BEFORE YOU
DIG – DRILL – BLAST
1-800-344-7483
(TOLL FREE)
MISSOURI ONE CALL SYSTEM, INC.

BLOOMSDALE MoDOT REST AREA
LAGOON IMPROVMENTS
BLOOMSDALE, STE. GENEVIEVE COUNTY, MISSOURI

KEY MAP
SHOWING LOCATION OF COUNTY

PROJECT LOCATION MAP
NOT TO SCALE

NORTH

INDEX OF SHEETS

1	COVER SHEET
2	EXISTING CONDITIONS
3	LAGOON #3 CROSS SECTIONS
4	AERATOR PLAN
5	AERATOR DETAILS
6	SAND FILTER PIPING PLAN
7	MISC. DETAILS
8	VAULT DETAILS
9	VAULT ELECTRICAL DETAILS
10	EROSION CONTROL PLAN

STATE OF MISSOURI
MICHAEL MELVIN HALL
NUMBER E-30044
REGISTERED PROFESSIONAL ENGINEER
6/14/11

NOTES TO CONTRACTOR:

1) UNDERGROUND UTILITIES HAVE BEEN SHOWN FROM APPROXIMATE LOCATIONS PROVIDED BY UTILITY COMPANIES, THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. VERIFICATION OF THE LOCATIONS OF UNDERGROUND UTILITIES, SHOWN OR NOT SHOWN, WILL BE THE RESPONSIBILITY OF THE CONSTRUCTION CONTRACTOR.
2) CONTRACTOR SHALL MAKE EVERY EFFORT TO ASSURE MINIMUM CLEARANCE BETWEEN SEWER LINES AND WATER LINES (10' HORIZONTAL, 18" VERTICAL AT CROSSINGS).
3) ALL ROADS, DRIVEWAYS, CULVERTS, SIDEWALKS, FENCES, AND LANDSCAPING DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED.
4) ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STATE OF MISSOURI MINUMUM STANDARDS SPECIFICATIONS FOR GRAVITY SANITARY SEWER CONSTRUCTION
5) ALL EXCAVATION WITH THE STREET RIGHT-OF-WAY SHALL BE BACKFILLED WITH GRANULAR MATERIAL OR COMPACTED EARTH FILL.
6) ALL SEWER GREATER THAN 15 FEET IN DEPTH SHALL BE A MINIMUM OF SDR 26. ALL MANHOLES GREATER THAN 16 FEET IN DEPTH SHALL HAVE A DOUBLE STEEL REINFORCEMENT PER STATE OF MISSOURI MINUMUM STANDARDS.
7) ALL EROSION CONTROL DEVICES SHALL BE INSTALLED IN CONFORMITY WITH THE MISSOURI STANDARDS OR STATE OF MISSOURI MINUMUM STANDARDS.
8) IT IS THE INTENT OF THESE PLANS TO COMPLY WITH THE REQUIREMENTS OF THE MISSOURI CLEAN WATER COMMISSION.
9) SILT FENCE SHALL BE PLACED AS INDICATED ON THE PLANS

THE CONTRACTOR SHALL ENSURE CONTINUOUS OPERATION OF THE LAGOON DURING THE MODIFICATIONS TO CELL #3. THIS MAY BE DONE BY THE FOLLOWING METHODS:
1. TO INSTALL TEMPORARY BY-PASS PIPING THAT CONNECTS TO THE EXISTING DISCHARGE POINT.
2. TO PUMP DOWN CELLS #1&#2 SO THAT THEY MAY RE-FILL DURING DURING CONSTRUCTION.

UTILITIES

SEWER –

ELECTRIC – *CITIZENS ELECTRIC CORP.*
150 MERCHANT ST.
STE. GENEVIEVE, MO
(573)883-3511

WATER – *PUBLIC WATER SUPPLY DISTRICT*
12301 STATE ROAD TT
FESTUS, MO
(636) 937-9697

GAS –

TELEPHONE – *LIGHTCORE, A CENTURY LINK CO.*
(636) 932-9931

H&V CONTROL POINTS

PT #	SHEET#	NORTHING	EASTING	ELEVATION
1	2	800089.285	893061.163	514.56
2	2,3,6	800217.000	893272.418	497.11
3	2,4	800453.801	893244.942	497.51
4	2,4	800700.466	893226.548	499.76
5	2,3,6	800129.563	893176.208	497.56
741	NOT SHOWN	797609.970	896511.934	644.36
742	NOT SHOWN	797610.015	896512.004	644.295

NOTE: CONTRACTOR IS TO VERIFY H&V CONTROL POINTS PRIOR TO USE TO VERIFY THAT THEY HAVE NOT BEEN DISTURBED.

BENCHMARK

TBM= SET STEPPED 60D NAILS IN TREE
SOUTH WEST OF LAGOON #3
ELEVATION = 495.73
SEE SHEET 6

	NO.	DATE	REVISIONS	BY	APPD
1	1	6/14/11	ADD ASDR	KSH	MLH
2					
3					
4					
5					

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Designed By:
Drawn By:
Checked By:
Issue Date:

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573/442-4537 FAX: 573/442-4543
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BLOOMSDALE MoDOT REST STOP
BLOOMSDALE, MISSOURI

LAGOON IMPROVEMENTS
COVER SHEET

108781-010
SHEET NO. 1 OF 10

L:\108781-010_CAD\CIVIL\108781-010-COVER.DWG
LAYOUT: LAYOUT1 | BY: MHALL | DATE: 6/14/2011
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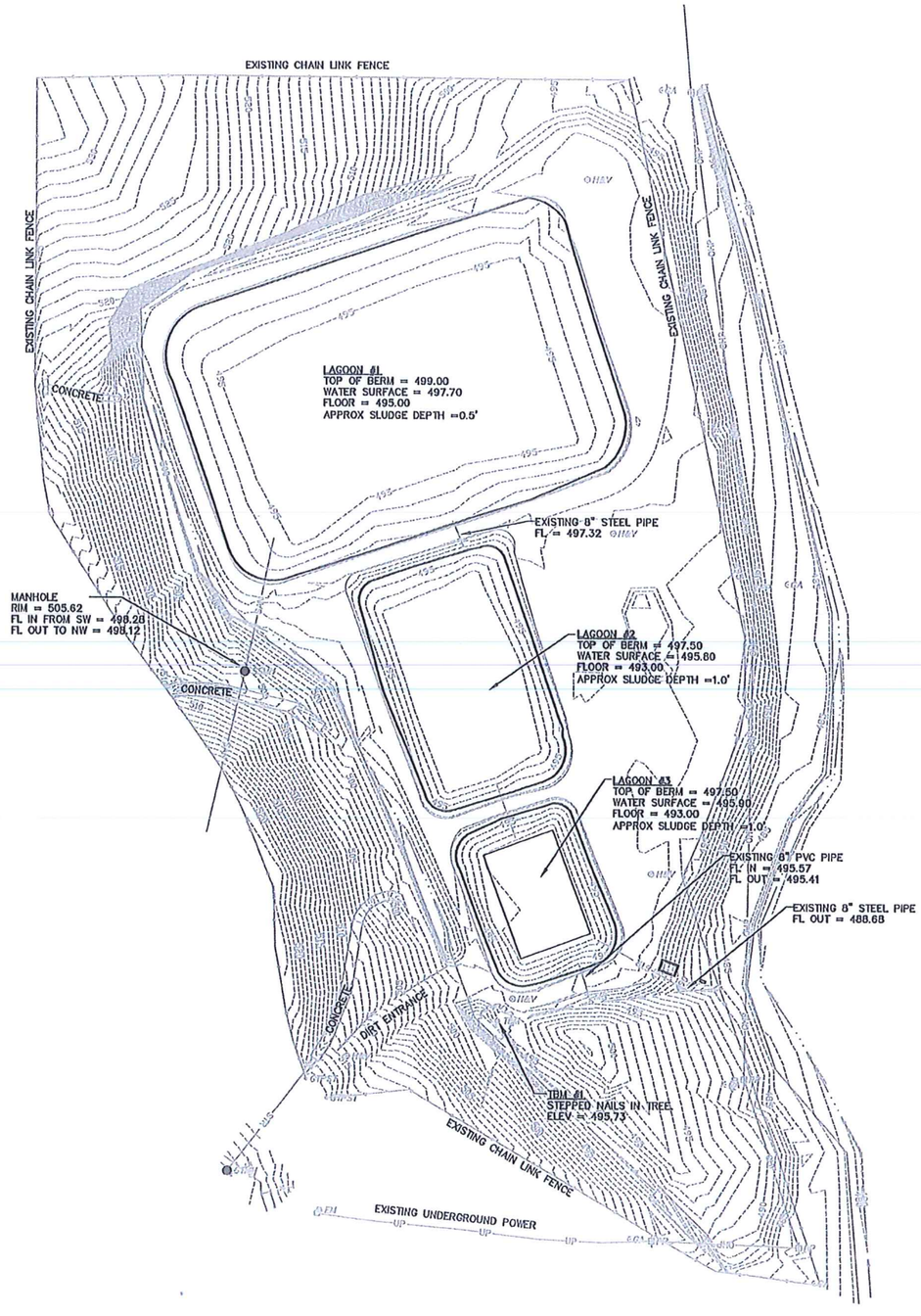
XREF DWG3: NONE | XREF DWG4: NONE



STATE OF MISSOURI
MICHAEL MELVIN HALL
NUMBER E-30044
REGISTERED PROFESSIONAL ENGINEER
4-26-11

NORTH

100 50 0 100

SCALE : 1"= 100 '

P:\108781-010_CAD\CIVIL\108781-010-TOPO.DWG
LAYOUT: SHT 2 | BY: PERRIGO | DATE: 3/9/2011
XREF DWG1: NONE | XREF DWG2: NONE
XREF DWG3: NONE | XREF DWG4: NONE

NO.	DATE	REVISIONS	BY	APP'D
1				
2				
3				
4				
5				

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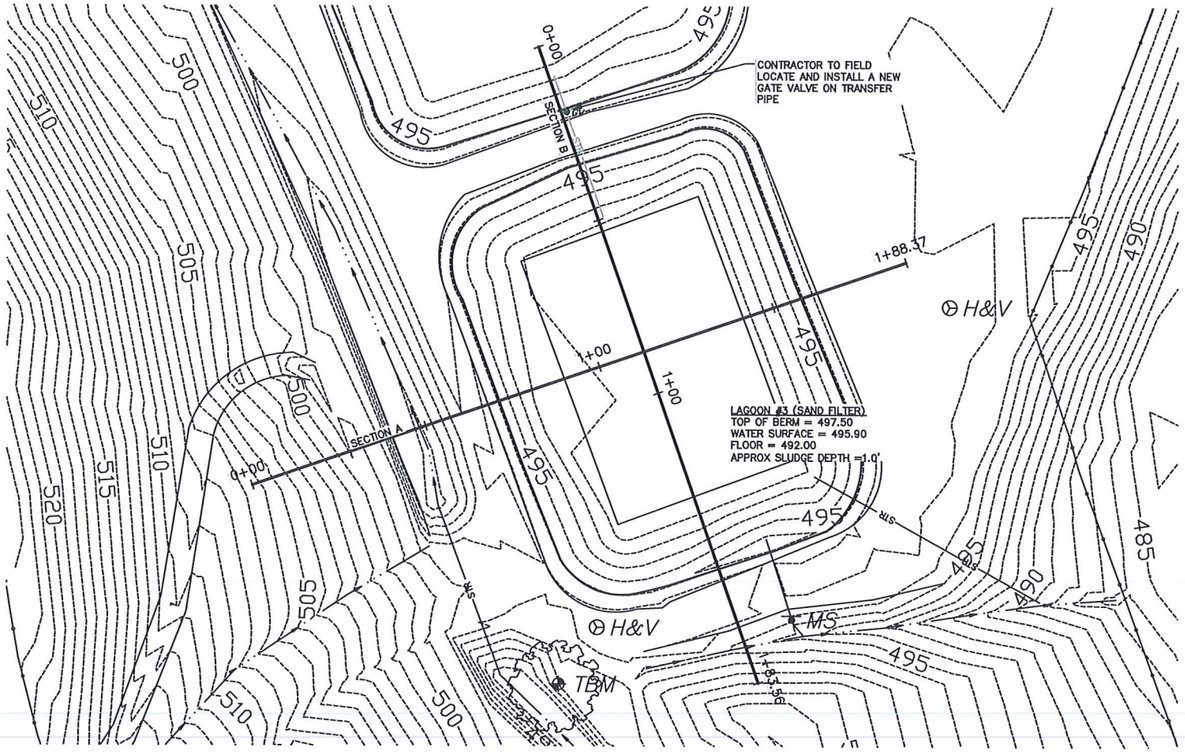
BLOOMSDALE MoDOT REST STOP
BLOOMSDALE, MISSOURI

LAGOON IMPROVEMENTS
EXISTING CONDITIONS

108781-010

SHEET NO.
2 OF 10



40 20 0 40

SCALE : 1"= 40 '

NOTE:
CONTRACTOR SHALL REMOVE EXISTING SUBMERGED SAND FILTER AND COLLECTION PIPES IN 8" GRAVEL LAYER.

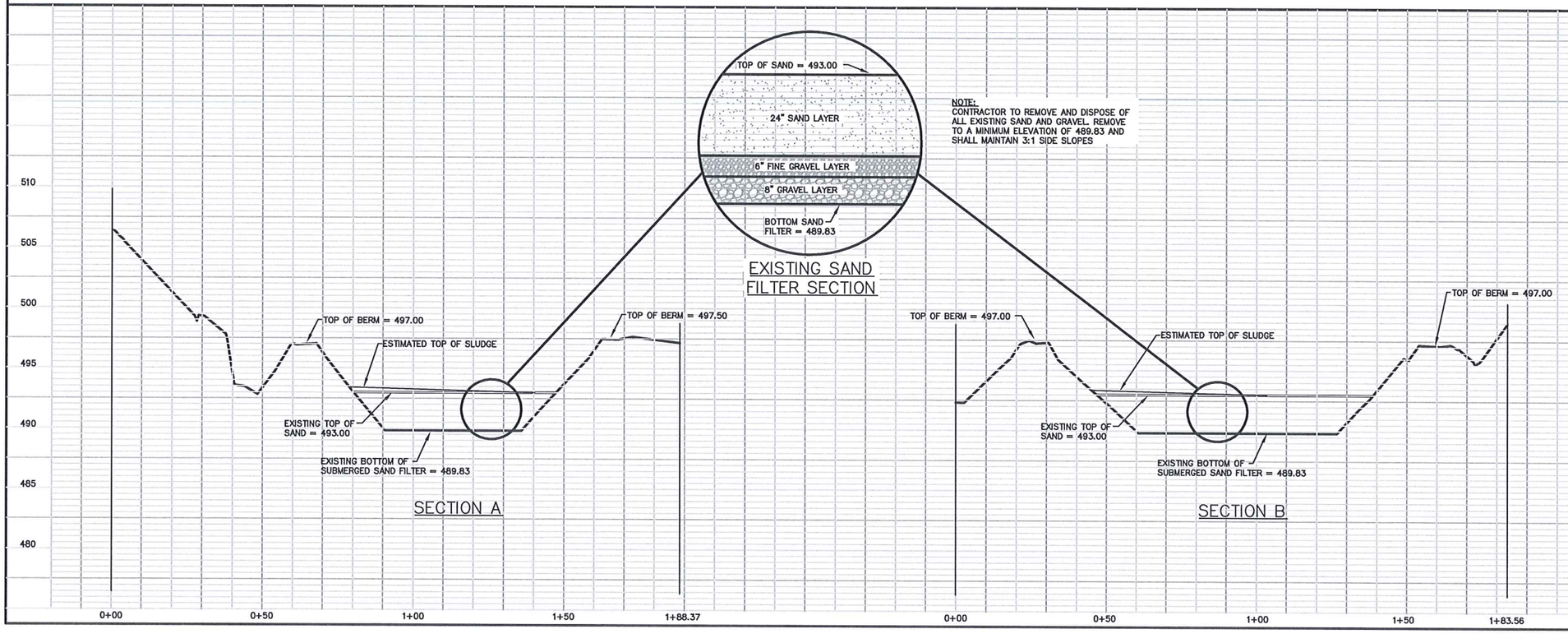
TOTAL ESTIMATE QUANTITY OF MATERIAL TO BE REMOVED: 618 CY.

CONTRACTOR SHALL DISPOSE OF MATERIAL IN APPROPRIATE DISPOSAL FACILITY.

CONTRACTOR SHALL INSTALL VALVE, AND CLOSE TO DEWATER CELL 3 AND TO INSTALL IMPROVEMENT ON CELL 3

THE CONTRACTOR SHALL ENSURE CONTINUOUS OPERATION OF THE LAGOON DURING THE MODIFICATIONS TO CELL #3. THIS MAY BE DONE BY THE FOLLOWING METHODS:

1. TO INSTALL TEMPORARY BY-PASS PIPING THAT CONNECTS TO THE EXISTING DISCHARGE POINT.
2. TO PUMP DOWN CELLS #1&#2 SO THAT THEY MAY RE-FILL DURING DURING CONSTRUCTION.



	NO.	DATE	REVISIONS	BY	APP'D
	1	6/14/11	ADD ANT	MH	
	2				
	3				
	4				
	5				

Designed By:
Drawn By:
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BLOOMSDALE MoDOT REST STOP
BLOOMSDALE, MISSOURI

LAGOON IMPROVEMENTS
LAGOON #3 CROSS SECTIONS

108781-010

SHEET NO.
3 OF 10

\\LE-PROJECT\PROJECTS\108781-010_CAD\CIVIL\108781-010-TOPO.DWG
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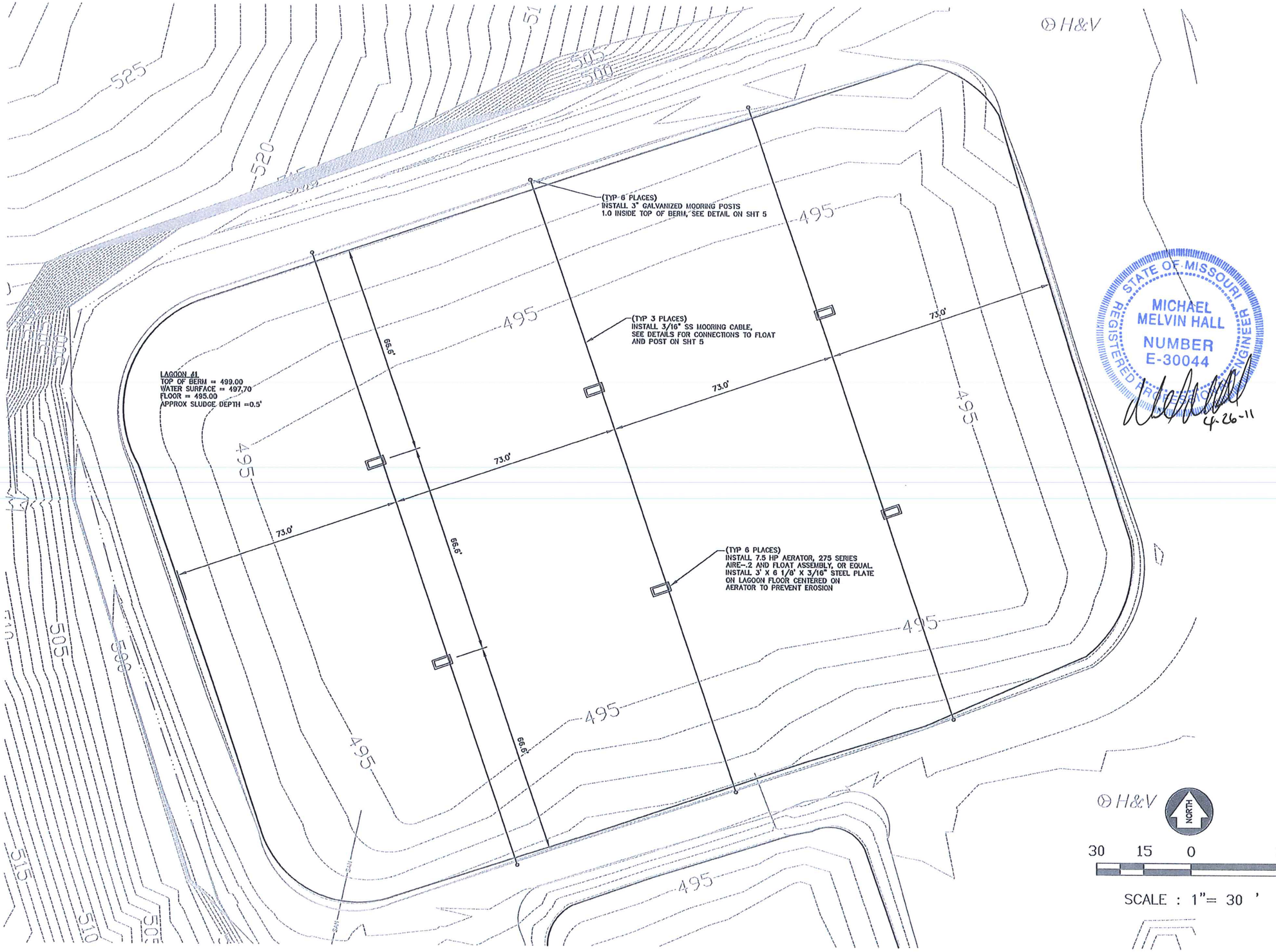
XREF DWG3: NONE | XREF DWG4: NONE



STATE OF MISSOURI
MICHAEL MELVIN HALL
NUMBER E-30044
REGISTERED PROFESSIONAL ENGINEER
4-26-11

NO.	DATE	REVISIONS	BY	APP'D
1				
2				
3				
4				
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Issue Date:

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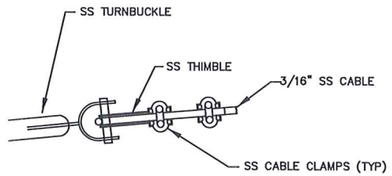
BLOOMSDALE MoDOT REST STOP
BLOOMSDALE, MISSOURI

LAGOON IMPROVEMENTS
AERATOR PLAN

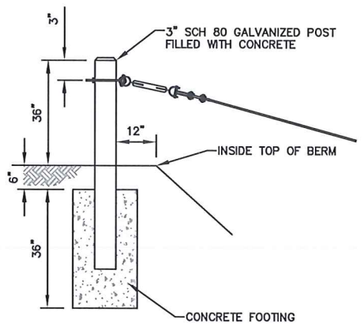
108781-010

SHEET NO.
4 OF 10

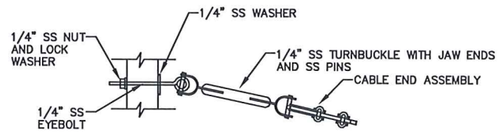
P:\108781-010_CAD\CIVIL\108781-010-TOP0.DWG
LAYOUT: SHT 4 | BY: PERRIGO | DATE: 3/9/2011
XREF DWG1: NONE | XREF DWG2: NONE
XREF DWG3: NONE | XREF DWG4: NONE



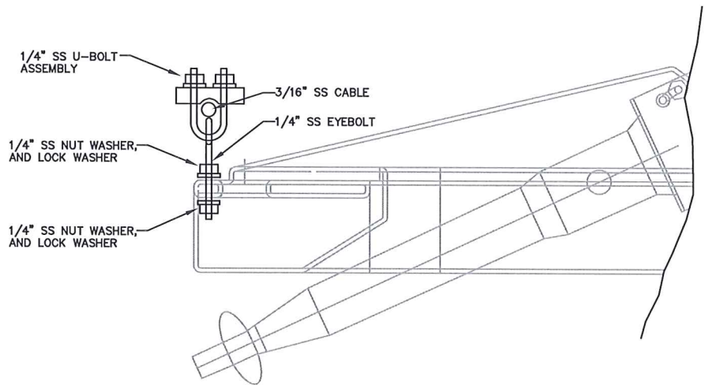
CABLE END ASSEMBLY DETAIL



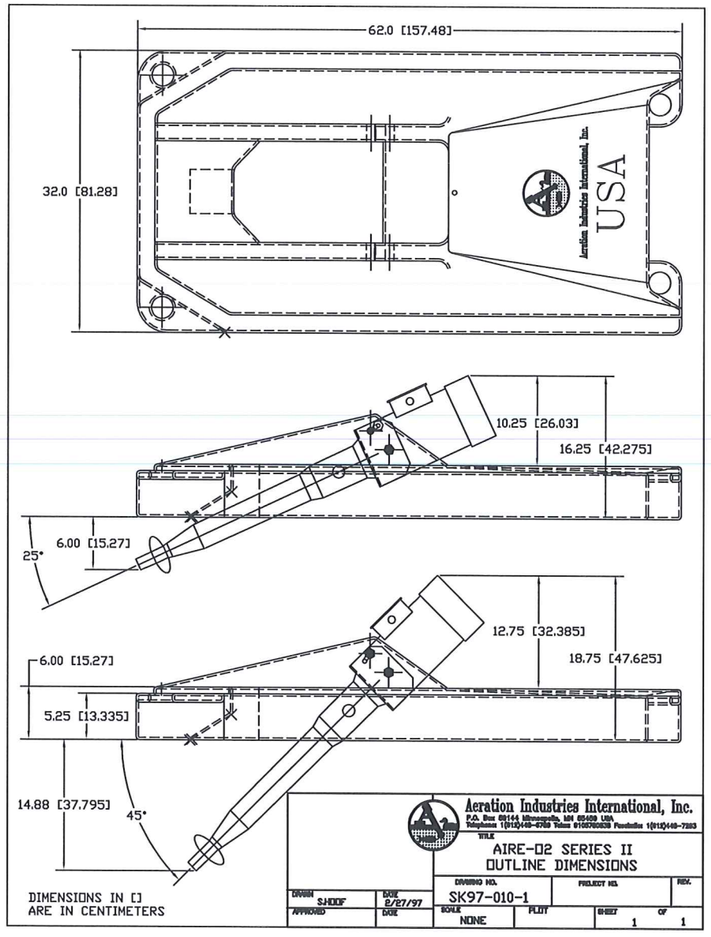
MOORING POST DETAIL



CABLE CONNECTION DETAIL



CABLE CONNECTION FLOAT DETAIL



NOTE: THE FLOATATION ASSEMBLY SHALL BE PROVIDED WITH A 304 SS FLOAT SUPPORT WITH SS MESH PROP SCREEN. PROP SCREEN NOT SHOWN ON DRAWING.

STATE OF MISSOURI
MICHAEL MELVIN HALL
NUMBER E-30044
REGISTERED PROFESSIONAL ENGINEER
4-26-11

NO.	DATE	REVISIONS	BY	APP'D
1				
2				
3				
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5				

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BLOOMSDALE MoDOT REST STOP
BLOOMSDALE, MISSOURI

LAGOON IMPROVEMENTS
AERATOR DETAILS

108781-010

SHEET NO. 5 OF 10

L:\108781-010_CAD\CIVIL\108781-010-TOPO.DWG
LAYOUT: SHT 5 | BY: MHALL | DATE: 3/31/2011
XREF DWG1: NONE | XREF DWG2: NONE
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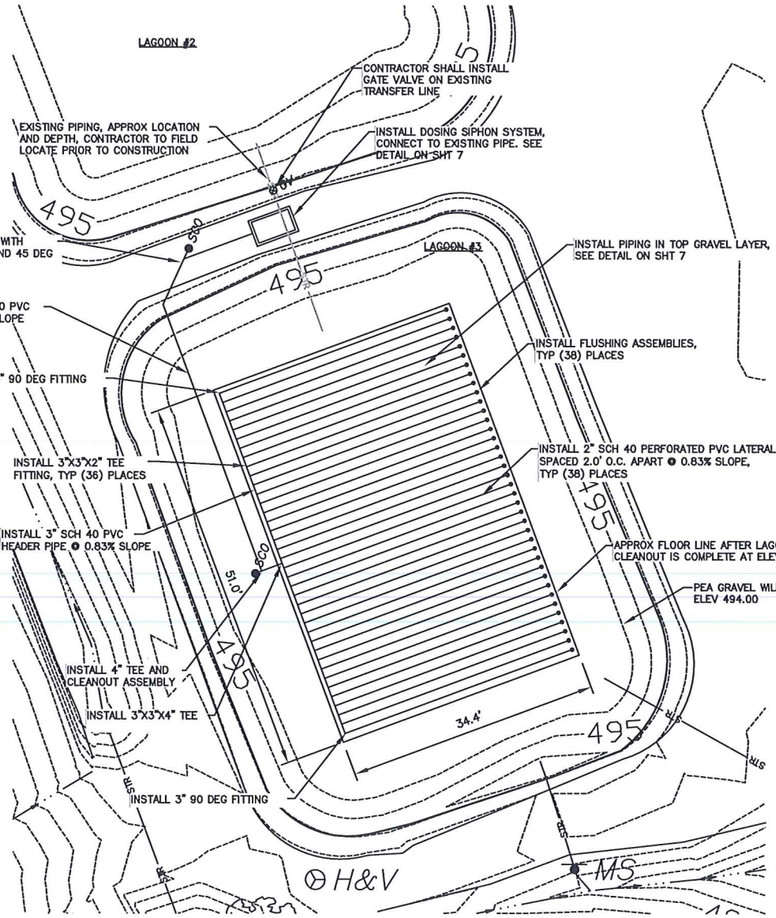
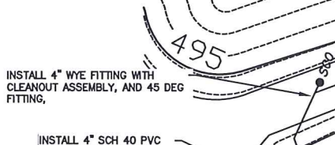
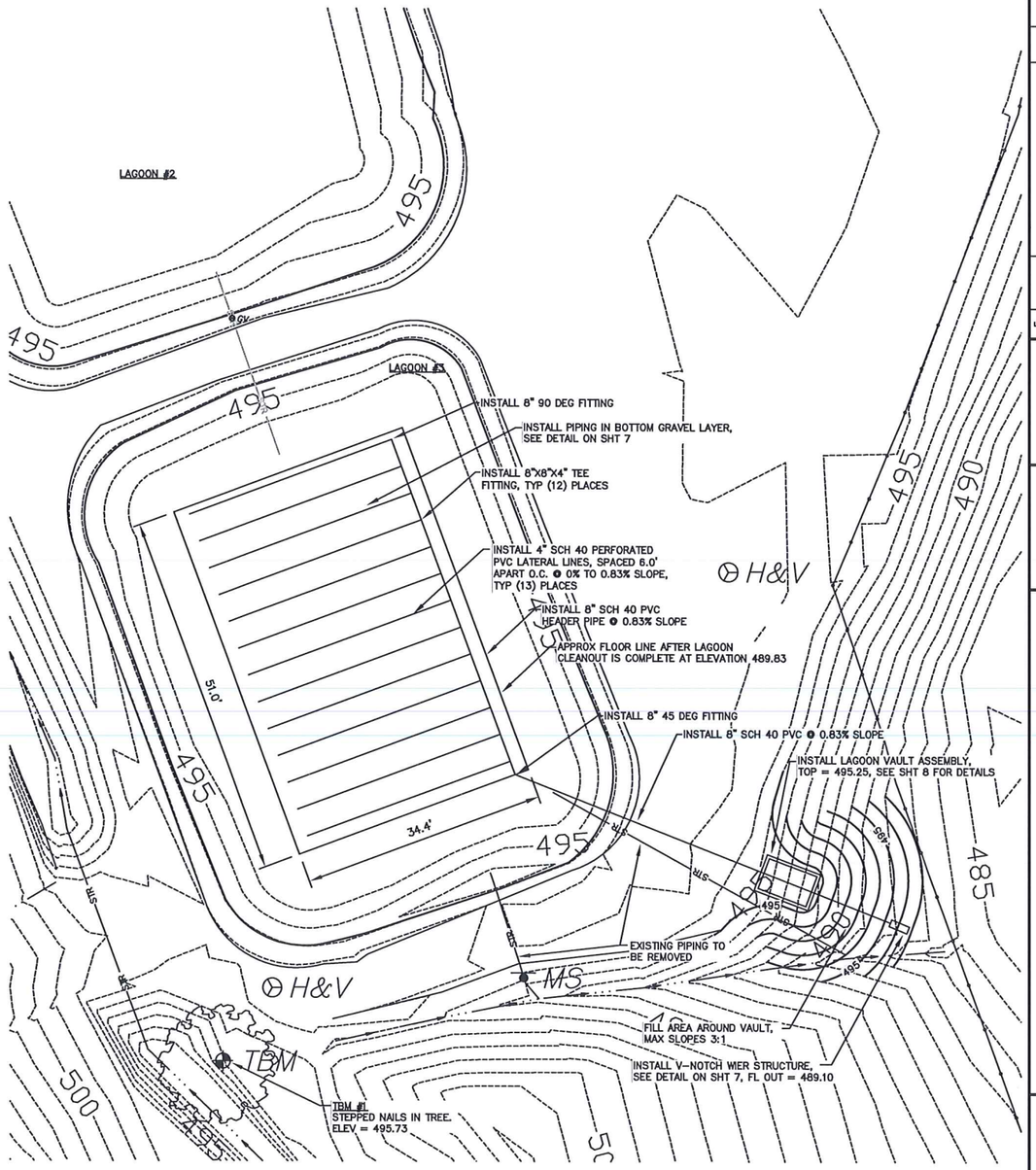


DISTRIBUTION PIPING PLAN

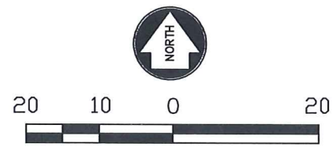


NOTES:

1. SEE SHT 7 AND 8 FOR DETAILS.
2. NEW DISTRIBUTION LATERALS SHALL BE ORENCO MODEL LP-200-24 OR APPROVED EQUAL. IT SHALL BE 2" PRE-DRILLED CLASS 200 PIPE WITH $\frac{1}{8}$" ORIFICES ON 24" CENTERS, WITH A COUPLING ON ONE END.
3. EACH ORIFICE SHALL BE COVERED WITH A STANDARD ORENCO (OR APPROVED EQUAL) ORIFICE SHIELD.
4. A FLUSHING ASSEMBLY SHALL BE PROVIDED AT THE END OF EACH DISTRIBUTION LATERAL. THE FLUSHING ASSEMBLY SHALL BE ORENCO MODEL SE-K-075-V OR APPROVED EQUAL. FLUSHING ASSEMBLY SHALL INCLUDE A VALVE BOX ENCLOSURE AND BALL VALVE.



COLLECTION PIPING PLAN



NOTES:

1. SEE SHT 7 AND 8 FOR DETAILS.
2. THE SAND FILTER COLLECTION LATERALS (DRAINS) SHALL BE ORENCO MODEL SFCD OR APPROVED EQUAL. COLLECTION PIPE SHALL BE 4" CLASS 125 PVC WITH $\frac{1}{4}$" SLOTS, 4" ON CENTER. 4" COLLECTION DRAIN CAPS SHALL BE PROVIDED ON THE EASTERLY END OF EACH PIPE (END NOT CONNECTED TO THE HEADER).

NO.	DATE	REVISIONS	BY	APP'D
1	6/14/11	ADD PROPOSED LAGOON	MHH	
2				
3				
4				
5				

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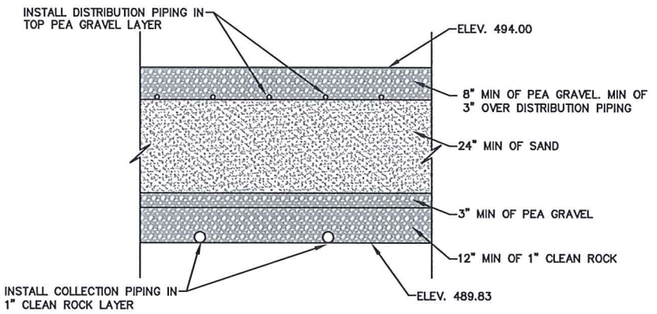
BLOOMSDALE MoDOT REST STOP
BLOOMSDALE, MISSOURI

LAGOON IMPROVEMENTS
SAND FILTER PIPING PLAN

108781-010

SHEET NO.
6 OF 10

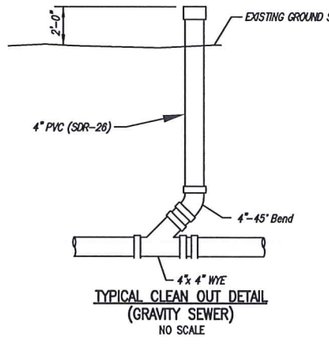
\\JE-PROJECTS\PROJECTS\108781-010_CAD\CIVIL\108781-010-TOPO.DWG
LAYOUT: SHT 6 | BY: MHALL | DATE: 6/13/2011
XREF DWG1: NONE | XREF DWG2: NONE
XREF DWG3: NONE | XREF DWG4: NONE



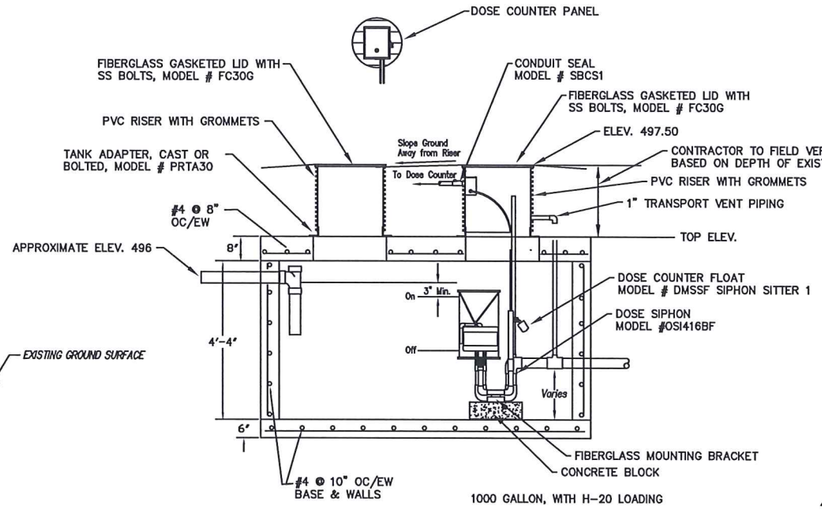
SEE SHEET 6 FOR DISTRIBUTION AND COLLECTION PIPING SPECIFICATIONS

SAND FILTER SECTION DETAIL
NO SCALE

SAND FILTER SPECS:
ROCK SHALL BE 1" CLEAN ROCK
PEA GRAVEL SHALL BE 1/8–3/8" IN SIZE
SAND SHALL BE 1.2<0.3mm WITH A UNIFORMITY COEFFICIENT <3.5mm AND NO MORE THAN 1% SMALLER THAN 0.13mm THE SAND SHALL HAVE AN EFFECTIVE SIZE OF <1.2mm



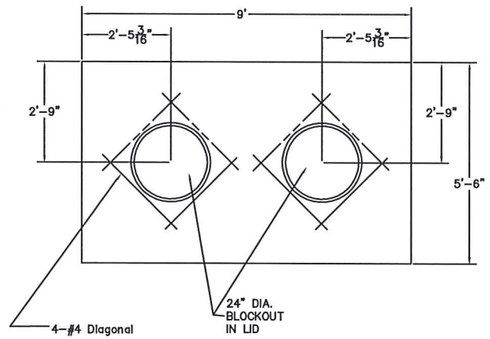
TYPICAL CLEAN OUT DETAIL
(GRAVITY SEWER)
NO SCALE



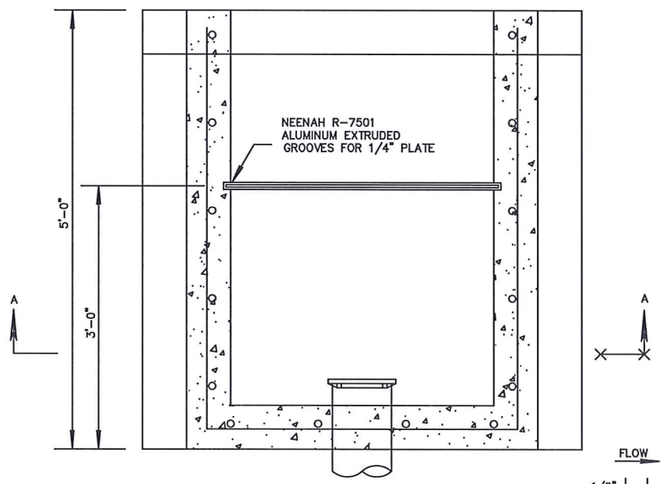
1000 GALLON, WITH H-20 LOADING

DOSING SIPHON SYSTEM
NO SCALE

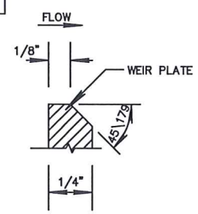
NOTE:
ALL PART NUMBERS SHOWN REFERENCE ORENCO PRODUCTS, SUTHERLIN OR 97479 1-800-348-9843. APPROVED EQUAL PRODUCTS SHALL BE ALLOWED

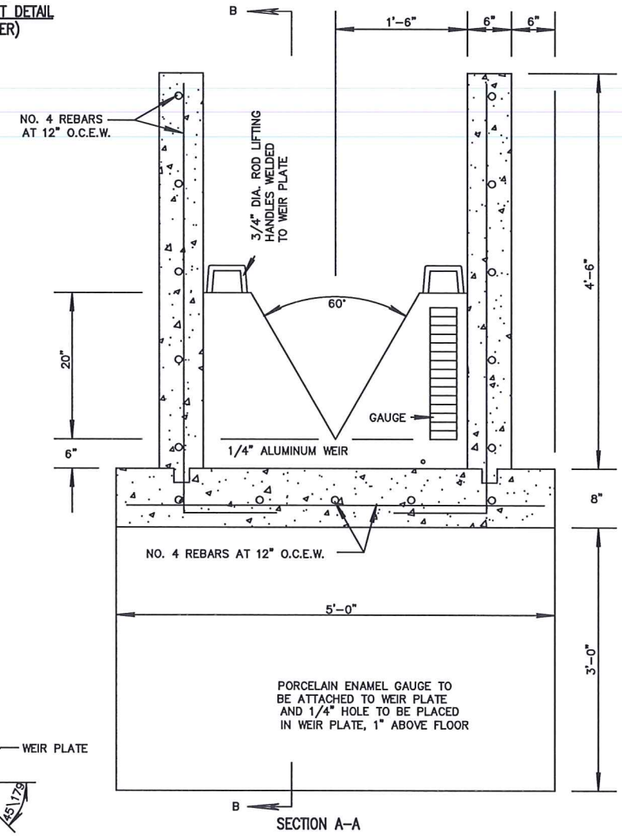


DOSING SIPHON SYSTEM LID
NO SCALE



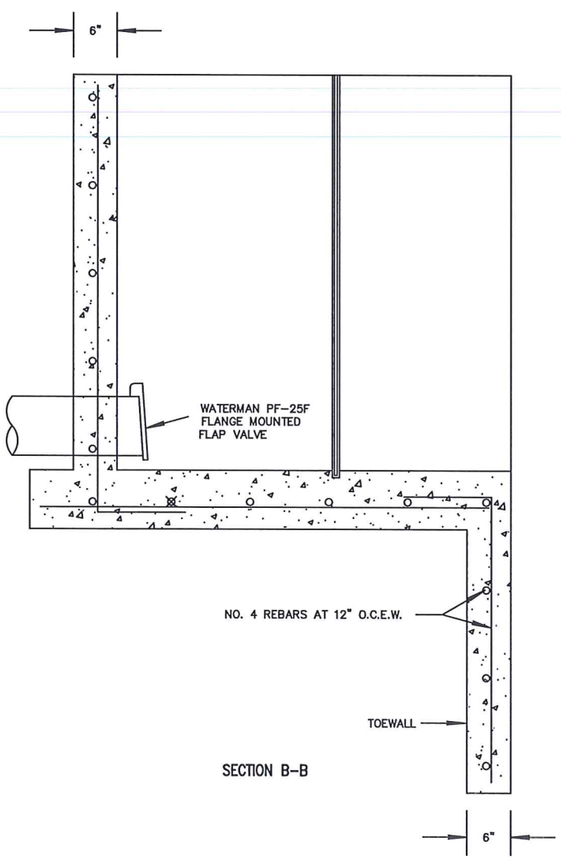
PLAN





SECTION A-A

WEIR STRUCTURE



SECTION B-B

STATE OF MISSOURI
MICHAEL MELVIN HALL
NUMBER E-30044
REGISTERED PROFESSIONAL ENGINEER
6/14/11

	NO.	DATE	REVISIONS	BY	APP'D
5					
4					
3					
2					
1			ADD PAVING NOTE		

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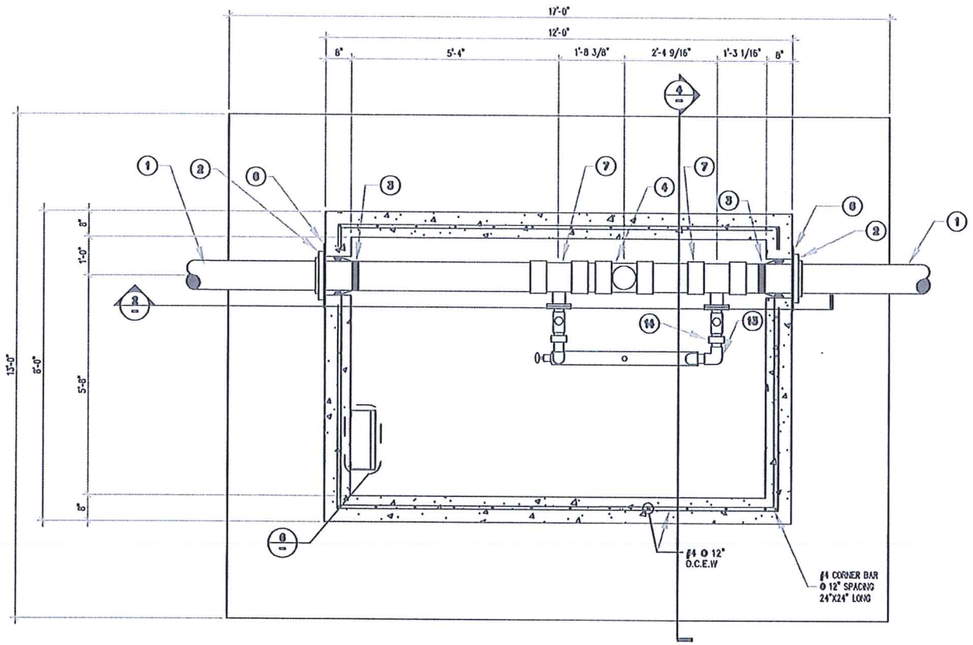
BLOOMSDALE MoDOT REST STOP
BLOOMSDALE, MISSOURI

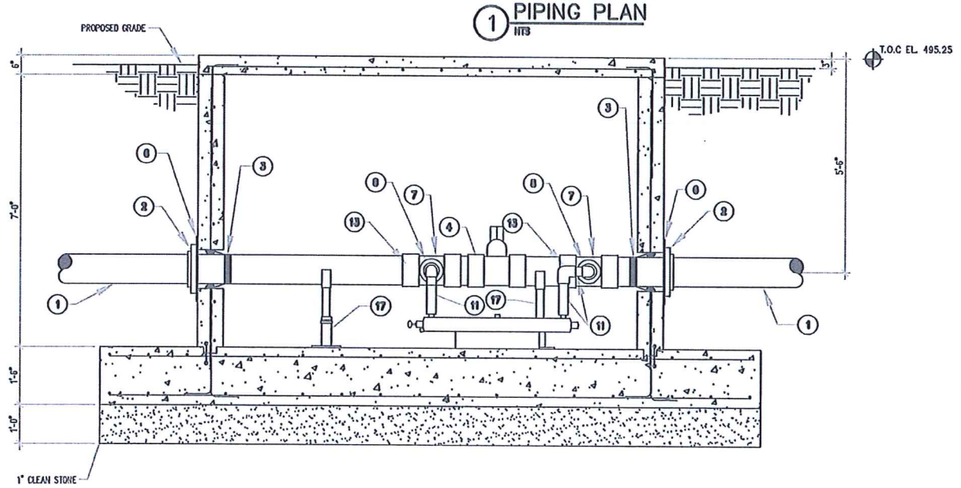
LAGOON IMPROVEMENTS
MISC DETAILS

108781-010
SHEET NO. 7 OF 10

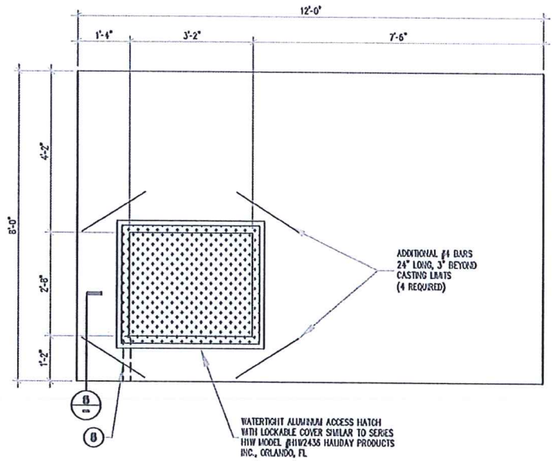
\\LE-PROJECT\PROJECTS\108781-010_CAD\CIVIL\108781-010-TOPO.DWG
LAYOUT: SHT. 7 | BY: MHALL | DATE: 6/13/2011
XREF DWG1: NONE | XREF DWG2: NONE
XREF DWG3: NONE | XREF DWG4: NONE



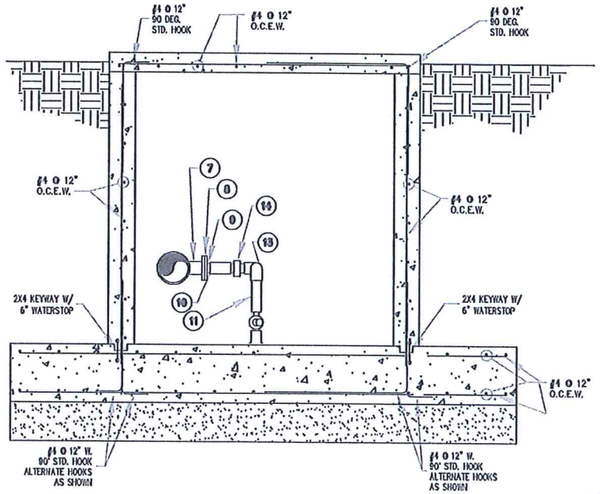
1 PIPING PLAN
NTS



2 PIPING SECTION
NTS



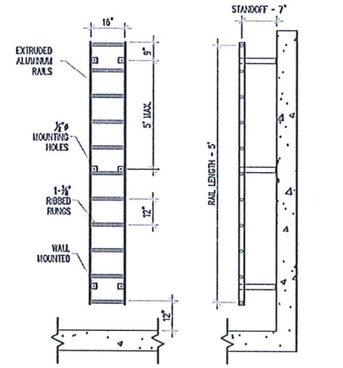
3 TOP SLAB PLAN
NTS



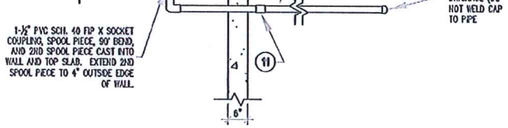
4 PIPING SECTION AND REINFORCING PLAN
NTS

ACCESS LADDER NOTES:

1. LADDER SHALL BE ALL ALUMINUM WELDED CONSTRUCTION.
2. LADDER SHALL HAVE SLIP RESISTANT RIBBED RUNG DESIGN.
3. LADDER SHALL BE HALIDAY PRODUCTS SERIES L1B LADDER.



6 ACCESS LADDER DETAIL
NTS



5 HATCH DRAIN PIPE
NTS

PIPING SCHEDULE

NUMBER	DESCRIPTION
1	8" PVC – FLG. X P.E.
2	8" RETAINER GLAND (MEGA –LUG)
3	Z–LOK FLEXIBLE MANHOLE CONNECTOR
4	8" BALL VALVE WITH SOCKET ENDS FROM SPEARS MFG.
5	1–1/2" SCH. 40 PVC DRAIN PIPE
6	20" DIA. X 3/8" PLATE STEEL WASHER
7	8"X2" REDUCING TEE – FLG. X FLG.
8	3" FLANGE W/2" THRD. TAP
9	2"X1–1/4" SCH. 80 PVC TT BUSHING
10	1–1/4" SCH. 80 PVC MALE X SOCKET ADAPTER
11	1–1/4" SCH. 80 PVC PIPE
12	1–1/4" SCH. 80 PVC 90 DEG. BEND
13	1–1/4" SCH. 80 PVC UNION
14	ADJUSTABLE PIPE SUPPORT

GENERAL NOTES

1. LAPPING OF WATERSTOPS SHALL NOT BE PERMITTED. WATERSTOPS BE BUTT WELDED.
2. CONCRETE PLACEMENTS ARE TO END AT CONSTRUCTION JOINTS.
3. WATERSTOPS ARE REQUIRED AT ALL CONSTRUCTION JOINT LOCATIONS.
4. FILL ALL CONSTRUCTION JOINTS WITH POLYURETHANE CAULK.
5. ALTERNATE POUR SEQUENCE SHALL BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.

STATE OF MISSOURI
MICHAEL MELVIN HALL
NUMBER E-30044
REGISTERED PROFESSIONAL ENGINEER
4-26-11

P:\108781-010_CAD\CIVIL\108781-010-DETAILS.DWG
LAYOUT: SHT 8 | BY: MHALL | DATE: 3/9/2011
XREF DWG1: NONE | XREF DWG2: NONE
XREF DWG3: NONE | XREF DWG4: NONE

NO.	DATE	REVISIONS	BY	APP'D
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2				
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4				
5				

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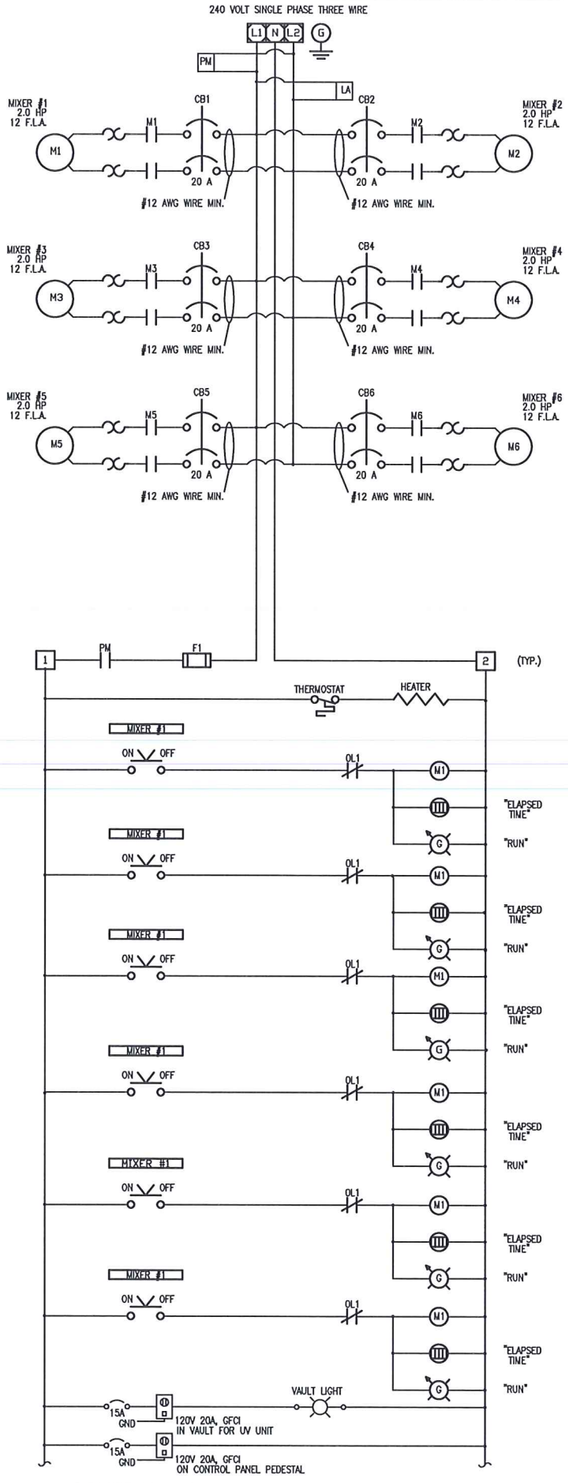
BLOOMSDALE MoDOT REST STOP
BLOOMSDALE, MISSOURI

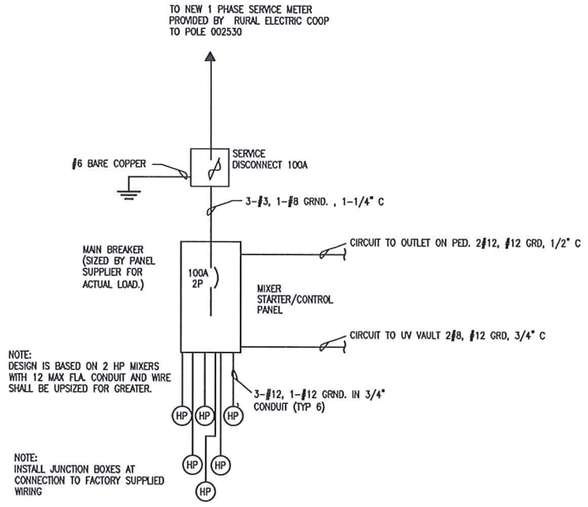
LAGOON IMPROVEMENTS
VAULT DETAILS

108781–010

SHEET NO.
8 OF 10



1 CONTROL SCHEMATIC
NOT TO SCALE



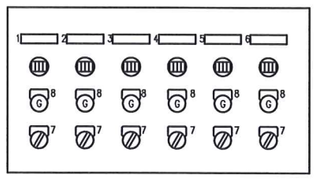
2 ONE-LINE DIAGRAM
NOT TO SCALE

ELECTRIC SERVICE NOTES

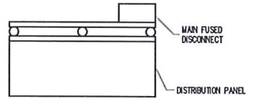
1. NEW ELECTRIC SERVICE IS 200 AMP, 240 VOLT, 1 PHASE 3 WIRE.
2. CONTRACTOR SHALL ROUTE THE WIRING TO THE NEW METER BASE SUPPLIED BY THE REC.
3. SHOULD DISCONNECT BE PLACED ON POLE WITH METER, CABLE AND CONDUIT SIZE SHALL BE RE-EVALUATED FOR VOLTAGE DROP.

GENERAL ELECTRIC NOTES

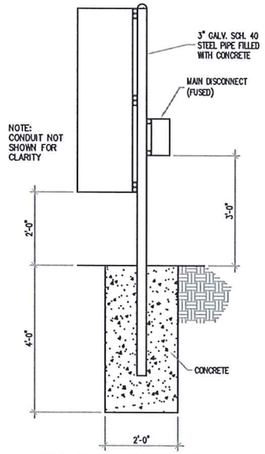
1. ALL INSTALLATION SHALL CONFORM TO THE LATEST EDITION OF THE NATIONAL ELECTRIC CODE (NEC) AND ANY OTHER APPLICABLE STATE AND LOCAL CODES.
2. ALL ELECTRICAL DEVICES & ENCLOSURES LOCATED OUTSIDE SHALL BE WEATHERPROOF & RATED FOR EXTERIOR USE, NEMA 3R.
3. ALL ELECTRICAL CONDUCTORS SHALL BE COOPER.
4. ELECTRICAL CONTRACTOR/SUPPLIER SHALL BE RESPONSIBLE FOR FINAL COORDINATION OF OVERLOAD PROTECTION WITH ACTUAL FULL LOAD AMPERAGE AND WIRE SIZING.
5. ALL BURIED CONDUIT SHALL BE PVC SCHEDULE 80.
6. ALL INTERIOR CONDUIT SHALL BE RIGID ALUMINUM.



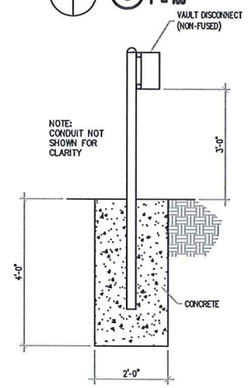
3 INTERIOR CONTROL PANEL LAYOUT
NOT TO SCALE



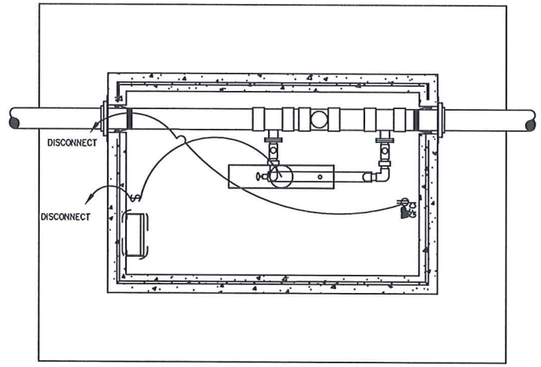
4 ELECTRICAL RACK PLAN
1/4" = 1'



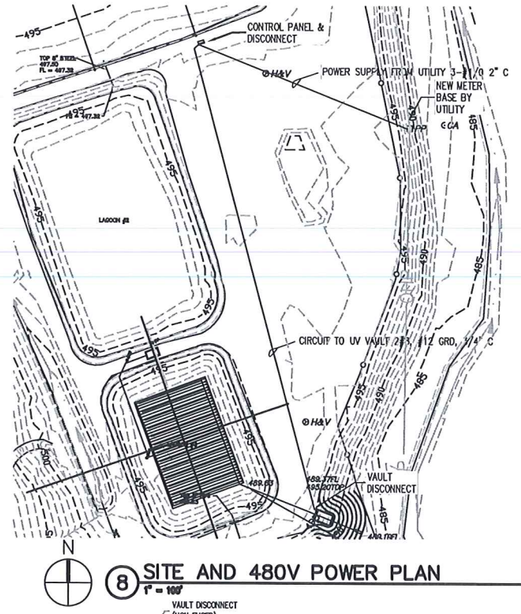
5 ELECTRICAL RACK ELEV.
1/4" = 1'



6 VAULT DISCON. ELEV.
1/4" = 1'



7 LIGHTING/120V/CONTROL POWER PLAN
3/16" = 1'



8 SITE AND 480V POWER PLAN
1" = 100'

5					
4					
3					
2					
1					
NO.	DATE	REVISIONS		BY	APP'D

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BLOOMSDALE MoDOT REST STOP
BLOOMSDALE, MISSOURI

LAGOON IMPROVEMENTS
VAULT ELECTRICAL DETAILS

STATE OF MISSOURI
MICHAEL MELVIN HALL
NUMBER E-30044
REGISTERED PROFESSIONAL ENGINEER
4-26-11

108781-010
SHEET NO.
9 OF 10

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LAYOUT: SHT 9 | BY: MHALL | DATE: 3/31/2011
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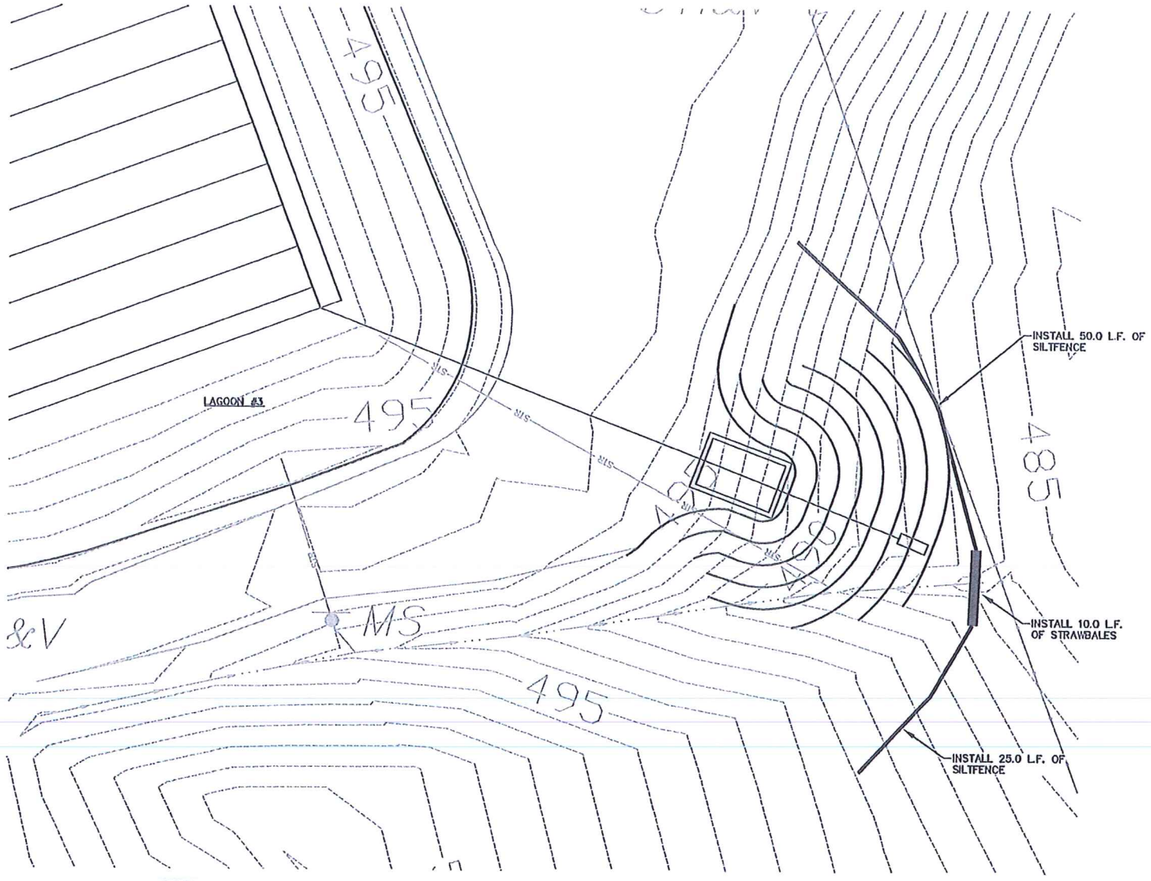


NORTH

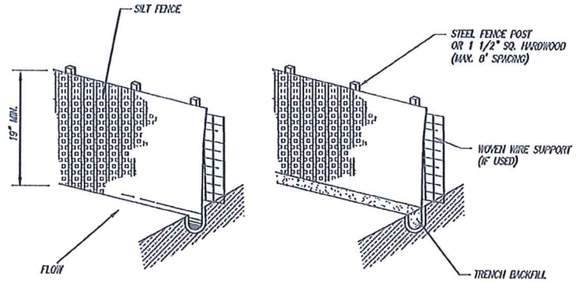
20 10 0 20

SCALE : 1"= 20 '

EROSION CONTROL PLAN

NOTES:

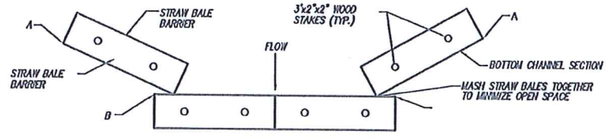
1. THE EROSION CONTROL FEATURES AND NOTES SHOWN ON THIS SHEET REPRESENT THE MINIMUM REQUIREMENTS ACCEPTABLE. LOCATIONS ARE TYPICAL AND MAY VARY ACCORDING TO CONTRACTORS STAGING AND LIMITS OF CONSTRUCTION.
2. IT SHALL BE EACH CONTRACTOR'S RESPONSIBILITY TO CONTROL EROSION AND PREVENT POLLUTION FOR ALL WORK WHICH THEY ARE DIRECTLY INVOLVED.
3. IT SHALL BE EACH CONTRACTORS RESPONSIBILITY TO PLACE ADDITIONAL CONTROL DEVICES AS REQUIRED DURING CONSTRUCTION TO PREVENT SOIL LOSS FROM THE SITE. IT SHALL ALSO BE EACH CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THEIR EROSION CONTROL FEATURES IN PROPER WORKING CONDITION UNTIL THE SITE IS STABILIZED BY PAVEMENT, VEGETATION OR OTHER MEANS.
4. WHEN POSSIBLE, WITHOUT ADVERSELY AFFECTING CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL: MINIMIZE THE AMOUNT OF SURFACE AREA WHICH IS EXPOSED AT ONE TIME, LEAVE GRADED AREAS WITH A ROUGH TEXTURE, CONSTRUCT TEMPORARY TERRACES DURING GRADING OPERATIONS, AND LIMIT UNNECESSARY VEHICLE TRAFFIC IN GRADED AREAS.
5. THE SPILLAGE OF DEBRIS, INCLUDING THE TRACKING OF SOIL, OUTSIDE OF THE CONSTRUCTION LIMITS SHALL BE AVOIDED.
6. STRAW BALE DIKES OR SILT FENCES SHALL BE PLACED ON A CONTOUR ELEVATION ALONG THE DOWNHILL SIDE AND FOR THE FULL EXTENT OF THE DISTURBED AREAS WITHIN THE CONSTRUCTION LIMITS. THE LAST FIVE FEET ON EACH END OF RUN OF SILT FENCE/STRAW BALE DIKE SHALL BE PLACED FACING UPHILL AT 90 DEGREES TO THE CONTOUR LINE.
7. THE CONTRACTOR SHALL PREVENT SILT AND SEDIMENT FROM ENTERING THE STORM SEWER SYSTEM. STRAW BALE DIKES SHALL BE PLACED AROUND ALL STORM SEWER INLETS EXCEPT DURING CONSTRUCTION OPERATIONS WHICH REQUIRE THEIR REMOVAL.
8. CONTRACTOR SHALL INSPECT THEIR EROSION CONTROL DEVICES AFTER ALL RAINFALL EVENTS TO INSURE THEY ARE WORKING PROPERLY. THE CONTRACTOR SHALL ALSO INSPECT THE SITE AFTER ALL RAINFALL EVENTS AND ON A PERIODIC BASIS TO ASSESS THE NEED AND IF PRUDENT, INSTALL ADDITIONAL EROSION CONTROL DEVICES AS REQUIRED.
9. ALL AREAS UPON REACHING FINAL GRADE SHALL BE BROUGHT TO FINAL PLAN CONDITION (PAVED, MULCHED AND SEEDED, SODDED, OR OTHER) AS SOON AS POSSIBLE.



CONSTRUCTION SPECIFICATIONS:

1. POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE AND SPACED AT A MAX. 8' APART OR TO SILT FENCE MANUFACTURER SPECIFICATIONS, WHICHEVER IS STRICTER.
2. SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW.
3. THE TRENCH SHOULD BE A MINIMUM OF 6" DEEP 3-4" WIDE TO ALLOW FOR THE SILT FENCE TO BE LAID IN THE GROUND AND BACKFILLED.
4. SILT FENCE SHOULD BE SECURELY FASTENED TO EACH SUPPORT POST OR TO WOVEN WIRE WHICH IS IN TURN ATTACHED TO THE FENCE POSTS.
5. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
6. SILT FENCE SHALL BE REMOVED WHEN IT HAS SERVED ITS USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
7. SEDIMENT TRAPPED BY THIS PRACTICE SHALL BE UNIFORMLY DISTRIBUTED ON THE SOURCE AREA PRIOR TO TOPSOILING.
8. SILT FENCE SHALL BE MIRAFI-100X FILTER FABRIC OR APPROVED EQUAL.

SILT FENCE DETAIL
NO SCALE

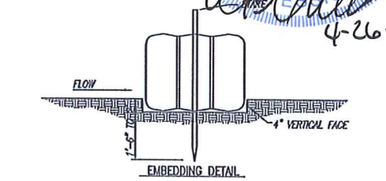


POINTS "A" SHOULD BE HIGHER THAN POINTS "B" TO INSURE FLOW THROUGH OR OVER BARRIER, NOT AROUND IT.

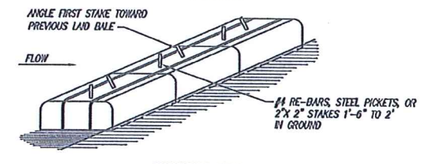
TOP VIEW DITCH APPLICATION DETAILS

DITCH CHECK SPACING			
DITCH % SLOPE	SPACING (FT)	DITCH % SLOPE	SPACING (FT)
.05	400	5.5	38
1.0	200	6.0	35
1.5	133	6.5	30
2.0	100	7.0	28
2.5	80	7.5	26
3.0	66	8.0	25
3.5	57	8.5	23
4.0	50	9.0	22
4.5	44	9.5	21
5.0	40	10.0	20

TEMPORARY STRAW BALE DITCH CHECK
NO SCALE



EMBEDDING DETAIL



ANCHORING DETAIL

NOTES:

1. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4".
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY STAKES OR RE-BARS DRIVEN THROUGH THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER.
4. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE BY THE OWNER.

STRAW BALE DIKE DETAIL
NO SCALE

STATE OF MISSOURI
MICHAEL MELVIN HALL
NUMBER E-30044
REGISTERED PROFESSIONAL ENGINEER
4-26-11

NO.	DATE	REVISIONS	BY	APPD
1				
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BLOOMSDALE MoDOT REST STOP
BLOOMSDALE, MISSOURI

LAGOON IMPROVEMENTS
EROSION CONTROL PLAN

108781-010

SHEET NO.
10 OF 10

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LAYOUT: SHT 10 | BY: PERRIGO | DATE: 3/9/2011
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