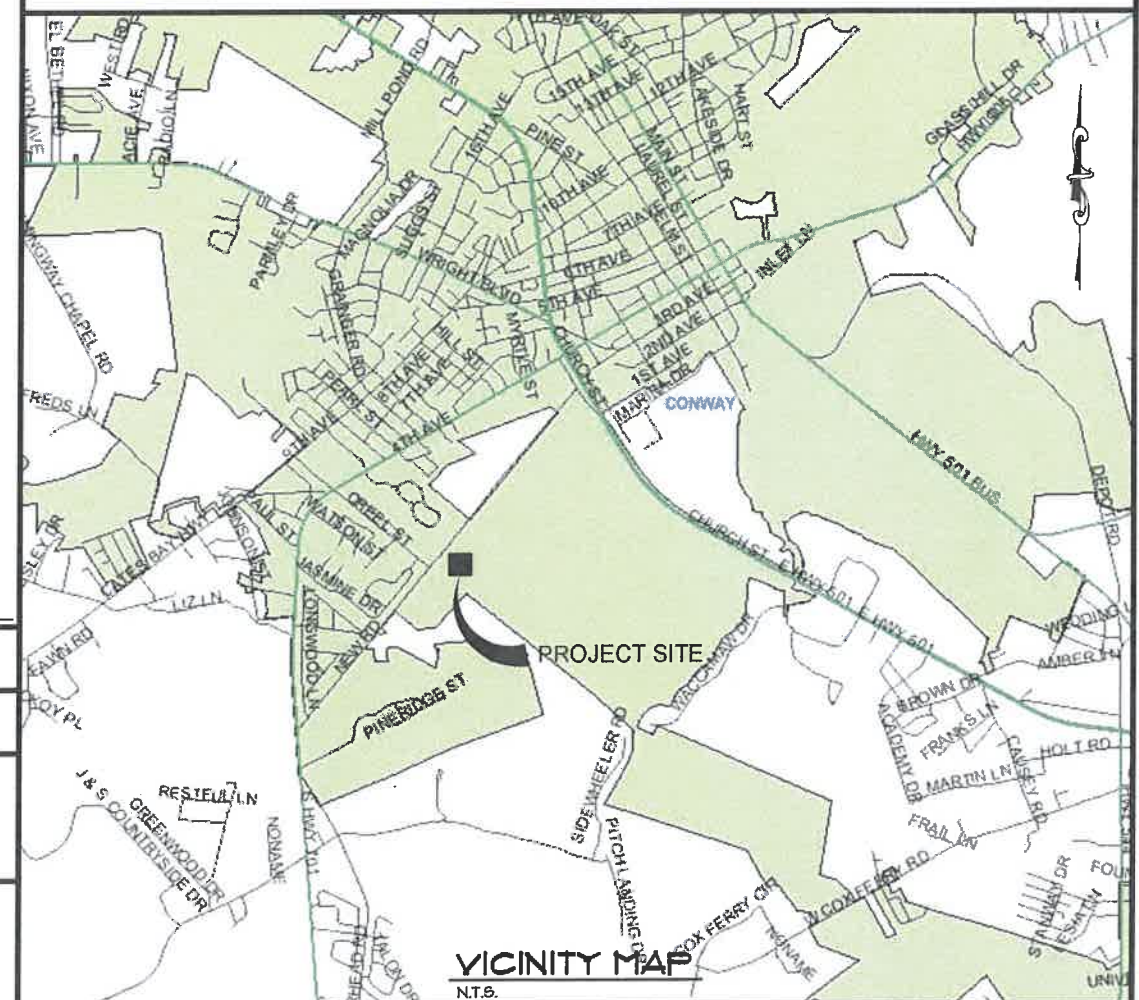


CONWAY WWTP SLUDGE DEWATERING SYSTEM

HORRY COUNTY, SOUTH CAROLINA



LOCATION MAP
N.T.S.



VICINITY MAP
N.T.S.

Version: 2



MARZIANO & MCGOUGAN, P.A.
consulting engineers

1300 SECOND AVENUE • SUITE 211 • CONWAY, SC 29526
Phone: 843.488.0124 Fax: 843.488-0129



SEPTEMBER 2011

JOB NO. 30004

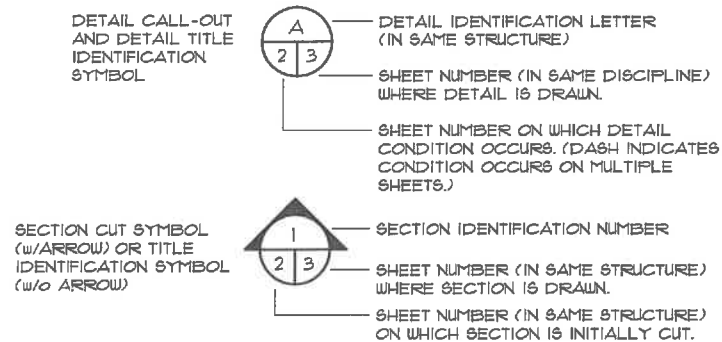
11x17 DWGS. ARE
TRUE HALF SCALE

FOR CONSTRUCTION

GENERAL CONSTRUCTION ABBREVIATIONS

•	NUMBER OR FOUND	INFL	INFLUENT
♦	DIAMETER	INS.	INSIDE
+	AND	INV.	INVERT
<	LESS THAN	JT.	JOINT
<=	LESS THAN OR EQUAL TO	JTS	JOINTS
>	GREATER THAN	L.L.O.	LONG LEG OUT
@	AT	LB	FOUND
AB.	ANCHOR BOLT	LG	LONG
AFF.	ABOVE FINISHED FLOOR	L.P.	LOW POINT
ADDL	ADDITIONAL	M.J.	MECHANICAL JOINT
ALUM	ALUMINUM OR ALUM	MATL.	MATERIAL
APPROX	APPROXIMATE(LY)	MAS	MASONRY
ARCH	ARCHITECTURAL	MAX	MAXIMUM
BM	BENCH MARK OR BEAM	MECH	MECHANICAL
BOTT.	BOTTOM	MFR	MANUFACTURER
BW.	BLOCK WALL	MH	MANHOLE
C.I.	CAST IRON	MIN	MINIMUM
C/C	CENTER TO CENTER	MNTG	MOUNTING
CAP	CAPACITY	N.P.W.	NONPOTABLE WATER
CIRCUM	CIRCUMFERENCE	N.T.S.	NOT TO SCALE
CL	CLAY	NO.	NUMBER
CLR	CLEARANCE	O.C.	ON CENTER
¢	CENTERLINE	O/O	OUTSIDE TO OUTSIDE
CL2	CHLORINE	OFNG	OPENING
CLARIF	CLARIFIER	OX	OXIDATION
CHEM.	CHEMICAL	F.E.	FLAIN END
COL	COLUMN	FED	PEDESTAL
CONC.	CONCRETE	FL	PLATE
CONST	CONSTRUCTION	PLCS.	PLACES
CONT	CONTINUOUS	PROJ	PROJECTION
CONTR	CONTRACTOR	P.S.	PUMP STATION
CU	COPPER	P.V.C.	POLYVINYL CHLORIDE
C.W.	CONCRETE WALL	R.C.P.	REINFORCED CONCRETE PIPE
D	DIAMETER	RAD.	RADIUS
DIA	DIAMETER	RAS	RETURN ACTIVATED SLUDGE
D.I.P.	DUCTILE IRON PIPE	RED	REDUCER
DISCH.	DISCHARGE	REF	REFERENCE
DP	DEEP	REINF	REINFORCING OR REINFORCED
DWLS.	DOUELS	REQ'D	REQUIRED
EF.	EACH FACE	S.S.	STAINLESS STEEL
E.J.	EXPANSION JOINT	SCH.	SCHEDULE
EA	EACH	SHT	SHEET
EFF.	EFFLUENT	SIM	SIMILAR
EL	ELEVATION	S02	SULFUR DIOXIDE
ELEV	ELEVATION	SPA	SPACES
EQ	EQUAL	SQ.	SQUARE
EQUIP	EQUIPMENT	STD.	STANDARD
EXIST.	EXISTING	STL	STEEL
EXP.	EXPANSION	STN	STAINLESS
F.E.S.	FLARED END SECTION	S.W.	SLAB WIDTH
FRP.	FIBERGLASS REINFORCED PLASTIC	S.W.D.	SIDE WALL DEPTH
		T/	TOP OF
FIG	FIGURE	TCJ,CJ	TYP. CONTROL JOINT, CONSTRUCTION JOINT
FIN	FINISHED		
FL	FLANGE	THRD	THREAD(S)ED
FLR	FLOOR	TRICK	TRICKLING
FTG	FOOTING	TYP	TYPICAL
GALV	GALVANIZED	U.ON.	UNLESS OTHERWISE NOTED
HDWE	HARDWARE	VERT	VERTICAL
HK	HOOK	WWF.	WELDED WIRE FABRIC
HORIZ.	HORIZONTAL	W/	WITH
H.P.	HIGH POINT	W/O	WITHOUT
HYD	HYDRANT	WAS	WASTE ACTIVATED SLUDGE
I.D.	INSIDE DIAMETER	W/L	WATER LEVEL
O.D.	OUTSIDE DIAMETER		

SECTION/DETAIL LEGEND



GENERAL NOTES

A. FOUNDATIONS.

1. MAXIMUM ALLOWABLE NET BEARING PRESSURE = 1000 PSF (PRESUMPTIVE).
2. EXCAVATIONS AND FORMS SHALL BE REVIEWED BY THE ENGINEER PRIOR TO PLACING CONCRETE.
3. AS DIRECTED BY THE ENGINEER, LOOSE AND UNSUITABLE MATERIAL SHALL BE REMOVED FROM THE BOTTOM OF THE FOUNDATIONS AND REPLACED WITH COMPACTED STRUCTURAL FILL OR STONE.
4. PLACE CONCRETE FOR WALLS AND SLABS IN ALTERNATE SECTIONS AND PROVIDE CONSTRUCTION JOINTS AT LOCATIONS SHOWN ON THE DRAWINGS, OR AT 30 FEET MAXIMUM.
5. PROVIDE BRACING AGAINST WALLS AS REQUIRED TO PREVENT DAMAGE DURING COMPACTION OF FILL.
6. ALL FILL OR BACKFILL SHALL BE SELECT MATERIAL FREE FROM ROOTS, TRASH, WOOD SCRAPS AND OTHER EXTRANEIOUS MATERIALS. PLACE IN LIFTS NOT EXCEEDING 8 INCHES AND COMPACT EACH LIFT TO 95% DENSITY (98% FINAL FOOT) AT OPTIMUM MOISTURE CONTENT AS MEASURED BY ASTM D698.
7. WHERE SOFT SOILS REQUIRE OVER EXCAVATION FOR BUILDING FOUNDATIONS, OVER EXCAVATED AREAS SHALL BE BACKFILLED WITH COMPACTED #57 OR #67 STONE TO THE DESIGN BEARING ELEVATION.

B. CONCRETE.

1. CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS AS FOLLOWS:
CONTAINMENT STRUCTURES AND SLABS 4,000 PSI
ALL OTHER CONCRETE 3,000 PSI
2. CONCRETE WORK SHALL CONFORM TO ACI 318-05 AND ACI 301-05.
3. CONCRETE SHALL BE CURED A MINIMUM OF 7 DAYS BY ONE OR MORE METHODS SPECIFIED IN ACI 301.
4. CHAMFER EXPOSED EDGES OF CONCRETE (AND ALL CORNERS OF ALL COLUMNS) 3/4 INCH, UNLESS OTHERWISE NOTED.
5. PLACE 1/2 INCH EXPANSION JOINT MATERIAL BETWEEN EDGES OF SLABS AND VERTICAL SURFACES, UNLESS OTHERWISE NOTED.
6. PROVIDE CONSTRUCTION OR CONTROL JOINTS IN SLABS AND WALLS AT LOCATIONS SHOWN ON DRAWINGS, AT OFFSETS AND CHANGES IN DIRECTION, AND AT 30 FEET MAXIMUM. CONSTRUCTION JOINTS IN WALLS SHALL BE LOCATED A MINIMUM OF 10'-0" FROM WALL INTERSECTIONS.

C. REINFORCING STEEL.

1. BARS SHALL BE ROLLED FROM NEW BILLET-STEEL CONFORMING TO ASTM A615, GRADE 60.
2. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 OR ASTM A497.
3. REINFORCING STEEL IN PLACE SHALL BE REVIEWED BY THE ENGINEER PRIOR TO PLACING CONCRETE.

D. GROUT.

1. NON-SHRINK GROUT SHALL CONFORM TO CORP OF ENGINEERS SPECIFICATION CRD-C 671.
2. GROUT SHALL BE NON-STAINING AND NON-SHRINKING.

E. WATERSTOPS.

1. PROVIDE CONTINUOUS PVC WATERSTOPS WHERE SHOWN ON DRAWINGS. AT EXTERIOR WALL CONSTRUCTION JOINTS AND WHERE DIFFERENTIAL HEIGHTS OF FLUIDS EXIST ON EITHER SIDE OF WALL.
2. WATERSTOPS SHALL BE MANUFACTURED OF VIRGIN MATERIAL COMPOSED OF AN ELASTOMERIC POLYVINYL CHLORIDE COMPOUND MEETING THE REQUIREMENTS OF CORPS OF ENGINEERS CRD-C572. SUBMIT MANUFACTURER'S LITERATURE SHOWING COMPLIANCE WITH THE ABOVE SPECIFICATION AND SHOWING WATERSTOP SHAPES FOR USE.
3. WATERSTOPS AT CONSTRUCTION JOINTS SHALL BE 6 INCH MINIMUM LENGTH "DUMBBELL" TYPE UNLESS OTHERWISE INDICATED ON DRAWINGS. WATERSTOPS AT EXPANSION JOINTS SHALL BE 9 INCH MINIMUM LENGTH "DUMBBELL" TYPE WITH 3/4 INCH MINIMUM INSIDE DIAMETER CENTER BULB, UNLESS OTHERWISE INDICATED ON DRAWINGS.
4. ALL SPLICING OF WATERSTOPS SHALL BE SHOP FABRICATED EXCEPT THAT BUTT SPLICES MAY BE FIELD FABRICATED.
5. HYDROPHILIC WATERSTOPS SHALL BE A NON-BENTONITE, COEXTRUDED, STRIP APPLIED HYDROPHILIC RUBBER CONSISTING OF CHLOROPRENE RUBBER AND CHLOROPRENE RUBBER MODIFIED TO IMPART HYDROPHILIC PROPERTIES.
6. HYDROPHILIC WATERSTOP SHALL HAVE AN EXPANSION DELAY COATING TO INHIBIT INITIAL EXPANSION DUE TO MOISTURE PRESENT IN FRESH CONCRETE.
7. HYDROPHILIC WATERSTOP VOLUMETRIC EXPANSION RATIO MUST BE A MINIMUM OF 3:1.

F. DESIGN LOADS.

STRUCTURAL MEMBERS SHALL BE DESIGNED FOR FULL DEAD LOADS AND THE FOLLOWING LIVE LOADS:

1. IMPORTANCE FACTORS: WIND (lw) = 1.15
SNOW (ls) = 1.10
SEISMIC (le) = 1.25
2. LIVE LOADS: ROOF = 20 PSF (REDUCIBLE)
FLOORS, UON = 300 PSF
3. SNOW LOAD: Pg = 5 PSF GROUND SNOW LOAD
Pf = 4.2 PSF, FLAT SNOW LOAD PLUS RAIN SURCHARGE
Ce = 1.0, Ct = 1.10

4. WIND LOAD: BASIC WIND SPEED 130 (ASCE 7-05) Vx = 18 k Vy = 31 k
EXPOSURE CATEGORY C, PARTIALLY ENCLOSED BUILDING (GCp1 = ±0.55)
COMPONENT AND CLADDING WIND PRESSURES

ROOF	AREA	SURFACE PRESSURE (PSF)		
		10 SF	50 SF	100 SF
NEGATIVE ZONE 1		-53.1	-50.5	-49.4
NEGATIVE ZONE 2		-82.4	-69.6	-64.1
NEGATIVE ZONE 3		-82.4	-69.6	-64.1
POSITIVE		38.5	33.3	31.1
WALL	AREA	10 SF	100 SF	500 SF
		10 SF	100 SF	500 SF
NEGATIVE ZONE 4		-60.4	-54.0	-49.4
NEGATIVE ZONE 5		-71.4	-58.5	-49.4
POSITIVE ZONE 4 & 5		56.8	50.3	45.8

5. SEISMIC DESIGN CATEGORY A

COMPLIANCE WITH SECTION 1616.4 ONLY? YES ☒ NO

6. SEISMIC DESIGN CATEGORY D

PROVIDE THE FOLLOWING SEISMIC DESIGN PARAMETERS:

OCCUPANCY CATEGORY III
SPECTRAL RESPONSE ACCELERATION

Ss = 0.670 %g Sds = 0.565 %g
S1 = 0.190 %g Sd1 = 0.258 %g
Cs = 0.029 R = 3.5 INTERMEDIATE REINF MAS SHEAR WALLS

SITE CLASSIFICATION D

BASIC STRUCTURAL SYSTEM

BEARING WALL DUAL w/SPECIAL MOMENT FRAME
BUILDING FRAME DUAL w/INTERMEDIATE R/C OR SPECIAL STEEL
MOMENT FRAME INVERTED PENDULUM

SEISMIC BASE SHEAR Vs = 55 k

ANALYSIS PROCEDURE SIMPLIFIED X EQUIVALENT LATERAL FORCE

7. LATERAL DESIGN CONTROL: WIND X SEISMIC

G. DIMENSIONS.

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING THE DIMENSIONS OF THE STRUCTURAL DRAWINGS AND ADVISING THE ENGINEER OF ANY DIFFERENCES IN DIMENSIONS BETWEEN THE ARCHITECTURAL, STRUCTURAL AND CIVIL DRAWINGS PRIOR TO COMMENCING CONSTRUCTION.
2. DIMENSIONS SHOWN TO EXISTING CONSTRUCTION ARE PLUS OR MINUS REGARDLESS OF WHETHER SHOWN AS SUCH ON THE DRAWINGS OR NOT. DIMENSIONS TO EXISTING CONSTRUCTION ARE TAKEN FROM THE ORIGINAL BUILDING DRAWINGS AND HAVE NOT BEEN FIELD VERIFIED. THE CONTRACTOR SHALL VERIFY IN THE FIELD ALL DIMENSIONS TO EXISTING CONSTRUCTION.

H. ABBREVIATIONS.

THE FOLLOWING LIST OF ABBREVIATIONS IS NOT INTENDED TO REPRESENT ALL THOSE USED ON THESE DRAWINGS, BUT TO SUPPLEMENT THE MORE COMMON ABBREVIATIONS USED:

1. TYP - TYPICAL
2. UON - UNLESS OTHERWISE NOTED
3. CLR - CLEAR, CLEARANCE
4. TCJ - TYPICAL CONTROL JOINT, TYPICAL CONSTRUCTION JOINT
5. EJ - EXPANSION JOINT
6. CJ - CONSTRUCTION JOINT

J. CONSTRUCTION SAFETY.

1. THESE STRUCTURAL DRAWINGS DO NOT CONTAIN NECESSARY COMPONENTS FOR SAFETY DURING CONSTRUCTION.
2. THE CONTRACTOR SHALL PROVIDE ADEQUATE TEMPORARY BRACING, SHORING AND GUYING OF FRAMING AGAINST WIND, CONSTRUCTION LOADS AND OTHER TEMPORARY FORCES UNTIL SUCH PROTECTION IS NO LONGER REQUIRED FOR THE SAFE SUPPORT OF THE FRAMING.

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G-3 CONWAY WWTP OVERALL SITE PLAN
G-4 CONWAY WWTP DEMOLITION SITE PLAN
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G-7 SLUDGE PRESS BUILDING FLOOR PLAN
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G-9 SLUDGE PRESS BUILDING EXTERIOR ELEVATIONS
G-10 SLUDGE PRESS BUILDING TYP. WALL SECTION AND DETAILS
G-11 SLUDGE PRESS BUILDING DOOR AND WINDOW DETAILS
G-12 DOOR / WINDOW DETAILS AND ROLL-UP DOOR SECTION
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G-17 WALK BRIDGE LAYOUT PLAN AND DETAILS
G-18 WALK BRIDGE DETAILS
G-19 MISCELLANEOUS DETAILS

- S-1 SLUDGE PRESS BUILDING FOUNDATION AND ROOF FRAMING PLAN
S-2 SLUDGE PRESS BUILDING TRUSS ELEVATION AND DETAILS
S-3 SLUDGE PRESS BUILDING STRUCTURAL DETAILS

- E-1 ELECTRICAL LEGEND
E-2 ENLARGED ELECTRICAL SITE PLAN
E-3 MCC EXISTING AND MODIFIED ONE-LINES
E-4 PP1 ONE-LINE
E-5 MISCELLANEOUS ONE-LINES
E-6 ELECTRICAL SLUDGE PRESS BUILDING POWER PLAN
E-7 ELECTRICAL SLUDGE PRESS BUILDING LIGHTING PLAN
E-8 ELECTRICAL DETAILS

- H-1 HVAC SCHEDULES AND GENERAL NOTES
H-2 SLUDGE PRESS BUILDING HVAC PLAN

- P-1 PLUMBING GENERAL NOTES AND SCHEDULES
P-2 SLUDGE PRESS BUILDING PLUMBING PLAN

FOR CONSTRUCTION



GENERAL NOTES & INDEX

CONWAY WWTP
SLUDGE DEWATERING SYSTEM
GRAND STRAND WATER &
SEWER AUTHORITY

Scale: AS SHOWN

Date: 09-13-2011

Drawn: DC

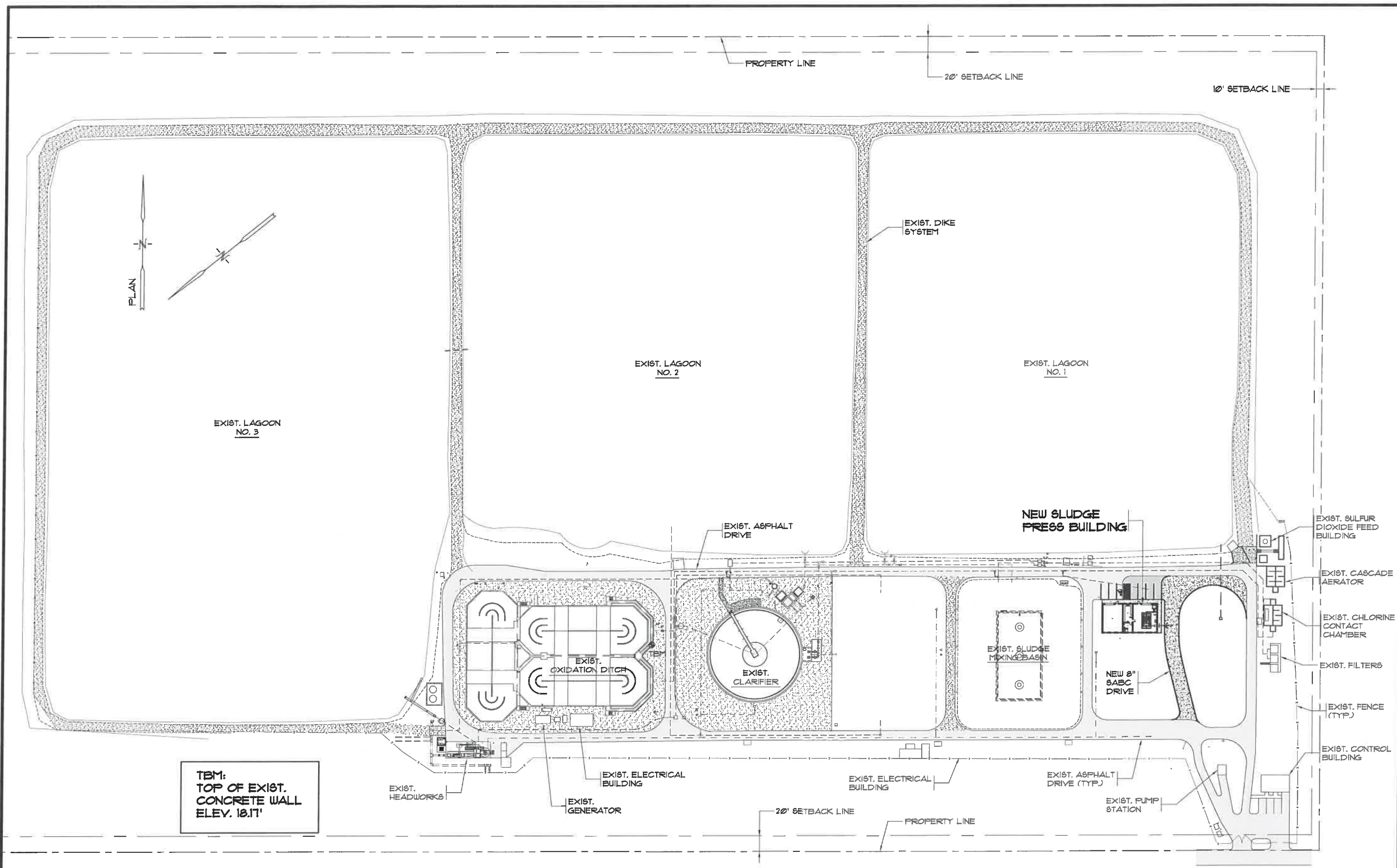
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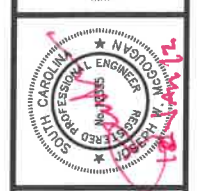
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G-2

Of: Version: 2



**CONWAY WWTP
OVERALL SITE PLAN**
SCALE: 1"=60'



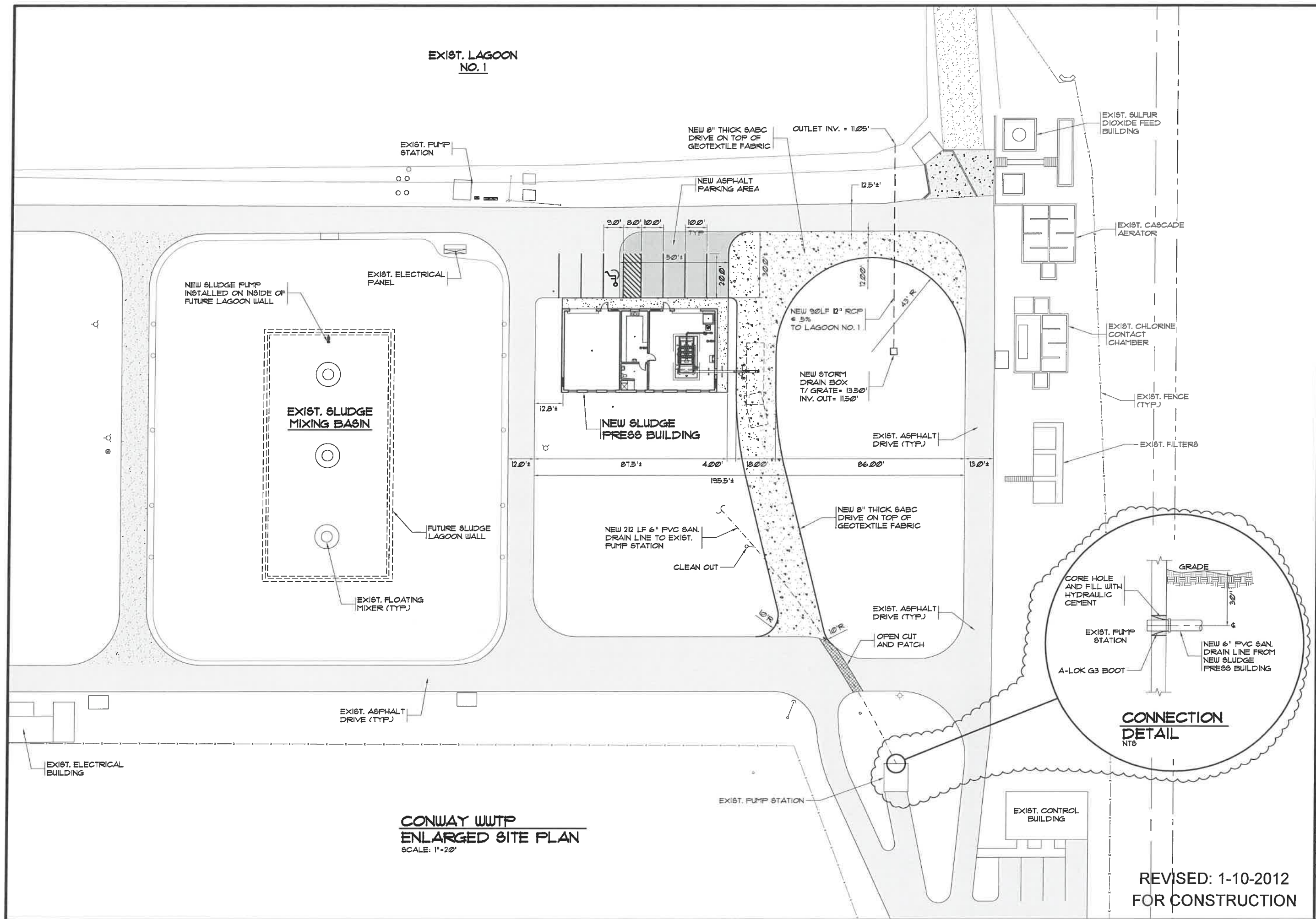
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CONSULTING ENGINEERS
1100 CONVENT AVENUE • SUITE 20 • CONWAY, SC 29526
Phone: 843.688.8224 Fax: 843.688.1228

**CONWAY WWTP
OVERALL SITE PLAN**

**CONWAY WWTP
SLUDGE DEWATERING SYSTEM
GRAND STRAND WATER &
SEWER AUTHORITY**

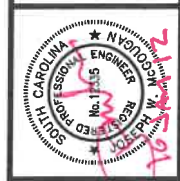
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FOR CONSTRUCTION



**CONWAY WWTP
ENLARGED SITE PLAN**
SCALE: 1"=20'

REVISED: 1-10-2012
FOR CONSTRUCTION



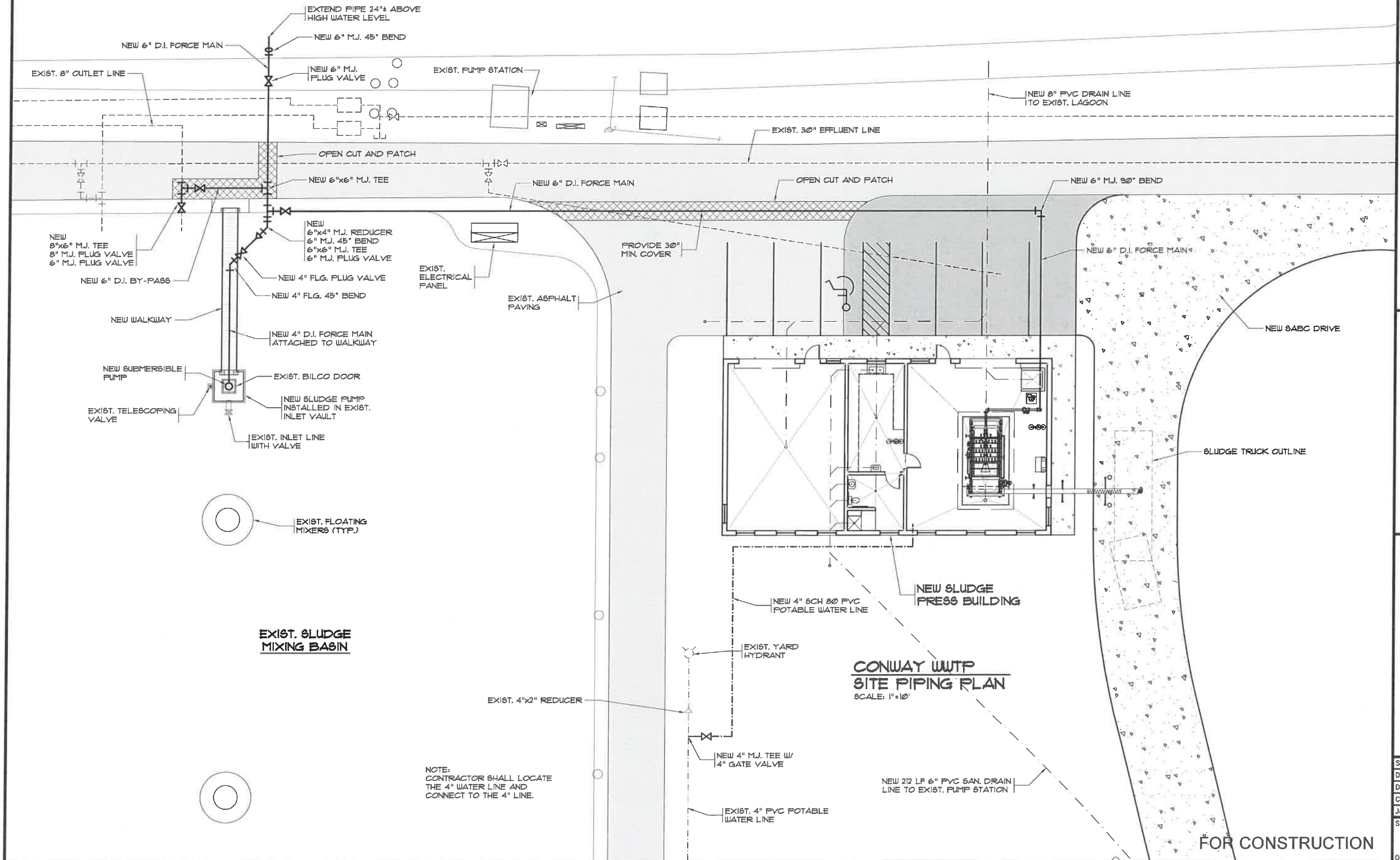
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**CONWAY WWTP
ENLARGED SITE PLAN**

**CONWAY WWTP
SLUDGE DEWATERING SYSTEM
GRAND STRAND WATER &
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EXIST. LAGOON
NO. 1

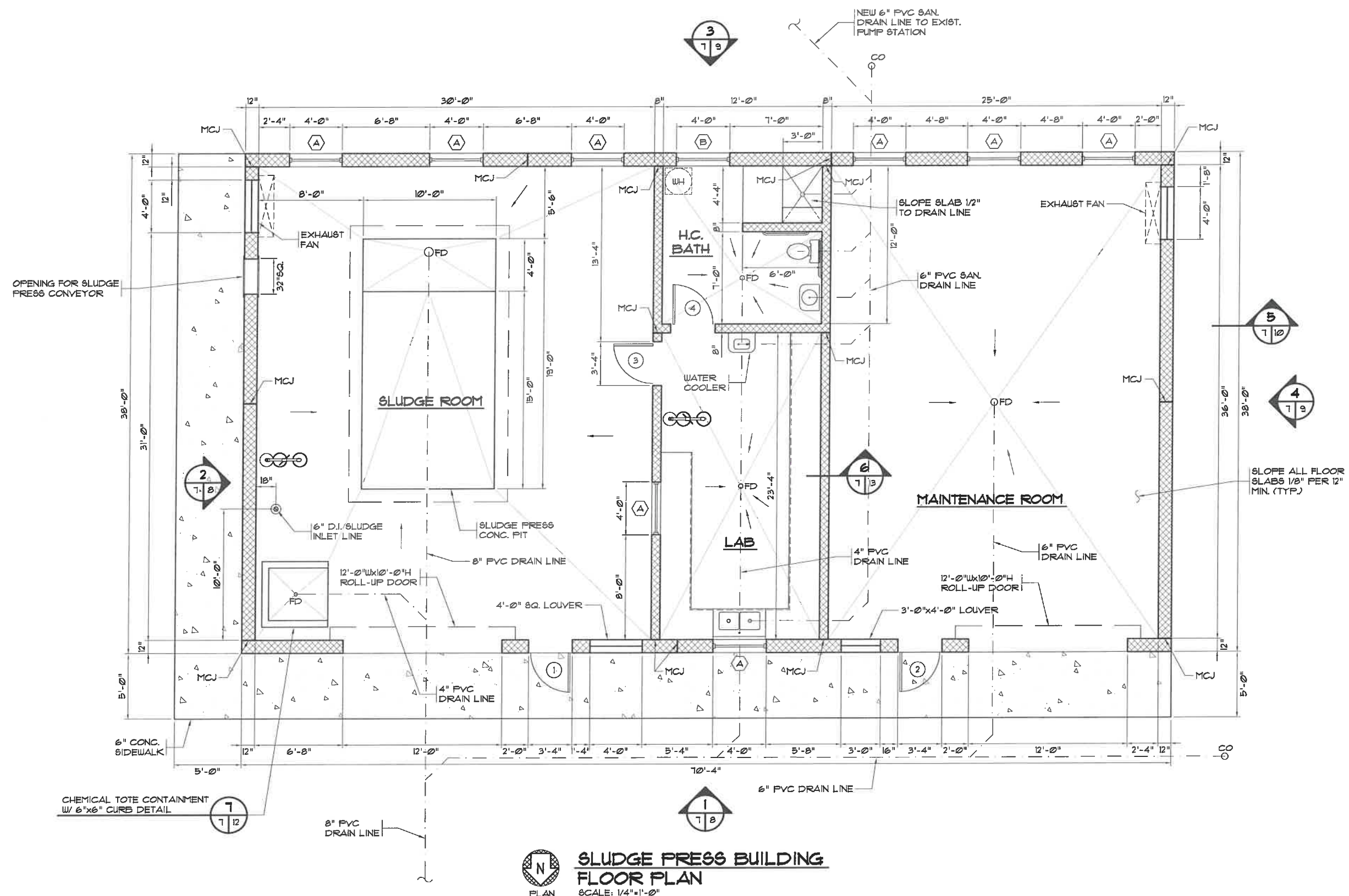


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**CONWAY WWTP
SITE PIPING PLAN**

**CONWAY WWTP
SLUDGE DEWATERING SYSTEM
GRAND STRAND WATER &
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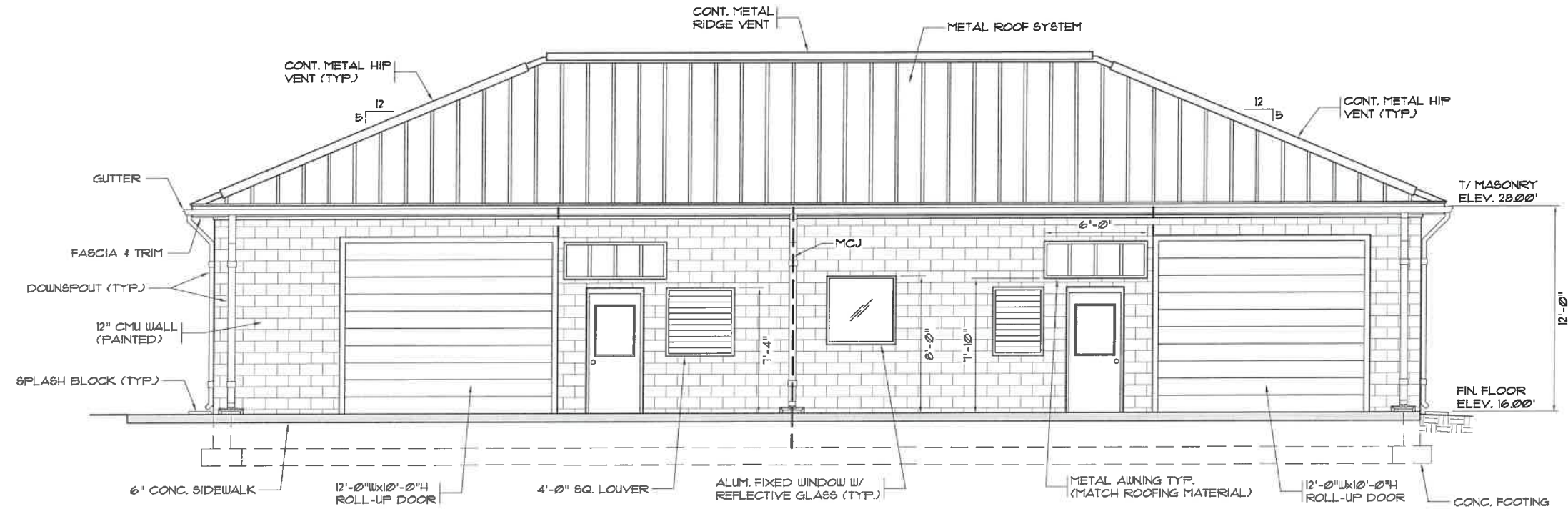
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PROFESSIONAL ENGINEERS
NEW YORK STATE
No. 11111
MARZIANO & MCGOUGAN, P.A.
100 N. 10TH ST., SUITE 200
NEW YORK, NY 10011
TEL: 212-691-1111
FAX: 212-691-1112

**SLUDGE PRESS BUILDING
FLOOR PLAN**

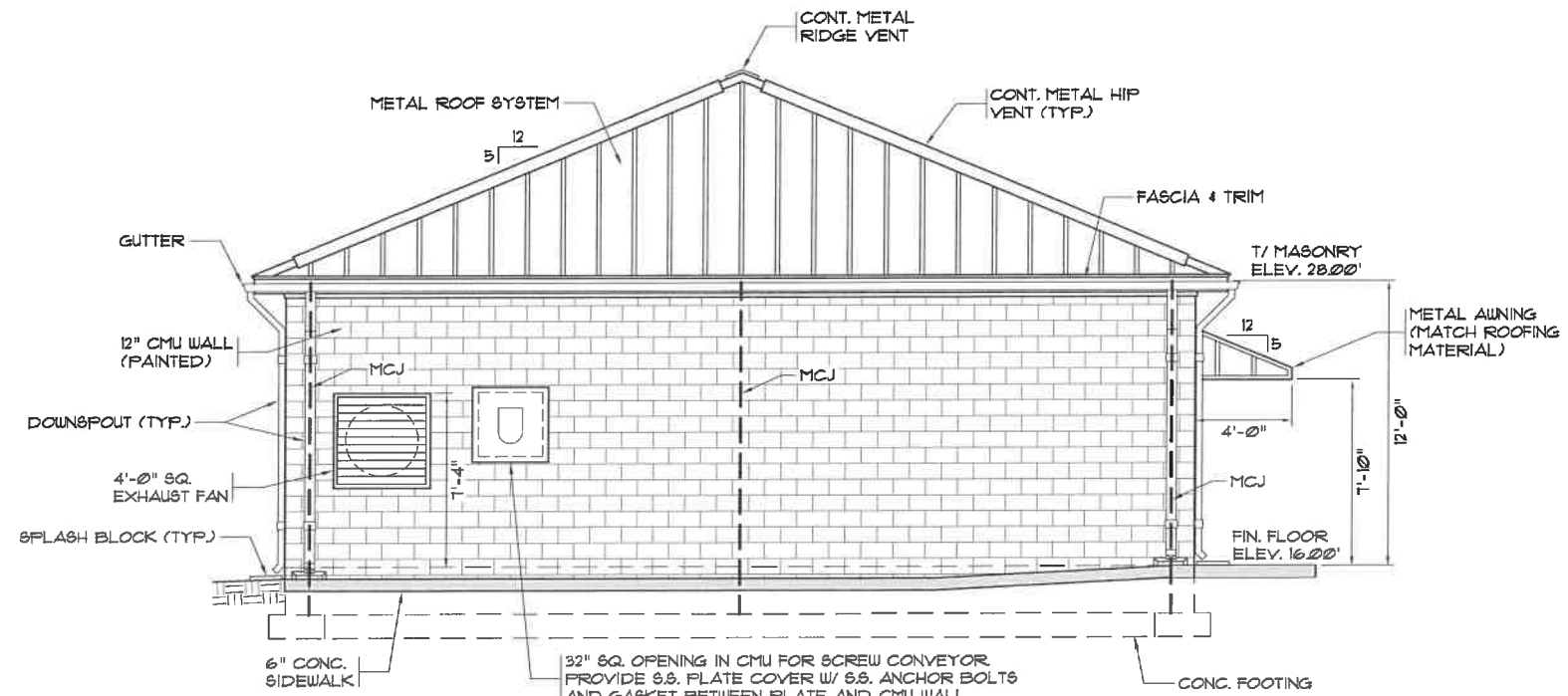
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SLUDGE DEWATERING SYSTEM
GRAND STRAND WATER &
SEWER AUTHORITY**

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FOR CONSTRUCTION



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



2 EXTERIOR ELEVATION
SCALE: 1/4"=1'-0"



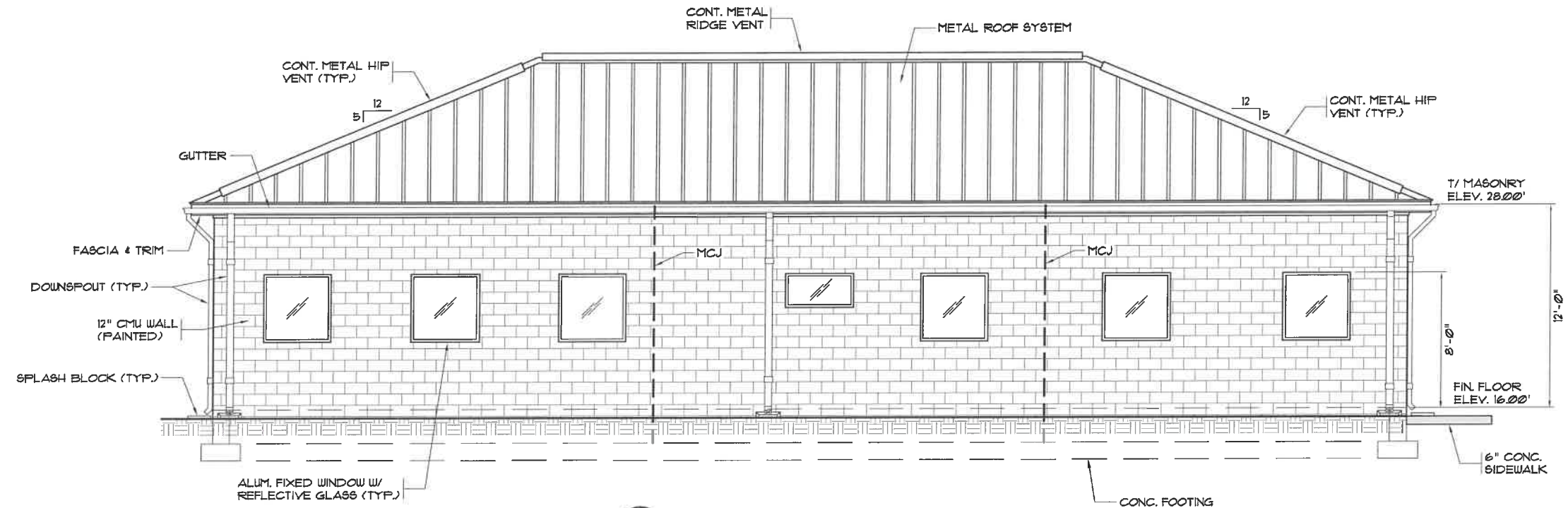
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CONSULTING ENGINEERS
1000 W. 10TH STREET, SUITE 300
CONWAY, NC 28039
PHONE: 704.666.0025 FAX: 704.666.0025

**SLUDGE PRESS BUILDING
EXTERIOR ELEVATIONS**

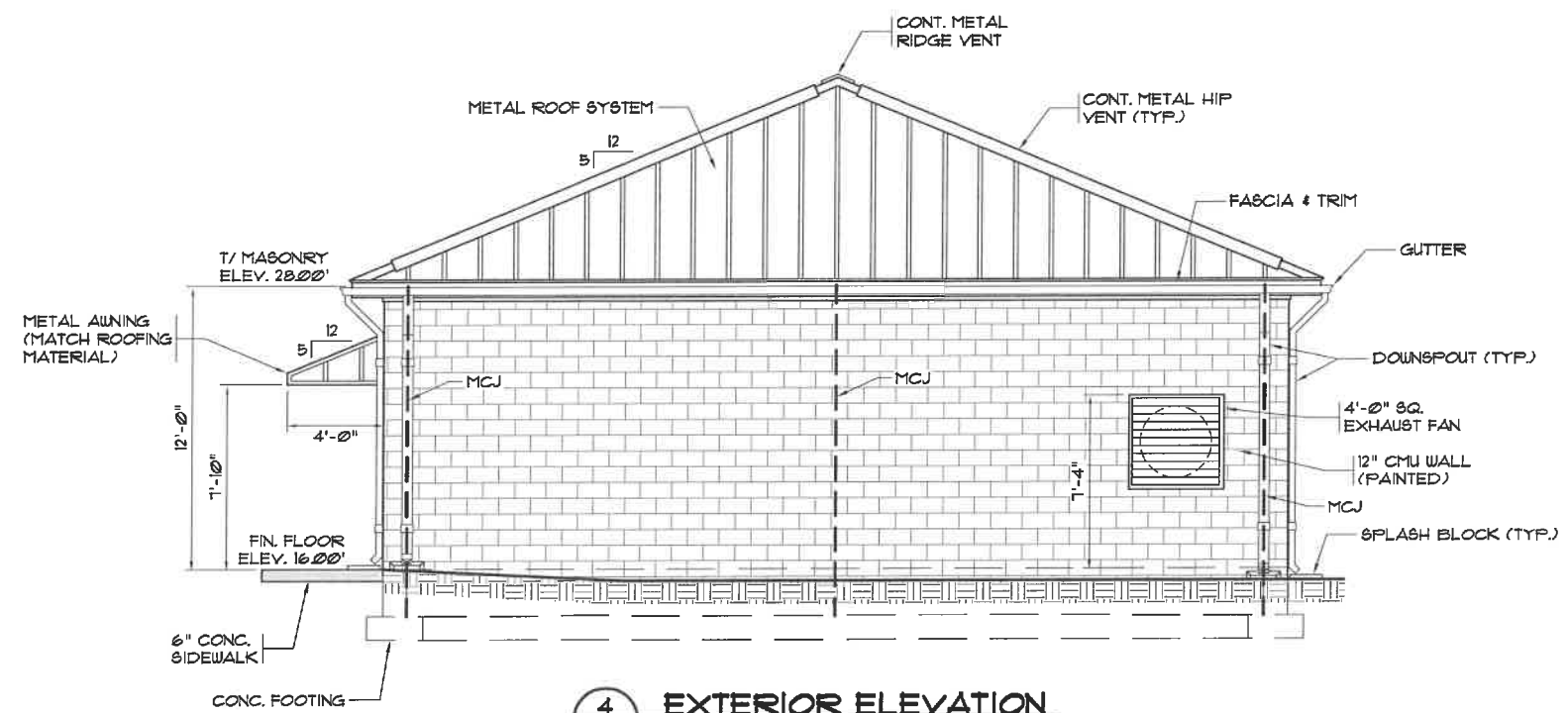
**CONWAY WWTP
SLUDGE DEWATERING SYSTEM
GRAND STRAND WATER &
SEWER AUTHORITY**

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FOR CONSTRUCTION



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



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



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PHONE: 516.488.1125 FAX: 516.488.1126

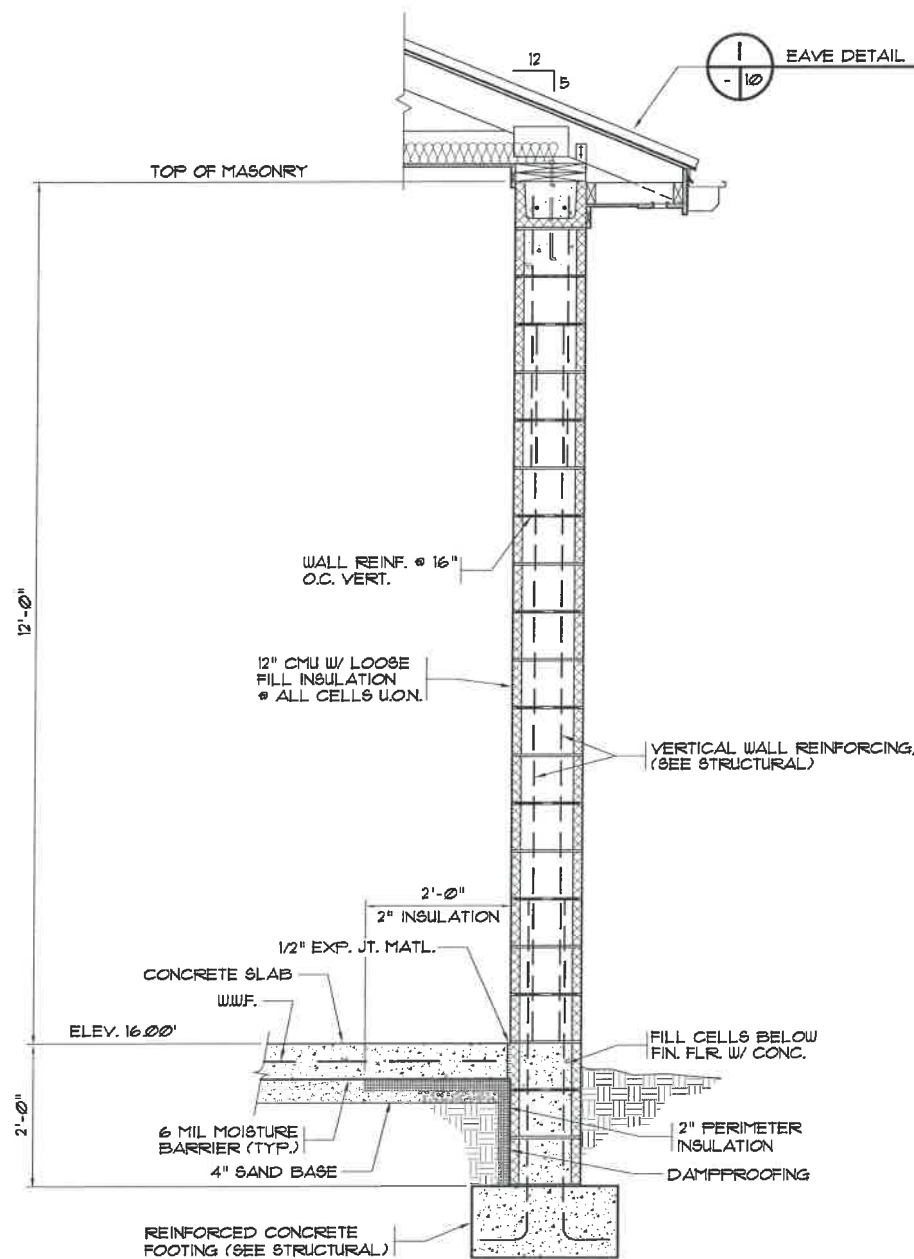
**SLUDGE PRESS BUILDING
EXTERIOR ELEVATIONS**

**CONWAY WWTP
SLUDGE DEWATERING SYSTEM
GRAND STRAND WATER &
SEWER AUTHORITY**

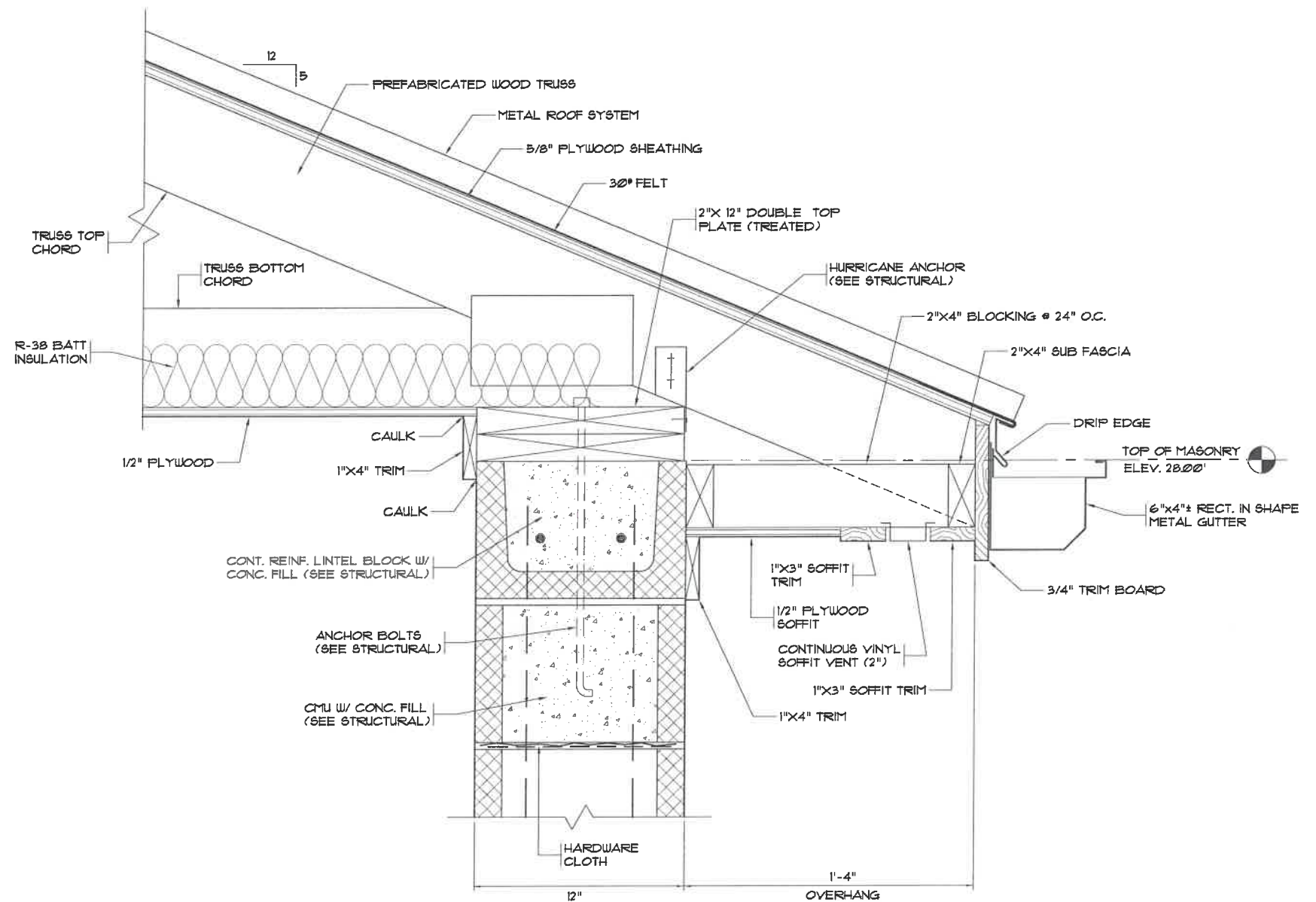
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Job No.: 30004
Sheet No.:

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FOR CONSTRUCTION



5 TYP. EXTERIOR WALL SECTION
SLUDGE PRESS BUILDING
SCALE: 3/4\" = 1'-0\"



1 TYPICAL EAVE DETAIL
SLUDGE PRESS BUILDING
SCALE: 3\" = 1'-0\"



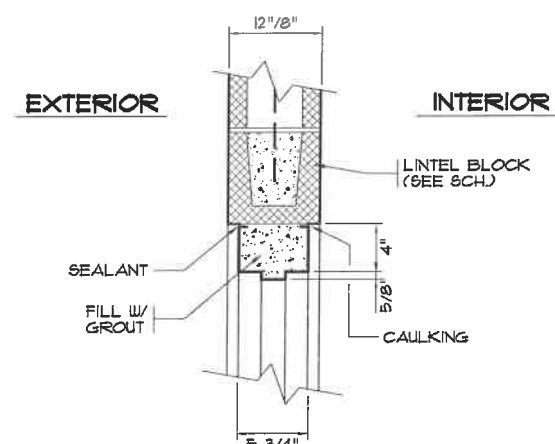
MARZIANO & MCGOUGAN, P.A.
CONSULTING ENGINEERS
1000 ROUTE 90, SUITE 200
ROCKY HILL, CT 06067
TEL: 860.442.1234

SLUDGE PRESS BUILDING
TYP. WALL SECTION AND
DETAILS

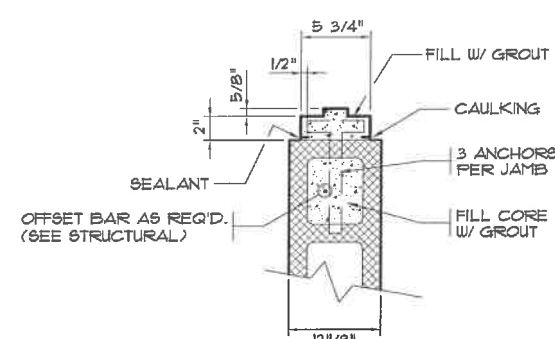
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FOR CONSTRUCTION

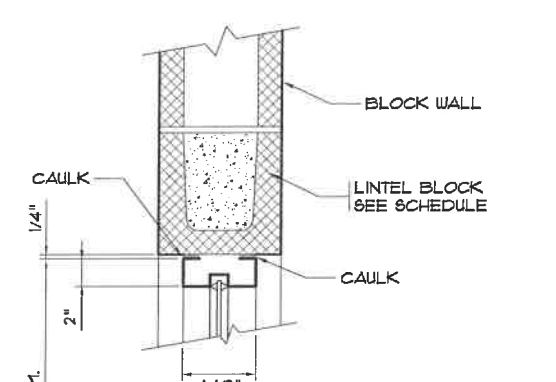


HEAD SECTION

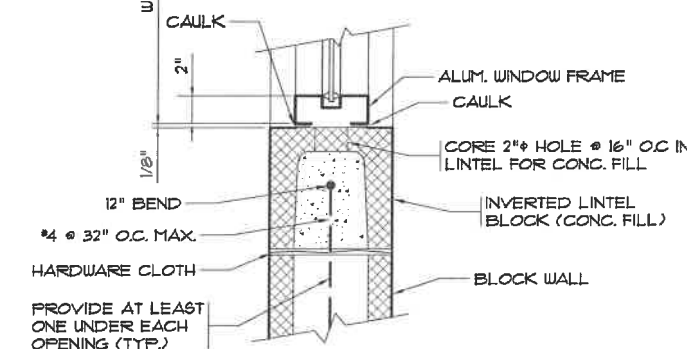


JAMB SECTION

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

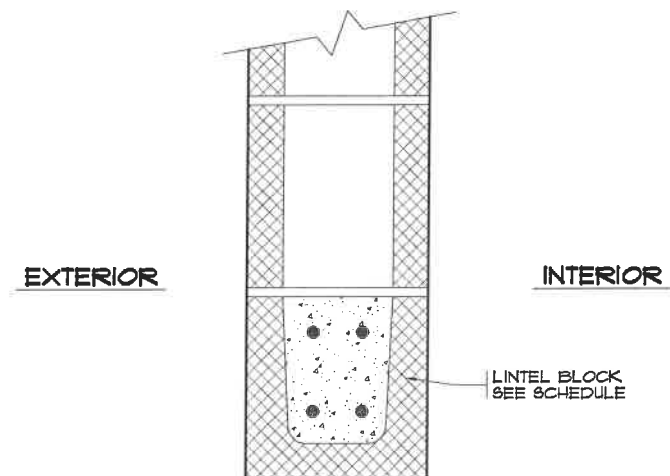


HEAD SECTION
(JAMB SIM.)

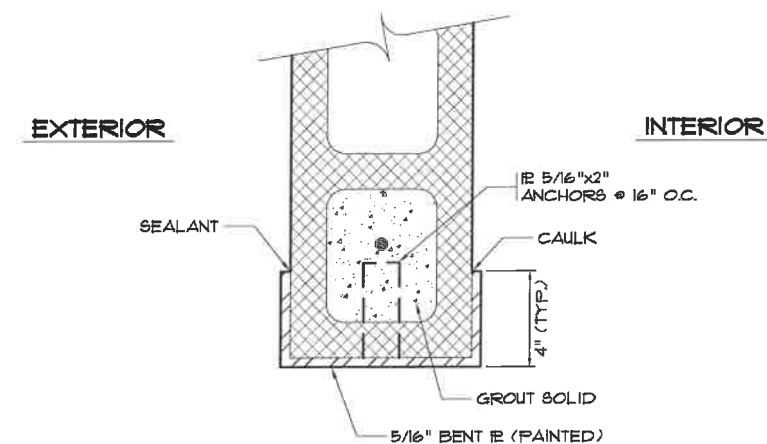


SILL SECTION

WINDOW DETAILS
N.T.S.



HEAD DETAIL @ LOUVERS AND FANS
N.T.S.



JAMB SECTION

OVER HEAD DOOR DETAIL
N.T.S.



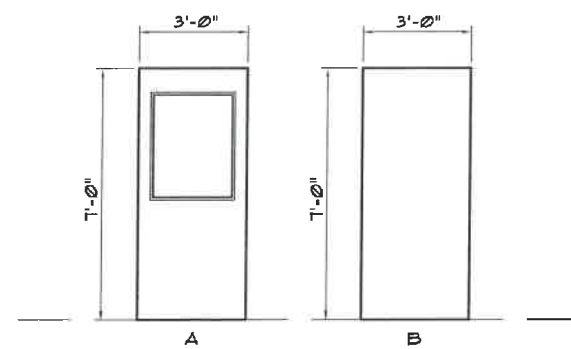
MARZIANO & MCGOUGAN, P.A.
CONSULTING ENGINEERS
PROFESSIONAL ENGINEER • REG. NO. 2221 • CONWAY, SC 29524
PHONE 843-685-0024 FAX 843-685-0025

SLUDGE PRESS BUILDING
DOOR AND WINDOW
DETAILS

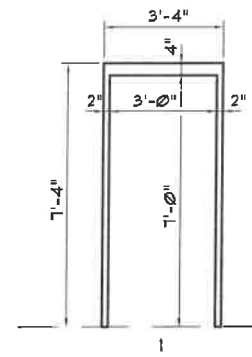
CONWAY WWTP
SLUDGE DEWATERING SYSTEM
GRAND STRAND WATER &
SEWER AUTHORITY

Scale:	AS SHOWN
Date:	09-13-2011
Drawn:	DC
Checked:	JWM
Job No.:	30004
Sheet No.:	G-11
Of:	Version: 2

FOR CONSTRUCTION

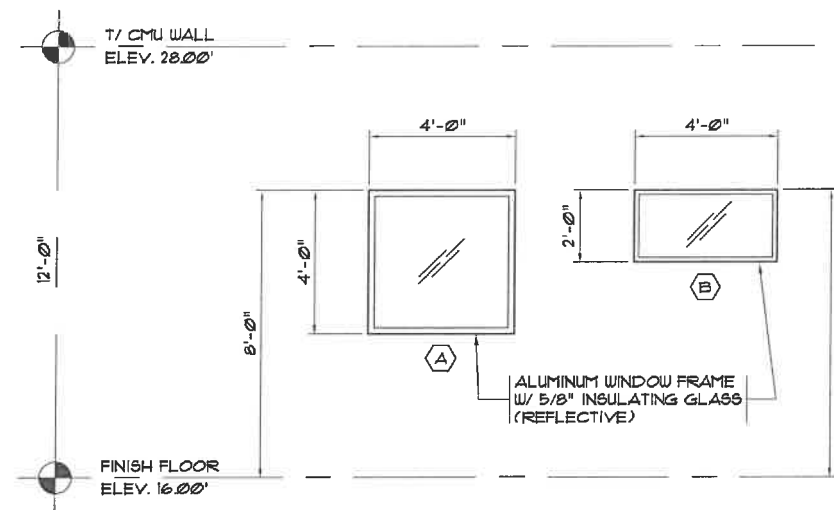


DOOR ELEVATION

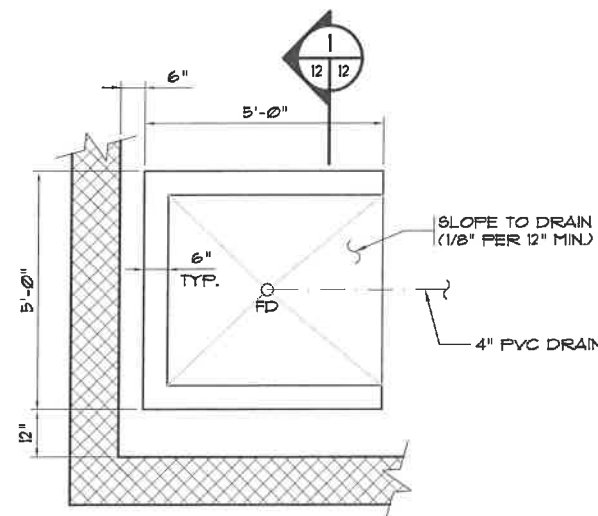


FRAME ELEVATION

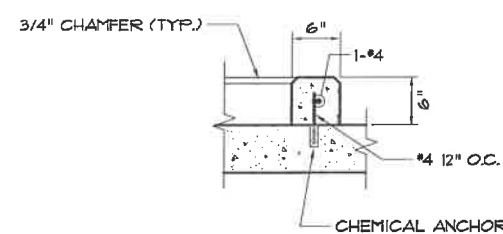
DOOR SCHEDULE										
NO.	DOOR						FRAME			REMARKS
	SIZE	TYPE	MTL.	GLASS	LOUVER	LABEL	TYPE	MTL.	GLASS	
①	3'X7'X1.75"	A	H.M.	1/4" TEMP.	NONE	NONE	I	H.M.	NONE	
②	3'X7'X1.75"	A	H.M.	1/4" TEMP.	NONE	NONE	I	H.M.	NONE	
③	3'X7'X1.75"	A	H.M.	1/4" TEMP.	NONE	NONE	I	H.M.	NONE	
④	3'X7'X1.75"	B	H.M.	NONE	NONE	NONE	I	H.M.	NONE	



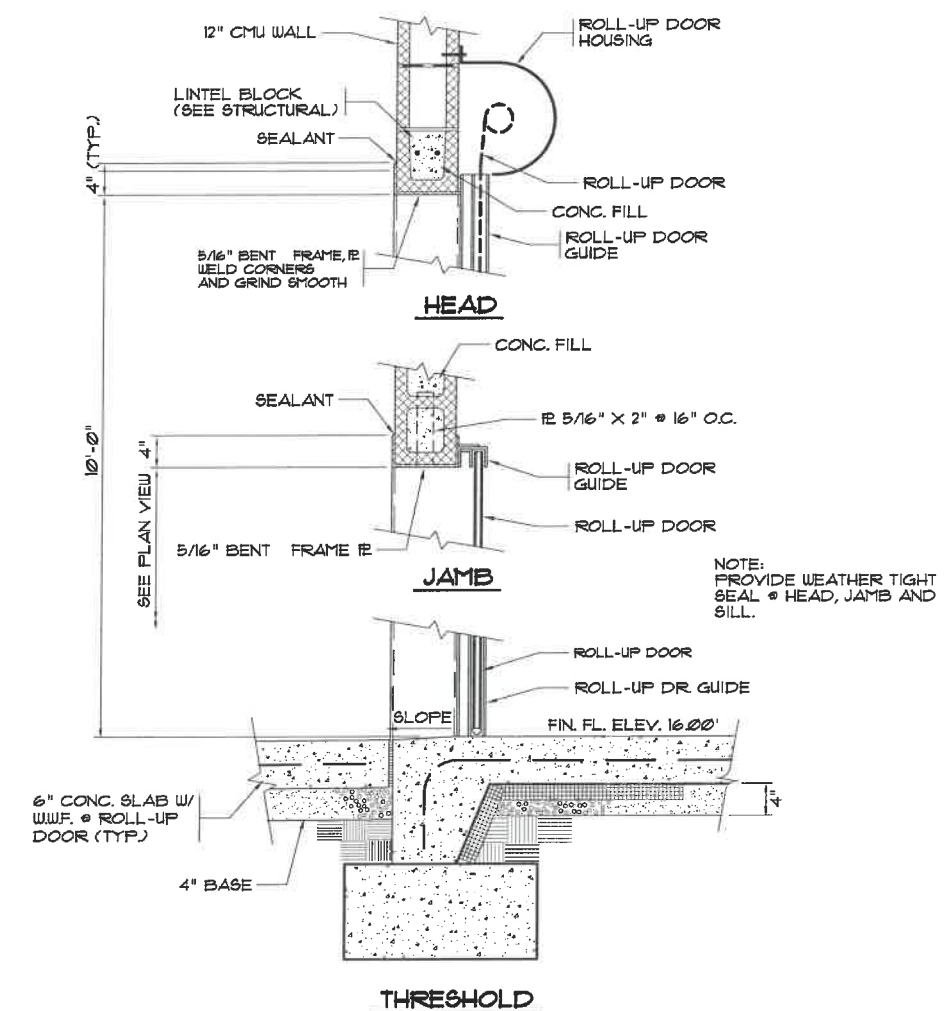
WINDOW DETAILS
SCALE: 3/8"=1'-0"



CHEMICAL TOTE CONTAINMENT
W/ 6"x6" CURB
SCALE: 1/2"=1'-0"



SECTION VIEW
SCALE: 1"=1'-0"



TYPICAL SECTION THRU ROLL-UP DOOR
N.T.S.



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CONSULTING ENGINEERS
REGISTERED PROFESSIONAL ENGINEERS
STATE OF NEW YORK
No. 2221
MARZIANO & MCGOUGAN, P.A.
1000 ROUTE 90
SUITE 200
ROCKY HILL, CT 06067
TEL: 860-261-1111
FAX: 860-261-1112

DOOR / WINDOW
DETAILS AND ROLL-UP
DOOR SECTION

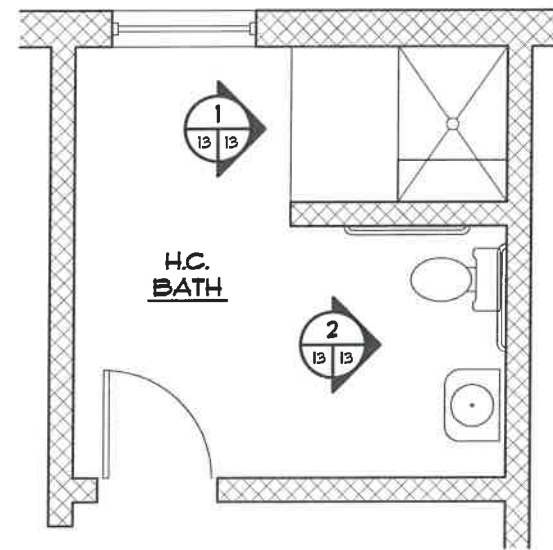
CONWAY WWTP
SLUDGE DEWATERING SYSTEM
GRAND STRAND WATER &
SEWER AUTHORITY

Scale: AS SHOWN
Date: 09-13-2011
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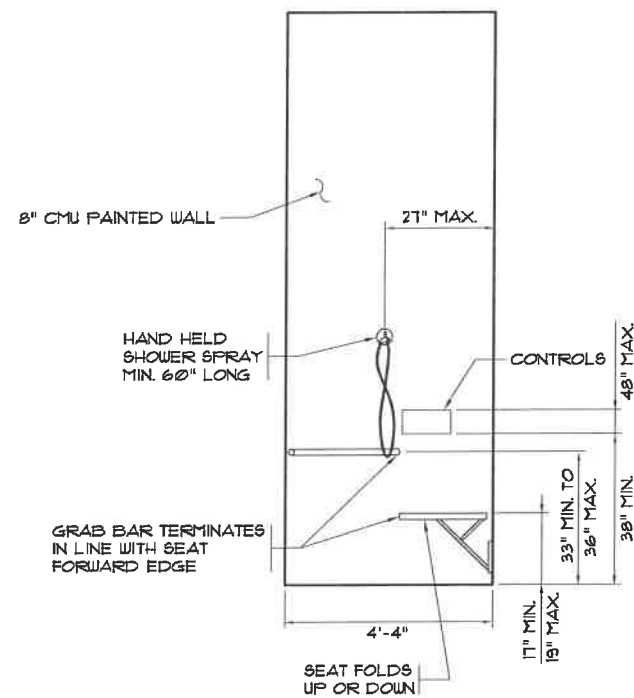
FOR CONSTRUCTION

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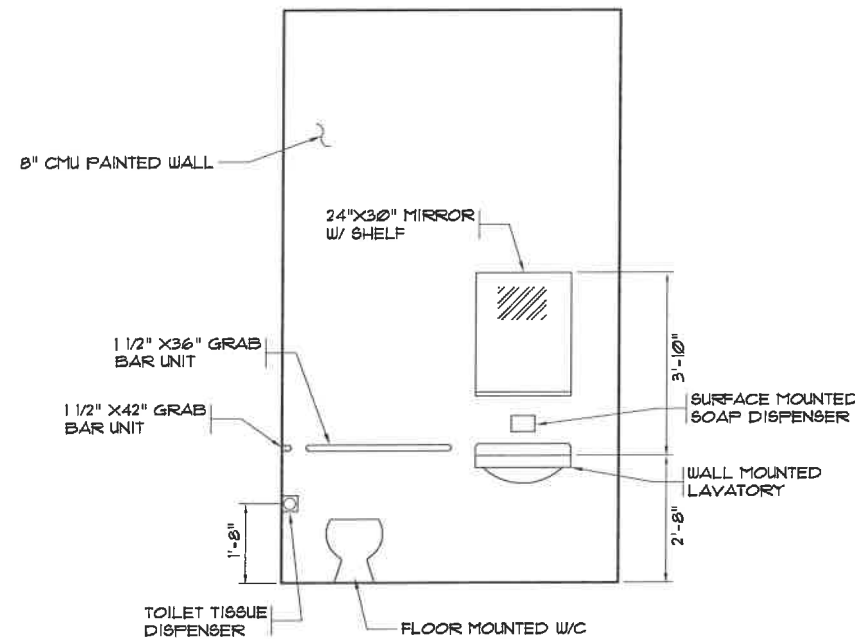
Of: Version: 2



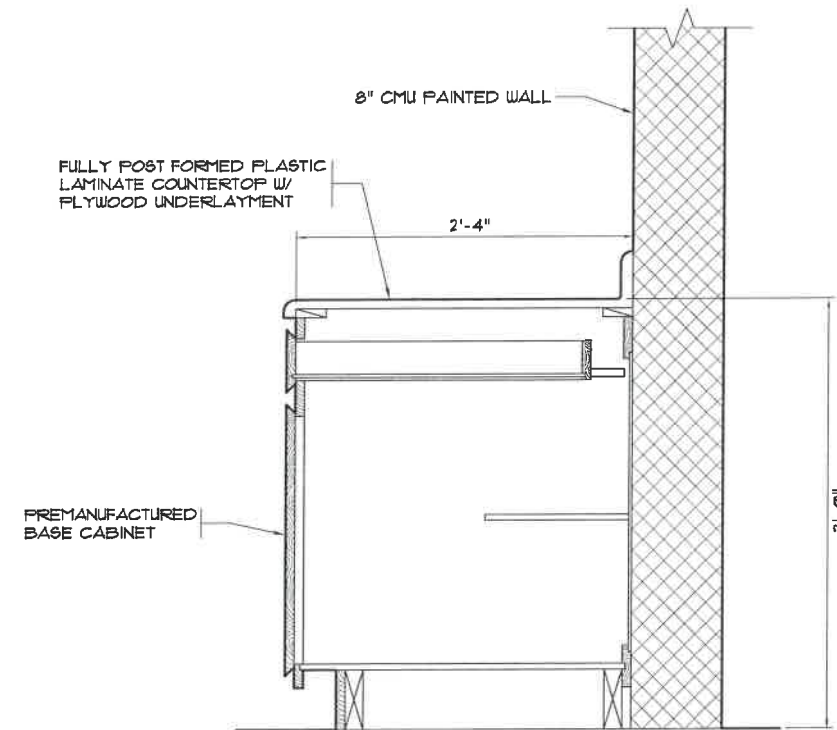
HANDICAP BATH ROOM LAYOUT
SCALE: 3/8"=1'-0"



1 SHOWER WALL ELEVATION
SCALE: 1/2"=1'-0"



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



6 TYP. CABINET SECTION @ WALL
SCALE: 1 1/2"=1'-0"



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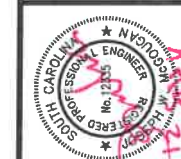
**SLUDGE BUILDING BATH
DETAILS AND LAB
CABINET SECTION**

**CONWAY WWTP
SLUDGE DEWATERING SYSTEM
GRAND STRAND WATER &
SEWER AUTHORITY**

Scale: AS SHOWN
Date: 09-13-2011
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Job No.: 30004
Sheet No.:

FOR CONSTRUCTION

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Of: - Version: 2

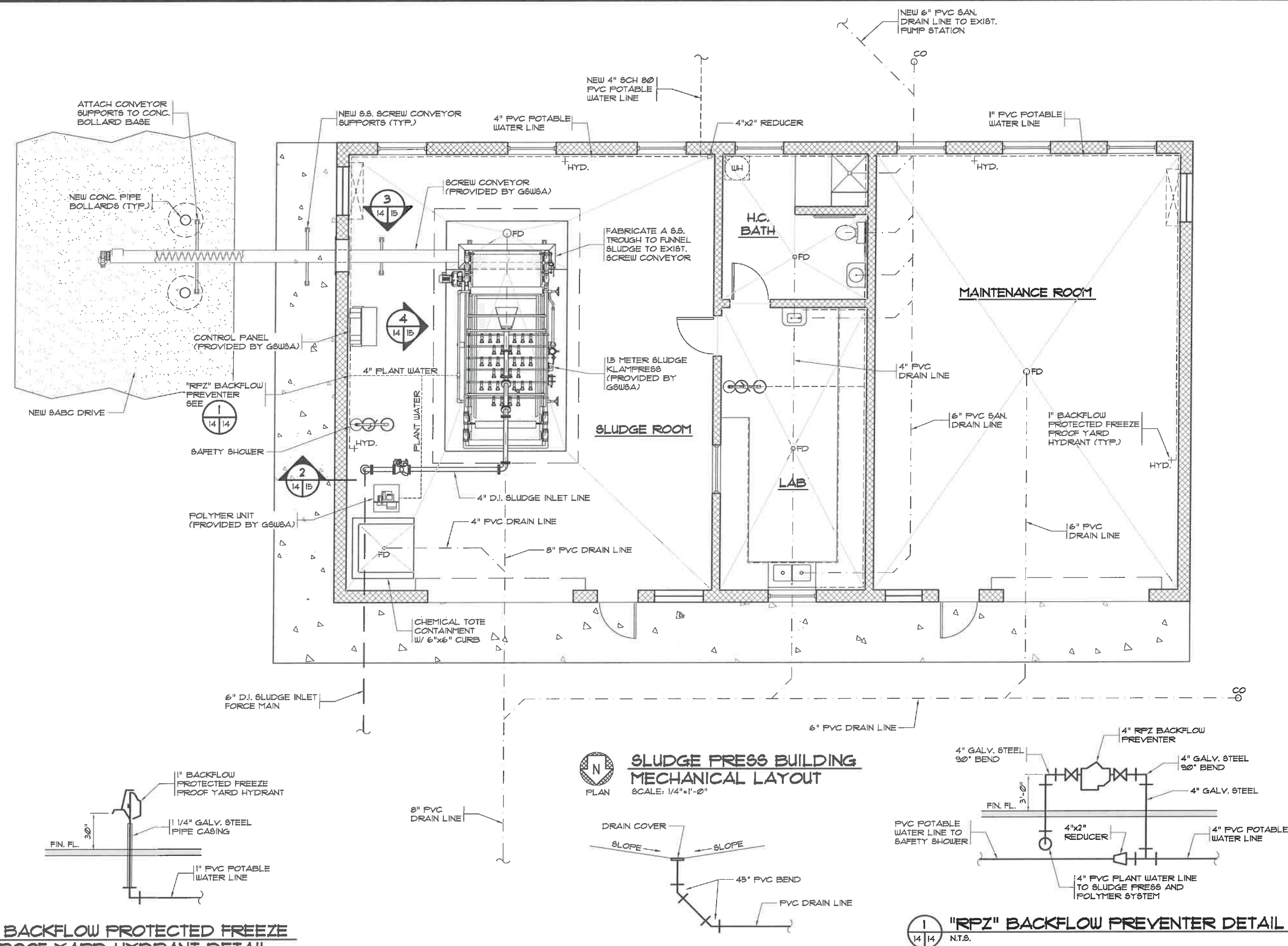


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PAID UP CAPITAL \$100,000
PAID UP SURPLUS \$100,000
PAID UP RESERVE \$100,000
PAID UP DEFERRED COMPENSATION \$100,000
PAID UP DEFERRED PENSION \$100,000
PAID UP DEFERRED MEDICAL \$100,000
PAID UP DEFERRED DENTAL \$100,000
PAID UP DEFERRED VISION \$100,000
PAID UP DEFERRED LIFE \$100,000
PAID UP DEFERRED ACCIDENT & SICKNESS \$100,000
PAID UP DEFERRED UNEMPLOYMENT \$100,000
PAID UP DEFERRED DISABILITY \$100,000
PAID UP DEFERRED LONG TERM CARE \$100,000
PAID UP DEFERRED ANNUITY \$100,000
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PAID UP DEFERRED PENSION \$100,000
PAID UP DEFERRED MEDICAL \$100,000
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PAID UP DEFERRED VISION \$100,000
PAID UP DEFERRED LIFE \$100,000
PAID UP DEFERRED ACCIDENT & SICKNESS \$100,000
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PAID UP DEFERRED LONG TERM CARE \$100,000
PAID UP DEFERRED ANNUITY \$100,000

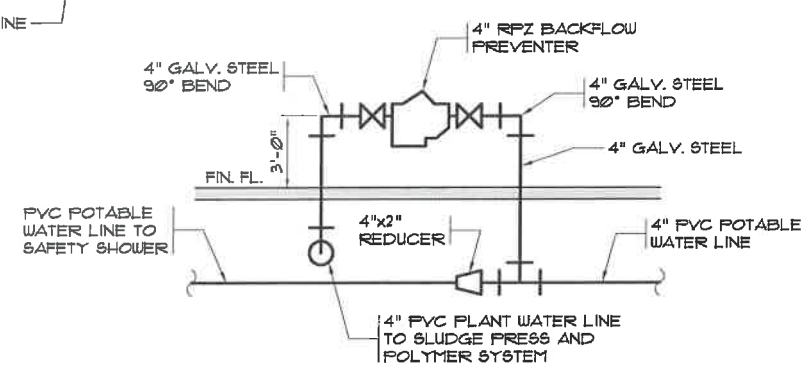
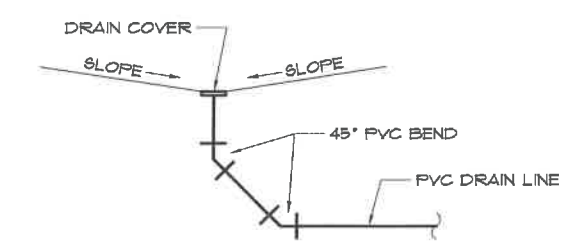
**SLUDGE PRESS BUILDING
MECHANICAL LAYOUT**

**CONWAY WWTP
SLUDGE DEWATERING SYSTEM
GRAND STRAND WATER &
SEWER AUTHORITY**

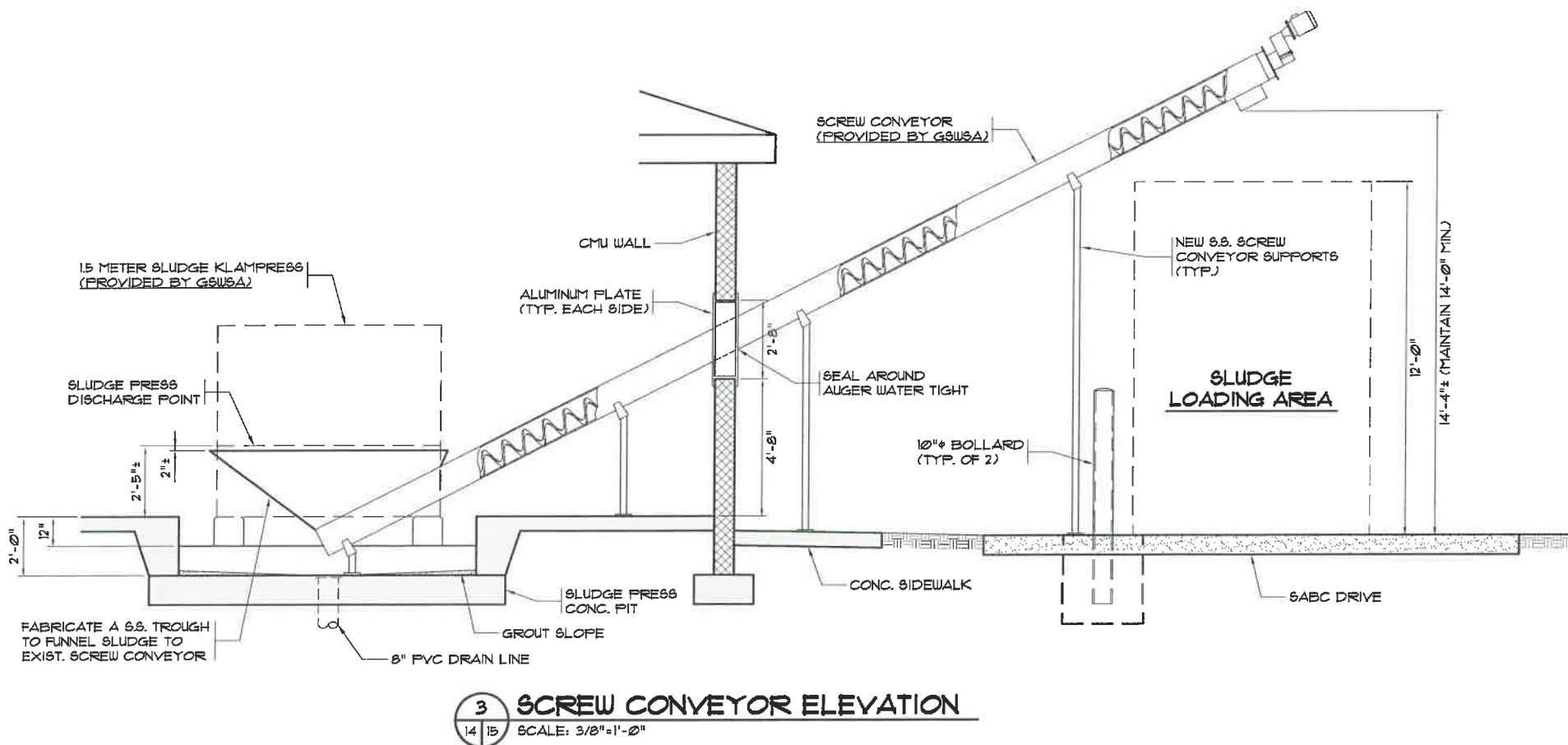
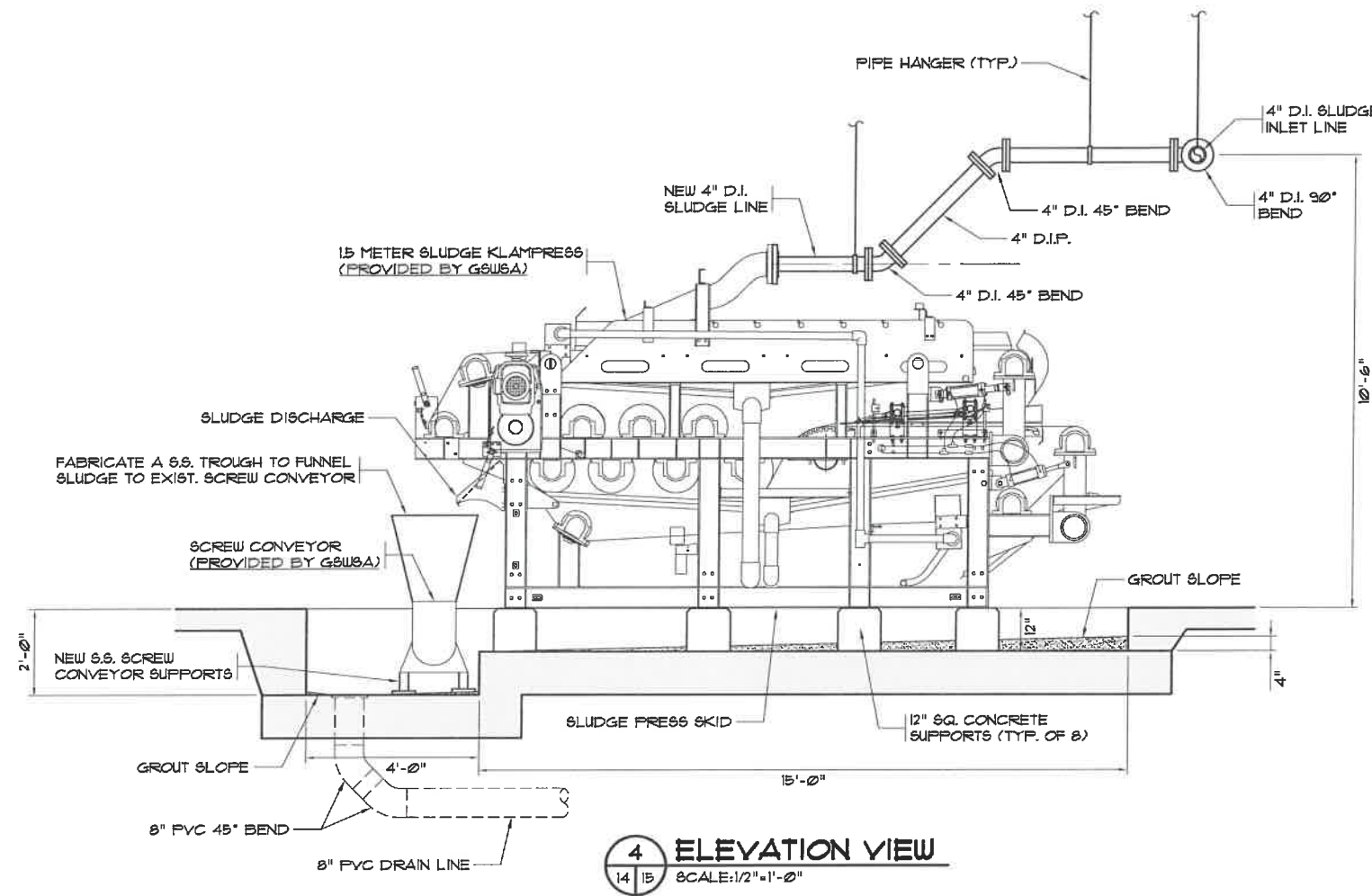
Scale: AS SHOWN
Date: 09-13-2011
Drawn: DC
Checked: JWM
Job No.: 30004
Sheet No.:
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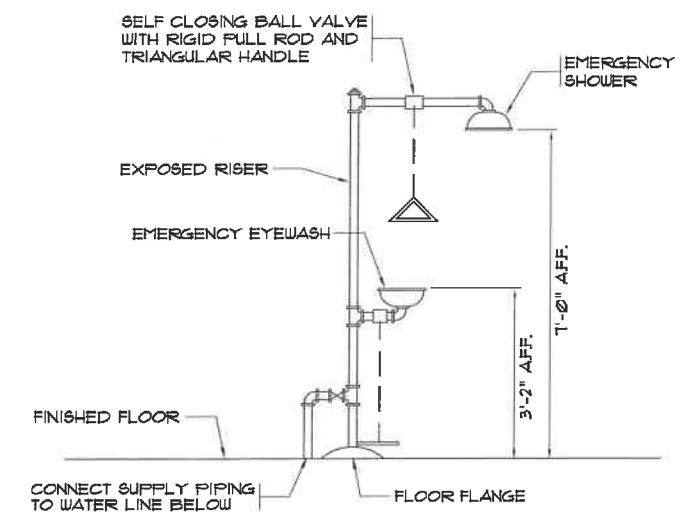
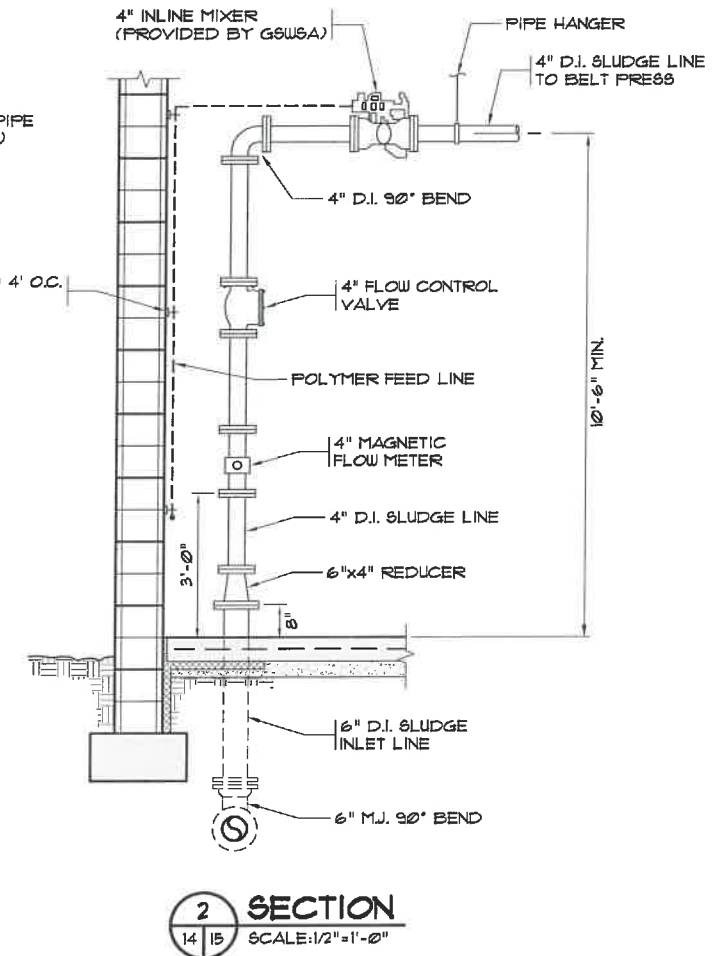
**SLUDGE PRESS BUILDING
MECHANICAL LAYOUT**
SCALE: 1/4"=1'-0"



FOR CONSTRUCTION



NOTE:
PROVIDE 2X BLOCKING
BETWEEN TRUSSES FOR PIPE
HANGER SUPPORT. (TYP.)



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CONSULTING ENGINEERS
PROFESSIONAL ENGINEERS
REGISTERED IN THE STATE OF NEW YORK
No. 11111
MARZIANO & MCGOUGAN, P.A.
100 W. 10th Street
New York, NY 10011

**SLUDGE PRESS PIPING
AND DETAILS**

**CONWAY WWTP
SLUDGE DEWATERING SYSTEM
GRAND STRAND WATER &
SEWER AUTHORITY**

Scale: AS SHOWN
Date: 09-13-2011
Drawn: DC
Checked: JWM
Job No.: 30004
Sheet No.:
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Of: - Version: 2

FOR CONSTRUCTION



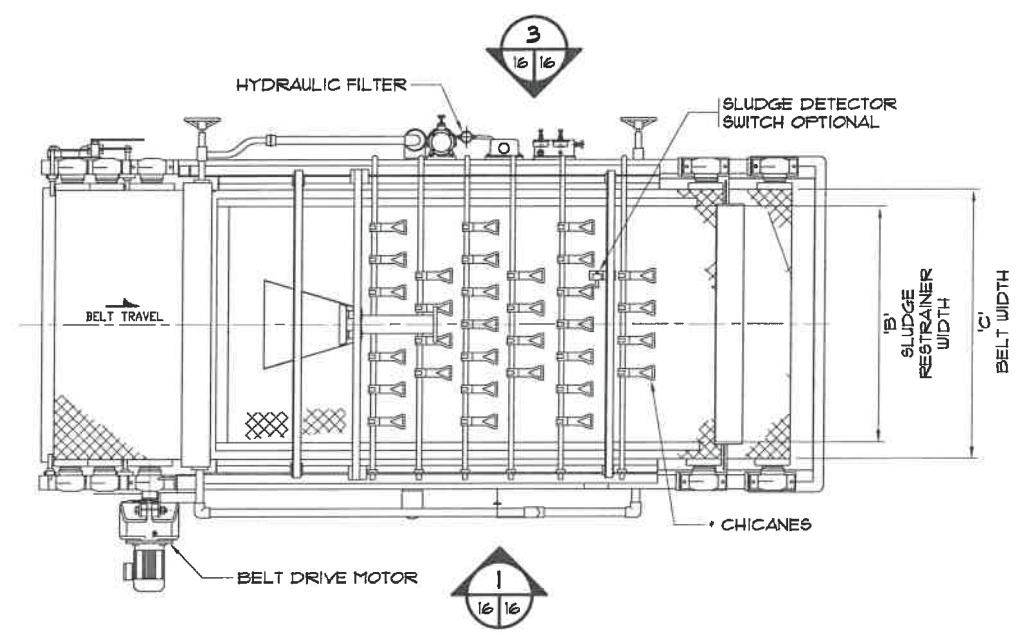
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PROFESSIONAL ENGINEER • LICENSE NO. 2221 • CONWAY, SC 29524
PHONE: 843/681-0201 FAX: 843/681-0202

**SLUDGE PRESS LAYOUT
AND ELEVATIONS**

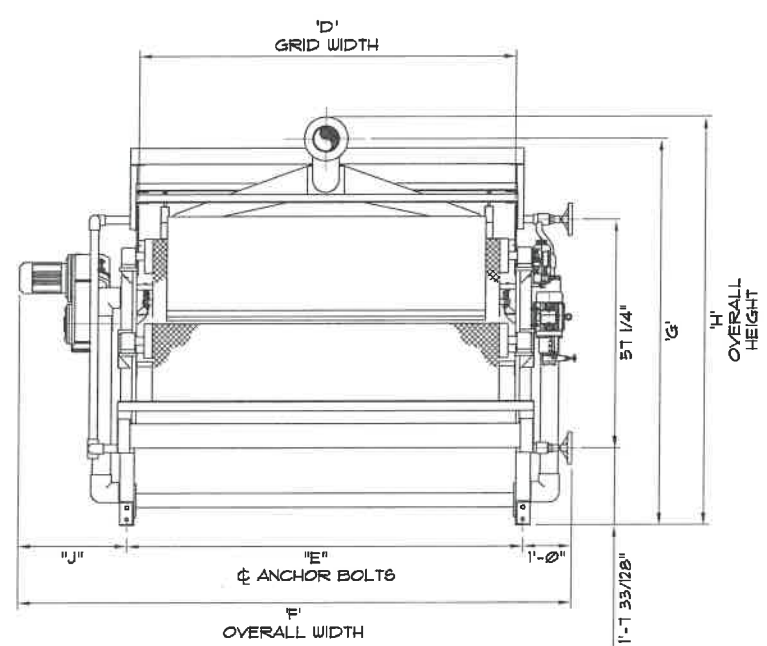
**CONWAY WWTP
SLUDGE DEWATERING SYSTEM
GRAND STRAND WATER &
SEWER AUTHORITY**

Scale: AS SHOWN
Date: 09-13-2011
Drawn: DC
Checked: JWM
Job No.: 30004
Sheet No.:
G-16
Of: Version: 2

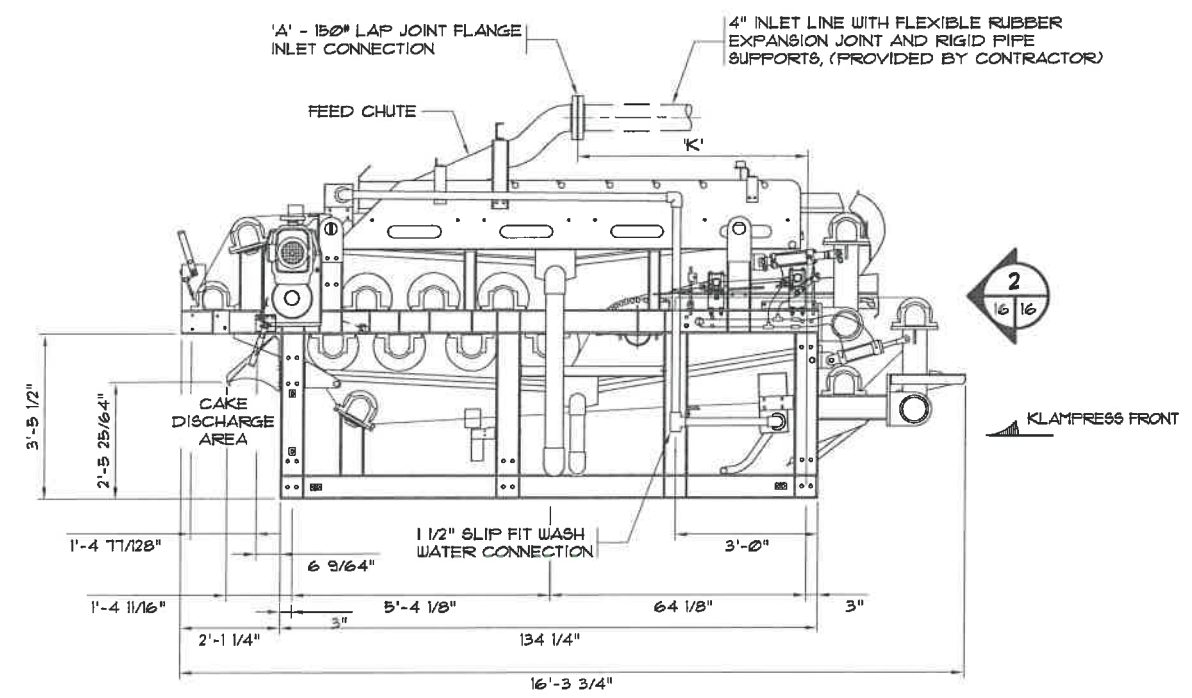
KLAMPRESS	'A'	'B'	'C'	'D'	'E'	'F'	'G'	'H'	'J'	'K'	NO. OF CHICANES STD/OPT	STATIC WEIGHT	DYNAMIC WEIGHT
1 METER	4"	59"	67 1/2"	73 7/8"	78 1/8"	115 13/16"	94 15/16"	99 1/16"	24 15/16"	57 7/8"	15/33	15,500 LBS	16,032 LBS
1.5 METER	4"	59"	67 1/2"	73 7/8"	78 1/8"	115 13/16"	94 15/16"	99 1/16"	24 15/16"	57 7/8"	15/33	15,500 LBS	16,032 LBS
2 METER	4"	59"	67 1/2"	73 7/8"	78 1/8"	115 13/16"	94 15/16"	99 1/16"	24 15/16"	57 7/8"	15/33	15,500 LBS	16,032 LBS



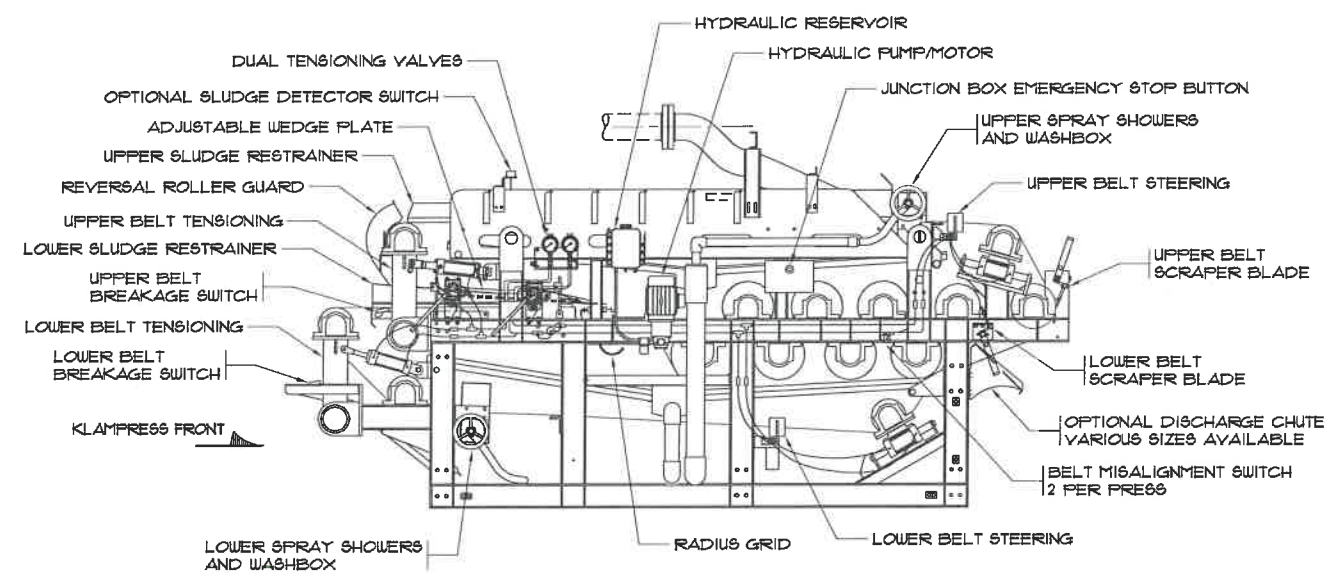
1 BELT PRESS - LAYOUT
(PROVIDED BY GSW&A)
SCALE: 1/2" = 1'-0"



2 BELT PRESS - ELEVATION
(PROVIDED BY GSW&A)
SCALE: 1/2" = 1'-0"

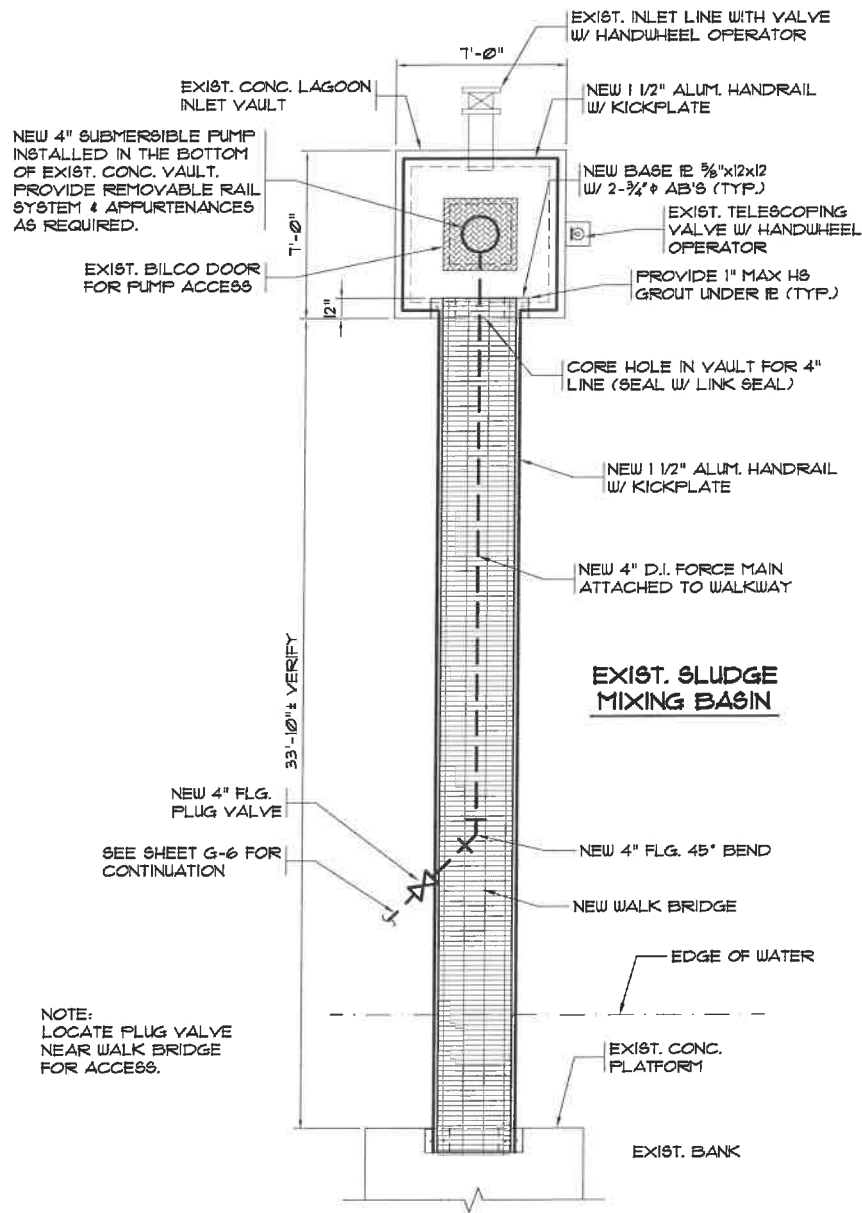


1 BELT PRESS - ELEVATION
(PROVIDED BY GSW&A)
SCALE: 1/2" = 1'-0"



3 BELT PRESS - ELEVATION
(PROVIDED BY GSW&A)
SCALE: 1/2" = 1'-0"

FOR CONSTRUCTION



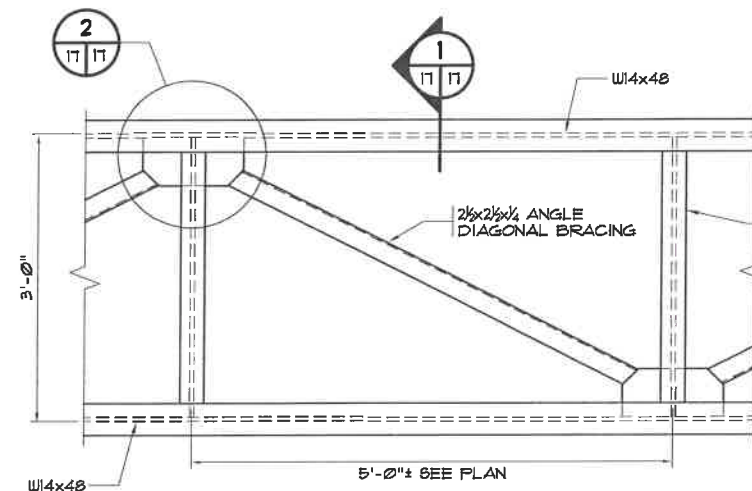
WALK BRIDGE PLAN VIEW

N.T.S.

WALK BRIDGE FRAMING PLAN

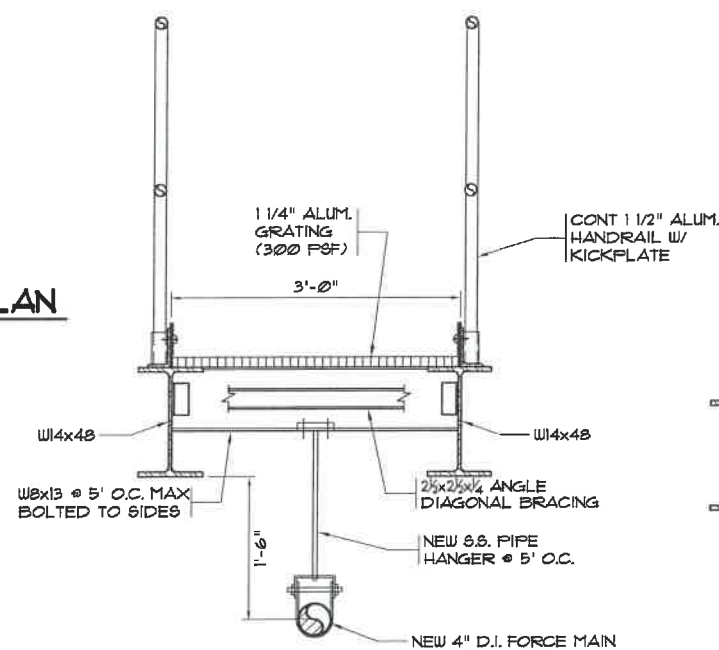
N.T.S.

- NOTE:
1. "W14" DENOTES W14x48.
 2. "WB" DENOTES WBx13.



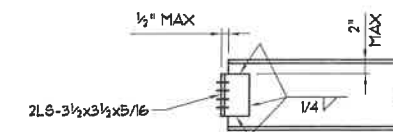
WALK BRIDGE FRAMING PLAN

SCALE: 1" = 1'-0"



WALK BRIDGE SUPPORT SECTION

SCALE: 1" = 1'-0"



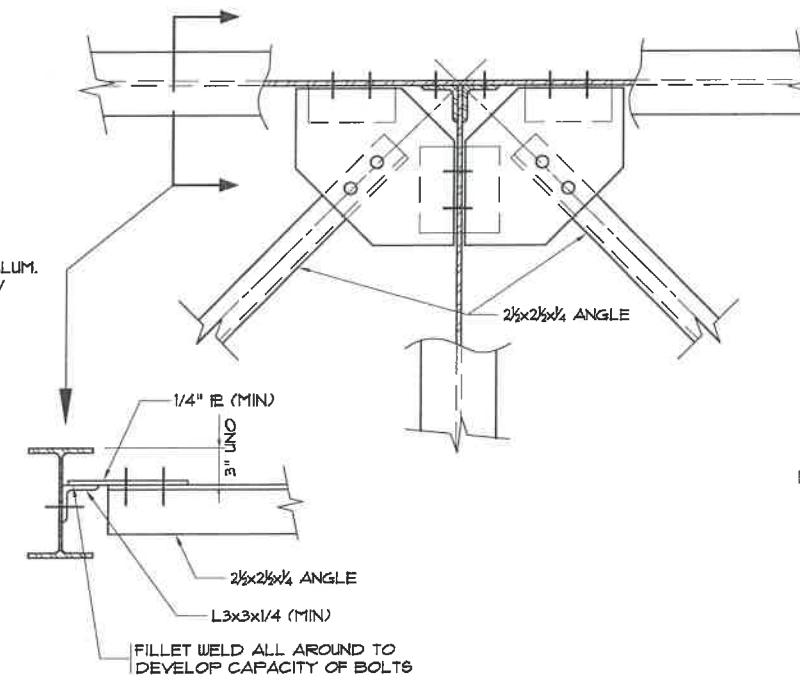
BEAM CONN. SCHEDULE

BM DEPTH	L LENGTH	NO. BOLTS L CONN.	NO. BOLTS 1/2" IE CONN.
8", 10"	0'-5 1/2"	4	2
12", 14"	0'-8 1/2"	6	3
16", 18"	0'-11 1/2"	8	4
21", 24"	1'-2 1/2"	10	5
33"	1'-8 1/2"	14	7

- NOTE:
1. USE 2L6-3x3x3/4x5/16 (SLO) WHERE BM FRAMES INTO WB COL. WEB. LARGER ANGLES MAY BE USED TO ACCOMMODATE COLUMN GAGES.

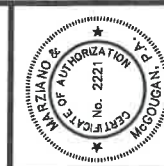
TYP BEAM CONNECTIONS

NO SCALE



TYP HORIZ BRACING DETAIL

N.T.S.



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**WALK BRIDGE LAYOUT
PLAN AND DETAILS**

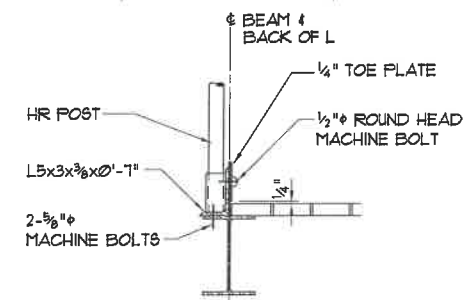
**CONWAY WWTP
SLUDGE DEWATERING SYSTEM
GRAND STRAND WATER &
SEWER AUTHORITY**

Scale: AS SHOWN
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Job No.: 30004
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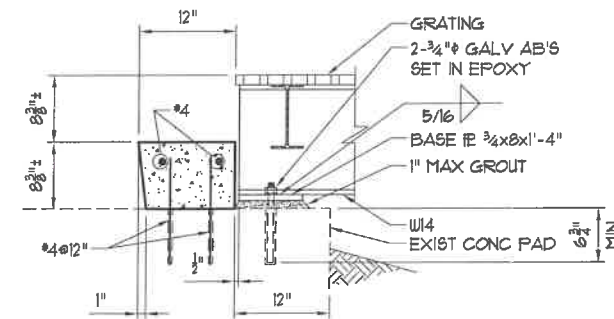
FOR CONSTRUCTION

G-17

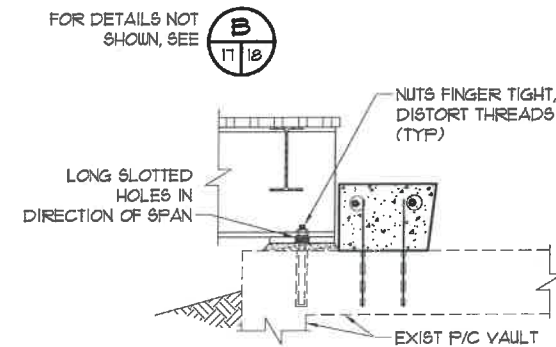
Of: Version: 2



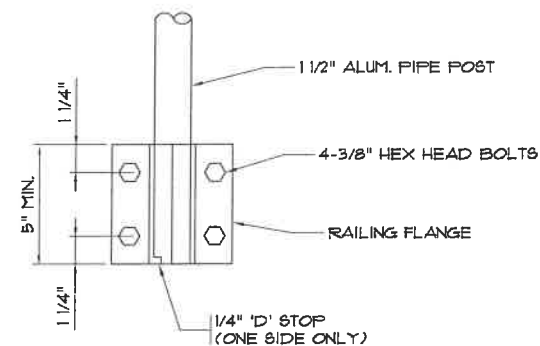
HANDRAIL CONN TO WIDE FLANGE



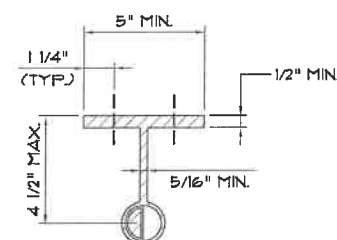
B WALK BRIDGE BEARING DETAIL
17 18 NOT TO SCALE



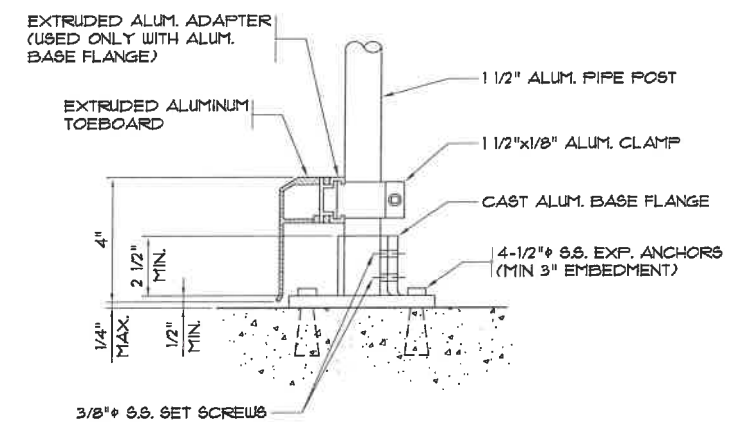
WALK BRIDGE BEARING DETAIL
NOT TO SCALE



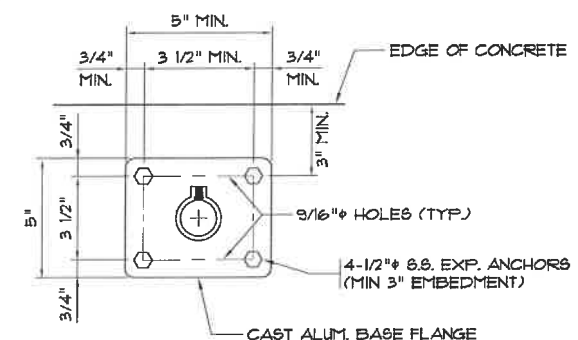
SIDE MOUNT TO METAL ELEVATION



SIDE MOUNT TO METAL PLAN



SURFACE MOUNTED TO CONCRETE
ELEVATION



SURFACE MOUNTED TO CONCRETE
PLAN

ALUMINUM HANDRAIL DETAILS



MARZIANO & MCGOUGAN, P.A.
consulting engineers
1085 CEDAR AVENUE • SUITE 20 • CONWAY, SC 29536
Phone: 843/465-0124 Fax: 843/465-0129

WALK BRIDGE DETAILS

CONWAY WWTP
SLUDGE DEWATERING SYSTEM
GRAND STRAND WATER &
SEWER AUTHORITY

Scale: AS SHOWN

Date: 09-13-2011

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Checked: JWM

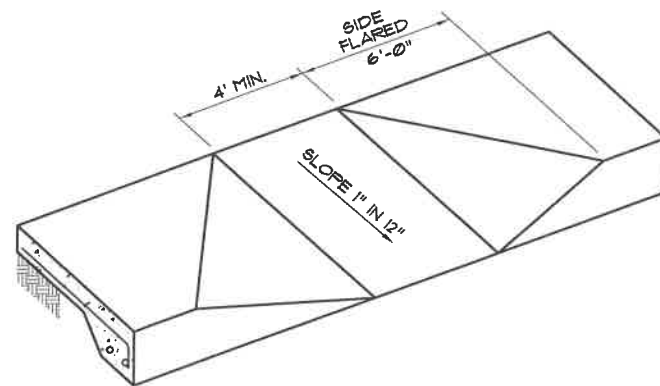
Job No.: 30004

Sheet No.:

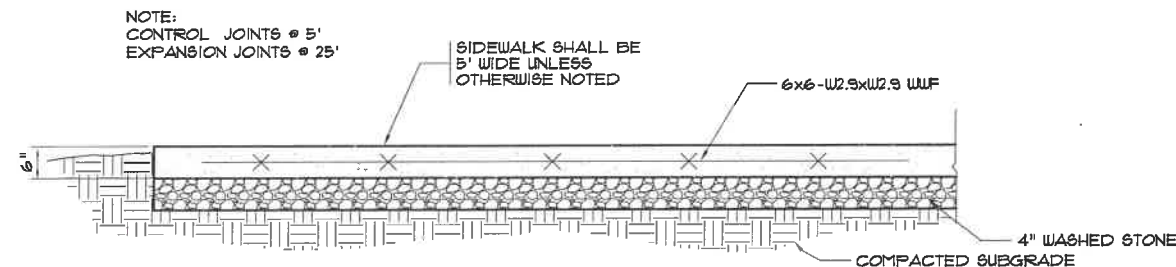
FOR CONSTRUCTION

G-18

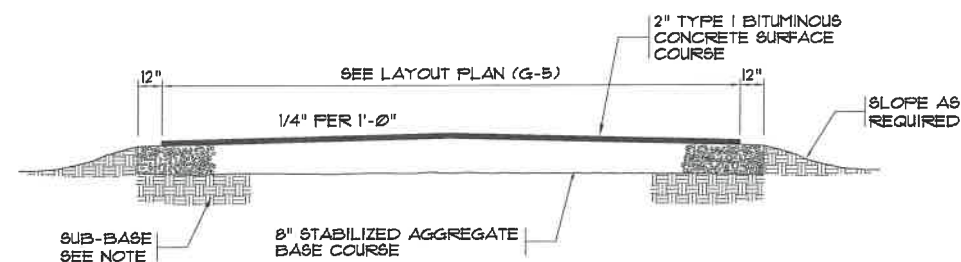
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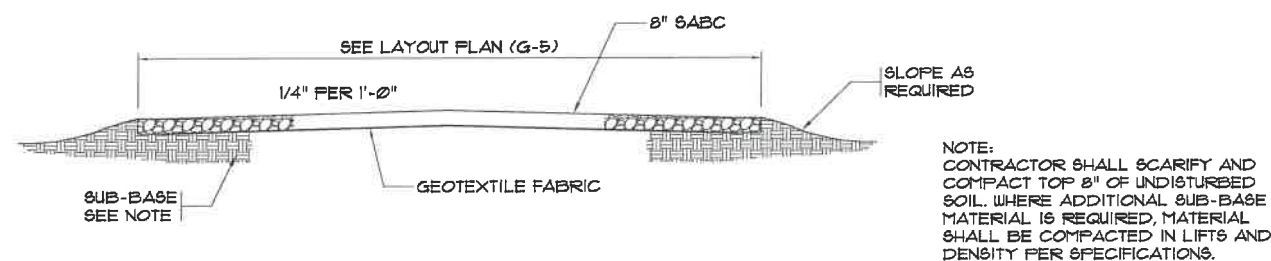
HANDICAP RAMP DETAIL
N.T.S.



SIDEWALK DETAIL
N.T.S.



TYPICAL ASPHALT SECTION W/OUT CURB & GUTTER
N.T.S.

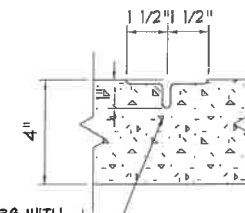


TYPICAL SABC ROAD SECTION
N.T.S.

FORM JOINT BETWEEN SLABS WITH CONC. JOINTING TOOL TO PROVIDE NOM. 3" WIDE TOOLED SURFACE PROFILED AS SHOWN

NOTE: PROVIDE CONTROL JOINTS IN WALKS @ 5'-0" O.C., PROVIDE EXP. JTS @ MIN. 25'-0" O.C. & @ ALL EDGES W/ OTHER MATERIALS

1/2" PREMOLDED EXP. MAT'L
EXPANSION JT DTL.



FORM JOINT BETWEEN SLABS WITH CONC. JOINTING TOOL TO PROVIDE NOM. 3" WIDE TOOLED SURFACE PROFILED AS SHOWN

CONTROL JOINT DTL.

CONTROL JOINT AND EXPANSION JOINT DETAIL
N.T.S.



HC ACCESSIBLE PARKING SIGN
N.T.S.

NOTES:
HANDICAP SIGN SHOULD CONFORM WITH SOUTH CAROLINA ACCESSIBILITY CODE.



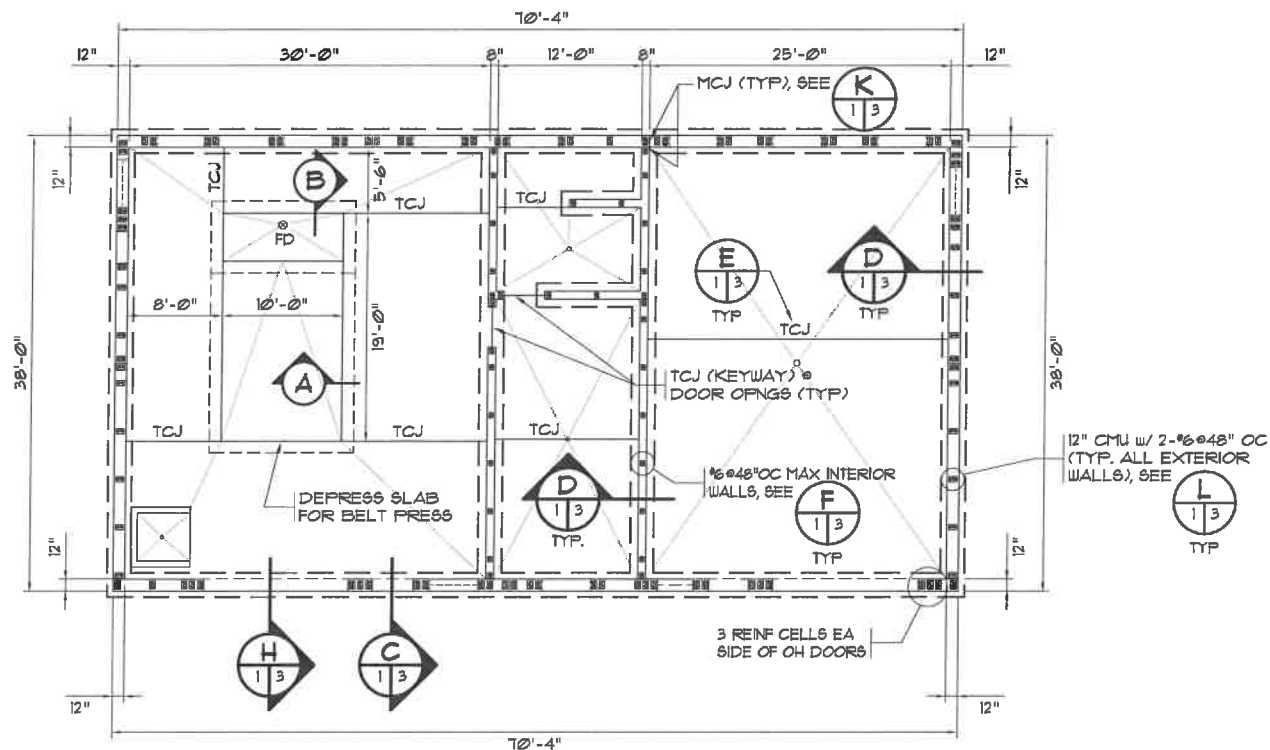
MARZIANO & MCGOUGAN, P.A.
CONSULTING ENGINEERS
1000 W. 10TH STREET, SUITE 100
CHARLOTTE, NC 28202
TEL: 704.333.1111

MISCELLANEOUS DETAILS

CONWAY WWTP
SLUDGE DEWATERING SYSTEM
GRAND STRAND WATER & SEWER AUTHORITY

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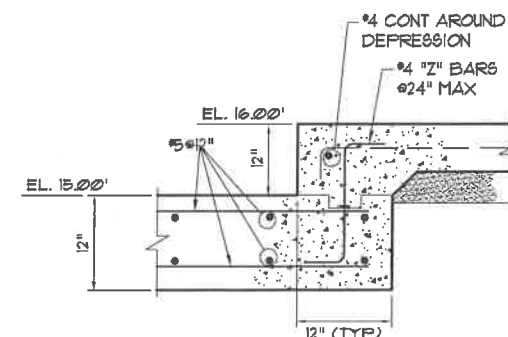


SLUDGE PRESS BUILDING FOUNDATION PLAN

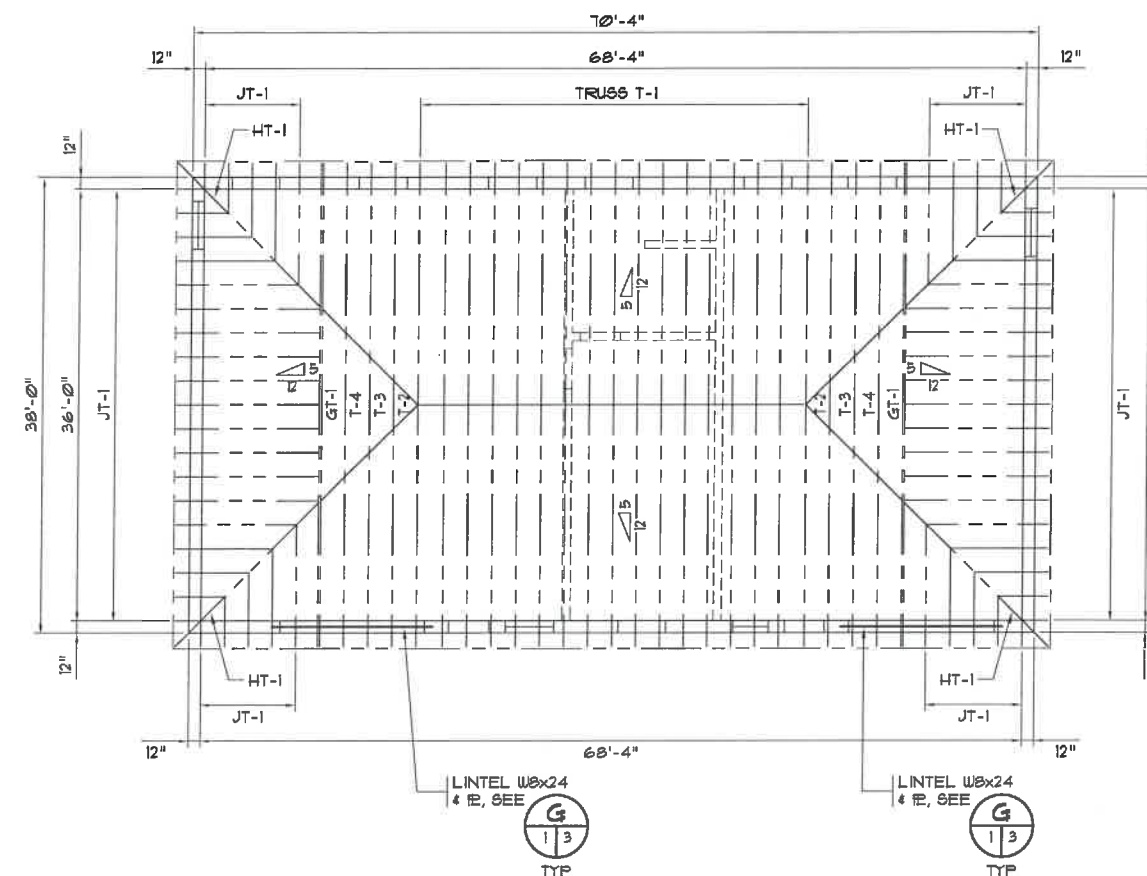
SCALE: 1/8" = 1'-0"

NOTE:

1. TOP OF WALL FTG ELEV = 14.00' UN THIS: XXXX.
2. SEE ARCH DWGS FOR LOCATION OF MAS WALLS NOT DIMENSIONED.
3. ALL SLABS SHALL BE 6" THICKNESS, UN.
4. ALL SLABS SHALL BE PLACED OVER VAPOR BARRIER AND 4" COMPACTED COURSE SAND AND REINFORCED W/ 6x6-W2.5xW2.5 W/F, UN.
5. FIN FLOOR ELEV = 16.00', UN.
6. STEP FTGS AS REQUIRED TO CLEAR NEW OR EXISTING UTILITIES. CONFIRM LOCATIONS WITH STRUCTURAL ENGINEER.
7. REINFORCED CELL LOCATIONS ARE BASED ON ASSUMED CMU CORE LOCATIONS AND WALL OPENINGS. REINFORCED CELL LOCATIONS MAY VARY SLIGHTLY TO ACCOMMODATE COURSING. COORDINATE WITH ARCH DWGS. PROVIDE REINFORCED CELLS AT EACH END OF WALL AND EACH SIDE OF EACH WALL OPENING.
8. FILL ALL MASONRY CELLS WITH MASONRY GROUT BELOW FIN FLOOR.
9. PROVIDE 12x12 CONCRETE PIERS FOR BELT PRESS SUPPORT AS REQUIRED. REINFORCE W/ 4-#5 DUL'S (ONE EA CORNER) AND 2-#3 TIES, TYPICAL EA PIER. CORE DRILL AND SET DUL'S IN EPOXY GROUT.



A BELT PRESS FOUNDATION SLAB
N.T.S.

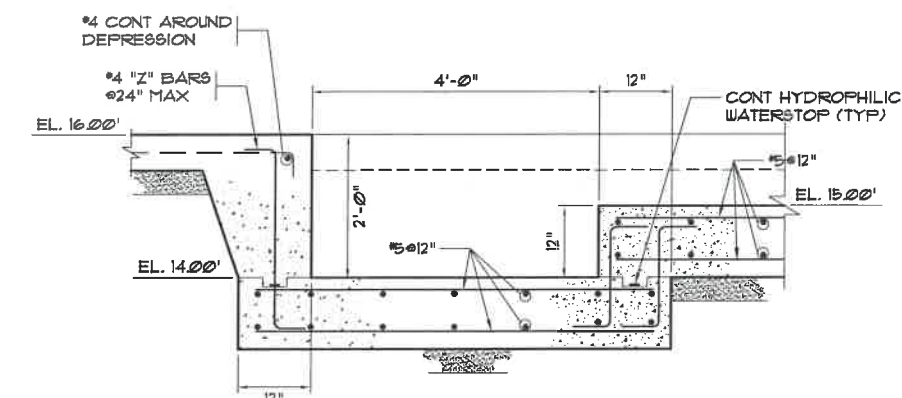


SLUDGE PRESS BUILDING ROOF FRAMING PLAN

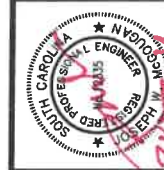
SCALE: 1/8" = 1'-0"

NOTE:

1. TRUSSES SPACED AT 2'-0" MAX. FRAMING PLAN IS SCHEMATIC AND MAY VARY SLIGHTLY AS REQUIRED BY TRUSS DESIGN.
2. FOR TRUSS ELEVATIONS AND TRUSS NOTES SEE SHEET S-2.



B BELT PRESS FOUNDATION SLAB
SCALE: 3/4" = 1'-0"



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CONSULTING ENGINEERS
PROFESSIONAL ENGINEER - STATE OF NEW YORK
EXPIRATION DATE: 12/31/2024
P.E. NO. 14460524
P.E. NO. 14460524

**SLUDGE PRESS BUILDING
FOUNDATION AND ROOF
FRAMING PLAN**

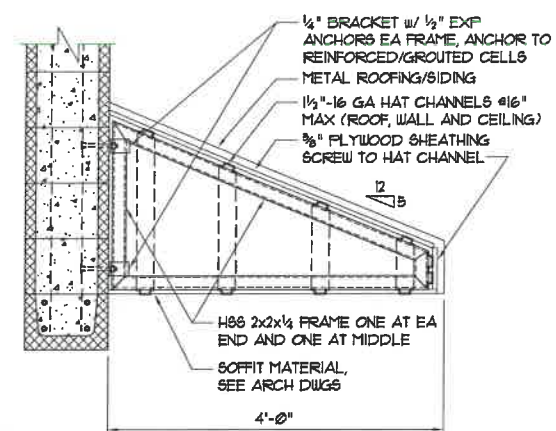
**CONWAY WWTP
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Drawn: DC
Checked: JWM
Job No.: 30004
Sheet No.:
S-1
Of: Version: 2

FOR CONSTRUCTION



SHEATHING SCHEDULE					
LOCATION	THICKNESS	NAILS	BLOCKING	NAIL SPACING	
				PERIMETER	INTERMEDIATE
CEILING	1/2" PLYWOOD	8d	NOT REQ'D	6"	12"
ROOF ZONE 1	5/8" PLYWOOD	10d	NOT REQ'D	6"	12"
ROOF ZONE 2	5/8" PLYWOOD	10d	YES	4"	6"

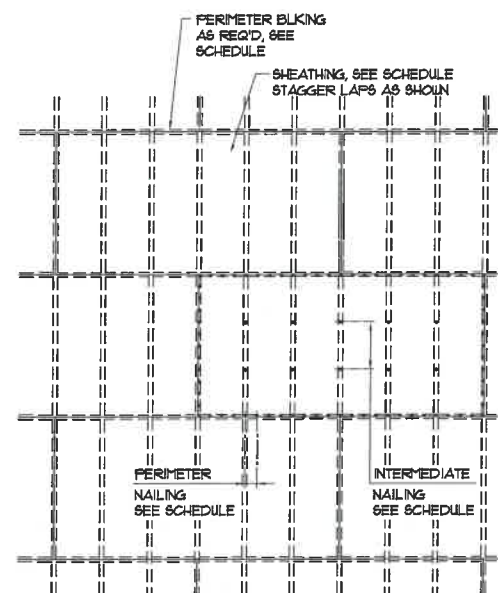


AUNING DETAIL

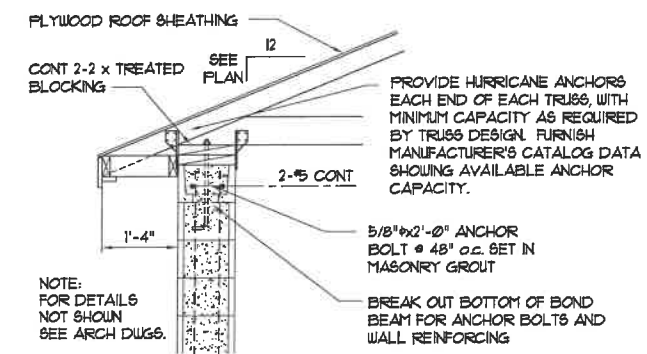
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NOTE:

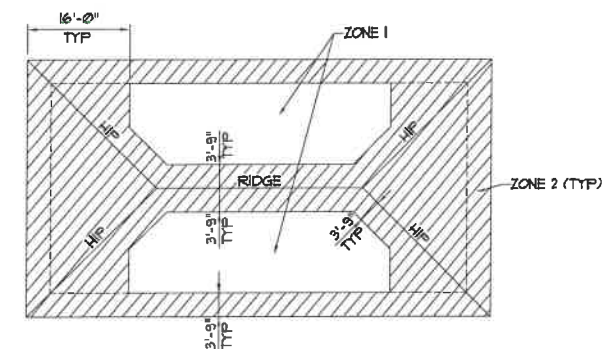
- NOTE:
1. AWNING FRAMES SHALL BE SHOP FABRICATED.
2. FIELD FILLET WELD HAT CHANNELS TO AWNING FRAMES.



SHEATHING ATTACHMENT DETAIL



A TYPICAL EAVE DETAIL AT MASONRY WALL
8-1 NOT TO SCALE



PLAN — ROOF ZONES

WOOD TRUSS NOTES

1. LUMBER IN TRUSSES SHALL BE GRADE MARKED AS FOLLOWS:
CHORD MEMBERS NO. 2 KD STD, OR BETTER
WEB MEMBERS NO. 3 KD SYP, OR BETTER
2. MAXIMUM TRUSS SPACING = 2'-0" ON CENTER
3. CENTROIDAL LINES OF MEMBERS SHALL INTERSECT AT A POINT, UOCL
4. ENDS OF ALL COMPRESSION MEMBERS SHALL BE CUT TO FIT INTERSECTING MEMBERS FOR POSITIVE END BEARING.
5. TRUSS DESIGN LOADS
WIND ASCE 7-05, 130 MPH, WIND IMPORTANCE FACTOR = 1.15, EXPOSURE C
GCP1 = ±0.55, DESIGN TRUSSES FOR COMPONENTS AND CLADDING LOADING
TOP CHORD DEAD LOAD 9 PSF (5/4 FOR UPLIFT)
BOTTOM CHORD DEAD LOAD 17 PSF (7 FOR UPLIFT)
TOP CHORD ROOF LIVE LOAD 16 PSF (4/12 TO LESS THAN 12/12 PITCH)
SEISMIC - PER CODE
- TRUSSES SHALL BE DESIGNED BY A REGISTERED SOUTH CAROLINA PROFESSIONAL ENGINEER EMPLOYED BY THE TRUSS MANUFACTURER. SUBMIT SEALED CALCULATIONS FOR TRUSS MEMBER AND CONNECTION DESIGN WITH SHOP DRAWINGS.
6. TRUSS JOINT CONNECTIONS SHALL BE MADE BY USING GALVANIZED TOOTHED CONNECTION PLATES.
7. TRUSS DESIGN ENGINEER SHALL INDICATE PERMANENT AND TEMPORARY BRACING REQUIRED ON SHOP DRAWINGS.



MARZIANO & MCGOUGAN, P.A.
consulting engineers
100 WEST CONRAD AVENUE • SUITE 300 • CONRAD, N.C. 28036
Phone: 919/466-0024 Fax: 919/466-0520



SLUDGE PRESS BUILDING TRUSS ELEVATIONS AND DETAILS

CONWAY WWTP
SLUDGE DEWATERING SYSTEM
GRAND STRAND WATER &
SEWER AUTHORITY

Scale: AS SHOWN

Date: 09-13-2011

Drawn: DC

Checked: JWM

Job No.: 30004

Sheet No.:

52

FOR CONSTRUCTION

S-2

Of: - Version: 2

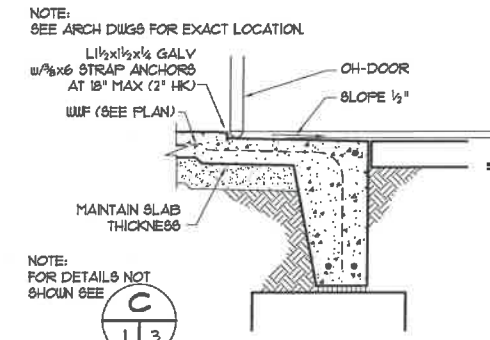


MARZIANO & MCGOUGAN, P.A.
CONSULTING ENGINEERS
1000 CONVENT AVENUE - SUITE 201 • CONWAY, NC 28039
PHONE: 704.458.0824 FAX: 704.458.0825

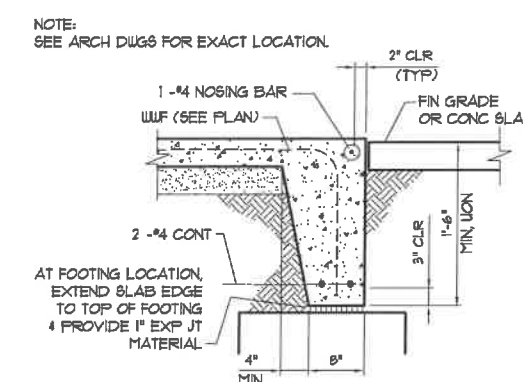
**SLUDGE PRESS BUILDING
STRUCTURAL DETAILS**

**CONWAY WWTP
SLUDGE DEWATERING SYSTEM
GRAND STRAND WATER &
SEWER AUTHORITY**

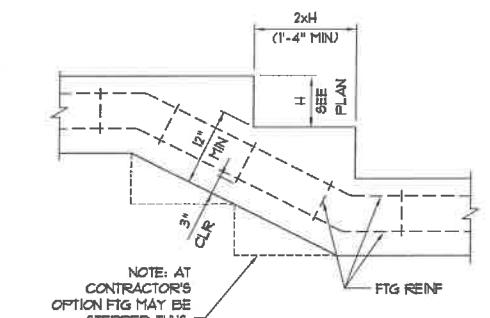
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Drawn: DC
Checked: JWM
Job No.: 30004
Sheet No.:
S-3
Of: Version: 2



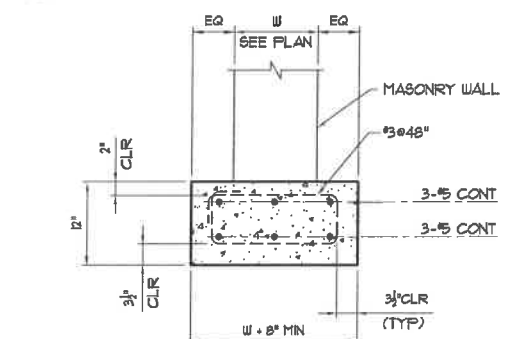
C TYP SLAB EDGE REINFORCING AT OVERHEAD DOOR
NO SCALE



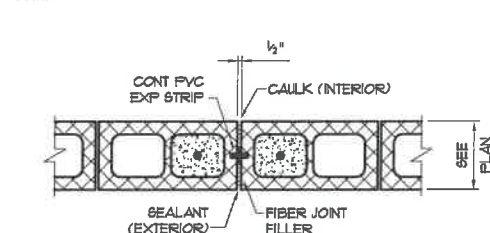
D TYP SLAB EDGE REINFORCING
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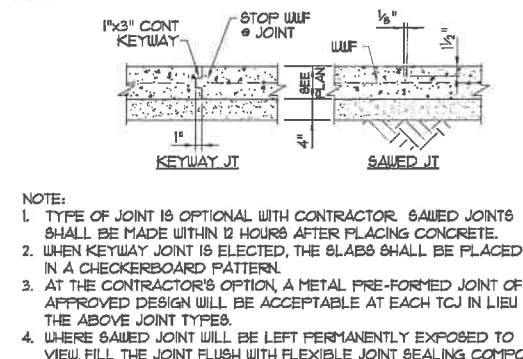
J TYP STEPPED FOOTING DETAIL
NO SCALE



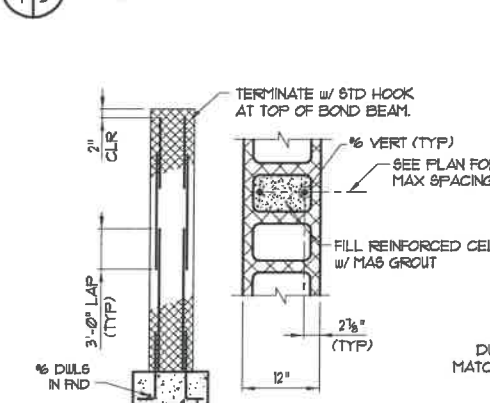
K TYP WALL FOOTING REINFORCING
NO SCALE



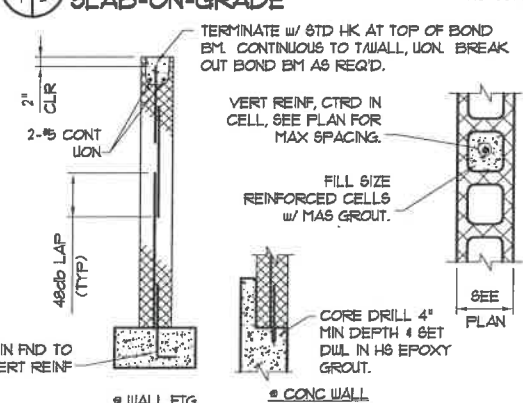
L TYP MAS WALL CONTROL JOINT (MCJ)
NO SCALE



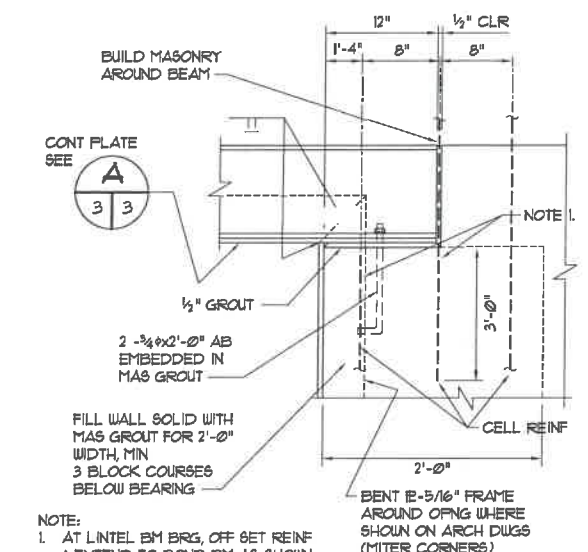
E TYP CONTROL JOINT (TCJ) AT SLAB-ON-GRADE
NO SCALE



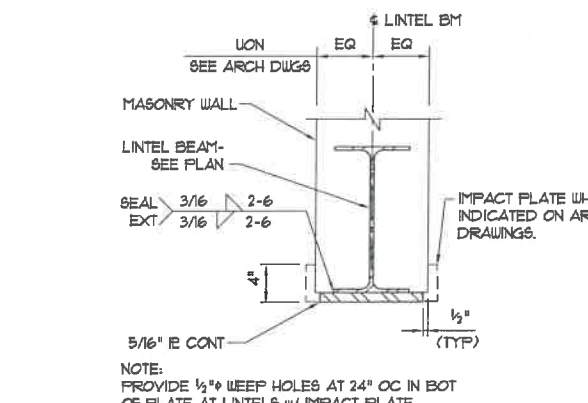
L WALL REINF DETAIL
NO SCALE



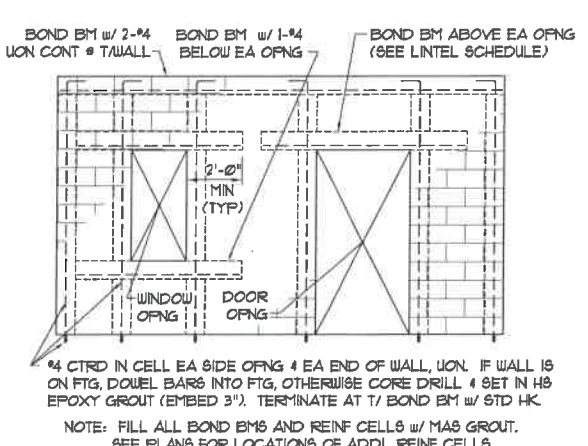
F TYP CMU WALL REINFORCING DETAIL
NO SCALE



G TYP. LINTEL BEARING DETAIL
NO SCALE



A TYP. LINTEL DETAIL
NO SCALE



B TYP. MAS. WALL REINF. DETAIL
(SEISMIC DESIGN CATEGORY D) NO SCALE

LINTEL SCHEDULE			
OPENING	LINTEL		BEARING
0'-0" to 1'-4"	1 FL - 3/8" x 3 1/2"	*	8"
1'-4" to 4'-0"	1 FL - 3 1/2" x 3 1/2" x 5/16"	*	8"
4'-0" to 6'-8"	1 FL - 4" x 3 1/2" x 5/16"	*	8"
6'-8" to 8'-0"	1 FL - 5" x 3 1/2" x 5/16"	*	8"

* PER 4" OF WALL THICKNESS

NOTE:
ALL UNSCHEDULED OPENINGS INCLUDING OPENINGS FOR MECHANICAL WORK SHALL BE PROVIDED WITH LINTELS IN ACCORDANCE WITH THIS SCHEDULE.

OPENING	6" OR 8" WALL	12" WALL	BEARING
2'-0" to 4'-0"			8"
4'-0" to 5'-4"			8"
5'-4" to 8'-0"			16"

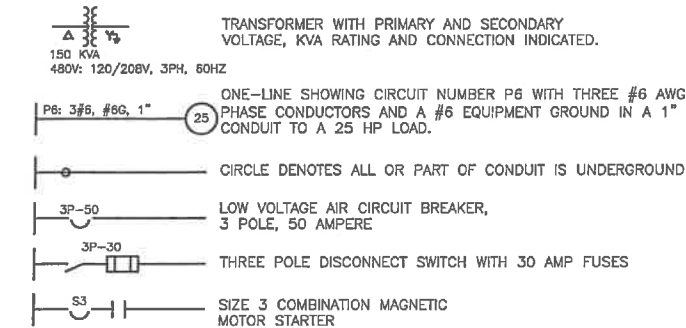
REQUIRED LINTELS NOT OTHERWISE INDICATED ON THE DRAWINGS SHALL BE AS SHOWN IN THE ABOVE SCHEDULE.

CONCRETE MASONRY LINTELS SHALL BE FILLED WITH MASONRY GROUT.

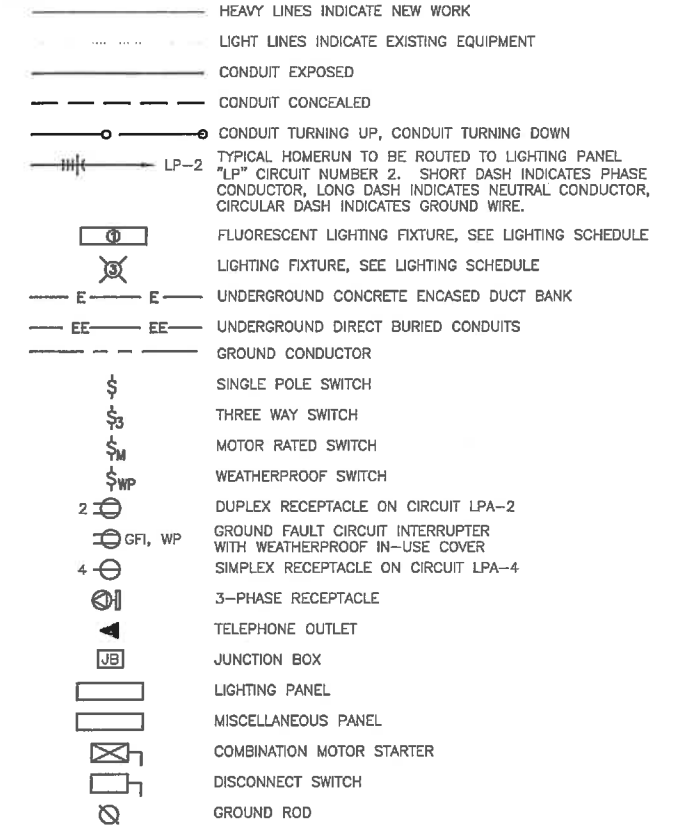
FOR CONSTRUCTION

DRAWING NAME: M:\Conway WWTP\Elec\E-1 LEGEND.dwg - E-1 LEGEND May 04, 2011 - 8:46am

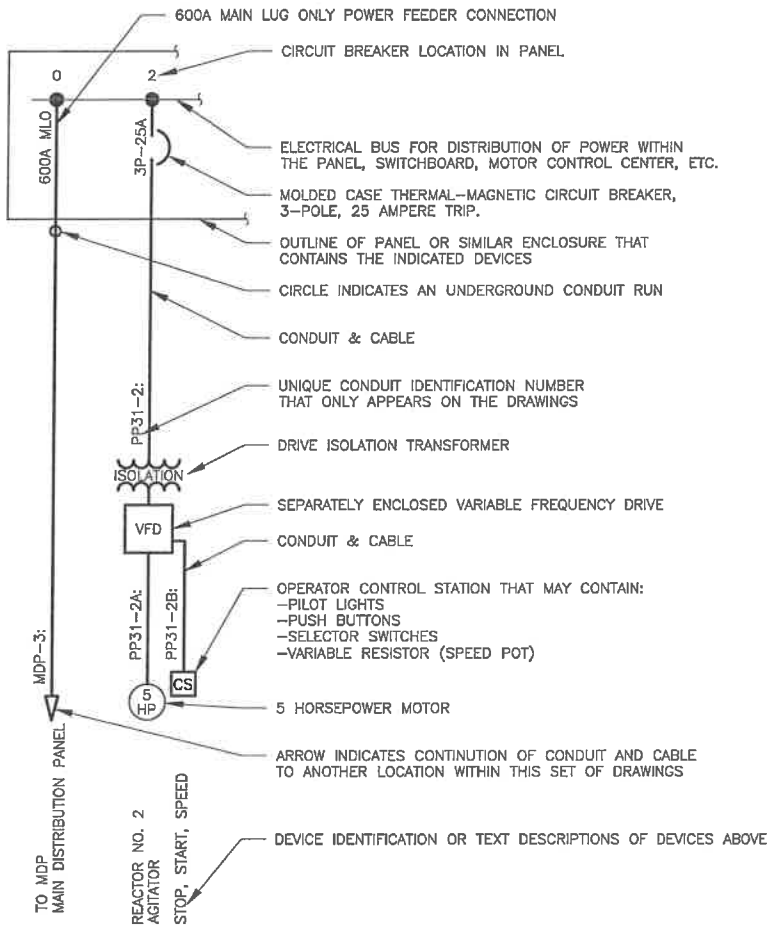
ONE - LINES



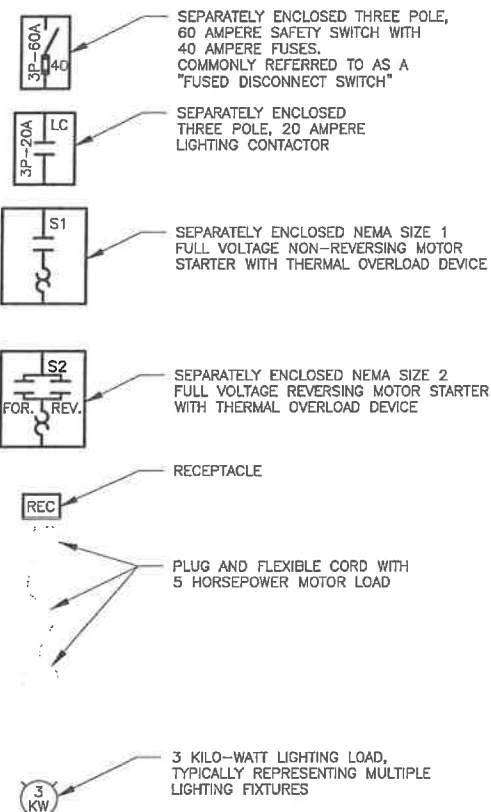
PLANS



ELECTRICAL LEGEND AND SYMBOLS



ELECTRICAL ONE-LINE DIAGRAM LEGEND



A	AMPERE	M	MAGNETIC MOTOR STARTER
AC	ALTERNATING CURRENT	M	MOTOR
A/C	AIR CONDITIONER	MA	MILLIAMPERE
AFF	ABOVE FINISHED FLOOR	MAX	MAXIMUM
AGL	ABOVE GROUND LEVEL	MCB	MAIN CIRCUIT BREAKER
AMP	AMPERE	MCC	MOTOR CONTROL CENTER
ATS	AUTOMATIC TRANSFER SWITCH	MCP	MOTOR CIRCUIT PROTECTOR
AWG	AMERICAN WIRE GAUGE	MDP	MAIN DISTRIBUTION PANEL
BPS	BOOSTER PUMP STATION	MIN	MINIMUM
C	CONDUIT	MLO	MAIN LUG ONLY
CB	CIRCUIT BREAKER	MPC	MINI-POWER CENTER
CFL	COMPACT FLOURESCENT	MTS	MANUAL TRANSFER SWITCH
CP	CONTROL PANEL	MSH	MOTOR SPACE HEATER
CR	CONTROL RELAY	N	NEUTRAL
CS	CONTROL STATION	NEC	NATIONAL ELECTRICAL CODE
CT	CURRENT TRANSFORMER	NEMA	NATIONAL ELECTRICAL MANUF. ASSOC.
DC	DIRECT CURRENT	OL	OVERLOAD (RELAY)
DIA	DIAMETER	PB	PUSH BUTTON
DM	DAMPER MOTOR	PCP	PUMP CONTROL PANEL
DS	DISCONNECT SWITCH	PE	PHOTO-ELECTRIC CONTROL
EB	ELECTRONIC BALLAST	PH	PHASE
EC	EMPTY CONDUIT	PL	PILOT LIGHT
E.C.	ELECTRICAL CONTRACTOR	PLC	PROGRAMMABLE LOGIC CONTROLLER
EF	EXHAUST FAN	PMR	POWER MONITOR RELAY
EL	ELEVATION	PP	POWER PANEL
EHH	ELECTRICAL HAND HOLE	PROP.	PROPOSED
EWB	ELECTRIC WATER HEATER	PSCP	PUMP STATION CONTROL PANEL
EX.	EXISTING	R	RED
EXP	EXPLOSION PROOF	REQD	REQUIRED
G	GROUND	RTU	REMOTE TELEMETRY UNIT
GEN	GENERATOR	RVAT	REDUCED VOLTAGE AUTOTRANSFORMER
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	SA	SURGE ARRESTOR
GFI	GROUND FAULT INTERRUPTER	SE	SERVICE ENTRANCE
GND	GROUND	SP	SUB-PANEL
HID	HIGH INTENSITY DISCHARGE (LIGHT)	SS	STAINLESS STEEL OR SELECTOR SWITCH
HOA	HAND-OFF-AUTOMATIC	SSRV	SOLID STATE REDUCED VOLTAGE
HP	HORSEPOWER	SST	STAINLESS STEEL
HVAC	HEATING, VENTILATION, & AIR COND.	SSW	SELECTOR SWITCH
HZ	HERTZ	T	THERMOSTAT
JB	JUNCTION BOX	TS	TEMPERATURE SWITCH
KVA	KILOVOLT-AMPERE	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
KW	KILOWATT	TYP	TYPICAL
LAHJ	LOCAL AUTHORITY HAVING JURISDICTION	UH	UNIT HEATER
LE	LEVEL ELEMENT	UM	UTILITY METER
LP	LIGHTING PANEL	V	VOLTS
LS	LEVEL SWITCH	VAC	VOLTS ALTERNATING CURRENT
LSH	LEVEL SWITCH - HIGH	VFD	VARIABLE FREQUENCY DRIVE
LSL	LEVEL SWITCH - LOW	W	WATTS OR WHITE
		WP	WEATHERPROOF
		XP	EXPLOSION PROOF
		ZS	POSITION SWITCH
		3-PH	THREE PHASE
		4P	FOUR POLE
		&	AND

2(3#350), #1N, 4" TWO PARALLEL SETS OF 3-PHASE 350MCM CONDUCTORS, ONE #1AWG NEUTRAL CONDUCTOR, NO GROUNDING CONDUCTOR, IN ONE 4" CONDUIT.

3(1PR#18STP) THREE - SINGLE PAIR, #18 AWG SHIELDED TWISTED PAIR CABLES
2(1TR#18ST) TWO - SINGLE TRIADS, #18 AWG SHIELDED TWISTED TRIAD CABLES
3#18STP THREE - #18 AWG SHIELDED TWISTED PAIR CABLES
3-7/C#14 THREE - SEVEN CONDUCTOR #14 AWG MULTICONDUCTOR CONTROL CABLES
2-RS485 TWO CABLES FOR RS485 COMMUNICATION

ELECTRICAL ABBREVIATIONS

GENERAL NOTES:

1. CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, PERMITS, AND OPERATIONS NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF ALL ELECTRICAL WORK INDICATED ON THE DRAWINGS.
2. ALL ELECTRICAL WORK AND MATERIALS SHALL COMPLY WITH THE NEC AND OTHER APPLICABLE FEDERAL, STATE, AND LOCAL CODES. ALL ELECTRICAL EQUIPMENT SHALL BE UL LISTED OR LABELED.
3. ALL DISCONNECT SWITCHES, JUNCTION BOXES, MOTOR CONTROLLERS, AND OTHER EQUIPMENT REQUIRING ELECTRICAL POWER CONNECTION SHALL BE MARKED WITH VOLTAGE PRESENT, AS APPROPRIATE TO DESIGNATE 120, 208, 240, 277, 480 VOLTS AND SINGLE OR THREE PHASE, AS APPLICABLE.
4. WIRE SHALL BE STRANDED COPPER WITH TYPE THHN/THWN-2 600V INSULATION. CONDUCTORS SHALL BE COLOR CODED BLACK, RED, BLUE, WHITE, AND GREEN ON 120/208 VOLT SYSTEMS AND BROWN, ORANGE, YELLOW, GRAY, AND GREEN ON 480Y/277 VOLT SYSTEMS. A GROUNDING CONDUCTOR SHALL BE INSTALLED IN EACH CONDUIT.
5. CONTRACTOR SHALL COORDINATE ROUTING OF CONDUITS WITH THE OWNER AND OTHER TRADES.
6. CONTRACTOR SHALL VERIFY ALL EQUIPMENT LOCATIONS AND CONNECTION POINTS PRIOR TO INSTALLATION.
7. SLUDGE MIXING BASIN IS RATED CLASS 1, DIVISION 2, GROUP D BY NFPA 820. ALL CONDUITS IN OR THROUGH THIS AREA SHALL BE PVC COATED RIGID STEEL. ALL CONDUITS SHALL HAVE SUITABLE SEALOFFS.
8. THREE SINGLE PHASE CIRCUITS MAY BE COMBINED IN A SINGLE CONDUIT AS THREE PHASE CONDUCTORS, THREE NEUTRAL CONDUCTORS, AND ONE GROUND CONDUCTOR. CONTRACTOR IS RESPONSIBLE FOR UPSIZING CONDUCTORS TO MEET CODE REQUIREMENTS.

STURGILL
ENGINEERING
P.A.
ONE SOUTH MAIN ST.
LEXINGTON, NC 27292
(336) 238-1249 PH.
(336) 236-6393 FAX

C-3617



MARZIANO & MCGOUGAN, P.A.
consulting engineers
130 SECOND AVENUE • SUITE 201 • CONWAY, SC 29526
Phone: 853.6812524 Fax: 853.6812525

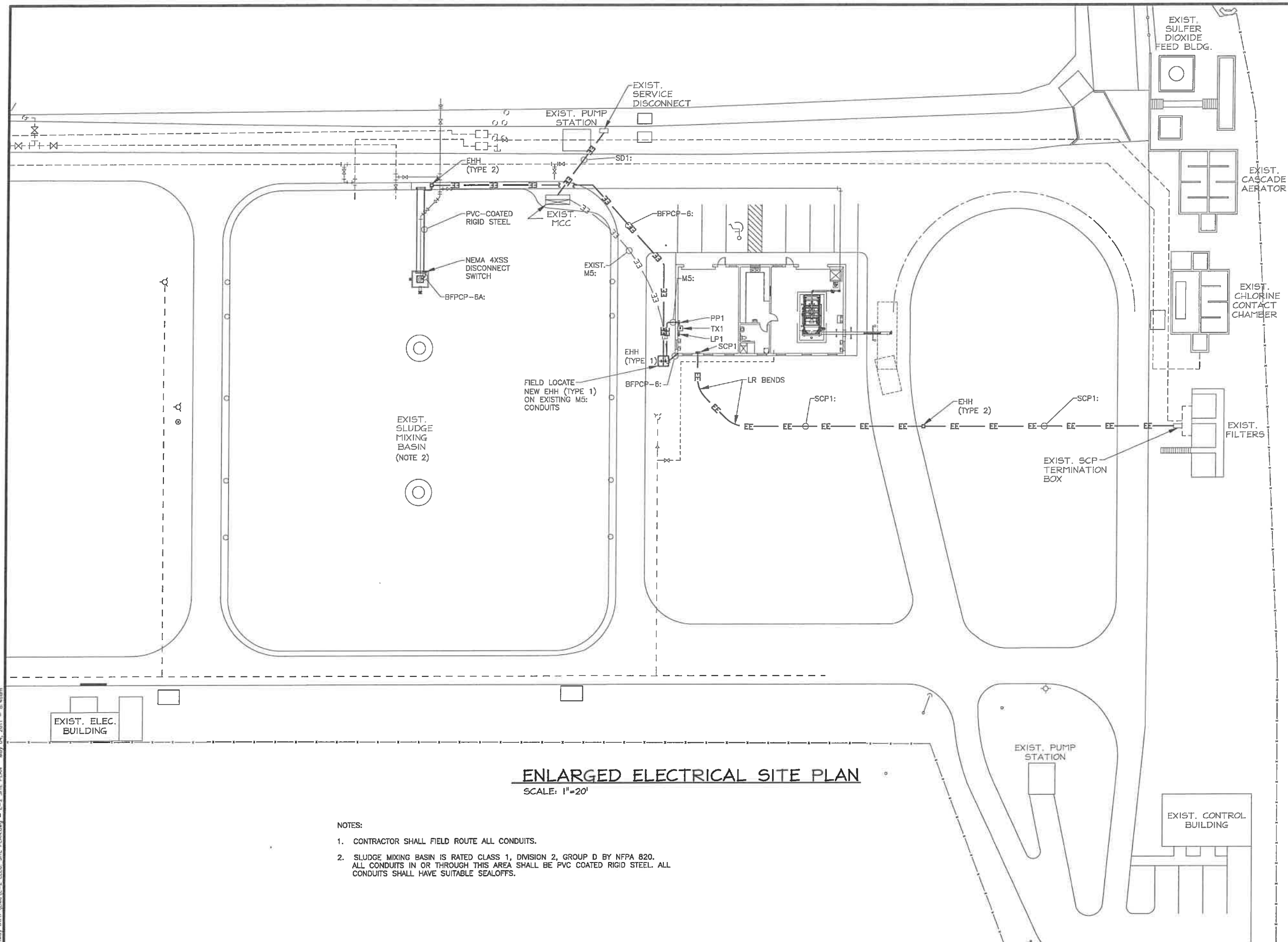
ELECTRICAL
LEGEND

CONWAY WWTP
SLUDGE DEWATERING SYSTEM
GRAND STRAND WATER &
SEWER AUTHORITY

Scale: AS SHOWN
Date: 05-02-2011
Drawn: DAC
Checked: RWS
Job No.: 30004
Sheet No.:
E-1
Of: Version: 1

FINAL DRAWINGS
FOR BIDDING

DRAWING NAME: M:\Conway WWTP\Elec\E-2 ELEC. SITE PLAN.dwg - E-2 SITE PLAN May 04, 2011 - 11:45am



NOTES:

1. CONTRACTOR SHALL FIELD ROUTE ALL CONDUITS.
2. SLUDGE MIXING BASIN IS RATED CLASS 1, DIVISION 2, GROUP D BY NFPA 820. ALL CONDUITS IN OR THROUGH THIS AREA SHALL BE PVC COATED RIGID STEEL. ALL CONDUITS SHALL HAVE SUITABLE SEALOFFS.

ENLARGED ELECTRICAL SITE PLAN

SCALE: 1"=20'

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ONE SOUTH MAIN ST.
LUXINGTON, NC 27292
(336) 236-1249 * TEL
(336) 236-6393 * FAX



MARZIANO & MCGOUGAN, P.A.
consulting engineers
100 SECOND AVENUE • SUITE 201 • CONWAY, SC 29526
Phone: 843.683.0224 Fax: 843.683.0229



**ENLARGED
ELECTRICAL
SITE PLAN**

**CONWAY WWTP
SLUDGE DEWATERING SYSTEM
GRAND STRAND WATER &
SEWER AUTHORITY**

Scale: AS SHOWN

Date: 05-02-2011

Drawn: DAC

Checked: RWS

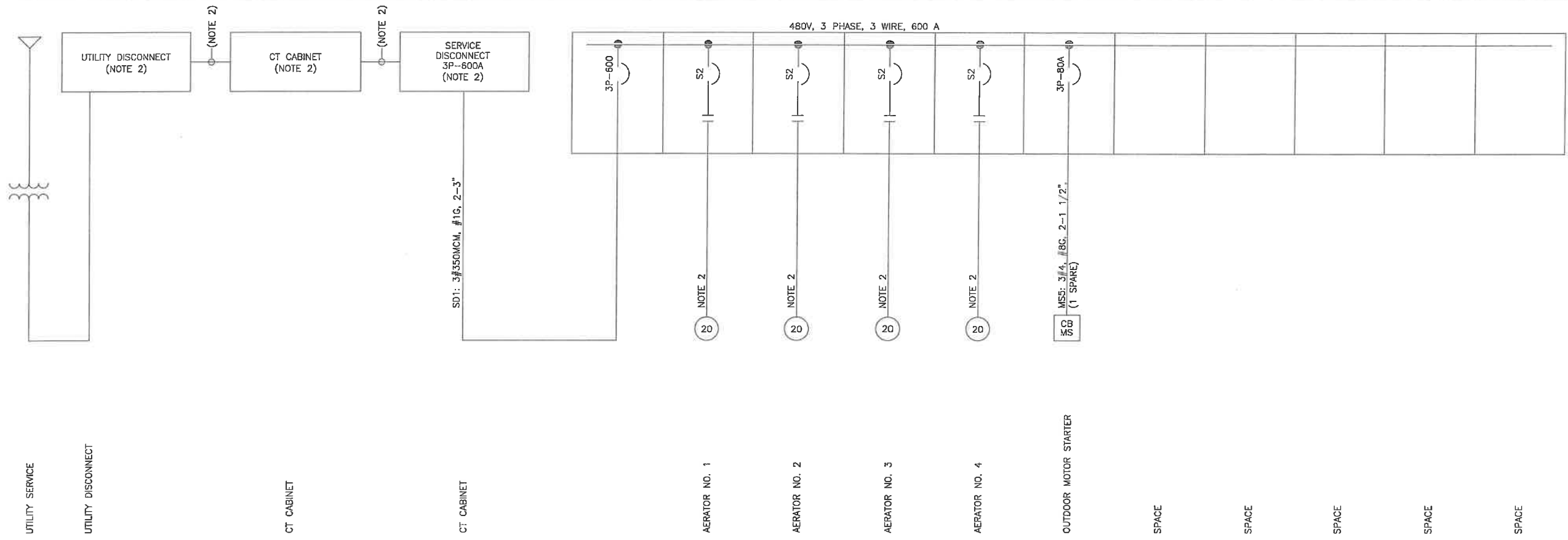
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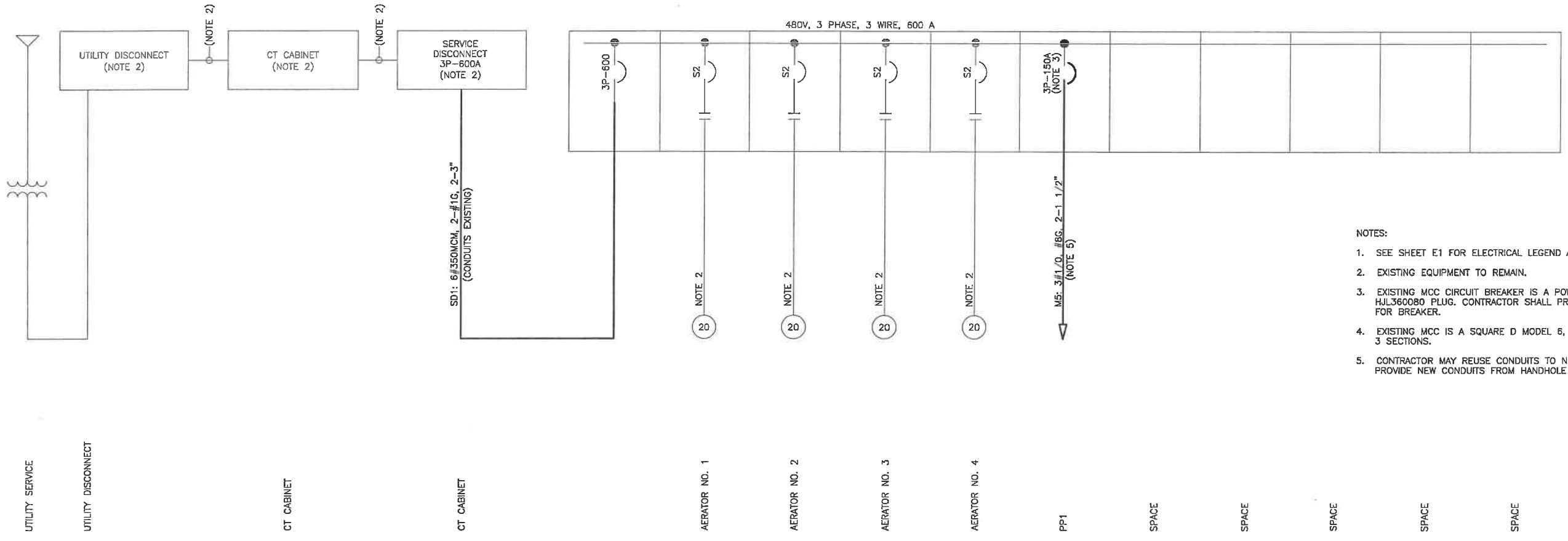
E-2

Of: - Version: 1

**FINAL DRAWINGS
FOR BIDDING**



MCC ONE-LINE DIAGRAM (EXISTING)
NO SCALE



- NOTES:
- SEE SHEET E1 FOR ELECTRICAL LEGEND AND ABBREVIATIONS.
 - EXISTING EQUIPMENT TO REMAIN.
 - EXISTING MCC CIRCUIT BREAKER IS A POWERPACT HJ150 WITH HJL360080 PLUG. CONTRACTOR SHALL PROVIDE NEW 150A PLUG FOR BREAKER.
 - EXISTING MCC IS A SQUARE D MODEL 6, F.O. NO. 24477844, 3 SECTIONS.
 - CONTRACTOR MAY REUSE CONDUITS TO NEW HANDHOLE, PROVIDE NEW CONDUITS FROM HANDHOLE TO PP1.

MCC ONE-LINE DIAGRAM (MODIFIED)
NO SCALE

STURGILL
ENGINEERING
P.A.
ONE SOUTH MAIN ST.
LEXINGTON, NC 27292
(336) 238-1249 PH.
(336) 236-6393 FAX

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MARZIANO & MCGOUGHAN, P.A.
CONSULTING ENGINEERS
1300 SECOND AVENUE • SUITE 201 • CONWAY, NC 29026
Phone 843.488.0254 Fax 843.488.0129

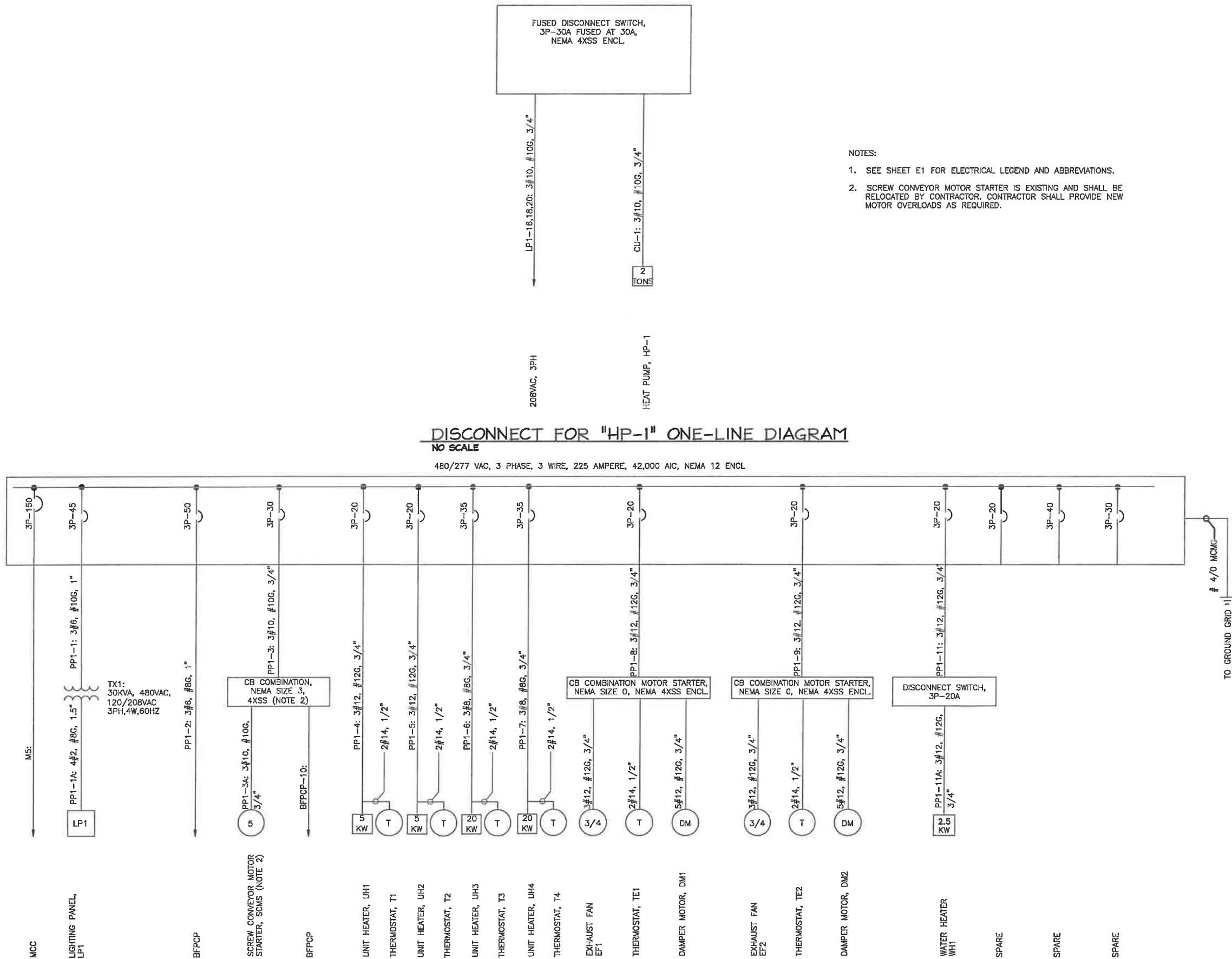
MCC EXISTING AND
MODIFIED ONE-LINES

CONWAY WWTP
SLUDGE DEWATERING SYSTEM
GRAND STRAND WATER &
SEWER AUTHORITY

Scale:	AS SHOWN
Date:	05-02-2011
Drawn:	DAC
Checked:	RWS
Job No.:	30004
Sheet No.:	E-3
Of: Version:	1

FINAL DRAWINGS
FOR BIDDING

DRAWING NAME: M:\Conway WWTP\Elec\E-4 MSC ONE-LINES.dwg - E-4 MSC ONE-LINES May 04, 2011 - 8:42am



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ONE SOUTH MAIN ST.
LEXINGTON, NC 27292
(336) 238-1249 PH.
(336) 236-6393 FAX

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MARZIANO & MCGOUGH, P.A.
CONSULTING ENGINEERS
1100 SECOND AVENUE • SUITE 201 • CONWAY, SC 29536
Phone: 843.680.2474 Fax: 843.680.0229

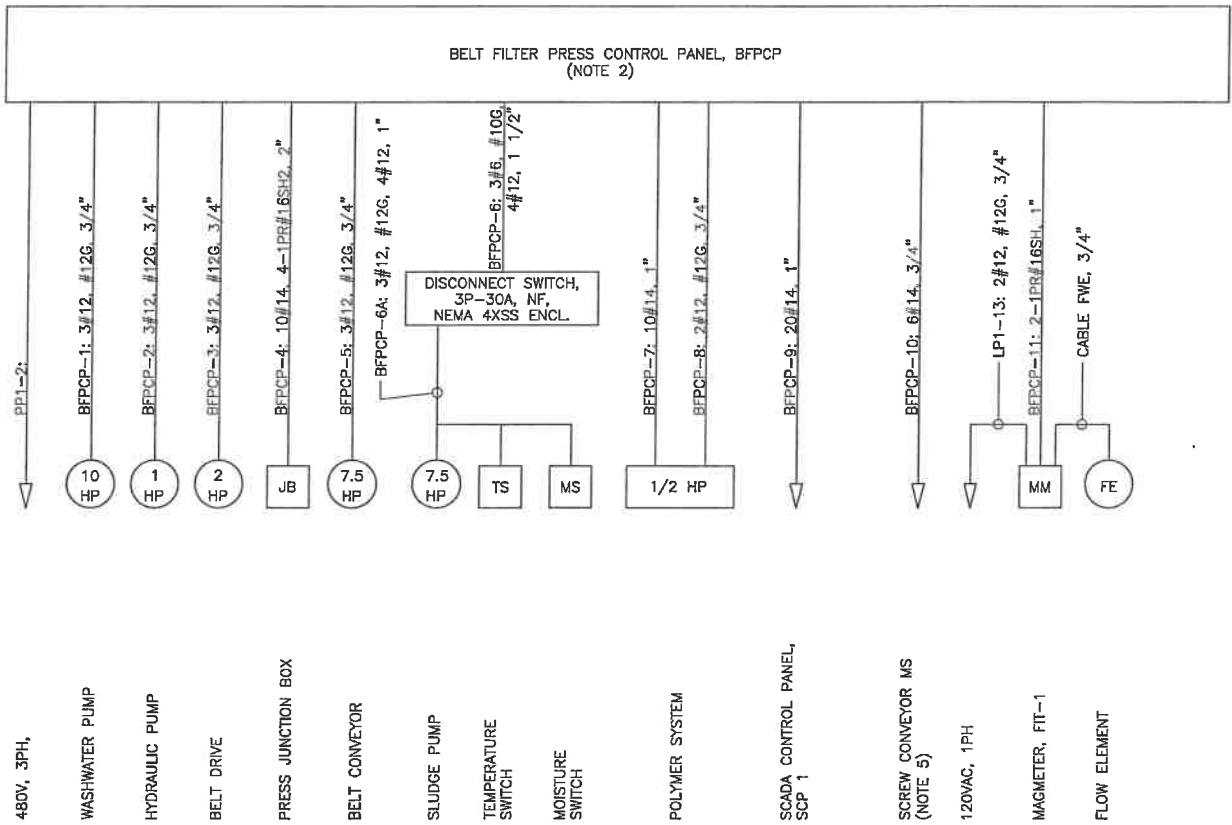
PP1 ONE-LINE

**CONWAY WWTP
SLUDGE DEWATERING SYSTEM
GRAND STRAND WATER &
SEWER AUTHORITY**

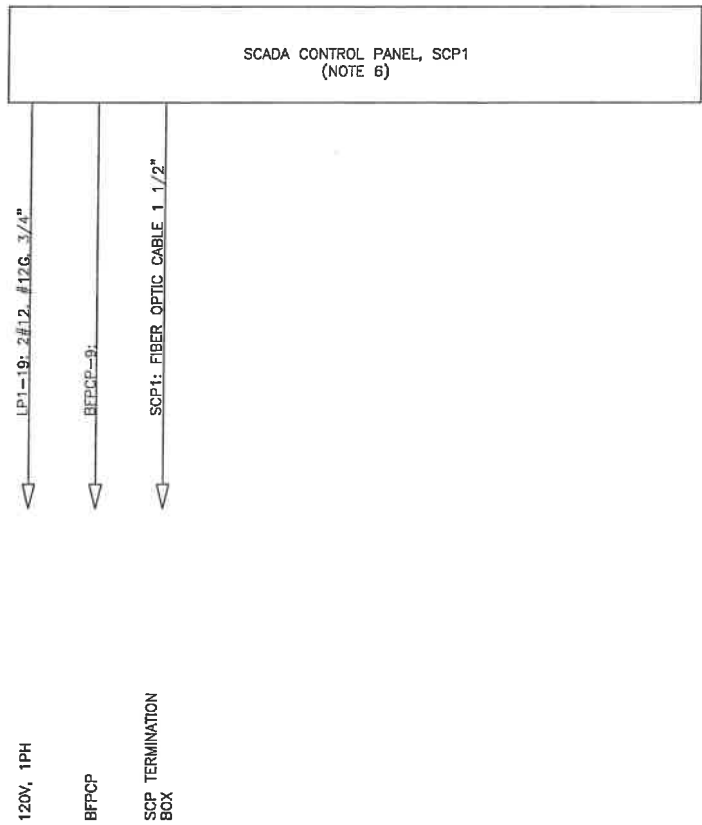
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Checked: RWS
Job No.: 30004
Sheet No.:
E-4
Of: Version: 1

**FINAL DRAWINGS
FOR BIDDING**

DRAWING NAME: M:\Conway WWTP\Elec\E-5 MISC ONE-LINES.dwg - E-5 MISC ONE-LINES May 04, 2011 - 8:48am



BELT FILTER PRESS CONTROL PANEL, BFPCP ONE-LINE DIAGRAM
NO SCALE



SCADA CONTROL PANEL, SCP1 ONE-LINE DIAGRAM
NO SCALE

NOTES:

- SEE SHEET E1 FOR ELECTRICAL LEGEND AND ABBREVIATIONS.
- CONTROL PANEL PROVIDED WITH EQUIPMENT. PANEL MOUNT, CABLE AND CONDUIT PROVIDED BY CONTRACTOR.
- CABLE PROVIDED WITH EQUIPMENT. CONDUIT AND INSTALLATION BY CONTRACTOR.
- FIBER OPTIC CABLE SHALL BE MULTIMODE 6 PAIR CABLE. CONDUIT FOR FIBER OPTIC CABLE SHALL HAVE LONG RADIUS BENDS CONNECTION BY OWNER.
- SCREW CONVEYOR MOTOR STARTER IS EXISTING AND SHALL BE RELOCATED BY CONTRACTOR. CONTRACTOR SHALL PROVIDE NEW MOTOR OVERLOADS AS REQUIRED.
- SCADA CONTROL PANEL PROVIDED BY OWNER, MOUNTING, CABLE AND CONDUIT BY CONTRACTOR.

STURGILL ENGINEERING P.A.
ONE SOUTH MAIN ST.
LEXINGTON, NC 27292
(336) 238-1249 PH
(336) 236-6393 FAX

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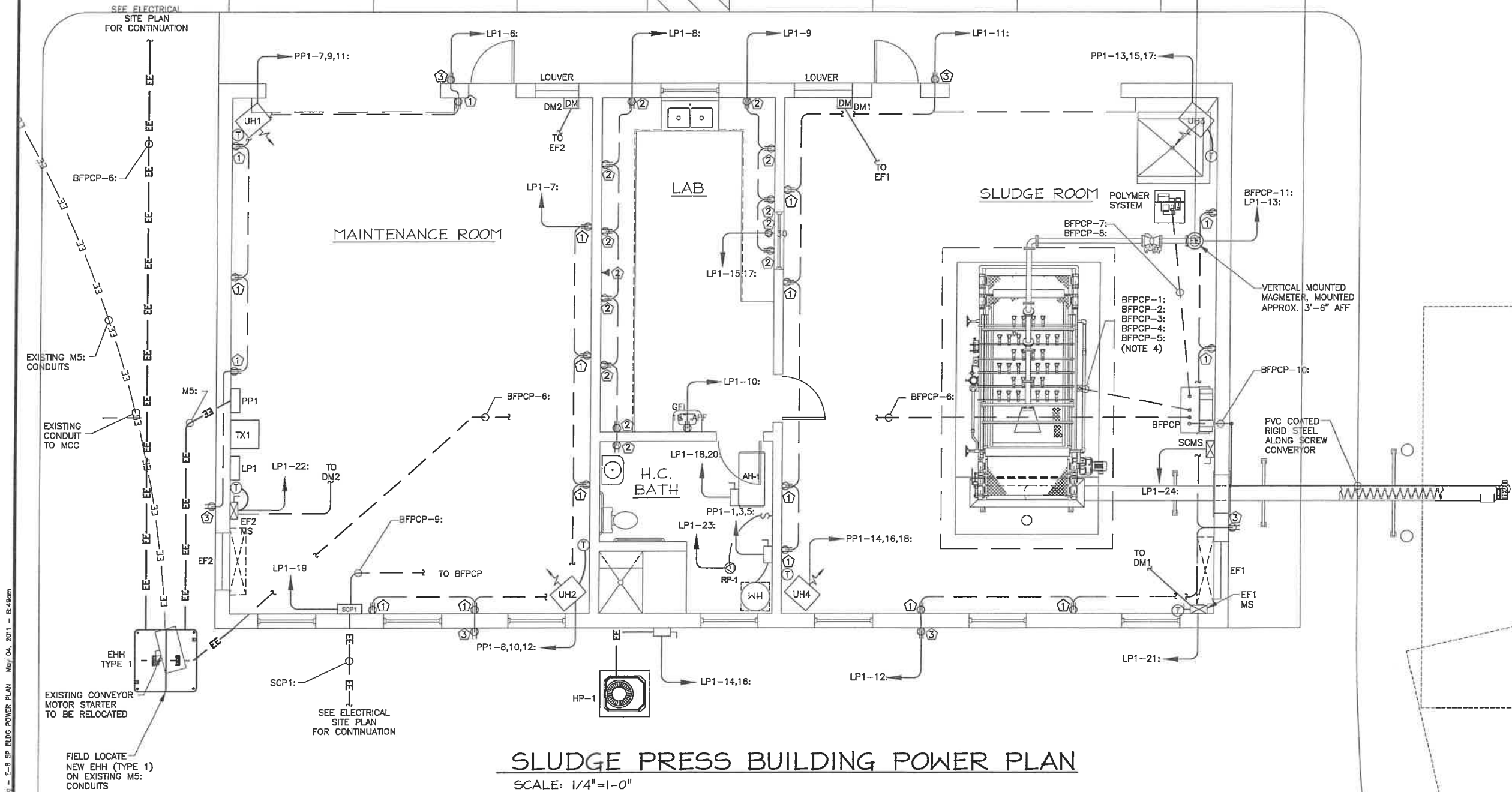
MARZIANO & MCGOUGAN, P.A.
CONSULTING ENGINEERS
1100 SECOND AVENUE • SUITE 201 • CONWAY, SC 29515
Phone: 843-683-0234 Fax: 843-683-0235

MISCELLANEOUS ONE-LINES

**CONWAY WWTP
SLUDGE DEWATERING SYSTEM
GRAND STRAND WATER &
SEWER AUTHORITY**

Scale: AS SHOWN
Date: 05-02-2011
Drawn: DAC
Checked: RWS
Job No.: 30004
Sheet No.: **E-5**
Of: - Version: 1

**FINAL DRAWINGS
FOR BIDDING**



DRAWING NAME: M:\Conway\WWTP\Elec\E-7 SPS BLDG LIGHTING PLAN.dwg -- E-7 SPS BLDG LIGHTING PLAN -- May 04, 2011 -- 8:50am

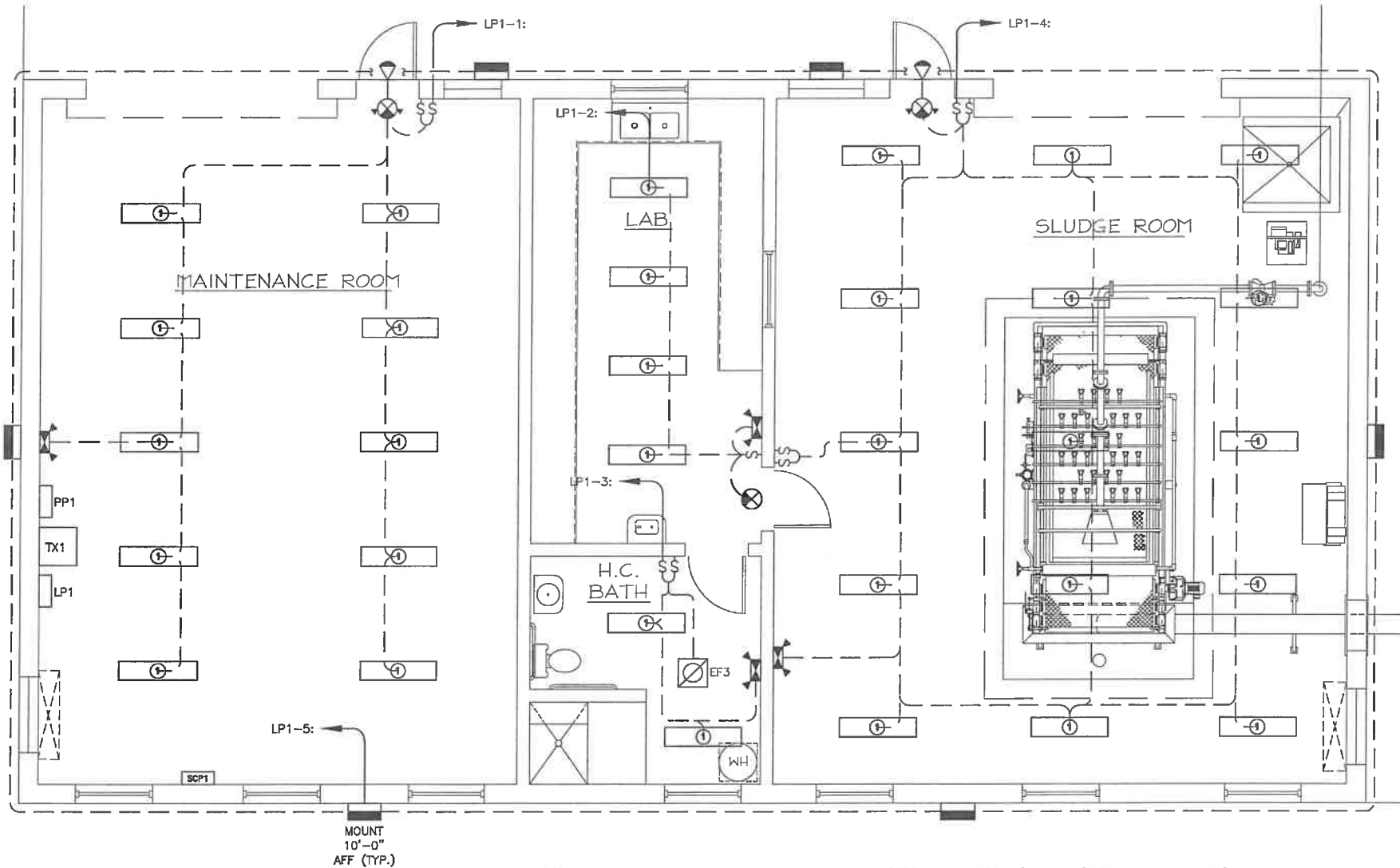
SLUDGE PRESS BUILDING LIGHTING FIXTURE SCHEDULE				
SYMBOL	LAMP	MOUNTING	DESCRIPTION	MANUFACTURER
	TWO (2) F32T8CW	PENDANT CEILING MOUNT	1X4 INDUSTRIAL DAMP LOCATION FLUORESCENT, 2 LAMP, ELECT. BALLAST FIBERGLASS HOUSING, 120 VAC	COLUMBIA LUN4-217-EU OR EQUIVALENT.
	TWO (2) HEADS	WALL MOUNT 10'-0" A.F.F.	EMERGENCY LIGHT, 2 LAMP, NEMA RATED, SEALED, GASKETED, 120 VAC	SURE LITE UMB1 OR EQUIVALENT.
	100W	WALL MOUNT 10'-0" A.F.F.	OUTDOOR, WALL MOUNTED, METAL HALIDE, 100W, 120VAC WITH PHOTOCELL	HUBBEL PGM3-100P-18-BZ-L OR EQUIVALENT.
	TWO (2) HEADS	WALL MOUNT CENTERED ABOVE DOOR 10'-0" A.F.F.	COMBINATION LED EXIT SIGN AND EMERGENCY LIGHT; WHITE WITH RED LETTERS, 120VAC, w/BATTERY PACK.	LITHONIA LHQM-SW-3-R OR EQUIVALENT.
	ONE (2) 6W	WALL MOUNT OUTSIDE CENTERED ABOVE DOOR 10'-0" A.F.F.	EMERGENCY LIGHTING REMOTE HEAD UNIT WITH TWO 6VDC 6W LAMP.	SURE LITES 6T6DWXX OR EQUIVALENT.

NOTES:

1. SEE SHEET E-1 FOR LEGEND AND ABBREVIATIONS.

PANEL: LP1					VOLTAGE: 208Y/120 VOLT, 3PH, 4W, 60 Hz					100% NEUTRAL BUS									
LOCATION: MAINTENANCE ROOM					MAINS					LOCK ON SHUNT TRIP									
FED FROM: TX1 VIA PP1					100 AMP MLO					100 AMP MAIN BREAKER									
MOUNTING: ☐					UNITIZED					☐ FLUSH ☒ SURFACE					MINIMUM AIC RATING: 42 KA				
NOTES	COND SIZE	WIRE SIZE	AMP TRIP	POLES	BRANCH CIRCUIT					BRANCH CIRCUIT					DEVIDE				
					DESIGNATION	VOLT-AMPS	NO.	PHASE LOAD (VOLT-AMPS)			NO.	VOLT-AMPS	DESIGNATION	POLES		AMP TRIP	WIRE SIZE	COND SIZE	NOTES
								A	B	C									
3/4	12	20	1		LIGHTS MAINT. ROOM	675	1	955				2	280		1	20	12	3/4	
3/4	12	20	1		LIGHTS HC BATH/EF-3	495	3			1490		4	995		1	20	12	3/4	
3/4	12	20	1		EXTERIOR LIGHTS	600	5				1680	6	1080		1	20	12	3/4	
3/4	12	20	1		RECEPTACLES MAINT. ROOM	1080	7	2340				8	1280		1	20	12	3/4	
3/4	12	20	1		RECEPTACLES LAB	720	9			1220		10	500		1	20	12	3/4	
3/4	12	20	1		RECEPTACLES SLUDGE ROOM	900	11				1980	12	1080		1	20	12	3/4	
3/4	12	20	1		FIT-1	500	13	1750				14	1250		2	20	12	3/4	
1	6	50	2		RECEPTACLE 208V, 1PH	2880	15			4130		16	1250				12		
		6				2880	17				5280	18	2400		2	25	10	3/4	
3/4	12	20	1		SCP-1	500	19	2900				20	2400				10		
3/4	12	20	1		RP-1	500	21			500		22	0		1	20	-	-	
-	-	20	1		SPARE	0	23			0		24	0		1	20	-	-	
-	-	20	1		SPARE	0	25	0				26	0		1	20	-	-	
-	-	20	1		SPARE	0	27			0		28	0		1	20	-	-	
-	-	20	1		SPARE	0	29				0	30	0		1	20	-	-	
-	-	20	1		SPARE	0	31	0				32	0		1	20	-	-	
-	-	20	1		SPARE	0	33			0		34	0		1	20	-	-	
-	-	20	1		SPARE	0	35				0	36	0		1	20	-	-	
-	-	20	1		SPARE	0	37	0				38	0		1	30	-	-	
-	-	20	1		SPARE	0	39			0		40	0		1	30	-	-	
-	-	20	1		SPARE	0	41			0		42	0		1	30	-	-	
TOTALS PER PHASE								7945	7340	8940	TOTAL CONNECTED LOAD (VA)					24,225			
TOTALS AMPS PER PHASE								66	61	75									
NOTES: NEMA 4X SS ENCLOSURE																			

NOTES: NEMA 4X SS ENCLOSURE



SLUDGE PRESS BUILDING LIGHTING PLAN

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

FINAL DRAWINGS
FOR BIDDING

STURGILL
ENGINEERING
P.A.
ONE SOUTH MAIN ST.
LEXINGTON, NC 27292
(336) 235-1245 PH.
(336) 235-6393 FAX

C-3617



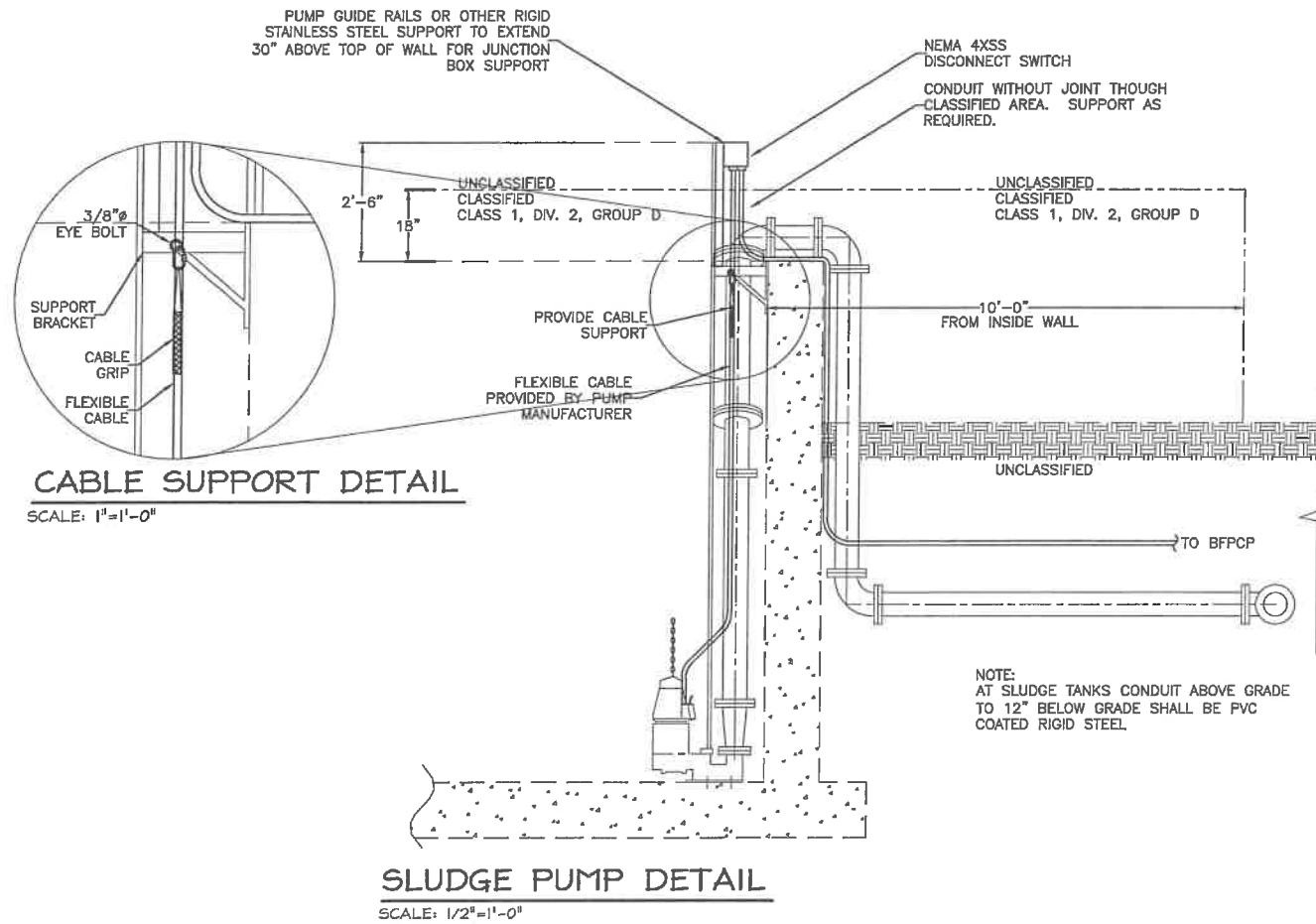
MARZIANO & MCGOUGAN, P.A.
CONSULTING ELECTRICAL ENGINEERS
100 SECOND AVENUE • SUITE 201 • CONWAY, NC 29526
Phone: 843-688-8274 Fax: 843-688-0279

ELECTRICAL
SLUDGE PRESS BUILDING
LIGHTING PLAN

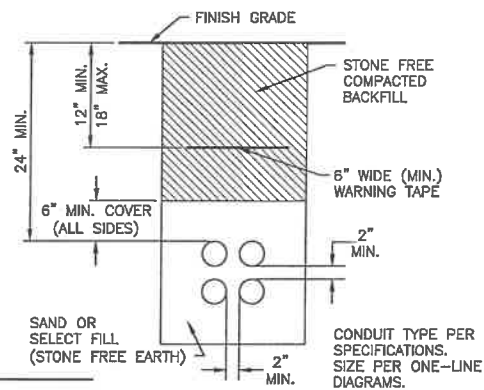
CONWAY WWTP
SLUDGE DEWATERING SYSTEM
GRAND STRAND WATER &
SEWER AUTHORITY

Scale: AS SHOWN
Date: 05-02-2011
Drawn: DAC
Checked: RWS
Job No.: 30004
Sheet No.: E-7
Of: 1 Version: 1

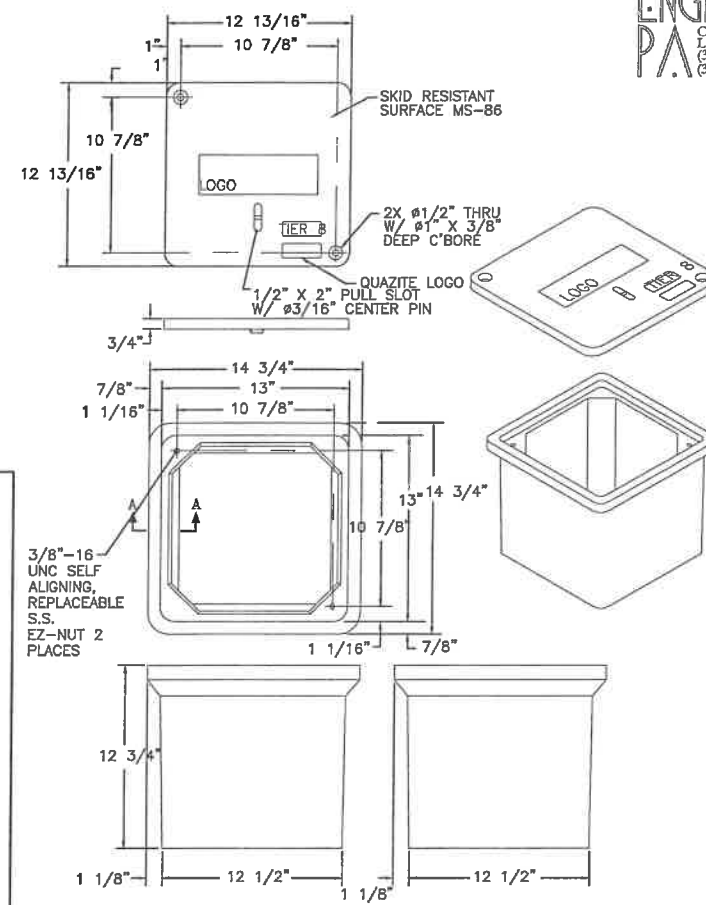
DRAWING NAME: M:\Conway WWTP\Elec\E-8 ELECTRICAL DETAILS.dwg -- E-8 DETAILS May 04, 2011 -- 8:51am



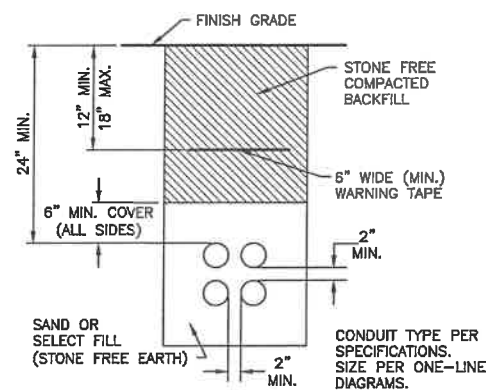
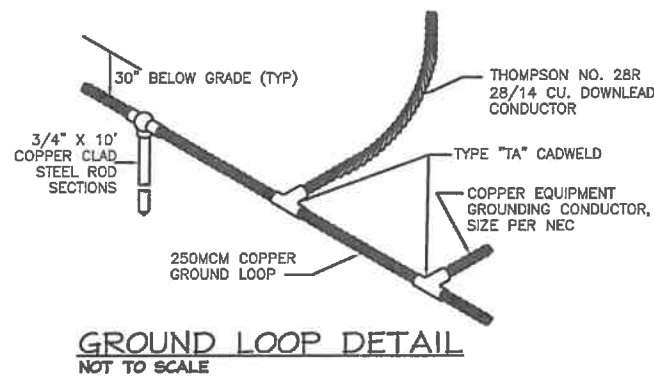
- NOTES:
1. LOGO TO BE SPECIFIED:
 2. FURNISHED WITH (2) 3/8"-16 UNC X 1 1/2 LG. S.S. HEX HEAD BOLTS AND (2) 3/8" S.S. FLAT WASHERS.
 3. THIS TIER 8 COVER IS RATED FOR A STATIC DESIGN LOAD OF 8,000 LBS. OVER A 10 X 10 AREA AND MUST PASS A MIN. STATIC TEST LOAD OF 12,000 LBS.



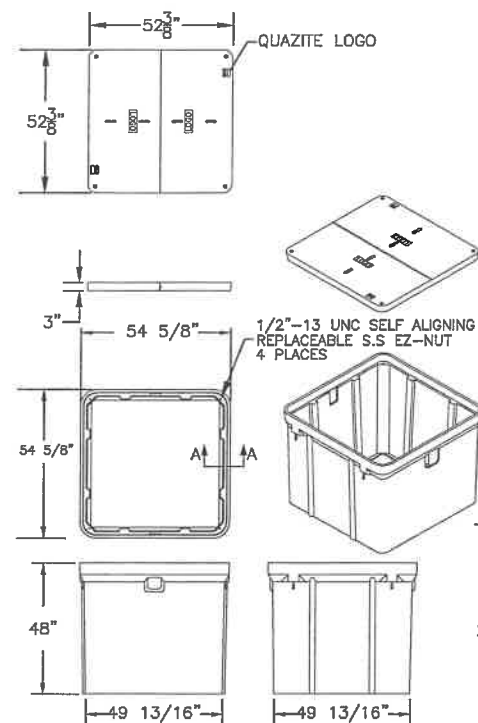
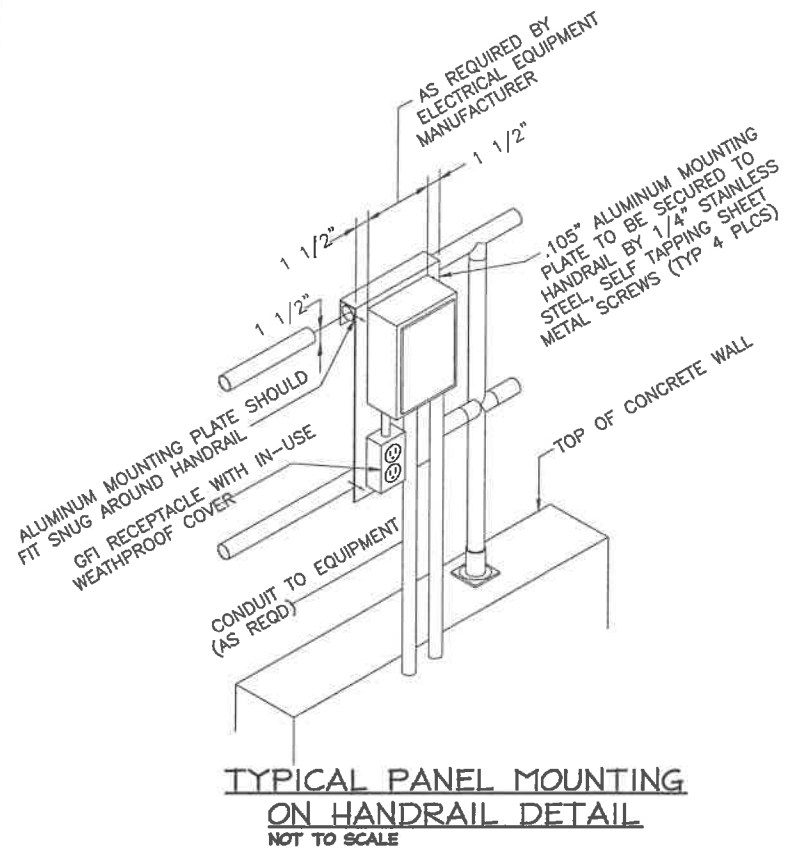
DIRECT BURIED CONDUIT DETAIL
NOT TO SCALE



EHH (TYPE 2)
NOT TO SCALE



DIRECT BURIED CONDUIT DETAIL
NOT TO SCALE



- NOTES:
1. FURNISHED W/ (4) 1/2"-13 UNC X 4 LG. S.S. HEX HEAD BOLTS AND (4) 1/2" S.S. FLAT WASHERS.
 2. THIS COVER IS RATED FOR A STATIC DESIGN LOAD OF 15,000 LBS OVER A 10 X 10 AREA AND MUST PASS A MINIMUM STATIC TEST LOAD OF 7,500 LBS.

EHH (TYPE 1)
SCALE: NO SCALE

FINAL DRAWINGS FOR BIDDING

STURGILL ENGINEERING PA.
ONE SOUTH MAIN ST.
LEXINGTON, NC 27292
(336) 238-1249 PH.
(336) 236-6393 FAX

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MARZIANO & MCGOUGAN, P.A.
CONSULTING ENGINEERS
1305 SECOND AVENUE • SUITE 400
Charlotte, NC 28202
Phone: 443-480024 Fax: 443-480029

ELECTRICAL DETAILS

**CONWAY WWTP
SLUDGE DEWATERING SYSTEM
GRAND STRAND WATER &
SEWER AUTHORITY**

Scale:	AS SHOWN
Date:	05-02-2011
Drawn:	DAC
Checked:	RWS
Job No.:	30004
Sheet No.:	E-8
Of: Version:	1

ABBREVIATIONS	
AC	AIR CONDITIONING PACKAGED UNIT
ACH	AIR CHANGE RATE PER HOUR
AFF	ABOVE FINISH FLOOR
AHU	AIR HANDLING UNIT
AW	APPLIANCE WHITE
BOD	BOTTOM OF DUCT
BTUH	BRITISH THERMAL UNIT PER HOUR
BTU	BRITISH THERMAL UNIT
CFM	CUBIC FEET PER MINUTE
CU	CONDENSING UNIT
DB	DRY BULB TEMPERATURE
EAT	ENTERING AIR TEMPERATURE
EC	ELECTRICAL CONTRACTOR
ECP	ELECTRONIC CONTROL PANEL
EER	ENERGY EFFICIENCY RATIO
EF	EXHAUST FAN
ESP	EXTERNAL STATIC PRESSURE
FD	FIRE DAMPER
GC	GENERAL CONTRACTOR
IAW	IN ACCORDANCE WITH
LAT	LEAVING AIR TEMPERATURE
MC	MECHANICAL CONTRACTOR
MOD	MOTOR OPERATED DAMPER
MVD	MANUAL VOLUME DAMPER
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OW	OFF WHITE
PC	PLUMBING CONTRACTOR
RA	RETURN AIR
RTU	ROOFTOP PACKAGED UNIT
SA	SUPPLY AIR
SF	SUPPLY FAN
STOD	45° SIDE TAKEOFF WITH MANUAL VOLUME DAMPER
SP	STATIC PRESSURE
TAB	TESTING, ADJUSTING, AND BALANCING
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE

MECHANICAL NOTES	
1.	DO NOT SCALE DRAWINGS. SEE ARCHITECTURAL DRAWINGS AND REFLECTED CEILING PLANS FOR EXACT LOCATION OF DOORS, WINDOWS, CEILING CONFIGURATION, etc.
2.	ALL DUCTWORK SHALL BE SUPPORTED AS PER SMACNA STANDARDS.
3.	ALL PIPING AND DUCTWORK LOCATIONS SHALL BE COORDINATED WITH THE WORK UNDER OTHER TRADES OR AVOID INTERFERENCE.
4.	ALL DUCTWORK SHALL BE GALVANIZED SHEET METAL CONSTRUCTED IN ACCORDANCE WITH WITH SMACNA STANDARDS EXCEPT AS NOTED OTHERWISE. ALL SQUARE ELBOWS SHALL HAVE SINGLE THICKNESS TURNING VANES.
5.	MECHANICAL CONTRACTOR SHALL BALANCE SYSTEM TO CFM's INDICATED ON THE PLANS AND PROVIDE ENGINEER AND OWNER WITH COMPLETE BALANCE REPORT (NEBB OR AABC CERTIFICATION).
6.	LOCATE ALL THERMOSTATS AND SWITCHES 4'-0" ABOVE FINISHED FLOOR.
7.	ALL BRANCH DUCT RUNS SHALL HAVE A MANUAL VOLUME DAMPER WHETHER INDICATED ON THE DRAWINGS OR NOT.
8.	ALL CUTTING, PATCHING OF SLAB, ROOF OR OTHER BUILDING COMPONENTS TO BE BY THE INSTALLING CONTRACTOR.
9.	ALL DUCT DIMENSIONS SHOWN OR NOTED ON PLANS ARE INSIDE CLEAR.
10.	PROVIDE LAMINATED MARKER ABOVE THERMOSTATS TO READ AS FOLLOWS: "THERMOSTAT SHALL ACT AS EMERGENCY STOP SWITCH"

MECHANICAL LEGEND	
	SUPPLY DIFFUSER
	RETURN OR EXHAUST GRILLE
	THERMOSTAT
	TEMPERATURE SENSOR
	DAMPER ACTUATOR
	ON-OFF SWITCH
	DUCT MOUNTED SMOKE DETECTOR
SA-500	SUPPLY DIFFUSER OR RETURN GRILLE TAG AT DESIGNED CFM
	MANUAL VOLUME DAMPER

MECHANICAL SUMMARY MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT		
	VENTILATED AREAS	LAB AREA
METHOD OF COMPLIANCE		
PRESCRIPTIVE	YES	YES
CLIMATE ZONE	3	3
THERMAL ZONE		
WINTER DRY BULB	21°F	21°F
SUMMER DRY BULB	94°F	94°F
INTERIOR DESIGN CONDITIONS		
WINTER DRY BULB	55°F	68°F
SUMMER DRY BULB	N/A	74°F
RELATIVE HUMIDITY	N/A	50
BUILDING HEATING LOAD (BTU/HR)		
	136,520	21,000
BUILDING COOLING LOAD (BTU/HR)		
	N/A	22,000
MECHANICAL SPACING CONDITIONING SYSTEM		
UNITARY		
DESCRIPTION OF UNIT	ELECTRIC UNIT HEATERS	SPLIT SYSTEM HEAT PUMP
HEATING EFFICIENCY	SEE SCHEDULES ON SHEET H-1	SEE SCHEDULES ON SHEET H-1
COOLING EFFICIENCY	SEE SCHEDULES ON SHEET H-1	SEE SCHEDULES ON SHEET H-1
HEATING OUTPUT OF UNIT	SEE SCHEDULES ON SHEET H-1	SEE SCHEDULES ON SHEET H-1
COOLING OUTPUT OF UNIT	SEE SCHEDULES ON SHEET H-1	SEE SCHEDULES ON SHEET H-1
BOILER		
TOTAL BOILER OUTPUT, IF OVERSIZED, STATE REASON.	N/A	N/A
CHILLER		
TOTAL CHILLER CAPACITY, IF OVERSIZED, STATE REASIN.	N/A	N/A
EQUIPMENT SCHEDULES WITH MOTORS (MECHANICAL SYSTEMS)		
MOTOR HORSEPOWER	SEE SCHEDULES ON SHEET H-1	SEE SCHEDULES ON SHEET H-1
NUMBER OF PHASES	SEE SCHEDULES ON SHEET H-1	SEE SCHEDULES ON SHEET H-1
MINIMUM EFFICIENCY	SEE SCHEDULES ON SHEET H-1	SEE SCHEDULES ON SHEET H-1
MOTOR TYPE	SEE SCHEDULES ON SHEET H-1	SEE SCHEDULES ON SHEET H-1
No. OF POLES	SEE SCHEDULES ON SHEET H-1	SEE SCHEDULES ON SHEET H-1

DRAWING LIST	
SHEET No.	DRAWING TITLE
H-1	HVAC SCHEDULES AND GENERAL NOTES
H-2	HVAC PLAN

FAN SCHEDULE										
TAG	MFR	MODEL	CFM	SP in WC	FAN RPM	HP	MAX SONES	POWER VOLTS/PH	WEIGHT LB	NOTES
EF-1	GREENHECK	SBE-2H20-7	3,600	0.500	1,366	3/4	24.0	480/3	150	1,2,5,7
EF-2	GREENHECK	SBE-2H20-7	3,600	0.500	1,366	3/4	24.0	480/3	150	1,2,5,7
EF-3	GREENHECK	SP-B150	100	0.375	1,557	1/8	2.2	120/1	15	1,3,4,6

- NOTES:
- EXHAUST FANS SHALL BE GREENHECK, COOK, PENN OR APPROVED EQUAL.
 - PROVIDE FANS WITH DISCONNECT, GRAVITY BACK DRAFT DAMPER, WEATHERHOOD, WALL HOUSING WITH MOTOR GUARD, BEARINGS WITH GREASE FITTINGS, AND EXTENDED LUBRICATION LINES.
 - PROVIDE FAN WITH BACKDRAFT DAMPER AND SPEED CONTROLLER.
 - PROVIDE FAN WITH WITH HOODED WALL CAP.
 - CONTROLLED BY THERMOSTAT.
 - CONTROLLED BY SWITCH INSTALLED BY EC.
 - PROVIDE HI-PRO POLYESTER DARK GRAY FINISH.

AIR DISTRIBUTION SCHEDULE						
TAG	MFR	MODEL	LISTED SIZE	FACE	FINISH	NOTES
SA	PRICE	ASCD-31	6ø	12x12	OW	1,2
SB	PRICE	SMD-4A	10ø	20x20	OW	1,2
RA	PRICE	B1-F	14x14x14ø	---	OW	1,2,3

- NOTES:
- AIR DISTRIBUTION SHALL BE METALAIRE, KRUEGER, PRICE, OR ENGINEER APPROVED EQUAL.
 - ALL AIR DISTRIBUTION IS SURFACED MOUNTED.
 - PROVIDE A SQUARE TO ROUND TRANSITION.

UNIT HEATER SCHEDULE								
TAG	MFR	MODEL	CFM	KW	° RISE	DISCHARGE	VOLTS/PH	NOTES
UH-1	MARKEL	5100	1,100	20.0	57	HORIZONTAL	480/3	1,2
UH-2	MARKEL	5100	1,100	20.0	57	HORIZONTAL	480/3	1,2
UH-3	MARKEL	5100	400	5.0	40	HORIZONTAL	480/3	1,2
UH-4	MARKEL	5100	400	5.0	40	HORIZONTAL	480/3	1,2

- NOTES:
- UNIT HEATERS SHALL BE MARKEL, CHROMALOX, TRANE OR APPROVED EQUAL.
 - PROVIDE UNIT HEATERS WITH LOW VOLTAGE (120V) REMOTE THERMOSTAT, POWER DISCONNECT SWITCH, AND CEILING MOUNTING BRACKET.

AIR HANDLING UNIT SCHEDULE																						
TAG	MFR	MODEL	NOMINAL TONS	SUPPLY CFM	MIN OA CFM	ESP in WC	SUPPLY FAN HP	COOLING CAPACITY				HEATING CAPACITY AT 47°F MBH	AUX. HEATING CAPACITY KW	COP	SEER	MCA	MOCP	POWER VOLTS/PH	WEIGHT LB	NOTES		
								EAT Fdb / Fwb	LAT Fdb / Fwb	TOTAL MBH	SENSIBLE MBH											
AHU-1	TRANE	4TEC3F24	2.0	800	120	0.50	1/3	80.0	67.0	60.5	57.5	23.2	16.6	22.5	3.60	3.34	13.0	23.0	25	208/1	120	1-3

- NOTES:
- AIR HANDLING UNITS SHALL BE TRANE, CARRIER, YORK, LENNOX, OR ENGINEER APPROVED EQUAL.
 - AIR HANDLING UNITS SHALL BE PROVIDED WITH ELECTRIC HEAT, FILTERS, SINGLE POINT ELECTRICAL CONNECTION, AND DX COOLING (R410A).
 - PROVIDE ONE 7-DAY PROGRAMMABLE THERMOSTAT WITH DIGITAL DISPLAY AND AUTOMATIC CHANGE OVER.

HEAT PUMP SCHEDULE											
TAG	MFR	MODEL	NOMINAL TONS	No. OF COMP.	COP	SEER	MCA	MOCP	POWER VOLTS/PH	WEIGHT lb	NOTES
HP-1	TRANE	4TWB3024A	2.0	1	3.34	13.0	12.0	20	208/1	225	1-2

- NOTES:
- HEAT PUMP UNIT SHALL BE TRANE, CARRIER, YORK, LENNOX, OR ENGINEER APPROVED EQUAL.
 - REFRIGERANT PIPING SHALL BE SIZED BY THE EQUIPMENT MANUFACTURER.

LOUVER/DAMPER SCHEDULE														
LOUVER TAG	DAMPER ACTUATOR TAG	MFR	LOUVER MODEL	DAMPER MODEL	WIDE (IN)	HIGH (IN)	FREE AREA (SF)	FRAME TYPE	BIRD SCREEN	FINISH	END SWITCH	NUMBER OF ACTUATORS	ACTUATOR POWER VOLTS/PH	INTERLOCK
L-1	DA-1	RUSKIN	ELF375D	CD60	36	48	6.12	FLANGED	YES	BAKED ENAMEL	YES	1	120/1	EF-1
L-2	DA-2	RUSKIN	ELF375D	CD60	36	48	6.12	FLANGED	YES	BAKED ENAMEL	YES	1	120/1	EF-2

- NOTES:
- ALL LOUVERS SHALL BE PROVIDED IN SINGLE SECTIONS.
 - ALL DAMPERS SHALL BE PROVIDED IN TWO SECTIONS.
 - COORDINATE POWER REQUIREMENTS WITH ELECTRICAL CONTRACTOR.

POWERS CONSULTING, PA
CONSULTING ENGINEERS
1425 JAKE ALEXANDER BLVD. SOUTH - SUITE B
PO BOX 1711 (28145) SALISBURY, NC 28146
T: 704.630.0075 F: 704.630.0051



MARZIANO & MCGOOGAN, P.A.
CONSULTING ENGINEERS
100 SECOND AVENUE • SUITE 201 • CONWAY, SC 29526
PHONE: 803.686.0124 FAX: 803.686.0125



**HVAC SCHEDULES AND
GENERAL NOTES**

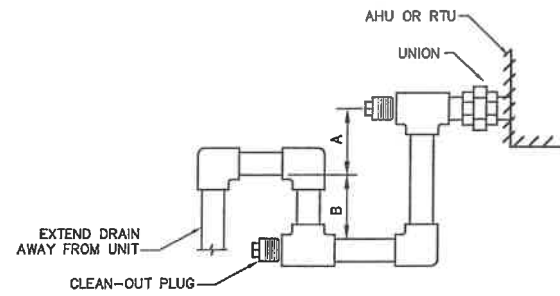
**CONWAY WWTP
SLUDGE DEWATERING SYSTEM
GRAND STRAND WATER &
SEWER AUTHORITY**

Scale:	AS SHOWN
Date:	05-02-2011
Drawn:	MDB
Checked:	MDB
Job No.:	30004
Sheet No.:	H-1
Of: 1	Version: 1

**FINAL DRAWINGS
FOR BIDDING**

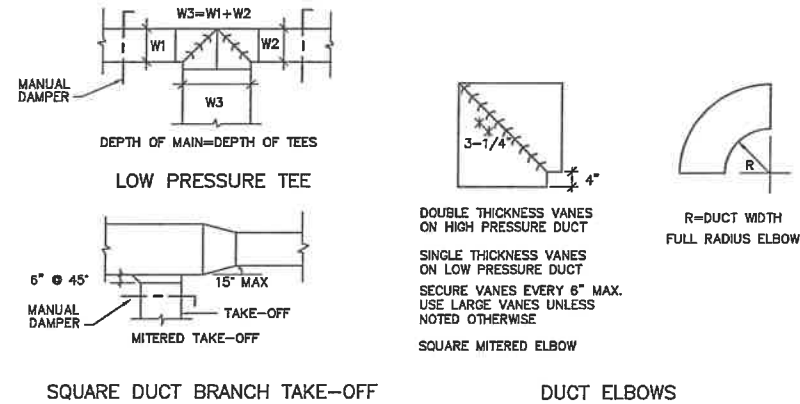
UNIT TYPE	A	B
DRAW THRU	2" PLUS X	X
BLOW THRU	1" MIN.	2X

WHERE X = FAN STATIC PRESSURE

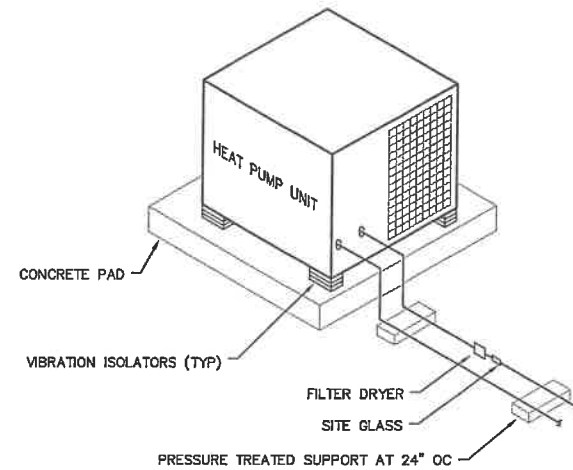


NOTE: CONDENSATE PIPE SHALL BE SCHEDULE 40 PVC

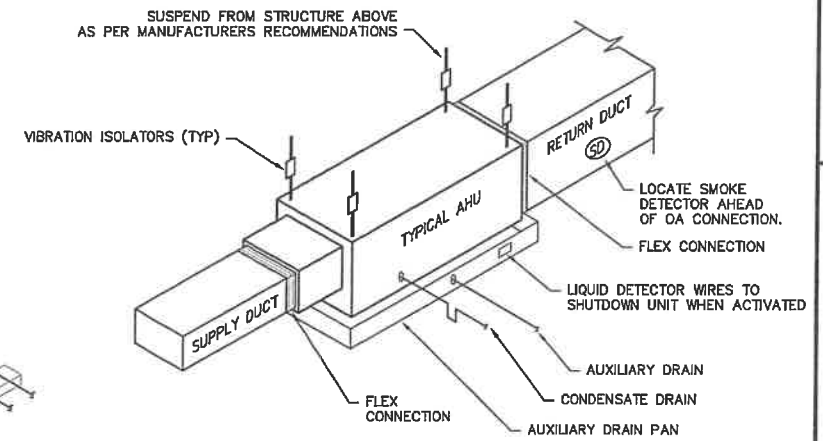
2 CONDENSATE DRAIN DETAIL
H-2 SCALE: NTS



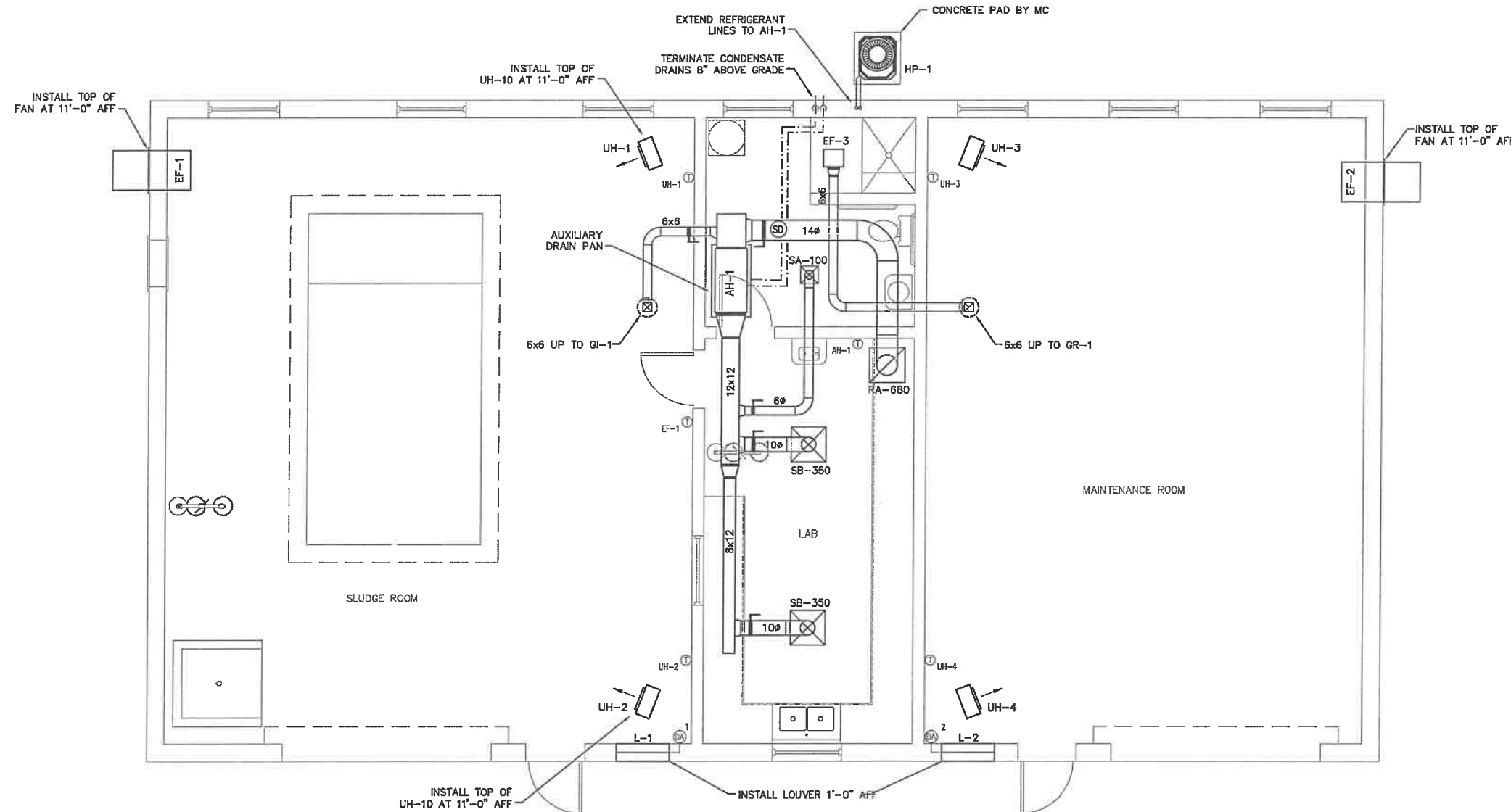
3 TYPICAL DUCT DETAILS
H-2 SCALE: NTS



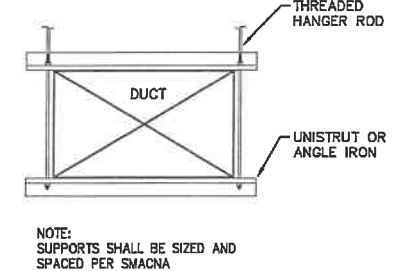
4 HEAT PUMP DETAIL
H-2 SCALE: NTS



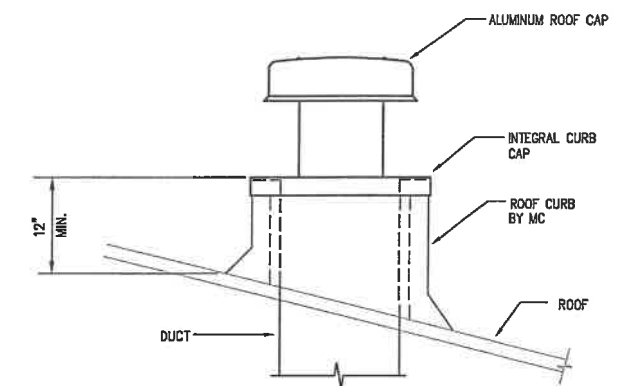
5 AIR HANDLER DETAIL
H-2 SCALE: NTS



1 SLUDGE PRESS BUILDING HVAC PLAN
H-2 SCALE: 1/4" = 1'-0"



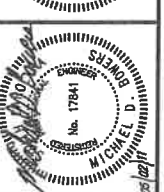
6 DUCT HANGER DETAIL
H-2 SCALE: NTS



7 ROOF CAP DETAIL
H-2 SCALE: NTS

FINAL DRAWINGS
FOR BIDDING

BOWERS CONSULTING, PA
CONSULTING ENGINEERS
1425 JAKE ALEXANDER BLVD. SOUTH - SUITE B
PO BOX 1711 (28145) SALISBURY, NC 28145
T: 704.630.0075 F: 704.630.0051



MARZIANO & MCGOUGAN, P.A.
CONSULTING ENGINEERS
100 S. GARDEN AVENUE • SUITE 201 • CONWAY, SC 29526
Phone: 803.680.0274 Fax: 803.680.0275

SLUDGE PRESS
BUILDING
HVAC PLAN

CONWAY WWTP
SLUDGE DEWATERING SYSTEM
GRAND STRAND WATER &
SEWER AUTHORITY

Scale:	AS SHOWN
Date:	05-02-2011
Drawn:	MDB
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Job No.:	30004
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Of: 2	Version: 1

ABBREVIATIONS	
AFF	ABOVE FINISH FLOOR
AFWH	ANTI FROST WALL HYDRANT
AW	APPLIANCE WHITE
CO2	CARBON DIOXIDE
CA	COMPRESSED AIR
CO	CLEANOUT
COND	CONDENSATE
CW	DOMESTIC COLD WATER
EC	ELECTRICAL CONTRACTOR
FD	FLOOR DRAIN
FS	FLOOR SINK
GC	GENERAL CONTRACTOR
HB	HOSE BIBB
HW	DOMESTIC HOT WATER
HWR	DOMESTIC HOT WATER RETURN
IAW	IN ACCORDANCE WITH
ID	INSIDE DIAMETER
MC	MECHANICAL CONTRACTOR
NG	NATURAL GAS
NTS	NOT TO SCALE
OW	OFF WHITE
PC	PLUMBING CONTRACTOR
SA	SHOCK ABSORBER
TP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
V	VENT
VAC	VACUUM
W	WASTE

GENERAL NOTES

- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS INCLUDING BUT NOT LIMITED TO NATIONAL, CITY, STATE, LOCAL CODES AND ORDINANCES WHICH MAY BE IN EFFECT. ALL PLUMBING MATERIALS, INSTALLATION PROCEDURES AND SYSTEM LAYOUTS SHALL BE APPROVED BY ALL APPLICABLE CODE ENFORCEMENT AUTHORITIES WITHIN JURISDICTION.
- FINAL UTILITY CONNECTIONS (GAS, ELECTRIC, WATER ETC.) TO EQUIPMENT SHALL BE MADE BY THE CONTRACTOR INSTALLING THE EQUIPMENT REQUIRING THE UTILITIES.
- PLANS AND ISOMETRICS ARE DIAGRAMMATIC. THERE IS NO INTENT TO INDICATE ALL AND FITTINGS REQUIRED. GENERALLY, PIPING SHALL BE INSTALLED PARALLEL OR PERPENDICULAR TO AND PLUMB WITH WALL CONSTRUCTION. SPECIAL CARE SHALL BE TAKEN TO COORDINATE EQUIPMENT AND PIPING LOCATIONS WITH ALL OTHER TRADES. IF INTENT OF DESIGN IS NOT CLEAR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
- SOIL AND WASTE PIPING SHALL BE LAID ON MINIMUM 1/4" PER FT. SLOPE FOR PIPE SIZES LESS THAN 2-1/2", AND MINIMUM 1/8" PER FT. FOR PIPE 3" AND LARGER.
- CONSTRUCTION INTERFACE BETWEEN PLUMBING AND OTHER SUB-CONTRACTS (I.E. HVAC EQUIPMENT, ELECTRICAL WORK, ETC.) SHALL BE CLOSELY COORDINATED WITH OTHER DRAWINGS INCLUDED WITH THESE DOCUMENTS. PLUMBING CONTRACTOR RESPONSIBLE FOR FINAL CONNECTIONS TO EQUIPMENT (NOTED WITHIN THESE DRAWINGS) REQUIRING WASTE OR WATER.
- VALVES AND DEVICES INSIDE CHASES OR WALLS OR ABOVE NON-ACCESSIBLE CEILINGS SHALL BE PROVIDED WITH APPROPRIATELY SIZED ACCESS PANEL COMPATIBLE WITH SURROUNDING FINISHES. SUCH ACCESS PANELS SHALL BE FURNISHED BY THE PLUMBING CONTRACTOR FOR INSTALLATION BY THE GENERAL CONTRACTOR.
- PIPING PENETRATIONS IN FIRE RATED WALLS SHALL BE FIRE STOPPED IN ACCORDANCE WITH APPROPRIATE U.L. ASSEMBLY DETAIL. REFER TO ARCHITECTURAL DRAWINGS FOR TYPICAL U.L. ASSEMBLY FIRE STOP DETAILS.
- REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONED LOCATIONS OF WALLS AND PARTITIONS AND FOR PARTITION THICKNESS AND CONSTRUCTION MATERIALS.

PLUMBING LEGEND

SYMBOL	DESCRIPTION
— x — x — x —	DEMOLITION OF EXISTING PIPE
----	COLD WATER
----	HOT WATER
----	HOT WATER RETURN
----	WASTE
----	VENT
⊙	FLOOR DRAIN
⊙	FLOOR CLEANOUT
⊙	FLOOR SINK
⊙	BALL VALVE
⊙	CHECK VALVE
⊙	CIRCUIT SETTER
⊙	PRESSURE REDUCING VALVE
⊙	UNION
⊙	FROST PROOF HYDRANT W/VB
⊙	HOSE BIBB W/VB
⊙	TRAP PRIMER
⊙	SHOCK ABSORBER

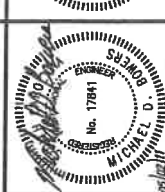
DRAWING LIST

SHEET No.	DRAWING TITLE
P-1	PLUMBING GENERAL NOTES AND SCHEDULES
P-2	SLUDGE PRESS BUILDING PLUMBING PLAN

PLUMBING FIXTURE LATERAL SCHEDULE

TAG	QTY	DESCRIPTION	WASTE	VENT	CW	HW
P-1	ADA WATER CLOSET	AMERICAN STANDARD 3461.128, 17" RIM HEIGHT, 1.60 GPF, WITH OLSONITE #95 OPEN FRONT SEAT LESS COVER AND SLOAN DUAL FLUSH FLUSHOMETER WES-111 (1.6 GPF/1.1 GPF)	3"	2"	1"	--
P-2	LAVATORY	AMERICAN STANDARD 0854.00 VITREOUS CHINA WALL HUNG LAVATORY COMPLETE WITH 0058.020 SHROUD/KNEE CONTACT GUARD, CONCEALED WALL HANGER, AMERICAN STANDARD 2175.500 SINGLE CONTROL FAUCET, BRASS POP-UP, CHROME PLATED TRAP, STOPS, SUPPLIES AND ESCUTCHEONS.	1 1/2"	1 1/2"	1/2"	1/2"
P-3	KITCHEN SINK	JUST DL-ADA-1933-A-GR DOUBLE BOWL 18 GA SS SINK WITH J-1174-KS ADA COMPLIANT SINK, (2) J-35 DRAIN, (1) HDD-2000 SOAP DISPENSER, CHROME PLATED TRAP, STOPS, SUPPLIES AND ESCUTCHEONS.	1 1/2"	1 1/2"	1/2"	1/2"
P-4	WATER COOLER	OASIS MODEL P8AC BARRIER FREE WATER COOLER	1 1/2"	1 1/2"	1/2"	--
P-5	EMERGENCY EYEWASH/SHOWER	GUARDIAN G1950 SAFETY STATION WITH EYE WASH COMPLETE WITH TMV G3800 THERMOSTATIC MIXING VALVE. EXTEND 1 1/2" LINE FROM MIXING VALVE TO CONNECTION ON EMERGENCY SHOWER.	--	--	1"	1"
P-6	FLOOR DRAIN	MIFAB F1100-S WITH 5" SS STRAINER, CAST IRON TWO PIECE BODY, DOUBLE DRAINAGE FLANGE, ADJUSTABLE STAINLESS STEEL ROUND STRAINER AND 1/2" PRIMER TAP. SET HEIGHT OF STRAINER TO BE FLUSH WITH FINISHED FLOOR.	3"	--	--	--
P-7	FLOOR CLEANOUT	MIFAB C1100-XR-3 CLEANOUT WITH CAST IRON BODY, SS TOP ASSEMBLY, SECONDARY TEST SEAL, AND ADJUSTABLE COMBINED ACCESS COVER AND PLUG TOP ASSEMBLY WITH PRIMARY SEAL	SEE PLAN	--	--	--
P-8	ANTI-FROST WALL HYDRANT	MIFAB MHY-20 ENCASED ANTI-SIPHON AUTOMATIC DRAINING WALL HYDRANT COMPLETE WITH NON-FREEZE TYPE INTEGRAL BACKFLOW PREVENTER, BRONZE CASING, NICKEL BRONZE BOX AND HINGED COVER, 3/4" HOSE CONNECTION AND KEY LOCK - MOUNT 18" ABOVE GRADE	--	--	3/4"	--
P-9	SHOWER	AMERICAN STANDARD 4834Y1.ST (48x34) SHOWER BASE WITH 0034Y1.SW-R AND 0034Y1.SW-L 34" SIDE PANELS AND 4800Y1.SW-B 48" BACK PANEL; LEONARD 4500 AQUATROL PRESSURE ACTUATED MIXING VALVE, LEONARD H-05 SHOWER HEAD (2.5 GPM) WITH ARM FLANGE; MIFAB FD210C SHOWER DRAIN	2"	1 1/2"	1/2"	1/2"

POWERS CONSULTING, P.A.
CONSULTING ENGINEERS
1425 JAKE ALEXANDER BLVD. SOUTH - SUITE B
PO BOX 1711 (28145) SAUSSEBURY, NC 28145
TEL: 704.830.0978 FAX: 704.830.0291



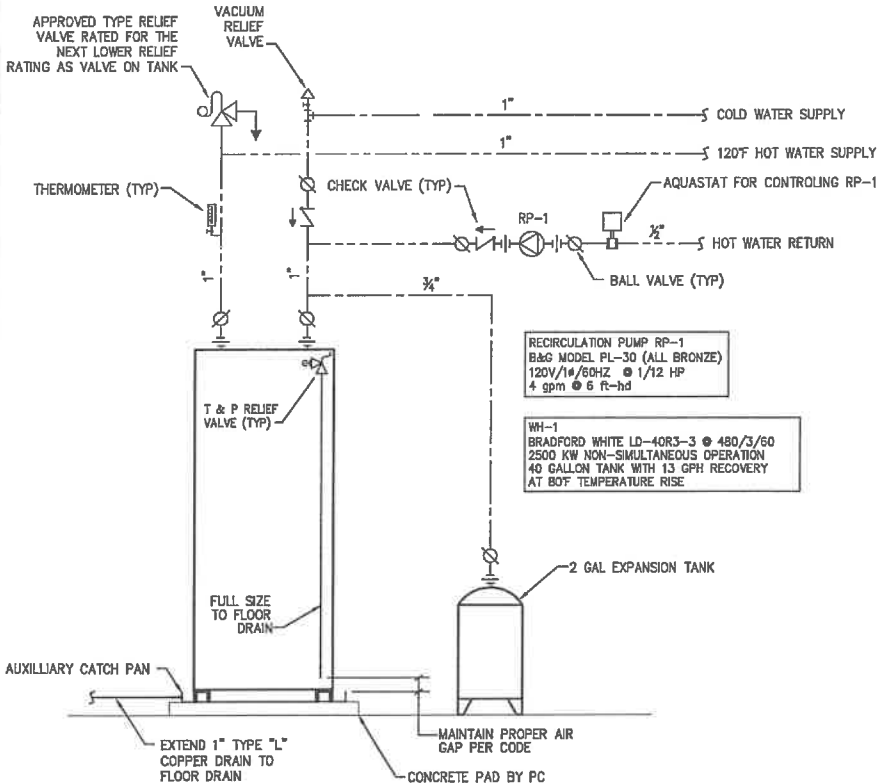
MARZIANO & MCGOUGAN, P.A.
CONSULTING ENGINEERS
1000 W. WILSON AVENUE - SUITE 201
FARMINGTON, CT 06031
TEL: 860.676.1234 FAX: 860.676.1235

PLUMBING GENERAL NOTES AND SCHEDULES

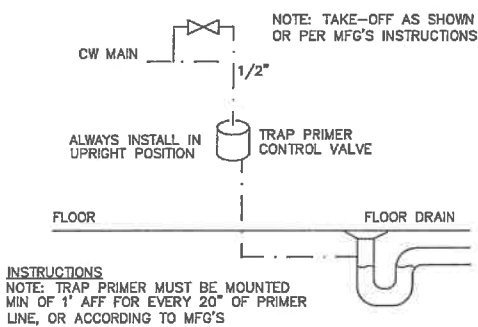
**CONWAY WWTP
SLUDGE DEWATERING SYSTEM
GRAND STRAND WATER &
SEWER AUTHORITY**

Scale: AS SHOWN
Date: 05-02-2011
Drawn: MDB
Checked: MDB
Job No.: 30004
Sheet No.:
P-1
Of: 1 Version: 1

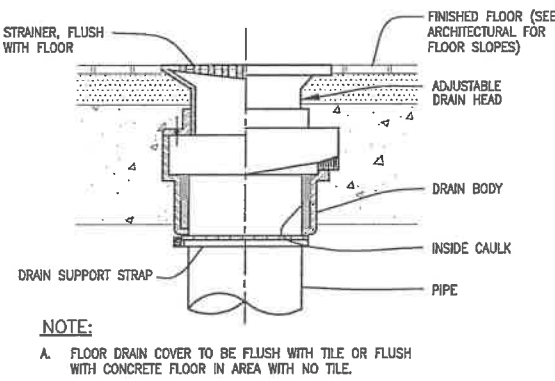
**FINAL DRAWINGS
FOR BIDDING**



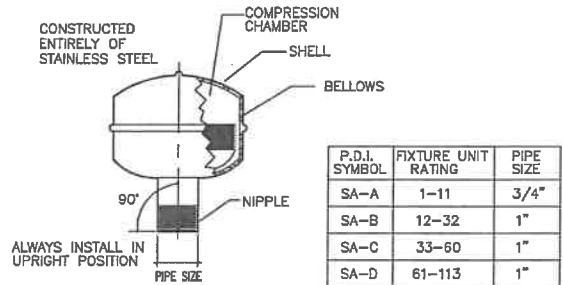
1 WATER HEATER DETAIL
P-1 SCALE: NTS



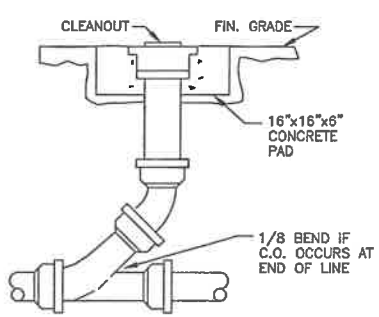
2 TRAP PRIMER DETAIL
P-1 SCALE: NTS



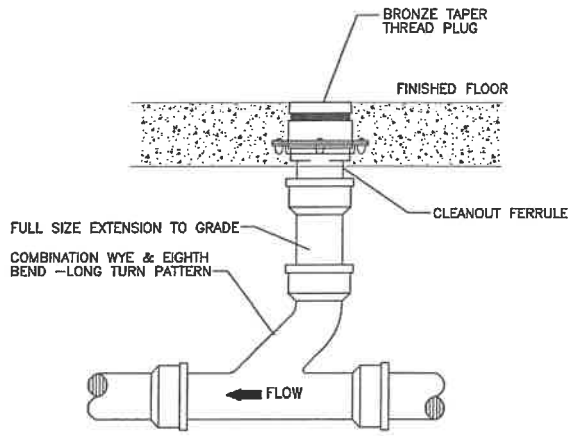
3 FLOOR DRAIN DETAIL
P-1 SCALE: NTS



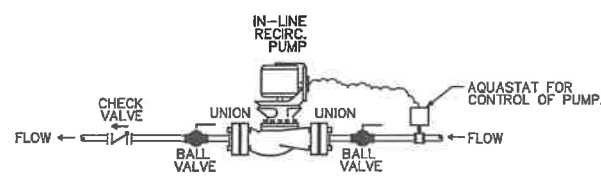
4 SHOCK ABSORBER DETAIL
P-1 SCALE: NTS



5 YARD CLEANOUT DETAIL
P-1 SCALE: NTS

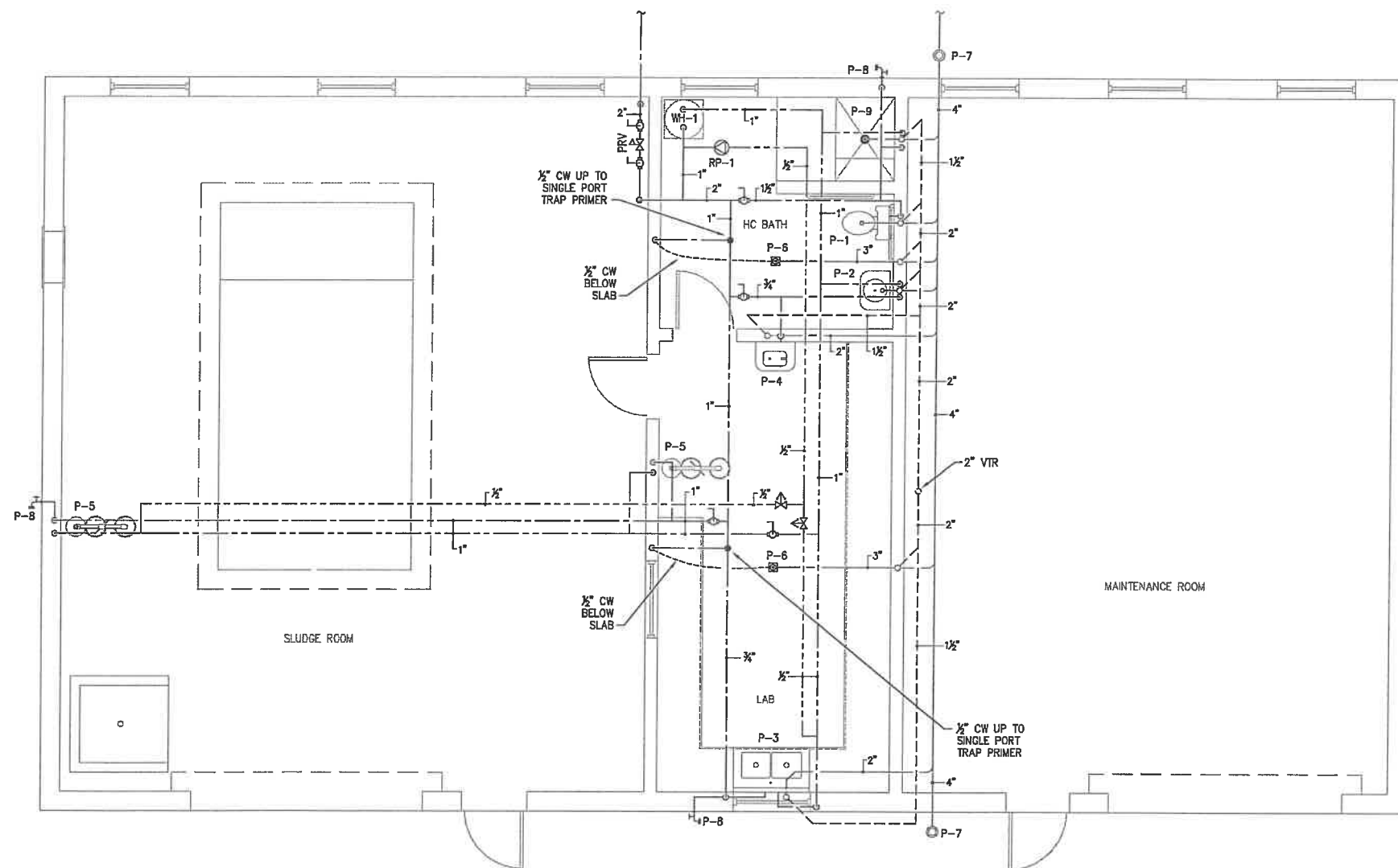


6 FLOOR CLEANOUT DETAIL
P-1 SCALE: NTS



7 CIRCULATING PUMP DETAIL
P-1 SCALE: NTS

**FINAL DRAWINGS
FOR BIDDING**



1 SLUDGE PRESS BUILDING PLUMBING PLAN
P-2 SCALE: 1/4" = 1'-0"