CITY OF PHARR
INTERNATIONAL BRIDGE FACILITY
EXPANSION AND RENOVATIONS

LOT 3, GSA SUBDIVISION

PHARR, TEXAS 78507

CONSTRUCTION DOCUMENTS

DECEMBER 19,2018

Dr. Ambrosio "Amos" Hernandez	Mayor
Eleazar Guajardo	Commissioner
Roberto "Bobby" Carrillo	Commissioner
Ramiro Caballero	Commissioner
Daniel Chavez	Commissioner
Ricardo Medina	Commissioner
Mario A. Bracamontes	Commissioner
Alex Meade	City Manager

Pharr

TWG
THE WARREN GROUP
ARCHITECTS, INC.
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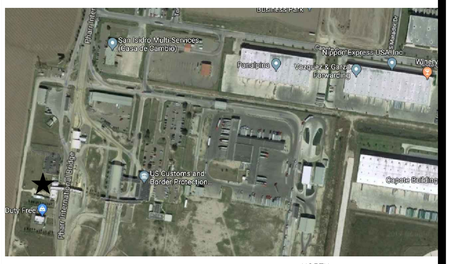
956.994.1900



ARCHITECTURAL ABBREVIATIONS

NOTE: NOT ALL ABBREVIATIONS ARE USED

℄	CENTERLINE
ACOUST	ACOUSTICAL
ACT	ACOUSTICAL CEILING TILE
ACP	ACOUSTICAL CEILING PANEL
ADA	AMERICANS WITH DISABILITIES ACT
AESS	ARCHITECTURALLY EXPOSED STRUCTURAL STEEL
AFF	ABOVE FINISH FLOOR
ALT	ALTERNAT(–E,–IVE)
ANSI	AMERICAN NATIONAL STANDARD INSTITUTE
APPROX	APPROXIMAT(–E,–LY)
ARCH	ARCHITECT (–URAL)
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AVG	AVERAGE
BLDG	BUILDING
BM	BENCH MARK
BOL	BOLLARD
BFF	BELOW FINISH FLOOR
CH	CEILING HEIGHT
CMU	CONCRETE MASONRY UNIT
CNTR	COUNTER
COL	COLUMN
COLS	COLUMNS
CONC	CONCRETE
COORD	COORDINATE
CPT	CARPET
CJ	CONTROL JOINT
CT	CERAMIC TILE
DEMO	DEMOLISH OR DEMOLITION
DET	DETAIL(–S)
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIM	DIMENSION(–S)
DL	DOCK LEVELER
D.L.P.	DOUBLE HEAD LIGHT POLE
DR	DOOR
DS	DOWN SPOUT
DWG(S)	DRAWING(–S)
(E)	EXISTING
EA	EACH
EEW	EMERGENCY EYE–WASH
EEWS	EMERGENCY EYE–WASH AND SHOWER
EF	EACH FACE OR EXHAUST FAN
EIFS	EXTERIOR INSULATION AND FINISH SYSTEM
EJ	EXPANSION JOINT
ELEV	ELEVATION
ELEC	ELECTRIC(–AL)
EMERG	EMERGENCY
EOD	EDGE OF DOCK
EQ	EQUAL(–LY)
EQUIP	EQUIPMENT
EXT	EXTERIOR
EW	EACH WAY
EP	ELECTRICAL POWER & METER CAN
(F)	FIXTURE
FA	FIRE ALARM
FD	FLOOR DRAIN
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FF	FACTORY FINISH, FINISH FLOOR
FH	FIRE HYDRANT
FLR	FLOOR
FRT	FIRE–RETARDANT TREATED
FTG	FOOTING
FURN	FURNITURE
GA	GAUGE
GDL	GROUND LEVEL
GYP	GYPSUM
HB	HOSE BIBB
HC	(HANDICAP) ACCESSIBLE
HGT,HT	HEIGHT
HORIZ	HORIZONTAL
HVAC	HEATING, VENTILATION & AIR CONDITIONING
IN	INCH(–ES)
JB,J–BOX	JUNCTION BOX
JST	JOIST
JT	JOINT
LAV	LAVATORY
MAX	MAXIMUM
MECH	MECHANICAL
MFR	MANUFACTURER
MH	MANHOLE
MTL	METAL
MIN	MINIMUM
N	NORTH
N/A	NOT APPLICABLE
NEC	NATIONAL ELECTRICAL CODE
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
NOP	KNOCK–OUT PANEL
OC	ON CENTER
OTS	OPEN TO STRUCTURE
PERF	PERFORAT(–E, –ED, –ES, –ATION)
PL	PROPERTY LINE, PLATE
PLAM	PLASTIC LAMINATE
PLBG	PLUMBING
PLYWD	PLYWOOD
PNL	PANEL
PROJ	PROJECT(–TION)
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
P.J.	PANEL JOINT
RAD	RADIUS
RE:	REFER, REFERENCE
REQ	REQUIRED
RL	RISER LINE (STAIRS)
RR	RESTROOM
SCH	SCHEDULE
SHT	SHEET
S.L.P.	SINGLE HEAD LIGHT POLE
SPECS	SPECIFICATIONS
SQ	SQUARE
SQ FT	SQUARE FEET
SQ IN	SQUARE INCHES
STD	STANDARD
STOR	STORAGE
STRUCT	STRUCTURE
S/W	SIDEWALK
SYM	SYMMETRICAL
TEMP	TEMPORARY
T.C.	TRENCH COVER
VCT	VINYL COMPOSTION TILE
VERT	VERTICAL
W/	WITH
W/O	WITHOUT
XFMR	TRANSFORMER

SYMBOLS

ANNOTATION

BUILDING ELEVATION REFERENCE

BUILDING SECTION REFERENCE

WALL SECTION REFERENCE

DETAIL REFERENCE

NORTH ARROW

INTERIOR ELEVATION REFERENCE

STRUCTURAL GRID

ELEVATION OF ARCHITECTURAL ELEMENT

ROOM/SPACE IDENTIFIER
ROOM NAME
ROOM NUMBER

TITLE MARK
REFERENCE NUMBER

BREAK MARK

REFERENCE TO SHEET WHERE WORK
THIS SIDE OF MATCHLINE IS DRAWN

PARTITION TYPE

WINDOW TYPE REFERENCE

DOOR TYPE REFERENCE

DOOR REFERENCE NUMBER

ACCESSORY KEY

EQUIPMENT KEY

REVISION NUMBER

CEILING HEIGHT MARKER

ELECTRICAL

2'x4' RECESSED FLUORESCENT FIXTURE

2'x4' RECESSED FLOURESCENT FIXTURE W/ EMERGENCY BALLAST

2'x2' RECESSED FLOURESCENT FIXTURE

1'X4' RECESSED FLOURESCENT FIXTURE W/ EMERGENCY BALLAST

LED RECESSED WALL WASHER

2 LAMP SURFACE MOUNTED FLUORESCENT FIXTURE

2 LAMP SURFACE MOUNTED FLUORESCENT FIXTURE W/ EMERGENCY BALLAST

RECESSED, EXTERIOR GRADE CAN LIGHTING

EMERGENCY LIGHT
(BATTERY POWERED)

TRANSFORMER

EMERGENCY EXIT SIGN

PLUMBING – CIVIL

LIGHT POLE WITH A 36" HIGH CONCRETE BASE

FIRE HYDRANTS

IRRIGATION PIPE

NOTE: NOT ALL SYMBOLS ARE USED. SEE OTHER SPECIFIC SYMBOL LEGENDS ON EACH DRAWING WHERE OCCURS.

GENERAL NOTES

THE GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION, AND A201 LATEST EDITION OF THE AMERICAN INSTITUTE OF ARCHITECTS, ARE HEREBY MADE PART OF CONTRACT DOCUMENTS TO THE SAME EXTENT AS IF BOUND HEREIN.

THE CONTRACTOR SHALL PROVIDE ADEQUATE CONTRACTOR'S LIABILITY AND "ALL RISK" INSURANCE TO COVER 100% OF THE COST OF THE PROJECT. PROVIDE WORKMEN'S COMPENSATION AS REQUIRED BY LAW AND PROVIDE OTHER INSURANCE REQUIRED BY GENERAL CONDITIONS, LANDLORD, LAW OR CODE.

ALL SUBCONTRACTORS MUST BE PRE–APPROVED BY –, AND THE WARREN GROUP ARCHITECTS INC.

GENERAL CONTRACTOR AND SUBCONTRACTORS SHALL PROVIDE, PRIOR TO CONSTRUCTION, UNIT PRICES FOR ALL WORK SHOWN. THESE PRICES SHALL BE VALID FOR THE DURATION OF THE PROJECT AND USED FOR ALL SUBMISSIONS REGARDING ADDITIONS OR DELETIONS TO SCOPE OF WORK.

UNLESS OTHERWISE STIPULATED, THE GENERAL CONTRACTOR SHALL PROVIDE AND PAY FOR ALL MATERIALS, LABOR, TAXES, WATER, TOOLS, EQUIPMENT, LIGHT, POWER, TRANSPORTATION AND OTHER FACILITIES NECESSARY FOR THE EXECUTION AND COMPLETION OF THE WORK.

THE CONTRACTOR AND HIS SUB–CONTRACTORS SHALL KEEP WORK AREA IN A CLEAN AND ORDERLY MANNER, REMOVING DEBRIS ON A ROUTINE BASIS.

CONTRACTOR REVIEW:

GENERAL CONTRACTOR IS RESPONSIBLE FOR CHECKING ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSION FOR ACCURACY AND CONFIRMING THAT WORK IS BUILDABLE, AS SHOWN, BEFORE SUBMITTING FINAL PRICING AND PROCEEDING WITH CONSTRUCTION. FAILURE TO REPORT A CONFLICT IN THE CONTRACT DOCUMENTS SHALL BE DEEMED EVIDENCE THAT THE CONTRACTOR HAS ELECTED TO PROCEED IN THE MORE EXPENSIVE MANNER.

CONTRACTOR IS RESPONSIBLE TO PERFORM ALL WORK IN ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES HAVING JURISDICTION.

PROJECT TEAM

OWNER:

City of Pharr
Contact: William "Bill" Ueckert,
City Engineer
118 S. Cage
Pharr, Texas 78577

ARCHITECT:

The Warren Group Architects. Inc.
Contact: Laura Nassri Warren, AIA.
1801 S. 2nd St. Suite 330
McAllen, Texas 78503
956.994.1900
956.994.1962 fax
lwarren@twgarch.com

OWNER CONSULTANTS:

MEP ENGINEER:

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Contacts: Luis Javier Pena, PE
Abram L. Dominguez, PE
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956.664.2726 fax
jpena@mepsolutionsengineering.com
adominguez@mepsolutionsengineering.com

STRUCTURAL ENGINEER:

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CIVIL ENGINEER:

CLH Engineering, Inc.
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956.687.5561 Fax
956.222.5423 Cell
chinojosa@clhengineeringinc.com

MATERIALS

CAST IN PLACE CONCRETE

PRECAST CONCRETE

STEEL

METAL STUDS

GLASS

CONCRETE MASONRY UNITS

LANDSCAPE AREA

WOOD BLOCKING

ROUGH WOOD

FINISH WOOD

PLYWOOD

RIGID INSULATION

BATT INSULATION

CODE CHECK

GENERAL - PROJECT IDENTIFICATION

LIST OF APPLICABLE CODES (TITLES & EDITIONS)
–TEXAS ACCESSIBILITY STANDARDS (TAS), 2012 EDITION.
–INTERNATIONAL BUILDING CODE (IBC), 2012 EDITION.
–INTERNATIONAL ENERGY CONSERVATION CODE(IECC), 2015 EDITION.
–INTERNATIONAL FIRE CODE (IFC), 2012 EDITION. NFPA 2013 SPRINKLER.

LIST OF APPLICABLE ORDINANCES AND JURISDICTIONS
CITY OF PHARR CODE OF ORDINANCES, CURRENT EDITION.

PROJECT DESCRIPTION

THIS BUILDING HAS BEEN DESIGNED TO COMPLY WITH THE 2012 EDITION OF THE INTERNATIONAL BUILDING CODE, THE 2012 TEXAS ACCESSIBILITY STANDARDS AND THE PHARR CITY ORDINANCES.

SITE AREA: +/– 2.54 ACRES (110,595 S.F.)
EXISTING BUILDING AREA: 4,600 S.F.
GROSS BUILDING AREA EXPANSION: 2,740 S.F.

PARKING: (AS PER ESTIMATED AREAS ABOVE):
CITY ORDINANCE REQUIRED

GENERAL OFFICE
REQUIRED: 27 SPACES
PROVIDED: 55 SPACES

ACCESSIBLE PARKING REQUIRED: 2 SPACES

ACCESSIBLE PARKING PROVIDED: 2 SPACES

BUILDING OCCUPANCY (AS PER IBC 2012 EDITION):
MAIN: BUSINESS B

TYPE OF CONSTRUCTION:

TYPE IIB UNPROTECTED, NON–SPRINKLERED

ALLOWABLE AREA:
IBC 2012 EDITION +/–23,000 S.F.
CHAPTER 5 TABLE 506

ALLOWABLE BUILDING HEIGHT: 3 STORY
ACTUAL BUILDING HEIGHT: 1 STORY

LANDSCAPE REQUIREMENTS:

REQUIRED AREA: 16,589.25 S.F. (15 % OF SITE)
LANDSCAPE AREA PROVIDED: 43,247.63 S.F. (39 % OF SITE)

NOTES:
1. ALL REQUIRED PERMITS MUST BE OBTAINED FROM THE CITY OF PHARR FIRE DEPARTMENT BEFORE THE BUILDING IS OCCUPIED.
2. EXIT DOORS TO BE OPERABLE FROM INSIDE WITHOUT USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT.

ALTERNATES

GENERAL CONTRACTOR REFER TO SPECIFICATIONS SECTION 00 43 23 ALTERNATES FORM.

VICINITY MAP

LOT 3, GSA SUBDIVISION
PHARR, TEXAS 78507

NORTH

THE GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION, AND A201 LATEST EDITION OF THE AMERICAN INSTITUTE OF ARCHITECTS, ARE HEREBY MADE PART OF CONTRACT DOCUMENTS TO THE SAME EXTENT AS IF BOUND HEREIN.

ALL CONSTRUCTION SHALL COMPLY WITH AMERICAN'S WITH DISABILITIES ACT, PUBLIC LAW 101–336 AND TAS COMPLIANT.

GENERAL CONTRACTOR IS RESPONSIBLE FOR CHECKING ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS FOR ACCURACY AND CONFIRMING THAT WORK IS BUILDABLE, AS SHOWN, BEFORE SUBMITTING FINAL PRICING FOR THE WORK IN QUESTION OR RELATED WORK.

INDEX OF DRAWINGS

ARCHITECTURAL DRAWINGS

LANDSCAPE DRAWINGS

CIVIL DRAWINGS

STRUCTURAL DRAWINGS

M.E.P. DRAWINGS

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THE WARREN GROUP
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McALLEN, TX 78503
956.994.1900
twgarch.com

REVISION	DATE	APPROVED BY	DESCRIPTION
1			

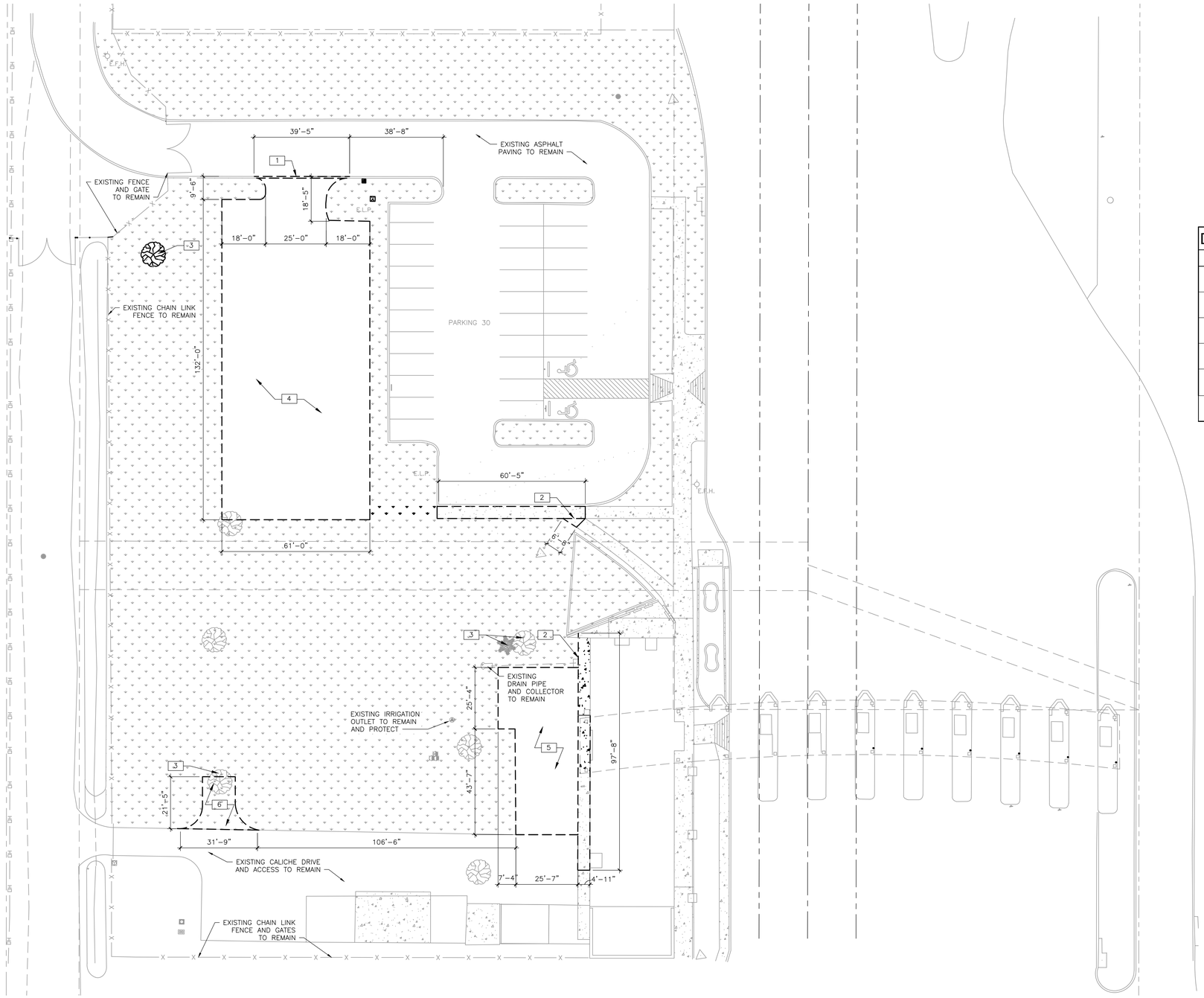
SEAL
LAURA N. WARREN
18378
EXP 10–31–19

PROPOSED
CITY OF PHARR
INTERNATIONAL
BRIDGE FACILITY
EXPANSION AND
RENOVATIONS

LOT 3 GSA SUBDIVISION
PHARR, TEXAS
78507

Project: 971704
Date: 12/19/2018
Revised:

G0.01
GENERAL NOTES,
ABBREVIATIONS & SYMBOLS



NORTH

1 DEMOLITION PLAN
SCALE:1"=20'-0"

SHEET NOTES

1. DURING CONSTRUCTION, CARE MUST BE TAKEN TO NOT DAMAGE ANY EXISTING ITEMS TO REMAIN.
2. TEMPORARILY CAP ALL EXISTING PLUMBING AND ELECTRICAL UNTIL ABLE TO BE RECONNECTED.
3. REFER CIVIL, STRUCTURAL, MECHANICAL, ELECTRICAL,PLUMBING DRAWINGS FOR SCOPE ON ALL HVAC DUCTWORK AND EQUIPMENT.

SHEET LEGEND

EXISTING TO REMAIN

NEW CONSTRUCTION

EXISTING TO BE REMOVED

DEMOLITION GENERAL NOTES

1. THE DEMOLITION OR REMOVAL NOTES DO NOT INDICATE EVERY ITEM WHICH IS REQUIRED TO BE REMOVED OR MODIFIED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VISIT THE SITE TO VERIFY EXISTING CONDITIONS PRIOR TO BEGINNING DEMOLITION IN EACH AREA. NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES BETWEEN THE DOCUMENTS AND OBSERVED CONDITIONS IN THE FIELD.
2. DEMOLITION WORK INCLUDES SELECTIVE REMOVAL OF MECHANICAL, PLUMBING, FIRE PROTECTION, ELECTRICAL AND COMMUNICATIONS EQUIPMENT AND SYSTEMS, AND ASSOCIATED ITEMS AS INDICATED AND AS NECESSARY TO ACCOMMODATE THE WORK OF THE CONTRACT. FOR UTILITIES TO BE DEMOLISHED, REMOVE SAME BACK TO THE POINT OF CONNECTION AND TERMINATE UNLESS NOTED OTHERWISE. SEE MECHANICAL, PLUMBING, FIRE PROTECTION, ELECTRICAL AND COMMUNICATIONS DRAWINGS FOR ADDITIONAL REQUIREMENTS AND DEMOLITION SCOPE OF WORK.
3. REMOVE ALL EQUIPMENT MOUNTED ON PARTITIONS INDICATED TO BE DEMOLISHED, INCLUDING SERVICES (E.G. ELECTRICAL COMPONENTS) MOUNTED ON OR ROUTED WITHIN DEMOLISHED PARTITIONS.
4. GENERAL CONTRACTOR TO COORDINATE WITH OWNER, AND/OR BUILDING MANAGEMENT, PRIOR TO TURNING OFF ANY UTILITIES FOR CONNECTION OR EXPANSION OF SAID UTILITIES WITHIN THE FINISH–OUT AREA.
5. GENERAL CONTRACTOR TO COORDINATE WITH OWNER FOR ITEMS TO BE INSTALLED BY OWNER.
6. GENERAL CONTRACTOR TO PROVIDE DUST BARRIERS AT ENTRANCES DURING CONSTRUCTION PERIOD.
7. DURING CONSTRUCTION PHASE, CARE MUST BE TAKEN TO NOT DAMAGE ANY EXISTING ITEMS TO REMAIN.
8. TEMPORARILY CAP ALL EXISTING PLUMBING AND ELECTRICAL UNTIL ABLE TO BE RECONNECTED.

DEMOLITION SCHEDULE

KEY	DESCRIPTION
1	PORTION OF CONCRETE CURB AND GUTTER TO BE REMOVED. RE: CIVIL DRAWINGS.
2	PORTION OF CONCRETE SIDEWALK TO BE REMOVED. RE: CIVIL DRAWINGS AND GEOTECHNICAL REPORT FOR SELECT SOIL, COMPACTION, AND PREPARATIONS FOR NEW SLAB.
3	EXISTING TREE TO BE REMOVED.
4	EXISTING FILL TO BE REMOVED. SURFACE TO BE PREPARED TO RECEIVE NEW ASPHALT. RE: CIVIL DRAWINGS.
5	EXISTING SOIL TO BE REMOVED TO ALLOW FOR NEW BUILDING EXPANSION. REFER STRUCTURAL DRAWINGS AND SOILS REPORT FOR BUILDING PAD REQUIREMENTS.
6	CLEAN AND PREPARE TO RECEIVE NEW DUMPSTER. REFER TO NEW SITE PLAN.

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REVISION	DATE	APPROVED BY	DESCRIPTION

SEAL

REGISTERED ARCHITECT
TANYA K. WARREN
18378
STATE OF TEXAS

EXP 10-31-19

PROPOSED

CITY OF PHARR INTERNATIONAL BRIDGE FACILITY EXPANSION AND RENOVATIONS

LOT 3 GSA SUBDIVISION
PHARR, TEXAS
78507

Project: 971704
Date: 12/19/2018
Revised:

AD1.01
SITE DEMOLITION PLAN

SHEET NOTES

1. DURING CONSTRUCTION, CARE MUST BE TAKEN TO NOT DAMAGE ANY EXISTING ITEMS TO REMAIN.
2. TEMPORARILY CAP ALL EXISTING PLUMBING AND ELECTRICAL UNTIL ABLE TO BE RECONNECTED.
3. REFER MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR SCOPE ON ALL HVAC DUCTWORK AND EQUIPMENT.

SHEET LEGEND

EXISTING TO REMAIN

NEW CONSTRUCTION

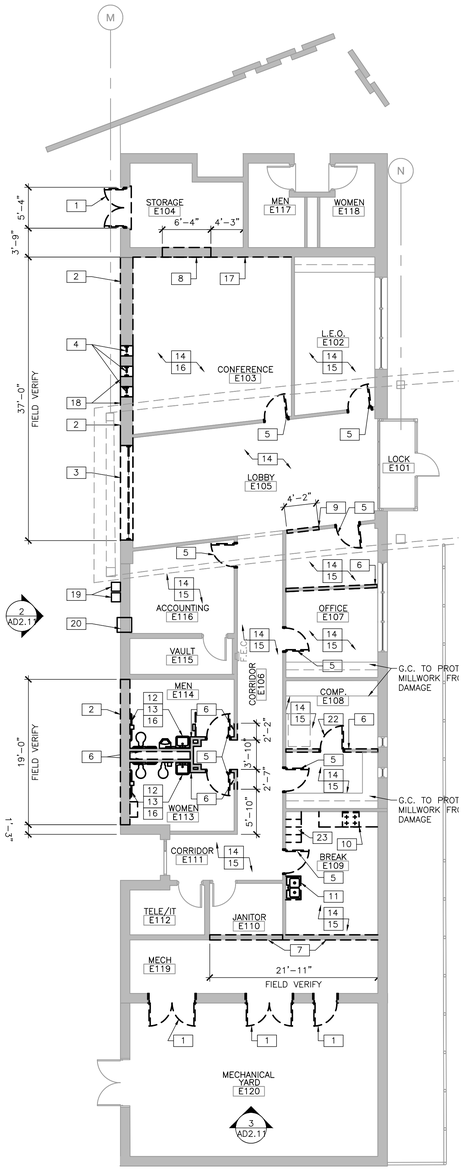
EXISTING TO BE REMOVED

DEMOLITION NOTES

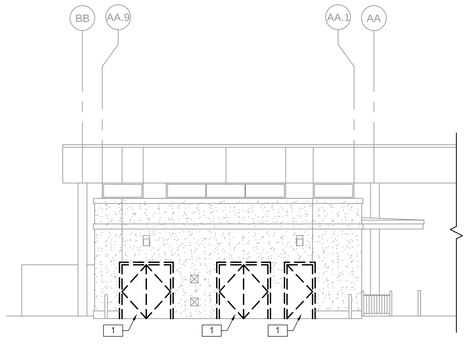
1. COMPLY WITH ALL APPLICABLE CODES AND REGULATIONS.
2. THE DEMOLITION OR REMOVAL NOTES DO NOT INDICATE EVERY ITEM WHICH IS REQUIRED TO BE REMOVED OR MODIFIED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VISIT THE SITE TO VERIFY EXISTING CONDITIONS PRIOR TO BEGINNING DEMOLITION IN EACH AREA. NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES BETWEEN THE DOCUMENTS AND OBSERVED CONDITIONS IN THE FIELD.
3. DEMOLITION WORK INCLUDES SELECTIVE REMOVAL OF MECHANICAL, PLUMBING, FIRE PROTECTION, ELECTRICAL AND COMMUNICATIONS EQUIPMENT AND SYSTEMS, AND ASSOCIATED ITEMS AS INDICATED AND AS NECESSARY TO ACCOMMODATE THE WORK OF THE CONTRACT. FOR UTILITIES TO BE DEMOLISHED, REMOVE SAME BACK TO THE POINT OF CONNECTION AND TERMINATE UNLESS NOTED OTHERWISE. SEE MECHANICAL, PLUMBING, FIRE PROTECTION, ELECTRICAL AND COMMUNICATIONS DRAWINGS FOR ADDITIONAL REQUIREMENTS AND DEMOLITION SCOPE OF WORK.
4. REMOVE ALL EQUIPMENT MOUNTED ON PARTITIONS INDICATED TO BE DEMOLISHED, INCLUDING SERVICES (E.G. ELECTRICAL COMPONENTS) MOUNTED ON OR ROUTED WITHIN DEMOLISHED PARTITIONS.
5. PATCH FLOORS, WALLS, COLUMNS, COLUMN ENCLOSURES, AND CEILINGS WHERE IMPACTED BY DEMOLITION, WITH FINISHES TO MATCH ADJACENT EXISTING. PATCH AND REPAIR EXISTING ELEMENTS THAT ARE DAMAGED DURING DEMOLITION OR CONSTRUCTION. MAINTAIN FIRE RATINGS.
6. GENERAL CONTRACTOR TO COORDINATE WITH OWNER, AND/OR BUILDING MANAGEMENT, PRIOR TO TURNING OFF ANY UTILITIES FOR CONNECTION OR EXPANSION OF SAID UTILITIES WITHIN THE FINISH-OUT AREA.
7. GENERAL CONTRACTOR TO COORDINATE WITH OWNER FOR ITEMS TO BE INSTALLED BY OWNER.
8. GENERAL CONTRACTOR TO PROVIDE DUST BARRIERS AT FINISH-OUT ENTRANCES DURING CONSTRUCTION PERIOD.
9. REMOVE EXISTING FLOORING, PREPARE AND EVEN OUT FLOOR SURFACE AREA BY APPLYING A SELF LEVELING COMPOUND AS NEEDED. PREPARE SURFACE TO RECEIVE NEW FLOORING.
10. DURING CONSTRUCTION PHASE, CARE MUST BE TAKEN TO NOT DAMAGE ANY EXISTING ITEMS TO REMAIN.
11. TEMPORARILY CAP ALL EXISTING PLUMBING AND ELECTRICAL UNTIL ABLE TO BE RECONNECTED.
12. G.C. IS RESPONSIBLE FOR PROVIDING AND INSTALLING PROTECTION AGAINST INCLEMENT WEATHER FOR AREAS WHERE EXTERIOR ITEMS ARE TO BE REMOVED.
13. REFER TOLL COLLECTION ELEVATIONS FOR ADDITIONAL DEMOLITION SLOPE.

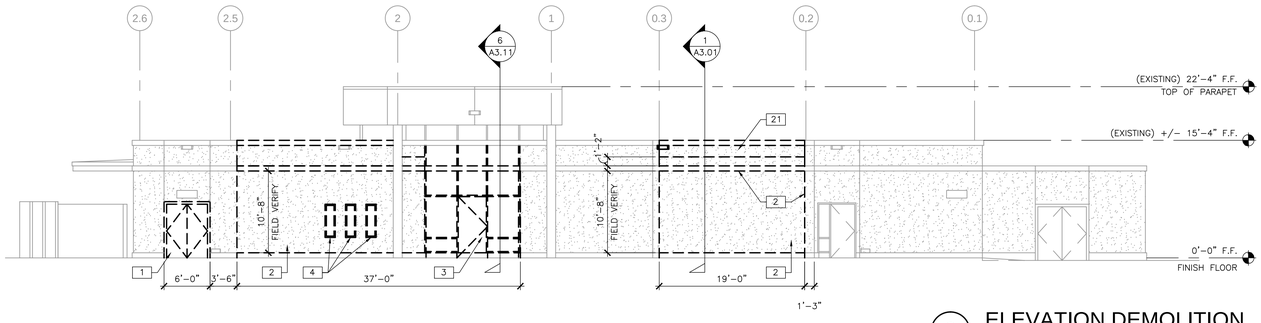
DEMOLITION SCHEDULE

KEY	DESCRIPTION
1	EXTERIOR DOOR & FRAME TO BE REMOVED. PATCH AND REPAIR WALL OPENINGS TO MATCH AND FLUSH ADJACENT WALL SURFACES.
2	PORTION OF EXTERIOR WALL TO BE REMOVED UP TO EXISTING BOND BEAM ONLY. PROVIDE SHORING AS NEEDED. REFER STRUCTURAL DRAWINGS. CAP ALL PLUMBING AND ELECTRICAL LINES AS NEEDED PATCH AND REPAIR OPENING TO RECEIVE NEW FINISHES. REFER TO NEW FLOOR PLAN FOR BUILDING EXPANSION. (TEMP. SHORING)
3	PORTION OF EXTERIOR WALL AND CURTAIN WALL ASSEMBLY TO BE REMOVED. PATCH AND REPAIR OPENING TO RECEIVE NEW FINISHES. REFER TO NEW FLOOR PLAN FOR BUILDING EXPANSION. G.C. TO RETURN CURTAIN WALL TO OWNER.
4	EXTERIOR WINDOW TO BE REMOVED. G.C. TO RETURN WINDOWS TO OWNER.
5	DOOR AND FRAME TO BE REMOVED. G.C. TO PATCH AND REPAIR ADJACENT SURFACES AND PREPARE TO RECEIVE NEW DOORS AND FRAMES. G.C. TO REMOVE EXISTING HEADER TO ACCOMMODATE NEW DOORS AS REQUIRED. RE: A1.11 AND A6.21 FOR NEW DOOR SIZES AND EXISTING DOORS TO BE RELOCATED.
6	PORTION OF INTERIOR WALL TO BE REMOVED. G.C. TO REMOVE AND CAP ALL ELECTRICAL AND PLUMBING LINES AS NEEDED.
7	PORTION OF INTERIOR MASONRY WALL TO BE REMOVED. PATCH AND REPAIR DAMAGE SURFACES TO RECEIVE A NEW OPENING. CAP ALL ELECTRICAL AND PLUMBING LINES AS NEEDED.
8	PORTION OF INTERIOR WALL TO BE REMOVED. G.C. PATCH AND REPAIR DAMAGED SURFACES TO RECEIVE A NEW DOOR OPENING. CAP ALL ELECTRICAL AND PLUMBING LINES AS NEEDED.
9	PORTION OF INTERIOR WALL TO BE REMOVED. PATCH AND REPAIR ROUGH OPENING TO RECEIVE A NEW WINDOW OF 4'2(W) X 5'-0" (H) X 2'-6" FROM FINISH FLOOR. REFER TO NEW FLOOR PLAN.
10	MILLWORK AND RANGE TO BE REMOVED. PREPARE WALL AND ADD BLOCKING TO RECEIVE NEW MILLWORK.
11	MILLWORK AND DOUBLE SINK TO BE REMOVED. CAP ALL PLUMBING LINES AS NEEDED. REFER NEW FLOOR PLAN FOR NEW FINISHES.
12	RESTROOM PARTITIONS, WATER CLOSETS, URINALS, LAVATORIES, ACCESSORIES, AND MILLWORK TO BE REMOVED. CAP ALL PLUMBING LINES AND ELECTRICAL LINES AS NEEDED TO RECEIVE NEW FINISHES. RE: NEW FLOOR PLAN AND PLUMBING DRAWINGS.
13	RESTROOM WALL AND FLOOR TILE TO BE REMOVED. PATCH AND REPAIR SURFACES TO RECEIVE NEW FINISHES AND FIXTURES. REFER TO NEW FLOOR PLAN AND PLUMBING DRAWINGS .
14	REMOVE EXISTING FLOOR FINISHES. PREPARE SURFACES TO RECEIVE NEW FINISHES.
15	REMOVE ALL ACOUSTICAL CEILINGS. G.C. TO PROTECT CEILING GRID TO REMAIN AND PREPARE TO RECEIVE NEW ACOUSTICAL CEILING TILES. REFER TO NEW REFLECTED CEILING PLAN
16	REMOVE ALL CEILINGS. REPAIR ANY DAMAGE SURFACES AND PREPARE TO RECEIVE A NEW CEILING. REFER TO NEW REFLECTED CEILING PLAN.
17	STONE VENEER FINISH TO BE REMOVED. PATCH AND REPAIR DAMAGE SURFACES TO RECEIVE NEW FINISHES. REFER TO NEW FLOOR PLAN AND INTERIOR ELEVATIONS.
18	EXTERIOR WALL MOUNTED COMMUNICATION ANTENNA TO BE RELOCATED. GENERAL CONTRACTOR TO COORDINATE WITH BRIDGE AUTHORITY FOR NEW LOCATION.
19	ELECTRICAL "J" BOXES TO BE RELOCATED. REFER ELECTRICAL DRAWINGS.
20	EXTERIOR WALL UNIT TO BE MOVED. REFER MECHANICAL AND ELECTRICAL DRAWINGS.
21	GENERAL CONTRACTOR TO REMOVE THE CMU/STONE VENEER FULL HEIGHT AT THIS LOCATION (LOAD BEARING CMU BEHIND IS TO BE REMOVED TO BOND-BEAM ONLY). REFER WALL SECTIONS AND STRUCTURAL DRAWINGS.
22	DOOR AND FRAME TO BE REMOVED G.C. TO RETURN DOOR TO OWNER.
23	EXISTING LOCKERS TO BE REMOVED. G.C. TO COORDINATE WITH OWNER TO RELOCATE.



3 ELEVATION DEMOLITION
SCALE:1/8"=1'-0"





2 ELEVATION DEMOLITION
SCALE:1/8"=1'-0"

NORTH

1 DEMOLITION PLAN
SCALE:1/8"=1'-0"

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CITY OF PHARR INTERNATIONAL BRIDGE FACILITY EXPANSION AND RENOVATIONS

LOT 3 GSA SUBDIVISION
PHARR, TEXAS
78507

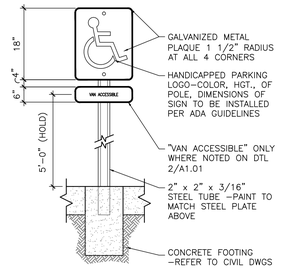
Project: 971704
Date: 12/19/2018
Revised:

AD2.11

DEMOLITION PLAN AND ELEVATIONS

NOTE:

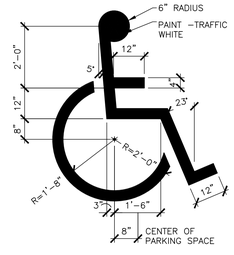
1. SIGNS SHOULD BE PROPERLY CENTERED AT FRONT OF PARKING SPACE
2. SIGN FACE SHOULD BE LOCATED NO FURTHER THAN 6' FROM THE FRONT OF EACH PARKING SPACE WITH MINIMUM 3'-0" CLEAR
3. MOUNT SIGN ON COLUMN OR WALL AT SIM. CONDITION
4. WHERE SIGN IS PLACED IN PAVED AREA AT PARKING STALLS, PROVIDE PRECAST BUMPERS
5. PROVIDE "VAN ACCESSIBLE" SIGN AS SHOWN AT VAN ACCESSIBLE PARKING SPACE



4 ACCESSIBLE SIGN DETAIL

NOT TO SCALE

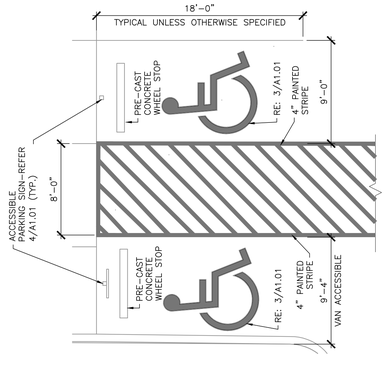
SITE_DETL_004



3 ACCESSIBLE PARKING SYMBOL

NOT TO SCALE

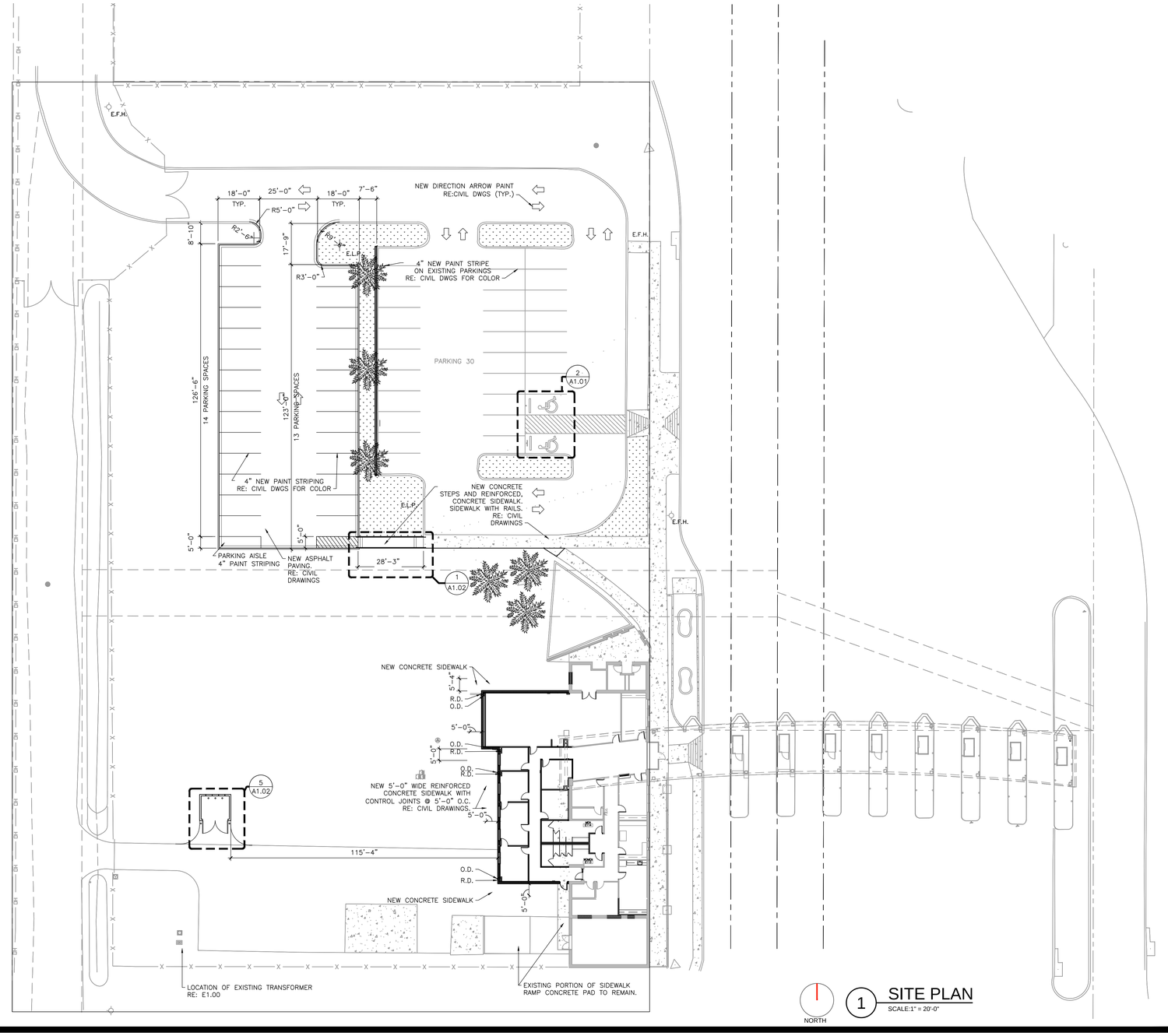
SITE_DETL_007



2 ACCESSIBLE PARKING DETAIL

SCALE: 3/16" = 1'-0"

SITE_DETL_006



NORTH

1 SITE PLAN

SCALE:1" = 20'-0"

GENERAL NOTES

1. GENERAL CONTRACTOR TO REFER TO SPECIFICATIONS SECTION 01 23 00 ALTERNATES AND SEPARATE PRICES.

SHEET NOTES

1. REFER CIVIL DRAWINGS FOR PAVING AND DEMOLITION SCOPE.
2. SITE PLAN CURBS DIMENSIONED TO FRONT OF CURBS.
3. REFER CIVIL DRAWINGS FOR NEW ASPHALT PAVING, SIDEWALKS, AND SITE CONTROL PLAN.
4. REFER CIVIL DRAWINGS FOR GRADING ELEVATIONS/SPOT ELAVATIONS.

SHEET LEGEND

	NEW LANDSCAPE AND IRRIGATED AREA
— F —	FIRE LANE
E.F.H.	EXISTING FIRE HYDRANT TO REMAIN
E.L.P.	EXISTING LIGHT POLE TO REMAIN- REFER ELECTRICAL DRAWINGS ADDED LIGHT FIXTURES AT EXISTING POLES.
— X —	EXISTING FENCE TO REMAIN
	EXISTING CONCRETE SIDEWALK TO REMAIN

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LAURA M. WARREN
18379
STATE OF TEXAS

EXP 10-31-19

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LOT 3 GSA SUBDIVISION
PHARR, TEXAS
78507

Project: 971704
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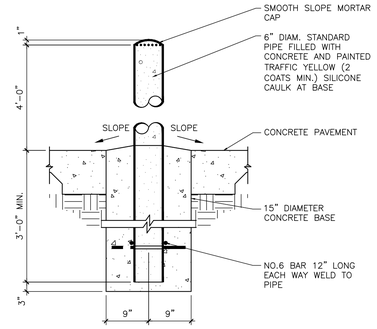
A1.01

SITE PLAN

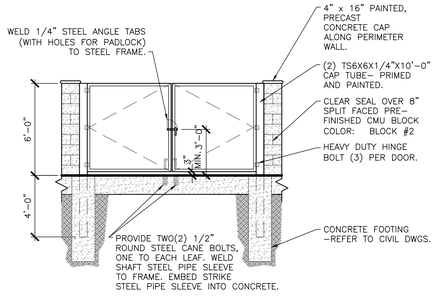


7 PIPE BOLLARD-A- DETAIL

SCALE: 3/8"=1'-0"

SITE_DETL_003

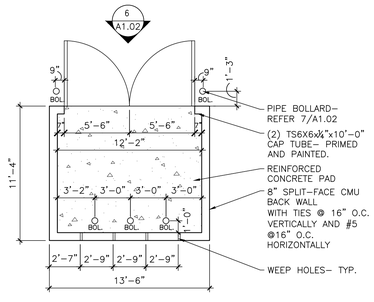
NOTE:
GATE CONSTRUCTION TO BE 1 1/2" X 20 GAUGE STEEL DECK, WELDED TO 1 1/2" X 2" STEEL ANGLE PERIMETER TRIM. WELD ANGLE PERIMETER TRIM TO 2" X 3" STEEL TUBULAR MAIN GATE FRAME. ALL METAL SURFACES TO RECEIVE TWO(2) COATS ENAMEL PAINT OVER PRIMER. PAINT TO MATCH BUILDING.



6 DUMPSTER ENCLOSURE ELEVATION

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

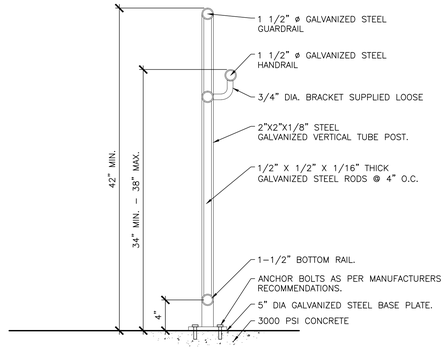
SITE_DETL_012



5 DUMPSTER ENCLOSURE DETAIL

SCALE: 3/16"=1'-0"

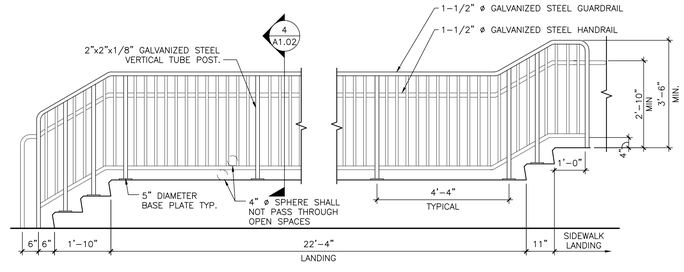
SITE_DETL_011



4 RAILING SECTION AT EXTERIOR STEPS

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

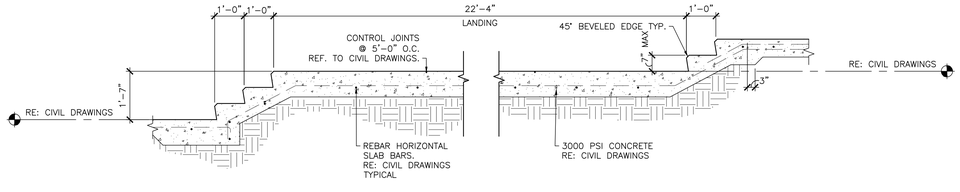
SITE_DETL_008



3 RAIL ELEVATION

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

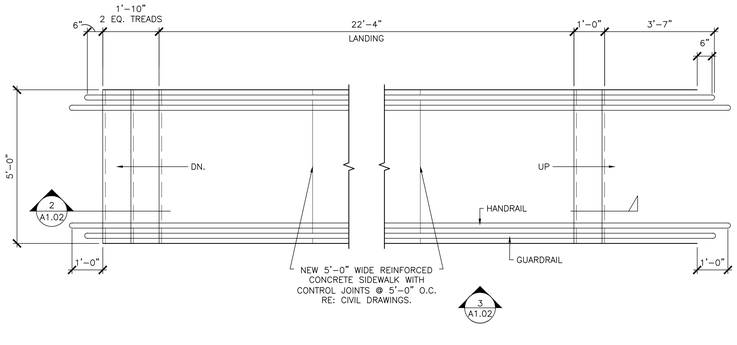
SITE_DETL_010



2 CONCRETE STAIR DETAIL

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

SITE_DETL_009



1 STAIR PLAN DETAIL

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

SITE_DETL_013

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JAIME E. WARREN
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EXP 10-31-19

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PHARR, TEXAS
78507

Project: 971704
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A1.02
SITE DETAILS

GENERAL NOTES

1. GENERAL CONTRACTOR TO REFER TO SPECIFICATIONS SECTION 01 23 00 ALTERNATES AND SEPARATE PRICES.

WALL LEGEND

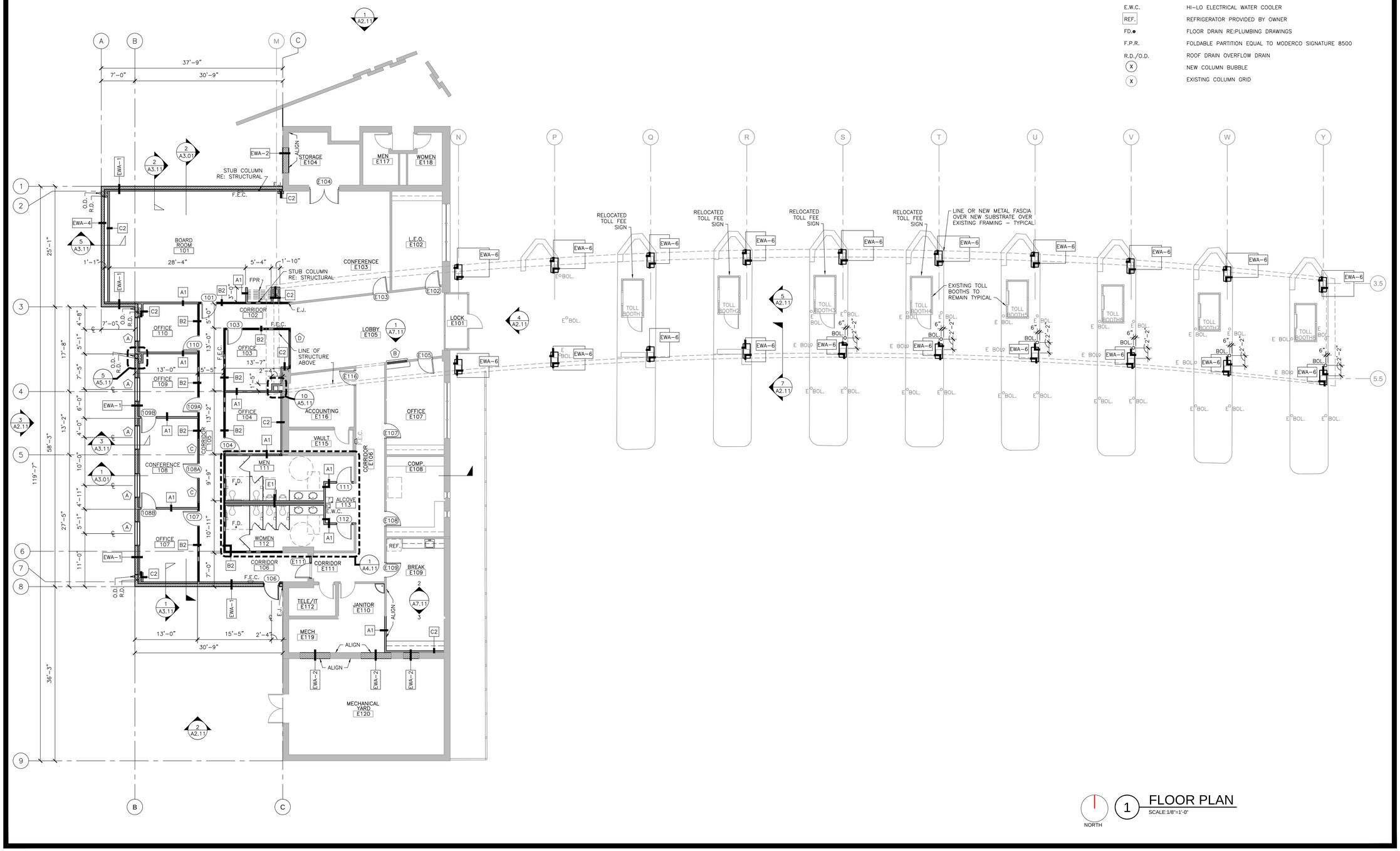
	1HR. FIRE RATED WALL
XX	INTERIOR WALL TYPE
EWA–X	EXTERIOR WALL ASSEMBLY
	EXISTING WALL TO WALL REMAIN
	NEW WALL

SHEET NOTES

1. REFER TO STRL DWGS FOR CONTROL AND EXPANSION JOINTS TO BE PROVIDED AT CONCRETE SLAB.
2. REFER TO ROOF PLAN FOR DOWN SPOUT LOCATIONS.
3. REFER TO G0.01 FOR KEYS AND SYMBOLS.

SHEET LEGEND

F.E.C.	FIRE EXTINGUISHER IN RECESSED CABINET. RE: SPECIFICATIONS SECTION 104400
E.J.	EXPANSION JOINT
E.W.C.	HI–LO ELECTRICAL WATER COOLER
REF.	REFRIGERATOR PROVIDED BY OWNER
FD.	FLOOR DRAIN RE:PLUMBING DRAWINGS
F.P.R.	FOLDABLE PARTITION EQUAL TO MODERCO SIGNATURE 8500
R.D./O.D.	ROOF DRAIN OVERFLOW DRAIN
X	NEW COLUMN BUBBLE
X	EXISTING COLUMN GRID



NORTH

1 FLOOR PLAN
SCALE:1/8"=1'-0"

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STATE OF TEXAS
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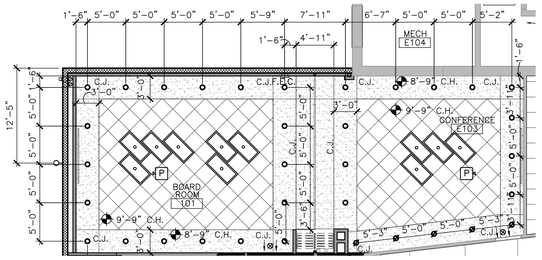
FLOOR PLAN

SHEET NOTES

1. ALL CEILING HEIGHTS TO BE 8'-9" A.F.F. UNLESS OTHERWISE NOTED.
2. REFER TO ELECTRICAL PLANS FOR LIGHTING SCHEDULE.
3. ACCESS PANELS TO BE PROVIDED WHERE REQUIRED.
4. EXISTING CEILING ARE TO BE REPLACE WITH A NEW ACOUSTICAL CEILING TILE REFER TO FINISH SCHEDULE. G.C. TO ADD CEILING GRID AS NEEDED.
5. G.C. PAINT AN EXISTING GYPSUM BOARD AND PLASTER CEILINGS TO REMAIN.

SHEET LEGEND

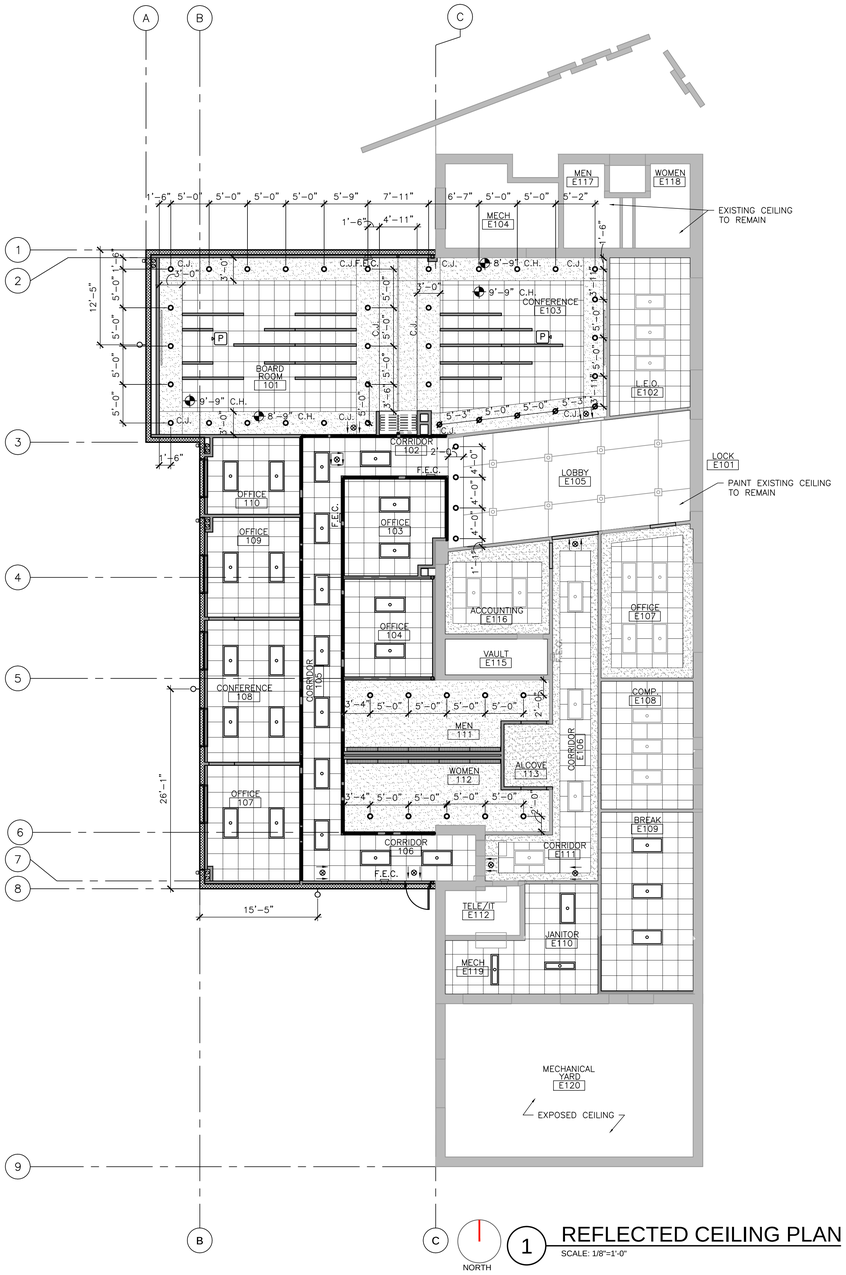
- PAINTED GYPSUM BOARD SOFFIT
- 2'X2' ACOUSTICAL CEILING TILE
- EMERGENCY EXIT LIGHT/SIGN
- 2'X4' RECESSED LIGHT
- 4' LINEAR COVE LIGHT
- WALL PACK LIGHT
- 6" RECESSED CAN LIGHT
- 1'X4' CEILING MOUNTED FLUORESCENT LIGHT FIXTURE.
- 8'-0" LED LINEAR RECESSED LIGHT WITH ACRYLIC LENS. RE: ELECTRICAL DWGS.
- 4'-0" LED LINEAR RECESSED LIGHT WITH ACRYLIC LENS. RE: ELECTRICAL DWGS.
- C.H. CEILING HEIGHT
- P PROJECTOR
- PROJECTOR SCREEN
- C.J. CONTROL JOINT



NORTH

2 ALTERNATE NO. 2 REFLECTED CEILING PLAN AT BOARD ROOM 101 AND CONFERENCE E103

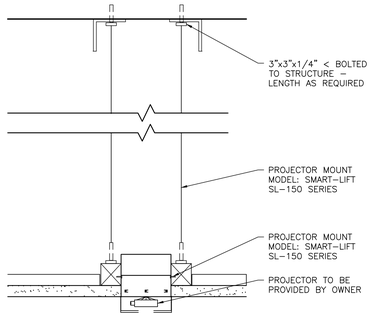
SCALE: 1/8"=1'-0"



NORTH

1 REFLECTED CEILING PLAN

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

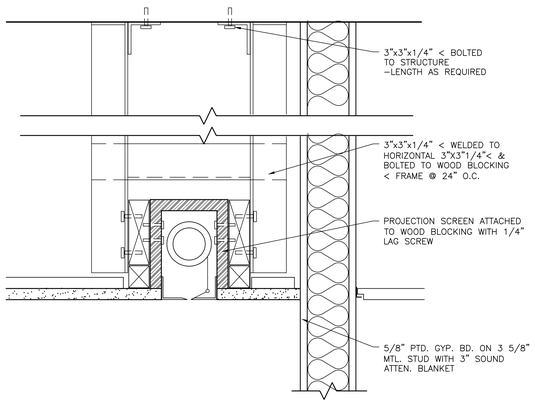


4 PROJECTOR MOUNT DETAIL

SCALE: 3/8"=1'-0"

NOTES:

1. PROJECT SCREEN EQUAL TO DA-LITE BOARDROOM ELECTROL WITH MILDEW AND FLAME RESISTANT MATTE WHITE WITH BLOCK MASKING BORDERS
2. SCREEN MOTOR TO BE INSTANT REVERSING GEAR DRIVE MOTOR, WITH PERMANENTLY LUBRICATED BALL BEARINGS, AUTOMATIC THERMAL OVERLOAD PROTECTION, PRESENT LIMIT SWITCHES TO AUTOMATICALLY STOP SCREEN IN "UP" OR "DOWN" POSITION, AND POSITIVE STOP ACTION TO PREVENT COASTING.
3. SCREEN CONTROL TO BE: REMOTE CONTROL OPERATION; SWITCHES TO AUTOMATICALLY STOP SCREEN THREE POSITION, UL LISTED CONTROL SWITCH WITH METAL DEVICE BOX AND COVER PLATE FOR FLUSH TO 120 VAC ELEC. POWER SUPPLY
4. SCREEN SIZE TO BE 78"x139"



3 PROJECTOR SCREEN DETAIL

SCALE: 3/8"=1'-0"

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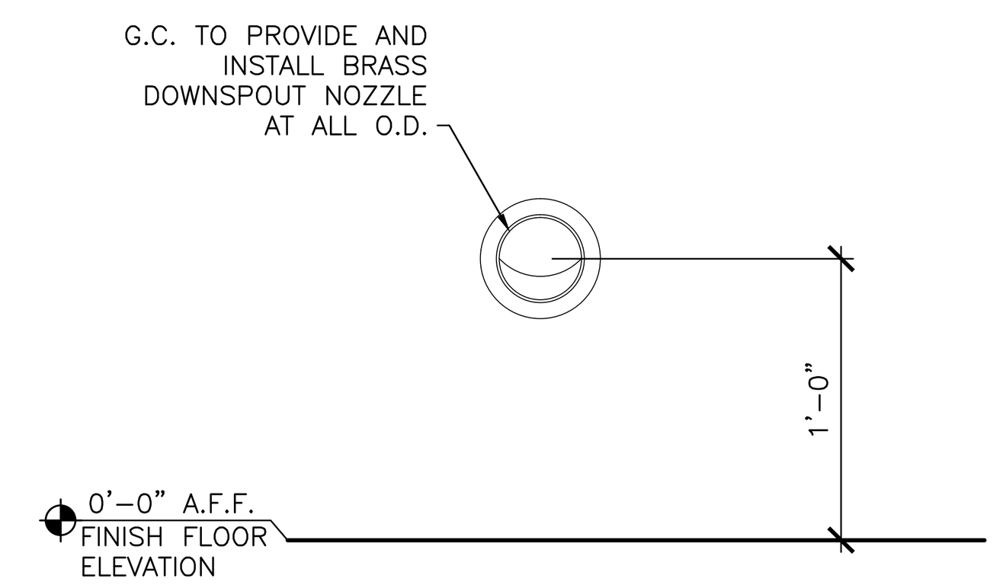
REFLECTED CEILING PLAN

SHEET NOTES

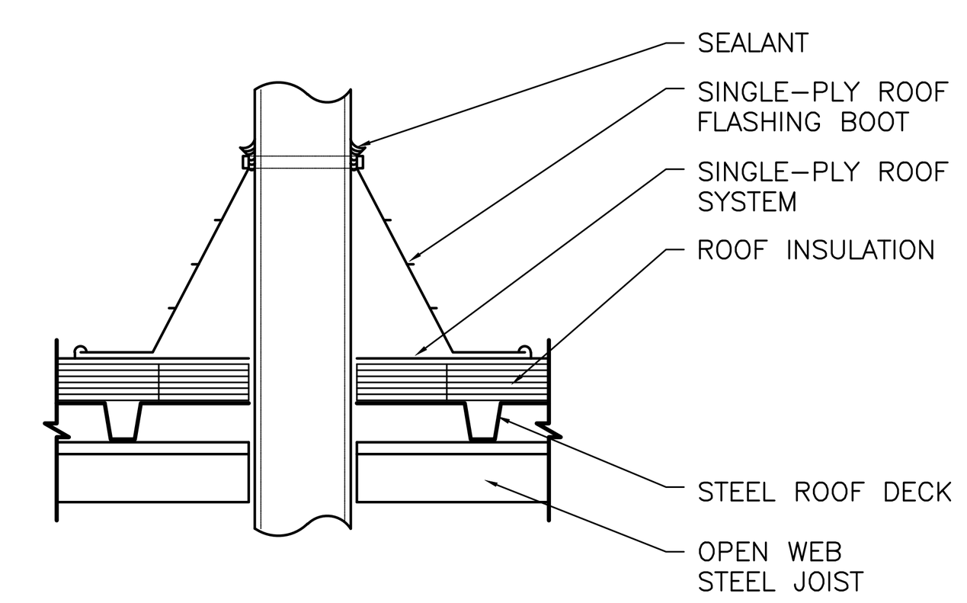
1. REFER STRUCTURAL DRAWINGS FOR TOP OF STEEL HEIGHTS.
2. REFER TO PLUMBING DRAWINGS FOR ROOF & OVERFLOW DRAIN SIZING.
3. ROOF DETAILS REFER TO A0.00

SHEET LEGEND

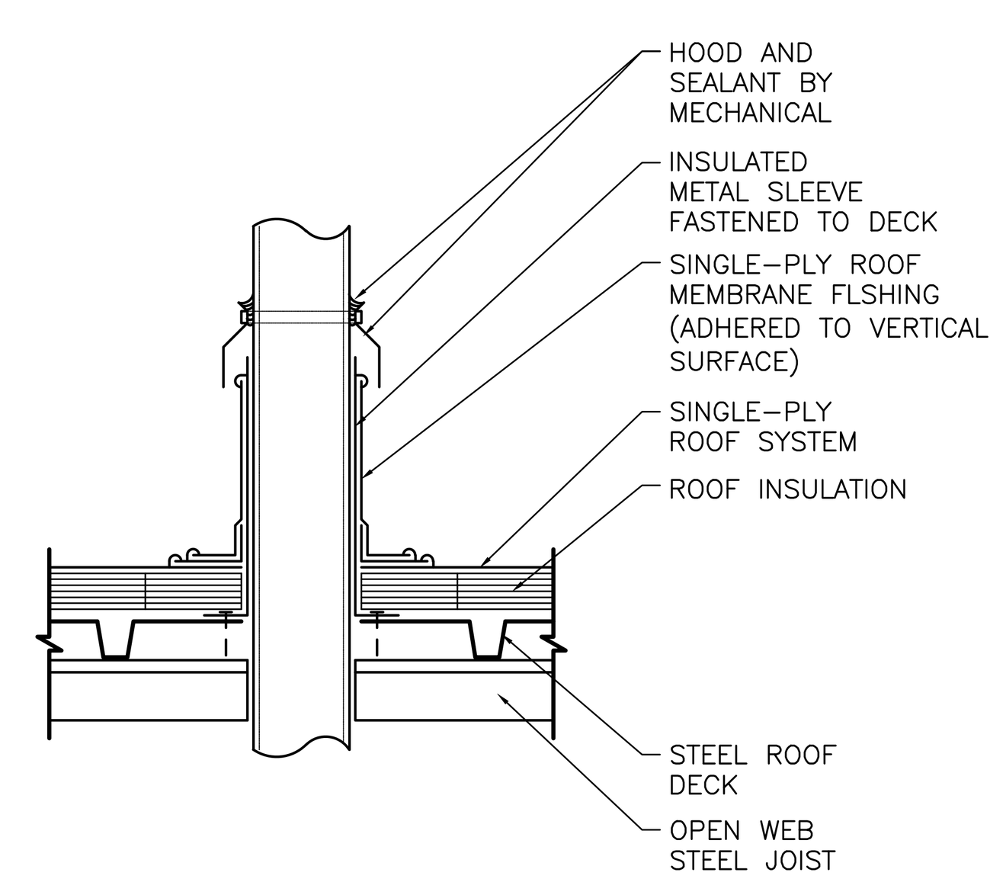
R.D.	ROOF DRAIN
O.D.	OVERFLOW DRAIN
E.SC.	EXISTING SCUPPER
RTU	ROOF TOP UNITS



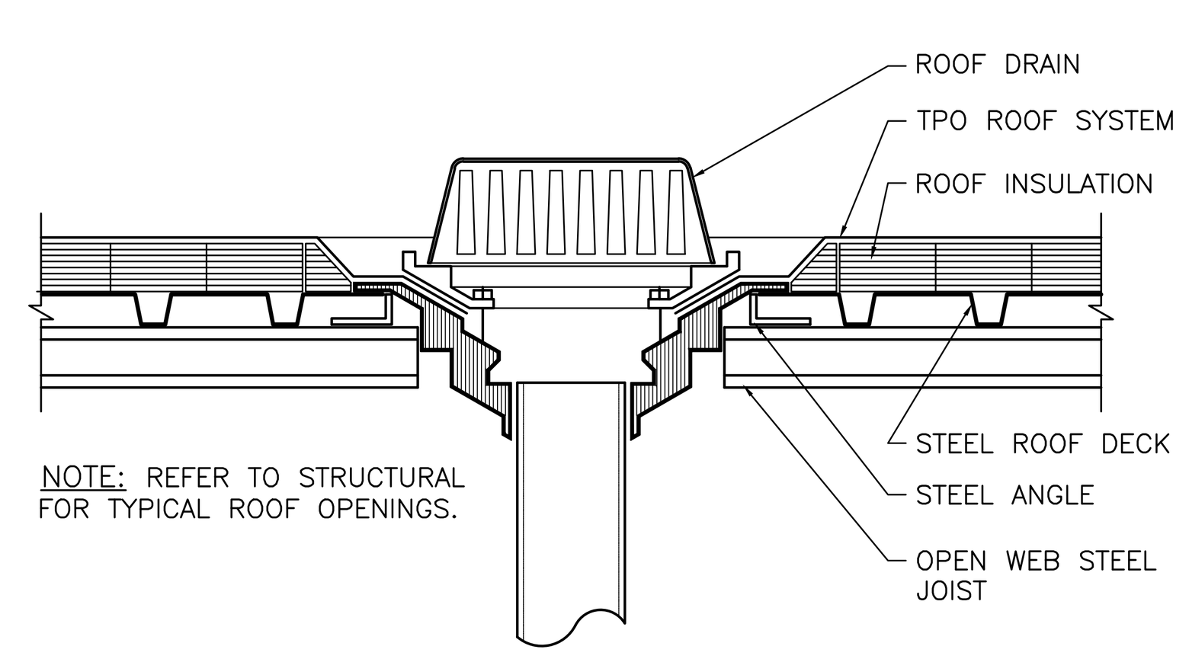
5 OVERFLOW DRAIN TYP.
SCALE: 1 1/2"=1'-0" ELEV_DETL_01



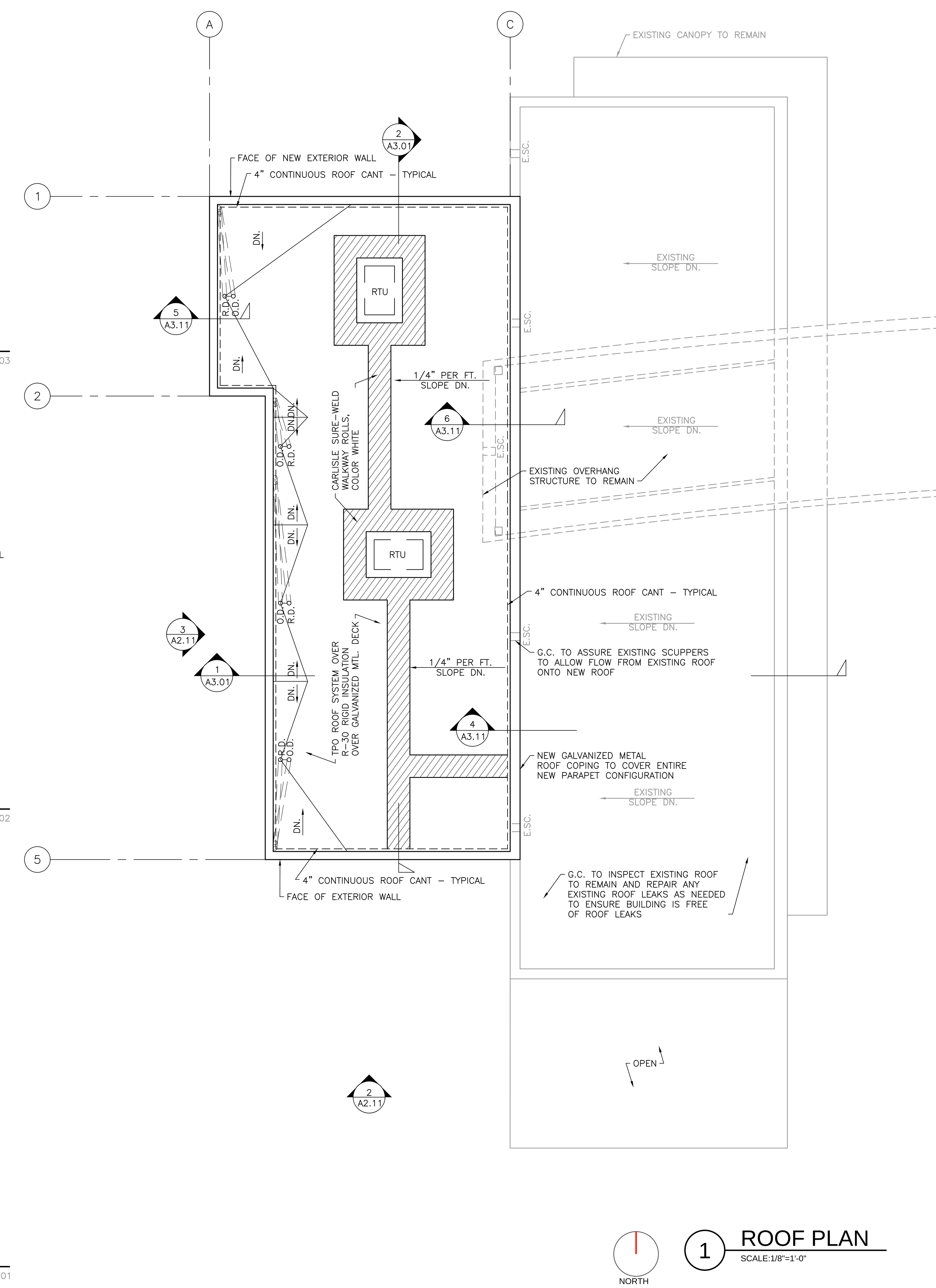
4 PIPE FLASHING (COLD) DETAIL
SCALE: 1 1/2"=1'-0" ROOF_DETL_003



3 PIPE FLASHING (HOT) DETAIL
SCALE: 1 1/2"=1'-0" ROOF_DETL_002



2 ROOF DRAIN DETAIL
SCALE: 1 1/2"=1'-0" ROOF_DETL_001



1 ROOF PLAN
SCALE:1/8"=1'-0"

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ROOF PLAN

SHEET NOTES

1. FLOOR PATTERNS SUBJECT TO OWNER APPROVAL PRIOR TO INSTALLATION.
2. G.C. TO COORDINATE WITH MILLWORK INSTALLER TO FILL IN FLOORING BELOW OPEN COUNTERS.
3. FLOOR GRID SHOWN EMULATES A 12"X12" VINYL ENHANCED TILE (VET), AND 2"X2" PORCELAIN TILE (PT) IN THE RESTROOMS. REFER SHEET A6.11 ROOM FINISH SCHEDULE FOR ALL FINISHES AND CARPET (CPT) SELECTION.
4. G.C. TO PROVIDE TAS-ADA COMPLIANT FLOOR TRANSITION STRIPS BETWEEN FLOOR FINISHES.
5. ROOMS WITH NO FLOOR PATTERN ARE TO BE IN THE FIELD COLOR OR IN THE DIFFERENT FLOOR MATERIALS AS NOTED.
6. ROOMS WITH NO ACCENT PAINT COLOR TO BE IN PNT-1. REFER SHEET A6.11 ROOM FINISH SCHEDULE FOR ALL PAINT (PNT) SELECTIONS.

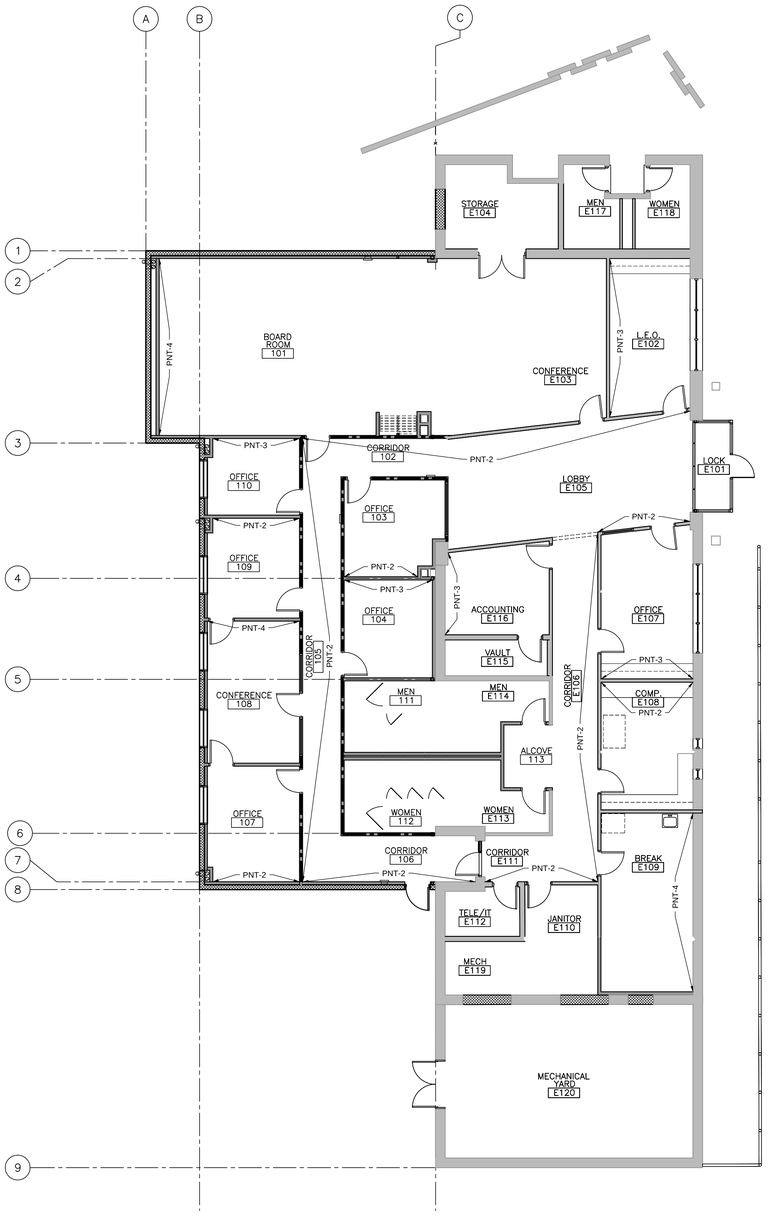
SHEET LEGEND

VET-1

VET-2

VET-3

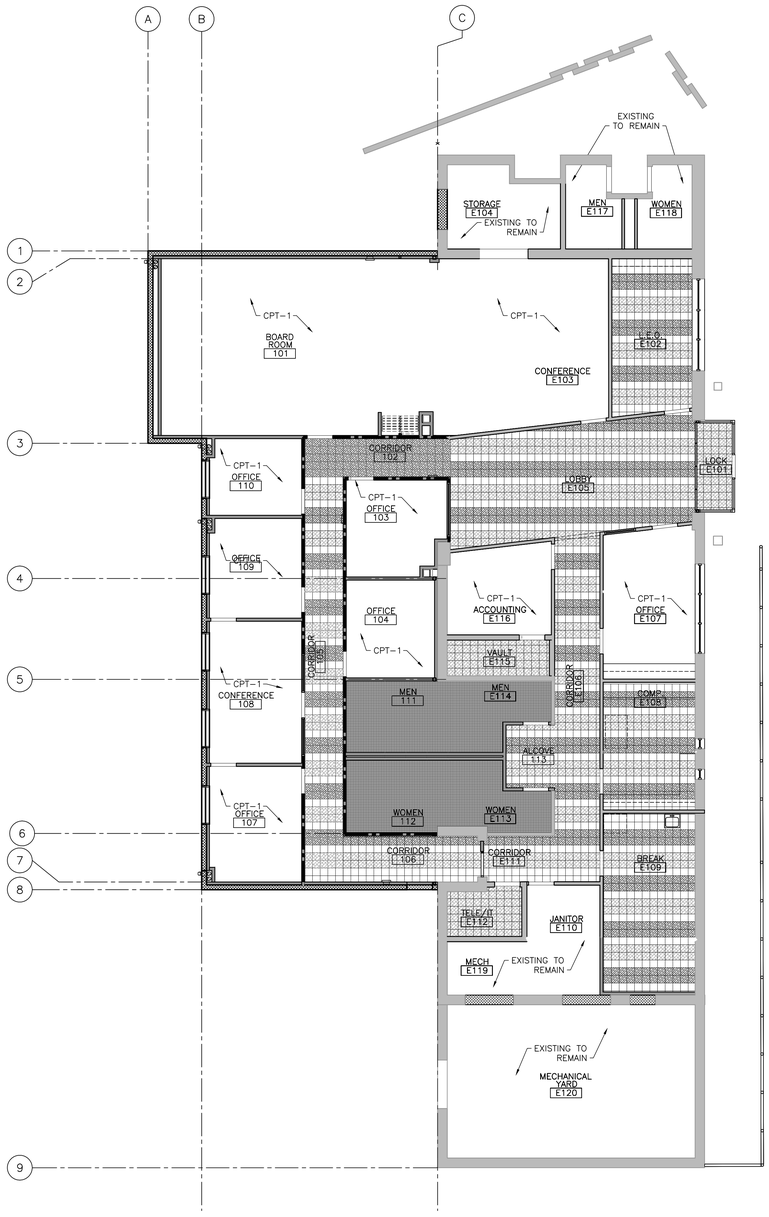
PT-1



NORTH

2 ACCENT WALL PLAN

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



NORTH

1 FLOOR PATTERN PLAN

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

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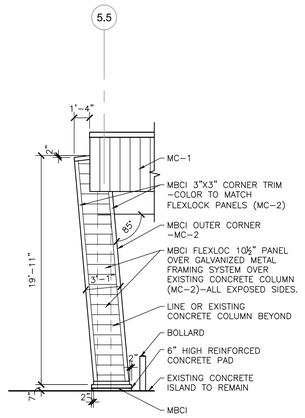
FLOOR PATTERN AND ACCENT WALL PLAN

SHEET NOTES

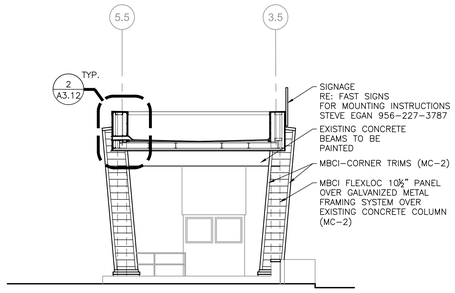
1. REFER WALL SCHEDULE FOR ADDITIONAL EXTERIOR ASSEMBLY.
2. REFERENCE A6.11 FOR FINISH SCHEDULES.
3. G.C. TO REFER TO SPECIFICATIONS SECTION 01 23 00 ALTERNATES AND SEPARATE PRICES.

SHEET LEGEND

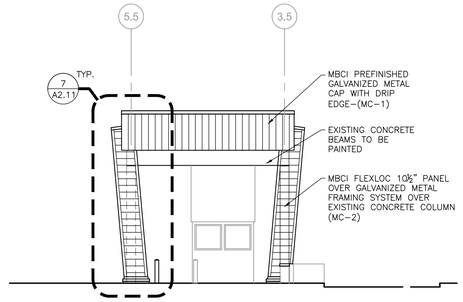
MC–1	METAL CLADDING 1
MC–2	METAL CLADDING 2
WP	WALL PACK RE: ELECTRICAL DRAWINGS
	BLOCK 1: SMOOTH FACE PNT–6
	BLOCK 2: SPLIT FACE PNT–6
O.D.	OVERFLOW DRAIN



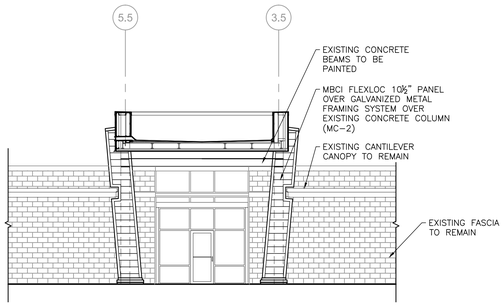
7 TYPICAL COLUMN DETAIL
SCALE:3/16"=1'-0"



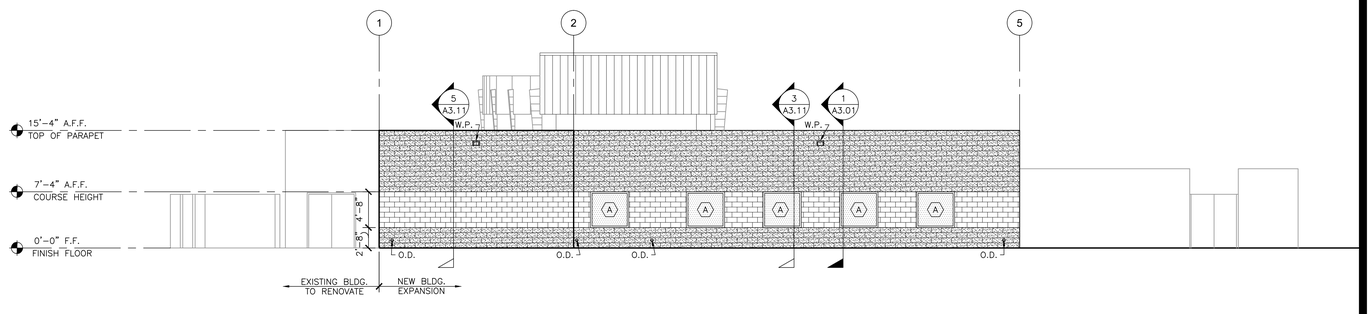
6 TOLL BOOTH SECTION
SCALE:1/8"=1'-0"



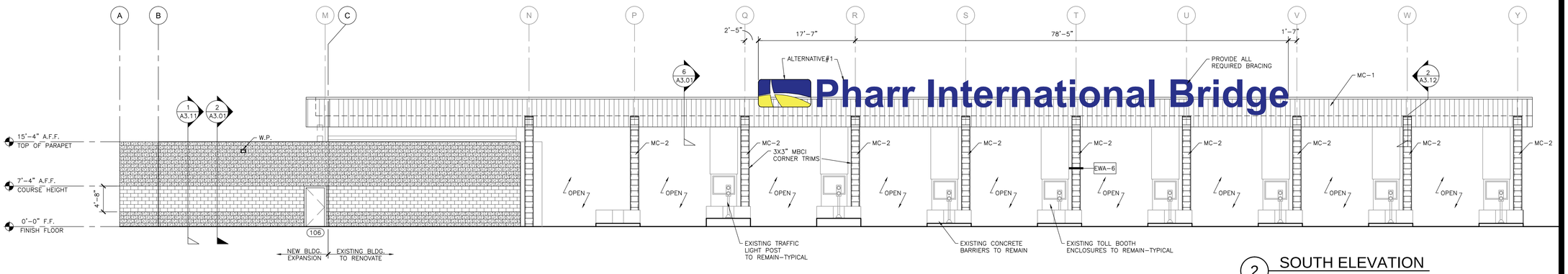
5 TOLL BOOTH ELEVATION TYP.
SCALE:1/8"=1'-0"



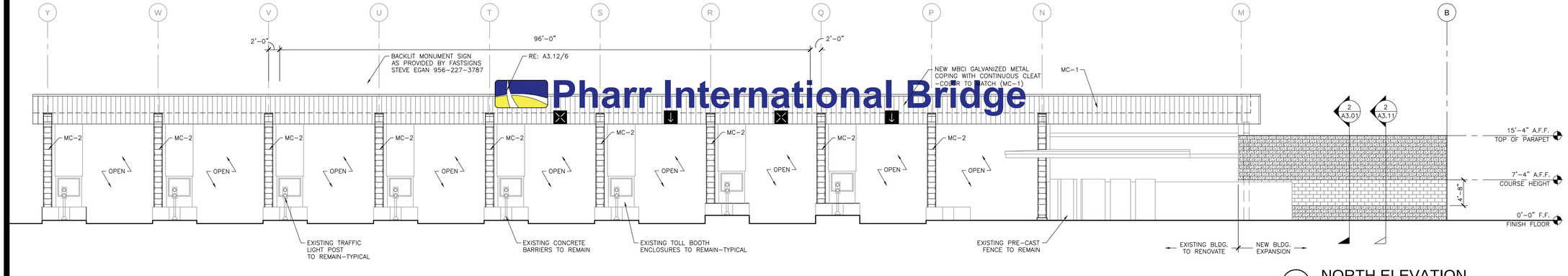
4 EAST CANOPY ELEVATION
SCALE:1/8"=1'-0"



3 WEST ELEVATION
SCALE:1/8"=1'-0"



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



1 NORTH ELEVATION
SCALE:1/8"=1'-0"

THE WARREN GROUP ARCHITECTS, INC.
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LAURA M. WARREN
18379
STATE OF TEXAS
EXP 10–31–19

PROPOSED
CITY OF PHARR INTERNATIONAL BRIDGE FACILITY EXPANSION AND RENOVATIONS

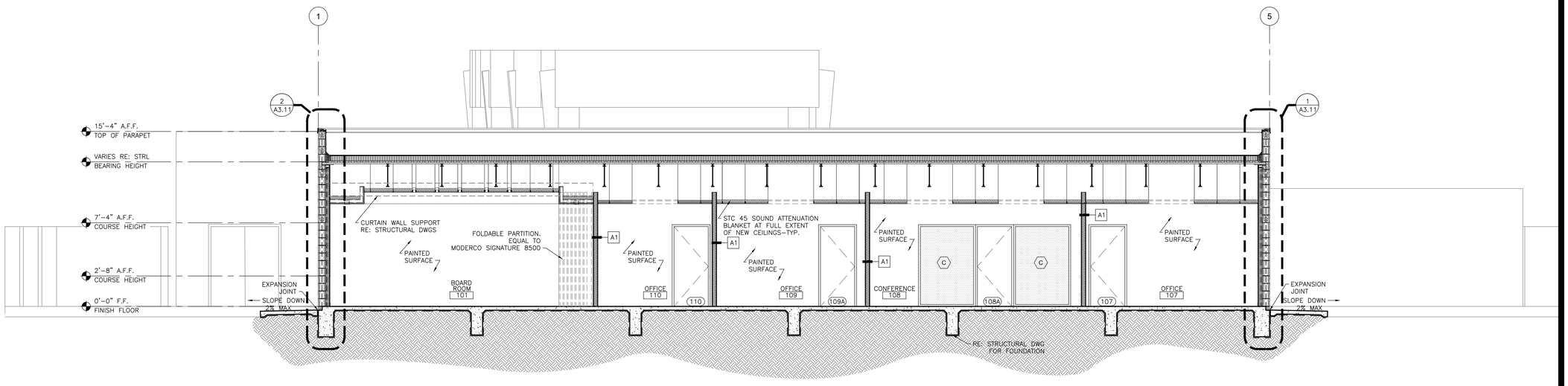
LOT 3 GSA SUBDIVISION
PHARR, TEXAS
78507

Project: 971704
Date: 12/19/2018
Revised:

A2.11
EXTERIOR ELEVATIONS

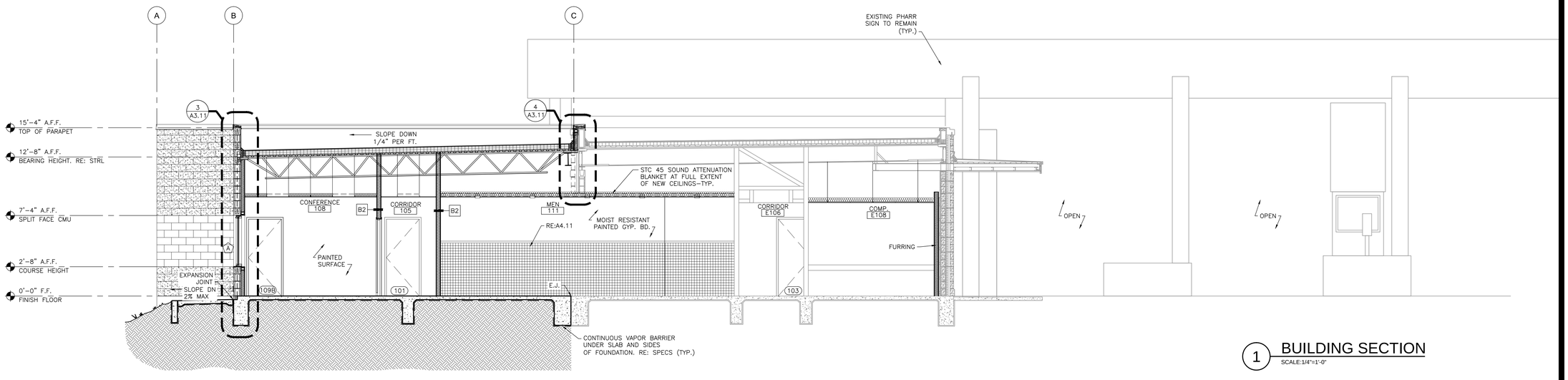
SHEET NOTES

1. REFER WALL TYPES SCHEDULE FOR WALL ASSEMBLY DETAILS.



2 BUILDING SECTION

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



1 BUILDING SECTION

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

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78507

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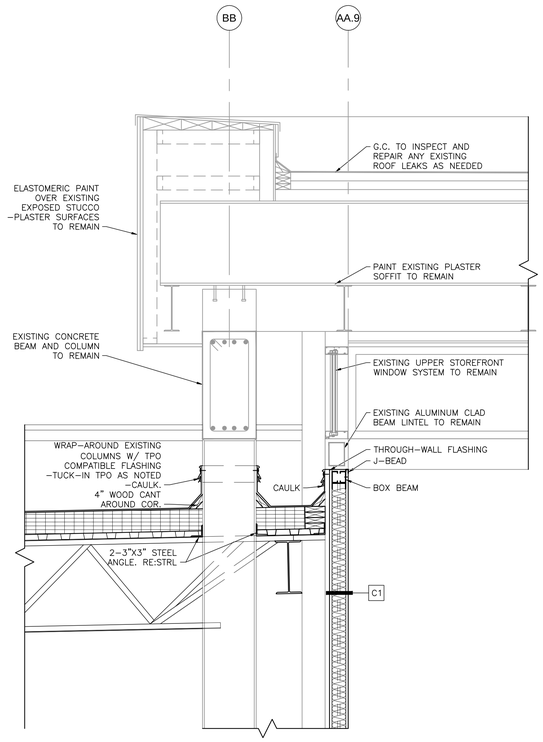
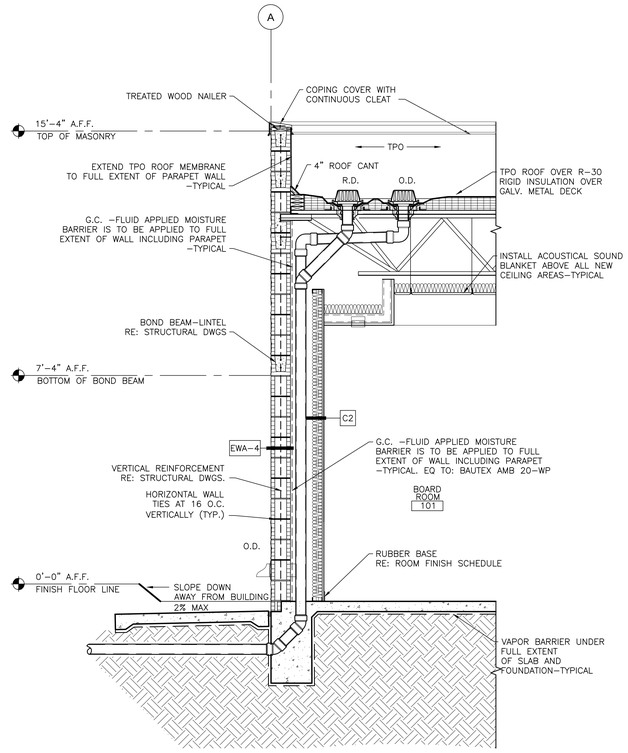
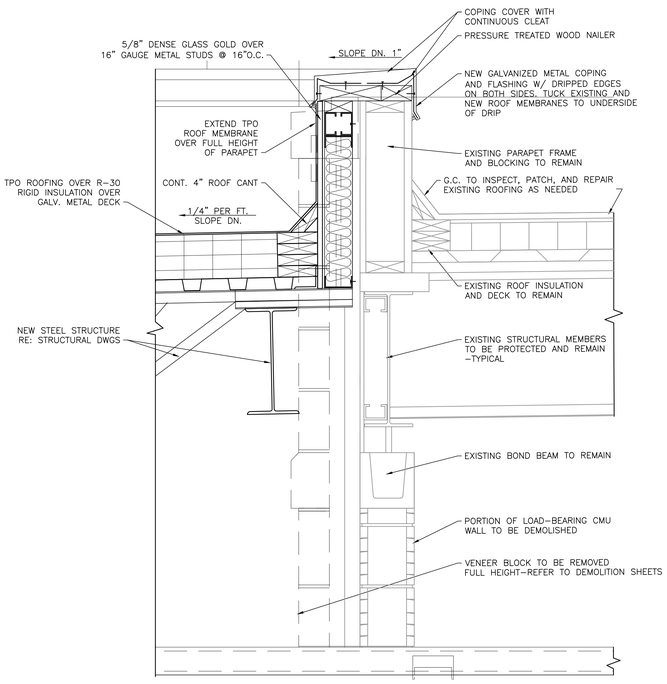
BUILDING SECTIONS



6 WALL SECTION
SCALE:3/4"=1'-0"



5 WALL SECTION
SCALE:1/2"=1'-0"



4 WALL SECTION
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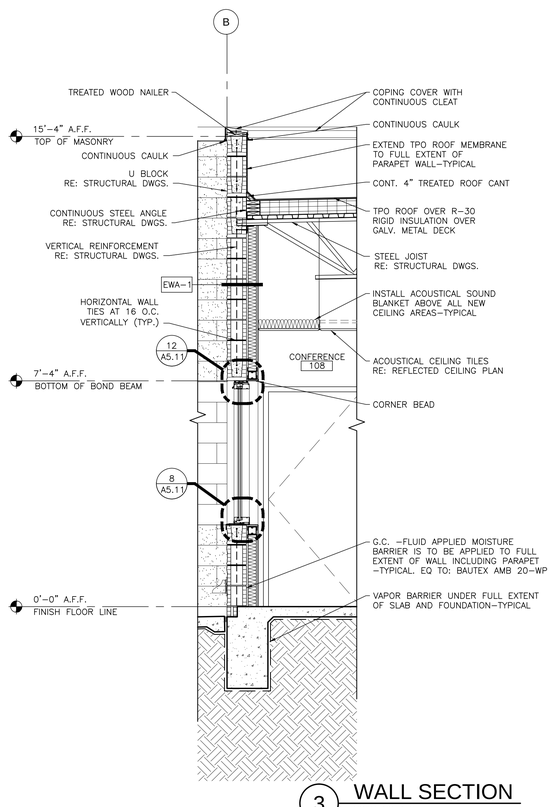
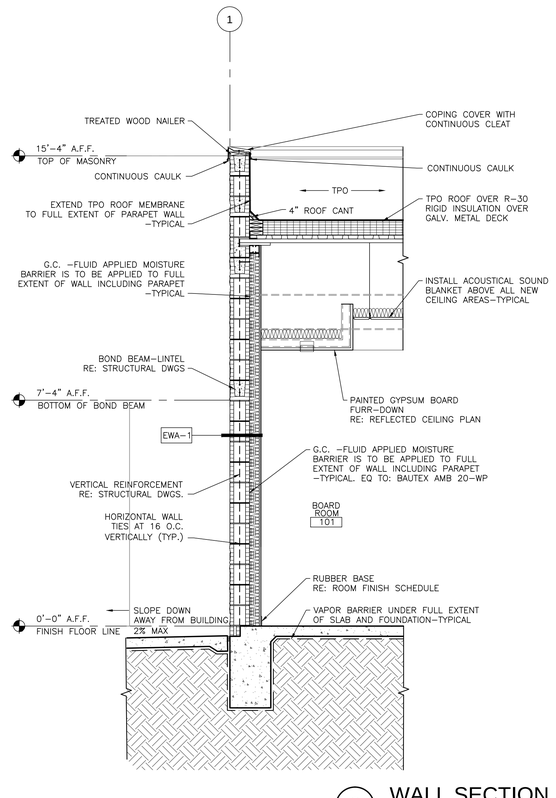
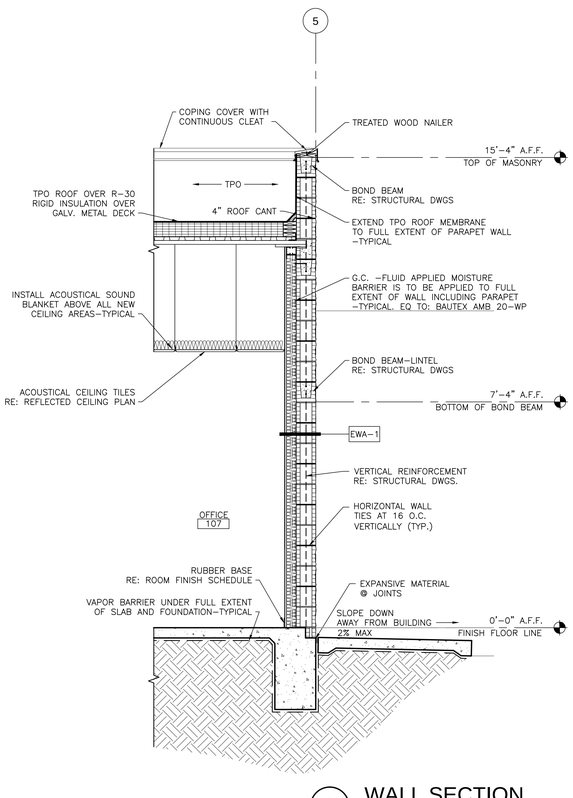


3 WALL SECTION
SCALE:1/2"=1'-0"



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



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

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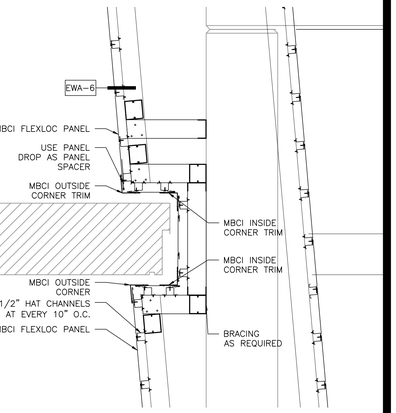
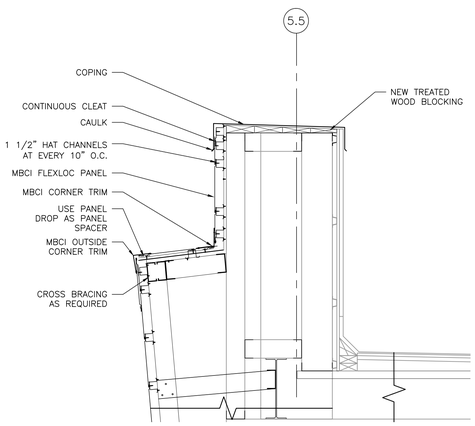
WALL SECTIONS

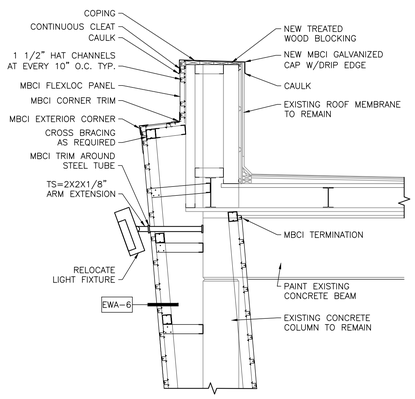


5 TOLL BOOTH SECTION DETAIL
SCALE:1/2"=1'-0"

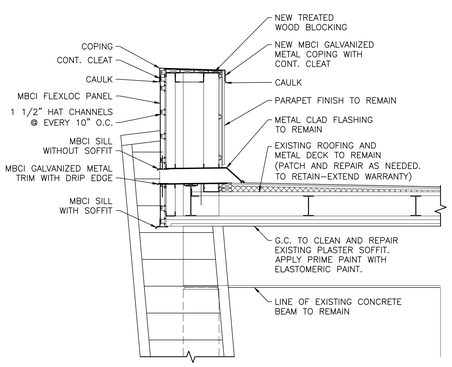
6 MONUMENT SIGN DETAIL
SCALE:1/8"=1'-0"



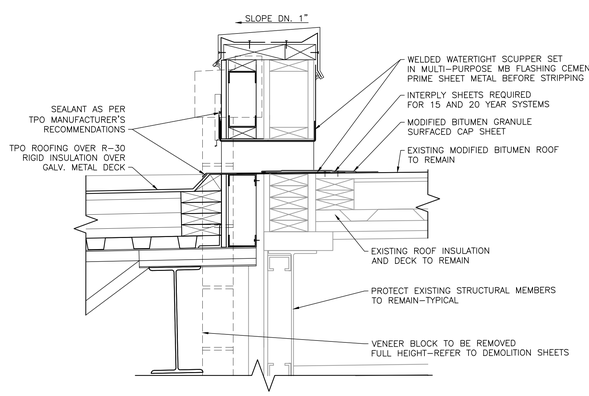
4 TOLL BOOTH SECTION DETAIL
SCALE:1/2"=1'-0"



3 TOLL BOOTH SECTION DETAIL
SCALE:1/2"=1'-0"



2 TOLL BOOTH PARAPET DETAIL
SCALE:1/2"=1'-0"



1 SCUPPER WALL SECTION
SCALE:1 1/2"=1'-0"

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A3.12
WALL SECTIONS

GENERAL NOTES

1. GENERAL CONTRACTOR TO REFER TO SPECIFICATIONS SECTION 01 2300 ALTERNATES AND SEPARATE PRICES.

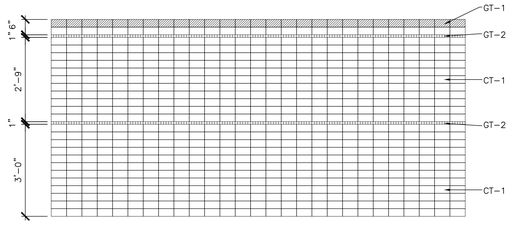
SHEET NOTES

1. GENERAL CONTRACTOR TO COMPLY WITH ALL TAS AND ADA APPLICABLE CODES AND REGULATIONS.
2. GENERAL CONTRACTOR TO COORDINATE WITH OWNER FOR ALL ACCESSORY PLACEMENTS AND TO INSTALL THEM PER TAS AND ADA ACCESSIBLE MOUNTING AND ACCESSORY SCHEDULE HEIGHTS.
3. ALL TOILET PARTITIONS TO BE FLOOR ANCHORED.
4. URINAL PARTITIONS TO BE WALL MOUNTED.

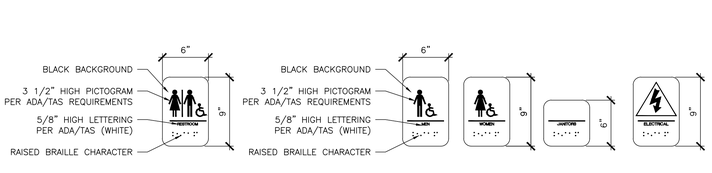
ACCESSORY SCHEDULE

KEY	ITEM	ADULT	
		STANDARD	HANDICAP (HC)
–	WATER CLOSET (WC)	15" TO TOP OF SEAT	17" TO TOP OF SEAT
–	URINAL (UR)	24" TO TOP OF RIM	17" TO TOP OF RIM
–	LAVATORY (LAV)	34 TO TOP	27" TO BOTTOM OF APRON
1	GRAB BAR (48")	–	33" MIN./36" MAX. TO THE TOP OF THE GRIPPING SURFACE
2	GRAB BAR (42")	–	33" MIN./36" MAX. TO THE TOP OF THE GRIPPING SURFACE
3	GRAB BAR (36")	–	33" MIN./36" MAX. TO THE TOP OF THE GRIPPING SURFACE
4	ELECTRIC HAND DRYER	48" TO CONTROL	38" TO CONTROL
5	FRAMED WALL MOUNTED MIRROR	74" TO TOP	40" TO BOTTOM OF REFLECTIVE SURFACE
6	TISSUE DISPENSER	15" TO CONTROL DEVICE	15" TO CONTROL DEVICE
7	SANITARY NAPKIN DISPENSER	48" TO CONTROL DEVICE	48" TO CONTROL DEVICE
8	SANITARY NAPKIN DISPOSAL	19" TO CONTROL DEVICE	19" TO CONTROL DEVICE
9	WALL MOUNTED RECESSED SOAP DISPENSER	48" TO CONTROL DEVICE	48" TO CONTROL DEVICE
10	COUNTER MOUNTED SOAP DISPENSER	AT COUNTER	AT COUNTER – 34" MAX.
11	PAPER TOWEL DISPENSER/DISPOSAL	48" TO CONTROL DEVICE	48" TO CONTROL DEVICE
12	DISPOSIBLE SEAT COVER DISPENSER	48" TO CONTROL DEVICE	48" TO CONTROL DEVICE
13	MOP–HOOK	48" TO CONTROL DEVICE	48" TO CONTROL DEVICE
14	ACCESSIBLE SIGNAGE	60" TO CENTER OF SIGN	60" TO CENTER OF SIGN
15	DIAPER CHANGING STATION	27" TO UNDER OF UNFOLDED SURFACE	–
16	CLOTHES/TOWEL HOOK	–	48" MAXIMUM TO CENTER
17	FOAM PIPE INSULATION WRAPPING	ALL EXPOSED LAVATORY PIPING	
18	SHOWER COMPARTMENT SEAT	–	17" MIN 19" MAX TO TOP OF UNFOLDED SURFACE
19	SHOWER CURTAIN AND ROD	76 1/2" TO CENTER OF BAR FOR 72" CURTAIN	–
20	SHOWER HEAD		48"W/O HOSE RE: MEP DWG'S
21	GRAB BAR (18")	–	33" MIN./36" MAX. TO THE TOP OF THE GRIPPING SURFACE
22	GRAB BAR (24")	–	33" MIN./36" MAX. TO THE TOP OF THE GRIPPING SURFACE
23	GRAB BAR (60")	–	33" MIN./36" MAX. TO THE TOP OF THE GRIPPING SURFACE
24	TWO–WALL GRAB BAR	–	33" MIN./36" MAX. TO THE TOP OF THE GRIPPING SURFACE

NOTE: NOT ALL ACCESSORIES MAY BE USED.



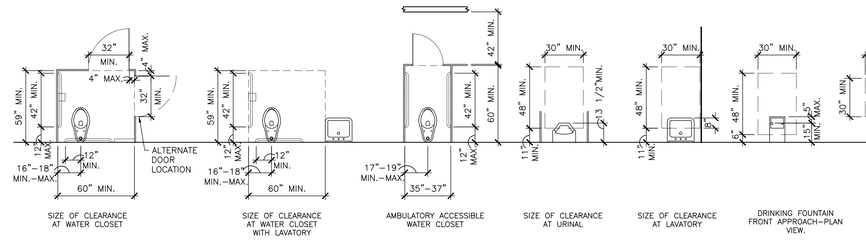
8 WALL TILE PATTERN
SCALE:1/2"=1'-0"



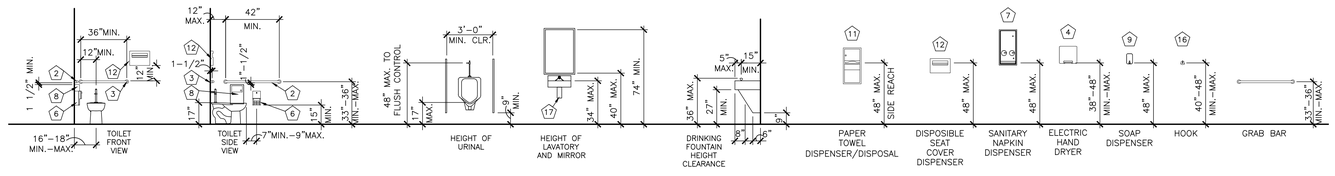
NOTES:

1. GENERAL CONTRACTOR TO COMPLY WITH ALL APPLICABLE ADA/TAS REQUIREMENTS.

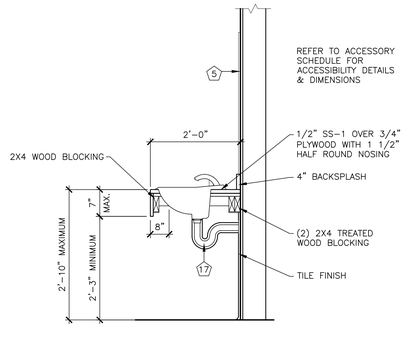
7 TAS/ADA ACCESSIBLE SIGN AGE SCHEDULE
SCALE:1-1/2"=1'-0"



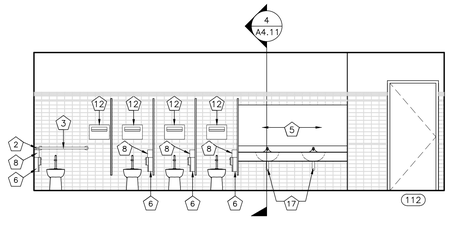
6 TAS/ADA ACCESSIBLE FIXTURE CLEARANCE
SCALE:1/4"=1'-0"



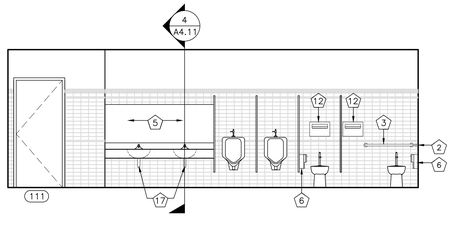
5 TAS/ADA ACCESSIBLE MOUNTING HEIGHT
SCALE:1/4"=1'-0"



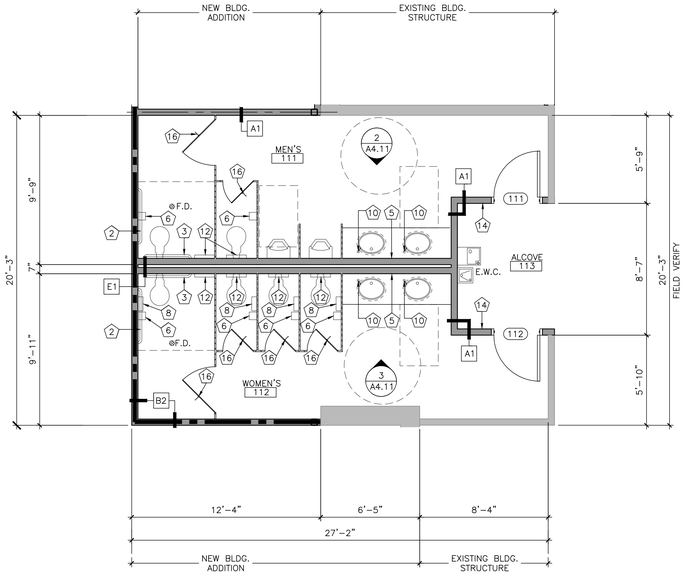
4 LAVATORY COUNTER SECTION
SCALE: 3/4" = 1'-0"
MWRK_SECT_001



3 ELEVATION WOMEN'S 112
SCALE:1/4"=1'-0"



2 ELEVATION MEN'S 111
SCALE:1/4"=1'-0"



1 ENLARGED PLAN MEN'S 111 & WOMEN'S 112
SCALE:1/4"=1'-0"

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78507

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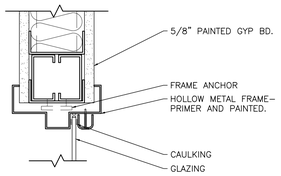
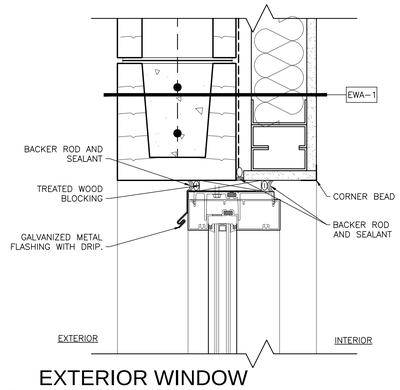
ENLARGED RESTROOM PLAN AND SCHEDULE



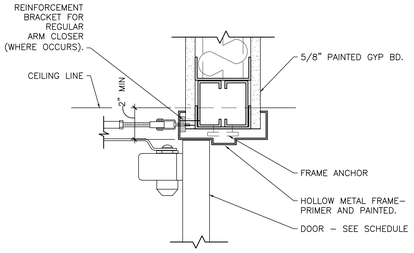
14 HOLLOW METAL WINDOW HEADER DETAIL

SCALE: 3"=1'-0" WNDW_GYP_HEAD_DETL_001



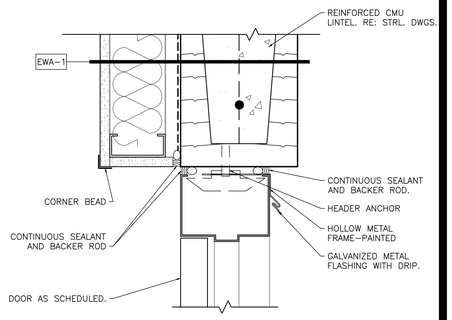
13 EXTERIOR WINDOW HEAD DETAIL

SCALE: 3"=1'-0" WIND_HEAD_DETL_001



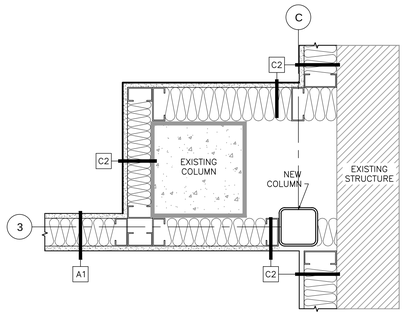
12 HOLLOW METAL FRAME DOOR HEAD DETAIL

SCALE: 3"=1'-0" DOOR_HEAD_DETL_05



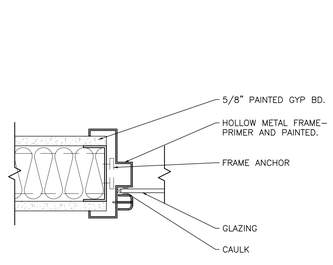
11 HOLLOW METAL FRAME DOOR HEADER

SCALE: 3" = 1' - 0" DOOR_HEAD_DETL_03



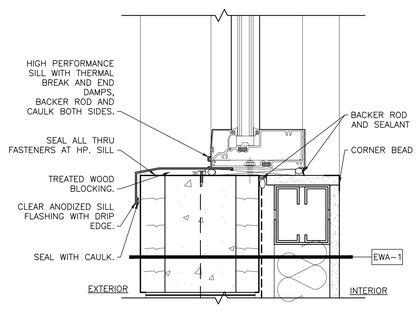
10 PLAN DETAIL

SCALE: 1-1/2" = 1'-0" PLAN_DETL_001



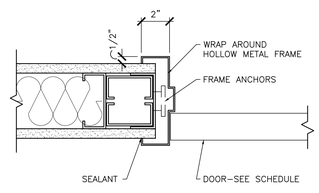
9 HOLLOW METAL WINDOW JAMB DETAIL

SCALE: 3"=1'-0" WNDW_GYP_JAMB_DETL_001



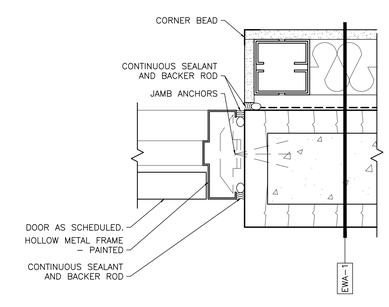
8 EXTERIOR WINDOW SILL DETAIL

SCALE:3"=1'-0" WIND_SILL_DETL_002



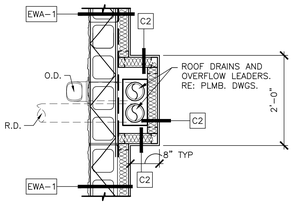
7 HOLLOW METAL FRAME DOOR JAMB DETAIL

SCALE: 3"=1'-0" DOOR_JAMB_DETL_05



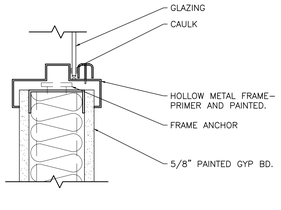
6 HOLLOW METAL FRAME DOOR JAMB

SCALE: 3" = 1'-0" DOOR_JAMB_DETL_03



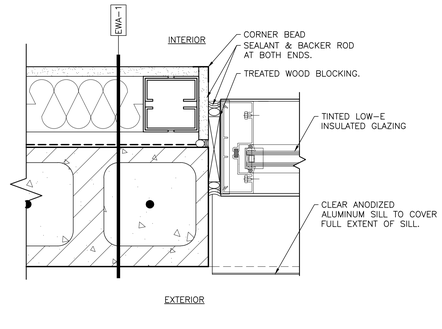
5 ROOF DRAIN AND OVERFLOW PLAN DETAIL

3/4"=1'-0" WALL_DETL_001



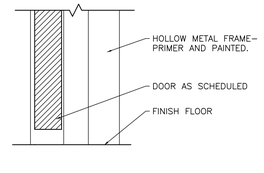
4 HOLLOW METAL WINDOW SILL DETAIL

SCALE: 3"=1'-0" WNDW_GYP_SILL_DETL_001



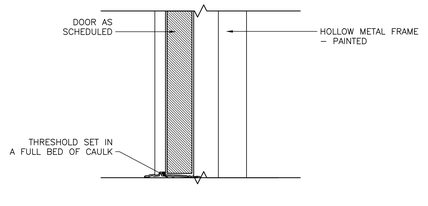
3 EXTERIOR WINDOW JAMB DETAIL

SCALE: 3"=1'-0" WIND_JAMB_DETL_001



2 HOLLOW METAL DOOR SILL DETAIL

SCALE: 3"=1'-0" DOOR_GYP_SILL_DETL_001



1 DOOR THRESHOLD DETAIL

SCALE:3" = 1'-0" DOOR_THLD_DETL_02

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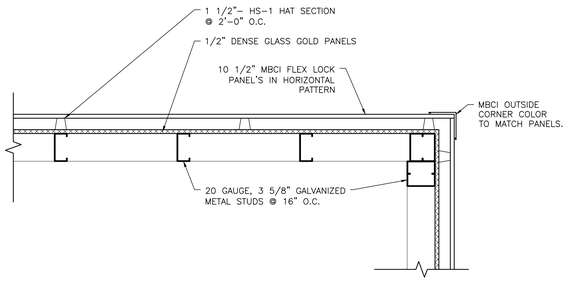
RENOVATIONS

LOT 3 GSA SUBDIVISION
PHARR, TEXAS
78507

Project: 971704
Date: 12/19/2018
Revised:

A5.11

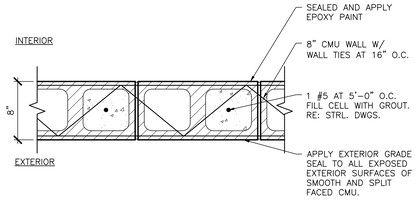
DOOR AND WINDOW DETAILS



EWA-6 EXTERIOR COLUMN FURRING

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

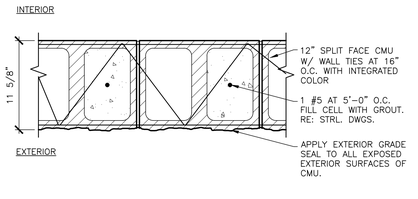
WALL_TYPE_EWA6



EWA-4 8" CMU BLOCK

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

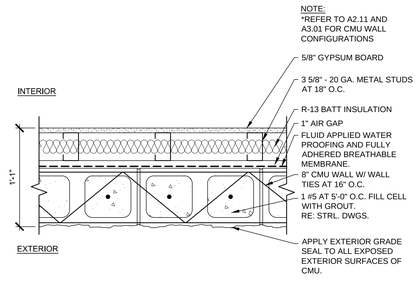
EWA–4



EWA-2 12" SPLIT FACE CMU

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

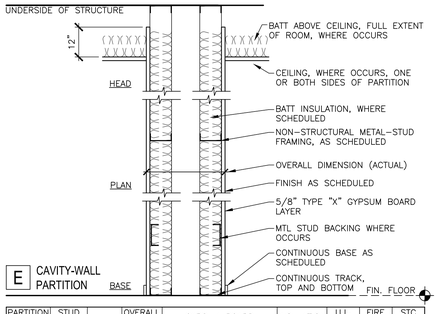
EWA–2.DWG



EWA-1 8" CMU AND MTL. STUD

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

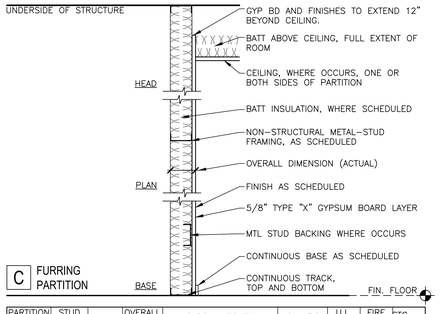
EWA-1.DWG



E CAVITY-WALL PARTITION

PARTITION TYPE	STUD SIZE	GAUGE	OVERALL DIM.	GYPSUM BOARD	INSULATION	U.L. DESIGN	FIRE RATING	STC RATING
E1	3 5/8"	18	1'–6"	5/8" TYPE "X"	3" TWO LAYERS	–	–	45

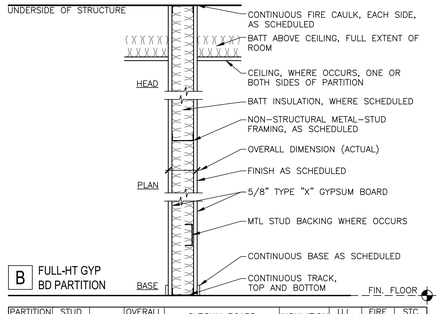
DESIGN LOAD =5 PSF; DEFLECTION =L/240 MAX; VERTICAL SPAN PER INTERIOR FRAMING LIMITING HEIGHTS



C FURRING PARTITION

PARTITION TYPE	STUD SIZE	GAUGE	OVERALL DIM.	GYPSUM BOARD	INSULATION	U.L. DESIGN	FIRE RATING	STC RATING
C2	3 5/8"	20	4 1/4"	5/8" TYPE "X"	3 1/2"	–	–	–
C4	1 1/2"	20	2 1/8"	5/8" TYPE "X"	–	–	–	–

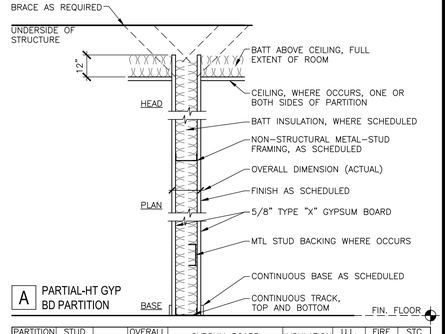
DESIGN LOAD =5 PSF; DEFLECTION =L/240 MAX; NON–STRUCTURAL COMPOSITE PARTITIONS; VERTICAL SPAN PER INTERIOR FRAMING LIMITING HEIGHTS



B FULL-HT GYP BD PARTITION

PARTITION TYPE	STUD SIZE	GAUGE	OVERALL DIM.	GYPSUM BOARD	INSULATION	U.L. DESIGN	FIRE RATING	STC RATING
B1	6"	18	7 1/4"	5/8" TYPE "X" EA. SIDE	6"	–	–	–
B2	3 5/8"	18	4 7/8"	5/8" TYPE "X" EA. SIDE	3"	–	–	–

DESIGN LOAD =5 PSF; DEFLECTION =L/240 MAX; NON–STRUCTURAL COMPOSITE PARTITIONS; VERTICAL SPAN PER INTERIOR FRAMING LIMITING HEIGHTS



A PARTIAL-HT GYP BD PARTITION

PARTITION TYPE	STUD SIZE	GAUGE	OVERALL DIM.	GYPSUM BOARD	INSULATION	U.L. DESIGN	FIRE RATING	STC RATING
A1	3 5/8"	18	4 7/8"	5/8" TYPE "X" EA. SIDE	3"			

DESIGN LOAD =5 PSF; DEFLECTION =L/240 MAX; NON–STRUCTURAL COMPOSITE PARTITIONS; VERTICAL SPAN PER INTERIOR FRAMING LIMITING HEIGHTS

THE WARREN GROUP ARCHITECTS, INC.
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McALLEN, TX 78503
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REVISION	DATE	APPROVED BY	DESCRIPTION

SEAL

PROPOSED

CITY OF PHARR INTERNATIONAL BRIDGE FACILITY EXPANSION AND RENOVATIONS

LOT 3 GSA SUBDIVISION
PHARR, TEXAS
78507

Project: 971704
Date: 12/19/2018
Revised:

A6.01
WALL TYPES

09 20 00 PLASTER & GYPSUM BOARD

GYP BD–1
STANDARD

GYP BD–2
MOISTURE RESISTANT

09 30 00 TILING

CT–1
MANUFACTURER: DALTILE
LINE/BRAND: WALL TILE
COLOR: ARCTICT WHITE 0190
FINISH: SEMI–GLOSS
SIZE: 3"X6"

GRT–1
MANUFACTURER: MAPEI
LINE/BRAND:
COLOR:
FINISH:
SIZE:

GT–1
MANUFACTURER: DALTILE
LINE/BRAND: COLOR APPEAL
COLOR: CELEDON C112
FINISH: GLASS
SIZE: 3"X6"

GT–2
MANUFACTURER: DALTILE
LINE/BRAND: COLOR WAVE
COLOR: NINE IRON CW19
FINISH: GLASS
SIZE: 1"X1"

09 50 00 CEILINGS

ACG–1
REFER SPECIFICATIONS SECTION 09 51 13

ACT–1
REFER SPECIFICATIONS SECTION 09 51 13

09 60 00 FLOORING

RB–1
MANUFACTURER: JOHNSONITE
LINE/BRAND: WALL BASE
COLOR: 71 STORM CLOUD

CPT–1
MANUFACTURER: MANNINGTON COMMERCIAL
STYLE: RIDGELINE
COLOR: NATIVE 15906
SIZE: 12"X48" PLANK
PATTERN: 3–STEP VERTICAL ASHLAR

VET–1
MANUFACTURER: AZROCK COLLECTION
LINE/BRAND: VINYL ENHANCED TILE
COLOR: LINEN CE101

VET–2
MANUFACTURER: AZROCK COLLECTION
LINE/BRAND: VINYL ENHANCED TILE
COLOR: AXEL CE128

VET–3
MANUFACTURER: AZROCK COLLECTION
LINE/BRAND: VINYL ENHANCED TILE
COLOR: HUB CAP CE105

PT–1
MANUFACTURER: DALTILE
LINE/BRAND: KEYSTONES FLOOR TILE
COLOR: SUEDE GRAY D182
FINISH: MATTE
SIZE: 2"X2"

EXTERIOR SPECIALTIES

MC–1
MANUFACTURER: MBCI
LINE/BRAND: FLEXLOC
COLOR/FINISH: SIG.200 POLAR WHITE
SIZE: 10½"

MC–2
MANUFACTURER: MBCI
LINE/BRAND: FLEXLOC
COLOR/FINISH: SIG.200 COBALT BLUE
SIZE: 10½"

09 90 00 PAINTING AND COATING

PNT–1 (FIELD)
MANUFACTURER: SHERWIN WILLIAMS
COLOR: DRIFT OF MIST SW9166
FINISH: EGGSHELL

PNT–2 (ACCENT)
MANUFACTURER: SHERWIN WILLIAMS
COLOR: RUSKIN ROOM GREEN SW0042
FINISH: EGGSHELL

PNT–3 (ACCENT)
MANUFACTURER: SHERWIN WILLIAMS
COLOR: FUNCTIONAL GRAY SW7024
FINISH: EGGSHELL

PNT–4
MANUFACTURER: SHERWIN WILLIAMS
COLOR: OUTERSPACE SW6251
FINISH: EGGSHELL

PNT–5 (CEILING)
MANUFACTURER: SHERWIN WILLIAMS
COLOR: EXTRA WHITE SW 7005
FINISH: EGGSHELL

PNT–6 (EXTERIOR)
MANUFACTURER: SHERWIN WILLIAMS
COLOR: SILVER STRAND SW7057 SHERLASTIC ELASTOMERIC MASONRY COATING A5–600 SERIES

ST–1 (DOORS)
MANUFACTURER: SHERWIN WILLIAMS
COLOR: SW 3144–B BARE BIRCH

* TWO COATS OF ELASTOMERIC PAINT OVER LOXON BLOCK SURFACER A24W00200

10 20 00 INTERIOR SPECIALTIES

FEC–1
5 LBS. LOADED STREAM FIRE EXTINGUISHER WITH SEMI–RECESSED CABINET

12 30 00 CASEWORK

PL–1
MANUFACTURER: WILSONART
LINE/BRAND: LAMINATE
COLOR/FINISH: TWILIGHT ZEPHYR 4845–60 (HORIZONTAL)

PL–2
MANUFACTURER: WILSONART
LINE/BRAND: LAMINATE
COLOR/FINISH: MANITOBA MAPLE 7911–60 (VERTICAL)

SS–1
MANUFACTURER: DUPONT
LINE/BRAND: CORIAN
COLOR: DEEP BLACK QUARTZ

ROOM FINISH SCHEDULE

ROOM NO.	ROOM NAME	BASE	FLOOR	WALL				CEILING	NOTES
				NORTH	EAST	SOUTH	WEST		
E101	LOCK	RB–1	VET–3	PNT–1	PNT–1	PNT–1	PNT–1	EXISTING TO REMAIN; PNT–5	
E102	L.E.O.	RB–1	VET–1, VET–2,	PNT–1	PNT–1	PNT–1	PNT–3	EXISTING TO REMAIN; PNT–5	
E103	CONFERENCE	RB–1	CPT–1	PNT–1	PNT–1	PNT–1	–	EXISTING TO REMAIN; PNT–5	
E104	MECH.	–	–	–	–	–	–	EXISTING TO REMAIN; PNT–5	
E105	LOBBY	RB–1	VET–1, VET–2, VET–3	PNT–2	PNT–1	PNT–1	PNT–1	EXISTING TO REMAIN; PNT–5	
E106	CORRIDOR	RB–1	VET–1, VET–2, VET–3	–	PNT–2	–	PNT–1	EXISTING TO REMAIN; PNT–5	
E107	OFFICE	RB–1	CPT–1	PNT–1	PNT–1	PNT–3	PNT–1	EXISTING TO REMAIN; PNT–5	
E108	COMP.	RB–1	VET–1, VET–2, VET–3	PNT–2	PNT–1	PNT–1	PNT–1	EXISTING TO REMAIN; PNT–5	
E109	BREAK	RB–1	VET–1, VET–2, VET–3	PNT–1	PNT–4	PNT–1	PNT–1	EXISTING TO REMAIN; PNT–5	
E110	JANITOR	–	–	–	–	–	–	EXISTING TO REMAIN; PNT–5	
E111	CORRIDOR	RB–1	VET–1, VET–2, VET–3	PNT–1	PNT–2	PNT–2	PNT–1	EXISTING TO REMAIN; PNT–5	
E112	TELE/IT	RB–1	VET–3	PNT–1	PNT–1	PNT–1	PNT–1	EXISTING TO REMAIN; PNT–5	
E115	VAULT	RB–1	VET–3	PNT–1	PNT–1	PNT–1	PNT–1	EXISTING TO REMAIN; PNT–5	
E116	ACCOUNTING	RB–1	CPT–1	PNT–1	PNT–1	PNT–1	PNT–3	EXISTING TO REMAIN; PNT–5	
E119	MECH.	–	–	–	–	–	–	ACG–1; ACT–1	
E120	MECHANICAL YARD	–	–	–	–	–	–	EXISTING TO REMAIN; PNT–5	
101	BOARD ROOM	RB–1	CPT–1	PNT–1	PNT–1	PNT–1	PNT–4	GYP BD–1; PNT–5; ACG–1; ACT–1	
102	CORRIDOR	RB–1	VET–2	PNT–2	PNT–1	PNT–1	PNT–1	ACG–1; ACT–1	
103	OFFICE	RB–1	CPT–1	PNT–1	PNT–1	PNT–2	PNT–1	ACG–1; ACT–1	
104	OFFICE	RB–1	CPT–1	PNT–3	PNT–1	PNT–1	PNT–1	ACG–1; ACT–1	
105	CORRIDOR	RB–1	VET–1, VET–2, VET–3	PNT–1	PNT–1	PNT–1	PNT–2	ACG–1; ACT–1	
106	CORRIDOR	RB–1	VET–1, VET–2, VET–3	PNT–1	PNT–1	PNT–2	PNT–1	ACG–1; ACT–1	
107	OFFICE	RB–1	CPT–1	PNT–1	PNT–1	PNT–2	PNT–1	ACG–1; ACT–1	
108	CONFERENCE	RB–1	CPT–1	PNT–4	PNT–1	PNT–1	PNT–1	ACG–1; ACT–1	
109	OFFICE	RB–1	CPT–1	PNT–2	PNT–1	PNT–1	PNT–1	ACG–1; ACT–1	
110	OFFICE	RB–1	CPT–1	PNT–3	PNT–1	PNT–1	PNT–1	ACG–1; ACT–1	
111	MEN	PT–1	PT–1	GYP. BD–2; PNT–1	GYP. BD–2; PNT–1	GYP. BD–2; PNT–1; CT–1; GT–1; GT–2; GRT–1	GYP. BD–2; PNT–1	GYP.BD–2; PNT–5	
112	WOMEN	PT–1	PT–1	GYP. BD–2; PNT–1; CT–1; GT–1; GT–2; GRT–1	GYP. BD–2; PNT–1	GYP. BD–2; PNT–1	GYP. BD–2; PNT–1	GYP.BD–2; PNT–5	
113	ALCOVE	RB–1	VET–1, VET–2, VET–3	PNT–1	–	PNT–1	GYP. BD–1; PNT–1	GYP.BD–1; PNT–5	

GENERAL NOTES

1	ALL CEILING HEIGHTS TO BE 8'–9" A.F.F. UNLESS OTHERWISE NOTED.
2	ALL WALL FINISH SURFACES TO HAVE SMOOTH FINISH – NO TEXTURE.
3	ALL WALLS WITH NEW FINISHES TO RECEIVE ONE PRIMER COAT AND TWO FINISH COATS OF NEW PAINT FINISH. REFER SPECIFICATIONS.
4	WOMENS RR & MENS RR ALL WALLS TO BE MOISTURE RESISTANT GYPSUM BOARD. REFER SCHEDULE FOR APPLIED FINISHES.
5	REFER TO SHEET A1.41 FOR FLOOR PATTERN AND ACCENT WALL PLAN.
6	REFER TO SHEET A4.11 FOR RESTROOM WALL TILE PATTERNS.
7	ALL PAINTED GYP. BD. CEILING IS TO RECEIVE PNT–5.

TWG
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REVISION	DATE	APPROVED BY	DESCRIPTION
1			

SEAL
REGISTERED ARCHITECT LAURA N. WARREN 18378 STATE OF TEXAS
EXP 10–31–19

PROPOSED
CITY OF PHARR INTERNATIONAL BRIDGE FACILITY EXPANSION AND RENOVATIONS
LOT 3 GSA SUBDIVISION
PHARR, TEXAS
78507

Project: 971704
Date: 12/19/2018
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ROOM FINISHES

DOOR SCHEDULE

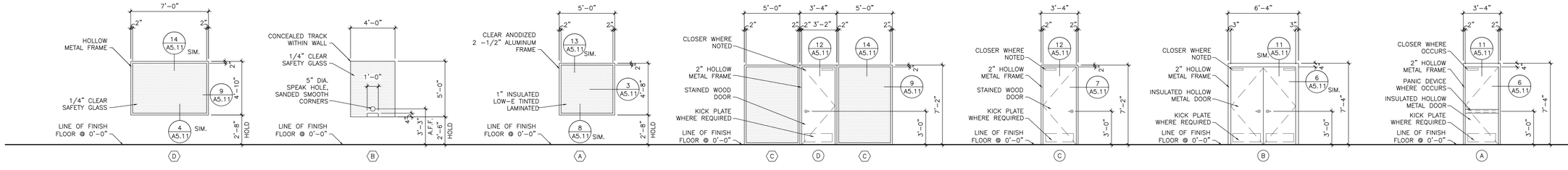
OPENING			DOOR					FRAME		
No.	LOCATION TO	SWING	FIRE RATING	TYPE	FINISH	SIZE	ELEV.	TYPE	FINISH	REMARKS (TO LH / RH / LHR / RHR LOCATION)
101	CORRIDOR 102 TO BOARD ROOM 101	LHR	–	STAINED FLUSH WOOD DOOR	ST-1	3'-0" X 7'-0"	C	H.MTL	PNT-1	
103	CORRIDOR 102 TO OFFICE 103	RH	–	STAINED FLUSH WOOD DOOR	ST-1	3'-0" X 7'-0"	C	H.MTL	PNT-1	
104	CORRIDOR 105 TO OFFICE 104	RH	–	STAINED FLUSH WOOD DOOR	ST-1	3'-0" X 7'-0"	C	H.MTL	PNT-1	
106	EXTERIOR TO CORRIDOR 106	RHR	–	INSULATED HOLLOW METAL	PNT-1	3'-0" X 7'-0"	A	H.MTL	PNT-1	DOOR WITH PANIC DEVICE
107	CORRIDOR 105 TO OFFICE 107	RH	–	STAINED FLUSH WOOD DOOR	ST-1	3'-0" X 7'-0"	C	H.MTL.	PNT-1	
108A	CORRIDOR 105 TO CONFERENCE 108	RH	–	STAINED FLUSH WOOD DOOR	ST-1	3'-0" X 7'-0"	D	H.MTL.	PNT-1	
108B	OFFICE 107 TO CONFERENCE 108	LH	–	STAINED FLUSH WOOD DOOR	ST-1	3'-0" X 7'-0"	C	H.MTL.	PNT-1	
109A	CORRIDOR 105 TO OFFICE 109	LH	–	STAINED FLUSH WOOD DOOR	ST-1	3'-0" X 7'-0"	C	H.MTL.	PNT-1	
109B	OFFICE 109 TO CONFERENCE 108	RH	–	STAINED FLUSH WOOD DOOR	ST-1	3'-0" X 7'-0"	C	H.MTL.	PNT-1	
110	CORRIDOR 105 TO OFFICE 110	LH	–	STAINED FLUSH WOOD DOOR	ST-1	3'-0" X 7'-0"	C	H.MTL.	PNT-1	
111	ALCOVE 113 TO MEN'S 111	RH	–	STAINED FLUSH WOOD DOOR	ST-1	3'-0" X 7'-0"	C	H.MTL.	PNT-1	
112	ALCOVE 113 TO WOMEN'S 112	LH	–	STAINED FLUSH WOOD DOOR	ST-1	3'-0" X 7'-0"	C	H.MTL.	PNT-1	
E102	LOBBY E105 TO L.E.O. E102	RH	–	STAINED FLUSH WOOD DOOR	ST-1	3'-0" X 7'-0"	C	H.MTL.	PNT-1	
E103	LOBBY E105 TO CONFERENCE E103	RH	–	STAINED FLUSH WOOD DOOR	ST-1	3'-0" X 7'-0"	C	H.MTL.	PNT-1	
E104	CONFERENCE E103 TO STORAGE E104	DOUBLE	–	STAINED FLUSH WOOD DOOR	ST-1	(2) 3'-0" X 7'-0"	B	H.MTL.	PNT-1	
E105	LOBBY E105 TO OFFICE E107	RH	–	STAINED FLUSH WOOD DOOR	ST-1	3'-0" X 7'-0"	C	H.MTL.	PNT-1	
E107	CORRIDOR E106 TO OFFICE E107	RH	–	STAINED FLUSH WOOD DOOR	ST-1	3'-0" X 7'-0"	C	H.MTL.	PNT-1	
E108	CORRIDOR E106 TO COMP E108	LH	–	STAINED FLUSH WOOD DOOR	ST-1	3'-0" X 7'-0"	C	H.MTL.	PNT-1	
E109	CORRIDOR E111 TO BREAK ROOM E109	LH	–	STAINED FLUSH WOOD DOOR	ST-1	3'-0" X 7'-0"	C	H.MTL.	PNT-1	
E111	CORRIDOR E111 TO CORRIDOR 106	LH	–	STAINED FLUSH WOOD DOOR	ST-1	3'-0" X 7'-0"	C	H.MTL.	PNT-1	
E116	CORRIDOR E106 TO ACCOUNTING E116	RH	–	STAINED FLUSH WOOD DOOR	ST-1	3'-0" X 7'-0"	C	H.MTL.	PNT-1	

WINDOW SCHEDULE

No.	TYPE	FRAME TYPE		GLAZING	SIZE	SIZE	LABEL	REMARKS
		TYPE	FINISH					
A	FIXED	ALUMINUM	CLEAR ANODIZED	1" INSULATED LOW-E TINTED TEMPERED GLASS	5'-0" X 4'-8"	A	–	SOLAR BLUE TINT
B	FIXED	ALUMINUM	CLEAR ANODIZED	1/4" CLEAR TEMPERED GLASS	4'-0" X 5'-0"	B	–	RECESSED WINDOW RAIL FLUSHED WITH FINISH SELECTIONS.
C	FIXED	HOLLOW METAL	PNT-1	1/4" CLEAR TEMPERED GLASS	5'-0" X 7'-2"	C	–	
D	FIXED	HOLLOW METAL	PNT-1	1/4" CLEAR TEMPERED GLASS	7'-0" X 4'-10"	D	–	

SHEET NOTES

1. GENERAL CONTRACTOR TO COMPLY WITH ALL ADA AND TAS APPLICABLE CODES AND REGULATIONS.
2. GENERAL CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS PRIOR TO MANUFACTURING STOREFRONT.
3. ALL EXTERIOR GLAZING TINT COLOR TO BE: PPG SOLARBAN 70XL ATLANTICA.
4. INTERIOR GLAZING TO BE CLEAR.
5. REFER TO PROJECT MANUAL FOR HARDWARE SETS.



3 WINDOW ELEVATIONS
SCALE: 1/4"=1'-0"

2 DOOR - WINDOW ASSEMBLY ELEVATIONS
SCALE: 1/4"=1'-0"

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

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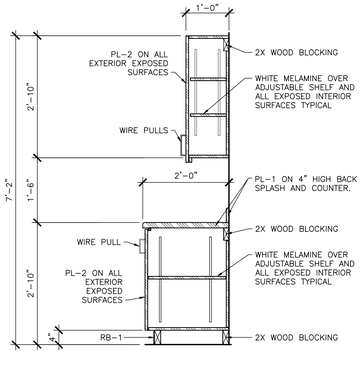
SEAL
REGISTERED ARCHITECT
LAURA M. WARREN
18379
STATE OF TEXAS
EXP 10-31-19

PROPOSED
CITY OF PHARR INTERNATIONAL BRIDGE FACILITY EXPANSION AND RENOVATIONS

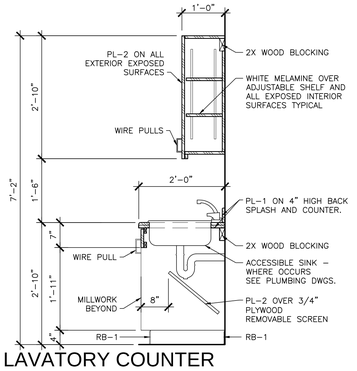
LOT 3 GSA SUBDIVISION
PHARR, TEXAS
78507

Project: 971704
Date: 12/19/2018
Revised:

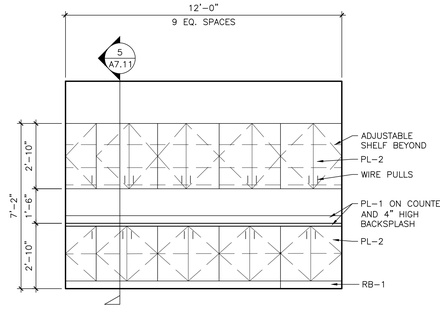
A6.12
DOOR AND WINDOW SCHEDULE & ELEVATIONS



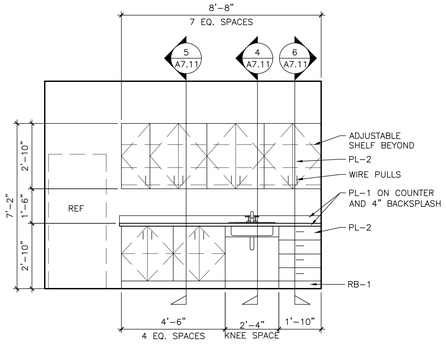
5 MILLWORK SECTION
SCALE: 3/4" = 1' - 0"
MWRK_SECT_002



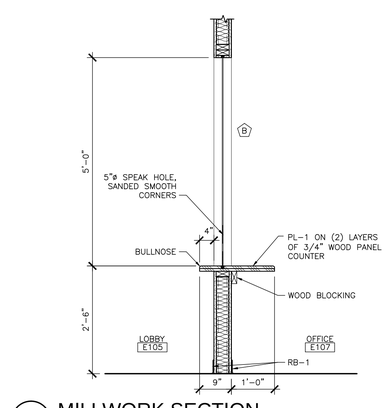
LAVATORY COUNTER MILLWORK SECTION
SCALE: 3/4" = 1' - 0"
MWRK_SECT_002



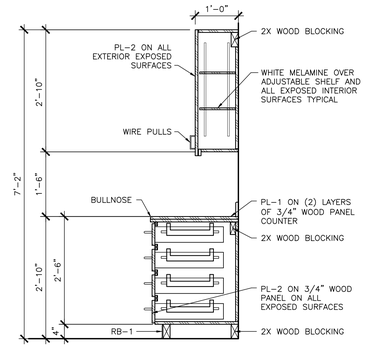
3 MILLWORK ELEVATION BREAK ROOM E109
SCALE: 3/8"=1'-0"
MWORK_ELEV_001



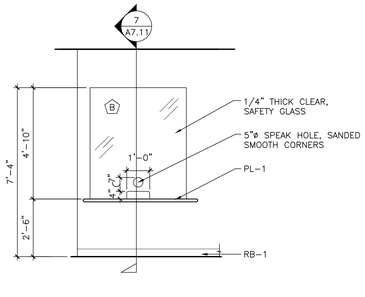
2 MILLWORK ELEVATION BREAK ROOM E109
SCALE: 3/8"=1'-0"
MWORK_ELEV_001



7 MILLWORK SECTION
SCALE: 3/4" = 1'-0"



6 MILLWORK SECTION
SCALE: 3/4" = 1'-0"
MWRK_SECT_002



1 MILLWORK ELEVATION LOBBY E105
SCALE: 3/8"=1'-0"
MWORK_ELEV_002

THE WARREN GROUP
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twgarch.com

REVISION	DATE	APPROVED BY	DESCRIPTION

SEAL

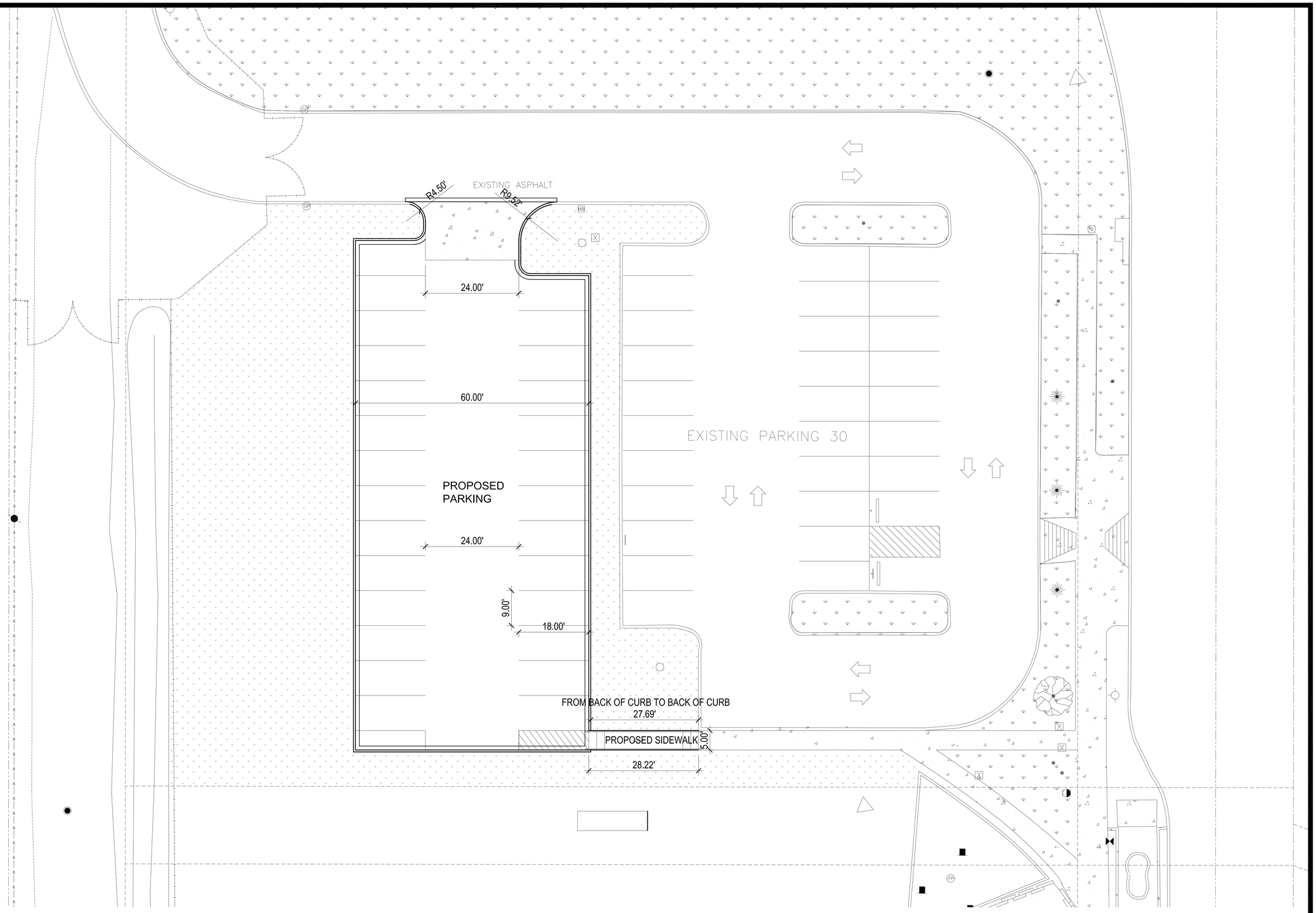
PROPOSED

CITY OF PHARR INTERNATIONAL BRIDGE FACILITY EXPANSION AND RENOVATIONS

LOT 3 GSA SUBDIVISION
PHARR, TEXAS
78507

Project: 971704
Date: 12/19/2018
Revised:

A7.11
MILLWORK ELEVATIONS AND SECTIONS



PAVING & DRAINAGE PLAN
SCALE: 1"=10'

NORTH

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REVISION	DATE	APPROVED BY	DESCRIPTION

01-12-18
STATE OF TEXAS
C. HINOJOSA, JR.
90636
LICENSED
PROFESSIONAL ENGINEER

CLH
ENGINEERING, INC.
TBPE FIRM No. F-8719
701 S. 15th STREET McALLEN, TX. 78501
(956) 687-5560 (956) 687-5561 FAX

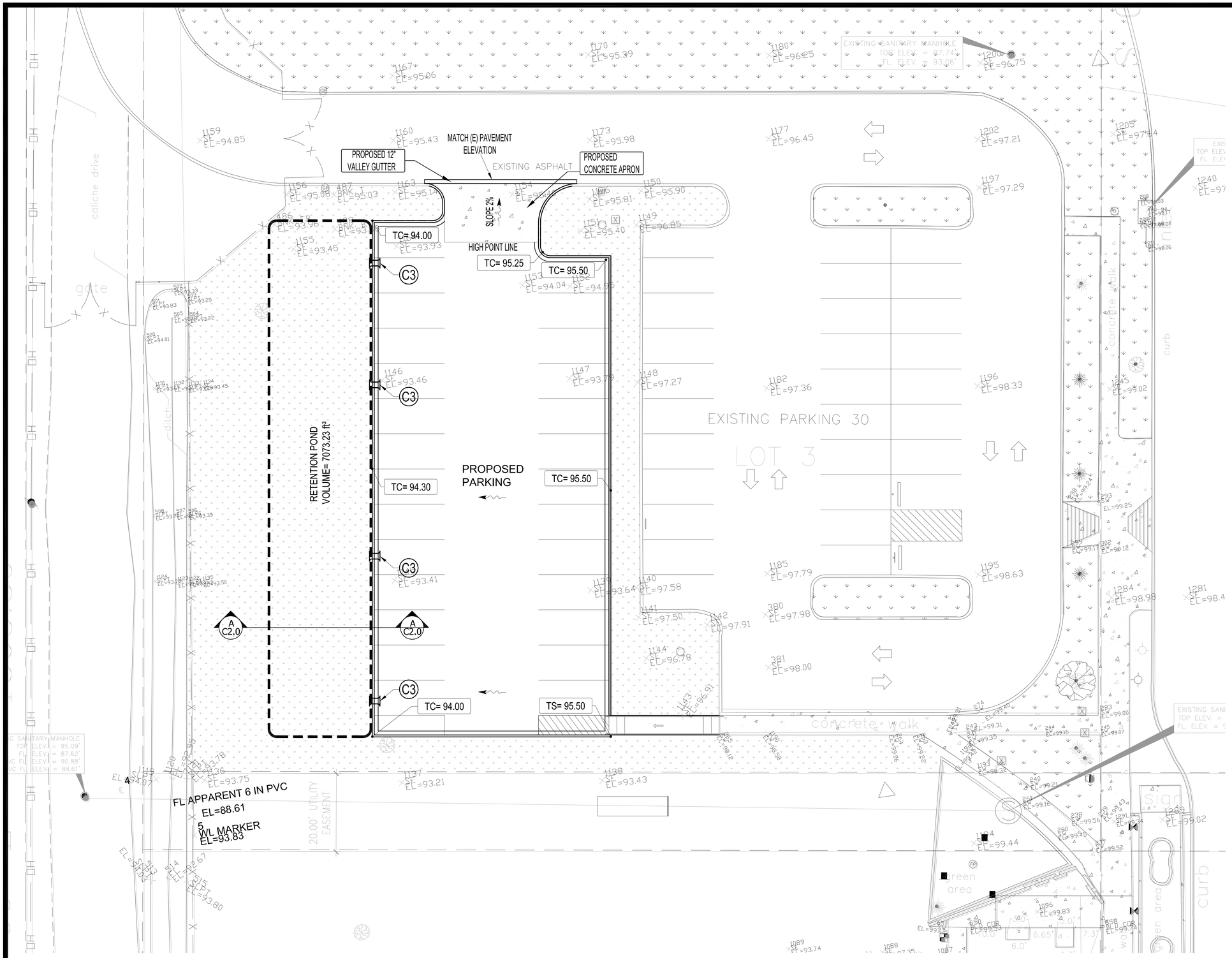
PROPOSED

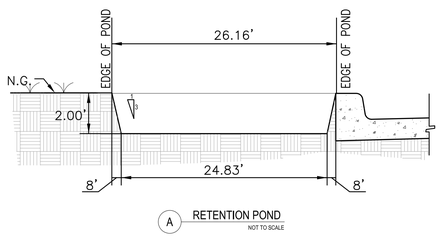
INTERNATIONAL BRIDGE FACILITY EXPANSION AND RENOVATION PHARR, TEXAS.

LOT 27
PHARR, TEXAS

PROJECT	971703
DATE	01/12/2018
REVISED	

C1.0





A RETENTION POND
NOT TO SCALE

PAVING & DRAINAGE PLAN
SCALE: 1"=10'

NORTH

GRADING NOTES:

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE CITY OF SAN JUAN PLANS AND SPECIFICATIONS, EXCEPT AS NOTED HEREIN AND APPROVED BY THE CITY.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRENCH SAFETY REQUIREMENTS IN ACCORDANCE WITH CITY STANDARDS, TEXAS LAW, AND O.S.H.A. STANDARDS FOR ALL EXCAVATION IN EXCESS OF FIVE FEET IN DEPTH.
3. THE LOCATION OF ALL UTILITIES LOCATED ON THESE PLANS ARE TAKEN FROM EXISTING PUBLIC RECORDS. THE EXACT LOCATION AND ELEVATION OF ALL PUBLIC UTILITIES MUST BE DETERMINED BY THE CONTRACTOR. IT SHALL BE THE DUTY OF THE CONTRACTOR TO ASCERTAIN WHETHER ANY ADDITIONAL FACILITIES OTHER THAN THOSE SHOWN ON THE PLANS MAY BE PRESENT.
4. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL PUBLIC UTILITIES IN THE CONSTRUCTION OF THIS PROJECT. ALL MANHOLES, CLEAN-OUTS, VALVE BOXES, FIRE HYDRANTS, ETC. MUST BE ADJUSTED TO PROPER LINE AND GRADE BY THE CONTRACTOR PRIOR TO AND AFTER THE PLACING OF PERMANENT PAVING. UTILITIES MUST BE MAINTAINED TO PROPER LINE AND GRADE CONSTRUCTION OF THE PAVING FOR THIS DEVELOPMENT.
5. DRAINAGE SHOULD BE MAINTAINED AWAY FROM THE FOUNDATIONS, BOTH DURING AND AFTER CONSTRUCTION.
6. BACKFILL FOR UTILITY LINES SHOULD BE CAREFULLY PLACED SO THAT THEY WILL BE STABLE. WHERE UTILITY LINES PASS THROUGH THE PARKING LOT, THE TOP 6" SHOULD BE COMPACTED SIMILARLY TO THE REMAINDER OF THE LOT. UTILITY DITCHES SHOULD BE VISUALLY INSPECTED DURING THE EXCAVATION PROCESS TO ENSURE THE UNDESIRABLE FILL IS NOT USED.
7. ALL EARTHWORK OPERATIONS SHALL CONFORM TO THE RECOMMENDATIONS PER THE GEOTECHNICAL REPORT.
8. ALL PROPOSED SPOT SHOTS ARE GUTTER/TOP OF PAVEMENT/ FINISHED GRADE ELEVATIONS UNLESS OTHERWISE SPECIFIED.

NOTES:

1. CONTRACTOR SHALL FILL TO GRADE ALL AREAS BETWEEN CURBS, SIDEWALKS, BUILDING.
2. CONTRACTOR SHALL INSTALL IRRIGATION SLEEVES (4" SCH 80) AS SHOWN. COORDINATE WITH LANDSCAPE PLAN FOR ADDITIONAL INFORMATION.
3. CONTRACTOR SHALL MAINTAIN 2% OR LESS AT HANDICAP ACCESSIBLE PARKING AREAS.
4. CONTRACTOR SHALL PREPARE SITE AND REMOVE ANY EXISTING ASPHALT/CONCRETE WITHIN PROJECT LIMITS TO COMPLETE CONSTRUCTION.
5. EXPANSION JOINTS & CONSTRUCTION JOINTS NOT TO EXCEED 20' ON CENTER TO EACH DIRECTION.
6. HAND RAILS AT STEPS & RAMPS PER ARCH'L DRAWINGS.
7. 4' SIDEWALK SHALL BE PLACED AT A MINIMUM OF 3' BEHIND EXISTING CURB WITHIN THE COMMON ACCESS EASEMENT. IF SPACING DOES NOT ALLOW ENOUGH CLEARANCE TO BUILD THE WALK WITHIN THE COMMON ACCESS EASEMENTS, THEN THE WALK WILL BE RESIZED TO 5' WIDTH AND BE PLACED DIRECTLY BEHIND THE COMMON ACCESS CURB & GUTTER.

LEGEND:

- (TS=100.00) PROPOSED TOP OF SIDEWALK
- (TP=100.00) PROPOSED TOP OF PAVEMENT
- (TC=100.00) PROPOSED TOP OF CURB
- (TS=100.00) EXISTING TOP OF SIDEWALK
- (TC=100.00) EXISTING TOP OF CURB
- (TP=100.00) EXISTING TOP OF PAVEMENT
- (100.00) EXISTING ELEVATION
- (C1) PROP. HANDICAP RAMP w/ LANDING AREA
- (C2) PROP. SIDEWALK OPENING
- (C3) PROP. 12" CURB OPENING
- (C4) PROP. 8" PVC EQUALIZER w/ S.E.T. ON EACH SIDE.
- (C5) 16" Ø STEEL CASING, SEE DETAIL 4 & 7 ON SHEET C6.0 FOR MORE INFO.
- PROPOSED DIRECTION OF RUNOFF

01-12-18

STATE OF TEXAS
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REVISION	DATE	APPROVED BY	DESCRIPTION

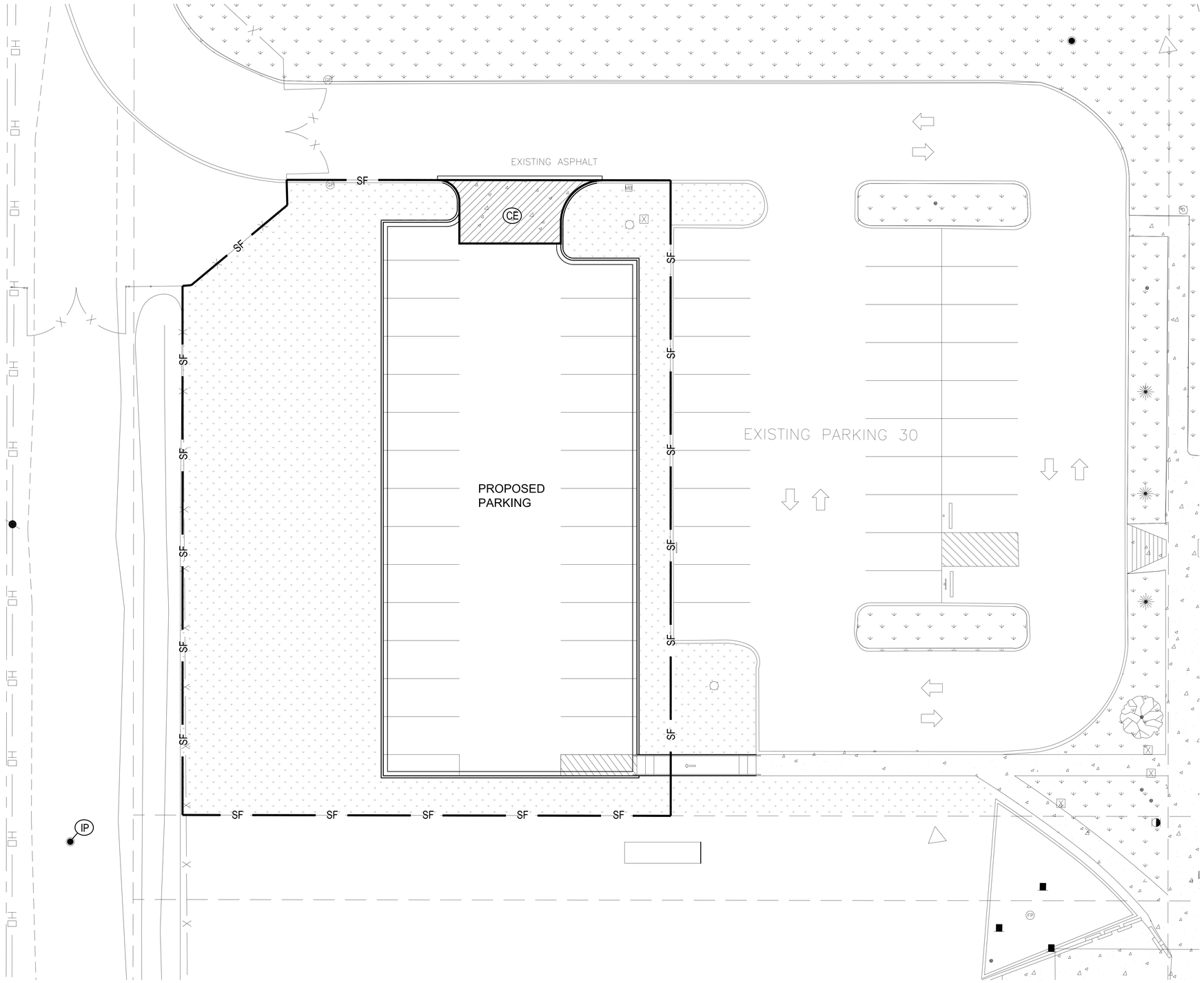
PROPOSED

INTERNATIONAL BRIDGE FACILITY EXPANSION AND RENOVATION
PHARR, TEXAS.

LOT 27
PHARR, TEXAS

PROJECT	971703
DATE	01/12/2018
REVISED	

C2.0



—SF— SEDIMENT CONTROL FENCE

(CE) CONSTRUCTION ENTRANCE

(IP) BALED HAY

EROSION & SEDIMENT CONTROL PLAN

SCALE: 1"=10'

NORTH

01-12-18

STATE OF TEXAS
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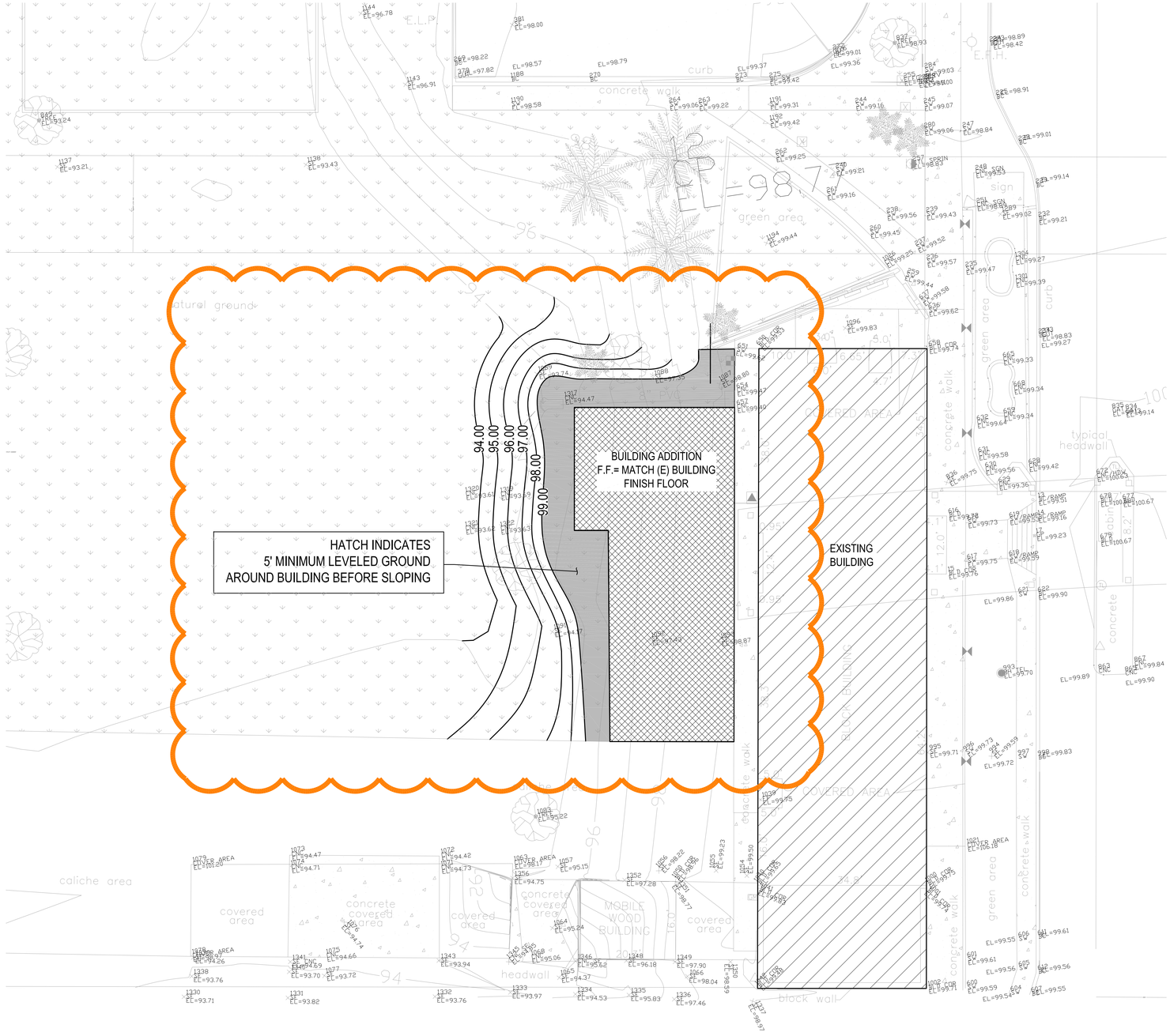
INTERNATIONAL BRIDGE FACILITY EXPANSION AND RENOVATION PHARR, TEXAS.

LOT 27
PHARR, TEXAS

PROJECT 971703
DATE 01/12/2018
REVISED

C3.0



1 GRADING PLAN
SCALE: 1"=10'

GRADING NOTES:

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NOTES:

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2. CONTRACTOR SHALL PREPARE SITE AND REMOVE ANY EXISTING ASPHALT/CONCRETE WITHIN PROJECT LIMITS TO COMPLETE CONSTRUCTION.

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PROPOSED

INTERNATIONAL BRIDGE
FACILITY EXPANSION
AND RENOVATION
PHARR, TEXAS.

LOT 27
PHARR, TEXAS

PROJECT 971703
DATE 03/16/2018
REVISED

ADDENDUM

3-16-18
STATE OF TEXAS
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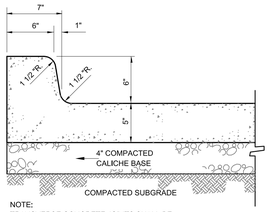
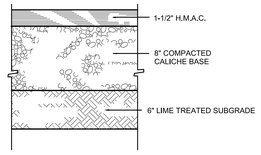
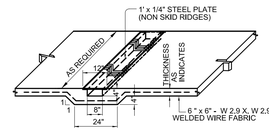


NOTE:
TRANSVERSE CONCRETE JOINTS SHALL BE CONSTRUCTED THROUGH TO BACK OF ALL CURBS

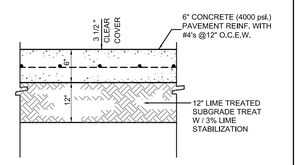
1. INTEGRAL CURB



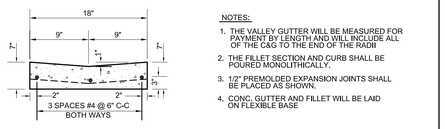
2. ASPHALT PAVEMENT SECTION



3. SIDEWALK DRAINAGE OPENING



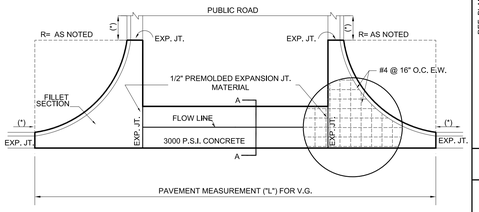
4. CONCRETE PAVEMENT SECTION



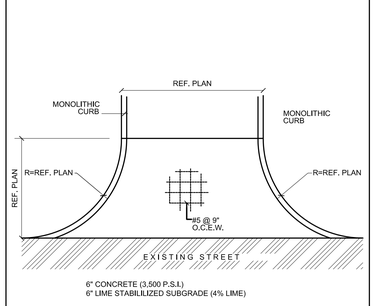
SECTION "A-A"

NOTES:
1. THE VALLEY GUTTER WILL BE MEASURED FOR PAYMENT BY LENGTH AND WILL INCLUDE ALL OF THE C&G TO THE END OF THE RADII
2. THE FILLET SECTION AND CURB SHALL BE POURED MONOLITHICALLY.
3. 1/2" PREMOLDED EXPANSION JOINTS SHALL BE PLACED AS SHOWN.
4. CONC. GUTTER AND FILLET WILL BE LAID ON FLEXIBLE BASE

(*) PROP. C&G WITHIN THESE LIMITS WILL BE PAID FOR DIRECTLY.

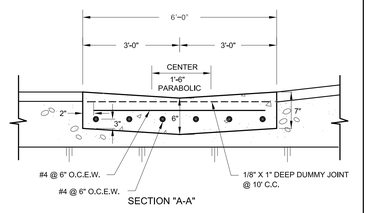


5. CONCRETE VALLEY GUTTER



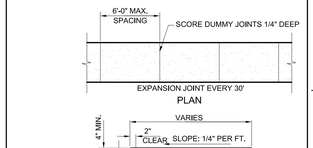
6" CONCRETE (3,500 P.S.I.)
6" LIME STABILILIZED SUBGRADE (4% LIME)

6. CONC. APRON DETAIL



SECTION "A-A"

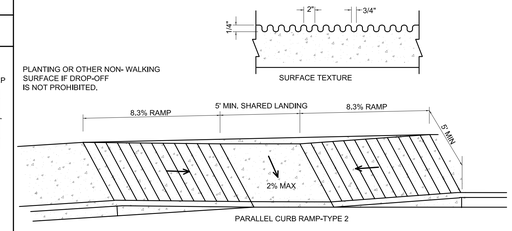
7. CONCRETE VALLEY GUTTER



SIDEWALK NOTES:
1. MINIMUM 4'-0" WIDE SIDEWALK.
2. SIDEWALK GRADIENT SHALL NOT EXCEED 1:20.
3. SIDEWALK CONCRETE SHALL BE 5 SACK CEMENT MIX AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 psi.
4. CONTRACTOR SHALL VERIFY EXISTENCE AND LOCATION OF EXISTING UTILITY LINES WITH APPROPRIATE COMPANIES TO AVOID PLACING SIDEWALKS ON TOP OF LINES.
5. PROVIDE DROP CURBS AT INTERSECTIONS.
6. CONTRACTOR SHALL COMPLY WITH LATEST REGULATIONS AS SET FORTH IN AMERICANS WITH DISABILITIES ACT (ADA).

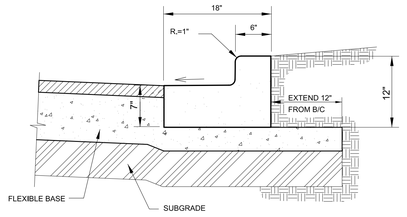
8. TYPICAL CONC. SIDEWALK DETAIL

PLANTING OR OTHER NON- WALKING SURFACE IF DROP-OFF IS NOT PROHIBITED.

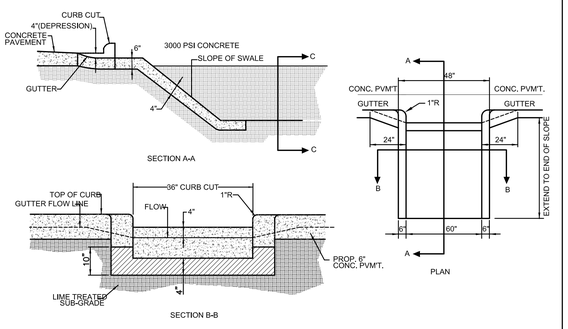


GENERAL NOTES:
1. WHEELCHAIR RAMPS ARE TO BE LOCATED AT CROSSWALK AREAS DESIGNATED ON THE PLAN.
2. SURFACE TEXTURE OF WHEELCHAIR RAMP SHALL BE OBTAINED BY TOOL FINISH TRAVERSE TO THE SLOPE OF THE RAMP.
3. SLOPES SHALL BE UNIFORM WITH NO ABRUPT CHANGES IN GRADES, NORMAL GUTTER LINE PROFILE SHOULD BE MAINTAINED THROUGH THE AREA OF THE RAMP.
4. WHEELCHAIR RAMPS SHALL BE MEASURED AND PAINTED AS CONCRETE SIDEWALK AND CONCRETE CURB AND GUTTER, AS APPLICABLE.
5. CONCRETE RAMP SHALL BE 5 SACK MIX AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 P.S.I.
6. ALL CONCRETE WORK SHALL BE TREATED WITH THE MEMBRANE CURING COMPOUND AFTER SURFACE TEXTURE HAS BEEN COMPLETED.
7. 6" X 6" NO. 6 WIRE MESH SHALL BE USED FOR REINFORCING.
8. ALL RAMPS SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, DARK VERSUS LIGHT. THE MATERIAL USED TO PROVIDE THE CONTRAST SHALL BE AN INTEGRAL PART OF THE RAMP.

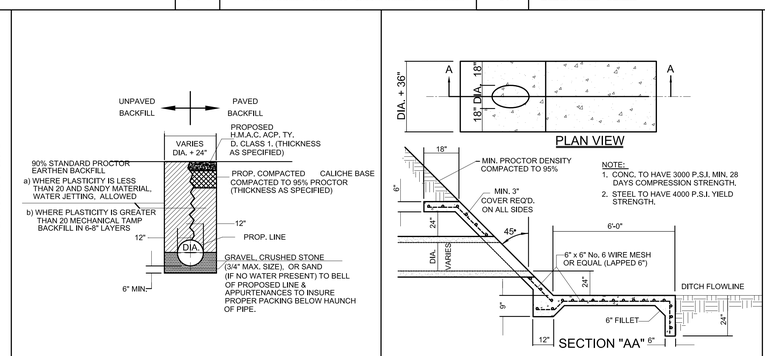
9. SIDEWALK RAMP



10. SPILLWAY CONCRETE CURB & GUTTER



11. TYP. CURB OPENING w/ SPILLWAY DETAIL



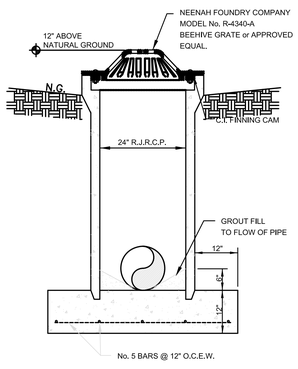
12. PIPE BEDDING DETAILS

PLAN VIEW

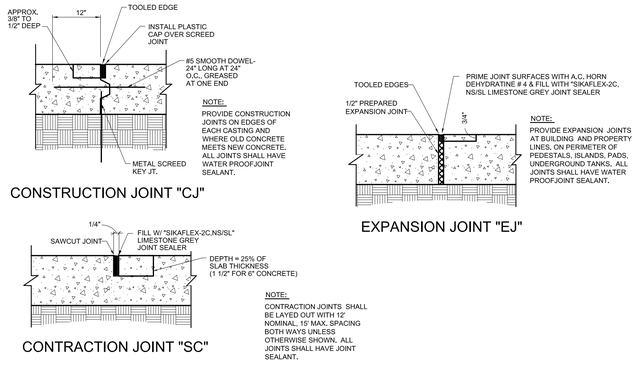
NOTE:
1. CONC. TO HAVE 3000 P.S.I. MIN. 28 DAYS COMPRESSION STRENGTH.
2. STEEL TO HAVE 4000 P.S.I. YIELD STRENGTH.

SECTION "AA"

13. STORM DISCHARGE STRUCTURE



14. BEE-HIVE INLET



15. CONCRETE JOINT DETAIL

GENERAL NOTES:

1. At paving and sidewalk areas, contractor must remove all vegetation and a minimum of 6" of topsoil. This topsoil may be stock-piled and used for fill in landscape and lawn areas.
2. Select fill under proposed pavement shall have a plasticity index ranging from 5% to 17%.
3. All subgrade shall be treated with 5% hydatated lime as per specifications.
4. All sidewalks shall have a minimum slope of 1/4" per foot.
5. All gutters shall have a minimum slope of 0.2%. Unless otherwise noted on the plans.
6. Contractor to provide expansion joints between building and new concrete pavement or sidewalk.
7. All required select fill to be placed in 6" lifts with compaction to 95% proctor or as indicated by the geotechnical engineer.
8. All curb and gutter to be backfilled and stabilized as required.
9. Contractor to provide positive drainage away from building and into drainage system.
10. Construction pad to be grated as required to facilitate drainage run-off from construction site. Silt Fence And/Or Silt Traps Shall Be Provided Before Discharge Of Run-Off From Construction Site To Street Drainage. Contractor shall be responsible for compliance with Federal, state, & local permits regarding storm water pollution prevention.
11. If anything conflicts with the proposed building an/or site improvements, contractor must remove, dispose of, or relocate at the contractors expense.
12. Handicap signage to conform with federal regulations (A.D.A.).
13. Contractor to provide all construction staking for building and site improvements.
14. Contractor to grade swales as required from sidewalk drainage openings, fire lanes, culverts and curb slots to inlets.
15. Contractor shall be familiar with special construction requirements while working within the limits of City of San Juan, Texas.,
16. All excavation and trenching operations shall be conducted in accordance with all safety osha publication 2226 and as required in house bill 662 passed by the Texas legislature.
17. Contractor to notify all utility companies 48 hours prior to construction of any site improvements for location of gas lines, telephone lines, television cables, water lines and sewer lines.
18. Contractor to match transition of new pavement to existing pavement as proposed by engineer.
19. Contractor to include all striping for project.
20. Contractor to verify horizontal and vertical location of existing utilities which may conflict with proposed alignment of new facilities.
21. Contractor shall provide Erosion and Sediment Control permits.

SITE PLAN NOTES:

1. All work and materials shall comply with all city, county, state federal and osha regulations.
2. Contractor shall refer to the architectural plans for exact locations and dimensions of vestibules, slope paving, ramps, sidewalks, exit porches, precise building dimensions, exact building utility entrance locations, and total rumber, location, and size of downspouts.
3. All disturbed areas are to receive four inches of topsoil, seed, mulch, and water until a healthy stand grass is established.
4. All islands with curb & gutter shall be landscaped. Those islands are to have 18" curb & gutter. All remaining islands are to be stripped as shown.
5. All dimensions and radious are to the back of curb, edge of pavement, center of stripe or object or face of building unless otherwise noted.
6. Exisiting structures within construction limits that are to be abandoned, removed or relocated, shall be done in a proper manner offsite, as necessary. All cost shall be included in base bid.
7. Contractor shall be responsible for all relocations, including but not limited to all utilities, storm drainage, signs, traffic signals & poles, etc. as required. All work shall be done in accordance with governing authorities specifications and shall be approved by such. All cost shall be included in base bid.
8. The site work for this project shall meet or exceed "The city of San Juan standard site work specifications".
9. Contractor is responsible for protection and replacement of property corners.
10. Contractor shall match existing curb & gutter in grade, size, type and alignment where applicable.
11. Contractor shall be responsible for repairs to damage of any existing improvements during construction, such as but not limited to drainage utilities, pavement, stripping, curb etc. Repairs shall be equal to or better than existing.

PAVING AND DRAINAGE DETAILS

01-12-18
STATE OF TEXAS
C. MINJARES, JR.
90636
LICENSED PROFESSIONAL ENGINEER

CLH
ENGINEERING, INC.
TBPE FIRM No. F-8719
701 S. 15th STREET McALLEN, TX. 78501
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TWG
THE WARREN GROUP ARCHITECTS, INC.
1801 SOUTH SECOND ST. SUITE 330
McALLEN, TX 78503
956.994.1900
twgarch.com

REVISION	DATE	APPROVED BY	DESCRIPTION

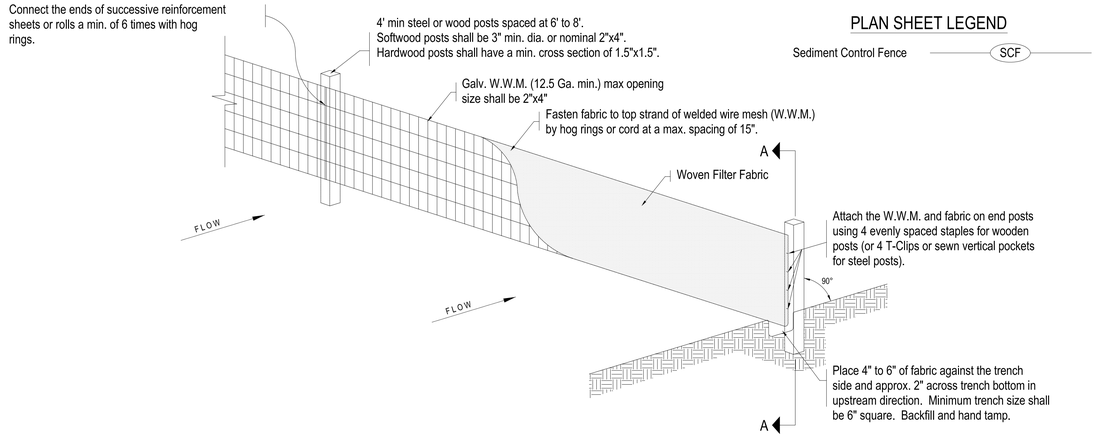
PROPOSED

INTERNATIONAL BRIDGE FACILITY EXPANSION AND RENOVATION
PHARR, TEXAS.

LOT 27
PHARR, TEXAS

PROJECT	971703
DATE	01/12/2018
REVISED	

C4.0



PLAN SHEET LEGEND

Sediment Control Fence — SCF

1. TEMPORARY SEDIMENT CONTROL FENCE

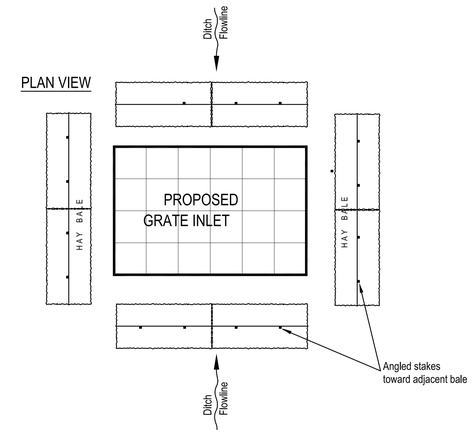
GENERAL NOTES :

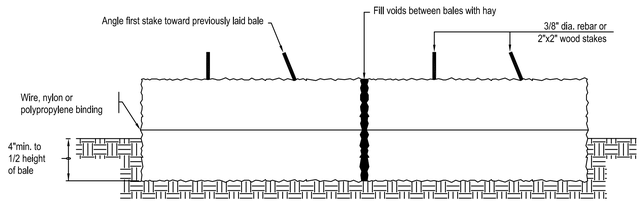
1. The guidelines shown hereon are suggestions only and may be modified by the engineer.

SEDIMENT CONTROL FENCE USAGE GUIDELINES

A sediment control fence may be constructed near the downstream perimeter of a disturbed area along a contour to intercept sediment from overland runoff. A 2-year storm frequency may be used to calculate the flow rate to be filtered.

Sediment control fence should be sized to filter a max. flow through rate of 100 GPM/FT . Sediment control fence is not recommended to control erosion from a drainage area larger than two acres.





PLAN SHEET LEGEND

Baled Hay — BH

2. BALED HAY FOR EROSION CONTROL(INLRT PROTECTION)

GENERAL NOTES :

1. The guidelines shown hereon are suggestions only and may be modified by the engineer.
2. Hay bales shall be a minimum of 30" in length and weigh a minimum of 50 lbs.
3. Hay bales shall be bound by either wire or nylon or polypropylene string. The bales shall be composed enitrely of vegetable matter.
4. Hay bales shall be embedded in the soil a minimum of 4" and where possible 1/2 the height of the bale.
5. Hay bales shall be place in a row with ends tightly abutting the adjacent bales. The bales shall be placed with bindings parallel to the ground.
6. Hay bales shall be securely anchored in place with 3/8" dia. rebar or 2"x2" wood stakes driven through the bales. The first stake shall be angled towards the previously laid bale to force the bales together.

BALED HAY USAGE GUIDELINES

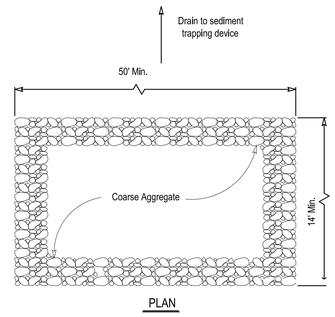
A Baled Hay Installation may be constructed near the downstream perimeter of a disturbed area along a contour to intercept sediment from overland runoff. A two year storm frequency may be used to calculate the flowrate to be filtered. The installation should be sized to filter a maximum flow thru rate of 5 GPM/FT of cross sectional area. Baled hay may be used at the following locations:

1. Where the runoff approaching the baled hay flows over disturbed soil less than 100'. If the slope of the disturbed soil exceeds 10%, the length of slope upstream the baled hay should be less than 50'.
2. Where the installation will be required for less than 3 months.
3. Where the contributing drainage area is less than 1/2 acre.

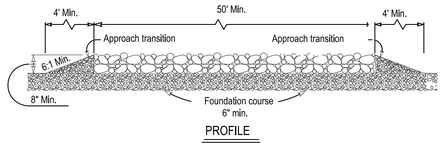
For Baled Hay Installations in small ditches, the additional following considerations apply:

1. The ditch sideslopes should be graded as flat as possible to maximize the drainage flowrate thru the hay.
2. The ditch should be graded large enough to contain the overtopping drainage when sediment has filled to the top of the baled hay.

Bales should be replace usually every two months or more often during wet weather when loss of structural integrity is accelerated.



PLAN



PROFILE

GENERAL NOTES

1. The length of the type 1 construction exit shall be as indicated on the plans, but not less than 50'.
2. The coarse aggregate should be open graded with a size of 4" to 8".
3. The approach transitions should be no steeper than 6:1 and constructed as directed by the Engineer.
4. The construction exit foundation course shall be flexible base, bituminous concrete, portland cement concrete or other material as approved by the Engineer.
5. The construction exit shall be graded to allow drainage to a sediment trapping device.
6. The guidelines shown hereon are suggestions only and may be modified by the Engineer.

3. CONSTRUCTION EXIT (TYPE 1)

EROSION CONTROL DETAILS

01-12-18
STATE OF TEXAS
C. HINOJOSA, JR.
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GENERAL NOTES

1. THIS 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 EARTH BANKS, FORMS, SCAFFOLDING, PLANKING SAFETY NETS, SUPPORT AND BRACING FOR CRANES, 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 DO NOT INCLUDE INSPECTION OF THE ABOVE AND BELOW ITEMS.
2. ALL CONSTRUCTION AND QUALITY OF MATERIALS SHALL COMPLY WITH THE GOVERNING BUILDING CODES AND REGULATIONS.
3. THE CONTRACTOR SHALL Verify ALL DIMENSIONS, ELEVATIONS, TOLERANCES AND CONDITIONS AT THE JOB SITE BEFORE COMMENCEMENT OF WORK AND SHALL IMMEDIATELY REPORT ANY DISCREPANCIES OR OMISSIONS TO THE ARCHITECT AND ENGINEER IN WRITING. ANY OMISSION OR CONFLICT BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND/OR SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH ANY WORK SO INVOLVED.
4. IN CASE OF CONFLICT; NOTES AND DETAILS ON THE BALANCE OF THE DRAWINGS TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. DRAWINGS TAKE PRECEDENCE OVER SPECIFICATIONS.
5. WHERE CONSTRUCTION DETAILS ARE NOT SPECIFICALLY SHOWN OR NOTED FOR ANY PART OF THE WORK, SUCH DETAILS SHALL BE CONSTRUCTED IN ACCORDANCE WITH DETAILS SHOWN FOR SIMILAR CONDITIONS AND MATERIALS. WHERE SUFFICIENTLY SIMILAR WORK IS NOT SHOWN, THE ENGINEER SHALL BE CONSULTED FOR CLARIFICATION.
6. EACH SUBCONTRACTOR IS CONSIDERED AN EXPERT IN HIS RESPECTIVE FIELD AND SHALL PRIOR TO THE SUBMISSION OF A BID OR PERFORMANCE OF WORK, NOTIFY THE GENERAL CONTRACTOR, ARCHITECT, ENGINEER OR OWNER, IN WRITING OF ANY WORK CALLED OUT ON THE DRAWINGS IN HIS TRADE THAT CANNOT BE GUARANTEED OR PERFORMED AS INDICATED.
7. THE CONTRACTOR SHALL COORDINATE ALL MECHANICAL AND ELECTRICAL EQUIPMENT, AS TO WEIGHTS AND EXACT LOCATIONS, WITH STRUCTURAL SUPPORTS. IN THE EVENT THAT THE PURCHASED EQUIPMENT DEVIATES IN WEIGHT AND LOCATION FROM THOSE INDICATED ON THE PLANS, THE ARCHITECT AND ENGINEER MUST BE NOTIFIED AND APPROVAL OBTAINED PRIOR TO INSTALLATION.
8. THIS STRUCTURE IS DESIGNED AS A STABLE UNIT AFTER ALL COMPONENTS ARE IN PLACE. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE TEMPORARY BRACING AS REQUIRED TO INSURE THE VERTICAL AND LATERAL STABILITY OF THE ENTIRE STRUCTURE, OR ANY PORTION THEREOF, DURING CONSTRUCTION.
9. NEITHER THE OWNER NOR THE ARCHITECT NOR THE ENGINEER WILL ENFORCE SAFETY MEASURES OR REGULATIONS. THE CONTRACTOR SHALL DESIGN, CONSTRUCT AND MAINTAIN ALL SAFETY DEVICES, INCLUDING SHORING AND BRACING, AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS AND REGULATIONS.
10. TRADE NAMES AND MANUFACTURERS REFERRED TO ARE FOR QUALITY STANDARDS ONLY. SUBSTITUTIONS WILL BE PERMITTED AS APPROVED BY THE ENGINEER.
11. ANY OPTIONS OR APPROVED SUBSTITUTIONS ARE FOR CONTRACTORS CONVENIENCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CHANGES, ADDITIONAL COSTS (INCLUDING REDESIGN BY THE ENGINEER), AND COORDINATION WITH ALL ITEMS THAT THE SUBSTITUTIONS MAY IMPACT.
12. THE ARCHITECT AND ENGINEER ARE TO BE NOTIFIED IN WRITING WHEN CONSTRUCTION AT THE SITE BEGINS.
13. ANY QUESTIONS RELATED TO INTERPRETATION OR INTENT OF THESE DRAWINGS SHALL BE REFERRED TO THE ENGINEER.
14. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO LOCATE AND PROJECT ANY EXISTING UNDERGROUND OR CONCEALED CONDUIT, PLUMBING, OR OTHER UTILITIES PRIOR TO BEGINNING ANY WORK.
15. PIPES, DUCTS, SLEEVES, CHASES, ETC. SHALL NOT BE PLACED IN BEAMS OR WALLS UNLESS SPECIFICALLY SHOWN OR NOTED. NOR SHALL ANY STRUCTURAL MEMBER BE CUT FOR PIPES, DUCTS, ETC. UNLESS NOTED CONTRACTOR SHALL OBTAIN PRIOR APPROVAL FOR INSTALLATION OF ANY ADDITIONAL PIPES, DUCTS, ETC.

DESIGN CRITERIA

DESIGN LOADS, STRUCTURAL ANALYSIS AND PREPARATIONS OF STRUCTURAL MEMBERS ARE BASED UPON THE FOLLOWING CRITERIA:

1. CODE: IBC 2012
2. LATERAL LOADS
   - A. WIND SPEED (V^3s): 145 MPH
   - B. EXPOSURE CATEGORY: C
   - C. IMPORTANCE FACTOR: 1.15
   - D. BUILDING CATEGORY II
   - E. SEISMIC DESIGN CATEGORY A
   - F. SITE CLASS D
   - G. SEISMIC COEFFICIENTS D
     - Ss 0.056 g
     - S1 0.014 g
     - Fa 2.5
     - Fv 3.5
     - Sms 0.140 g
     - Sm1 0.050 g
     - Sds 0.093 g
     - Sd1 0.033 g
3. VERTICAL LOADS
   - ROOF:
   - A. COLLATERAL LOAD: 0 PSF
   - B. DEAD LOAD: ACTUAL WEIGHT PSF
   - C. LIVE LOAD: (REDUCIBLE) 20 PSF
   - D. WIND UPLIFT LOAD (NET): AS CALCULATED BY SUB-CONTRACTOR PSF
   - E. GROUND SNOW LOAD: 0 PSF
   - F. CRANE LOADS: NONE
   - G. MECHANICAL UNITS SEE PLANS
   - FLOOR:
   - A. DEAD LOAD: 50 PSF
   - B. LIVE LOAD, OFFICE: 50 PSF
   - C. LIVE LOAD, LIGHT STORAGE 125 PSF
   - D. LIVE LOAD, HEAVY STORAGE: 250 PSF
   - E. LIVE LOAD, CLASSROOM: 40 PSF
   - F. LIVE LOAD, CORRIDOR: 100 PSF
   - G. MECHANICAL UNITS SEE PLANS
4. SUBSURFACE INFORMATION
   - A. PREPARED BY: ORIGINAL COBBLESTONE ENGINEERING, INC. REPORT
   - B. SHALLOW FOUNDATION
     - MINIMUM FOOTING DEPTH: 24 INCHES
     - MINIMUM FOOTING WIDTH: 12 INCHES
     - ALLOWABLE BEARING PRESSURE (CONTINUOUS FOOTINGS): 2200 PSF
     - ALLOWABLE BEARING PRESSURE (ISOLATED FOOTINGS): 2200 PSF
     - WIRE REINFORCEMENT INSTITUTE (WRI) CRITERIA
     - CLIMATIC RATING (Cw) 15
     - EFFECTIVE PLASTICITY INDEX (UNDISTURBED, NATIVE SOIL) 22
     - EFFECTIVE PLASTICITY INDEX (SITE IMPROVED SOIL) 18
     - PVR (UNDISTURBED SOIL) 1.75 TO 2.25 INCHS
     - PVR (WITH SITE IMPROVEMENT) 1.0 INCH

Sheet List

Sheet Number	Sheet Name
S101	General Notes
S102	General Notes
S201	Foundation Plan
S301	Roof Framing Plan
S401	Typical Concrete Details
S402	Foundation Details Void Forms
S403	Typical CMU Details
S501	Elevations

SHOP DRAWINGS AND SUBMITTALS

1. SHOP DRAWINGS SHALL BE PREPARED AND SUBMITTED FOR REVIEW TO THE ENGINEER FOR EACH STRUCTURAL BUILDING MATERIAL AS INDICATED IN THE STRUCTURAL GENERAL NOTES AND THE CONTRACT SPECIFICATIONS. SEE THE CONTRACT SPECIFICATIONS FOR SUBMITTAL PROCEDURES AND ADDITIONAL INFORMATION
2. SHOP DRAWINGS SHALL USE DRAFTING LINE WORK AND LETTERING THAT IS CLEARLY LEGIBLE. SHOP DRAWINGS SHALL NOT CONTAIN NO REPRODUCTIONS OF THE CONTRACT DRAWING PLANS OR DETAILS.
3. SUBMIT SHOP DRAWINGS IN PDF FORMAT.
4. SHOP DRAWINGS SHALL NOT SHOW MATERIALS FOR MORE THAN ONE LEVEL OF THE SAME PLAN.
5. SHOP DRAWINGS SHALL SHOW CLEAR AND COMPLETE INFORMATION FOR THE FABRICATION (DETAIL SHEETS AND/OR MATERIAL LISTS) AND INSTALLATION.
6. ALLOW A MINIMUM OF (2) WEEKS FOR REVIEW OF EACH SET OF SHOP DRAWINGS.
7. CONTRACTOR SHALL REVIEW THE SHOP DRAWINGS SUBMITTED BY THE SUB-CONTRACTOR AND COORDINATE SHOP DRAWINGS WITH ALL OTHER TRADING.
8. CONTRACTOR SHALL ANSWER ALL QUESTIONS OR CLARIFICATIONS BY THE SUB-CONTRACTOR BEFORE SUBMITTING TO ENGINEER FOR REVIEW. ANY QUESTIONS THAT THE CONTRACTOR CANNOT ANSWER WITH THE INFORMATION ON THE DRAWINGS SHALL CLEARLY BE MARKED FOR THE ENGINEER FOR REVIEW.
9. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL DIMENSIONS, SEE NOTE NUMBER 3 UNDER GENERAL NOTES.
10. REVIEW OF SHOP DRAWINGS BY THE ENGINEER IS FOR GENERAL CONFORMANCE TO THE STRUCTURAL DRAWINGS. REVIEW OF THE SHOP DRAWINGS BY THE ENGINEER DOES NOT RELIEF THE CONTRACTOR FOR ANY ERRORS IN DIMENSIONS OR MATERIALS INDICATED ON THE SHOP DRAWINGS.
11. IF THERE IS ANY DISCREPANCY BETWEEN THE STRUCTURAL DRAWINGS AND SHOP DRAWINGS, THE INFORMATION SHOWN ON THE STRUCTURAL DRAWINGS GOVERN. INFORMATION THAT IS NOT INDICATED ON THE SHOP DRAWINGS SHALL BE OBTAINED FROM THE STRUCTURAL DRAWINGS.
12. PROVIDE SUBMITTALS FOR THE FOLLOWING ITEMS:

ITEM	REQUIRED
A. CONCRETE MIX DESIGN	X
B. CURING COMPOUND FOR CONCRETE	X
C. REINFORCING STEEL	X
D. STRUCTURAL STEEL	
E. STEEL JOIST	
F. METAL DECKING (INDICATE LAYOUT AND TYPES OF DECK PANELS, ANCHORAGE DETAILS, REINFORCING CHANNELS, PANS, DECK OPENINGS, SPECIAL JOINTING, ACCESSORIES, AND ATTACHMENTS TO OTHER CONSTRUCTION.)	
G. PRE-MANUFACTURED METAL BUILDING (INCLUDE CALC'S & REACTIONS)	
H. PRE-MANUFACTURED WOOD TRUSSES	

REINFORCING STEEL

1. BAR REINFORCEMENT SHALL CONFORM TO THE FOLLOWING GRADES OF ASTM A615, INCLUDING SUPPLEMENT S1. GRADE 40 - #3 AND SMALLER GRADE 60 - #4 AND LARGER.
2. DETAILS OF REINFORCEMENT SHALL BE IN ACCORDANCE WITH CHAPTER 7 OF THE AMERICAN CONCRETE INSTITUTE (ACI) 318, UNLESS OTHERWISE NOTED.
3. VERTICAL REINFORCEMENT SHALL BE TIED OR OTHERWISE FIXED IN POSITION AT THE TOP AND BOTTOM AND AT INTERMEDIATE LOCATIONS, SPACED NOT GREATER THAN 192 BAR DIAMETERS OR 48" O.C. WHICH EVER IS LESS. IN MASONRY CONSTRUCTION, THE REINFORCEMENT SHALL BE SECURED IN PLACE WITH REBAR SPACERS AND SHALL NOT BE SPACED APART MORE THAN 48 INCHES ON CENTER.
4. WELDED STEEL WIRE FABRIC REINFORCEMENT SHALL CONFORM TO ASTM A185.
5. WALLS, PILASTER, COLUMNS SHALL BE DOWELED TO THE SUPPORTING FOOTINGS WITH REINFORCEMENT OF THE SAME SIZE, GRADE AND AT THE SAME SPACING AS THE VERTICAL REINFORCEMENT IN THE WALLS, PILASTER, OR COLUMNS.
6. BAR SUPPORTS SHALL BE PROVIDED IN ACCORDANCE WITH THE PROVISIONS OF "BAR SUPPORT SPECIFICATIONS" AS CONTAINED IN THE LATEST EDITION OF THE "MANUAL OF STANDARD PRACTICE" BY THE CONCRETE REINFORCING STEEL INSTITUTE (CRSI). PLASTIC CHAIRS ARE NOT ALLOWED. FOR SLAB ON GRADE AND GRADE BEAMS, USE CONCRETE BRICK CHAIRS.
7. REINFORCING STEEL DETAILING, BENDING AND PLACING SHALL BE IN ACCORDANCE WiTH THE CONCRETE REINFORCING STEEL INSTITUTE "MANUAL OF STANDARD PRACTICE", LATEST EDITION.
8. ALL REINFORCEMENT SHALL BE SECURELY TIED IN PLACE BEFORE PLACING CONCRETE OR GROUT; INCLUDING EXTERIOR DOWELS FOR CMU OR CONCRETE WALLS.
9. PROVIDE CORNER BARS TOP AND BOTTOM AT ALL BEAM CORNERS AND DEAD END BEAM INTERSECTIONS. BARS TO EQUAL SIZE AND QUANTITY OF THE NOTED BEAM STEEL. BARS SHALL LAP BEAM REINFORCEMENT 40 BAR DIAMETERS.
10. BARS DETAILED AS CONTINUOUS SHALL BE LAPPED 40 BAR DIAMETERS AT SPLICES.
11. EXTEND THE SLAB REINFORCING STEEL, PERPENDICULAR TO BEAM, TO THE TOP OUTSIDE REINFORCING BAR OF PERIMETER BEAMS. START THE SLAB REINFORCING STEEL, PARALLEL TO BEAM, NOT MORE THAN 6" FROM THE TOP INSIDE REINFORCING BAR OF PERIMETER BEAMS.
12. PROVIDE #4 "Z" BARS AT 12" ON CENTER WHERE THE SLAB STEPS DOWN MORE THAN 3". THE "Z" BARS SHALL LAP THE MAIN SLAB REINFORCING STEEL 40 BAR DIAMETERS.
13. ALL CONDUIT OR PLUMBING LINES IN SLAB SHALL BE PLACED BELOW SLAB REINFORCING. ALL CONDUIT TO BE NO GREATER THAN 1" DIAMETER AND TO BE PLACED IN CENTER OF SLAB. NO PLUMBING LINES GREATER THAN 1 INCH ALLOWED IN THE SLAB.
14. WELDING OF CROSSING BARS AND TACK WELDING OF REINFORCEMENT SHALL NOT BE PERMITTED.
15. WELDING OF REINFORCING STEEL, IF PERMITTED BY THE STRUCTURAL ENGINEER, SHALL BE PERFORMED IN ACCORDANCE WiTH THE "STRUCTURAL WELDING CODE REINFORCING STEEL" ON THE AMERICAN WELDING SOCIETY, AWS D1.4-96 AS INCORPORATED IN CBC CHAPTER No. 19, AND BY CERTIFIED WELDERS QUALIFIED USING PROCEDURES CONTAINED THEREIN, E70XX ELECTRODES SHALL BE USED IN WELDING GRADE 60 REINFORCEMENT. REINFORCEMENT SHALL NOT BE WELDED UNTIL A CHEMICAL ANALYSIS SUFFICIENT TO DETERMINE THE CARBON EQUIVALENT (C.E.) IS PERFORMED. THE C.E. OF REINFORCING STEEL SHALL BE CALCULATED FORM THE CHEMICAL COMPOSITION AS SHOWN IN THE MILL TEST REPORT. IF MiLL TEST REPORTS ARE NOT AVAILABLE, A CHEMICAL ANALYSIS SHALL BE MADE ON REINFORCEMENT REPRESENTATIVE OF THOSE TO BE WELDED. THE C.E. SHALL NOT EXCEED 0.55 AS CALCULATED PER IBC CHAPTER 19, A COPY OF THE MiLL TEST OF REINFORCING STEEL IN CONCRETE MEMBERS. (SPECIAL INSPECTION IS REQUIRED FOR ALL FIELD WELDING).
16. CONTRACTOR SHALL SUBMIT REINFORCING STEEL SHOP DRAWINGS FOR REVIEW BEFORE FABRICATION AND INSTALLATION.
17. CONCRETE COVER FOR REINFORCING AS FOLLOWS:

EXPOSURE CONDITION	MINIMUM COVER	TOLERANCE
DRILLED PIERS, FOOTINGS AND OTHER PRINCIPAL STRUCTURAL MEMBERS IN WHICH CONCRETE IS DEPOSITED AGAINST GROUND:	3"	3/8"
WHERE CONCRETE SURFACES, AFTER REMOVAL OF FORMS, ARE EXPOSED TO WEATHER OR GROUND:		
FOR BARS 5/8" IN DIAMETER	2"	1/4"
FOR BARS 5/8" OR LESS IN DIAMETER	1 1/2"	1/4"
WHERE SURFACES ARE NOT DIRECTLY EXPOSED TO WEATHER OR GROUND:		
FOR SLAB ON GRADE (FROM TOP OF SLAB)	1 1/2"	1/4"
FOR BEAMS, COLUMNS	1 1/2"	1/4"
FOR JOISTS AND SLABS	1"	1/8"

18. LAPS AT BAR SPLICES, UNLESS NOTED OTHERWISE, SHALL BE AS FOLLOWS:

MASONRY - GRADE 60: LAP 50 DIA. (30" MIN.)
GRADE 40: LAP 48 DIA. (24" MIN.)

CONCRETE - LAP PER SCHEDULE BELOW

BAR SPLICE LAP LENGTH IN CONCRETE

BAR SIZE	f'c = 2000 PSI	f'c = 3000 PSI	f'c = 4000 PSI	f'c = 5000 PSI
#3	22	22	22	22
#4	29	29	29	29
#5	40	36	36	36
#6	57	46	43	43
#7	77	63	54	54
#8	100	82	71	71
#9	128	104	90	90
#10	162	132	115	115
#11	200	163	141	141

FOR WELDED WIRE FABRIC: SPACING OF WIRE PLUS 12".

STRUCTURAL STEEL

1. MATERIAL AND WORKMANSHIP SHALL CONFORM TO THE LATEST EDITION OF THE AISC SPECIFICATIONS FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.
2. STRUCTURAL STEEL SHALL COMPLY WITH THE FOLLOWING ASTM DESIGNATIONS:

MATERIAL	DESIGNATION	STRENGTH
ANCHOR BOLTS	A36	Fy=36 ksi
PLATES	A36	Fy=36 ksi
ANGLES	A36	Fy=36 ksi
CHANNELS	A36	Fy=36 ksi
WIDE FLANGE SHAPES	A572	Fy=50 ksi
STEEL PIPE	A53 GRADE B	Fy=35 ksi
SQUARE & RECT. STEEL TUBES (HSS)	A500 GRADE B	Fy=46 ksi
ROUND TUBES (HSS)	500 GRADE B	Fy=42 ksi

3. ALL STRUCTURAL STEEL SHALL BE FABRICATED, ERECTED, AND PAINTED IN ACCORDANCE WITH THE SPECIFICATIONS FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS AS AMENDED TO DATE AND THE CODE OF STANDARD PRACTICE, LATEST EDITION AS ADOPTED BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION, AMENDED AS FOLLOWS:
   - SECTION 4.2.1, DELETE FIRST TWO SENTENCES.
   - SECTION 7., ALL REFERENCE TO OWNER SHALL BE CHANGED TO GENERAL CONTRACTOR.
   - SECTION 7.9.3, THE CONTRACTOR SHALL PROVIDE THE SEQUENCE AND SCHEDULE OF PLACEMENT OF NON-SELF SUPPORTING STEEL FRAMES.
   - SECTION 7.9.4, THE CONTRACTOR TO DESIGN SHORES, JACKS OR LOADS.
4. WELDING SHALL BE DONE IN ACCORDANCE WITH THE STANDARD CODE FOR ARC AND GAS WELDING IN BUILDING CONSTRUCTION AS PUBLISHED BY THE AMERICAN WELDING SOCIETY, EXCEPT THAT ALL WELDING SHALL BE DONE BY THE ELECTRIC ARC PROCESS. ALL WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS AND SHALL CONFORM TO ANSI/AWS D1.1-04
5. DETAILED AND OR SCHEDULED CONNECTIONS HAVE BEEN DESIGNED BY STRUCTURAL ENGINEER. ANY CONNECTION NOT DETAILED OR SCHEDULED OR ALTERED FOR FABRICATION PURPOSES SHALL BE SIZED AND DETAILED BY FABRICATOR AND SHALL BE MARKED FOR ENGINEER'S VERIFICATION. FABRICATOR SIZED AND DETAILED CONNECTIONS SHALL SUPPORT ONE HALF THE TOTAL UNIFORM LOAD CAPACITY SHOWN IN THE TABLES OF UNIFORM CONSTANTS, PART 2 OF THE AISC MANUAL OF STEEL CONSTRUCTION FOR THE GIVEN BEAM, SPAN AND GRADE OF STEEL SPECIFIED. THE EFFECT OF ANY CONCENTRATION LOADS MUST BE TAKEN INTO ACCOUNT.
6. SEE ARCHITECTURAL PLANS FOR MISCELLANEOUS STEEL ITEMS NOT INDICATED ON STRUCTURAL DRAWINGS. STEEL ITEMS SHOWN ON ARCHITECTURAL DRAWINGS AND NOT SPECIFIED ON THE STRUCTURAL DRAWINGS SHALL BE DESIGN BY THE STEEL FABRICATOR. SEE DESIGN CRITERIA FOR LOADING.
7. ALL WELDED CONNECTIONS SHALL BE MADE USING 1/4" FILLET WELD, U.N.O.
8. ALL BOLTED CONNECTIONS SHALL BE MADE USING 3/4" DIAMETER HIGH STRENGTH BOLTS, ASTM A325, BEARING TYPE CONNECTION w/ WASHERS ASTM F436, U.N.O. ON DESIGN DRAWINGS. SPECIAL INSPECTION REQUIRED FOR ALL HIGH STRENGTH BOLTING. ALL NUTS SHALL BE PER ASTM A563
9. ALL CONNECTION PLATES AND STIFFENERS SHALL BE MADE WITH 1/4" THICK PLATES, UNLESS OTHERWISE NOTED ON PLANS.
10. ALL STEEL (INCLUDING BOLTS) EXPOSED TO THE WEATHER SHALL BE HOT DIPPED GALVANIZED. (INCLUDES STEEL THAT IS ONLY COVERED WITH PLASTER OR STUCCO). SEE ARCHITECTURAL PLANS IF STRICTER REQUIREMENTS ARE REQUIRED.
11. ALL EXPOSED STEEL SHALL FOLLOW SECTION 10 OF THE CODE OF STANDARD PRACTICE OF AISC. SECTION 10 OF THE CODE ADDRESSES ARCHITECTURALLY EXPOSED STRUCTURAL STEEL (AESS)
12. CONNECTIONS SHALL BE PER HOLLOW STRUCTURAL SECTIONS, CONNECTION MANUAL BY AISC
13. WHERE STEEL MEMBER PASS THROUGH CMU WALLS, PROVIDE HALF INCH GAP BETWEEN THE CMU AND THE STEEL MEMBER. PROVIDE ELASTOMERIC MATERIAL BETWEEN THE THE STEEL MEMBER AND CMU WALL.
14. ALL BEAMS NOT SHOWN SHALL BE W14x26. ALL COLUMNS NOT SHOWN SHALL BE HSS4x4x1/4.
15. STEEL SHOP SHALL BE AISC CERTIFIED.
16. HOLES FOR BOLTS IN STRUCTURAL STEEL SHALL BE DRILLED OR PUNCHED. BURNING OF HOLES SHALL NOT BE PERMITTED. UNLESS NOTED OTHERWISE, HOLES SHALL BE STANDARD SIZE 1/16 INCH LARGER THAN THE BOLT.
17. ALL STRUCTURAL STEEL SHAPES SHALL BE PRIMED WITH A RUST RESISTANT PRIMER BEFORE SHIPMENT TO THE PROJECT SITE. PRIMER SHALL NOT BE APPLIED TO THE IMMEDIATE AREA OF STEEL INTENDED TO RECEIVE SLIP CRITICAL BOLTED CONNECTIONS
18. HIGH STRENGTH BOLTS INSTALLATION SHALL BE CONTINUOUSLY INSPECTED BY A SPECIAL INSPECTOR. FOLLOWING ARE REQUIREMENTS OF THE SPECIAL INSPECTOR:
    - A. HE SHALL VERIFY THE MILL CERTIFICATES FOR MATERIAL.
    - B. HE SHALL VERIFY THAT THE MATERIAL USED ARE PROPERLY STORED AND PREPARED FOR USE.
    - C. HE SHALL VERIFY THAT CONSTRUCTION DETAILS, PROCEDURES, TOOL CALIBRATIONS WORKMANSHIP ARE IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS AND AND BUILDING CODE.
    - D. FOR SNUG-TIGHT CONNECTIONS, HE SHALL VERIFY THAT THE PLIES OF THE CONNECTED ELEMENTS HAVE BEEN BROUGHT INTO SNUG CONTACT WITH EACH OTHER.
    - E. FOR SLIP-TIGHT CONNECTIONS, HE SHALL VERIFY THE PRETENSION METHOD SELECTED BY THE CONTRACTOR HAS INDUCED THE REQUIRED MINIMUM TENSION IN THE BOLT.
    - F. A CERTIFICATE OF INSPECTION SHALL BE FURNISHED BY THE SPECIAL INSPECTOR TO THE BUILDING OFFICIAL PRIOR TO HIS INSPECTION AND TO THE ARCHITECT AND ENGINEER.
19. WELDING IN THE FIELD SHALL BE CONTINUOUSLY INSPECTED, BY A SPECIAL INSPECTOR FOLLOWING ARE REQUIREMENTS OF THE SPECIAL INSPECTOR:
    - A. HE SHALL VERIFY THAT THE MATERIAL USED ARE PROPERLY STORED AND PREPARED FOR USE.
    - B. HE SHALL VERIFY THE WELDER'S QUALIFICATIONS.
    - C. HE SHALL VERIFY THAT CONSTRUCTION DETAILS, PROCEDURES AND WORKMANSHIP ARE IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS AND BUILDING CODE.
    - D. A CERTIFICATE OF INSPECTION SHALL BE FURNISHED BY THE SPECIAL INSPECTOR TO THE BUILDING OFFICIAL PRIOR TO HIS INSPECTION AND TO THE ARCHITECT AND ENGINEER.
20. ALL NON SHRINK GROUT FOR LEVELING OF BASE PLATES SHALL HAVE A MINIMUM 5000 PSI COMPRESSIVE STRENGTH AT 28 DAYS. GROUT SHALL COMPLY WITH CORPS OF ENGINEERS SPECIFICATION CRD-C 621.
21. AT ALL TUBES, PROVIDE 3/8" THICK END PLATE, U.N.O.

ALLOWANCE

1. IN ADDITION TO THE MATERIAL SHOWN, THE CONTRACTOR TO PROVIDE ADDITIONAL MATERIAL, FOR USE ON THE PROJECT AS DIRECTED BY THE STRUCTURAL ENGINEER FIELD REPRESENTATIVE. THE ALLOWANCE COST SHALL INCLUDE MATERIAL COST, LABOR COSTS AND PLACEMENT AT THE SITE.
2. REMAINING BALANCE AT THE END OF THE PROJECT SHALL BE RETURNED/CREDITED BACK TO THE OWNER.
3. THE ALLOWANCE SHALL APPEAR ON THE SCHEDULE OF VALUE AS A LINE ITEM.

MATERIAL	ALLOWANCE
CONCRETE	2 CU. YD.
REINFORCING STEEL	1000 LBS
STRUCTURAL STEEL	2000 LBS
CMU	20 SQ. FT.

SPECIAL NOTES TO OWNER

1. UNDER NORMAL CONDITIONS, AND FOR CONVENTIONAL BUILDINGS SUCH AS THE SUBJECT MATTER, REINFORCED CONCRETE AND MASONRY DEVELOP CRACKS. THE CRACKS ARE DUE TO INHERENT SHRINKAGE OF CONCRETE, CREEP AND RESTRAINING EFFECTS OF VERTICAL AND OTHER STRUCTURAL ELEMENTS TO WHICH THE BEAMS/SLABS ARE TIED.
2. THE CRACKS FORMED ARE NORMALLY COSMETIC. THE SLAB MAINTAINS ITS Serviceability AND STRENGTH REQUIREMENTS. IT IS EMPHASIZED THAT ALTHOUGH SPECIAL EFFORT IS MADE TO REDUCE THE POTENTIAL CAUSES AND NUMBER OF SUCH CRACKS, IT IS NOT PRACTICAL TO PROVIDE TOTAL ARTICULATION BETWEEN THE FLOOR SYSTEM AND ITS SUPPORTS AND THEREBY ACHIEVE COMPLETE INHIBITION OF ALL CRACKS.
3. MOST SUCH CRACKS DEVELOP OVER THE FIRST THREE YEARS OF THE LIFE OF THE FLOOR SYSTEM. CRACKS WHICH ARE WIDER THAN 0.01 INCH MAY NEED TO BE PRESSURE EPOXIED. REFER TO THE NOTES UNDER "ALLOWANCES".
4. THE OBJECT OF THE JOINTS PROVIDED IS TO ALLOW MOVEMENT. MOVEMENTS DUE TO CREEP AND SHRINKAGE MAY BE NOTICEABLE AT JOINTS UP TO TWO YEARS AFTER CONSTRUCTION, BEYOND WHICH MOVEMENTS DUE TO VARIATIONS IN TEMPERATURE WILL PERSIST.

CAST-IN-PLACE CONCRETE

1. VERIFY ALL DIMENSIONS. COORDINATE WITH ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION AND NOTIFY ARCHITECT AND/OR ENGINEER OF ANY DISCREPANCIES.
2. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE AMERICAN CONCRETE INSTITUTE SPECIFICATIONS, ACI #301-05, OR LATEST EDITION. DRILLED PIERS SHALL COMPLY WITH ACI 336.1-01 AND ACI 336.3R-05
3. ALL DETAILING, FABRICATION AND ERECTION OF REINFORCING BARS, ACCESSORIES UNLESS OTHERWISE NOTED, SHALL BE IN ACCORDANCE WITH THE ACI "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE", ACI #315 LATEST EDITION
4. THE MINIMUM 28 DAYS CYLINDER STRENGTH SHALL BE AS FOLLOWS:

LOCATION	STRENGTH AT 28 DAYS	MAXIMUM SLUMP	SIZE OF LARGE AGGREGATE	WATER/CEMENT RATIO
FOUNDATIONS	3000 PSI	5"	1 1/2"	0.55
SLAB ON GRADE	3000 PSI	5"	1 1/2"	0.55
GRADE BEAMS	3000 PSI	5"	1 1/2"	0.55
WALL	3000 PSI	6"	3/4"	0.55

5. NO HORIZONTAL CONSTRUCTION JOINTS WILL BE PERMITTED IN SLABS OR BEAMS.
6. VERTICAL CONSTRUCTION JOINTS IN SLABS ARE TO BE AS SHOWN ON PLANS OR AS APPROVED BY ENGINEER.
7. ALL OPENINGS IN SLAB (FOR PIPING, DRAINS, ETC.) SHALL BE SEALED WITH 1/2 SEALANT '2A' (SELF-LEVELING 2-PART POLYURETHANE).
8. UTILITIES THAT PROJECT THROUGH SLAB FLOORS SHOULD BE DESIGNED WITH EITHER SOME DEGREE OF FLEXIBILITY OR WITH SLEEVES IN ORDER TO PREVENT DAMAGE TO THESE LINE SHOULD VERTICAL MOVEMENT OCCUR.
9. BACKFILL AROUND PERIMETER TO PROVIDE POSITIVE DRAINAGE AWAY FROM SLAB.
10. FLOOR TOLERANCES
    F-NUMBER SYSTEM

	COMPOSITE	MINIMUM LOCAL VALUE
FLATNESS (F_F)	30	23
LEVELNESS (F)	25	19

IN ALL INSTANCES MINIMUM SLAB THICKNESS SHALL BE OBTAINED. COORDINATE SLAB FINISHES WITH ARCHITECTURAL PLANS.

11. ANCHOR BOLTS, DOWELS, INSERTS, ETC. SHALL BE SECURELY TIED IN PLACE PRIOR TO PLACING CONCRETE.
12. REFER TO ARCHITECTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR ALL MOLDS. GROOVES, REGLETS, ORNAMENTAL CLIPS, PIPES, CONDUITS, INSERTS, ETC. TO BE CAST IN CONCRETE. PROVIDE OVERSIZED SLEEVES FOR PLUMBING AND ELECTRICAL CONDUITS AND PIPES. NO PIPES OR DUCTS SHALL BE PLACED IN CONCRETE, FOOTINGS, OR SLAB UNLESS SPECIFICALLY DETAILED IN THESE PLANS, OR AS DIRECTED BY THE ENGINEER.
13. MECHANICALLY VIBRATE ALL CONCRETE WHEN PLACED.
14. CONCRETE TESTING SHALL BE ONE SET OF CYLINDERS FOR EVERY 50 CUBIC YARDS OR PORTION THEREOF FOR EACH TYPE OF CONCRETE POURED ON ANY GIVEN DAY. ONE SET CONSISTS OF 2 CYLINDERS TESTED FOR COMPRESSION AT 7 DAYS AND 2 CYLINDERS AT 28 DAYS.
15. VAPOR RETARDANT
    - A. VAPOR RETARDANT (UNDER SLAB): SHALL CONFORM TO ASTM E1745, CLASS A OR BETTER AND SHALL HAVE A MINIMUM WATER VAPOR PERMEANCE OF 0.01 PERMS WHEN TESTED IN ACCORDANCE WITH ASTM E96. VAPOR RETARDANT SHALL BE NOT LESS THAN 15 MILS THICK.
    - APPROVED PRODUCTS
    - A. STEGO WRAP BY STEGO INDUSTRIES LLC. (887) 464-7834.
    - B. GRIFFOLYN T-65 BY REEF INDUSTRIES (800) 231-6074.
    - C. RUFCO D16WB BY RAVEN IND. AT TEXAS ENVIRONMENTAL PLASTIC: (281) 821-7320.
    - INSTALLATION
    - A. LAY SHEETS SMOOTHLY, STRETCH AND WEIGHT EDGES, LAP JOINTS TWELVE (12) INCHES AND SEAL WITH TAPE AS SPECIFIED BY VAPOR RETARDANT MANUFACTURER. TURN BARRIER UP SIX 6 INCHES AT WALLS AND AT ALL PIPES, ABUTMENTS, ETC. TAPE AND SEAL AT PENETRATIONS AND AT EDGES.
    - B. AT GRADE BEAMS, EXTEND VAPOR RETARDANT DOWN SIDES OF BEAM TRENCHES (AND FOOTING EXCAVATIONS) TO WITHIN 4" OF TRENCH BOTTOM AND SECURE TO SIDES OF TRENCH. DO NOT EXTEND RETARDANT ACROSS BOTTOM OF BEAM TRENCH.
    - PATCHING:
    - A. PATCH ALL PUNCTURES WITH A MINIMUM OVERLAP OF 6" IN ALL DIRECTIONS AND TAPE AROUND ENTIRE PERIMETER OF REPAIR.
16. ALL CONDUIT OR PLUMBING LINES IN SLAB SHALL BE PLACED BELOW SLAB REINFORCING. ALL CONDUITS OR PLUMBING LINES SHALL NOT BE GREATER THAN 1 INCH DIAMETER AND SHALL BE PLACED NEAR THE CENTER OF THE SLAB AS MUCH AS POSSIBLE.

A. PRE-INSTALLATION CONFERENCE:

1. AT LEAST 30 DAYS PRIOR TO THE START OF THE CONCRETE SLAB CONSTRUCTION SCHEDULE, THE CONTRACTOR SHALL CONDUCT A MEETING TO REVIEW THE PROPOSED MIX DESIGNS AND TO DISCUSS THE REQUIRED METHODS AND PROCEDURES TO ACHIEVE THE REQUIRED CONCRETE CONSTRUCTION. THE CONTRACTOR SHALL SEND A PRE-CONCRETE CONFERENCE AGENDA TO ALL ATTENDEES 20 DAYS PRIOR TO THE SCHEDULED DATE OF THE CONFERENCE.
2. THE CONTRACTOR SHALL REQUIRE RESPONSIBLE REPRESENTATIVES OF EVERY PARTY CONCERNED WITH THE CONCRETE WORK TO ATTEND THE CONFERENCE, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
   - A) CONTRACTOR'S SUPERINTENDENT
   - B) LABORATORY RESPONSIBLE FOR CONCRETE MIXES AND/ OR FIELD QUALITY CONTROL
   - C) READY-MIX CONCRETE PRODUCER
   - D) CONCRETE SUBCONTRACTOR
   - E) ADMIXTURE MANUFACTURER(S)
   - F) LIQUID DENSIFIER AND SEALER MANUFACTURER
   - G) LIQUID DENSIFIER AND SEALER APPLICATION
   - H) JOINT FILLING APPLICATOR
3. MINUTES OF THE MEETING SHALL BE RECORDED, TYPED AND PRINTED BY THE CONTRACTOR AND DISTRIBUTED BY HIM TO ALL CONCERNED PARTIES, INCLUDING THE OWNER'S REPRESENTATIVE, THE ARCHITECT, AND THE STRUCTURAL ENGINEER WITHIN FIVE DAYS OF THE MEETING.

B. **CONCRETE SUBCONTRACTOR QUALIFICATION:**

1. THE CONCRETE SUBCONTRACTOR SHALL INCLUDE IN THEIR BID PACKAGE TO THE CONTRACTOR, SUFFICIENT DATA THAT CLEARLY INDICATES THE CONCRETE CONTRACTOR'S ABILITY TO SUCCESSFULLY PERFORM THE WORK AND TO ACHIEVE THE FLOOR SLAB TOLERANCES SPECIFIED IN THIS SECTION. THE CONCRETE SUBCONTRACTOR'S TEAM SHALL HAVE PARTICIPATED IN THE MAJORITY OF THESE PROJECTS, AND THAT TEAM SHALL REMAIN THE SAME THROUGH THE DURATION OF THIS PROJECT.

C. **CONCRETE MATERIAL:**

1. PORTLAND CEMENT: ASTM C 150, TYPE I. USE ONE BRAND OF CEMENT THROUGHOUT THE PROJECT.
2. COARSE AND FINE AGGREGATES: ASTM C33. COMBINED AGGREGATE GRADATION FOR SLABS ON GRADE AND OTHER DESIGNATED CONCRETE SHALL BE 8% - 18% FOR LARGE TOP AGGREGATES (1 1/2") OR 8% - 22% FOR SMALLER TOP SIZE AGGREGATES (1" OR 3/4") RETAINED ON EACH SIEVE BELOW THE TOP SIZE AND ABOVE THE NO. 100 SIEVE. SLABS ON GRADE SHALL HAVE A MAXIMUM AGGREGATE SIZE OF 1-1/2" FOOTINGS AND PIERS 1" AND BEAMS 3/4".
3. WATER: COMPLYING WITH ASTM C 94.
4. ALL CONCRETE SHALL CONTAIN "POZZOLITH" ADMIX AS PER MANUFACTURER'S SPECIFICATIONS, IN ACCORDANCE WITH ASTM C494.

D. **ADMIXTURES:**

1. AIR-ENTRAINING ADMIXTURES: SHALL CONFORM TO ASTM C-260. ADMIXTURE MANUFACTURER SHALL PROVIDE WRITTEN CERTIFICATION THAT THE AIR-ENTRAINING ADMIXTURE IS COMPATIBLE WITH OTHER REQUIRED ADMIXTURES. ALL EXTERIOR SLABS SHALL BE AIR-ENTRAINED (4% - 6%). ACCEPTABLE PRODUCTS: EUCLID CHEMICAL AEA-92 AND AIRMIX 200, MASTER BUILDERS MICROAIR, W.R. GRACE DARAVAIR 1000 AND DAREX-11.
   NOTE: AIR-ENTRAINING ADMIXTURE SHALL NOT BE USED ON INTERIOR CONCRETE.
2. WATER-REDUCING ADMIXTURE: SHALL CONFORM TO ASTM C494, TYPE A AND CONTAIN NOT MORE THAN 0.05% CHLORIDE IONS. ACCEPTABLE PRODUCTS: EUCLID CHEMICAL WR-89 AND WR-91, MASTER BUILDERS 200N AND 322N, W.R. GRACE WRDA 36 AND WRDA 64.
3. WATER REDUCING, RETARDING ADMIXTURE: SHALL CONFORM TO ASTM C494, TYPE D, AND CONTAIN NOT MORE THAN 0.05% CHLORIDE IONS. ACCEPTABLE PRODUCTS: EUCLID CHEMICAL RETARDER 75, MASTER BUILDERS POZZOLITH R, W.R. GRACE DARATARD 17.
4. HIGH RANGE WATER-REDUCING ADMIXTURE (SUPERPLASTICIZER): SHALL CONFORM TO ASTM C494, TYPE F OR TYPE G AND CONTAIN NOT MORE THAN 0.05% CHLORIDE IONS. ACCEPTABLE PRODUCTS : EUCLID CHEMICAL EUCON 37, MASTER BUILDERS REOBUILD 1000 W.R. GRACE DARACEM - 1000.
5. WATER-REDUCING, NON-CORROSIVE ACCELERATING ADMIXTURE: SHALL CONFORM TO ASTM C494, TYPE C OR E, AND CONTAIN NOT MORE CHLORIDE IONS THAN ARE PRESENT IN MUNICIPAL DRINKING WATER. THE ADMIXTURE MANUFACTURER MUST HAVE LONG-TERM, NON-CORROSIVE TEST DATA FROM AN INDEPENDENT TESTING LABORATORY (OF AT LEAST A YEAR'S DURATION) USING AN ACCEPTABLE ACCELERATED CORROSION TEST METHOD SUCH AS THAT USING ELECTRICAL POTENTIAL MEASURES. ACCEPTABLE PRODUCTS: EUCLID CHEMICAL ACCELGUARD 80/90 AND ACCELGUARD NCA, MASTER BUILDERS NC534 AND POZZUTEC 20, W.R. GRACE POLARSET.
6. PROHIBITED ADMIXTURES:
   - a.) CALCIUM CHLORIDE OR ADMIXTURES CONTAINING MORE THAN 0.05% CHLORIDE IONS ARE NOT PERMITTED.
   - b.) FLYASH; A MAXIMUM OF 20% AS CEMENT REPLACEMENT ALLOWED

E. **EVAPORATION RETARDER:**

1. WATERBORNE, MONOMOLECULAR FILM FORMING, MANUFACTURED F[illegible] FRESH CONCRETE.
   - a.) ACCEPTABLE PRODUCTS:
     "EUCOBAR" BY THE EUCLID CHEMICAL COMPANY - CONTACT PHIL [illegible]
     (877) 438-3826

F. CURING MATERIALS:

1. EXTERIOR CURING: ALL EXTERIOR CONCRETE SLA[illegible] BE C[illegible] LIQUID MEMBRANE-FORMING CURING COMPOUND. THE LIQUID ME[illegible] CURING COMPOUND SHALL MEET THE REQUIREMENTS OF ASTM C 1315 WITH A MAXIMUM V.O.C. CONTENT OF 700 G/L.
   - a.) ACCEPTABLE PRODUCTS:
     "SUPER REZ SEAL" BY EUCLID CHEMICAL COMPANY - CONTACT PHIL BRANDT
     (877) 438-3826
2. INTERIOR CURING: ALL INTERIOR CONCRETE SLABS SHALL BE CURED USING A REDUCED ODOR, DISSIPATING LIQUID MEMBRANE FORMING CURING COMPOUND THAT IS FORMULATED FROM HYDROCARBON RESINS. THE DISSIPATING LIQUID MEMBRANE FORMING CURING COMPOUND SHALL MEET THE REQUIREMENTS OF ASTM C-309 AND V.O.C. CONTENTS IN ACCORDANCE TO EPA 40 CFR, PART 59, TABLE I, SUBPART D FOR CONCRETE CURING COMPOUNDS WITH A MAXIMUM V.O.C. CONTENT OF 350 G/L. APPLY AT 400 S.F./GALLON.
   - a.) ACCEPTABLE PRODUCTS:
     "KUREZ DR VOX" BY THE EUCLID CHEMICAL COMPANY - CONTACT PHIL BRANDT
     (877) 438-3826

ALL CONCRETE SLABS SHALL ALSO BE MAINTAINED MOIST FOR 7 DAYS

G. **CONCRETE MIXES**

1. COMPLY WITH ACI 301 REQUIREMENTS FOR CONCRETE MIXTURE, U.N.O..
2. PREPARE DESIGN MIXES SIGNED AND SEALED BY A PROFESSIONAL ENGINEER, PROPORTIONED ACCORDING TO ACI 301, FOR NORMAL WEIGHT CONCRETE DETERMINED BY EITHER LABORATORY TRIAL MIX OR FIELD TEST DATA AS FOLLOWS:
   CONCRETE MATERIALS INCLUDED IN THE MIX DESIGN SHALL BE THE SAME MATERIALS PROVIDED TO THE PROJECT, AND SHALL BE PREPARED BY AN INDEPENDENT TESTING LABORATORY APPROVED BY THE OWNER. THE LABORATORY MIX DESIGN SHALL NOT EXCEED THE DESIRED JOB STRENGTH OF CONCRETE BY 1,200 PSI. FOUR COPIES OF THE MIX DESIGN SHALL BE SUBMITTED TO THE OWNER BEFORE CONCRETE WORK BEGINS.
3. SLUMP: CONCRETE CONTAINING HRWR SHALL HAVE A MAXIMUM SLUMP OF 8" (200MM). ALL OTHER CONCRETE SHALL NOT EXCEED 4 INCHES (100 MM) UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
4. ADJUSTMENT TO CONCRETE MIXES: MIX DESIGN ADJUSTMENTS MAY BE REQUESTED BY CONTRACTOR WHEN CHARACTERISTICS OF MATERIALS, JOB CONDITIONS, WEATHER, TEST RESULTS OR OTHER CIRCUMSTANCES WARRANT, AT NO ADDITIONAL COST TO OWNER AND AS ACCEPTED BY OWNER. LABORATORY TEST DATA FOR REVISED MIX DESIGN AND STRENGTH RESULTS MUST BE SUBMITTED TO AND ACCEPTED BY OWNER BEFORE USING IN WORK. BOTH THE CONCRETE TESTING AND INSPECTION AGENCY AND THE CONCRETE CONTRACTOR SHALL SATISFY THEMSELVES THAT THE CONCRETE MIX DESIGN WILL PRODUCE A CONCRETE WHICH WILL MEET THE SPECIFICATIONS FOR THIS PROJECT. IN ADDITION, THE CONTRACTOR AND CONCRETE FINISHER SHALL VERIFY THAT THE WORKABILITY, FINISHABILITY AND SETTING TIMES ARE APPROPRIATE FOR SLAB INSTALLATIONS. PLACEMENT SHALL BE MADE BY CHUTE DIRECTLY FROM THE CONCRETE TRUCKS. IF PUMPING OF THE CONCRETE IS CONTEMPLATED FOR ANY SPECIAL LOCATIONS, THE PROPORTIONS ESTABLISHED ABOVE SHALL NOT BE ALTERED TO SUIT THE CAPABILITIES OF THE PUMPING EQUIPMENT.
5. READY MIX CONCRETE SHALL COMPLY WITH REQUIREMENTS OF ASTM C94. WHEN AIR TEMPERATURE IS BETWEEN 85° AND 90° F, REDUCE MIXING AND DELIVERY TIME FROM 90 MINUTES TO 75 MINUTES; WHEN AIR TEMPERATURE IS ABOVE 90° F, REDUCE MIXING AND DELIVERY TIME TO 6O MINUTES.
6. WATER CEMENT RATIO SHALL BE BASED ON SURFACE DRY MATERIAL.

H. CONTRACTION JOINTS IN SLABS-ON-GRADE:
FORM WEAKENED-PLANE CONTRACTION JOINTS, SECTIONING CONCRETE INTO AREAS AS INDICATED. CONSTRUCT CONTRACTION JOINTS FOR A DEPTH EQUAL TO AT LEAST ONE-FOURTH OF THE CONCRETE THICKNESS, AS FOLLOWS:
SAWED JOINTS: ALL SAW CUTTING SHALL BE ACCOMPLISHED WITH A SOFT-CUT SAW AS SOON AS THE SLAB WILL SUPPORT THE WEIGHT OF THE SAW AND OPERATOR. NOTE: CONCRETE DUST SHALL BE REMOVED COMPLETELY AND IMMEDIATELY. IF CHALK LINES ARE USED FOR SAW CUTS, ALL CHALK REMAINING ON SLAB SHALL BE REMOVED COMPLETELY AND IMMEDIATELY AFTER SAWING.

I. **FLOOR SLAB TOLERANCES:**
COMPLY WITH ACI 117, "SPECIFICATIONS FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS." ALL INTERIOR FLOOR SLABS SHALL MEET THE REQUIREMENTS OF A TYPE 5, SINGLE COURSE, HARD STEEL - TROWELED FINISH AS DESCRIBED IN ACI 302.IR- LATEST EDITION.

J. CONCRETE CURING AND PROTECTION:

a) FIRST, ALL EXTERIOR CONCRETE SLABS SHALL BE CURED USING A LIQUID MEMBRANE- FORMING CURING COMPOUND TO BE APPLIED EVENLY AND UNIFORMLY PER MANUFACTURER'S INSTRUCTIONS AS SOON AS POSSIBLE AFTER FINAL FINISHING. SURFACE SHALL BE DAMP, BUT NOT WET AND CAN NO LONGER BE MARRED BY A WALKING WORKMAN. ALL APPLICATIONS SHALL BE MADE BY AN APPLICATOR CERTIFIED BY THE MANUFACTURER, AND WHEN SURFACE AND AIR TEMPERATURE IS ABOVE 50° F. BEGIN CURING AFTER FINISHING CONCRETE, BUT NOT BEFORE FREE WATER HAS DISAPPEARED FROM CONCRETE SURFACE. CURING COMPOUND SHALL BE PLACED WITHIN FOUR (4) HOURS AFTER CONCRETE HAS BEEN PLACED.

b) SECOND, CONCRETE SHALL BE MAINTAINED ABOVE 50 DEGREES F AND IN A MOIST CONDITION FOR AT LEAST THE FIRST SEVEN (7) DAYS AFTER PLACEMENT.

1. INTERIOR SLABS - CURING:
   a) FIRST, ALL INTERIOR CONCRETE SLABS SHALL BE CURED USING A LIQUID MEMBRANE-FORMING CURING COMPOUND TO BE APPLIED EVENLY AND UNIFORMLY PER MANUFACTURER'S INSTRUCTIONS AS SOON AS POSSIBLE AFTER FINAL FINISHING. SURFACE SHALL BE DAMP, BUT NOT WET AND CAN NO LONGER BE MARRED BY A WALKING WORKMAN. ALL APPLICATIONS SHALL BE MADE BY AN APPLICATOR CERTIFIED BY THE MANUFACTURER, AND WHEN SURFACE AND AIR TEMPERATURE IS ABOVE 50° F. BEGIN CURING AFTER FINISHING CONCRETE, BUT NOT BEFORE FREE WATER HAS DISAPPEARED FROM CONCRETE SURFACE. CURING COMPOUND SHALL BE PLACED WITHIN FOUR (4) HOURS AFTER CONCRETE HAS BEEN PLACED.

   b) SECOND, CONCRETE SHALL BE MAINTAINED ABOVE 50 DEGREES F AND PONDED WITH WATER FOR SEVEN (7) DAYS AFTER CONCRETE PLACEMENT.

   c) THIRD, CONCRETE SLABS SHALL BE CURED USING A LIQUID MEMBRANE- FORMING CURING COMPOUND TO BE APPLIED EVENLY AND UNIFORMLY PER MANUFACTURER'S INSTRUCTIONS. SURFACE SHALL BE DAMP, BUT NOT WET AND CAN NO LONGER BE MARRED BY A WALKING WORKMAN. ALL APPLICATIONS SHALL BE MADE BY AN APPLICATOR CERTIFIED BY THE MANUFACTURER, AND WHEN SURFACE AND AIR TEMPERATURE IS ABOVE 50° F.
2. INTERIOR SLAB PROTECTION:
   TAKE THE FOLLOWING MEASURES TO PROTECT FLOOR SLAB:
   - A. WRAP OR "DIAPER" ALL MOTORIZED AND HYDRAULIC EQUIPMENT TO PREVENT FLUID LEAKS.
   - B. PROVIDE NON-MARKING TIRES ON RUBBER TIRED VEHICLES OR EQUIP RUBBER TIRES WITH TIRE BOOTS MADE OF NYLON FABRIC.
   - C. SOURCE FOR DIAPERS AND BOOTS: R&R TIRE SURFACE PROTECTORS, INC., FORT COLLINS CO 80526, (970) 266-4082
   - D. PROVIDE MATS AT ALL ENTRANCES TO PREVENT MUD STAINS.
   - E. COVER SLAB PRIOR TO PAINTING. ALL SPILLS TO BE CLEANED WITH SOAP AND WATER. LACQUER THINNER WILL NOT BE ACCEPTABLE.

ABBREVIATIONS

TYP	TYPICAL
SIM	SIMILAR
T&S	TYPICAL AND SIMILAR
U.N.O.	UNLESS NOTED OTHERWISE
CLR	CLEAR
(V)	VERTICAL
CA	COLUMN ABOVE

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1/12/2018

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PROPOSED

Pharr Expansion

Pharr, TEXAS

Project: 16162
Date: 1/12/2018

S101

SPECIAL INSPECTION, MATERIALS TESTING.

1. RESPONSIBILITIES OF THE OWNER
   A. EMPLOY AND PAY THE SPECIAL INSPECTION AGENCY TO PERFORM INSPECTIONS SPECIFIED IN THIS SECTION AND THOSE REQUIRED BY AUTHORITIES HAVING JURISDICTION.
   B. EMPLOY AND PAY THE MATERIALS TESTING LABORATORY TO PERFORM TESTS SPECIFIED IN THIS SECTION AND THOSE REQUIRED BY AUTHORITIES HAVING JURISDICTION.
      1) RETESTING - THE CONTRACTOR SHALL REIMBURSE THE OWNER FOR RE-TESTING WHERE RESULTS OF INSPECTIONS AND TESTS PROVE UNSATISFACTORY AND INDICATE NONCOMPLIANCE WITH REQUIREMENTS.
   C. EMPLOY THE DESIGN PROFESSIONAL RESPONSIBLE FOR THE STRUCTURAL DESIGN OR ANOTHER ENGINEER OR ARCHITECT DESIGNATED BY THE (DPR) TO PERFORM STRUCTURAL OBSERVATION. (REF 1702)
2. DEFINITIONS
   A. APPROVED FABRICATOR: A FABRICATOR REGISTERED AND APPROVED BY THE BUILDING OFFICIAL AND ENGINEER OF RECORD, TO PERFORM WORK, OFF SITE, REQUIRING SPECIAL INSPECTION WITHOUT SPECIAL INSPECTION. THE DESCRIPTION IN SECTION 1701.1 OF THE 1998 CALIFORNIA BUILDING CODE IS APPLICABLE.
   B. SPECIAL INSPECTION AGENCY: THE ACCREDITED INSPECTION BODIES DESIGNATED HEREIN AND APPROVED BY THE ENGINEER OF RECORD TO PERFORM SPECIAL INSPECTION AS REQUIRED BY THE BUILDING CODE AND THE PROJECT SPECIFICATIONS AND AS DESCRIBED IN SECTION 1701 1998 CALIFORNIA BUILDING CODE.
   C. SPECIAL INSPECTOR: A QUALIFIED PERSON, EMPLOYED BY THE SPECIFIED SPECIAL INSPECTION AGENCY, WHO HAS DEMONSTRATED COMPETENCE TO THE SATISFACTION OF THE BUILDING OFFICIAL FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION. DUTIES INCLUDE VISUAL OBSERVATIONS AND FIELD MEASUREMENTS OF MATERIALS, OBTAINING SPECIMENS FOR TESTS AND RELATED ACTIONS INCLUDING PREPARATION OF REPORTS.
   D. TESTING LABORATORY: AN ACCREDITED MATERIALS TESTING LABORATORY, APPROVED BY THE ENGINEER OF RECORD, TO MEASURE, EXAMINE, TEST, CALIBRATE OR OTHERWISE DETERMINE THE CHARACTERISTICS OR PERFORMANCE OF CONSTRUCTION MATERIALS.
   E. CONTINUOUS INSPECTION: ON SITE INSPECTION BY THE SPECIAL INSPECTOR ON A CONTINUOUS BASIS OBSERVING ALL WORK REQUIRING SPECIAL INSPECTION.
   F. PERIODIC INSPECTION: INTERMITTENT INSPECTION AS PERMITTED BY THE PLAN SPECIFICATIONS AT PREDETERMINED INTERVALS OR MORE FREQUENTLY AS WORK PROGRESSES. NO SIGNIFICANT ELEMENTS OR AREAS SHALL BE COVERED BY ADDITIONAL WORK UNTIL APPROVED BY THE MUNICIPAL BUILDING INSPECTOR AND/OR THE SPECIAL INSPECTOR.
   G. STRUCTURAL OBSERVATION: THE VISUAL OBSERVATION, BY THE ENGINEER OF RECORD OR HIS DESIGNEE, INCLUDING BUT NOT LIMITED TO THE ELEMENTS AND CONNECTIONS, OF THE STRUCTURAL SYSTEM, FOR GENERAL CONFORMANCE TO THE APPROVED PLANS AND SPECIFICATION, AT SIGNIFICANT CONSTRUCTION STAGES AND AT COMPLETION OF THE STRUCTURAL SYSTEM. STRUCTURAL OBSERVATION DOES NOT INCLUDE OR WAIVE THE RESPONSIBILITY FOR THE SPECIAL AND MUNICIPAL INSPECTIONS REQUIRED BY CODES AND SPECIFICATIONS.
   H. EOR: ENGINEER OF RECORD
   I. DPR: ENGINEER OF RECORD/DESIGN PROFESSIONAL OF RECORD
   J. SPECIAL INSPECTION AND MATERIALS TESTING
      THIS SECTION APPLIES TO THE STRUCTURAL PORTIONS OF THE PROJECT REQUIRING SPECIAL INSPECTION. THE SPECIAL INSPECTORS DUTIES ARE DESCRIBED IN CBC 1701.3 AND CBC 1701.5
      DOCUMENTED METHODS AND PROCEDURES SHALL BE USED FOR INSPECTION AND TESTING REQUIRED OF CONTRACTUAL DOCUMENTS, AND FOR ESTABLISHING ACCEPTANCE CRITERIA. ALL INSTRUCTIONS, STANDARDS, PROCEDURES, CHECKLISTS RELEVANT TO THE WORK WILL BE KEPT UP TO DATE AND READILY AVAILABLE FOR USE. NO INSPECTION OR TEST WILL BE PERFORMED IF THE SAFETY OF THE TESTING PERSONNEL IS IN QUESTION DUE TO JOB SITE CONDITIONS. PRIOR TO PROJECT COMMENCEMENT, THE TESTING AGENCY WILL CONFER WITH AND OBTAIN THE APPROVAL FROM THE APPROPRIATE DESIGN PROFESSIONAL OF RECORD REGARDING THE INSPECTION AND TESTING PROCEDURES OR SPECIFICATIONS INCLUDING ANY APPROPRIATE ASTM METHODS, CODE REQUIREMENTS OR PROJECT SPECIFICATION REQUIREMENTS. AT THE START OF AND DURING EACH INSPECTION OF THE PROJECT TO ASCERTAIN PROPOSED CONFORMITY OF MATERIALS, PERSONNEL QUALIFICATIONS, AS REQUIRED, AND PROCEDURES WITH APPLICABLE CODES, PLANS, AND SPECIFICATIONS.
      1. ALL INSPECTIONS SHALL BE PERFORMED BY AN ACCREDITED, APPROVED SPECIAL INSPECTION AGENCY EMPLOYED BY THE OWNER OR OWNER'S AGENT, NOT THE CONTRACTOR OR SUBCONTRACTOR,
         ACCREDITATION TO ASTM E-329-95C, STANDARD SPECIFICATIONS FOR AGENCIES ENGAGED IN THE TESTING AND/OR INSPECTION OF MATERIALS USED IN CONSTRUCTION, IS PREFERRED.
         COPIES OF THE TEST RESULTS AND FINAL REPORTS SHALL BE FURNISHED TO THE ENGINEER OF RECORD (EOR) IN ADDITION TO OTHER NORMAL DISTRIBUTIONS, WITHIN TWO DAYS OF THE TEST. IN THE CASE OF DISCREPANCIES OR DEFICIENCIES, THE SPECIAL INSPECTION AGENCY SHALL IMMEDIATELY NOTIFY THE EOR. TESTING FREQUENCY SHALL BE PER APPLICABLE STRUCTURAL MASONRY, REINFORCED CONCRETE, AND STRUCTURAL STEEL WELDING CODES AND STANDARDS AND ARE PART OF THIS SPECIFICATION.
         A. CERTIFICATE OF SATISFACTORY COMPLETION OF WORK REQUIRING SPECIAL INSPECTION MUST BE COMPLETED AND SUBMITTED TO THE INSPECTION SERVICES DIVISION BY THE CONTRACTOR.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE TEST AND/OR INSPECTION FIRM WITH A CONSTRUCTION SCHEDULE TO FACILITATE THE PROPER COORDINATION.
4. THE SPECIAL INSPECTOR SHALL FURNISH DAILY INSPECTION REPORTS TO THE BUILDING OFFICIAL, THE ARCHITECT, AND THE ENGINEER AT A MINIMUM PER WEEK FREQUENCY. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL REPORT, SIGNED BY BOTH HE AND HIS SUPERVISOR, STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND THE WORKMANSHIP PROVISIONS OF THE CBC.
5. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION; THEN IF UNCORRECTED, TO THE PROPER DESIGN AUTHORITY AND THE BUILDING OFFICIAL.
6. SPECIAL INSPECTION REPORTS
   THESE REPORTS SHALL INCLUDE, AS A MINIMUM, THE FOLLOWING INFORMATION:
   A. PERMIT NUMBER
   B. NAME OF THE MUNICIPAL INSPECTOR, IF AVAILABLE, AND OF THE GOVERNING MUNICIPALITY
   C. SPECIAL INSPECTION AGENCY NAME, ADDRESS, AND PHONE NUMBER
   D. UNIQUE IDENTIFICATION OF THE REPORT AND OF EACH PAGE.
   E. CLIENT NAME AND ADDRESS
   F. NAME AND ADDRESS OF THE DESIGN PROFESSIONAL OF RECORD, AND OTHER DESIGNERS OR ENGINEERS APPLICABLE TO THE PROJECT
   G. DESCRIPTION OF THE TYPE OF INSPECTION PERFORMED
   H. ANY UNRESOLVED DEVIATIONS, EXCLUSIONS, AND ADDITIONS TO OR FROM THE APPROVED DRAWINGS AND SPECIFICATIONS RELEVANT TO THE SPECIFIC INSPECTION OR TEST.
   I. COMPLIANCE FINDINGS AND REFERENCE
   J. DESCRIPTION OF LOCATION WHERE THE INSPECTION WAS PERFORMED WITHIN THE PROJECT
   K. TIME AND DATE OF THE INSPECTION
   L. MEASUREMENTS, EXAMINATIONS, AND DERIVED RESULTS SUPPORTED BY TABLES, GRAPHS, SKETCHES, OR PHOTOGRAPHS AS APPROPRIATE
   M. THE NAME, SIGNATURE, TITLE, AND IDENTIFICATION NUMBER, AS APPROPRIATE, OF THE FIELD INSPECTOR PERFORMING THE INSPECTION
   N. IDENTIFICATION OF SUBCONTRACTORS EMPLOYED TO CARRY OUT TESTS OR PARTS OF TESTS
7. TESTS REPORTS
   LABORATORY TESTS AND MILL CERTIFICATIONS ARE REQUIRED TO BE SUBMITTED TO THE ENGINEER OF RECORD. THESE REPORTS SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:
   1. CONCRETE CYLINDERS
   2. REINFORCING STEEL
   3. STRUCTURAL STEEL
   4. CONCRETE MIXES
   5. CONCRETE ANCHORS
8. SPECIAL INSPECTION BY A SPECIAL OR DEPUTY INSPECTOR FROM AN ACCREDITED, EOR APPROVED INSPECTION AGENCY AND WITH THE APPROPRIATE CURRENT MUNICIPAL LICENSES AND CERTIFICATIONS SHALL BE REQUIRED FOR THE TYPE OF WORK LISTED BELOW.

8A CONTINUOUS INSPECTION REQUIRED FOR THE FOLLOWING:
   A. REINFORCED CONCRETE:
      1. DURING PLACEMENT OF REINFORCED CONCRETE WHERE THE STRUCTURAL DESIGN IS BASED ON F'C GREATER THAT 3,000 PSI AND THE TAKING TEST SPECIMENS. THE NUMBER OF AND FREQUENCY OF TAKING OF TEST SPECIMENS SHALL BE THE MINIMUM REQUIRED BY THE GOVERNING MUNICIPAL BUILDING CODE OR AS SPECIFIED BY THE APPROVED STRUCTURAL PLANS, WHICHEVER IS THE GREATER NUMBER.
      2. DURING THE PLACEMENT OF REINFORCING STEEL AND PRE STRESS TENDONS UNLESS THE SPECIAL INSPECTOR HAS INSPECTED FOR CONFORMANCE WITH THE APPROVED PLANS PRIOR TO THE CLOSING OF FORMS OR THE DELIVERY OF CONCRETE TO THE JOBSITE.
      3. DURING THE PLACEMENT OF REINFORCING STEEL AND CONCRETE FOR CAST-IN-PLACE DRILLED PILES OR CAISSONS.
      4. INSPECTION IS REQUIRED ON CAST-IN-PLACE PILES OR CAISSONS, EVEN IF F'C IS LESS THAN 2,500 PSI.
      5. PRIOR TO AND DURING THE PLACEMENT OF CONCRETE AROUND BOLTS WHEN STRESS INCREASES PERMITTED BY FOOTNOTE 5 OF TABLE 19E, SECTION 1925 OF THE UNIFORM BUILDING CODE FOR THE USE OF FULL VALUES FOR EMBEDDED BOLTS.
      6. PRIOR TO AND DURING THE INSTALLATION OF ANCHORS REQUIRING TO BE DRILLED INTO CONCRETE.
      7. DURING THE STRESSING AND GROUTING OF TENDONS IN PRE STRESSED
      8. CONTINUOUS INSPECTION FOR THE PLACEMENT OF THE REINFORCEMENT AND CONCRETE AT CONCRETE MOMENT FRAMES WITHIN SEISMIC ZONES 3 & 4
      9. SHOT CRETE PLACEMENT AND DURING THE TAKING OF TEST SPECIMENS.
         PERIODIC INSPECTION FOR REINFORCED CONCRETE SHALL BE PERFORMED WHEN SPECIFIED, AS MINIMUMS:
         1. AT THE START OF AND DURING EACH INSPECTION OF THE PROJECT TO ASCERTAIN PROPOSED CONFORMITY OF MATERIALS, PERSONNEL QUALIFICATIONS AS REQUIRED, AND PROCEDURES WITH THE APPLICABLE CODES, PLANS AND SPECIFICATIONS.
         2. REINFORCEMENT VERIFICATION PRIOR TO THE PLACEMENT OF CONCRETE
         3. DURING THE PLACEMENT OF CONCRETE
         4. DURING THE MOLDING, CONSTRUCTION OF TAKING OF COMPRESSION SAMPLES, BEAMS, CORES OR PANELS.
         5. AT SUCH FREQUENCY AS NECESSARY TO CLEARLY CONFIRM THE PLACEMENT OF TIES, HOOPS, STIRRUPS, CONNECTIONS, AND ANY ADDITIONAL SPECIFIED REINFORCEMENT (I.E. @ OPENINGS, BEAMS, CORNERS, COLUMNS, PIERS, AND CAISSONS) BEFORE THEY ARE COVERED.
         6. DURING SAMPLING OF CONCRETE AT DISCHARGE FROM MIXER.
         7. BEFORE ANY CONCRETE IS PLACED FOR VERIFICATION OF MIX DESIGN
         8. ALL FUNCTIONS AT THE BATCHING PLANT FOR READY MIX. THIS COULD INCLUDE CEMENT SAMPLING OR TEST RESULTS, GRAVEL GRADATION, CHECKING CALIBRATION OF EQUIPMENT AND ADMIXTURE APPROVALS.
   B. STRUCTURAL WELDING - GENERAL - INSPECTOR'S DUTIES
      1. ALL FIELD WELDING NOT DONE IN AN APPROVED FABRICATORS SHOP EXCEPT THAT PERIODIC INSPECTION THE FREQUENCY OF WHICH IS DETERMINED PRIOR TO THE START OF THE PROJECT SHALL BE ALLOWED PER SECTION 1701.5, #5 EXCEPTIONS.
      2. DURING ALL FIELD WELDING OF SPECIAL MOMENT-RESISTING FRAMES; IN ADDITION, NONDESTRUCTIVE TESTING AS REQUIRED BY SECTION 1703.
      3. THE SPECIAL INSPECTOR SHALL REVIEW EOR APPROVED WELDING PROCEDURES SPECIFICATIONS (WPS) WHEN OTHER THAN STANDARD AWS PRE QUALIFIED JOINTS AND PROCEDURES ARE INVOLVED.
      4. THE SPECIAL INSPECTOR SHALL REVIEW APPLICABLE SECTION OF REFERENCED CODES, PARTICULARLY THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE (AWS D1.1) AND THE MANUAL, AND SPECIFICATIONS OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC).
      5. THE SPECIAL INSPECTOR SHALL REVIEW MILL TEST REPORTS AND CHECK HEAT NUMBERS WITH MATERIAL AS RECEIVED. VERIFY THAT PROPER IDENTIFICATION OF STEEL IS MAINTAINED DURING FABRICATION.
      6. THE SPECIAL INSPECTOR SHALL, WHEN REQUIRED BY PROJECT SPECIFICATIONS, MARK SAMPLE LOCATION WITH STEEL STAMP ON EACH PIECE TESTED.
      7. THE SPECIAL INSPECTOR SHALL RECORD SAMPLE NUMBER AND LOCATION AND CHECK THAT SAMPLE IDENTIFICATION IS MAINTAINED AS SAMPLES ARE DELIVERED TO LABORATORY AND TESTED.
      8. THE SPECIAL INSPECTOR SHALL WHEN STEEL MEMBERS ARE DELIVERED TO FINISH AND NO "CROP ENDS" ARE AVAILABLE FOR SAMPLE CUTTING, COORDINATE CUTTING AND PATCHING REQUIREMENTS WITH THE ARCHITECT/ENGINEER

9A. WELDING OBSERVATION - (APPLICABLE TO SHOP AND FIELD)
   1. THE SPECIAL INSPECTOR SHALL CHECK EACH WELDER'S CERTIFICATION AND VERIFY THAT THE WELDER DOES WORK ONLY AS QUALIFIED BY HIS CERTIFICATION
   2. THE SPECIAL INSPECTOR SHALL KEEP A WRITTEN RECORD OF EACH WELDER BY NAME, IDENTIFICATION NUMBER AND HIS IDENTIFYING STEEL MARK, IF APPLICABLE, AND THE PERCENTAGE OF REJECTABLE WELDS.
   3. THE SPECIAL INSPECTOR SHALL UPON DETECTION OF REJECTABLE WELD (EITHER VISUALLY OR BY NONDESTRUCTIVE TEST), THE INSPECTOR OF RECORD WILL NOTIFY THE WELDER AND HIS FOREMAN FOR VERIFICATION OF DEFECT. THE INSPECTOR OF RECORD WILL OBSERVE REMOVAL, REWORK, OR REPAIRS.
   4. THE SPECIAL INSPECTOR SHALL CHECK STRUCTURAL MEMBERS FOR THICKNESS ADJACENT TO WELDS, OPENING, ETC. REWORK, OR REPAIRS.
   5. THE SPECIAL INSPECTOR SHALL INSPECT JOINTS FOR PROPER PREPARATION, INCLUDING BEVEL, ROOT FACES, ROOT OPENING, ETC. REWORK, OR REPAIRS.
   6. THE SPECIAL INSPECTOR SHALL CHECK THE TYPE AND SIZE OF ELECTRODES TO BE USED FOR THE VARIOUS JOINTS, AND POSITIONS. CHECK THE STORAGE FACILITIES TO SEE IF THEY ARE ADEQUATE TO KEEP THE ELECTRODES DRY.
   7. THE SPECIAL INSPECTOR SHALL OBSERVE THE TECHNIQUE OF EACH THE SPECIAL INSPECTOR SHALL WELDER WITH USE OF A WELDING INSPECTION SHIELD.
   8. THE SPECIAL INSPECTOR SHALL VERIFY THE USE OF PROPER PREHEAT AND INTER PASS TEMPERATURES. INSPECTOR SHALL WELDER WITH USE OF A WELDING INSPECTION SHIELD.
   9. THE SPECIAL INSPECTOR SHALL CONTINUOUSLY OBSERVE MULTI-PASS WELDS. CONTINUOUS INSPECTION IS DEFINED AS FOLLOWS: THE INSPECTOR IS PRESENT IN THE WELDING AREA AT ALL TIMES AND IS FULLY AWARE OF THE PROGRESS OF THE WELDING AT ANY GIVEN TIME. THE INSPECTOR MAY WATCH MULTIPLE WELDERS PROVIDED THEY ALL BE IN THE AREA, CLOSE ENOUGH FOR EFFECTIVE VISUAL INSPECTION OF THE WORK PERFORMED.
   10. THE SPECIAL INSPECTOR SHALL DETERMINE THAT THE OPERATOR IS CAPABLE OF PRODUCING THE REQUIRED WELDS.
   11. THE SPECIAL INSPECTOR SHALL OBSERVE SINGLE PASS FILLET WELDS PERIODICALLY, OR MORE OFTEN IF CODES AND SPECIFICATIONS REQUIRE.
   12. THE SPECIAL INSPECTOR SHALL, IF STRAIGHTENING OR RESTRAINING OF WELDMENTS IS NECESSARY, VERIFY THAT APPROVED METHODS WILL BE USED.
   13. THE SPECIAL INSPECTOR SHALL TAG OR STAMP ACCEPTED WELDMENTS WITH THE INSPECTOR'S IDENTIFICATION STAMP. APPROVED METHODS WILL BE USED.

8A. PORTIONS OF WORK REQUIRING SPECIAL INSPECTION:		YES	NO	N/A
FOUNDATION	A. COMPACTED FILL, GRADING, AND EXCAVATIONS	X		
	B. CONTINUOUS INSPECTION OF PIERS	X		
CONCRETE	A. CONTINUOUS INSPECTION AND TEST CYLINDERS FOR CONCRETE.	X		
	B. CONTINUOUS INSPECTION FOR SLAB CONCRETE	X		
	C. TEST CYLINDERS FOR SLAB CONCRETE	X		
	D. ANCHOR BOLTS OR EMBEDS IN CONCRETE (INSTALLATION AND CONCRETE PLACEMENT)	X		
DRILLED IN ANCHORS	A. ALL ADHESIVE ANCHORS, RODS, DOWELS, SHALL BE CONTINUOUSLY INSPECTED DURING INSTALLATION.	X		
	B. ADDITIONAL TESTING MAY BE REQUIRED AS SPECIFIED ON THE PLANS.	X		
	C. ADHESIVE ANCHORS IN CONCRETE OR MASONRY	X		
REINFORCING STEEL	A. PLACING OF REINFORCING	X		
	B. SAMPLING AND TESTING STEEL (MILL REPORTS AND IDENTIFICATION OF STEEL)	X		
WELDING	A. ALL STRUCTURAL WELDING EXCEPT WELDING IN APPROVED SHOPS.	X		
	B. ULTRASONIC TESTING OF FULL PENETRATION WELD CONNECTIONS , AND FIELD WELDS.	X		
	C. STRUCTURAL LIGHT GAGE METAL FRAME WELDING.	X		
	D. REINFORCING STEEL WELDING	X		
BOLTING	A. HIGH STRENGTH BOLT A325 & A490 (TORQUE VERIFICATION)	X		
	B. HIGH STRENGTH BOLT A325N,X & A480N,X (SNUG CONTACT OF PLYS)	X		
MASONRY	A. SAMPLING OF MASONRY UNITS	X		
	B. MASONRY PRISM CONSTRUCTION	X		
	C. MORTAR SAMPLING	X		
	D. CONTINUOUS INSPECTION DURING PLACEMENT AND GROUTING OF MASONRY UNITS AND REINFORCEMENT PLACEMENT.	X		
	E. ANCHOR BOLTS OR EMBEDS IN MASONRY (INSTALLATION AND GROUT PLACEMENT)	X		
INSULATING CONCRETE FILL	A. TEST CYLINDERS AND INSPECTIONS	X		
STRUCTURAL STEEL	A. MILL REPORTS AND IDENTIFICATION OF STEEL (AFFIDAVIT OF COMPLIANCE)	X		
	B. SAMPLING AND TESTING	X		
	C. DURING PLACEMENT OF PAINT AS SPECIFIED BY THE ARCHITECT.	X		
SHEAR DIAPHRAGMS	A. INSPECTION OF SHEATHING PLACEMENT AND NAIL SPACING	X		
APPROVED FABRICATORS	APPROVED FABRICATORS: MUST SUBMIT CERTIFICATE OF COMPLIANCE FOR ALL OFF SITE FABRICATION SUCH AS STRUCTURAL STEEL GLU-LAMS PRECAST CONCRETE, ETC.	X		
STRUCTURAL OBSERVATION	STRUCTURAL OBSERVATIONS REQUIRED. WHEN REQUIRED BY THIS ENGINEER OR THE BUILDING DEPARTMENT, THE CONTRACTOR SHALL EMPLOY AN ENGINEER APPROVED BY THE EOR TO PERFORM STRUCTURAL OBSERVATION.	X		

REINFORCED CONCRETE MASONRY UNITS

1. CONCRETE MASONRY UNITS (CMU) SHALL CONFORM TO ASTM C90, AND AS FOLLOWS:
   * UNIT COMPRESSIVE STRENGTH: 1900 PSI MINIMUM AVERAGE NET AREA COMPRESSIVE STRENGTH.
   * WEIGHT CLASSIFICATION: MEDIUM WEIGHT BLOCK
   * GROUT f'c = 3000 PSI
   * MORTAR SHALL BE TYPE S
   * CONCRETE MASONRY ASSEMBLAGE (f'm) SHALL BE 1500 PSI
2. ALL REINFORCING BARS SHALL BE NEW BILLET STEEL AND SHALL CONFORM TO ASTM A-615, GRADE 60, REINFORCING BARS #3 AND SMALLER MAY BE GRADE 40.
3. CONCRETE SHALL CONFORM TO ASTM C150 TYPE I, LOW ALKALI, MASONRY CEMENTS ARE NOT ALLOWED.
4. TYPICAL REINFORCEMENT, U.N.O. (DRAWING NOTES GOVERN OVER THESE NOTES)

CMU		VERTICAL	HORIZONTAL	OPENINGS AND DOWELS	CORNERS
▨	8"	#6 AT 32" O.C.	#5 AT 96" O.C.	(2) #5	(3) #5
	6"	#4 AT 48" O.C.	#4 AT 96" O.C.	(1) #4	(3) #4
▩	12"	(2) #6 AT 16" O.C.	(2) #5 AT 96" O.C.	(2) #6	(3) #6

■ INDICATES CMU WALL/COLUMN/PILASTER REINFORCED PER DETAIL 1/S402

ALL VERTICAL REINFORCEMENT TO BE IN CONCRETE OR GROUT FILLED CELLS, PROVIDE DOWELS FROM FOUNDATION, SAME SIZE AND SPACING.

5. TYPICAL HORIZONTAL REINFORCEMENT SHALL BE TWO (2) #5 CONTINUOUS IN 8"x16" DEEP CONTINUOUS CONCRETE FILLED BOND BEAM BELOW EACH FLOOR AND ROOF LEVEL, UNLESS NOTED OTHERWISE. PROVIDE STANDARD DUR-O-WALL TRUSS-TYPE REINFORCING OR REVIEWED EQUIVALENT EVERY OTHER COURSE (16" ON CENTER) AND AS PER MANUFACTURER'S RECOMMENDATIONS. (9 GAGE MINIMUM GALVANIZED)
6. VERTICAL CELLS TO BE FILLED SHALL HAVE VERTICAL ALIGNMENT SUFFICIENT TO MAINTAIN A CLEAR, UNOBSTRUCTED CONTINUOUS VERTICAL.
7. WALL LENGTHS LESS THAN OR EQUAL TO FOUR (4) TIMES ITS THICKNESS SHALL BE CONSIDERED COLUMN SECTIONS AND SHALL BE REINFORCED WITH #5 VERTICAL REINFORCING IN FILLED CELLS, PROVIDE 1/4 INCH DIAMETER TIES EVERY COURSE (8" ON CENTER) IN LIEU OF DUR-O-WALL REINFORCING, PLACE TIES NOT LESS THAN 1 1/2" NOR MORE THAN 5" FROM THE SURFACE OF THE COLUMN.
8. ALL CELLS CONTAINING VERTICAL REINFORCEMENT SHALL BE FILLED SOLIDLY WITH PEA GRAVEL CONCRETE (3/8" MAX. AGGREGATE SIZE) OR GROUT, EACH WITH A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS, GROUT OR CONCRETE SHALL BE A WORKABLE MIX SUITABLE FOR PUMPING WITHOUT SEGREGATION AND SHALL BE THOROUGHLY MIXED, GROUT OR CONCRETE SHALL BE PLACE BY PUMPING OR AN APPROVED ALTERNATE METHOD AND SHALL BE PLACED BEFORE INITIAL SET OR HARDENING OCCURS. GROUTING SHALL BE PER NCMA TEK 3-2
9. ALLOW C.M.U. WALLS TO SET AT LEAST 24 HOURS AFTER COMPLETION BEFORE GROUTING, GROUT OR CONCRETE SHALL BE CONSOLIDATED BY RESOLIDATION AFTER EXCESS MOISTURE HAS BEEN ABSORBED BUT BEFORE WORKABILITY IS LOST, THE FILLING OF ANY SECTION OF A WALL SHALL BE COMPLETED IN ONE DAY WITHOUT INTERRUPTIONS GREATER THAN ONE HOUR, AND PLACED IN LAYERS OF 4 FEET MAXIMUM.
10. WHERE THE CONCRETE OR GROUT POUR EXCEEDS 4 FEET IN HEIGHT, CLEANOUTS SHALL BE PROVIDED BY SUITABLE OPENINGS IN THE FACE SHELLS IN THE BOTTOM COURSE OF EACH CELL TO BE FILLED, OR OTHER APPROVED LOCATIONS, THE CLEANOUTS SHALL BE SEALED AFTER INSPECTION AND BEFORE BEING FILLED.
11. WHEN CELL FILLING IS STOPPED FOR ONE HOUR OR LONGER, HORIZONTAL CONSTRUCTION JOINT SHALL BE FORMED BY STOPPING THE POUR OF CONCRETE OR GROUT APPROXIMATELY 1/2 INCH ABOVE OR BELOW BED JOINT.
12. END WALLS AND CROSS WEBS FORMING CELLS TO BE FILLED SHALL BE FULL BEDDED IN MORTAR TO PREVENT LEAKAGE OF CONCRETE OR GROUT UNLESS WALL IS TO BE POURED SOLID.
13. PROVIDE VERTICAL CONTROL JOINTS AT A MAXIMUM SPACING OF 24' (10' FROM CORNERS. DO NOT CONTINUE THE TYPICAL TRUSS TYPE JOINT REINFORCEMENT THROUGH THE JOINT. BOND BEAM REINFORCEMENT SHALL BE CONTINUOUS THROUGH THE JOINT.
14. DURING ERECTION, COVER TOP OF WALLS, PROJECTIONS AND SILLS WITH WATERPROOF SHEATHING AT THE END OF EACH DAY'S WORK.

A. PREINSTALLATION CONFERENCE:
1. AT LEAST 15 DAYS PRIOR TO THE START OF THE MASONRY CONSTRUCTION SCHEDULE, THE CONTRACTOR SHALL CONDUCT A MEETING TO REVIEW THE PROPOSED MIX DESIGNS, MATERIALS AND TO DISCUSS THE REQUIRED METHODS AND PROCEDURES TO ACHIEVE THE REQUIRED MASONRY CONSTRUCTION. THE CONTRACTOR SHALL SEND A PRE-CONCRETE CONFERENCE AGENDA TO ALL ATTENDEES 20 DAYS PRIOR TO THE SCHEDULED DATE OF THE CONFERENCE.
2. THE CONTRACTOR SHALL REQUIRE RESPONSIBLE REPRESENTATIVES OF EVERY PARTY CONCERNED WITH THE MASONRY WORK TO ATTEND THE CONFERENCE, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
   A) CONTRACTOR'S SUPERINTENDENT
   B) LABORATORY RESPONSIBLE FOR CONCRETE MIXES AND/ OR FIELD QUALITY CONTROL AND SPECIAL INSPECTOR
   C) READY-MIX CONCRETE PRODUCER
   D) MASONRY SUBCONTRACTOR
3. MINUTES OF THE MEETING SHALL BE RECORDED, TYPED AND PRINTED BY THE CONTRACTOR AND DISTRIBUTED BY HIM TO ALL CONCERNED PARTIES, INCLUDING THE OWNER'S REPRESENTATIVE, THE ARCHITECT, AND THE STRUCTURAL ENGINEER WITHIN FIVE DAYS OF THE MEETING.

STRUCTURAL MASONRY (SPECIAL INSPECTION)

INSPECTION TASK (MONITOR MATERIAL AND WORKMANSHIP TO ASSURE CONTRACT DOCUMENTS ARE BEING FOLLOWED)	INSPECTION: CONTINUOUS DURING TASK LISTED	INSPECTION: PERIODICALLY DURING TASK LISTED
1. AS MASONRY CONSTRUCTION BEGINS, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:		
A. PROPORTIONS OF SITE PREPARED MORTAR.	X	
B. CONSTRUCTION OF MORTAR JOINTS.	X	
C. LOCATION OF REINFORCEMENT AND CONNECTORS.	X	
2. THE INSPECTION PROGRAM SHALL VERIFY:		
A. SIZE AND LOCATION OF STRUCTURAL ELEMENTS.	X	
B. TYPE, SIZE AND LOCATION OF DOWELS, ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES AND OTHER CONSTRUCTION	X	
C. CHECK GROUT MIX FOR COMPLIANCE WITH CODE AND SPECIFICATIONS.	X	
D. WELDING OF REINFORCING BARS.	X	
E. PROTECTION OF MASONRY DURING COLD WEATHER (TEMP. BELOW 40 °F) OR HOT WEATHER (TEMP. ABOVE 90 °F).	X X	
F. CUTTING OF CLEAN OUT HOLES, KNOCKING DOWN OF FINS AND REMOVAL OF DEBRIS.		
G. VERIFY THAT MATERIALS ARE PROPERLY STORED.		
H. VERIFY THE LOCATION OF THE CONTROL JOINTS.		
3. PRIOR TO GROUTING, THE FOLLOWING SHALL BE VERIFIED TO ENSURE COMPLIANCE:		
A. GROUT SPACE IS CLEAN.	X	
B. PLACEMENT OF REINFORCEMENT AND CONNECTOR. (CHECK CLEARANCE, LAP SPLICES, STAGGER AND OFFSETS)	X	
C. CHECK GROUT MIX FOR COMPLIANCE WITH CODE AND SPECIFICATIONS.	X	
D. CONSTRUCTION OF MORTAR JOINTS.	X	
E. CHECK INSTALLATION OF CLEAN OUT CLOSURE.	X	
4. GROUT PLACEMENT SHALL BE VERIFIED TO ENSURE COMPLIANCE WITH CODE AND CONSTRUCTION DOCUMENT PROVISIONS. (SUCH AS MECHANICAL VIBRATION DURING PLACEMENT AND LATER DURING RECONSOLIDATION.)	X	
5. PREPARATION OF ANY REQUIRED GROUT SPECIMENS, MORTAR SPECIMENS AND/OR PRISMS SHALL BE OBSERVED.	X	
6. COMPLIANCE WITH REQUIRED INSPECTION PROVISIONS OF THE PROVISIONS OF THE CONSTRUCTION DOCUMENTS AND THE APPROVED SUBMITTALS SHALL BE VERIFIED.	X	
7. CHECK THAT CURING REQUIREMENTS ARE BEING FOLLOWED	X	
8. VERIFY PLACEMENT OF ANCHORS INTO CONCRETE MASONRY UNITS.	X	
9. FREQUENCY OF TESTS: A. CONCRETE MASONRY UNIT TEST- FOR EACH TYPE, CLASS, AND GRADE OF CONCRETE MASONRY UNIT INDICATED, TEST UNITS BY METHOD OF SAMPLING AND TESTING OF ASTM C140. ONE SET OF CMU STANDARD PRISM TEST SHALL BE CONDUCTED FOR EVERY 5,000 SQ. FT. OF WALL DURING CONSTRUCTION IN ACCORDANCE TO ASTM C1314, BUT NOT LESS THAN ONE SET OF 3 MASONRY PRISMS FOR THE PROJECT. B. MORTAR TEST: FOR EACH TYPE INDICATED, TEST MORTAR BY METHODS OF SAMPLING AND TESTING OF ASTM C780. CONDUCT TESTS NO LESS FREQUENTLY THAN THAT REQUIRED TO EVALUATE MORTAR USED TO INSTALL EACH INCREMENT OF MASONRY UNITS INDICATED ABOVE FROM WHICH SAMPLES ARE TAKEN FOR TESTING. TEST MORTAR FOR EVERY 1,500 SQ. FT. OF WALL CONSTRUCTION. C. GROUT TEST: AT START OF GROUTING OPERATION, TAKE ONE TEST PER DAY FOR FIRST 3 DAYS. EACH GROUT TEST CONSISTS OF THREE SPECIMENS MADE IN ACCORDANCE WITH ASTM C1019. AFTER FIRST THREE TESTS, SPECIMENS FOR CONTINUING QUALITY CONTROL SHOULD BE TAKEN ONCE A WEEK FOR EVERY 25 CUBIC YARDS OF GROUT OR FOR EVERY 2,500 SQ. FT. OF WALL, WHICHEVER COMES FIRST.	X	
10. MASONRY TESTING REQUIREMENTS	X	

TESTING METHOD OPTIONS	PRIOR TO CONSTRUCTION	DURING CONSTRUCTION
METHOD 1: MASONRY PRISM TESTING	5 PRISMS	3 PRISMS FOR EVERY 5,000 S.F. OF WALL
METHOD 2: MASONRY PRISM TEST RECORD	APPROVED 30 PRISM RECORD	3 PRISMS FOR EVERY 5,000 S.F. OF WALL
METHOD 3: UNIT STRENGTH METHOD	UNITS AND GROUT OR 5 PRISM	UNITS AND GROUT OR 3 PRISMS FOR EVERY 5,000 S.F. OF WALL

PERIODIC INDICATES AT A MINIMUM ONCE A DAY FOR A MINIMUM OF ONE HOUR

OPEN WEB STEEL JOISTS

1. ALL STEEL FOR JOISTS SHALL CONFORM TO THE STEEL JOIST INSTITUTE REQUIREMENTS FOR K-SERIES OPEN WEB JOISTS, AND VS-SERIES STEEL JOISTS, MINIMUM 50,000 PSI YIELD POINT.
2. ALL STEEL JOISTS SHALL RECEIVE MANUFACTURER'S STANDARD BASE PAINT, APPLIED BY DIPPING OR SPRAYING, BEFORE LEAVING THE SHOP
3. ALL STEEL JOISTS BEARING ON STEEL SHALL HAVE A MINIMUM 2 1/2" BEARING LENGTH AND SHALL BE WELDED TO THE STEEL WITH 2 WELDS AT EACH END, EACH 2 1/2" LONG. JOIST BEARING LESS THAN 2 1/2" SHALL BE DESIGNED BY THE JOIST SUPPLIER TO RESIST THE INCREASED STRESS. THE JOIST SUPPLIER SHALL SPECIFY SPECIAL JOIST SEATS AND ANCHORAGE REQUIREMENTS FOR DEFICIENT BEARING.
4. PROVIDE 2"x2"x1/4" ANGLE BOTTOM CHORD EXTENDS AT STEEL JOIST END AT COLUMN LINES OR AT JOIST NEAREST COLUMN LINES.
5. CHECK ARCHITECTURAL PLANS IF BOTTOM CHORD EXTENSIONS ARE REQUIRED.
6. BOTTOM CHORD EXTENDED ENDS SHALL NOT BE INSTALLED UNTIL AFTER ROOF HAS BEEN COMPLETELY INSTALLED.
7. ROOF TOP A/C UNITS SHALL HAVE AN OPERATING WEIGHT NOT TO EXCEED 500 LBS. AND SHALL BE LOCATED OVER A MINIMUM OF 2 JOISTS. ROOF TOP UNITS WEIGHING MORE THAN 500 LBS. SHALL BE LOCATED AS SHOWN ON THE MECHANICAL PLANS.
8. STEEL JOISTS TO BE DESIGNED PER DESIGN CRITERIA.
9. ALL STEEL JOISTS SHALL BE MANUFACTURED BY VULCRAFT OR SMI, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
10. PROVIDE ANGLES FOR SUPPORT AROUND OPENINGS AT METAL DECK.
11. STEEL JOIST SUPPLIER TO VERIFY THAT THE SPECIFIED JOIST MEET ALL THE MINIMUM REQUIREMENTS OF SJI BEFORE PROVIDING A BID.
12. MECHANICAL EQUIPMENT: SEE MECHANICAL PLANS. PIPES AND MECHANICAL EQUIPMENT SHALL BE SUPPORTED BY THE TOP CHORD OF THE STEEL JOISTS ONLY.
13. WHERE STEEL JOIST PASS THROUGH CMU WALLS, PROVIDE HALF INCH GAP BETWEEN THE CMU AND STEEL JOIST. PROVIDE ELASTOMERIC MATERIAL BETWEEN THE STEEL JOIST AND CMU.
14. PROVIDE CLOSURE ANGLE 3x3x3/8 AT ALL PERIMETER CONDITIONS TO FRAME OUT ALL ROOF PENETRATIONS UNLESS NOTED OTHERWISE.
15. JOISTS SHALL ALSO BE DESIGNED FOR AN ADDITIONAL 500 LB CONCENTRATED LOAD PLACED AT ANY POINT. THE MAXIMUM DEFLECTION SHALL BE L/600.

FLOOR METAL DECK

1. SHEET METAL:
   MATERIAL: ASTM A446, GRADE A,
   GALVANIZING: G90 ZINC COATED ACCORDING TO ASTM A525
   DECK PROFILE C
   PROFILE DEPTH: 0.6 INCHES
   GAUGE: 26
   SPAN 24
2. ATTACHMENT:
   AT SUPPORTS: #12 TEK SCREWS
   FASTENER LAYOUT 36/4
   AT SIDE LAPS: #10 TEK SCREWS
   SIDE LAPS 4 FASTENERS PER SPAN
3. TOPPING:
   WEIGHT: NORMAL WEIGHT CONCRETE
   STRENGTH 3000 PSI
   SLUMP 6 INCHES
   CONTROL JOINTS SPACED AT 15 FEET MAXIMUM AND OVER BEAMS
   THICKNESS t= 2 1/2 INCH
   THICKNESS (TOTAL) 3 INCH
   REINFORCEMENT 6x6-W2.9xW2.9
4. INSTALL DECK ENDS OVER SUPPORTING FRAMING WITH A MINIMUM END BEARING OF1.5" WITH END JOINTS LAPPED AT A MINIMUM OF TWO INCHES AND SHALL OCCUR OVER SUPPORTS.
5. SCREWS MUST BE INSTALLED USING PROPERLY CALIBRATED TOOLS TO AVOID OVERDRIVING WHICH CAN STRIP THE THREADS AT SIDE LAPS OR SEVER THE SCREW WHEN IT IS PLACED INTO HEAVIER SUBSTRATE.
6. WELDING OF METAL DECKING NOT ALLOWED. ALL METAL DECKING THAT HAS BEEN WELDED SHALL BE REMOVED AT CONTRACTORS EXPENSE. REMOVED METAL DECKING SHALL NOT BE USED.
7. DECK UNITS SHALL BE 3 OR MORE SPANS AND SHALL BE ATTACHED TO THE STRUCTURAL SUPPORT

ROOF METAL DECK

1. SHEET METAL:
   MATERIAL: ASTM A446, GRADE A,
   GALVANIZING: G90 ZINC COATED, ACCORDING TO ASTM A525
   DECK PROFILE B
   PROFILE DEPTH: 1.5 INCHES
   GAUGE: 22 (20 East of Harlingen)
   SPAN 5'-0"
2. ATTACHMENT:
   AT SUPPORTS: 5/8" PUDDLE WELDS
   FASTENER LAYOUT 36/7 (9" AT PERIMETER)
   AT SIDE LAPS: #10 TEK SCREWS
   SIDE LAPS 9 FASTENERS PER SPAN
3. INSTALL DECK ENDS OVER SUPPORTING FRAMING WITH A MINIMUM END BEARING OF1.5" WITH END JOINTS LAPPED AT A MINIMUM OF TWO INCHES AND SHALL OCCUR OVER SUPPORTS.
4. SCREWS MUST BE INSTALLED USING PROPERLY CALIBRATED TOOLS TO AVOID OVERDRIVING WHICH CAN STRIP THE THREADS AT SIDE LAPS OR SEVER THE SCREW WHEN IT IS PLACED INTO HEAVIER SUBSTRATE.
5. DECK UNITS SHALL BE 3 OR MORE SPANS AND SHALL BE ATTACHED TO THE STRUCTURAL SUPPORT

SIMON G. SOLORIO JR.
83066
1/12/2018

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Revision	Date	Issued by	DESCRIPTIO

Document issued for:
For Bidding

PROPOSED
Pharr Expansion

Pharr, TEXAS

Project: 16162
Date: 1/12/2018

S102

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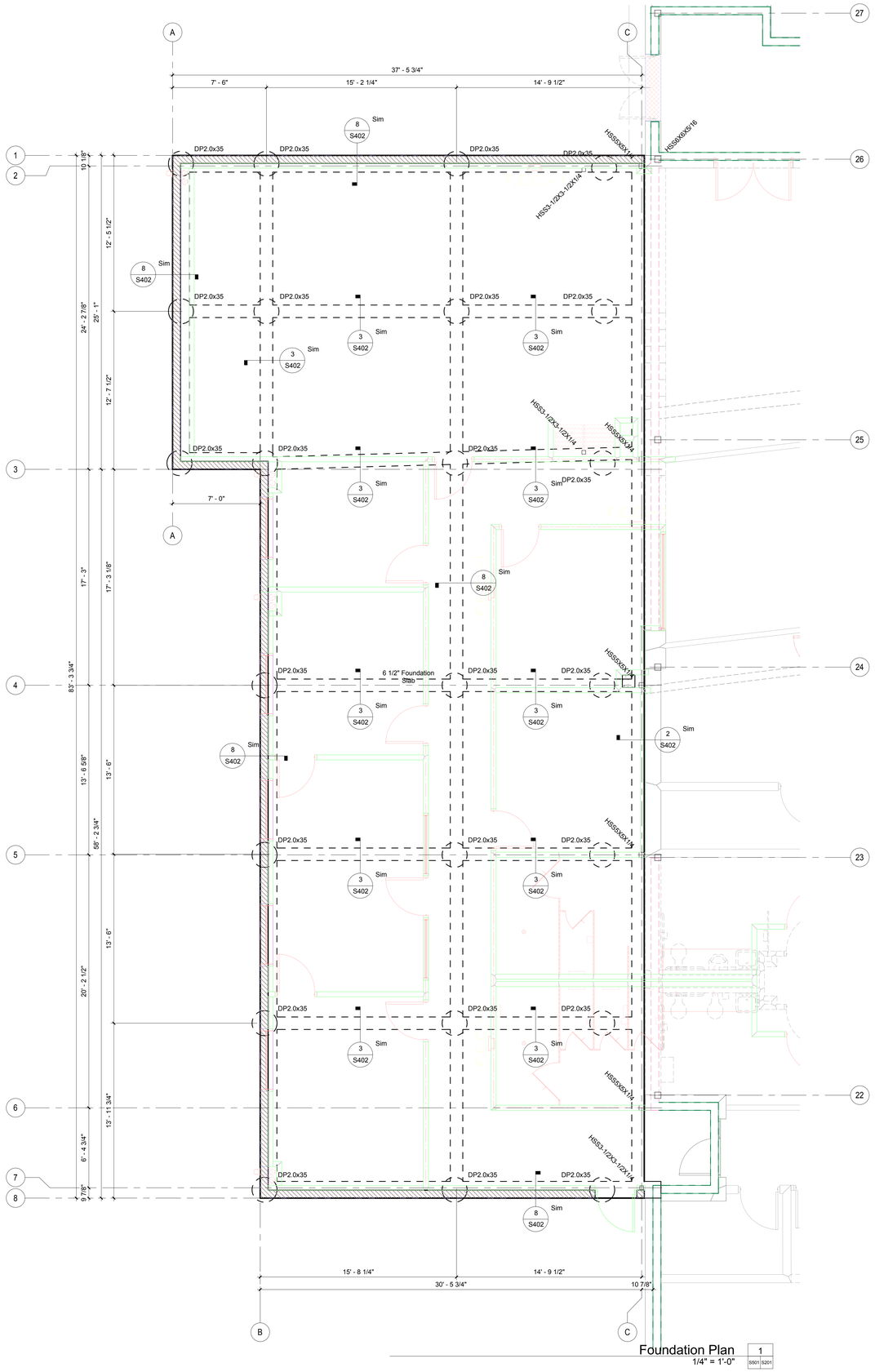

Foundation Plan
1/4" = 1'-0"

1 S501 S201

FOUNDATION NOTES

1. FOR GENERAL NOTES SEE SHEET S101 AND S102
2. FOR TYPICAL DETAILS SEE SHEETS NUMBER S400'S
3. CONTRACTOR/SUBCONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL DIMENSIONS WITH ARCHITECTURAL PLANS BEFORE COMMENCING ANY WORK. THE CONTRACTOR AND OR SUBCONTRACTOR SHALL REPORT ANY DISCREPANCIES TO THE ARCHITECT AND ENGINEER BEFORE THE WORK HAS BEGUN.
4. REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL DIMENSIONS.
5. REFER TO ARCHITECTURAL PLANS FOR FLOOR DRAIN LOCATIONS.
6. SLOPE SLAB TO DRAINS, SEE ARCHITECTURAL PLANS FOR SLOPE.
7. REFER TO ARCHITECTURAL PLANS FOR FLOOR FINISHES. ENGINEER IS NOT RESPONSIBLE FOR TYPE OF FLOOR FINISHES.
8. THE TESTING LABORATORY SHALL BE THE OWNERS REPRESENTATIVE TO CONTROL THE PLACEMENT OF COMPACTED FILL. THE TESTING LABORATORY SHALL APPROVE THE SUBGRADE PREPARATION, THE FILL MATERIALS, THE METHOD OF PLACEMENT AND COMPACTION, AND COMPACTION, AND SHALL GIVE WRITTEN APPROVAL OF THE COMPLETED FILL. THE TESTING LABORATORY SHALL INDICATE ON THERE REPORT THE ELEVATION OF THE COMPACTED SUBGRADE.
9. ALL EARTHWORK AND GRADING SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEERING STUDY. THE MORE STRINGENT REQUIREMENTS BETWEEN THESE SUBGRADE NOTES AND GEOTECHNICAL ENGINEERING STUDY SHALL GOVERN AND EXECUTED BY THE CONTRACTOR.
10. IN THE EVENT FOUNDATION EXCAVATIONS ARE CARRIED TO A DEPTH GREATER THAN REQUIRED, THE ADDITIONAL DEPTH SHALL BE FILLED WITH THE SAME CONCRETE AS THAT USED FOR FOOTING AT NO ADDITIONAL EXPENSE TO THE OWNER. NO UNCONTROLLED FILL WILL BE PERMITTED.
11. THE FOOTING EXCAVATIONS SHALL BE KEPT FREE FROM LOOSE MATERIAL AND STANDING WATER.
12. THE FOUNDATION EXCAVATIONS SHOULD BE OBSERVED BY THE TESTING LABORATORY PRIOR TO STEEL OR CONCRETE PLACEMENT TO ASSESS THAT THE FOUNDATION MATERIALS ARE CAPABLE OF SUPPORTING THE DESIGN LOADS AND ARE CONSISTENT WITH THE MATERIALS DISCUSSED IN THE STUDY. THIS IS ESPECIALLY IMPORTANT TO IDENTIFY THE ACCEPTABILITY OF THE SUBGRADE OR FILL MATERIAL UNDER THE FOOTING. SOFT OR LOOSE SOIL ZONES ENCOUNTERED AT THE BOTTOM OF THE FOOTING OR BEAM EXCAVATIONS SHOULD BE EXCAVATIONS SHOULD BE REMOVED TO THE LEVEL OF COMPETENT SOIL AS DIRECTED BY THE TESTING LABORATORY. CAVITIES FORMED AS A RESULT OF EXCAVATION OF SOFT OR LOOSE SOIL ZONES SHOULD BE BACKFILLED WITH LEAN CONCRETE OR SELECT FILL AS DETERMINED BY THE TESTING LABORATORY.
13. CARE SHOULD BE TAKEN TO SHAPE THE BUILDING AREAS SUCH THAT WATER WILL NOT POND AROUND THE STRUCTURE DURING CONSTRUCTION AND CAUSE THE NEAR SURFACE CLAYS TO SWELL. THE PROPOSED STRUCTURE SHALL BE ISOLATED FROM ANY MOISTURE SOURCE WHICH MIGHT ALSO CAUSE SWELLING OF THE CLAYS AFTER COMPLETION OF THE CONSTRUCTION.
14. WHEN THE STRUCTURE IS COMPLETE, THE GROUND SURFACE SHOULD SLOPE AWAY FROM THE STRUCTURE AND DOWN SPOUTS SHOULD CARRY RUNOFF WATER SEVERAL FEET FROM THE BUILDING, PREFERABLY INTO PAVED AREAS OR SEWERS, BEFORE DISCHARGING.
15. DO NOT PLANT, OR LEAVE IN PLACE, DEEP ROOTED TREES WITHIN CLOSE PROXIMITY TO THE PERIMETER OF THE STRUCTURE. DEEP ROOTED TREES HAVE POTENTIAL TO REMOVE MOISTURE FROM BENEATH THE BUILDING IF PLANTED CLOSE ENOUGH TO ALLOW THE ROOT BULB EXTEND NEAR OR BENEATH THE BUILDING.
16. AIR CONDITIONING CONDENSER DRAIN LINES TO DISCHARGE WATER A MINIMUM OF 5 FEET FROM THE PERIMETER OF THE STRUCTURE. THE DISCHARGE AREA SHALL HAVE SUFFICIENT SLOPE AWAY FROM THE STRUCTURE TO PREVENT STANDING WATER.
17. THE FINAL ONE (1) FOOT OF FILL OUTSIDE THE BUILDING AREA SHOULD CONSIST OF A COHESIVE CLAYEY (CL) SOIL. FILL CAN NOT BE ALLOWED TO DRY OUT DURING OR AFTER COMPACTION. (P1 BETWEEN 15 AND 25)
18. NOTE THAT SOME LEVELS OF RISK ARE ASSOCIATED WITH ALL FOUNDATION SYSTEMS AND THERE IS NO SUCH THING AS A "ZERO RISK" FOUNDATION. IT ALSO SHOULD BE NOTED THAT THE FOUNDATION PROVIDED IS NOT DESIGNED TO RESIST SOIL MOVEMENT AS A RESULT OF SEWER/PLUMBING LEAKS, EXCESSIVE IRRIGATION, NON UNIFORM IRRIGATION, POOR DRAINAGE, AND WATER PONDING NEAR THE FOUNDATION SYSTEM.
19. CONSTRUCTION FOLLOWING WET WEATHER PERIODS WILL LIKELY ENCOUNTER DIFFICULTIES DUE TO THE WET OR SOFT SURFACE SOILS BECOMING A GENERAL HINDRANCE TO EQUIPMENT DUE TO RUTTING AND PUMPING OF THE SOIL SURFACE. IF THE SUBGRADE CANNOT BE ADEQUATELY COMPACTED TO MINIMUM DENSITIES AS DESCRIBED ABOVE, ONE OF THE FOLLOWING MEASURES WILL BE REQUIRED:
    a) REMOVAL AND REPLACEMENT WITH SELECT FILL;
    b) CHEMICAL TREATMENT OF THE SOIL TO DRY SOIL AND INCREASE THE STABILITY OF THE SUBGRADE.
    c) DRYING BY NATURAL MEANS.

SLAB ON GRADE	
THICKNESS	6.5 INCHES
REINFORCING (EACH WAY)	#4 AT 10" O.C.
REINFORCING LOCATION	2" FROM BOTTOM
VISQUEEN	15 MIL

SUBGRADE PREPARATION

1. SITE PREPARATION

A. PREPARATION OF EXISTING GROUND		
ALL AREAS TO SUPPORT SELECT FILL SHALL BE STRIPPED OF ALL VEGETATION AND/OR ORGANIC TOPSOIL:	8	INCHES
ADDITIONAL DEPTH OF REMOVAL:	2.5	FEET
EXTEND BEYOND BUILDING FOOT PRINT:	3	FEET
EXPOSED SUBGRADE SHALL BE SCARIFIED TO A DEPTH OF:	8	INCHES
MOISTURE: (OPTIMUM MOISTURE CONTENT)	0 TO +4%	
COMPACTION (ASTM D-698) (MAXIMUM DENSITY):	95%	
B. SELECT FILL MATERIAL		
AMOUNT OF COMPACTED SELECT FILL (INCLUDING STOCKPILE):	38*	INCHES
NO ORGANIC OR OTHER PERISHABLE MATERIAL		
NO STONES LARGER THAN	2	INCHES
*FINISHED FLOOR SHALL BE AS INDICATED ON CIVIL DRAWINGS, INCREASE INDICATED AMOUNT OF FILL AS REQUIRED TO ACHIEVE MOST STRINGENT REQUIREMENT. INCREASE EXCAVATION AS REQUIRED TO MEET MINIMUM AMOUNT OF SELECT FILL		
SELECT FILL SHALL MEET Tx DOT 2004 STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS AND BRIDGES, ITEM 247 FLEXIBLE BASE,		
C. PI TYPE A, TYPE B, OR TYPE C GRADES I THROUGH 3		
FILL LIFTS (LOOSE MEASURE, NOT EXCEEDING):	8	INCHES
D. COMPACTION OF SELECT FILL		
	-2 TO +2	
COMPACTION (ASTM D-698) (MAXIMUM DENSITY):	95%	
E. COMPACTION TESTING		
ATTERBERG LIMITS (ONE AT A RATE OF):	5,000	CU. YDS.
COMPACTION (ONE TEST PER):	3,000 SQ. FT./ LIFT (MIN. OF 3 PER LIFT)	

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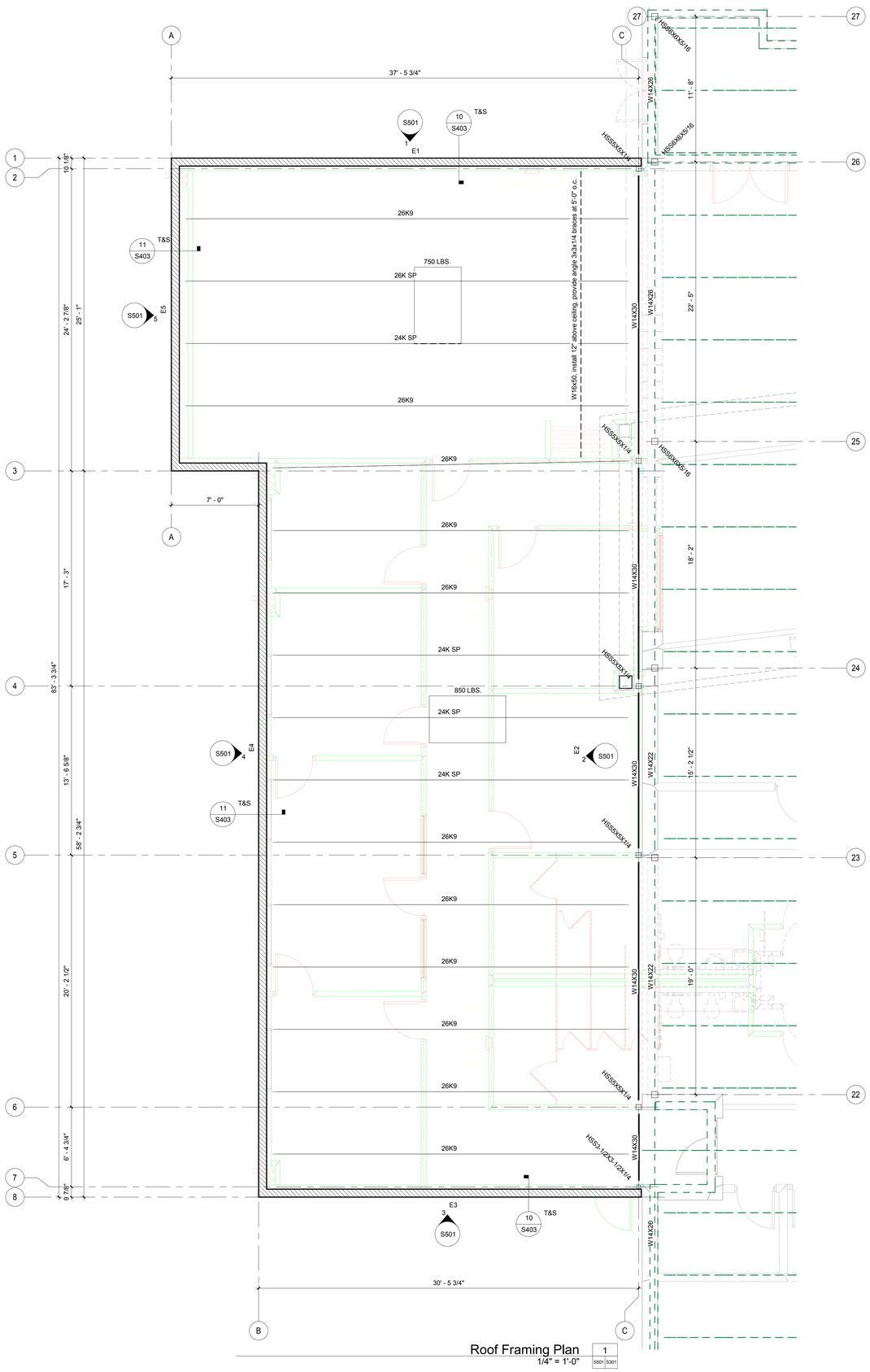
PROPOSED

Pharr Expansion

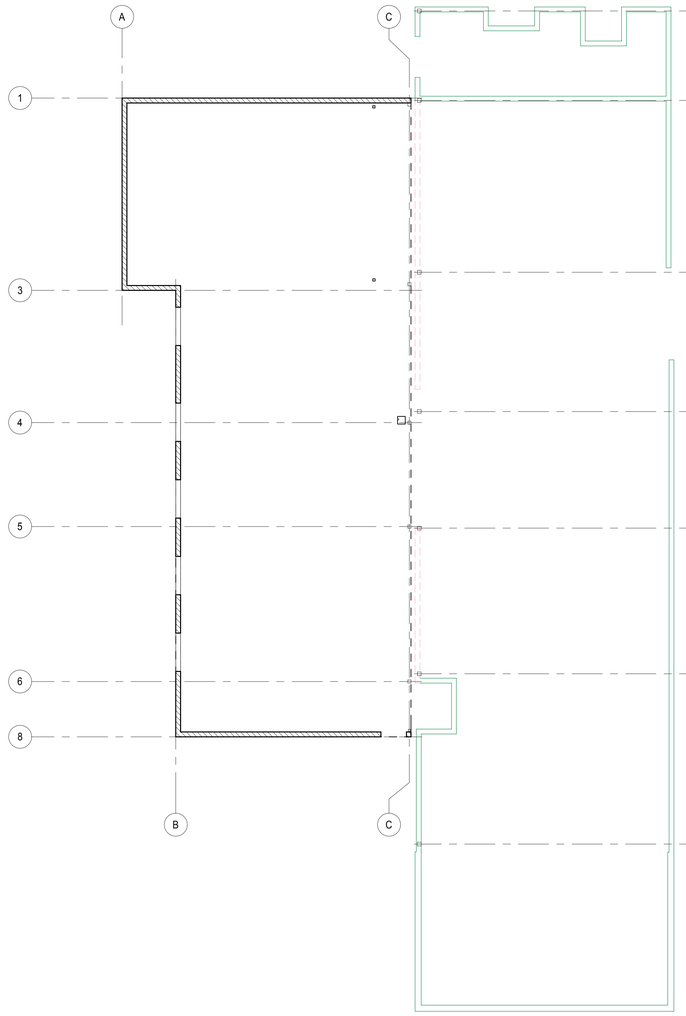
Pharr, TEXAS

Project: 16162
Date: 1/12/2018

S201



Roof Framing Plan
1/4" = 1'-0"
1 | S501 | S301



CMU Layout
1/8" = 1'-0"
2 | S301

Framing Notes

1. FOR GENERAL NOTES SEE SHEET **S101**, **S102**
2. FOR TYPICAL DETAILS SEE **S400** SHEETS.
3. DIMENSIONS SHOWN ARE FOR GENERAL INFORMATION. COORDINATE WITH ARCHITECTURAL PLANS.
4. SEE ARCHITECTURAL ROOF PLAN FOR ROOF HATCHES.
5. SEE MECHANICAL PLANS FOR MECHANICAL OPENINGS.
6. DESIGN trusses UNDER UNITS WITH LOADS INDICATED ON THE DRAWINGS PER DESIGN CRITERIA truss MANUFACTURER TO PROVIDE truss (MAX. DEPTH TO BE AS SHOWN ON PLANS) DESIGN truss FOR L/600. (MECHANICAL WEIGHT+ DEAD LOAD ONLY) COORDINATE OPENINGS WITH MECHANICAL PLANS
7. Truss MANUFACTURE TO VERIFY THE MINIMUM ROW OF BRIDGING AND BRIDGING SIZE.
8. MAXIMUM JOIST SPACING SHALL BE 24 INCHES ON CENTER.
9. JOISTS UNDER MECHANICAL UNITS MAY BE DOUBLED IF REQUIRED.
10. FOR OPENING IN ROOF AND AT MECHANICAL UNITS, SEE TYPICAL DETAILS.

COLD FORMED METAL TRUSSES

1. THE TRUSS FABRICATOR SHALL CALCULATE ALL LOADS, INCLUDING BUT NOT LIMITED TO UNIFORM LOADS, LATERAL LOADS, AND ANY LOADS DUE TO MECHANICAL EQUIPMENT, ETC. TO DETERMINE THE SUITABILITY OF THEIR TRUSS FOR THE PROPOSED INTENDED USE AS SHOWN HEREIN. THE TRUSS FABRICATOR IS RESPONSIBLE FOR DOING ALL ENGINEERING FOR THEIR TRUSSES AND SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY ADVERSE CONDITIONS THAT MAY ARISE. CALCULATIONS SHALL INDICATE ACTUAL DESIGN STRESSES AND DEFLECTIONS COMPARED TO THE ALLOWABLE STRESSES AND DEFLECTIONS.

2. STRUCTURAL DESIGN, DIMENSIONS, TRUSS CONFIGURATION AND QUANTITIES ARE THE RESPONSIBILITY OF THE TRUSS FABRICATOR. VERIFY PLAN DIMENSIONS AND ROOF PITCHES WITH ARCHITECTURAL PLANS.

3. TRUSS ELEVATIONS ARE SHOWN FOR FRAMING INTENT TO TRANSFER TRUSS LOADS TO BEARING POINTS ONLY.

4. TRUSS DESIGNS AND LAYOUTS SHALL BE SEALED BY A TEXAS LICENSED PROFESSIONAL ENGINEER AND SUBMITTED TO ARCHITECT AND ENGINEER FOR REVIEW PRIOR TO FABRICATION.

5. REFER TO STRUCTURAL ROOF FRAMING PLANS FOR CONCENTRATED LOADS APPLIED TO TRUSSES.

6. IF UPLIFT LOADS ARE GREATER THEN THE ALLOWABLE CAPACITY OF THE ANCHORS SHOWN ON THE DRAWINGS THEN THE TRUSS FABRICATOR SHALL SUPPLY THE CORRECT TYPE OF ANCHOR.

7. TRUSSES SHALL BE ERECTED, BRACED, AND BLOCKED IN ACCORDANCE WITH THE LATEST EDITION OF THE LIGHT GAUGE, COLD-FORMED STEEL DESIGN MANUAL ISSUED BY THE AISI.

8. ALL TRUSSES EXCEPT SCISSORS TO BE CONNECTED TO BEARING PLATE WITH TYPE H5 TRUSS CLIP AS MANUFACTURED BY "SIMPSON STRONG-TIE" OR A REVIEWED EQUIVALENT U.N.O.

9. SCISSORS TRUSSES SHALL BE CONNECTED TO BEARING PLATE WITH TYPE TC TRUSS CLIP AS MANUFACTURED BY "SIMPSON STRONG-TIE" OR A REVIEWED EQUIVALENT.

10. THE TRUSS FABRICATOR SHALL PROVIDE THE SIZE OF ANY REQUIRED HANGERS INCLUDING TYPE OF CONNECTION BETWEEN HIP TRUSSES TO GIRDER TRUSSES, AND JACK TRUSSES TO HIP TRUSSES. MINIMUM CONNECTION HARDWARE SHALL BE A "LUS" HANGER AND SKEWED "U" HANGER AS REQUIRED.

11. CONNECTIONS AND FABRICATION SHALL BE IN ACCORDANCE WITH THE FABRICATORS I.C.B.O. APPROVAL.

12. IF TRUSS BEARING CONDITIONS VARY FROM THOSE INDICATED, NOTIFY STRUCTURAL ENGINEER PRIOR TO CONSTRUCTION OF THE FOUNDATION SO ANY REVISIONS TO THE DESIGNED FOUNDATION MAY BE MADE.

13. DESIGN ROOF TRUSSES TO ALLOW FOR ATTIC MECHANICAL PLATFORM, FOR SECOND FLOOR HVAC UNIT, AND FOR WATER HEATER. DECK SHALL BE BUILT OF 5/8" CDX PLYWOOD ON 2x4's TURNED UPRIGHT AND NAILED ON TOP OF THE BOTTOM CHORDS OF THE ROOF TRUSSES, WITH FULL THICKNESS OF BATT INSULATION (APPROX. 7" THICK) UNDER THE PLATFORM DECKING. CONTRACTOR SHALL COORDINATE THE SIZE OF THE SIZE OF THE PLATFORM WITH THE REQUIREMENTS FOR THE EQUIPMENT TO BE LOCATED ON IT, AND WITH THE TRUSS FABRICATOR REQUIREMENTS.

14. EACH TRUSS SHALL BE LEGIBLY BRANDED, MARKED OR OTHERWISE HAVE PERMANENTLY AFFIXED THERETO THE FOLLOWING INFORMATION LOCATED WITHIN 2 FEET OF THE CENTER OF THE SPAN ON THE FACE OF THE BOTTOM CHORD: A) IDENTITY OF THE COMPANY MANUFACTURING THE TRUSS. B) THE DESIGN LOAD. C) THE SPACING OF THE TRUSSES.

15. DO NOT CUT, NOTCH, DRILL, BORE, SHAVE, TAPER OR FOR ANY REASONS MODIFY PRE-ENGINEERED'S STRUCTURAL ELEMENTS UNLESS SUCH MODIFICATIONS ARE WITHIN THE WRITTEN PARAMETERS SET FORTH BY THE FABRICATOR OF THAT PRODUCT OR A LETTER OF CERTIFICATION FROM THE FABRICATOR 'S ENGINEER WITH A DETAIL SIGNED AND STAMPED IS ISSUED AND AUTHORIZED BY THE PROJECT ENGINEER OF RECORD AND APPROVED BY THE CITY BUILDING OFFICIAL.

16. THE TRUSS FABRICATOR SHALL PROVIDE BLOCKING AND BRIDGING AS REQUIRED BY THE BUILDING CODE AND THE FABRICATOR'S CALCULATIONS.

17. DEFLECTION LIMITS ROOF FLOOR MAXIMUM DEFLECTION
TOTAL LOAD DEFLECTION <L/240 L/360 < 1 /2"
LIVE LOAD DEFLECTION <L/360 <L/480 < 1/2"
DEAD LOAD DEFLECTION <L/240 <L/360 < 1/2"

LIGHT WEIGHT COLD-FORMED STEEL

1. DESIGN, MANUFACTURE AND INSTALLING OF LIGHT GAUGE, COLD-FORMED STEEL JOISTS, PURLINS AND STUDS SHALL CONFORM WITH THE LATEST EDITION OF THE LIGHT GAUGE, COLD-FORMED STEEL DESIGN MANUAL ISSUED BY THE AISI.
2. STRUCTURAL LIGHT GAUGE STUDS, TRACK, BRIDGING, AND ACCESSORIES SHALL BE FABRICATED USING THE FOLLOWING MATERIALS: (GALVANIZED STEEL)
   A. MANUFACTURER: DIETRICH INDUSTRIES, INC.
   B. EXTERIOR STUDS
      6" , spacing, size, ga as designed by a Professional Engineer in State of Texas
   C. INTERIOR STUDS (EXCEPT AT BEARING WALLS USE 16 GA)
      3 5/8" CSW, 18 GA. STUDS AT 16" O.C.
3. ALL STUDS (AND/OR) JOISTS SHALL BE OF THE TYPE, SIZE AND GAGE AS SHOWN ON THE PLANS.
4. THE PHYSICAL AND STRUCTURAL PROPERTIES LISTED BY THE ABOVE MANUFACTURER. SHALL BE CONSIDERED THE MINIMUM PERMITTED FOR ALL FRAMING MEMBERS.
5. ALL WELDING SHALL BE IN CONFORMANCE WITH AWS D1.3. "STRUCTURAL WELDING CODE - SHEET STEEL". QUALIFICATIONS OF WELDERS SHALL BE IN ACCORDANCE WITH AWS D1.1 CHAPTER 5, PART C, "WELDER QUALIFICATIONS". SEE LATEST EDITION OF THE AISI SPECIFICATIONS FOR THE "DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS" FOR ALLOWABLE WELD VALUES.
6. FRAMING SHALL BE ERECTED PLUMB, LEVEL AND SQUARE. BRIDGING AND DIAGONAL TENSION STRAPS SHALL BE USED.
7. PROVISION FOR POSSIBLE VERTICAL MOVEMENT OF FLOORS AT NON-STRUCTURAL WALLS SHALL BE BY USE OF "SLIDE CLIPS".
8. TEMPORARY BRACING SHALL BE PROVIDED AS REQUIRED UNTIL ERECTION IS COMPLETE AND SAFELY SECURED TO STRUCTURE.
9. AT TRACK BUTT JOINTS, ABUTTING PIECES OF TRACK SHALL BE SECURELY ANCHORED TO A COMMON STRUCTURAL ELEMENT, OR THEY SHALL BE BUTT WELDED OR SPLICED TOGETHER.
10. WALL STUD BRIDGING SHALL BE ATTACHED IN A MANNER TO PREVENT STUD ROTATION. BRIDGING ROWS SHALL BE SPACED AT 4'-0" O.C. VERTICAL (MAX.) U.N.O. ON PLANS.
11. PRIOR TO PREFABRICATION OF FRAMING, THE CONTRACTOR SHALL SUBMIT FABRICATION AN ERECTION DRAWING TO THE ARCHITECT AND ENGINEER FOR REVIEW.
12. LOAD BEARING STEEL FRAMING MEMBERS SHALL BE COLD-FORMED TO SHAPE FROM STRUCTURAL QUALITY SHEET STEEL COMPLYING WITH THE REQUIREMENTS OF ASTM A653.
13. COLD-FORMED STEEL FRAMING COMPONENTS SHALL HAVE A METALLIC COATING COMPLYING WITH A653 OF G60.
14. COPPER MATERIALS SHALL NOT BE USED IN DIRECT CONTACT WITH GALVANIZED STEEL MEMBERS OR COMPONENTS
15. FLANGE OF JOISTS, STUDS, HEADERS, AND OTHER STRUCTURAL MEMBERS SHALL NOT BE CUT OR NOTCHED WITHOUT AN APPROVED DESIGN.
16. BEARING STIFFENERS (ALSO CALLED WEB STIFFENERS) SHALL BE AT LEAST AS THICK AS THE MEMBER TO WHICH THEY ARE ATTACHED.
17. ALL SCREWS SHALL BE CORROSION RESISTANT.
18. SELF-DRILING TAPPING SCREWS SHALL CONFORM TO SAE J78.
19. A MINIMUM OF THREE EXPOSED THREADS SHALL EXTEND THROUGH THE STEEL, FOR STEEL TO STEEL CONNECTIONS, AND WHEN ATTACHING OTHER MATERIALS TO STEEL FRAMING.
20. FIELD IDENTIFICATION SYSTEM
LOAD BEARING STEEL FRAMING MEMBERS SHALL HAVE A LEGIBLE LABEL, STAMP, STENCIL, OR EMBOSSMENT, AT A MINIMUM OF 48 INCHES ON CENTER, WITH THE FOLLOWING INFORMATION AS A MINIMUM:
   a. THE MANUFACTURER'S IDENTIFICATION.
   b. THE MINIMUM UNCOATED STEEL THICKNESS IN MILS (SUCH AS 43 MILS).
   c. "ST" FOR STRUCTURAL MEMBERS.
   d. METALLIC COATING WEIGHT (MASS).
   e. MINIMUM YIELD STRENGTH IN KIPS PER SQUARE INCH.

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Revision	Date	Issued by	DESCRIPTIO

Document issued for:
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PROPOSED

Pharr Expansion

Pharr, TEXAS

Project: 16162
Date: 1/12/2018

S301

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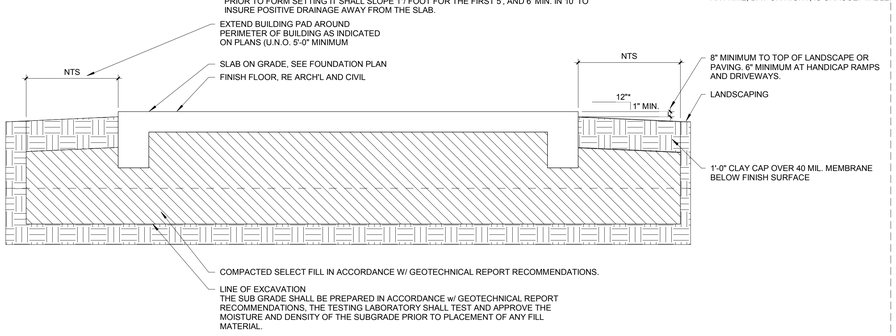
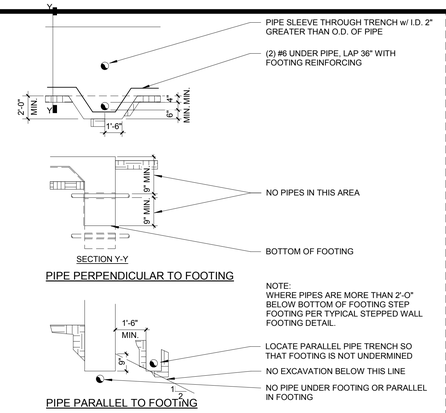


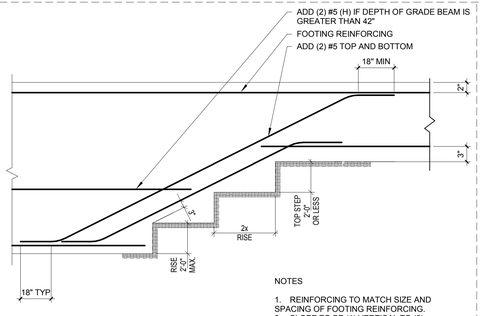
Typical Building Subgrade Preparation

1" = 1'-0" | 9 | S401



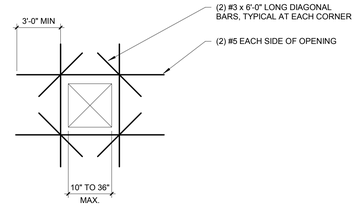
Typical Piping Through Footing

3/8" = 1'-0" | 5 | S401



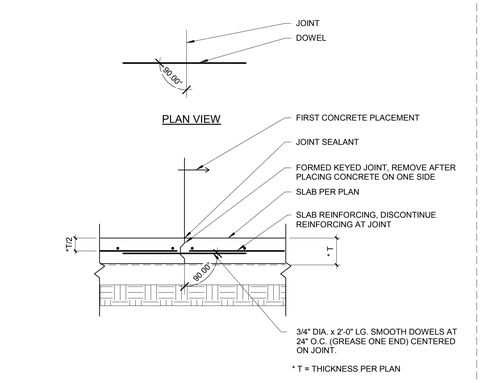
Typical Stepped Footing

1" = 1'-0" | 6 | S401



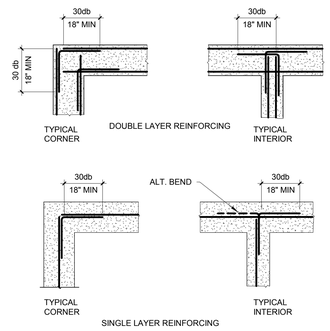
Typical Slab Opening Reinforcing

1/4" = 1'-0" | 2 | S401



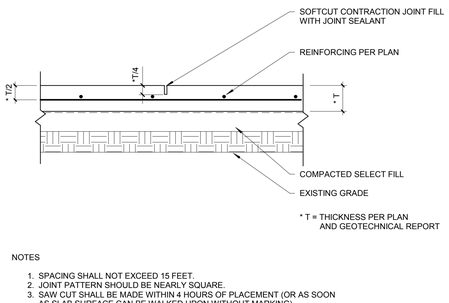
Typical Slab Construction Joint

1" = 1'-0" | 7 | S401



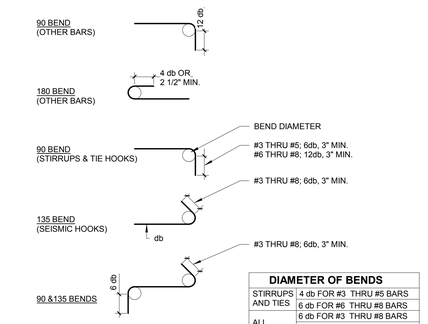
Typical Reinforcing at Concrete Intersections

1/4" = 1'-0" | 3 | S401



Typical Slab Contraction Joint

1" = 1'-0" | 8 | S401



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

Typical Reinforcing Bends

1/4" = 1'-0" | 4 | S401

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Revision	Date	Issued by
DESCRIPTION		

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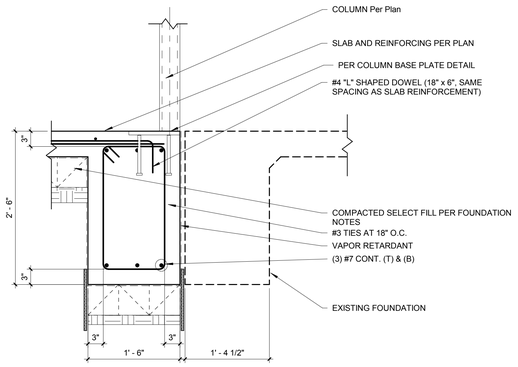
PROPOSED

Pharr Expansion

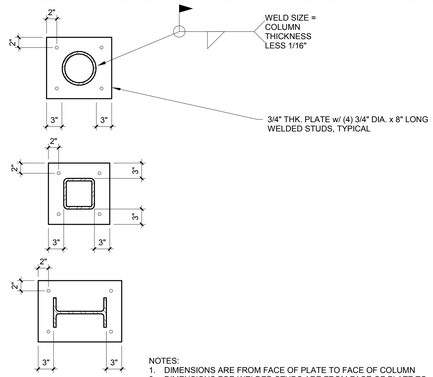
Pharr, TEXAS

Project: 16162
Date: 1/12/2018

S401

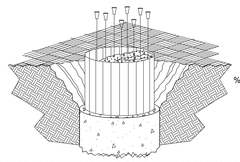


Footing at SP, Steel Column at Expansion Joint — 1 — 1" = 1'-0" — S402

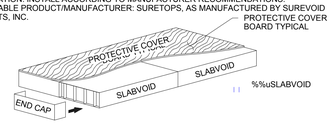


NOTES:
1. DIMENSIONS ARE FROM FACE OF PLATE TO FACE OF COLUMN
2 DIMENSIONS FOR WELDED STUDS ARE FROM FACE OF PLATE TO CENTERLINE OF STUD

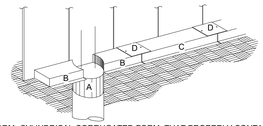
Steel Column Base Plate — 9 — 1" = 1'-0" — S402



NOTES:
1. FUNCTION: USED TO PROPERLY FORM AND CONTAIN UPPER PORTION OF CONCRETE PIERS
2. COMPOSITION: WATERPROOF, CORRUGATED PLASTIC
3. DIAMETER: SIZE TO MATCH PIER DIAMETER PER PLAN
4. LENGTH NOT TO EXCEED 24".
5. INSTALLATION: INSTALL ACCORDING TO MANUFACTURER RECOMMENDATIONS.
6. ACCEPTABLE PRODUCT/MANUFACTURER: SURETOPS, AS MANUFACTURED BY SUREVOID PRODUCTS, INC.

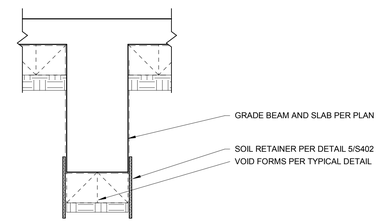


NOTES:
1. FUNCTION: USED TO CREATE A SPACE DIRECTLY UNDER STRUCTURAL CONCRETE SLAB
2. COMPOSITION: CORRUGATED PAPER MATERIAL WITH A MOISTURE RESISTANT EXTERIOR, HAVING AN INTERIOR FABRICATION OF A UNIFORM, CELLULAR CONFIGURATION, COMPOSED OF A NON-WAX IMPREGNATED COMPONENTS.
3. DEPTH SIZE = 8"
4. STRENGTH: CAPABLE OF SUSTAINING A WORKING LOAD 1,000 PSF.
5. PROTECTIVE COVER BOARD: TOP COVER SHEET OF 1/4" THICK HARDWOOD OR PLYWOOD.
6. INSTALLATION: INSTALL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. PROTECT FROM MOISTURE AND DAMAGE PRIOR TO CONCRETE PLACEMENT.
7. ACCESSORIES: USE END CAPS TO SEAL OFF VOID FROM ENDS.
8. ACCEPTABLE PRODUCT/MANUFACTURER: SLABVOID, END CAPS AS MANUFACTURED BY SUREVOID PRODUCTS, INC.

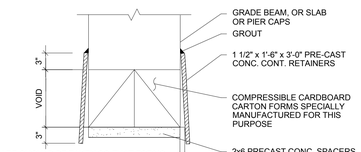


NOTES:
1. COMPONENTS:
A. DRILLED PIER FORM- CYLINDRICAL CORRUGATED FORM, THAT PROPERLY CONTAINS UPPER PORTION OF CONCRETE PIERS.
B. VOID FORM AT PIER - PREFORMED VOID, WITH RADIAL, VERTICAL SEALED EDGE TO CONFORM TO PIER DIAMETER. (SURE ROUND)
C. VOID FORM UNDER GRADE BEAM - MANUFACTURED WITH A UNIFORM CELLULAR CONFIGURATION, AND CAPABLE OF SUSTAINING ALL VERTICAL LOADS UNTIL APPLIED LOADS CAN BE SUSPENDED BY CONCRETE STRUCTURE, WHILE MAINTAINING FULL VOID DEPTH AS INDICATED ON DETAILS.
D. SEAM PADS - COVERS EXPOSED JOINTS TO ELIMINATE CONCRETE FLOW BETWEEN VOID FORMS.

Void Form, SureVoid — 10 — 1" = 1'-0" — S402



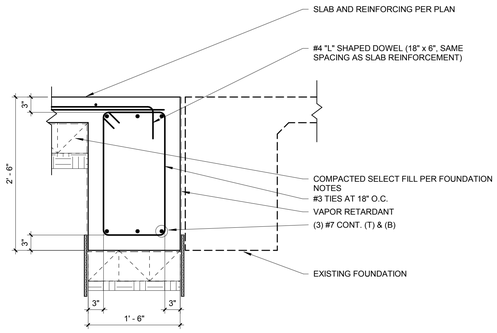
Void Forms — 5 — 1" = 1'-0" — S402



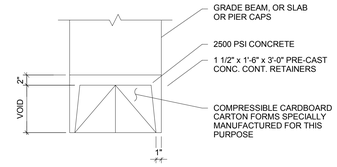
CARE SHOULD BE TAKEN SO THAT FORMS ARE NOT CRUSHED, DAMAGED OR ALLOWED TO BECOME SATURATED PRIOR TO PLACEMENT OF CONCRETE. SEAL ALL JOINTS AND ENDS OF VOID FORMS TO PREVENT CONCRETE FROM ENTERING FORM

THE FOLLOWING ALTERNATIVES MAY BE USED:
1. 1/4" UNCORRUGATED TRANSITE (CEMENTITIOUS BOARD)
2. 1/4" HIGH DENSITY POLYPROPYLENE PLASTIC EQUAL TO RESINOL TYPE "O" AS MANUFACTURED BY ALLIED RESINOUS PRODUCTS, INC.
3. IF TYPE "O" PLASTIC IS TO BE PLACED OR HANDLED WHEN TEMP. IS 32 DEGREES F. OR BELOW, SPECIAL PRECAUTIONS ARE REQUIRED DUE TO MATERIAL BRITTLENESS, RESINOL TYPE "F" MAY BE SUBSTITUTED TO AVOID THIS CONDITION.
4. SOIL RETAINER

Void Form, Backfill Retainer — 6 — 1" = 1'-0" — S402

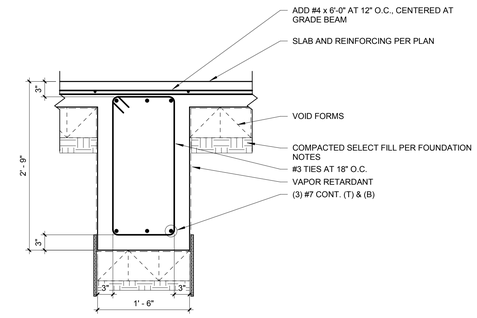


Footing SP, CMU at Ext. — 2 — 1" = 1'-0" — S201 S402

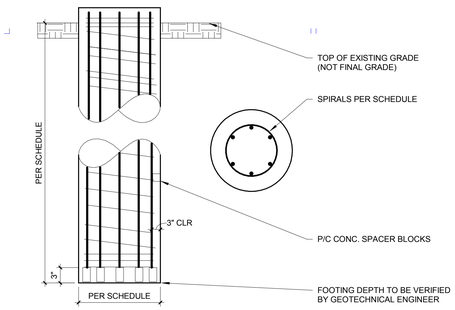


CARE SHOULD BE TAKEN SO THAT FORMS ARE NOT CRUSHED, DAMAGED OR ALLOWED TO BECOME SATURATED PRIOR TO PLACEMENT OF CONCRETE. SEAL ALL JOINTS AND ENDS OF VOID FORMS TO PREVENT CONCRETE FROM ENTERING FORM

Void Form, Backfill Retainer, Alt. — 7 — 1" = 1'-0" — S402



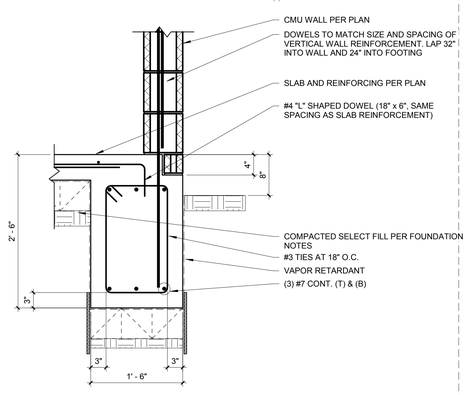
Footing SP, Int. — 3 — 1" = 1'-0" — S201 S402



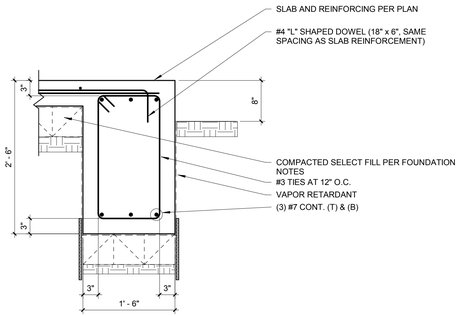
PIER SCHEDULE						
PIER NO.	DIA.	DEPTH BELOW (E)GRADE	VERT. REINF.		SPIRAL	
			NO.	SIZE	SIZE	PITCH
P1832	18"	32 FT	4	6	3/8	6"
P2432	24"	32 FT	6	7	3/8	6"
P3032	30"	32 FT	9	7	3/8	6"

"XX" INDICATES DIAMETER OF PIER, SEE PLAN

Pier Schedule — 12 — 1" = 1'-0" — S402



Footing SP, CMU at Ext. at Ledge 5 1/2 — 8 — 1" = 1'-0" — S201 S402



Footing SP, Ext. — 4 — 1" = 1'-0" — S402

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Revision	Date	Issued by
DESCRIPTION		

Document issued for:
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PROPOSED

Pharr Expansion

Pharr, TEXAS

Project: 16162
Date: 1/12/2018

S402

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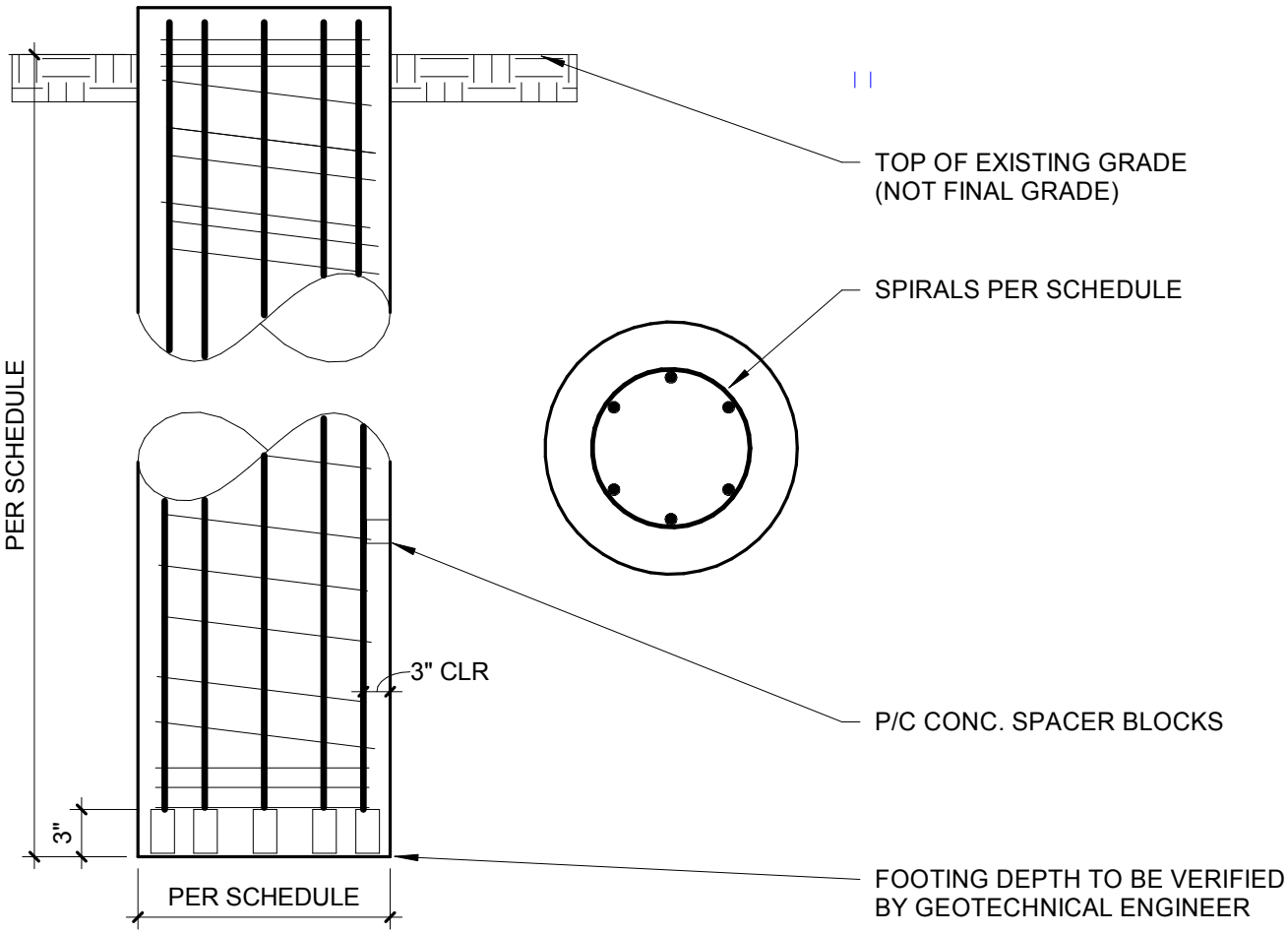

PIER SCHEDULE						
PIER NO.	DIA.	DEPTH BELOW (E)GRADE	VERT. REINF.		SPIRAL	
			NO.	SIZE	SIZE	PITCH
P1832	18"	32 FT	4	6	3/8	6"
P2432	24"	32 FT	6	7	3/8	6"
DP2.0X35	24"	35 FT	6	7	3/8	6"

"XX" INDICATES DIAMETER OF PIER, SEE PLAN

PROJ. NO.: 16162

STATE OF TEXAS
SIMON G. SOLORIO JR.
83066
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03/19/18

Pharr Expansion

Pharr, Texas

Revised Pier Schedule

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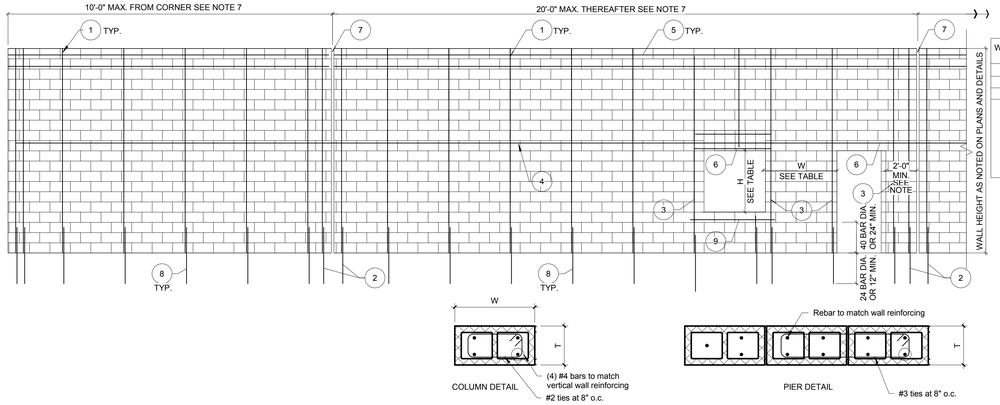

WALL THICKNESS (T)	DIMENSIONAL LIMITS		
	CLEAR	PIER	COLUMN
6"	H > 24" AND W > 32"	H > 24" AND 32" > W > 24"	H > 24" AND W < 24"
8"	H > 32" AND W > 40"	H > 32" AND 40" > W > 24"	H > 32" AND W < 24"
12"	H > 48" AND W > 64"	H > 48" AND 64" > W > 40"	H > 48" AND W < 40"

1. NORMAL WALL REINFORCING AS NOTED ON DETAILS AND DESCRIBED IN GENERAL NOTES.
2. ADDITIONAL VERTICAL REINFORCING AT CONTROL JOINTS - SEE TYPICAL CONTROL JOINT DETAIL.
3. ADDITIONAL VERTICAL REINFORCING AT JAMBS OF ALL WALL OPENINGS.
4. INTERMEDIATE BOND BEAM REINFORCED AND SPACED AS REQUIRED ON DRAWINGS. CUT ONE INTERMEDIATE BOND BEAM SHALL BE PLACED AT WINDOW LINTEL ELEVATION AND AT 8'-0" O.C.
5. ROOF LEVEL BOND BEAM REINFORCED AS NOTED ON DETAILS - CONTINUE ALL REINFORCING UNCUT THROUGH CONTROL JOINTS.
6. LINTEL REINFORCING AS DETAILED AND/OR SCHEDULED.
7. CONTROL JOINTS (CJ): UNLESS NOTED OTHERWISE ON THE ARCHITECTURAL DRAWINGS, THE CJ SPACING NOTED IS THE MAXIMUM PERMITTED. THE SPACING OF CJ'S SHALL BE COORDINATED WITH THE WALL OPENING LOCATIONS AND IN NO CASE SHALL A CJ BE LOCATED CLOSER THAN 24" TO THE JAMB OF ANY WALL OPENING.
8. FOUNDATION DOWELS TO MATCH VERTICAL WALL REINFORCING SIZE AND SPACING.
9. SILL LEVEL BOND BEAM REINFORCED AS NOTED IN MASONRY GENERAL NOTES.

Typical CMU Wall Elevation
1" = 1'-0" — 5 / S403

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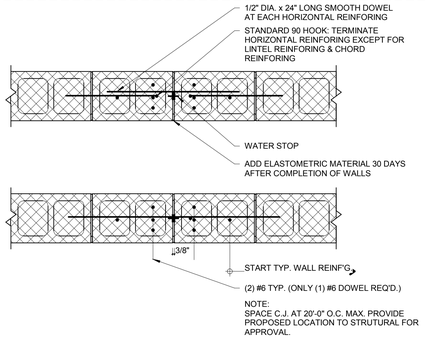
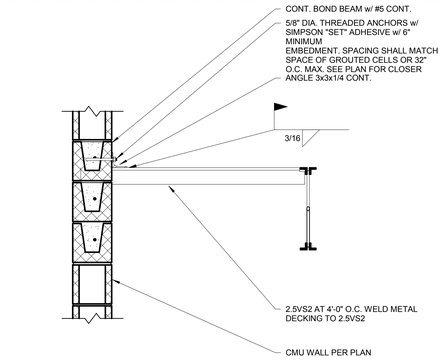
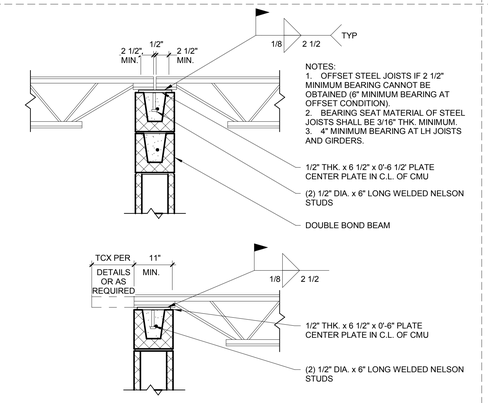


Typical CMU Control Joint
1" = 1'-0" — 14 / S403

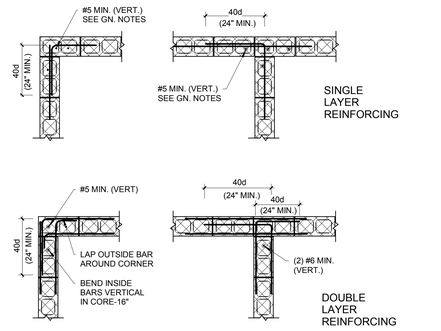


SEE DETAIL 6/S404 FOR ADDITIONAL INFORMATION

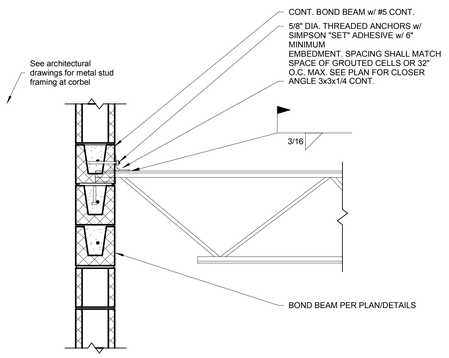
Typ. CMU Shear Transfer Angle Conn. at Parallel Joist
1" = 1'-0" — 10 / S301 S403



Typical CMU Steel Joist Bearing
1" = 1'-0" — 6 / S403

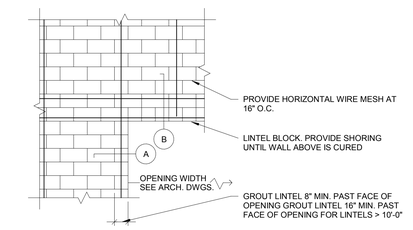


Typical CMU Reinforcing at Intersections
1/2" = 1'-0" — 2 / S403



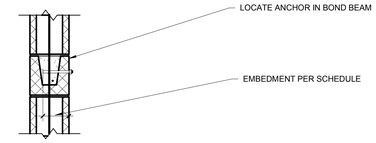
Typical CMU Shear Transfer Angle Connection
1" = 1'-0" — 11 / S301 S403

LINTEL SCHEDULE					
CLEAR SPAN	WIDTH	DEPTH	REINFORCING	#3 TIES AT:	REMARKS
<3'-4"	8"	8"	(1) #5		
<6'-6"	8"	16"	(1) #5 (T) & (B)	8"	
<10'-0"	8"	16"	(1) #6 (T) & (B)	8"	
<12'-0"	8"	24"	(1) #7 (T) & (B)	8"	
<14'-8"	8"	36"	(1) #7 (T) & (B)	8"	
<16'-0"	8"	24"	(2) #6 (T) & (B)	8"	C.I.P. CONC.
<3'-4"	12"	8"	(2) #5		
<6'-6"	12"	16"	(2) #5 (T) & (B)	8"	
<10'-0"	12"	16"	(2) #6 (T) & (B)	8"	
<12'-0"	12"	24"	(2) #7 (T) & (B)	8"	
<14'-8"	12"	36"	(2) #7 (T) & (B)	8"	
<16'-0"	12"	24"	(2) #6 (T) & (B)	8"	C.I.P. CONC.

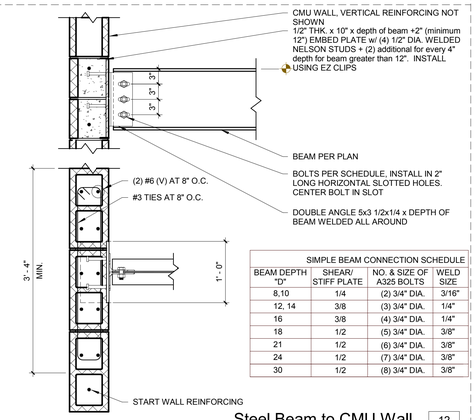


Typical CMU Lintel
1" = 1'-0" — 8 / S403

DIA.	EMBEDMENT		ADHESIVE
	CONCRETE	MASONRY	
1/2"	4"	6"	SIMPSON SET or HILTI HY150
5/8"	5"	6"	SIMPSON SET
3/4"	6"	6"	SIMPSON SET

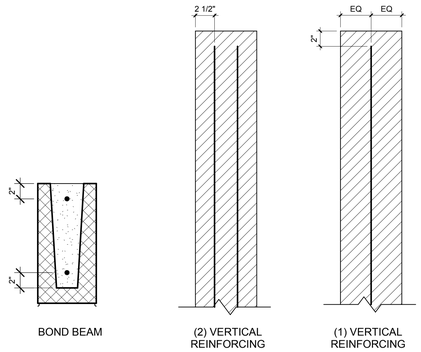


Typical CMU Threaded Anchor Embedment
1" = 1'-0" — 3 / S403



SIMPLE BEAM CONNECTION SCHEDULE			
BEAM DEPTH "D"	SHEAR/ STIFF PLATE	NO. & SIZE OF A325 BOLTS	WELD SIZE
8,10	1/4	(2) 3/4" DIA.	3/16"
12, 14	3/8	(3) 3/4" DIA.	1/4"
16	3/8	(4) 3/4" DIA.	1/4"
18	1/2	(5) 3/4" DIA.	3/8"
21	1/2	(6) 3/4" DIA.	3/8"
24	1/2	(7) 3/4" DIA.	3/8"
30	1/2	(8) 3/4" DIA.	3/8"

Steel Beam to CMU Wall
1" = 1'-0" — 12 / S403



Typical CMU Reinforcing Clearances
1 1/2" = 1'-0" — 4 / S403

THE WARREN GROUP
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twgarch.com

Revision	Date	Issued by
GEOGRAPHIC		

Document issued for:
For Bidding

PROPOSED

UTRGV
MULTI-
DISCIPLINARY
MEDICAL

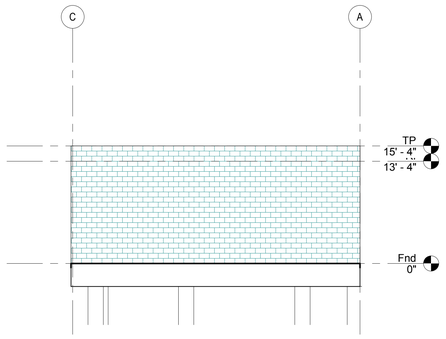
DOCTOR'S HOSPITAL
AT
RENAISSANCE

Proje 16162
Dat 1/12/2018

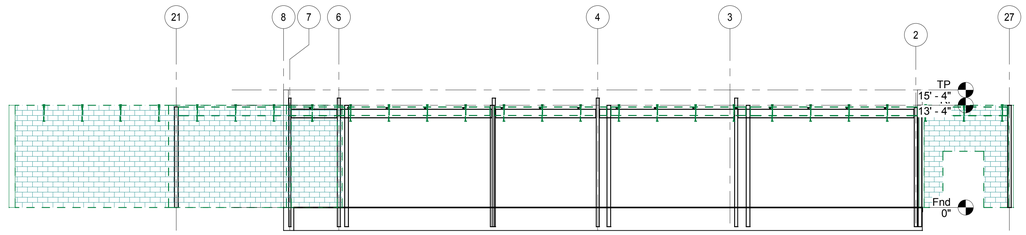
DATE:

APPROVED BY UTRGV:
BY:

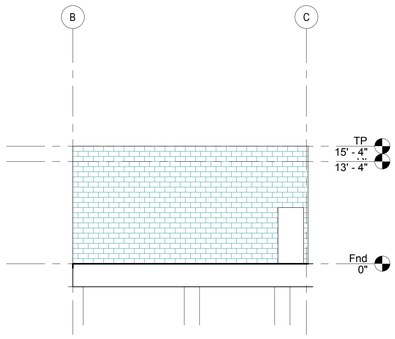
S403



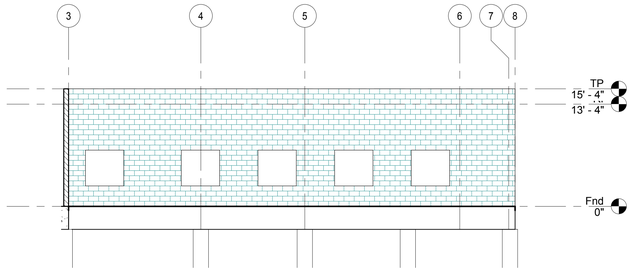
E1
1/8" = 1'-0"
1 S301 S501



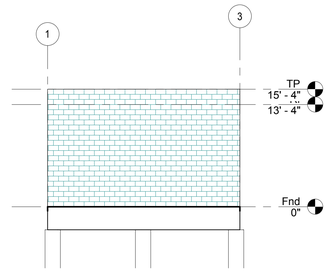
E2
1/8" = 1'-0"
2 S301 S501



E3
1/8" = 1'-0"
3 S301 S501



E4
1/8" = 1'-0"
4 S301 S501



E5
1/8" = 1'-0"
5 S301 S501

F-1616
THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY SIMON G. SOLORIO JR., PE. 83066 ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE ACT.

STATE OF TEXAS
SIMON G. SOLORIO JR.
83066
REGISTERED
PROFESSIONAL ENGINEER

1/12/2018

SOLORIO
108 W 18th Street
Mission, TX 78572
(956) 631-1500
www.solorio.com
Solorio, Inc.
Structural Engineering
F-1616

TWG
THE WARREN GROUP
ARCHITECTS, INC.

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SUITE 330
McALLEN, TX 78503
9 5 6 . 9 9 4 . 1 9 0 0
t w g a r c h . c o m

Revision	Date	Issued by

DESCRIPTION

Document issued for:
For Bidding

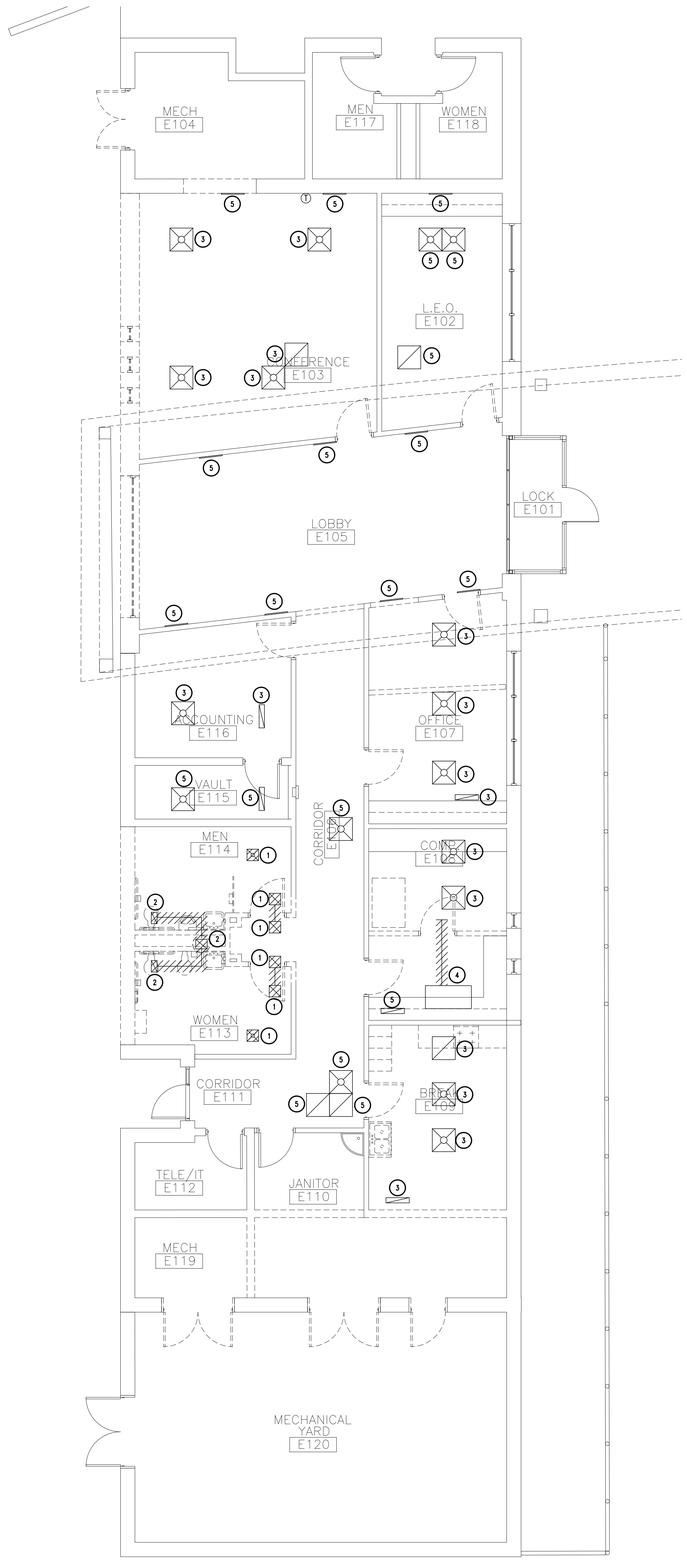
PROPOSED

Pharr Expansion

Pharr, TEXAS

Project: 16162
Date: 1/12/2018

S501



NORTH

1 DEMO - MECHANICAL FLOOR PLAN
SCALE: 3/16"=1'-0"

GENERAL DEMOLITION NOTES:

A. INFORMATION ON THE PLAN HAS BEEN OBTAINED FROM EXISTING DRAWINGS AND SITE SURVEY. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING WORK. ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND CONSTRUCTION DOCUMENTS SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER AND/OR ARCHITECT.

B. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COMPLETE THE NECESSARY DEMOLITION. CONTRACTOR SHALL PATCH AND REPAIR ALL BUILDING DAMAGE CREATED BY DEMOLITION WORK. PATCHING SHALL BE COMPLETED WITH THE SAME MATERIALS AS THE SURROUNDING AREAS, OR WITH ARCHITECT APPROVED PATCHING MATERIALS.

C. ALL OPENINGS CUT IN MASONRY AND PLASTER WALLS OR CONCRETE FLOORS SHALL BE CORE-DRILLED OR SAWED WHEN POSSIBLE. CONTRACTOR SHALL CHECK BUILDING CONSTRUCTION WITH STRUCTURAL ENGINEER BEFORE MAKING PENETRATIONS TO AVOID CUTTING THROUGH STRUCTURAL BEAMS AND REINFORCING. CONTRACTOR SHALL INFORM THE ENGINEER IF REINFORCING IS CUT OR DAMAGED WHILE MAKING OPENINGS AS REQUIRED BY DRAWINGS AND SPECIFICATIONS. PATCH AND SEAL OPENINGS WITH 8000 PSI CEMENT GROUT. INSTALL DECORATIVE TRIM (EQUIPMENT FLANGES, FRAMING, OR ESCUTCHEONS) AROUND OPENINGS IN FINISHED AREAS. COORDINATE ALL CUTTING AND PATCHING WITH THE OTHER TRADES.

D. CONTRACTOR SHALL REMOVE AND RELOCATE ANY AND ALL EXISTING EQUIPMENT/MATERIALS TO OWNER SPECIFIED LOCATION(S). OWNER SHALL HAVE FULL RIGHT OF OWNERSHIP UNLESS SPECIFIED OTHERWISE. IF THE OWNER WAIVES THIS OPTION, ANY EQUIPMENT, MATERIAL, ETC. SHALL BECOME THE PROPERTY AND RESPONSIBILITY OF THE CONTRACTOR.

E. EXISTING MECHANICAL EQUIPMENT CHARGED WITH REFRIGERANT AND SCHEDULED FOR REMOVAL OR DEMOLITION SHALL BE DISPOSED OF IN A LEGAL MANNER.

DEMOLITION KEY NOTES:

1. REMOVE EXISTING AIR DEVICES AND ASSOCIATED DUCTWORK.
2. REMOVE EXISTING EXHAUST FAN, ASSOCIATED DUCTWORK, AND AIR DEVICES.
3. EXISTING AIR DEVICE TO BE RELOCATED. REFER TO MECHANICAL PLAN FOR RELOCATION.
4. EXISTING AIR HANDLING UNIT TO REMAIN. EXISTING DUCTWORK TO BE REMOVED.
5. EXISTING AIR DEVICE TO REMAIN.

THE WARREN GROUP
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twgarch.com

REVISION	DATE	APPROVED BY	DESCRIPTION

STATE OF TEXAS
LUIS JAVIER PENA
97260
LICENSED
PROFESSIONAL ENGINEER
01.12.2018

PROPOSED

CITY OF PHARR
INTERNATIONAL
BRIDGE FACILITY
EXPANSION AND
RENOVATIONS

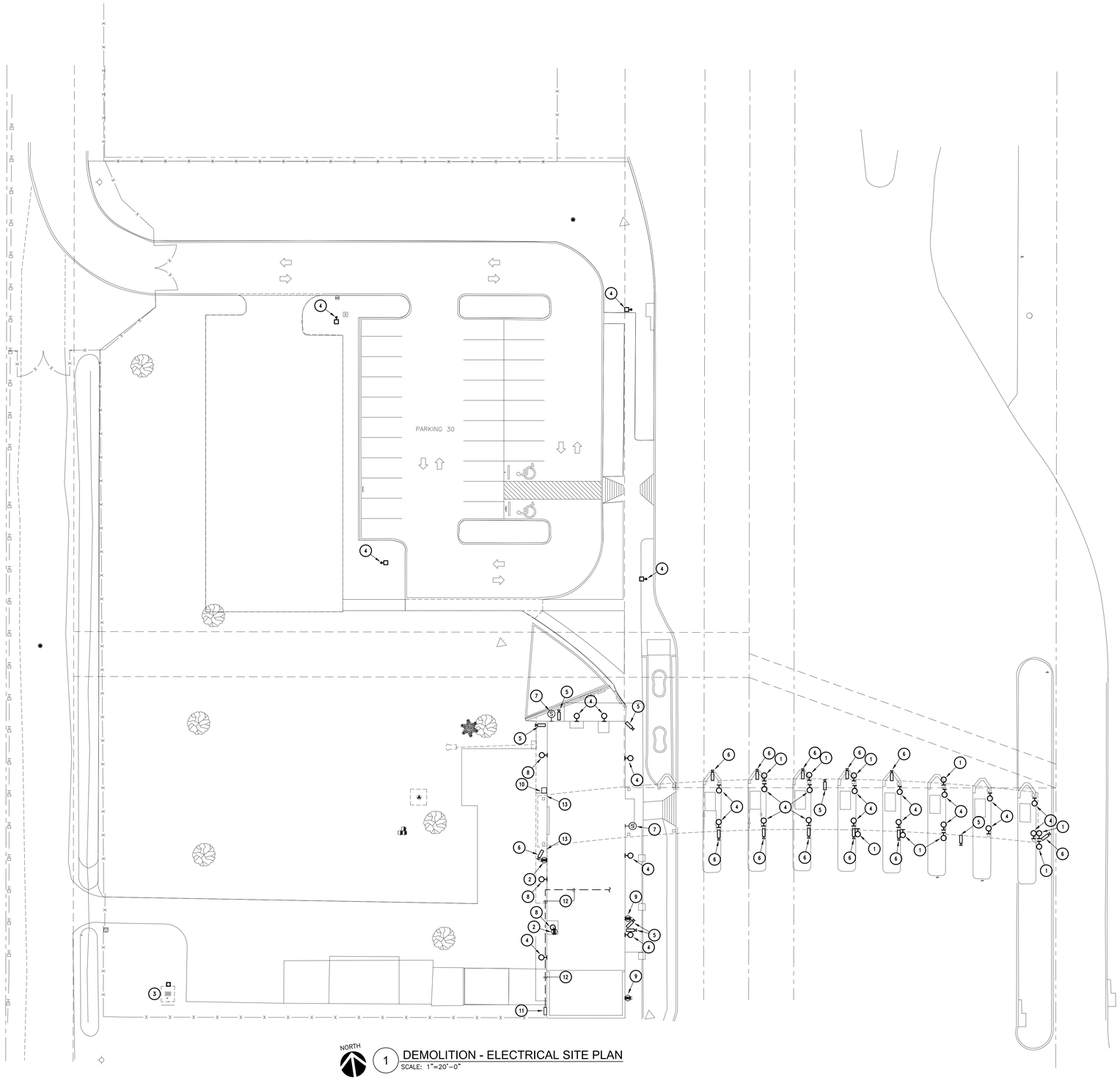
LOT 3 GSA SUBDIVISION
PHARR, TEXAS
78507

Project: 971704
Date: 1/12/2018
Revised:

DM1.01

DEMO - MECHANICAL
FLOOR PLAN

MEP SOLUTIONS ENGINEERING
MECHANICAL, ELECTRICAL, PLUMBING ENGINEERS
600 E. BEAUMONT AVE. SUITE 2 McALLEN, TX. 78501 (956) 664-2727
TEXAS BOARD OF PROFESSIONAL ENGINEERS REGISTRATION # F-9748



NORTH

1 DEMOLITION - ELECTRICAL SITE PLAN
SCALE: 1"=20'-0"

GENERAL DEMOLITION NOTES:

A. INFORMATION ON THIS PLAN HAS BEEN OBTAINED FROM EXISTING DRAWINGS AND SITE SURVEY. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND BECOME FULLY INFORMED AS TO THE EXTENT OF WORK PRIOR TO BIDDING OR COMMENCING WORK. ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND CONSTRUCTION DOCUMENTS SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER AND/OR ARCHITECT.

B. THE CONTRACTOR IS FULLY RESPONSIBLE FOR PERFORMING THE DEMOLITION WORK UNDER THIS SECTION OF THE PROJECT IN FULL COMPLIANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL CODES. IF THE CONTRACTOR DETERMINES THAT THE CONTRACT DOCUMENTS AND PLANS ARE NOT IN COMPLIANCE WITH THE APPLICABLE CODES, HE SHALL INFORM THE ARCHITECT PRIOR TO CONSTRUCTION START FOR DIRECTION. FAILURE TO DO SO SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO MEET CODE REQUIREMENTS AND REWORK SHALL BE AT CONTRACTOR'S EXPENSE. APPLICABLE CODES AND STANDARDS ON DEMOLITION WORK SHALL INCLUDE THOSE PUBLISHED BY OSHA AND EPA. APPLICABLE CODES AND STANDARDS ON DEMOLITION WORK SHALL INCLUDE THOSE PUBLISHED BY OSHA AND EPA. AN ASBESTOS SURVEY SHALL BE KEPT ON SITE AT ALL TIMES PER TEXAS DEPARTMENT OF HEALTH REQUIREMENTS

C. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COMPLETE THE NECESSARY DEMOLITION. CONTRACTOR SHALL PATCH AND REPAIR ALL BUILDING DAMAGE CREATED BY DEMOLITION WORK. PATCHING SHALL BE COMPLETED WITH THE SAME MATERIALS AS THE SURROUNDING AREAS, OR WITH ARCHITECT APPROVED PATCHING MATERIALS.

D. ALL OPENINGS CUT IN MASONRY AND PLASTER WALLS OR CONCRETE FLOORS SHALL BE CORE-DRILLED OR SAWED WHEN POSSIBLE. CONTRACTOR SHALL CHECK BUILDING CONSTRUCTION WITH STRUCTURAL ENGINEER BEFORE MAKING PENETRATIONS TO AVOID CUTTING THROUGH STRUCTURAL BEAMS AND REINFORCING. CONTRACTOR SHALL INFORM THE ENGINEER IF REINFORCING IS CUT OR DAMAGED WHILE MAKING OPENINGS AS REQUIRED BY DRAWINGS AND SPECIFICATIONS.

E. CONTRACTOR SHALL REMOVE AND RETURN ANY AND ALL EXISTING EQUIPMENT/MATERIALS TO OWNER. OWNER SHALL HAVE FULL RIGHT OF OWNERSHIP UNLESS SPECIFIED OTHERWISE. IF THE OWNER WAIVES THIS OPTION, ANY EQUIPMENT, MATERIAL, ETC SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

F. SCHEDULE FOR ALL POWER OUTAGES SHALL BE APPROVED PRIOR TO DEMOLITION.

G. ON ANY WORK SHOWN ON M.E.P. DRAWINGS WHICH REQUIRES DEMOLITION OF BUILDING STRUCTURES AND FINISHES, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COMPLETE THE NECESSARY DEMOLITION. CONTRACTOR SHALL PATCH AND REPAIR ALL BUILDING DAMAGE CREATED BY DEMOLITION WORK. PATCHING SHALL BE COMPLETED WITH THE SAME MATERIALS AS THE SURROUNDING AREAS, OR WITH ARCHITECT-APPROVED PATCHING MATERIALS.

H. CONTRACTOR AND OWNER SHALL BE FULLY RESPONSIBLE TO IDENTIFY ANY AND ALL ASBESTOS PRESENT IN THE BUILDING PRIOR TO DEMOLITION AS REQUIRED BY LAW.

I. COORDINATION AMONG OTHER CONSTRUCTION DISCIPLINES PRIOR TO DEMOLITION IS MANDATORY.

J. CONDUITS IN EXISTING WALLS MAY REMAIN. REMOVE CONDUCTORS AND CUT OF AT CLOSEST ACCESSIBLE POINT ABOVE CEILING.

K. ELECTRICAL CONTRACTOR SHALL FURNISH $10,000.00 ALLOWANCE FOR RE-ROUTING OF EXISTING CONDUITS PER KEY NOTES #12 AND #13.

DEMOLITION KEY NOTES:

1. EXISTING EXTERIOR LIGHTING FIXTURE SHALL BE REMOVED AND EXTEND TO NEW LOCATION.
2. EXISTING EXTERIOR RECEPTACLES SHALL BE REMOVED.
3. EXISTING UTILITY COMPANY TRANSFORMER AND METER TO REMAIN.
4. EXISTING EXTERIOR LIGHTING SHALL REMAIN.
5. EXISTING EXTERIOR CAMERA SHALL REMAIN.
6. EXISTING CAMERA TO BE REMOVED AND EXTEND TO NEW LOCATION.
7. EXISTING EXTERIOR SPEAKER TO REMAIN.
8. EXISTING EXTERIOR LIGHTING SHALL TO BE REMOVED.
9. EXISTING EXTERIOR RECEPTACLES TO REMAIN.
10. EXISTING ANTENNA SHALL BE REMOVE AND RELOCATED. COORDINATE WITH ARCHITECT/OWNER FOR NEW LOCATION OF ANTENNA.
11. EXISTING BOX WITH FIBER TO REMAIN.
12. EXISTING 2-1/2" CONDUITS SHALL BE RELOCATED.
13. EXISTING CONDUITS SHALL BE RELOCATED.

FIELD VERIFY ALL CONDITIONS

DESIGN DRAWINGS SCHEMATIC. THIS CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING OR AWARD OF CONTRACT TO INSPECT EXISTING FEILD CONDITIONS. THIS CONTRACT SHALL INCLUDE ALL LABOR AND MATERIALS NECCESSARY FOR FEILD MODIFICATIONS DUE TO EXISTING CONDITIONS.

THE CONTRACTOR SHALL CONTACT THE ARCHITECT, ENGINEER OR OWNER PRIOR TO BIDDING FOR INTERPRETATIONS AND CLARIFICATIONS OF THE DESIGN AND INCLUDE IN HIS BID ALL COSTS TO MEET THE DESIGN INTENT. CLARIFICATIONS MADE BY THE ARCHITECT, ENGINEER OR OWNER AFTER BIDDING WILL BE FINAL AND SHALL BE IMPLEMENTED AT CONTRACTORS COST.

BIDDING CONTRACTORS SHALL HAVE A WORKING KNOWLEDGE OF LOCAL CODES AND ORDINANCES AND SHALL INCLUDE IN THEIR BIDS THE COSTS FOR ALL WORK INSTALLED IN STRICT ACCORDANCE WITH GOVERNING CODES, THE PLANS AND SPECIFICATIONS NOT WITHSTANDING. THE CONTRACTOR SHALL ALERT ARCHITECT, ENGINEER OR OWNER OF ANY APPARENT DISCREPANCIES BETWEEN GOVERNING CODES AND DESIGN INTENT.

THE WARREN GROUP ARCHITECTS, INC.
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McALLEN, TX 78503
956.994.1900
twgarch.com

REVISION	DATE	APPROVED BY	DESCRIPTION

STATE OF TEXAS
ABRAM L. DOMINGUEZ
97393
LICENSED PROFESSIONAL ENGINEER
01.12.2018

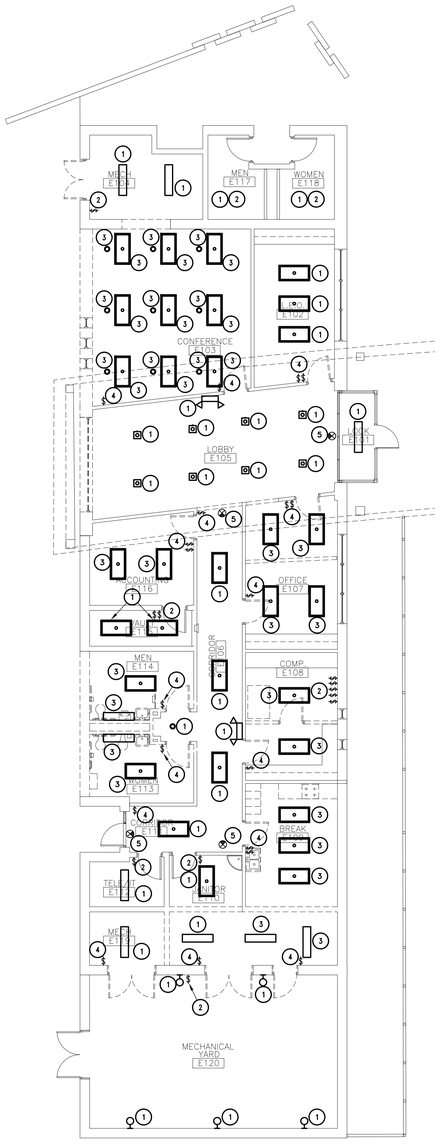
PROPOSED
CITY OF PHARR INTERNATIONAL BRIDGE FACILITY EXPANSION AND RENOVATIONS

LOT 3 GSA SUBDIVISION
PHARR, TEXAS
78507

MEP SOLUTIONS ENGINEERING
MECHANICAL, ELECTRICAL, PLUMBING ENGINEERS
600 E. BEAUMONT AVE. SUITE 2 McALLEN, TX 78501 (956) 664-2727
TEXAS BOARD OF PROFESSIONAL ENGINEERS REGISTRATION # F-9748

Project: 971704
Date: 1/12/2018
Revised:

DE1.00
DEMOLITION ELECTRICAL SITE PLAN



NORTH

1 DEMOLITION - ELECTRICAL LIGHTING PLAN

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

GENERAL DEMOLITION NOTES:

A. INFORMATION ON THIS PLAN HAS BEEN OBTAINED FROM EXISTING DRAWINGS AND SITE SURVEY. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND BECOME FULLY INFORMED AS TO THE EXTENT OF WORK PRIOR TO BIDDING OR COMMENCING WORK. ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND CONSTRUCTION DOCUMENTS SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER AND/OR ARCHITECT.

B. THE CONTRACTOR IS FULLY RESPONSIBLE FOR PERFORMING THE DEMOLITION WORK UNDER THIS SECTION OF THE PROJECT IN FULL COMPLIANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL CODES. IF THE CONTRACTOR DETERMINES THAT THE CONTRACT DOCUMENTS AND PLANS ARE NOT IN COMPLIANCE WITH THE APPLICABLE CODES, HE SHALL INFORM THE ARCHITECT PRIOR TO CONSTRUCTION START FOR DIRECTION. FAILURE TO DO SO SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO MEET CODE REQUIREMENTS AND REWORK SHALL BE AT CONTRACTOR'S EXPENSE. APPLICABLE CODES AND STANDARDS ON DEMOLITION WORK SHALL INCLUDE THOSE PUBLISHED BY OSHA AND EPA. APPLICABLE CODES AND STANDARDS ON DEMOLITION WORK SHALL INCLUDE THOSE PUBLISHED BY OSHA AND EPA. AN ASBESTOS SURVEY SHALL BE KEPT ON SITE AT ALL TIMES PER TEXAS DEPARTMENT OF HEALTH REQUIREMENTS

C. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COMPLETE THE NECESSARY DEMOLITION. CONTRACTOR SHALL PATCH AND REPAIR ALL BUILDING DAMAGE CREATED BY DEMOLITION WORK. PATCHING SHALL BE COMPLETED WITH THE SAME MATERIALS AS THE SURROUNDING AREAS, OR WITH ARCHITECT APPROVED PATCHING MATERIALS.

D. ALL OPENINGS CUT IN MASONRY AND PLASTER WALLS OR CONCRETE FLOORS SHALL BE CORE-DRILLED OR SAWED WHEN POSSIBLE. CONTRACTOR SHALL CHECK BUILDING CONSTRUCTION WITH STRUCTURAL ENGINEER BEFORE MAKING PENETRATIONS TO AVOID CUTTING THROUGH STRUCTURAL BEAMS AND REINFORCING. CONTRACTOR SHALL INFORM THE ENGINEER IF REINFORCING IS CUT OR DAMAGED WHILE MAKING OPENINGS AS REQUIRED BY DRAWINGS AND SPECIFICATIONS.

E. CONTRACTOR SHALL REMOVE AND RETURN ANY AND ALL EXISTING EQUIPMENT/MATERIALS TO OWNER. OWNER SHALL HAVE FULL RIGHT OF OWNERSHIP UNLESS SPECIFIED OTHERWISE. IF THE OWNER WAIVES THIS OPTION, ANY EQUIPMENT, MATERIAL, ETC SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

F. SCHEDULE FOR ALL POWER OUTAGES SHALL BE APPROVED PRIOR TO DEMOLITION.

G. ON ANY WORK SHOWN ON M.E.P. DRAWINGS WHICH REQUIRES DEMOLITION OF BUILDING STRUCTURES AND FINISHES, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COMPLETE THE NECESSARY DEMOLITION. CONTRACTOR SHALL PATCH AND REPAIR ALL BUILDING DAMAGE CREATED BY DEMOLITION WORK. PATCHING SHALL BE COMPLETED WITH THE SAME MATERIALS AS THE SURROUNDING AREAS, OR WITH ARCHITECT-APPROVED PATCHING MATERIALS.

H. CONTRACTOR AND OWNER SHALL BE FULLY RESPONSIBLE TO IDENTIFY ANY AND ALL ASBESTOS PRESENT IN THE BUILDING PRIOR TO DEMOLITION AS REQUIRED BY LAW.

I. COORDINATION AMONG OTHER CONSTRUCTION DISCIPLINES PRIOR TO DEMOLITION IS MANDATORY.

J. CONDUITS IN EXISTING WALLS MAY REMAIN. REMOVE CONDUCTORS AND CUT OF AT CLOSEST ACCESSIBLE POINT ABOVE CEILING.

DEMOLITION KEY NOTES:

1. EXISTING LIGHTING FIXTURE TO REMAIN.
2. EXISTING LIGHTING SWITCH TO REMAIN.
3. EXISTING LIGHTING FIXTURE TO BE REMOVED.
4. EXISTING LIGHTING SWITCH TO BE REMOVED.
5. EXISTING EXIT SIGN TO BE REMOVED.

FIELD VERIFY ALL CONDITIONS

DESIGN DRAWINGS SCHEMATIC. THIS CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING OR AWARD OF CONTRACT TO INSPECT EXISTING FEILD CONDITIONS. THIS CONTRACT SHALL INCLUDE ALL LABOR AND MATERIALS NECCESSARY FOR FEILD MODIFICATIONS DUE TO EXISTING CONDITIONS.

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REVISION	DATE	APPROVED BY	DESCRIPTION

STATE OF TEXAS
ABRAM L. DOMINGUEZ
97393
LICENSED
PROFESSIONAL ENGINEER

01.12.2018

PROPOSED

CITY OF PHARR
INTERNATIONAL
BRIDGE FACILITY
EXPANSION AND
RENOVATIONS

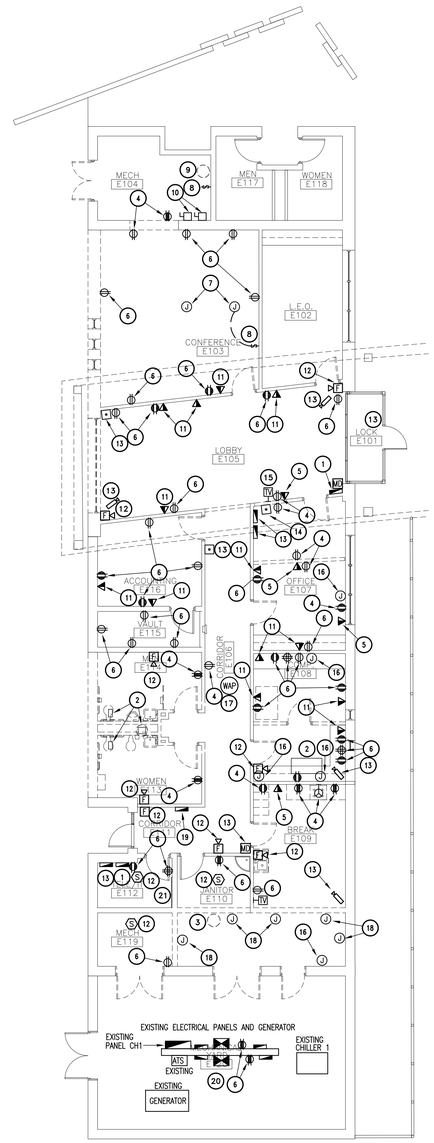
LOT 3 GSA SUBDIVISION
PHARR, TEXAS
78507

Project: 971704
Date: 1/12/2018
Revised:

DE1.01

DEMOLITION ELECTRIAL LIGHTING PLAN

MEP SOLUTIONS ENGINEERING
MECHANICAL, ELECTRICAL, PLUMBING ENGINEERS
600 E. BEAUMONT AVE. SUITE 2 McALLEN, TX. 78501 (956) 664-2727
TEXAS BOARD OF PROFESSIONAL ENGINEERS REGISTRATION # F-9748



NORTH

1 DEMOLITION - ELECTRICAL POWER PLAN

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

GENERAL DEMOLITION NOTES:

A. INFORMATION ON THIS PLAN HAS BEEN OBTAINED FROM EXISTING DRAWINGS AND SITE SURVEY. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND BECOME FULLY INFORMED AS TO THE EXTENT OF WORK PRIOR TO BIDDING OR COMMENCING WORK. ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND CONSTRUCTION DOCUMENTS SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER AND/OR ARCHITECT.

B. THE CONTRACTOR IS FULLY RESPONSIBLE FOR PERFORMING THE DEMOLITION WORK UNDER THIS SECTION OF THE PROJECT IN FULL COMPLIANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL CODES. IF THE CONTRACTOR DETERMINES THAT THE CONTRACT DOCUMENTS AND PLANS ARE NOT IN COMPLIANCE WITH THE APPLICABLE CODES, HE SHALL INFORM THE ARCHITECT PRIOR TO CONSTRUCTION START FOR DIRECTION. FAILURE TO DO SO SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO MEET CODE REQUIREMENTS AND REWORK SHALL BE AT CONTRACTOR'S EXPENSE. APPLICABLE CODES AND STANDARDS ON DEMOLITION WORK SHALL INCLUDE THOSE PUBLISHED BY OSHA AND EPA. APPLICABLE CODES AND STANDARDS ON DEMOLITION WORK SHALL INCLUDE THOSE PUBLISHED BY OSHA AND EPA. AN ASBESTOS SURVEY SHALL BE KEPT ON SITE AT ALL TIMES PER TEXAS DEPARTMENT OF HEALTH REQUIREMENTS

C. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COMPLETE THE NECESSARY DEMOLITION. CONTRACTOR SHALL PATCH AND REPAIR ALL BUILDING DAMAGE CREATED BY DEMOLITION WORK. PATCHING SHALL BE COMPLETED WITH THE SAME MATERIALS AS THE SURROUNDING AREAS, OR WITH ARCHITECT APPROVED PATCHING MATERIALS.

D. ALL OPENINGS CUT IN MASONRY AND PLASTER WALLS OR CONCRETE FLOORS SHALL BE CORE-DRILLED OR SAWED WHEN POSSIBLE. CONTRACTOR SHALL CHECK BUILDING CONSTRUCTION WITH STRUCTURAL ENGINEER BEFORE MAKING PENETRATIONS TO AVOID CUTTING THROUGH STRUCTURAL BEAMS AND REINFORCING. CONTRACTOR SHALL INFORM THE ENGINEER IF REINFORCING IS CUT OR DAMAGED WHILE MAKING OPENINGS AS REQUIRED BY DRAWINGS AND SPECIFICATIONS.

E. CONTRACTOR SHALL REMOVE AND RETURN ANY AND ALL EXISTING EQUIPMENT/MATERIALS TO OWNER. OWNER SHALL HAVE FULL RIGHT OF OWNERSHIP UNLESS SPECIFIED OTHERWISE. IF THE OWNER WAIVES THIS OPTION, ANY EQUIPMENT, MATERIAL, ETC SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

F. SCHEDULE FOR ALL POWER OUTAGES SHALL BE APPROVED PRIOR TO DEMOLITION.

G. ON ANY WORK SHOWN ON M.E.P. DRAWINGS WHICH REQUIRES DEMOLITION OF BUILDING STRUCTURES AND FINISHES, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COMPLETE THE NECESSARY DEMOLITION. CONTRACTOR SHALL PATCH AND REPAIR ALL BUILDING DAMAGE CREATED BY DEMOLITION WORK. PATCHING SHALL BE COMPLETED WITH THE SAME MATERIALS AS THE SURROUNDING AREAS, OR WITH ARCHITECT-APPROVED PATCHING MATERIALS.

H. CONTRACTOR AND OWNER SHALL BE FULLY RESPONSIBLE TO IDENTIFY ANY AND ALL ASBESTOS PRESENT IN THE BUILDING PRIOR TO DEMOLITION AS REQUIRED BY LAW.

I. COORDINATION AMONG OTHER CONSTRUCTION DISCIPLINES PRIOR TO DEMOLITION IS MANDATORY.

J. CONDUITS IN EXISTING WALLS MAY REMAIN. REMOVE CONDUCTORS AND CUT OF AT CLOSEST ACCESSIBLE POINT ABOVE CEILING.

DEMOLITION KEY NOTES:

1. EXISTING FIRE ALARM ANNUNCIATOR (FIRE LITE ALRAM BY HONEY WELL) AND FACP TO REMAIN.
2. EXISTING MECHANICAL EQUIPMENT AND ASSOCIATED ELECTRICAL SHALL BE REMOVED.
3. EXISTING PLUMBING EQUIPMENT AND ASSOCIATED ELECTRICAL SHALL BE REMOVED.
4. EXISTING RECEPTACLE TO BE REMOVED.
5. EXISTING TELEPHONE/DATA TO BE REMOVED.
6. EXISTING RECEPTACLE TO REMAIN.
7. EXISTING MOTORIZED SCREEN AND PROJECTOR REMAIN.
8. EXISTING SWITCH TO REMAIN.
9. EXISTING PLUMBING EQUIPMENT TO REMAIN.
10. EXISTING DISCONNECT TO REMAIN.
11. EXISTING TELEPHONE/DATA TO REMAIN.
12. EXISTING FIRE ALARM DEVICE TO REMAIN.
13. EXISTING SECURITY DEVICE TO REMAIN.
14. EXISTING SECURITY DEVICE TO BE REMOVED AND RELOCATED.
15. EXISTING TV TO BE REMOVED AND RELOCATED.
16. EXISTING J-BOX TO REMAIN.
17. EXISTING WIRELESS ACCESS POINT TO REMAIN.
18. EXISTING J-BOX TO BE REMOVED.
19. EXISTING GENERATOR PANEL TO REMAIN.
20. EXISTING ELECTRICAL PANELS, ATS, CHILLER EQUIPMENT AND GENERATOR TO REMAIN, IN MECHANICAL YARD E120.
21. EXISTING TELEPHONE BOARD TO REMAIN.

FIELD VERIFY ALL CONDITIONS

DESIGN DRAWINGS SCHEMATIC. THIS CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING OR AWARD OF CONTRACT TO INSPECT EXISTING FEILD CONDITIONS. THIS CONTRACT SHALL INCLUDE ALL LABOR AND MATERIALS NECCESSARY FOR FEILD MODIFICATIONS DUE TO EXISTING CONDITIONS.

THE CONTRACTOR SHALL CONTACT THE ARCHITECT, ENGINEER OR OWNER PRIOR TO BIDDING FOR INTERPRETATIONS AND CLARIFICATIONS OF THE DESIGN AND INCLUDE IN HIS BID ALL COSTS TO MEET THE DESIGN INTENT. CLARIFICATIONS MADE BY THE ARCHITECT, ENGINEER OR OWNER AFTER BIDDING WILL BE FINAL AND SHALL BE IMPLEMENTED AT CONTRACTORS COST.

BIDDING CONTRACTORS SHALL HAVE A WORKING KNOWLEDGE OF LOCAL CODES AND ORDINANCES AND SHALL INCLUDE IN THEIR BIDS THE COSTS FOR ALL WORK INSTALLED IN STRICT ACCORDANCE WITH GOVERNING CODES, THE PLANS AND SPECIFICATIONS NOT WITHSTANDING. THE CONTRACTOR SHALL ALERT ARCHITECT, ENGINEER OR OWNER OF ANY APPARENT DISCREPANCIES BETWEEN GOVERNING CODES AND DESIGN INTENT.

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01.12.2018

PROPOSED

CITY OF PHARR INTERNATIONAL BRIDGE FACILITY EXPANSION AND RENOVATIONS

LOT 3 GSA SUBDIVISION
PHARR, TEXAS
78507

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DEMOLITION ELECTRIAL POWER PLAN

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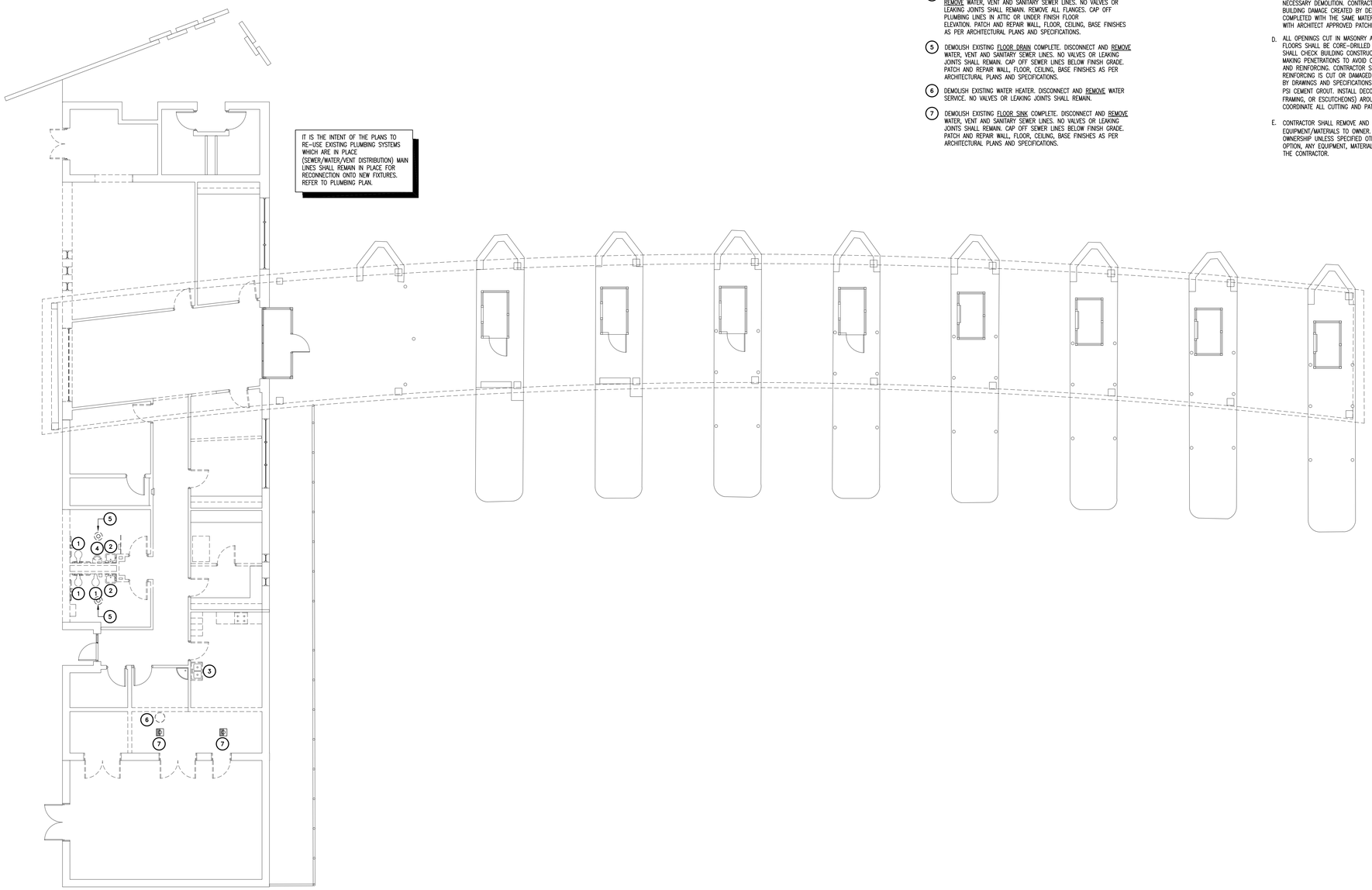
PLUMBING CONTRACTOR SHALL COORDINATE DOMESTIC WATER AND SANITARY SEWER LINE DIRECTION OF FLOW, SIZE, INVERT, AND POINT OF CONNECTION WITH EXISTING CONDITIONS PRIOR TO INSTALLATION OF ROUGH-IN TO AVOID CONFLICT. ANY DISCREPANCIES FOUND BY THE PLUMBING CONTRACTOR SHALL BE REPORTED TO THE ENGINEER/ARCHITECT IMMEDIATELY AND PRIOR TO ANY INSTALLATION. FAILURE TO COMPLY SHALL MAKE ALL CORRECTIONS AND/OR MODIFICATIONS THE FULL RESPONSIBILITY OF THE CONTRACTOR.

IT IS THE INTENT OF THE PLANS TO RE-USE EXISTING PLUMBING SYSTEMS WHICH ARE IN PLACE (SEWER/WATER/VENT DISTRIBUTION) MAIN LINES SHALL REMAIN IN PLACE FOR RECONNECTION ONTO NEW FIXTURES. REFER TO PLUMBING PLAN.



NORTH

1 DEMOLITION - PLUMBING PLAN
SCALE: 1/8"=1'-0"

PLUMBING DEMOLITION KEY NOTES:

1. DEMOLISH EXISTING WATER CLOSET COMPLETE. DISCONNECT AND REMOVE WATER, VENT AND SANITARY SEWER LINES. NO VALVES OR LEAKING JOINTS SHALL REMAIN. REMOVE ALL FLANGES. CAP OFF SEWER LINES BELOW FINISH GRADE. PATCH AND REPAIR WALL, FLOOR, CEILING, BASE FINISHES AS PER ARCHITECTURAL PLANS AND SPECIFICATIONS.
2. DEMOLISH EXISTING LAVATORY COMPLETE. DISCONNECT AND REMOVE WATER, VENT AND SANITARY SEWER LINES. NO VALVES OR LEAKING JOINTS SHALL REMAIN. REMOVE ALL CARRIER SYSTEMS. CAP OFF SEWER LINES BELOW FINISH GRADE. PATCH AND REPAIR WALL, FLOOR, CEILING, BASE FINISHES AS PER ARCHITECTURAL PLANS AND SPECIFICATIONS.
3. DEMOLISH EXISTING SINK COMPLETE. DISCONNECT AND REMOVE WATER, VENT AND SANITARY SEWER LINES. NO VALVES OR LEAKING JOINTS SHALL REMAIN. REMOVE ALL FLANGES. CAP OFF SEWER LINES BELOW FINISH GRADE. PATCH AND REPAIR WALL, FLOOR, CEILING, BASE FINISHES AS PER ARCHITECTURAL PLANS AND SPECIFICATIONS.
4. DEMOLISH EXISTING URINAL COMPLETE. DISCONNECT AND REMOVE WATER, VENT AND SANITARY SEWER LINES. NO VALVES OR LEAKING JOINTS SHALL REMAIN. REMOVE ALL FLANGES. CAP OFF PLUMBING LINES IN ATTIC OR UNDER FINISH FLOOR ELEVATION. PATCH AND REPAIR WALL, FLOOR, CEILING, BASE FINISHES AS PER ARCHITECTURAL PLANS AND SPECIFICATIONS.
5. DEMOLISH EXISTING FLOOR DRAIN COMPLETE. DISCONNECT AND REMOVE WATER, VENT AND SANITARY SEWER LINES. NO VALVES OR LEAKING JOINTS SHALL REMAIN. CAP OFF SEWER LINES BELOW FINISH GRADE. PATCH AND REPAIR WALL, FLOOR, CEILING, BASE FINISHES AS PER ARCHITECTURAL PLANS AND SPECIFICATIONS.
6. DEMOLISH EXISTING WATER HEATER. DISCONNECT AND REMOVE WATER SERVICE. NO VALVES OR LEAKING JOINTS SHALL REMAIN.
7. DEMOLISH EXISTING FLOOR SINK COMPLETE. DISCONNECT AND REMOVE WATER, VENT AND SANITARY SEWER LINES. NO VALVES OR LEAKING JOINTS SHALL REMAIN. CAP OFF SEWER LINES BELOW FINISH GRADE. PATCH AND REPAIR WALL, FLOOR, CEILING, BASE FINISHES AS PER ARCHITECTURAL PLANS AND SPECIFICATIONS.

GENERAL DEMOLITION NOTES:

A. INFORMATION ON THE PLAN HAS BEEN OBTAINED FROM EXISTING DRAWINGS AND SITE SURVEY. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING WORK. ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND CONSTRUCTION DOCUMENTS SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER AND/OR ARCHITECT.

B. THE CONTRACTOR IS FULLY RESPONSIBLE FOR PERFORMING THE DEMOLITION WORK UNDER THIS SECTION OF THE PROJECT IN FULL COMPLIANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL CODES. IF THE CONTRACTOR DETERMINES THAT THE CONTRACT DOCUMENTS AND PLANS ARE NOT IN COMPLIANCE WITH THE APPLICABLE CODES, HE SHALL INFORM THE ARCHITECT PRIOR TO CONSTRUCTION START FOR DIRECTION. FAILURE TO DO SO SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO MEET CODE REQUIREMENTS AND REWORK SHALL BE AT CONTRACTOR'S EXPENSE. APPLICABLE CODES AND STANDARDS ON DEMOLITION WORK SHALL INCLUDE THOSE PUBLISHED BY OSHA AND EPA. AN ASBESTOS SURVEY SHALL BE KEPT ON SITE AT ALL TIMES PER TEXAS DEPARTMENT OF HEALTH REQUIREMENTS.

C. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COMPLETE THE NECESSARY DEMOLITION. CONTRACTOR SHALL PATCH AND REPAIR ALL BUILDING DAMAGE CREATED BY DEMOLITION WORK. PATCHING SHALL BE COMPLETED WITH THE SAME MATERIALS AS THE SURROUNDING AREAS, OR WITH ARCHITECT APPROVED PATCHING MATERIALS.

D. ALL OPENINGS CUT IN MASONRY AND PLASTER WALLS OR CONCRETE FLOORS SHALL BE CORE-DRILLED OR SAWED WHEN POSSIBLE. CONTRACTOR SHALL CHECK BUILDING CONSTRUCTION WITH STRUCTURAL ENGINEER BEFORE MAKING PENETRATIONS TO AVOID CUTTING THROUGH STRUCTURAL BEAMS AND REINFORCING. CONTRACTOR SHALL INFORM THE ENGINEER IF REINFORCING IS CUT OR DAMAGED WHILE MAKING OPENINGS AS REQUIRED BY DRAWINGS AND SPECIFICATIONS. PATCH AND SEAL OPENINGS WITH 8000 PSI CEMENT GROUT. INSTALL DECORATIVE TRIM (EQUIPMENT FLANGES, FRAMING, OR ESCUTCHEONS) AROUND OPENINGS IN FINISHED AREAS. COORDINATE ALL CUTTING AND PATCHING WITH THE OTHER TRADES.

E. CONTRACTOR SHALL REMOVE AND RETURN ANY AND ALL EXISTING EQUIPMENT/MATERIALS TO OWNER. OWNER SHALL HAVE FULL RIGHT OF OWNERSHIP UNLESS SPECIFIED OTHERWISE. IF THE OWNER WAIVES THIS OPTION, ANY EQUIPMENT, MATERIAL, ETC SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

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01.12.2018

PROPOSED
CITY OF PHARR
INTERNATIONAL BRIDGE FACILITY EXPANSION AND RENOVATIONS

LOT 3 GSA SUBDIVISION
PHARR, TEXAS
78507

Project: 971704
Date: 1/12/2018
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DP1.01
DEMOLITION PLUMBING PLAN

MEP SOLUTIONS ENGINEERING
MECHANICAL, ELECTRICAL, PLUMBING ENGINEERS
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TEXAS BOARD OF PROFESSIONAL ENGINEERS REGISTRATION # F-9748

PLUMBING DEMOLITION KEY NOTES:○

1. DEMOLISH EXISTING ROOF DRAIN COMPLETE. DISCONNECT AND REMOVE ALL ASSOCIATED PIPING. NO LEAKING JOINTS SHALL REMAIN. PATCH AND REPAIR WALL, FLOOR, CEILING, BASE FINISHES AS PER ARCHITECTURAL PLANS AND SPECIFICATIONS.
2. DEMOLISH EXISTING DOWN SPOUT NOZZLE COMPLETE. DISCONNECT AND REMOVE ALL ASSOCIATED PIPING. NO LEAKING JOINTS SHALL REMAIN. PATCH AND REPAIR WALL, FLOOR, CEILING, BASE FINISHES AS PER ARCHITECTURAL PLANS AND SPECIFICATIONS.
3. ROUTE AND CONNECT EXISTING CONDENSATE DRAIN LINE TO NEW CONDENSATE DRAINAGE SYSTEM. REFER TO PLUMBING PLAN. EXISTING ROOF TOP UNIT TO REMAIN.

PLUMBING CONTRACTOR SHALL COORDINATE DOMESTIC WATER AND SANITARY SEWER LINE DIRECTION OF FLOW, SIZE, INVERT, AND POINT OF CONNECTION WITH EXISTING CONDITIONS PRIOR TO INSTALLATION OF ROUGH-IN TO AVOID CONFLICT. ANY DISCREPANCIES FOUND BY THE PLUMBING CONTRACTOR SHALL BE REPORTED TO THE ENGINEER/ARCHITECT IMMEDIATELY AND PRIOR TO ANY INSTALLATION. FAILURE TO COMPLY SHALL MAKE ALL CORRECTIONS AND/OR MODIFICATIONS THE FULL RESPONSIBILITY OF THE CONTRACTOR.

GENERAL DEMOLITION NOTES:

A. INFORMATION ON THE PLAN HAS BEEN OBTAINED FROM EXISTING DRAWINGS AND SITE SURVEY. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING WORK. ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND CONSTRUCTION DOCUMENTS SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER AND/OR ARCHITECT.

B. THE CONTRACTOR IS FULLY RESPONSIBLE FOR PERFORMING THE DEMOLITION WORK UNDER THIS SECTION OF THE PROJECT IN FULL COMPLIANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL CODES. IF THE CONTRACTOR DETERMINES THAT THE CONTRACT DOCUMENTS AND PLANS ARE NOT IN COMPLIANCE WITH THE APPLICABLE CODES, HE SHALL INFORM THE ARCHITECT PRIOR TO CONSTRUCTION START FOR DIRECTION. FAILURE TO DO SO SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO MEET CODE REQUIREMENTS AND REWORK SHALL BE AT CONTRACTOR'S EXPENSE. APPLICABLE CODES AND STANDARDS ON DEMOLITION WORK SHALL INCLUDE THOSE PUBLISHED BY OSHA AND EPA. AN ASBESTOS SURVEY SHALL BE KEPT ON SITE AT ALL TIMES PER TEXAS DEPARTMENT OF HEALTH REQUIREMENTS.

C. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COMPLETE THE NECESSARY DEMOLITION. CONTRACTOR SHALL PATCH AND REPAIR ALL BUILDING DAMAGE CREATED BY DEMOLITION WORK. PATCHING SHALL BE COMPLETED WITH THE SAME MATERIALS AS THE SURROUNDING AREAS, OR WITH ARCHITECT APPROVED PATCHING MATERIALS.

D. ALL OPENINGS CUT IN MASONRY AND PLASTER WALLS OR CONCRETE FLOORS SHALL BE CORE-DRILLED OR SAWED WHEN POSSIBLE. CONTRACTOR SHALL CHECK BUILDING CONSTRUCTION WITH STRUCTURAL ENGINEER BEFORE MAKING PENETRATIONS TO AVOID CUTTING THROUGH STRUCTURAL BEAMS AND REINFORCING. CONTRACTOR SHALL INFORM THE ENGINEER IF REINFORCING IS CUT OR DAMAGED WHILE MAKING OPENINGS AS REQUIRED BY DRAWINGS AND SPECIFICATIONS. PATCH AND SEAL OPENINGS WITH 8000 PSI CEMENT GROUT. INSTALL DECORATIVE TRIM (EQUIPMENT FLANGES, FRAMING, OR ESCUTCHEONS) AROUND OPENINGS IN FINISHED AREAS. COORDINATE ALL CUTTING AND PATCHING WITH THE OTHER TRADES.

E. CONTRACTOR SHALL REMOVE AND RETURN ANY AND ALL EXISTING EQUIPMENT/MATERIALS TO OWNER. OWNER SHALL HAVE FULL RIGHT OF OWNERSHIP UNLESS SPECIFIED OTHERWISE. IF THE OWNER WAIVES THIS OPTION, ANY EQUIPMENT, MATERIAL, ETC SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

NORTH

1 DEMOLITION - ROOF PLAN
SCALE: 1/8"=1'-0"

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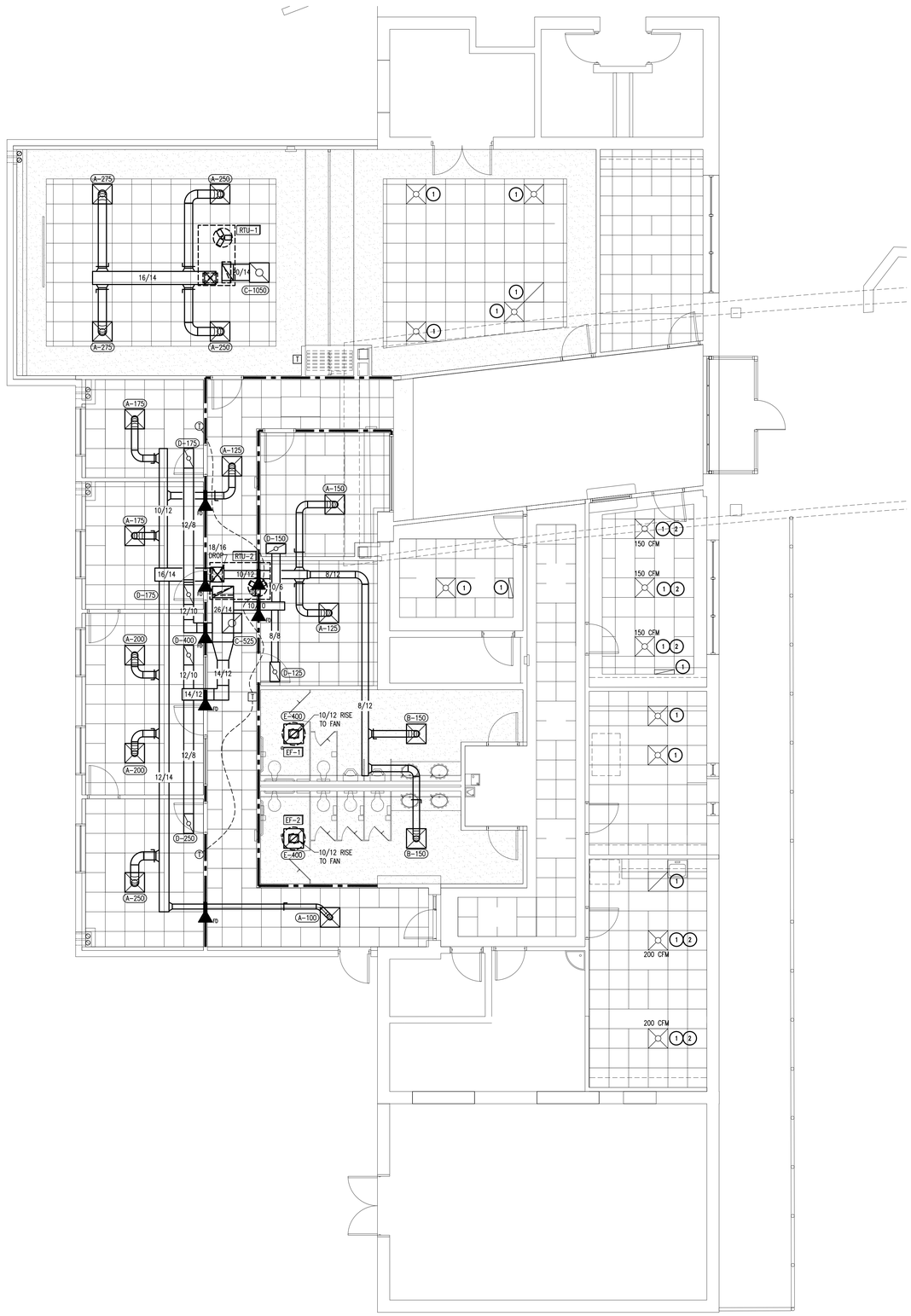
01.12.2018

PROPOSED
CITY OF PHARR INTERNATIONAL BRIDGE FACILITY EXPANSION AND RENOVATIONS

LOT 3 GSA SUBDIVISION
PHARR, TEXAS
78507

Project: 971704
Date: 1/12/2018
Revised:

DP1.02
DEMOLITION ROOF PLAN



NORTH

1 MECHANICAL FLOOR PLAN
SCALE: 3/16"=1'-0"

GENERAL NOTES:

A. REFER TO SCHEDULE SHEET FOR ADDITIONAL GENERAL MECHANICAL NOTES.

B. CONTRACTOR SHALL PROVIDE ALL NECESSARY TRANSITIONS FROM MECHANICAL EQUIPMENT TO DUCTS. VERIFY EQUIPMENT OUTLET/INLET SIZE WITH SCHEDULE.

C. MECHANICAL CONTRACTOR SHALL COORDINATE WITH ALL OTHER TRADES TO MAINTAIN ACCESS CLEARANCES FOR ALL MECHANICAL EQUIPMENT.

D. CONCEALED DUCTS SHALL BE SHEETMETAL SINGLE WALL TYPE WITH EXTERNAL WRAP INSULATION UNLESS OTHERWISE NOTED.

E. ALL EXPOSED (VISIBLE) DUCT SHALL BE SHEETMETAL SINGLE WALL INTERNALLY LINED TYPE AND SURFACED FOR PAINTING. COLOR SELECTION BY ARCHITECT. (NO EXPOSED FLEX DUCT SHALL BE ALLOWED).

F. CONTRACTOR SHALL PROVIDE ACCESS PANELS FOR ALL MECHANICAL EQUIPMENT LOCATED ABOVE INACCESSIBLE CEILINGS.

G. CONTRACTOR SHALL PROVIDE STRUCTURAL SUPPORTS FOR ALL MECHANICAL EQUIPMENT SUSPENDED FROM STRUCTURE.

H. CONTRACTOR SHALL COORDINATE ALL ROOF PENETRATIONS AND ROOFING WORK WITH ROOFING CONTRACTOR AS REQUIRED TO MAINTAIN ROOF WARRANTY.

I. LOCATE EXHAUST HOODS/FANS MINIMUM 10-FEET FROM ANY OUTSIDE AIR INTAKE.

KEY NOTES:

1. EXISTING RELOCATED AIR DEVICE. EXTEND DUCTWORK AS REQUIRED TO ACCOMMODATE RELOCATION. PROVIDE CFM's SHOWN.
2. RE-BALANCE EXISTING AIR DEVICE TO CFM SHOWN.

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CITY OF PHARR
INTERNATIONAL BRIDGE FACILITY EXPANSION AND RENOVATIONS

LOT 3 GSA SUBDIVISION
PHARR, TEXAS
78507

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MECHANICAL FLOOR PLAN

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TEXAS BOARD OF PROFESSIONAL ENGINEERS REGISTRATION F-9748

GENERAL MECHANICAL NOTES

1. THESE DRAWINGS ARE DIAGRAMMATIC ONLY AND SHALL NOT BE SCALED. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL CONSTRUCTION EFFORTS. PROVIDE ALL NECESSARY OFFSETS AND FITTINGS AS REQUIRED BY FIELD CONDITIONS.
2. CONTRACTOR SHALL HANG AND INSTALL ALL DUCTWORK TIGHT WITH THE BUILDING STRUCTURE TO ACCOMODATE CEILINGS. CONTRACTOR SHALL COORDINATE INSTALLATION WORK WITH ALL OTHER TRADES. ALL DUCTWORK SHALL BE MODIFIED AS REQUIRED TO FIT AROUND BUILDING STRUCTURES.
3. CONTRACTOR SHALL BALANCE ALL AIR DISTRIBUTION SYSTEMS TO ACHIEVE THE AIR VOLUME REQUIREMENTS AS INDICATED. BALANCING SHALL INCLUDE ADJUSTMENT OF ALL MANUAL VOLUME DAMPERS AND INDIVIDUAL DIFFUSER DAMPERS.
4. CONTRACTOR SHALL MOUNT ALL THERMOSTATS 48-INCHES ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED. COORDINATE THE FINAL LOCATION OF EACH THERMOSTAT WITH ROOM FINISHES. PROVIDE ALL CONTROL VOLTAGE WIRING FOR THERMOSTAT INSTALLATION.
5. CONTRACTOR SHALL COORDINATE THE FINAL LOCATIONS OF ALL CEILING AIR DEVICES WITH LIGHTING INSTALLATIONS AND ARCHITECTURAL CEILING PLANS. AIR DEVICES SHALL BE RELOCATED IF REQUIRED TO AVOID OBSTRUCTION WITH DUCTWORK AND LIGHT FIXTURES.
6. PROVIDE SMOKE DETECTORS AND SHUTDOWN CONTROLS ON AIR HANDLING UNITS. SMOKE DETECTORS SHALL BE PROVIDED, INSTALLED, AND WIRED FOR SHUTDOWN BY DIVISION 16.

GENERAL ABBREVIATIONS

ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
AFF	ABOVE FINISHED FLOOR	KW	KILOWATTS
AHU	AIR HANDLING UNIT	L	LOUVER
ACCU	AIR COOLED CONDENSING UNIT	MAX	MAXIMUM
DB	DRY BULB	MIN	MINIMUM
EDH	ELECTRIC DUCT HEATER	NTS	NOT TO SCALE
EF	EXHAUST FAN	OBD	OPPOSED BLADE DAMPER
FCU	FAN COIL UNIT	S.P.	STATIC PRESSURE
FCCU	FAN COOLED CONDENSING UNIT	WB	WET BULB

NECK/BRANCH DUCT SIZE CHART

SUPPLY DUCT			RETURN DUCT		
NECK/BRANCH SIZE		CFM RANGE	NECK/BRANCH SIZE		CFM RANGE
6" DIAMETER	6/6 DUCT	0 – 100	6" DIAMETER	6/6 DUCT	0 – 75
8" DIAMETER	12/6 DUCT	101 – 225	8" DIAMETER	12/6 DUCT	76 – 150
10" DIAMETER	12/8 DUCT	226 – 400	10" DIAMETER	12/8 DUCT	151 – 275
12" DIAMETER	12/10 DUCT	401 – 675	12" DIAMETER	12/10 DUCT	276 – 475
14" DIAMETER	14/12 DUCT	676 – 1000	14" DIAMETER	14/12 DUCT	476 – 700
16" DIAMETER	18/12 DUCT	1001 – 1400	16" DIAMETER	18/12 DUCT	701 – 1000
18" DIAMETER	24/12 DUCT	1401 – 2000	18" DIAMETER	24/12 DUCT	1001 – 1300
20" DIAMETER	24/14 DUCT	2001 – 2500	20" DIAMETER	24/14 DUCT	1301 – 1800
22" DIAMETER	20/22 DUCT	2501 – 3200	22" DIAMETER	22/20 DUCT	1801 – 2300
24" DIAMETER	22/24 DUCT	3201 – 4200	24" DIAMETER	24/22 DUCT	2301 – 2800
			26" DIAMETER	24/24 DUCT	2801 – 3600
			28" DIAMETER	26/26 DUCT	3601 – 4200

MECHANICAL SYMBOLS

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
T	TEMPERATURE SENSOR		EXHAUST AIR DUCT
	SUPPLY AIR DEVICE (SEE SCHEDULE)		RETURN AIR DUCT
	RETURN/TRANSFER AIR DEVICE (SEE SCHEDULE)		SUPPLY AIR DUCT
	EXHAUST FAN (SEE SCHEDULE)	X/X	DUCT INTERNAL DIMENSIONS (WIDTH/DEPTH)
	RECTANGULAR DUCT TRANSITION		ROUND BRANCH DUCT WITH MANUAL BALANCING DAMPER
	ROUND FLEX DUCT		ROOF TOP UNIT (SEE SCHEDULE)
FD	FIRE DAMPER	T	THERMOSTAT

AIR DEVICE SCHEDULE

DESIGNATION	SIZE	MOUNTING	THROW	NECK TYPE	CONSTRUCTION	OBD	MAX NC	FINISH	MANUFACTURER	MODEL
A	24 X 24	LAY-IN	4-WAY	ROUND	ALUMINUM	YES	30	B12 WHITE	PRICE	ASPD
B	24 X 24	SURFACE	4-WAY	ROUND	ALUMINUM	YES	30	B12 WHITE	PRICE	ASPD
C	24 X 24	LAY-IN	–	–	ALUMINUM	NO	30	B12 WHITE	PRICE	80
D	24 X 12	LAY-IN	–	–	ALUMINUM	NO	30	B12 WHITE	PRICE	80
E	24 X 24	SURFACE	–	–	ALUMINUM	YES	30	B12 WHITE	PRICE	610Z

LEGEND: CFM / A-200 / DESIGNATION

NOTES:
1. SIZE SHALL INCLUDE MODULE WITH FULL FACE.
2. COORDINATE AIR DEVICE TYPE WITH ARCHITECTURAL CEILINGS.
3. NECK SIZE PER NECK/BRANCH DUCT SIZE CHART.

ROOF TOP UNIT SCHEDULE

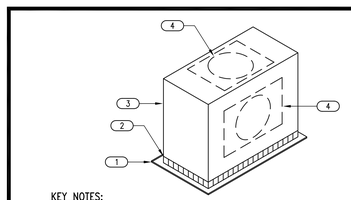
ROOF TOP UNIT DESIGNATION	RTU-1	RTU-2
SUPPLY CFM	1050	1800
OUTSIDE AIR CFM	150	250
EXTERNAL S.P. ("W.G.)	0.6	0.6
MOTOR HP.	–	–
TOTAL CAPACITY (MBH)	32.30	53.96
SENSIBLE CAPACITY (MBH)	22.98	39.81
ENTERING AIR (DB/WB)°F	78/65	78/65
LEAVING AIR (DB/WB)°F	57.7/54.9	56.9/54.8
CONDENSER AIR (DB)°F	98	98
HEATER CAPACITY (KW)	8.10	12.9
STAGES	1	1
VOLTAGE/PHASE	460/3ø	460/3ø
MCA/MOCP	17/20	27/30
MANUFACTURER	CARRIER	CARRIER
MODEL	50KC-004	50KC-006
UNIT WEIGHT (LBS)	712	819
EFFICIENCY EER (SEER)	14.0	14.1
REMARKS	1,2,3,4,5,6,7,8	1,2,3,4,5,6,7,8

REMARKS
1. PROVIDE PROGRAMMABLE THERMOSTAT WITH REMOTE TEMPERATURE SENSOR(S) WHERE SHOWN.
2. PROVIDE SINGLE POINT POWER.
3. PROVIDE WITH ROOF CURB.
4. PROVIDE WITH HINGED ACCESS DOORS.
5. CONDENSER COILS SHALL BE CORROSION RESISTANT.
6. PROVIDE WITH OUTSIDE AIR HOOD AND 2-POSITION MOTORIZED DAMPER.
7. PROVIDE WITH HOT-GAS REHEAT AND HUMIDITY CONTROL.
8. PROVIDE WITH CONDENSER COIL HAIL GUARD.

EXHAUST FAN SCHEDULE

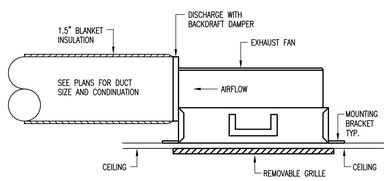
DESIGNATION	EF-1	EF-2
EXHAUST CFM	400	400
EXTERNAL S.P. ("W.G.)	0.375	0.375
MOTOR HP.	1/4	1/4
MOTOR RPM	1228	1228
DRIVE TYPE	DIRECT	DIRECT
FAN TYPE	CENTRIFUGAL	CENTRIFUGAL
MOUNTING LOCATION	ROOF	ROOF
SONES	5.9	5.9
VOLTAGE/PHASE	120/1ø	120/1ø
MANUFACTURER	GREENHECK	GREENHECK
MODEL	G-095-VG	G-095-VG
UNIT WEIGHT (LBS)	26	26
REMARKS	1,2,3,4,5	1,2,3,4,5

REMARKS
1. PROVIDE WITH INTERNAL DISCONNECT.
2. PROVIDE WITH BACK DRAFT DAMPER.
3. PROVIDE WITH FAN SPEED CONTROL.
4. SWITCH WITH LIGHTS.
5. PROVIDE WITH ROOF CURB.



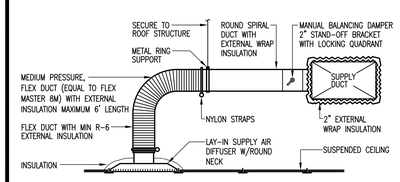
KEY NOTES:
1. CEILING MOUNTED RETURN/EXHAUST AIR GRILLE. SEE PLANS AND SCHEDULE.
2. SECURE INTERNALLY LINED PLENUM TO AIR DEVICE.
3. PLENUM HEIGHT SHALL BE 12-INCHES MINIMUM WITH 1.5" INTERNAL LINING.
4. PROVIDE ROUND/SQUARE TAP CONNECTION AS REQUIRED.

A RETURN/EXHAUST AIR DEVICE PLENUM
SCALE: NTS

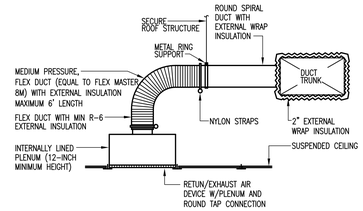


NOTE: INSTALL PER MANUFACTURER RECOMMENDATIONS

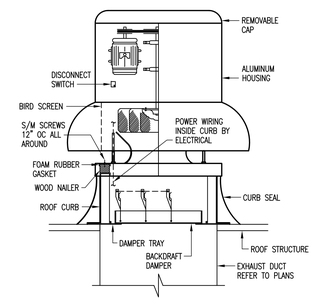
B CEILING MOUNTED EXHAUST FAN
NO SCALE



C SUPPLY AIR DIFFUSER
SCALE: N.T.S.



D RETURN/EXHAUST AIR DEVICE
SCALE: N.T.S.



E ROOF MOUNTED EXHAUST FAN
SCALE: NTS

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1			

STATE OF TEXAS
LUIS JAVIER PENA
97260
LICENSED
PROFESSIONAL ENGINEER
01.12.2018

PROPOSED
CITY OF PHARR INTERNATIONAL BRIDGE FACILITY EXPANSION AND RENOVATIONS

LOT 3 GSA SUBDIVISION
PHARR, TEXAS
78507

Project: 971704
Date: 1/12/2018
Revised:

M2.01
MECHANICAL SCHEDULES & DETAILS

MEP SOLUTIONS ENGINEERING
MECHANICAL, ELECTRICAL, PLUMBING ENGINEERS
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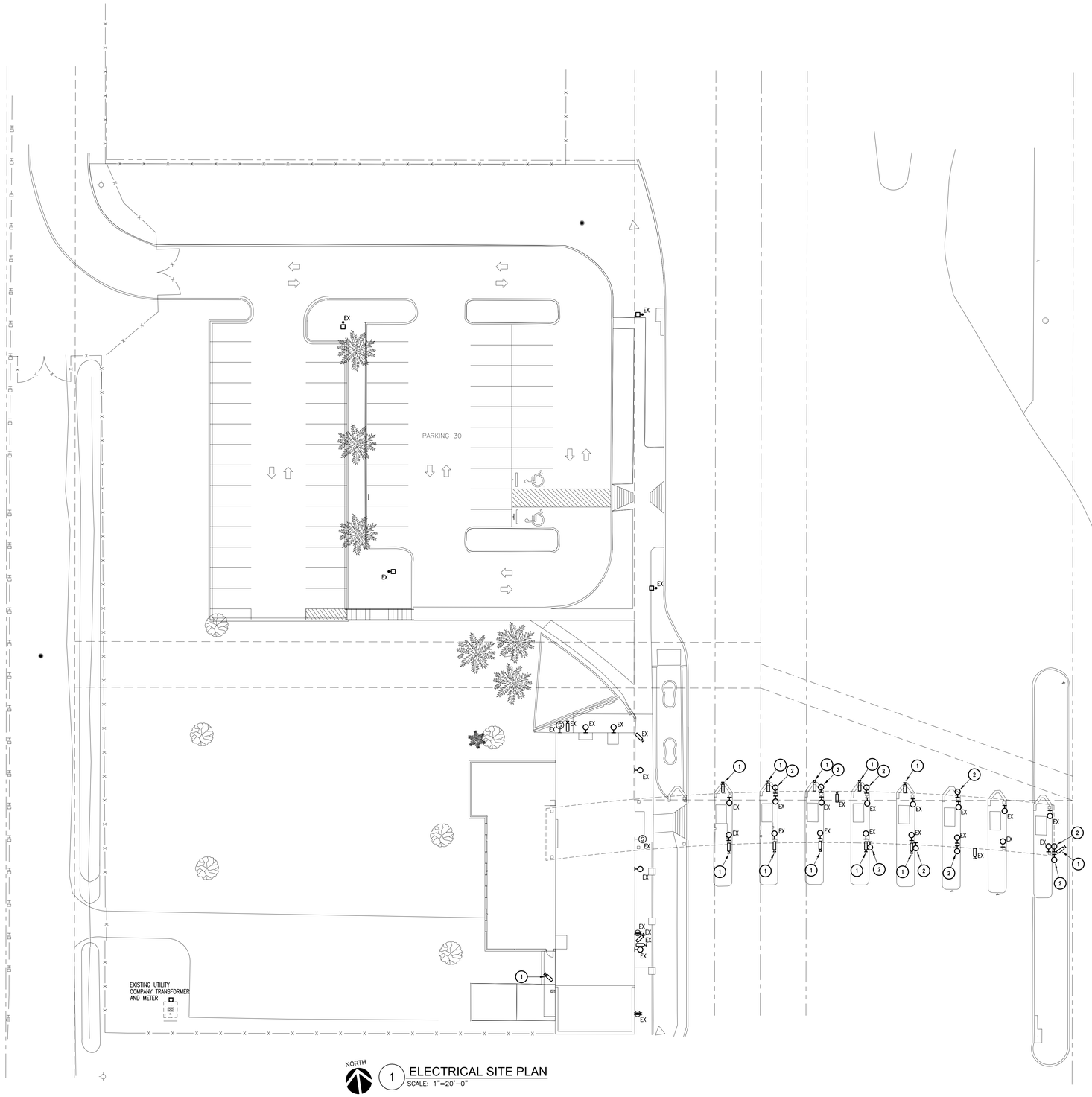
TEXAS BOARD OF PROFESSIONAL ENGINEERS REGISTRATION # F-9748



NORTH

1 ELECTRICAL SITE PLAN
SCALE: 1"=20'-0"

GENERAL NOTES: ( )

(A) INFORMATION ON THIS PLAN HAS BEEN OBTAINED FROM EXISTING SITE SURVEY. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING WORK. ANY DISCREPTANCIES BETWEEN EXISTING CONDITIONS AND CONSTRUCTION DOCUMENTS SHALL BE REPORTED TO THE ENGINEER.

(B) FOR FEEDER / BRANCH CIRCUIT SCHEDULE REFER TO SHEET E2.00, DETAIL 6.

KEYED NOTES:○

1. NEW LOCATION OF CAMERA, REMOVED UNDER DEMOLITION.
2. NEW LOCATION OF LIGHT FIXTURE, REMOVED UNDER DEMOLITION.

FIELD VERIFY ALL CONDITIONS

DESIGN DRAWINGS SCHEMATIC. THIS CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING OR AWARD OF CONTRACT TO INSPECT EXISTING FEILD CONDITIONS. THIS CONTRACT SHALL INCLUDE ALL LABOR AND MATERIALS NECCESSARY FOR FEILD MODIFICATIONS DUE TO EXISTING CONDITIONS.

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BIDDING CONTRACTORS SHALL HAVE A WORKING KNOWLEDGE OF LOCAL CODES AND ORDINANCES AND SHALL INCLUDE IN THEIR BIDS THE COSTS FOR ALL WORK INSTALLED IN STRICT ACCORDANCE WITH GOVERNING CODES, THE PLANS AND SPECIFICATIONS NOT WITHSTANDING. THE CONTRACTOR SHALL ALERT ARCHITECT, ENGINEER OR OWNER OF ANY APPARENT DISCREPANCIES BETWEEN GOVERNING CODES AND DESIGN INTENT.

TWG
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REVISION	DATE	APPROVED BY	DESCRIPTION

STATE OF TEXAS
ABRAM L. DOMINGUEZ
97393
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PROFESSIONAL ENGINEER
Abram L. Dominguez
01.12.2018

PROPOSED

CITY OF PHARR
INTERNATIONAL
BRIDGE FACILITY
EXPANSION AND
RENOVATIONS

LOT 3 GSA SUBDIVISION
PHARR, TEXAS
78507

Project: 971704
Date: 1/12/2018
Revised:

E1.00

ELECTRICAL
SITE PLAN

MEP SOLUTIONS ENGINEERING
MECHANICAL, ELECTRICAL, PLUMBING ENGINEERS
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TEXAS BOARD OF PROFESSIONAL ENGINEERS REGISTRATION # F-9748

LEGEND(LUTRON)

- PJ2-2B-GWH-L01 (CW-1-WH)
- PJ2-3BRL-GWH-L01 (CW-1-WH)
- LRF2-DCRB-WH
- LRF2-OCR2B-P
- LRF2-OKLB-P
- HJS-2-FM
- RMJS-16R-DV-B
- RMJS-8T-DV-B

GENERAL NOTES:

A. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN (RCP) FOR EXACT LOCATION OF LIGHT FIXTURES. FURNISH FIXTURES WITH TRIM COMPATIBLE WITH THE TYPE OF CEILING AS INDICATED ON THE RCP.

B. EXIT LIGHTS ARE TYPE X, UNO. CONNECT EXIT LIGHT FIXTURES TO UN-SWITCHED CIRCUIT SERVING SPACE IN WHICH FIXTURE IS INSTALLED. INSTALL WALL MOUNTED FIXTURES 8'-0" AFF, UNO.

C. COORDINATE PLACEMENT OF FIXTURES WITH ACTUAL INSTALLATION OF MECHANICAL EQUIPMENT AND DUCTWORK.

D. WHERE TWO LIGHT SWITCHES ARE SHOWN ADJACENT TO EACH OTHER, THE SWITCH NEAREST THE DOOR CONTROLS THE OUTER LAMPS IN ALL THE FIXTURES IN THE SPACE AND THE OTHER SWITCH CONTROLS THE INNER LAMPS IN ALL THE FIXTURES IN THE SPACE, UNO.

E. CIRCUIT EMERGENCY FIXTURES IN ROOMS TO PERMIT ALL THE LAMPS TO BE SWITCHED OFF, LEAVING THE BATTERY IN STAND BY CONDITION, SO THE EMERGENCY BATTERY UNIT WILL OPERATE ONE LAMP WHEN THE NORMAL POWER IS INTERRUPTED. REQUEST THE REQUIRED WIRING DIAGRAM FROM EQUIPMENT MANUFACTURER. ALL EMERGENCY LIGHTING FIXTURES SHALL BE CIRCUITED TO THE NON-SWITCHED PHASE WIRE IN ADDITION TO THE SWITCHED LEG. ALL EXIT SIGNS SHALL BE CIRCUITED TO THE NON-SWITCHED PHASE WIRE ONLY.

F. COORDINATE ROUGH-IN LOCATION OF ALL DEVICES WITH ARCHITECTURAL ELEVATIONS, DETAILS, AND PLANS.

G. ALL DEVICES SHALL SHARE COMMON FACEPLATE WHERE APPLICABLE.

H. FIXTURES SHALL BE CIRCUITED TO CIRCUIT INDICATED IN SPACE.

I. FOR MECHANICAL EQUIPMENT CONNECTION SCHEDULE. REFER TO DETAIL 5/SHEET E2.00.

KEYED NOTES:

1. EMERGENCY LIGHT FIXTURE IN CORRIDORS TO BE CIRCUITED BACK TO EXISTING 277V EMERGENCY CIRCUIT, FIELD VERIFY.
2. LIGHT FIXTURE IN AREA TO BE CIRCUITED BACK TO EXISTING CIRCUIT, FIELD VERIFY.
3. LIGHTING CIRCUIT SHALL BE CONTROLLED VIA THE LIGHTING CONTROLLER WITH A 7-DAY, 24 HOUR, PROGRAMMABLE, ASTRONOMICAL TIME CLOCK AND BY-PASS PHOTOCELL. PHOTOCELL MOUNTED ON BUILDING EXTERIOR ON NORTH WALL FACING EXPOSURE.

FIELD VERIFY ALL CONDITIONS

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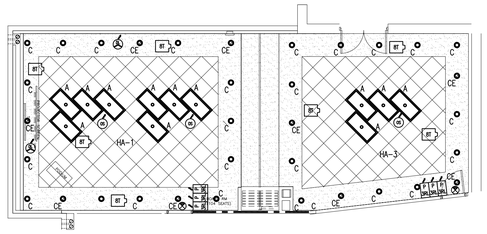
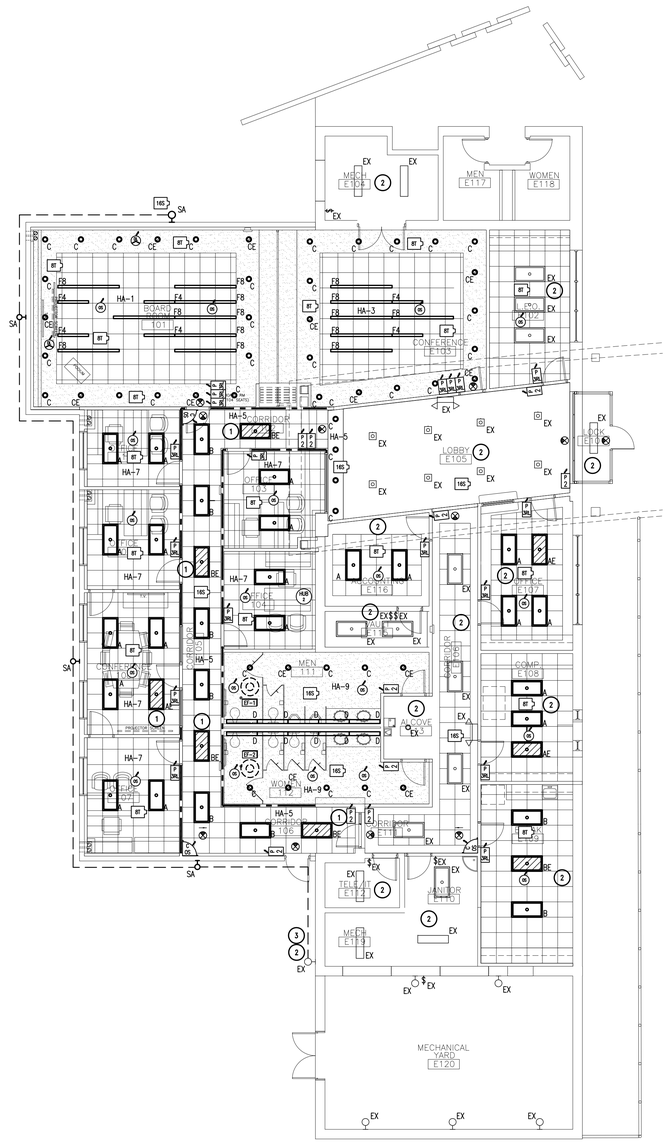


NORTH

2 ELECTRICAL LIGHTING PLAN
SCALE: 1/8"=1'-0" ALT#1



NORTH

1 ELECTRICAL LIGHTING PLAN
SCALE: 1/8"=1'-0"

THE WARREN GROUP ARCHITECTS, INC.

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REVISION	DATE	APPROVED BY	DESCRIPTION

STATE OF TEXAS
ABRAM L. DOMINGUEZ
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LICENSED
PROFESSIONAL ENGINEER

01.12.2018

PROPOSED

CITY OF PHARR INTERNATIONAL BRIDGE FACILITY EXPANSION AND RENOVATIONS

LOT 3 GSA SUBDIVISION
PHARR, TEXAS
78507

Project: 971704
Date: 1/12/2018
Revised:

E1.01

ELECTRICAL LIGHTING PLAN

MEP SOLUTIONS ENGINEERING
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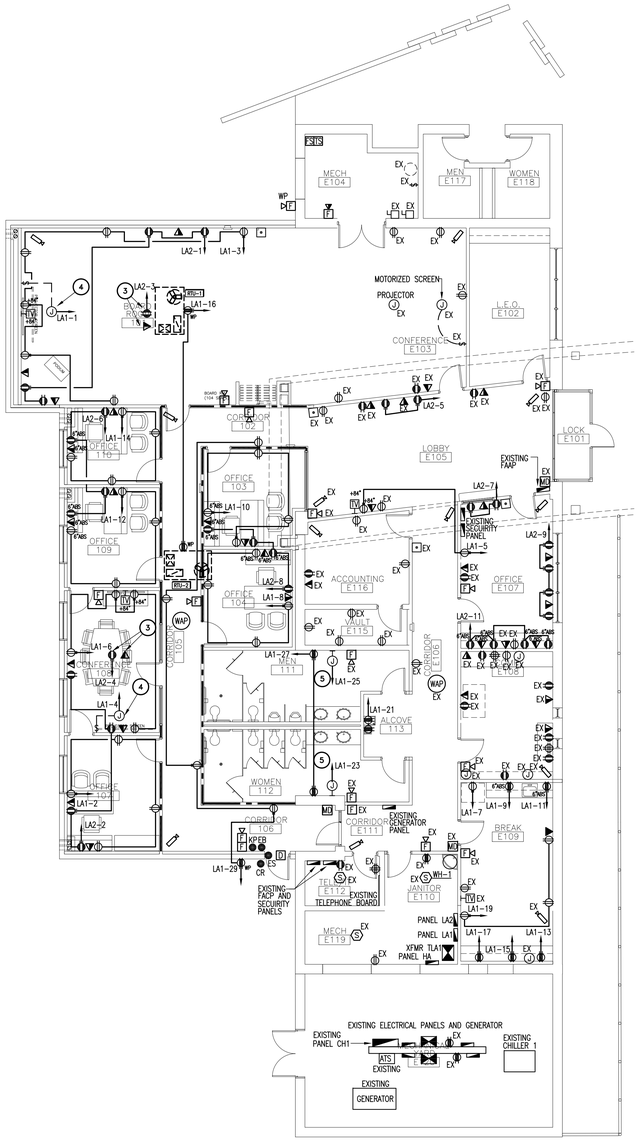
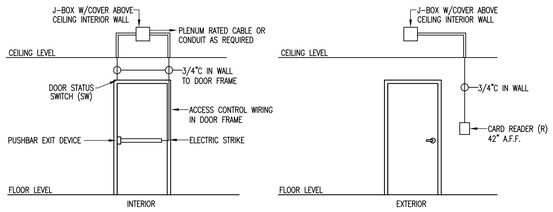
TEXAS BOARD OF PROFESSIONAL ENGINEERS REGISTRATION # F-9748



NORTH

1 ELECTRICAL POWER PLAN
SCALE: 1/8"=1'-0"



2 ELECTRICAL PUSHBAR
SCALE: N.T.S.

GENERAL NOTES:

A. COORDINATE ROUGH-IN LOCATION OF ALL DEVICES WITH ARCHITECTURAL ELEVATIONS, DETAILS, AND PLANS.

B. ALL DEVICES SHALL SHARE COMMON FACEPLATE WHERE APPLICABLE.

C. ACCESS CONTROL SHALL TIE INTO EXISTING HONEYWELL NETAXS CONTROL PANEL.

D. FIRE ALARM DEVICES SHALL TIE INTO EXISTING (FIRE LITE ALRAM BY HONEY WELL) AND FIRE ALARM CONTROL PANEL.

E. FOR MECHANICAL EQUIPMENT CONNECTION SCHEDULE. REFER TO DETAIL 5/SHEET E2.00.

KEY NOTES:

1. EXISTING FIRE ALARM ANNUNCIATOR.
2. FURNISH AND INSTALL NEW 20 AMP, 1 POLE CIRCUIT BREAKER IN EXISTING PANEL. MATCH EXISTING AIC RATING. EXISTING GE PANELBOARD.
3. FURNISH AND INSTALL RECEPTACLE AND SINGLE GANG BOX FOR CABLING. AT CEILING LOCATION FOR CONNECTION OF PROJECTOR. COORDINATE LOCATION WITH OWNER PRIOR TO ROUGH-IN.
4. FOR MOTORIZED PROJECTION SCREEN. COORDINATE EXACT LOCATION OF DEVICES WITH ARCHITECT PRIOR TO ROUGH-IN. ROUTE 3 WIRE CONTROL TO SWITCH FURNISHED WITH PROJECTION SCREEN. INSTALLED AND WIRED BY ELECTRICAL CONTRACTOR.
5. FURNISH AND INSTALL EXCEL # XL-W XLERATOR HAND DYER. FURNISH AND INSTALL J-BOX FOR CONNECTION OF HAND DRYER. COORDINATE EXACT LOCATION WITH ARCHITECTURAL DRAWINGS. ROUTE 2#10, #10G, 1/2"C.

FIELD VERIFY ALL CONDITIONS

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LEGEND

D	DOOR CONTACT
MD	MOTION DETECTOR
G	GLASS BREAK
CR	CARD READER
ES	ELECTRIC STRIKE
EB	EGRESS BUTTON
ML	MAGLOCK
KP	ALARM KEYPAD
	ACCESS CONTROL PANEL

THE WARREN GROUP ARCHITECTS, INC.
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twgarch.com

REVISION	DATE	APPROVED BY	DESCRIPTION
1			

PROPOSED

CITY OF PHARR INTERNATIONAL BRIDGE FACILITY EXPANSION AND RENOVATIONS

LOT 3 GSA SUBDIVISION
PHARR, TEXAS
78507

Project: 971704
Date: 1/12/2018
Revised:

E1.02

ELECTRICAL POWER PLAN

MEP SOLUTIONS ENGINEERING
MECHANICAL, ELECTRICAL, PLUMBING ENGINEERS
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TEXAS BOARD OF PROFESSIONAL ENGINEERS REGISTRATION # F-9748

ELECTRICAL LEGEND

ALL SYMBOLS SHOWN MAY NOT APPEAR IN ALL DRAWINGS.
SYMBOLS ARE SHOWN SCHEMATIC AND MAY NOT BE TO SCALE.

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
	2'x4' FLUORESCENT LIGHT FIXTURE	SEE FIX. SCH.
	2'x4' FLUORESCENT LIGHT FIXTURE ON EMERGENCY CIRCUIT	SEE FIX. SCH.
	2'x4' FLUORESCENT LIGHT FIXTURE SWITCHED W/ INBOARD LAMPS ONE SWITCH AND OUTBOARD LAMPS ON ANOTHER	SEE FIX. SCH.
	2'X4' FLUORESCENT FIXTURE W/INBOARD LAMPS ON EMERGENCY CIRCUIT AND OUTBOARD LAMPS ON NORMAL CIRCUIT	SEE FIX. SCH.
	2'x2' FLUORESCENT LIGHT FIXTURE	SEE FIX. SCH.
	2'x2' FLUORESCENT LIGHT FIXTURE ON EMERGENCY CIRCUIT	SEE FIX. SCH.
	FLUORESCENT STRIP LIGHT	SEE FIX. SCH.
	1'X4' FLUORESCENT LIGHT FIXTURE	SEE FIX. SCH.
	TRACK LIGHT	SEE FIX. SCH.
	INCANDESCENT, FLUORESCENT, OR HID WALL WASHER LIGHT FIXTURE CEILING MTD.	SEE FIX. SCH.
	INCANDESCENT, FLUORESCENT, OR HID FIXTURE CLG. OR WALL MTD.	SEE FIX. SCH.
	INCANDESCENT, FLUORESCENT, OR HID FIXTURE ON EMERGENCY CCT. CLG. OR WALL MTD.	SEE FIX. SCH.
	EXIT LIGHT, CEILING OR WALL MOUNTED – SHADING INDICATING SINGLE OR DOUBLE FACE; DIRECTIONAL ARROWS AS INDICATED	9" BFC
$	WALL SWITCH SPST, 20A,120/277V	48" AFF
$ 2	DOUBLE POLE TOGGLE SWITCH, 20A/120/277V	48" AFF
$ 3	3–WAY WALL SWITCH, 20A,120/277V	48" AFF
$ 4	4–WAY WALL SWITCH, 20A,120/277V	48" AFF
$ D	WALL DIMMER SWITCH	48" AFF
$ K	KEY OPERATED WALL SWITCH	48" AFF
$ P	WALL SWITCH WITH PILOT LIGHT	48" AFF
	SINGLE RECEPTACLE – 20A/125V/2P/3W/G NEMA 5–20R	15" AFF
	DUPLEX RECEPTACLE – 20A/125V/2P/3W/G NEMA 5–20R	15" AFF
	DUPLEX RCPT. SPLIT–WIRED – 20A/125V/2P/3W/G NEMA 5–20R	15" AFF
	DUPLEX RCPT. GFI – 20A/125V/2P/3W/G NEMA 5–20R	15" AFF
	QUADRAPLEX RECEPTACLE (TWO DUPLEX RCPTS. UNDER ONE COVERPLATE)	15" AFF
	ISOLATED GROUND DUPLEX RECEPTACLE – 20A/125V NEMA 5–20R	15" AFF
E	DUPLEX RECEPTACLE ON EMERGENCY CIRCUIT	15" AFF
	FLOOR MOUNTED DUPLEX RECEPTACLE – FLUSH MOUNTED UNO	–
	SPECIAL PURPOSE RECEPTACLE (NEMA NO. AS INDICATED)	15" AFF
J	JUNCTION BOX – SIZE & MOUNTING AS REQUIRED	AS REQD.
	MULTIOUTLET ASSEMBLY – LENGTH AND OUTLET SPACING AS INDICATED	AS NOTED
	TELEPHONE/DATA OUTLET. WALL MOUNTED – STUB 1" C. ABOVE CEILING FROM OUTLET BOX	15" AFF
	FLOOR MOUNTED DATA/TELEPHONE OUTLET – FLUSH MOUNTED UNO	–
TV	TELEVISION OUTLET. CLG. OR WALL MOUNTED – STUB 3/4" C. ABOVE CEILING FROM OUTLET BOX	15" AFF
	PUSHBUTTON	48" AFF
C	CLOCK HANGER OUTLET 15A/125V/2P/3W/G RECEPTACLE	96" AFF
WAP WAZ	WIRELESS ACCESS PIONT	–
F	FIRE ALARM PULL STATION	48" AFF
F	FIRE ALARM AUDIBLE/VISUAL SIGNAL	80" AFF
F	FIRE ALARM AUDIBLE SIGNAL	80" AFF
F	FIRE ALARM VISUAL SIGNAL	80" AFF
S	SPEAKER VOICE EVAC SYSTEM	80" AFF
EVAC	VOICE EVAC SYSTEM	–

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
FS	FIRE ALARM SPRINKLER FLOW SWITCH	–
TS	FIRE ALARM SPRINKLER TAMPER SWITCH	–
TS	FIRE ALARM SPRINKLER TAMPER SWITCH	–
PS	FIRE ALARM SPRINKLER PRESSURE SWITCH	–
S	FIRE ALARM SMOKE DETECTOR CEILING OR WALL MOUNTED	80" AFF
H	HEAT DETECTOR CEILING OR WALL MOUNTED	–
D	DUCT SMOKE DETECTOR	–
	SMOKE DOOR HOLDER	–
FACP	FIRE ALARM CONTROL PANEL	–
FAAP	FIRE ALARM ANNUNCIATOR PANEL	–
S	P.A. SPEAKER, CEILING OR WALL MOUNTED	9" BFC
M	MICROPHONE OUTLET	–
30/–/3	DISCONNECT SWITCH – 30/–/3 INDICATES 30A, 3–POLE, NONFUSED; 30/30/3 INDICATES 30A, 3–POLE, 30A FUSE	AS REQD.
CB 30/3	CIRCUIT BREAKER DISCONNECT SWITCH – THERMAL MAGNETIC CB IN NEMA 1 ENCL; AMPS/POLES AS INDICATED	AS REQD.
30/30/3	DISCONNECT SWITCH – 30/30/3 INDICATES 30A, 3–POLE, 30A FUSE	AS REQD.
2	MOTOR STARTER FVNR UNO; NUMBER INDICATES NEMA SIZE	AS REQD.
CB	COMBINATION MOTOR CONTROLLER/DISCONNECT SWITCH	AS REQD.
	MOTOR	–
	PANELBOARD	–
	CIRCUIT HOME RUN TO PANELBOARD (2 #12, 1 #12G, 1/2"C. 20A/1P CB UNO)	–
X,X,X	THREE SINGLE POLE DEVICE CIRCUIT NUMBERS	–
X/X/X	MULTI–POLE DEVICE CIRCUIT NUMBERS	–
MD MD	MOTION DETECTOR, CEILING OR WALL MOUNTED	–
DH	DOOR HOLDER– REFER TO ARCHITECTURAL DOOR SCHEDULE FOR DOOR ROUGH–IN REQUIREMENTS.	–
C	CHIME/STROBE	80"AFF
B	BELL/BUZZ	48"AFF
G	GLASS BREAK MOTION SENSOR	–
D	DOOR CONTACTS	–
K	KEYPAD	48"AFF
	CAMERA	–
CR	CARD READER – REFER TO DISCRIPTION IN DOOR HARDWARE SPECIFICATION SECTION.	48"AFF

ELECTRICAL ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR	NL	NIGHT LIGHT
BFC	BELOW FINISHED CEILING	NO (N.O.)	NORMALLY OPEN
C	CONDUIT	RCPT(S)	RECEPTACLE(S)
CB	CIRCUIT BREAKER	PNL	PANEL
EC	EMPTY CONDUIT	SO (S.O.)	SPACE ONLY
EX	EXISTING	SP	SPARE
F	FUSE	ST (S.T.)	SHUNT TRIP
G	GROUND (EQUIPMENT)	SW	SWITCH
GFI	GROUND FAULT INTERRUPTER	UF	UNDERFLOOR
IC	INTERRUPTING CAPACITY	UG	UNDERGROUND
IG	ISOLATED GROUND	UNO(U.N.O.)	UNLESS NOTED OTHERWISE
MTD	MOUNT OR MOUNTED	WG	WIRE GUARD
NC (N.C.)	NORMALLY CLOSED	WP	WEATHERPROOF
NF	NONFUSED	XFMR	TRANSFORMER
NIC	NOT IN CONTRACT	ABS	ABOVE BACK SPLASH

NOTES:
1. 48" AFF INDICATES TO TOP OF DEVICE;
   15" AFF INDICATES TO BOTTOM OF DEVICE;
   ALL OTHER MOUNTING HEIGHTS REFER TO CENTERLINE OF DEVICE.

1 ELECTRICAL LEGEND
SCALE: N.T.S.

LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	MANUFACTURER & MODEL #	LAMPS/TEMP/VA	VOLTAGE	REMARKS
A	2X4 VOLUMETRIC RECESSED LIGHTING CURVED SMOOTH DIFFUSER	LITHONIA #2BLT4 48L ADSM XX LP840 XX METALUX #24CZ–LD4–50–S–UNV–L840–CD1 LSI LPEC24–LED–HO–NW–UE	LED 4000K 45	120/277	
AE	2X4 VOLUMETRIC RECESSED LIGHTING CURVED SMOOTH DIFFUSER 1400 LUMEN BATTERY PACK	LITHONIA #2BLT4 48L ADSM XX LP840 XX EL14L METALUX #24CZ–LD4–50–S–UNV–EL14W–L840–CD1 LSI LPEC24–LED–HO–NW–UE–EM	LED 4000K 45	120/277	
B	2X4 VOLUMETRIC RECESSED LIGHTING CURVED SMOOTH DIFFUSER	LITHONIA #2BLT4 30L ADSM XX LP840 XX METALUX #24CZ–LD4–35–S–UNV–L840–CD1 LSI LPEC24–LED–SS–NW–UE	LED 4000K 30	120/277	
BE	2X4 VOLUMETRIC RECESSED LIGHTING CURVED SMOOTH DIFFUSER 1400 LUMEN BATTERY PACK	LITHONIA #2BLT4 30L ADSM XX LP840 XX EL14L METALUX #24CZ–LD4–35–S–UNV–EL14W–L840–CD1 LSI LPECC24–LED–SS–NW–UE–EM	LED 4000K 30	120/277	
C	4" RECESSED DOWNLIGHT	LITHONIA #LDN4 40/10 LO4 AR MVOLT	LED 4000K 13	120/277	
CE	4" RECESSED DOWNLIGHT EMERGENCY BATTERY PACK	LITHONIA #LDN4 40/10 LO4 AR MVOLT EL	LED 4000K 13	120/277	
D	4" RECESSED FIXTURE	FINELITE #HP–6R–4–40–H–F–120–SC FORUM SRZ–46REC–LED–65–40–SAT–4–120–WH	LED 4000K 32	120/277	
F4	4" FINELITE HP4 RECESSED	FINELITE #HP–4 R 4' S 840 F 120 SC XX	LED 4000K 20	120	
F8	8" FINELITE HP4 RECESSED	FINELITE #HP–4 R 8' S 840 F 120 SC XX	LED 4000K 40	120	
SA	ARCHITECTURAL WALL SCONCE TYPE III DISTRIBUTION FINISH AS SELECTED BY ARCHITECT	LITHONIA #WST LED 2 10A700/40K SR3 MVOLT XX	LED 4000K 53 W	120/277	
X	UNIVERSAL EXIT LIGHT WITH BATTERY PACK,	LITHONIA #LQMSW3R120/277ELN	LED'S FURNISHED	120/277	

4 ELECTRICAL LIGHTING FIXTURE SCHEDULE
SCALE: N.T.S.

MECHANICAL EQUIPMENT CONNECTION SCHEDULE

MECHANICAL EQUIPMENT				DISCONNECTING MEANS AND/OR
UNIT DESIGNATION	CIRCUIT DESIGNATION	LOCATION	NOTES	BRANCH CIRCUIT SIZE
RTU–1	HA–2,4,6	ROOF	1	30/–/3 NEMA 3R DISCONNECT, 3#12, #12G, 1/2"C
RTU–2	HA–8,10,12	ROOF	1	30/–/3 NEMA 3R DISCONNECT, 3#10, #10G, 1/2"C
EF–1	LA–26	MEN 111	2,3	2#12, #12G, 1/2"C
EF–2	LA1–26	WOMENS 112	2,3	2#12, #12G, 1/2"C
WH–1	LA1–22,24	JANITOR 118		30/–/2 DISCONNECT, 2#10, #10G, 1/2"C

GENERAL NOTES:
A. ALL DISCONNECTS AND COMBINATION STARTERS ARE NEMA 1 ENCLOSED, UNO.
B. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH DIV. 15 AND FURNISH AND INSTALL POWER FOR CONTROLS.

NOTES:
1. FURNISH AND INSTALL DUCT SMOKE DETECTOR AT SUPPLY & RETURN DUCT. FURNISH AND INSTALL RELAY FOR SHUT DOWN CONTROL.
2. EXHAUST FAN SHALL BE SWITCHED WITH LIGHTS.
3. FURNISH AND INSTALL INTERPOSING RELAY FOR 277/120 INTERFACE, SQUARED CLASS 8501 TYPE C RELAY C06 V04, 120VOLT NEMA 1 ENCLOSURE 9991 UE1.

5 ELECTRICAL - MECHANICAL EQUIPMENT CONNECTION SCHEDULE
SCALE: N.T.S.

TRANSFORMER SCHEDULE

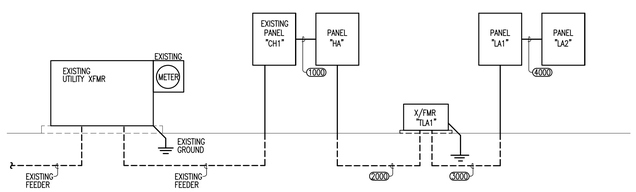
MARK	KVA	PRIMARY VOLTAGE	SECONDARY VOLTAGE	GROUNDING ELECTRODE	REMARKS
XFMR–TLA1	45	480V DELTA	208Y/120 GND WYE	#6	

2 ELECTRICAL TRANSFORMER SCHEDULE
SCALE: N.T.S.

FEEDER / BRANCH CIRCUIT SCHEDULE

MARK	RACEWAY	PHASE CONDUCTORS	NEUTRAL CONDUCTORS	GROUND CONDUCTORS	REMARKS
1000	2"	3#3/0	1#3/0	1#6	----
2000	1"	3#4	----	1#8	----
3000	1 1/2"	3#1/0	1#1/0	1#6	----
4000	1 1/2"	3#2	1#3/0	1#8	----

6 ELECTRICAL FEEDER/BRANCH CIRCUIT SCHEDULE
SCALE: N.T.S.



3 ELECTRICAL RISER DIAGRAM
SCALE: N.T.S.

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REVISION	DATE	APPROVED BY	DESCRIPTION

STATE OF TEXAS
ABRAM L. DOMINGUEZ
97393
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PROFESSIONAL ENGINEER
Abram L. Dominguez
01.12.2018

PROPOSED
CITY OF PHARR
INTERNATIONAL
BRIDGE FACILITY
EXPANSION AND
RENOVATIONS

LOT 3 GSA SUBDIVISION
PHARR, TEXAS
78507

Project: 971704
Date: 1/12/2018
Revised:

E2.00

ELEC LEGEND, RISER DIAGRAM AND SCHEDS

MEP SOLUTIONS ENGINEERING
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TEXAS BOARD OF PROFESSIONAL ENGINEERS REGISTRATION # F-9748

EXISTING PANELBOARD CH1

VOLTAGE: 480Y/277 VOLT 3 PHASE 4 WIRE — LOCATION: ROOM
400 A MAIN CIRCUIT BREAKER — MOUNTING: SURFACE
BUSES: MAIN – 400 A; NEUTRAL – 100%; EQUIPMENT GROUND; ISOLATED GROUND — Isc = 14,000 A RMS SYM AVAILABLE

VA:L	VA:R	VA:O	LOAD	BKR	CKT	PH	CKT	BKR	LOAD	VA:L	VA:R	VA:O
		3033	EXISTING PANEL CH2	175/3	1	A	2	175/3	EXISTING TRANSFORMER CL2			25000
		2918	*	–	3	B	4	–	*			25000
		2553	*	–	5	C	6	–	*			25000
			EXISTING CHILLER	45/3	7	A	8	100/3	EXISTING ATS/PANEL ECH			12570
			*	–	9	B	10	–	*			8320
			*	–	11	C	12	–	*			7000
			EXISTING TVSS	30/3	13	A	14	35/3	SPARE			
			*	–	15	B	16	–	*			
			*	–	17	C	18	–	*			
			SPACE	20/1	19	A	20	20/1	SPACE			
			SPACE	20/1	21	B	22	20/1	SPACE			
			SPACE	20/1	23	C	24	20/1	SPACE			
			SPACE	20/1	25	A	26	200/3	PANEL HA	2019	5400	14547
			SPACE	20/1	27	B	28	–	*	1273	3600	15705
			SPACE	20/1	29	C	30	–	*	577	5040	14505

VA:L (LIGHTING)	3869	CONNECTED	4836 DEMAND
VA:R (RECEPTACLES)	14040	CONNECTED	12020 DEMAND
VA:O (OTHER)	232690	CONNECTED	232690 DEMAND
VA: TOTAL	250599	CONNECTED	249546 DEMAND
AMPS: TOTAL	301	CONNECTED	300 DEMAND

L	R	O		TOTAL			
2019	5400	82448	VA CONNECTED TO A PHASE	89867	VA =	324	AMPS CONNECTED TO A PHASE @ 277 VOLTS
1273	3600	78206	VA CONNECTED TO B PHASE	83079	VA =	300	AMPS CONNECTED TO B PHASE @ 277 VOLTS
577	5040	72036	VA CONNECTED TO C PHASE	77653	VA =	280	AMPS CONNECTED TO C PHASE @ 277 VOLTS
3869	14040	232690	TOTAL	250599	VA		

PANELBOARD HA

VOLTAGE: 480Y/277 VOLT 3 PHASE 4 WIRE — LOCATION: ROOM
200 A MAIN LUGS ONLY — MOUNTING: SURFACE
BUSES: MAIN – 200 A; NEUTRAL – 100%; EQUIPMENT GROUND — Isc = 18,000 A RMS SYM AVAILABLE

VA:L	VA:R	VA:O	LOAD	BKR	CKT	PH	CKT	BKR	LOAD	VA:L	VA:R	VA:O
1434			LIGHTING RM 101	20/1	1	A	2	20/3	RTU-1			3769
1048			LIGHTING RM E103	20/1	3	B	4	–	*			3769
352			LIGHTING CORR 02/105/106&4TYP C	20/1	5	C	6	–	*			3769
585			LIGHTING OFFICES&CONFRENCE RM	20/1	7	A	8	30/3	RTU-2			5986
225			MENS RR 111	20/1	9	B	10	–	*			5986
225			WOMENS RR 112	20/1	11	C	12	–	*			5986
			SPARE	20/1	13	A	14	20/1	SPARE			
			SPARE	20/1	15	B	16	20/1	SPARE			
			SPARE	20/1	17	C	18	20/1	SPARE			
			SPARE	20/1	19	A	20	20/1	SPARE			
			SPARE	20/1	21	B	22	20/1	SPARE			
			SPARE	20/1	23	C	24	20/1	SPARE			
			SPACE	20/1	25	A	26	20/1	SPACE			
			SPACE	20/1	27	B	28	20/1	SPACE			
			SPACE	20/1	29	C	30	20/1	SPACE			
			SPACE	20/1	31	A	32	20/1	SPACE			
			SPACE	20/1	33	B	34	20/1	SPACE			
			SPACE	20/1	35	C	36	20/1	SPACE			
			SPACE	100/3	37	A	38	90/3	PANEL LA1		5400	4792
			SPACE	–	39	B	40	–	VA XFMR TLA1		3600	5850
			SPACE	–	41	C	42	–			5040	4750

VA:L (LIGHTING)	3869	CONNECTED	4836 DEMAND
VA:R (RECEPTACLES)	14040	CONNECTED	12020 DEMAND
VA:O (OTHER)	44757	CONNECTED	44757 DEMAND
VA: TOTAL	62666	CONNECTED	61613 DEMAND
AMPS: TOTAL	75	CONNECTED	74 DEMAND

L	R	O		TOTAL			
2019	5400	14547	VA CONNECTED TO A PHASE	21966	VA =	79	AMPS CONNECTED TO A PHASE @ 277 VOLTS
1273	3600	15705	VA CONNECTED TO B PHASE	20578	VA =	74	AMPS CONNECTED TO B PHASE @ 277 VOLTS
577	5040	14505	VA CONNECTED TO C PHASE	20122	VA =	73	AMPS CONNECTED TO C PHASE @ 277 VOLTS
3869	14040	44757	TOTAL	62666	VA		

PANELBOARD LA1

VOLTAGE: 208Y/120 VOLT 3 PHASE 4 WIRE — LOCATION: ROOM
150 A MAIN CIRCUIT BREAKER — MOUNTING: SURFACE
BUSES: MAIN – 225 A; NEUTRAL – 100%; EQUIPMENT GROUND; ISOLATED GROUND — Isc = 10,000 A RMS SYM AVAILABLE

VA:L	VA:R	VA:O	LOAD	BKR	CKT	PH	CKT	BKR	LOAD	VA:L	VA:R	VA:O
		500	MOTORIZED SCREEN	20/1	1	A	2	20/1	RECEPTACLES		720	
	1080		RECEPTACLES	20/1	3	B	4	20/1	MOTORIZED SCREEN			500
	360		RECEPTACLES	20/1	5	C	6	20/1	RECEPTACLES		720	
		900	REFRIGERATOR	20/1	7	A	8	20/1	RECEPTACLES		720	
		500	COUNTER RECEPTACLE	20/1	9	B	10	20/1	RECEPTACLES		720	
		500	COUNTER RECEPTACLE	20/1	11	C	12	20/1	RECEPTACLES		720	
		500	COUNTER RECEPTACLE	20/1	13	A	14	20/1	RECEPTACLES		720	
		500	COUNTER RECEPTACLE	20/1	15	B	16	20/1	RECEPTACLES		720	
		500	COUNTER RECEPTACLE	20/1	17	C	18	20/1	RECEPTACLES		360	
	720		RECEPTACLES	20/1	19	A	20	20/1	RECEPTACLES			
		1200	EWC	20/1	21	B	22	30/2	WH-1			2250
		1500	HAND DRYER	20/1	23	C	24	–	*			2250
		1500	HAND DRYER	20/1	25	A	26	20/1	EF-1/EF-2			1392
	360		RECEPTACLES	20/1	27	B	28	20/1	SPARE			
	1080		RECEPTACLES	20/1	29	C	30	20/1	SPARE			
			SPARE	20/1	31	A	32	20/1	SPACE			
			SPARE	20/1	33	B	34	20/1	SPACE			
			SPARE	20/1	35	C	36	20/1	SPACE			
			SPACE	20/1	37	A	38	100/3	PANEL "LA2"		2520	
			SPACE	20/1	39	B	40	–	*		720	1000
			SPACE	20/1	41	C	42	–	*		1800	

VA:L (LIGHTING)		CONNECTED	DEMAND
VA:R (RECEPTACLES)	14040	CONNECTED	12020 DEMAND
VA:O (OTHER)	15492	CONNECTED	15492 DEMAND
VA: TOTAL	29532	CONNECTED	27512 DEMAND
AMPS: TOTAL	82	CONNECTED	76 DEMAND

L	R	O		TOTAL			
	5400	4792	VA CONNECTED TO A PHASE	10192	VA =	85	AMPS CONNECTED TO A PHASE @ 120 VOLTS
	3600	5950	VA CONNECTED TO B PHASE	9550	VA =	80	AMPS CONNECTED TO B PHASE @ 120 VOLTS
	5040	4750	VA CONNECTED TO C PHASE	9790	VA =	82	AMPS CONNECTED TO C PHASE @ 120 VOLTS
	14040	15492	TOTAL	29532	VA		

PANELBOARD LA2

VOLTAGE: 208Y/120 VOLT 3 PHASE 4 WIRE — LOCATION: ROOM
100 A MAIN LUGS ONLY — MOUNTING: SURFACE
BUSES: MAIN – 100 A; NEUTRAL – 100%; EQUIPMENT GROUND; ISOLATED GROUND; SPD PANELBOARD — Isc = 10,000 A RMS SYM AVAILABLE

VA:L	VA:R	VA:O	LOAD	BKR	CKT	PH	CKT	BKR	LOAD	VA:L	VA:R	VA:O
	720		COMPUTERS	20/1	1	A	2	20/1	COMPUTERS		720	
		500	PROJECTOR	20/1	3	B	4	20/1	PROJECTOR			500
	360		COMPUTERS	20/1	5	C	6	20/1	COMPUTERS		720	
	360		COMPUTERS	20/1	7	A	8	20/1	COMPUTERS		720	
	720		COMPUTERS	20/1	9	B	10	20/1	SPARE			
	720		COMPUTERS	20/1	11	C	12	20/1	SPARE			
			SPARE	20/1	13	A	14	20/1	SPARE			
			SPARE	20/1	15	B	16	20/1	SPARE			
			SPARE	20/1	17	C	18	20/1	SPARE			
			SPARE	20/1	19	A	20	20/1	SPACE			
			SPARE	20/1	21	B	22	20/1	SPACE			
			SPARE	20/1	23	C	24	20/1	SPACE			
			SPACE	20/1	25	A	26	20/1	SPACE			
			SPACE	20/1	27	B	28	20/1	SPACE			
			SPACE	20/1	29	C	30	20/1	SPACE			
			SPACE	20/1	31	A	32	20/1	SPACE			
			SPACE	20/1	33	B	34	20/1	SPACE			
			SPACE	20/1	35	C	36	20/1	SPACE			
			SPACE	20/1	37	A	38	30/3	SURGE PROTECTIVE DEVICE			
			SPACE	20/1	39	B	40	–	*			
			SPACE	20/1	41	C	42	–	*			

VA:L (LIGHTING)		CONNECTED	DEMAND
VA:R (RECEPTACLES)	5040	CONNECTED	5040 DEMAND
VA:O (OTHER)	1000	CONNECTED	1000 DEMAND
VA: TOTAL	6040	CONNECTED	6040 DEMAND
AMPS: TOTAL	17	CONNECTED	17 DEMAND

L	R	O		TOTAL			
	2520		VA CONNECTED TO A PHASE	2520	VA =	21	AMPS CONNECTED TO A PHASE @ 120 VOLTS
	720	1000	VA CONNECTED TO B PHASE	1720	VA =	14	AMPS CONNECTED TO B PHASE @ 120 VOLTS
	1800		VA CONNECTED TO C PHASE	1800	VA =	15	AMPS CONNECTED TO C PHASE @ 120 VOLTS
	5040	1000	TOTAL	6040	VA		

3 ELECTRICAL PANEL SCHEDULES
SCALE: N.T.S.

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STATE OF TEXAS
ABRAM L. DOMINGUEZ
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LICENSED
PROFESSIONAL ENGINEER
01.12.2018

PROPOSED
CITY OF PHARR INTERNATIONAL BRIDGE FACILITY EXPANSION AND RENOVATIONS

LOT 3 GSA SUBDIVISION
PHARR, TEXAS
78507

Project: 971704
Date: 1/12/2018
Revised:

E3.00
ELECTRICAL PANEL SCHEDULES

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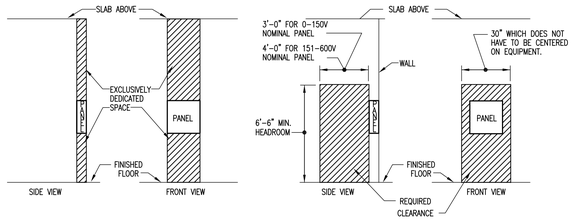
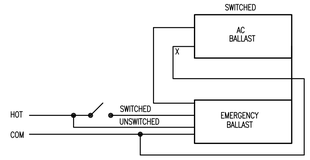
TEXAS BOARD OF PROFESSIONAL ENGINEERS REGISTRATION # F-9748



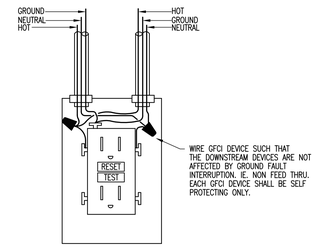
1 TYPICAL PANELBOARD REQUIRED CLEARANCE

SCALE: N.T.S.



2 EMERGENCY BALLAST WIRING DETAIL

SCALE: N.T.S.



3 GFCI RECEPTACLE - WIRING DIAGRAM

SCALE: N.T.S.

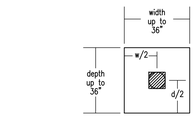


Figure A

Figure B

Figure C

w = WIDTH, d = DEPTH

NOTES:

INSTALL PENDANT MOUNTED IONIZATION DETECTORS LISTED FOR THE AIR VELOCITY PRESENT AT THE OPENING WHERE THE RETURN AIR ENTERS THE COMMON RETURN AIR SYSTEM. THE DETECTORS SHALL BE INSTALLED UP TO 12 INCHES MAXIMUM IN FRONT OF THE OPENING AND SPACED ACCORDING TO THE FOLLOWING OPENING DIMENSIONS.

(1) WIDTH:
UP TO 36 IN. – ONE DETECTOR CENTERED IN OPENING (FIGURE A)

UP TO 72 IN. – TWO DETECTORS LOCATED AT THE 1/4 POINTS OF THE OPENING (FIGURE B)

OVER 72 IN. – ONE ADDITIONAL DETECTOR FOR EACH FULL 24 IN. OF OPENING (FIGURE C)

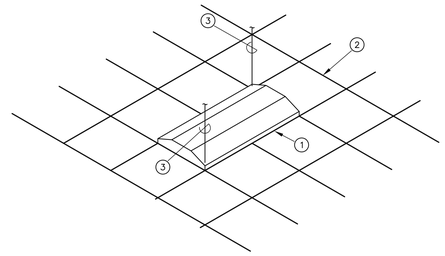
(2) DEPTH:
THE NUMBER AND SPACING OF THE DETECTOR(S) IN THE DEPTH (VERTICAL) OF THE OPENING SHALL BE THE SAME AS THOSE GIVEN FOR THE WIDTH (HORIZONTAL) ABOVE.

(3) ORIENTATION:
DETECTORS SHALL BE ORIENTED IN THE MOST FAVORABLE POSITION FOR SMOKE ENTRY WITH RESPECT TO THE DIRECTION OF AIR FLOW.

DETECTORS FOR RETURN AIR BAFFLE WALLS SHALL BE MOUNTED LOW BETWEEN BAFFLE WALLS SO AS TO BE VISIBLE FROM WITHIN THE MECHANICAL SPACE. PROVIDE REMOTE TEST STATIONS AS REQUIRED.

4 LOCATION OF IONIZATION DETECTOR (S) IN RETURN AIR SYSTEM

SCALE: N.T.S.



NOTES BY SYMBOL " ◯ "

1. 2'x 4' LAY-IN FLUORESCENT FIXTURE
2. SUSPENDED CEILING
3. TIE WIRE. CONNECT TO TWO CORNERS OF FIXTURE TO STRUCTURE ABOVE, INDEPENDENT OF CEILING SUPPORTS.

5 TYPICAL LAY-IN FIXTURE SUPPORT

SCALE: N.T.S.

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LOT 3 GSA SUBDIVISION
PHARR, TEXAS
78507

Project: 971704
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ELECTRICAL DETAILS

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TEXAS BOARD OF PROFESSIONAL ENGINEERS REGISTRATION # F-9748

KEY NOTES: ○

1. PROVIDE TRAP PRIMER CONNECTION FROM NEAREST FLUSH VALVE TRAP PRIMER, REFER TO DETAIL.
2. CORE DRILL AND/OR SAW-CUT FINISH FLOOR AND WALLS AS REQUIRED TO PROVIDE NEW ROUGH-IN FOR PLUMBING FIXTURES. PATCH AND REPAIR AS PER ARCHITECTURAL REQUIREMENTS AND SPECIFICATIONS.
3. PROVIDE AND CONNECT 2" VENT SERVICE TO EXISTING VENT SYSTEM. FIELD VERIFY EXACT POINT OF CONNECTION.
4. PLUMBING CONTRACTOR SHALL VERIFY POINT OF CONNECTION TO BUILDING UTILITIES PRIOR TO BID TO AVOID CONFLICT. ANY DISCREPANCIES FOUND BY THE PLUMBING CONTRACTOR SHALL BE REPORTED TO THE ENGINEER/ARCHITECT IMMEDIATELY AND PRIOR TO ANY INSTALLATION. FAILURE TO COMPLY SHALL MAKE ALL CORRECTIONS AND/OR MODIFICATIONS THE FULL RESPONSIBILITY OF THE CONTRACTOR.
5. RISE STORM SEWER LINES UP ALONG FURR OUT TO HIGHER LEVEL REFER TO PLUMBING ROOF PLAN FOR CONTINUATION.
6. RISE CONDENSATE DRAIN LINE UP ALONG WALL CAVITIES TO HIGHER LEVEL REFER TO PLUMBING ROOF PLAN FOR CONTINUATION.

PLUMBING CONTRACTOR SHALL COORDINATE DOMESTIC WATER AND SANITARY SEWER LINE DIRECTION OF FLOW, SIZE, INVERT, AND POINT OF CONNECTION WITH EXISTING CONDITIONS PRIOR TO INSTALLATION OF ROUGH-IN TO AVOID CONFLICT. ANY DISCREPANCIES FOUND BY THE PLUMBING CONTRACTOR SHALL BE REPORTED TO THE ENGINEER/ARCHITECT IMMEDIATELY AND PRIOR TO ANY INSTALLATION. FAILURE TO COMPLY SHALL MAKE ALL CORRECTIONS AND/OR MODIFICATIONS THE FULL RESPONSIBILITY OF THE CONTRACTOR.

GENERAL NOTES: ( )

(A) INFORMATION ON THIS PLAN HAS BEEN OBTAINED FROM EXISTING DRAWINGS AND SITE SURVEY. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING WORK. ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND CONSTRUCTION DOCUMENTS SHALL BE REPORTED TO THE ENGINEER.

(B) PLUMBING CONTRACTOR SHALL ADHERE TO ALL CITY CODES, STATE CODES AND LOCAL CODES THAT HAVE AUTHORITY OVER THIS PROJECT.

(C) PLUMBING CONTRACTOR SHALL TERMINATE ALL WATER ROUGH-IN WITH SHUT-OFF VALVES BEFORE CONNECTING TO EQUIPMENT AND RELATED FIXTURES.

(D) PLUMBING CONTRACTOR TO COORDINATE WITH MECHANICAL CONTRACTOR FOR ANY INSTALLATION OF PIPING AND DUCTWORK PRIOR TO BEGINNING OF CONSTRUCTION

(E) INSULATE "P" TRAPS AND SUPPLIES AT HANDICAP LAVATORIES WITH INSULATION KIT.

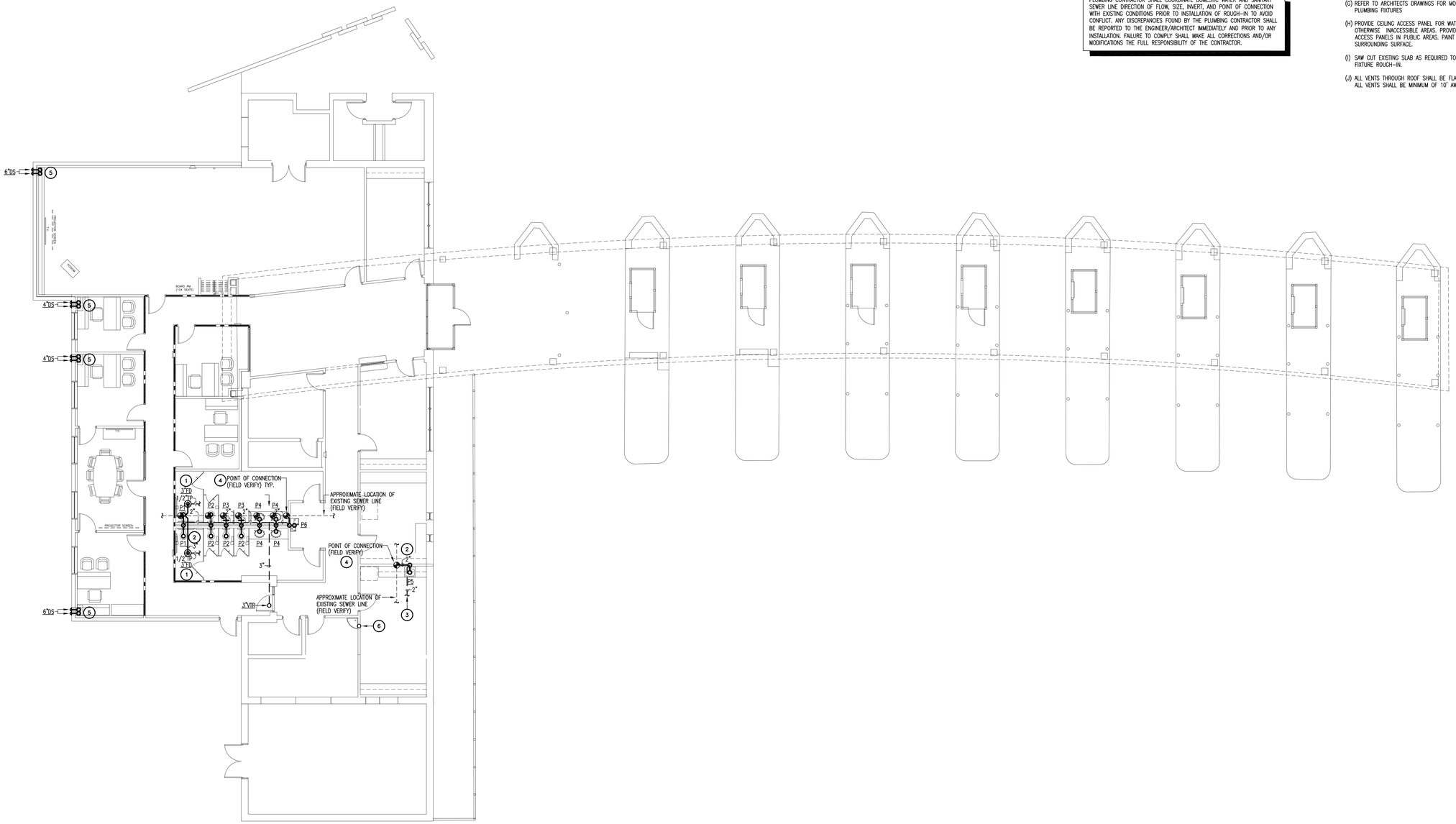
(F) PROVIDE VACUUM BREAKER TO ALL FIXTURES WITH HOSE CONNECTION AND APPLIANCES WITH DIRECT CONNECTIONS TO DOMESTIC WATER.

(G) REFER TO ARCHITECTS DRAWINGS FOR MOUNTING HEIGHTS OF ALL PLUMBING FIXTURES

(H) PROVIDE CEILING ACCESS PANEL FOR WATER ISOLATION VALVES, IN OTHERWISE INACCESSIBLE AREAS. PROVIDE LOCKABLE HINGED ACCESS PANELS IN PUBLIC AREAS. PAINT PANELS TO MATCH SURROUNDING SURFACE.

(I) SAW CUT EXISTING SLAB AS REQUIRED TO ACCOMODATE NEW PLUMBING FIXTURE ROUGH-IN.

(J) ALL VENTS THROUGH ROOF SHALL BE FLASHED A MINIMUM OF 12" ABOVE ROOF. ALL VENTS SHALL BE MINIMUM OF 10' AWAY FROM ANY OUTSIDE AIR INTAKE.



NORTH

1 PLUMBING SEWER PLAN
SCALE: 1/8"=1'-0"

TWG
THE WARREN GROUP ARCHITECTS, INC.
1801 SOUTH SECOND ST. SUITE 330
McALLEN, TX 78503
956.994.1900
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REVISION	DATE	APPROVED BY	DESCRIPTION

STATE OF TEXAS
LUIS JAVIER PENA
97260
LICENSED
PROFESSIONAL ENGINEER
01.12.2018

PROPOSED

CITY OF PHARR INTERNATIONAL BRIDGE FACILITY EXPANSION AND RENOVATIONS

LOT 3 GSA SUBDIVISION
PHARR, TEXAS
78507

Project: 971704
Date: 1/12/2018
Revised:

P1.01

PLUMBING SEWER PLAN

MEP SOLUTIONS ENGINEERING
MECHANICAL, ELECTRICAL, PLUMBING ENGINEERS
600 E. BEAUMONT AVE. SUITE 2 McALLEN, TX 78501 (956) 664-2727
TEXAS BOARD OF PROFESSIONAL ENGINEERS REGISTRATION # F-9748

KEY NOTES: ○

1. FIXTURE SHALL BE PROVIDED WITH THERMOSTATIC MIXING VALVE LOCATED UNDER PLUMBING FIXTURE EQUAL TO A LEONARD MODEL 170 WITH COLD WATER BY-PASS AND MOUNTING BRACKET. REFER TO DETAIL.
2. PLUMBING CONTRACTOR SHALL VERIFY POINT OF CONNECTION TO BUILDING UTILITIES PRIOR TO BID TO AVOID CONFLICT. ANY DISCREPANCIES FOUND BY THE PLUMBING CONTRACTOR SHALL BE REPORTED TO THE ENGINEER/ARCHITECT IMMEDIATELY AND PRIOR TO ANY INSTALLATION. FAILURE TO COMPLY SHALL MAKE ALL CORRECTIONS AND/OR MODIFICATIONS THE FULL RESPONSIBILITY OF THE CONTRACTOR.

PLUMBING CONTRACTOR SHALL COORDINATE DOMESTIC WATER AND SANITARY SEWER LINE DIRECTION OF FLOW, SIZE, INVERT, AND POINT OF CONNECTION WITH EXISTING CONDITIONS PRIOR TO INSTALLATION OF ROUGH-IN TO AVOID CONFLICT. ANY DISCREPANCIES FOUND BY THE PLUMBING CONTRACTOR SHALL BE REPORTED TO THE ENGINEER/ARCHITECT IMMEDIATELY AND PRIOR TO ANY INSTALLATION. FAILURE TO COMPLY SHALL MAKE ALL CORRECTIONS AND/OR MODIFICATIONS THE FULL RESPONSIBILITY OF THE CONTRACTOR.

GENERAL NOTES: ( )

(A) INFORMATION ON THIS PLAN HAS BEEN OBTAINED FROM EXISTING DRAWINGS AND SITE SURVEY. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING WORK. ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND CONSTRUCTION DOCUMENTS SHALL BE REPORTED TO THE ENGINEER.

(B) PLUMBING CONTRACTOR SHALL ADHERE TO ALL CITY CODES, STATE CODES AND LOCAL CODES THAT HAVE AUTHORITY OVER THIS PROJECT.

(C) PLUMBING CONTRACTOR SHALL TERMINATE ALL WATER ROUGH-IN WITH SHUT-OFF VALVES BEFORE CONNECTING TO EQUIPMENT AND RELATED FIXTURES.

(D) PLUMBING CONTRACTOR TO COORDINATE WITH MECHANICAL CONTRACTOR FOR ANY INSTALLATION OF PIPING AND DUCTWORK PRIOR TO BEGINNING OF CONSTRUCTION

(E) INSULATE "P" TRAPS AND SUPPLIES AT HANDICAP LAVATORIES WITH INSULATION KIT.

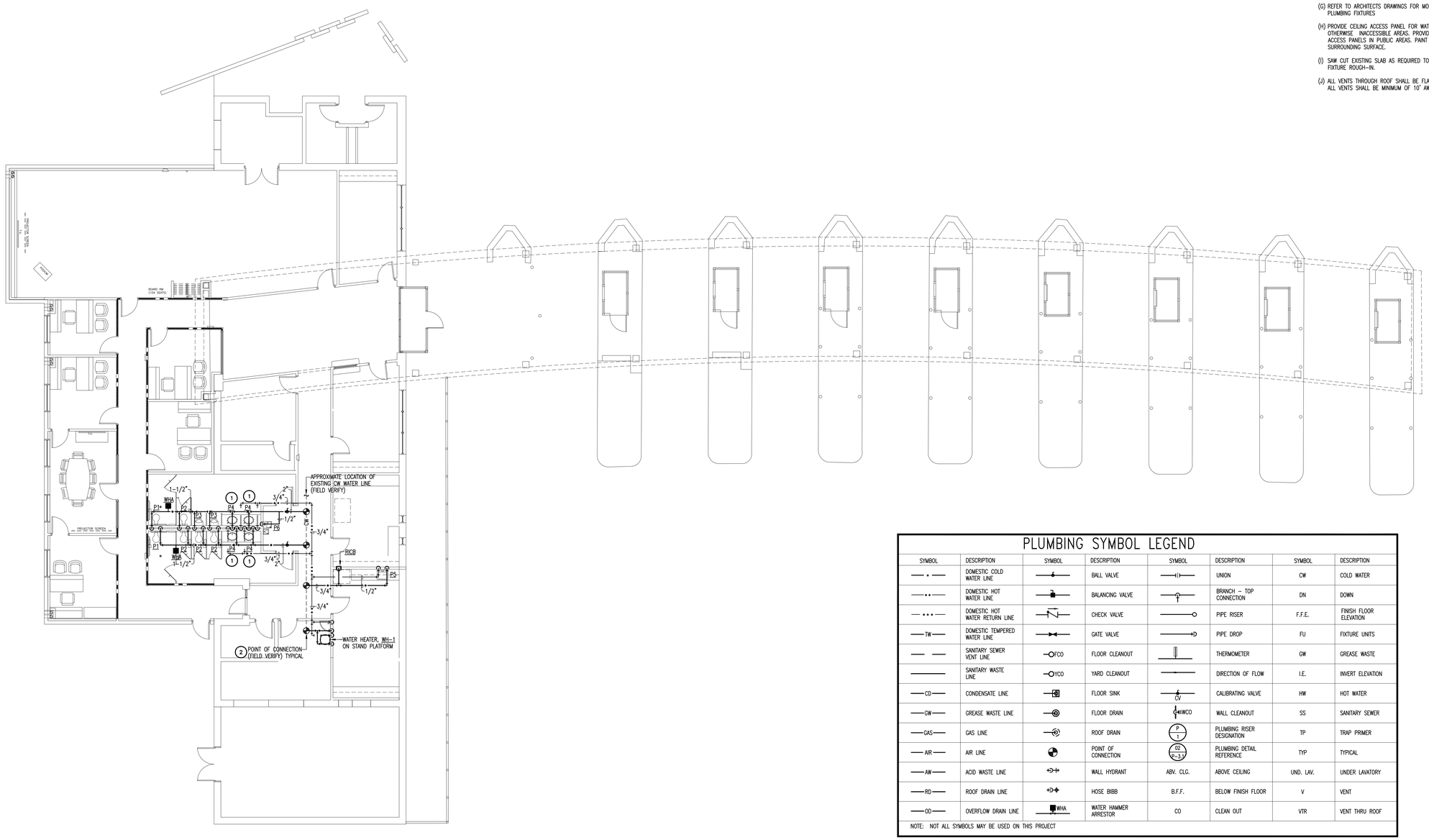
(F) PROVIDE VACUUM BREAKER TO ALL FIXTURES WITH HOSE CONNECTION AND APPLIANCES WITH DIRECT CONNECTIONS TO DOMESTIC WATER.

(G) REFER TO ARCHITECTS DRAWINGS FOR MOUNTING HEIGHTS OF ALL PLUMBING FIXTURES

(H) PROVIDE CEILING ACCESS PANEL FOR WATER ISOLATION VALVES, IN OTHERWISE INACCESSIBLE AREAS. PROVIDE LOCKABLE HINGED ACCESS PANELS IN PUBLIC AREAS. PAINT PANELS TO MATCH SURROUNDING SURFACE.

(I) SAW CUT EXISTING SLAB AS REQUIRED TO ACCOMODATE NEW PLUMBING FIXTURE ROUGH-IN.

(J) ALL VENTS THROUGH ROOF SHALL BE FLASHED A MINIMUM OF 12" ABOVE ROOF. ALL VENTS SHALL BE MINIMUM OF 10' AWAY FROM ANY OUTSIDE AIR INTAKE.



PLUMBING SYMBOL LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	DOMESTIC COLD WATER LINE		BALL VALVE		UNION	CW	COLD WATER
	DOMESTIC HOT WATER LINE		BALANCING VALVE		BRANCH – TOP CONNECTION	DN	DOWN
	DOMESTIC HOT WATER RETURN LINE		CHECK VALVE		PIPE RISER	F.F.E.	FINISH FLOOR ELEVATION
TW	DOMESTIC TEMPERED WATER LINE		GATE VALVE		PIPE DROP	FU	FIXTURE UNITS
	SANITARY SEWER VENT LINE	FCO	FLOOR CLEANOUT		THERMOMETER	GW	GREASE WASTE
	SANITARY WASTE LINE	YCO	YARD CLEANOUT		DIRECTION OF FLOW	I.E.	INVERT ELEVATION
CD	CONDENSATE LINE		FLOOR SINK	CV	CALIBRATING VALVE	HW	HOT WATER
GW	GREASE WASTE LINE		FLOOR DRAIN	WCO	WALL CLEANOUT	SS	SANITARY SEWER
GAS	GAS LINE		ROOF DRAIN	P / 1	PLUMBING RISER DESIGNATION	TP	TRAP PRIMER
AIR	AIR LINE		POINT OF CONNECTION	02 / P-3.1	PLUMBING DETAIL REFERENCE	TYP	TYPICAL
AW	ACID WASTE LINE		WALL HYDRANT	ABV. CLG.	ABOVE CEILING	UND. LAV.	UNDER LAVATORY
RD	ROOF DRAIN LINE		HOSE BIBB	B.F.F.	BELOW FINISH FLOOR	V	VENT
OD	OVERFLOW DRAIN LINE	WHA	WATER HAMMER ARRESTOR	CO	CLEAN OUT	VTR	VENT THRU ROOF

NOTE: NOT ALL SYMBOLS MAY BE USED ON THIS PROJECT

NORTH

1 PLUMBING HW/CW PLAN
SCALE: 1/8"=1'-0"

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LOT 3 GSA SUBDIVISION
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Project: 971704
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PLUMBING HW/CW PLAN

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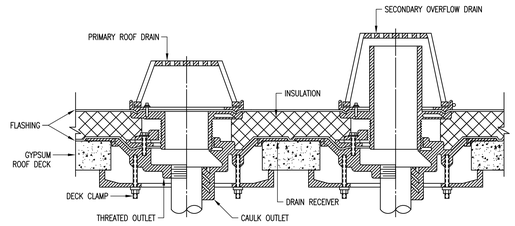

A ROOF AND OVERFLOW DRAIN DETAIL
SCALE: N.T.S.

NORTH

1 PLUMBING ROOF PLAN
SCALE: 1/8"=1'-0"

GENERAL NOTES:

(A) INFORMATION ON THIS PLAN HAS BEEN OBTAINED FROM EXISTING DRAWINGS AND SITE SURVEY. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING WORK. ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND CONSTRUCTION DOCUMENTS SHALL BE REPORTED TO THE ENGINEER.

(B) PLUMBING CONTRACTOR SHALL ADHERE TO ALL CITY CODES, STATE CODES AND LOCAL CODES THAT HAVE AUTHORITY OVER THIS PROJECT.

(C) PLUMBING CONTRACTOR TO COORDINATE WITH MECHANICAL CONTRACTOR FOR ANY INSTALLATION OF PIPING AND DUCTWORK PRIOR TO BEGINNING OF CONSTRUCTION

(D) ALL HORIZONTAL ROOF DRAIN LEADERS SHALL BE ROUTED AT 1-PERCENT SLOPE UNLESS OTHERWISE SPECIFIED.

KEY NOTES:

1. ROUTE AND INSTALL INSULATED ROOF DRAIN AND OVERFLOW DRAIN LEADERS DOWN IN FURR OUT. SLOPE HORIZONTAL LEADERS 1/8" PER FOOT. PLUMBING CONTRACTOR SHALL COORDINATE FINAL LOCATION OF ROOF DRAIN LEADER AND FURR OUT REQUIREMENTS WITH ARCHITECT PRIOR TO COMMENCEMENT OF WORK TO AVOID CONFLICTS.
2. COPPER CONDENSATE DRAIN LINE IN ATTIC SPACE, INSULATE C.D. LINE AND PROVIDE PIPE HANGER SUPPORTS MAXIMUM 5'-0" O.C. SPACING. ROUTE AND DROP CONDENSATE LINE DOWN INTO MOP SINK. CLAMP LINE SECURELY TO WALL, REFER TO DETAIL.
3. EXISTING RELOCATED CONDENSATE DRAIN LINE. EXTEND DRAIN LINE AS NEEDED TO ACCOMODATE RELOCATION.
4. APPROXIMATE LOCATION OF EXISTING ROOF TOP UNIT. FIELD VERIFY

PLUMBING CONTRACTOR SHALL COORDINATE DOMESTIC WATER AND SANITARY SEWER LINE DIRECTION OF FLOW, SIZE, INVERT, AND POINT OF CONNECTION WITH EXISTING CONDITIONS PRIOR TO INSTALLATION OF ROUGH-IN TO AVOID CONFLICT. ANY DISCREPANCIES FOUND BY THE PLUMBING CONTRACTOR SHALL BE REPORTED TO THE ENGINEER/ARCHITECT IMMEDIATELY AND PRIOR TO ANY INSTALLATION. FAILURE TO COMPLY SHALL MAKE ALL CORRECTIONS AND/OR MODIFICATIONS THE FULL RESPONSIBILITY OF THE CONTRACTOR.

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LOT 3 GSA SUBDIVISION
PHARR, TEXAS
78507

Project: 971704
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PLUMBING ROOF PLAN

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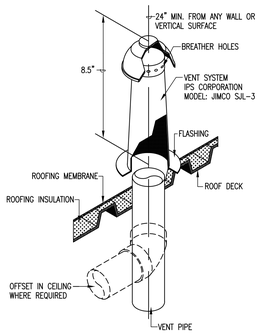
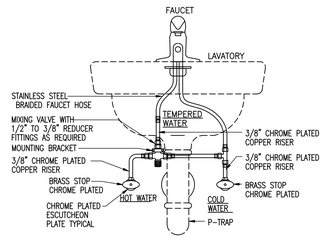
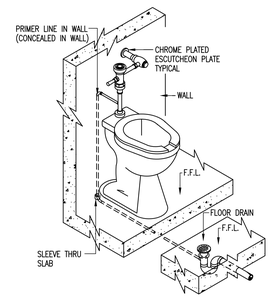


A VENT THROUGH ROOF DETAIL
SCALE: N.T.S.

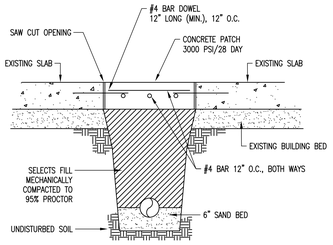


NOTE:
1. MIXING VALVE AND WATER LINES SHALL BE INSTALLED BETWEEN WALL AND P-TRAP TAILPIECE
2. PROVIDE AND INSTALL COVER KIT FOR P-TRAP AND STOPS.
3. FIELD INSULATE MIXING VALVE AND PIPING FROM MIXING VALVE TO FAUCET CONNECTION. JACKET INSULATION TO MATCH TRAP COVER KIT.
4. PROVIDE AND INSTALL REQUIRED 1/2" TO 3/8" REDUCERS AND CONNECTION FITTINGS.

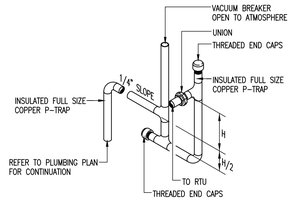
B MIXING VALVE UNDER LAV DETAIL
SCALE: N.T.S.



C FLUSH VALVE TRAP PRIMER DETAIL
SCALE: N.T.S.

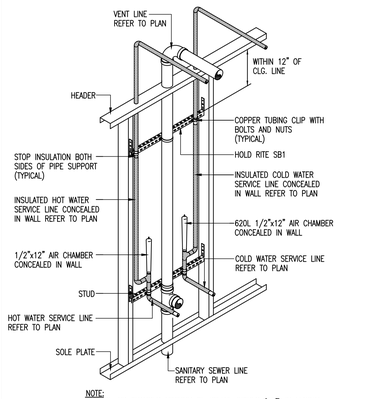


D SAW CUT DETAIL
SCALE: N.T.S.



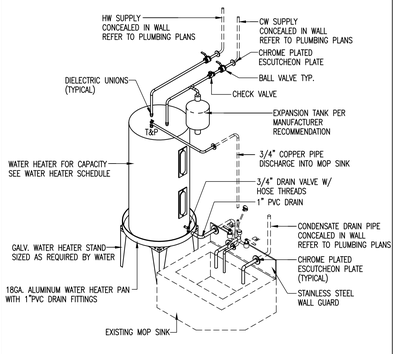
NOTE:
(1) H= FAN INLET PRESSURE (IN. W.C.) + 1-IN.
(2) CONDENSATE LINE SHALL BE INSULATED AND FURNISHED WITH ALUMINUM JACKET, (REFER TO SPECS.).

E RTU CONDENSATE P-TRAP DETAIL
SCALE: N.T.S.

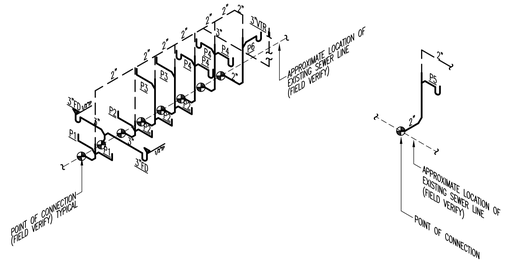


NOTE:
PROVIDE AIR CHAMBER MINIMUM OF TWELVE INCHES (12") IN LENGTH EQUAL TO NIBCO MODEL #619; INSTALL ON COLD WATER AND HOT WATER SUPPLIES TO PLUMBING FIXTURES.

F PLUMBING FIXTURE INSTALLATION DETAIL
SCALE: N.T.S.



G WATER HEATER PLATFORM MOUNTING DETAIL
SCALE: N.T.S.



H PLUMBING SEWER RISER SCHEMATIC DIAGRAM
SCALE: N.T.S.

PLUMBING FIXTURE SCHEDULE

MARK	FIXTURE TYPE	CONNECTION SIZE				DESCRIPTION
		SEWER	VENT	CW	HW	
P1	WATER CLOSET (HANDICAP)	4"	2"	1"	–	VITREOUS CHINA, ELONGATED RIM, FLOOR MOUNTED WATER CLOSET WITH 1-1/2" TOP SPUD. ZURN "ECOVANTAGE" MODEL "Z5665-BWL", 16-3/4" RIM HEIGHT, 1.6 GPF, 10" ROUGH-IN, SIPHON JET ACTION WITH SLOAN "ROYAL" FLUSH MODEL "111-TP" WITH TRAP PRIMER CONNNECTION WHERE SHOWN ON PLANS, BENEKE MODEL "533" OPEN FRONT SEAT LESS COVER.
P2	WATER CLOSET	4"	2"	1"	–	VITREOUS CHINA, ELONGATED RIM, FLOOR MOUNTED WATER CLOSET WITH 1-1/2" TOP SPUD. ZURN "ECOVANTAGE" MODEL "Z5655-BWL", 15" RIM HEIGHT, 1.6 GPF, 10" ROUGH-IN, SIPHON JET ACTION WITH SLOAN "ROYAL" FLUSH MODEL "111-TP" WITH TRAP PRIMER CONNNECTION WHERE SHOWN ON PLANS, BENEKE MODEL "533" OPEN FRONT SEAT LESS COVER.
P3	URINAL (HANDICAP)	2"	2"	3/4"	–	VITREOUS CHINA, WALL HUNG, SIPHON JET ACTION WITH 3/4" TOP SPUD AND WALL HANGERS. MINIMUM 14" RIM TO WALL DISTANCE. EQUAL TO ZURN MODEL "Z5730" WITH SLOAN ROYAL "186-1" FLUSH VALVE AND APPROVED CARRIER SYSTEM.
P4	LAVATORY COUNTERTOP (HANDICAP)	2"	2"	1/2"	1/2"	VITREOUS CHINA, SELF RIMMING, OVAL (20"X17") LAVATORY WITH FAUCET HOLES ON 4" CENTERS EQUAL TO ZURN MODEL "Z5114", COMPLETE WITH LAVATORY FAUCET MOEN MODEL "8413F15", CHROME FINISH, SINGLE LEVER HANDLE, 1.5 GPM FLOW, ADA APPROVED AND PROTECTIVE COVER ON P-TRAP.
P5	STAINLESS STEEL COUNTERTOP SINK (HANDICAP)	2"	2"	1/2"	1/2"	SINGLE COMPARTMENT STAINLESS STEEL SINK EQUAL TO ELKAY MODEL "LRAD-2521-60-3". SELF RIMMING, 25"X21"X6", 3 HOLES ON 4" CENTERS, 18 GAUGE, UNDERCOATED. COMPLETE WITH MOEN MODEL "8289" SWING GOOSENECK SPOUT, CHROMED METAL WRIST BLADE HANDLES, DECK MOUNT FAUCET AND "LK-35" STRAINER WITH BASKET.
P6	BI-LEVEL ELECTRIC WATER COOLER (HANDICAP)	2"	2"	1/2"	–	BI-LEVEL, SELF-CONTAINED, WALL HUNG REFRIGERATED WATER COOLER EQUAL TO ELKAY "EZSTL-8". SELF CLOSING CONTROLS ON FRONT AND SIDE, STAINLESS STEEL BASIN. FLEX-GUARD BUBBLER CAPABLE OF DELIVERING 8.0 GPH OF 50°F WATER WITH 80°F INLET WATER AND 90°F ROOM TEMPERATURE. FURNISH WITH CARRIER AND APRON.
WH-1	WATER HEATER	–	–	3/4"	3/4"	30 GALLON WATER HEATER SHALL BE EQUAL TO A RHEEM MODEL "ELDS30". IT SHALL BE 208V/1ø 4.5kW WITH A RECOVERY OF 30 GALLONS PER HOUR @ 60°F RISE. PROVIDE AND INSTALL EXPANSION TANK AS PER MANUFACTURER RECOMMENDATIONS.
3"FD	GENERAL DUTY FLOOR DRAIN	3"	2"	–	–	ZURN MODEL "Z-415-B" LACQUERED CAST IRON FLOOR DRAIN. FURNISH COMPLETE WITH "TYPE B" NICKEL BRONZE STRAINER AND 1/2" TRAP PRIMER CONNECTION.
RICB	REFRIGERATOR ICE CONNECTION BOX	–	–	1/2"	–	GUY GRAY MODEL "BIM-875" ICE CONNECTION BOX.
WHA	WATER HAMMER ARRESTOR	–	–	–	–	WATER HAMMER ARRESTOR FOR GANG RESTROOMS SHALL BE EQUAL TO ZURN SHOKTROL MODEL #300, Z1700 SERIES, STAINLESS STEEL.
RD	PRIMARY ROOF DRAIN	–	–	–	–	ZURN MODEL "ZC-100-AC-GD" LACQUERED CAST IRON ROOF DRAIN WITH COMBINATION MEMRANE FLASHING CLAMP/GRAVEL GUARD AND LOW SILHOUETTE CAST IRON DOME. COMPLETE WITH ANGULAR UNDER DECK CLAMP.
OD	OVERFLOW ROOF DRAIN	–	–	–	–	ZURN MODEL "ZC-100-AC-W2-GD" LACQUERED CAST IRON ROOF DRAIN WITH LOW SILHOUETTE CAST IRON DOME, MEMBRANE FLASHING CLAMP AND GRAVEL GUARD, AND INTERNAL 2" WATER DAM COMPLETE WITH ANGULAR UNDER DECK CLAMP.
DS	DOWN SPOUT NOZZLE	–	–	–	–	ZURN MODEL "ZANB-199" NICKEL BRONZE DOWN SPOUT NOZZLE WITH THREADED INLET AND WALL FLANGE.

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PLUMBING SCHEDULES