CONTRACT DOCUMENTS - PERMIT SET BEXAR COUNTY PUBLIC WORKS **SOUTHTON SERVICE CENTER** 9874 SOUTHTON RD., SAN ANTONIO, TEXAS 78223

09/30/2021

LOCATION MAP



STREET MAP 9874 SOUTHTON RD., SAN ANTONIO TEXAS 78223 PROJECT SITE

PROJECT NO.: 21014 **Revisions**:



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exas 78201 & 9	9901 McPherson Avenue, Suite 104, Laredo, Texas 78045. This c	ocument is rele	eased for the purp	bose of reference, coordination, and/of facility management under the aut	hority of the named		

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a set of technical SPECIFICATIONS and a set of DRAWINGS.

1. SPECIFICATIONS

SPECIFICATIONS are organized according to the divisions of the UNIFORM CONSTRUCTION INDEX as follows:

DIVISION	2	EXISTING COI
DIVISION	3 ∕	
DIVISION	4	METALS
DIVISION	6	WOOD PLAST
DIVISION	7	THERMAL ANI
DIVISION	8	OPENINGS
DIVISION	9	FINISHES
DIVISION	10	SPECIALTIES
DIVISION	11	EQUIPMENT
DIVISION	12	FURNISHINGS
DIVISION	13	SPECIAL CON
DIVISION	14	CONVEYING E
DIVISION	21	FIRE SUPPRE
DIVISION	22	PLUMBING
DIVISION	23	HEATING, VEN
DIVISION	25	INTEGRATED
DIVISION	26	ELECTRICAL
DIVISION	27	COMMUNICAT
DIVISION	28	ELECTRONIC
DIVISION	31	EARTHWORK
DIVISION	32	EXTERIOR IM
DIVISION	33	UTILITIES
DIVISION	34	TRANSPORTA
DIVISION	35	WATERWAY A
DIVISION	40	PROCESS INT
DIVISION	41	MATERIAL PR
DIVISION	42	PROCESS HE
DIVISION	43	PROCESS GA
		AND STORAG
DIVISION	44	POLLUTION C
DIVISION	45	INDUSTRY-SP
DIVISION	48	ELECTRICAL F
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DRAWINGS a describing a g	re organiz general as f typical c	zed according to opect of the constr onstruction seque
A-ARCHITEC	TURAL:	
Work requirec plan(s), roof p stair details, e	d to produ plan(s), ex exterior en	ice the basic build terior elevations, closure details, in

lding envelope, including: Floor , building sections, wall sections, nterior floor plan(s), enlarged terior partition sections, interior uipment details, ceilings and floor finishes.

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preceding the drawing title. In this example, sixteenth drawing on a sheet of the AMB DETAIL.

CONSTRUCTION DOCUMENT ORGANIZATION This set of CONSTRUCTION DOCUMENTS is presented in two parts

GENERAL REQUIREMENTS

NDITIONS

TICS, AND COMPONENTS ID MOISTURE PROTECTION

NSTRUCTION EQUIPMENT

ESSION NTILATION AND AIR-CONDITIONING **AUTOMATION**

TIONS SAFETY AND SECURITY

PROVEMENTS

ATION AND MARINE CONSTRUCTION TEGRATION ROCESSING AND HANDLING EQUIPMENT EATING, COOLING AND DRYING EQUIPMENT AS AND LIQUID HANDLING, PURIFICATION

CONTROL EQUIPMENT PECIFIC MANUFACTURING EQUIPMENT POWER GENERATION

disciplines, with each discipline truction. Disciplines are arranged ience as follows:

tilating and cooling systems.



ARCHITECTURE

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LAREDO 9901 McPherson Avenue, #104 Laredo, Texas 78045 T: 956.791.0405





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CODE SUMMARY

Applicable Codes: All work under this contract shall comply with the provisions of the specifications and drawings, and shall satisfy all applicable codes, ordinances and regulations of all governing bodies involved. All permits and somethings neccesary for the proper execution of the work shall be secured and paid for by the contractor involved.

Building Code:2018 International EElectrical Code:2017 National ElectEnergy Code:2018 International EFire Code:2018 International EMechanical Code:2018 International EPlumbing Code:2018 International EADA2012 Texas Access	Building Code with local amendments trical Code with local amendments Energy Conservation Code with local amendments Fire Code with local amendments Mechanical Code with local amendments Plumbing Code with local amendments sibility Standards
GENERAL INFORMATION	
Project: Address:	Southton Service Center 9874 Southton Rd., San Antonio, Texas 78223
Purpose: Occupancy:	Office Building & Vehicle Service Center Group B
Construction Type: Sprinkler System:	Type II-B N/A
OCCUPANT LOAD (Table 1004.5)	
<u>Service Center:</u> Office (B Business):	101 Total Occupants 5,406 SF at 1:150 = 36 Occupants
Industrial (F-1): Storage Mezzanine	5,680 SF at 1:100 = 57 Occupants 2.130 SF at 1:300 = 8 Occupants
BUILDING AREA (Table 506.2)	
<u>First Floor:</u> Mozzanino:	10,980 SF
Total:	13,110 SF < 23,500 SF Allowed Per Floor
NUMBER OF EXITS & EXIT ACCESS	101 Occupants < 500 Occupants
	- 2 Exits Required < 5 Exits Provided
Exit Separation: (1007.1.1)	192 - 0 192' - 0'' / 2 = 96' Minimum 98' - 0'' Min Separation Provided > 96' - 0'' Min Bequired
Travel Distance: (Table 1017.0)	112' O" Max Travel Distance Provided < 200' O" Max Distance Allowed
	113 - 0 Max. Travel Distance Provided < 200 - 0 Max. Distance Allowed
Other Egress Components: (1005.3.2)	101 Occupants x $0.2" = 14"$ 20 2" Bequired < 193" Provided
Minimum Corridor Width: (Table 1020.2)	
Water Closets:	6 Provided = 4 Required
Lavatories:	6 Provided = 3 Required
Drinking Fountain:	1 Provided = 1 Required
Service Sink:	1 Provided = 1 Required
PARKING REQUIREMENTS (Table 526-3b)	SERVICE - PROFESSIONAL OFFICE
	Minimum = 1 per 300 sf GFA = $(13,110 \text{ sf x 1})/300 = 44$
	Maximum = 10 per 1,000 st GFA = $(13,110 \text{ st x } 10)/1,000 = 131$
	Provided = 96 Parking Spaces (See 1/A1.0 Site Plan)
MINIMUM # OF REQUIRED ACCESSIBLE PARKING SPACES (Table 208.2)	
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	4 H.C. space required = 4 H.C. Spaces provided
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STRIKE SIDE OF DOOR; SIDELITE SIGNS TO BE DOUBLE. BLANK SIGN ON MOUNTING NOT POSSIBLE.

LOCATION WHERE STRIKE SIDE (NEAREST ADJACENT WALL)

ELEC. / COMM. WALL <u>OUTLET</u> <u>SWITCH</u>

SAN ANTONIO 123 Altgelt Avenue San Antonio, Texas 78201 T: 210.736.3009 LAREDO 9901 McPherson Avenue, #104 Laredo, Texas 78045 T: 956.791.0405 09/30/2021 Ŷ Ш 78223 FZ SET PERMIT Ш XAS \bigcirc 111 Ш ANTONIO, 1 DOCUMENTS Ľ S П SAN N RD SOUTHTON CONTRACT **—** O 9874 S Project NO.:21014 Date:09/30/2021



Revisions:



GLAS	GLASS PRODUCT SCHEDULE FOR WALLS AND DOORS							
NP	NP -NOT PERMITTED		Ð					
A	-ACCEPTABLE		NEAL	ĨED	MPER			
NR	NR -NOT RECOMMENDED			WIE	E H			
FIRE-RATED		SAFETY NOT REQUIRED	NP	А	NP			
		SAFETY REQUIRED	NP	NP	NP			
		SAFETY NOT REQUIRED	А	А	A			
		SAFETY REQUIRED	NP	NP	A			







DOOR FRAME TO REMAIN

DEMOLITION NOTES

- A. THE GENERAL CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE HIMSELF WITH THE LOCAL CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED, AND CORRELATED HIS OBSERVATIONS WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.
- B. THE GENERAL CONTRACTOR SHALL PERFORM ALL WORK IN FULL ACCORDANCE WITH ALL APPLICABLE CODES, ORDINANCES, AND LAWS OF THE CITY OF SAN ANTONIO.
- C. PRIOR TO STARTING WORK, MAKE SUCH EXPLORATIONS & PROPOSES AS ARE REQUIRED TO ASCERTAIN SCOPE OF WORK & PROTECTION MEASURES WHICH MAY BE REQUIRED. NOTIFY ARCHITECT OF ANY CONCERNS.
- D. DEMOLITION DRAWINGS ARE SCHEMATIC & INDICATE GENERAL SCOPE OF DEMOLITION WORK ONLY.
- E. THE CONTRACTOR SHALL CONFINE OPERATIONS AT THE SITE TO AREAS PERMITTED BY LAW, ORDINANCES, PERMITS AND THE CONTRACT DOCUMENTS AND SHALL NOT UNREASONABLY ENCUMBER THE SITE WITH ANY MATERIALS OR EQUIPMENT.
- F. CAREFULLY PROTECT EXISTING CONSTRUCTION TO REMAIN DURING ALL PHASES OF DEMOLITION & NEW CONSTRUCTION ACTIVITIES. REPAIR OR REPLACE ANY EXISTING CONSTRUCTION TO REMAIN WHICH IS DAMAGED AS A RESULT OF DEMOLITIONS OR CONSTRUCTION ACTIVITIES.
- G. PROVIDE AND MAINTAIN BARRICADES, TEMPORARY ENCLOSURES, DUST BARRIERS, SIGNAGE, ETC. AS REQUIRED TO ENSURE PROTECTION FOR WORKMEN, ADJACENT CONSTRUCTION TO REMAIN AND OCCUPANTS OF THE BUILDING.
- H. CONTRACTOR SHALL NOT DISTURB THE DELIVERIES AND FUNCTIONS OF ADJACENT TENANTS DURING THE ENTIRE DURATION OF THE PROJECT.
- I. COORDINATE WITH OWNER/BUILDING MANAGEMENT FOR ALL STOCK PILE ITEMS TO BE SALVAGED, SUCH AS CEILING TILES, DOORS, FRAMES, HARDWARE, LIGHT FIXTURES AND BRUSHED ALUMINUM FINISH EXIT LIGHT FIXTURES.
- J. DISPOSE OF ALL ITEMS IN A LAWFUL MANNER.
- K. ALL AREAS THAT ABUT DEMOLITION WHICH ARE AFFECTED MUST BE REPAIRED AND REFURBISHED AS REQUIRED.
- L. COORDINATE MEP ITEMS WITH OWNER.

EMO FLC	OOR PLAN KEY NOTES
A	REMOVE EXISTING CURB RAMP
В	REMOVE PORTION OF EXISTING CONCRETE WALK & CURB
С	REMOVE EXISTING STRIPING
D	REMOVE EXISTING PARKING SYMBOL
E	SEAL AND ABANDON EXISTING CLEANOUT, REF. MEP
F	REMOVE EXISTING PIPING
G	REMOVE EXISTING DOWNSPOUT
H	REMOVE PORTION OF EXISTING EXTERIOR WALL METAL PANEL & SUBSTRATE. EXISTING PRE- ENGINEERED BUILDING STRUCTURE TO REMAIN
I	REMOVE AND SALVAGE EXISTING DOOR & FRAME
L	REMOVE AND SALVAGE EXISTING WINDOW
К	REMOVE AND SALVAGE EXISTING PLUMBING FIXTURE/EQUIPMENT
L	REMOVE AND SALVAGE EXISTING TOILET ACCESSORY
M	REMOVE AND SALVAGE EXISTING DRINKING FOUNTAIN
N	REMOVE AND SALVAGE EXISTING COUNTERTOP AND SUPPORTS
0	REMOVE AND SALVAGE EXISTING COUNTERTOP AND CABINETS
P	REMOVE AND SALVAGE EXISTING FIRE EXTINGUISHER CABINET
Q	REMOVE AND SALVAGE EXISTING VIDEO DISPLAY & ASSOCIATED SUPPORTS
R	REMOVE PORTION OF EXISTING PARTITION
S	REMOVE AND SALVAGE EXISTING TOILET PARTITION & DOOR
T	SEAL AND ABANDON EXISTING FLOOR DRAIN
U	REMOVE AND SALVAGE EXISTING MARKER BOARD
V	REMOVE AND SALVAGE EXISTING FURNISHING
W	REMOVE AND SALVAGE EXISTING LIGHT FIXTURE
x	REMOVE EXISTING CANOPY
Y	REMOVE AND SALVAGE EXISTING CONDENSING UNIT. EXISTING PAD TO REMAIN. REF. MEP
Z	REMOVE AND SALVAGE EXISTING AIR HANDLING UNIT, REF. MEP
AA	EXISTING CONDENSING UNIT & PAD TO REMAIN, REF. MEP
AB	REMOVE PORTION OF EXISTING DOMESTIC WATER LINE BELOW GRADE, REF. CIVIL & MEP
AC	EXISTING ELECTRICAL PANELS TO REMAIN, REF. MEP
AD	EXISTING FIRE ALARM CONTROL PANEL TO REMAIN
	REMOVE AND SALVAGE EXISTING DOOR, EXISTING

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09/30/2021

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Project NO.:21014 Date:09/30/2021 Revisions:

D. DEMO SITE PLAN, FLOOR PLAN, & MEZZANINE PLAN

O EXTERIOR ELEVATION - DEMO EAST ELEVATION 1/8" = 1'-0"

(A)

<u>18' - 6"</u> <u>A</u>.F.F. PLATE HT.

FINISH FLOOR

◀ REFLECTED CEILING PLAN - DEMO 1/8" = 1'-0"

DEMOLITION NOTES

- A. THE GENERAL CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE HIMSELF WITH THE LOCAL CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED, AND CORRELATED HIS OBSERVATIONS WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.
- B. THE GENERAL CONTRACTOR SHALL PERFORM ALL WORK IN FULL ACCORDANCE WITH ALL APPLICABLE CODES, ORDINANCES, AND LAWS OF THE CITY OF SAN ANTONIO.
- C. PRIOR TO STARTING WORK, MAKE SUCH EXPLORATIONS & PROPOSES AS ARE REQUIRED TO ASCERTAIN SCOPE OF WORK & PROTECTION MEASURES WHICH MAY BE REQUIRED. NOTIFY ARCHITECT OF ANY CONCERNS.
- D. DEMOLITION DRAWINGS ARE SCHEMATIC & INDICATE GENERAL SCOPE OF DEMOLITIONS WORK ONLY.
- E. THE CONTRACTOR SHALL CONFINE OPERATIONS AT THE SITE TO AREAS PERMITTED BY LAW, ORDINANCES, PERMITS AND THE CONTRACT DOCUMENTS AND SHALL NOT UNREASONABLY ENCUMBER THE SITE WITH ANY MATERIALS OR EQUIPMENT.
- F. CAREFULLY PROTECT EXISTING CONSTRUCTION TO REMAIN DURING ALL PHASES OF DEMOLITION & NEW CONSTRUCTION ACTIVITIES. REPAIR OR REPLACE ANY EXISTING CONSTRUCTION TO REMAIN WHICH IS DAMAGED AS A RESULT OF DEMOLITIONS OR CONSTRUCTION ACTIVITIES.
- G. PROVIDE AND MAINTAIN BARRICADES, TEMPORARY ENCLOSURES, DUST BARRIERS, SIGNAGE, ETC. AS REQUIRED TO INSURE PROTECTION FOR WORKMEN, ADJACENT CONSTRUCTION TO REMAIN AND OCCUPANTS OF THE BUILDING.
- H. CONTRACTOR SHALL NOT DISTURB THE DELIVERIES AND FUNCTIONS OF ADJACENT TENANTS OR MALL OPERATION DURING THE ENTIRE DURATION OF THE PROJECT.
- I. COORDINATE WITH BUILDING MANAGEMENT FOR ALL STOCK PILE ITEMS TO BE SALVAGED, SUCH AS CEILING TILES, DOORS, FRAMES, HARDWARE, LIGHT FIXTURES AND BRUSHED ALUMINUM FINISH EXIT LIGHT FIXTURES.
- J. DISPOSE OF ALL ITEMS IN A LAWFUL MANNER.

DEMOLITION

- K. ALL AREAS THAT ABUT DEMOLITION WHICH ARE AFFECTED MUST BE REPAIRED AND REFURBISHED AS REQUIRED.
- L. COORDINATE MEP ITEMS WITH LANDLORD & TENANT.

	EXISTING CONSTRUCTION TO BE REMOVED
	EXISTING CONSTRUCTION TO REMAIN
DEMO EXT	ERIOR ELEVATION KEY NOTES
A	REMOVE PORTION OF EXISTING CONCRETE WALK & CURB
В	REMOVE EXISTING DOWNSPOUT
С	REMOVE AND SALVAGE EXISTING LIGHT FIXTURE
D	REMOVE EXISTING CANOPY
E	REMOVE PORTION OF EXISTING EXTERIOR WALL METAL PANEL & SUBSTRATE. EXISTING PRE- ENGINEERED BUILDING STRUCTURE TO REMAIN
F	REMOVE AND SALVAGE EXISTING DOOR & FRAME
G	REMOVE AND SALVAGE EXISTING WINDOW
Н	REMOVE AND SALVAGE EXISTING BEXAR COUNTY PUBLIC WORKS SIGN FOR RE-INSTALLATION
	REMOVE AND SALVAGE EXISTING VIDEO SURVEILLANCE CAMERA
L	REMOVE AND SALVAGE EXISTING EQUIPMENT
К	REMOVE AND SALVAGE EXISTING VENT
L	REMOVE EXISTING PIPE
M	EXISTING VENT TO REMAIN
N	EXISTING WINDOW TO REMAIN
0	EXISTING DOOR & FRAME TO REMAIN
P	REMOVE AND SALVAGE EXISTING LIGHT FIXTURE
Q	EXISTING ROOF TO REMAIN
R	REMOVE AND SALVAGE EXISTING KNOX BOX & ASSOCIATED SIGNAGE
S	EXISTING GUTTER TO REMAIN
Т	REMOVE AND SALVAGE EXISTING CONDENSING UNIT. EXISTING PAD TO REMAIN. REF. MEP
U	REMOVE AND SALVAGE EXISTING ACCESSIBLE PARKING SIGNAGE FOR RE-INSTALLATION
V	REMOVE AND SALVAGE EXISTING LOUVER, INFILL WALL TO MATCH EXISTING, REF. MEP
W	CAP EXISTING VENT, REF. MEP
X	EXISTING CONDENSING UNIT AND PAD TO REMAIN, REF. MEP
Y	EXISTING DOWNSPOUT TO REMAIN

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Project NO.:21014 Date:09/30/2021 Revisions:

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EXISTING INFORMATION ON THIS DRAWING WAS OBTAINED FROM A DRAWING PREPARED BY: R.W. OPTIZ & ASSOCIATES CONSULTING CIVIL ENGINEERS 1830 SHADOW PARK San Antonio, Texas 78232 ROBERT W. OPITZ P.E. #25654

Project NO.:21014 Date:09/30/2021 Revisions:

PRE-ENGINEERED METAL BUILDING NOTES:

<u>MB-1</u> THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SITE CONDITIONS PRIOR TO DESIGN, FABRICATION OR ERECTION OF PRE-ENGINEERED BUILDING.

MB-2 PRE-ENGINEERED METAL BUILDING SHALL BE DESIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER HAVING THREE (3) OR MORE YEARS EXPERIENCE IN THE DESIGN OF THE TYPE OF BUILDING INDICATED ON THE CONTRACT DOCUMENTS.

<u>MB-3</u> THE METAL BUILDING AND COMPONENTS SHALL BE DESIGNED IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE (2018) AS AMENDED AND ADOPTED BY THE GOVERNING AUTHORITY, AND APPLICABLE INDUSTRY STANDARDS (AISC, ACI, ETC.). MINIMUM REQUIREMENTS SHALL BE AS FOLLOWS:

WIND SPEED . . PER IBC 2018

CONSTR. TYPE	LIVE LOADS	SNOW OR WIND LOADS	DEAD + LIVE
ROOF MEMBERS & PURLINS			
SUPPORTING PLASTER CEILINGS	I/360	I/360	I/240
SUPPORTING NON PLASTER CEILINGS	I/240	I/240	I/180
NON SUPPORTING CEILINGS	I/180	I/180	I/120
FLOOR MEMBERS			
TYPICAL	I/360		I/240
SUPPORTING MASONRY	I/600		I/480
GIRTS, FRAMES, RAFTERS, END WALI EXTERIOR WALLS AND INTERIOR PAR	- POST SUPPO	RTING	
SUPPORTING STUCCO, EIFS OR PLASTER	I/360	I/360	I/240
SUPPORTING MASONRY OR BRICK	I/600	I/600	I/480
SUPPORTING CONCRETE PANELS	I/360	I/360	I/360
SUPPORTING METAL WALL PANELS ONLY (WITH INTERIOR FINISH)	I/360	I/360	I/240
SUPPORTING METAL WALL PANELS ONLY (NO INTERIOR FINISH)	I/180	I/180	I/90
FRAME DRIFT/ SIDEWAY (IF BLDG. CONTAINS MORE THAN ONE OF THE TYPES ON CONSTRUCTION, CI THE MOST STRINGENT, UNLESS THE E FRAME DESIGNS CAN BE SEPARATED)	HOOSE BLDG.		
SUPPORTING CONTAINING STUCCO, EIFS OR PLASTER		H/180	
SUPPORTING MASONRY OR BRICK		H/300	
SUPPORTING CMU		H/300	
SUPPORTING METAL WALL PANELS ONLY (WITH INTERIOR FINISH)		H/180	
SUPPORTING METAL WALL PANELS ONLY (NO INTERIOR FINISH)		H/90	

MB-4 THE METAL BUILDING AND COMPONENTS SHALL BE DESIGNED TO CARRY ITS OWN WEIGHT PLUS ALL SUPERIMPOSED DEAD AND LIVE LOADS INCLUDING WIND LOADS. VERIFY ALL LOADS WITH MECHANICAL, ELECTRICAL AND ARCHITECTURAL PLANS.

<u>MB-5</u> DESIGN AND MEMBERS FOR FRAMED OPENINGS SHALL BE PROVIDED AS PART OF THE METAL BUILDING DESIGN.

<u>MB-6</u> THE CONTRACTOR SHALL PROVIDE DOCUMENTATION INDICATING DESIGN LOADS, DESIGN ASSUMPTIONS, INTENT AND CRITERIA USED PRIOR TO FABRICATION OF METAL BUILDING AND COMPONENTS.

<u>MB-7</u> THE ANCHOR BOLTS FOR CONNECTING THE PRE-ENGINEERED BUILDING FRAMES AND END WALL COLUMNS TO THE FOUNDATION WILL BE DESIGNED BY THE METAL BUILDING MANUFACTURER. THE CONTRACTOR SHALL COORDINATE THE CONNECTION OF THE BUILDING FRAME WITH THE SUPPLIER PRIOR TO CONSTRUCTION.

<u>MB-8</u> THE FOUNDATION HAS BEEN DESIGNED USING THE SCHEDULED ASSUMED REACTIONS FOR THE PRE-ENGINEERED BUILDING COMPONENTS AND IS FOR BID PURPOSES ONLY. THE CONTRACTOR SHALL SUBMIT BASE CONNECTION DETAILS AND REACTIONS OF THE BUILDING FRAMES TO THE A/E PRIOR TO CONSTRUCTION SO THE DESIGN ASSUMPTIONS AND FOUNDATION CONNECTIONS CAN BE VERIFIED.

<u>MB-9</u> ANY ADDITIONAL COST OF FOUNDATION WORK REQUIRED BY REVISIONS OF THE FOUNDATION DESIGN AFTER PRE-ENGINEERED BUILDING REACTIONS AND DETAILS ARE SUBMITTED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

<u>MB-10</u> AT EACH COLUMN ADD #5 HAIRPIN REINFORCING PER DETAIL BELOW.

LA PROJECT LA FILE NO.:

REINFORCING BAR LAP SPLICE TABLE (MASONRY)

				1			
		CONCRETE f'c (PSI) AND LAP					
BAR SIZE	POSITION	2500	3000				
SIZE		В	В				
#3 thru #6	ALL	40db	40db				
#7 thru #11	ALL	72db	72db				

KEINFUKUING BAR LAP SPLICE TABLE (BEAMS AND COLUMNS,

BAR		CONCRETE f'c (PSI) AND LAF					
	POSITION	3000	4000	5000	6000		
SIZE		В	В	В	В		
#3 thru #6	ALL	74db	64db	58db	50db		
#7 thru #11	ALL	93db	80db	72db	60db		

REINFORCING BAR LAP SPLICE TABLE (SLABS AND WALLS)

BVD		C	CONCRETE f'c (PSI) AND LAF				
BAR	POSITION	3000	4000	5000			
SIZE		В	В	В			
#3 thru #6	0.75" COVER 2.0" COVER	75db 46db	64db 40db	58db 40db			
#7 thru #11	0.75" COVER 2.0" COVER	138db 74db	120db 65db	106db 56db			

REBAR LAP SPLICE TABLE NOTES.

RL-1 "db" DENOTES BAR DIAMETER.

CENTER TO CENTER SPACING OF 2.0db.

<u>RL-2</u> ALL SPLICES SHALL BE CLASS B UNLESS OTHERWISE NOTED.

<u>RL-3</u> VALUES APPLY TO ALL BARS WITH MINIMUM CONCRETE COVER 1.0db AND MINIMUM

<u>*RL-4*</u> FOR LIGHTWEIGHT CONCRETE, MULTIPLY BY 1.3.

<u>**RL-5</u>** THE CHART ABOVE IS A SIMPLIFIED AND CONSERVATIVE METHOD FOR MEETING THE</u> REQUIREMENTS OF ACI 12.2.2. THE CONTRACTOR MAY SUBMIT A DETAILED REBAR SPLICING PLAN IN ACCORDANCE WITH ACI 12.2.2 FOR APPROVAL.

DEMOLITION NOTES:

DN-1 THE CONTRACTOR MUST REVIEW ALL WORK IN PROGRESS TO ASCERTAIN THAT ACTUAL STRUCTURAL CONDITIONS ENCOUNTERED REFLECT THOSE SHOWN ON THE DRAWINGS, AND REPORT ANY DISCREPANCIES TO THE STRUCTURAL ENGINEER

DN-2 DURING DEMOLITION CONTRACTOR SHALL IDENTIFY STRUCTURAL FRAMING AND LOAD PATHS IN AREA OF DEMOLITION TO PREVENT ACCIDENTAL COLLAPSE.

DN-3 CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL BRACING AND EQUIRED TO INSURE THE SAFETY AND STRUCTURAL INTEGRITY OF THE PROJECT DURING DEMOLITION OPERATIONS.

DN-4 CONTRACTOR SHALL INSPECT EXISTING STRUCTURAL ELEMENTS AND REPAIR OR REPLACE THOSE FOUND TO BE STRUCTURALLY UNSOUND AS DIRECTED BY STRUCTURAL ENGINEER OF RECORD. **<u>DN-5</u>** WHERE EXISTING CONCRETE IS NOTED TO BE REMOVED, WORK SHALL BE

INITIATED BY MEANS OF SAW CUTS AT LEAST 1" DEEP OR BY PERFORATING WITH CLOSELY SPACED THRU-DRILLED HOLES. IF REINFORCING IS TO REMAIN. INITIATE WITH SAW CUTS APPROXIMATELY 3/4" DEEP. DEMOLITION SHALL PROCEED USING HAND HELD ROTARY TOOLS AND/OR LOW IMPACT CHIPPING DEVICES. NO JACK HAMMERS OR SIMILAR HEAVY IMPACT EQUIPMENT WILL BE PERMITTED.

DN-6 INITIATE SAWCUTTING THRU WALLS AND SLABS WITH 3" CORE HOLES AT ALL CORNERS TO PREVENT OVERCUTS. OVERCUTS ARE NOT PERMITTED.

DN-7 REPLACE ALL CONCRETE COVERAGE, REMOVED TO INSTALL NEW STEEL MEMBERS, TO MAINTAIN FIRE PROTECTION OF MAIN STRUCTURAL FRAMING.

DN-8 ALL TEMPORARY SHORING IS TO BE DESIGNED AND DETAILED BY A LICENSED PROFESSIONAL ENGINEER. SIGNED AND STAMPED DRAWINGS ARE TO BE SUBMITTED TO THE A/E TEAM FOR REVIEW AND APPROVAL PRIOR TO FABRICATION AND CONSTRUCTION.

	COLUMN SCHEDULE						
MARK	MARK SECT. TOP BASE PLATE CONN. WxDxt ANCHORS SECT.						
C1	HSS4x4x3/8		8x8x1/2	4-3/4" DIA. X 1'-4" HCA	3/S1.0		

STEEL COLUMN NOTES:

1. COLUMN MARKS AT ANY LEVEL INDICATE THE TYPE COLUMN WHICH IS BELOW THAT LEVEL.

2. PROVIDE 1" OF A 1/4" FILLET WELD TO EA. SIDE OF COLUMN PRIOR TO RELEASE OF COLUMN FROM ERECTION EQUIPMENT.

REMARKS

CONCRETE NOTES:

<u>CN-1</u> CONCRETE SHALL BE LABORATORY DESIGNED TO DEVELOP MINIMUM 28-DAY COMPRESSIVE STRENGTHS AS GIVEN BELOW. REFER TO SPECIFICATIONS FOR AGGREGATES, CEMENT, ADMIXTURES, ETC.

NOTE: FLY ASH WILL BE PERMITTED UP TO 20% PORTLAND CEMENT REPLACEMENT, REFER TO SPECIFICATIONS.

<u>CN-2</u> REINFORCING STEEL SHALL BE FROM NEW BILLET AND SHALL CONFORM TO THE FOLLOWING ASTM SPECIFICATIONS:

A615-GR 60	BEAM STIRRUPS, COLUMN TIES
A615-GR 60	ALL OTHER REINFORCING
ASTM A108-60T	HEADED CONCRETE ANCHORS
ASTM A496	DEFORMED BAR ANCHORS

<u>CN-3</u> DETAILING OF CONCRETE REINFORCEMENT BARS AND ACCESSORIES SHALL BE IN ACCORDANCE WITH LATEST ACI MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES (ACI 315). BAR SUPPORTS SHALL HAVE PLASTIC COATED LEGS OR BE HOT DIPPED GALVANIZED AFTER FABRICATION.

<u>CN-4</u> PROVIDE BAR LAPS AND SPLICES PER REINFORCING BAR LAP SPLICE FABLE BELOW. SEE "CORNER DETAILS" FOR CONTINUOUS BARS AT CORNERS SPIRALS SHALL BE LAPPED 1-1/2 TURNS. WELDED WIRE MESH SHALL BE LAPPED 8" MINIMUM AT SPLICE POINTS, OR 1-1/2 MESHES, WHICHEVER IS GREATEST.

<u>CN-5</u> CONTRACTOR SHALL PROVIDE NECESSARY CONSTRUCTION JOINTS IN MONOLITHIC CONCRETE FORMING SO THAT NOT MORE THAN 400 CUBIC YARDS IS POURED IN ONE DAY. LOCATION OF CONSTRUCTION JOINTS MUST HAVE PRIOR APPROVAL OF STRUCTURAL ENGINEER OF RECORD AND SHALL GENERALLY BE LOCATED AT OR NEAR MID-POINTS OF SPANS OF SLAB, BEAMS AND WALLS. ALL CONTINUOUS REINFORCING SHALL BE CARRIED THROUGH THE JOINT. SEE DETAILS FOR CONTINUOUS KEY BETWEEN ADJACENT POURS.

<u>CN-6</u> SEE ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR LOCATION AND SIZES OF ALL SLAB OPENINGS AND SLEEVES, INSERTS, ANCHORS AND BOLTS REQUIRED BY ABOVE.

CN-7 REFER TO ARCHITECTURAL DRAWINGS FOR ALL FLOOR FINISHES, DIMENSIONS AND LOCATIONS OF SLAB DROPS AND DEPRESSIONS.

CN-8 MECHANICAL AND ELECTRICAL CONDUITS IN SLABS SHALL RUN UNDER HE TOP LAYER OF SLAB REINFORCING OR WELDED WIRE FABRIC. PROVIDE A MINIMUM OF 1-1/2" CLEAR BETWEEN INDIVIDUAL CONDUITS, AND BETWEEN CONDUIT AND PARALLEL REINFORCING. DO NOT "BUNDLE" CONDUITS.

<u>CN-9</u> "HEADED CONCRETE ANCHORS" (HCA) SHALL BE OF 50,000 PSI STEEL KOD WITH UPSET ENDS, AUTOMATICALLY ARC WELDED THROUGH CERAMIC FERRULES, "NELSON CONCRETE ANCHORS" OR EQUAL.

MECHANICAL TESTING OF HCA IN SHOP

MECHANICAL TESTS SHALL BE MADE BEFORE INITIATION OF PRODUCTION WELDING AND AFTER ANY EQUIPMENT MAINTENANCE TO ENSURE THAT THE WELDING SCHEDULE IS SATISFACTORY. THEY MAY ALSO BE MADE DURING THE PRODUCTION RUN OR AT THE BEGINNING OF A SHIFT TO ENSURE THAT WELDING CONDITIONS HAVE NOTE CHANGED. ARC WELDING STUDS ARE TESTED BY BENDING THE STUD. BENDING MAY BE DONE BY STRIKING THE STUD WITH A HAMMER OR BY BENDING IT USING A TUBE OR PIPE, THE ANGLE THROUGH WHICH THE STUD WILL BEND WITHOUT WELD FAILURE WILI DEPEND ON THE STUD AND BASE METAL COMPOSITIONS, CONDITIONS (COLD WORKED, HEAT TREATED), AND STUD DESIGN. ACCEPTABLE BENDING SHOULD BE DETERMINED WHEN THE WELDING PROCEDURE SPECIFICATION IS ESTABLISHED OR FROM THE APPLICABLE WELDING CODE. BEND TESTING MAY DAMAGE THE STUD; THEREFORE, IT SHOULD BE DONE ON QUALIFICATION SAMPLES ONLY. THE METHOD USED TO APPLY TENSILE LOAD ON AN ARC WELDED STUD WILL DEPEND ON THE STUD DESIGN. SPECIAL TOOLING MAT BE REQUIRED TO GRIP THE STUD PROPERLY WITHOUT DAMAGE, AND A SPECIAL LOADING DEVICE MAY BE NEEDED.

MECHANICAL TESTING OF HCA IN FIELD

MECHANICAL TESTS SHALL BE MADE IN THE FIELD BEFORE PLATES ARE INSTALLED IN CONCRETE. THE CONTRACTOR SHALL SUPPLY A MINIMUM OF ONE ADDITIONAL PER 50 PLATES OF EACH TYPE OR ADDITIONAL STUDS SHALL BE PLACED ON SPECIAL CONFIGURATION PLATES AND MEMBERS. THESE STUDS SHALL BE TESTED IN THE FIELD. ARC WELDED STUDS ARE TESTED BY BENDING THE STUD. BENDING MAY BE DONE BY STRIKING THE STUD WITH A HAMMER OR BY BENDING IT USING A TUBE OR PIPE. THE ANGLE THROUGH WHICH THE STUD WILL BEND WITHOUT WELD FAILURE WILL DEPEND ON THE STUD AND BASE METAL COMPOSITIONS, CONDITIONS (COLD WORKED. HEAT TREATED). AND STUD DESIGN. BEND TESTING MAY DAMAGE, THUS THEY MAY NOT BE USED. THE STUD; THEREFORE, IT SHOULD BE DONE ON QUALIFICATION SAMPLES ONLY. THE METHOD USED TO APPLY TENSILE LOAD ON AN ARC WELDED STUD WILL DEPEND ON THE STUD DESIGN. PROPERLY WITHOUT DAMAGE, AND A SPECIAL LOADING DEVICE MAT BE NEEDED.

<u>CN-10</u> REFER TO SPECIFICATIONS FOR TESTING REQUIREMENTS. ALL TESTING SHALL BE AT POINT OF DISCHARGE. IF PUMP IS USED, TESTING SHALL BE AT THE END OF THE HOSE.

				DEINEODOING
WIANN	LENGTH	WIDTH	DEPTH	REINFORGING
F1	5'-0"	5'-0"	SEE NOTE	#5 @ 10"o.c. EACH WAY @ BOTTOM OF FTG.
F2	3'-0"	3'-0"	SEE NOTE	#5 @ 10"o.c. EACH WAY @ BOTTOM OF FTG.

NOTE: INTEGRAL SPREAD FOOTING SAME DEPTH AS DEEPEST BEAM

GENERAL NOTES:

GOVERNING AUTHORITY, AND APPLICABLE INDUSTRY STANDA ACI, ETC.).
<u>GN-2</u> THE DESIGN LOADS ARE:
SUPERIMPOSED DEAD LOADS MECHANICAL DUCTS/CONDUITS, CEILING, ETC 5 PSF MECHANICAL EQUIPMENT AS INDICATED ON PLANS
FLOOR LIVE LOAD CORRIDOR
ASSEMBLY AREAS: FIXED SEATS
ROOF LIVE LOAD FLAT ROOF
ROOF SNOW LOAD GROUND SNOW Pg5 PSFSNOW EXPOSURE FACTOR Ce1.0SNOW LOAD IMPORTANCE FACTOR Is1.1THERMAL FACTOR Ct1.0
WIND LOAD BASIC WIND SPEED (ULTIMATE DESIGN) 109 BUILDING CATEGORY
EARTHQUAKE LOADSSEISMIC IMPORTANCE FACTOR IeSPECTRAL RESPONSE ACCELERATION Ss14%SPECTRAL RESPONSE ACCELERATION S3%SPECTRAL RESPONSE COEF. SDs14%SPECTRAL RESPONSE COEF. SD5%SEISMIC DESIGN CATEGORYASEISMIC RESPONSE COEF Cs01
RETAINING WALLS GLOBAL STABILITY ANALYSIS FACTOR OF SAFETY 1.5 TYPECANTILEVER EQUIVALENT FLUID PRESSURE
FLOOD LOAD ELEVATION OF LOWEST FLOOR
<u>GN-3</u> ALLOWABLE STRESS DESIGN LOAD COMBINATIONS (FOR EXCEPT CONCRETE)
D D+L D+(Lr, or S or R) D+0.75L+0.75(Lr or S or R) D+(0.6W) D+0.75L+0.75(0.6W)+0.75(Lr, or S or R) 0.6D+0.6W D+0.7E
STRENGTH DESIGN LOAD COMBINATIONS (FOR CONCRETE DE
1.4D 1.2D+1.6L+0.5(Lr, or S or R) 1.2D+1.6(Lr, or S or R)+(L or 0.5W) 1.2D+1.0W+L+0.5(Lr, or S or R) 0.9D+1.0W 1.2D+E+L+0.2S
<u>GN-4</u> PRIOR TO START OF CONSTRUCTION, THE CONTRACTOR FABRICATOR SHALL VERIFY ALL QUANTITIES, DIMENSIONS AND AND NOTIFY ARCHITECT/STRUCTURAL ENGINEER OF RECORD DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.
<u>GN-5</u> UTILITIES PENETRATING BUILDING SHALL BE FLEXIBLE, U JOINTS, BENDS, LOOPS, ETC. TO PERMIT MOVEMENTS DUE TO UNDERLYING SOILS.
<u>GN-6</u> PROVIDE ADEQUATE AND APPROPRIATE STRUCTURAL S FRAMING FOR THE SUPPORT AND MOUNTING OF MECHANICAL RESTING ON, OR SUSPENDED FROM, STEEL SUPERSTRUCTUR
<u>GN-7</u> THE STRUCTURAL DRAWINGS FOR THIS PROJECT ARE C AND SHALL NOT BE REPRODUCED FOR USE AS FABRICATOR'S DRAWINGS. THE CONTRACTOR SHALL ALLOW ADEQUATE TIME EXPENSE FOR SUBCONTRACTORS TO PRODUCE THEIR OWN C ERECTION AND PLACEMENT DRAWINGS.
<u>GN-8</u> THE STRUCTURE HAS BEEN DESIGNED TO RESIST DESIGNED TO RESIST DESIGNED AND PROPOSED APPLICATION AND A COMPLETED STRUCTURE. ANY PROPOSED APPLICATION LOADS OR OF ANY LOADS TO THE PARTIALLY STRUCTURE WHICH EXCEED THE DESIGN LOADS WILL REQUIR REANALYSIS AND PROBABLE REDESIGN.
<u>GN-9</u> PROVIDE 5.0 TONS OF EXTRA REINFORCING STEEL, DETA FOR PLACING AND FABRICATION AS DIRECTED IN THE FIELD AN
<u>GN-10</u> PROVIDE 10.0 TONS OF EXTRA STRUCTURAL STEEL, DE LABOR FOR ERECTION AND FABRICATION AS DIRECTED IN THE SHOP.
CONTRACTOR NOTE
THE STRUCTURAL SYSTEM FOR THIS PROJECT SHA CONSTRUCTED BY USING THE STRUCTURAL DRAWIN THESE DRAWINGS WERE DEVELOPED FROM DATA PRIMARILY FROM THE ARCHITECTURAL DRAWING SECONDARILY FROM MEP, CIVIL AND OTHER DISC DOCUMENTS. IT IS INTENDED THAT CONSTRUCTION F UTILIZING ALL OF THE INFORMATION CONTAINED IN THI OF CONSTRUCTION DOCUMENTS TAKEN AS A WHOLE; F SO WILL RESULT IN ERRORS WHICH SHALL BE CORREG CONTRACTOR'S EXPENSE.

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<u>GN-1</u> THIS STRUCTURE IS DESIGNED IN ACCORDANCE WITH THE OPTED BY THE RDS (AISC,

	GRADE BEAM SCHEDULE				
MARK	W x D	MAIN REINFORCING	TIES		
GB1	18 x 30	2-#7 x CONT. TOP & BOTTOM	#3 @ 18"o.c.		
GB2	12 x 24	2-#7 x CONT. TOP & BOTTOM	#3 @ 18"o.c.		

FOUNDATION NOTES:

FN-1 5" CONCRETE SLAB REINFORCED W/ #4 @ 12"o.c. EACH WAY IN TOP. SUPPORT AT 4'-0"o.c. EACH WAY WITH CONCRETE BLOCKS OR BRICKS. SUPPORT BOTTOM BEAM REINFORCEMENT AT 4'-0" INTERVALS.

FN-2 15 MIL. POLYOLEFIN VAPOR RETARDER UNLESS NOTES OTHERWISE IN SPECIFICATIONS. AT ALL JOINTS PROVIDE 6" LAPS W/ 4" TAPE.

FN-3 COMPACTED SELECT FILL (SEE UF-6 "UNDERFLOOR FILL NOTES").

FN-4 ALL BEAM SOFFITS SHALL BEAR 12" MINIMUM INTO NATURAL GRADE OR COMPACTED FILL. ON PERIMETER, INCREASE SCHEDULED BEAM DEPTH AS REQUIRED FOR SOFFIT TO BEAR 12" MINIMUM BELOW FINISH GRADE.

FN-5 GRADE BEAMS AND SLAB TURNDOWNS SHALL BE FORMED BY WALLS AND SOFFIT OF CAREFULLY SHAPED TRENCH. USE A SMOOTH-MOUTHED BUCKET. IF A TOOTHED BUCKET IS USED, EXCAVATION SHALL BE STOPPED 6" ABOVE FINAL GRADE AND THE REMAINING EXCAVATION ACCOMPLISHED WITH A SMOOTH MOUTHED BUCKET OR BY HAND LABOR TO REMOVE ALL LOOSE SOILS DISTURBED BY THE BUCKET TEETH. WOODFORM EXPOSED FACES TO A DEPTH OF 8" BELOW FINISHED GRADE.

FN-6 AT ALL BEAM CORNERS & T-INTERSECTIONS, PROVIDE 4-#7 X 6'-0" CORNER BARS (2-TOP AND 2-BOTTOM).

<u>FN-7</u> TRENCHES SHALL BE VERIFIED FOR SIZE TO MAINTAIN CLEARANCES AROUND REINFORCEMENT PRIOR TO PLACING REINFORCEMENT.

FN-8 WHERE BEAM DEPTH EXCEEDS 36", ADD #4 @ 12"o.c. IN EACH FACE OF

UNDERFLOOR FILL NOTES:

UF-1 BEFORE ANY CONSTRUCTION IS BEGUN, PERFORM ROUGH GRADING AND CUT SWALES SO THAT GROUNDS WILL DRAIN AWAY FROM THE BUILDING. MAINTAIN DRAINAGE DURING ALL PHASES OF CONSTRUCTION SO THAT STORM WATER WILL BE CONDUCTED AWAY FROM THE BUILDING. KEEP EXCAVATIONS PUMPED FREE OF STORM WATER AT ALL TIMES.

JF-2 PRECAUTIONS SHALL BE TAKEN TO PROTECT OPEN EXCAVATIONS FROM EXCESSIVE LOSS OR GAIN IN NATURAL MOISTURE LEVEL PRIOR TO PLACEMENT OF BASE MATERIAL. KEEP MOIST DURING DRY WEATHER AND KEEP STORM WATER PUMPED OUT, INCLUDING NIGHTS AND WEEKENDS, DURING RAINS.

<u>UF-3</u> IN THE AREA OCCUPIED BY THE FOUNDATION AND ALL ADJACENT SIDEWALKS, PLUS 5'-0", REMOVE A MINIMUM OF 5'-0" OF TOPSOIL INCLUDING ALL ORGANIC MATERIALS, ROOTS, ETC. FROM THE SITE. DO NOT USE FOR UNDERFLOOR FILL. REMOVE ADDITIONAL MATERIAL AS NECESSARY TO PROVIDE A MINIMUM OF 5'-0" OF SELECT FILL AS PER UF-6

UF-4 THE RESULTING SURFACE SHALL BE PROOF ROLLED WITH A SUFFICIENTLY HEAVY ROLLER (15 TONS) TO LOCATE AND DENSITY WEAK AND COMPRESSIBLE ZONES. A MINIMUM OF 6 PASSES OF THE ROLLER IS REQUIRED. ANY SOFT SPOTS SHALL BE REMOVED AND REPLACED WITH COMPACTED SELECT FILL.

UF-5 THE ROLLED SUBGRADE SHALL BE SCARIFIED JUST PRIOR TO FILL PLACEMENT TO A MINIMUM DEPTH OF 6" AND RECOMPACTED TO MINIMUM OF 95% OF THE MAXIMUM DENSITY DETERMINED BY ASTM D698 COMPACTION TEST, MAINTAINING MOISTURE CONTENT BETWEEN -1 AND +3 PERCENTAGE POINTS UNTIL COVERED.

<u>UF-6</u> FOR A DISTANCE OF 5'-0" OUTSIDE OF THE BUILDING LINE AND ALL ADJACENT SIDEWALKS, AND BEGINNING AT THE LOW END, BUILD UP TO THE ELEVATION OF THE BOTTOM OF THE SLAB WITH SELECT CRUSHED STONE FILL CONFORMING TO TXDOT SPECIFICATIONS, ITEM 247, TYPE "A" GRADE 2. A MINIMUM THICKNESS OF 5'-0" IS REQUIRED. NO DIRT FILL SHALL BE USED UNDER THE BUILDING FOUNDATION. SUBMIT WRITTEN CERTIFICATION OF COMPLIANCE WITH TXDOT, ITEM 247 SPECIFICATIONS BY TEST PERFORMED ON FIELD EXAMPLES.

<u>UF-7</u> ALL FILL SHALL BE PLACED IN 8" LOOSE HORIZONTAL LIFTS AND COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM DENSITY AS DETERMINED BY ASTM D698 COMPACTION TEST, MAINTAINING MOISTURE CONTENT BETWEEN -1 AND +3 PERCENTAGE POINTS UNTIL COVERED. EXCESS FILL AT BUILDING PERIMETER SHALL BE CUT AND GRADED TO COMPLY WITH FINISHED GRADE REQUIREMENTS, AND SHALL BE OVERLAID WITH A 1'-0" THICK LAYER OF IMPERVIOUS CLAY FOR A MINIMUM DISTANCE OF 5'-0" FROM BUILDING LINE. REFER TO DETAIL ?/?.

UF-8 PERFORM ALL EARTH WORK DESCRIBED ABOVE BEFORE RENCHING FOR GRADE BEAMS OR MECHANICAL LINES.

SAN ANTONIO 123 Altgelt Avenue San Antonio, Texas 78201 Г: 210.736.3009 9901 McPherson Avenue, #104

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LL NOT BE NGS ALONE. DERIVED GS AND IPLINES' PROCEED BY IE ENTIRE SET AILURE TO DO CTED AT THE

3. CONCRETE CONSTRUCTION CONT.:							
L. REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.	PERIODIC	VERIFY IN-SITU CONCRETE STRENGTH PRIOR TO REMOVAL.	ACI 318-CH. 5.11, 5.13	*QUALIFICATIONS BASED ON ASTM E329			
M. POST INSTALLED REINFORCING & ANCHORS (EXPANSION ANCHORS, SCREW ANCHORS ADHESIVE ANCHORS, ECT.).	CONTINUOUS	THE SPECIAL INSPECTOR SHALL BE ON THE JOB SITE CONTINUOUSLY DURING ANCHOR INSTALLATION TO VERIFY ANCHOR TYPE, ANCHOR DIMENSIONS, CONRETE TYPE AND COMPRESSION STRENGTH, PRE-DRILLED HOLE DIMENSIONS, ANCHOR SPACING, EDGE DISTANCES, CONCRETE THICKNESS AND ANCHOR EMBEDMENT.	ACI 318 APPENDIX D-CH. D.9.1	*QUALIFICATIONS BASED ON ASTM E329 & ASTM C1077 OR CERTIFIED MANUFACTURER REPRESENTATIVE			
4. STEEL CONSTRUCTION			IBC 1705.2				
A . MATERIAL VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS AND WASHERS:	PERIODIC	1. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.	STRUCTURAL STEEL GENERAL NOTES	CWI/ASSOCIATE/TECHNICAL RADIATE, AWS OR CRSI			
	PERIODIC	2. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED.	APPLICABLE ASTM MATERIAL SPECIFICATIONS; AISC 335, SECTION A3.4; AISC LRFD, SECTION A3.3				
B . HIGH STRENGTH BOLTING:	PERIODIC	1. BEARING-TYPE CONNECTIONS.	IBC 1704.3.3; STRUCTURAL STEEL GENERAL NOTES	CWI/ASSOCIATE/TECHNICAL RADIATE, AWS OR CRSI			
	CONTINUOUS OR PERIODIC	2. SLIP-CRITICAL CONNECTIONS.	AISC LRFD SECTION M2.5				
C. MATERIAL VERIFICATION OF STRUCTURAL STEEL: PERIODIC		1. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.	IBC 1705.2; STRUCTURAL STEEL GENERAL NOTES	CWI/ASSOCIATE/TECHNICAL RADIATE, AWS OR CRSI			
		2. MANUFACTURERS' CERTIFIED MILL TEST REPORTS.	ASTM A 6 OR ASTM A 568				
D. MATERIAL VERIFICATION PERIODIC OF WELD FILLER MATERIALS:		1. IDENTIFICATION MARKINGS TO CONFORM TO AWS SPECIFICATION IN THE APPROVED CONSTRUCTION DOCUMENTS.	STRUCTURAL STEEL GENERAL NOTES	CWI/ASSOCIATE/TECHNICAL RADIATE, AWS OR CRSI			
	PERIODIC	2. MANUFACTURERS' CERTIFIED OF COMPLIANCE REQUIRED.	AISC, ASD, SECTION A3.6; AISC LRFD, SECTION A3.5				
E. WELDING: OF STRUCTURAL STEEL:	CONTINUOUS	1. COMPLETE & PARTIAL PENETRATION GROOVE WELDS.	IBC 1705.2.2.1; STRUCTURAL STEEL GENERAL NOTES	CWI AND ASNT			
	CONTINUOUS	2. MULTIPASS FILLET WELDS.	AWS D1.1	CWI AND ASNT OR LICENSED ENGINEER			
	CONTINUOUS	3. SINGLE-PASS FILLET WELDS > 5/16"					
	PERIODIC 4. SINGLE-PASS FILLET WELDS < 5/16"						
PERIODIC		5. FLOOR AND DECK WELDS.	AWS D1.3				
<i>F.</i> WELDING OF REINFORCING STEEL:	N/A	1. VERIFICATION OF WELD ABILITY OF REINFORCING STEEL OTHER THAN A706.	IBC 1705.2.2.1.2	CWI/ASSOCIATE/TECHNICIAN TRAINED IN FIELD OF WORK AND HAS AT LEAST ONE			
	N/A	2. REINFORCING STEEL-RESISTING FLEXURAL AND AXIAL FORCES IN INTERMEDIATE AND SPECIAL MOMENT FRAMES, AND BOUNDARY ELEMENTS OF SPECIAL REINFORCED CONCRETE SHEAR WALLS AND SHEAR REINFORCEMENT.		YEAR OF EXPERIENCE.			
	N/A	3. SHEAR REINFORCEMENT.					
	N/A	4. OTHER REINFORCING STEEL.					

DEFERRED SUBMITTALS					
BUILDING CONSTRUCTION	YES	NO	DESCRIPTION		
STEEL	Х		PEMB SHOP DRAWINGS		
CONCRETE		X	-		
WOOD		Х	-		

2B. PIER FOUNDATIONS				
A. THE GEOTECHNICAL ENGINEER OR A QUALIFIED E.I.T. INVOLVED IN THE ORIGINAL GEOTECHNICAL INVESTIGATION AND UNDER THE DIRECT SUPERVISION OF THE GEOTECHNICAL ENGINEER SHALL BE PRESENT DURING THE EXCAVATION OF THE FIRST PIER SHAFT. B. ALL FOOTINGS SHALL BE	N/A N/A	 VERIFY THE BEARING STRATUM IS ENCOUNTERED AT THE ANTICIPATED DEPTH. ADDRESS UNFORESEEN SUBSURFACE CONDITIONS, IF ANY. VERIFY CONFORMANCE WITH THE FOUNDATION RECOMMENDATIONS PROVIDE IN THE PROJECT "GEOTECHNICAL ENGINEERING STUDY" AND THE STRUCTURAL DRAWINGS ISSUED FOR THE PROJECT. PROVIDE RECORD OF EACH PIER INSTALLED. 	IBC 1705.8 GEOTECHNICAL REPORT; IBC 1705.8	GRADUATE ENGINEER *QUALIFICATIONS BASED ON ASTM E329 & ASTM C1077 *QUALIFICATIONS BASED ON
OBSERVED AND MONITORED BY A REPRESENTATIVE OF THE GEOTECHNICAL ENGINEER. THE CONTRACTOR SHALL PROVIDE THE GEOTECHNICAL ENGINEER WITH A COMPLETE SET OF STRUCTURAL DRAWINGS THAT ARE TO REMAIN WITH THE GEOTECHNICAL ENGINEER OR HIS REPRESENTATIVE.		2. RECORD LOAD TESTS, CUTOFF AND TIP OF EACH PIER.	GEOTECHNICAL REPORT;	ASTM E329 & ASTM C1077
3. CONCRETE CONSTRUCTION			IBC 1704 4	*OUAL IFICATIONS BASED ON
	TENODIC	SPACING, GRADE OF REBAR; AND PLACEMENT AT THE FOLLOWING FREQUENCY: COLUMNS: 10% BEAMS: 30% JOIST: 10% OTHER MEMBERS: RANDOMLY @ 20%	ACI 318: CH. 3.5, 7.1-7.7; CONCRETE AND REINFORCING GENERAL NOTES.	ASTM E329
B . REINFORCING STEEL WELDING	N/A	NO FIELD WELDING PERMITTED.	AWS D1.4 ACI 318: 3.5.2	CWI OR ASSOCIATE CWI
C. BOLTS TO BE INSTALLED IN CONCRETE PRIOR TO & DURING PLACEMENT OF CONCRETE WHERE ALLOWABLE LOADS HAVE	CONTINUOUS	VERIFY LOCATION, SIZE AND SPACING OF ANCHORS.	IBC 1705.3	**TECHNICIAN TRAINED IN FIELD OF WORK AND HAS AT LEAST ONE YEAR EXPERIENCE.
B ANCHORS TO BE INSTALLED IN EXISTING CONCRETE	CONTINUOUS	VERIFY LOCATION, SIZE AND SPACING OF ANCHORS.	IBC 1705.3	**TECHNICIAN TRAINED IN FIELD OF WORK AND HAS AT LEAST ONE YEAR EXPERIENCE.
E . VERIFY USE OF CONCRETE MIX DESIGN	PERIODIC	EACH CONCRETE POUR.	ACI 318-CH. 4, 5.2-5.4	*QUALIFICATIONS BASED ON ASTM C1077
F. SAMPLING OF FRESH CONCRETE.	CONTINUOUS EACH CONCRETE POUR;	1. ALL CONCRETE TESTING IS TO BE MADE AFTER WATER, IF ANY, IS ADDED AT SITE. 2. TAKE SAMPLES & PERFORM SLUMP, AIR & COMPRESSION TESTS IN ACCORDANCE WITH ASTM C-39 ON CONCRETE PLACED EACH DAY AT THE RATE OF ONHE SET OF FOUR CYLINDERS FOR EACH 80 cu. yds. OR FRACTION THEREOF. WHEN MORE THAN 80 cu. yds. IS BEING CONTINUOUSLY PLACED, THE INTERVAL BETWEEN TEST SAMPLES SHALL BE AT LEAST 50 cu. yds. SO AS TO BE REPRESENTATIVE OF THE WHOLE DAYS POUR. SAMPLES SHALL BE TAKEN AT THE THE POINT OD DEPOSIT IN THE FIELD & ALL CYLINDERS SHALL BE ACCURATELY MARKED & REFERENCED TO SHOW DATE, TIME & EXACT LOCATION IN THE STRUCTURE FROM WHICH THEY CAME. MAKE 7-DAY TEST ON TWO CYLINDERS & 28-DAY TEST ON TWO CYLINDERS. REPORST OF TESTS SHALL BE PROMPTLY SENT AS FOLLOWS: TWO TO THE PDPIRC (ARCHITECT), ONE TO THE ENGINEER AND ONE TO THE CONTRACTOR.	ACI 318-CH. 5.6, 5.8	*QUALIFICATIONS BASED ON ASTM C1077
G . PLACEMENT OF CONCRETE & SHOTCRETE.	CONTINUOUS		ACI 318-CH. 5.9, 5.10	*QUALIFICATIONS BASED ON ASTM C1077
<i>H</i> . MAINTENANCE OF SPECIFIED CURING TEMPERATURE & TECHNIQUES.	PERIODIC	EACH CONCRETE POUR	ACI 318-CH. 5.11, 5.13	*QUALIFICATIONS BASED ON ASTM C1077
I. PRE-STRESSED CONCRETE	N/A	1. APPLICATION OF PRESTRESSING FORCE. 2. GROUTING OF BOUNDED PRESTRESSING TENDONS IN SEISMIC-FORCE RESISTING SYSTEMS.		*QUALIFICATIONS BASED ON ASTM C1077
J. ERECTION OF PRECAST CONCRETE MEMBERS.	N/A			TECHNICIAN TRAINED IN FIELD OF WORK AND HAS AT LEAST ONE YEAR OF EXPERIENCE.
K. POST-TENSIONED CONCRETE:	N/A	1. VERIFY IN-SITU CONCRETE STRENGTH PRIOR TO STRESSING OF TENDONS.		*QUALIFICATIONS BASED ON ASTM E329
	N/A	2. THE POST-TENSIONING ENGINEER, OR A MEMBER OF HIS STAFF, SHALL INSPECT THE TENDON PLACEMENT AND CHAIRING TO INSURE COMPLIANCE WITH THE INTENT OF THE DESIGN.		
	N/A	3. CONTINUOUS INSPECTION IS REQUIRED DURING ALL STRESSING ACTIVITIES.		
	N/A	4. RECORDS OF ALL JACKING FORCES AND ELINGATIONS SHALL BE MADE IN ACCORDANCE WITH THE PTI FIELD MANUAL AND RECORDS SHALL BE PROMPTLY SUBMITTED TO THE ARCHITECT AND ENGINEER.		
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NOTES:

1 THESE INSPECTIONS DO NOT RELIEVE ENGINEER FROM STRUCTURAL OBSERVATIONS AS MAY REQUIRED BY IBC 2018, SECTION 1709, AND/OR CONTRACTUAL REQUIREMENTS OF ARCHITECT/CLIENT, (I.E. C141).

2 DEFINITIONS/TERM: PERIODIC VS. CONTINUOUS INSPECTIONS - REF. IBC

SECTION 1702 ADSC - THE INTERNATIONAL ASSOCIATION OF FOUNDATION DRILLING

ASNT - AMERICAN SOCIETY FOR NONDESTRUCTIVE TESTING

ASTM - AMERICAN SOCIETY FOR TESTING MATERIALS AWS - AMERICAN WELDING SOCIETY

CWI - CERTIFIED WELDING INSPECTOR

CRSI - CONCRETE REINFORCING STEEL INSTITUTE

PCI - PRECAST/PRESTRESSED CONCRETE INSTITUTE PTI - POST-TENSIONING INSTITUTE

N/A - NOT APPLICABLE

*TESTING AND INSPECTION DIRECTED BY ASTM E329 GUIDELINES.

Pursuant to IBC Chapter 17 (1704.2.1) provide the following Special Inspector Qualifications to the RDPiRC prior to start of inspections;

- 1. 2. a. b.
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IBC 1704.2.1 "written documentation demonstrating the competence and relevant experience or training of special inspectors who will perform special inspections and tests during construction. Experience or training shall be considered relevant where the documented experience or training is related in complexity to the same type of *special inspection* or testing activities for projects of similar complexity and material qualities." These qualifications are in addition to qualifications specified in other sections of the IBC.

	NCLUD	ING SPECIAL INSPECT	IONS)	
REQUIRED INSPECTION VERIFICATION, OR TEST	VERIFICATION MONITORING <u>FREQUENCY</u>	TYPE AND/OR FREQUENCY OF TESTING	IBC SECTION & REFERENCE <u>CRITERIA</u>	INSPECTOR QUALIFICATIONS
1. SOILS (SLAB ON GRADE)		SITE PREPARATION	IBC 1705.6	
A. SUB-GRADE 1. VISUAL OBSERVATION	PERIODIC	AT THE CONTRACTORS EXPENSE, INSTRUMENT READINGS SHALL BE TAKEN BY A LICENSED SURVEYOR TO VERIFY FINAL SUBGRADE ELEVATIONS AND SLOPES.	GEOTECHNICAL REPORT, BUILDING PAD GENERAL NOTES	*QUALIFICATIONS BASED ON ASTM D3740 LICENSED SURVEYOR
2. PROOFROLLING OBSERVATIONS	CONTINUOUS	PROOFROLLING SHALL BE MONITORED BY A GEOTECHNICAL ENGINEER. THE GEOTECHNICAL ENGINEER SHALL BE APPROVE THE TYPE OF PROOFROLLING EQUIPMENT AND PROCEDURES.	GEOTECHNICAL REPORT, BUILDING PAD GENERAL NOTES	*QUALIFICATIONS BASED ON ASTM D3740
3. MOISTURE CONDITIONING & RECOMPACTION	CONTINUOUS OR PERIODIC	PROVIDE (1) ON DENSITY TEST FOR EACH 3000 SQ. FT. REFER TO UNDERFLOOR FILL NOTES FOR TESTING SPECIFICATIONS.	GEOTECHNICAL REPORT, BUILDING PAD GENERAL NOTES	*QUALIFICATIONS BASED ON ASTM D3740
B. CHEMICAL INJECTION	N/A	QUALITY CONTROLLED TESTING AND EVALUATION PRIOR AND SUBSEQUENT TO INJECTION SHALL BE PERFORMED BY THE GEOTECHNICAL ENGINEER TO DETERMINE THE EFFECTIVENESS OF THE CHEMICAL INJECTION PROCESS. THE GEOTECHNICAL ENGINEER OR HIS REPRESENTATIVE SHALL MONITOR THE INJECTION PROCESS TO VERIFY AREA COVERAGE, INJECTION DEPTH AND TO REVIEW AND MONITOR THE SWELL TEST RESULTS.	GEOTECHNICAL REPORT, BUILDING PAD GENERAL NOTES	*QUALIFICATIONS BASED ON ASTM D3740
C. DURING FILL PLACEMENT	CONTINUOUS OR PERIODIC	VISUAL OBSERVATIONS: DURING PLACEMENT AND COMPACTION OF FILL, SPECIAL INSPECTOR SHALL DETERMINE THE MATERIAL BEING USED AND THE MAXIMUM LIFT THICKNESS COMPLY WITH ADDITIONAL SAMPLES TESTED EACH DAY, OR MORE OFTEN IF MATERIAL APPEARS TO VARY.	IBC 1705.6 GEOTECHNICAL REPORT, BUILDING PAD GENERAL NOTES	*QUALIFICATIONS BASED ON ASTM D3740
D. EVALUATION OF IN- PLACE DENSITY OF FILL	CONTINUOUS OR PERIODIC	PROVIDE (1) ON DENSITY TEST FOR EACH 3000 SQ. FT. REFER TO UNDERFLOOR FILL NOTES FOR TESTING SPECIFICATIONS.	IBC 1705.6 GEOTECHNICAL REPORT, BUILDING PAD GENERAL NOTES	*QUALIFICATIONS BASED ON ASTM D3740
E. TRENCH BACKFILLING:	CONTINUOUS OR PERIODIC	TRENCH BACKFILLING: TRENCH BACKFILLING WITH CLAY CAP AND PLACING OF CLAY PLUG SHALL BE MONITORED BY GEOTECHNICAL ENGINEER.		
2A. PILE FOUNDATIONS	I			
A. THE GEOTECHNICAL ENGINEER OR A QUALIFIED E.I.T. INVOLVED IN THE ORIGINAL GEOTECHNICAL INVESTIGATION AND UNDER THE DIRECT SUPERVISION OF THE GEOTECHNICAL ENGINEER SHALL BE PRESENT DURING THE EXCAVATION OF THE FIRST PILE.	N/A	 VERIFY THE BEARING STRATUM IS ENCOUNTERED AT THE ANTICIPATED DEPTH. ADDRESS UNFORESEEN SUBSURFACE CONDITIONS, IF ANY. VERIFY CONFORMANCE WITH THE FOUNDATION RECOMMENDATIONS PROVIDE IN THE PROJECT "GEOTECHNICAL ENGINEERING STUDY" AND THE STRUCTURAL DRAWINGS ISSUED FOR THE PROJECT. 	IBC 1705.7 GEOTECHNICAL REPORT;	GRADUATE ENGINEER *QUALIFICATIONS BASED ON ASTM E329 & ASTM C1077
B . ALL FOOTINGS SHALL BE OBSERVED AND MONITORED BY A REPRESENTATIVE OF THE GEOTECHNICAL ENGINEER. THE CONTRACTOR SHALL PROVIDE THE GEOTECHNICAL ENGINEER WITH A COMPLETE SET OF STRUCTURAL DRAWINGS THAT ARE TO REMAIN WITH THE GEOTECHNICAL ENGINEER OR HIS REPRESENTATIVE.	N/A	 PROVIDE RECORD OF EACH PILE INSTALLED. RECORD LOAD TESTS, CUTOFF AND TIP OF EACH PILE. 	IBC 1705.7 GEOTECHNICAL REPORT;	*QUALIFICATIONS BASED ON ASTM E329 & ASTM C1077

Testing Laboratory Qualifications meeting ASTM0329 and accreditation by AASHTO and/or A2LA, and CCRL of the National Bureau of Standards.

Special Inspector's name and proof of meeting the qualification requirements set forth in ASTM C1077 for concrete,

ASTM D3740 for soils,

ASTM C1093 for masonry.

ASTM D-2922 and D-3017 for Density control of compaction

TESTING & INSPECTION REQUIREMENTS

LAREDO 9901 McPherson Avenue, #104 Laredo, Texas 78045 T: 956.791.0405

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7. WOOD CONSTRUCTION		IBC 1704.6			LEVEL 1 INSPECTION CONT	:				3. STEEL CONSTRUCTION	CONT.:			
A. PREFABRICATED STRUCTURAL ELEMENTS & ASSEMBLIES	N/A	INSPECT STRUCTURAL LOAD BEARING MEMBERS AND ASSEMBLIES. VERIFY THAT THE FABRICATOR MAINTAINS DETAILED FABRICATION AND QUALITY	IBC 1705.5	TECHNICAL REPRESENTATIVE UNDER DIRECTION OF LICENSED		N/A				G . STEEL FRAME JOINT DETAILS; COMPLIANCE WITH APPROVED	PERIODIC	1. DETAILS SUCH AS BRACING & STIFFENING.	IBC 1705.2.1; STRUCTURAL DRAWINGS	PROJECT OF COMPLEX DETAILS: - ASSOCIATE CWI PROJECTS OF RELATIVELY
		CONTROL PROCEDURES THAT PROVIDE A BASIS FOR INSPECTION CONTROL OF THE WORKMANSHIP AND THE FABRICATOR'S ABILITY TO CONFORM TO		ENGINEER	THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:	N/A N/A	1. GROUT SPACE IS CLEAN. 2. PLACEMENT OF REINFORCEMENT AND CONNECTORS AND PRESTRESSING TENDONS AND ANCHORAGES			DOCUMENTS:	PERIODIC	2. MEMBER LOCATIONS.		SIMPLE DETAILS: - TECHNICIAN TRAINED IN FIELD OF WORK AND HAS
		REFERENCED STANDARDS. THE SPECIAL INSPECTOR SHALL REVIEW THE PROCEDURES FOR CODE RECURPTION OF THE FARPICATOR'S SCOPE OF				N/A	3. PROPORTIONS OF SITE-PREPARED GROUT AND PRESTRESSING GROUT FOR BONDED TENDONS.				PERIODIC	3. APPLICATION OF JOINT DETAILS AT EACH CONNECTION.		AT LEAST ONE YEAR OF EXPERIENCE.
		WORK.				N/A	4. CONSTRUCTION OF MORTAR JOINTS.			H. POST INSTALLED REINFORCING &	CONTINUOUS	THE SPECIAL INSPECTOR SHALL BE ON THE JOB SITE CONTINUOUSLY DURING ANCHOR INSTALLATION	ACI 318 APPENDIX D-CH. D.9.1	*QUALIFICATIONS BASED ON ASTM E329 & ASTM C1077
		REQUIRED WHERE THE FABRICATOR IS ENROLLED IN A NATIONALLY ACCEPTED INSPECTIONS PROGRAM ACCEPTABLE TO THE REGISTERED DESIGN PROFESSIONAL IS RESPONSIBLE CHARGE			D. GROUT PLACEMENT	N/A	1. VERIFY COMPLIANCE WITH CODE AND CONSTRUCTION DOCUMENTS PROVISIONS.			ANCHORS (EXPANSION ANCHORS, SCREW ANCHORS ADHESIVE ANCHORS, ECT.).		CONCRETE OR MASONRY TYPE, ANCHOR DIMENSIONS, CONCRETE OR MASONRY TYPE AND COMPRESSION STRENGTH, PRE DRILLED HOLE DIMENSIONS, ANCHOR SPACING, EDGE DISTANCES, CONCRETE OR MASONRY THICKNESS AND ANCHOR EMBEDMENT		MANUFACTURER REPRESENTATIVE
B . SITE BUILT ASSEMBLIES	N/A	SITE BUILT ASSEMBLIES SHALL BE INSPECTED IN ACCORDANCE WITH IBC SECTION 1704.1	IBC 1705.5	LICENSED ENGINEER OR HIS/HER REPRESENTATIVE.	E . PREPARATION OF ANY	N/A N/A	2. GROUTING OF PRESTRESSING BONDED TENDONS. 1. VERIFY COMPLIANCE WITH CODE AND		QUALIFICATIONS BASED ON					
C. DIAPHRAGMS	N/A	HIGH LOAD DIAPHRAGMS SHALL BE INSPECTED IN	IBC 1705.5.1		REQUIRED GROUT SPECIMENS, MORTAR		CONSTRUCTION DOCUMENTS PROVISIONS.		C1093	5. INSPECTION OF FABRICA	TORS FOR STRUCT			
		ACCORDANCE WITH IBC SECTION 1704.1, AND SHEATHING CHECKED FOR PROPER GRADE, THICKNESS, SIZE OF FRAMING MEMBERS AT ADJOINING PANEL EDGES, NAIL/STAPLE DIAMETER AND LENGTH, AND FASTENER PATTERN.			SPECIMENS AND/OR PRISMS SHALL BE OBSERVED. F . COMPLIANCE WITH	N/A	1. VERIFY COMPLIANCE WITH CODE AND			FABRICATION & IMPLEMENTATION PROCEDURES	PERIODIC	FABRICATION AND IMPLEMENTATION PROCEDURES. VERIFY THAT THE FABRICATOR MAINTAINS DETAILED FABRICATION AND QUALITY CONTROL OF THE WORKMANSHIP AND THE FABRICATOR'S ABILITY TO	IBC 1705.2.1	CWI, ASNT, LICENSED ENGINEER
					REQUIRED INSPECTION PROVISION OF THE		CONSTRUCTION DOCUMENTS PROVISIONS.					CONFORM TO APPROVED CONSTRUCTION DOCUMENTS AND REFERENCED STANDARDS. THE SPECIAL		
D. TROOD DIVROING	N/A	CHECK ALL REQUIRED PERMANENT AND LATERAL BRACING HAS BEEN INSTALLED ACCORDING TO STRUCTURAL DRAWINGS AND FABRICATOR DESIGN/SHOP DRAWINGS.			CONSTRUCTION DOCUMENTS AND THE APPROVED SUBMITTALS SHALL BE VERIFIED.							INSPECTOR SHALL REVIEW THE PROCEDURES FOR COMPLETENESS AND ADEQUACY RELATIVE TO THE CODE REQUIREMENTS FOR THE FABRICATOR'S SCOPE OF WORK.		
8. LIGHT GAGE FRAME CONS		IBC 1704.13			G . TESTING OF GROUT SPECIMENS, MORTAR	N/A	1. TEST ONE SET OF MORTAR CUBES PER 2000 sf		QUALIFICATIONS BASED ON C1093			EXCEPTION; SPECIAL INSPECTIONS SHALL NOT BE REQUIRED WHERE THE WORK IS DONE ON THE		
A . PREFABRICATED STRUCTURAL ELEMENTS & ASSEMBLIES	N/A	INSPECT STRUCTURAL LOAD BEARING MEMBERS AND ASSEMBLIES. VERIFY THAT THE FABRICATOR MAINTAINS DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES THAT PROVIDE A BASIS FOR INSPECTION CONTROL OF THE WORKMANSHIP AND	IBC 1705.5.1	TECHNICAL REPRESENTATIVE UNDER DIRECTION OF LICENSED ENGINEER	SPECIMENS AND/OR PRISMS.		 2. TEST ONE SET OF GROUT CYLINDERS PER 2000 sf OR PORTION THEREOF. 3. TEST ONE PRISM PER 6000 sf OR PORTION THEREOF. (SUBMITTED PRISM WILL BE ACCEPTABLE FOR FIRST PRISM TEST). 					PREMISES OF A FABRICATOR THAT IS ENROLLED IN A NATIONALLY ACCEPTED INSPECTIONS PROGRAM ACCEPTABLE TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. AT COMPLETION OF FABRICATION, THE APPROVED FABRICATOR SHALL SUBMIT A CERTIFICATE OF		
		THE FABRICATOR'S ABILITY TO CONFORM TO APPROVED CONSTRUCTION DOCUMENTS AND REFERENCED STANDARDS. THE SPECIAL INSPECTOR SHALL REVIEW THE PROCEDURES FOR CODE REQUIREMENTS FOR THE FABRICATOR'S SCOPE OF WORK			H. POST INSTALLED REINFORCING & ANCHORS (EXPANSION ANCHORS, SCREW ANCHORS ADHESIVE	N/A	THE SPECIAL INSPECTOR SHALL BE ON THE JOB SITE CONTINUOUSLY DURING ANCHOR INSTALLATION TO VERIFY ANCHOR TYPE, ANCHOR DIMENSIONS, MASONRY TYPE AND COMPRESSION STRENGTH, PRE DRILLED HOLE DIMENSIONS, ANCHOR SPACING, EDGE	ACI 318 APPENDIX D-CH. D.9.1	*QUALIFICATIONS BASED ON ASTM E329 & ASTM C1077 OR CERTIFIED MANUFACTURER REPRESENTATIVE			COMPLIANCE TO BUILDING OFFICIAL UPON REQUEST AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE STATING THAT THE WORK WAS PERFORMED IN ACCORDANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS.		
		EXCEPTION: SPECIAL INSPECTIONS SHALL NOT BE REQUIRED WHERE THE FABRICATOR IS ENROLLED IN			ANCHORS, ECT.).		DISTANCES, MASONRY THICKNESS AND ANCHOR EMBEDMENT.			6. MASONRY CONSTRUCTION	NC			
		A NATIONALLY ACCEPTED INSPECTIONS PROGRAM ACCEPTABLE TO THE REGISTERED DESIGN								EMPIRICALLY DESIGNED MASONRY, GLASS UNIT	SPECIAL INSPECTIONS		IBC 1705.4	
B. SITE BUILT	N/A	PROFESSIONAL IS RESPONSIBLE CHARGE. SITE BUILT ASSEMBLIES SHALL BE INSPECTED IN	IBC 1705.5.1	LICENSED ENGINEER OR	LEVEL 2 INSPECTION:		ENGINEERED MASONRY IN ESSENTIAL FACILITIES.	IBC 1704.5.3	QUALIFICATIONS BASED ON C1093	MASONRY, AND MASONRY VENEER IN NON-ESSENTIAL	NOT REQUIRED PER			
C DIAPHRAGMS		ACCORDANCE WITH IBC SECTION 1704.1	IRC 1705 10 3	HIS/HER REPRESENTATIVE.	A . FROM THE BEGINNING OF MASONRY	N/A	1. PROPORTIONS OF SITE-PREPARED MORTAR, GROUT, AND PRESTRESSING GROUT FOR BONDED			FACILITIES.	1704.5.1			
	N/A	ACCORDANCE WITH IBC SECTION 1704.1, AND SHEATHING CHECKED FOR PROPER GRADE, THICKNESS, SIZE OF FRAMING MEMBERS AT	100 1703 10.5		CONSTRUCTION, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:	N/A	TENDONS. 2. PLACEMENT OF MASONRY UNITS AND CONSTRUCTION OF MORTAR JOINTS.			LEVEL 1 INSPECTION:		ENGINEERED MASONRY IN NON-ESSENTIAL FACILITIES AND EMPIRICALLY DESIGNED MASONRY IN ESSENTIAL FACILITIES.	IBC 1705.4	QUALIFICATIONS BASED ON ASTM C1093
		ADJOINING PANEL EDGES, NAIL/STAPLE DIAMETER AND LENGTH, AND FASTENER PATTERN.				N/A	3. PLACEMENT OF REINFORCEMENT, CONNECTORS, AND PRESTRESSING TENDONS AND ANCHORAGES.			A. AS MASONRY CONSTRUCTION BEGINS, THE FOLLOWING SHALL	N/A	1. PROPORTIONS OF SITE-PREPARED MORTAR.		
D. TRUSS BRACING	N/A	CHECK ALL REQUIRED PERMANENT AND LATERAL BRACING HAS BEEN INSTALLED ACCORDING TO STRUCTURAL DRAWINGS AND FABRICATOR				N/A N/A	4. GROUT SPACE PRIOR TO GROUTING. 5. PLACEMENT OF GROUT.			BE VERIFIED TO ENSURE COMPLIANCE:				
		DESIGN/SHOP DRAWINGS.							_		N/A	2. CONSTRUCTION OF MORTAR JOINTS.		_
						N/A	6. PLACEMENT OF PRESTRESSING GROUT.				N/A	4. PRESTRESSING TECHNIQUE		_
					PROGRAM SHALL VERIFY:	N/A	1. SIZE AND LOCATION OF STRUCTURAL ELEMENTS.				N/A	5. GRADE AND SIZE OF PRESTRESSING TENDONS AND		
						N/A	2. TYPE, SIZE AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF			B . THE INSPECTION	N/A	ANCHORAGES. 1. SIZE AND LOCATION OF STRUCTURAL ELEMENTS.		
							MASONRY TO STRUCTURAL MEMBERS, FRAMES, OR OTHER CONSTRUCTION.			PROGRAW SHALL VERIFT.	N/A	2. TYPE, SIZE AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES, OR		
						N/A N/A	3. SPECIFIED SIZE, GRADE AND TYPE OF REINFORCEMENT.				N/A	OTHER CONSTUCTION. 3. SPECIFIED SIZE, GRADE AND TYPE OF		
						N/A					N/A	REINFORCEMENT. 4. WELDING OF REINFORCING BARS		_
						N/A	(TEMPERATURE BELOW 40 DEGREES F) OR HOT WEATHER (TEMPERATURE ABOVE 90 DEGREES F).				N/A	5. PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40 DEGREES F) OR HOT WEATHER (TEMPERATURE ABOVE 90 DEGREES F).		
							6. APPLICATION AND MEASUREMENT OF PRESTRESSING FORCE.				N/A	6. APPLICATION AND MEASUREMENT OF		
					C. PREPARATION OF ANY REQUIRED GROUT SPECIMENS, MORTAR SPECIMENS AND/OR PRISMS SHALL BE OBSERVED	N/A	1. VERIFY COMPLIANCE WITH CODE AND CONSTRUCTION DOCUMENTS PROVISIONS.		QUALIFICATIONS BASED ON C1093	<u>NOTES:</u>		PRESTRESSING FORCE.		
					D. COMPLIANCE WITH	N/A				<u>1</u> THESE INSPECTIONS OBSERVATIONS AS MAY CONTRACTUAL REQUIR	DO NOT RELIEVE ENG REQUIRED BY IBC 20 EMENTS OF ARCHITE	IINEER FROM STRUCTURAL 18, SECTION 1709, AND/OR CT/CLIENT, (I.E. C141).		
					REQUIRED INSPECTION PROVISIONS OF THE CONSTRUCTION DOCUMENTS AND THE APPROVED SUBMITTALS SHALL BE VERIFIED.					<u>2</u> DEFINITIONS/TERM: F SECTION 1702 ADSC - THE INTEL ASNT - AMERICAI ASTM - AMERICAI AWS - AMERICAI	PERIODIC VS. CONTINI RNATIONAL ASSOCIAT N SOCIETY FOR NOND N SOCIETY FOR TESTI	JOUS INSPECTIONS - REF. IBC ION OF FOUNDATION DRILLING ESTRUCTIVE TESTING NG MATERIALS		
					E. TESTING OF GROUT SPECIMENS, MORTAR SPECIMENS AND/OR PRISMS.	N/A	 TEST ONE SET OF MORTAR CUBES PER 2000 sf OR PORTION THEREOF. TEST ONE SET OF GROUT CYLINDERS PER 2000 sf OR PORTION THEREOF. TEST ONE PRISM PER 6000 sf OR PORTION THEREOF. (SUBMITTED PRISM WILL BE ACCEPTABLE FOR FIRST PRISM TEST). 		QUALIFICATIONS BASED ON C1093	CWI - CERTIFIED CRSI - CONCRETI PCI - PRECAST/PI PTI - POST-TENSI N/A - NOT APPLIC *TESTING AND INSPECT	WELDING INSPECTOR E REINFORCING STEE RESTRESSED CONCR ONING INSTITUTE ABLE	L INSTITUTE ETE INSTITUTE TM E329 GUIDELINES.		
					L			1						

DIC	1. DETAILS SUCH AS BRACING & STIFFENING.	IBC 1705.2.1; STRUCTURAL DRAWINGS	PROJECT OF COMPLEX DETAILS: - ASSOCIATE CWI - PROJECTS OF RELATIVELY
DIC	2. MEMBER LOCATIONS.		SIMPLE DETAILS: - TECHNICIAN TRAINED IN
DIC	3. APPLICATION OF JOINT DETAILS AT EACH CONNECTION.		AT LEAST ONE YEAR OF EXPERIENCE.
NUOUS	THE SPECIAL INSPECTOR SHALL BE ON THE JOB SITE CONTINUOUSLY DURING ANCHOR INSTALLATION TO VERIFY ANCHOR TYPE, ANCHOR DIMENSIONS, CONCRETE OR MASONRY TYPE AND COMPRESSION STRENGTH, PRE DRILLED HOLE DIMENSIONS, ANCHOR SPACING, EDGE DISTANCES, CONCRETE OR MASONRY THICKNESS AND ANCHOR EMBEDMENT.	ACI 318 APPENDIX D-CH. D.9.1	*QUALIFICATIONS BASED ON ASTM E329 & ASTM C1077 OR CERTIFIED MANUFACTURER REPRESENTATIVE
STRUCTI	JRAL STEEL		
JIC	FABRICATION AND IMPLEMENTATION PROCEDURES.VERIFY THAT THE FABRICATOR MAINTAINS DETAILED FABRICATION AND QUALITY CONTROL OF THE WORKMANSHIP AND THE FABRICATOR'S ABILITY TO CONFORM TO APPROVED CONSTRUCTION DOCUMENTS AND REFERENCED STANDARDS. THE SPECIAL INSPECTOR SHALL REVIEW THE PROCEDURES FOR COMPLETENESS AND ADEQUACY RELATIVE TO THE CODE REQUIREMENTS FOR THE FABRICATOR'S SCOPE OF WORK.EXCEPTION;SPECIAL INSPECTIONS SHALL NOT BE REQUIRED WHERE THE WORK IS DONE ON THE PREMISES OF A FABRICATOR THAT IS ENROLLED IN A NATIONALLY ACCEPTED INSPECTIONS PROGRAM ACCEPTABLE TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. AT COMPLIANCE TO BUILDING OFFICIAL UPON REQUEST AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE STATING THAT THE WORK WAS PERFORMED IN ACCORDANCE WITH THE APPROVED	IBC 1705.2.1	CWI, ASNT, LICENSED ENGINEER

2 ---()ш — Т \cup R \triangleleft SAN ANTONIO 123 Altgelt Avenue San Antonio, Texas 78201 T: 210.736.3009 LAREDO 9901 McPherson Avenue, #104 Laredo, Texas 78045 T: 956.791.0405

Project NO.:21014 Date:09/30/2021 Revisions:

LA PROJECT NO.: 35-114-00 LA FILE NO.: Southton Service Center

So Z LA PROJECT LA FILE NO.: \$

WHERE PLUMBING REQUIRES
 VERTICAL OF HORIZONTAL
 PENETRATION IN GRADE
 BEAM REFER TO DTL. 5/S3.0

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LAREDO 9901 McPherson Avenue, #104 Laredo, Texas 78045 T: 956.791.0405

SHAWN J. FRANKE 82639

SERVICE DOCUMENTS SET CONTRACT

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Project NO.:21014 Date:09/30/2021 Revisions:

LA PROJECT NO.: 35-114-00 LA FILE NO.: Southton Service Center R2

- 1. ALL NEW CONCRETE WALKS ARE TO HAVE A 5% MAX. SLOPE AND A 2% MAX. CROSS SLOPE.
- 2. CURB RAMPS ARE TO HAVE AN 8.3% MAX SLOPE AND A 2% MAX CROSS SLOPE, WITH 1/2" WIDE BY 1/8" DEEP GROOVES AT 2" O.C. EXTENDING THE FULL WIDTH OF THE RAMP AT AN ANGLE THAT WILL ALLOW WATER TO DRAIN FROM GROOVES. THE RAMP MUST ALSO BE OF CONTRASTING COLOR TO BE SELECTED BY THE ARCHITECT. FIELD VERIFY RISE TO SET RAMP DEPTH.
- PROVIDE GUARDRAILS AT ALL AREAS WHERE FINISH GRADE IS 30" OR GREATER ABOVE EXISTING GRADE.
- PROVIDE KNOX BOX IN LOCATIONS AS DIRECTED BY FIRE MARSHALL.
- WHERE CONCRETE PAVING MEETS VERTICAL CONSTRUCTION, PROVIDE 1/2" EXPANSION JOINT WITH PRE-MOLDED EXPANSION JOINT MATERIAL AND SEALANT.
- 6. ALL JOINTS SHOWN ON WALKS ARE CONTROL JOINTS AND EXPANSION JOINTS. CONTROL JOINTS AT 5'-0" O.C. AND EXPANSION JOINTS AT 20'-0" O.C. UNLESS SHOWN OTHERWISE.
- 7. REFER TO CIVIL DRAWINGS FOR ALL SITE RELATED ITEMS NOT SHOWN ON ARCHITECTURAL SHEETS.

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A	EQUIPMENT BY OWNER
В	FURNISHING BY OWNER
С	24" DEEP COUNTERTOP, REF. 10/A1.2
D	24" DEEP SHELVES, REF. 9/A1.2
E	DRINKING FOUNTAIN, REF. MEP
F	VENT THROUGH ROOF, REF. MEP, REF. 4/A1.1
G	FIRE EXTINGUISHER CABINET, MATCH EXISTING
H	PRE-ENGINEERED COLUMN BY METAL BUILDING MANUFACTURER, TYP.
	DASHED LINE INDICATES CANOPY ABOVE
L	EXISTING CONDENSING UNIT & PAD TO REMAIN, REF. MEP
К	PRE-FINISHED METAL DOWNSPOUT, MATCH EXISTING
L	CONDENSING UNIT & PAD, REF. MEP
M	CONDENSING UNIT ON EXISTING PAD, REF. MEP
N	ELECTRICAL PANEL, REF. MEP
0	WATER HEATER, REF. MEP
Р	WALL BOX, REF. MEP
Q	EXISTING FIRE ALARM CONTROL PANEL TO REMAIN
R	CLEANOUT, REF. MEP
S	FLOOR DRAIN, REF. MEP
Т	EXISTING FLOOR DRAIN TO REMAIN, REF. MEP
U	FURNISH & INSTALL FLOOR THRESHOLD WHERE EXISTING & NEW FOUNDATIONS TIE-IN , REF. SPECS
V	STEEL COLUMN, REF. STRUCTURAL
W	24" DEEP COUNTERTOP, REF. 11/A1.2
X	VIDEO DISPLAY UNIT & ASSOCIATED SUPPORTS, REF. SPECS

GENERAL NOTE:

REF. MEP DRAWINGS FOR PLUMBING FIXTURES

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ζ	B-2721
ζ	B-262
ζ	B-279
ζ	B-165 2436
ζ	B-2013
ζ	B-2116
ζ	B-239X34

TOILET ROOM ACCESSORIES

GENERAL NOTE:

REF. MEP DRAWINGS FOR PLUMBING FIXTURES

09/30/2021

OF

Ŷ Ш 78223 Z Ю EXAS \vdash Ш SAN ANTONIO, _ Ľ S Ш N RD. SOUTHTON SOU 9874

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PERMIT

DOCUMENTS

Project NO.:21014 Date:09/30/2021 Revisions:

CONTRACT

EXISTING MEZZANINE LIGHT

FIXTURE TO REMAIN, TYP.

REFLECTE	ED CEILING PLAN LEGEND
	GYPSUM BOARD CEILING
	2' X 4' ACOUSTICAL TILE CEILING
	METAL PANEL CEILING
	INSULATED METAL PANEL CEILING
\oslash	RECESSED CAN LIGHT, REF. MEP
\bigcirc	WALL MOUNTED LIGHT, REF. MEP
X	FLUORESCENT LIGHT 2' X 2', REF. MEP
X	FLUORESCENT LIGHT 2' X 4', REF. MEP
\square	MECHANICAL AIR SUPPLY, REF. MEP
	MECHANICAL AIR RETURN, REF. MEP
$\otimes \dashv$	WALL MOUNTED EXIT LIGHT, REF. MEP
\otimes	CEILING MOUNTED EXIT LIGHT, REF. MEP

GENERAL NOTE: EXISTING PRE-ENGINEERED METAL BUILDING STRUCTURE & ASSOCIATED

09/30/2021

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Project NO.:21014 Date:09/30/2021 Revisions:

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EXTERIOR ELEVATION NORTH ELEVATION 1/8" = 1'-0"

EXTERIOR KEY NOTE	ELEVATION & BUILDING SECTION
A	CONCRETE WALK. SLOPE TO DRAIN, REF. CIVIL
В	HOLLOW METAL DOOR & FRAME, PAINT TO MATCH EXISITING
С	PRE-FINISHED METAL DOWNSPOUT, MATCH EXISTING
D	PRE-FINISHED METAL GUTTER, MATCH EXISTING
E	PRE-FINISHED METAL FASCIA, MATCH EXISTING
F	CANTILEVER METAL CANOPY
G	PRE-FINISHED INSULATED METAL WALL PANEL BY METAL BUILDING MANUFACTURER, MATCH EXISTING
H	PRE-FINISHED INSULATED ROOF PANELS BY METAL BUILDING MANUFACTURER, MATCH EXISTING
	KNOX BOX & ASSOCIATED SIGNAGE, COORDINATE WITH FIRE MARSHAL FOR FINAL LOCATION
L	RE-INSTALL BEXAR COUNTY PUBLIC WORKS SIGN
К	RE-INSTALL ACCESSIBLE PARKING SIGNAGE
L	LIGHT FIXTURE, REF. MEP
M	EXISTING VENT TO REMAIN
N	EXISTING WINDOW TO REMAIN
0	EXISTING DOOR & FRAME TO REMAIN
P	EXISTING LIGHT FIXTURE TO REMAIN
Q	EXISTING ROOF TO REMAIN
R	PRE-ENGINEERED FRAME BY METAL BUILDING MANUFACTURER
S	EXISTING GUTTER TO REMAIN
T	CONDENSING UNIT & PAD, REF. MEP
U	EXISTING PRE-ENGINEERED METAL BUILDING FRAME TO REMAIN
V	EXISTING CONCRETE FOUNDATION TO REMAIN
W	CONCRETE FOUNDATION, REF. STRUCTURAL
X	CEILING, REF. REFLECTED CEILING PLAN
Y	EXISTING CHAINLINK PARTITION AND GATE TO REMAIN
Z	CHAINLINK PARTITION, MATCH EXISTING
AA	AIR HANDLING UNIT, REF. MEP
AB	EXISTING CONDENSING UNIT & PAD TO REMAIN, REF. MEP
AC	CAP EXISTING VENT, REF. MEP
AD	INFILL WALL TO MATCH EXISTING, REF. MEP
AE	VENT, REF. MEP
AF	VENT THROUGH ROOF, REF. MEP, REF. 4/A1.1
AG	CONDENSING UNIT ON EXISTING PAD, REF. MEP
AH	EXISTING DOWNSPOUT TO REMAIN

09/30/2021

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78223 EXAS SAN ANTONIO, T SOUTHTON RD. 9874

 $2^{\text{WALL SECTION}}_{3/4" = 1'-0"}$

	WALL SEC	TION & SECTION DETAIL KEY NOTES
	A	CONCRETE WALK. SLOPE TO DRAIN, REF. CIVIL
	В	DOOR & FRAME, PAINT. REF. DOOR SCHEDULE
	С	PRE-FINISHED METAL DOWNSPOUT, MATCH EXISTING
	D	PRE-FINISHED METAL GUTTER, MATCH EXISTING
	E	PRE-FINISHED METAL FASCIA, MATCH EXISTING
	F	CANTILEVER METAL CANOPY
	G	PRE-FINISHED INSULATED METAL WALL PANEL BY METAL BUILDING MANUFACTURER, MATCH EXISTING
	Н	PRE-FINISHED INSULATED ROOF PANELS BY METAL BUILDING MANUFACTURER, MATCH EXISTING
		RE-INSTALL BEXAR COUNTY PUBLIC WORKS SIGN
	L	EXISTING METAL WALL PANEL TO REMAIN
	К	LIGHT FIXTURE, REF. MEP
	L	EXISTING ROOF TO REMAIN
	M	PRE-ENGINEERED FRAME BY METAL BUILDING MANUFACTURER
	N	EXISTING GUTTER TO REMAIN
	0	EXISTING PRE-ENGINEERED METAL BUILDING FRAME TO REMAIN
<u>3' - 7 3/8"</u> PLATE HT. (LOW)	Р	EXISTING CONCRETE FOUNDATION TO REMAIN
	Q	CONCRETE FOUNDATION, REF. STRUCTURAL
	R	CEILING, REF. REFLECTED CEILING PLAN
	S	PURLIN BY METAL BUILDING MANUFACTURER
	Т	EAVE STRUT BY METAL BUILDING MANUFACTURER
2/A5.0	U	STEEL TUBE, REF. STRUCTURAL
	V	EXISTING PURLIN TO REMAIN
7]	W	EXISTING BEAM TO REMAIN
	x	3-5/8" METAL STUDS @ 16" O.C. WITH BATT INSULATION
	Y	3-5/8" METAL STUDS @ 16" O.C.
	Z	EXISTING EAVE STRUT TO REMAIN
	AA	EXPANSION JOINT
	AB	GABLE ANGLE BY METAL BUILDING MANUFACTURER
	AC	RAKE TRIM BY METAL BUILDING MANUFACTURER
	AD	GIRT BY METAL BUILDING MANUFACTURER
	AE	5/8" TYPE "X" GYPSUM BOARD, PAINT
	AF	2-1/2" METAL STUDS @ 16" O.C.
	AG	PRE-FINISHED EDGE TRIM
	AH	WOOD BLOCKING
	AI	METAL FLASHING
	AJ	BACKER ROD & SEALANT, PAINT BOTH SIDES
	AK	NOT USED
	AL	SEALANT
	AM	EAVE TRIM
	AN	BASE/EDGE COVER TRIM
	AO	TRANSITION TRIM
	AP	CLOSURE TRIM
- L SLUTION : 1'-0"	AQ	RIDGE CLOSURE, WITH SEALANT TAPE AND END LAP SEALANT TAPE
	AR	LOOSE FILL INSULATION

______A.<u>F.F.</u>______ PLATE HT. (LOW)

WALL SECTION 3/4" = 1'-0"

CENTER SAN ANTONIO, TEXAS 78223 PERMIT SET SERVICE 1 DOCUMENTS NO 9874 SOUTHTON RD., SOUTHT CONTRACT

Project NO.:21014 Date:09/30/2021 Revisions:

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1' - 6"

WALL SEC	TION & SECTION DETAIL KEY NOTES
A	CONCRETE WALK. SLOPE TO DRAIN, REF. CIVIL
В	DOOR & FRAME, PAINT. REF. DOOR SCHEDULE
(c)	PRE-FINISHED METAL DOWNSPOUT, MATCH EXISTING
	PRE-FINISHED METAL GUTTER, MATCH EXISTING
E	PRE-FINISHED METAL FASCIA, MATCH EXISTING
F	CANTILEVER METAL CANOPY
G	PRE-FINISHED INSULATED METAL WALL PANEL BY
	METAL BUILDING MANUFACTURER, MATCH EXISTING PRE-FINISHED INSULATED ROOF PANELS BY METAL
	EXISTING METAL WALL PANEL TO REMAIN
(K)	LIGHT FIXTURE, REF. MEP
(M)	MANUFACTURER
	EXISTING GUTTER TO REMAIN
0	EXISTING PRE-ENGINEERED METAL BUILDING FRAME TO REMAIN
P	EXISTING CONCRETE FOUNDATION TO REMAIN
Q	CONCRETE FOUNDATION, REF. STRUCTURAL
R	CEILING, REF. REFLECTED CEILING PLAN
S	PURLIN BY METAL BUILDING MANUFACTURER
Т	EAVE STRUT BY METAL BUILDING MANUFACTURER
U	STEEL TUBE, REF. STRUCTURAL
 > 	EXISTING PURLIN TO REMAIN
W	EXISTING BEAM TO REMAIN
X	3-5/8" METAL STUDS @ 16" O.C. WITH BATT INSULATION
Y	3-5/8" METAL STUDS @ 16" O.C.
Z	EXISTING EAVE STRUT TO REMAIN
AA	EXPANSION JOINT
AB	GABLE ANGLE BY METAL BUILDING MANUFACTURER
AC	RAKE TRIM BY METAL BUILDING MANUFACTURER
AD	GIRT BY METAL BUILDING MANUFACTURER
AE	5/8" TYPE "X" GYPSUM BOARD, PAINT
AF	2-1/2" METAL STUDS @ 16" O.C.
AG	PRE-FINISHED EDGE TRIM
AH	WOOD BLOCKING
AI	METAL FLASHING
AJ	BACKER ROD & SEALANT, PAINT BOTH SIDES
AK	NOT USED
AL	SEALANT
AM	EAVE TRIM
AN	BASE/EDGE COVER TRIM
AO	TRANSITION TRIM
AP	
AQ	RIDGE CLOSURE, WITH SEALANT TAPE AND END
AR	LOOSE FILL INSULATION

Project NO.:21014 Date:09/30/2021 Revisions:

SECTION DETAIL 1 1/2" = 1'-0"

<u>10</u>. a

2 PLAN DETAIL 1 1/2" = 1'-0"

PLAN DET	AILS KEY NOTES
A	PRE-FINISHED METAL DOWNSPOUT, MATCH EXISTING
В	PRE-FINISHED INSULATED METAL WALL PANEL BY METAL BUILDING MANUFACTURER, MATCH EXISTING
С	EXISTING METAL WALL PANEL
D	PRE-ENGINEERED FRAME BY METAL BUILDING MANUFACTURER
E	EXISTING PRE-ENGINEERED METAL BUILDING FRAME TO REMAIN
F	3-5/8" METAL STUDS @ 16" O.C. WITH BATT INSULATION
G	3-5/8" METAL STUDS @ 16" O.C.
H	GIRT BY METAL BUILDING MANUFACTURER
	5/8" TYPE "X" GYPSUM BOARD, PAINT
L	PRE-FINISHED EDGE TRIM
К	24" DEEP COUNTERTOP
L	24" DEEP SHELVES
M	DRINKING FOUNTAIN, REF. MEP
N	EXISTING COLUMN TO REMAIN
0	EXISTING GYPSUM BOARD, PAINT
P	FURNISH & INSTALL FLOOR THRESHOLD WHERE EXISTING & NEW FOUNDATIONS TIE-IN , REF. SPECS

09/30/2021

CONTRACT DOCUMENTS - PERMIT SET Project NO.:21014 Date:09/30/2021 Revisions:

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SERVICE

SOUTHTON

SAN ANTONIO, TEXAS 78223

9874 SOUTHTON RD.,

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								DOOU	
				DOOR		ELEVATIO			FRAME
DR		WIDTH	HEIGHT	TYPE	FINISH	N	GLAZING	TYPE	FINISH
D101	PAIR	3' - 0"	7' - 0"	НМ	PAINT	A	NONE	НМ	PAINT
D102	PAIR	3' - 0"	7' - 0"	WD	STAIN	A	NONE	HM	PAINT
D103	-	3' - 0"	7' - 0"	WD	STAIN	В	NONE	HM	PAINT
D104	-	3' - 0"	7' - 0"	WD	STAIN	В	NONE	HM	PAINT
D105	-	3' - 0"	7' - 0"	WD	STAIN	В	NONE	HM	PAINT
D106	-	3' - 0"	7' - 0"	WD	STAIN	В	NONE	HM	PAINT
D107	-	3' - 0"	7' - 0"	WD	STAIN	В	NONE	HM	PAINT
D108	-	3' - 0"	7' - 0"	WD	STAIN	В	NONE	HM	PAINT
D109	-	3' - 0"	7' - 0"	WD	STAIN	В	NONE	HM	PAINT
D110	PAIR	3' - 0"	7' - 0"	WD	STAIN	A	NONE	HM	PAINT
D111	-	3' - 0"	7' - 0"	WD	STAIN	В	NONE	EXISTING	PAINT
D112	-	2' - 8"	7' - 0"	WD	STAIN	В	NONE	EXISTING	PAINT

INTERIOR HOLLOW METAL FRAME, PAINT 3-5/8" METAL STUDS @ 16" O.C. BATT INSULATION 5/8" TYPE "X" GYPSUM BOARD, PAINT **9** WINDOW DETAIL - SILL 1/2" = 1'-0" WOOD BLOCKING SEALANT, PAINT 3-5/8" METAL STUDS @ 16" O.C. BOARD, PAINT DOOR, REF. BATT INSULATION SCHEDULE @ 16" O.C. BOARD, PAINT HOLLOW METAL DOOR FRAME, SEALANT, PAINT PAINT $4 \underset{3^{"}=1^{'}-0^{"}}{\mathsf{DOOR DETAIL}} - \mathsf{JAMB}$

45. lia.

78223 EXAS \vdash ANTONIO, SAN RD. SOUTHTON 9874

Ш LN SET PERMIT Ш \bigcirc Ш \bigcirc _____ DOCUMENTS **M** S E NO CONTRACT ⊢ \supset SO Project NO.:21014

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Date:09/30/2021

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MECHANICAL LEGEND

(NUTE: ALL SYMBOLS SHOWN ARE NOT NECESSARILY USED ON DRAWINGS)	(NOTE: ALL SYMBOLS SHOWN ARE N	IOT NECESSARILY USED ON DRAWINGS)
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		Т
	DUCTWORK	
12X10	DUCTWORK SIZE, 1st NO.	
12X10	VISIBLE DIMENSION	
A	DUCTWORK TO REMAIN	
آرر 12X10		
	DUCTWORK TURNING VANES	
12X10		
	BRANCH DUCT TAKEOFF	
VD VD		
	SPLITTER	
	TRANSITION (RECTANGULAR)	
	TRANSITION (RECTANGULAR TO ROUND)	
$\sim \sim \sim$	FLEXIBLE DUCT	
	VOLUME DAMPER	
FD	FIRE DAMPER COMBINATION (FD) SMOKE DAMPER (SD) OR FIRE/SMOKE DAMPER (F/SD) ALL WITH	\bigcirc
R R	ACCESS DOORS	<u> </u>
	CHANGE IN ELEVATION (R), (F)	\bigcirc
		φ
↓ □	SIDEWALL GRILLE OR REGISTER (SUPPLY)	
	SIDEWALL GRILLE OR REGISTER	
	(RETURN OR EXHAUST)	
	SUPPLY DUCT SECTION RECTANGULAR, FLAT, OVAL, ROUND	
	RETURN/EXHAUST/OUTSIDE AIR DUCT SECTION	D
\square	CEILING GRILLE OR REGISTER (SUPPLY)	□
\square	EXISTING CEILING DIFFUSER. (SUPPLY)	
	CEILING GRILLE OR REGISTER (EXHAUST OR RETURN)	Ø
Μ	MOTORIZED DAMPER	
(\mathbf{H})	HUMIDISTAT	OC
(\mathbf{I})	THERMOSTAT	
\bigcirc	CONNECTION POINT TO EXISTING	сЭ
		O
[DIFFUSER KEY	
DIFFUSER		
MARK	ROUND DUCT IS SAME	SLOPE
(A,100) UNLESS OTHERWISE NOTED.	
CFM		FD
S.A. DIFFUSER		
		1

	GENERAL NOTES			ABBREV	IATION
LVES	1 THESE GENERAL NOTES APPLY TO ALL SHEETS	А	BBREVIATIO		ABB
UATED TWO-WAY VALVE	2. IN ANY CASE WHERE A PIPE OR DUCT SHOWN ON A PLAN SHEET DIFFERS FROM		AFF	ABOVE FINISHED FLOOR	
UATED THREE-WAY VALVE	THAT SHOWN IN A SCHEMATIC OR DETAIL, USE THE LARGER OF THE TWO SIZES SHOWN.		AHU ALT ARCH	AIR HANDLING UNIT ALTERNATE ARCHITECT	
DN	3. PIPING SHOWN ON EACH PLAN IS RUN ABOVE THE CEILING ON THE FLOOR WHERE		AC	ABOVE CEILING	
FICE FLANGE	IT IS SHOWN UNLESS OTHERWISE NOTED.	В	BAL VA BFF	CIRCUIT SETTER BALANCING VALVE BELOW FINISHED FLOOR	
TERFLY VALVE	SIDE OF THE LIGHT SWITCHES WHERE BOTH OCCUR IN THE SAME LOCATION,		BF BLDG	BELOW FLOOR BUILDING	P
PERATURE/ PRESSURE RELIEF VALVE	UNLESS OTHERWISE NOTED.		BTUH HOUR B VA		
BE VALVE	5. NORMAL DESIGN CONDITIONS:		_ D VA CA	COMPRESSED AIR	
CK VALVE	SUMMER [·] 99°E DB 78°E WB 75°E 50% BH		CAP CFH	CAPACITY CUBIC FEET PER HOUR	R
E VALVE	WINTER: 25°F 72°F		CFM CHR	CUBIC FEET PER MINUTE CHILLED WATER RETURN	
E VALVE IN C.I. VALVE BOX	6. ALL DUCT DIMENSIONS SHOWN ARE CLEAR AIRSTREAM SHEETMETAL DIMENSIONS.		CHS CH VA CL	CHILLED WATER SUPPLY CHECK VALVE	
IUAL PRESSURE RELIEF VALVE	7. COORDINATE LOCATION OF THERMOSTATS WITH ARCHITECT .			CLEANOUT CONCRETE	S
	8. DO NOT RUN AIR HANDLERS OR EXHAUST FANS UNTIL ALL INTERIOR CLEANING AND PAINTING IS COMPLETE. THE CLEANING OF FOUL ED COILS OR FAN ASSEMBLIES DUE		COND	CONDENSING CONNECTION	
AINER W/ BLOW/DOWN GATE VALVE	TO PAINT OR CONSTRUCTION DEBRIS IS TO BE THE RESPONSIBILITY OF THE HVAC CONTRACTOR.		CONT CU	CONTINUATION COPPER	
	9. CONTRACTOR SHALL VISIT JOBSITE AND FAMILIARIZE HIMSELF WITH EXISTING		CW CVA	DOMESTIC COLD WATER (POTABLE) CONTROL VALVE	
	10. THE DRAWINGS ARE DIAGRAMMATIC ONLY AND SHALL NOT BE SCALED. THE	D	D		
	CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH OTHER TRADES AND WITH EXISTING CONDITIONS. THE CONTRACTOR SHALL NOT INSTALL OR FABRICATE ANY		DIA DIV	DIAMETER DIVISION	
	WORK SHOWN UNTIL ALL SUCH WORK IS FULLY COORDINATED. NOT ALL OFFSETS AND FITTINGS ARE SHOWN. PROVIDE OFFSETS AND FITTINGS AS REQUIRED BY FIELD		DN DPST	DOWN DOUBLE POLE SINGLE THROW	
SSURE GAUGE W/ GAUGE COCK (PI)	CONDITIONS AS PART OF THE WORK.		DWGS _ DI	DRAWINGS DUCTILE IRON	T
OMATIC AIR VENT	AND DURING THAT PERIOD MAKE GOOD ANY FAULTS OR IMPERFECTIONS THAT MAY ARISE DUE TO DEFECTS OR OMISSIONS IN MATERIALS OR WORKMANSHIP.	E	EAT		
L VALVE	12. ENTIRE INSTALLATION SHALL BE IN ACCORDANCE WITH APPLICABLE CODES, NFC, AND NFPA:		ELEC	EFFICIENCY ELECTRICAL EMERGENCY OVERELOW DRAIN	
CUIT SETTER, BALANCING VALVE	THE STATE OF TEXAS AND THE LOCAL APPROVING AUTHORITIES.		EWT EXH	ENTERING WATER TEMPERATURE EXHAUST	
VE IN VERTICAL	CLASSIFICATION. SEAL ALL DUCTWORK TO A SMACNA TYPE "A" SEAL CLASS.		EXT EXT	EXTERIOR EXTERNAL	
ΓLEG (6" LONG)	14. ALL DUCTWORK SHALL BE GALVANIZED STEEL WITH BLANKET WRAP INSULATION AS SPECIFIED.	F	F	DEGREES FAHRENHEIT	
TURI FLOW TUBE	 FLEX DUCT SHALL BE FLEXMASTER TYPE 1M INSULATED OR EQUIVALENT; 6-FEET MAXIMUM INSTALLED LENGTH. R-VALUE SHALL BE A MINIMUM R-6. 		FCO FD FD	FIGOR CLEANOUT FIRE DAMPER FLOOR DRAIN	
NG	16. COORDINATE EXACT LOCATION OF DIFFUSERS WITH ARCHITECT. DIFFUSERS MAY HAVE TO BE SHIFTED TO FIT WITHIN ROOMS AS SHOWN. PROVIDE ADDITIONAL FLEX AND DUCT WORK AS REQUIRED TO MOVE DIFFUSERS.		FIN FLEX FLR	FINISHED FLEXIBLE FLOOR	
DENSATE DRAIN	17. CONTRACTOR SHALL COMPLY WITH ALL LOCAL AMENDMENTS TO THE CURRENT		FT FUT	FEET FUTURE	
	18. CONTRACTOR SHALL FACILITATE CX AGENT AS REQUIRED FOR COMPLIANCE WITH		F/SD _ DAMPER	COMBINATION FIRE/SMOKE	
FR HAMMER ARRESTOR	CURRENT ADOPTED ENERGY CODE.	G	G GALV	NATURAL GAS GAI VANIZED	
	 PROVIDE AND INSTALL ALL EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS AND MAINTAIN ALL RECOMMENDED CLEARANCES. NO EXCEPTIONS. 		GA GL VA	GAUGE GLOBE VALVE	
ANOUT			GPH GPM	GALLONS PER HOUR GALLONS PER MINUTE	
			_ GT VA		
L CLEANOUT			HR HW	HOUR DOMESTIC HOT WATER (140E)	
RAP			HWR HWRP	HEATING WATER RETURN HOT WATER RECIRCULATING PUMP	
NGE CONNECTION			HWS _ HZ	HEATING WATER SUPPLY HERTZ	
P AT 45° ANGLE			IN		
OW TURNING DOWN			_ IHP	INDOOR HEAT PUMP	
OW TURNING UP		K	KW	KILOWATTS	
PED PIPE		L	LB LWT	POUNDS LEAVING WATER TEMPERATURE	
KIBLE CONNECTION		M	MAX	MAXIMUM	
CENTRIC PIPE REDUCER/INCREASER			MECH MEZZ MER	MECHANICAL MEZZANINE MANUFACTURER	
ENTRIC PIPE REDUCER/INCREASER			MIN MTD	MINIMUM MOUNTED	
SLEEVE			MTR _ MVD	MOTOR MOTORIZED VOLUME DAMPER	
ECTION OF SLOPE (DNWARD)					
OR DRAIN					
ITARY WASTE OR VENT STACK STE OR VENT NO.					

ONS	
BBREVIATION	DESCRIPTION
NC NO	NORMALLY CLOSED NORMALLY OPEN
OA OS&Y OC OH OHP	OUTSIDE AIR OUTSIDE STEM & YOKE ON CENTERS OVERHEAD OUTDOOR HEAT PUMP
PD PH PLBG PSIG PR VA	PRESSURE DROP PHASE PLUMBING POUNDS PER SQUARE INCH GAUGE PRESSURE REDUCING VALVE
RA RED RE: RH RPBP PREVENTEF _ RPM	RETURN AIR REDUCER REFERENCE RELATIVE HUMIDITY REDUCED PRESSURE BACKFLOW REVOLUTIONS PER MINUTE
SA SAN SCH SD SIM SPKR SPST SQ FT SS SS SS STL STRUC SUCT S P	SUPPLY AIR SOIL & WASTE (ABOVE GRADE) SCHEDULE STORM DRAIN SIMILAR SPRINKLER SINGLE POLE SINGLE THROW SQUARE FEET STAINLESS STEEL SUPERVISORY SWITCH STEEL STRUCTURAL SUCTION STATIC PRESSURE
TI TOT TYP T&P	TEMPERATURE INDICATOR (THERMOMETER) TOTAL TYPICAL TEMPERATURE & PRESSURE RELIEF VALVE
UON	UNLESS OTHERWISE NOTED
V VD VTR	SANITARY VENT VOLUME DAMPER VENT THROUGH ROOF
WB WCO W/	WET BULB WALL CLEANOUT WITH

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MECHANICAL SYMBOLS LEGEND

	DX AIR HANDLING UNIT SCHEDULE WITH ELECTRIC HEAT																
				ECD		ELEC	TRICAL			DX COOLIN	IG		EL	ECTRIC HE	AT	τοται	
MARK	AREA SERVED	FLOW (CFM)	OUTSIDE AIR (CFM)	E.S.P. (IN. W.G.)	AMBIENT AIR (°F)	VOLTZ/PH/H	Z MCA	MCB	SENSIBLE CAPACITY (BTUH)	TOTAL CAPACITY (BTUH)	EDB/EWB (°F)	LDB/LWB (°F)	TOTAL CAPACITY (BTUH)	INPUT (KW)	EAT/LAT (°F)	WEIGHT (LBS)	MFG./ MODEL
AHU-1	SUPER OFFICES	1755	70	0.65	105	208/3Ø/60	31.8	35	37,500	39,100	78/65	55/54	22,800	7	78/90	170	FRASER-JOHNSTON/AE60DX21
AHU-2	MEETING/BREAK	1690	275	0.65	105	208/3Ø/60	20	30	36,100	43,500	78/65	55/54	21,900	7	78/90	170	FRASER-JOHNSTON/AE60DX21
AHU-3	CONFERENCE	510	90	0.65	105	208/3Ø/60	28.3	30	10,900	14,200	78/65	55/54	6,700	2	78/90	85	FRASER-JOHNSTON/AE18BX21
AHU-4	MEETING SOUTH	1815	255	0.53	105	208/3Ø/60	31.8	35	38,800	48,400	78/65	55/54	23,600	7	78/90	170	FRASER-JOHNSTON/AE60DX21

NOTES: (APPLY TO ALL UNITS UNLESS OTHERWISE NOTED BELOW).

SINGLE POINT ELECTRICAL CONNECTION.
 FOIL FACED INSULATED CABINET.

3. EC MOTOR/VARIABLE SPEED FAN OPERATION.

4. 5-YEAR PARTS WARRANTY. 5. AUXILIARY STAINLESS STEEL DRAIN PAN UNDERNEATH UNIT. PROVIDE FLOAT SWITCH/ALARM TO SHUT DOWN UNIT UPON HIGH WATER LEVEL DETECTION. 6. THERMOSTAT CONTROL WITH LCD DISPLAY AND WIFI CONNECTIVITY.

7. 2-SETS OF MERV-13 FILTERS.

	DX OUTSIDE AIR HANDLING UNIT SCHEDULE WITH ELECTRIC HEAT																				
								ELECTRICAL				DX COOLIN	G			REHEAT COIL				τοται	
MARK	AREA SERVED	FLOW (CFM)	FLOW (CFM)	E.S.P. (IN. W.G.)	T.S.P. (IN. W.G.)	AIR TEMP. (°F)	FAN HP	VOLTZ/PH/HZ	MCA	MCB	SENSIBLE CAPACITY (BTUH)	TOTAL CAPACITY (BTUH)	EDB/EWB (°F)	LDB/LWB (°F)	TOTAL CAPACITY (BTUH)	ELECTRICAL INPUT (KW)	EAT/LAT (°F)	RE-HEAT (YES/NO)	VFD (YES/NO)	WEIGHT (LBS)	MFG./ MODEL
OAHU-1	DOAS	690	450	1.25	1.65	105	1.1	208/3Ø/60	58	60	32,100	58,400	78/65	55/54	39,500	15.8	25/72	Yes	Yes	462	AAON/H3-BRB-8

NOTES: (APPLY TO ALL UNITS UNLESS OTHERWISE NOTED BELOW).

MODULATING SCR ELECTRIC HEATER.
 MODULATING HOT-GAS REHEAT.

3. EC FAN MOTOR. 4. VCC-X CONTROLLER WITH DVC CONTROL AND ALL DUCT AND SPACE SENSORS REQUIRED FOR OPERATION.

	CONDENSING UNIT SCHEDULE									
	MIN. CAP.	AMBIENT		MAX. COND.	MAX. SUCT.	ELE	ECTRICAL		MIN. EFF.	
MARK	(BTUH)	TEMP. (°F)	REFRIGERANT	TEMP (°F)	TEMP (°F)	VOLTS/ PH/ HZ	MCA	MCB	(SEER)	WIFG./WIODEL
CU-1	46,400	105	R-410A	105	40	208/3Ø/60	20	30	17	FRASER-JOHNSTON/TCG48B31S
CU-2	46,300	105	R-410A	105	40	208/3Ø/60	20	30	17	FRASER-JOHNSTON/TCG48B31S
CU-3	17,000	105	R-410A	105	40	208/1Ø/60	14	20	15	FRASER-JOHNSTON/TC7B1821S
CU-4	56,100	105	R-410A	105	40	208/3Ø/60	22.6	35	16	FRASER-JOHNSTON/TCG60B31S
OACU-1	52,900	105	R-410A	115	45	208/3Ø/60	24	40	10.2	AAON/CFA-006-A-A-8-DC00H
OACU-1	52,900	105	R-410A	115	45	208/3Ø/60	24	40	10.2	AAON/CFA-006-A-A-8-DC00H

NOTES: (APPLY TO ALL UNITS UNLESS OTHERWISE NOTED BELOW).

1. HIGH EFFICIENCY, MODULATING SCROLL COMPRESSOR. 2. HAIL GUARDS.

3. SINGLE POINT ELECTRICAL CONNECTION. 4. 5-YEAR COMPRESSOR WARRANTY.

	FAN SCHEDULE										
					TOTAL AIR FLOW			ELECTRICAL		HARDWIRE	
MARK	AREA SERVED	TYPE	DRIVE TYPE	ESP (IN. W.G.)	(CFM)	RPM	MOTOR (WATTS)	VOLTS/PH/HZ	VFD (YES/NO)	INTERLOCKED WITH	MFG./ MODEL
EF-1	RESTROOMS/JAN CLOSET	INLINE	DIRECT	0.5	550	1,456	188	120/1Ø/60	Yes	OAHU-1	GREENHECK/CSP-A710-VG
NOTES: (APPLY	NOTES: (APPLY TO ALL UNITS UNLESS OTHERWISE NOTED BELOW).										

1. PROVIDE BACKDRAFT DAMPER, ELECTRICAL DISCONNECT, EC MOTOR, ALL BRACKETS AND HARDWARE REQUIRED FOR INSTALLATION.

			AIR DE	EVICE S	CHEDUI	E		
TAG	AIR FLOW RANGE	SUPPLY	RETURN	EXHAUST	INLET SIZE (IN.)	MODULE SIZE	MATERIAL	MFG./MODEL
А	0-150	Х			6Ø	24X24	ALUMINUM	TITUS/TMS-AA
В	151-300	Х			8Ø	24X24	ALUMINUM	TITUS/TMS-AA
С	301-440	Х			10Ø	24X24	ALUMINUM	TITUS/TMS-AA
D	441-650	Х			12Ø	24X24	ALUMINUM	TITUS/TMS-AA
N	301-450		Х	Х	10X10	24X24	ALUMINUM	TITUS/PAR-AA
0	451-650		Х	Х	12X12	24X24	ALUMINUM	TITUS/PAR-AA
Р	500-1500		Х	Х	18X18	24X24	ALUMINUM	TITUS/PAR-AA

NOTES:

1. PROVIDE WITH BORDER TYPE COMPATIBLE WITH INSTALLATION. CONTRACTOR TO VERIFY PRIOR TO ORDERING.

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09/30/2021

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MECHANICAL SCHEDULES

Date: 09/30/2021 Revisions:

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1 FLOOR PLAN - HVAC DEMOLITION M1.1 1/8" = 1'-0"

DEMOLISH EXISTING LOUVER AND PATCH WALL. REFER TO ARCHITECTURAL. DEMOLISH AIR HANDLING UNIT AND ASSOCIATED REFRIGERANT PIPING. CONTRACTOR IS RESPONSIBLE FOR

DEMOLISH CONDENSING UNIT AND ASSOCIATED REFRIGERANT PIPING.

2/M1.1 KEYED NOTES

INSTALL NEW CONDENSING UNIT ON CONCRETE WALKWAY IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. MAINTAIN ALL REQUIRED CLEARANCES. LEVEL UNIT AS REQUIRED. EXISTING CONDENSING UNIT TO REMAIN.

EXISTING WALL VENT TO BE CAPPED. REFER TO ARCHITECTURAL.

INSTALL AIR HANDLING UNIT ABOVE CEILING PER MANUFACTURER'S RECOMMENDATIONS AND MAINTAIN ALL REQUIRED CLEARANCES. ENSURE MAINTENANCE ACCESS SIDE OF UNIT IS ACCESSIBLE FROM BELOW. COORDINATE ELEVATION OF AIR HANDLING UNIT WITH REQUIRED CONDENSATE DRAIN PIPE SLOPE FOR ROUTING TO MOPSINK IN JANITOR CLOSET.

ROUTE RETURN AIR DUCTWORK OVER UNIT AND SUPPLY AIR DUCTWORK.

INTERLOCK OUTSIDE AIR UNIT TO EXHAUST FAN. OUTSIDE AIR UNIT SHALL OPERATE ON A 7-DAY PROGRAMMABLE SCHEDULE. MODULATE OUTSIDE AIR BETWEEN MAXIMUM/MINIMUM OUTSIDE AIR SETTINGS BASED ON HIGHEST CARBON DIOXIDE (CO2) READING FROM ALL THREE (3) CO2 SENSORS LOCATED IN THE SPACE. ONCE CO2 LEVELS DROP BELOW 900 PPM FOR A PERIOD OF 5 MINUTES (ADJ.) REDUCE OUTSIDE AIR TO MINIMUM POSITION. THE REVERSE SHALL HOLD TRUE.

BALANCE OUTSIDE AIR TO 70 CFM. BALANCE OUTSIDE AIR TO 275 CFM.

BALANCE OUTSIDE AIR TO 90 CFM.

BALANCE OUTSIDE AIR TO 255 CFM.

INSTALL EXHAUST FAN ABOVE CEILING PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE ACCESS PANEL IN CEILING FOR MAINTENANCE.

PIPING SUPPORTS. TYPICAL.

ROUTE REFRIGERANT PIPING TO AIR HANDLING UNITS ABOVE CEILING. PENETRATE EXTERIOR WALL ABOVE CEILING. SEAL PENETRATIONS WATER AND AIR TIGHT. SINGLE LINE SHOWN FOR CLARITY. REFER TO SPECIFICATIONS FOR INSULATION REQUIREMENTS.

NEW EXHAUST LOUVER WITH A MINUMUM FREE AREA OF 0.8 SQUARE FEET AND INSECT SCREEN. REFER TO ARCHITECTURAL.

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MEHDI J. MIRMOMEN

09/30/2021

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Project NO.: 21014 Date: 09/30/2021 **Revisions**:

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M1.2 KEYED NOTES

1 CONTRACTOR SHALL CLEAN AIR FILTER AND COILS. REFER TO SPECIFICATIONS.

2MG

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5 IN LINE CENTRIFUGAL FAN SUPPORT DETAIL M2.1 N.T.S.

<u>KEYED</u> NOTES

- > SPRING TYPE THRUST RESTRAINT EACH SIDE OF FAN, INTAKE AND DISCHARGE
- > VIBRATION ISOLATOR (SEE SPECS.) ATTACH 1 ASSEMBLY AT EACH TOP CORNER OF FAN BOX FRAME (FOR SUPPOERT FROM ABOVE) OR AT EACH BOTTOM CORNER (FOR SUPPORT FROM FLOOR).
- < 3 > 1/2" DIAMETER HANGER RODS FROM STRUCTURE (FOR SUPPORT FROM ABOVE).
- $\langle 4 \rangle$ FAN FLEXIBLE CONN. (SEE SPEC.)
- 5 FABRICATE IN-LINE FAN BOX SUPPORT FRAME FROM WELDED STEEL ANGLES, MIN. 2 1/2" x 2 1/2" SIZE, AND BOLT FRAME TO FAN FLANGES.

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PLUMBING LEGEND

SHOWN ARE NOT NECESSARILY USED ON DRAWINGS)

SYMBOLS

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VALVES
PNEUMATIC ACTUATED TWO-WAY VALVE
PNEUMATIC ACTUATED THREE-WAY VALVE
UNION
ORIFICE FLANGE
BUTTERFLY VALVE
TEMPERATURE/ PRESSURE RELIEF VALVE
GLOBE VALVE
CHECK VALVE
GATE VALVE
GATE VALVE IN C.I. VALVE BOX
FLANGED VALVE AS DESIGNATED
BELLOWS VALVE
MANUAL DIAPHRAGM VALVE
STRAINER W/ BLOWDOWN GATE VALVE
THERMOWELL W/ THERMOMETER
THERMOMETER WELL
PRESSURE GAUGE W/ GAUGE COCK (PI)
EXTERIOR 2-WAY FLOOR CLEANOUT IN CONCRETE PAD
EXTERIOR FLOOR CLEANOUT IN CONCRETE PAD
FLOOR CLEANOUT
WALL CLEANOUT
P - TRAP
FLANGE CONNECTION
DROP AT 45° ANGLE
ELBOW TURNING DOWN
FLEXIBLE CONNECTION
CONCENTRIC PIPE REDUCER/ INCREASER
ECCENTRIC PIPE REDUCER/ INCREASER
PIPE SLEEVE
DIRECTION OF SLOPE (DNWARD)
FLOOR DRAIN
FLOOR SINK 1/2 GRATE
SANITARY WASTE
OR VENT STACK
OR VENT STACK WASTE OR VENT NO.
OR VENT STACK WASTE OR VENT NO.
OR VENT STACK WASTE OR VENT NO. BALL VALVE
OR VENT STACK WASTE OR VENT NO. BALL VALVE CIRCUIT SETTER, BALANCING VALVE
OR VENT STACK WASTE OR VENT NO. BALL VALVE CIRCUIT SETTER, BALANCING VALVE PLUG VALVE
OR VENT STACK WASTE OR VENT NO. BALL VALVE CIRCUIT SETTER, BALANCING VALVE PLUG VALVE SOLENOID OPERATED VALVE
OR VENT STACK WASTE OR VENT NO. BALL VALVE CIRCUIT SETTER, BALANCING VALVE PLUG VALVE SOLENOID OPERATED VALVE VALVE IN VERTICAL
OR VENT STACK WASTE OR VENT NO. BALL VALVE CIRCUIT SETTER, BALANCING VALVE PLUG VALVE SOLENOID OPERATED VALVE VALVE IN VERTICAL DIRT LEG (6" LONG)

- CONTRACTOR SHALL VERIFY ALL EXISTING CONDI
 REFER TO ARCHITECTURAL DRAWING FOR MOUNI
 CONTRACTOR SHALL REVIEW AND FIELD VERIFY A
- SUBMITTING BID.
- CONTRACTOR SHALL COORDINATE WITH ALL TRA
 CONTRACTOR SHALL VERIFY EXISTING FLOOR CO NEW PLUMBING.
- 6. SLOPE ALL WASTE PIPING AT 1/4" PER FOOT. 7. REFER TO ARCHITECTURAL ELEVATION AND SEC
- 8. INSTALL FLUSH LEVER HANDLES ON OPEN SIDE C

this CO

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		ABBREVIA	TION	
	ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
LD WATER (POTABLE)	A AC AFF	ABOVE CEILING ABOVE FINISHED FLOOR	I IN	INCHES
MESTIC HOT WATER (POTABLE)	AHU	AIR HANDLING UNIT	L IE	INVERT ELEVATION
MESTIC HOT WATER RETURN (POTABLE)		Atomicor	K KW	KILOWATTS
IPERED HOT WATER (POTABLE)	B BAL VA	CIRCUIT SETTER		
NITARY VENT	BFF	BALANCING VALVE BELOW FINISHED FLOOR	L LB	POUNDS
IITARY SEWER	BLDG B VA	BUILDING BALL VALVE		
DLD WATER (POTABLE)	BF	BELOW FLOOR	MAX MECH	MAXIMUM MECHANICAL
DT WATER (POTABLE)	СССАР	CAPACITY	MEZZ MFR	MEZZANINE MANUFACTURER
OT WATER RETURN (POTABLE)	CFH	CUBIC FEET PER HOUR CAST IRON	MIN	MINIMUM MOUNTED
	CO	CLEANOUT	MTR	MOTOR
	COND	CONDENSING	N NC	NORMALLY CLOSED
	CONN CONT	CONNECTION CONTINUATION	NO	NORMALLY OPEN
	CU CW	COPPER DOMESTIC COLD	0 00	ON CENTERS
F FLOW		WATER (POTABLE)	С ОН	OVERHEAD
MER ARRESTOR	D D	CONDENSATE DRAIN LINE	P PD	PRESSURE DROP
MPRESSED AIR	DIA	DIAMETER DIVISION	PH PLBG	PHASE PLUMBING
	DN DWGS	DOWN DRAWINGS	PR VA	PRESSURE REDUCING VALVE
			PSIG	POUNDS PER SQUARE INCH GAUGE
	E EFFIC	EFFICIENCY		
S	ELEC EXT	ELECTRICAL EXTERIOR	RE:	REFERENCE
	- Lext	EXTERNAL	RPBP	REDUCED PRESSURE BACKFLOW PREVENTER REVOLUTIONS PER MINUTE
<u>):</u>	F F	DEGREES FAHRENHEIT		
DITIONS PRIOR TO CONSTRUCTION.	FD	FLOOR DRAIN	S SAN	SOIL & WASTE (ABOVE GRADE)
ALL EXISTING CONDITIONS PRIOR TO	FIN FLEX	FINISHED FLEXIBLE	SIM	SIMILAR
ADES DURING CONSTRUCTION. ONSTRUCTION PRIOR TO SAW CUTTING FOR	FLR	FLOOR	SQ FT SS	SQUARE FEET STAINLESS STEEL
			STL STRUC	STEEL STRUCTURAL
CTIONS PRIOR TO ROUTING OF PIPING. OF ADA WATER CLOSET STALLS.	G G G		T TI	
	GA	GAUGE	ТОТ	(THERMOMETER)
	GPH GPM	GALLONS PER HOUR GALLONS PER MINUTE	TYP	
				TEMPERATURE & PRESSURE RELIEF VALVE
	H HP HR	HORSEPOWER HOUR	U UON	UNLESS OTHERWISE NOTED
	HW HWRP	DOMESTIC HOT WATER (140F) HOT WATER RECIRCULATING		
	HZ	PUMP HERTZ	V V VD	VOLUME DAMPER
			L VTR	VENT THROUGH ROOF
			W) wco	WALL CLEANOUT
			W/	WITH

REMARKS		TION SIZE N.)	CONNEC [®]		DESCRIPTION	MARK
	VENT	WASTE	HW	CW		
FLOOR MOUNTED, FLUSHVALVE, STANDARD HEIGHT	2	4	-	1 1/2	WATERCLOSET	WC-1
FLOOR MOUNTED, FLUSHVALVE, ADA/TAS COMPLIANT	2	4	-	1 1/2	WATERCLOSET	WC-2
WALL HUNG (MOUNT ONE AT ADA HEIGHT- REFERENCE ARCH. DWGS)	2	2	-	3/4	URINAL	UR-1
COUNTER MOUNTED	2	2	1/2	1/2	LAVATORY	LAV-1
STAINLESS STEEL, SELF RIMMING, ADA/TAS COMPLIANT	2	2	1/2	1/2	DOUBLE COMPT. SINK	SK-1
TWO-LEVEL	2	2	-	1/2	ELECTRIC DRINKING FOUNTAIN	EDF-1
FLOOR MOUNTED, CONNECT TO MODIFIED ROUGH-IN	2	4	1/2	1/2	MOP SINK	MS-1
REFRIGERATOR ICE MAKER SUPPLY BOX	-	-	-	1/2	WALL BOX	WB-1
FINISHED AREA	-	-	-	-	FLOOR DRAIN	FD-1
-	-	-	-	-	-	-
-	-	-	-	-	-	-

MARK

EWH-1

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RECOVER GPH

AT 100°F RISE

15 -

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RIC WATER HEATER SCHEDULE										
KW	VOLTS/ PHASE	STORAGE CAPACITY (GALLONS)	REMARKS							
3	208/1Ø	15	RHEEM NO. EGSP15							
-	-	-	-							
-	-	-	-							

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P0.1 PLUMBING SYMBOLS LEGEND

CONTRACT Project NO.: 21014 Date: 09/30/2021 Revisions:

/29/2021 1:39:41 PM C:\Users\falvarez\Documents\990137 - Southton Service Center Add-Renov - MEP - R20_falvarezYFFXJ

PD1.1 KEYED NOTES

- 1 EXISTING WASTE LINE TO REMAIN.
- 2 REMOVE WASTE PIPE ABOVE CEILING.
- 3 EXISTING CW LINE TO REMAIN.
- 4 EXISTING HW LINE TO REMAIN.
- 5 EXISTING PLUMBING FIXTURE TO REMAIN.
- 6 EXISTING EYE/FACE WASH TO REMAIN.
- 7 EXISTING HOSE BIBB TO REMAIN
- 8 REMOVE HUB DRAIN ABOVE CEILING.
- 9 EXISTING VENT LINE TO REMAIN.
- 10 EXISTING VTR TO REMAIN.
- 11 EXISTING MECH EQUIPMENT TO BE REMOVED. REFER TO HVAC DWGS.
- 12 REMOVE EXISTING DOMESTIC WATER LINE AND REROUTE. SEE NEW WORK FOR REROUTING. CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION.
- 13 EXISTING DOMESTIC WATER LINE TO REMAIN. CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION.
- 14 EXISTING FLOOR DRAIN TO REMAIN.
- 15 REMOVE EXISTING ELECTRIC DRINKING FOUNTAIN.
- 16 REMOVE WATER CLOSER AND FLUSHVALVE.
- 17 REMOVE URINAL AND FLUSHVALVE.
- 18 REMOVE EXISTING SINK STOPS AND TRIM
- 19 REMOVE EXISTING LAVATORY, STOPS AND TRIM. CAP ASSOCIATED HW, CW, WASTE IN WALL AND ABANDON.
- 20 REMOVE SHOWER AND ASSOCIATED HW & CW PIPING UP TO ABOVE CEILING.
- 21 REMOVE EXISTING SHOWER DRAIN, ASSOCIATED WASTE LINE BELOW FLOOR AND VENT ABOVE CEILING.
- 22 REMOVE EXISTING VENT ABOVE CEILING.
- 23 REMOVE EXISTING CW LINE ABOVE CEILING.
- 24 REMOVE EXISTING HW, CW WASTE & VENT PIPING IN WALL SERVING PLUMBING FIXTURES. CAP WASTE PIPE AT FLOOR AND ABANDON.
- 25 REMOVE EXISTING FLOOR DRAIN, CAP WASTE PIPE AT FLOOR AND ABANDON ASSOCIATED WASTE & VENT PIPING BELOW FLOOR.
- 26 REMOVE WASTE PIPE ABOVE CEILING DOWN TO BELOW FLOOR.
- 27 REMOVE EXISTING CW, WASTE & VENT PIPING IN WALL/CHASE SERVING PLUMBING FIXTURES. REMOVE OR ABANDON WASTE PIPE BELOW FLOOR.
- 28 REMOVE EXISTING ELECTRIC WATER HEATER MOUNTED OVERHEAD AND REPLACE WITH NEW. SEE NEW WORK.
- 29 CAP EXISTING CW LINE ABOVE CEILING.
- 30 CAP EXISTING HW LINE ABOVE CEILING.
- 31 CAP EXISTING VENT LINE ABOVE CEILING.
- 32 REMOVE EXISTING 1-WAY EXTERIOR CLEANOUT AND WASTE LINE. CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION AND DEPTH OF EXISTING WASTE LINE. NOTIFY A/E TEAM OF FINDINGS
- 33 REMOVE EXISTING WASTE PIPING BELOW FLOOR ALLOWING FOR CONNECTION OF NEW WASTE PIPING.
- 34 REMOVE EXISTING VALVE AND VALVE BOX.
- 35 REMOVE EXISTING DOMESTIC WATER SERVICE FROM BELOW GRADE TO ABOVE CEILING ALLOWING FOR CONNECTION OF NEW DOMESTIC WATER LINE. SEE NEW WORK.
- 36 REMOVE EXISTING LAVATORY & REPLACE WITH NEW. MODIFY EXISTING ROUGH-IN AS REQUIRED FOR NEW LAVATORY. SEE NEW WORK.
- 37 REMOVE EXISTING WATER CLOSET INCLUDING FLUSH VALVE AND REPLACE WITH NEW. MODIFY EXISTING ROUGH-IN AS REQUIRED FOR NEW WATER CLOSET. SEE NEW WORK.
- 38 REMOVE EXISTING MOP SINK. MODIFY EXISTING ROUGH-IN FOR NEW MOP SINK.
- 39 CAP VENT AT ROOF.
- 40 REMOVE OR ABANDON WASTE PIPE BELOW FLOOR.

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- P1.1 KEYED NOTES
- 1 EXISTING WASTE LINE.
- 2 NEW MOP SINK. CONNECT TO MODIFIED ROUGH-IN.
- 3 EXISTING CW LINE.
- 4 EXISTING HW LINE.
- 5 EXISTING PLUMBING FIXTURE.
- 6 EXISTING EYE/FACE WASH.
- 7 EXISTING HOSE BIBB.
- 8 NEW WATER CLOSET. CONNECT TO MODIFIED ROUGH-IN.
- 9 EXISTING VENT LINE.
- 10 EXISTING VTR.
- 11 HVAC EQUIPMENT. REFER TO HVAC DWGS.
- 12 EXISTING DOMESTIC WATER LINE. CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION.
- 13 CONNECT NEW 2"DOMESTIC WATER TO EXISTING DOMESTIC WATER BELOW GRADE. CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION OF EXISTING WATER LINE.
- 14 2" DOMESTIC WATER RISE FROM BELOW GRADE EXTEND THROUGH WALL AND RISE TO OVERHEAD. FURNISH & INSTALL VALVE IN VERTICAL AT 3' AFF.
- 15 EXISTING FLOOR DRAIN
- 16 NEW ELECTRIC WATER HEATER MOUNT ON WALL OVERHEAD. RECONNECT EXISTING HW & CW LINES TO NEW ELECTRIC WATER HEATER. REFER TO DETAIL 1/P2.1.
- 17 NEW LAVATORY. CONNECT TO MODIFIED ROUGH-IN
- 18 SAWCUT EXISTING FLOOR FOR ROUTING OF NEW WASTE PIPING. REFER TO DETAIL 3/P2.1.
- 19 CONNECT NEW 2" WASTE PIPE TO EXISTING WASTE PIPE BELOW FLOOR.
- 20 CONNECT NEW 4" WASTE PIPE TO EXISTING 3" WASTE PIPE BELOW FLOOR.
- 21 CONNECT NEW 4" WASTE PIPE TO EXISTING 4" WASTE PIPE BELOW FLOOR.
- 22 CONNECT NEW 2" VENT TO EXISTING VENT.
- 23 CONNECT NEW 1/2"HW LINE TO EXISTING HW LINE ABOVE CEILING.
- 24 CONNECT NEW 1/2"CW LINE TO EXISTING CW LINE ABOVE CEILING.
- 25 CONNECT NEW 3/4"HW LINE TO EXISTING HW LINE ABOVE CEILING.
- 26 CONNECT NEW 1 1/2"CW LINE TO EXISTING CW LINE ABOVE CEILING.
- 27 2" VENT RISE FROM BELOW FLOOR EXTEND TO ABOVE CEILING.
- 28 4" VENT RISE FROM BELOW FLOOR EXTEND TO 4"VTR.
- 29 PDI SIZE "A" SHOCK ARRESTOR.
- 30 EXTEND 1/2" TRAP PRIMER LINE FROM TRAP PRIMER CONNECTION ON WATER CLOSET FLUSHVALVE TAILPIECE TO BELOW FLOOR & ROUTE TO TRAP PRIMER CONNECTION ON FLOOR DRAIN. REFER TO DETAIL 2/P2.1.
- 31 TRA PRIMER LINE BELOW FLOOR SHALL BE 1/2" SEAMLESS COPPER.
- 32 PDI SIZE "D" SHOCK ARRESTOR
- 33 PDI SIZE "B" SHOCK ARRESTOR
- 34 EXTEND 1/2"HW LINE WITH BALL VALVE FROM SINK'S HW ROUGH-IN TO DISHWASHER HW CONNECTION. EXTEND DISHWASHER DRAIN LINE THROUGH AIR GAP FITTING & ROUTE TO SINK'S TAILPIECE.

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D FLOOR PLAN - PLUMBING

Project NO.: 21014 Date: 09/30/2021 Revisions:

8000 IH-10 West, Suite 1002 San Antonio, Texas 78230

4 P/1 WASTE & VENT RISER DIAGRAM

5 P/1 HOT & COLD WATER RISER DIAGRAM

CONTRACT DOCUMENTS - PERMIT SET SOUTHTON SERVICE CENTER

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09/30/2021

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Project NO.: 21014 Date: 09/30/2021 Revisions:

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ELECTRICAL LEGEND

(NOTE: ALL SYMBOLS SHOWN ARE NOT NECESSARILY USED ON DRAWINGS)

LIGHTING Exelution functional letters to be one structure exel 0 Exelution functional letters to be one structure exel 1(+) 1xx Exelution functional letters to be one structure and struc	SYMB	OLS	
A LED LIGHT FXULRE, LETTERIG DENOTES TYPE According to the constraint of the constant		LIGHTING	
0 IFEN USER PROJECTION OF USER NOTES THE REPORTS THE ACCOUNT WITHIN USER INFORMATION IS ADDRESS WITHIN DIVISION INFORMATION OF USER INFORMAT	Α	LED LIGHT FIXTURE, LETTER(S) DENOTES TYPE.	
Image: Second	Ο _Β	LED LIGHT FIXTURE, LETTER(S) DENOTES TYPE. BRACKET $\ \perp$ when used indicates wall mounted.	В
s SINCLE POLE SWITCH, INSTALL 47 AFF LON. SK KEYED SINCLE POLE SWITCH, INSTALL 47 AFF LON. S2 DOUBLE POLE SWITCH, INSTALL 47 AFF LON. S3 THREE-WAY SWITCH, INSTALL 47 AFF LON. S4 FOUR-WAY SWITCH, INSTALL 47 AFF LON. S6 SWITCH AND ESCORE MORTAL 47 AFF LON. S6 SWITCH AND ESCORE WITH REP PLOT LIGHT, LIGHTED S6 SWITCH AND HEAT LEY AFF LON. S6 SWITCH MITH HEATHER PROOF CODER, INSTALL 47 AFF LON. S6 DIMMER, SDRV UOL, INSTALL 47 AFF LON. S6 DIMMER, SDRV UOL, INSTALL 47 AFF LON. S7 THERE SWITCH WITH HEATHER PROOF CODER, INSTALL 47 AFF LON. S7 THERE SWITCH WITH STOPPER TRADO, INVALL S7 THERE SWITCH WITH STOPPER TRADA, WALL MOUNTED IN SWITCH BOATS # SFF LON. SWITCH BOATS # SFF LON. S7 THERE SWITCH WITH STOPPER TRADA, INVALL SWITCH BOATS # SFF LON. SWITCH BOATS # SFF LON. SWITCH BOATS # SFF LON. SWITCH BOATS # SFF LON. SWITCH BOATS # SFF LON. SWITCH BOATS # SFF LON. SWITCH BOATS # SFF LON. SWITCH BOATS # SFF LON. SWITCH BOATS # SFF LON. SWITCH	↑€ ↑ XA	EXIT LIGHT FIXTURE, LETTER(S) DENOTES TYPE. ARROW(S) WHEN USED, INDICATE DIRECTION OF CHEVRONS. SHADED AREAS INDICATE FACE(S). BRACKET "⊥" WHEN USED INDICATES WALL MOUNTED.	
SK KEYED SINGLE POLE SWITCH, INSTALL 47 AFF UON. SK S2 DOUBLE POLE SWITCH, INSTALL 47 AFF UON. SK S3 THREE-WAY SWITCH, INSTALL 47 AFF UON. SK Sy SWITCH AS SECRED. ABOVE WIT REP PLOT UDIT, LIGHTED SK Sy SWITCH WITS RESCRED. ABOVE WIT REP PLOT UDIT, LIGHTED SK Sy SWITCH WITS RESCRED. ABOVE WIT REP PLOT UDIT, LIGHTED SK Sy SWITCH WITS RESCRED. ABOVE WITS STOPPER TO 300 WITH SK SY DEMERS STOW UDN. INSTALL 47 AFF UON. SK SY DEMERS STOW UDN. INSTALL 47 AFF UON. SK SY DEMERS STOW UDN. INSTALL 47 AFF UON. SK SY THREE SWITCH WITS STOPPER TS ADO. SK SY THREE SWITCH WITS STOPPER TS ADO. SK SY THREE SWITCH WITS STOPPER TS ADO. SK SWITCH BOX AT 49 AFF UON. SK SK <td>\$</td> <td>SINGLE POLE SWITCH, INSTALL 48" AFF UON.</td> <td></td>	\$	SINGLE POLE SWITCH, INSTALL 48" AFF UON.	
S2 DOUBLE POLE SWITCH, INSTALL 47 AFF LON. S3 THREE WAY SWITCH, INSTALL 47 AFF LON. S4 FOUR-MAY SWITCH, INSTALL 47 AFF LON. S4 SWITCH AS DESCRIPTION FREE PARTY FOUNT LOT, LIGHTED S4 SWITCH AS DESCRIPTION FREE PARTY FOUNT LOT, LIGHTED S4 SWITCH WORN NATALL 47 AFF LON. S6 SWITCH WART STOPPER TADD. WAT IS TOPPER PAY 100, WALL S7 TMER SWITCH WATT STOPPER TADD. WALL MOUNT! S8 SWITCH WART AFF UON. (CT NOICKTES CELING S9 SWITCH WART AFF UON. (CT NOICKTES CELING S9 SUPER PARCE STRUCE WITH INTERNAL GROUND FAULT S9 SWITCH WART AFF UON. (CT NOICKTES CELING S9 SWITCH WART AFF UON. (CT NOICKTES CELING <td>^{\$}к</td> <td>KEYED SINGLE POLE SWITCH, INSTALL 48" AFF UON.</td> <td></td>	^{\$} к	KEYED SINGLE POLE SWITCH, INSTALL 48" AFF UON.	
\$3 THREE-WAY SWITCH, INSTALL 49: AFF UON. \$4 FOUR-WAY SWITCH, INSTALL 49: AFF UON. \$p SWITCH AS ESCREER ADDR. WITH RESP. FOT LIGHT, LIGHTED \$m SWITCH WITH WEATHER PROCE COVER. INSTALL 49: AFF UON. \$0 DIMMER, XOW UON, INSTALL 49: AFF UON. \$1 DIMMER, XOW UON, INSTALL 49: AFF UON. \$1 OCCUPANCY SINGR WITCH, WAT STOPPER POT JOINT WITH POWER PACK, LON, CERLING WUT, STOPPER POT 26: SOM WITH UON. \$1 DUMER, XOW UON, INSTALL 49: AFF UON. \$1 THREE SWITCH. WAT STOPPER PACK, WALL MOUNTED IN \$1 THREE SWITCH. WAT STOPPER PACK, WALL MOUNTED IN \$1 THREE SWITCH. WAT STOPPER PACK, WALL MOUNTED IN \$2 DUPLEX RECEPTIALE AS ADE VOIN. \$2 DUPLEX RECEPTIALE ADE SONGRED ABOUT ENABLIES \$2 DUPLEX RECEPTIALE ADE SONGRED ABOUT ENABLIES \$2 SPECIAL PUPPORE RECEPTIALE, SIZE AD INFAN \$3 SPECIAL PUPPORE RECEPTIALE, SIZE AD INFAN \$4 CONDULT AN CORRECT ADD. \$4 SUMPLEX RECEPTIALE, SIZE AD INFAN \$5 SPECIAL PUPPORE RECEPTIALE, SIZE AD INFAN \$5 SPECIAL PUPPORE RECEPTIALE, SIZE AD INFAN \$6 SPECIAL PUPORE RECEPTIALE, SIZE AD INFAN	\$ ₂	DOUBLE POLE SWITCH, INSTALL 48" AFF UON.	
\$_4 FOUR-WAY SWITCH, INSTALL 4F AFF UON \$_P SWITCH AS DESCREEP ABOUT WITH REP PLOT LOFT, LOFTED \$_WE SWITCH WITH WEATHER PROOF COVER, INSTALL 4F AFF UON. \$_0 DAMRER, RAW, LON, INSTALL 4F AFF UON. \$_0 DAMRER, RAW, LON, INSTALL 4F AFF UON. \$_1 THERR SWITCH WITH WEATHER PROOF COVER, INSTALL 4F AFF UON. \$_1 THERR SWITCH WAT STOPPER TO YOU WITH POWER POX-100, CPUINS WATT \$_1 THERR SWITCH WAT STOPPER TO YOU WITH INSTALL 4F AFF UON. \$_1 THERR SWITCH WAT STOPPER TA-00, MALL MOUNTED IN \$_1 THERR SWITCH WAT STOPPER TA-00, MALL MOUNTED IN \$_1 THERR SWITCH WAT STOPPER TA-00, MALL MOUNTED IN \$_2 DUPLEX RECEPTACLE (* YAFF UON. 'CY INDICATES CELING \$_2 DUPLEX RECEPTACLE (* YAFF UON. 'CY INDICATES OR UND. \$_2 DUPLEX RECEPTACLE (* YAFF UON. 'CY INDICATES OR UND. \$_2 DUPLEX RECEPTACLE (* YAFF UON. 'CY INDICATES OR UND. \$_4 DUPLEX RECEPTACLE (* YAFF UON. 'CY INDICATES OR UND. \$_4 DUPLEX RECEPTACLE (* YAFF UON. 'CY INDICATES OR UND. \$_4 DUPLEX RECEPTACLE (* YAFF UON. 'CY INDICATES OR UND. \$_5 DUPLEX RECEPTACLE (* YAFF UON. 'CY INDICATES OR UND. \$_5 DUPLEX RECEPTACLE (* YAF	\$ ₃	THREE-WAY SWITCH, INSTALL 48" AFF UON.	
\$p SMITCH XAS DESCRIBED ABOVE WITH REP PLOT LIGHT. LIGHTED \$u \$w SMITCH WITH WEATHER PROOF COVER. INSTALL 47:AFT UON IC OR \$0 DMMER, ROW LON, INSTALL 47:AFT UON IC OR \$1 OCCUPANCY SENSOR WITCH, WATT STOPPER DT. SDO WITH STOPPED SUD COULD UNL INST WATT STOPPER PLAT. DUR UNL ISSUE IC \$1 OCCUPANCY SENSOR WITCH, WATT STOPPER PLAY. DUR UNL SO WITH STOPPED SUD COULD WATT STOPPER PLAY. DUR UNL SO WITH STOPPED SUD COULD WATT STOPPER PLAY. DUR UNL SO WITH STOPPED SUD COULD WATT STOPPER PLAY. DUR UNL SO WITH STOPPED SUD COULD WATT STOPPER PLAY. DUR UNL SO WITH STOPPED SUD COULD WATT STOPPER PLAY. DUR UNL SO WITH STOPPED SUD COULD WATT STOPPER PLAY. DUR UNL SO WITH STOPPED SUD COULD WATT STOPPER PLAY. DUR UNL SO WITH STOPPED SUD COULD WATT STOPPER PLAY. DUR UNL SO WITH STOPPED SUD COULD WATT STOPPER PLAY. DUR UNL SO WITH STOPPED SUD COULD WATT STOPPER PLAY. DUR UNL SO WITH STOPPED SUD COULD WATT STOPPER PLAY. DUR UNL SO WITH STOPPED SUD COULD WATT STOPPER PLAY. DUR UNL SO WITH STOPPED SUD COULD WATT STOPPER PLAY. DUR UNL SO WITH STOPPED SUD COULD WATT STOPPER PLAY. DUR UNL SO WITH STOPPED SUD COULD WATT STOPPER PLAY. DUR UNL SO WITH STOPPED SUD COULD WATT STOPPER PLAY. DUR UNL SO WITH STOPPED SUD COULD WATT STOPPER PLAY. DUR UNL SO WITH HERE STOPPED SUD COULD WATT STOPPER PLAY. STOPPED STOPPED STOPPED SUD COULD WATT STOPPER PLAY. STOPPED STOPP	\$ ₄	FOUR-WAY SWITCH, INSTALL 48" AFF UON.	
SWITCH WITH WEATHER PROOF COVER. INSTALL 45" AFF UON. Image: Source of the	^{\$} Р	SWITCH AS DESCRIBED ABOVE WITH RED PILOT LIGHT, LIGHTED WHEN "ON" UON, INSTALL 48" AFF UON.	^{\$} м
U COUDENCY SENSOR SWITCH, WATT STOPPER DT-300 WTH POPER PACE, DON, CELLING MONTE, UDI, USE WATT IE Sin COUDENCY SENSOR SWITCH, WATT STOPPER TP-400, WALL CM Sin DOULTRUNKY SENSOR SWITCH, WATT STOPPER TP-400, WALL CM Sin TIMER SWITCH, WATT STOPPER TP-400, WALL CM Sin TIMER SWITCH, WATT STOPPER TP-400, WALL MOUNTED IN CM Sint SIN SOLAT BY AFF UON. CM CM C WIRING DEVICES CM CM DUPLEX RECEPTACE, 13' AFF UON. (CY INDICATES CELING CM CM C MOUNTED, NEAS SZRUON. CM CM C MOUNTED, NEAS SZRUON. CM CM CM C MOUNDRUCH CARCESTACLE AS DESCRED ABOVE. TS AFF UON. <td>\$ WP \$_</td> <td>SWITCH WITH WEATHER PROOF COVER. INSTALL 48" AFF UON. DIMMER, 600W UON, INSTALL 48" AFF UON.</td> <td>C OR</td>	\$ WP \$_	SWITCH WITH WEATHER PROOF COVER. INSTALL 48" AFF UON. DIMMER, 600W UON, INSTALL 48" AFF UON.	C OR
\$R COUNTRY CALLSTORE NUTLY MATT STORES PR-400, WALL Image: State of the st	OS	OCCUPANCY SENSOR SWITCH. WATT STOPPER DT-300 WITH POWER PACK, UON. CEILING MOUNTED, UON. (USE WATT STOPPER DT-205 FOR WALL MOUNT.)	PE TS
3.1 THERE SWITCH, WATE STOPPER TS-400, WALL MOUNTED IN SWITCH BOX AT 48' AFF UON. WIRING DEVICES DUPLEX RECEPTACLE, If y AFF UON. (C'INDICATES CELING T MOUNTED), NEMA 520R, UON. T CB DUPLEX RECEPTACLE, WITH INTERNAL GROUND FAULT PROTECTION, NETAL 18' AFF UON. (C'INDICATES CELING T CB ISOLATED GROUND DUPLEX RECEPTACLE, INSTALL 19' AFF UON. T CH SUMPEX RECEPTACLE, INSTALL 19' AFF UON. T CH CONDUTER TOP. LON. T T CONDUTER TOP. LON. SUMPEX RECEPTACLE AS DESCRIBED ABOVE. T SUMPEX RECEPTACLE AS DESCRIBED ABOVE. T CONDUTT RUN OR RECEPTACLE AS DESCRIBED ABOVE. CONDUTER TOP. LON. SUMPEX SUMPEX RECEPTACLE AS DESCRIBED ABOVE. SUMPEX CONDUIT RUN OR RECEPTACLE AS DESCRIBED ABOVE. CONDUTER TOP. LON. SUMPEX SUMPEX CONDUIT RUN RECEPTACLE AND TELEDATA OUTLET INSTALLED NEW SUMPEX	^{\$} IR	OCCUPANCY SENSOR SWITCH. WATT STOPPER PW-100, WALL MOUNTED IN SWITCH BOX AT 48" AFF UON.	
Image: Second State Sta	\$т	TIMER SWITCH. WATT STOPPER TS-400, WALL MOUNTED IN SWITCH BOX AT 48" AFF UON.	MD
C DUPLEX RECEPTACLE. IN AFU DON. (C' NUDICATES GELING GPI DUPLEX RECEPTACLE. INT NITERIAL CROUND FAULT PROFESSIOLE WITH INTERNAL CROUND FAULT PROFESSION DUPLEX RECEPTACLE AS DESCRIBED ABOVE, IN FAULT BY AFF UON. CUADRUPLEX RECEPTACLE AS DESCRIBED ABOVE, INSTALLED IN A FLUSH CUCK NANGER RECEPTACLE AS DESCRIBED ABOVE, INSTALLED IN A FLUSH FLOOR BOX. CONDUIT RUTH NOR RECEPTACLE AS DESCRIBED ABOVE, INSTALLED IN A FLUSH INT CLUSH FLOOR RECEPTACLE AS DESCRIBED ABOVE, INSTALLED IN A FLUSH CONDUIT RUTH NOR RECEPTACLE AND TELEDATA OUTLET INSTALLED INT CLUSH FLOOR BOX. CONDUIT RUTH ON CONCEALED IN CELLING, WALL, FLOOR, OR ABOVE CONDUIT RUTH ON PROFENCION SUBJECTIONS. CONDUIT RUTH ON RELAND BRANCH CIRCUIT AS NDICATED. INTUDES FLOOR DOVIN. VIENT CONDUIT WITH PULLING LINE, SEE AS INDICATED. INTEL STATUS CONDUIT TRANED UP.		WIRING DEVICES	
GPFI WP DUPLEX RECEPTACLE WITH INTERNAL GROUND FAULT PROTECTION. NOTALL 15" AFF UON. (WP' INDICATES WEATHERPROOF). GP ISOLATED GROUND DUPLEX RECEPTACLE. INSTALL 16" AFF UON. GP QUADRUPLEX RECEPTACLE. AS DESCRIBED ABOVE. 15" AFF UON. GP SPECIAL PURPOSE RECEPTACLE. SIZE AND NEMA CONTRIBUTION AS INDICATED. INSTALL 15" AFF UON. GP SPECIAL PURPOSE RECEPTACLE. SIZE AND NEMA CONTRIBUTION AS INDICATED. INSTALL 15" AFF UON. GP RECEPTACLE. AS DESCRIBED ABOVE. INSTALL 15" AFF UON. GP DUPLEX RECEPTACLE AND TELEDATA OUTLET INSTALLED INFLUSH FLOOR BOX. GP GP DUPLEX RECEPTACLE AND TELEDATA OUTLET INSTALLED INFLUSH FLOOR BOX. GP GONDUIT RUN IN OR BELON SLAB OR GROUND. GP INFLUSH FLOOR DOX. GP CONDUIT RUN IN OR BELON SLAB OR GROUND. GP SWITCHLEG. CONDUIT RUN IN OR BELON SLAB OR GROUND. ILA1 HOMERUM TO PAREL AND BRANCH GREGUT AS INDICATED. GP GROUNDUT RUN IN OR BELON SLAB OR GROUND. GP ILA1 HOMERUM TO PAREL AND BRANCH GREGUT AS INDICATED. GP GROUNDUT RUN IN OR BELON SLAB OR GROUND. GP GROUND TENEAD DOWN GP GP CONDUIT TURNED DOWN	⊖ C	DUPLEX RECEPTACLE, 18" AFF UON. ('C' INDICATES CEILING MOUNTED). NEMA 5-20R, UON.	-ff -{
GOLATED GROUND DUPLEX RECEPTACLE, INSTALL 18" AFF UON. GUADRUPLEX RECEPTACLE, INSTALL 9" AFF UON. GUX GUX GUX GUX GUX GUX GUX GUX GUX GUX GUX GUX GUX GUX GUX GUX GUX GUX GUX GUX GUX GUX GUX GUX GUX GUX	GFI WP	DUPLEX RECEPTACLE WITH INTERNAL GROUND FAULT PROTECTION, INSTALL 18" AFF UON. ('WP' INDICATES WEATHERPROOF).	-600
	⊖IG	ISOLATED GROUND DUPLEX RECEPTACLE, INSTALL 18" AFF UON.	
GLK SIMPLEX RECEPTACLE, INSTALL BY AFF UON. 'CLK INDICATES MM ∅ SPECIAL PUPOSE RECEPTACLE, SIZE AND NEMA CONFIGURATION AS INDICATED, INSTALL 19' AFF UON. Image: Configuration as INDICATED, INSTALL 19' AFF UON. ∅ RECEPTACLE AS DESCRIBED ABOVE, INSTALLED IN A FLUSH HOOR BOX. Image: Configuration as INDICATED, INSTALLED IN A FLUSH HOOR BOX. Image: Configuration as INDICATED, INSTALLED IN A FLUSH HOOR BOX. Image: Configuration and the Installed In A FLUSH HOOR BOX. Image: Conduit Run N RECEPTACLE AND TELEDATA OUTLET INSTALLED Image: Conduit Run N or Relation Stable of Ground. Image: Conduit Run N or Relation Stable of Ground. Image: Conduit Run N or Relation Stable of Ground. Image: Conduit Run N or Relation Stable of Ground. Image: Conduit Run N or Relation Stable of Ground. Image: Conduit Run N or Relation Stable of Ground. Image: Conduit Run N or Relation Stable of Ground. Image: Conduit Run N or Relation Stable of Ground. Image: Conduit Run N or Relation Stable of Ground Run	\bigoplus	QUADRUPLEX RECEPTACLE AS DESCRIBED ABOVE, 18" AFF UON.	
SPECIAL PURPOSE RECEPTACE, SIZE AND NEMA CONFIGURATION AS INDICATED, INSTALL 18" AFF UON. Image: transmission of the second sec	⊖ ^{CLK}	SIMPLEX RECEPTACLE, INSTALL 96" AFF UON. 'CLK' INDICATES CLOCK HANGER RECEPTACLE, INSTALL 96" AFF UON.	MFM
Image: Construction of the constru	\bigcirc	SPECIAL PURPOSE RECEPTACLE, SIZE AND NEMA	
DUPLEX RECEPTACLE HORIZONTALLY MOUNTED 6" ABOVE COMBINATION RECEPTACLE AND TELEDATA OUTLET INSTALLED IN FLUSH FLOOR BOX. PB CONDUIT RUN CONCEALED IN CEILING, WALL, FLOOR, OR ABOVE SUSPENDED CEILING. CONDUIT RUN IN OR BELOW SLAB OR GROUND. SWITCH LEG. HA1 HOMERUN TO PANEL AND BRANCH CIRCUIT AS INDICATED. BRANCH CIRCUIT SHALL BE MINIMUM 2#12 AWG AND 1#12 GROUND, 1/2°C, U.N.O ON DRAWINGS OR SPECIFICATIONS. E E CONDUIT TURNED UP. CONDUIT TURNED DOWN. CONDUIT TURNED MULT-OUTLET ASSEMBLY, 6" ABOVE CONDUIT TURNED DOWN. CABLE TRAY PP POWERDATA POLE BROUND CONNECTION. GROUND CONNECTION. GROUND BUS AS NOTED ON DRAWINGS AND SPECIFICATIONS SITE -UP- UNDERGROUND PRIMARY ELECTRIC UTILITY -US- UNDERGROUND DRAWARY ELECTRIC UTILITY -UF-		RECEPTACLE AS DESCRIBED ABOVE, INSTALLED IN A FLUSH	
COMBINATION RECEPTACLE AND TELEDATA OUTLET INSTALLED Image: Construct of the second	Þ	DUPLEX RECEPTACLE HORIZONTALLY MOUNTED 6" ABOVE COUNTER TOP, UON.	E
CONDUIT AND WIRE CONDUIT RUN CONCEALED IN CEILING, WALL, FLOOR, OR ABOVE SUPPORED CEILING. CONDUIT RUN IN OR BELOW SLAB OR GROUND. MANN. SWITCH LEG. HOMERUN TO PANEL AND BRANCH CIRCUIT AS INDICATED. BRANCH CIRCUIT SHALL BE MINIMUM 2±12 AWG AND 1±12. GROUND, 1:2°C. U.N.O ON DRAWINGS OR SPECIFICATIONS. E EMPTY CONDUIT WITH PULLING LINE, SIZE AS INDICATED. CAPPED CONDUIT. AM CONDUIT TURNED UP. AM CONDUIT TURNED UP. AM CONDUIT TURNED UP. AM CONDUIT TURNED UP. AM CONDUIT TURNED DOWN. VI CONDUIT TURNED DOWN. VI CONDUIT TURNED DOWN. VI CONDUIT TURNED DOWN. VI CABLE TRAY FISD CABLE TRAY FISD CABLE TRAY FISD GROUND CONDUCTOR. SIZE AS INDICATED. Im - GROUND CONDUCTOR. SIZE AS INDICATED. Im - GROUND DOND CONDUCTOR. SIZE AS INDICATED. Im - GROUND DRIMARY ELECTRIC UTILITY Im - GROUND DRIMARY ELECTRIC UTILITY		COMBINATION RECEPTACLE AND TELE/DATA OUTLET INSTALLED IN FLUSH FLOOR BOX.	SPD PB
SUSPENDED CELING. IFACP CONDUIT RUN IN OR BELOW SLAB OR GROUND. IANN. SWITCH LEG. F HOMERUN TO PANEL AND BRANCH CIRCUIT AS INDICATED. BRANCH CIRCUIT SHALL BE MINIMUM 2#12 AWG AND 1#12 GROUND, 127C. U.N O ON DRAWINGS OR SPECIFICATIONS. SD CAPPED CONDUIT. H CONDUIT TURNED UP. IM CONDUIT TURNED DOWN. IM CONDUIT TORNED DOWN. IM CABLE TRAY FSD CABLE TRAY FSD OPP POWERDATA POLE GROUND CONDUCTOR. SIZE AS INDICATED. Im Image: GROUND BUS AS NOTED ON DRAWINGS AND SPECIFICATIONS Im Image: GROUND DELEGROUND RECTR		CONDUIT AND WIRE CONDUIT RUN CONCEALED IN CEILING, WALL, FLOOR, OR ABOVE	
CONDUCT RUN IN OR BELOW SLAB OR GROUND. IANK LA1 SWITCH LEG. F BRANCH CIRCUIT SHALL BE MINIMUM 2412 ANG AND 1412 GROUND, 1/2°C. U.N.O ON DRAWINGS OR SPECIFICATIONS. SØ E EMPTY CONDUIT WITH PULLING LINE, SIZE AS INDICATED. (#) CAPPED CONDUIT. (#) CONDUIT TURNED UP. (#) CONDUIT TURNED DOWN. (*) CONDUIT TURNED MULT-LOUTLET ASSEMBLY, 6° ABOVE (*) COUNTER TOP, UON. (*) CAPPED CONDUIT. (*) CONDUIT TURNED DOWN. (*) COUNTER TOP, UON. (*) COUNTER TOP, UON. (*) CABLE TRAY (*) CABLE TRAY (*) GROUNDING (*) Opp (*) GROUND CONNECTION. (*) G (*) GROUND BUS AS NOTED ON DRAWINGS AND SPECIFICATIONS (*) SITE (*) (*) -UP- UNDERGROUND PRIMARY ELECTRIC UTILITY (*) -UP- UNDERGROUND TELEPHONE UTILITY (*) -UP- UNDERGROUND TELEPHONE UTILITY (*) -UT- <td< td=""><td></td><td>SUSPENDED CEILING.</td><td></td></td<>		SUSPENDED CEILING.	
LA1 HOMERUN TO PANEL AND BRANCH CIRCUIT AS INDICATED. BRANCH CIRCUIT SHALL BE MINIMUM 2#12 AWG AND 1#12 GROUND, 1/2°C. U.N.O ON DRAWINGS OR SPECIFICATIONS. SD		CONDUIT RUN IN OR BELOW SLAB OR GROUND.	
GROUND 1/2/C: UNO ON DRAWINGS OR SPECIFICATIONS. Image: Signal and the second a	LA-1	SWITCH LEG. HOMERUN TO PANEL AND BRANCH CIRCUIT AS INDICATED.	(SD)
E Emit if conduct minition delive, size As indicated. CAPPED CONDUIT. M CONDUIT TURNED UP. M CONDUIT TURNED DOWN. Y SURFACE MOUNTED MULTI-OUTLET ASSEMBLY, 6" ABOVE FS COUNTER TOP, UON. SS CABLE TRAY SS PpP POWERDATA POLE GROUNDING FISD Or 344" DIAMETER BY 10-0° LONG COPPER CLAD GROUND ROD. Image: Conduct or size as indicated. Conduct on the conductor size as indicated. Image: Conduct on the condu	F	GROUND, 1/2"C. U.N.O ON DRAWINGS OR SPECIFICATIONS.	(SD _D
→ CONDUIT TURNED UP. Image: Conduit Turned Down. → CONDUIT TURNED DOWN. Image: Conduit Turned Down. → SURFACE MOUNTED MULTI-OUTLET ASSEMBLY, 6" ABOVE FS COUNTER TOP, UON. Image: Conduct Turned Down. Image: Conduct Turned Down. → CABLE TRAY Image: Conduct Turned Down. Image: Conduct Turned Down. → CABLE TRAY Image: Conduct Turned Down. Image: Conduct Turned Down. Image: Conduct Turned Down. → CABLE TRAY Image: Conduct Turned Down. Image: Conduct Turned Down. <td></td> <td>CAPPED CONDUIT.</td> <td>H</td>		CAPPED CONDUIT.	H
→ CONDUIT TURNED DOWN. ▼ SURFACE MOUNTED MULTI-OUTLET ASSEMBLY, 6" ABOVE FS COUNTER TOP, UON. SS CABLE TRAY FSD PPP POWERDATA POLE GROUNDING FSD ···· GROUND CONDUCTOR. SIZE AS INDICATED. ···· GROUND CONNECTION. ···· GROUND BUS AS NOTED ON DRAWINGS AND SPECIFICATIONS ···· SITE ···· UNDERGROUND PRIMARY ELECTRIC UTILITY ···· UNDERGROUND TELEPHONE UTILITY ···· UNDERGROUND TELEPHONE UTILITY ···· PAD MOUNTED UTILITY SERVICE TRANSFORMER ···· PAD MOUNTED UTILITY SERVICE TRANSFORMER ···· PRECAST MANHOLE OR HANDHOLE AS INDICATED FOR POWER ···· PRECAST MANHOLE OR HANDHOLE AS INDICATED.		CONDUIT TURNED UP.	AV
SURFACE MOUNTED MULTI-OUTLET ASSEMBLY, 6" ABOVE FS COUNTER TOP, UON. SS PPP POWERDATA POLE PP POWERDATA POLE OROUNDING FSD O 3/4" DIAMETER BY 10'-0" LONG COPPER CLAD GROUND ROD. G GROUND CONDUCTOR. SIZE AS INDICATED. Image: Count of the count		CONDUIT TURNED DOWN.	V
COUNTER TOP, UON. CABLE TRAY CABLE TRAY CABLE TRAY PPP POWER/DATA POLE GROUNDING GROUNDING GROUND CONDUCTOR. SIZE AS INDICATED. GROUND CONNECTION. G GROUND BUS AS NOTED ON DRAWINGS AND SPECIFICATIONS SITE -UP- UNDERGROUND PRIMARY ELECTRIC UTILITY -US- UNDERGROUND SECONDARY ELECTRIC UTILITY -US- UNDERGROUND TELEPHONE UTILITY -UT- UNDERGROUND TELEPHONE UTILITY -UT- HA LIGHTING STANDARD WITH LUMINAIRE. LETTERS DENOTE TYPE. • UTILITY POLE PAD MOUNTED UTILITY SERVICE TRANSFORMER P PRECAST MANHOLE OR HANDHOLE AS INDICATED FOR POWER P OR COMMUNICATIONS (C) CABLES. SIZE AS NOTED.		SURFACE MOUNTED MULTI-OUTLET ASSEMBLY, 6" ABOVE	FS
□ pp POWER/DATA POLE FISD □ pp POWER/DATA POLE FISD □ o 3/4" DIAMETER BY 10'-0" LONG COPPER CLAD GROUND ROD. Image: Comparison of the state		COUNTER TOP, UON.	SS
GROUNDING ③ 3/4" DIAMETER BY 10'-0" LONG COPPER CLAD GROUND ROD. G GROUND CONDUCTOR. SIZE AS INDICATED. Image: Comparison of the stress of the str	□_ _{PP}	CABLE TRAY POWER/DATA POLE	F/SD
⊙ 3/4" DIAMETER BY 10'-0" LONG COPPER CLAD GROUND ROD. G GROUND CONDUCTOR. SIZE AS INDICATED. Image: Comparison of the state of the sta		GROUNDING	DH
G GROUND CONDUCTOR. SIZE AS INDICATED. Image: Constraint of the stress of t	\odot	3/4" DIAMETER BY 10'-0" LONG COPPER CLAD GROUND ROD.	
Image: Problem in the second and and second and second and second and second a	— G —	GROUND CONDUCTOR. SIZE AS INDICATED.	
G GROUND BUS AS NOTED ON DRAWINGS AND SPECIFICATIONS SITE -UP- UNDERGROUND PRIMARY ELECTRIC UTILITY -US- UNDERGROUND SECONDARY ELECTRIC UTILITY -UT- UNDERGROUND TELEPHONE UTILITY ·UT- UNDERGROUND TELEPHONE UTILITY · UTILITY POLE · UTILITY POLE · PAD MOUNTED UTILITY SERVICE TRANSFORMER · PRECAST MANHOLE OR HANDHOLE AS INDICATED FOR POWER · PRECAST MANHOLE OR HANDHOLE AS INDICATED FOR POWER		GROUND CONNECTION.	
SITE -UP- UNDERGROUND PRIMARY ELECTRIC UTILITY -US- UNDERGROUND SECONDARY ELECTRIC UTILITY -UT- UNDERGROUND TELEPHONE UTILITY -UT- LIGHTING STANDARD WITH LUMINAIRE. LETTERS DENOTE TYPE. • UTILITY POLE • PAD MOUNTED UTILITY SERVICE TRANSFORMER P PRECAST MANHOLE OR HANDHOLE AS INDICATED FOR POWER (P) OR COMMUNICATIONS (C) CABLES. SIZE AS NOTED.	G	GROUND BUS AS NOTED ON DRAWINGS AND SPECIFICATIONS	4
-UP- UNDERGROUND PRIMARY ELECTRIC UTILITY -US- UNDERGROUND SECONDARY ELECTRIC UTILITY -UT- UNDERGROUND TELEPHONE UTILITY • LIGHTING STANDARD WITH LUMINAIRE. LETTERS DENOTE TYPE. • UTILITY POLE T PAD MOUNTED UTILITY SERVICE TRANSFORMER P PRECAST MANHOLE OR HANDHOLE AS INDICATED FOR POWER (P) OR COMMUNICATIONS (C) CABLES. SIZE AS NOTED.	חוו		
-UT- UNDERGROUND TELEPHONE UTILITY -UT- LIGHTING STANDARD WITH LUMINAIRE. LETTERS DENOTE TYPE. • UTILITY POLE T PAD MOUNTED UTILITY SERVICE TRANSFORMER P PRECAST MANHOLE OR HANDHOLE AS INDICATED FOR POWER (P) OR COMMUNICATIONS (C) CABLES. SIZE AS NOTED.	-07-		
 UNDERGROUND TELEPHONE UTILITY LIGHTING STANDARD WITH LUMINAIRE. LETTERS DENOTE TYPE. UTILITY POLE T PAD MOUNTED UTILITY SERVICE TRANSFORMER PRECAST MANHOLE OR HANDHOLE AS INDICATED FOR POWER (P) OR COMMUNICATIONS (C) CABLES. SIZE AS NOTED. 	-00- LIT		TV
HA UTILITY POLE T PAD MOUNTED UTILITY SERVICE TRANSFORMER PRECAST MANHOLE OR HANDHOLE AS INDICATED FOR POWER (P) OR COMMUNICATIONS (C) CABLES. SIZE AS NOTED.	-UI-	LIGHTING STANDARD WITH I LIMINAIRE I ETTERS DENOTE TVDE	
T PAD MOUNTED UTILITY SERVICE TRANSFORMER PRECAST MANHOLE OR HANDHOLE AS INDICATED FOR POWER P (P) OR COMMUNICATIONS (C) CABLES. SIZE AS NOTED.	└─┘ HA ◈	UTILITY POLE	
PRECAST MANHOLE OR HANDHOLE AS INDICATED FOR POWER (P) OR COMMUNICATIONS (C) CABLES. SIZE AS NOTED.	ГТ	PAD MOUNTED UTILITY SERVICE TRANSFORMER	
P (P) OR COMMUNICATIONS (C) CABLES. SIZE AS NOTED.		PRECAST MANHOLE OR HANDHOLE AS INDICATED FOR POWER	
-	└──┘ P	(P) OR COMMUNICATIONS (C) CABLES. SIZE AS NOTED.	

	DISTRIBUTION & CONTROLS
/////	ELECTRICAL PANELBOARD (480Y/277 VOLT).
	ELECTRICAL PANELBOARD (208Y/120 VOLT).
В	ENCLOSED CIRCUIT BREAKER, RATING AND NO. OF POLES AS INDICATED.
	NON-FUSED DISCONNECT SWITCH. 30A/3P NEMA 1 UON. 30A = SWITCH RATING, 3P = NO. OF POLES, NEMA 1 = ENCLOSURE STYLE
ď	FUSED DISCONNECT SWITCH. 30A/3P NEMA 1 UON. FUSE SIZE AS NOTED. 30A = SWITCH RATING, 3P = NO. OF POLES, NEMA 1 = ENCLOSURE STYLE.
\boxtimes	MAGNETIC MOTOR STARTER. SIZE 1, NEMA 1 UON.
$\boxtimes \downarrow$	COMBINATION DISCONNECT AND MAGNETIC STARTER. SIZE 1, NEMA 1 UON.
	CONTROLLER PROVIDED WITH EQUIPMENT (HVAC, ELEVATOR, ETC.) INSTALLED BY DIVISION 16.
^{\$} м	MANUAL MOTOR STARTER WITH THERMAL OVERLOAD(S) UON, SIZED PER ACTUAL NAMEPLATE RATING.
OR⊣⊢	CONTACTOR, RATING AND NO. OF POLES AS INDICATED.
PE	PHOTO-ELECTRIC SWITCH. INSTALL WITH SENSOR ELEMENT FACING NORTH, FLUSH MOUNTED WHERE POSSIBLE, UON.
TS	TIME SWITCH.
J	JUNCTION BOX.
(M)/	MOTOR.
' ' -^-≫	DRAW-OUT POWER CIRCUIT BREAKER, RATING AND NO. OF POLES.
<u>~</u>	AS INDICATED.
	OF POLES AS INDICATED.
	FUSE, RATING AS INDICATED.
MFM	DIGITAL SOLID STATE MULTI-FUNCTION METER
\overline{M}	UTILITY COMPANY REVENUE METER UON.
	PUSHBUTTON, TYPE AS SPECIFIED ON DRAWING.
	SELECTOR SWITCH.
E	EQUIPMENT CONNECTION. COORDINATE WITH MANUFACTURERS' REPRESENTATIVE.
SPD	SURGE PROTECTION DEVICE SYSTEM.
PB	PULL BOX, SIZE PER NEC, UON.
	FIRE ALARM SYSTEM
ACP	FIRE ALARM CONTROL PANEL.
ANN	FIRE ALARM REMOTE ANNUNCIATOR.
F	FIRE ALARM MANUAL STATION, INSTALL 48" AFF.
SD	FIRE ALARM AREA SMOKE DETECTOR, INSTALL ON CEILING UON. "F", INDICATES UNDER RAISED FLOOR.
SD) D	DUCT MOUNTED SMOKE DETECTOR.
(H)	FIRE ALARM FIXED-TEMPERATURE RATE-OF-RISE HEAT DETECTOR, 135°C UON.
AV	FIRE ALARM AUDIO/VISUAL DEVICE, INSTALL 80" AFF, UON.
V	FIRE ALARM VISUAL DEVICE, INSTALL 80" AFF, UON.
FS	SPRINKLER SYSTEM FLOW SWITCH BY DIVISION 21.
SS	SPRINKLER SYSTEM SUPERVISORY SWITCH BY DIVISION 21.
/SD	COMBINATION FIRE AND SMOKE DAMPER BY DIVISION 21.
DH	MAGNETIC DOOR HOLDER.
	COMMUNICATIONS AND DATA TELEPHONE TERMINAL BOARD, 4' X 8' X 3/4" THICK, UON.
\triangleleft	DATA OUTLET. INSTALL 18" AFF UON. 4" SQUARE BOX WITH A SINGLE DEVICE PLASTER RING AND 3/4"C WITH PULLING LINE STUBBED OUT TO ABOVE NEAREST ACCESSIBLE CEILING.
	COMBINATION TELEPHONE AND DATA OUTLET. INSTALL 18" AFF UON. 4" SQUARE BOX WITH A SINGLE DEVICE PLASTER RING AND 3/4"C WITH PULLING LINE STUBBED OUT TO ABOVE NEAREST ACCESSIBLE CEILING.
	OUTLET AS DESCRIBED ABOVE, INSTALLED IN A FLUSH FLOOR BOX.
TV	OUTLET BOX WITH 3/4" CONDUIT WITH PULLING LINE STUBBED OUT TO ABOVE ACCESSIBLE CEILING FOR CATV, INSTALL 18" AFF. UON.
CR	CARD READER

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ELECTRICAL NUTES	ABBREVIATIONS
 (APPLIES TO ALL DRAWINGS.) GENERAL ELECTRICAL NOTES ALL ELECTRICAL WORK SHALL BE PERFORMED IN STRICT ADHERENCE TO THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE AND/OR THE AHJ. MINIMUM CONDUCTOR SIZE IS #12 EXCEPT FOR LOW VOLTAGE SYSTEMS AND CONTROLS MINIMUM CONDUIT SIZE FOR INTERIOR USE IS ½" UNO MINIMUM EXTERIOR AND BURIED CONDUIT IS 3/4". WHEN COMPLETE TEST ALL SYSTEMS IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. LIGHTING SHALL BE TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE IECC. LIGHT SWITCHES/CONTROLS SHALL BE INSTALLED WITHIN 12" OF THE ENTRY DOOR INTO THE SPACE. NO DEVICES SHALL BE INSTALLED BACK-TO-BACK REGARDLESS OF THE DRAWINGS. PROVIDE ONE INTERIOR STUD SPACE SEPARATION. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR 120V. POWER TO MECHANICAL EQUIPMENT WHETHER SHOWN OR NOT. ROUTE TO NEAREST 120V. PANEL HAVING ADEQUATE SPACE. THIS INCLUDES CONTROL PANELS, SMOKE/FIRE DAMPERS, ETC. 	A A AMPERE AC ABOVE COUNTER AF AMP FRAME/AMP FUSE AFF ABOVE FINISHED FLOOR AFG ABOVE FINISHED GRADE AHU AIR HANDLING UNIT AIC AMPERE INTERRUPTING CAPACITY ANSI AMERICAN NATIONAL STANDARDS INSTITUTE ATS AUTOMATIC TRANSFER SWITCH AWG AMERICAN WIRE GAUGE B BFG BELOW FINISHED GRADE BPS BOLTED PRESSURE SWITCH C C C CONDUIT CB CIRCUIT BREAKER CF COMPACT FLUORESCENT CFCI CONTRACTOR FURNISHED, CONTRACTOR INSTALLED CKT CKT CIRCUIT CLG CEILING CPS CPS ENERGY CT'S CURRENT TRANSFORMERS CU CONDENSING UNIT OR COPPER
	D DEMO DEMOLITION DISC DISCONNECT SWITCH
GENERAL DEMOLITION NOTES	
 DEMOLISH ALL ELECTRICAL EQUIPMENT SHOWN OR NOTED TO BE REMOVED. ALL EXPOSED CONDUIT WHETHER OPEN OR WITHIN CEILING PLENUM SHALL BE REMOVED. CONDUIT THAT IS ENCLOSED WITHIN WALLS, FLOOR OR BURIED SHALL BE CUT OFF AND ABANDONED IN PLACE. ALL CONDUCTORS INCLUDING BUT NOT LIMITED TO FEEDER, BRANCH CIRCUIT AND SPECIAL SYSTEMS SHALL BE REMOVED FROM THEIR CONDUIT/HOUSING, UNLESS OTHERWISE STATED. ALL ELECTRICAL EQUIPMENT REMOVED SHALL BE RETURNED TO THE OWNER 	E EA EACH EC EMPTY CONDUIT EDF ELECTRIC DRINKING FOUNTAIN EWC ELECTRIC WATER COOLER EF EXHAUST FAN ELEC ELECTRICAL EMT ELECTRICAL METALLIC TUBING EPO EMERGENCY POWER OFF EQUIP EQUIPMENT EWH ELECTRIC WATER HEATER EXIST EXISTING
5. EQUIPMENT TO BE REUSED/RELOCATED SHALL BE REMOVED, PROPERTY STORED AND KEPT SAFE AND REINSTALLED AS SHOWN.	F FACP FIRE ALARM CONTROL PANEL FCU FAN COIL UNIT
6. EXISTING SYSTEMS/DEVICES SUCH AS FIRE ALARM, INTERCOM/PAGE, NURSE CALL SHALL BE TESTED PRIOR TO ANY DEMOLITION AND DETERMINED TO BE FULLY OPERATIONAL. ANY DEFICIENCIES MUST BE NOTED IN THE PRESENCE OF AN OWNER'S AGENT.	FLA FULL LOAD AMPS G GEC GROUNDING ELECTRODE CONDUCTOR GEN GENERATOR OR GENERAL GFI/GFCI GROUND FAULT CIRCUIT INTERRUPTER GND GROUND GRS GALVANIZED RIGID STEEL
GENERAL FIRE ALARM SYSTEM	H HID HIGH INTENSITY DISCHARGE HPS HIGH PRESSURE SODIUM
 THE FIRE ALARM SYSTEM/RENOVATION SHALL BE DESIGNED BY A LICENSED FIRE ALARM SYSTEM CONTRACTOR. ANY FIRE ALARM SYSTEM DEVICES THAT ARE SHOWN ARE FOR INFORMATIONAL PURPOSES ONLY. MATCH EXISTING EQUIPMENT AS APPLICABLE. GENERAL REQUIREMENT OF THE FIRE ALARM SYSTEM IS SHOWN. THE NOTES AND SPECIFICATION SECTION ARE 	I IDS INTRUSION DETECTION SYSTEM IEEE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS IMC INTERMEDIATE METAL CONDUIT INC INCANDESCENT IPS INTERRUPTIBLE POWER SUPPLY
PERFORMANCE BASED. 4. SUCCESSFUL FIRE ALARM SYSTEM CONTRACTOR WILL BE RESPONSIBLE TO DESIGN THE FIRE ALARM SYSTEM DRAWINGS, OBTAIN APPROVAL FROM THE FIRE MARSHAL FOR THE PROJECT AND PERFORM ALL REQUIRED TESTING.	K KAIC THOUSAND AMP INTERRUPTING CAPACITY RMS SYMMETRICAL KCMIL THOUSAND CIRCULAR MILS KVA THOUSAND VOLT AMPERE KW KILOWATT
	L LRA LOCKED ROTOR AMPS LSI LONG TIME/SHORT TIME/INSTANTANEOUS TRIP SETTINGS INCLUDED WITH CIRCUIT BREAKER LSIG L.T./S.T./I.T./GROUND FAULT TRIP
	M MCA MINIMUM CIRCUIT AMPERES MCB MAIN CIRCUIT BREAKER MCC MOTOR CONTROL CENTER MFR MANUFACTURER MLO MAIN LUGS ONLY MOCP MAXIMUM OVERCURRENT PROTECTION
	NNCNORMALLY CLOSEDNECNATIONAL ELECTRICAL CODENECANATIONAL ELECTRICAL CONTRACTORS ASSOCIATIONNEMANATIONAL ELECTRICAL MANUFACTURERS ASSOCIATIONNFPANATIONAL FIRE PROTECTION ASSOCIATIONNICNOT IN CONTRACTNLNIGHT LIGHTNONUMBER OR NORMALLY OPEN NTSNTSNOT TO SCALE
	O OFCI OWNER FURNISHED, CONTRACTOR INSTALLED OFOI OWNER FURNISHED, OWNER INSTALLED
	P PH PHASE PNL PANELBOARD
	R RCPT RECEPTACLE REP REPRESENTATIVE REQ'D REQUIRED RLA RUNNING LOAD AMPERES RTU ROOF TOP UNIT
	S SC SPLIT BRANCH CIRCUIT INDICATES REFERENCED BRANCH CIRCUIT HAS MORE THAN ONE HOMERUN DESIGNATION SHOWN SQ FT SQUARE FEET
	T TEL TELEPHONE TV TELEVISION TYP TYPICAL
	U UH UNIT HEATER UON UNLESS OTHERWISE NOTED UPS UNINTERRUPTIBLE POWER SUPPLY
	V V VOLT VA VOLT AMPERE VFD VARIABLE FREQUENCY/SPEED DRIVE
	W W WIRE W/ WITH W/O WITHOUT WP WEATHERPROOF
	X XFMR TRANSFORMER XMTR TRANSMITTER

SAN ANTONIO, TEXAS 78223 SERVICE 9874 SOUTHTON RD., SOUTHTON

CENTER **PERMIT SET** I CONTRACT DOCUMENTS Project NO.: 21014 Date: 09/30/2021 Revisions:

E0.1 ELECTRICAL SYMBOLS LEGEND

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2 SITE PLAN - ELECTRICAL PANELS E0.2 1/4" = 1'-0"

PANEL B, 400A, 208/120V, 3¢

- PANEL LT └── PANEL B1, 125A, 208/120V, 3¢

PANEL LT1, 225A, 208/120V, 3

2

E0.2 - KEYED NOTES

NTER SAN ANTONIO, TEXAS 78223 **PERMIT SET** C E SERVICE NO 9874 SOUTHTON RD T SOUTI

CONTRACT DOCUMENTS Project NO.: 21014 Date: 09/30/2021 Revisions:

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	LIGHTING FIXTURE SCHEDULE									
TYPE MARK	MANUFACTURER	MODEL	LAMP	VOLTAGE	VA	MOUNTING				
А	LITHONIA LIGHTING	2BLT4 48L ADP LP840	LED	120	38 VA	CEILING RECESSED				
В	LITHONIA LIGHTING	2BLT2 40L ADP LP840	LED	120	31 VA	CEILING RECESSED				
С	LITHONIA LITHING	LDN6	LED	120	21 VA	CEILING RECESSED				
D	LITHONIA LIGHTING	TWP LED ALO 50K	LED	120	72 VA	EXTERIOR SURFACE WALL				
X1	LITHONIA LIGHTING	EXGR	LED	120	1 VA	EXIT LIGHTING				

NOTES : E SUFFIX LIGHT FIXTURES SHALL BE THE TYPE INDICATED WITH INTEGRAL 90 MINUTES BATTERY INVERTER FOR EMERGENCY LIGHTING.

CONNECT EXIT LIGHT TO NEAREST LIGHTING CIRCUIT UNSWITCHED

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONFIRM COMPATIBILITY BETWEEN THE CEILING TYPE, AS DEFINED ON THE ARCHITECTURAL ROOM FINISH SCHEDULE, AND THE LIGHT FIXTURE TRIM AS DEFINED ON THE FIXTURE SCHEDULE. NO CHANGES OR DEVIATIONS SHALL BE MADE FROM THE CONTRACT DOCUMENTS, HOWEVER, WITHOUT WRITTEN APPROVAL OF THE ENGINEER/ARCHITECT.

E1.1 - KEYED NOTES

- 1 AREA NOT IN SCOPE OF WORK
- 2 CONNECT NEW LIGHT FIXTURES TO EXISTING CIRCUIT FOR EXISTING EXTERIOR LIGHTING
- 3 CONTRACTOR TO MATCH NEW LIGHTING FIXTURE FINISH WITH EXISTING EXTERIOR LIGHT FIXTURES

SAN ANTONIO 123 Altgelt Avenue San Antonio, Texas 78201 T: 210.736.3009 LAREDO 9901 McPherson Avenue, #104 Laredo, Texas 78045 T: 956.791.0405 DAVID O. BRANTLEY 109118 09/30/2021 CENTER SAN ANTONIO, TEXAS 78223 **PERMIT SET** /ICE CONTRACT DOCUMENTS SERV NO 9874 SOUTHTON RD. I SOUTI Project NO.: 21014 Date: 09/30/2021 Revisions:

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1 EXISTING POWER CONNECTION FOR PROJECTOR TO BE REMOVED.

2 EXISTING TLS-350 TANK GUAGING SYSTEM TO REMAIN.

3 EXISTING RECEPTACLE FOR DRINKING FOUNTAIN TO BE DEMOLISHED

5

E2.1 KEYED NOTES

1 POWER CONNECTION FOR ROLL DOWN SCREEN MOUNTED ON CEILING. VERIFY WITH ARCHITECT FOR EXACT LOCATION.

2 POWER CONNECTION FOR PROJECTOR MOUNTED ON CEILING. VERIFY WITH ARCHITECT FOR EXACT LOCATION

3 EXISTING PANEL "FUEL" 208/120 3 PHASE 4W 225A.

4 EXISTING TLS-350 TANK GUAGING SYSTEM TO REMAIN.

5 POWER CONNECTION FOR MICROWAVE. VERIFY EXACT MOUNTING HEIGHT WITH ARCHITECT

6 EXISTING PANEL "A" 208/120V 3 PHASE 4W 225A.

- 7 EXISTING PANEL "AB" 208/120V 3 PHASE 4W 100A.
- 8 NEW PANEL "C" 120/208V 100A 3 PHASE 4W.

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109118

09/30/2021

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DOCUMENTS

CONTRACT

Project NO.: 21014 Date: 09/30/2021 Revisions:

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ELECTRICAL LOAD SUMMAF 120/208 VOLT, 3PHASE, 4W 800 A	RY MP
LOAD DESCRIPTION	CONNECTED LOAD (KVA)
* EXISTING LOAD 58 KW X 1.25 PER NEC 2020, ARTICLE 220.87	90.63
LOADS REMOVED:	
LIGHTING	3.00
RECEPTACLES	2.16
HVAC	28.82
TOTAL - LOAD REMOVED	34.0
LOADS ADDED:	
LIGHTING	1.59
RECEPTACLE	53.99
HVAC	57.87
TOTAL - LOAD ADDED	113
TOTAL - REVISED LOAD KVA	170
TOTAL - REVISED LOAD A	472

THE EXISTING 800AMPS SERVICE IS ADEQUATE FOR ADDITIONAL LOADS

* THIS IS THE MAXIMUM PEAK LOAD READ/ PROVIDE FROM ELECTRIC UTILITY COMPANY TO HMG & ASSOCIATES. **PER NEC 2020, ARTICLE 220.44

	COPPER FEEDER SCHEDULE										
FEEDER SYMBOL	# OF SETS	CONDUCTORS	CONDUIT SIZE		FEEDER SYMBOL	# OF SETS	CONDUCTORS	CONDUIT SIZE			
60Y	1	4#6 & 1#10 G	1"		60D	1	3#6 & 1#10 G	1"			
100Y	1	4#1 & 1#8 G	1 1/4"		100D	1	3#1 & 1#8 G	1 1/4"			
225Y	1	4#4/0 & 1#4 G	2 1/2"		225D	1	3#4/0 & 1#4 G	2"			
400Y	1	4-600KCM & 1#3 G	4"		400D	1	3#600KCM & 1#3 G	3 1/2"			

E4.1 KEYED NOTES

- 1 INSTALL NEW CIRCUIT BREAKER IN AVAILABLE SPACE
- PROVIDE 400A RATED ELECTRICAL CONTACTOR TO BE INTERFACED WITH ATS AND TO
 CONTROL PANEL C . CONTACTOR SHALL BE CLOSED WHEN ON UTILITY POWER, AND
 WHEN ON GENERATOR CONTACTOR SHALL BE OPEN

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	PANEL: MC)P													
Location: EXTERIOR Supply From: MAIN SERVICE Mounting: Surface Enclosure: NEMA 3R					Volts: 120/208 Wye Phases: 3 Wires: 4							A.I.C. Rating: 22 KIAC Mains Type: M.L.O Mains Rating: 800 A MCB Rating: NA			
скт	CIRCUIT DESCRIPTION	TRIP	POLES	l l	A	E	3	C	;	POLES	TRIP	CIRCUIT DESCRIPTION	СКТ		
1	SPACE			0 VA	0 VA					3	400 A	EXISTING PANEL B	2		
3	SPACE					0 VA	0 VA						4		
5	SPACE							0 VA	0 VA				6		
7	EXISTING PANEL A	225 A	3	6727 VA	0 VA					3	225 A	EXISTING FUEL PANEL	8		
9						7120 VA	0 VA						10		
11								6860 VA	0 VA				12		
13	NEW PANEL PANEL C	400 A	3	30762 VA	0 VA					3	225 A	SPARE	14		
15						31278 VA	0 VA						16		
17								32152 VA	0 VA				18		
19	SPARE	225 A	3	0 VA	0 VA					3	100 A	EXISTING PANEL LT	20		
21						0 VA	0 VA						22		
23								0 VA	0 VA				24		
25	SPACE			0 VA	0 VA							SPACE	26		
27	SPACE					0 VA	0 VA					SPACE	28		
29	SPACE							0 VA	0 VA			SPACE	30		
31	SPACE			0 VA	0 VA							SPACE	32		
33	SPACE					0 VA	0 VA					SPACE	34		
35	SPACE							0 VA	0 VA			SPACE	36		
37	SPACE			0 VA	0 VA							SPACE	38		
39	SPACE					0 VA	0 VA					SPACE	40		
41	SPACE							0 VA	0 VA			SPACE	42		
	1	То	tal Load:	37.49) kVA	38.40	kVA	39.01	kVA		I	1			
		Tot	al Amps:	312	2 A	321	1 A	326	6 A						

	Branch Panel: (Location: E Supply From: M Mounting: S Enclosure: N		Volts: Phases: Wires:	120/208 Wy 3 4	ye		A.I.C. Rating: 10 KAIC Mains Type: M.L.O Mains Rating: 400 A MCB Rating:						
скт	Circuit Description	Trip	Poles		4		В		С	Poles	Trip	Circuit Description	СКТ
1	EF-1	20 A	1	1200 VA	250 VA					2	20 A	WATER HEATER	2
3	SPARE	20 A	1			0 VA	250 VA						4
5	CU-5	20 A	2					1311 VA	1592 VA	2	25 A	CU-4	6
7				1311 VA	1592 VA								8
9	AHU-1	20 A	2			4619 VA	2042 VA			3	30 A	CU-2	10
11								4619 VA	2042 VA				12
13	CU-3	25 A	2	1779 VA	2042 VA								14
15						1779 VA	2072 VA			3	20 A	CU-1	16
17	CU-4	35 A	3					2443 VA	2072 VA				18
19				2443 VA	2072 VA								20
21						2443 VA	2594 VA			3	40 A	OACU-1	22
23	AHU-3	30 A	3					3059 VA	2594 VA				24
25				3059 VA	2594 VA								26
27						3059 VA	3075 VA			3	20 A	ACU-2	28
29	AHU-4	20 A	3					3079 VA	3075 VA				30
31				3079 VA	3075 VA								32
33						3079 VA	6269 VA			3	60 A	OAHU-1	34
35	SPARE	20 A	1					0 VA	6269 VA				36
37	SPARE	20 A	1	0 VA	6269 VA								38
39	SPARE	20 A	1			0 VA	0 VA			1	20 A	SPARE	40
41	SPARE	20 A	1					0 VA	0 VA	1	20 A	SPARE	42
43	SPARE	20 A	1	0 VA	0 VA					1	20 A	SPARE	44
45	SPARE	20 A	1			0 VA	0 VA			1	20 A	SPARE	46
47	SPACE							0 VA	0 VA	1	20 A	SPARE	48
49	SPACE			0 VA	0 VA							SPACE	50
51	SPACE					0 VA	0 VA					SPACE	52
53	SPACE			0.075				0 VA				SPACE	54
		Tota	al Load:	3076	52 VA	3127	(8 VA	3215	o2 VA				
Total Amps:				25	бА	26	51 A	26	9 A				

E,	XISTING PANEL: A Location: BRE Supply From: PAN Mounting: Surfa Enclosure: NEM	Volts: Phases: Wires:	/ye		A.I.C. Rating: 10 KAIC Mains Type: M.L.O Mains Rating: 225 A MCB Rating: NA								
скт	CIRCUIT DESCRIPTION	TRIP	POLES		A		В	(0	POLES	TRIP	CIRCUIT DESCRIPTION	СКТ
1	RESTROOMS/ KITCHEN LIGHTING	20 A	1	600 VA	987 VA					1	20 A	MAIN AREA/OFFICE LIGHTING	2
3	DRINKING FOUNTAIN	20 A	1			1000 VA	1080 VA			1	20 A	DISPATCH RCPT	4
5	EXTERIOR RCPT	20 A	1					1260 VA	900 VA	1	20 A	HALLWAY RCPT	6
7	RCPT CONFERENCE ROOM	20 A	1	900 VA	540 VA					1	20 A	RCPT CHARGING ROOM	8
9	RCPTCHARGING ROOM	20 A	1			540 VA	0 VA					SPACE	10
11	PROJECTOR	20 A	1					1000 VA	360 VA	1	20 A	RCPT RESTROOMS	12
13	SPACE			0 VA	0 VA							SPACE	14
15	SPACE					0 VA	0 VA					SPACE	16
17	SPACE							0 VA	0 VA			SPACE	18
19	SPACE			0 VA	0 VA							SPACE	20
21	SPACE					0 VA	0 VA					SPACE	22
23	SPACE							0 VA	0 VA			SPACE	24
25	SPACE			0 VA	0 VA							SPACE	26
27	SPACE					0 VA	0 VA					SPACE	28
29	SPACE							0 VA	0 VA	1	20 A	FIRE CONTROL PANEL	30
31	SPACE			0 VA	0 VA							SPACE	32
33	SPACE					0 VA	0 VA					SPACE	34
35	SPACE							0 VA	0 VA			SPACE	36
37	PANEL AB	100 A	3	3700 VA	0 VA							SPACE	38
39						4500 VA	0 VA			2	40 A	FRONT GATE SUB-PANEL	40
41								3340 VA	0 VA				42
	1	То	tal Load:	6.73	kVA	7.12	kVA	6.86	kVA			1	I
		Tot	al Amps:	56	β A	60) A	57	Ά	_			

	Location: BRE. Location: BRE. Supply From: PAN Mounting: Surfa Enclosure: NEM	Volts: 120/208 Wye Phases: 3 Wires: 4					A.I.C. Rating: 10 KAIC Mains Type: M.L.O Mains Rating: 100 A MCB Rating: NA						
скт	CIRCUIT DESCRIPTION	TRIP	POLES		4	E	3	(C	POLES	TRIP	CIRCUIT DESCRIPTION	скт
1	COUNTER RCPT	20 A	1	540 VA	1000 VA					1	20 A	COFFEE MAKER	2
3	MAIN AREA RECP	20 A	1			900 VA	1200 VA			1	20 A	FRIDGE	4
5	RCPT ROOM 14	20 A	1					900 VA	1000 VA	1	20 A	MICROWAVE	6
7	WATER FOUNTAIN	20 A	1	1020 VA	1140 VA					1	20 A	RM6 RECP	8
9	RM14 COMPUTER RECP	20 A	1			1500 VA	900 VA			1	20 A	RCPT HALL	10
11	RM8 RECP	20 A	1					1440 VA	0 VA	1	20 A	SPARE	12
13	SPARE	20 A	1	0 VA	0 VA					1	20 A	SPARE	14
15	SPARE	20 A	1			0 VA	0 VA			1	20 A	SPARE	16
17	SPARE	20 A	1					0 VA	0 VA	1	20 A	SPARE	18
19	SPARE	20 A	1	0 VA	0 VA					1	20 A	SPARE	20
21	SPARE	20 A	1			0 VA	0 VA			1	20 A	SPARE	22
23	SPARE	20 A	1					0 VA	0 VA	1	20 A	SPARE	24
25	SPARE	20 A	1	0 VA	0 VA					1	20 A	SPARE	26
27	SPARE	20 A	1			0 VA	0 VA			1	20 A	SPARE	28
29	SPARE	20 A	1					0 VA	0 VA	1	20 A	SPARE	30
31	SPARE	20 A	1	0 VA	0 VA					1	20 A	SPARE	32
33	SPACE					0 VA	0 VA					SPACE	34
35	SPACE							0 VA	0 VA			SPACE	36
37	SPACE			0 VA	0 VA							SPACE	38
39	SPACE					0 VA	0 VA					SPACE	40
41	SPACE							0 VA	0 VA			SPACE	42
		То	tal Load:	3.70	kVA	4.50	4.50 kVA 3.34 kVA			'			l
		Tot	al Amps:	31	А	38	38 A 28 A		-				

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E5.1 ELECTRICAL PANEL SCHEDULES

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SERVICE

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SOUTH⁻

SAN ANTONIO, TEXAS 78223

9874 SOUTHTON RD.,

PERMIT SET

Landscape Requirements & Tabulations

Vicinity Map

Property Description

NCB 10915, Block 1, Lot NW IRR Pt of 6 & CB 5161A Block 1 Lot NE IRR Pt of 6

Parcel Key

Prior to commencement of any construction activities, Contractor shall notify local utility location service to identify any underground utilities. Contractor shall immediately notify the Landscape Architect of any potential discrepancies, or obstacles. CALL 1-800-DIG-TESS for underground utility location at least two (2) days prior to excavation. The Site Information shown on this plan has been provided by the Owner

Architect, or Civil Engineer. C2 Landgroup, Inc. is not responsible for the accuracy of that information and is using the information provided to prepare this Landscape Plan.

The Landscape Contractor shall verify all scales of the plans and quantites shown on the plan and is responsible for including in the bid the planting, or installation of all items shown. Any errors on the plan, or quantities should be brought to the attention of the Landscape Architect by the Contractor prior to submittal of any bid.

Tree Protection Fence Detail (No Scale)

- A. First Cut To Prevent The Bark From Being
- Peeled When The Branch Falls. B. Second Cut - To Reduce The Weight Of Branch.
- C. Final Cut Allow For Healing Collar But No
- Stubs.
- D. Branch Ridges Indent Properly Branch Ridges Which Are Site For Decay.

For Oaks Only: Paint All Wounds Or Cuts With Pruning Paint Within 20 Min To Prevent The Spread Of Oak Wilt.

Site Plan NO SCALE

Site Tree Canopy Shading Calculations

(Mandatory Requirement)

Site Area 25% Shading Minimum

Number of Existing Trees @ 1200sf - 0 Number of Trees @ 1200sf @ 90% - 1 Number of Trees @ 1200sf @ 90% (x1.5) - 0 Number of Existing Trees @ 875sf - 0 Number of Trees @ 875sf @ 90% - 0 Number of Trees @ 875sf @ 90% (x1.5) - 0 Number of Existing Trees @ 550sf - 0 Number of Trees @ 550sf @ 90% - 0 Number of Trees @ 550sf @ 90% (x1.5) - 0 Number of Existing Trees @ 275sf - 0 Number of Trees @ 275sf @ 90% - 0 Number of Trees @ 275sf @ 90% (x1.5) - 0

Square Footage of Trees Provided

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Tree Preservation Notes

- 1. All existing trees denoted on plan to be preserved as shown. Those trees requested for credit have been delineated to be protected at the root zone. The root zone shall be determined by the crown of the tree. Preservation notes apply only for those trees that are designated to be preserved for credit.
- 2. A protective barrier to protect the root protection zone shall be erected and maintained until construction is completed. The barrier shall be fenced or cabled with a semi-permanent barrier that will visually denote those areas being protected.
- 3. Protected areas shall be sustained in a natural state until landscape installation begins.
- 4. Protected areas shall be free from vehicular or mechanical traffic during construction.
- 5. During construction, no excess soil, additional fill, equipment, liquids, or construction debris shall be placed inside the protective barrier nor shall any soil be removed from within the barrier.
- 6. The proposed finished grade and elevation of land within the root protection zone of any tree to be preserved shall not be raised or lowered more than three inches. Welling and retaining methods are allowed outside the root protection zone.
- 7. The root protection zone for each designated protected tree must remain unpaved.
- 8. All designated / protected trees shall have ground cover or turf at the base of the tree. See plan for condition.
- 9. All trenches and digging within the Root Protection Zone shall be hand digging only. No automatic trenchers allowed.

Tree In

No Existing Significant Trees In Limits Of Construction

Tree Inventory Summary

Understory Trees Total Diameter Inc Total Diameter In Total Diameter In

% Diameter Inche

Significant Trees Total Diameter In Total Diameter In Total Diameter In

% Diameter Inche

Heritage Trees Total Diameter In Total Diameter In Total Diameter In

% Diameter Inches Total # Trees 24" cal. & above

ve	nto	ory

S	
ches	0"
ches Removed	0"
ches Preserved	0"
s Preserved	100.00 %
;	
ches	0"
ches Removed	0"
ches Preserved	0"
s Preserved	100.00 %
ches	0"
ches Removed	0"
ches Preserved	0"
s Preserved	#DIV 0! %
and Contained	0

317 lexington suite 1 san antonío, texas 78215

210.269.5454 tel

www.c2landgroup.com

Tree Preservation Plan