



**NOTICE OF ADDENDUM -**

**CONTRACT NO. 7411**

DATE: January 6, 2015

FROM: Baxter & Woodman, Inc., Consulting Engineers

TO: Planholders of record for the Work titled:

MADISON WATER UTILITY, MADISON, WISCONSIN  
WATER SYSTEM IMPROVEMENTS  
BOOSTER PUMPING STATION 115 UPGRADE

The Bidding Documents are amended as follows:

1. SECTION A: ADVERTISEMENT FOR BIDS AND INSTRUCTIONS TO BIDDERS

- A. Add the following acceptable prequalification categories to Page A-3:
1. 445, Plumbing
  2. 455, Pump Systems

2. DRAWINGS

- A. Drawing C-2, Site Piping Plan
1. Change reinforcing for Engine Generator Pad as shown in revised Engine Generator Pad Detail, as noted on revised Drawing C-2 (attached to this addendum).
- B. Drawing M-9, Generator Enclosure Detail
1. Change reinforcing for footing walls and masonry wall as shown in revised Sections A and B, as note on revised Drawing M-9 (attached to this addendum).
- C. Drawing M-10, Generator Enclosure Details
1. Delete existing note 6 and replace with new notes 6 through 9 and Change reinforcing for footings and masonry walls as shown in revised Details 1, 2 and 3 as noted on revised Drawing M-10 (attached to this addendum).
- D. Drawing M-11, Generator Enclosure Exterior Elevations

1. Change footing wall elevations as shown on North, West and South Elevations as noted on revised Drawing M-11 (attached to this addendum).

E. Drawing E-3, Electrical Details

1. Add the following item to Note 10 of "Replacement MCC Notes", located in upper left-hand corner of drawing E-3; "d. 2#14 (Spares for use as O-Temp wires when Ex. Motor is Replaced in Future w/ Inverter Duty Motor) for Ea. BP-1 and BP-2."

3. SPECIFICATIONS

A. Section 22 19 13, PIPE AND PIPE FITTINGS: 2.1 DUCTILE IRON PIPE (DIP) AND FITTINGS

1. Page 22 19 13-1, Delete the words "or A21.53" in paragraph 2.1. C. 1. (Note this will only allow full bodied underground fittings to be utilized per ANSI 21.10 or AWWA C100.)
2. Page 22 19 13-2, Add the following to the end of paragraph 2.1. C. 3. Bolts and Nuts: "b. Cor Blue bolts and nuts, manufactured from corrosion-resistant, high-strength, low-alloy steel in accordance with ANSI/AWWA C111/A21.11, that has a baked-on ceramic-filled fluorocarbon resin."

B. Section 22 19 23, VALVES: 2.10 RESERVOIR ALTITUDE VALVE

1. Page 22 19 23-6, Replace the words "dual limit switches" in paragraph 2.10. B. 5. to read: "single limit switch (X105LCW)".
2. Page 22 19 23-6, Replace the words "Or equal" in paragraph 2.10. C. 2. to read: "Pre-approved Equal".

C. Section 22 19 23, VALVES: 2.11 HIGH ZONE/LOW ZONE TRANSFER VALVE

1. Page 22 19 23-7, Replace the words "dual limit switches" in paragraph 2.11 B. 5. to read: "single limit switch (X105LCW)".
2. Page 22 19 23-7, Add the following to the end of paragraph 2.11. B. as follows; "9. Provide adjustable parallel pressure relief function to relieve high pressures (90 to 120 psi) from the high pressure zone and provisions for return flow in case of pressure reversal."
3. Page 22 19 23-7, Replace the words "Cla-Val Model 92-01" in paragraph 2.11 C. 1; as follows; "Cla-Val Model 92-98".
4. Page 22 19 23-7, Replace the words "Or equal" in paragraph 2.11. C. 2. to read: "Pre-approved Equal".

Nothing in this Addendum shall be construed as changing other requirements of the Bidding Documents.

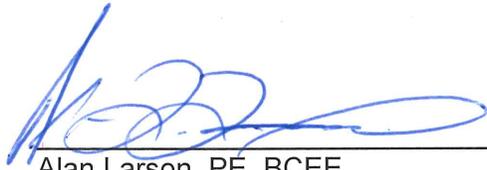
Please acknowledge this addendum on page E1 of the contract documents and/or in Section E: Bidder's Acknowledgement on Bid Express.

Electronic version of these documents can be found on the Bid Express web site at:

<http://www.bidexpress.com>

If you are unable to download plan revisions associated with the addendum, please contact the Engineering office at 608-266-4751 receive the material by another route.

END OF ADDENDUM NO. 1



1-6-15

Alan Larson, PE, BCEE  
Madison Water Utility Principal Engineer

I:\CRYSTAL LAKE\MADUD\140218 - BFS\115\CADD\DRAWINGS\DWG\140218-TOPO C-3D.DWG PROPOSED  
 Plotted: 12/17/2014 3:06 PM By: 064RGE  
 Copyright © 2014, By Baxter & Woodman, Inc.  
 State of Wisconsin - Professional Design Firm  
 License No. - 484-0111 - Expires 1-31-14



SCALE: 1" = 20'

**BAXTER & WOODMAN**  
 Consulting Engineers

CONSULTANTS

NO.	DATE	DESCRIPTION

\* REFER TO EQUIPMENT MANUFACTURER'S SHOP DRAWING

PLAN SHEET DESIGNATION

- COVER
- H C - GENERAL
- H M - HAZARDOUS MATERIALS
- C - CIVIL
- L - LANDSCAPE
- S - STRUCTURAL
- A - ARCHITECTURAL
- I - INSTRUMENTATION
- EQ - EQUIPMENT
- F - FIRE PROTECTION
- P - PLUMBING
- M - MECHANICAL
- E - ELECTRICAL
- T - TELECOMMUNICATIONS
- R - RESOURCE

PROJECT NO: 140218

SCALE: AS NOTED  
 DRAWING DATE: 12-1-2014  
 DESIGNED BY: GDG  
 DRAWN BY: RGE  
 CHECKED BY: GDG

CLIENT

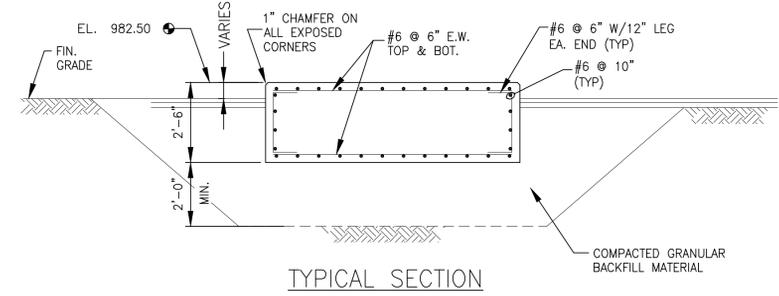
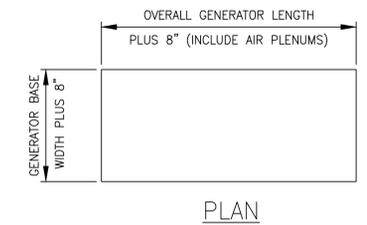
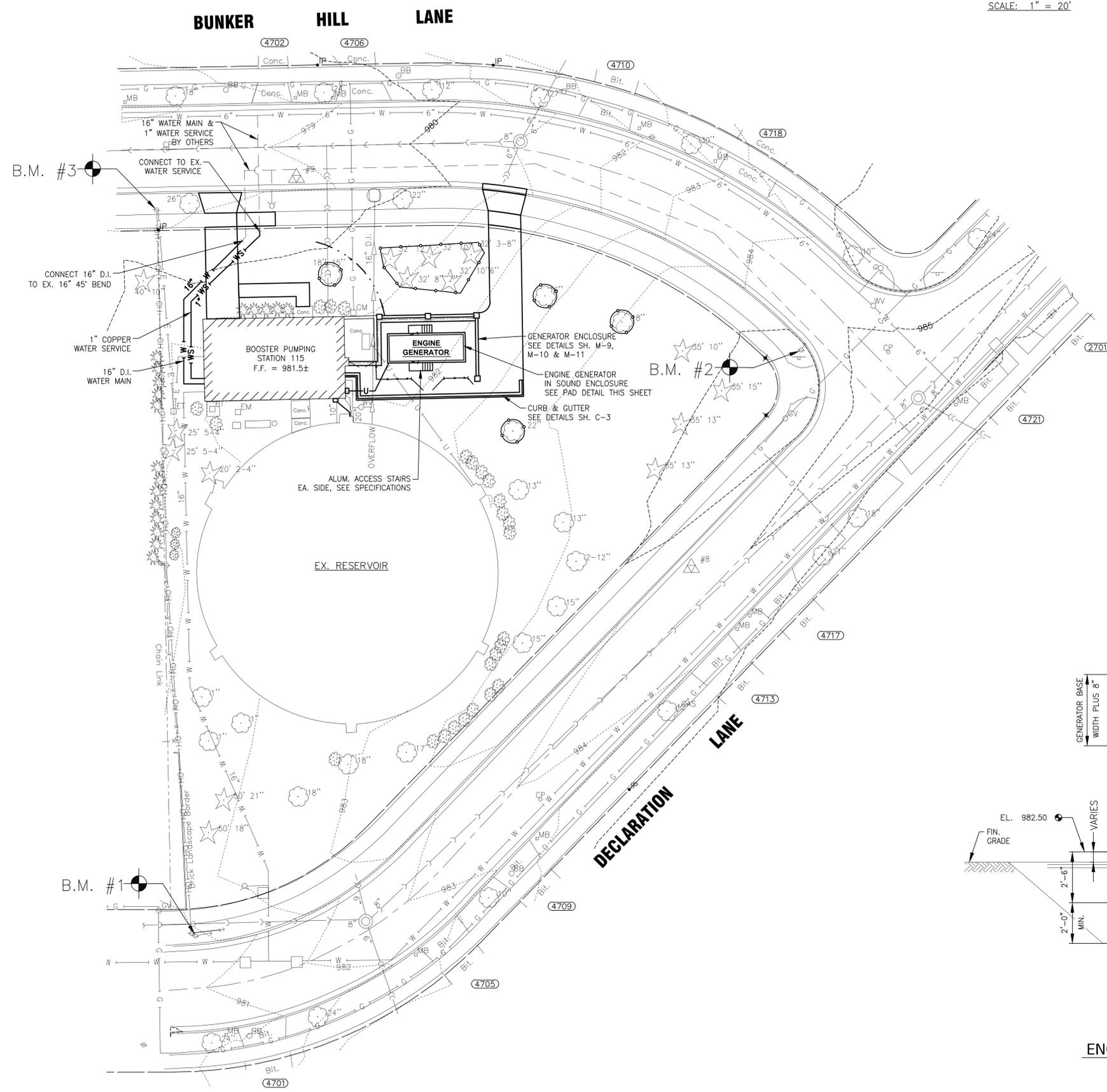
**MADISON WATER UTILITY  
 MADISON, WISCONSIN**

**WATER SYSTEM IMPROVEMENTS  
 BOOSTER PUMPING STATION 115  
 UPGRADE**

SHEET TITLE

**SITE PIPING PLAN**

**C-2**



NOTES  
 1. SEE NOTES ON SH. M-10.  
 2. GENERATOR EQUIPMENT OPERATING WEIGHT = 35,840 LBS.

**ENGINE GENERATOR PAD DETAIL**  
 NO SCALE





**NOTES**

**1.0 SCOPE:**

- 1.1 THIS SECTION COVERS THE REQUIREMENTS FOR THE MATERIALS AND THE CONSTRUCTION OF SITE FENCING.

**2.0 SPECIAL REQUIREMENTS:**

- 2.1 ALL FITTINGS, HARDWARE AND STEEL MEMBERS USED FOR SITE AREA FENCING, SHALL BE HOT DIPPED GALVANIZED (ASTM A153) OR OTHER APPROVED NON CORROSIVE MATERIAL AND CONFORM TO FEDERAL SPEC RR-F-191G (1-25-74).
- 2.2 ALL NON-CORROSIVE MATERIAL SHALL BE PRE-APPROVED BY THE PROJECT MANAGER.
- 2.3 ANY DAMAGE TO GALVANIZING OR NON-CORROSIVE COATING DURING CONSTRUCTION SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S RECOMMENDED METHODS.
- 2.4 ALL WOOD TO BE WESTERN RED CEDAR WITH CLEAR WOOD SEALER FINISH (ANTI-GRAFFITI COATED).

**3.0 FENCE POSTS:**

- 3.1 LOCATION OF CORNER POSTS SHALL BE DETERMINED FROM STAKES AND PROPERTY PINS INSTALLED BY THE REGISTERED LAND SURVEYOR UNDER CONTRACT FOR THE PROJECT. IF THE STAKES ARE NOT PRESENT OR DO NOT CONFORM TO THE SITE PLAN, CONSULT WITH THE PROJECT MANAGER.
- 3.2 GATE POST FOR SITE SHALL BE 4" DIA. SCHEDULE 40 GALVANIZED PIPE. INTERMEDIARY POSTS SHALL BE 2-1/2" OR 3" DIA. SCHEDULE 40 GALVANIZED PIPE.
- 3.3 CORNER POSTS SHALL BE SET WITHIN ONE INCH (1") OF DIMENSIONS INDICATED ON THE SITE PLAN.
- 3.4 FENCE POSTS SHALL BE VERTICALLY PLUMB IN ALL PLANES WITHIN 1/2 INCH (1/2").
- 3.5 CORNER AND GATE POST FOUNDATIONS SHALL BE A MINIMUM FOUR FEET (4') DEEP OR SIX INCHES (6") BELOW THE FROST LINE, WHICHEVER IS GREATER, WITH MINIMUM THREE INCH (3") CLEARANCE BETWEEN BOTTOM OF POST AND BOTTOM OF THE HOLE.
- 3.6 GATE POST FOUNDATIONS SHALL BE TWENTY-FOUR INCHES (24") IN DIAMETER. INTERMEDIARY POSTS FOUNDATIONS SHALL BE 12 INCHES (12") IN DIAMETER.
- 3.7 LINE POSTS BETWEEN CORNER AND GATE POSTS SHALL BE EQUALLY SPACED WITH AN EIGHT FOOT (8') MAXIMUM SPACING. GATE POST LOCATIONS SHALL BE IN ACCORDANCE WITH SITE PLAN AND SHALL BE VERIFIED WITH THE PROJECT MANAGER.
- 3.8 ALL POSTS SHALL BE CAPPED.

**4.0 FENCE ENCLOSURE:**

- 4.1 ENCLOSURE BACKING RAILS TO CONSIST OF TWO INCH (2") BY SIX INCH(6") NOMINAL CEDAR PLANKS. ALL CEDAR TO HAVE CLEAR CEDAR WOOD SEALER FINISH (ANTI-GRAFFITI COATED).
- 4.2 ENCLOSURE BOARDS TO BE HEAVY DUTY TWO INCH (2") BY SIX INCH (6") NOMINAL CEDAR PLANKS. ALL CEDAR TO HAVE CLEAR CEDAR WOOD SEALER FINISH (ANTI-GRAFFITI COATED).
- 4.3 ALL ENCLOSURE BOARDS TO BE SECURED TO FENCE POSTS WITH MANUFACTURER APPROVED HARDWARE. CONTRACTOR TO FOLLOW MANUFACTURER RECOMMENDATIONS AND SPECIFICATIONS.

**5.0 GATE:**

- 5.1 LOCATION OF GATE SHALL CONFORM TO THE SITE PLAN, GATE SIZE SHALL BE 12'-0" WIDE (UNLESS OTHERWISE NOTED).
- 5.2 GATE FRAME TO BE CONSTRUCTED OF TWO INCH (2") WELDED STEEL WITH HEAVY DUTY HINGES. CONTRACTOR TO FOLLOW MANUFACTURER RECOMMENDATIONS AND SPECIFICATIONS.
- 5.3 GATE HINGES SHALL PROVIDE FOR 180 DEGREE RADIUS GATE SWING. ANY HINGE NUTS SHALL BE ON THE INSIDE AND DOUBLE-NUT TO DETER UNAUTHORIZED ENTRY.
- 5.4 GATE SHALL BE INSTALLED PLUMB AND SHALL OPEN AND CLOSE FREELY.
- 5.5 GATE POSTS SHALL NOT BE SHARE AS A CORNER POST.
- 5.6 PROVIDE ADJUSTABLE HEAVY DUTY ROLLER WHEELS SUITABLE FOR EXTERIOR USE ON SOUTHSIDE GATE ONLY.

**6.0 DESIGN LOAD DATA (IBC 2009):**

- 6.1 OCCUPANCY CATEGORY III
- 6.2 WIND LOAD (W)
  - A. BASIC WIND SPEED (V) 90 MPH
  - B. IMPORTANCE FACTOR (I) 1.15
  - C. EXPOSURE CATEGORY B
- 6.3 REFER TO INDIVIDUAL STRUCTURE DRAWINGS FOR ADDITIONAL SUPERIMPOSED DESIGN LOADS.

**7.0 EARTH WORK:**

- 7.1 GEOTECHNICAL INVESTIGATIONS HAVE NOT BEEN COMPLETED FOR THIS PROJECT. THE DESIGN IS BASED ON A PRESUMPTIVE SOIL BEARING PRESSURE OF 2,000 P.S.F. PER IBC 2009 TABLE 1806.2 SHOWN BELOW. THE CONTRACTOR SHALL VERIFY THAT THE SUPPORTING SOIL CONDITIONS MATCH THE CLASS OF MATERIAL IN THE TABLE.

TABLE 1806.2  
PRESUMPTIVE LOAD-BEARING VALUES

CLASS OF MATERIALS	VERTICAL FOUNDATION PRESSURE (psf)	LATERAL BEARING PRESSURE (psf/ft BELOW NATURAL GRADE)	LATERAL SLIDING RESISTANCE	
			COEFFICIENT OF FRICTION <sup>a</sup>	COHESION (psf) <sup>b</sup>
1. CRYSTALLINE BEDROCK	12,000	1,200	0.70	-
2. SEDIMENTARY AND FOLIATED ROCK	4,000	400	0.35	-
3. SANDY GRAVEL AND/OR GRAVEL (GW AND GP)	3,000	200	0.35	-
4. SAND, SILTY SAND, CLAYEY SAND, SILTY GRAVEL AND CLAYEY GRAVEL (SW, SP, SM, SC, GM AND GC)	2,000	150	0.25	-
5. CLAY, SANDY CLAY, SILTY CLAY, CLAYEY SILT, SILT AND SANDY SILT (CL, ML, MH AND CH)	1,500	100	-	130

FOOTNOTES:  
A. COEFFICIENT TO BE MULTIPLIED BY THE DEAD LOAD.  
B. COHESION VALUE TO BE MULTIPLIED BY THE CONTACT AREA, AS LIMITED BY SECTION 1806.3.2.

- 7.2 UNDERCUT AREAS BELOW PROPOSED STRUCTURES TO SUITABLE SOIL MATERIAL. EXTEND WIDTH OF EXCAVATION BEYOND OUTER LIMITS OF PROPOSED STRUCTURES 12 INCHES FOR EVERY FOOT OF UNDERCUT.
- 7.3 DENSIFY EXPOSED GRANULAR SOILS ENCOUNTERED AT BASE OF EXCAVATIONS USING A MINIMUM TWO PASSES WITH VIBRATORY PLATE COMPACTION EQUIPMENT.
- 7.4 BACKFILL AND FILL AREAS BELOW PROPOSED STRUCTURES, ENTRANCE SLABS AND EQUIPMENT PADS WITH COMPACTED STRUCTURAL BACKFILL MATERIAL TO THE REQUIRED SUBGRADE ELEVATION UNLESS OTHERWISE SHOWN ON THE DRAWINGS.
- 7.5 PLACE BACKFILL AND FILL MATERIAL SUCH THAT DIFFERENTIAL PRESSURE ON FOOTING WALLS DOES NOT EXCEED 2'-0".
- 7.6 SEE INDIVIDUAL STRUCTURE DRAWINGS FOR ADDITIONAL EXCAVATION, BACKFILL AND FILL REQUIREMENTS.

**8.0 CONCRETE WORK:**

- 8.1 PROVIDE CONCRETE HAVING A MINIMUM 28 DAY COMPRESSIVE STRENGTH F'C = 4000 P.S.I.
- 8.2 PROVIDE REINFORCING BARS IN COMPLIANCE WITH ASTM A615 GRADE 60.
- 8.3 REINFORCING BAR DOWELS ARE DIMENSIONED WITH THE HORIZONTAL LEG FIRST.
- 8.4 STAGGER ALL REINFORCING BAR SPLICES PROVIDING A LAP LENGTH LISTED IN THE FOLLOWING TABLE UNLESS OTHERWISE SHOWN ON THE DRAWINGS:

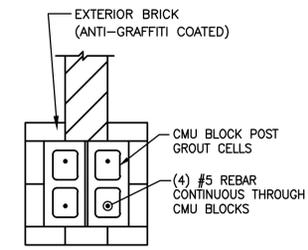
BAR SIZE	LAP SPLICE IN BAR DIAMETERS	
	TOP BARS (EPOXY)*	OTHER BARS (EPOXY)
#6 AND SMALLER	64 (77)	49 (59)
LARGER THAN #6	80 (96)	62 (74)

\* TOP BARS ARE HORIZONTAL BARS PLACED ABOVE MORE THAN 12 INCHES OF FRESH CONCRETE. HORIZONTAL WALL REINFORCING BARS ARE CONSIDERED TOP BARS.

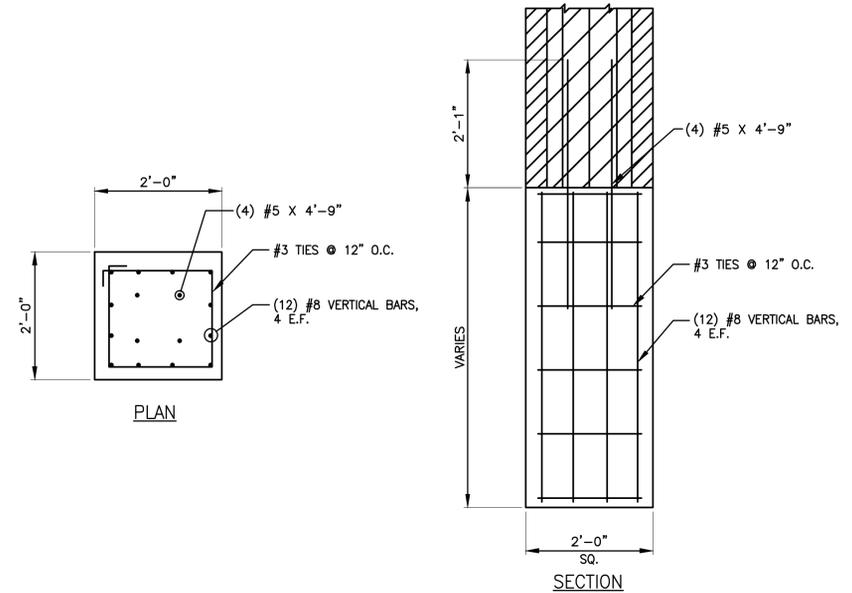
- 8.5 REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR OPENINGS AND EMBEDDED ITEMS IN CONCRETE WORK NOT SHOWN.

**9.0 REMODELING WORK:**

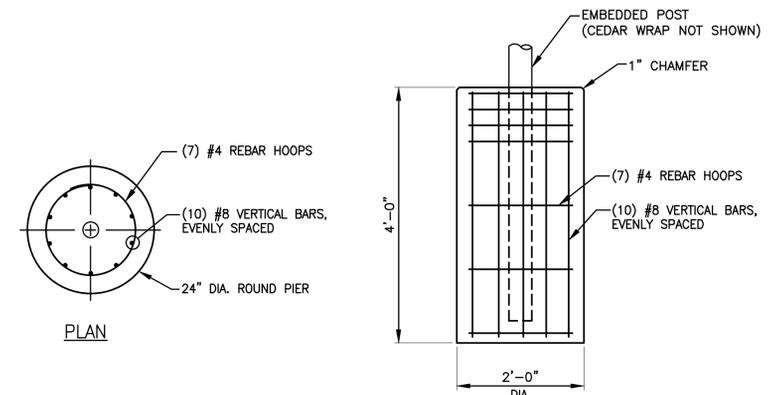
- 9.1 EXISTING FACILITY DIMENSIONS AND ELEVATIONS ARE SHOWN FOR REFERENCE ONLY. FIELD VERIFY AS BUILT CONDITIONS PRIOR TO CONSTRUCTION.
- 9.2 PROVIDE TEMPORARY SHORING OF EXISTING STRUCTURE AS REQUIRED DURING CONSTRUCTION.
- 9.3 REMOVE AND DISPOSE OF EXISTING CONCRETE AND EMBEDDED ITEMS AS REQUIRED FOR PROPOSED WORK. DO NOT CUT OR DAMAGE EXISTING REINFORCING STEEL WITHOUT ENGINEER'S APPROVAL.
- 9.4 SANDBLAST AND CLEAN NEWLY EXPOSED CONCRETE AND REINFORCING BAR SURFACES ON STRUCTURE TO REMAIN.
- 9.5 GRIND SURFACES TO REMAIN EXPOSED SMOOTH AND FLUSH WITH EXISTING ADJACENT SURFACES.
- 9.6 PATCH ABANDON OPENINGS IN CONCRETE WALLS AND SLABS WITH NON-SHRINK GROUT UNLESS OTHERWISE SHOWN ON THE DRAWINGS.
- 9.7 REMOVE AND DISPOSE OF EXISTING MASONRY AND EMBEDDED ITEMS AS REQUIRED FOR PROPOSED WORK.
- 9.8 FILL ABANDONED WALL OPENINGS AND REPLACE MASONRY AS REQUIRED FOR PROPOSED WORK WITH MATERIALS, BOND PATTERN AND JOINERY TO MATCH EXISTING CONSTRUCTION.



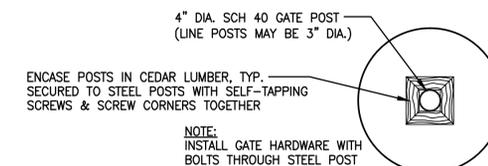
**DETAIL 1**  
NO SCALE



**DETAIL 2**  
NO SCALE



**DETAIL 3**  
NO SCALE



**DETAIL 4**  
NO SCALE



CONSULTANTS

NO.	DATE	DESCRIPTION

REFER TO EQUIPMENT MANUFACTURER'S SHOP DRAWING

PLAN SHEET DESIGNATION

- COVER
- G - GENERAL
- H - HAZARDOUS MATERIALS
- C - CIVIL
- L - LANDSCAPE
- S - STRUCTURAL
- A - ARCHITECTURAL
- I - INSTRUMENTATION
- EQ - EQUIPMENT
- F - FIRE PROTECTION
- P - PLUMBING
- M - MECHANICAL
- E - ELECTRICAL
- T - TELECOMMUNICATIONS
- R - RESOURCE

PROJECT NO: 140218

SCALE: AS NOTED  
DRAWING DATE: 12-1-2014  
DESIGNED BY: GDG  
DRAWN BY: RGE  
CHECKED BY: GDG

CLIENT

**MADISON WATER UTILITY  
MADISON, WISCONSIN**

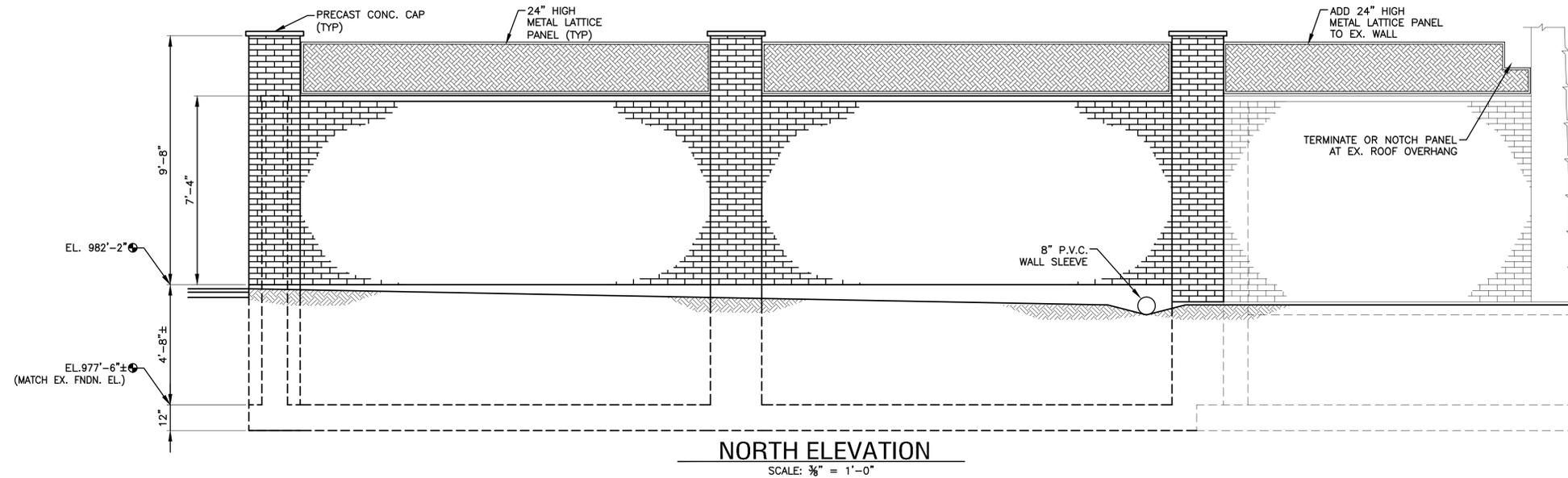
**WATER SYSTEM IMPROVEMENTS  
BOOSTER PUMPING STATION 115  
UPGRADE**

SHEET TITLE

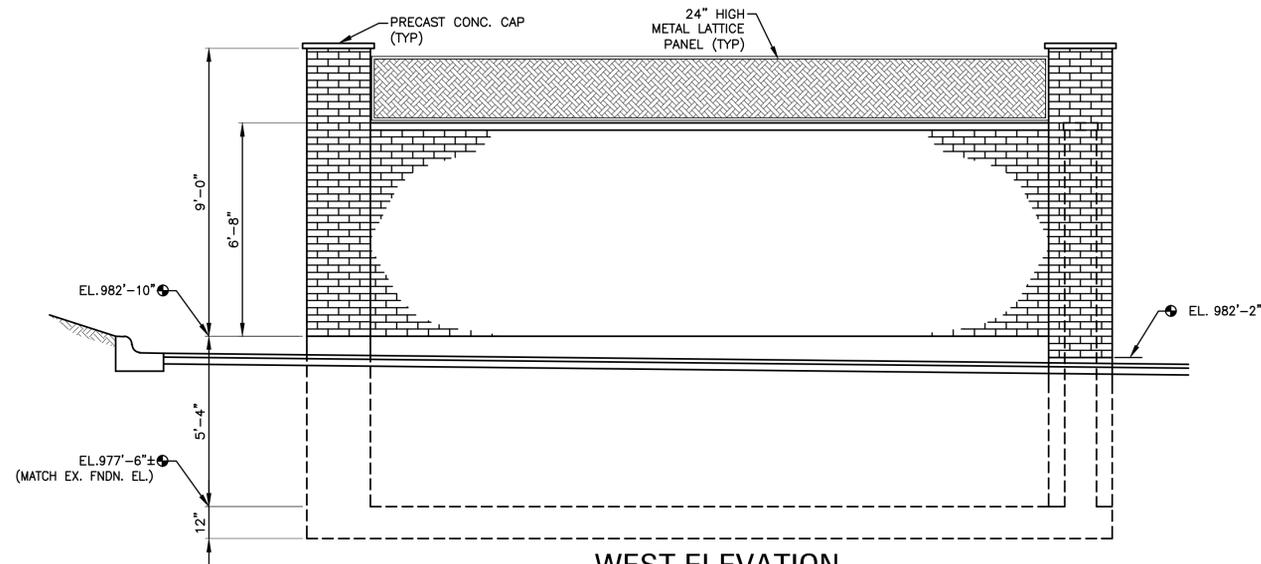
**GENERATOR ENCLOSURE  
DETAILS**

**M-10**

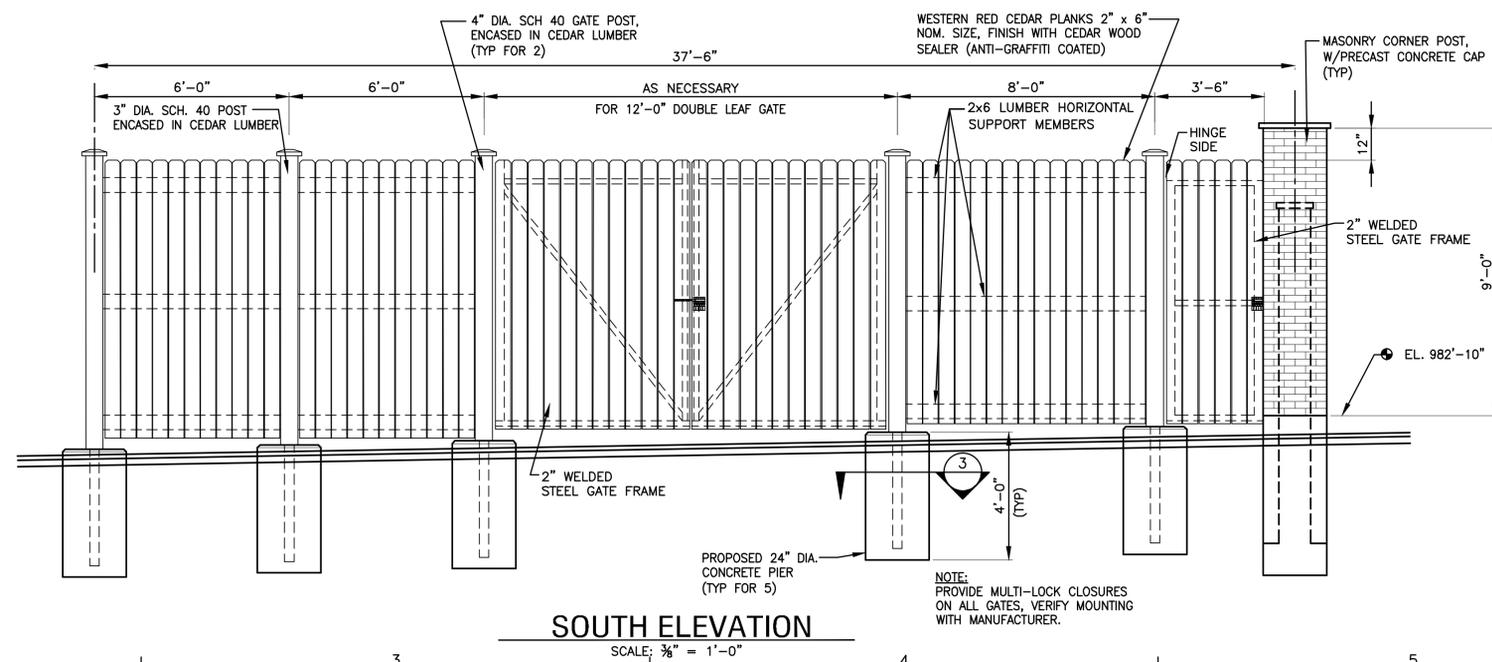
I:\CRYSTAL LAKE\MADUD\140218 - BFS 115\CADD\DRAWINGS\DWG\M-9 GENERATOR ENCLOSURE.DWG ELEVATIONS  
 Plotted: 12/18/2014 7:50 AM By: 064RGE  
 Copyright © 2014, By Baxter & Woodman, Inc.  
 State of Wisconsin - Professional Design Firm  
 License No. - 484-0111 - Expires 1-31-14



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



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



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

CONSULTANTS

NO.	DATE	DESCRIPTION

REFER TO EQUIPMENT MANUFACTURER'S SHOP DRAWING

PLAN SHEET DESIGNATION

COVER

EQ - GENERAL

HAZ - HAZARDOUS MATERIALS

CI - CIVIL

LA - LANDSCAPE

ST - STRUCTURAL

AR - ARCHITECTURAL

IN - INSTRUMENTATION

EQ - EQUIPMENT

FP - FIRE PROTECTION

PL - PLUMBING

ME - MECHANICAL

EL - ELECTRICAL

TE - TELECOMMUNICATIONS

RE - RESOURCE

PROJECT NO: 140218

SCALE: AS NOTED

DRAWING DATE: 12-1-2014

DESIGNED BY: GDG

DRAWN BY: RGE

CHECKED BY: GDG

CLIENT

**MADISON WATER UTILITY**  
**MADISON, WISCONSIN**

**WATER SYSTEM IMPROVEMENTS**  
**BOOSTER PUMPING STATION 115**  
**UPGRADE**

SHEET TITLE

**GENERATOR ENCLOSURE**  
**EXTERIOR ELEVATIONS**