1. Contractor to include de-watering for trench work. Site ground water table is at or near grade.
2. Contractor shall repair or replace any storm water drain pipes, structures, etc., impacted by the work.
3. Contractor and protect existing gas lines and other utilities.
4. The site's soil areas contain wetland soils. All stripped topsoil shall be stockpiled separately on site for reuse as backfill over the duct bank trench. Restore to match the existing thickness. Other excavated soils suitability for reuse may be used as backfill for the other portions of the trench.
5. Trench backfill at all access drive crossings shall consist of granular backfill compacted to 95% max density.
CONCRETE SIDEWALK (TYP)
SEE DETAIL ON C-501

GRAVEL DRIVE
CONCRETE LANDING AT DOORS (TYP)
SEE SECTION E ON S-301

UG ELECTRIC
(SEE ELECTRICAL SHEETS)

RELOCATE 3" GAS AS REQUIRED

BOLLARD (TYP 2)
20" W (ABANDONED)

TRANSFORMER PAD
PROPOSED 15FT UTILITY EASEMENT

BOLLARD (TYP 4)

WELL HOUSE NO. 25W
FIN. FL. ELEV. = 822.15

MATCH EX.

EXISTING DTE GAS UTILITY EASEMENT
(APPROXIMATE LOCATION)

SLOPE

MATCH EX.

VALVE VAULT

NEW GAS SERVICE
UG ELECTRIC

SLOPE

BRUSH LINE

EXPOSE AND PROTECT EXISTING GAS LINE

MARK DATE
DESCRIPTION
BY

4/14/2016 10:12:27 AM
P:\IER\31537\200-31537-15005\CAD\SHEETFILES\C-101, 301-2 SITE PLAN.DWG

ISSUED FOR BID
STEERE FARM ENGINE REPLACEMENT
710 Avis Drive, Suite 100
Ann Arbor, MI 48106
Tel 734-665-6000, Fax 734-213-3003

SCALE: 1" = 10'
CONCRETE LANDING (SEE SECTION E ON S-301)

GRAVEL PAVEMENT FROM CONCRETE LANDING TO EXISTING ACCESS DRIVE

MATCH EX.

GRAVEL ACCESS DRIVE

EXPOSE AND PROTECT EXISTING GAS LINE

UG ELECTRIC

12" G

3" G

WELL HOUSE 21W SITE PLAN

SCALE: 1"=10'

WELL HOUSE 741 SITE PLAN

SCALE: 1"=10'

NOTES/LEGEND:
SOIL EROSION/SEDIMENT CONTROL MEASURES. SEE DETAIL ON C-001.

1. CONTRACTOR SHALL REPLACE 16" TREE REMOVED WITH TREES TOTALING 150% OF DIAMETER LOST. LOCATION OF REPLACEMENT TREES TO BE COORDINATED WITH AIRPORT MANAGER AND MAY REQUIRE INSTALLATION AT ANOTHER LOCATION ON AIRPORT PROPERTY.
1. PROVIDE 12" EXPANSION JOINTS BETWEEN WALKS AND OTHER CONCRETE OR RIGID STRUCTURES.

CONCRETE WALK SECTION
SCALE: NONE

GRANULAR DRIVE SECTION
SCALE: NONE

- 3'-6" 6" MIN. CONCRETE PIPE ENCASEMENT
- TAR PAPER AROUND PIPE
- 6" DIA. STEEL PIPE 7'-6" LONG. FILL WITH CONCRETE, PAINTED SAFETY YELLOW
- BOLLARD

NOTES:
- PROVIDE 12" WIDE EXPANSION JOINTS BETWEEN WALKS AND OTHER CONCRETE OR RIGID STRUCTURES.

www.tetratech.com
MARK DATE
DESCRIPTION
BY
4/14/2016 9:07:32 AM
- P:\IER\31537\200-31537-15005\CAD\SHEETFILES\C-500 & 502.DWG
- MOORE, JOSH
EXISTING DTE GAS UTILITY EASEMENT (APPROXIMATE LOCATION)

GENERAL NOTES:

1. CONTRACTOR SHALL REPLACE 28" TREE REMOVED WITH TREES TOTALING 150% OF DIAMETER LOST. LOCATION OF REPLACEMENT TREES TO BE COORDINATED WITH AIRPORT MANAGER AND MAY REQUIRE INSTALLATION AT ANOTHER LOCATION ON AIRPORT GROUND.
1. THE DRAWINGS INDICATE THE GENERAL EXTENT OF WORK. THE DRAWINGS ARE NOT INTENDED TO INDICATE OR DESCRIBE ALL WORK REQUIRED FOR THE FULL PERFORMANCE AND COMPLETION OF THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. REPETITIVE FEATURES NOT NOTED ON THE DRAWINGS SHALL BE COMPLETELY PROVIDED AS IF DRAWN IN FULL.

2. BUILDING NAME: STEERE FARM ENGINES REPLACEMENT PROJECT

3. BUILDING DESCRIPTION: RETROFIT OF TWO EXISTING PRE-ENGINEERED METAL WELL HOUSES AND

4. GENERAL INFORMATION:

5. GENERAL NOTES:

6. BUILDING CODE ANALYSIS:

7. BUILDING HEIGHTS AND ELEVATIONS ARE BASED UPON PROJECT FINISH CONDITIONS IS SLIGHTLY ADJUSTABLE BUT MAY NOT VARY TO A DIMENSION OR QUANTITY GREATER THAN THAT SHOWN WITHOUT APPROVAL OF THE ARCHITECT.

8. ROOM AND DOOR NUMBERS SHOWN ON DRAWINGS ARE FOR CONSTRUCTION EGRESS WIDTH BASED ON OCCUPANCY (MBC TABLE 1005.1) ALLOWABLE DEAD ENDS (MBC TABLE 1013.3) NUMBER OF EXITS (MBC 1018.2) 2 Brought to the architectures attention prior to proceeding with the work. If contractor performs work knowing it to be contrary to laws, statutes, ordinances, building codes, and rules and regulations without such notice to the architect and owner, the contractor shall assume appropriate responsibility for such work and shall bear the costs attributable to correction.

9. ROOF PITCHES INDICATED ARE NOMINAL. SEE STRUCTURAL DRAWINGS FOR EXACT LOCATION AND SIZES OF INDIVIDUAL ROOF PANEL (R-30). THE BUILDINGS ARE UNOCCUPIED AND ACCESSED ONLY PERIODICALLY FOR MAINTENANCE AND MONITORING.

10. THE CONTRACTOR SHALL PROTECT EXISTING, IN-PLACE AND NEW WORK.

11. THE CONTRACTOR SHALL VERIFY EXISTING CONSTRUCTION AND INSTALLATION OF FLOOR, WALL, AND ROOF LOCATIONS. INSTALL FIRESTOPPING AT PENETRATIONS IN RATED CONSTRUCTION AND AT TOPS OF RATED WALLS.

12. PROVIDE EXPANSION AND CONTROL JOINTS IN ALL MASONRY WALL CONSTRUCTION AS REQUIRED BY APPLICABLE CODES AND AS NOTED ON THE DRAWINGS.

13. PROVIDE SEALANT BETWEEN HOLLOW METAL FRAME PERIMETERS AND STOREFRONT FRAME PERIMETERS AND SURROUNDING CONSTRUCTION AS REQUIRED BY APPLICABLE CODES AND AS NOTED ON THE DRAWINGS.

14. PROVIDE SEALANT BETWEEN INTERIOR AND EXTERIOR WINDOW AND DOOR FRAMES AS NOTED ON THE DRAWINGS.

15. PROVIDE SEALANT BETWEEN INTERIOR AND EXTERIOR WINDOW AND DOOR FRAMES AS NOTED ON THE DRAWINGS.

16. PROVIDE SEALANT BETWEEN INTERIOR AND EXTERIOR WINDOW AND DOOR FRAMES AS NOTED ON THE DRAWINGS.
EXISTING WELL HOUSE 25 EXTERIOR

NEW WORK KEY NOTES

3. Provide threshold, weather stripping at all exterior doors and frames.
4. Epoxy paint floor slabs and pads. Broadcast sand in floor for slip resistance.
5. New hollow metal door and frame.
6. New elastomeric aluminum cladding with removable screens on exterior side.
7. New spray-applied closed-cell polystyrene foam insulation. Provide virgin coated G90 galvanized metal cap at top of wall.
8. New 6' long x 2'-6" deep 36" high heavy duty industrial wood top work bench on steel tube frame. Provide new heavy duty vice mounted to work bench. BUD Uline model H-1137.
9. New 8" split faced CMU watertable wall with integral color and water repellent mortar and block. Fill wall cavity with spray applied closed-cell polyurethane foam insulation. Provide kynar coated G90 galvanized metal cap at top of wall.
10. New insulated metal wall panels. Provide all components required for complete weather tight installation. Wall panel basis of design Kingspan 300R series 3" x 42" insulated metal panel G90 galvanized steel.
11. New 4' high 8" split faced CMU watertable wall with integral color and water repellent mortar and block. Fill wall cavity with spray applied closed-cell polyurethane foam insulation. Provide kynar coated G90 galvanized metal cap at top of wall.
12. New 8" CMU wall - extend from floor to roof deck. 8" sound acoustical block at generator room (BUD Soundblox) - see structural.
13. New 4" high 8" split faced CMU watertable wall with integral color and water repellent mortar and block. Fill wall cavity with spray applied closed-cell polyurethane foam insulation. Provide kynar coated G90 galvanized metal cap at top of wall.
14. Mechanical equipment - BUD mechanical drawings for details.
15. New PVC trim - spec. schedule "13341 Metal Building Systems" for requirements.
16. New PEMB girts - see specifications "13341 Metal Building Systems" for requirements.
17. New PEMB columns - see specifications "13341 Metal Building Systems" for requirements.

SCALE: 1/4" = 1'-0"
11 GALVANIZED FASCIA AND RAKE TRIM WITH FACTORY-APPLIED KYNAR FINISH.

12 ALUMINUM AWNING WITH OVERHEAD BRACING - 24" WIDE "W-SHAPE PANEL. BASIS OF DESIGN GENERAL AWNING IMPERIAL MARQUEE AWNING W/ "W-SHAPED PANELS.

13 INSULATED METAL ROOF PANEL (R-37) BASIS OF DESIGN KINGSPAN 900 HIGH RIB G90 GALVANIZED.

14 MECHANICAL EQUIPMENT - SEE MECHANICAL DRAWINGS FOR DETAILS.

23 PEMB MFR TO PROVIDE 1,000 LB PICK POINTS ON UNDERSIDE OF STEEL FRAMING FOR LIFTING COMPONENTS. COORDINATE LOCATION WITH OWNER. (RE: DTL 7/S-502)

KEY NOTES

(TYP 8 TOTAL POINTS THIS BUILDING, RE: DTL 7/S-502)

11 G90 GALVANIZED FASCIA AND RAKE TRIM WITH FACTORY-APPLIED KYNAR FINISH.

12 ALUMINUM AWNING WITH OVERHEAD BRACING - 24" WIDE "W-SHAPE PANEL. BASIS OF DESIGN GENERAL AWNING IMPERIAL MARQUEE AWNING W/ "W-SHAPED PANELS.

13 INSULATED METAL ROOF PANEL (R-37) BASIS OF DESIGN KINGSPAN 900 HIGH RIB G90 GALVANIZED.

14 MECHANICAL EQUIPMENT - SEE MECHANICAL DRAWINGS FOR DETAILS.

23 PEMB MFR TO PROVIDE 1,000 LB PICK POINTS ON UNDERSIDE OF STEEL FRAMING FOR LIFTING COMPONENTS. COORDINATE LOCATION WITH OWNER. (RE: DTL 7/S-502)

(TYP 8 TOTAL POINTS THIS BUILDING, RE: DTL 7/S-502)
**New Work Key Notes**

2. Patch concrete slab as required to provide smooth level finish or new epoxy floor coating.


8. G90 galvanized fascia and rake trim with factory applied kynar finish. PEMB manufacture standard trim style.


10. New 4' high 8" split faced CMU watertable wall with integral color and water repellent mortar and block. Fill wall cavity with spray applied closed cell polyurethane foam insulation. Provide kynar coated G90 break metal cap at top of wall.


**Existing Well House 21W Exterior**

- Heavy duty unistrut industrial shelving, 72" H x 24" W x 24" L.
- Provide threshold, weather stripping at all exterior doors and frames.
- Insulated metal roof panel (R-37) basis of design. Kingspan 900 high rib G90 galvanized steel.
- Mechanical equipment - See mechanical drawings for details.
- New hollow metal door and frame.
- Fire extinguisher - See sheet A-002 general note 27. Coordinate location with electrical panel installation, see electrical, E-105.
- Demolish PEMB to slab. Retain slab and foundations for reuse.
- PEMB manufacturer to provide 1,000 lb pick points on underside of steel framing for lifting components. Coordinate location with owner.
- 6' long x 2' deep x 36" high heavy duty industrial access step construction. Steel tubing. Provide fixed wall-mounted crane operated to work with remodel model 11101.
NEW WORK KEY NOTES

2. PATCH CONCRETE SLAB AS REQUIRED TO PREVENT DUE TO WASHING POINTS FOR MIXING CONCRETE COATINGS.

3. NEW PUMP = SPECIFICATIONS THAT METAL BUILDING SYSTEMS FOR REQUIREMENTS.

6. NEW A-POINT SPECIFICATIONS FOR ELEVATOR CORES: 60.325 C‼️/ 1981, 1982

8. NEW A-203 spec. REVISED CORE: 60.325 C‼️/ 2021, 2022

9. EPOXY PAINT FLOOR SLABS AND PAIRED. BROADCAST SANDING FLOOR FOR EPOXY RESISTANCE.

10. NEW REGULAR METAL SHELVING 3 1/2" PERFECTION WALL PANELS - 3" X 72" INSULATED WITH INTEGRAL COLOR AND WATER REPELLENT MORTAR AND BLOCK. FILL WALL CAVITY WITH SPRAY APPLIED CLOSED CELL POLYURETHANE FOAM INSULATION. PROVIDE KYNAR COATED G90 BREAK METAL CAP AT TOP OF WALL.

11. EPOXY PAINT FLOOR SLABS AND PAIRED WITH BROADCASTING SAND INTO FLOOR FOR SLIP RESISTANCE.

12. ALUMINUM ANODIZED WITH CORRUGATED BASE - 24" RIBS, 2" HIGH PANELS. BENDS OF EXCESS GEOMETRICAL, ANADA G90, BRIDGE ARMING W. W. SHAPED PANELS.

13. INSULATED METAL ROOF PANEL (R-37) BASIS OF DESIGN KINGSPAN 900 HIGH RIB 390 G90 GALVANIZED STEEL.

14. MECHANICAL EQUIPMENT - SEE MECHANICAL DRAWINGS FOR DETAILS.

15. HOLLOW METAL DOOR AND FRAME

20. FIRE EXTINGUISHERS - SEE SHEET A-002 GENERAL NOTE 27. COORDINATES LOCATION WITH ELECTRICAL PANEL INSTALLATION, SEE ELECTRICAL, E-105.

21. DEMOLISH PEMB TO SLAB. RETAIN SLAB AND FOUNDATIONS FOR RE-USE.

23. PEMB MFR TO PROVIDE 1,000 LB PICK POINTS ON UNDERSIDE OF STEEL FRAMING FOR LIFTING COMPONENTS. COORDINATE LOCATION WITH OWNER. (RE: DTL 7/S-502)

24. PATCH CONCRETE SLAB AS REQUIRED TO PROVIDE SMOOTH LEVEL FINISH FOR NEW EPOXY FLOOR COATING.

3. NEW PEMB GIRTS - SEE SPECIFICATIONS "13341 METAL BUILDING SYSTEMS" FOR REQUIREMENTS.

8. NEW 4' HIGH 8" SPLIT FACED CMU WATERPROOF WALL PANELS WITH INTEGRAL COLOR AND WATER REPELLENT MORTAR AND BLOCK. FILL WALL CAVITY WITH SPRAY APPLIED CLOSED CELL POLYURETHANE FOAM INSULATION. PROVIDE KYNAR COATED G90 BREAK METAL CAP AT TOP OF WALL.

9. EPOXY PAINT FLOOR SLABS AND PAIRED. BROADCAST SANDING FLOOR FOR SLIP RESISTANCE.

10. NEW INSULATED METAL WALL PANEL (R-20). PROVIDE ALL COMPONENTS REQUIRED FOR COMPLETE INSTALLATION. WALL PANEL BASIS OF DESIGN KINGSPAN 300R SERIES 3" X 42" INSULATED WALL PANEL G90 GALVANIZED STEEL.

11. G90 GALVANIZED FASCIA AND RAKE TRIM WITH FACTORY APPLIED KYNAR FINISH - PEMB MANUFACTURE STANDARD TRIM STYLE.
NEW WORK KEY NOTES

8. NEW SPLIT FACE SPLIT FAUCED WALL. WATER."FACED WALL" WALL PANELS TO BE APPLIED CLOSED CELL POLYURETHANE FOAM INSULATION. WATER."FACED WALL" WALL PANELS TO BE APPLIED CLOSED CELL POLYURETHANE FOAM INSULATION. PROVIDE KYNAR PAINTED G90 GALVANIZED METAL CAP AT TOP OF WALL.

10. NEW INSULATED METAL WALL PANEL (R-20). PROVIDE ALL COMPONENTS REQUIRED FOR COMPLETE WEATHER TIGHT INSTALLATION. WALL PANEL BASIS OF DESIGN: KINGSPAN SERIES 3"x32" INSULATED WALL PANEL G90 GALVANIZED STEEL.

11. ONE EIGHTH INCH FACE AND FACE TRIM WITH FACTORY APPLIED POWDER COATING - PEMB MANUFACTURE STANDARD TRIM STYLE.

15. MECHANICAL EQUIPMENT - SEE MECHANICAL DRAWINGS FOR DETAILS.

16. SOLID ALUMINUM LOUVER WITH REMOVABLE SCREEN ON EXTERIOR SIDE.

17. BUILDING IDENTIFICATION SIGN. (12" x 30" ALUMINUM SIGN WITH BUILDING NUMBER IN 8" ARIAL FONT, WHITE BACKGROUND, BLUE LETTERING)
**NEW WORK KEY NOTES**

1. NEW 4' HIGH SPLIT FACED CEMENTITIOUS CMU WALL WITH INTEGRAL COLOR AND WATER REPELLENT MORTAR. FILL WALL CAVITY WITH SPRAY APPLIED CLOSED CELL POLYURETHANE FOAM INSULATION. PROVIDE KYNAR COATED METAL COP AT TOP OF WALL.

2. Aluminum awning with combining brackets.

3. 25' WIDE W-SHAPE PANEL. BASIS OF DESIGN GENERAL AWNING IMPERIAL MARQUEE AWNING W/ W-SHAPED PANELS.

4. INSULATED METAL ROOF PANEL (R-37) BASIS OF DESIGN KINGSPAN 900 HIGH RIB G90 GALVANIZED STEEL.

5. HOLLOW METAL DOOR AND FRAME.

6. BUILDING IDENTIFICATION SIGN. (12" X 30" ALUMINUM SIGN WITH BUILDING NUMBER IN 8" ARIAL FONT, WHITE SIGN, BLUE LETTERING)

7. PROVIDE THRESHOLD, WEATHER STRIPPING AT ALL EXTERIOR DOORS AND FRAMES.

8. NEW 4' HIGH 8" SPLIT FACED CMU WATER TABLE WALL WITH INTEGRAL COLOR AND WATER REPELLENT MORTAR. FILL WALL CAVITY WITH SPRAY APPLIED CLOSED CELL POLYURETHANE FOAM INSULATION. PROVIDE KYNAR COATED G90 BREAK METAL CAP AT TOP OF WALL.

9. NEW INSULATED METAL WALL PANELS. PROVIDE ALL COMPONENTS REQUIRED FOR COMPLETE WEATHER TIGHT INSTALLATION. WALL PANEL BASIS OF DESIGN KINGSPAN 300R SERIES 3"X42" INSULATED WALL PANEL G90 GLAVANIZED STEEL.

10. INSULATED METAL ROOF PANELS. PROVIDE ALL COMPONENTS REQUIRED FOR COMPLETE WEATHER TIGHT INSTALLATION. WALL PANEL BASIS OF DESIGN KINGSPAN 300R SERIES 3"X42" INSULATED WALL PANEL G90 GLAVANIZED STEEL.

11. G90 GALVANIZED FASCIA AND RAKE TRIM WITH FACTORY APPLIED KYNAR FINISH - PEMBRA MANUFACTURE STANDARD TRIM STYLE.

12. ALUMINUM AWNING WITH COMBINING BRACKETS - 25' WIDE W-SHAPE PANEL. BASIS OF DESIGN GENERAL AWNING IMPERIAL MARQUEE AWNING W/ W-SHAPED PANELS.

13. INSULATED METAL ROOF PANELS. PROVIDE ALL COMPONENTS REQUIRED FOR COMPLETE WEATHER TIGHT INSTALLATION. WALL PANEL BASIS OF DESIGN KINGSPAN 300R SERIES 3"X42" INSULATED WALL PANEL G90 GLAVANIZED STEEL.

14. HOLLOW METAL DOOR AND FRAME.

15. BUILDING IDENTIFICATION SIGN. (12" X 30" ALUMINUM SIGN WITH BUILDING NUMBER IN 8" ARIAL FONT, WHITE SIGN, BLUE LETTERING)

16. PROVIDE THRESHOLD, WEATHER STRIPPING AT ALL EXTERIOR DOORS AND FRAMES.

17. NEW INSULATED METAL WALL PANELS. PROVIDE ALL COMPONENTS REQUIRED FOR COMPLETE WEATHER TIGHT INSTALLATION. WALL PANEL BASIS OF DESIGN KINGSPAN 300R SERIES 3"X42" INSULATED WALL PANEL G90 GLAVANIZED STEEL.

18. G90 GALVANIZED FASCIA AND RAKE TRIM WITH FACTORY APPLIED KYNAR FINISH - PEMBRA MANUFACTURE STANDARD TRIM STYLE.

19. ALUMINUM AWNING WITH COMBINING BRACKETS - 25' WIDE W-SHAPE PANEL. BASIS OF DESIGN GENERAL AWNING IMPERIAL MARQUEE AWNING W/ W-SHAPED PANELS.

20. INSULATED METAL ROOF PANELS. PROVIDE ALL COMPONENTS REQUIRED FOR COMPLETE WEATHER TIGHT INSTALLATION. WALL PANEL BASIS OF DESIGN KINGSPAN 300R SERIES 3"X42" INSULATED WALL PANEL G90 GLAVANIZED STEEL.

21. HOLLOW METAL DOOR AND FRAME.

22. BUILDING IDENTIFICATION SIGN. (12" X 30" ALUMINUM SIGN WITH BUILDING NUMBER IN 8" ARIAL FONT, WHITE SIGN, BLUE LETTERING)

23. PROVIDE THRESHOLD, WEATHER STRIPPING AT ALL EXTERIOR DOORS AND FRAMES.

24. NEW INSULATED METAL WALL PANELS. PROVIDE ALL COMPONENTS REQUIRED FOR COMPLETE WEATHER TIGHT INSTALLATION. WALL PANEL BASIS OF DESIGN KINGSPAN 300R SERIES 3"X42" INSULATED WALL PANEL G90 GLAVANIZED STEEL.

25. G90 GALVANIZED FASCIA AND RAKE TRIM WITH FACTORY APPLIED KYNAR FINISH - PEMBRA MANUFACTURE STANDARD TRIM STYLE.

26. ALUMINUM AWNING WITH COMBINING BRACKETS - 25' WIDE W-SHAPE PANEL. BASIS OF DESIGN GENERAL AWNING IMPERIAL MARQUEE AWNING W/ W-SHAPED PANELS.

27. INSULATED METAL ROOF PANELS. PROVIDE ALL COMPONENTS REQUIRED FOR COMPLETE WEATHER TIGHT INSTALLATION. WALL PANEL BASIS OF DESIGN KINGSPAN 300R SERIES 3"X42" INSULATED WALL PANEL G90 GLAVANIZED STEEL.

28. HOLLOW METAL DOOR AND FRAME.

29. BUILDING IDENTIFICATION SIGN. (12" X 30" ALUMINUM SIGN WITH BUILDING NUMBER IN 8" ARIAL FONT, WHITE SIGN, BLUE LETTERING)

30. PROVIDE THRESHOLD, WEATHER STRIPPING AT ALL EXTERIOR DOORS AND FRAMES.

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Q. BIAGI
T. HOURIGAN
D. GALANTE
A-202
CITY OF ANN ARBOR, MICHIGAN
STEERE FARM ENGINE REPLACE
ELEVATIONS WELL HOUSE 21W

1/4" = 1'-0"
NEW WORK KEY NOTES

1. TUBULAR STEEL FRAME CONSTRUCTION WITH ALUMINUM "A" JOISTS AND METAL STUDS/DECKING. FASADE PANEL FILLER MASONRY WITH METAL STUDS/DECKING.

2. METAL STUDS/DECKING WRAPPED WITH METAL FASCIA TRIM WITH FACTORY APPLIED KYNAR FINISH - PEMBRA MANUFACTURE STANDARD TRIM STYLE.

3. ALUMINUM AWNING WITH CUSTOM BRACKETS - 24" HIGH X 24" WIDE PANELS. METAL AWNINGS W/ W-SHAPED PANELS.

4. INSULATED METAL ROOF PANELS R-37. INSULATED PANELS PROVIDE ALL COMPONENTS REQUIRED FOR COMPLETE WEATHER TIGHT INSTALLATION. WALL PANEL BASIS OF DESIGN KINGSPAN, 3" X 42" INSULATED WALL PANEL G90 GALVANIZED STEEL.

5. MECHANICAL EQUIPMENT - SEE MECHANICAL DRAWINGS FOR DETAILS.

6. BUILDING IDENTIFICATION SIGN. (12" X 30" ALUMINUM SIGN WITH BUILDING NUMBER IN 8" ARIAL FONT, WHITE SIGN, BLUE LETTERING)

7. NEW WORK KEY NOTES

8. MARK DATE DESCRIPTION

10/15/16 ISSUED FOR BID

9. SCALE: 1/4" = 1'-0"
NEW WORK KEY NOTES

3. NEW PEMB Girts - See specifications "13341 Metal Building Systems" for requirements.
4. NEW PEMB Columns - See specifications "13341 Metal Building Systems" for requirements.
7. NEW 8" CMU Wall - Extends from floor to roof deck, 8' 8" high, insulated, hanger at interior corners, 8" biaxial Reinforced.
8. NEW 8" CMU Wall - Extends from floor to roof deck, 8' 8" high, insulated, hanger at interior corners, 8" biaxial Reinforced.
13. NEW 8" CMU Wall - Extends from floor to roof deck, 8' 8" high, insulated, hanger at interior corners, 8" biaxial Reinforced.
15. HOLLOW METAL DOOR AND FRAME
27. PROVIDE THRESHOLD, WEATHER STRIPPING AT ALL EXTERIOR DOORS AND FRAMES.

3. NEW PEMB GIRTS - SEE SPECIFICATIONS "13341 METAL BUILDING SYSTEMS" FOR REQUIREMENTS.
4. NEW PEMB COLUMNS - SEE SPECIFICATIONS "13341 METAL BUILDING SYSTEMS" FOR REQUIREMENTS.
7. NEW 8" CMU WALL - EXTENDS FROM FLOOR TO ROOF DECK. 8' 8" HIGH, INSULATED, HANGER AT INTERIOR CORNERS, 8" BIAxIAL REINFORCED.
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15 HOLLOW METAL DOOR AND FRAME
27 PROVIDE THRESHOLD, WEATHER STRIPPER AT ALL EXTERIOR DOORS AND FRAMES.
NEW WORK KEY NOTES

11. INSULATED ROOF PANEL WITH FACTORY APPLIED FINISH - PEMB MANUFACTURE STANDARD TRIM STYLE.

12. ALUMINUM AWNING WITH CURVED END BRACING - 24" WIDE W-SHAPE PANEL. BASIS OF DESIGN GENERAL AWNING IMPERIAL MARQUEE W/ W-SHAPE PANELS.

13. INSULATED METAL ROOF PANEL (R-37) BASIS OF DESIGN KINGSPAN 900 HIGH RIB G90 GALVANIZED.

FOOTING AND FOUNDATION - SEE STRUCTURAL FOR DETAILS

SPRAY APPLIED POLYURETHANE (CLOSED CELL) AT ALL UNGROUTED CORES.

2" PERIMETER INSULATION VERTICAL AND HORIZONTAL.

NOTCH BLOCK AROUND STEEL COLUMNS.

BULLNOSE CMU AT DOOR OPENINGS.

PAINT INTERIOR CMU FACE.

LEVEL ONE 0' - 0"
LEVEL TWO 10' - 0"

SCRIBE 1" WOOD PANEL TO PROVIDE ENCLOSURE AT WALL ENDS EACH SIDE. COVER WITH KYNAR COATED BEND METAL ON EXPOSED FACE. FILL CAVITY WITH BATT FIBERGLASS INSULATION.

NEW PEMB GIRTS - SEE STRUCTURAL FOR REQUIREMENTS

2" PERIMETER INSULATION HORIZONTAL AND VERTICAL.

NOTCH BLOCK AROUND STEEL COLUMNS.

FIXTURES AND FOUNDATION: AS APPROPRIATE FOR DETAILS.
A. All areas designated by dashed lines are to be removed.

B. All areas equipment, materials, and components, not designated as noted for removal shall remain intact. Photo documentation of areas to be removed must be completed before any demolition commences. All debris shall be contained and removed from the site.

C. Preserve interior and exterior showings, openings, or other surfaces to facilitate subsequent renovation. All columns and structural members to be removed are noted.

D. Locate and identify existing utilities. Include sanitary sewer, electrical, chilled water, steam, and all other identified utilities that shall remain intact after demolition. Patch and repair existing adjacent surfaces as required after demolition to match existing or in accordance with proposed renovations.

E. Lead paint has been identified on the project. All other suspended hazardous materials have been identified by analysis. If any other hazardous materials are identified during demolition, the Contractor shall be responsible for properly identifying and disposing of such materials as required.

F. Remove decayed, vermin-infested or otherwise dangerous or unsuitable materials and promptly dispose of off-site.

G. Contractor is responsible to remove from building site and legally dispose of site.

H. See MPE Drawings for coordination and further information on mechanical, plumbing and electrical demolition. Including but not limited to existing plumbing fixtures, drainage and vent piping, and surface mounted conduit and wire mold. Remove or relocate interior surface mounted items where they conflict with new work. Coordinate all demolition with owner and other trades.

I. Do not demo any IT. CABLING. Protect all IT. CABLING to remain during construction. Coordinate with owner's representative.

J. Coordinate all demolition with owner and other trades.

K. Do not demo any I.T. CABLING. Protect all I.T. CABLING to remain during construction. Coordinate with owner's representative.

L. Patch dimensions and locations. It is anticipated that existing conditions shall require slight adjustments.

M. Coordinate all demolition with owner and other trades.

N. Coordinate all demolition with owner and other trades.
DEMOLITION GENERAL NOTES:

A. All areas designated by dashed lines are to be removed.
B. All areas, equipment, fixtures, and components not designated as to be removed shall be properly and securely fastened to remaining material to prevent damage and to protect newly installed systems.
C. Provide interior and exterior drawings, including, but not limited to:

- Support system
- Roof and wall framing
- Existing utilities
- Existing building systems
- Existing foundation systems
- Existing retaining walls
- Existing exterior/interior doors
- Existing windows
- Existing masonry products
- Existing components

D. Locate and identify existing utilities, including sanitary sewer system, and ensure all equipment and components noted to be removed are properly and securely fastened to the remaining material. Provide a list of all utilities in existing construction and ensure proper disconnects are provided for all utilities prior to demolition.
E. Coordinate with the owner and all trades.
F. Provide a detailed inventory of all electrical equipment, fixtures, and components.
G. Properly secure all electrical equipment, fixtures, and components to the remaining material. 
H. Provide a detailed inventory of all mechanical equipment, fixtures, and components.
I. Properly secure all mechanical equipment, fixtures, and components to the remaining material.
J. Provide a detailed inventory of all plumbing equipment, fixtures, and components.
K. Properly secure all plumbing equipment, fixtures, and components to the remaining material.
L. Provide a detailed inventory of all HVAC equipment, fixtures, and components.
M. Properly secure all HVAC equipment, fixtures, and components to the remaining material.
N. Provide a detailed inventory of all structural elements.
O. Properly secure all structural elements to the remaining material.

DEMOLITION KEY NOTES:

1. Retain all structural elements and foundations.
2. Retain all non-structural elements and foundations.
3. Retain all electrical, mechanical, and plumbing systems.
4. Retain all exterior/interior doors and windows.
5. Retain all masonry products.
6. Retain all components and accessories. 

7. Remove all overhead doors and components.
8. Remove all metal wall panels.
9. Remove all sprinkler systems.
10. Remove all fire protection systems.
11. Remove all HVAC, plumbing, and electrical systems.
12. Remove all exterior/interior doors and windows.
13. Remove all masonry products.
14. Remove all structural elements.
15. Remove all non-structural elements.
16. Remove all electrical, mechanical, and plumbing systems.

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

1. CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING THE FOLLOWING DOCUMENTS TO THE INSPECTION OF RECORD:
   A. CONTRACT DRAWINGS
   B. CONTRACT SPECIFICATIONS
   C. CONTRACTOR'S ATTACHMENTS

2. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING THE FOLLOWING ITEMS:"
CONCRETE MASONRY

COMPONENTS & CLADDING WIND PRESSURES

A. REFERENCES

CONCRETE MASONRY WALLS SHALL CONSIST OF ASTM C-90, GRADE N-1, HOLLOW CONCRETE MASONRY UNITS. GRADE 50 STEEL ANCHOR BOLTS; ASTM F1554, GRADE 55, HOT-DIP GALVANIZED, WELDABLE. STEEL MORTAR SHALL COMPLY WITH ASTM C-270, AND SHALL BE TYPE S (1800 PSI) OR A490 BOLTS", RESEARCH COUNCIL ON RIVETED AND BOLTED STRUCTURAL JOINTS. UNLESS NOTED OTHERWISE, STANDARD CALIBRATED WRENCHES, OPERATORS CERTIFIED BY AWS IN PERFORMING THE TYPE OF WORK INDICATED.

B. MATERIALS

1. GRADE STEEL

ROOF

3. MORTAR SHALL COMPLY WITH ASTM C-270, AND SHALL BE TYPE S (1800 PSI)

4. CORE FILL GROUT SHALL COMPLY WITH ASTM C-476, WITH A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI.

C. MASONRY SHALL BE LAID IN A RUNNING BOND PATTERN UNLESS OTHERWISE NOTED. NO CONTINUOUS VERTICAL

D. PROVIDE HORIZONTAL JOINT REINFORCING IN PARAPETS AND FREE STANDING WALLS AT EIGHT (8) INCHES VERTICALLY. LAP SPLICES SHALL BE MEASURED ABOVE THE STEM WALL.

E. PROVIDE REINFORCING STEEL DOWELS INTO STRUCTURE ABOVE AND BELOW WITH SIZE AND SPACING TO MATCH VERTICAL REINFORCING. LAP SPLICES SHALL BE TERMINATED REINFORCEMENT EACH SIDE OF CONTROL JOINTS. THE REINFORCEMENT EXTENSION OR REINFORCEMENT MUST BE AT LEAST 5 INCHES VERTICALLY. STRUCTURAL BOLTS: ASTM A325-N, 3/4" UNLESS NOTED OR A490 BOLTS", RESEARCH COUNCIL ON RIVETED AND BOLTED STRUCTURAL JOINTS. UNLESS NOTED OTHERWISE, STANDARD CALIBRATED WRENCHES, OPERATORS CERTIFIED BY AWS IN PERFORMING THE TYPE OF WORK INDICATED.

F. DOWELS TO THE FOUNDATIONS WITH SIZE AND SPACING TO MATCH VERTICAL REINFORCING.  LAP SPLICES SHALL BE TERMINATED REINFORCEMENT EACH SIDE OF CONTROL JOINTS. THE REINFORCEMENT EXTENSION OR REINFORCEMENT MUST BE AT LEAST 5 INCHES VERTICALLY.

G. PAINTING: AFTER MATERIAL HAS BEEN PROPERLY CLEANED AND TREATED, APPLY SHOP PRIME COAT TO ALL SURFACES, OR OTHER COATINGS.

H. CONTROL JOINTS: SHALL BE PROVIDED AS SPECIFIED BY THE ARCHITECT. TERMINATE REINFORCEMENT EACH SIDE OF CONTROL JOINTS. SEE ARCHITECTURAL DRAWINGS FOR SEALANT REQUIREMENTS AT CONTROL JOINTS.

I. PROVIDE HORIZONTAL JOINT REINFORCING IN PARAPETS AND FREE STANDING WALLS AT EIGHT (8) INCHES VERTICALLY. LAP SPLICES TO THE FOUNDATIONS WITH SIZE AND SPACING TO MATCH VERTICAL REINFORCING.  LAP SPLICES SHALL BE TERMINATED REINFORCEMENT EACH SIDE OF CONTROL JOINTS. THE REINFORCEMENT EXTENSION OR REINFORCEMENT MUST BE AT LEAST 5 INCHES VERTICALLY.

J. PROVIDE HORIZONTAL JOINT REINFORCING IN PARAPETS AND FREE STANDING WALLS AT EIGHT (8) INCHES VERTICALLY. LAP SPLICES TO THE FOUNDATIONS WITH SIZE AND SPACING TO MATCH VERTICAL REINFORCING.  LAP SPLICES SHALL BE TERMINATED REINFORCEMENT EACH SIDE OF CONTROL JOINTS. THE REINFORCEMENT EXTENSION OR REINFORCEMENT MUST BE AT LEAST 5 INCHES VERTICALLY.

K. CONTROL JOINTS: SHALL BE PROVIDED AS SPECIFIED BY THE ARCHITECT. TERMINATE REINFORCEMENT EACH SIDE OF CONTROL JOINTS. SEE ARCHITECTURAL DRAWINGS FOR SEALANT REQUIREMENTS AT CONTROL JOINTS.

L. GROUTING: CONTRACTOR SHALL SUBMIT PROPOSED GROUT MIX DESIGN FOR ENGINEER REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.  CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND CALCULATIONS FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.

CONCRETE MASONRY WALLS SHALL CONSIST OF ASTM C-90, GRADE N-1, HOLLOW CONCRETE MASONRY UNITS. GRADE 50 STEEL ANCHOR BOLTS; ASTM F1554, GRADE 55, HOT-DIP GALVANIZED, WELDABLE. STEEL MORTAR SHALL COMPLY WITH ASTM C-270, AND SHALL BE TYPE S (1800 PSI) OR A490 BOLTS", RESEARCH COUNCIL ON RIVETED AND BOLTED STRUCTURAL JOINTS. UNLESS NOTED OTHERWISE, STANDARD CALIBRATED WRENCHES, OPERATORS CERTIFIED BY AWS IN PERFORMING THE TYPE OF WORK INDICATED.

M. GROUTING AND REINFORCING: ALL MASONRY AND GROUTING AND REINFORCING WORK SHALL BE PERFORMED BY MASONRY CRAFTWORKERS WHO HAVE SUCCESSFULLY COMPLETED THE INTERNATIONAL MASONRY INSTITUTE (1-800-IMI-0988) TRAINING COURSE FOR GROUTING AND REINFORCED MASONRY CONSTRUCTION, OR EQUAL.

N. SUBMIT ERECTION AND FABRICATION SHOP DRAWINGS. SEE SPECS.

O. CONTRACTOR SHALL SUBMIT THE DESIGN REACTIONS FROM THE METAL BUILDING MANUFACTURER TO CONFIRM THE FOUNDATION FOOTING AS SHOWN.  OTHER STRUCTURAL ELEMENTS INCLUDING ROOF FRAMING, WIND FRAMES AND BRACING, METAL BUILDING COLUMNS, ANCHOR BOLTS, BRIDGE CRANE SUPPORTS, AND METAL BUILDING COLUMN BASE PLATES ARE TO BE DESIGNED BY PRE-ENGINEERED METAL BUILDING MANUFACTURERS.

P. THE PRE-ENGINEERED METAL BUILDING SHALL BE DESIGNED SUCH THAT LATERAL DRIFT SHALL BE LIMITED TO H/240 FOR 10-YEAR WINDS. TENSION/COMPRESSION BRACING AT BRIDGE CRANE SUPPORT FRAMES TO RESIST THE LONGITUDINAL FORCE ON CRANE RUNWAY BEAMS; BRACING SHALL MEET KL/R < 200.
PLAN NOTES:

1. REFER TO S-001 & S-002 FOR GENERAL STRUCTURAL NOTES
2. REFER TO S-501 & S-502 FOR TYP. STRUCTURAL DETAILS
3. METAL BUILDING REACTIONS SHALL BE PROVIDED TO THE ENGINEER OF RECORD PRIOR TO REBAR AND ANCHOR ROD SHOP DWG SUBMITTAL.
4. CONTRACTOR REQUIRED TO DEWATER GROUND WATER AS NEEDED DUE TO HIGH WATER TABLE.
5. SLOPE PUMP ROOM AND GENERATOR ROOM FLOOR SLABS TO TRENCH DRAINS.
6. REFER TO OTHER DISCIPLINE DRAWINGS FOR ROOF AND WALL PENETRATION LOCATIONS.

LEGEND:
- INDICATES 8" CMU W/ #5 VERT. (CENTERED) IN GROUT FILLED CELLS @ 32" O.C. MAX., CORNERS, AND INTERSECTIONS U.N.O. OPENINGS < 4'-0" WIDE SHALL RECEIVE (2) NEW PEMB COL.
- INDICATES CONTROL JOINT IN SLAB ON GRADE, RE: TYP DTL'S.
- INDICATES 6" X 6" TRENCH DRAIN W/ THICKENED SLAB BELOW
- INDICATES 6" CONC. SLAB W/ #4 @ 12" O.C., E.W. CNTR'D IN SLAB (TYP)
- INDICATES EQUIP. PAD
- INDICATES NEW CMU WALL
- INDICATES T/CONC. PIER CNTR'D ON DOOR (TYP)
- INDICATES 6" CONC. T/SLAB
- INDICATES T/CMU WALL

C.J. - DENOTES MASONRY CONTROL JOINTS, RE: TYP DTL'S
M.C.J. - DENOTES MASONRY CONTROL JOINTS, RE: TYP DTL'S

SCALE: 1/4" = 1'-0"
EXISTING ENGINE FOUNDATION TO BE DEMO'D TO 2" BELOW EXISTING FLOOR SLAB. CUT REBAR AND PATCH LEVEL WITH GROUT.

NEW DRAINAGE SUMP BASIN BY MFR. RE: MECH FOR INFO.

SAWCUT & REPOUR EXIST SLAB @ PIPE AS REQ'D (APPLIES IF BID ALTERNATE #5 IS NOT CHOSEN)

EQUIPMENT PAD. COORD DIMENSIONS WITH ELEC. RE: 12 / S-501 FOR DTLS.

REFER TO S-001 & S-002 FOR GENERAL STRUCTURAL NOTES

REFER TO S-500'S FOR TYP. STRUCTURAL DETAILS

ALL EXISTING STRUCTURE ABOVE FINISH FLOOR SHALL BE DEMOLISHED. THE EXISTING FLOOR SLAB AND FOUNDATION SHALL REMAIN.

A NEW WELL HOUSE STRUCTURE OF THE SAME FOOTPRINT SHALL BE CONSTRUCTED UTILIZING THE EXISTING SLAB AND FOUNDATION. REFER TO ARCHITECTURE FOR ELEVATIONS.

METAL BUILDING REACTIONS SHALL BE PROVIDED TO THE ENGINEER OF RECORD PRIOR TO REBAR AND ANCHOR ROD SHOP DWG SUBMITTAL.

REFER TO OTHER DISCIPLINE DRAWINGS FOR ROOF AND WALL PENETRATION LOCATIONS.

1. PLAN NOTES:

- INDICATES 8" CMU W/ #5 VERT. (CENTERED) IN GROUT FILLED CELLS @ 32" O.C. MAX., CORNERS, AND INTERSECTIONS U.N.O. OPENINGS < 4'-0" WIDE SHALL RECEIVE (2) #5 (CTRD) EA. SIDE, OPENINGS > 4'-0" WIDE SHALL BE REINF. AS NOTED. TOP OF WALL ELEVATIONS VARY, SEE PLAN.

- INDICATES BID ALTERNATE #5

M.C.J. - DENOTES MASONRY CONTROL JOINTS, RE: TYP DTL'S

2. EQUIPMENT
1. MAXIMUM MASONRY CONTROL JOINT SPACING 25'-0" O.C.
2. BOND BEAM HORIZONTAL REINFORCEMENT RUNS CONTINUOUS THROUGH CONTROL JOINT
3. COORDINATE CONTROL JOINT LOCATIONS WITH ARCHITECT.
4. PROVIDE DOWELS IN FOUNDATION TO MATCH VERTICAL BARS

NOTE:
- PROVIDE STANDARD END HOOKS WHERE REQUIRED FOR CORNERS AND ADJACENT HOLES
- LAPS ARE NOT POSSIBLE DUE TO PRESENCE OF ADJACENT HOLES OR CORNERS, PROVIDE STANDARD END HOOKS
- PROVIDE PLASTIC LABEL INDICATING LOAD CAPACITY AT ALL PICK POINTS
- ATTACH DETAILED CONSTRUCTION PLANS TO BID AT PRESENTATION
DEMOLISH EXISTING NATURAL GAS ENGINE AND DRIVE ASSEMBLY. REFER TO BID TAB OPTION FOR ENGINE SALVAGE. DEMOLISH EXISTING BOILER FLUE PIPING WITH FLUE OR.

1. DEMOLISH EXISTING 12" DISCHARGE PIPING TO REMAIN
2. DEMOLISH EXISTING 10'-0" AFF. (TYP.) GRAVITY RELIEF VENT LOCATED ON ROOF HATCH ABOVE PUMP
3. MOUNT INFRARED HEATER AS HIGH AS POSSIBLE (MIN. 8'-0"
4. PROVIDE PRESSURE REDUCING REGULATOR PRV-1 TO REDUCE GAS PRESSURE TO BUILDING HEATING SYSTEM
5. PROVIDE 10'-0" HINGED ACCESS DOOR ON EACH SIDE OF EXHAUST MUFFLER (TYP. BOTH GENERATORS)
6. INSTALL NEW 200 HP MOTOR ON EXISTING PUMP. SEE SPECIFICATION 16220 FOR MOTOR. PROVIDE REQUIRED MOUNTING HARDWARE TO INSTALL MOTOR ON PUMP BASE. ADJUST MOTOR VIBRATION AND CLUTCHES AS RECOMMENDED BY MOTOR SUPPLIERS AND PUMP MANUFACTURER REPRESENTATIVES
7. PROVIDE PRESSURE REDUCING REGULATOR PRV-1 TO REDUCE GAS PRESSURE TO BUILDING HEATING SYSTEM
8. PROVIDE 10'-0" HINGED ACCESS DOOR ON EACH SIDE OF EXHAUST MUFFLER (TYP. BOTH GENERATORS)
9. PROVIDE PRESSURE REDUCING REGULATOR PRV-1 TO REDUCE GAS PRESSURE TO BUILDING HEATING SYSTEM
10. PROVIDE PRESSURE REDUCING REGULATOR PRV-1 TO REDUCE GAS PRESSURE TO BUILDING HEATING SYSTEM
11. PROVIDE PRESSURE REDUCING REGULATOR PRV-1 TO REDUCE GAS PRESSURE TO BUILDING HEATING SYSTEM
12. PROVIDE PRESSURE REDUCING REGULATOR PRV-1 TO REDUCE GAS PRESSURE TO BUILDING HEATING SYSTEM
13. PROVIDE PRESSURE REDUCING REGULATOR PRV-1 TO REDUCE GAS PRESSURE TO BUILDING HEATING SYSTEM
14. PROVIDE PRESSURE REDUCING REGULATOR PRV-1 TO REDUCE GAS PRESSURE TO BUILDING HEATING SYSTEM
15. PROVIDE PRESSURE REDUCING REGULATOR PRV-1 TO REDUCE GAS PRESSURE TO BUILDING HEATING SYSTEM
16. PROVIDE PRESSURE REDUCING REGULATOR PRV-1 TO REDUCE GAS PRESSURE TO BUILDING HEATING SYSTEM

KEY NOTES:

- SERVICE: 4,675 CFH @ 15" - 20" WG
- FUTURE: 9,300 CFH @ 15" - 20" WG
- DEMOLISH EXISTING NATURAL GAS ENGINE AND DRIVE ASSEMBLY. REFER TO BID TAB OPTION FOR ENGINE SALVAGE. DEMOLISH EXISTING BOILER FLUE PIPING WITH FLUE OR.
- DEMOLISH EXISTING NATURAL GAS ENGINE AND DRIVE ASSEMBLY. REFER TO BID TAB OPTION FOR ENGINE SALVAGE. DEMOLISH EXISTING BOILER FLUE PIPING WITH FLUE OR.
- DEMOLISH EXISTING 12" DISCHARGE PIPING TO REMAIN
- DEMOLISH EXISTING 10'-0" AFF. (TYP.) GRAVITY RELIEF VENT LOCATED ON ROOF HATCH ABOVE PUMP
- MOUNT INFRARED HEATER AS HIGH AS POSSIBLE (MIN. 8'-0"
- PROVIDE PRESSURE REDUCING REGULATOR PRV-1 TO REDUCE GAS PRESSURE TO BUILDING HEATING SYSTEM
- PROVIDE 10'-0" HINGED ACCESS DOOR ON EACH SIDE OF EXHAUST MUFFLER (TYP. BOTH GENERATORS)
- INSTALL NEW 200 HP MOTOR ON EXISTING PUMP. SEE SPECIFICATION 16220 FOR MOTOR. PROVIDE REQUIRED MOUNTING HARDWARE TO INSTALL MOTOR ON PUMP BASE. ADJUST MOTOR VIBRATION AND CLUTCHES AS RECOMMENDED BY MOTOR SUPPLIERS AND PUMP MANUFACTURER REPRESENTATIVES
- PROVIDE PRESSURE REDUCING REGULATOR PRV-1 TO REDUCE GAS PRESSURE TO BUILDING HEATING SYSTEM
- PROVIDE 10'-0" HINGED ACCESS DOOR ON EACH SIDE OF EXHAUST MUFFLER (TYP. BOTH GENERATORS)
- PROVIDE PRESSURE REDUCING REGULATOR PRV-1 TO REDUCE GAS PRESSURE TO BUILDING HEATING SYSTEM
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- PROVIDE PRESSURE REDUCING REGULATOR PRV-1 TO REDUCE GAS PRESSURE TO BUILDING HEATING SYSTEM

SCALE: 1/4" = 1'-0"
1. Repaint existing 1/2" piping, see specification 09900.
2. Do not run piping above electrical equipment.
3. Install 3/4" service tap on existing 12" underground water main. Provide curb stop. Not applicable if bid alternate no. 6 is selected.
4. Provide 3/4" CPVC to the sample station, tie in upstream of BFP-1. See water main tapping diagram on M-501. Not applicable if bid alternate no. 6 is selected.
5. Route discharge of air relief valve to trench drain. Pitch pipe towards the trench drain. Use 45 degree elbows, not 90 degree. Maximum of four (4) 45 degree fittings.
6. Provide pipe supports for air relief piping, anchor support to the floor with epoxy set anchors.
7. Provide hose rack and 100 feet of 3/4" heavy duty garden hose.

KEY NOTES:

1.) 2.) 3.) 4.) 5.) 6.) 7.) 8.)

# 0 2' 4' 8'
KEY NOTES:

1. DEMOLISH EXISTING NATURAL GAS ENGINE AND DRIVE ASSEMBLY. REFER TO BID TAB OPTION FOR ENGINE SALVAGE. DEMOLISH EXISTING ENGINE BASE PAD FLUSH WITH FLOOR.

2. DEMOLISH EXISTING ENGINE DRIVE, EXHAUST, AND STAND.

3. DEMOLISH EXISTING NATURAL GAS HEATER AND CONTROLS.

4. DEMOLISH EXISTING NATURAL GAS PIPING FROM EXHAUST AND HEATER BACK TO EXISTING SERVICE METER.

5. REMOVE RIGHT ANGLE DRIVE AND ASSOCIATED COOLING/DRAIN PIPING FROM EXISTING PUMP. PUMP AND COUPLING SHAFTER THROUGH THE RIGHT ANGLE DRIVE BASE, REMOVE.

6. REMOVE EXISTING AIR RELIEF VALVE ASSEMBLY. EXISTING PUMP TAP SHALL BE REUSED FOR NEW AIR RELIEF VALVE.

7. REMOVE EXISTING 1" PIPING.

8. MOUNT INFRARED HEATER 10'-0" AFF (TYP.).

9. ROUTE EXISTING AIR RELIEF PIPING TO TRENCH DRAIN. PITCH PIPE TOWARDS THE TRENCH DRAIN. USE 45 DEGREE ELBOWS, NOT 90 DEGREE, MAXIMUM OF THREE (3) 45 DEGREE FITTINGS.

10. PROVIDE PIPE SUPPORTS FOR AIR RELIEF PIPING. ANCHOR SUPPORT TO THE FLOOR WITH EPOXY SET ANCHORS.

11. PROVIDE HOSE RACK AND 100 FEET OF 3/4" HEAVY DUTY GARDEN HOSE.

12. IF BID ALTERNATE NO. 5 IS SELECTED, DO NOT INSTALL TRENCH DRAIN SYSTEM QUITE ON PUMP ROOM. THE AIR RELIEF VALVE TO THE EXTERIOR OF BUILDING. PROVIDE PIPING SUPPORTS.

13. PROVIDE AS ERECTED DRAWING (BID) AND PROVIDE SCREENS ON OPENINGS OF AIR RELIEF VALVE.

14. ROUTE 3/4" AIR RELIEF TAP TO PUMP. SEE DETAIL FOR CONFIGURATION AND ISOLATION VALVES.

15. INSTALL 200 HP MOTOR ON EXISTING PUMP. SEE SPECIFICATION 09000. MOUNT PUMP AND MOTOR ASSEMBLY AND REGION MACHINE FOUNDATION MOUNTED WAS ACCEPTED BY MOTOR MANUFACTURER REPRESENTATIVE.

16. INSTALL MOTOR AND CLUTCH SHAFT THROUGH THE RIGHT ANGLE DRIVE BASE. PROVIDE 45 DEGREE ELBOW DOWN AND PROVIDE BIRD SCREEN ON OPENING OF AIR RELIEF.

17. PROVIDE 3/4" CW UPSTREAM OF BFP-1. SEE DETAIL FOR CONFIGURATION AND ISOLATION VALVES.

18. INSTALL 1/2" NATURAL GAS TO NEW RADIANT HEATER AS SHOWN AS ASSEMBLY.

19. PROVIDE 1/2" CW UPSTEAM OF BFP-1. SEE DETAIL FOR CONFIGURATION AND ISOLATION VALVES.

20. PROVIDE 1/2" NATURAL GAS TO SAMPLE STATION 1-1/2" DRAIN TO EXTERIOR GRADE SUMP. USE 45 DEGREE ELBOWS, MAXIMUM OF THREE (3) 45 DEGREE FITTINGS.

10,000 / 4,000 CFM
KEY NOTES:

1. DEMOLISH EXISTING NATURAL GAS ENGINE AND DRIVE ASSEMBLY. REFER TO BID TAB OPTION FOR ENGINE SALVAGE. DEMOLISH WEBSIDE BASE AND PLATE FOR PUMP.
2. DEMOLISH EXISTING EXHAUST SUMP, SURFACE, AND STAND.
3. DEMOLISH EXISTING GAS HEATER AND CONTROLS.
4. DEMOLISH EXISTING NATURAL GAS PIPING FROM ENGINE AND HEATER BACK TO EXISTING SERVICE METER.
5. REMOVE RIGHT ANGLE DRIVE AND ASSOCIATED COOLING/DRAIN PIPING FROM EXISTING PUMP. PUMP AND COUPLING SHAFT THROUGH THE RIGHT ANGLE DRIVE SHAL REMAIN.
6. REMOVE EXISTING AIR RELIEF VALVE ASSEMBLY. EXISTING PIPE TAP SHALL BE REUSED FOR NEW AIR RELIEF VALVE.
7. REMOVE EXISTING 12" PIPING. SEE SPECIFICATION SHEETS.
8. CONNECT 3/4" CT TO EXISTING VALVE ON 12" WATER MAIN LOCATED NEAR THE FLOOR. PROVIDE 3/4" CT LINE TO BFP-1. SEE PHOTOS #1.
9. ROUTE DISCHARGE OF AIR RELIEF VALVE TO TRENCH DRAIN. PITCH PIPE TOWARDS THE TRENCH DRAIN. USE 45 DEGREE ELBOWS, NOT 90 DEGREE ELBOWS. MAXIMUM OF THREE (3) 45 DEGREE FITTINGS.

10. PROVIDE PIPE SUPPORTS FOR AIR RELIEF PIPING. ANCHOR SUPPORT TO THE FLOOR WITH EPOXY SET ANCHORS. PROVIDE HOSE RACK AND 100 FEET OF 3/4" HEAVY DUTY GARDEN HOSE.

11. IF BID ALTERNATE NO. 5 IS SELECTED, DO NOT INSTALL TRENCH DRAIN SYSTEM. INCREASE TO 2-1/2" PIPE AND SLOPE PIPING TO EXTERIOR OF BUILDING. PROVIDE PIPE SUPPORTS.

12. PROVIDE A GRAVITY RELIEF VENT AND PROVIDE BIRD SCREEN ON OPENING OF AIR RELIEF VALVE.

13. INSTALL NEW 200 HP MOTOR ON EXISTING PUMP. SEE SPECIFICATION SHEET FOR MOTOR. PROVIDE REQUIRED MOUNTING HARDWARE TO INSTALL MOTOR ON PUMP BASE. ADJUST MOTOR BEARINGS AND CLUTCHES AS RECOMMENDED BY MOTOR SUPPLIER AND PUMP MANUFACTURER REPRESENTATIVE.


15. COMBUSTION AIR INLET. PROVIDE MANUFACTURER'S UNIT SHIPMENT TERMINATION KIT WITH REMOVABLE S.S. BIRD SCREEN. SEE DETAIL 3 ON SHEET M-502.

PHOTO #1
**DETAIL - EQUIPMENT DRAIN**

- **10" - UNIT TOTAL STATIC PRESSURE PLUS 1/2" 18" - 1/2" OF UNIT TOTAL STATIC PRESSURE**
- **EXHAUST PIPE**
- **EXHAUST PIPE**
- **VENTILATION HOLES AT BOTH ENDS**

**NOTE:** USE GALVANIZED SHEET METAL OR ALUMINUM CONSTRUCTION.

**SIDEWALL CENTRIFUGAL EXHAUST FAN**

- **EXHAUST FAN**
- **EXHAUST PIPE**
- **MOUNTING BOLTS**
- **CAULK / SEAL WEATHER TIGHT**

**INFRARED TUBE HEATER DETAIL**

- **EXHAUST PIPE**
- **CAULK / SEAL WEATHER TIGHT**
- **MOUNTING BOLTS**
- **INTERNAL VENT BOX**

**GENERATOR EXHAUST WALL THIMBLE DETAIL**

- **EXHAUST WALL**
- ** strategies for installation requirements**
- **CAULK / SEAL WEATHER TIGHT**

**LOUVER/DAMPER WITH COTTONWOOD SCREEN DETAIL**

- **CAULK ALL AROUND**
- **COTTONWOOD SCREEN MOUNTING HARDWARE**
- **COTTONWOOD SCREEN MOUNTING RAIL**

**NOTE:** PROVIDE HANGERS PER MANUFACTURER'S INSTALLATION REQUIREMENTS (TYP.)

**NOTES:**

- Use 16 Gauge Galvanized Sheet Metal or Aluminum Construction.
- All insulation should be Type-A.1 or Type-C.
- All joints should be weather-tight.

**SCALE:** NTS

**M-502**

- **LOCATIONS:**
  - DETAIL - EQUIPMENT DRAIN
  - GENERATOR EXHAUST WALL THIMBLE DETAIL
  - INFRARED TUBE HEATER DETAIL
  - SIDEWALL CENTRIFUGAL EXHAUST FAN
  - LOUVER/DAMPER WITH COTTONWOOD SCREEN DETAIL

**Checked By:**

- **Drawn By:**
  - S. ULREY
  - M. GRAF

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- www.tetratech.com
MECHANICAL SEQUENCE

EXHAUST FAN CONTROL DIAGRAM (EF-1)

GENERATOR VENTILATION CONTROL DIAGRAM

SUPPLY FAN CONTROL DIAGRAM (SF-1,2,3)

HEATING VENTILATING & COOLING UNIT CONTROL DIAGRAM (HVAC-1)

PLUMBING FIXTURE SCHEDULE

GENERAL NOTES:

1. THE CONTRACTOR, AND ANY DESIGNATED SUBCONTRACTORS FOR BT-1, BT-2, AND BT-3 ARE THE RESPONSIBILITY OF THE MECHANICAL-THERMAL CONTROL CONTRACTOR, COORDINATES WITH ELECTRICAL CONTRACTOR, AND SUBJECT TO THE REQUIREMENTS OF THE ELECTRICAL PLANS.

AUTOMATIC DAMPERS

AD-1: AUTOMATIC DAMPER AD-1 AND AD-2 SHALL BE INSTALLED BETWEEN THE ZONE RETURN DUCT AND THE ZONE SPREADER DUCT. THE UNIT SHALL SHUT DOWN UPON ANY OF THE FOLLOWING CONDITIONS:

1. AUTOMATIC DAMPER AD-1 SHALL CLOSE.
2. AUTOMATIC DAMPER AD-2 SHALL CLOSE.
3. ZONE TEMPERATURE STRAY ABOVE THE FIRST STAGE COOLING SETPOINT OF 85°F (USER ADJUSTABLE) THE FOLLOWING SHALL OCCUR:
4. THE UNIT SHALL SHUT DOWN AND GENERATE AN ALARM SIGNAL ALONG WITH A POWER CAPACITY ERROR IN THE CONTROLLER.

HEATERS SHALL BE ENABLED WHENEVER:

1. THE ZONE TEMPERATURE IS LOWER THAN THE HEATING SETPOINT (5 DEGREE DEAD BAND) THE FOLLOWING SHALL OCCUR:
2. THE UNIT SHALL RUN CONTINUOUSLY AND SHALL MAINTAIN:
3. THE CONTROLLER SHALL MEASURE THE ZONE TEMPERATURE AND CYCLE THE COMPRESSOR TO MAINTAIN ITS SETPOINT.

AIR DELIVERY:

1. THE FAN SHALL RUN CONTINUOUSLY AND SHALL MAINTAIN:
2. THE CONTROLLER SHALL MEASURE THE DISCHARGE AIR TEMPERATURE.
3. THE CONTROLLER SHALL MONITOR THE DIFFERENTIAL PRESSURE ACROSS THE FILTER.

ALARM DETECTION:

THE OCCUPANT SHALL BE ABLE TO ADJUST THE ZONE TEMPERATURE HEATING AND COOLING SETPOINTS AT THE ZONE SENSOR.

WATER DETECTION:

1. UPON DETECTION OF WATER, THE COOLING STAGE SHALL BE DE-ENERGIZED AND SUPPLY FAN SHALL SHUT DOWN.
2. THE UNIT SHALL SHUT DOWN AND GENERATE AN ALARM SIGNAL UPON RECEIVING A SMOKE DETECTOR STATUS.

DUCT SMOKE DETECTOR

1. A 60°F (ADJ.) HEATING SETPOINT.
2. THE UNIT SHALL SHUT DOWN AND GENERATE AN ALARM SIGNAL UPON RECEIVING A SMOKE DETECTOR STATUS.
3. A PRESSURE DIFFERENTIAL GAUGE WITH SWITCH SHALL BE PROVIDED ACROSS THE FILTER.

FILTER

1. THE PRESSURE DIFFERENTIAL GAUGE WITH SWITCH SHALL BE INSTALLED BETWEEN THE DUCT AND THE FILTER. THE DUCT FILTER PRESSURE SET POINT OF 0.15 in/wc (ADJ.) IS REQUIRED.
2. A CONTRACTUALLY SPECIFIED DUCT FILTER SHALL BE INSTALLED BETWEEN THE DUCT AND THE UNIT. THE DUCT FILTER PRESSURE SET POINT OF 0.15 in/wc (ADJ.) IS REQUIRED.

VENTILATION & COOLING UNIT CONTROL DIAGRAM (HVAC-1)

THE CONTROLLER SHALL MEASURE THE ZONE TEMPERATURE AND STAGE THE HEATING TO MAINTAIN ITS HEATING SETPOINT. TO PREVENT SHORT CYCLES THE SUPPLY FAN SHALL HAVE A USER DEFINABLE (ADJ.) INTERVAL BETWEEN CYCLES.

THE CONTROLLER SHALL MONITOR THE DIFFERENTIAL PRESSURE ACROSS THE FILTER.

THE CONTROLLER SHALL MONITOR THE DISCHARGE AIR TEMPERATURE.

THE CONTROLLER SHALL MONITOR THE FAN STATUS.

THE CONTROLLER SHALL SEND A WARNING TO THE CENTRAL SYSTEM TO INDICATE SERVICE IS REQUIRED.

THE BUILDING'S PLC SYSTEM SHALL SEND A WARNING TO THE CENTRAL SYSTEM TO INDICATE SERVICE IS REQUIRED.

THE CONTROLLER SHALL MONITOR THE AIR DELIVERY TEMPERATURE.

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### Heating, Ventilating, and Cooling Unit (HVAC)

**MARK LOCATION**

<table>
<thead>
<tr>
<th>HP</th>
<th>LOCATION</th>
<th>CFM</th>
<th>VOLTS</th>
<th>PH</th>
<th>HZ</th>
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<tr>
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**FAN MOTOR**

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**Air Delivery Schedule**

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**Air Conditioning Unit Schedules**

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**Notes:**

1. PROVIDE WITH MANUFACTURER'S STANDARDS RETURN FILTER BOX.
2. PROVIDE WITH OPTIONAL DAMPER AND DUCT LOUVER.
3. PROVIDE WITH MANUFACTURER'S STANDARDS RETURN FILTER BOX.
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### Gravity Ventilator (GV)

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### Louver Schedule (LV)

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**Louver Schedule (LV)**

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### Damper Schedule (AD)

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### Grille, Register, and Diffuser Schedule

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### Radiant Heater Schedule (RH)

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**Radiant Heater Schedule (RH)**

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6. PROVIDE WITH MANUFACTURER'S STANDARDS RETURN FILTER BOX.
NOTES:

1. DEMOLISH THE SECURITY PANEL, RADIO ANTENNA, AND SOLAR PANELS. THE SOLAR PANELS SHALL BE TURNED OVER TO THE OWNER. SALVAGE THE SECURITY PANEL AND ANTENNA FOR REINSTALLATION AFTER THE BUILDING UPGRADES HAVE BEEN FINALIZED.

2. UPDATE THE SECURITY PANEL TO ACCEPT A 120 VAC POWER FEED IN LIEU OF THE EXISTING BATTERY/SOLAR PANEL POWER FEED. PROVIDE POWER SUPPLIES AND CONVERTERS AS NEEDED SUCH THAT THE PANEL EQUIPMENT WILL OPERATE AS BEFORE, BUT WITH A 120 VAC POWER FEED.
1. INTERIOR LIGHT FIXTURES SHALL BE MOUNTED 12' AFF. SURFACE MOUNT OR PROVIDE PENDANT MOUNT AS NECESSARY.

NOTES:

2. OUTSIDE FIXTURES SHALL BE MOUNTED DIRECTLY ABOVE DOORS.

OUTSIDE RECEPTACLES SHALL BE FLUSH MOUNTED WITH EXTERIOR FINISH (TYP.)

RECEPTACLES SHALL BE MOUNTED AT 48" AFF, AT BOTH ENDS OF BENCH.

OUTSIDE RECEPTACLES SHALL BE FLUSH MOUNTED WITH EXTERIOR FINISH (TYP.)

GENERATOR NO. 1

GENERATOR NO. 2 (FUTURE)

GENERATOR ROOM

MCC ROOM

PUMP ROOM

OUTSIDE RECEPTACLES SHALL BE FLUSH MOUNTED WITH EXTERIOR FINISH (TYP.)
1. INTERIOR LIGHT FIXTURES SHALL BE MOUNTED 9' AFF. SURFACE MOUNT OR PROVIDE PENDANT MOUNT AS NECESSARY.

2. EXTERIOR FIXTURES SHALL BE MOUNTED DIRECTLY ABOVE DOORS.

3. DEMOLISH THE SECURITY PANEL, RADIO ANTENNA, AND SOLAR PANELS. THE SOLAR PANELS SHALL BE TURNED OVER TO THE OWNER. SALVAGE THE SECURITY PANEL AND ANTENNA FOR REINSTALLATION AFTER THE BUILDING UPGRADES HAVE BEEN FINALIZED.

4. UPDATE THE SECURITY PANEL TO ACCEPT A 120 VAC POWER FEED IN LIEU OF THE EXISTING BATTERY/SOLAR PANEL POWER FEED. PROVIDE POWER SUPPLIES AND CONVERTERS AS NEEDED SUCH THAT THE PANEL EQUIPMENT WILL OPERATE AS BEFORE, BUT WITH A 120 VAC POWER FEED.

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SLOPE OF TRENCH WALLS
SHALL CONFORM TO REQUIREMENTS
SPECIFIED BY OSHA

6" RIDGED METAL CONDUIT OR AS CALLED OUT ON
DUCT BANK SECTION

MINIMUM (CLASS A) 4000 P.S.I.
CAST-IN-PLACE CONCRETE

EPOXY BONDING AGENT BETWEEN NEW AND
PVC WATERSTOP (TYP) ALL SIDES, APPLY
STANDARD CONSTRUCTION JOINT

RGS CONDUITS.FIBER OR ASBESTOS CEMENT
FIBERGLASS REINF., PVC, OR PVC COATED

PROVIDE STANDARD END BELL FOR
24"

SECTION A

SEPARATION

3"

3" 18"

A HARDENED CONCRETE.

REBAR TIE (TYP)

DUCTS.

INSIDE WALL FACE

#4/0 BARE GROUND WIRE

ON THE UNDERGROUND DUCT
18" CTRS.LOCATED AS SHOWN
BARS AND #3 REBAR TIES ON
INFORCED WITH #4 REINFORCING
IN CONCRETE SHALL BE RE-
CONDUITS AND DUCTS, ENCASED
UNSTABLE SOIL. ELECTRICAL
DUCT MFR'S SHALL BE USED IN
IN CONCRETE AS OUTLINED BY
METHOD OF INSTALLING DUCTS
THE BUILT-UP OR MONOLITHIC
MFR'S RECOMMENDATIONS
LOCATION PER CONDUIT
BASE SPACER-NO. REQ'D &
INTERMEDIATE SPACER
SECTIONS.

TYPICAL CONCRETE DUCT BANK SECTION VIEW

NOTES
A. REINFORCING RODS FULL LENGTH OF CONCRETE ENCASED DUCTS. OVERLAP
JOINTS BY 6" ON BASE SPACERS AND 12" ON BOTH DIAM. AND DUCT RODS 3" ON
WALLS OF CONCRETE STRUCTURE.
B. CONCRETE DUCT BANK SECTION VIEW, 1/4" SCALE. SEPARATION 3" ON ALL
SIDES OF THE CONCRETE ENCASED DUCT STRUCTURE.
C. DUCTS AND TRENCHES MUST BE INSPECTED BY ENGINEER PRIOR TO ANY CONCRETE
IS POURED.
D. CONTRACTOR MUST ENSURE THAT DUCTS ARE CLEANED, RODDED AND THAT A 3/8"
POLYPROPYLENE ROPE IS LEFT IN EACH DUCT.
E. BACKFILL MATERIAL MUST BE APPROVED BY ENGINEER INSPECTOR; FOR
ACCEPTABLE BACKFILL MATERIAL, SEE SPECIFICATION DOCUMENTS
F. STEEL PLATES ARE TO BE USED IF THE COVER OVER THE DUCT BANK IS LESS THAN
24". THE PLATES ARE TO BE 1/4" THICKNESS AND THE WIDTH OF THE DUCT BANK
SHALL BE THE COVER OF 24" OR LESS. ANY DEVIATION FROM THE STANDARD COVER OF 24"
MUST BE APPROVED BY THE ENGINEER.
G. BELL END TERMINATORS SHALL BE USED WHEN TERMINATING DUCTS IN
STRUCTURES.
H. SITE REQUIREMENTS SHALL APPLY, AND TAKE PRECEDENCE IF IN CONFLICT WITH
THE PLANS.

TYPICAL CONCRETE DUCT BANK SECTION VIEW

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THE PLANS.
GROUND MAT DETAIL

ADDITIONAL CONCENTRIC RINGS SHALL BE ADDED AS REQUIRED TO MEET THE (5) OHM SPECIFIED RESISTANCE. EACH RING TO HAVE 4 GROUND RODS AND SPACED 10 FEET

CONNECTION TO BE MADE WITH HEAVY DUTY EXOTHERMIC PROCESS OR ENGINEERS APPROVED COMPRESSION TYPE CONNECTORS

#4/0 BARE STRANDED COPPER CABLE (TYP.)

NOTE:

FROM THE INNER RING.

ALL WIRE #4/0 BARE COPPER CLAD MIN. 3/4" X 10'-0" MIN. STEEL RODS TO ADDITIONAL RINGS IF REQUIRED (TYP. 4 PLACES)

EQUIP. GROUND TRANSFORMER PAD

TRANSFORMER PAD

HANDBOKE DETAIL

GROUND MAT DETAIL

SUBMERSIBLE LEVEL SENSOR DETAIL

NO SCALE

PLAN

SECTION

FINISH GRADE BUS LUGS

CENTER PIN PULL SLOT W/ FOR 103.5 MPA. COVER RATED 3/4"C TO CONTROL PANEL

LE/LT

LE/LT

LE/LT

LE/LT

LE/LT

LE/LT

EHH-10
INTEGRATED POWER CENTER #1, IPC-1
INTEGRATED POWER CENTER #2, IPC-2

200HP

MCC-A
ONELINE

WELL HOUSE 25W

2-4"C (3#250KCMIIL, 1#3)

2-4"C (3#500KCMIIL, 1#3)

400 A

2"C (3#250KCMIIL, 1#3)

600A

MCC-G
ONELINE

WELL HOUSE 25W

GENERATOR #1 (350 KW) WITH PARALLELING CONTROLLER

2-3"C (3#350KCMIL, #1)

LP-1 (23), BATTERY CHARGER (10 AMP DC)

AUTOMATIC TRANSFER SWITCH

1"C (CTS), 1"C (CONTROL WIRE)

1"C (4#12)

MCP, SEE NOTE 4.

1"C (10#14, CAT-6)

MCC-A, BLOCK HEATER (6,000 W)

1"C (4#12)

600A

GENERATOR #2 (350 KW) - FUTURE WITH PARALLELING CONTROLLER

2-3"C (PULL LINE)

LP-1 (25), BATTERY CHARGER (10 AMP DC)

AUTOMATIC TRANSFER SWITCH

2-1"C (PULL LINE)

1"C (PULL LINE)

MCP

2-1"C (PULL LINE)

MCC-A, BLOCK HEATER (6,000 W)

1"C (PULL LINE)

1200 A

4-3"C (4#300MCM, 1#3/0)

1200 AMP SERVICE ENTRANCE RATED AUTOMATIC TRANSFER SWITCH WITH BYPASS (COORDINATE CONTROLS WITH GENERATOR MANUFACTURER)

4-3"C (4#300MCM, 1#3/0)

DTE

UTILITY METERING CABINET (COORDINATE WITH UTILITY COMPANY)

TO GENERATOR #1
1"C (10#14), 3/4"C (CAT-6)

MCP

VFD

PARALLELING CONTROLLER

CONDUITS SHALL STUB UP IN A LOCATION & ORIENTATION TO MATCH GEN #1 INSTALLATION PROVIDE THREADED CAPS FOR CONDUITS

1"C (4#2, #8)

3/4"C (3#12, 1#12)

1 1/2"C (4#2, #8)

30kVA, 3Ø
480-120/208V

1"C (3#6, 1#14)

3/4"C (2#12, 1#12)

2kVA, 1Ø
480-120/240V

MCP

SHARK POWER QUALITY METER WITH F.O. CARD MODEL: 200-V3

SEE NOTE 3

NOTES:

1. FAN MANUFACTURER SUPPLIED, CONTRACTOR INSTALLED.

2. INTEGRATED POWER CENTER IS A SINGLE ENCLOSURE CONTAINING 480V PANELBOARD, TRANSFORMER, AND 120/208V PANELBOARD.

3. PROVIDE NEUTRAL BUS IN MAIN BREAKER, AND POWER MONITORING NEUTRAL SECTIONS TO ALLOW FOR NEUTRAL ACCESS.

4. GENERATOR MANUFACTURER SHALL PROVIDE AN REMOTE AUXILIARY INFORMATION DISPLAY TO SHOW MULTIVARIABLES FROM THE GENERATOR CONTROL PANEL. THE DISPLAY SHALL BE MOUNTED TO THE FACE OF MCP. COORDINATE WITH OWNER FOR THE ENTIRE LIST OF DESIRED VARIABLES TO DISPLAY.

5. GENERATOR MANUFACTURER SHALL PROVIDE AN ACCESSORY REMOTE CONTROLLER TO THE FACE OF MCP.

6. GENERATION MANUFACTURER SHALL PROVIDE AN ACCESSORY REMOTE CONTROLLER TO THE FACE OF MCP.
<table>
<thead>
<tr>
<th>D-SERIES SIZE 1, 20 LEDs, SINGLE FUSE, 530mA, SURFACE MOUNTED, 3000K, 120V, BLACK, WITH MOTION SENSOR</th>
<th>WALL 1 36W LED</th>
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</thead>
<tbody>
<tr>
<td>LITHONIA OR EQUAL</td>
<td>DSXW1 LED OR EQUAL</td>
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<tr>
<td>11&quot; X 50&quot; ONE-PIECE 5VA RATED FIBERGLASS ENCLOSED AND GASKETED LUMINAIRE WITH CLEAR ACRYLIC LENS, 4100K (WET LOCATION FITTINGS SURFACE)</td>
<td>PENDANT 1 59.2W LED</td>
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<tr>
<td>LITHONIA OR EQUAL</td>
<td>FHE LED SERIES OR EQUAL</td>
</tr>
<tr>
<td>EXIT LED EXIT/UNIT COMBO INJECTION-MOLDED, FLAME-RETARDANT, HIGH-IMPACT, THERMOPLASTIC HOUSING</td>
<td>WALL 2 3.8W LED</td>
</tr>
<tr>
<td>LITHONIA OR EQUAL</td>
<td>ECR LED M6 OR EQUAL</td>
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**LUMINARIE SCHEDULE**

<table>
<thead>
<tr>
<th>SYMBOL</th>
<th>DESCRIPTION</th>
<th>LOCATION</th>
<th>LUMENS</th>
<th>MANUFACTURER (OR EQUAL)</th>
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