EDINBURG C.I.S.D MUNICIPAL POOL–BOILER ADDITIONS

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100% CONSTRUCTION DOCUMENTS

PROJECT TEAM	LOCATION
DBR Inc. 200 S. 10th St. Suite 901 McAllen, Texas 782501 956-683-1640 MEP Engineer Hugo H. Avila, P.E. havila@dbrinc.com Edinburg C.I.S.D. 411 N. 8th Ave. Edinburg, Tx 78539 ECISD Project Manager Carlos Lima	 125 E. Palm Dr, Edinburg, Tx 78539 Tel:(956)381-5631

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DBR
SERVICE | QUALITY | INTEGRITY | SUSTAINABILITY
956.683.1640 v 956.683.1903 f
200 South 10th Street. Suite. 901
McAllen, Texas 78501
TBPE Firm Registration NO. 2234

REVISION:

No.	DATE	DISCRIPTION

SEAL:

EDINBURG CISD
MUNICIPAL POOL - BOILER ADDITIONS

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GENERAL NOTES

GENERAL

1. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. UNLESS OTHERWISE INDICATED, THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE, WORKMEN, AND OTHER PERSONS DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO BRACING, SHORING FOR CONSTRUCTION EQUIPMENT, SHORING FOR THE BUILDING, SHORING FOR THE EARTH BANKS, FORMS, SCAFFOLDING, PLANNING, SAFETY NETS, SUPPORT AND BRACING FOR CRANES, GIN POLES, ETC. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK, AND HE SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. OBSERVATION VISITS TO THE SITE BY THE ARCHITECT OR THE ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS.
2. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL APPLICABLE SAFETY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION.
3. EQUIPMENT FRAMING LOADS, OPENINGS AND STRUCTURE IN ANY WAY RELATED TO HVAC, PLUMBING, OR ELECTRICAL REQUIREMENTS ARE SHOWN FOR BIDDING PURPOSES ONLY. EXACT WEIGHTS AND LOCATIONS OF MECHANICAL EQUIPMENT SHALL BE COORDINATED BY CONTRACTOR. IF THE FINAL LOCATION VARIES FROM THAT SHOWN ON THE PLANS, CONTRACTOR TO NOTIFY ARCHITECT AND ENGINEER FOR APPROVAL BEFORE INSTALLATION.
4. SHOULD ANY OF THE DETAILED INSTRUCTIONS SHOWN ON THE PLANS CONFLICT WITH THESE STRUCTURAL NOTES, THE SPECIFICATIONS, OR WITH EACH OTHER, THE STRICTEST PROVISION SHALL GOVERN.
5. THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE JOB SITE AND SHALL BE RESPONSIBLE FOR CONDITIONS OF ALL WORK AND MATERIALS.
6. THE CONTRACTOR SHALL REVIEW AND VERIFY ALL DIMENSIONS AND ELEVATIONS. CONTRACTOR SHALL REPORT ANY DISCREPANCIES IN WRITING TO THE ARCHITECT. ANY CONFLICT BETWEEN THE DRAWING AND SPECIFICATIONS OF THE VARIOUS TRADES INVOLVED SHALL BE REPORTED TO THE ARCHITECT AND ENGINEER.
7. DETAILS SHOWN ON DRAWINGS APPLY AT SIMILAR CONDITIONS.
8. ALL WORK SHALL BE DONE IN ACCORDANCE WITH LOCAL STANDARDS AND TO ALL APPLICABLE PROVISIONS OF THE GOVERNING BUILDING CODE.
9. THE ARCHITECT AND ENGINEER SHALL BE NOTIFIED IN WRITING WHEN WORK COMMENCES.
10. CONTRACTOR SUBSTITUTIONS: ANY MATERIALS OR PRODUCTS THAT ARE SUBMITTED FOR APPROVAL THAT ARE DIFFERENT FROM THE MATERIALS OR PRODUCTS SPECIFIED IN THE CONTRACT DOCUMENTS WILL ONLY BE CONSIDERED IF THE FOLLOWING CRITERIA ARE SATISFIED.
    A) A COST SAVING TO THE OWNER IS DOCUMENTED AND SUBMITTED WITH THE REQUEST
    B) THE MATERIAL OR PRODUCT HAS BEEN APPROVED BY THE INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS (ICBO) AND THE ICBO REPORT IS SUBMITTED WITH THE REQUEST.

STRUCTURAL OBSERVATION

1. THE PROFESSIONAL ENGINEER OR HIS/HER AUTHORIZED REPRESENTATIVE SHALL CONDUCT ALL STRUCTURAL OBSERVATIONS. STRUCTURAL OBSERVATIONS SHALL BE FOR THE PURPOSE OF ASCERTAINING GENERAL COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS. HOWEVER, SUCH OBSERVATION VISITS SHALL NOT RELIEVE THE CONTRACTOR FROM HIS OBLIGATIONS AND RESPONSIBILITIES TO THE CONSTRUCTION DOCUMENTS.
2. ITEMS THAT REQUIRE A STRUCTURAL OBSERVATION ARE AS FOLLOWS:
    A. STEEL REINFORCEMENT IN SLAB OR FOUNDATION
3. NOTIFY ENGINEER 24 HOURS IN ADVANCE WHEN A STRUCTURAL OBSERVATION IS REQUIRED.
4. WORK SHALL NOT CONTINUE AT THESE AREAS UNTIL OBSERVATION AND APPROVAL BY ENGINEER. FAILURE BY THE CONTRACTOR TO PROVIDE PROPER NOTICE FOR AN OBSERVATION VISIT AT THE REQUIRED TIME OR ADDITIONAL WORK PERFORMED WITHOUT AN OBSERVATION VISIT WILL BE DONE AT CONTRACTOR'S RISK AND MAY BE SUBJECT TO COMPLETE OR PARTIAL REMOVAL TO VERIFY COMPLIANCE OF PREVIOUS WORK.

SHOP DRAWINGS & SUBMITTALS

1. SUBMITTAL THAT WILL BE REQUIRED FOR APPROVAL INCLUDE:
    A. CONCRETE MIX DESIGN
    B. CURING COMPOUND FOR CONCRETE
    C. REINFORCING STEEL
2. ALLOW (2) WEEKS MINIMUM FOR REVIEW OF SHOP DRAWINGS.
3. PRIOR TO ISSUING THE SUBMITTALS TO THE ENGINEER, THE CONTRACTOR SHALL REVIEW THE SHOP DRAWINGS. CONTRACTOR MUST VERIFY ALL DIMENSION WITH ARCHITECTURAL PLANS.
4. REVIEW OF SHOP DRAWINGS BY THE ENGINEER IS FOR GENERAL CONFORMANCE TO THE STRUCTURAL DRAWINGS. APPROVAL OF THE SHOP DRAWINGS BY THE ENGINEER DOES NOT RELIEVE THE CONTRACTOR FOR ANY ERRORS IN DIMENSIONS OR MATERIAL INDICATED ON THE SHOP DRAWINGS.

DESIGN CRITERIA

1. DESIGN LOADS, STRUCTURAL ANALYSIS AND PREPARATION OF STRUCTURAL MEMBERS ARE BASED ON THE FOLLOWING CRITERIA:

CODE: ..... IBC 2012

2. VERTICAL LOADS
    A. DEAD LOAD (UNIT): ..... 2,100 LBS MAX WT.
3. LATERAL LOADS
    A. WIND SPEED (V-ULT): ..... 123 MPH
    WIND SPEED (V-ASD) ..... 95 MPH
    B. EXPOSURE CATEGORY: C
    C. IMPORTANCE FACTOR: 1.0
    D. BUILDING CATEGORY: I
    E. SEISMIC DESIGN CATEGORY: ..... A
    F. SITE CLASS: ..... D
4. GEOTECHNICAL ENGINEERING REPORT: NONE PROVIDED

GEOTECHNICAL INVESTIGATION

THE OWNER OF THIS PROJECT HAS DECLINED TO FURNISH A GEOTECHNICAL INVESTIGATION REPORT THEREFORE THE FOUNDATION DESIGN WAS BASED UPON AVERAGE SOIL CONDITIONS IN HIDALGO COUNTY, TEXAS. IF HIGHLY EXPANSIVE SOILS OR SOFT SOILS ARE ENCOUNTERED, DIFFERENTIAL FOUNDATION MOVEMENTS CAN BE EXPECTED. ALTHOUGH WE ATTEMPT TO MAKE ASSUMPTIONS THAT WILL NOT IMPAIR STRUCTURAL INTEGRITY OF THE PROJECT, WE DO NOT HAVE THE EXPERTISE OR BENEFIT OF LABORATORY INVESTIGATIONS OF A GEOTECHNICAL ENGINEER, THEREFORE THIS FIRM CANNOT ASSUME RESPONSIBILITY FOR THE PERFORMANCE OF THE DESIGN FOUNDATION SHOULD ACTUAL SURFACE OR SUBSURFACE SOIL CONDITIONS VARY FROM THOSE ASSUMED. FOLLOWING ASSUMPTIONS:

1. SOIL BEARING PRESSURE (AT PROPOSED SITE) = 1000 PSF

EXCAVATION NOTES

1. CONSTRUCTION AREAS REMOVE AT LEAST 12 INCHES OF TOP SOIL, VEGETATION, DEBRIS, ETC., FROM THE PROPOSED FOUNDATION AREA TO A DISTANCE OF 3'-0" OUTSIDE THE FOUNDATION LINE FROM THE PROPOSED.
2. EXPOSED SUBGRADE SHOULD BE THOROUGHLY PROOF ROLLED IN ORDER TO LOCATE AND DENSITY ANY WEAK, COMPRESSIBLE ZONE. WEAK OR SOFT AREAS IDENTIFIED DURING PROOF ROLLING SHOULD BE REMOVED AND REPLACED WITH A SUITABLE, COMPACTED SELECT FILL IN ACCORDANCE WITH THE REQUIREMENTS BELOW. PRIOR TO FILL PLACEMENT, THE EXPOSED SUBGRADE SHOULD BE MOISTURE CONDITIONED BY SCARIFYING TO A MINIMUM DEPTH OF 8" AND RECOMPACTING TO A MINIMUM OF 98% OF THE MAXIMUM DRY DENSITY AS DETERMINED FROM THE ASTM D698 COMPACTION TEST. THE MOISTURE CONTENT SHOULD BE MAINTAINED WITHIN THE OPTIMUM TO 3% ABOVE.
3. FILL BACK TO REQUIRED GRADE (A MINIMUM OF 12' OF SELECT FILL AND A MINIMUM OF 10' OF GRAVEL OR SAND IS REQUIRED. REFER TO CIVIL PLANS FOR FINISHED FLOOR ELEVATION TO DETERMINE ADDITIONAL AMOUNT OF SELECT FILL NEEDED) WITH MATERIAL SELECTED AND COMPACTED IN ACCORDANCE WITH THE REQUIREMENTS BELOW.
4. SELECT FILL, WHEN PROPERLY SLAKED AND TESTED BY STANDARD LABORATORY METHODS, SHALL MEET THE FOLLOWING REQUIREMENTS:
    A. LIQUID LIMIT SHALL BE LESS THAN OR EQUAL TO 35%.
    B. PLASTICITY INDEX SHALL BE LESS THAN 20 AND GREATER THAN 7.
    C. SHALL CONTAIN NO ORGANIC MATERIAL.
    D. SHALL CONTAIN NO STONES LARGER THAN 2 INCHES.
5. SAMPLES OF PROPOSED SELECT FILL SHALL BE FURNISHED TO THE TESTING LABORATORY 10 DAYS PRIOR TO INSTALLATION TO PERMIT TIME FOR SPECIFICATION COMPLIANCE INSPECTION AND APPROVAL.
6. SELECT FILL UNDER ALL FLOORS AND WALKS SHALL BE COMPACTED IN THE FIELD IN LIFTS NOT TO EXCEED 8" TO 95% OF THE MAXIMUM DENSITY, AT OR 2% ABOVE OF THE OPTIMUM MOISTURE CONTENT, AS DETERMINED BY TEST METHOD ASTM D-698
7. SITE PREPARATION TESTING SHALL BE AS FOLLOWS:
    A. ATTERBERG LIMITS OF SELECT FILL MATERIAL:
    (1) ONE TEST PER 5,000 CY
    B. COMPACTION TEST:
    TO BE PERFORMED PER LIFT ON TEST PER 3,000 SF MINIMUM OF (4) FOUR TEST PER LIFT
8. FINAL SITE GRADING TO SLOPE AWAY FROM THE STRUCTURE AND SHALL PREVENT WATER FROM PONDING IN THE AREAS ADJACENT TO THE STRUCTURE FOR A MINIMUM DISTANCE OF 10'-0". ANY PONDING CLOSE TO THE STRUCTURE MAY CREATE VOLUMETRIC CHANGES IN THE SOIL AND MAY LEAD TO LESS THAN OPTIMUM PERFORMANCE OF THE BUILDING FOUNDATION.

CONCRETE

1. ALL CONCRETE WORK SHALL BE EXECUTED IN ACCORDANCE WITH ACI 318 AND ACI 301 LATEST EDITION.
2. CEMENT SHALL CONFORM TO ASTM CI50 TYPE I AGGREGATE SHALL CONFORM TO ASTM C33.
3. CONCRETE SHALL HAVE A MINIMUM 28 DAYS COMPRESSIVE STRENGTH AS FOLLOWS:

MEMBER TYPE	STRENGTH	SLUMP	MAX AGG.
FOUNDATION AND SLAB	3000 PSI	4"-6"	1.5 IN.

4. PLACE CONCRETE CONTINUOUSLY BETWEEN PRE-DETERMINED EXPANSION AND CONSTRUCTION JOINTS.
5. ALL CONSTRUCTION JOINT LOCATIONS TO BE APPROVED BY STRUCTURAL ENGINEER.
6. HORIZONTAL CONSTRUCTION JOINTS SHALL NOT BE PERMITTED.
7. CURE CONCRETE IN ACCORDANCE WITH ACI 308.1
8. REFER TO ARCHITECTURAL AND MECHANICAL PLANS FOR LOCATIONS OF ALL DEPRESSIONS, OPENINGS, ACCESSORIES, ETC.
9. CONDUIT AND PLUMBING LINES SHALL BE PLACED BELOW SLAB REINFORCING AND SHALL BE NO BIGGER THAN 1 INCH.
10. FLYASH MAY BE USED TO REPLACE A PORTION OF THE PORTLAND CEMENT. THE RATIO OF FLYASH TO THE TOTAL OF THE FLYASH AND CEMENT IN A MIX SHALL NOT EXCEED 25%. FLYASH SHALL CONFORM TO ASTM C618, TYPE C OR F.
11. ALL FLOORS SHALL BE CONSTRUCTED WITH A MINIMUM FLATNESS FF = 35 AND A MINIMUM LEVELNESS OF FL = 25
12. CONTRACTION JOINTS TO BE INSTALLED WITHIN 12 HOURS OF POURING FOUNDATION.
13. TESTING OF CONCRETE SHALL BE DONE AS FOLLOWS:
    1) SETS SHALL CONSIST OF 3 CYLINDERS
    ONE TESTED AT 7 DAYS
    TWO TESTED AT 28 DAYS
    2) ONE SET SHALL BE TAKEN FOR EACH 150 CY AND FOR EVERY 5000 SF OF SURFACE AREA AND AT LEAST ONCE PER DAY OF POURING
    3) A MINIMUM OF 3 SETS SHALL BE TAKEN FOR EACH CLASS OF CONCRETE
14. NO WATER SHALL BE ADDED TO THE CONCRETE AT THE JOBSITE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE CONCRETE SUPPLIER TO ENSURE A PUMPABLE AND WORKABLE MIX WITHOUT THE ADDITION OF WATER AT THE JOBSITE. THE USE OF PLASTICIZERS, RETARDANTS AND OTHER ADDITIVES SHALL BE AT THE OPTION OF THE CONTRACTOR SUBJECT TO THE APPROVAL OF THE STRUCTURAL ENGINEER. FOLLOW THE RECOMMENDATIONS OF THE MANUFACTURER FOR THE PROPER USE OF ADDITIVES. THE USE OF CALCIUM CHLORIDE OR OTHER CHLORIDE BEARING SALTS SHALL NOT BE PERMITTED.
15. PLACE CONCRETE IN A MANNER SO AS TO PREVENT SEGREGATION OF THE MIX. DELAY FLOATING AND TROWELING OPERATIONS UNTIL CONCRETE HAS LOST SURFACE WATER SHEEN OR ALL FREE WATER. DO NOT SPRINKLE FREE CEMENT ON THE SLAB SURFACE. FINISHING OF SLAB SURFACES SHALL COMPLY WITH THE RECOMMENDATIONS OF AC1 302.1 AND 304.
16. UNLESS SPECIFIED, CONCRETE MUST REACH THE FOLLOWING PERCENTAGES OF ITS 28-DAY COMPRESSIVE STRENGTH (F'c), BEFORE FORMS MAY BE REMOVED.

    WALL, COLUMNS, & BEAM SIDES.....40%
    JOIST PANS & BEAM BOTTOMS (IF RESHORED).....70%
    SHORING FOR FLOOR SYSTEMS (IF NOT RESHORED).....85%
17. NO CONCRETE SHALL BE PLACED OUTSIDE OF THESE SPECIFICATIONS WITHOUT THE OWNER'S PRIOR APPROVAL. ANY ITEMS NOT IN COMPLIANCE WITH THE OUTLINED SPECIFICATION SHALL BE REPORTED TO THE OWNER AND STRUCTURAL ENGINEER WITHIN 24 HOURS.
18. CONSTRUCTION VEHICLE LOADS SHALL NOT BE PERMITTED ON ELEVATED SLABS AT ANY TIME.
19. ALL RETAINING WALLS TO BE SHORED UNTIL UPPER SLAB IS IN PLACE AND HAS REACHED 70% OF ITS DESIGN STRENGTH OR THE RETAINING WALL HAS REACHED 100% OF ITS DESIGN STRENGTH. PROVIDE GRANULAR BACKFILL AND PERFORATED DRAIN PIPE CONNECTED TO SITE DRAINAGE, RE: CIVIL PLAN.

STEEL REINFORCING

1. ALL REINFORCEMENT SHALL BE NEW BILLET STEEL CONFORMING TO ASTM A-615 GRADE 60.
2. REINFORCING STEEL SHALL BE DESIGNED, DETAILED, FABRICATED AND PLACED IN ACCORDANCE WITH THE LATEST ACI DETAILING MANUAL (SP-66) AND CSRI MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE, (ACI #315) LATEST EDITIONS.
3. BARS SCHEDULED OR DETAILED "CONT" SHALL BE SPLICED ONLY WHEN UNAVOIDABLE AT POINTS OF MINIMUM STRESS AND WITH A MINIMUM LAP AS FOLLOWS:
    A. HORIZONTAL BARS w/ MORE THAN 12' OF FRESH CONCRETE CAST BELOW LAPS.
    #6 BARS AND SMALLER - 57 BAR DIAMETERS
    #7 BARS AND BIGGER - 72 BAR DIAMETERS
    B. OTHER BARS
    #6 BARS AND SMALLER - 44 BAR DIAMETERS
    #7 BARS AND BIGGER 55 BAR DIAMETERS
    C. ALL SPLICES TO BE STAGGERED A MINIMUM OF 4'-0". TOP BAR AND BOTTOM BAR SPLICES TO BE LOCATED AT MID-SPAN AND WITHIN 1/3 SPAN RESPECTIVELY.
4. CORNER REINFORCING BARS SHALL BE USED AT ALL CORNERS AND INTERSECTIONS.
5. EXTEND THE SLAB REINFORCING STEEL PERPENDICULAR TO EXTERIOR GRADE BEAM TO THE TOP OUT SIDE REINFORCING BAR OF BEAM.
6. SPACE REINFORCING BARS WITH MINIMUM CLEAR SPACING IN ACCORDANCE WITH ACI 318 OF ONE BAR DIAMETER, BUT NOT LESS THAN 1 INCH. FOR COMPRESSION MEMBERS, SPACE AT A MINIMUM OF 1.5 INCHES OR 1.5 BAR DIAMETERS, WHICHEVER IS GREATER.
7. WHERE REINFORCING BARS ARE PLACED IN MULTIPLE LAYERS, PLACE UPPER BARS DIRECTLY ABOVE LOWER BARS.
8. MAINTAIN CONCRETE COVER AROUND REINFORCEMENT IN ACCORDANCE WITH ACI 318 AND AS FOLLOWS:
    A. FOOTING AND CONCRETE CAST AGAINST EARTH - 3 INCHES
    B. EXPOSED TO EARTH OR WEATHER
    #6 BARS AND BIGGER - 2 INCHES
    #5 BARS AND SMALLER - 1.5 INCHES
    C. BEAMS AND COLUMNS - 1.5 INCHES
    D. SLABS AND WALLS - 1 INCH
9. REPAIR ANY DAMAGE TO VAPOR RETARDER PER MANUFACTURER SPECIFICATIONS.
10. ADDITIONAL REINFORCING TO BE PROVIDED ON SITE FOR USE AS DIRECTED BY STRUCTURAL ENGINEER.
    #4 BARS - 100 FT.
    #5 BARS - 100 FT.
    #6 BARS - 100 FT.

STRUCTURAL TESTS AND SPECIAL INSPECTION

1. THE OWNER SHALL EMPLOY A SPECIAL INSPECTOR TO PROVIDE INSPECTIONS DURING CONSTRUCTION ON THE TYPES OF WORK LISTED IN THIS SECTION.
2. THE FOLLOWING TERMS AND PHRASES SHALL HAVE THE MEANINGS SHOWN BELOW AS IT PERTAINS TO THIS SECTION,
    A. APPROVED AGENCY - AN ESTABLISHED AND RECOGNIZED AGENCY REGULARLY ENGAGED IN CONDUCTING AND FURNISHING SPECIAL INSPECTION SERVICES.
    B. APPROVED FABRICATOR - AN ESTABLISHED AND QUALIFIED FIRM APPROVED BY BUILDING OFFICIAL. SPECIAL INSPECTIONS ARE NOT REQUIRED WHEN WORK IS PERFORMED ON THE PREMISES OF AN APPROVED FABRICATOR.
    C. SPECIAL INSPECTION, CONTINUOUS - THE FULL TIME OBSERVATION OF WORK REQUIRING SPECIAL INSPECTION.
    D. SPECIAL INSPECTION, PERIODIC - THE PART TIME OR INTERMITTENT OBSERVATION OF WORK REQUIRING SPECIAL INSPECTION.
3. SPECIAL INSPECTORS SHALL KEEP RECORDS OF ALL INSPECTIONS AND SHALL FURNISH REPORTS TO THE BUILDING OFFICIAL AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF THE DISCREPANCIES ARE NOT CORRECTED THEY SHALL BE BROUGHT TO THE ATTENTION OF THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE.
4. THE FOLLOWING ITEMS REQUIRE SPECIAL INSPECTION.
5. SPECIAL INSPECTION FOR STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE QUALITY ASSURANCE INSPECTION REQUIREMENTS OF AISC 360.

TABLE 1705.3
REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCED STANDARD[A]	IBC REFERENCE
1. INSPECTION OF REINFORCING STEEL, INCLUDING PRESTRESSING TENDONS, AND PLACEMENT.	——	X	ACI 318: 3.5, 7.1-7.7	1910.4
2. INSPECTION OF REINFORCING STEEL WELDING IN ACCORDANCE WITH TABLE 1705.2.2, ITEM 2b.	——	——	AWS D1.4 ACI 318: 3.5.2	——
3. INSPECTION OF ANCHORS CAST IN CONCRETE WHERE ALLOWABLE LOADS HAVE BEEN INCREASED OR WHERE STRENGTH DESIGN IS USED.	——	X	ACI 318: 8.1.3, 21.2.8	1908.5, 1909.1
4. INSPECTION OF ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS.	——	X	ACI 318. 3.86, 8.1.3, 21.2.8	1909.1
5. VERIFYING USE OF REQUIRED DESIGN MIX.	——	X	ACI 318: Ch. 4, 5.2-5.4	1904.2, 1910.2, 1910.3
6. AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	——	ASTM C 172 ASTM C 31 ACI 318: 5.6, 5.8	1910.10
7. INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X	——	ACI 318: 5.9, 5.10	1910.6, 1910.7, 1910.8
8. INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	——	X	ACI 318: 5.11-5.13	1910.9
9. INSPECTION OF PRESTRESSED CONCRETE: a. APPLICATION OF PRESTRESSING FORCES. b. GROUTING OF BONDED PRESTRESSING TENDONS IN THE SEISMIC-FORCE-RESISTING SYSTEM.	X X	——	ACI 318: 18.20 ACI 318: 18.18.4	——
10. ERECTION OF PRECAST CONCRETE MEMBERS.	——	X	ACI 318: Ch.16	——
11. VERIFICATION OF IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POSTTENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.	——	X	ACI 318: 6.2	——
12. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	——	X	ACI 318: 6.1.1	——

TABLE 1705.6
REQUIRED VERIFICATION AND INSPECTION OF SOILS

VERIFICATION AND INSPECTION TASK	CONTINUOUS DURING TASK LISTED	PERIODICALLY DURING TASK LISTED
1. VERIFY MATERIALS BELOW FOOTINGS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	——	X
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	——	X
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	——	X
4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	X	——
5. PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	——	X

CONTRACTOR NOTE

THE STRUCTURAL SYSTEM FOR THIS PROJECT SHALL NOT BE CONSTRUCTED BY USING THE STRUCTURAL DRAWINGS ALONE. THESE DRAWINGS WERE DEVELOPED FROM DATA DERIVED PRIMARILY FROM THE ARCHITECTURAL DRAWINGS AND SECONDARILY FROM MEP, CIVIL AND OTHER DISCIPLINES' DOCUMENTS. IT IS INTENDED THAT CONSTRUCTION PROCEED BY UTILIZING ALL OF THE INFORMATION CONTAINED IN THE ENTIRE SET OF CONSTRUCTION DOCUMENTS TAKEN AS A WHOLE; FAILURE TO DO SO WILL RESULT IN ERRORS WHICH SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.

CHANIN ENGINEERING, LLC
TBPE FIRM REG. NUMBER F-9369
PH: (956) 687-9421
FAX: (956) 687-3211
400 Nolana, Suite H2
McAllen, Texas 78504
www.chaninengineering.com

DBR
SERVICE | QUALITY | INTEGRITY | SUSTAINABILITY
956.683.1640 v 956.683.1903 f
200 South 10th Street, Suite. 901
McAllen, Texas 78501
TBPE Firm Registration NO. 2234

REVISION:

No.	/ DATE	/ DISCRIPTION

SEAL:

STATE OF TEXAS
MIGUEL CHANIN
93127
LICENSED
PROFESSIONAL ENGINEER
02-28-20

EDINBURG CISD
MUNICIPAL POOL - BOILER ADDITIONS

DATE: 02/28/2020
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CHECKED BY: MC
PROJECT NUMBER: 19297
SHEET TITLE:
SHEET NUMBER: S1.01

CHANIN ENGINEERING, LLC
TBPE FIRM REG. NUMBER F-9369
PH: (956) 687-9421
FAX: (956) 687-3211
400 Nolana, Suite H2
McAllen, Texas 78504
www.chaninengineering.com

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SERVICE | QUALITY | INTEGRITY | SUSTAINABILITY
956.683.1640 v 956.683.1903 f
200 South 10th Street, Suite. 901
McAllen, Texas 78501
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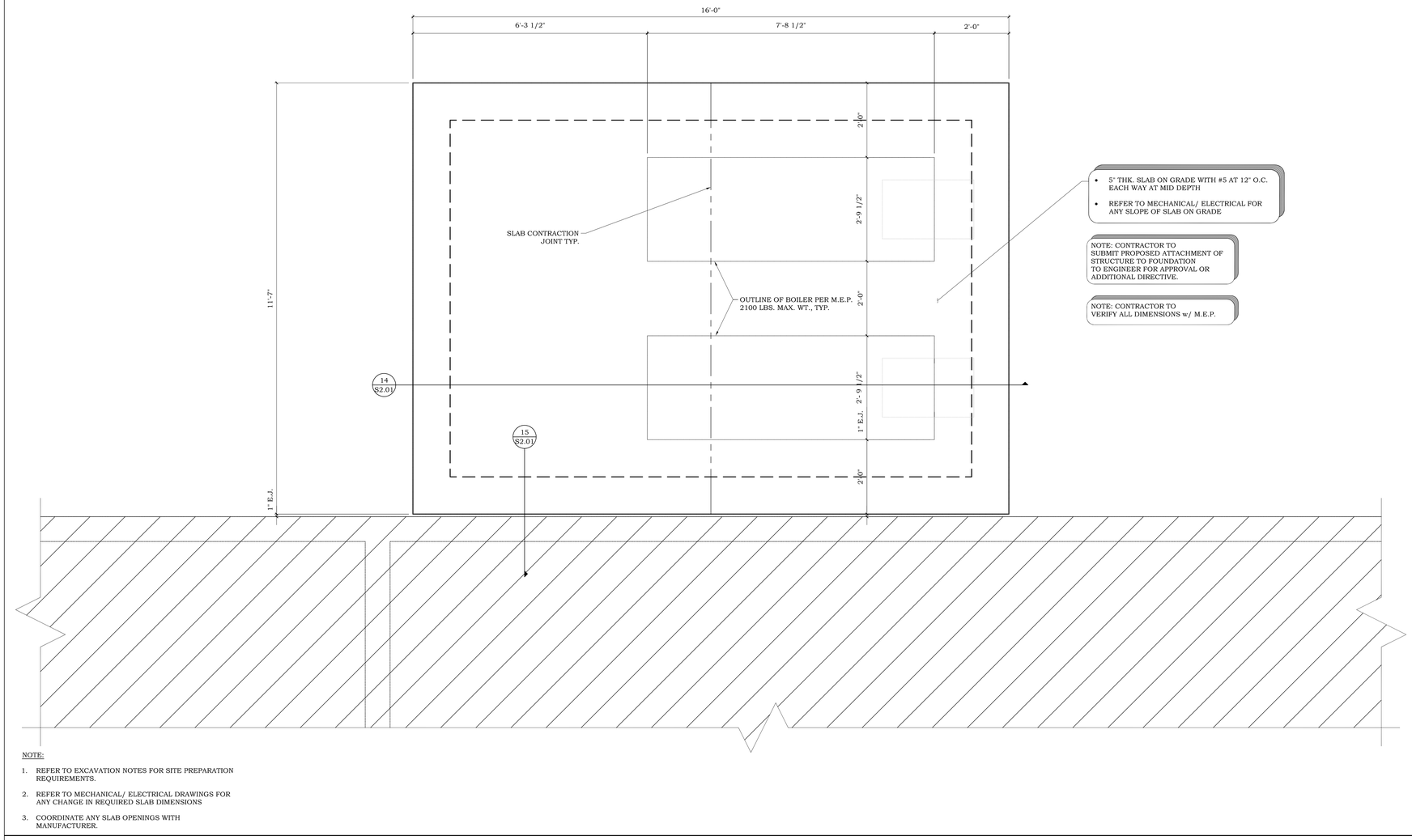
No.	DATE	DISCRIPTION

SEAL:

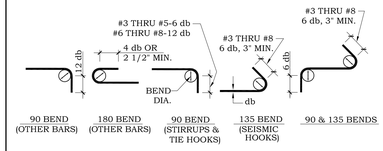


NOTE:

1. REFER TO EXCAVATION NOTES FOR SITE PREPARATION REQUIREMENTS.
2. REFER TO MECHANICAL/ ELECTRICAL DRAWINGS FOR ANY CHANGE IN REQUIRED SLAB DIMENSIONS
3. COORDINATE ANY SLAB OPENINGS WITH MANUFACTURER.

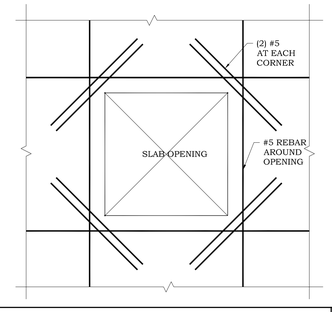
FOUNDATION PLAN | 8

NOT USED | 1



DIAMETER OF BENDS	
STIRRUPS AND TIES	4 db FOR #3 THRU #5 BARS
	6 db FOR #6 THRU #8 BARS
ALL OTHERS	6 db FOR #3 THRU #8 BARS
	8 db FOR #9 THRU #11 BARS
	10 db FOR #14 THRU #18 BARS

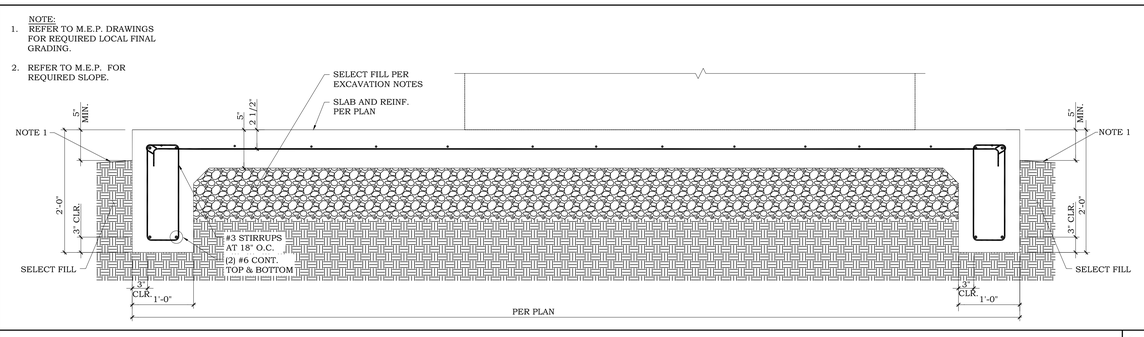
STANDARD HOOKS | 2



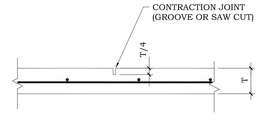
OPENINGS IN SLAB | 3

NOT USED | 29

SECTION AT FOUNDATION | 14

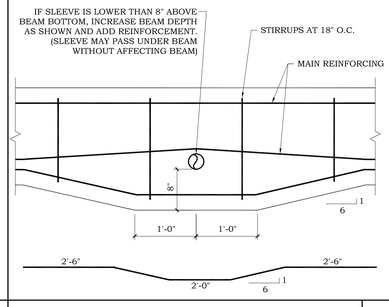


CONTRACTION JOINT DETAIL | 9



1. JOINT PATTERN SHALL BE NEARLY SQUARE
2. JOINT SPACING SHALL NOT EXCEED 15'-0"

TYPICAL SLEEVE IN GRADE BEAM | 4

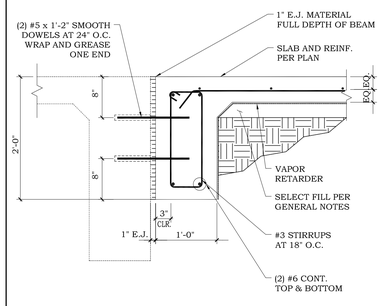


NOT USED | 30

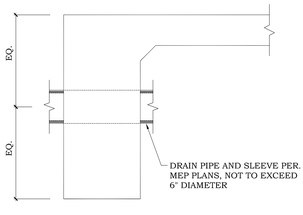
NOT USED | 25

NOT USED | 20

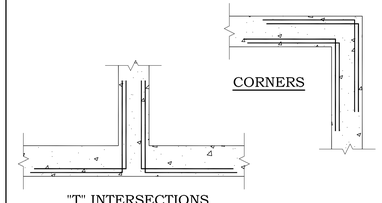
EXPANSION JOINT | 15



PIPE EXTERIOR FOOTING | 10



TYPICAL CORNER BARS | 5



NOTE:
PROVIDE (4) #6 x 6'-0" CORNER BARS
(2-TOP & 2-BOTTOM) AS SHOWN IN DETAILS ABOVE

EDINBURG CISD

MUNICIPAL POOL - BOILER ADDITIONS

DATE: 02/28/2020
DRAWN BY: LR
CHECKED BY: MC
PROJECT NUMBER: 19297
SHEET TITLE:
SHEET NUMBER: S2.01

ABBREVIATIONS (NOT ALL ITEMS INDICATED APPLY TO THIS PROJECT)

A

A	AIR (COMPRESSED)
ABV	ABOVE
A/C	AIR CONDITIONING
AC	ALTERNATING CURRENT AIR COMPRESSOR
ACCH	AIR COOLED CHILLER
ACCU	AIR COOLED CONDENSING UNIT
AD	ACCESS DOOR, AREA DRAIN
ADJ	ADJUSTABLE
AF	AIR FILTER
AFC	ABOVE FINISHED CEILING
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHU	AIR HANDLING UNIT
AL	ALUMINUM
AMB	AMBIENT
AP	ACCESS PANEL
APD	AIR PRESSURE DROP
ARI	AMERICAN REFRIGERANT INSTITUTE
ARCH	ARCHITECT, ARCHITECTURAL
AS	AIR SEPARATOR
ASHRAE	AMERICAN SOCIETY OF HEATING AND REFRIGERATION ENGINEERS
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
ASTM	AMERICAN SOCIETY OF TESTING AND MATERIALS
AV	ACID VENT, AIR VENT
AVG	AVERAGE
AWS	AMERICAN WELDING SOCIETY
AUX	AUXILIARY

B

B	BOILER
BC	BELOW COUNTER
B/C	BACK OF CURB
BFV	BUTTERFLY VALVE
BH	BOX HYDRANT
BLDG	BUILDING
BM	BENCHMARK
BOF	BOTTOM OF FOOTING
BOS	BOTTOM OF STRUCTURE
BT	BATH TUB, BREAK TANK
BTU	BRITISH THERMAL UNIT
BV	BALL VALVE
BWV	BACK WATER VALVE

C

C	CELSIUS
CAB	CABINET
CB	CATCH BASIN
CD	CONDENSATE DRAIN LINE
CFM	CUBIC FEET PER MINUTE
CFS	CUBIC FEET PER SECOND
CH	CHILLER
CHW	CHILLED WATER
CHWP	CHILLED WATER PUMP
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CI	CAST IRON
CIRC	CIRCULATING
CL	CENTERLINE
CLG	CEILING
CLR	CLEAR
CMP	CORRUGATED METAL PIPE
CMU	CONCRETE MASONRY UNIT
CPI	CAST IRON PIPE INSTITUTE
CPVC	CHLORINATED POLYVINYL CHLORIDE
CO	CLEAN OUT
COL	COLUMN
COMB	COMBINATION
COMP	COMPRESSOR
CON	CONVERTER
CONC	CONCRETE, CONCENTRIC
COND	CONDENSER, CONDENSATE
CONN	CONNECTION
CONT	CONTINOUS, CONTINUATION
CONTR	CONTROLLER, CONTRACTOR
CRAC	COMPUTER ROOM A/C UNIT
CRT	CATHODE RAY TUBE
CT	COOLING TOWER
CTR	CENTER
CU	COPPER
CW	COLD WATER
CWP	CONDENSER WATER PUMP
CWR	CONDENSER WATER RETURN
CWS	CONDENSER WATER SUPPLY

D

D	DEPTH, DRAIN, DRYER
DB	DRY BULB
DC	DOUBLE DUCT CONSTANT VOLUME, DIRECT CURRENT
DDC	DIRECT DIGITAL CONTROL
DESIG	DESIGNATION
DTL	DETAIL
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIFF	DIFFUSER
DIM	DIMENSION
DISC	DISCONNECT
DN	DOWN
DPR	DAMPER
DS	DOWNSPOUT, DOUBLE SUCTION
DV	DOUBLE DUCT VAV
DW	DISHWASHER
DWG	DRAWING
DWH	DOMESTIC WATER HEATER
DWP	DOMESTIC WATER PUMP
DX	DIRECT EXPANSION

E

EA	EACH
EAT	ENTERING AIR TEMPERATURE
EC	ELECTRICAL CONTRACTOR
ECC	ECCENTRIC
EDB	ENTERING DRY BULB
EDF	ELECTRIC DRINKING FOUNTAIN
EDH	ELECTRIC DUCT HEATER
EF	EXHAUST FAN
EFF	EFFICIENCY
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATOR EMERGENCY ENCLOSURE
EMERG	EMERGENCY
ENCL	ENCLOSURE
ENGR	ENGINEER
EQ	EQUAL
EQUIP	EQUIPMENT
ES	END SUCTION, EMERGENCY SHOWER
ESP	EXTERNAL STATIC PRESSURE EXPANSION TANK
ET	EXPANSION TANK
ETR	EXISTING TO REMAIN
EVAP	EVAPORATOR
EWB	ENTERING WET BULB
EWT	ENTERING WATER TEMPERATURE
EX	EXPLOSION-PROOF
EXT	EXTERNAL
EXTG	EXISTING

F

F	FAHRENHEIT, FIRE
FBO	FURNISHED BY OTHERS
FCO	FLOOR CLEAN OUT
FCS	FLOOR CONTROL STATION
FCU	FAN COIL UNIT
FD	FLOOR DRAIN, FIRE DAMPER
FDS	FIRE DEPARTMENT SIAMESE
FDV	FIRE DEPARTMENT VALVE
FH	FIRE HYDRANT
FHC	FIRE HOSE CABINET
FHR	FIRE HOSE RACK
FIXT	FIXTURE
FLA	FULL LOAD AMPS
FLEX	FLEXIBLE
FL	FLOW LINES
FLR	FLOOR
FP	FIRE PUMP
FPT	FAN POWERED TERMINAL
FRZR	FREEZER
FS	FLOW SWITCH, FIRE SPRINKLER
FSK	FLOOR SINK
FT	FOOT, FEET
FUT	FUTURE

G

G	GAS
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GLV	GLOBE VALVE
GND	GROUND
GPD	GALLONS PER DAY
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GSH	GRAND SENSIBLE HEAT
GTH	GRAND TOTAL HEAT
GV	GATE VALVE

H

HB	HOSE BIBB
HD	HEAD, HUB DRAIN
HE	HEAT EXCHANGER
HF	HUMIDIFIER
HORIZ	HORIZONTAL
HP	HORSEPOWER, HALON PANEL
HPU	HEAT PUMP UNIT
HKP	HOUSEKEEPING PAD
HSC	HORIZONTAL SPLIT CASE
HSTAT	HUMIDISTAT
HT	HEIGHT
HTG	HEATING
HTR	HEATER
HW	HOT WATER
HWC	HOT WATER CIRCULATOR
HWP	HEATING WATER PUMP
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
HZ	HERTZ

I

ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IH	INFRARED HEATER
IN	INCH
INSUL	INSULATION
INT	INTERNAL, INTERIOR
IW	INDIRECT WASTE

J

JB	JUNCTION BOX
JP	JOCKEY PUMP

K

KEC	KITCHEN EQUIPMENT CONTRACTOR
KO	KNOCKOUT
KVA	KILOVOLT- AMPS
KW	KILOWATT

L

L	LENGTH, LAVATORY
LAT	LEAVING AIR TEMPERATURE
LAV	LAVATORY
LF	LINEAR FEET
LP	LOW PRESSURE
LRA	LOCKED ROTOR AMPS
LVL	LEVEL
LWB	LEAVING WET BULB
LWCO	LOW WATER CUT OFF
LWT	LEAVING WATER TEMPERATURE

M

MAT	MIXED AIR TEMPERATURE
MAX	MAXIMUM
MBTUH	THOUSAND OF BTU'S
MC	MECHANICAL CONTRACTOR
MECH	MECHANICAL
MFR	MANUFACTURER
MH	MANHOLE
MI	MALLEABLE IRON
MIN	MINIMUM
MP	MEDIUM PRESSURE
MS	MOP SINK
MTD	MOUNTED
MU	MAKE-UP
MVD	MANUAL VOLUME DAMPER

N

N.C.	NORMALLY CLOSED
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
N.O.	NORMALLY OPEN
NO.	NUMBER
NTS	NOT TO SCALE

O

OA	OUTSIDE AIR
OAF	OUTSIDE AIR FAN
OAHU	OUTSIDE AIR HANDLING UNIT
OBD	OPPOSED BLADE DAMPER
OC	ON CENTER
OD	OUTSIDE DIAMETER, OVERFLOW DRAIN
OFCI	OWNER FURNISHED/CONTRACTOR INSTALLED
OFCU	OUTSIDE AIR FAN COIL UNIT
OPG	OPENING
OS&Y	OPEN STEM AND YOLK

P

P	PUMP, PLUMBING EQUIPMENT
PC	PLUMBING CONTRACTOR
PCR	PUMPED CONDENSATE RETURN
PD	PRESSURE DROP, PLANTER DRAIN
PH	PHASE, POST HYDRANT
PIV	POST INDICATOR VALVE
PLBG	PLUMBING
PNEU	PNEUMATIC
PNL	PANEL
PNTH	PENTHOUSE
PP	POLYPROPYLENE
PPM	PART PER MILLION
PRI	PRIMARY
PRS	PRESSURE REDUCING STATION
PRV	PRESSURE REDUCING VALVE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH GAUGE
PT	PLUMBING TRIM
PV	PLUG VALVE
PVC	POLYVINYL CHLORIDE
PWH	POOL WATER HEATER

Q

QTY	QUANTITY

R

RA	RETURN AIR
RAD	REFRIGERATED AIR DRYER
RAF	RETURN AIR FAN
RAG	RETURN AIR GRILL
RAT	RETURN AIR TEMPERATURE
RCP	REFLECTED CEILING PLAN, REINFORCED CONCRETE PIPE
RD	ROOF DRAIN
RE	REFERENCE, REFER
REGRC	RECIRCULATE
RED	REDUCER
REFR	REFRIGERATOR
REG	REGISTER
REINF	REINFORCING
REQD	REQUIRED
REV	REVISION, REVISE
RH	RELATIVE HUMIDITY
RHG	REFRIGERANT HOT GAS
RKVA	RUNNING KILOVOLT-AMPS
RKW	RUNNING KILOWATTS
RL	REFRIGERANT LIQUID
RLA	RUNNING LOAD AMPS
RM	ROOM, REFRIGERATION MACHINE
RPM	REVOLUTIONS PER MINUTE
RS	REFRIGERANT SUCTION
RTU	ROOFTOP UNIT
RV	RELIEF VALVE

S

S	STEAM
SA	SUPPLY AIR
SAF	SUPPLY AIR FAN
SAG	SUPPLY AIR GRILLE
SAN	SANITARY SEWER
SAR	SUPPLY AIR REGISTER
SC	STEAM CONDENSATE
SCHED	SCHEDULED
SCR	SILICON CONTROLLED RECTIFIER
SD	STORM DRAIN
SE	SEWAGE EJECTOR
SEC	SECONDARY
SECT	SECTION
SENS	SENSIBLE
SF	SQUARE FEET
SFCS	SPRINKLER FLOOR CONTROL STATION
SH	SHOWER
SHT	SHEET
SIM	SIMILAR
SK	SINK
SKVA	STARTING KILOVOLT-AMPS
SKW	STARTING KILOWATTS
SM	SHEETMETAL
SP	SUMP PUMP, STATIC PRESSURE
SPEC	SPECIFICATION
SPR	SPRINKLER
SQ	SQUARE
SS	SERVICE SINK
SSD	SUBSURFACE DRAIN
SSFU	SANITARY SEWER FIXTURE UNITS
SSSC	SOLID STATE SPEED CONTROL
STD	STANDARD
STL	STEEL
STR	STRAINER
SURF	SURFACE
SUSP	SUSPEND
SV	SANITARY VENT

T

TC	TEMPERATURE CONTROL
TCC	TEMPERATURE CONTROL COMPRESSOR
TD	TRENCH DRAIN
TF	TRANSFER FAN
TDH	TOTAL DYNAMIC HEAD
TH BLK	THRUST BLOCK
TP	TRAP PRIMER
TPD	TRAP PRIMER DEVICE
TSP	TOTAL STATIC PRESSURE
TSTAT	THERMOSTAT
TYP	TYPICAL

U

U	URINAL
UCD	UNDER CUT DOOR
UG	UNDERGROUND
UH	UNIT HEATER
UL	UNDERWRITERS LABORATORIES, INC.
UNO	UNLESS NOTED OTHERWISE
U/F	UNDERFLOOR
U/S	UNDERSLAB

V

V	VOLT, VENT
VA	VOLT- AMPERE
VAC	VACUUM
VAV	VARIABLE AIR VOLUME
VB	VALVE BOX, VACUUM BREAKER
VCP	VITRIFIED CLAY PIPE
VD	VOLUME DAMPER
VEL	VELOCITY
VERT	VERTICAL
VFD	VARIABLE FREQUENCY DRIVE
VIB	VALVE IN BOX
VOV	VALVE ON VERTICAL
VP	VACUUM PUMP
VR	VARIABLE AIR VOLUME REHEAT
VTR	VENT THRU ROOF

W

W	WATT, WASTE, WIDTH, WASHER
W/	WITH
W/O	WITHOUT
WB	WET BULB
WC	WATER CLOSET
WCO	WALL CLEAN OUT
WH	WALL HYDRANT
WM	WATER METER
WP	WEATHERPROOF
WPD	WATER PRESSURE DROP
WWF	WELDED WIRE FABRIC
WT	WATERTIGHT, WEIGHT

Y

Y	YARD HYDRANT

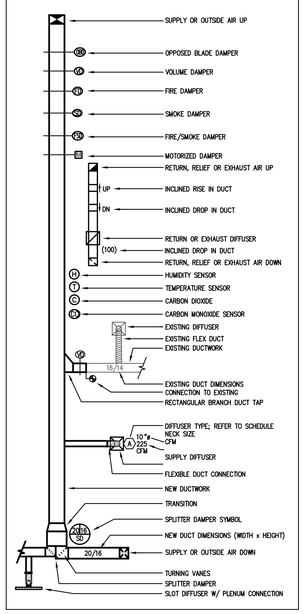
Z

Z	ZONE

MECHANICAL PIPING SYMBOLS

CWS	CONDENSER WATER SUPPLY		STRAINER WITH BLOW DOWN VALVE
CWR	CONDENSER WATER RETURN		GATE VALVE, HVAC BALANCING/STOP VALVE
CHS	CHILLED WATER SUPPLY		GLOBE VALVE
CHR	CHILLED WATER RETURN		BALL VALVE
CD	CONDENSATE DRAIN LINE		BALANCING VALVE WITH DIFFERENTIAL PRESSURE TAPS
	CAP ON END OF PIPE		OS&Y VALVE
	ELBOW UP		CHECK VALVE
	ELBOW DOWN		BUTTERFLY VALVE
	VALVE IN DROP		TWO-WAY MODULATING CONTROL VALVE
	VALVE IN RISE		THREE-WAY MODULATING CONTROL VALVE
	DIRECTION OF FLOW		SOLENOID VALVE
	DIRECTION OF SLOPE DOWN		PRESSURE REDUCING VALVE
	CONCENTRIC REDUCER		GAS REGULATOR
	ECCENTRIC REDUCER		GAS COCK
	TEE OUTLET UP	FCS	SPRINKLER FLOOR CONTROL STATION
	TEE OUTLET DOWN		MANUAL AIR VENT
	UNION		AUTOMATIC AIR VENT
	FLANGE		T&P RELIEF VALVE
	PIPE ANCHOR		PRESSURE GAUGE WITH GAUGE COCK
	EXPANSION JOINT		STEAM TRAP
	PRESSURE AND TEMPERATURE TAP		WATER METER
	FLOW VENTURI		FLEXIBLE CONNECTION
	VACUUM BREAKER		
	VACUUM RELIEF VALVE		
	BACKFLOW PREVENTOR		
	THERMOMETER		
	CIRCULATING PUMP		

DUCTWORK SYMBOLS - NEW



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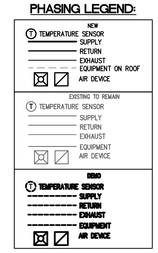

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956.683.1640 v 956.683.1903 f
200 South 10th Street. Suite. 901
McAllen, Texas 78501
TBPE Firm Registration NO. 2234

REVISION:

No.	/ DATE	/ DISCRIPTION

SEAL:

EDINBURG CISD

MUNICIPAL POOL - BOILER ADDITIONS

DATE: 02/28/2020

DRAWN BY: DBR

CHECKED BY: DBR

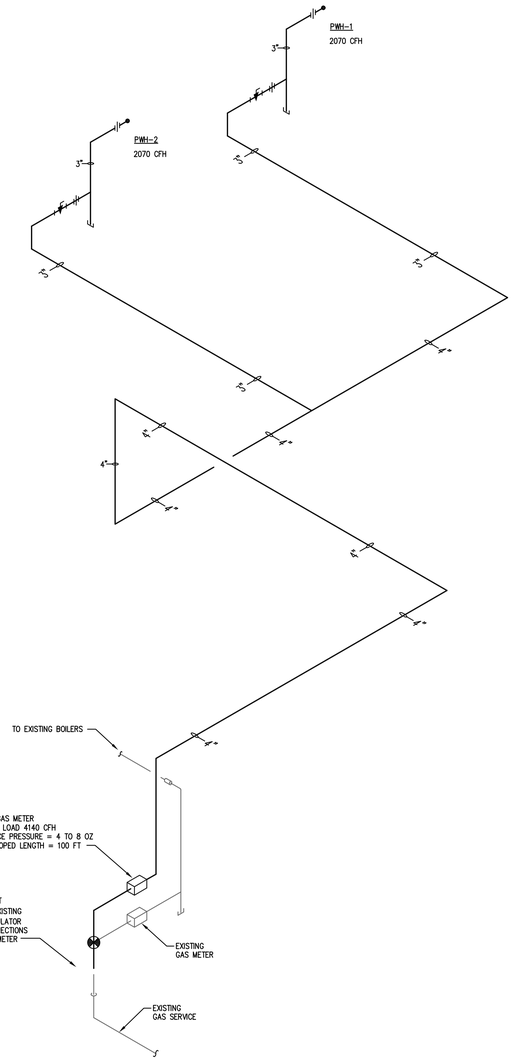
PROJECT NUMBER: 198019.000

SHEET TITLE:

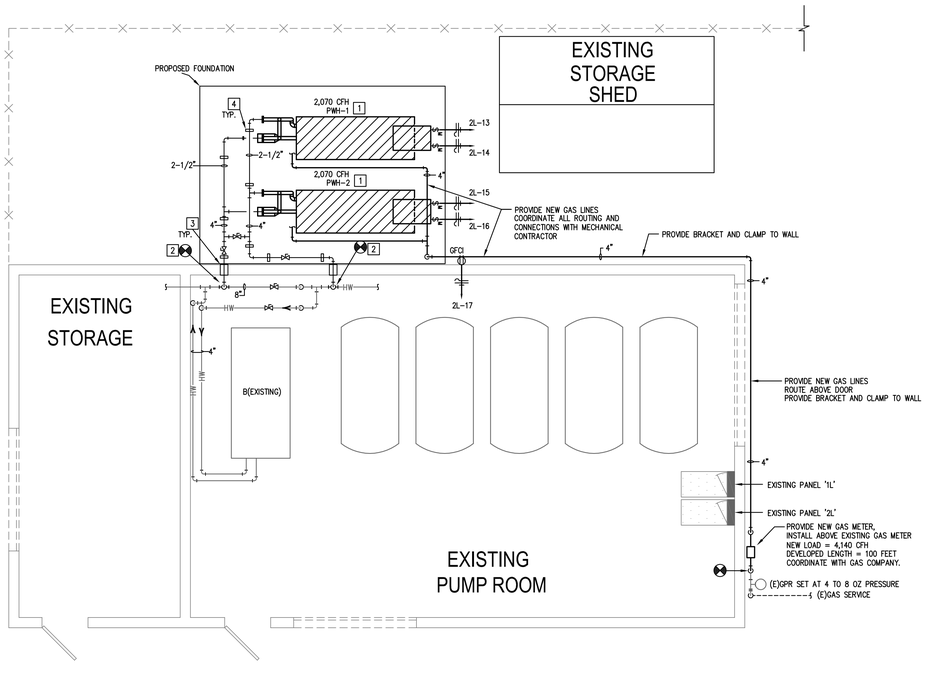
MECHANICAL LEGEND

SHEET NUMBER:

M0.00



3 MEP2.01 GAS RISER DIAGRAM
NTS



1 MEP2.01 MEP PLAN
1/4" = 1'-0"

N NORTH

GENERAL MECHANICAL NOTES

A. THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL LOCATION OF EQUIPMENT, DUCTS, AND GRILLES, ETC. IT IS THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS THAT COMPLETE MECHANICAL SYSTEMS BE FURNISHED, INSTALLED, TESTED, AND READY FOR OPERATION WHETHER OR NOT EVERY ITEM OF EQUIPMENT, ACCESSORY, DEVICE, ETC. IS SHOWN. REFERENCE SHALL BE MADE TO THE FULL DRAWING PACKAGE INCLUDING ARCHITECTURAL, STRUCTURAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR COORDINATION AND POTENTIAL CONFLICTS. THE MECHANICAL SUBCONTRACTOR SHALL WITHOUT EXTRA CHARGE, MAKE REASONABLE MODIFICATIONS IN THE LAYOUT AS NEEDED TO PREVENT CONFLICTS WITH OTHER TRADES, OR FOR PROPER EXECUTION OF THE WORK.

B. EQUIPMENT SIZES, DIMENSIONS, AND REQUIRED CONNECTIONS SHALL BE VERIFIED WITH THE MANUFACTURER'S DRAWINGS AND CUT SHEETS BEFORE FABRICATING OF DUCTWORK, PIPING, OR POURING OF HOUSEKEEPING PADS.

C. DIVISION 23 MECHANICAL CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR FOR ALL ELECTRICAL POWER REQUIREMENTS.

D. PROVIDE INSULATION FOR ALL PIPING THAT MEETS THE LATEST EDITION OF IECC.

E. UPON COMPLETION OF THE MODIFICATIONS OF THE EXISTING HYDRONIC SYSTEMS, COMPLETE TESTING, ADJUSTING, AND BALANCING OF THE HYDRONIC SYSTEM SHALL BE PERFORMED.

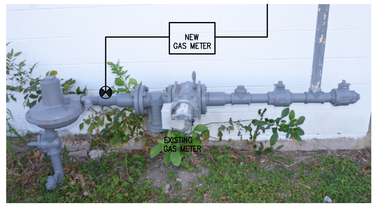
MECHANICAL KEYED NOTES

1 CONTRACTOR SHALL INSTALL OWNER FURNISHED NONCONDENSING BOILER. MOUNT ON NEW HOUSEKEEPING PAD. REFER TO STRUCTRAL DRAWINGS FOR HOUSEKEEPING PAD. PROVIDE ALL BOILER ACCESSORIES. REFER TO DETAIL 1/M5.01.

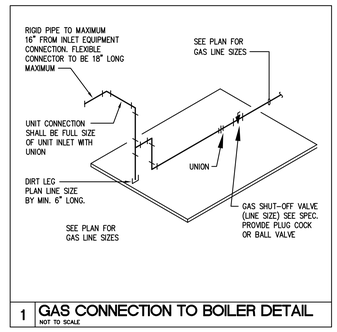
2 ROUTE NEW HW PIPING AND CONNECT TO EXISTING MAIN HW PIPING AS INDICATED ON PLAN. SIZE AS NOTED ON PLAN.

3 ROUTE PIPING THROUGH WALL. PROVIDE WALL SLEEVE AS PER SPECIFICATIONS. RE: DETAIL 3/M5.01.

4 PROVIDE PIPE SUPPORT AS PER SPECIFICATION. RE: DETAIL 2/M5.01.



2 MEP2.01 MEP PLAN



1 GAS CONNECTION TO BOILER DETAIL
NOT TO SCALE

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200 South 10th Street. Suite. 901
McAllen, Texas 78501
TBPE Firm Registration NO. 2234

REVISION:

No.	DATE	DISCRIPTION

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EDINBURG CISD
MUNICIPAL POOL - BOILER ADDITIONS

DATE: 02/28/2020
DRAWN BY: DBR
CHECKED BY: DBR
PROJECT NUMBER: 198019.000
SHEET TITLE: MECHANICAL PLAN
SHEET NUMBER: MEP2.01

Plotted: Feb 28, 2020, 1:51 PM by user: mgarza - Saved: 2/28/2020 by user: tkochsco
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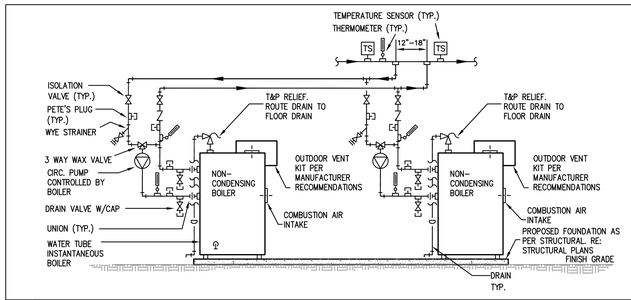
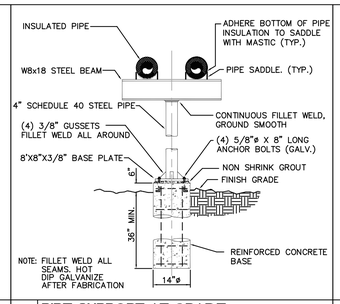
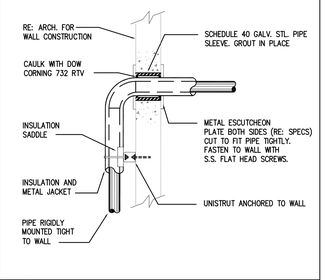


1 **DUPLEX NON-CONDENSING BOILER DETAIL**
NOT TO SCALE — MEHE100.DWG



2 **PIPE SUPPORT AT GRADE**
NOT TO SCALE — MPHS204.DWG



3 **PIPE ENTRY THRU EXTERIOR WALL**
NOT TO SCALE — MPPE302.DWG

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McAllen, Texas 78501
TBPE Firm Registration NO. 2234

REVISION:

No.	DATE	DISCRIPTION

SEAL:

STATE OF TEXAS
HUGO H. AVILA
90071
LICENSED
PROFESSIONAL ENGINEER
2-28-2020

EDINBURG CISD
MUNICIPAL POOL - BOILER ADDITIONS

DATE: 02/28/2020
DRAWN BY: DBR
CHECKED BY: DBR
PROJECT NUMBER: 198019.000
SHEET TITLE: MECHANICAL DETAILS
SHEET NUMBER: M6.01

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ELECTRICAL SYMBOLS

MOTOR RATED SWITCH WITH THERMAL OVERLOADS

ALL RECEPTACLES SHALL BE MOUNTED 18" ABOVE FINISHED FLOOR TO CENTER OF DEVICE UNLESS NOTED OTHERWISE.

DUPLEX WALL RECEPTACLE, NEMA 5-20R, 20A, 125V.
- "GFCI" DENOTES GROUND FAULT INTERRUPTER,
- "WP" DENOTES WEATHERPROOF,
- "IG" DENOTES ISOLATED GROUND,
- "TR" DENOTES SAFETY TYPE, (TAMPER PROOF)
- "DR" DENOTES DROPPED RECEPTACLE,
- "USB" DENOTES RECEPTACLE WITH UNIVERSAL SERIAL BUS,
- "AC" DENOTES ABOVE COUNTER MOUNTING, SEE
- "UC" DENOTES UNDER COUNTER MOUNTING, SEE
- "H" DENOTES HORIZONTALLY ORIENTED RECEPTACLE, SEE ARCHITECTURAL PLANS FOR EXACT MOUNTING HEIGHT.

DUPLEX RECEPTACLE WITH HOMERUN

CAP AND STAKE

CONDUIT CONCEALED IN WALL OR CEILING

CONDUIT UNDERSLAB OR UNDERGROUND

EM — EMERGENCY CONDUIT

EXPOSED CONDUIT

UG — UNDERGROUND CONDUIT, "DB" DENOTES DUCTBANK ENCASED IN CONCRETE

OHE — OVERHEAD ELECTRIC PRIMARY UTILITY POWER LINE

CONDUIT TURNED UP

CONDUIT TURNED DOWN

HASH MARKS INDICATE NUMBER OF CONDUCTORS. LEFT TO RIGHT:PHASE/NEUTRAL/SWITCH LEG/GROUND/ISOLATED GROUND. NO HASH MARKS INDICATES 2# 12, PLUS GROUND, UNLESS NOTED OTHERWISE.

1LA-2,4

HOMERUN TO PANEL WITH CIRCUIT NUMBER(S) AS INDICATED.

PARTIAL CIRCUIT HOMERUN TO PANEL.

(ON)1LA-6

PANELBOARD (FLUSH/SURFACE MOUNT)

GENERAL NOTES:

A. NOT ALL SYMBOLS SHOWN ON THIS SYMBOL LIST ARE USED IN THE CONTRACT DOCUMENTS.

Existing Panelboard 2L

AIC Rating
X Existing
New

120/208 Volt,3-Phase,4-Wire
1 Section
1 -Nema Rating

X MCB 225 AMP MCB
MLO 225 AMP BUS (Copper)

X Single
Double
Feed - Thru

Mounting
X Surface
Flush

Notes	Load (VA)	Description	Type	Wire	CB	CKT #	Ph	CKT #	CB	Wire	Type	Description	Load (VA)	Notes
	4612		MT			1	A	2			MT		4612	
	4612	PLAY POOL PUMP (E)	MT	4	80/3	3	B	4	80/3	4	MT	FILTER PUMP #1 (E)	4612	
	4612		MT			5	C	6			MT		4612	
	4612		MT			7	A	8			MT		4612	
	4612	FILTER PUMP #2 (E)	MT	4	80/3	9	B	10	80/3	4	MT	WATER SLIDE PUMP (E)	4612	
	4612		MT			11	C	12			MT		4612	
	1056	NEW PWH-1 PUMP	MT	12	15/1	13	A	14	15/1	12	MT	NEW PWH-2 PUMP	1056	
	1680	NEW PWH-1	M	12	20/1	15	B	16	20/1	12	M	NEW PWH-2	1680	
	180	NEW EXT. RECEPTACLE	R	12	20/1	17	C	18				SPACE		
		SPACE				19	A	20				SPACE		
		SPACE				21	B	22				SPACE		
		SPACE				23	C	24				SPACE		
		SPACE				25	A	26				SPACE		
		SPACE				27	B	28				SPACE		
		SPACE				29	C	30				SPACE		
		SPACE				31	A	32				SPACE		
		SPACE				33	B	34				SPACE		
		SPACE				35	C	36				SPACE		
		SPACE				37	A	38				SPACE		
		SPACE				39	B	40				SPACE		
		SPACE				41	C	42				SPACE		
	30,588	Subtotal										Subtotal	30,408	

N.E.C. (2011)	Load Type	Conn.	Fct.	Diversity	N.E.C. (2011)	Load Type	Conn.	Fct.	Diversity
220.44	(R) Recept.	180		180	220.12	(L) Lighting	0	125%	0
220.56	(K) Kitchen	0	100%	0	220.12	(EL) Ext. Ltg.	0	125%	0
220.60	(C) Cooling	0	0%	0	620.14	(E) Elevators	0	100%	0
220.60	(H) Heating	0	0%	0		(WH) Water Ht.	0	100%	0
220.60	(F) Fans	0	100%	0	220.5	(MT) Lrg. Mot.	57,456	125%	71,820
630.11	(W) Welders	0		0		(SP) Sub Panel	0	100%	0
	(M) Misc.	3,360	100%	3,360					

Total Connected Load = 60,996 VA = 169.4 AMPS
Total Load (Diversified)= 75,360 VA = 209.3 AMPS

Location of Panel: PUMP ROOM

DBR
SERVICE | QUALITY | INTEGRITY | SUSTAINABILITY
956.683.1640 v 956.683.1903 f
200 South 10th Street. Suite. 901
McAllen, Texas 78501
TBPE Firm Registration NO. 2234

REVISION:

No.	DATE	DISCRIPTION

SEAL:

STATE OF TEXAS
HUGO H. AVILA
90071
LICENSED
PROFESSIONAL ENGINEER
2-28-2020

EDINBURG CISD
MUNICIPAL POOL - BOILER ADDITIONS

DATE: 02/28/2020
DRAWN BY: DBR
CHECKED BY: DBR
PROJECT NUMBER: 198019.000
SHEET TITLE: ELECTRICAL SYMBOLS AND SCHEDULE
SHEET NUMBER: E5.01

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