R.C.P. GENERAL NOTES (14)

RCP1. Refer to General sheets for typical graphic, symbols, abbreviation index, and "Master Keynote" list.

RCP2. Refer to interior elevations for furred down heights U.N.O.

RCP3. Center lay-in acoustical ceiling system in each room with equal tile dimensions on opposite walls unless otherwise noted. Notify architect if any tile abutting the partition is less than 6" in width. Secondary wall angles to support "short" runs will not be accepted.

RCP4. In lay-in acoustical ceilings locate all MEP items not including supply/return air grilles, emergency lighting, sprinkler heads, etc. in center of tile unless otherwise noted.

RCP5. In gypsum board ceilings locate all MEP emergency lighting, sprinkler heads in center of space and equal distant apart from each other unless otherwise noted.

RCP6. Coordinate all MEP ceiling and access panels not shown on the architectural construction documents with architect prior to installation.

RCP7. In exposed ceilings evenly space all fixtures at or below exposed structure or MEP ductwork. Cooridinate with MEP to provide lighting "around" final MEP layout to avoid "dark" spots.

FINISH PLAN GENERAL NOTES (17)

FN1. Refer to General sheets for typical graphic, symbols, abbreviation index, and "Master Keynote" list.

FN2. All horizontal dimensions are provided on plans, and all vertical dimensions are provided on elevations and/or sections unless otherwise noted.

FN3. Enlarged plans indicate interior building dimensions to face of partition material.

FN4. Provide adequate blocking as required at every location where millwork, wall light fixtures, TV brackets, plumbing fixtures, etc., are to be mounted.

FN5. There are items shown, i.e. outlets, switches, thermostats, on the MEP drawings that are not drawn on the architectural plans. Contractor to coordinate and mount all MEP items per Architectural sheet A.730 unless noted otherwise.

FN6. All equipment / areas labeled "ADA" are to be accessible. Refer to Texas Accessibility Guidelines sheet(s) and Standard Mounting Locations & Toilet Room Configuration.

FN7. Provide moisture resistant finish as designated and as required in specifications.

FN8. Provide non-slip surface finish in wet areas.

FN9. Provide finishes as scheduled or selected by architect.

BLDG. / WALL SECTION GENERAL NOTES (15)

S1. Provide adequate blocking as required at every location where millwork, wall light fixtures, TV brackets, plumbing fixtures, etc., are to be mounted. Items are required to resist 250 pound point load.

S2. Refer to finish schedule and plans for all finishes unless noted otherwise.

S3. All custom millwork, if in scope of work, is shown in elevation and designed per designated details. Refer to interior elevations, millwork details, and related specifications divisions for additional information.

S4. All manufacturer casework, if in scope of work, is designated on enlarged floor plans. Refer to casework schedule and related specifications divisions for detailed information. Contractor is to follow the scheduled manufacturer's specifications, instructions, and recommendations unless directed otherwise by the contract manual.

S5. Refer to the equipment schedule for all installed equipment. Equipment is designed on enlarged floor plans.

FLOOR PLAN GENERAL NOTES (13)

FP1. Refer to General sheets for typical graphic, symbols, abbreviation index, Master Keynote list, accessibility Guidelines, etc.

FP2. All horizontal dimensions are provided on plans, and all vertical dimensions are provided on elevations and/or sections U.N.O. All dimensions are to be tied to a column line Contractor will immediately report any omission of dimensions not tied to a column to the Architect prior to start of construction.

FP3. Overall plan indicates exterior building dimensions, room numbers and names, door designations, window designations, exterior elevation designations, exterior plan designations, sign signations, and building section designations. All other plan information is indicated on referenced enlarged plans.

FP4. Enlarged plans indicate interior building dimensions to face of partition material, interior plan detail designations, interior elevation designations, partition type designations, finish designations, and general building material.

FP5. Provide adequate blocking as required at every location where millwork, wall light fixtures, TV brackets, plumbing fixtures, etc., are to be mounted.

FP6. There are items shown, i.e. outlets, switches, thermostats, on the MEP drawings that are not drawn on the architectural plans. Contractor to coordinate and mount all MEP items per Architectural sheet A.730 unless noted otherwise. Coordinate all MEP access panels not shown on architectural construction documents with Architect prior to installation.

FP7. All wood blocking to be Fire Resistant

FP8. Coordinate location of floor/wall mounted receptacles with kneespace locations; re: Millwork/Casework Elevations

FP9. Receptacles mounted above countertops/backsplashes are to be 42" AFF to centerline of coverplate and are to be installed horizontally

FP10. Repair/replace/install and prep/paint to match all existing gyp board surfaces as required from partial demolition of interior surfaces. Repair existing gyp board surfaces displaying deficient condition and prep/paint to match existing adjacent surfaces.

1

RENOVATION GENERAL NOTES (12)

RN1. For all new wall partitions that are placed as part of an existing wall, use same wall construction as existing and patch wall with same material to match existing. New and existing wall shall align.

RN2. Unless noted otherwise all finishes are to match existing conditions.

RN3. Unless noted otherwise all painting of patched or renovated walls is to be from corner to corner and from floor to ceiling.

RN4. Refer to demolition notes and plans for patching and repairing of existing construction.

RN5. Existing finishes to be protected during construction.

RN6. Refer to Demolition Plan for additional related notes.

DEMOLITION GENERAL NOTES (9)

GD1. Visit the site to become familiar with the scope of work and to field verify existing conditions prior to bidding this project. Report any and all discrepancies or ambiguous items to the architect prior to bidding for clarification.

GD2. Note that there are demolition notes on the Consultant's plans, as well as in the plans of other disciplines. Provide all other demolition work required by construction sequencing and means and methods to install the new and remodeled work shown, whether such related and necessary demolition work is specifically noted on these drawings or not.

GD3. Coordinate demolition work with floor plans & site plan. Refer to sections and details for frame types and details at new openings in existing walls.

GD4. Prior to start of demolition, secure from the owner a list of additional existing building or site components to be salvaged such that salvaged components are delivered to the owner in their existing condition.

GD5. The Owner has first rights of salvage of all fixtures, equipment and building materials removed as part of the demolition and not reused in the new construction. Remove all other debris and waste from the site and dispose of properly, in accordance with any applicable federal, state and local regulations.

GD6. Refer to General sheets for typical graphic symbols and abbreviation index.

GD7. Refer to demolition photographs for additional information and guidelines. Photographs are for reference ONLY unless otherwise noted. All photographs are included for Contractor's reference ONLY unless noted otherwise. The photographs are to be used in conjunction with all drawings, both plan and elevations. Information presented on all drawings supercedes any information noted on photographs. It is not the Architect's intent to present the entire scope of work or all built conditions by the use of photographs. It is the responsibility of the Contractor to verify the scope of work and ALL build conditions in the field prior to start of work.

GD8. Refer to specifications Division 1 for further demolition standards and requirements.

GD9. Prior to cutting or altering any opening in an existing wall, footing or roof deck provide shoring, bracing and supports as required to maintain the structural integrity of the building/structure.

GD10. Prior to removing any existing bearing wall provide shoring, bracing and supports required to maintain the structural integrity of the building/structure.

GD11. Provide materials for cutting and patching which will result in equal-or-better work than what was removed. Surface to match existing, U.N.O.

GD12. Existing construction that is being removed shall be removed carefully so as not to damage any existing construction that is to remain. All surfaces surrounding objects being removed are to be repaired and patched (in a rectangular pattern) to match existing conditions and made ready to receive any new finishes where applicable.

GD13. Plumbing lines that are to be removed shall be removed completely or be capped as closed to point of entry in floor or wall as possible, if removal is not possible. Patch floors and walls to match existing conditions.

GD14. Where existing flooring, ceilings or wall finishes are to be removed and replaced with new finishes the surfaces to remain shall be stripped clean of all existing finishes and made ready to receive new finishes.

GD15. Floor finishes being replaced shall be completely removed, and the floor cleaned and properly prepared prior to installation of new finish material. Inspect all floors that receive new finishes to assess existing conditions prior to commencement of construction. Patch, fill and strip floor as required, to provide a smooth, durable surface free of burrs and adhesive and suitable for application of new finish material. Under cut doors as required to accommodate new floor finishes.

GD16. Where new concrete topping is poured over existing concrete slab: bush hammer existing concrete finish for better bond.

GD17. Where existing door openings are to be sealed: remove frame and patch wall with the same material and finish as the existing construction. New and existing wall shall align.

GD18. Where light fixtures are being removed or replaced, ceiling surfaces shall be cleaned, repaired and patched to match the adjacent surfaces prior to installation of new light fixtures.

GD19. Where door frames are to remain, repair frame-fill hinge pocket and all holes in frame to create finished case opening. Clean, sand smooth and paint frame to match existing door frames.

GD20. Remove floor slab as required for new fixtures. Patch and repair slab to match existing.

MASTER KEY NOTES (1)

Scope of Work Summary

1.01 Area of construction
1.02 Generator to be modified, relocated to within the existing metal building. Re: Mech/Elec drawings for add'l info.
1.03 Contractor to selectively demolish/partially remove existing metal building exterior wall and roof panels as required to relocate (2) existing generators to the interior of the building. Contractor to determine sequence of work determined by coordination with Owner's security requirements. Re: mechanical/electrical & structural for additional reqmt's.
1.04 Contractor to determine means, methods & construction scheduling to relocate existing generators from side yard locations to interior of the existing building under the parameters laid out in the construction drawings and per the Owner security requirements. The fuel storage anks to be relocated by means and methods determined by the contractor. Re: mechanical & electrical drawings for the specifications of the existing generators and the associated fuel tanks.
1.05 Existing wood deck and support planks at existing generator locations to be removed from site.

Demolition

D2.01 Area of limited slab removal; re: Structural
D2.02 Remove existing door & frame in its entirety. Re: demo elevations for add'l information
D2.03 Contractor to remove existing metal panel & interior framing/gyp. bd. as required for new louvered openings, as well as installation of subgrade concrete work and installation of relocated generators. Re: demo elevations for extent of removal. Upon removal of the exterior wall, general contractor to verify & determine the means and methods of metal building construction components and communicate existing construction to architect for verification of wall/louver installation.
D2.04 Prior to demo/removal of exterior wall panels, remove as required the unistrut bracing/supports of the overhead electrical conduit and provide temporary support during reconfiguration/installation of new louvers and exterior wall panels.
D2.05 Existing roof top unit to be removed in its entirety. Refer to MEP for additional information.
D2.06 Remove existing metal roof panels adjacent to nearest whole panel and salvage for reuse. Included in removal are the panels at the eave and ridge of the roof. Contractor to determine exact extent of removal required.
D2.07 Remove existing supply & return ducts to existing roof top unit in their entirety. Also, remove existing gyp. bd. ceiling as required adjacent to ducts to allow for duct removal. Prep area for installation of new channels and supports for new interior painted gyp. board finish at ceiling.
D2.08 Remove/reinstall existing ceiling hung lighting. Elevate to allow for clearance of generator installation.
D2.09 Remove/reinstall existing galvanized guardrail as required.
D2.10 Remove/Relocate/Reconfigure existing battery racks, associated electrical panel and overhead electrical duct/conduit and supports. Re: Electrical. Owner to relocate battery packs per maintenance schedule. Coordinate with Owner.
D2.11 Remove existing ceiling assembly as required for opening to allow for installation of generator through the roof.
D2.12 Location of roof gutter. Flash in new metal roof panels as required.
D2.13 Provide removal of existing electrical switch gear per electrical drawing.
D2.14 Existing overhead electrical/mechanical equipment adjacent to area work required for removal of supply/return duct at RTU. Contractor to acknowledge work area parameters prior to bid.
D2.15 Remove existing floor drain. Re: MEP
D2.16 Remove existing interior wall louver.
D2.17 Remove existing gyp. bd. from existing stud partition.

Concrete

3.01 Location of concrete slab infill from demo'd slab location. Re: Structural
3.02 Location of new concrete generator pad, Re: Structural

Metals

5.01 Reinstalled/new galvanized metal guardrail.
5.02 New galvanized guardrail, platform and stairs. Re: Structural

Wood & Plastics

6.01 Shim as required
6.02 Continuous 2x treated wood blocking
6.03 ¾" Plywood sheathing

Thermal & Moisture Protection

7.01 Full cavity thickness R-19 batt insulation
7.02 Sealant and backer rod
7.03 Install new exterior fastener metal panels. Verify manufacturer's profile panel to be reinstalled. Panel is similar is configuration to the Berridge 36" wide "R" panel. Match color/finish based on manufacturer's standard color selections.
7.04 Existing gutter to remain. Tie-in new metal panel to eave as required.
7.05 Reinstall salvaged roof panels.
7.06 Install new SMART VENT insulated flood vent #1540-520. Install 8" to bottom of vent above finish floor. 1

Doors & Windows

8.01 New door and frame
8.02 New intake/exhaust louver. Re: MEP for opening requirements.
8.03 Threshold, set in full bed of butyl sealant

Finishes

9.01 ⅝" gyp. bd on ⅞" hat channels attached to existing overhead structure. Prep, prime, paint.
9.02 1-5/8" metal studs at 16' O.C. Maximum
9.03 2-1/2" metal studs at 16" O.C. Maximum
9.04 3-5/8" metal studs at 16" O.C. Maximum
9.05 5/8" Type X gypsum board
9.06 5/8" cementitious backing board
9.07 Existing/reinstalled ceiling to be left bare from installation of generator. Prep steal structure for painted finish, paint. 1
9.08 New painted finish at partition.
9.09 Install exterior walls as required for structural engineer. Paint exposed steel surfaces.

Specialties

10.01 Galvanized steel frame catwalk, stair and handrail.

Mechanical

15.01 Refer to MEP drawings for coordination and additional overhead mechanical requirements.
15.02 Relocated day tank, re: Mechanical
15.03 Relocated fuel tank, re: Mechanical
15.04 Fire damper, re: Mechanical
15.06 Fan, re: Mechanical

Electrical

16.01 Relocated, elevated generator, re: Electrical.
16.02 Relocated light fixture. Install @ 13'-0" AFF. re: Electrical.
16.03 Refer to MEP drawings for coordination and add'l overhead electrical requirements.
16.04 Existing overhead electrical conduit to be braced/supported during demo of metal wall panels and and installation of new louver assembly.
16.05 Battery storage racks, re: Electrical.
16.06 ATS Equipment, re: Electrical.

NOTE:
Reference this sheet if key note is missing from any following sheets.
Not all notes are used in this project

ISSUE LOG

NO.	DATE	DESCRIPTION
1	04.13.2012	BID AND PERMIT
2	08.31.2012	BID & PERMIT RESUBMIT

CONSULTANT(S) :

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3535 Briarpark Dr, Suite 200
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Contact: David Darby, PE

Architectural Brave/Architecture
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Houston, TX 77006
V: 713.524.5858
F: 713.524.5868
B/A Project #: 11172
Contact: Greg Ryden, AIA

Structural CJG Engineers
3200 Wilcrest Dr, Suite 305
Houston, TX 77042
V: 713.780.3345
Contact: Hunter Kornegay, PE

SEAL(S) :

REGISTERED ARCHITECT GREGORY R. RYDEN 21843 STATE OF TEXAS

07.31.2012

PROJECT NAME :
City of Houston
Emergency Generator Relocation
62 Riesner
Houston,TX 77002

CITY OF HOUSTON
GENERAL SERVICES DEPARTMENT

REVIEWED :
PROGRAM MANAGER
SPONSORING DEPARTMENT
PROJECT MANAGER

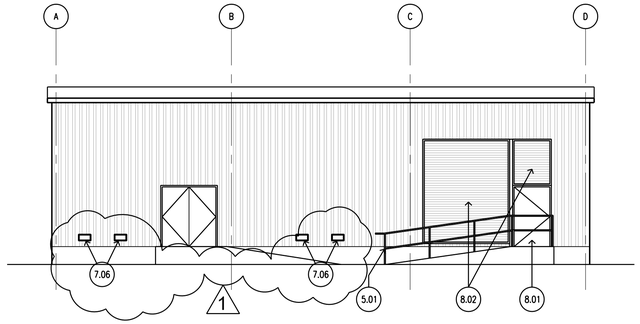
DATE :
G.F.S. No :
SCALE :
DRAWN BY :
CHECKED BY :

SHEET TITLE :
GENERAL & KEYED NOTES

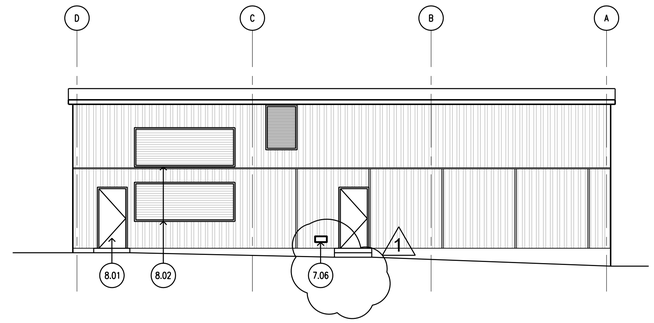
SHEET NO. :
G.050

CITY DWG. NO. :

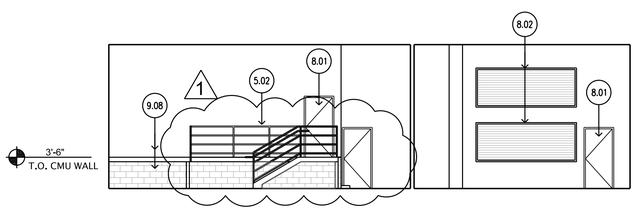
CAD FILE :



EAST ELEVATION 1/8" = 1' 16

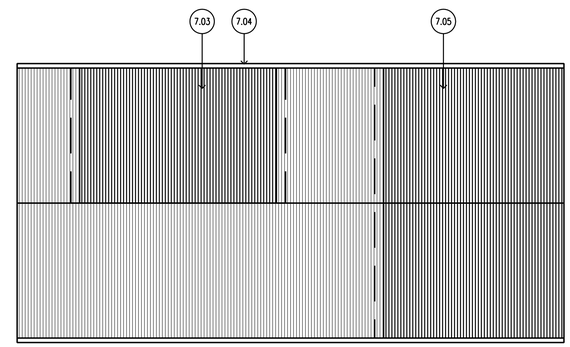


WEST ELEVATION 1/8" = 1' 8

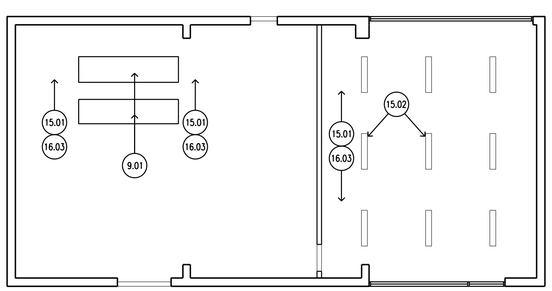


NOTE: GENERATORS, SUPPORT AND PLATFORM NOT SHOW FOR CALRITY.

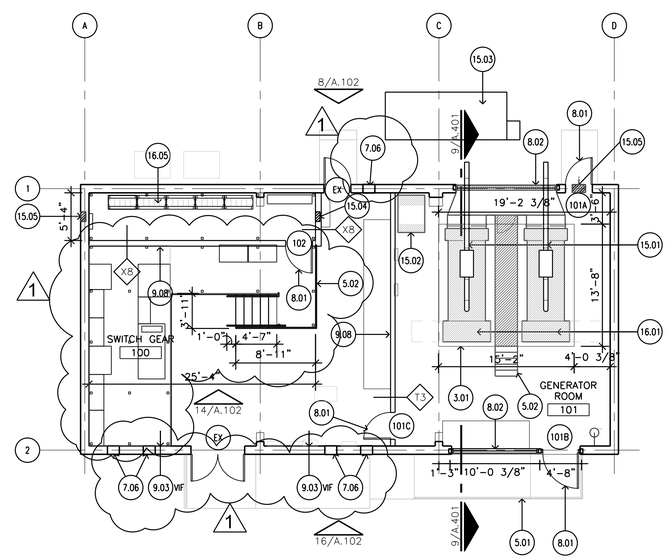
INTERIOR ELEVATION 1/4" = 1' 14



ROOF PLAN 1/8" = 1' 6



CEILING PLAN 1/4" = 1' 13



FLOOR PLAN 1/8" = 1' 5

Concrete

3.01 Location of concrete slab infill from demo'd slab location. Re: Structural
3.02 Location of new concrete generator pad, Re: Structural

Metals

5.01 Reinstalled/new galvanized metal guardrail.
5.02 New galvanized guardrail, platform and stairs. Re: Structural

Wood & Plastics

6.01 Shim as required
6.02 Continuous 2x treated wood blocking
6.03 ¾" Plywood sheathing

Thermal & Moisture Protection

7.01 Full cavity thickness R-19 batt insulation
7.02 Sealant and backer rod
7.03 Install new exterior fastener metal panels. Verify manufacturer's profile panel to be reinstalled. Panel is similar is configuration to the Berridge 36" wide "R" panel. Match color/finish based on manufacturer's standard color selections.
7.04 Existing gutter to remain. Tie-in new metal panel to eave as required.
7.05 Reinstall salvaged roof panels.
7.06 Install new SMART VENT insulated flood vent #1540-520. Install 8" to bottom of vent above finish floor.

Doors & Windows

8.01 New door and frame
8.02 New intake/exhaust louver. Re: MEP for opening requirements.
8.03 Threshold, set in full bed of butyl sealant

Finishes

9.01 ⅝" gyp. bd on ⅞" hat channels attached to existing overhead structure. Prep, prime, paint.
9.02 1-5/8" metal studs at 16" O.C. Maximum
9.03 2-1/2" metal studs at 16" O.C. Maximum
9.04 3-5/8" metal studs at 16" O.C. Maximum
9.05 5/8" Type X gypsum board
9.06 5/8" cementitious backing board
9.07 Existing/reinstalled ceiling to be left bare from installation of generator. Prep steal structure for painted finish, paint.
9.08 New painted finish at partition.
9.09 Install exterior walls as required for structural engineer. Paint exposed steel surfaces.

Specialties

10.01 Galvanized steel frame catwalk, stair and handrail.

Mechanical

15.01 Refer to MEP drawings for coordination and additional overhead mechanical requirements.
15.02 Relocated day tank, re: Mechanical
15.03 Relocated fuel tank, re: Mechanical
15.04 Fire damper. re: Mechanical
15.06 Fan. re: Mechanical

Electrical

16.01 Relocated, elevated generator, re: Electrical.
16.02 Relocated light fixture. Install @ 13'-0" AFF. re: Electrical.
16.03 Refer to MEP drawings for coordination and add'l overhead electrical requirements.
16.04 Existing overhead electrical conduit to be braced/supported during demo of metal wall panels and and installation of new louver assembly.
16.05 Battery storage racks. re: Electrical.
16.06 ATS Equipment. re: Electrical.

KEY NOTES 1

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SEAL(S) :

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8-31-2012

PROJECT NAME :

City of Houston
Emergency Generator Relocation
62 Riesner
Houston,TX 77002

CITY OF HOUSTON
GENERAL SERVICES DEPARTMENT

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PROGRAM MANAGER
SPONSORING DEPARTMENT
PROJECT MANAGER

DATE :
G.F.S. No :
SCALE : AS NOTED
DRAWN BY :
CHECKED BY :

SHEET TITLE :

FLOOR PLAN, ELEVATIONS, & SECTIONS

SHEET NO. :

A.102

CITY DWG. NO. :

CAD FILE :

DATA:RA-S: D:\ASBRMONS

DOOR & FRAME SCHEDULE

DOOR & FRAME SCHEDULE

DOOR NO.	DOORS						FRAME			HDW GROUP	SIGN TYPE	REMARKS
	TYPE	MATL	THK.	FN	SIZE W	SIZE H	MATL	FN	TYPE			
101A	A	SC	1-3/4"	PL.1	3'-0"	8'-6"		PT.2	A	2		
101B	A	SC	1-3/4"	PL.1	3'-0"	8'-6"		PT.2	A	2	A	
101C	A	SC	1-3/4"	PL.1	3'-0"	8'-6"		PT.2	B	3		
102	A	SC	1-3/4"	PL.1	3'-0"	8'-6"		PT.2	B oph	3	A	
EX	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	PT.3	EXIST	1		

1

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DOOR & FRAME SCHEDULE 4

DOOR HARWARE

HW SET: 1
DOOR: EX

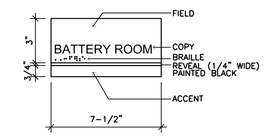
REUSE EXISTING

HW SET: 2
DOORS: 101A & 101B

EACH TO HAVE:
3 EA HINGE 5BB1 4.5 X 4.5 NRP 630 IVE
1 EA STOREROOM LOCK L9080L X MATCH EXISTING TRIM 626 SCH
1 EA MORTISE CYLINDER 1E74 X REQD CAM X REQD LG 626 BES
1 EA SURFACE CLOSER SC81 SS/HO 689 FAL
1 EA KICK PLATE 8400 10" X 2" LDW 626 IVE
1 SET SEALS 5050B BRN NGP
1 EA DOOR SWEEP 101VA CL NGP
1 EA DRIP CAP 16A CL NGP
1 EA THRESHOLD 896V AL NGP

HW SET: 3
DOOR: 101C & 102

EACH TO HAVE:
3 EA HINGE 5BB1 4.5 X 4.5 652 IVE
1 EA STOREROOM LOCK L9080L 803A/03A (OR MATCH EXISTING TRIM) X EE 626 SCH
1 EA MORTISE CYLINDER 1E74 X REQD CAM X REQD COLLAR X REQD LG 626 BES
1 EA SURFACE CLOSER 1461 689 LCN
1 EA DOOR STOP WS402CCV/FS436 AS REQ'D 626 IVE
3 EA SILENCER SR64 GRY IVE



TYPE A

	FINISH MARK	ITEM	MANUFACTURER	MANU. NUMBER	MANU. NAME	FINISH	FIRE RATING	NOTE(S):
PAINT	PT.1	GYP. BOARD	DULUX/GLIDDEN	MATCH EXIST	–	SATIN	–	
	PT.2	DOORS & FRAMES	DULUX/GLIDDEN	MATCH EXIST	–	SEMI GLOSS	–	

GENERAL NOTES:

A. MATCH ALL NEW MATERIALS SCHEDULED TO BE INSTALLED TO SIMILAR EXISTING MATERIALS.

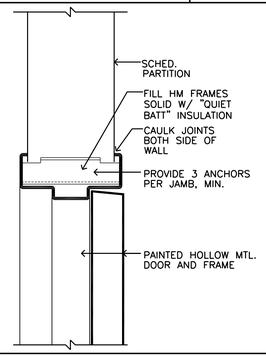
1

NOT USED

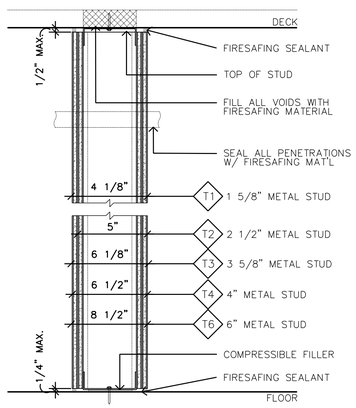
FINISH SCHEDULE 11

HARDWARE 7

INTERIOR SIGN TYPES 3



DOOR JAMB DETAIL 3" = 1'-0" 18

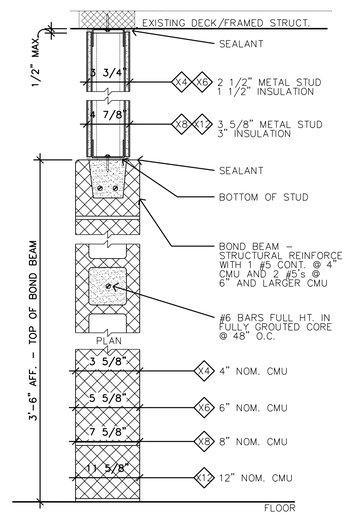


PARTITION TYPE "T" (TWO (2) HOUR FIRE RATING)

25ga. METAL STUDS @ 16" O.C. WITH TWO (2) LAYER OF 5/8" THICK GYPSUM BOARD EACH SIDE.

PARTITION TYPE	UNBRACED LIMITING HT.
T1	8'-3"
T2	10'-9"
T3	13'-6"
T4	14'-3"
T6	15'-0"

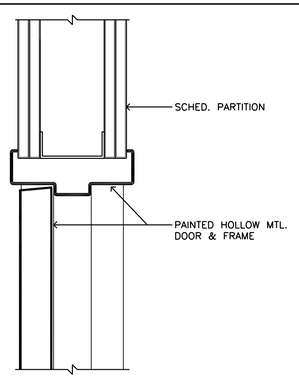
FIRE RATING @ DESIGNATED PARTITIONS. REFER TO PLANS
NOTE:
PARTITION FIRE RATING IS BASED ON UL DESIGN NO. U906. CONTRACTOR TO ADHERE TO UL DESIGN STANDARDS AT ALL TIMES.



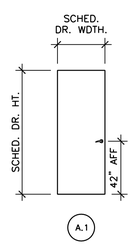
PARTITION TYPE "X"

CONCRETE MASONRY UNIT WALL WITH HORIZONTAL JOINT REINFORCING AT 16" O.C. VERTICAL

25ga. METAL STUDS @ 16" O.C. WITH ONE (1) LAYER OF 5/8" THICK GYPSUM BOARD ONE SIDE.

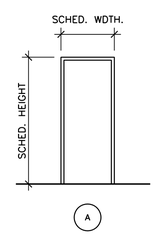


DOOR HEADER DETAIL 3" = 1'-0" 17



SOLID CORE WOOD DOOR

DOOR TYPES 13



HOLLOW METAL FRAME

FRAME TYPES 9

PARTITION DETAIL "T" 1-1/2" = 1'-0" 5

PARTITION DETAIL "X" 1-1/2" = 1'-0" 1

SEAL(S) :

REGISTERED ARCHITECT JOHN K. WINDER #11949 STATE OF TEXAS 08-31-2012

PROJECT NAME :
City of Houston
Emergency Generator Relocation
62 Riesner
Houston,TX 77002

CITY OF HOUSTON
GENERAL SERVICES DEPARTMENT

REVIEWED :

PROGRAM MANAGER | SPONSORING DEPARTMENT

PROJECT MANAGER

DATE :
G.F.S. No :
SCALE : AS NOTED
DRAWN BY :
CHECKED BY :

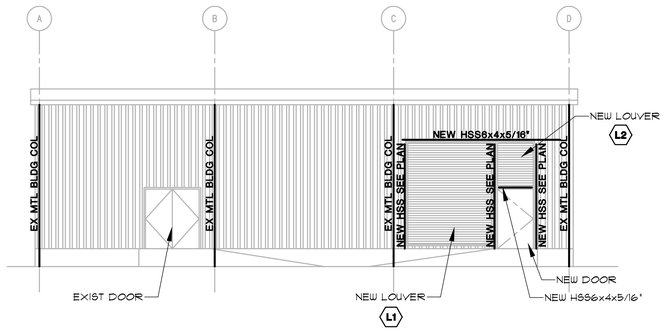
SHEET TITLE :
DOOR & HARDWARE SCHEDULES & PARTITION TYPES

SHEET NO. :
A.820

CITY DWG. NO. :

CAD FILE :

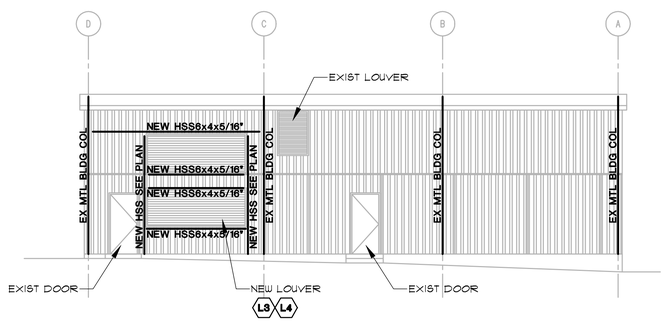
DWG/BA-SP, DD/SBMMONS



COORDINATE LOUVERS WITH MECHANICAL DRAWINGS AND SUPPLIER

2 EAST ELEVATION

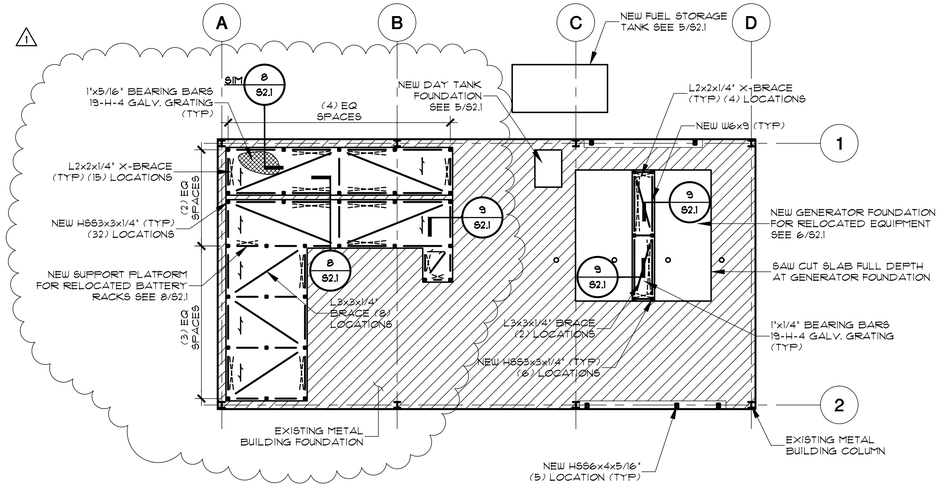
SCALE:3/4" = 1'-0"



COORDINATE LOUVERS WITH MECHANICAL DRAWINGS AND SUPPLIER

1 WEST ELEVATION

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



NORTH

FOUNDATION PLAN

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

ISSUE LOG		
NO.	DATE	DESCRIPTION
	04.13.2012	BID AND PERMIT
1	08.23.2012	PERMIT COMMENTS

CONSULTANT(S) :

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HUNTER KORNEGAY
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08/23/2012

PROJECT NAME :
City of Houston
Emergency Generator Relocation
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Houston,TX 77002

CITY OF HOUSTON
GENERAL SERVICES DEPARTMENT

REVIEWED :

PROGRAM MANAGER — SPONSORING DEPARTMENT

PROJECT MANAGER

DATE : 04/13/2012
G.F.S. No :
SCALE : AS NOTED
DRAWN BY : JG
CHECKED BY : HK

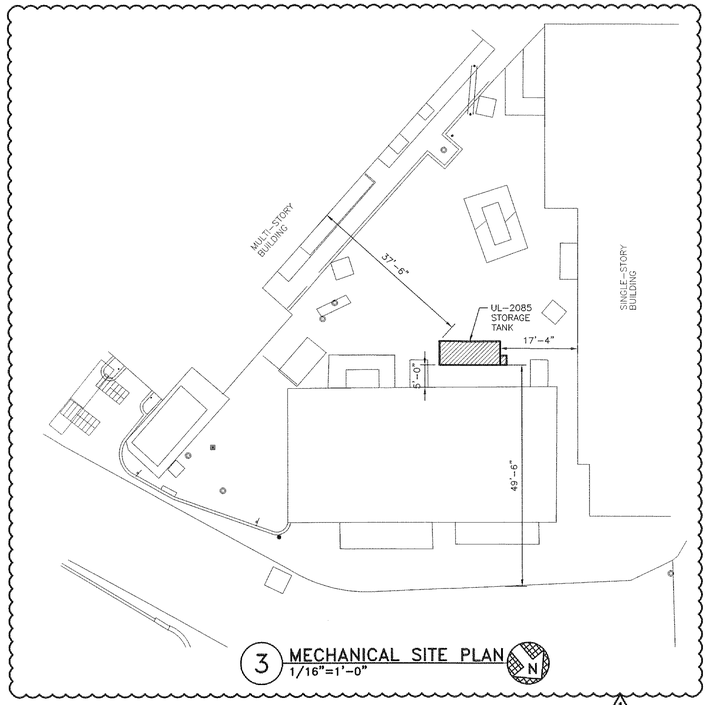
SHEET TITLE :
FOUNDATION PLAN & ELEVATIONS

SHEET NO. :
S1.1

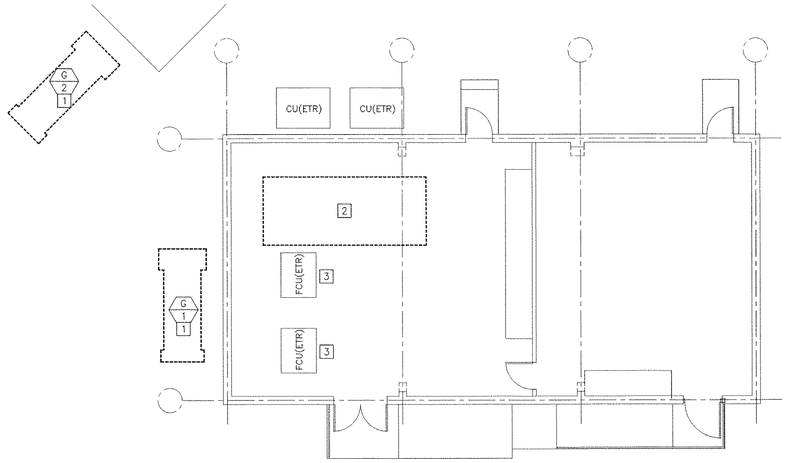
2121011

CITY DWG. NO. :

CAD FILE :



3 MECHANICAL SITE PLAN
1/16"=1'-0"

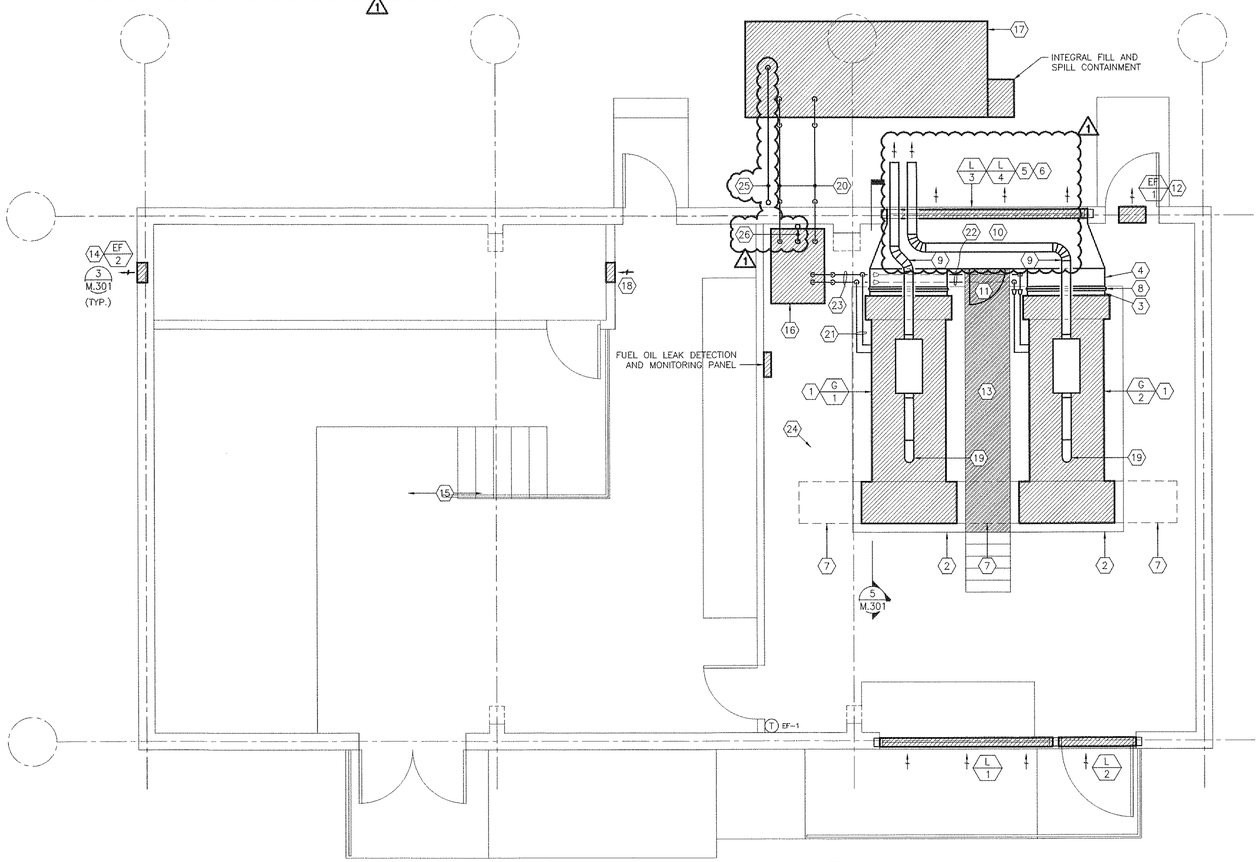


1 MECHANICAL DEMOLITION PLAN
1/8"=1'-0"

MECHANICAL PLAN NOTES:

1. DISASSEMBLE WEATHER ENCLOSURE, DRAIN ALL FUEL FROM BLADDER TANK, AND BORE LARGE HOLES IN TANK TO PREVENT FUTURE STORAGE OF FUEL INSIDE BUILDING. RELOCATE GENERATOR TO LOCATION SHOWN IN 2/M.101.
2. REMOVE ABANDONED RTU AND PATCH ROOF. RE: ARCH.
3. EXISTING FCU TO REMAIN. RELOCATE AND EXTEND REFRIGERANT PIPING AS NECESSARY TO ACCOMMODATE NEW BATTERY ENCLOSURE.

CONTRACTOR TO COORDINATE SPECIFIC PHASING OF INSTALLATION TO PROVIDE AS LITTLE DOWNTIME AS POSSIBLE. PERFORM AS MUCH FRONT END INSTALLATION WORK AS POSSIBLE, THEN HAVE TEMPORARY GENERATOR PROVIDED BY GSD DELIVERED AND GET FULLY OPERATIONAL. DECOMMISSION FIRST GENERATOR AND RELOCATE PER PLANS. WITH TEMPORARY GENERATOR STILL IN OPERATION, DECOMMISSION SECOND GENERATOR AND RELOCATE. DISCONNECT AND RETURN TEMPORARY GENERATOR ONCE ALL FUNCTIONAL TESTING HAS BEEN PERFORMED ON PERMANENT INSTALLATION OF GENERATORS AND ALL APPERTUNCES.



2 MECHANICAL FLOOR PLAN
SCALE: 1/4"=1'-0"

MECHANICAL PLAN NOTES:

1. RELOCATE GENERATOR TO LOCATION SHOWN. BOTTOM OF GENERATOR TO BE 3'-6" AFF. RE: STRUCTURAL FOR SUPPORT AND ANCHORING DETAILS.
2. PROVIDE CONCRETE EQUIPMENT BASE 6" LARGER THAN GENERATOR FOOTPRINT. RE: STRUCTURAL FOR PAD DETAILS.
3. PROVIDE 3 INCH LONG DUCT TO MATCH HEAT EXCHANGER DISCHARGE DIMENSION (APPROXIMATELY 52x52). PROVIDE WITH FLANGE FOR CONNECTION TO HEAT EXCHANGER. TYPICAL FOR BOTH GENERATORS.
4. GALVANIZED DUCT TO DISCHARGE PLENUM. APPROXIMATE SIZE IS 52x46. TYPICAL FOR BOTH GENERATORS.
5. DISCHARGE LOUVER AND BIRD SCREEN. BOTTOM OF L-3 AT 3'-0" AFF. BOTTOM OF L-4 AT 9'-2" AFF.
6. MAINTAIN 25 FEET SEPARATION BETWEEN DISCHARGE AND NEAREST OUTSIDE AIR INTAKE. REPORT ANY DISCREPANCY TO ENGINEER.
7. MAINTAIN 42 INCHES CLEAR (PER NEC).
8. PROVIDE FLEXIBLE CONNECTION RATED FOR 250° F. TYPICAL FOR BOTH GENERATORS.
9. BLACK-IRON EXHAUST PIPE THROUGH WALL. PROVIDE INSULATION ON EXHAUST PIPE AND PROVIDE DRAIN AT LOW POINT. ~~SUPPORT EXHAUST PIPE FROM STRUCTURE ABOVE. BOTTOM OF VENT TO BE 12' ABOVE GRADE.~~ DISCHARGE TO BE 10' MINIMUM ABOVE GRADE AND 10' MINIMUM FROM BUILDING OPENINGS.
10. PROVIDE HIGH TEMPERATURE GALVANIZED SHEET METAL PLENUM ENCOMPASSING BOTH DISCHARGE LOUVERS AND SEAL AIRTIGHT. SLOPE BOTTOM OF PLENUM DOWN TOWARDS BOTTOM OF LOWER LOUVER. PROVIDE SHEET METAL CAP FOR INTERMEDIATE SECTION OF WALL ON INTERIOR OF PLENUM.
11. PROVIDE 30" HINGED ACCESS DOOR IN PLENUM WITH DOUBLE LATCH CLOSURE ASSEMBLY.
12. MOUNT BOTTOM OF SIDEWALL PROPELLER FAN AT 13'-6" AFF. FAN TO BE ENERGIZED UPON SPACE TEMPERATURE REACHING 95 DEGREES. PROVIDE CONTROL RELAY TO DISABLE FAN UPON EITHER GENERATOR'S START SEQUENCE BEING ENABLED.
13. SUPPORT STEEL SERVICE PLATFORM FROM GENERATOR STRUCTURE. PROVIDE STAIRS AND HANDRAILS PER CODE. RE: STRUCTURAL AND ARCHITECTURAL PLANS FOR DETAILS.
14. MOUNT BOTTOM OF SIDEWALL PROPELLER FAN AT 14'-4" AFF. FAN TO RUN CONTINUOUSLY. PROVIDE AUDIBLE AND VISUAL ALARM UPON FAN FAILURE.
15. EXISTING HVAC UNITS TO REMAIN IN OPERATION IN UPS ROOM. ENSURE ALL UNITS ARE OPERATING CORRECTLY AND CLEAN OF ANY CONSTRUCTION DEBRIS.
16. PROVIDE 200 GALLON DAY TANK WITH DUPLEX PUMPS AND ASSOCIATED ACCESSORIES. TOTAL PUMPING CAPACITY REQUIRED IS 10 GPM AT FULL LOAD. PROVIDE A 7 GPM PRIMARY PUMP AND A 4 GPM SECONDARY PUMP, BOTH WITH HIGH LIFT GEAR AND 480/3 PHASE MOTOR. COORDINATE HP REQUIREMENTS WITH ELEC PRIOR TO INSTALLATION. BASIS OF DESIGN: E&CA MODEL DT200ULD, OR EQUIVALENT MEETING ALL AHJ REQUIREMENTS. ANCHOR TO HOUSEKEEPING PAD WITH UPLIFT PROTECTION. RE: STRUCTURAL FOR PAD AND DETAILS. RE: 5/M.302 FOR ALL ACCESSORIES AND PIPING SCHEMATIC.
17. PROVIDE 2,000 GALLON UL-2085 RATED DIESEL STORAGE TANK WITH ALL ACCESSORIES SPECIFIED. BASIS OF DESIGN IS GENERAL INDUSTRIES, 2,000 GALLON THERMALLY INSULATED RECTANGULAR (FIREGUARD) STORAGE TANK. ANCHOR TO HOUSEKEEPING PAD WITH UPLIFT PROTECTION. RE: STRUCTURAL. MAINTAIN MINIMUM 25' SEPARATION FROM ADJACENT MULTI-STORY BUILDING AND 5' MINIMUM FROM SINGLE STORY STRUCTURES MADE OF NON-COMBUSTIBLE MATERIALS. RE: 1 & 2 M.302 FOR ALL ACCESSORIES AND PIPING SCHEMATIC.
18. PROVIDE 12x12 FIRE DAMPER 1'-0" AFF OF BATTERY ROOM. RE: 4/M.301.
19. RECONNECT EXHAUST MANIFOLD AND DUAL FLEXIBLE CONNECTOR TO GEN SET.
20. 2" TRANSFER SUPPLY AND RETURN PIPE FROM STORAGE TANK TO DAY TANK. SLOPE PIPE DOWN TOWARDS STORAGE TANK. PROVIDE TRANSITIONS TO TANK CONNECTIONS AS REQUIRED. RE: SHEET M.302 FOR SCHEMATICS AND ACCESSORIES. RE: 3/M.302 FOR SUPPORT DETAIL.
21. ROUTE 3/4" FUEL OIL SUPPLY AND RETURN LINES ABOVE GENERATOR STRUCTURE. TYPICAL BOTH GENERATORS. RE: SHEET M.302 FOR SCHEMATICS AND ACCESSORIES.
22. ROUTE 1" FUEL OIL SUPPLY AND RETURN LINES BENEATH RADIATOR DISCHARGE PLENUMS.
23. 1-1/4" FUEL OIL SUPPLY AND RETURN AIR LINES.
24. REMOVE FLOOR DRAIN BODY AND CAP PIPE WITH LIQUID TYPE CONSTRUCTION. PATCH SLAB TO LEAVE SMOOTH AND LEVEL SURFACE. TYPICAL ALL EXISTING FLOOR DRAINS IN GENERATOR ROOM.
25. ROUTE VENT OVER TO WALL AND UP TO MINIMUM OF 12' ABOVE GRADE.
26. ROUTE VENT UP THRU ROOF AND TERMINATE MINIMUM OF 12' ABOVE GRADE.

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EXPIRES 09/30/12

ISSUE LOG

NO.	DATE	DESCRIPTION
1	04.13.2012	BID AND PERMIT
2	08.31.2012	CITY COM./BID ADD.

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Contact: Greg Ryden, AIA

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SEAL(S) :

STATE OF TEXAS
DAVID R. DARBY
97514
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8/8/12

PROJECT NAME :
City of Houston
Emergency Generator Relocation
62 Riesner
Houston,TX 77002

CITY OF HOUSTON
GENERAL SERVICES DEPARTMENT

REVIEWED :
PROGRAM MANAGER
SPONSORING DEPARTMENT
PROJECT MANAGER

DATE :
G.F.S. No :
SCALE : NONE
DRAWN BY : RS
CHECKED BY : DD

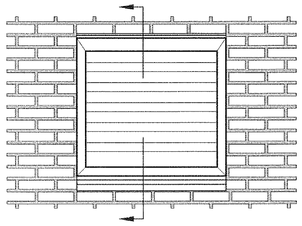
SHEET TITLE :
MECHANICAL FLOOR PLANS

SHEET NO. :
M.101

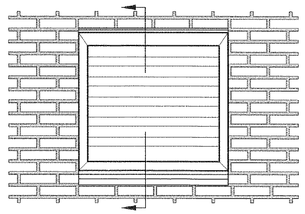
CITY DWG. NO. :

CAD FILE :

DAVID R. DARBY



1 INTAKE LOUVER INSTALLATION DETAIL
NO SCALE



NOTES:
1. SEAL ALL JOINTS AND SEAMS OF PLENUM TO PROVIDE WATER TIGHT CONSTRUCTION.
2. MINIMUM DEPTH OF PLENUM SHALL BE 30".

2 EXHAUST LOUVER INSTALLATION DETAIL
NO SCALE

FAN SCHEDULE

MARK	SERVICE (EA, RA, SA)	MANUFACTURER	MOUNTING	MODEL	CFM	ESP (IN)	DRIVE (BELT/DIRECT)	MIN. HP	FAN RPM	VFD (Y/N)	ELECTRICAL V/PH	ELECTRICAL DISC. TYPE	ELECTRICAL STARTER TYPE	NOTES
EF-1	EA	GREENHECK	SIDEWALL	SE1-12-432-D	700	0.4	DIRECT	1/7	1,550	N	115/60	NF	ATL	A, B
EF-2	EA	GREENHECK	SIDEWALL	SE1-8-440-G	150	0.2	DIRECT	1/50	1,350	N	115/60	NF	ATL	A

MODEL NUMBERS SHALL NOT BE CONSIDERED COMPLETE AND MATERIAL SHALL NOT BE ORDERED BY MANUFACTURER AND MODEL NUMBERS ONLY. REVIEW THE COMPLETE DESCRIPTION, NOTES AND SPECIFICATIONS TO DETERMINE THE EXACT MATERIAL AND ACCESSORIES TO BE ORDERED. THE MANUFACTURERS LISTED ARE THE BASIS FOR THE DESIGN.

NOTES:

A. DIVISION 16 CONTRACTOR TO FURNISH DISCONNECT SWITCH.
B. PROVIDE MANUFACTURERS ROOM MOUNTED ADJUSTABLE DIAL THERMOSTAT.

EMERGENCY GENERATOR SCHEDULE (EXISTING TO BE RELOCATED)

MARK	MANUFACTURER	MODEL	FUEL SYSTEM SUPPLY LINE (IN.)	FUEL SYSTEM RETURN LINE (IN.)	FUEL SYSTEM MAX. LIFT (FT.)	FUEL SYSTEM FUEL FLOW (GPH)	FUEL SYSTEM FUEL CONSUMPTION AT 100% LOAD (GPH)	FUEL SYSTEM FUEL TYPE	RADIATOR SYSTEM COOLING AIR (CFM)	RADIATOR SYSTEM TSP (IN. W.C.)	RADIATOR SYSTEM FAN (HP)	COMBUSTION AIR (CFM)	NOTES
G-1	DETROIT DIESEL/MTU	600DS-4, 60 HZ	0.75	0.75	6.8	280	44.8	#2 DIESEL	28,200	0.5	42	2,140	A, B, C
G-2	DETROIT DIESEL/MTU	600DS-4, 60 HZ	0.75	0.75	6.8	280	44.8	#2 DIESEL	28,200	0.5	42	2,140	A, B, C

NOTES:

A. GENERATOR IS EXISTING TO BE RELOCATED. OBTAIN O&M MANUAL FROM OWNER FOR MANUFACTURER'S RECOMMENDED INSTALLATION INSTRUCTIONS.
B. GENERATOR IS UL 2200 LISTED, COMPLIES WITH ISO 8528-5, AND IS EPA CERTIFIED.
C. EXISTING 13' (L) x 5' (W) x 4' (T) BELLY TANK TO BE DRILLED OUT PER PLAN NOTES SO THAT NO FUEL CAN BE STORED WITHIN THE BUILDING.

1

LOUVER SCHEDULE

MARK	SERVICE	MANUFACTURER	MODEL	SIZE (W" x H")	CFM	MIN. FREE AREA (SF)	MAX. VEL. (FPM)	MAX. P.D. (IN. W.C.)	NOTES
L-1	INTAKE	GREENHECK	EHH-601	116" x 154"	50,980	64.6	850	0.15	A – C
L-2	INTAKE	GREENHECK	EHH-601	52" x 66"	9,700	11.6	850	0.15	A – C
L-3	EXHAUST	GREENHECK	FSJ-602	134" x 52"	32,980	22.6	1,380	0.3	A – C
L-4	EXHAUST	GREENHECK	FSJ-602	134" x 46"	27,700	19.3	1,380	0.3	A – C

MODEL NUMBERS SHALL NOT BE CONSIDERED COMPLETE AND MATERIAL SHALL NOT BE ORDERED BY MANUFACTURER AND MODEL NUMBERS ONLY. REVIEW THE COMPLETE DESCRIPTION, NOTES AND SPECIFICATIONS TO DETERMINE THE EXACT MATERIAL AND ACCESSORIES TO BE ORDERED. THE MANUFACTURERS LISTED ARE THE BASIS FOR THE DESIGN.

NOTES:

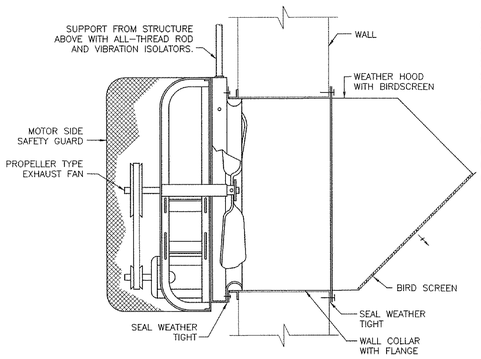
A. PROVIDE 1/2" ALUMINUM BIRD SCREEN.
B. PROVIDE ANODIZED FINISH. COLOR AS SELECTED BY ARCHITECT.
C. FRAME TYPE SHALL MATCH WALL CONSTRUCTION, COORDINATE WITH ARCHITECT.

FUEL STORAGE ALLOWED

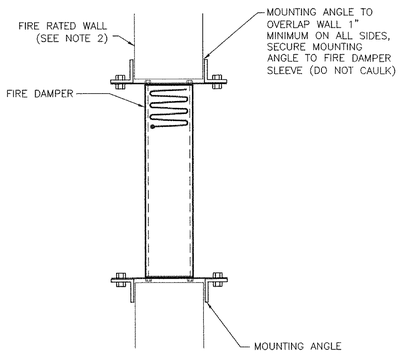
MATERIAL	CLASS	LIQUID GALLONS (ALLOWED)	APPLICABLE MULTIPLIERS	TOTAL GALLONS (ALLOWED)	LIQUID GALLONS (STORED)	H GROUP REQUIRED (Y/N)	NOTES
COMBUSTIBLE LIQUID	II	120	100%	240	200	N	A, B

A. VALUES TAKEN FROM TABLE 307.1(1) OF THE 2006 IBC.
B. NOTE E OF TABLE DICTATES A MAXIMUM ALLOWABLE STORAGE QUANTITY SHALL BE INCREASED 100 PERCENT WHEN STORED IN APPROVED STORAGE CABINETS.

1

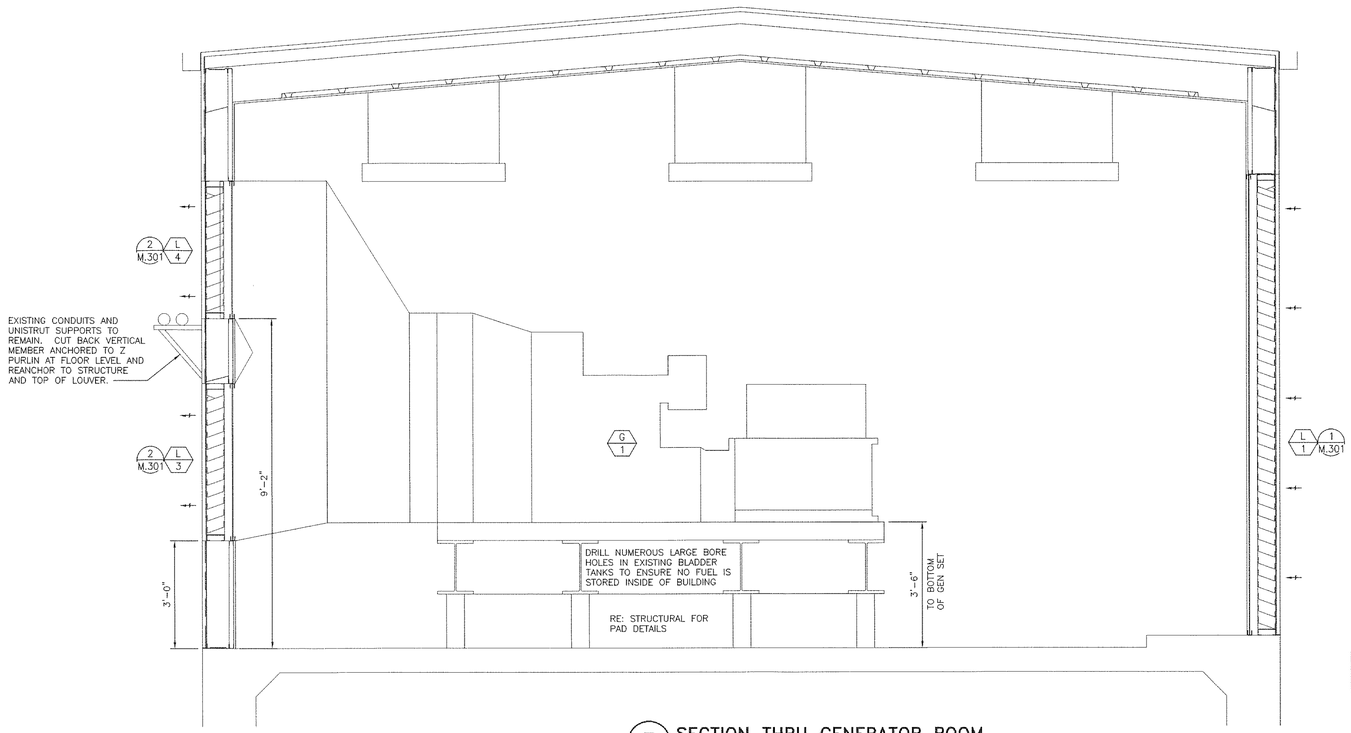


3 SIDE WALL PROPELLER EXHAUST FAN WITH WEATHER PROOF HOOD DETAIL
NO SCALE



NOTES:
1. INSTALL FIRE DAMPER PER MANUFACTURER'S RECOMMENDATION AND NFPA STANDARDS.
2. MAKE WALL OPENING 1/8" PER FOOT LARGER THAN DAMPER DIMENSIONS WITH 1/4" MINIMUM REQUIRED, MAXIMUM 1".

4 CURTAIN TYPE RECTANGULAR FIRE DAMPER DETAIL
NO SCALE



5 SECTION THRU GENERATOR ROOM
1/2"=1'-0"

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SEAL(S):
STATE OF TEXAS
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8/31/12

PROJECT NAME:
City of Houston
Emergency Generator Relocation
62 Riesner
Houston,TX 77002

CITY OF HOUSTON
GENERAL SERVICES DEPARTMENT

REVIEWED:
PROGRAM MANAGER
SPONSORING DEPARTMENT
PROJECT MANAGER

DATE:
G.F.S. No:
SCALE: NONE
DRAWN BY: RS
CHECKED BY: DD

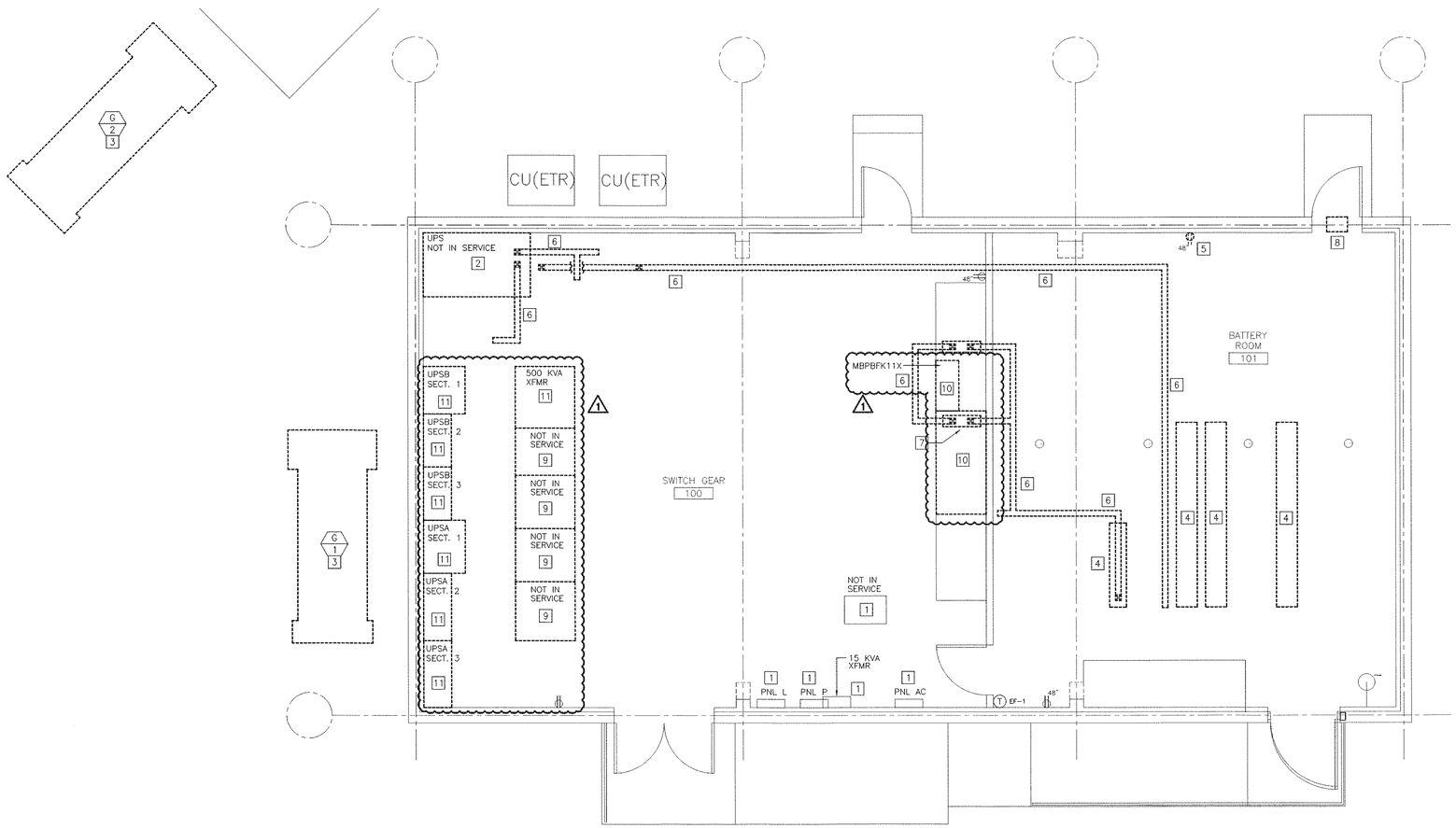
SHEET TITLE:
MECHANICAL SCHEDULES & DETAILS

SHEET NO.:
M.301

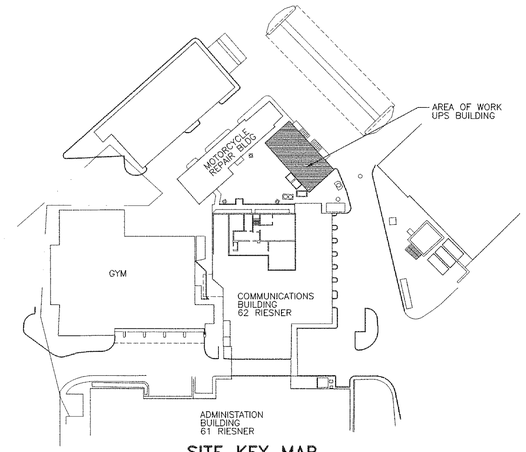
CITY DWG. NO.:

CAD FILE:

DAVID R. DARBY



1 UPS BUILDING
ELECTRICAL DEMOLITION PLAN
1/4"=1'-0"



SITE KEY MAP
1/64"=1'-0"

GENERAL DEMO NOTES:

1. PRIOR TO SUBMITTING BID, VISIT THE JOB SITE AND BECOME FULLY ACQUAINTED WITH THE EXISTING CONDITIONS OF THE FACILITY. REVIEW THE GENERAL NOTES AND ALL OTHER TRADE DRAWINGS FOR ADDITIONAL REQUIREMENTS THAT MAY NOT BE CALLED OUT IN THIS PORTION OF THE CONSTRUCTION DOCUMENTS. NOTIFY ARCHITECT, ENGINEER OR OWNER, AS SPECIFIED, OF ANY CONFLICTS OR DISCREPANCIES PRIOR TO SUBMITTING BID.
2. EXISTING CONDITIONS WERE TAKEN FROM ORIGINAL DRAWINGS AND SITE VISITS AND MAY NOT REFLECT EXACT "AS-BUILT" CONDITIONS. FIELD VERIFY ALL EXISTING CONDITIONS AND CAREFULLY COORDINATE NEW WORK AND DEMOLITION WITH ALL OTHER DISCIPLINES EXISTING CONDITIONS.
3. REMOVE ELECTRICAL ITEMS SHOWN AS DASHED LINE, CROSS-HATCHED, AND/OR NOTED TO BE REMOVED.
4. AVOID DAMAGING EXISTING SURFACES AND EQUIPMENT TO REMAIN DURING DEMOLITION. REPAIR DAMAGE CAUSED DURING WORK AT NO EXTRA COST TO THE OWNER.
5. AVOID DAMAGING EXISTING WIRING FOR INTERCOM, FIRE ALARM AND CLOCK SYSTEMS. REPAIR DAMAGE CAUSED DURING WORK AT NO EXTRA COST TO OWNER. SYSTEMS SHALL OPERATE AT NORMAL CAPACITY UPON COMPLETION OF WORK.
6. SEAL ALL PENETRATIONS THROUGH FLOORS, WALLS, CEILINGS, AND ROOF WHERE ELECTRICAL COMPONENTS ARE REMOVED AND WHERE THE EXISTING PENETRATION IS NOT USED FOR THE NEW INSTALLATION. REPAIR DAMAGED SURFACES TO MATCH ADJACENT AREAS.

ELECTRICAL DEMO NOTES:

1. EXISTING EQUIPMENT TO REMAIN.
2. REMOVE DE-ENERGIZED UPS EQUIPMENT TO ALLOW SPACE FOR RELOCATED UPS BATTERY ROOM.
3. GENERATOR TO BE RELOCATED INTO EXISTING BATTERY ROOM. SEE SHEET E.200 E.200 FOR NEW GENERATOR LOCATION.
4. REMOVE EXISTING UPS BATTERIES/BATTERY RACKS AND RELOCATE TO NEW BATTERY ROOM. SEE SHEET E.200 FOR NEW LOCATION.
5. REMOVE RECEPTACLE, CIRCUIT, CONDUIT AND ALL HARDWARE ASSOCIATED WITH. RECEPTACLE.
6. REMOVE BUS DUCT AND SAVE TO REUSE FOR UPS BATTERY RELOCATION.
7. RELOCATE JUNCTION BOX ABOVE UPS AT NEW LOCATION. TO BE REUSED FOR BATTERY RELOCATION.
8. REMOVE EXISTING EXHAUST FAN.
9. REMOVE EXISTING NOT IN SERVICE EQUIPMENT TO MAKE SPACE FOR OTHER EQUIPMENT THAT WILL NEED TO RE RELOCATED TO THIS AREA.
10. REMOVE UPS AND PANEL MBPBFK11X FROM THIS LOCATION AND RELOCATE AS SHOWN ON SHEET E-200. COORDINATE WITH CLIENT AND PHASE WORK TO MINIMIZE FACILITY DOWN TIME.
11. EQUIPMENT WILL RAISED ABOVE THE FLOOD PLAIN. COORDINATE WITH CLIENT AND PHASE WORK SO AS TO MINIMIZE FACILITY DOWN TIME.

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RUBEN A. GUAJARDO
96665
LICENSED PROFESSIONAL ENGINEER
8/31/12

PROJECT NAME :
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Emergency Generator Relocation
62 Riesner
Houston,TX 77002

CITY OF HOUSTON
GENERAL SERVICES DEPARTMENT

REVIEWED :
PROGRAM MANAGER
SPONSORING DEPARTMENT
PROJECT MANAGER

DATE :
G.F.S. No :
SCALE : 1/4" = 1'
DRAWN BY : RG
CHECKED BY : DD

SHEET TITLE :
UPS BUILDING ELECTRICAL DEMO PLAN

SHEET NO. :
E.100

CITY DWG. NO. :

CAD FILE :

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DAVID R. DARBY

CONTRACTOR TO COORDINATE SPECIFIC PHASING OF INSTALLATION TO PROVIDE AS LITTLE DOWNTIME AS POSSIBLE. PERFORM AS MUCH FRONT END INSTALLATION WORK AS POSSIBLE, THEN HAVE TEMPORARY GENERATOR PROVIDED BY GSD DELIVERED AND GET FULLY OPERATIONAL. DECOMMISSION FIRST GENERATOR AND RELOCATE PER PLANS. WITH TEMPORARY GENERATOR STILL IN OPERATION, DECOMMISSION SECOND GENERATOR AND RELOCATE. DISCONNECT AND RETURN TEMPORARY GENERATOR ONCE ALL FUNCTIONAL TESTING HAS BEEN PERFORMED ON PERMANENT INSTALLATION OF GENERATORS AND ALL APPERTUNCES.

PANELBOARD: P

BUS AMPS: 100A
MAIN SIZE/TYPE: MLO
VOLTS/PHASE: 208Y/120V, 3PH, 4W
SECTION: 1

FAULT CURRENT: REFER TO ONE-LINE DIAGRAM
AIC RATING: FCA +10% MINIMUM, FULLY RATED
SERVES: FIRST FLOOR
MOUNTING: SURFACE
LOCATION: SWITCH GEAR ROOM, ROOM #:100

EQUIPMENT GROUND BUS

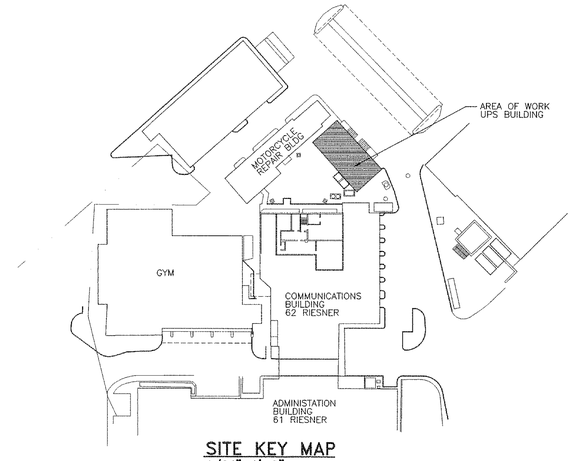
CKT NO.	DESCRIPTION	VOLTAMPS/PHASE A	B	C	WIRE NO.	BKR AMP	P	P	BKR AMP	WIRE NO.	VOLTAMPS/PHASE A	B	C	DESCRIPTION	CKT NO.
1	GENERAL RECEPTACLES	720			12	20	1	1	20	12	720			GENERAL RECEPTACLES	2
3	PWR – EXHAUST FAN		500		12	20	1	1	20	12		540		GENERAL RECEPTACLES	4
5	PWR – BKR CONTROLS			500	12	20	1	1	20	12			500	PWR – UPS POWER	6
7	**PWR – EXHAUST FANS**	627			12	20	1	1	20	12	1,376			PWR – RECTIFIERS/FAN	8
9	PWR – EXHAUST FANS					20	1	2	20	12		1,000		PWR – BATT CHARGER GENSET	10
11	SPARE					20	1								12
	SUBTOTAL	1,347	500	500							2,096	1,540	500	SUBTOTAL	

		LOAD	CONN. VA	DF	LOAD	CONN. VA	DF	
TOTAL PHASE A – VA	3,443	COOLING		1.00	REFRIGERATION		1.00	
AMPS	29	HEATING		0	SIGN/DISPLAY		1.25	
TOTAL PHASE B – VA	2,040	LIGHTING		1.25	KITCHEN		1.00	
AMPS	17	RECEPTACLES	1,980	1.0/.5	EXISTING		1.00	
TOTAL PHASE C – VA	1,000	MOTORS	1,803	1.00	LARGE MOTOR		1.25	TOTAL DEMAND
AMPS	8	SUPP HEAT		1.00	SHOW WINDOW		1.25	6,483 VA
TOTAL PNLBD – VA	6,483	MISC EQUIP	2,700	1.00	LTG TRACK		1.00	18 A
AMPS	18							

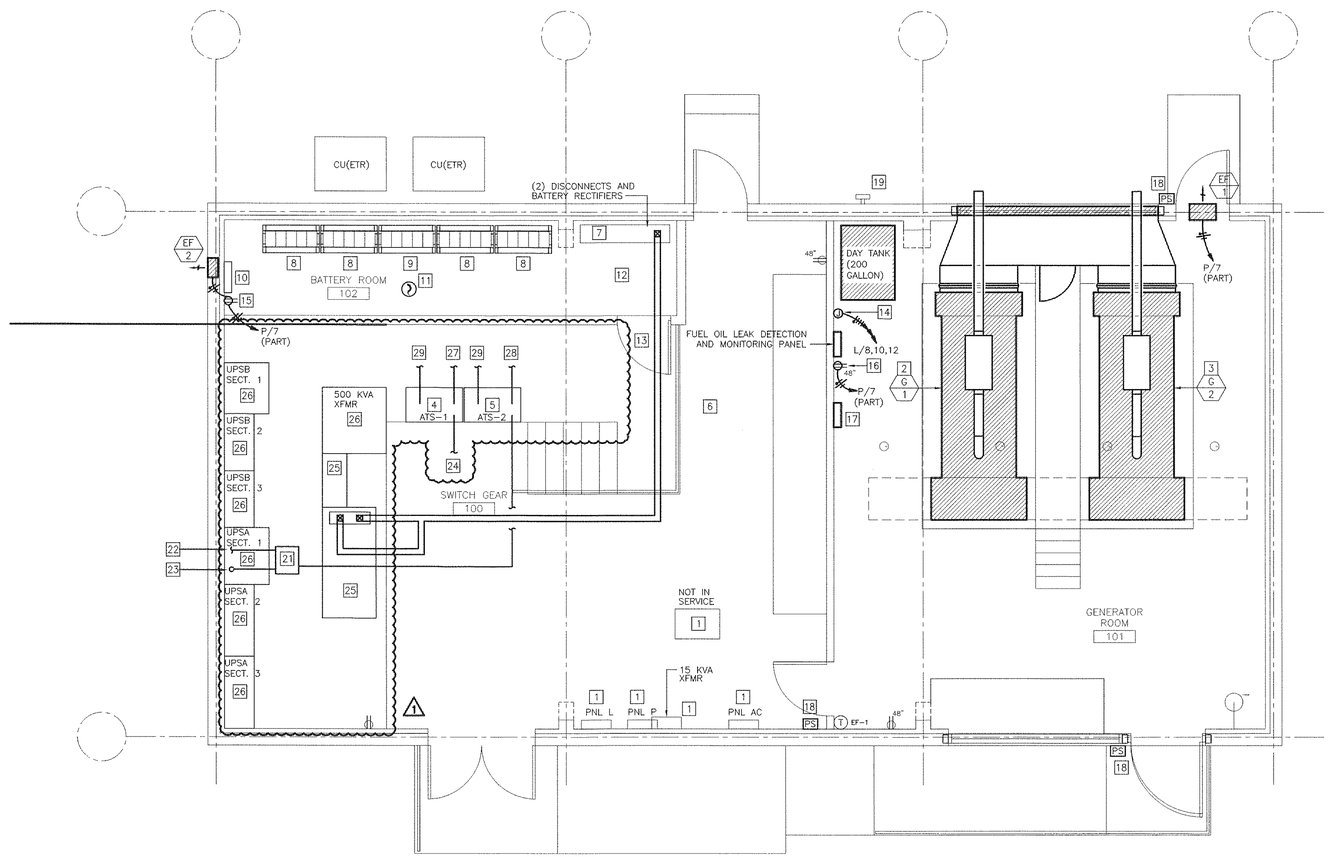
PANELBOARD NOTES

LTG TRACK – TRACK LENGTH
SIGN/DISPLAY – SIGNAGE & DISPLAY CASE

SEE SHEET E.210 FOR PANEL SCHEDULE L



SITE KEY MAP
1/64"=1'-0"



2 UPS BUILDING ELECTRICAL FLOOR PLAN
SCALE: 1/4"=1'-0"

ELECTRICAL PLAN NOTES:

1. EXISTING EQUIPMENT TO REMAIN.
2. RELOCATE GENERATOR 1 INSIDE OF ELECTRICAL BUILDING.
3. RELOCATE GENERATOR 2 INSIDE OF ELECTRICAL BUILDING.
4. NEW LOCATION FOR ATS-1. REROUTE NORMAL POWER, GENERATOR POWER AND FEEDER FOR EDP TO THIS LOCATION. ATS-1 SHALL BE MOUNTED ON PLATFORM 3.5' AFF.
5. NEW LOCATION FOR ATS-2. RE-REROUTE NORMAL POWER, GENERATOR POWER AND FEEDER FOR EDP TO THIS LOCATION. ATS-2 SHALL BE MOUNTED ON PLATFORM 3.5' AFF.
6. REUSE EXISTING BUS DUCT TO CONNECT BATTERY TO UPS.
7. RELOCATED DISCONNECTS AND RECTIFIERS FOR BATTERIES.
8. PROVIDE NEW BATTERY RACK FOR RELOCATED BATTERIES. NEW RACK SHALL BE THREE TIER. EACH TIER SHALL HOLD 5 BATTERIES. PROVIDE SEISMIC PROTECTION AS REQUIRED BY IBC.
9. PROVIDE NEW BATTERY RACK FOR RELOCATED BATTERIES. NEW RACK SHALL BE FOUR TIER. EACH TIER SHALL HOLD 5 BATTERIES. PROVIDE SEISMIC PROTECTION AS REQUIRED BY IBC.
10. PROVIDE A MANAGEMENT SYSTEM TO PRECLUDE, DETECT AND CONTROL BATTERIES FROM THERMAL RUNAWAY.
11. PROVIDE SMOKE DETECTOR IN NEW BATTERY ROOM AND CONNECT TO EXITING FIRE ALARM SYSTEM.
12. PROVIDE METHOD AND MATERIALS TO HANDLE A 3% SPILL OF ONE BATTERY TO A pH BALANCE OF 7.0 TO 9.0. METHOD AND MATERIALS MUST HANDLE A SPILL OF 5.82 CUBIC INCHES.
13. PROVIDE SIGNAGE AT DOOR TO BATTERY ROOM ENTRANCE STATING:
    1. THE ROOM CONTAINS ENERGIZED BATTERY SYSTEMS.
    2. THE ROOM CONTAINS ENERGIZED ELECTRICAL CIRCUITS.
    3. THE BATTERY ELECTROLYTE SOLUTIONS, WHERE PRESENT, ARE CORROSIVE LIQUIDS.
14. POWER FOR DAY TANK MOTORS. COORDINATE POWER REQUIREMENTS WITH TANK MANUFACTURE PRIOR TO ROUGH-IN.
15. POWER FOR BATTERY MANAGEMENT SYSTEM.
16. POWER FOR LEAK DETECTION SYSTEM.
17. PROVIDE APPROVED MANUAL EMERGENCY ALARM SYSTEM THAT WILL ALARM UPON MANUAL OPERATION OF INITIATING DEVICE. A LOCAL ALARM SHALL SOUND TO ALERT OCCUPANTS OF EMERGENCY SITUATION WITH HAZARDOUS MATERIAL. SYSTEM MUST BE MANUALLY RESET.
18. HAZZRDOUS MATERIAL MANUAL ALARM INITIATING DEVICE.
19. HAZARDS MATERIAL MANUAL ALARM DEVICE.
20. RELOCATE EXISTING GENERATOR BATTERY CHARGERS INTO GENERATOR ROOM AND ALL POWER ASSOCIATED WITH IT.
21. PROVIDE JUNCTION BOX TO REROUTE CIRCUIT FROM TRANSFER SWITCH TO UPSA.
22. TO ADMINISTRATION BUILDING VIA EXISTING CONDUITS TO PANELBOARD. EDPA.
23. ROUTE CIRCUIT DOWN TO FEED EQUIPMENT UPSA.
24. TO ADMINISTRATION BUILDING VIA EXISTING CONDUITS IF EXISTING CONDUITS ARE UNUSABLE ROUTE NEW CONDUITS OVERHEAD TO PANELBOARD EDP. (1)
25. RELOCATE UPS AND PANEL MBPBFK11X ROUTE NEW CONDUITS AND CONDUCTORS OVER HEAD TO NEW LOCATION.
26. EXTEND ALL CONDUCTORS TO RE-INSTALLED EQUIPMENT.
27. PROVIDE FEEDER FROM GENERATOR G1 TO ATS-1. SEE ONE-LINE ON SHEET E.301 FOR SIZE AND QUANTITY.
28. PROVIDE FEEDER FROM GENERATOR G2 TO ATS-2. SEE ONE-LINE ON SHEET E.301 FOR SIZE AND QUANTITY.
29. PROVIDE FEEDER TO ATS-1 FROM MAIN SWITCH MS IN ADMINISTRATION BUILDING. ROUTE CIRCUITS OVERHEAD.

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SCALE: 1/4" = 1'
DRAWN BY: RG
CHECKED BY: DD

SHEET TITLE:
UPS BUILDING ELECTRICAL FLOOR PLAN

SHEET NO.:
E.200

CITY DWG. NO.:

CAD FILE:

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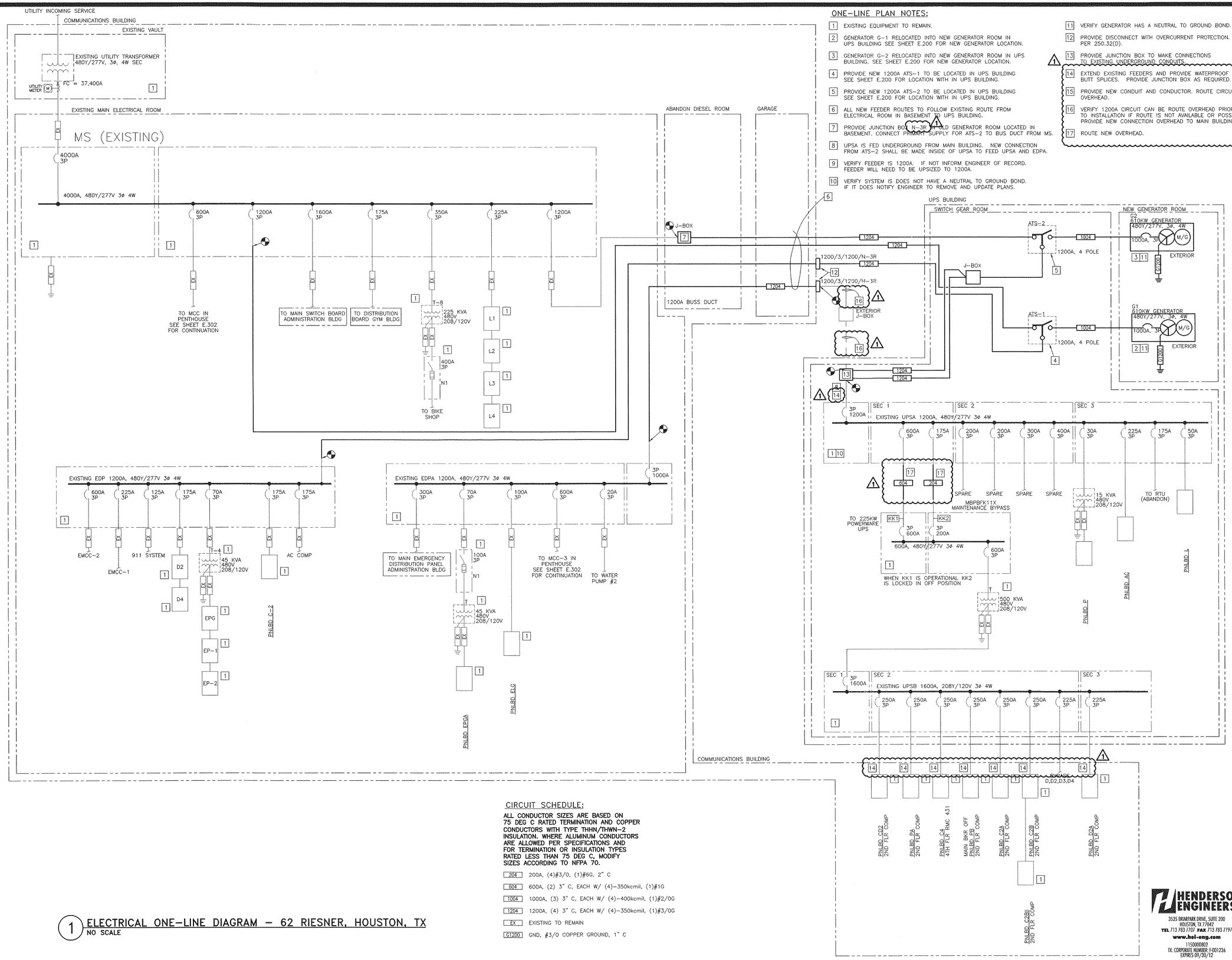

ONE-LINE PLAN NOTES:

1. EXISTING EQUIPMENT TO REMAIN.
2. GENERATOR G-1 RELOCATED INTO NEW GENERATOR ROOM IN UPS BUILDING SEE SHEET E.200 FOR NEW GENERATOR LOCATION.
3. GENERATOR G-2 RELOCATED INTO NEW GENERATOR ROOM IN UPS BUILDING. SEE SHEET E.200 FOR NEW GENERATOR LOCATION.
4. PROVIDE NEW 1200A ATS-1 TO BE LOCATED IN UPS BUILDING SEE SHEET E.200 FOR LOCATION WITH IN UPS BUILDING.
5. PROVIDE NEW 1200A ATS-2 TO BE LOCATED IN UPS BUILDING SEE SHEET E.200 FOR LOCATION WITH IN UPS BUILDING.
6. ALL NEW FEEDER ROUTES TO FOLLOW EXISTING ROUTE FROM ELECTRICAL ROOM IN BASEMENT TO UPS BUILDING.
7. PROVIDE JUNCTION BOX N-3R IN OLD GENERATOR ROOM LOCATED IN BASEMENT. CONNECT PRIMARY SUPPLY FOR ATS-2 TO BUS DUCT FROM MS.
8. UPSA IS FED UNDERGROUND FROM MAIN BUILDING. NEW CONNECTION FROM ATS-2 SHALL BE MADE INSIDE OF UPSA TO FEED UPSA AND EDPA.
9. VERIFY FEEDER IS 1200A. IF NOT INFORM ENGINEER OF RECORD. FEEDER WILL NEED TO BE UPSIZED TO 1200A.
10. VERIFY SYSTEM IS DOES NOT HAVE A NEUTRAL TO GROUND BOND. IF IT DOES NOTIFY ENGINEER TO REMOVE AND UPDATE PLANS.
11. VERIFY GENERATOR HAS A NEUTRAL TO GROUND BOND.
12. PROVIDE DISCONNECT WITH OVERCURRENT PROTECTION. PER 250.32(D).
13. PROVIDE JUNCTION BOX TO MAKE CONNECTIONS TO EXISTING UNDERGROUND CONDUITS.
14. EXTEND EXISTING FEEDERS AND PROVIDE WATERPROOF BUTT SPLICES. PROVIDE JUNCTION BOX AS REQUIRED.
15. PROVIDE NEW CONDUIT AND CONDUCTOR. ROUTE CIRCUIT OVERHEAD.
16. VERIFY 1200A CIRCUIT CAN BE ROUTE OVERHEAD PRIOR TO INSTALLATION IF ROUTE IS NOT AVAILABLE OR POSSIBLE PROVIDE NEW CONNECTION OVERHEAD TO MAIN BUILDING.
17. ROUTE NEW OVERHEAD.

CIRCUIT SCHEDULE:

ALL CONDUCTOR SIZES ARE BASED ON 75 DEG C RATED TERMINATION AND COPPER CONDUCTORS WITH TYPE THHN/THWN-2 INSULATION. WHERE ALUMINUM CONDUCTORS ARE ALLOWED PER SPECIFICATIONS AND FOR TERMINATION OR INSULATION TYPES RATED LESS THAN 75 DEG C, MODIFY SIZES ACCORDING TO NFPA 70.

204	200A, (4)#3/0, (1)#6G, 2" C
604	600A, (2) 3" C, EACH W/ (4)-350kcmil, (1)#1G
1004	1000A, (3) 3" C, EACH W/ (4)-400kcmil, (1)#2/0G
1204	1200A, (4) 3" C, EACH W/ (4)-350kcmil, (1)#3/0G
EX	EXISTING TO REMAIN
G1200	GND, #3/0 COPPER GROUND, 1" C

1 ELECTRICAL ONE-LINE DIAGRAM - 62 RIESNER, HOUSTON, TX
NO SCALE

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ONE-LINE PLAN

SHEET NO.:
E.301

CITY DWG. NO.:

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