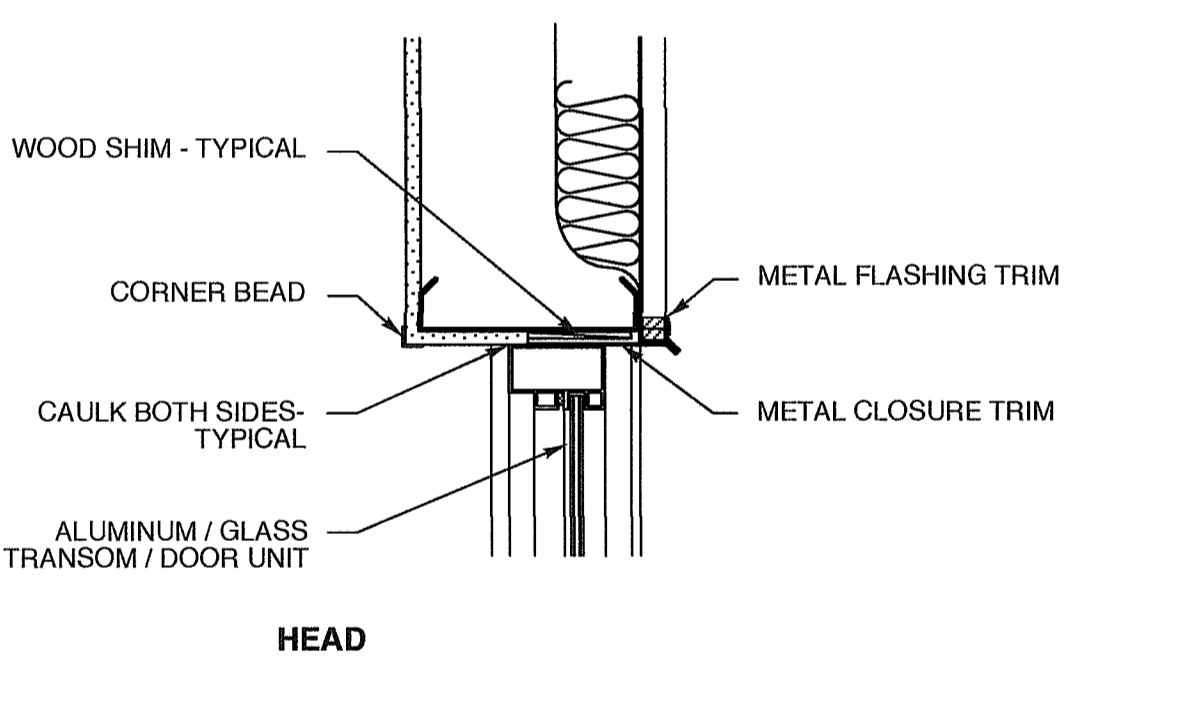
DOOR NOTES:
 1. ALL LOCKS TO BE MASTERKEYED AS REQUIRED BY TENANT (CONTRACTOR SHALL VERIFY).
 2. PROVIDE WEATHERSTRIPPING (PEMCO 316AV) FOR ALL EXTERIOR DOORS.
 3. WALL STOPS SHALL BE HAGAR 237W (OR APPROVED EQUAL), FLOOR STOPS SHALL BE 24H (24H AT UNDERCUT DOORS OR DOORS WITH THRESHOLDS). NUMBER AND LOCATIONS AS INSTRUCTED BY OWNER.
 4. ALL WOOD DOORS TO BE SOLID CORE, FLUSH, STAIN GRADE, ROTARY CUT, NATURAL FACE BIRCH VENEER.
 5. ALL REQUIRED EGRESS DOORS WITH LOCKING DEVICES SHALL BE FITTED IN ACCORDANCE WITH NCSBC 1008.1.8.3 LOCKS AND LATCHES (SEE ARCHITECT OR LOCAL INSPECTION AGENCY FOR ADD'L INFORMATION)
 6. ALL HARDWARE SHALL COMPLY WITH ACCESSIBILITY STANDARDS PER NCSBC CH. 11 AND ANSI 117.1
 7. VERIFY ALL HARDWARE SELECTIONS WITH OWNER PRIOR TO INSTALLATION ON DOORS OR IN TENANT SPACE.

HARDWARE SETS
 1. ---

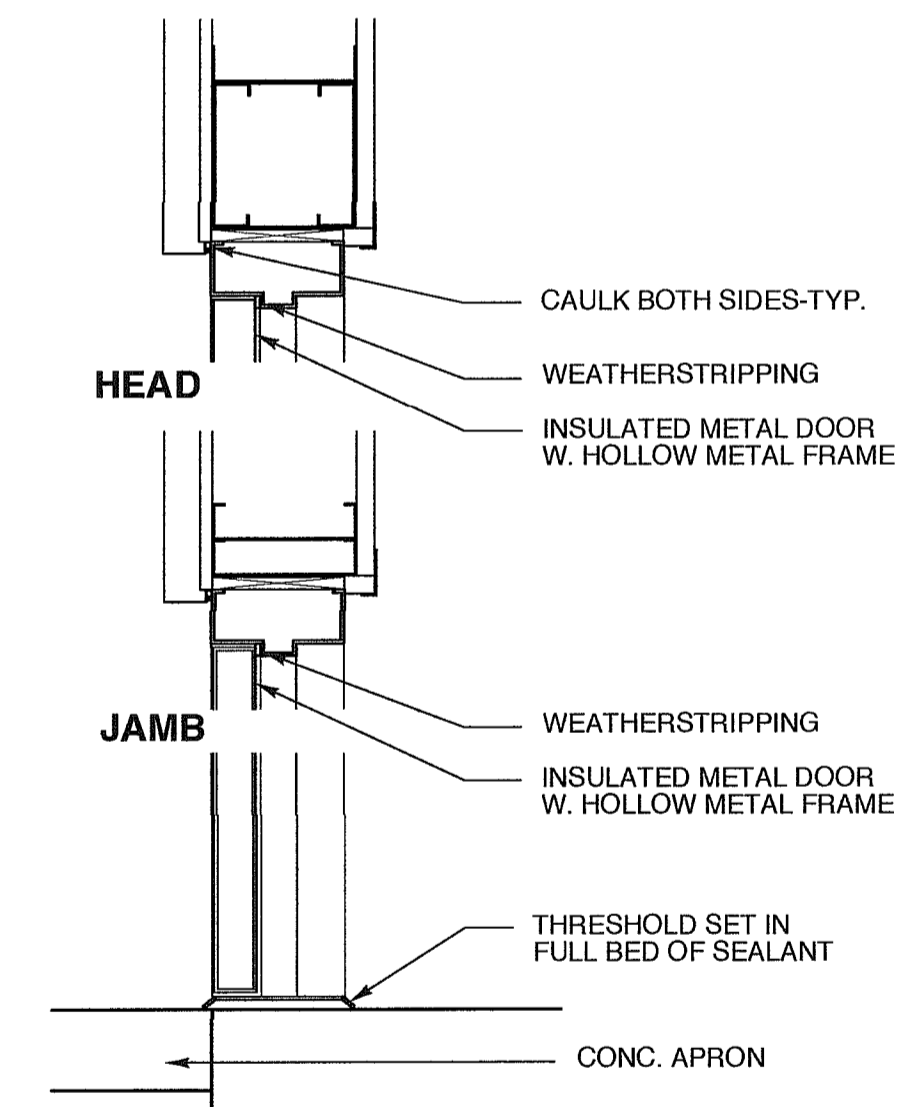


6 OVERHEAD DOOR HEAD / JAMB DETAIL
 SCALE: 1 1/2" = 1'-0"

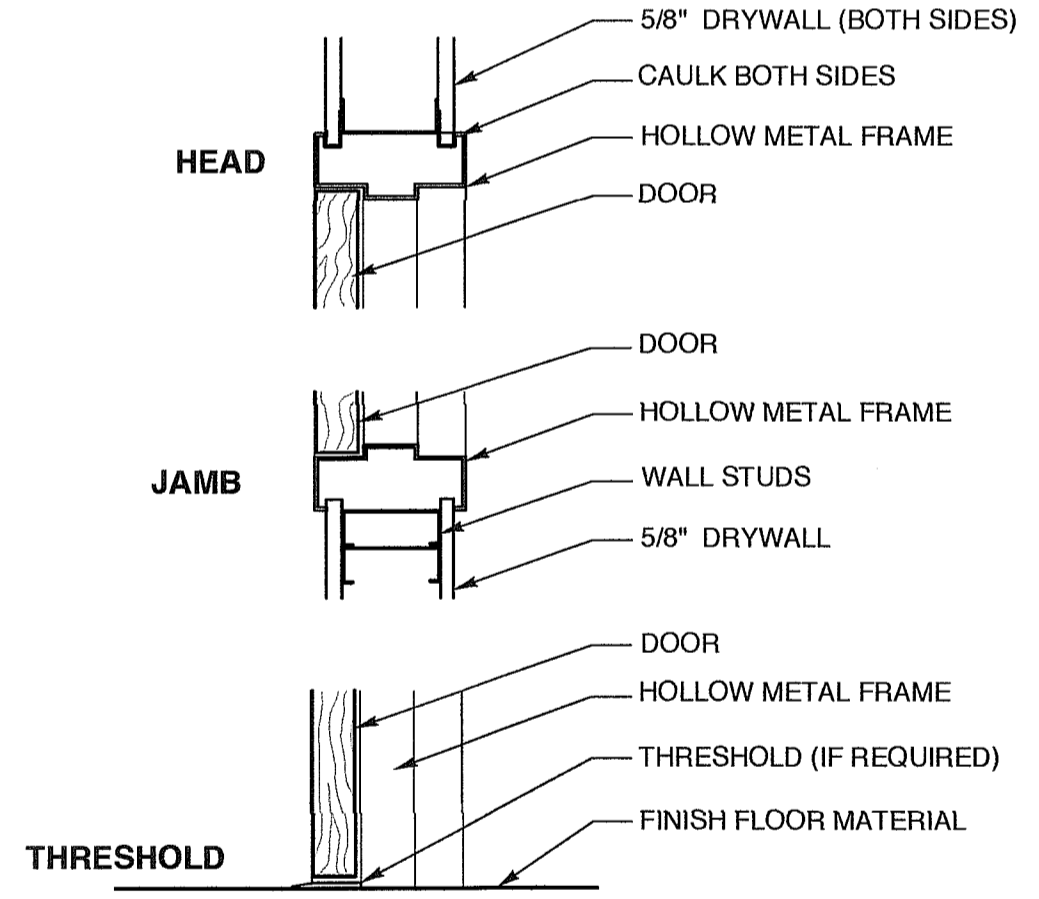
ALL GLAZING SHOWN SHALL BE TEMPERED INSULATED GLASS.
 DOOR FABRICATOR SHALL PROVIDE SHOP DRAWINGS FOR OWNER APPROVAL PRIOR TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR DIMENSIONS, QUANTITIES, ETC. APPROVAL BY OWNER SHALL BE FOR CONFORMANCE WITH DESIGN INTENT ONLY.



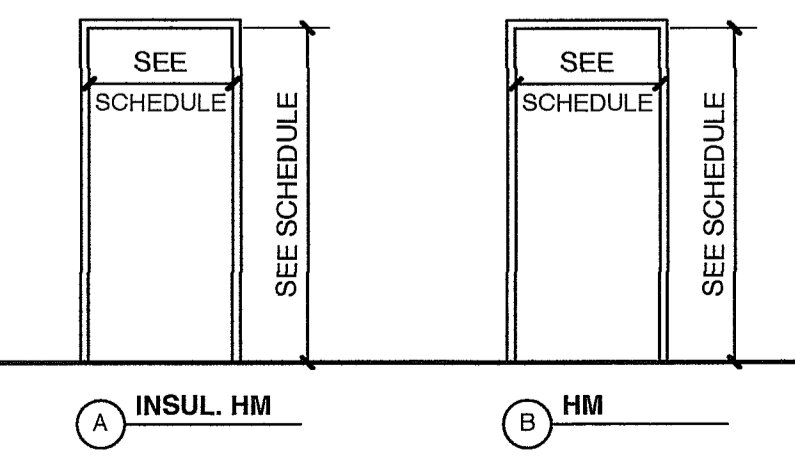
3 ALUM. STOREFRONT DOOR
 SCALE: 1 1/2" = 1'-0"



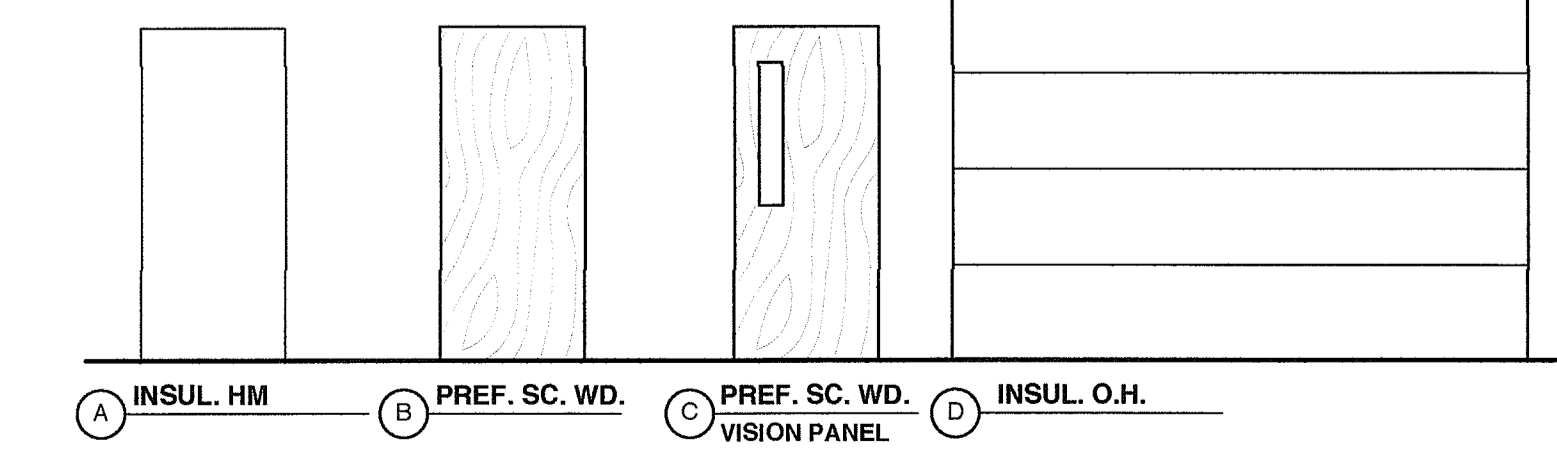
5 EXTERIOR DOOR
 SCALE: 1 1/2" = 1'-0"



4 INT. SOLID WOOD DOOR
 SCALE: 1 1/2" = 1'-0"



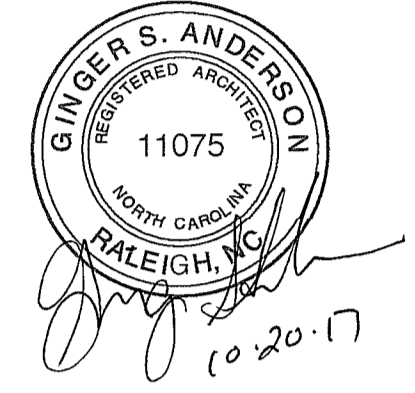
2 DOOR FRAME TYPES
 SCALE: 1/4" = 1'-0"



1 DOOR TYPES
 SCALE: 1/4" = 1'-0"

WEEKS TURNER ARCHITECTURE

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PROJECT TITLE
CASINO PARTY ACES
 252 JARCO DRIVE
 FUQUAY-VARINA, NORTH CAROLINA

PROJECT NO.
1640
 DRAWING TITLE
SCHED/DETAILS

SHEET 6 OF 6

A4

PLOT DATE 10/20/17
 REVISION 00/00/14

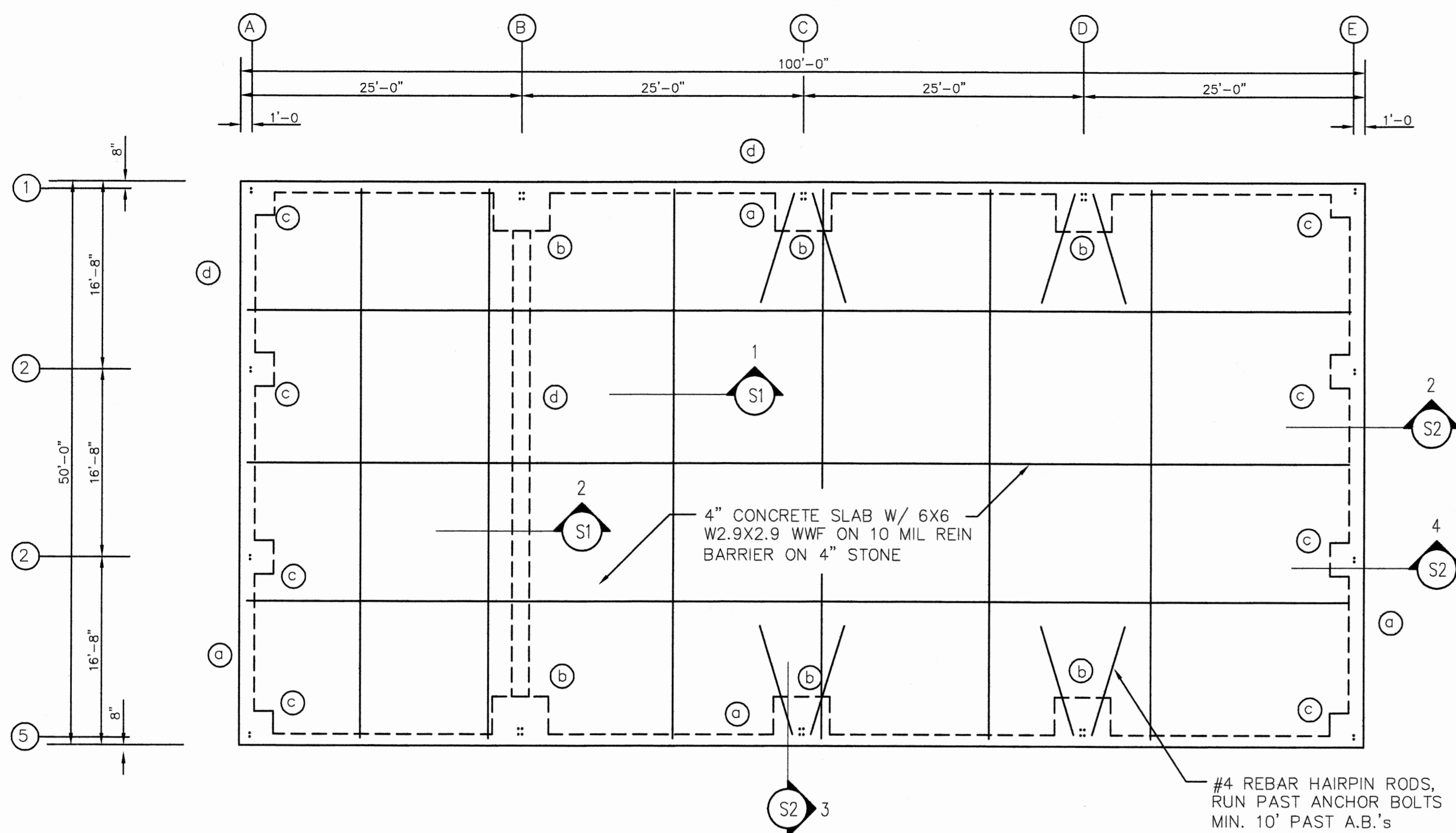
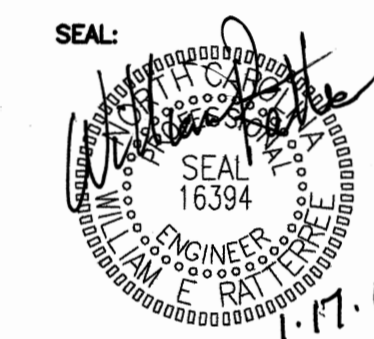
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wratterree@nc.rr.com



1
S1 FOUNDATION PLAN
SCALE 1/4" = 1'-0"

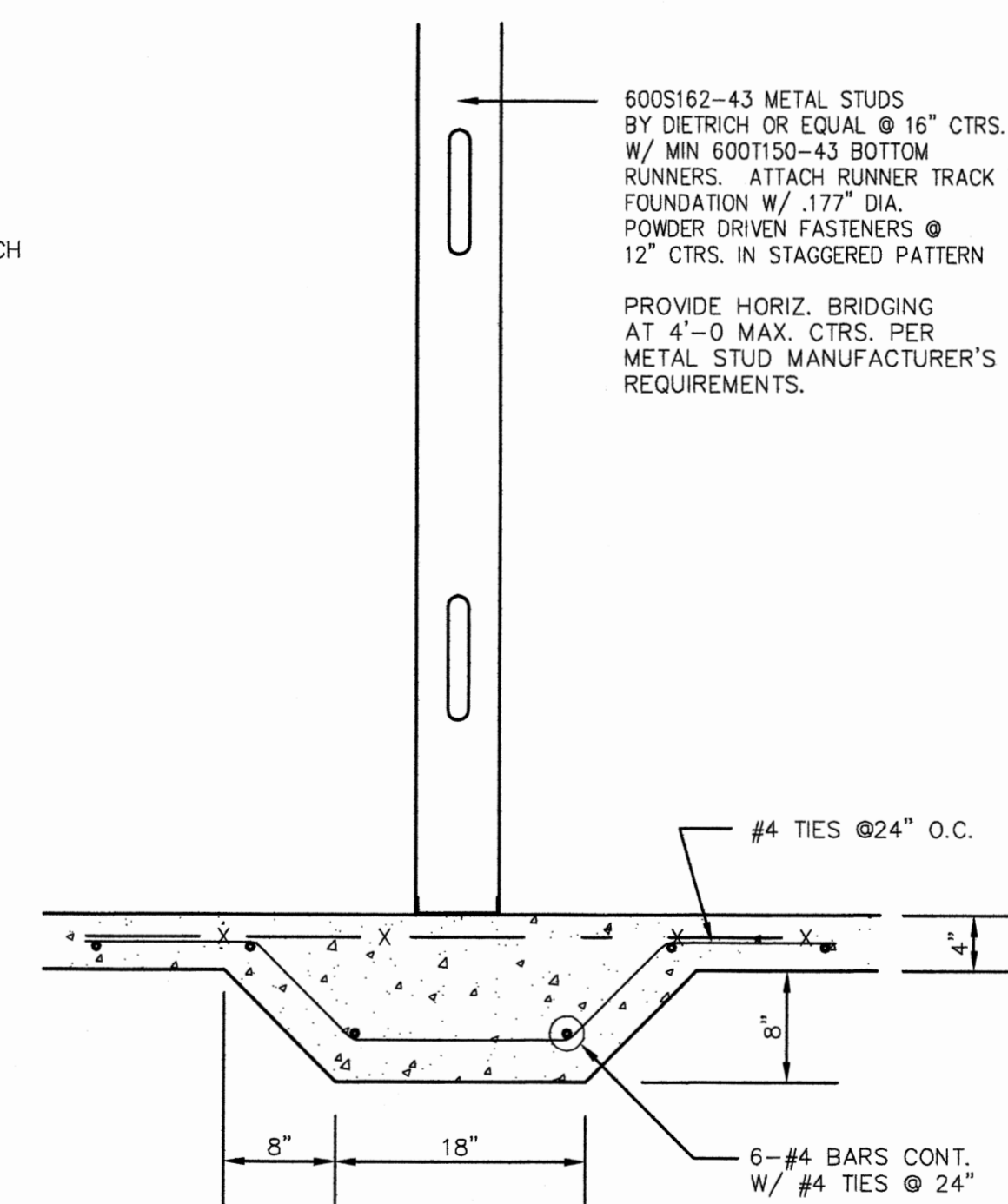
NOTE: SEE ARCHITECTURAL FOR ALL DIMENSIONING OF WALLS AND COLUMN LOCATIONS.

FOOTING SCHEDULE

MARK	SIZE	REINFORCING
a	1'-6" x 1'-0" LUG FOOTING	2 #4's CONT. W/ #4 TIES @ 18"
b	5'-0" x 5'-0" x 2'-0"	6 #6's E.W. TOP & BOTTOM
c	3'-0" x 3'-0" x 1'-6"	4 #4's E.W. TOP & BOTTOM
d	18"X12" THICKENED SLAB	6 #4 BARS CONT. W/ #4 TIES @ 24"

ALL FOOTINGS BASED ON 2000 PSF BEARING CAPACITY. CONTRACTOR RESPONSIBLE FOR MEETING THIS REQUIREMENT.

NOTE: 1 LAYER OF GYP EACH SIDE OF WALL AS SHOWN ON ARCHITECTURAL.



2
S1 SECTION: INT. WALL
SCALE 1" = 1'-0"

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PROJECT TITLE
CASINO PARTY
ACES

252 JARCO DRIVE
FUQUAY-VARINA, NC

PROJECT NO.
1640

DRAWING TITLE
FOUNDATION

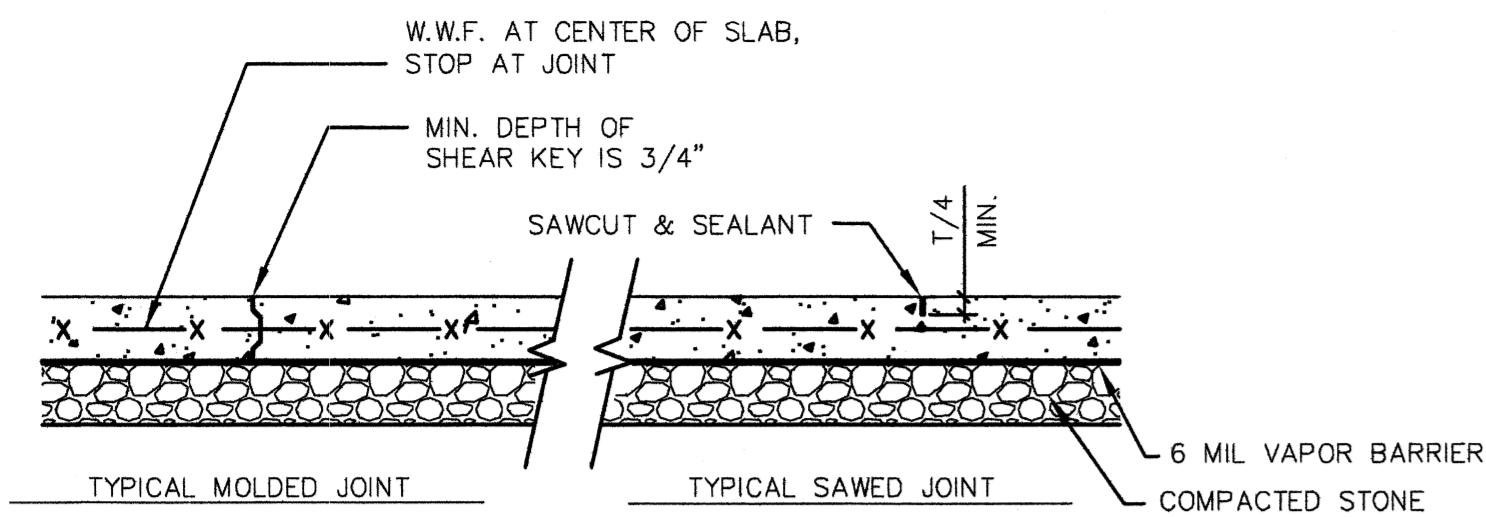
SHEET 1 OF 3

S1

PLOT DATE 12/12/06
REVISION 00/00/04

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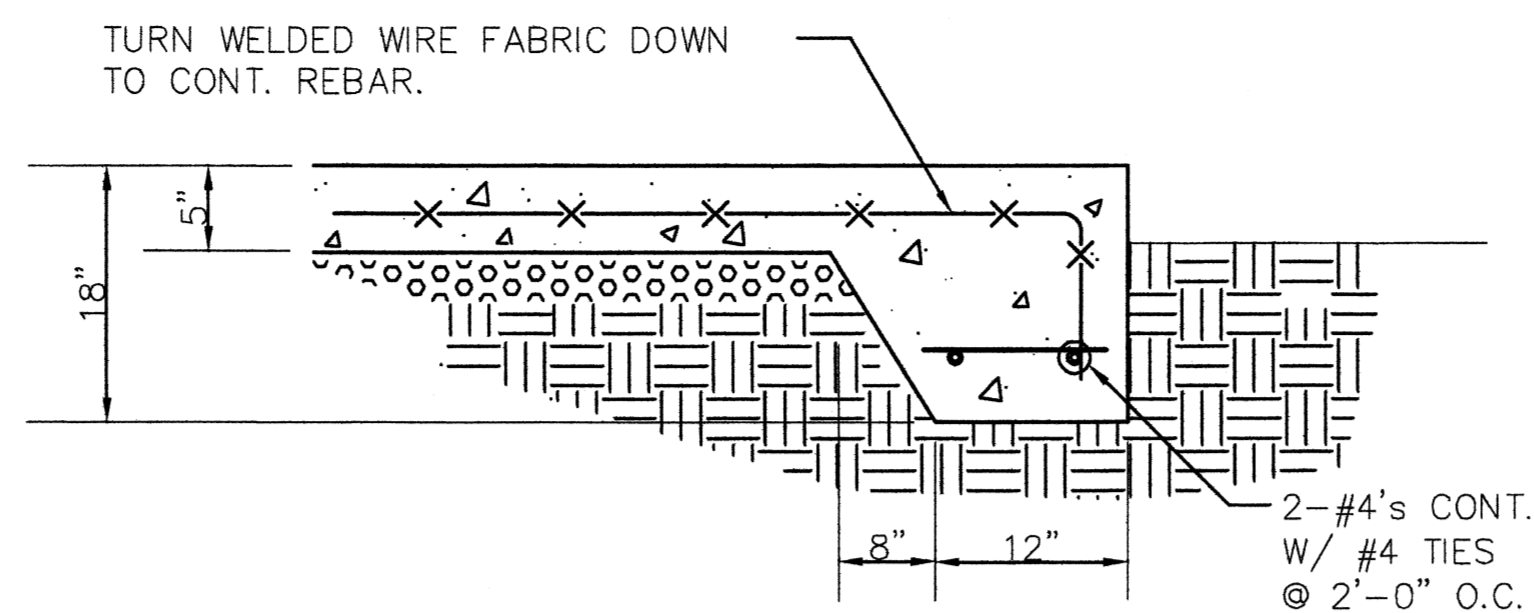
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TYPE OF JOINT IS OPTIONAL WITH CONTRACTOR WITH THE EXCEPTION OF DOORWAY LOCATIONS. CONTROL JOINTS AT DOORWAYS SHALL NOT BE SAWED. "T" INDICATES THICKNESS OF SLAB.

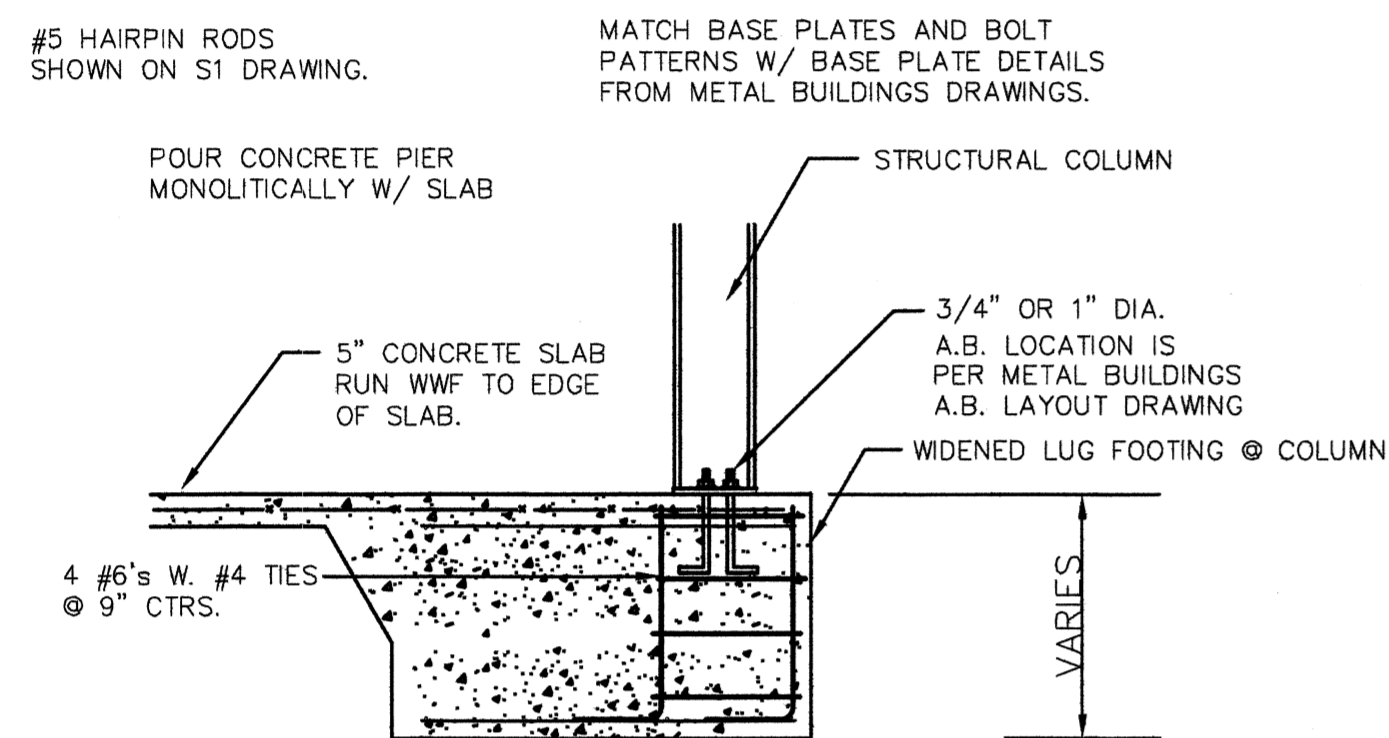
1 TYPICAL CONTROL JOINT

S2 SCALE: 3/4" = 1'-0"



2 TURN-DOWN FOOTING

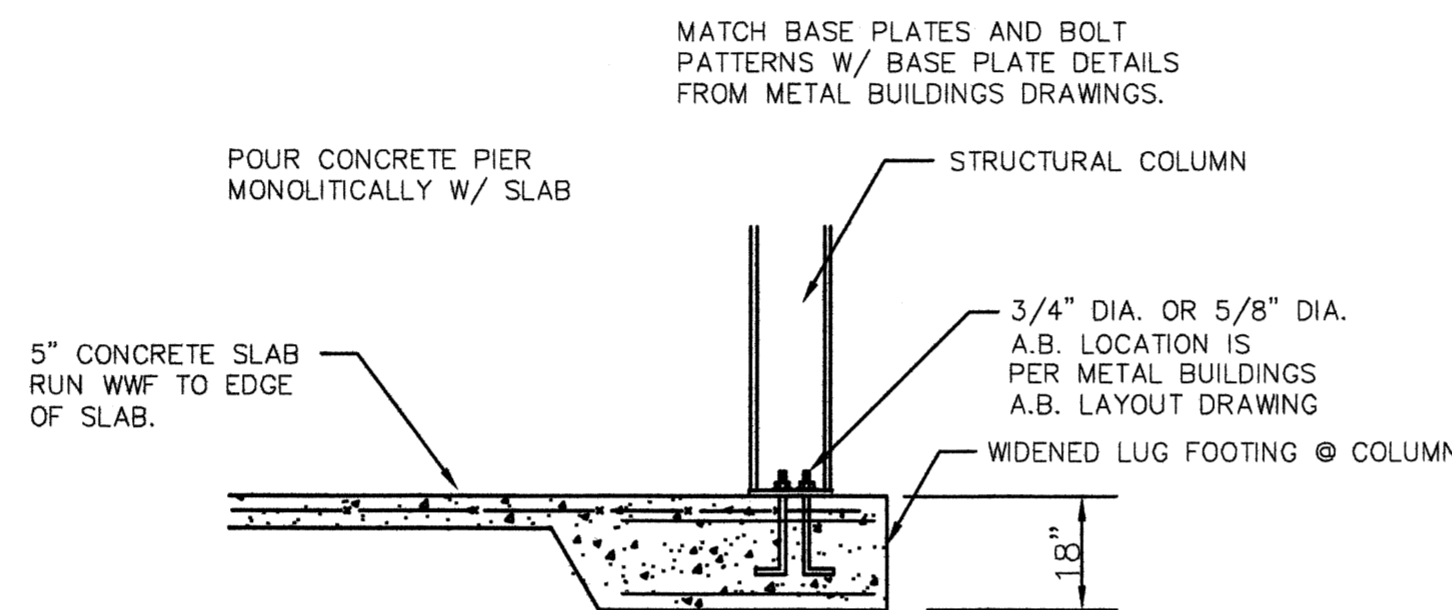
S2 SCALE: 1" = 1'-0"



FOR FOOTING SIZE AND REINFORCEMENT, SEE FOOTING SCHEDULE ON S1.

3 SECTION: EXT. WALL

S2 SCALE: 1/2" = 1'-0"



FOR FOOTING SIZE AND REINFORCEMENT, SEE FOOTING SCHEDULE ON S1.

4 SECTION: EXT. END WALL

S2 SCALE: 1/2" = 1'-0"

GENERAL NOTES

DESIGN:

- Structural design conforms to the requirements of the "North Carolina Building Code, 2012 Edition".
- Live Loads used in Design:

Roof	20 psf
Office/Mech floor	50 psf
Ground Floor	250 psf
- Dead Loads used in Design:

Roof	2 psf
Office/Mech floor	10 psf
Collateral	3 psf
- Design wind velocity = 100 mph for Wake Co.

FOUNDATIONS:

- Foundation design is based on presumed soil bearing capacities from the latest edition of the NCSBC.
- Allowable soil bearing pressure 2000 psf
In areas where the soil does not yield this bearing stress value, do not proceed with work until the value is obtained. Proper design adjustment of footing depth and dimensions may be required by the structural engineer. The contractor shall make adjustments in the foundation work as required by the structural engineer.
- Footing elevations shall not be raised or lowered without approval of the structural engineer.
- Place concrete for footings after cleaning existing concrete footing in area. Dowel rebar into existing footing as shown on drawings. New column footing shall bond with existing footing. Notify engineer if assumed footing does not match footing shown on drawing.
- Any fill inside the building shall be select material, free from roots, trash, wood scraps, and other extraneous materials. Plasticity index shall be 25 or less. Place fill in lifts not exceeding 4" and compact each lift to 95% density at optimum moisture content as measured by ASTM D698.

CONCRETE:

- All concrete, unless otherwise noted, shall be normal weight (N.W.) with a maximum unit weight of 150 pounds per cubic foot. Concrete shall have a 28 day compressive strength, as specified below, for the respective areas:

Footings, slabs	3,000 psi N.W.
-----------------	----------------
- Concrete work shall conform to the "Building Code Requirements for Reinforced Concrete", ACI 318, latest edition.
- Place 1/2" expansion joint material between edges of slabs and vertical surfaces U.O.N.
- Provide construction of control joints in slabs at locations shown on drawings, at offsets and changes in direction and at 30 feet maximum.

REINFORCING STEEL:

- Reinforcing shall conform to ASTM A615 and shall be Grade 60, unless otherwise noted.
- Welded wire fabric shall be new billet steel, cold drawn, conforming to ASTM A815 and shall be supplied in sheet form.
- Bar supports, design, detailing, fabrication, and placing of reinforcing bars shall be in accordance with the ACI code and detailing manual.
- Unless otherwise noted on the drawings, lap splices shall be 40 bar diameters or 12", whichever is greater.
- Provide bars at the corners and intersections of concrete walls and wall footings of the same number and size as longitudinal bars.
- Fabricate continuous bars in footings to the longest practical length.

DIMENSIONS:

- The general contractor shall be responsible for reviewing the dimensions of the structural drawings and advising the Engineer of any discrepancies between general and structural drawings prior to commencing work.

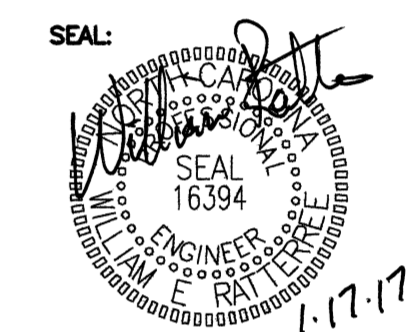
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FOR PERMIT PROCESS ONLY

PROJECT TITLE
**CASINO PARTY
ACES**

252 JARCO DRIVE
FUQUAY-VARINA, NC

PROJECT NO.
1640

DRAWING TITLE
**FOUNDATION
DETAILS**

SHEET 2 OF 3

S2

PLOT DATE 12/12/06
REVISION 00/00/04

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DIVISION 15A – PLUMBING

1.1 DESCRIPTION OF THE WORK

- A. Work under this section includes, but is not necessarily limited to, furnishing and installing the following:
 1. Plumbing fixtures, water heaters, and any other equipment necessary.
 2. Cold and hot water piping and insulation.
 3. DWV piping.
 4. Connection of all equipment; drain, vent, water.
- B. All work under this contract shall be installed in compliance with the latest edition of the following codes and standards insofar as they apply.
 1. The National Electrical Code.
 2. 2012 N.C. Building Code Plumbing Edition
 3. American Society of Sanitary Engineering Standard 1010.
 4. All local codes and ordinances.
- C. These codes are minimum standards. If codes require a more stringent method of construction than the specifications require, the codes shall govern.
- D. The Plumbing Contractor shall be licensed in the State of North Carolina and have all local licenses required for the work.
- E. Obtain all permits, licenses, inspections, etc., required for the work, and pay for the same.

1.2 INTENT

- A. The intent of these specifications and accompanying drawings is to convey as reasonably as possible the requirements for a complete job ready for the building to operate. The Plumbing Contractor shall take this into consideration and include in his base bid allowance for contingencies as will allow him to provide minor pieces of equipment and labor not specifically indicated but required for the job to operate properly, at no additional cost to the Owner.

1.3 COORDINATION

- A. Coordinate work with other contractors. Notify Architect of apparent conflicts early to expedite construction. If structural damage appears imminent, stop work and notify Architect for a decision before resuming operations.
- B. Locations shown are approximate. The Plumbing Contractor shall refer to the architectural drawings for placement of equipment, fixtures, etc. Where locations are not clear, the Contractor shall obtain the exact locations from the Architect.
- C. Coordinate all exterior piping connections w/Architect, site contractor/plans. Verify manhole elevations and provide backwater valves as required if floor level rims are below next upstream manhole cover elevation. Fixtures with flood level rims above upstream manhole shall not discharge thru bw valve. Notify engineer of backwater valve requirement, any issue prior to bid.

1.4 SHOP DRAWINGS

- A. Shop drawings shall be submitted for plumbing fixtures and for pipe. These may consist of the manufacturer's standard catalog or tear sheets and shall have the exact items being offered clearly identified.
- PART 2 – PRODUCTS**
- 2.1 FIXTURES**
- A. Each fixture shall be properly supported from the building structure as required to the end effect that all fixtures and accessories will be held rigidly in place. Water pipes supplying the fixtures must also be held rigidly in place.
 - B. Provide loose key angle stops and chrome plated supply pipe water supplies to fixtures.
 - C. All exposed piping traps and accessories for fixtures shall be chrome plated. Provide chrome plated escutcheon plates where pipes enter walls.
 - D. Provide shutoff valves for all sinks, water heaters, toilets, washing machines, refrigerator ice-maker, exterior hose bibbs and all other plumbing fixtures.
 - E. Provide trap primers for all floor drains in areas not served by hose bibbs.

2.2 PIPING

- A. Drain waste: All waste piping shall be Schedule 40 PVC-DWV with the following exceptions: Use cast iron piping in all return air plenums and penetrations of rated walls/floors/ceilings. Review Arch. and Mech. drawings. Use ABS or cast iron piping for drainage of fluid temperature greater than 140 deg. F for a minimum distance of 10'-0".
- B. Hot and cold water piping above grade: Type "L" copper w/solder joints (ASTM-B88), hard drawn with wrought copper fittings (ANSI B16.22) PEX piping with copper fittings may be used with owner/tenant approval, and as allowed per code.
- C. Cold water piping below grade: Type "K" copper (ASTM-B8A) soft drawn.
- D. Hangers: Use pipe hangers where required on 8-foot centers with saddles to avoid crushing insulation.
- E. Solder: 95/5. Lead free.
- F. Unions: Provide unions where indicated on drawings, in long runs of piping (except drainage) and at equipment to provide convenient disassembly. Provide dielectric unions when connecting copper tubing to equipment and piping made of ferrous materials.

2.3 CLEANOUTS

- A. Hex plugs in rough areas: Recessed plugs with cover plates in exposed locations.

2.4 SHOCK ARRESTERS

- A. Provide shock arresters as required by codes, manufacturer's recommendations and accepted industry standards for quality construction. Provide for all quick closing valves.

PART 3 – EXECUTION

3.1 CONNECTIONS

- A. This contract includes complete connection of cold water, hot water, drainage, and vent piping as required. All fittings, valves, accessories, cutoffs, drains, etc., required to complete such connections shall be included.
- B. The connection to water closets shall be made watertight with gasket and wax ring. Floor flanges shall be caulked into position. Plastic caps shall be provided on the tie down bolts, and shall be secured in place by screwing down on threaded brass washers.
- C. Where water pipes connect to exposed chrome plated trim, use proper chrome plated escutcheons.

3.2 SERVICE ACCESS

- A. All valves and accessories shall be insulated so that they can be properly serviced. In no case shall the Plumbing Contractor install equipment or other components in situations that do not meet code requirements or manufacturer's requirements. Provide access doors as required to access valves, etc.

3.3 ROUTING OF PIPING

- A. Coordinate routing of piping with others, line up work true to or at right angle to adjacent surfaces and in a workmanlike manner. Support all interior piping from building structure by means of hanger or inserts to maintain pitch of lines, to prevent vibration, and to secure piping place.

- B. Space pipe hangers 8'-0" on center for one inch and smaller pipe, 4'-0" on center for 1-1/4 inch and larger pipe. Provide expansion loops as required.
- C. Pipe hangers for insulated lines shall have suitable saddles to protect insulation.

3.4 INSULATION

- A. All H/W and C/W piping shall be insulated with a min. of 1" inch elastomeric insulation (R=6.5 min.) in unconditioned areas. See NCSCB-Plumbing Sect. 305 for all protection requirements. All H/W piping of circulating systems shall be insulated with 1" insulation per Sect. 504.5 of the NCSCB 2012 Energy Conservation Code.
- B. Provide pre-fabricated insulation kits for all sink and lavatory exposed drain and supply piping.

3.5 INSPECTIONS AND TESTS

- A. Before being concealed, all water, soil and vent piping shall be tested to determine if they are water- and air-tight.
- B. Prior to placing into service, entire system shall be tested for leaks in strict accordance with state and local codes.

3.6 STERILIZATION OF PIPING

- A. Sterilize the new water piping thoroughly with a solution containing not less than 50 parts per million of available chlorine, using liquid chlorine, or sodium hydrochloride solution, introduced into the system in an approved manner. The sterilizing solution shall remain in the system for a period of 24 hours. After sterilization, flush the solution from the system with clean water until the residual chlorine content is not greater than 0.2 parts per million, unless otherwise directed.

3.7 SERVICE PRESSURE

- A. Provide approved water-pressure reducing valve (PRV) if service pressure exceeds 80 psi to reduce pressure to 80 psi static or less and as required per NCSCB-Plumbing Sect. 604.8.

3.8 DRAINDOWN

- A. Contractor to provide for complete plumbing system drain down.

3.9 CLEAN UP

- A. During construction, keep the site clear of debris and upon completion, and before final inspection, clean up the premises to remove all evidence of his work. In addition, upon completion of construction, clean, wash and/or polish all fixtures, equipment and exposed material and leave them bright and clean.

3.10 GUARANTEES

- A. Guarantee all materials and labor included in the plumbing work for a period of one year from date of final acceptance by the Owner.
- B. Any defects in the system which become evident during the guarantee period shall be corrected without cost to the Owner. This shall include the replacing of defective materials where required, and the repair of damage caused by leaking pipes, etc., and damage to building surfaces caused in making repairs.

System No. W-L-1001

March 28, 2003

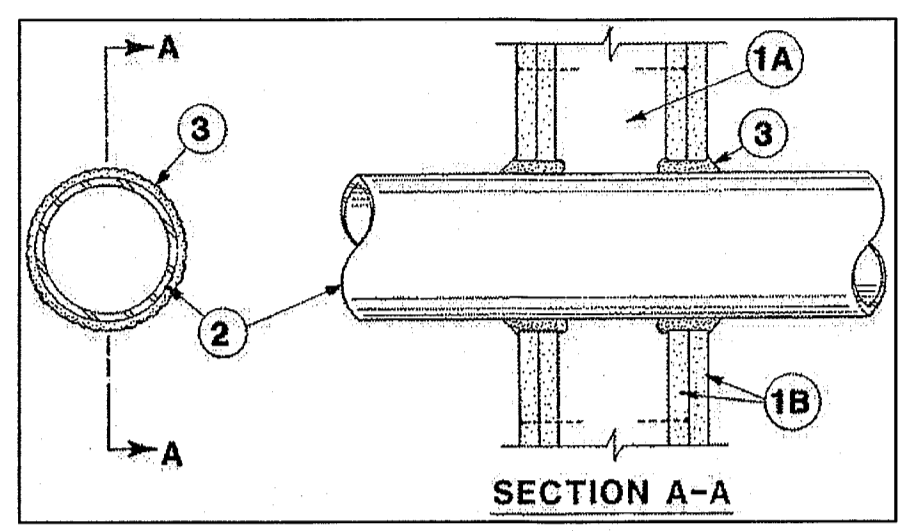
(Formerly System No. 147)

F Ratings -- 1, 2, 3 and 4 Hr (See Items 2 and 3)

T Ratings -- 0, 1, 2, 3, and 4 Hr (See Item 3)

L Rating At Ambient - less than 1 CFM/sq ft

L Rating At 400 F - less than 1 CFM/sq ft



1. Wall Assembly -- The 1,2,3 or 4 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300 or U400 Series Wall or Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

- A. Studs -- Wall framing may consist of either wood studs (max 2 1/2 fire rated assemblies) or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC with nom 2 by 4 in. lumber end plates and cross braces. Steel studs to be min 3-5/8 in. wide by 1-3/8 in. deep channels spaced max 24 in. OC.
- B. Gypsum Board* -- Nom 1/2 or 5/8 in. thick, 4 ft. wide with square or tapered edges. The gypsum wallboard type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 26 in.

2. Through-Penetrant-- One metallic pipe, conduit or tubing installed either concentrically or eccentrically with the firestop system. The annular space between pipe, conduit, or tubing and periphery of opening shall be min of 0 in. (point contact) to max 2 in. Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:

- A. Steel Pipe -- Nom 24 in. diam (or smaller) Schedule 10 (or heavier) steel pipe.
 - B. Iron Pipe -- Nom 24 in. diam (or smaller) service weight (or heavier) cast iron soil pipe, nom 12 in. diam (or smaller) or Class 50 (or heavier) ductile iron pressure pipe.
 - C. Conduit -- Nom 6 in. diam (or smaller) steel conduit or nom 4 in diam (or smaller) steel electrical metallic tubing.
 - D. Copper Tubing -- Nom 6 in. diam (or smaller) Type L (or heavier) copper tubing.
 - E. Copper Pipe -- Nom 6 in. diam (or smaller) Regular (or heavier) copper tubing.
 - F. through Penetrating Product* -- Flexible Metal Piping The following types of steel flexible metal gas piping may be used:
 - 1. Nom 2 in diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.
 - 2. Nom 1 in diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.
- OMEGA FLEX INC
TITILEFLEX CORP
A BUNDY CO
WARD MFG INC

3. Fill, Void or Cavity Material* -- Caulk -- Min 5/8, 1-1/4, 1-7/8 and 2-1/2 in. thickness for caulk for 1,2,3 and 4 hr rated assemblies, respectively, applied within annulus, flush with both surfaces of wall. Min 1/4 in. dia bead of caulk applied to gypsum board/penetrant interface at point contact location on both sides of wall. The hourly F rating of the firestop system is dependent upon the hourly fire rating of the wall assembly in which it is installed, as shown in the following table. The hourly T rating of the firestop system is dependent upon the type or size of the pipe or conduit and the hourly fire rating of the wall assembly in which it is installed, as tabulated below.

Max Pipe or Conduit Diam In	F RATING Hr	T RATING Hr
1	1 or 2	0+, 1 or 2
1	3 or 4	3 or 4
4	1 or 2	0
6	3 or 4	0
12	1 or 2	0

*When copper pipe is used, T Rating is 0 hr.

3M COMPANY -- CP 25WB+.

*Bearing the UL Classification Mark

SYMBOL LEGEND – PLUMBING

SYMBOL	DESCRIPTION (U.O.N.)
	WASTE PIPING (W)
	VENT PIPING (V)
	COLD WATER PIPING (CW)
	HOT WATER PIPING (HW)
	CLEANOUT FINISH FLOOR
	WALL/HORIZONTAL CLEANOUT
	CLEANOUT FINISH GRADE--PROVIDE FLUSH CONCRETE COLLAR AND BRONZE COVER
	DIELECTRIC UNION
	SHUT-OFF VALVE
	FREEZE PROOF, HOSE BIBB (FPHB/HB)
	VENT THRU ROOF (VTR)
A.F.F.	ABOVE FINISHED FLOOR
U.O.N.	UNLESS OTHERWISE NOTED
	FREEZE PROOF, HOSE BIBB (FPHB/HB)
	1 HOUR FIRE BARRIER

LOAD SUMMARY – PLUMBING

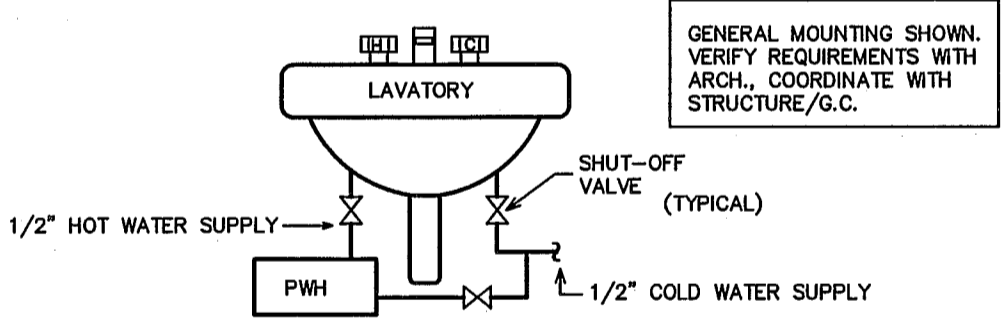
	WASTE DEMAND (FU)	WATER DEMAND (FU)	WATER DEMAND (GPM)
	6.0	7.0	11.8

FIXTURE SCHEDULE – PLUMBING *

- PWH* POINT OF USE ELECTRIC WATER HEATER
EMAX TANKLESS WATER HEATER #SP3512, 120V, 3,500W, 29A. PROVIDE FLEX CONNECTOR BRAIDED STAINLESS STEEL. INSTALL BELOW SINK/LAV. 48 DEGREE TEMPERATURE RISE AT 0.5 GPM.
 - WC* WATER CLOSET (FLUSH TANK)
KOHLER HIGHLINE WATER CLOSET, K-3979, ADA COMPLIANT 1.6 GPF. PROVIDE WITH K-4731 ADA SEAT, K-7637 SUPPLY AND STOP, WAX SEAL, CLOSET BOLT KIT. PROVIDE MODEL WITH FLUSH CONTROL ON SIDE OPPOSITE GRAB BAR. USE KOHLER WELLWORTH #K-3978 WHERE ADA COMPLIANCE MODEL NOT REQUIRED.
 - LAV* LAVATORY (WALL MOUNT)
KOHLER CHESAPEAKE LAVATORY, K-1728, VITREOUS CHINA, 4" CENTERS, ADA COMPLIANT. PROVIDE DELTA MODEL 523LF-HGMHDF FAUCET, 0.5 GPM MAX WITH GRID STRAINER. PROVIDE P-TRAP AND SHUT-OFF VALVES.
 - FPHB* FREEZE PROOF HOSE BIBB
WOODFORD MODEL #19, FREEZE PROOF HOSE BIBB WITH BACKFLOW PREVENTER. COORDINATE MOUNTING W/TENANT. PROVIDE TEE KEY OR LOCK SL-17 IF REQUIRED.
- OR APPROVED EQUAL. SUBMIT ALL ITEMS FOR APPROVAL BY TENANT AND ARCHITECT PRIOR TO ORDERING.

GENERAL NOTES – PLUMBING

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE STATE CODE, ALL LOCAL AND OTHER APPLICABLE CODES.
2. ALL WORK SHALL BE PERFORMED BY EXPERIENCED AND SKILLED CRAFTSMEN. THE PLUMBING CONTRACTOR (PC) SHALL COORDINATE ALL OF HIS WORK WITH THE GENERAL CONTRACTOR (GC).
3. THE PLUMBING PLANS AND SPECIFICATIONS SHALL BE THOROUGHLY REVIEWED PRIOR TO PURCHASING MATERIALS AND INSTALLATION AND ALL DISCREPANCIES OR INTERFERENCES BROUGHT TO THE ENGINEERS ATTENTION.
4. THESE PLANS ARE DIAGRAMMATIC AND MAY NOT SHOW MINOR DETAILS AND LOCATIONS. THE PC SHALL PROVIDE ALL MISC. ITEMS NEEDED FOR A COMPLETE SYSTEM REGARDLESS IF NOTED ON THE DRAWINGS OR NOT. FOR DIMENSIONS REFER TO ARCHITECTURAL PLANS.
5. THE GC SHALL PROVIDE ALL WALL, FLOOR AND ROOF OPENINGS OF THE SIZE AND LOCATION REQUIRED BY THE PC AND SHALL BE RESPONSIBLE FOR PAINTING AND FLOOR FINISHES. THE PC SHALL PROPERLY SEAL ALL PENETRATIONS AND PROVIDE ESCUTCHEON PLATES AT ALL FINISHED LOCATIONS.
6. ALL NEW WATER PIPING SHALL BE INSTALLED TIGHT TO STRUCTURE, ADEQUATELY SUPPORTED AND PROTECTED AND PROPERLY PITCHED TO ALLOW TOTAL DRAINAGE.
7. ALL WATER PIPING SHALL BE HYDROSTATICALLY TESTED FOR 2 – HOURS AT 150 PSIG BEFORE COVERING AND ALL LEAKS CORRECTED. THE ENTIRE WATER DISTRIBUTION SYSTEM SHALL BE DISINFECTED PRIOR TO PLACING IN SERVICE.
8. PROVIDE MIN. 18" SHOCK ABSORBERS WITH STOPS ON ALL HOT AND COLD WATER FIXTURE RUNS AS REQUIRED BY CODE.
9. VENT LINES SHALL SLOPE UP TO ALL STACKS AND TERMINATE A MIN. OF 12" ABOVE ROOF LINE.
10. PROVIDE CUT SHEETS ON ALL PLUMBING FIXTURES FOR ARCHITECT AND OWNER APPROVAL PRIOR TO ORDERING ANY FIXTURES.
11. PROVIDE HOT WATER TO FIXTURES AT 110 DEGREES (MAX) F.
12. PROVIDE CLEANOUTS AS REQUIRED BY CODE. NOT MORE THAN 100 FEET FOR 4" DRAIN.



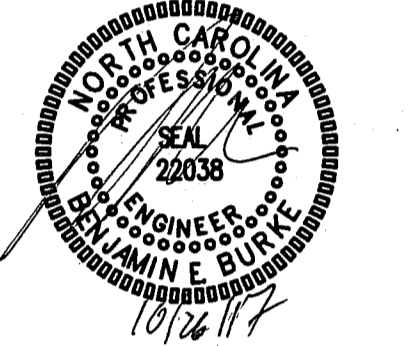
- NOTES:
- 1) INSTALL WATER HEATER BELOW LAV. AND/OR CONCEALED IN CABINETRY.
 - 2) PC TO PROVIDE AND INSTALL WATER HEATER. EC TO WIRE.
 - 3) ALL WORK MUST BE DONE IN NEAT MANNER TO BE APPROVED BY ARCHITECT AND OWNER.

1 PWH DETAIL
SCALE: NOT TO SCALE

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Corp. License # C-2652



PROJECT TITLE
CASINO PARTY ACES

252 JARCO DRIVE
FUQUAY-VARINA, NORTH CAROLINA

PROJECT NO.
1640

DRAWING TITLE
PLUMBING SPECIFICATIONS

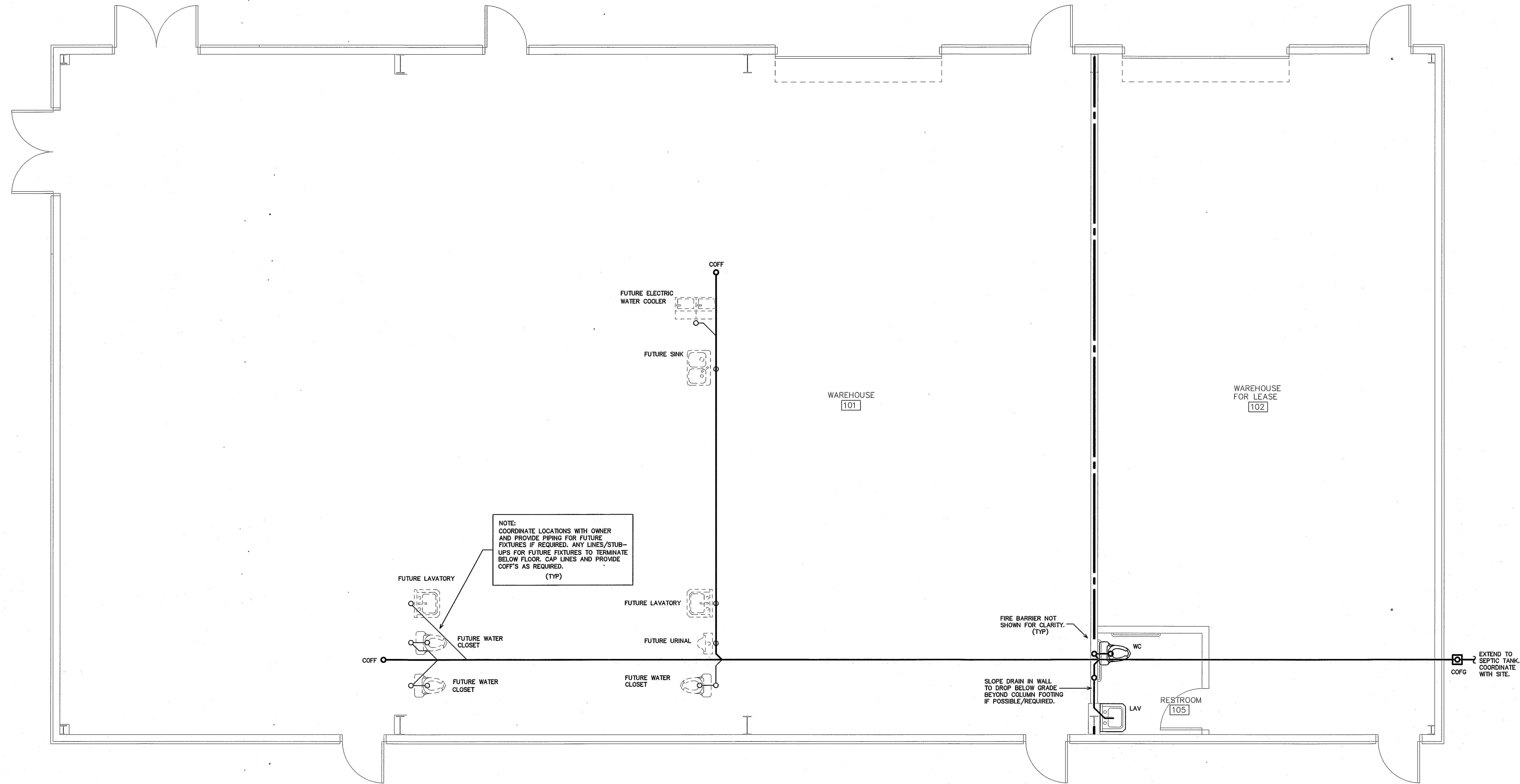
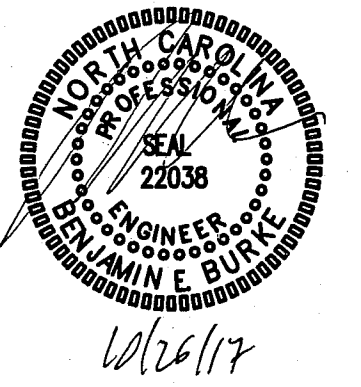
P1

PLQT, DATE 10/24/17

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email: benburke@nc.rr.com
Corp. License # C-2652



1 FIRST FLOOR DWV PLAN
SCALE: 1/4" = 1'-0"

PROJECT TITLE
CASINO PARTY ACES

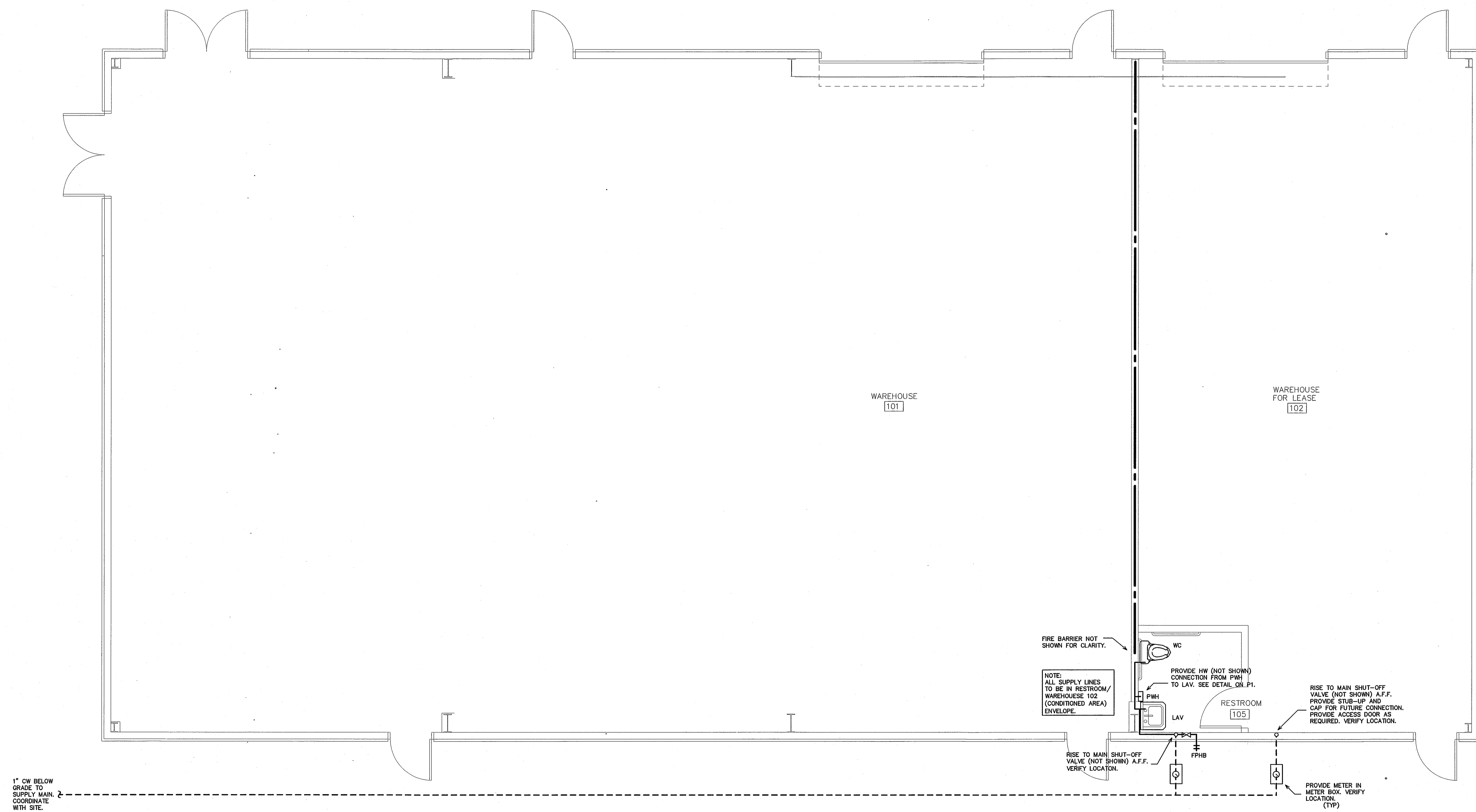
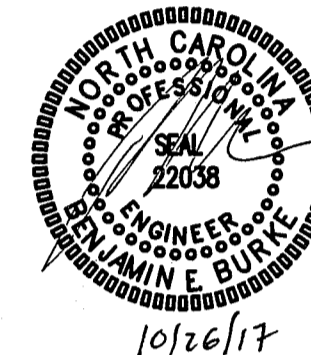
252 JARCO DRIVE
FUQUAY-VARINA, NORTH CAROLINA

PROJECT NO.
1640

DRAWING TITLE
**DWV
PLAN**

P2

PLOT DATE 10/24/17



1 FIRST FLOOR SUPPLY PLAN
SCALE: 1/4" = 1'-0"

PROJECT TITLE
CASINO PARTY ACES

252 JARCO DRIVE
FUQUAY-VARINA, NORTH CAROLINA

PROJECT NO.
1640

DRAWING TITLE
SUPPLY PLAN

P3

PLOT DATE 10/24/17

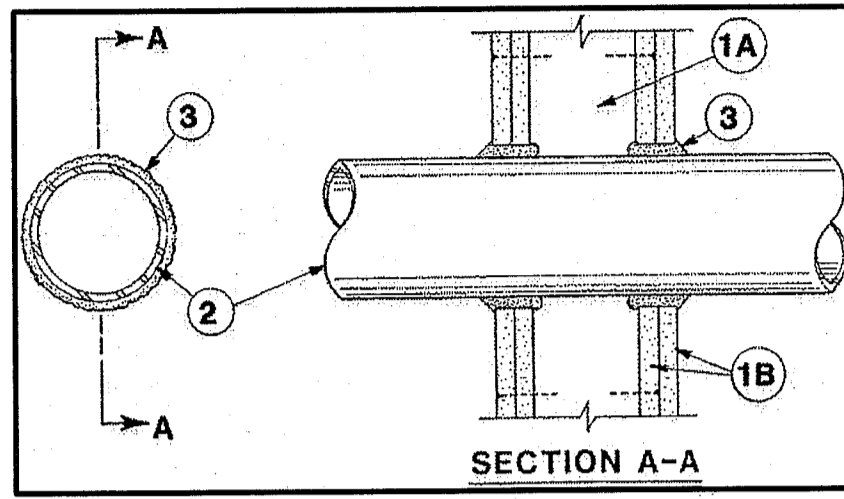
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F Ratings --- 1, 2, 3 and 4 Hr (See Items 2 and 3)

T Ratings --- 0, 1, 2, 3, and 4 Hr (See Item 3)

L Rating At Ambient - less than 1 CFM/sq ft

L Rating At 400 F - less than 1 CFM/sq ft



1. **Wall Assembly** --- The 1,2,3 and 4 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300 or U400 Series Wall or Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. **Studs** --- Wall framing may consist of either wood studs (max 2 h fire rated assemblies) or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC with nom 2 by 4 in. lumber end plates and cross braces. Steel studs to be min 3-5/8 in. wide by 1-3/8 in. deep channels spaced max 24 in. OC.

B. **Gypsum Boards** --- Nom 1/2 or 5/8 in. thick, 4 ft. wide with square or tapered edges. The gypsum wallboard type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 28 in.

2. **Through-Penetrant** --- One metallic pipe, conduit or tubing installed either concentrically or eccentrically with the firestop system. The annular space between pipe, conduit, or tubing and periphery of opening shall be min of 0 in. (point contact) to max 2 in. Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:

A. **Steel Pipe** ---Nom 24 in. diam (or smaller) Schedule 10 (or heavier) steel pipe.

B. **Iron Pipe** ---Nom 24 in. diam (or smaller) service weight (or heavier) cast iron soil pipe, nom 12 in. diam (or smaller) or Class 50 (or heavier) ductile iron pressure pipe.

C. **Conduit** ---Nom 6 in. diam (or smaller) steel conduit or nom 4 in diam (or smaller) steel electrical metallic tubing.

D. **Copper Tubing** ---Nom 6 in. diam (or smaller) Type L (or heavier) copper tubing.

E. **Copper Pipe** ---Nom 6 in. diam (or smaller) Regular (or heavier) copper tubing.

F. **through Penetrating Products** --- Flexible Metal Piping The following types of steel flexible metal gas piping may be used:

1. Nom 2 in diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

OMEGA FLEX INC

2. Nom 1 in diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

TITLEFLEX CORP

A BUNDY CO

3. Nom 1 in diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

WARD MFO INC

3. **Fill, Void or Cavity Materials** --- Caulk --- Min 5/8, 1-1/4, 1-7/8 and 2-1/2 in. thickness for caulk for 1,2,3 and 4 hr rated assemblies, respectively, applied within annulus, flush with both surfaces of wall. Min 1/4 in. dia bead of caulk applied to gypsum board/penetrant interface at point contact location on both sides of wall. The hourly F rating of the firestop system is dependent upon the hourly fire rating of the wall assembly in which it is installed, as shown in the following table. The hourly T rating of the firestop system is dependent upon the type or size of the pipe or conduit and the hourly fire rating of the wall assembly in which it is installed, as tabulated below:

Max Pipe or Conduit Diam in	F RATING Hr	T RATING Hr
1	1 or 2	0+, 1 or 2
1	3 or 4	3 or 4
4	1 or 2	0
8	3 or 4	0
12	1 or 2	0

+When copper pipe is used, T Rating is 0 h.

3M COMPANY --- CP 25WB+.

*Bearing the UL Classification Mark

DIVISION 16 - ELECTRICAL

PART 1 - GENERAL

1.1 DESCRIPTION OF THE WORK

- A. Work under this section includes, but is not necessarily limited to, furnishing and installing the following:
 1. Electrical service and service equipment.
 2. Lighting and power distribution system.
 3. Provide lighting fixtures selected by owner with lamps to match.
 4. Wiring devices, boxes, cover plates, etc.
 5. Source of power for all items of equipment.
 6. Grounding.
 7. Other requirements and/or systems where shown.
- B. All work shall be complete and items, equipment, etc., shall be electrically connected for proper and correct operation.

- C. All work under this contract shall be installed in accordance with the latest edition of the following codes and standards insofar as they apply:
 1. The 2011 National Electrical Code.
 2. The National Electrical Safety Code.
 3. Underwriter's Laboratories, Inc., Standards and approved listings.
 4. Electrical Testing Laboratories standards.
 5. North Carolina Building Code, Latest Edition and Revisions.
 6. All local codes and ordinances.

- D. The Electrical Contractor shall be licensed in the State of North Carolina and have all local licenses required for the work.
- E. Obtain all permits, licenses, inspections, etc., required for the work and pay for the same. Furnish final certificate of inspection and approval from the electrical inspector having jurisdiction prior to acceptance of the work.
- F. All work shall be done by skilled mechanics and shall present a neat, trim, workmanlike condition when complete.

1.2 INTENT

- A. The intent of these specifications and the accompanying drawings is to convey as reasonably as possible the requirements for a complete job ready for the building to operate. The Electrical Contractor shall take this into consideration and include in his bid allowance for contingencies as will allow him to provide minor pieces of equipment and labor not specifically indicated but required for the job to operate properly, at no additional cost to the Owner.

1.3 COORDINATION

- A. Coordinate work with other contractors. Notify Architect of apparent conflicts early to expedite construction. If structural damage appears imminent, stop work and notify Architect for a decision before resuming operations.
- B. Locations shown are approximate. The drawings do not give exact details as to elevations and locations of various pipes, fittings, ducts, conduit, etc., and do not show all offsets and other installation details which may be required. Coordinate all locations with architect before any rough-in.

1.4 SHOP DRAWINGS

- A. Shop drawings shall be submitted for panels and service equipment, lighting, wiring devices, and cover plates. These may consist of the manufacturer's standard catalog or tear sheets and shall have the exact items being offered clearly identified.

PART 2 - PRODUCTS AND MATERIALS

2.1 GENERAL

- A. All material shall be new and shall bear the manufacturer's name, trade name, and UL label where such standard has been established for the particular material. Materials shall be the standard products of manufacturer's regularly engaged in the manufacture of the required type of equipment and the manufacturer's latest approved design.
 1. Boxes installed in concealed locations shall be set flush with the finished surfaces.
 2. Provide rated boxes in all fire barriers & walls installed per code.

2.2 NOT USED

2.3 CONDUCTORS

- A. Conductors shall be color coded, sizes #8 and larger may be color taped on the job. Color coding shall be: Standard Practice.
- B. Conductors shall be manufactured by Dodge, Southwire or approved equal. Conductors shall meet the latest requirements of NEMA and IPCEA and shall be UL approved.
- C. Metallic sheathed "MC" cable may be used where allowed by N.E.C.
- D. Conductors shall be spliced and taped as follows:
 1. Size #10 and #12, use Ideal "Wing Nuts" or T&B "Riggy" connectors. Connectors shall be rated for 150 degrees C for use in recessed lighting fixtures.
 2. Size #8 and larger shall be adless screw and screw-clamping type, smoothly covered and shopped with rubber gum type with final cover vinyl plastic electrical type. In lieu of rubber gum and vinyl plastic type, factory fabricated approved preformed insulating covers may be used. All connectors shall be UL approved.
 3. No split-bolt type connectors may be used.

2.4 NOT USED

2.5 CONDUCTORS

- A. All branch wire and connections shall be copper and sized per National Electric Code.
- F. All conductors shall be continuous without splice between junction, outlet, device boxes, etc. No splicing will be permitted in panelboard cabinets, safety switches, etc.
- G. All wiring in mechanical spaces shall be plenum rated.
- H. Provide GFI protection within 6'-0" of any sink.
- I. All multi-wire branch circuits shall comply with 2008 NEC, 210.4(B).

2.4 PANELBOARDS, SAFETY SWITCHES

- A. Panelboards shall comply with NEMA Standard PB 1 - Latest Edition and as manufactured by Square D or ITE-Siemens.
 - B. Safety switches shall be general duty type, size and rating as required for load service. Safety switches shall be fused or unfused as shown and/or as required. Safety switches serving motor loads shall be horsepower rated for load served.
- 2.5 NOT USED**
- 2.6 WIRING DEVICES**
- A. Wiring devices shall be commercial grade by Bryant, Leviton, or approved equal. With matching cover. Color by Architect.
 - B. Wiring devices installed under a Kitchen Hood shall have stainless steel covers.

2.7 NOT USED

2.8 CONDUIT

- A. PVC conduit will be allowed where N.E.C. approved.
- B. All service conduit shall be rigid where exposed to the elements or hazardous conditions.

PART 3 - EXECUTION

3.1 CIRCUIT GROUNDING

- A. All circuits shall contain an insulated, green, copper grounding conductor, sized in accordance with Table 250-95 of the NEC. Grounding conductors shall be connected to equipment grounding bus in panelboard and securely attached and grounded to the device or enclosure at the other end.

3.2 GROUNDING TYPE CONVENIENCE OUTLETS AND SWITCHES

- A. Outlets and switches shall be solidly grounded to equipment grounding system with a green colored insulated conductor. Electrical connections shall be continuous from equipment ground bus in panelboard to the hex nut on the convenience outlet or switch.

3.3 MOTORS

- A. All motors shall be connected to conduit system with short length (minimum length 24" and maximum length 36") of flexible liquidtight conduit.

3.4 NOT USED

3.5 EQUIPMENT LABELING

- A. Provide permanent name plates for all panelboards, safety switches, wiring troughs, etc. for identification of equipment controlled, services, etc. Nameplates shall be securely and permanently attached to equipment with stainless steel screws. Nameplates shall include the name of the equipment and where it is fed from.
- B. All switch plates, receptacle plates and outlet covers shall be labeled with machine printed vinyl labels identifying the circuit(s) within.
- C. All empty conduit runs shall be identified and identified where they terminate.
- D. Provide typewritten directory in each panelboard to clearly identify each circuit, service, etc.

3.6 NOT USED

3.7 NOT USED

3.8 JUNCTION AND/OR PULL BOXES

- A. Boxes shall be installed where necessary to avoid excessive runs and/or too many bends between outlets.

3.9 PULL WIRE

- A. Leave pull wire in each empty conduit run.

3.10 NOT USED

3.11 GROUNDING

- A. All grounding shall be in accordance with Article 250 of the NEC. In addition, the following requirements shall be met:

1. Grounding conductors shall be installed as to permit the shortest and most direct path from equipment to ground. All connections to grounding conductors shall be accessible.
2. Equipment ground continuity shall be maintained through flexible metal conduit.
3. All wiring devices equipped with grounding conductors shall be solidly grounded to ground system with grounding conductors.
4. The frame of all lighting fixtures shall be securely grounded to the equipment ground system with grounding conductors.
5. All equipment enclosures, and non-current-carrying metallic parts of electrical equipment, raceway systems, etc., shall be effectively and adequately bonded to ground.
6. All equipment enclosures, and non-current-carrying metallic parts of electrical equipment, raceway systems, etc., shall be effectively and adequately bonded to ground.

3.12 ELECTRICAL WORK IN CONNECTION WITH OTHER WORK

- A. **PLUMBING WORK:** The Electrical Contractor shall furnish and install switches and devices as shown and electrically connect electric water heaters, etc. All other electrical work required will be performed by the PLUMBING CONTRACTOR.
- B. **HEATING AND AIR CONDITIONING WORK:** The Electrical Contractor shall provide all disconnect switches, starters, and associated hardware for the equipment furnished including all line and load side wiring and conduit. Final connections to the equipment will be by the HVAC contractor. All control wiring will be accomplished by the HVAC contractor. Coordinate all work associated with the HVAC contractor.

3.13 CLEAN UP

- A. During construction, keep the site clean of debris. Upon completion, and before final inspection, clean up the premises to remove all evidence of work. In addition upon completion of construction leave equipment clean.

3.14 GUARANTEE

- A. Guarantee all materials and labor included in the electrical work for a period of one year from date of final acceptance by the Owner. Any part or parts of the work or equipment which prove to be defective during the guarantee period shall be replaced at no additional cost to the Owner.

GENERAL NOTES

1. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ALL LOCAL CODES HAVING JURISDICTION.
2. ALL BRANCH CIRCUIT CONDUCTORS TO BE COPPER (SERVICE CONDUCTORS MAY BE ALUMINUM WITH SAME AMPACITY AS COPPER CONDUCTORS. RE-SIZE CONDUCTORS AND CONDUIT PER NEC.)
3. ALL CIRCUITS TO BE 2 #12, 1 #12 GND IN 1/2" EMT CONDUIT AS A MINIMUM. PROVIDE WIRING FOR LARGER CIRCUITS AS REQUIRED BY NEC. RIGID CONDUIT IS REQUIRED WHERE EXPOSED BELOW 6'-0" A.F.F.
4. ALL EMPTY CONDUIT RUNS IN EXCESS OF 10 FEET SHALL BE PROVIDED WITH A PULL WIRE OR FISH TAPE/CORD.
5. CONTRACTOR SHALL VERIFY THAT ALL DOOR SWINGS ARE CORRECT BEFORE INSTALLING LIGHT SWITCH OUTLETS.
6. ALL BRANCH CIRCUIT CONDUCTORS FROM THE PANEL TO THE FIRST OUTLET SHALL BE INCREASED TO THE NEXT LARGER SIZE WHERE THE LENGTH OF THE HOME RUN EXCEEDS 120 FEET ON 120V AND 208V CIRCUITS.
7. THE CORRECT NUMBER OF WIRES MAY NOT BE INDICATED FOR ALL CIRCUITS, ONLY THOSE WHERE CLARIFICATION IS NECESSARY. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL WIRES NECESSARY FOR THE PROPER FUNCTION OF THE SYSTEM WHETHER INDICATED ON DRAWINGS OR NOT.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTLY PHASING THE CIRCUITS IN THE PANELBOARDS.
9. THE ELECTRICAL CONTRACTOR SHALL VERIFY THE TYPE OF CEILING SYSTEM WITH THE GENERAL CONTRACTOR TO INSURE THAT ALL LIGHTING FIXTURES ARE COMPATIBLE WITH THE CEILING SYSTEM BEING INSTALLED. LIGHTING FIXTURES SHOULD NOT BE ORDERED UNTIL TYPE OF CEILING HAS BEEN VERIFIED.
10. ELECTRICAL REQUIREMENTS INDICATED ON DRAWINGS MAY DIFFER FROM ACTUAL EQUIPMENT FURNISHED. IF FURNISHED EQUIPMENT DIFFERS FROM RATINGS ON DRAWINGS CONTRACTOR SHALL NOTIFY ARCHITECT/ENGINEER FOR APPROPRIATE ACTION TO BE TAKEN.
11. IT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO COORDINATE EXACT BREAKER REQUIREMENTS FOR ALL EQUIPMENT PRIOR TO ORDERING PANEL. ADJUST BREAKER AND WIRE SIZES AS REQUIRED.
12. PROVIDE BOXES, JACKS, WIRING AND CONDUIT FROM LOCATIONS SHOWN TO MTP LOCATION. VERIFY EXACT REQUIREMENTS WITH OWNER.
13. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL DISCONNECTS FOR MECHANICAL & PLUMBING EQUIPMENT. DISCONNECTS SHALL BE PER MANUFACTURERS RECOMMENDATIONS AND FUSED PER NAME PLATE. PROVIDE NEMA 3R ENCLOSURES ON EXTERIOR. COORDINATE FUSE SIZES.
14. THE EC SHALL MEET WITH THE ARCHITECT AND TENANT PRIOR TO INSTALLING OUTLET BOXES TO VERIFY LOCATIONS AND MOUNTING HEIGHTS OF RECEPTACLES AND TELEPHONE OUTLETS.

GENERAL LEGEND

- FLUORESCENT LAY-IN FIXTURE: LETTER DENOTES TYPE OF LIGHT FIXTURE (NL) DENOTES NIGHT LIGHT
- DUPLEX RECEPTACLE - 120V, MOUNT 18" TO CENTER AFF UNLESS NOTED OTHERWISE; WP INDICATES WEATHER PROOF, GFI INDICATES GROUND FAULT CURRENT INTERRUPT PROTECTED.
- QUADRUPLEX RECEPTACLE - 120V
- POWER/DATA FLOOR BOX WITH HINGED DOOR EQUAL TO WREMOLD SERIES RFB9
- LIGHT SWITCH - 120V
- NUMBER DENOTES THREE-WAY, FOUR-WAY, ETC. SWITCHING
- SWITCH WITH INTEGRAL INFRARED MOTION SENSOR FOR AUTOMATIC SHUT-OFF WITH UP TO 2 HOUR ADJUSTABLE DELAY.
- TIME CLOCK - MULTI-CIRCUIT PROGRAMMABLE, ELECTRONIC TIME CLOCK. EQUAL TO INTERMATIC T2005/6 (120/277V) OR EQUIVALENT
- MOTOR RATED SWITCH - 120V
- TELE/DATA OUTLET - PROVIDE J-BOX AND CONDUIT ABOVE THE LAY-IN CEILING. PROVIDE WIRING BACK TO MTP
- SINGLE-POLE HOMERUN TO PANELBOARD
- TWO-POLE OR 3-POLE HOMERUN TO PANELBOARD
- COMBINATION EXIT SIGN & EMERGENCY LIGHT
- EMERGENCY LIGHT
- BRANCH CIRCUIT WIRING
- SWITCH LEG
- GROUND CONNECTION
- DISTRIBUTION PANELBOARD
- MAIN TELEPHONE PANEL - PROVIDE FIRE RESISTANT 2'X2'X1/2" PLYWOOD BACKBOARD, MOUNTED AT LOWEST POINT AT 48" AFF, ONE 2" CONDUITS BACK TO TELEPHONE SERVICE ENTRY POINT. FIELD VERIFY EXACT LOCATIONS.
- DISCONNECTING MEANS AS REQUIRED BY CODE; 208V, CLASS 310
- 1 HOUR FIRE BARRIER

ELECTRICAL SYSTEMS AND EQUIPMENT

METHOD OF COMPLIANCE _____ PERFORMANCE _____ ENERGY COST BUDGET _____

PRESCRIPTIVE _____ X _____

Provide a standard riser diagram which indicates designated points for check metering. Provide a standard panel schedule description which identifies different enduse loads.

Lighting schedule:

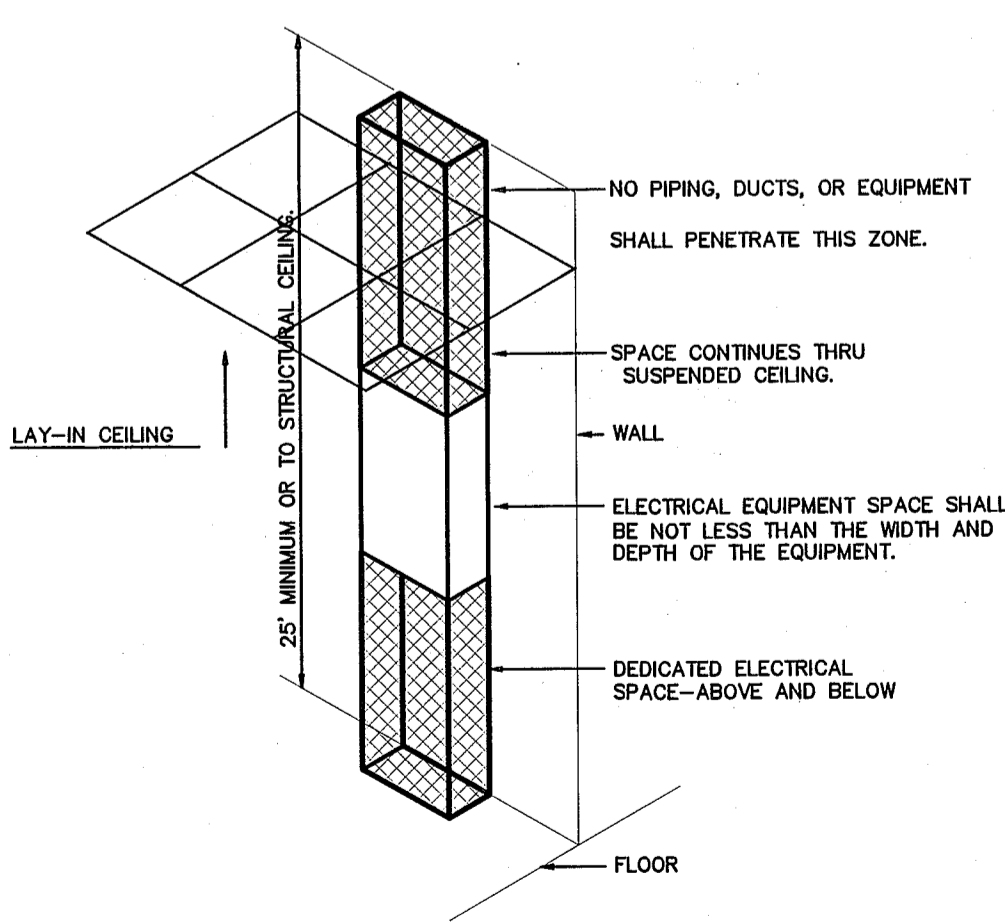
lamp type required in fixture	See Light Fixture Schedule
number of lamps in fixture	
ballast type used in fixture	
number of ballasts in fixture	
total wattage in fixture	
total interior wattage specified vs. allowed	6594va / 6715va

Equipment schedules with motors (not used for mechanical systems) NA

motor horsepower	NA
number of phases	NA
minimum efficiency	NA
motor type	NA
# of poles	NA

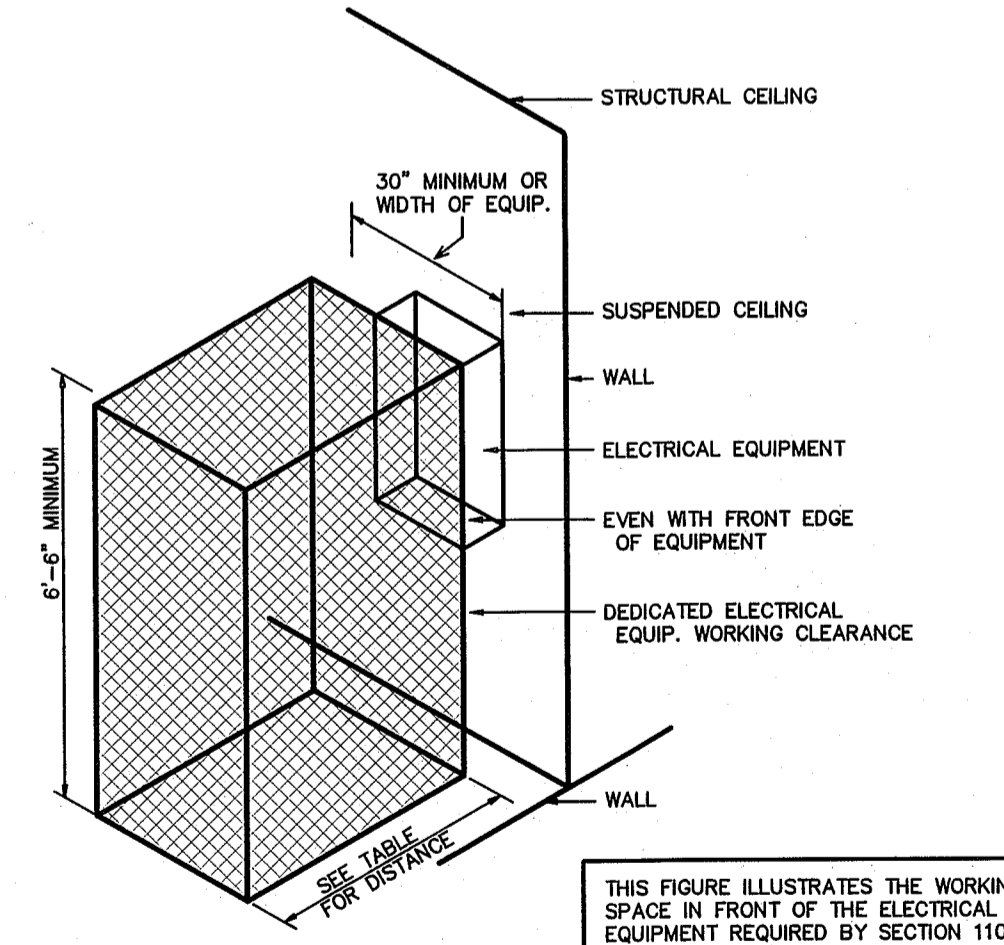
DESIGNER STATEMENT

I hereby certify that the design of this building complies with the electrical systems, services systems, and equipment requirements of the 2012 North Carolina State Building Code, Energy Edition.



ELECTRICAL EQUIPMENT DEDICATED SPACE PER ARTICLE 110.26.F.1 OF N.E.C.

2 DEDICATED SPACE
SCALE: NOT TO SCALE



THIS FIGURE ILLUSTRATES THE WORKING SPACE IN FRONT OF THE ELECTRICAL EQUIPMENT REQUIRED BY SECTION 110.26 OF THE N.E.C.

ELECTRICAL EQUIPMENT WORKING CLEARANCE PER ARTICLE 110.26 OF N.E.C.

VOLTAGE TO GROUND NOMINAL	WORKING CLEARANCES			
	MIN. CLEAR DISTANCE IN FEET	CONDITION 1	CONDITION 2	CONDITION 3
0-150	3	3	3	3
151-600	3	3-1/2	4	4

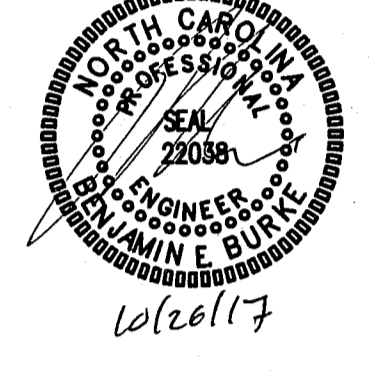
- WHERE THE CONDITIONS ARE AS FOLLOWS:**
1. EXPOSED LIVE PARTS ON ONE SIDE OF THE WORKING SPACE AND NO LIVE OR GROUNDED PARTS ON THE OTHER SIDE OF THE WORKING SPACE, OR EXPOSED LIVE PARTS ON BOTH SIDES OF THE WORKING SPACE THAT ARE EFFECTIVELY GUARDED BY INSULATING MATERIALS.
 2. EXPOSED LIVE PARTS ON ONE SIDE OF THE WORKING SPACE AND GROUNDED PARTS ON THE OTHER SIDE OF THE WORKING SPACE. CONCRETE, BRICK OR TILE WALLS SHALL BE CONSIDERED AS GROUNDED.
 3. EXPOSED LIVE PARTS ON BOTH SIDES OF THE WORK SPACE.

1 ELECTRICAL CLEARANCES
SCALE: NOT TO SCALE

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Corp. License # C-2652



PROJECT TITLE
CASINO PARTY ACES

252 JARCO DRIVE
FUQUAY-VARINA, NORTH CAROLINA

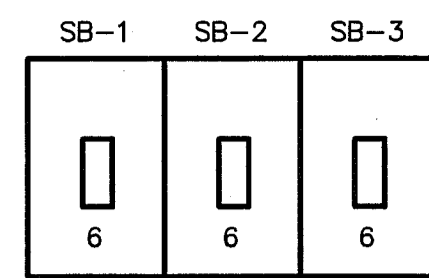
PROJECT NO.
1640

DRAWING TITLE
SPECIFICATIONS/DETAILS SCHEDULES



PLOT DATE **10/24/17**

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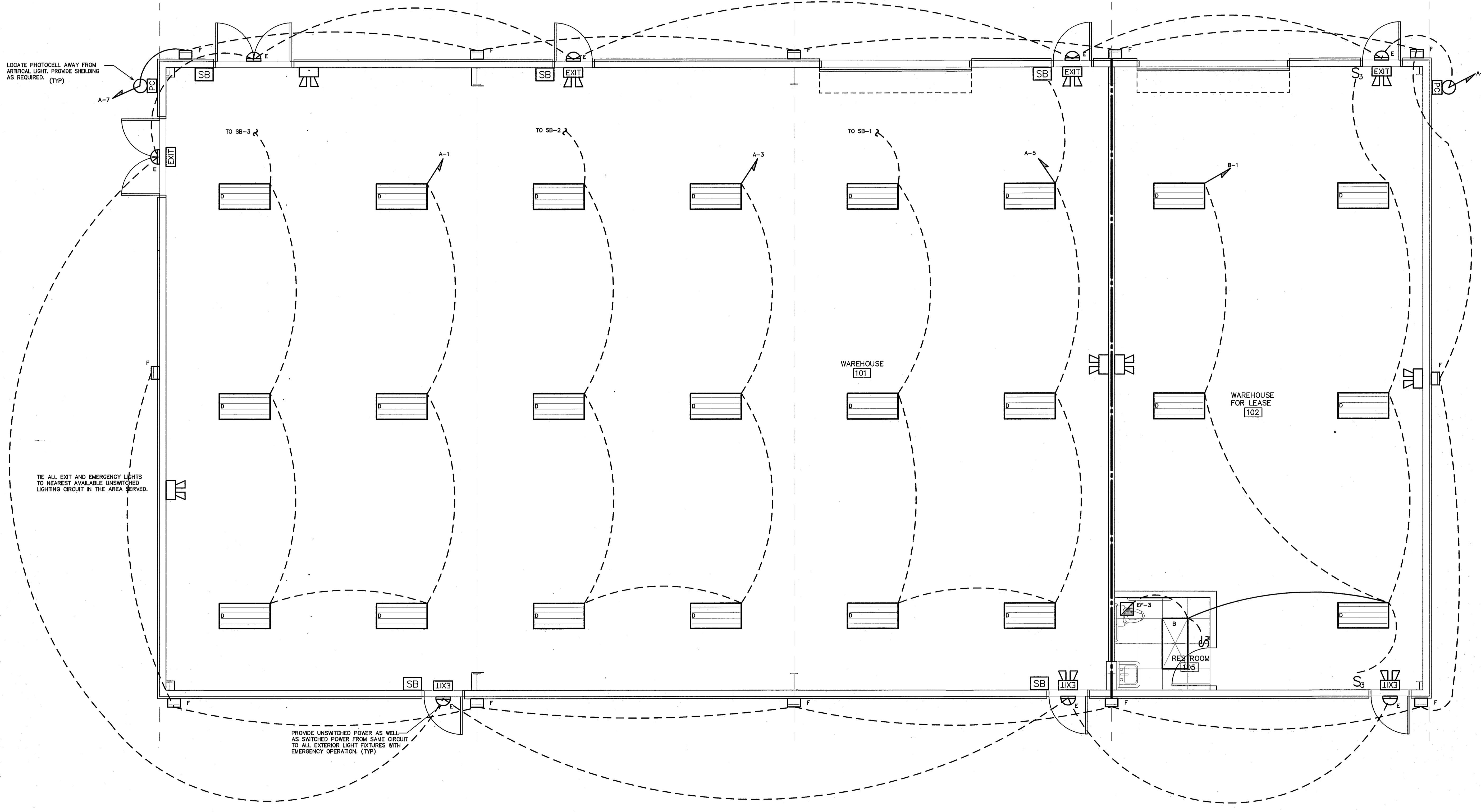


SB-1 BAY 1, 2 X 4 WAREHOUSE LED
 SB-2 BAY 2, 2 X 4 WAREHOUSE LED
 SB-3 BAY 3, 2 X 4 WAREHOUSE LED

CASINO PARTY ACES E2		FIXTURE / DEVICE SCHEDULE *					
MARK	MANUFACTURER	CATALOG NO.	VOLT.	LAMPS NO.	BALLAST TYPE	VA/FIXTURE	REMARKS
A	COLUMBIA	JTB24-332G-FSA12-3EU	120	3	TB 32	EB	96 2X4 LAY-IN, PRISMATIC ACRYLIC LENS **
B	COLUMBIA	JTB24-232G-FSA12-EU	120	2	TB 32	EB	64 2X4 LAY-IN, PRISMATIC ACRYLIC LENS **
C	CHOSEN BY OWNER, SUPPLIED BY EC						
			120	-	30	-	180 TRACK LIGHT, 6' OF TRACK, (PROVIDE ALLOWANCE- \$50 PER FOOT)
D	COLUMBIA	LLH4V-30L-NST-EDU	120	-	LED 144	-	144 HIGH BAY LED WAREHOUSE FIXTURE
E	MCPHILBEN	PDNB	120	2	HAL 6	-	12 EXTERIOR NORMAL/EMERGENCY OPERATION, BLACK HOUSING
F	DECO	D444-242-C-EB-BZ-EMB	120	2	CF 42	EB	84 EXTERIOR WALLPACK, EMERGENCY BATTERY
G	COLUMBIA	UC48-132-EU-WSW	120	1	TB 32	EB	32 48" UNDERCOUNTER STRIP, ROCKER SWITCH **
H	CHOSEN BY OWNER, SUPPLIED BY EC						
			120	-	LED 25	-	25 SCONCE LIGHT, 12" FROM FLOOR, (\$175 ALLOWANCE)
J	COLUMBIA	CS4-232E-U-CSWG4	120	2	TB 32	EB	64 4' STRIP FIXTURE WITH WIRE GUARD **
EXIT	MULE	PVT-1-B-R-U-BA-SD	120	-	LED	-	2 EXIT LIGHT WITH BATTERY, CLEAR GLASS, UNIVERSAL SURFACE, SELF DIAGNOSTICS
EXIT	MULE	AL-1-R-WW-SD	120	-	LED	-	4 COMBINATION EMERGENCY (TUNGSTEN)/ EXIT (LED) LIGHT
EXIT	MULE	ELW-BB-10L3-DG	120	-	LED	-	10 EMERGENCY LIGHT, BATTERY BACKUP, BATTERY DIAGNOSTICS, COLOR BY ARCH

* OR APPROVED EQUAL. PROVIDE CUT SHEETS FOR OWNER APPROVAL PRIOR TO ORDERING FIXTURES. FOR FLUORESCENT FIXTURES CONTROLLED BY MOTION SENSOR, PROVIDE "PROGRAMMED RAPID START" BALLASTS. CATALOG NUMBERS ARE FOR REFERENCE ONLY, ACTUAL NUMBERS MAY VARY. "EB" DENOTES ELECTRONIC BALLAST.
 ** VERIFY FIXTURE HAS INTEGRAL LOCAL DISCONNECTING MEANS PER NEC 410.130 (G) (2008).
 THE EMERGENCY LIGHTS AND EXIT SIGNS MUST HAVE INTEGRAL BATTERIES, CHARGERS AND TEST SWITCHES.

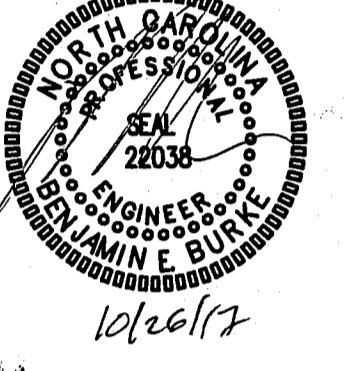
AUTOMATIC LIGHTING SHUTOFF IS NOT SHOWN IN THE EGRESS PATH LIGHTING AS ALLOWED PER 505.2.2.2.1 EXCEPTION #5, WHERE AUTOMATIC SHUTOFF WOULD ENDANGER OCCUPANT SAFETY.



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PROJECT TITLE
CASINO PARTY ACES

252 JARCO DRIVE
 FUQUAY-VARINA, NORTH CAROLINA

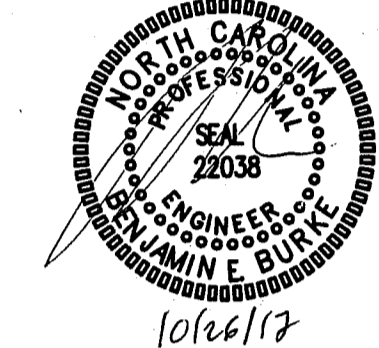
PROJECT NO.
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DRAWING TITLE
1ST FLOOR LIGHTING PLAN



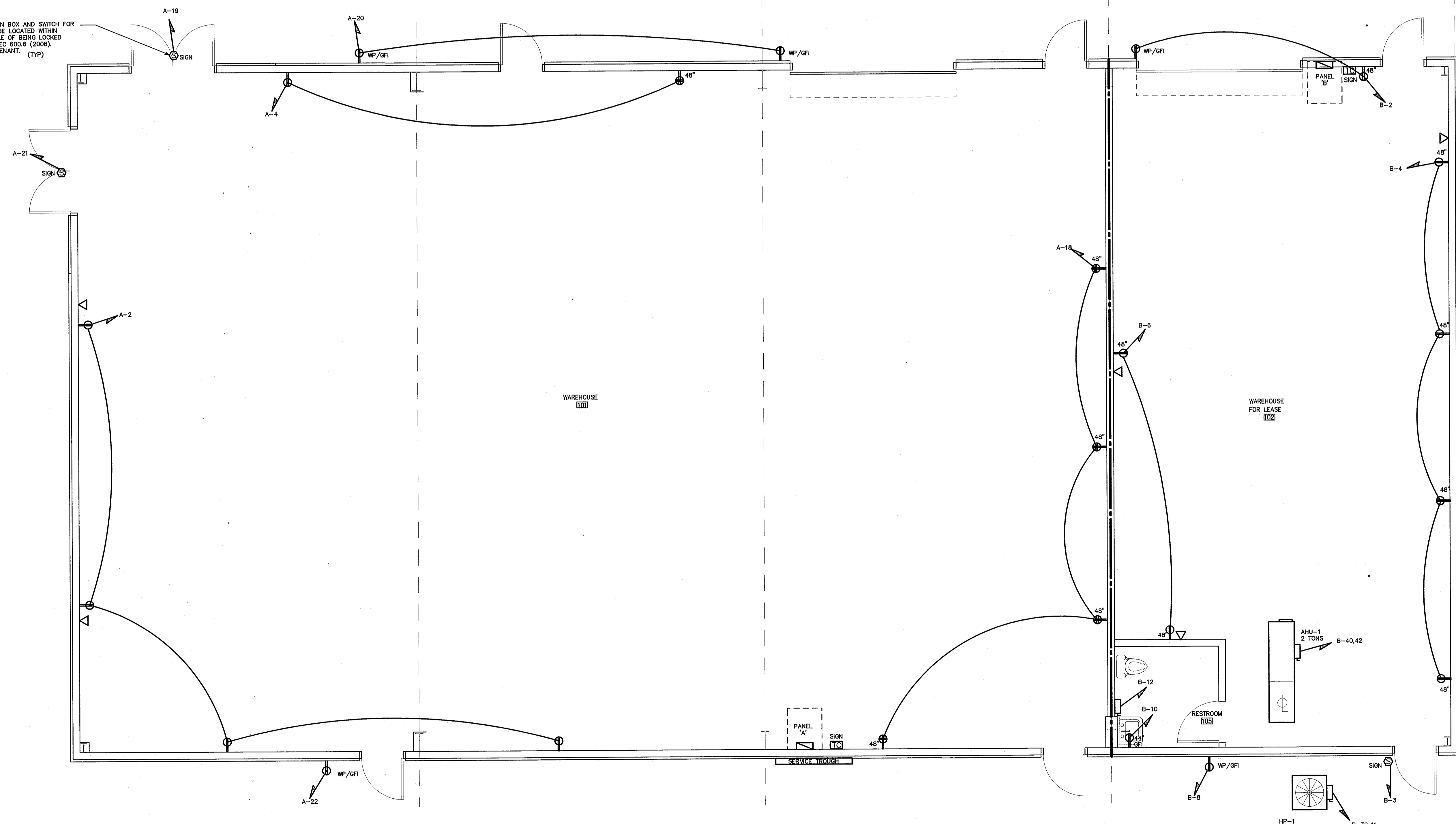
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NOTE:
PROVIDE A MINIMUM OF 24" HORIZONTAL SEPARATION
BETWEEN DEVICES IN RATED PARTITIONS. FIELD VERIFY
ADJACENT SPACES PRIOR TO ROUGH-IN.

PROVIDE TIME CLOCK, JUNCTION BOX AND SWITCH FOR
SIGN CIRCUIT. SWITCH SHALL BE LOCATED WITHIN
SIGHT OF SIGN OR BE CAPABLE OF BEING LOCKED
IN THE OPEN POSITION PER NEC 600.6 (2008).
COORDINATE LOCATION WITH TENANT. (TYP)



COORDINATE LOCATION AND MOUNTING OF
ALL DISCONNECTS WITH EQUIPMENT SERVED.
DO NOT BLOCK ANY ACCESS PANELS OR
NAMEPLATE DATA. PROVIDE SEPARATE
SUPPORTS IF REQUIRED.

1 FIRST FLOOR POWER PLAN
SCALE: 1/4" = 1'-0"

PROJECT TITLE
CASINO PARTY ACES

252 JARCO DRIVE
FUQUAY-VARINA, NORTH CAROLINA

PROJECT NO.
1640

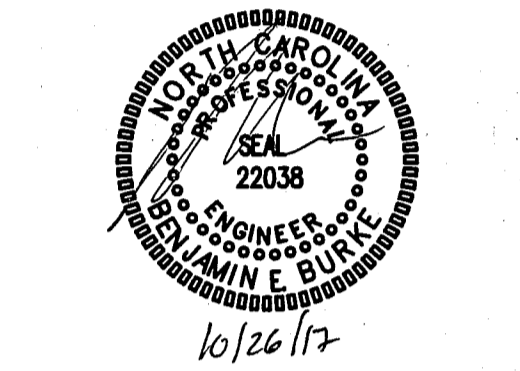
DRAWING TITLE
**ELECTRICAL POWER
PLAN**



PLOT DATE 10/24/17

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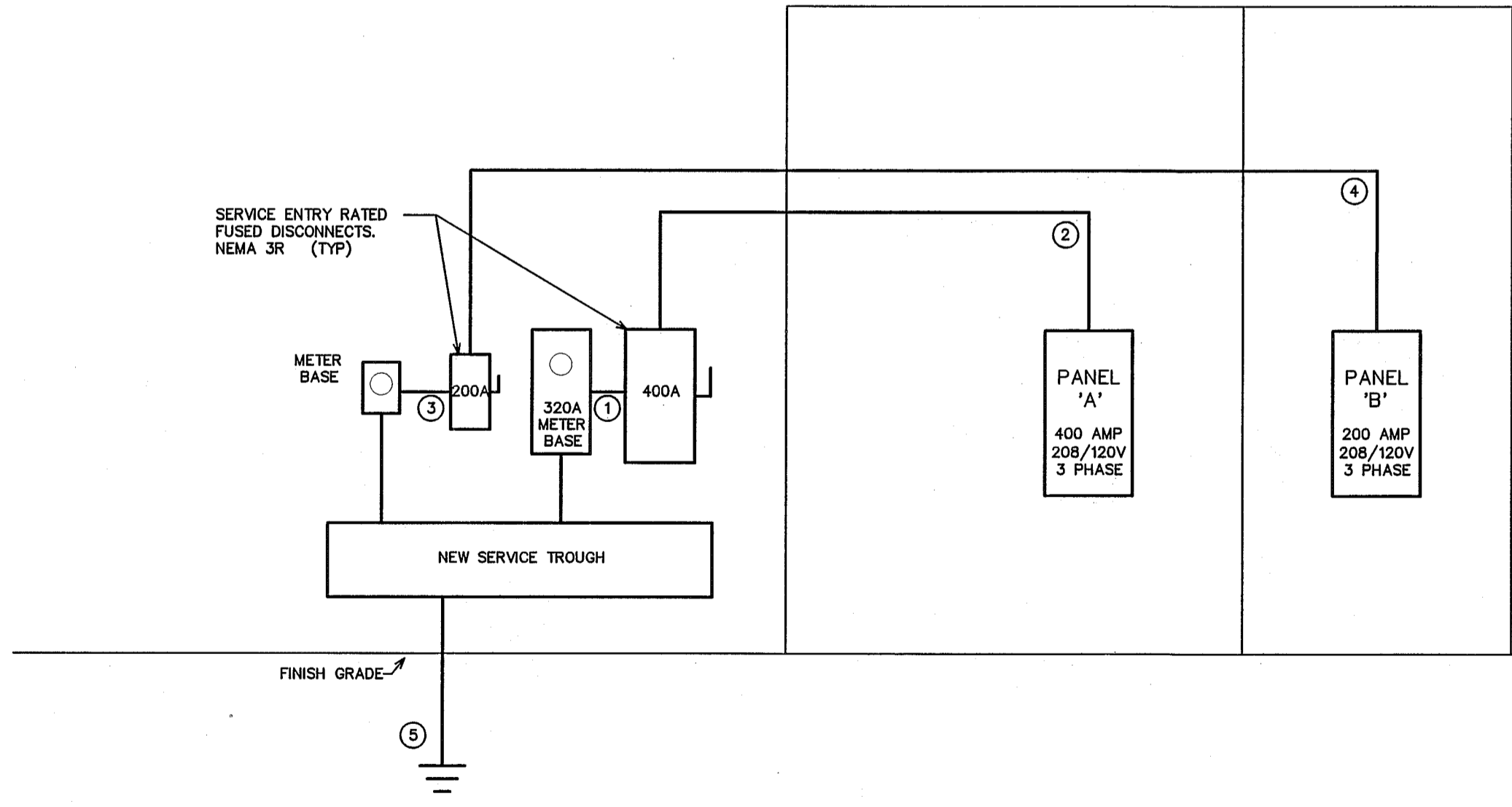
Casino Party Aces E4 NEW PANEL - 'A'		MAKE: CUTLER HAMMER TYPE: PRL1g OR APPROVED EQUAL			RATING: 208/120V 3 PHASE 4 WIRE MOUNTING: FLUSH MINIMUM AIC: 22,000A			400A MAIN CIRCUIT BREAKER EQUIPMENT GROUND BUS <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO SERVICE ENTRY RATED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO							
LOAD SERVICE	CKT BRKR	WATTS PER PHASE			CKT NO	NEUTRAL A B C			CKT BRKR	WATTS PER PHASE			CKT BRKR	LOAD SERVICE	
LTS: WAREHOUSE (101) BAY 1	20A	864			1				2	720			20A	REC: SHOWROOM #1	
LTS: WAREHOUSE (101) BAY 2	20A		864		3				4	540			20A	REC: SHOWROOM #2	
LTS: WAREHOUSE (101) BAY 3	20A			864	5				6				20A	SPARE	
SPARE	20A				7				8				20A	SPARE	
SPARE	20A				9				10				20A	SPARE	
LTS: EXTERIOR - WALL PACKS	20A			1008	11				12				20A	SPARE	
LTS: EXTERIOR - PGNS	20A	96			13				14				20A	SPARE	
SPARE	20A				15				16				20A	SPARE	
SPARE	20A				17				18	1440			20A	REC: WAREHOUSE #2	
SIGN #1	20A	1200			19				20	360			20A	REC: EXTERIOR GFI #1	
SIGN #2	20A		1200		21				22	180			20A	REC: EXTERIOR GFI #2	
SPARE	20A				23				24				20A	SPARE	
SPARE	20A				25				26				20A	SPARE	
SPARE	20A				27				28				20A	SPARE	
SPARE	20A				29				30				20A	SPARE	
SPARE	20A				31				32				20A	SPARE	
SPARE	20A				33				34				20A	SPARE	
SPARE	35A				35				36				45A	SPARE	
SPARE	40A				37				38				60A	SPARE	
SPARE	40A				39				40				60A	SPARE	
SPARE	40A				41				42				60A	SPARE	
NOTES		SUB-TOTALS 'B'			2160	2064	1872		400A BUS	1080	720	1440	SUB-TOTALS 'A'		
									400A LUGS	2340	2064	1872	SUB-TOTALS 'B'		
									400A FEED	3240	2784	3312	GRAND TOTAL		
									VERIFY SIZE	27A	24A	28A	AMPS/PHASE		
NEC ALLOWABLE DEMAND FACTORS		DIVERSIFIED LOAD SUMMARY													
① DEMAND FACTORS PER NEC 220		LOAD TYPE													
② LARGEST OF: NEC TABLE 220.12 OR CONNECTED LOAD		DEMAND FACTOR													
③ NEC TABLE 220.56		GENERAL LIGHTING													
④ NEC 220.51		TRACK LIGHTING													
⑤ NEC 220.43A, 200 VA/LINEAR FT		GENERAL USE													
⑥ NON-COINCIDENT LOADS, LARGEST OF THE TWO LOADS IS COUNTED		RECEPTACLES													
		MOTORS AND EQUIPMENT													
		WATER HEATERS													
		KITCHEN EQUIPMENT													
		FIX. ELEC. SPACE HEAT													
		SHOW WINDOW LIGHTS													
		SIGN													
		MISC													
		PHASE (TOTAL VA)													
		TOTAL AMPS													
		VOLT AMPS													
		VOLTS X 1.732													
		TOTAL AMPS													

Casino Party Aces E4 NEW PANEL - 'B'		MAKE: CUTLER HAMMER TYPE: PRL1g OR APPROVED EQUAL			RATING: 208/120V 3 PHASE 4 WIRE MOUNTING: FLUSH MINIMUM AIC: 22,000A			200A MAIN CIRCUIT BREAKER EQUIPMENT GROUND BUS <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO SERVICE ENTRY RATED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO							
LOAD SERVICE	CKT BRKR	WATTS PER PHASE			CKT NO	NEUTRAL A B C			CKT BRKR	WATTS PER PHASE			CKT BRKR	LOAD SERVICE	
LTS: WAREHOUSE (104) & BATHROOM	20A	768			1				2	360			20A	REC: EXTERIOR & WAREHOUSE (104)	
SIGN	20A		1200		3				4	720			20A	REC: WAREHOUSE (104) #2	
SPARE	20A				5				6				20A	REC: WAREHOUSE (104) #3	
SPARE	20A				7				8	180			20A	REC: EXTERIOR GFI	
SPARE	20A				9				10				20A	REC: BATHROOM GFI	
SPARE	20A				11				12				3500 30A	PIWH	
SPARE	20A				13				14				20A	SPARE	
SPARE	20A				15				16				20A	SPARE	
SPARE	20A				17				18				20A	SPARE	
SPARE	20A				19				20				20A	SPARE	
SPACE					21				22				20A	SPARE	
SPACE					23				24				20A	SPARE	
SPACE					25				26				20A	SPARE	
SPACE					27				28				20A	SPARE	
SPACE					29				30				20A	SPARE	
SPACE					31				32				20A	SPARE	
SPACE					33				34				20A	SPARE	
SPACE					35				36				20A	SPARE	
SPACE					37				38				20A	SPARE	
HP-3: 2-TON UNIT	25A				39				40				3245 35A	AHU-3: 2-TON UNIT	
12.8 FLA COMP, 0.5 FLA FAN					41				42				3245 35A	2.8 FLA MOTOR, 18.1 FLA HEAT	
NOTES		SUB-TOTALS 'B'			768	2916	1716		200A BUS	2040	4145	7105	SUB-TOTALS 'A'		
									200A LUGS	768	2916	1716	SUB-TOTALS 'B'		
									200A FEED	2808	5991	5576	GRAND TOTAL		
									VERIFY SIZE	24A	50A	47A	AMPS/PHASE		
NEC ALLOWABLE DEMAND FACTORS		DIVERSIFIED LOAD SUMMARY													
① DEMAND FACTORS PER NEC 220		LOAD TYPE													
② LARGEST OF: NEC TABLE 220.12 OR CONNECTED LOAD		DEMAND FACTOR													
③ NEC TABLE 220.56		GENERAL LIGHTING													
④ NEC 220.51		TRACK LIGHTING													
⑤ NEC 220.43A, 200 VA/LINEAR FT		GENERAL USE													
⑥ NON-COINCIDENT LOADS, LARGEST OF THE TWO LOADS IS COUNTED		RECEPTACLES													
		MOTORS AND EQUIPMENT													
		WATER HEATERS													
		KITCHEN EQUIPMENT													
		FIX. ELEC. SPACE HEAT													
		SHOW WINDOW LIGHTS													
		SIGN													
		MISC													
		PHASE (TOTAL VA)													
		TOTAL AMPS													
		VOLT AMPS													
		VOLTS X 1.732													
		TOTAL AMPS													

Casino Party Aces E4 EQUIPMENT WIRING SCHEDULE					
EQUIPMENT	MCA	MOCP	VOLTS	PH	WIRE SIZE
AHU-1	53.8A	60A	208V	1	2-#6, 1-#10 GND IN 3/4" CONDUIT
HP-1	28.5A	40A	208V	1	2-#6, 1-#10 GND IN 3/4" CONDUIT

NOTE:
THE ELECTRICAL CONTRACTOR SHALL VERIFY ALL EQUIPMENT ELECTRICAL REQUIREMENTS PRIOR TO ROUGH-IN AND RELEASING GEAR. ADJUST BREAKER, WIRE SIZES, ETC. AS REQUIRED.

NOTE:
TIE ALL SERVICE GROUNDS AND TROUGH CASE GROUND TOGETHER (PER NEC 250-58)
THE TROUGH GROUND SHALL BE BONDED TO THE SERVICE NEUTRAL IN THE TROUGH. THREE SERVICE CONDUCTORS WITH ONE NEUTRAL SHALL BE RUN TO EACH SERVICE DISCONNECT. A BONDING STRIP SHALL BE PROVIDED IN EACH DISCONNECT TO BOND THE GROUND AND NEUTRAL BUSES. A GROUND WIRE WILL BE RUN WITH THE BRANCH CONDUCTORS FROM THE SERVICE DISCONNECT TO THE INDIVIDUAL LOADS SERVED.



1 ELECTRICAL SERVICE RISER
SCALE: NOT TO SCALE

VERIFY AVAILABLE FAULT CURRENT AT SERVICE LOCATION WITH LOCAL POWER COMPANY. PROVIDE INFORMATION TO ENGINEER TO CALCULATE MINIMUM PANEL AIC RATING PRIOR TO RELEASING GEAR. AIC RATING ON PANELS ARE FOR PERMIT REVIEW AND PRICING ONLY. EC SHALL PROVIDE LABELING INDICATING FAULT CURRENT AT SERVICE ENTRY AND ON ALL PANELS PRIOR TO ENERGIZING.

RISER WIRING SCHEDULE

- ① 400A: 4-#500MCM IN 3" CONDUIT
 - ② 400A: 4-#500MCM, 1-#5/0 CU GND, IN 3 1/2" CONDUIT
 - ③ 200A: 4-#3/0, IN 2" CONDUIT
 - ④ 200A: 4-#3/0, 1-#6 CU GND, IN 2 1/2" CONDUIT
 - ⑤ #3/0 CU GND TO BUILDING STEEL, FOUNDATION STEEL AND METALLIC WATER MAIN AND #6 CU GND TO 10' X 5/8" DRIVEN GROUND ROD
- NOTE:
UNLESS OTHERWISE NOTED ALL OTHER CIRCUITS ARE 20A, 120VOLT. PROVIDE 2-#12, 1-#12 CU GND IN 1/2" CONDUIT.
SEE EQUIPMENT SCHEDULES FOR ADDITIONAL WIRE SIZES.

PROJECT TITLE
CASINO PARTY ACES

252 JARCO DRIVE
FUQUAY-VARINA, NORTH CAROLINA

PROJECT NO.
1640

DRAWING TITLE
PANEL & RISER



PLOT DATE
10/24/17

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HVAC EQUIPMENT SCHEDULE	
HVAC SYSTEM #1	
AHU #1 DIRECT EXPANSION FAN COIL UNIT	* CARRIER MODEL #FX4DNB025, 4 WAY, MULTIPPOSE FAN COIL UNIT, 3.8 KW HEATER, NOMINAL CAPACITY = 24,000 BTUH, 800 CFM NOMINAL, PROVIDE HARD SHUT-OFF TXV VALVE, 2 TON NOMINAL, PROVIDE PROGRAMMABLE THERMOSTAT AND FILTER RACK WITH HINGED DOOR, 1/3HP, 2.8A MOTOR FLA, 18.1A HEAT FLA, 208V, 1 PH, 31.2A MCA, 35A MOCP AHU & HEAT.
HP #1 OUTDOOR HEAT PUMP UNIT	* CARRIER MODEL #28HCC24A0030, 2 TON OUTDOOR HEAT PUMP UNIT, 15 SEER, PROVIDE CYCLE PROTECTOR, LOW PRESSURE SWITCH, CRANKCASE HEATER, 208 VOLT, 1 PHASE, COMP 12.8A RLA, FAN 0.5A FLA, OUTDOOR HEAT PUMP 16.5A MCA, 25A MOCP.

* OR APPROVED EQUAL

NOTE: 1. AHU HEATER KW RATINGS ARE AT 208 VOLTS.
2. PROVIDE OUTDOOR TSTAT TO PREVENT ELECTRIC HEAT OPERATION WHEN HEAT PUMP CAN MEET THE HEATING LOAD

EXHAUST FAN EQUIPMENT SCHEDULE	
EF-1	
EXHAUST FAN #1	* CARNES MODEL# VCDD010C EXHAUST FAN, 93 CFM @ 1/4" SP, 640 RPM, 1.1 AMPS, 120V. THE ELECTRICAL CONTRACTOR SHALL PROVIDE THE SWITCH AND WIRE THE UNIT. THE HVAC CONTRACTOR SHALL PROVIDE UNIT, 6" RIGID DUCT TO EXTERIOR, FLASHING AND WALL CAP. LOCATE EXHAUST TERMINATION A MINIMUM OF 10'-0" FROM ANY INTAKES. FAN SHALL HAVE BACKDRAFT DAMPER TO COMPLY WITH 2012 NC ENERGY CODE, SECTION 503.2.4.4.

* OR APPROVED EQUAL

AIR DISTRIBUTION SCHEDULE							
MARK	* MANUFACTURER	MODEL NO.	NECK SIZE	FACE SIZE	MATERIAL	SERVICE	NOTES
A	CARNES	SPAB224	SEE FLEXIBLE DUCT SCHEDULE	24" X 24"	STEEL	SUPPLY	LAY-IN CEILING, WHITE 4-WAY BLOW
B	CARNES	RTDBH	12" X 4"	14" X 6"	STEEL	SUPPLY	WHITE, DUCT MOUNTED DIFFUSER

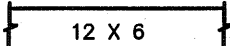

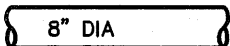
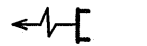



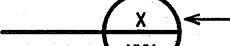


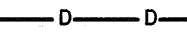
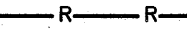

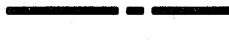
COORDINATE BORDER TYPE WITH THE CEILING TYPE. SEE ARCH SHEETS
PROVIDE CUT SHEETS TO OWNER/ARCH. PRIOR TO ORDERING.

* OR APPROVED EQUAL

GENERAL NOTES - MECHANICAL

- ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE STATE CODE AND ALL LOCAL AND OTHER APPLICABLE CODES.
- ANY PERMITS AND INSPECTION FEES SHALL BE SECURED AND PAID FOR BY THE MECHANICAL CONTRACTOR (MC).
- ALL WORK SHALL BE PERFORMED BY EXPERIENCED AND SKILLED CRAFTSMEN. THE MC SHALL COORDINATE ALL OF HIS WORK WITH THE GENERAL CONTRACTOR (GC) AND OTHER TRADES.
- THE LOCATION OF ALL DUCT, PIPING AND EQUIPMENT SHALL BE ADJUSTED TO ACCOMMODATE ANTICIPATED OR ENCOUNTERED INTERFERENCES.
- THESE PLANS ARE DIAGRAMMATIC AND MAY NOT SHOW MINOR DETAILS AND LOCATIONS. FOR DIMENSIONS REFER TO THE ARCHITECTURAL PLANS.
- THE MC SHALL BE RESPONSIBLE FOR ALL ELECTRICAL STARTERS INTERLOCKS, CONTROL WIRING CONDUIT AND POWER WIRING FROM DISCONNECTS TO HIS EQUIPMENT, USING A LICENSED ELECTRICIAN.
- THE MC SHALL USE FIRE DAMPERS FOR PROTECTION OF THE OPENING IN ACCORDANCE WITH STATE AND LOCAL CODES IN ALL LOCATIONS WHERE PENETRATIONS OF RATED WALLS AND FLOORS OCCUR. SEE ARCHITECTURAL PLANS FOR RATED WALL AND FLOOR LOCATIONS. PROVIDE ACCESS DOORS AT ALL DAMPER LOCATIONS. LOCATE DOORS FOR EASY ACCESS.
- INSTALL FLEXIBLE CONNECTORS ON SUPPLY AND RETURN DUCTWORK AHU. ALL MECHANICAL EQUIPMENT SHALL OPERATE FREE OF OBJECTIONAL NOISE AND VIBRATION.
- INSTALL TURNING VANES IN SUPPLY DUCTS AT ALL ELBOWS AND SPLITTER DAMPERS. PROVIDE BALANCING DAMPERS IN ALL DUCTS WHERE SHOWN OR REQUIRED FOR SYSTEM BALANCING.
- DUCT DIMENSIONS ARE SHOWN INSIDE CLEAR.
- THE MC SHALL KEEP THE PREMISES CLEAR OF DEBRIS FROM HIS WORK DURING CONSTRUCTION AND LEAVE THE AREA AND BUILDING CLEAN AT THE COMPLETION OF HIS WORK. HE SHALL ALSO LEAVE CLEAN ALL EXPOSED EQUIPMENT IN HIS CONTRACT.
- FANS AND CURBS, CURBS AND FLASHING ARE BY THE GENERAL CONTRACTOR. ALL ROOFING WORK SHALL BE DONE BY THE ORIGINAL ROOFING CONTRACTOR SO AS TO MAINTAIN ORIGINAL WARRANTY.
- THE MC SHALL COORDINATE WITH AND PROVIDE EQUIPMENT SPEC. SHEETS TO THE GENERAL CONTRACTOR ALL REQUIRED ROOF AND FLOOR PENETRATIONS FOR THE INSTALLATION OF THE NEW EQUIPMENT AND ELECTRICAL CONTRACTORS FOR REVIEW PRIOR TO ORDERING EQUIPMENT.
- PROPERLY SUPPORT ALL DUCT WORK & FANS FROM STRUCTURE. PROVIDE ALL STRUCTURAL SUPPORTS FOR THE LOADS AS REQUIRED AT NO ADDITIONAL COST TO THE OWNER.
- RELOCATE ANY EXISTING OBSTRUCTIONS IN THE PATH OF THE NEW DUCTWORK AND FAN INSTALLATION. FIELD VERIFY PRIOR TO SUBMITTING BID.

LEGEND - MECHANICAL

	RECTANGULAR DUCTWORK
	FLEXIBLE DUCTWORK
	ROUND RIGID DUCT
	DUCT MOUNTED OR SIDEWALL SUPPLY AIR DIFFUSER
	SUPPLY DIFFUSER
	RETURN GRILLE
	WALL MOUNTED THERMOSTAT
	GRILLE TYPE
	MIN. CFM
	MANUAL BALANCING DAMPER
	CONDENSATE DRAIN LINE
	REFRIGERANT LINE SET
	CEILING EXHAUST FAN
	1 HOUR FIRE BARRIER

OUTDOOR AIR CALCULATIONS		
OUTDOOR VENTILATION AIR PROVIDED PER TABLE 403.3 NC8BC MECHANICAL CODE. (WAREHOUSE ROOM 104 ONLY)		
APPLICATION	CFM/SQ.FT. EXHAUST	
WAREHOUSE	0.08 CFM/SQ.FT.	
1200 SQ. FT. X 0.08 CFM/SQ.FT. = 72 CFM		
APPLICATION	ESTIMATED OCCUPANCY	CFM/PERSON
TOILETS	70 CFM/FLUSHING FIXTURE	
1 FLUSHING FIXTURE X 70 CFM = 70 CFM		
EXHAUST PROVIDED BY ONE EXHAUST FAN, MAKE UP AIR BY TRANSFER AIR		
TOTAL O.A. REQUIRED = 72 CFM		
TOTAL O.A. PROVIDED = 100 CFM		
AHU #1 - 100 CFM, 8" DIA. OUTSIDE AIR DUCT.		

OUTDOOR AIR CALCULATIONS		
OUTDOOR VENTILATION AIR PROVIDED PER TABLE 403.3 NC8BC MECHANICAL CODE. (WAREHOUSE ROOM 104 ONLY)		
OUTSIDE AIR PROVIDED BY NATURAL VENTILATION PER NC8BC MECHANICAL CODE, SECTION 402. 3675 SQ.FT. TOTAL X 0.04 = 147 SQ.FT. REQUIRED FREE AREA. OPERABLE DOORS TO EXTERIOR PROVIDE 298 SQ.FT. OF FREE AREA.		

MECHANICAL SYSTEMS AND EQUIPMENT

METHOD OF COMPLIANCE:

Prescriptive Energy Cost Budget

Thermal Zone 4A

Exterior Design Conditions

winter dry bulb 16 F
summer dry bulb 93 F

Interior Design Conditions

winter dry bulb 72 F
summer dry bulb 76 F
relative humidity 50%

Building Heating Load (Warehouse Room 104 Only) 18,800 BTU/hr

Building Cooling Load (Warehouse Room 104 Only) 14,700 BTU/hr

Mechanical Spacing Conditioning System

Unitary - The building is served the following systems:

(1) One 2 ton split system heat pump.

Boiler - Not applicable to this project.

Chiller - Not applicable to this project.

Equipment efficiencies

Efficiencies and outputs are listed on equipment schedules - See drawings.

Equipment schedules with motors.

Motors used on this project are included in the efficiency rating of the unit. See drawings for efficiencies.

DESIGNER STATEMENT:

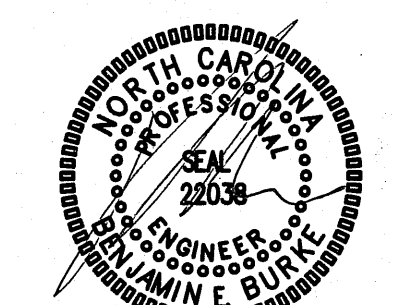
To the best of my knowledge and belief, the design of this building complies with the mechanical system and equipment requirements of the 2012 North Carolina State Building Code: Energy Conservation Code.

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PROJECT TITLE
CASINO PARTY ACES

252 JARCO DRIVE
FUQUAY-VARINA, NORTH CAROLINA

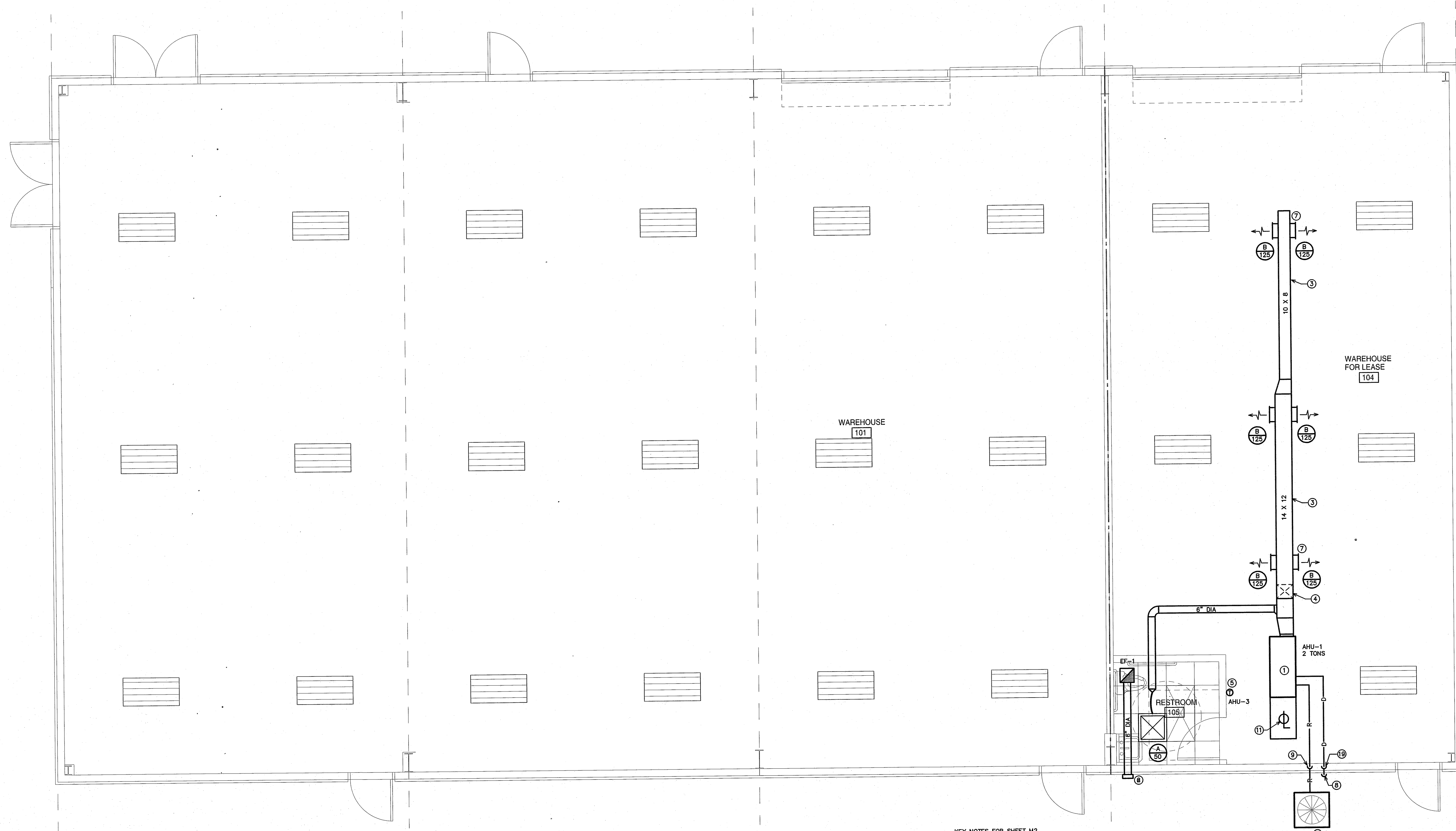
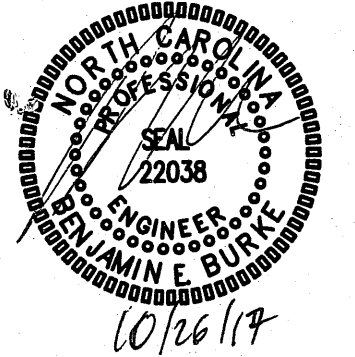
PROJECT NO.
1640

DRAWING TITLE
HVAC SCHEDULES

M1

PLOT DATE 10/24/17

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

KEY NOTES FOR SHEET M2

- ① AIR HANDLING UNIT SUSPENDED FROM ROOF STRUCTURE. SEE DETAIL 1/M3.
- ② OUTDOOR HEAT PUMP UNIT MOUNTED ON CONCRETE PAD.
- ③ RUN RECTANGULAR DUCTWORK EXPOSED OVERHEAD. VERIFY EXACT MOUNTING HEIGHT WITH ARCHITECT AND OWNER. (TYPICAL).
- ④ DUCT SHALL RISE TO HIGHER ELEVATION AT THIS LOCATION.
- ⑤ MOUNT THERMOSTAT AT 48" AFF.
- ⑥ WALL EXHAUST CAP. INTAKE SHALL BE 10'-0" MIN. FROM ANY OUTSIDE AIR INTAKE.
- ⑦ DUCT MOUNTED SUPPLY AIR DIFFUSER. ANGLE DIFFUSER DOWN AT 45 DEGREE ANGLE. (TYPICAL).
- ⑧ STUB-OUT CONDENSATE AT 8" ABOVE FINISH GRADE. TERMINATE WITH ELBOW TURNED DOWN IN PLANTED AREA.
- ⑨ RUN REFRIGERANT PIPING CONCEALED IN WALL.
- ⑩ RUN CONDENSATE PIPING CONCEALED IN WALL.
- ⑪ ROUND RIGID OUTSIDE AIR DUCT UP TO ROOF MOUNTED INTAKE HOOD. INTAKE SHALL BE 10'-0" MIN. FROM ANY EXHAUST DISCHARGE OR PLUMBING VENT.

PROJECT TITLE
CASINO PARTY ACES

252 JARCO DRIVE
FUQUAY-VARINA, NORTH CAROLINA

PROJECT NO.
1640
DRAWING TITLE
HVAC PLAN

M2

PLOT DATE 10/24/17

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DIVISION 15 B - HEATING, VENTILATING AND AIR CONDITIONING

1.1 DESCRIPTION OF THE WORK

- A. Work under this section includes, but is not necessarily limited to, furnishing and installing the following:
 1. Heating, ventilation, and air conditioning equipment.
 2. Ductwork.
 3. Grilles and diffusers.
 4. Controls and control wiring.
 5. Condensate piping.

- B. All work under this contract shall be installed in compliance with the latest edition of the following codes and standards insofar as they apply:

1. ASHRAE Guide
2. National Electric Code.
3. 2012 NC State Building Code: Mech Code.
4. The Electrical Specifications for this project.
5. SMACNA HVAC Duct Construction Standards.
6. All local codes and ordinances.
7. ARI rating.
8. 2012 NC State Building Code: Energy Conservation Code.

- C. These codes are minimum standards. If codes require a more stringent method of construction than the specifications require, the codes shall govern.

- D. The HVAC Contractor shall be licensed in North Carolina and have all local licenses required for the work.

- E. Obtain all permits, licenses, inspections, etc., required for the work and pay for the same.

1.2 INTENT

- A. The intent of these specification and the accompanying drawing is to convey as reasonably as possible the requirements for a complete job ready for the building to operate. The HVAC Contractor shall take this into consideration and include in his bid allowance for contingencies as will allow him to provide minor pieces of equipment and labor not specifically indicated but required for the job to operate properly, at no additional cost to the Owner.

1.3 COORDINATION

- A. Coordinate work with other contractors. Notify Owner of apparent conflicts early to expedite construction. If structural damage appears imminent, stop work and notify Owner for a decision before resuming operations.

- B. Locations shown are approximate. The HVAC Contractor shall verify with owner, the placement of equipment, fixtures, outlets, etc. The drawings do not give exact details as to elevations and locations of various pipes, fittings, ducts, conduit, etc., and do not show all offsets and other installation details which may be required.

- C. Changes in duct or piping design caused by obstructions shall be submitted to Engineer in sketch form for study and comment prior to execution. Additional cost will not be allowed for this type of work.

1.4 SHOP DRAWINGS

- A. Shop drawings shall be submitted for all major items of equipment. These may consist of the manufacturer's standard catalog or tear sheets and shall have the exact items being offered clearly identified. Shop drawings shall include but are not limited to the following:

1. All equipment and accessories.
2. Grilles and diffusers.
3. Unit sizes and requirements.

PART 2 - PRODUCTS

2.1 EQUIPMENT

- A. All air handling devices must have the manufacturer's recommended filter rack, for 1" thick filters.

2.2 PIPING

- A. Condensate drain piping shall be PVC pipe. Provide tee and plug at changes in direction. Route pipe to closest roof drain or scupper. Properly support all lines. Coordinate supports with roof type.

2.3 DUCTWORK

- A. Ductwork shall be built in accordance with SMACNA HVAC Duct construction standards. Furnish and install all supply, return, and ventilation ductwork shown, together with splitters, deflectors, dampers, etc. This work shall be constructed of new galvanized prime grade steel sheets. The gauges of metal to be used and the construction and bracing of joints shall be in accordance with the SMACNA recommendations.

- B. Seal all sheet metal joints with fiber impregnated mastic.
- C. Support from building structure on strap hangers not over 8 feet apart.

- D. Use manufactured turning vanes in each elbow where required or where indicated on drawings.

- E. Flexible connectors shall be 3 inches wide, of fireproof material and used to isolate noise between equipment and ductwork on supply and return side of all units.

- F. Round runouts, where used, shall be built in accordance with the above standards, and each runout shall also have manufactured side take off, adjustable quadrant damper at all accessible locations and shall be of Owens Corning INL-25 flexible duct with UL label. Flex duct lengths allowed up to 14 feet. Duct must be supported with sufficient hangers in order to prevent sags. Serpentine routing will not be permitted. Quadrant damper to be 22 gauge easily adjustable manually with exterior handle (similar to H&C Kwik-set) and is not to be mounted in side take-off.

2.4 DUCT INSULATION (LOW PRESSURE)

- A. All insulation, linings, coverings and adhesives shall have a flame spread classification of 25 or less and a smoke developed rating of not more than 50, exposed exterior piping.
- B. All duct insulation shall comply with Section 604, of the N. C. Building Code: Mechanical Code

- C. All supply and return ductwork shall be completely insulated, either internally or externally.

- D. Rectangular ductwork shall be lined with two-inch thick, 1.5 lb. per cubic foot density, duct liner, Armstrong, CSG Ultraliner, Johns Manville or approved equal.

- E. As an alternative to duct liner rectangular duct may be wrapped with Class I - 2", 3/4 lb. density (R-6.5) thick reinforced foil back fiberglass insulation, Owens-corning Series ED or equal. Tape shall be Kraft reinforced foil tape or equal.

- F. Exhaust air duct does not require insulation, unless otherwise noted on the plans.

- G. Insulation shall be held in place with adhesive and welding pins 16" on center.

- H. Duct dimensions shown on the drawings are Net Inside Dimensions

2.5 THERMOSTATS

- A. Provide programmable electronic thermostat.
- B. Submit proposed thermostats for approval.

2.6 ROOF PENETRATIONS

- A. Provide pre-manufactured roof flashings compatible with equipment served.
- B. Coordinate roof work with roof system used. Provide proper flashing as required.
- C. Provide 1 year warranty on all roof work performed.

2.7 DUCT SMOKE DETECTORS

- A. Duct detectors are not required since units air flows are 2000 cfm or less per NCSBC: Mechanical Code, Section 606.2.

PART 3 - EXECUTION

3.1 PIPING

- A. The HVAC Contractor shall coordinate such routing with others, to line his work true to adjacent spaces and in a workmanlike manner and to use only short radius 90 degree elbows. Where required, piping to be sturdily supported and separated in a manner satisfactory to the Engineer.

- B. The HVAC Contractor shall paint all exterior refrigerant piping with UV resistant paint as recommended by the closed cell insulation manufacturer.

- C. The HVAC Contractor shall paint all exterior gas piping. Coordinate exact color with local Inspections department. Provide labeling as to type of gas and pressure the length of the piping system.

- D. Insulate all condensate lines for their entire length with 1/2" closed cell insulation. Install insulation per the manufacturers recommendations.

3.2 ELECTRICAL WORK

- A. The electrical contractor shall provide all switches, starters, wire conduit for the air conditioning, heating and ventilation equipment. Control wiring shall be by the heating and air conditioning contractor.

- B. HVAC Contractor is responsible for verifying that power terminals have been properly grounded prior to operating equipment and must find connections to all equipment including control wiring.

- C. All materials and workmanship shall be in accordance with the electrical specifications for the project. All wiring shall be color coded, and as-built wiring diagram prepared showing all connections and colors of wiring and delivered to the Owner.

- D. Furnish certification for acceptance of control wiring from local electrical inspector prior to acceptance.

3.3 CLEAN UP

- A. During construction, keep the site clean of debris. Upon completion, and before final inspection, clean up the premises to remove all evidence of work. In addition upon completion of construction leave equipment clean.

- B. Furnish one box of clean filters, for each size required, at the time of final inspection to the owner.

3.4 OPERATOR'S MANUAL AND DIAGRAM

- A. The HVAC Contractor shall prepare in one copy a manual describing the proper maintenance and operation of the systems. This manual shall not consist of standard factory instructions (although these may be included) but shall be prepared to describe this particular job.

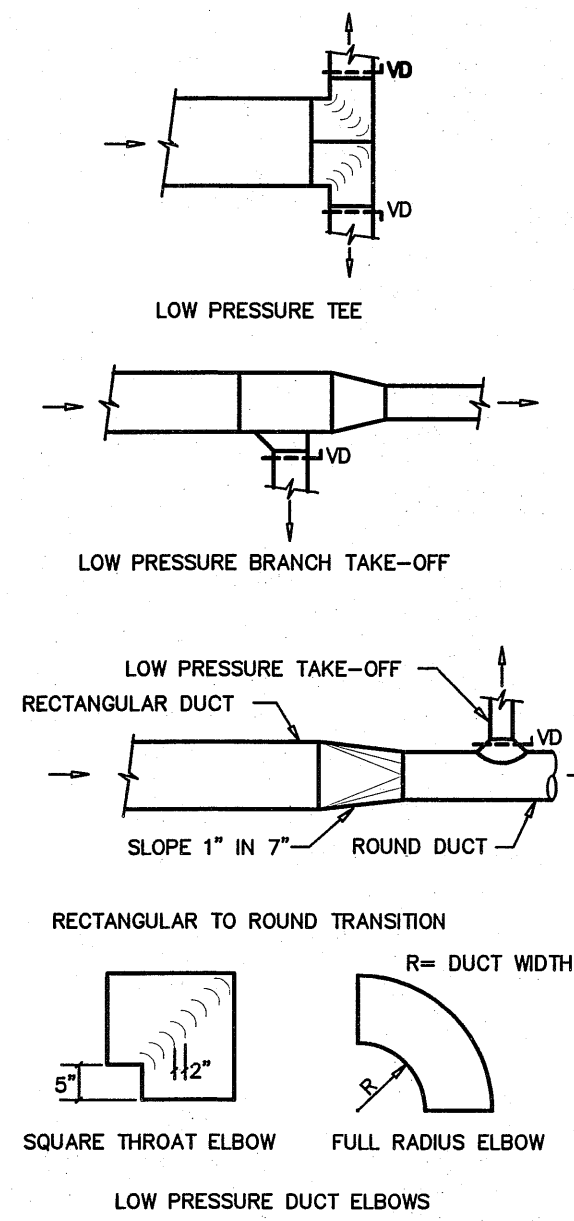
- B. The manual shall be bound, indexed, dated and signed by the HVAC Contractor.

- C. Qualified representative of the HVAC contractor shall meet with the designated representatives of the Owner and the Owner's representative shall be instructed in the proper operation and maintenance of the control system and other systems.

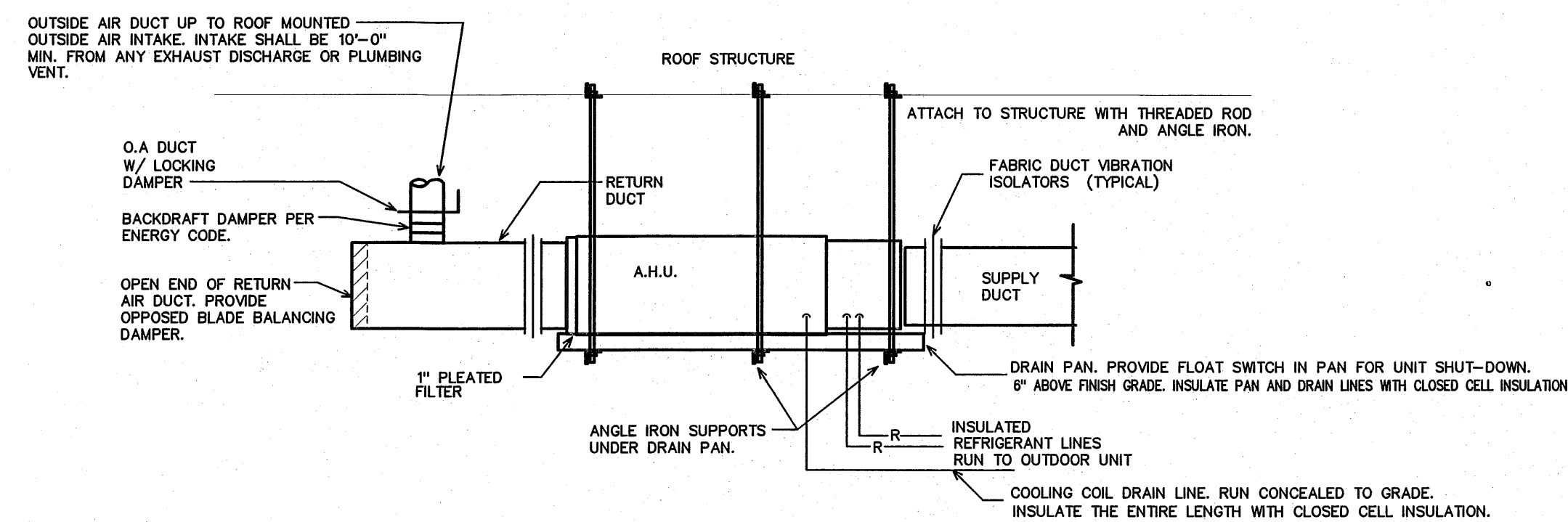
3.5 GUARANTEE

- A. Guarantee all materials and labor included in the HVAC work for a period of one year from date of final acceptance by the owner. In addition, motor compressors shall be a nonprorated five year warranty. Any part or parts of the work or equipment which prove to be defective during the guarantee period shall be replaced at no additional cost to the

- B. The HVAC Contractor shall conduct a complete test and balance of the entire system. This includes airflow checks at all inlets and outlets, at all duct branch lines, and a duct traverse at the return and supply of each unit. Adjust all airflows to within 10% of design airflows. Provide a bound test and balance report for the Architect and Engineers review. After 90 days of occupied use the contractor shall return and balance system per individual comfort needs of the tenants. Balance airflows and shift locations of thermostats if required for tenant comfort.



2 DUCT CONSTRUCTION DETAILS
SCALE: NOT TO SCALE



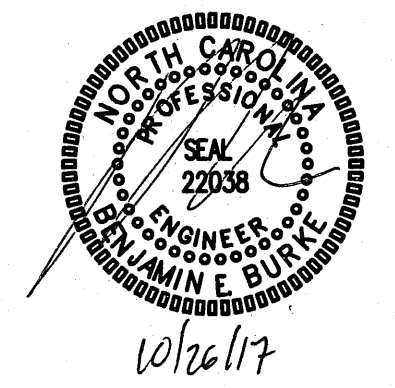
1 SUSPENDED AIR-HANDLING UNIT DETAIL
SCALE: NOT TO SCALE

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PROJECT TITLE
CASINO PARTY ACES

252 JARCO DRIVE
FUQUAY-VARINA, NORTH CAROLINA

PROJECT NO.
1640

DRAWING TITLE
HVAC SPECS. & DETAILS

PLOT DATE 10/24/17

M3

This original sheet is 24" x 36"; other dimensions indicate it has been altered.
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*This is only for inside bldg.
Bldg Plans will be submitted
Application for Plan Review and sent
digital. Will

Application # 14-50029818 being by

Date Received: 11-14-17 Received By: dialism paper cables.

Name of Project: CASINO PARTY ACES

Physical Address of Project: 252 JARCO DR.

Fuquay VARINA, NC

Plans Submitted By: Wyman Nicholas

Project Phone: (910) 323-1944

Contact Person/Address: Wyman Nicholas / Nicholas Bldgs Inc.
1010 CEDAR CREEK RD.
FAY, N.C. 28312

Contact Email: NICBLDGS@EARTHLINK.NET

Contact Phone: (910) 323-1944 () - -

Contractor's Name/Info: SAME

Contractor's Phone: (910) 323-1944

- Plans that are submitted will be reviewed as quickly as possible with an average time of review between 7-10 working days.
- Status checks may be conducted on plan reviews by visiting the website <http://hteweb.harnett.org/Click2GovBP/Index.jsp> or by calling the Harnett County Central Permitting Office (910-893-7525, Option #2), or the Harnett County Fire Marshal's Office (910-893-7580).
- Approved plans must be picked up from the Central Permitting Office and all fees paid before any required inspections can be conducted.



Plan Review, Inspection, and Permit Fees

Application Number : 16-50039818

\$200.00	<input type="checkbox"/>	Explosive Material (90 Days)	\$	-
\$100.00	<input type="checkbox"/>	Explosive Materials (72 Hours)	\$	-
\$100.00	<input type="checkbox"/>	Fireworks Public Display	\$	-
\$50.00	<input checked="" type="checkbox"/>	Final Inspection	\$	50.00
\$35.00 + \$2.00 per device	<input type="checkbox"/>	Fire Alarm Testing	\$	-
\$35.00 + \$2.00 per nozzle	<input type="checkbox"/>	Fixed Fire Suppression	\$	-
\$75.00	<input type="checkbox"/>	Insecticide Fog/Fumigation	\$	-
\$100.00	<input type="checkbox"/>	Pipe Test/UST/AGST	\$	-
\$50.00	<input checked="" type="checkbox"/>	Plans up to 5000 sq ft	\$	50.00
\$100.00	<input type="checkbox"/>	Plans 5001 sq ft to 10,000 sq ft	\$	-
\$150.00	<input type="checkbox"/>	Plans 10,001 sq ft to 25,000 sq ft	\$	-
\$250.00	<input type="checkbox"/>	Plans 25,001 sq ft and over	\$	-
\$35.00 + 2.00 per head	<input type="checkbox"/>	Sprinkler Certification Test	\$	-
\$50.00	<input type="checkbox"/>	Standpipe Testing	\$	-
\$50.00	<input type="checkbox"/>	Special Assembly (ie. amusement buildings, carnivals, fairs)	\$	-
\$75.00	<input type="checkbox"/>	Tents/Canopies/Air Supported Structure	\$	-
\$100.00	<input type="checkbox"/>	Tank Installation (charge for each tank)	\$	-
\$100.00	<input type="checkbox"/>	Tank Removal (charge for each tank)	\$	-
		Total Devices/Heads	\$	-
		Total Cost	\$	100.00

Code Enforcement Official

Rodney Daniels

12/4/2017



Fire Marshal Division

December 4, 2017

Wyman Nichols
1010 Cedar Creek Road
Fayetteville, NC 28312

Re: Casino Party Aces
252 Jarco Drive
Fuquay Varina, NC

Application Number 16-50039818

To whom it may concern,

Thank you for submitting the plans for Casino Party Aces. The plans have been carefully reviewed by a qualified code enforcement official to examine for full compliance with the North Carolina Fire Prevention Code and all other fire protection regulatory documents. There are some items that were found during the plan review process that need to be addressed before a final inspection of the new facility can be given. These items are outlined and described below.

- **505.1 Physical Address**
 - The physical address of the building shall be posted in a conspicuous place so that it can be seen on approach from the road, access road, and/or parking lot.
 - The numbers used to make up the physical address shall be at least 6 inches in height.

- **506.1 Knox Box**
 - A secure key box shall be installed on the new building that houses all keys to all the doors within the building in which the fire department would need access to in the event of an emergency.
 - Knox Box ID stickers shall be placed on all exterior doors in which entry to the building may be gained.
 - The box shall be mounted not to exceed 48 – 60 inches in height.
 - The basic model for the buildings should be at least a selection from the 3200 Series listed on the order form.
 - <https://www.knoxbox.com/store/departmentSearch.cfm>

- **Fire Extinguishers**



- Fire Extinguishers shall be 2A:20BC and shall be placed with a travel distance to not exceed 75'
- Fire extinguishers are to be mounted no higher than 5' above the finished floor.

- **1006.1 Illumination Required**
 - The exit discharge shall be illuminated at all times the building spaces served by the means of egress is occupied
 - Illumination level in all areas of the means of egress shall not be less than 1 foot-candle at the walking surface and shall have emergency power supply.

- Notes
 - The measurements on the plans for the travel distance are showing 34.7 feet for ½ the diagonal distance, our measurement come up with 44.7 feet.
 - The left rear exit in the larger space where the future 3 suites will be located is noted on the plans as an exit with the max. travel distances but on the electrical plans sheet 2 it shows the exit beside it to the left corner of the building designated as the exit.
 - The future space for the three suites, the middle suite does not have a second exit.
 - **A final fire inspection is required. Please contact this office direct to schedule fire inspection at 910-893-0743.**

Thank you again for submitting the plans for Casino Party Aces. Please review the plans and adhere to any notes and alterations that were made in addition to the original drawings. These remarks are for the plans that were submitted and its original intent. These remarks do not apply if the original intent changes or what was submitted on the above date changes. If you have any questions, please do not hesitate to call this office

Again, thank you and we look forward to working with you during the construction period!

Sincerely,



Rodney Daniels
Chief Deputy Fire Marshal

Roger Sullivan

From: Roger Sullivan
Sent: Friday, December 01, 2017 10:51 AM
To: 'ganderson@weeksturner.com'
Cc: Rodney Daniels; Bill Lamm
Subject: Casino Party Aces Plans

Hello Ms. Anderson,

Per our conversation by telephone here are the remarks from our plan review:

- The measurements on the plans for the travel distance are showing 34.7 feet for $\frac{1}{2}$ the diagonal distance, our measurement come up with 44.7 feet.
- The left rear exit in the larger space where the future 3 suites will be located is noted on the plans as an exit with the max. travel distances but on the electrical plans sheet 2 it shows the exit beside it to the left corner of the building designated as the exit.
- The future space for the three suites, the middle suite does not have a second exit.

Please submit the changes to us noted on the plans. If you have any questions, feel free to contact us.

Thank you,

Roger Sullivan
Deputy Fire Marshal
PO Box 370
Lillington, N.C. 27546
Ph: 910-893-7580
Direct: 910-893-0745
Fax: 910-893-5025
rsullivan@harnett.org