

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(X3-16RA)I-15	WOODFORD	22	1
		ILLINOIS	CONTRACT NO. 68101	

INDEX OF SHEETS

- 1 COVER SHEET
- 2 GENERAL NOTES
- 3-5 SUMMARY OF QUANTITIES
- 6 SCHEDULE OF QUANTITIES
- 7 WASTEWATER REMOVAL PLANS
- 8-9 WASTEWATER PLAN
- 10 WASTEWATER PROFILE
- 11 EROSION CONTROL PLAN
- 12-13 ELECTRICAL PLANS
- 14 AERATION PLANS
- 15 AERATION TYPICAL DETAIL
- 16 ELECTRICAL TYPICAL DETAIL
- 17 LAGOON TYPICAL DETAIL
- 18-20 ROCK FILTER DETAIL
- 21 MANIFOLD TYPICAL DETAIL
- 22 SHED DETAIL

HIGHWAY STANDARDS

- 000001-08
- 280001-07
- 602401-07
- 664001-02
- 701001-02
- 814001-03
- 701901-09

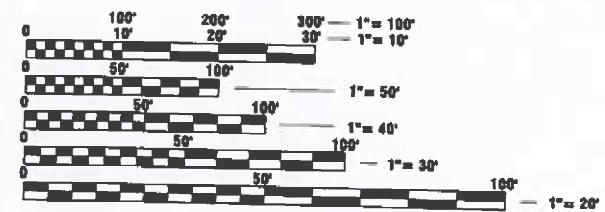
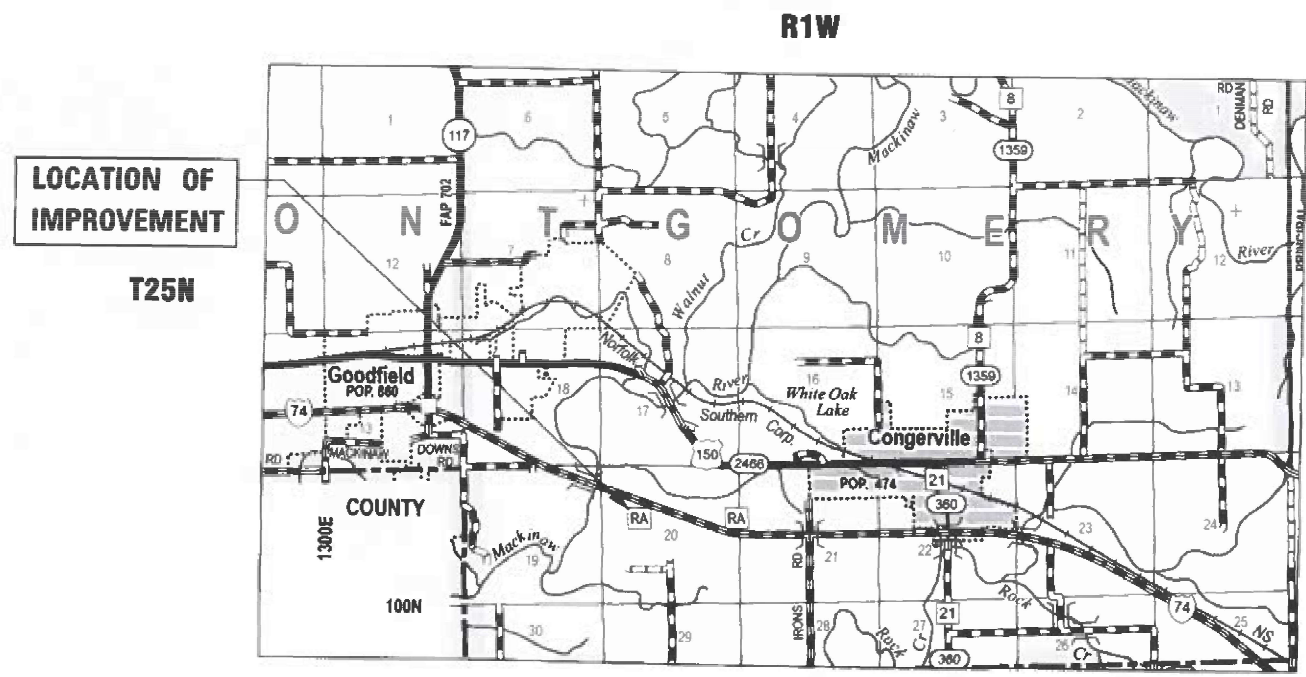
DESIGN DESIGNATION

- I-74: INTERSTATE
- ADT: 26,900 (2021)
- SU: 4,250
- MU: 850

PROPOSED
HIGHWAY PLANS

FAI ROUTE 74 (I-74)
SECTION (X3-16RA)I-15
PROJECT
MACKINAW DELL EASTBOUND REST AREA
WOODFORD COUNTY

C-94-020-24



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS
1-800-892-0123
OR 811

PROJECT ENGINEER: ANNA GHIDINA (309) 671-3333
PROJECT MANAGER: BRITTANY GAVIN (309) 671-3333
CATALOG NO. 036467-000
CONTRACT NO. 68101

Mark C. Lee
MARK C. LEE
REGISTERED PROFESSIONAL ENGINEER
STATE OF ILLINOIS NO. 062-060864
LICENSE EXPIRES NOVEMBER 30, 2025

2-9-24
DATE

GROSS LENGTH = 1050.00 FT. = 0.20 MILE
NET LENGTH = 1050.00 FT. = 0.20 MILE

KLINGNER
& ASSOCIATES, P.C.
Engineers • Architects • Surveyors
www.klingner.com
Galesburg, Illinois
49 North Prairie Street
309.342.4042
Quincy, IL Hannibal, MO
Burlington, IA Pella, IA Columbia, MO
Davenport, IA Garbondale, IL
DESIGN FIRM NO. 184-2738

PROJECT DESCRIPTION:
REHABILITATING EXISTING LAGOON IN
EASTBOUND REST AREA

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
SUBMITTED February 9 20 24
Kessil L. Barnett
REGIONAL ENGINEER
March 22, 2024
Scott A. Etk
ENGINEER OF DESIGN AND ENVIRONMENT
March 22, 2024
Steph M. Smith
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

GENERAL NOTES

1. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKERS AND MONUMENTS UNTIL THE OWNER, AUTHORIZED AGENT, OR LAND SURVEYOR HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. WHERE SECTION OR SUB-SECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING AN AUTHORIZED SURVEYOR RE-ESTABLISH ANY SECTIN OR SUB-SECTION MONUMENTS DESTROYED BY HIS OPERATIONS.
2. ALL DISTURBED AREAS CAUSED BY THIS PROJECT SHALL BE SEEDED , FERTILIZED, AND MULCHED AS DIRECTED BY THE ENGINEER.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY FROM CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. THE I.U.L.I.E. NUMBER IS 1-800-892-0123. A MINIMUM OF 48 HOURS ADVANCE NOTICE IS REQUIRED.
4. THE LOCATION OF BURIED AND ABOVE GROUND UTILITIES SHOWN ARE APPROXIMATE AND ARE SHOWN FOR THE CONTRACTOR INFORMATIONAL USE ONLY. LOCATIONS ARE NOT TO BE REFERENCED FOR CONSTRUCTION PURPOSES. THE IMPLIED PRESENCE OR ABSENCE OF UTILITIES IS NOT TO BE CONSTRUED BY THE THE OWNER, ENGINEER, CONTRACTOR, OR SUBCONTRACTORS TO BE AN ACCURATE AND COMPLETE REPRESENTATION OF UTILITIES THAT MAY OR MAY NOT EXIST ON THE CONSTRUCTION SITE. BURIED AND ABOVE GROUND UTILITY LOCATIONS, IDENTIFICATION, AND MARKING ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. REROUTING, DISCONNECTION, PROTECTION, ETC. OF ANY UTILITIES MUST BE COORDINATED BETWEEN THE CONTRACTOR, UTILITY COMPANY, AND OWNER. SITE SAFETY, INCLUDING THE AVOIDANCE OF HAZARDS ASSOCIATED WITH BURIED AND ABOVE GROUND UTILITIES, REMAINS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
5. IN ADDITION TO FIELD SURVEYS, PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING FACILITES HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD. SUCH VARIATIONS SHALL NOT BE A CAUSE FOR ADDITIONAL COMPENSATION DUE TO A CHANGE IN THE SCOPE OF WORK; HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK. THE THICKNESS OF BITUMINOUS MIXTURES SHOWN ON THE PLANS IS THE NOMINAL.
6. ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUB-NUMBER IN THE INDEX OF SHEETS OR THE COPY OF THE STANDARD INCLUDED IN THESE PLANS.
7. ANY EXISTING ROAD SIGNS THAT INTERFERE WITH CONSTRUCTION WILL BE REMOVED OR RELOCATED AS DIRECTED BY THE ENGINEER. AFTER THE CONSTRUCTION IS COMPLETED, THE CONTRACTOR WILL REPLACE THE SIGNS AS DIRECTED BY THE ENGINEER. THIS WORK WILL BE DONE AT NO ADDITIONAL COST TO THE CITY.
8. ALL SAW CUTS, NECESSARY TO COMPLETE THE WORK DETAILED IN THESE PLANS, SHALL BE INCLUDED IN THE COST FOR THE VARIOUS PAY ITEMS INVOLVED.
9. SEEDING WILL NOT BE PERMITTED AT AY TIME WHEN THE GROUND IS FROZEN, WET, OR IN AN UNTILLABLE CONDITION. LOCATIONS TO BE SEEDED SHALL BE DETERMINED BY THE ENGINEER.

RATES OF APPLICATION TABLE

AGGREGATE (SURFACE, BASE, SUBBASE, OR BACKFILL)	1.60 TON / CU YD
STONE DUMPED RIPRAP	1.50 TON / CU YD

ALIGNMENT INFORMATION

	N	E	ELEVATION
CP50	1,438,332.00	2,552,252.00	655.327
CP51	1,438,155.00	2,552,787.00	661.208
CP52	1,437,906.00	2,555,754.00	729.317

COMMITMENTS

COMMITMENTS ARE NOT TO BE ALTERED WITHOUT THE WRITTEN APPROVAL OF ALL PARTIES TO WHICH THE COMMITMENT WAS MADE.

THERE ARE NO COMMITMENTS INCLUDED IN THIS PROJECT.

ENVIRONMENTAL REVIEWS

PRIOR TO THE USE OF ANY PROPOSED BORROW AREAS, USE AREAS (TEMPORARY ACCESS ROADS, DETOURS, RUN-AROUNDS, ETC.) AND /OR WASTE AREAS, THE CONTRACTOR SHALL FILE THE REQUIRED ENVIRONMENTAL RESOURCE REQUEST SURVEYS ACCORDING TO SECTION 107.22 OF THE STANDARD SPECIFICATIONS. THESE SURVEYS ARE REQUIRED IN ORDER FOR THE DEPARTMENT TO CONDUCT CULTURAL AND BIOLOGICAL RESOURCE SURVEYS FOR THE PROPOSED SITE.

THE REQUIRED ENVIRONMENTAL RESOURCE DOCUMENTATION SHALL INCLUDE THE FOLLOWING:

- BDE FORM 2289 (CULTURAL AND NATURAL RESOURCE REVIEW OF BORROW AREAS)
- BDE FORM 2290 (WASTE/USE AREA REVIEW)
- A LOCATION MAP SHOWING THE SIZE LIMITS AND LOCATION OF THE USE AREA
- COLOR PHOTOGRAPHS DEPICTING THE USE AREA
- BORROW AREA ENTRY AGREEMENT FORM-D4 PI0101

PRIOR TO ANY WASTE MATERIALS BEING REMOVED FROM THE CONSTRUCTION SITE THE REQUIRED ENVIRONMENTAL RESOURCE SURVEYS SHALL BE OBTAINED AND FILED BY THE CONTRACTOR. EXCESS WASTE PRODUCTS REMOVED FROM THE CONSTRUCTION SITE SHALL BE DISPOSED OF AS REQUIRED IN SECTION 202.03 OF THE STANDARD SPECIFICATIONS.

ANY PROTRUDING METAL BARS SHALL BE REMOVED PRIOR TO THE DISPOSAL OF BROKEN CONCRETE AT APPROVED DISPOSAL SITES.

PLEASE NOTE THAT A MINIMUM OF TWO WEEKS SHALL BE ALLOWED FOR THE DISTRICT TO OBTAIN THE REQUIRED WASTE SITE ENVIRONMENTAL CLEARANCES AND SIX WEEKS FOR THE REQUIRED BORROW SITE ENVIRONMENTAL CLEARANCES.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MACKINAW DELL EASTBOUND LAGOON
GENERAL NOTES

SCALE: NONE SHEET 1 OF 1 SHEETS STA. N/A TO STA. N/A

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(X3-16RA)I-15	WOODFORD	22	2
CONTRACT NO. 68101				
ILLINOIS FEDERAL-AID INTERSTATE				

USER NAME = mrich	DESIGNED - ANM	REVISED -
	DRAWN - MCR	REVISED -
PLOT SCALE = 100,0000 ' / in.	CHECKED - MCL	REVISED -
PLOT DATE = 2/9/2024	DATE -	REVISED -

MODEL: D:\p\l\l\Galesburg\2\Files\213081\DOT - DIST 4 - PTB 2014-03\Work Order 19 - FY 2024\Lagoon18 Transportation\CADD Sheets\03-05_Summary of Quantities.dgn

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE						
				WOODFORD COUNTY	WOODFORD COUNTY					
				SWLI 100% STATE	100% STATE					
				0005	0005					
				RURAL	RURAL					
20101400	NITROGEN FERTILIZER NUTRIENT	LBS	30	30						
20101500	PHOSPHOROUS FERTILIZER NUTRIENT	LBS	30	30						
20101600	POTASSIUM FERTILIZER NUTRIENT	LBS	30	30						
20200100	EARTH EXCAVATION	CU YD	12515	12515						
20800150	TRENCH BACKFILL	CU YD	33	33						
25000100	SEEDING, CLASS 1	ACRE	0.1		0.1					
25000300	SEEDING, CLASS 3	ACRE	0.3	0.3						
25100630	EROSION CONTROL BLANKET	SQ YD	3848	3848						
28000400	PERIMETER EROSION BARRIER	FOOT	2351	2351						
28100105	STONE RIPRAP, CLASS A3	SQ YD	63	63						
35101800	AGGREGATE BASE COURSE, TYPE B 6"	SQ YD	9	9						
40200300	AGGREGATE SURFACE COURSE, TYPE A 4"	SQ YD	1110	1110						
42300200	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 6 INCH	SQ YD	3	3						
42400100	PORTLAND CEMENT CONCRETE SIDEWALK, 4 INCH	SQ FT	87	87						

* SPECIALTY ITEM



USER NAME = mrich	DESIGNED - ANM	REVISED -
PLOT SCALE = 100.0000' / in.	DRAWN - MCR	REVISED -
PLOT DATE = 2/9/2024	CHECKED - MCL	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

MACKINAW DELL EASTBOUND LAGOON SUMMARY OF QUANTITIES			
SCALE: NONE	SHEET 1 OF 3 SHEETS	STA. N/A	TO STA. N/A

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(X3-16RA)I-15	WOODFORD	22	3
CONTRACT NO. 68101				
ILLINOIS FEDERAL-AID INTERSTATE				

MODEL: D:\p\11...
 FILE NAME: P:\Galesburg\2\11ed123081\DOT - DIST - 4 - PTB 201-023\Work Order 19 - FY 2024\Lagoon18 Transportation\CADD Sheets\03-05 Summary of Quantities.dgn

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE						
				WOODFORD COUNTY	WOODFORD COUNTY					
				SWLI 100% STATE	100% STATE					
				0005	0005					
				RURAL	RURAL					
44000100	PAVEMENT REMOVAL	SQ YD	3	3						
44000600	SIDEWALK REMOVAL	SQ FT	87	87						
50300225	CONCRETE STRUCTURES	CU YD	1.5	1.5						
66400305	CHAIN LINK FENCE, 6'	FOOT	1905	1905						
66407600	CHAIN LINK GATES, 6' X 12' DOUBLE	EACH	1	1						
67100100	MOBILIZATION	L SUM	1	1						
* 81028320	UNDERGROUND CONDUIT, PVC, 1" DIA.	FOOT	415	415						
* 81028350	UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	415	415						
* 81400100	HANDHOLE	EACH	1	1						
X0323265	REMOVE EXISTING RIPRAP	SQ YD	101	101						
X0324582	PLUMBING EQUIPMENT, ACCESSORIES AND RELATED SYSTEMS	L SUM	1	1						
X0326802	UTILITY STRUCTURE REMOVAL	EACH	2	2						
X5510308	SANITARY SEWER REMOVAL 8"	FOOT	500	500						
X1200036	SANITARY SERVICE CLEANOUT	EACH	1	1						

* SPECIALTY ITEM



USER NAME = mrich	DESIGNED - ANM	REVISED -
PLOT SCALE = 100.0000' / in.	DRAWN - MCR	REVISED -
PLOT DATE = 2/9/2024	CHECKED - MCL	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

MACKINAW DELL EASTBOUND LAGOON SUMMARY OF QUANTITIES			
SCALE: NONE	SHEET 2 OF 3 SHEETS	STA. N/A	TO STA. N/A

F.A.I. RTE. 74	SECTION (X3-16RA)I-15	COUNTY WOODFORD	TOTAL SHEETS 22	SHEET NO. 4
CONTRACT NO. 68101				
ILLINOIS FEDERAL-AID INTERSTATE				

MODEL: D:\p\l\l... Galesburg\2\11ed13081\DOT - DIST - 4 - PTB 2014-03\Work Order 19 - FY 2024\lagona18 Transportation\CADD Sheets\03-05_Summary of Quantities.dgn

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE						
				WOODFORD COUNTY	WOODFORD COUNTY					
				SWLI 100% STATE	100% STATE					
				0005	0005					
				RURAL	RURAL					
X1200073	MANHOLE REMOVAL	EACH	4		4					
X1200321	LAGOON SLUDGE PUMPING AND DISPOSAL LOCATION 1	EACH	1			1				
X2040805	FURNISHED EXCAVATION (SPECIAL)	CU YD	12515			12515				
X5030230	SPECIAL STRUCTURE	EACH	1			1				
X6015010	REMOVE AND REPLACE CONCRETE HEADWALLS FOR PIPE DRAINS	EACH	1			1				
X6022810	MANHOLES, SANITARY, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID (SPECIAL)	EACH	5		5					
X7010216	TRAFFIC CONTROL AND PROTECTION (SPECIAL)	L SUM	1		1					
* X8040102	ELECTRIC SERVICE INSTALLATION (SPECIAL)	EACH	1			1				
* X8780105	CONCRETE FOUNDATIONS (SPECIAL)	EACH	1			1				
* XZ054500	ROCK FILL (SPECIAL)	CU YD	260			260				
Z0022800	FENCE REMOVAL	FOOT	1905			1905				
Z0056900	SANITARY SEWER 8"	FOOT	678			678				

* SPECIALTY ITEM



USER NAME = mrich	DESIGNED - ANM	REVISED -
DRAWN - MCR	REVISIONS -	
PLOT SCALE = 100.0000' / in.	CHECKED - MCL	REVISED -
PLOT DATE = 2/9/2024	DATE -	REVISED -

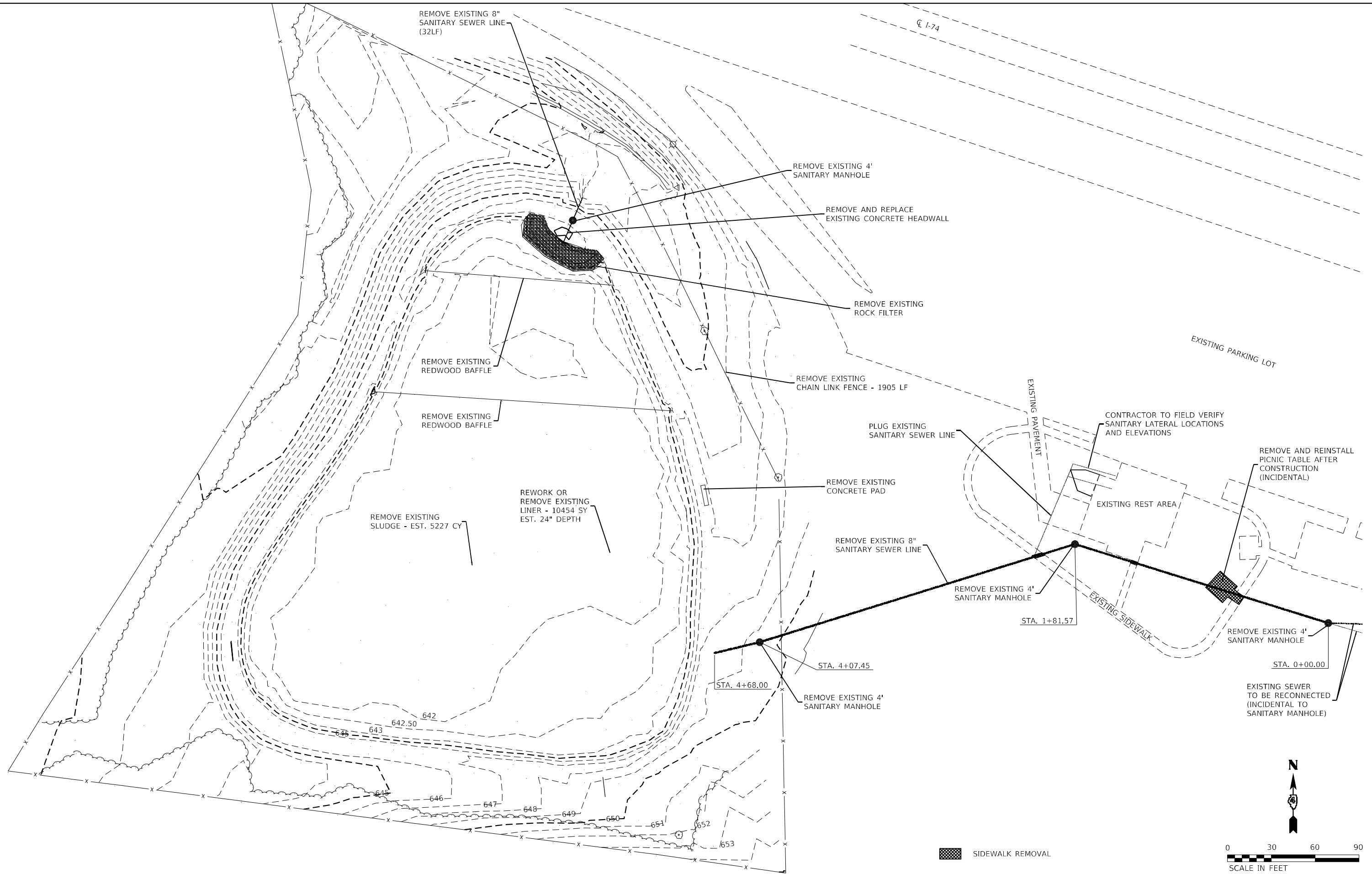
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**MACKINAW DELL EASTBOUND LAGOON
 SUMMARY OF QUANTITIES**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(X3-16RA)I-15	WOODFORD	22	5
			CONTRACT NO. 68101	
		ILLINOIS	FEDERAL-AID INTERSTATE	

SCALE: NONE SHEET 3 OF 3 SHEETS STA. N/A TO STA. N/A

MODEL: Mch21
 FILE NAME: P:\Caledonia\2110013081\DOT - DIST 4 - PTB 201-023\Work Order 19 - FY 2024\Landscape18_Transportation\CADD_Sheets\07_EB_DEMO.dgn



KLINGNER & ASSOCIATES, P.C.
 Engineers • Architects • Surveyors
 Galesburg, Illinois
 49 North Park Street
 Galesburg, IL 62541

USER NAME = mrich	DESIGNED - ANM	REVISED -
DRAWN - MCR	REVISED -	
CHECKED - MCL	REVISED -	
DATE -	REVISED -	
PLOT SCALE = 2,000 / in.		
PLOT DATE = 2/9/2024		

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**MACKINAW DELL EASTBOUND LAGOON
 REMOVAL PLAN**

F.A.I. RTE. 74	SECTION (X3-16RA)-15	COUNTY WOODFORD	TOTAL SHEETS 22	SHEET NO. 7
CONTRACT NO. 68101				
ILLINOIS FEDERAL-AID INTERSTATE				

SCALE: 1"=30' SHEET 1 OF 1 SHEETS STA. N/A TO STA. N/A

DESIGN CRITERIA

POPULATION EQUIVALENT	200	
AVERAGE DAILY FLOW	2000	GAL/DAY
AVG INFLUENT BOD5	10	LB/DAY
AVG INFLUENT TSS	10	LB/DAY
AVG INFLUENT AMMONIA-N	2	LB/DAY

DESIGN EFFLUENT CRITERIA - MONTHLY AVERAGE

BOD5	20	mg/L
TSS	24	mg/L
AMMONIA-N	2.0	mg/L

1 DESIGN CRITERIA
NTS

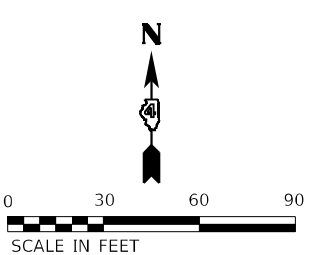
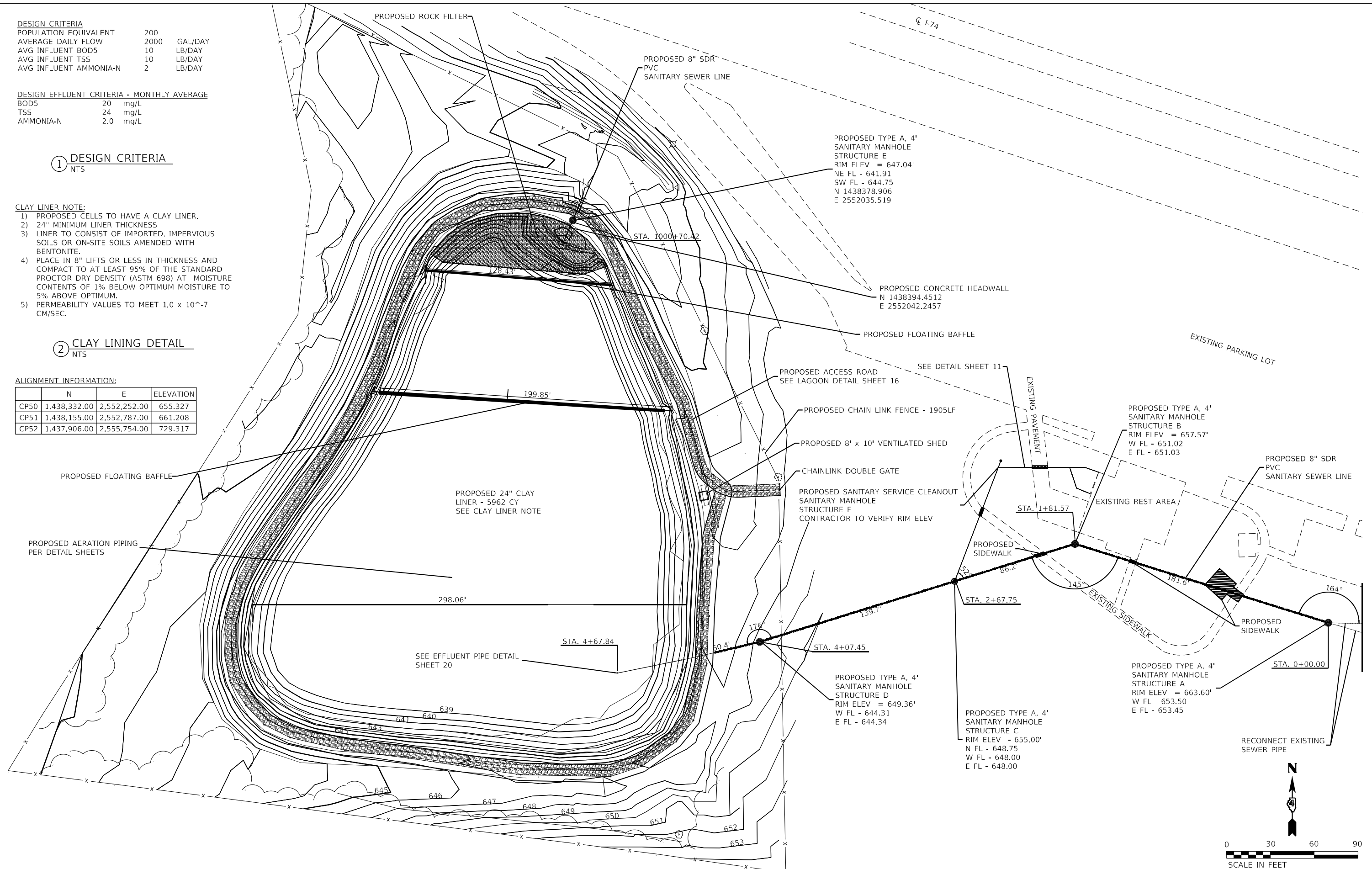
CLAY LINER NOTE:

- 1) PROPOSED CELLS TO HAVE A CLAY LINER.
- 2) 24" MINIMUM LINER THICKNESS
- 3) LINER TO CONSIST OF IMPORTED, IMPERVIOUS SOILS OR ON-SITE SOILS AMENDED WITH BENTONITE.
- 4) PLACE IN 8" LIFTS OR LESS IN THICKNESS AND COMPACT TO AT LEAST 95% OF THE STANDARD PROCTOR DRY DENSITY (ASTM 698) AT MOISTURE CONTENTS OF 1% BELOW OPTIMUM MOISTURE TO 5% ABOVE OPTIMUM.
- 5) PERMEABILITY VALUES TO MEET 1.0×10^{-7} CM/SEC.

2 CLAY LINING DETAIL
NTS

ALIGNMENT INFORMATION:

	N	E	ELEVATION
CP50	1,438,332.00	2,552,252.00	655.327
CP51	1,438,155.00	2,552,787.00	661.208
CP52	1,437,906.00	2,555,754.00	729.317



MODEL: Mch21
 FILE NAME: P:\Caleburg\21\filed\13081\DDOT - DIST - 4 - PTB 201-0323\Work Order 19 - FY 2024 Lagoon18_Transportation\CADD_Sheets\08_EB_PLAN.dwg
 Galesburg, Illinois
 497 North Park Street
 61520-4402

KLINGNER & ASSOCIATES, P.C.
 Engineers • Architects • Surveyors
 Galesburg, Illinois
 497 North Park Street
 61520-4402

USER NAME = mrich	DESIGNED - ANM	REVISED -
PLOT SCALE = 2,000 / in.	DRAWN - MCR	REVISED -
PLOT DATE = 2/9/2024	CHECKED - MCL	REVISED -
	DATE -	REVISED -

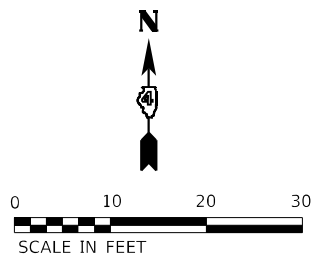
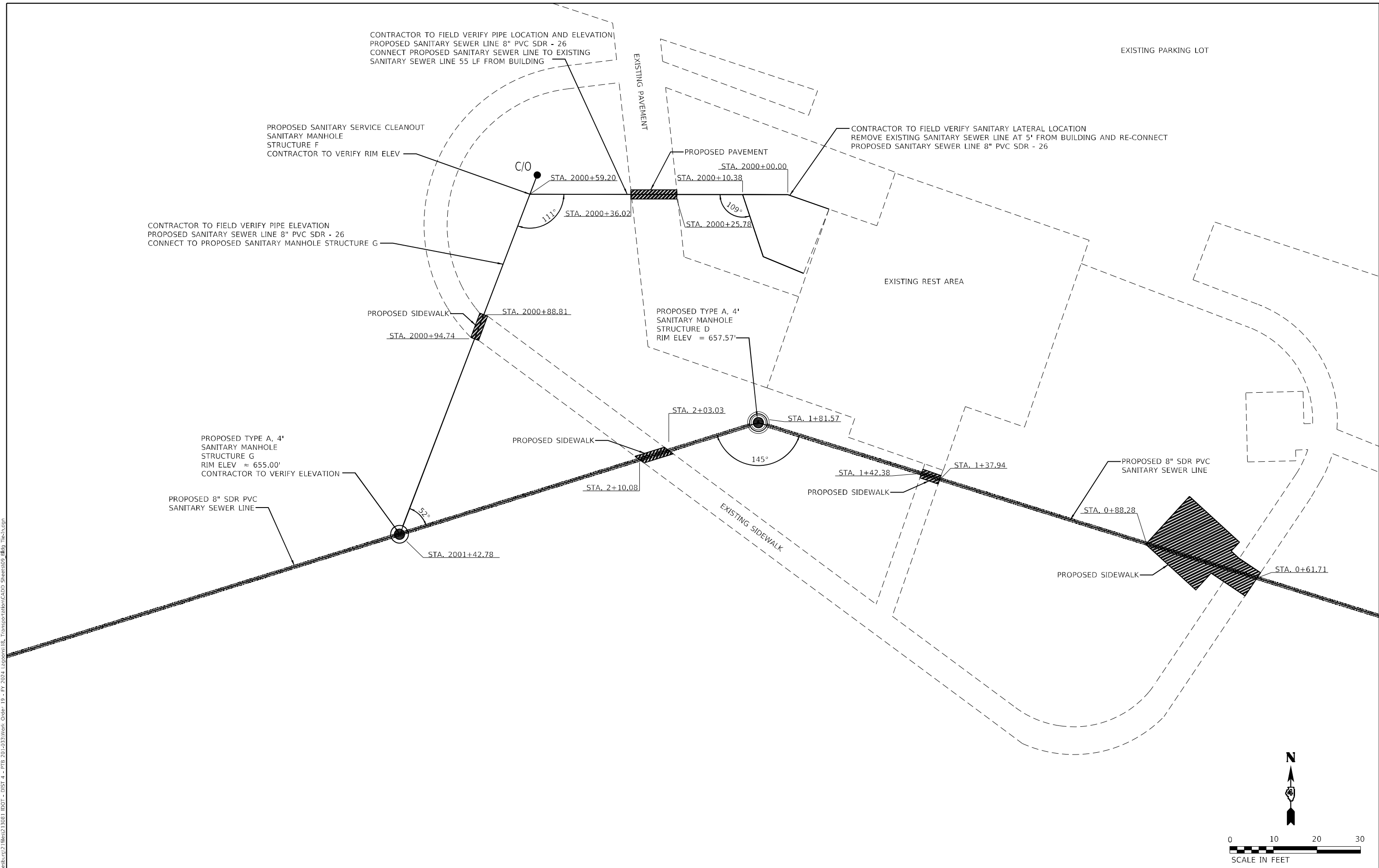
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**MACKINAW DELL EASTBOUND LAGOON
WASTEWATER PLAN OVERVIEW**

SCALE: 1"=30' SHEET 1 OF 2 SHEETS STA. N/A TO STA. N/A

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(X3-16RA)-15	WOODFORD	22	8
CONTRACT NO. 68101				
ILLINOIS FEDERAL-AID INTERSTATE				

MODEL: Mcdell
 FILE NAME: P:\Caledonia\2024\18_Transportation\CADD_Sheets\09_Bldg_Tech.dgn
 - PTB 201-023\Work Order 19 - FY 2024



KLINGNER & ASSOCIATES, P.C.
 Engineers • Architects • Surveyors
 Galesburg, Illinois

USER NAME = mrich	DESIGNED - ANM	REVISED -
DRAWN - MCR	REVISED -	
PLOT SCALE = 2,000 / in.	CHECKED - MCL	REVISED -
PLOT DATE = 2/9/2024	DATE -	REVISED -

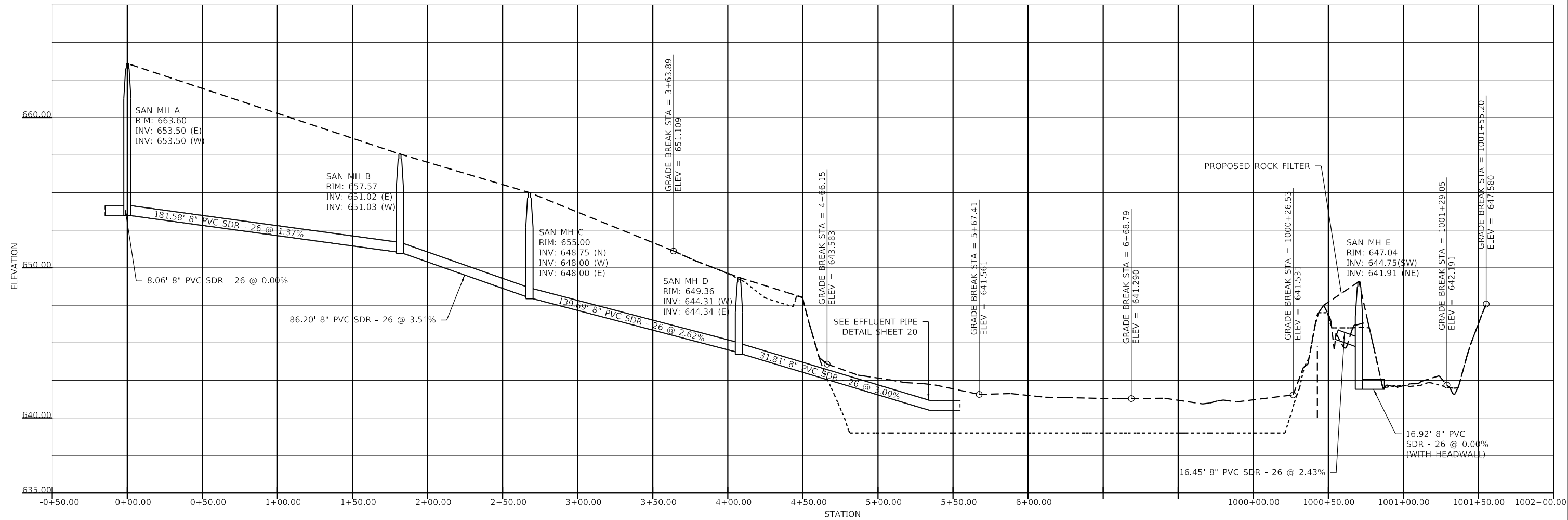
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**MACKINAW DELL EASTBOUND LAGOON
 WASTEWATER PLAN AT REST AREA**

F.A.I. RTE. 74	SECTION (X3-16RA)I-15	COUNTY WOODFORD	TOTAL SHEETS 22	SHEET NO. 9
CONTRACT NO. 68101				
ILLINOIS FEDERAL-AID INTERSTATE				

SCALE: 1"=10' SHEET 2 OF 2 SHEETS STA. N/A TO STA. N/A

MODEL: Mch1
 FILE NAME: P:\Galesburg\21\file0213081_IDOT - DIST 4 - PTB 201-023\Work Order 19 - FY 2024_Lapsons18_Transportation\CADD_Sheets\10_PROF1.dwg
 Galesburg, Illinois






USER NAME = mirch	DESIGNED - ANM	REVISED -
PLOT SCALE = 2.0000 / in.	DRAWN - MCR	REVISED -
PLOT DATE = 2/9/2024	CHECKED - MCL	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

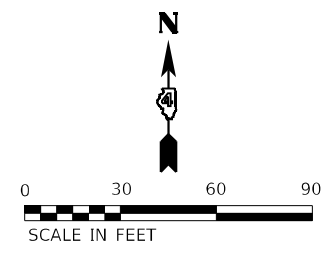
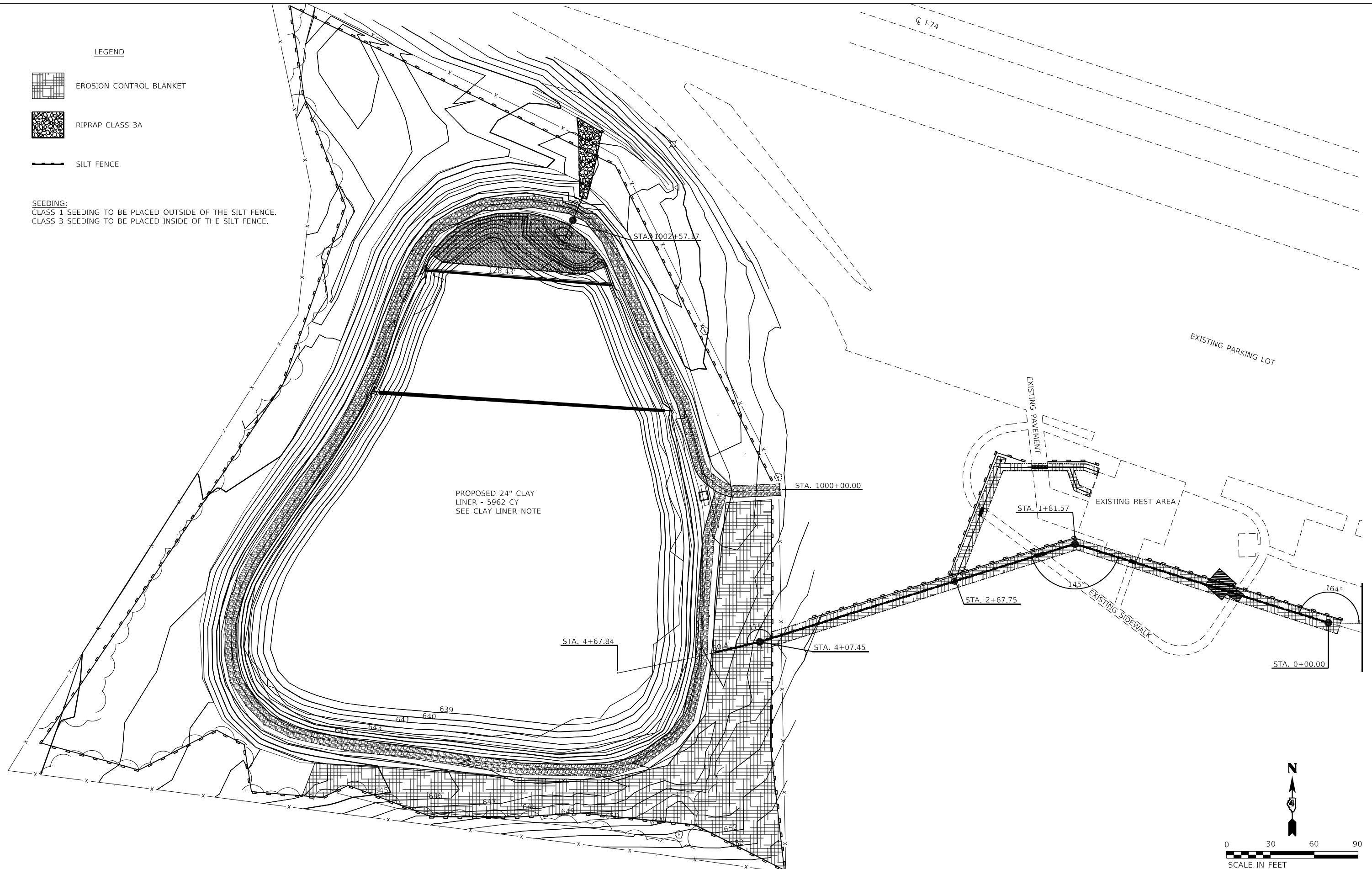
MACKINAW DELL EASTBOUND LAGOON WASTEWATER PROFILE			
SCALE: 4:10	SHEET 1 OF 1 SHEETS	STA. N/A	TO STA. N/A

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(X3-16RA)I-15	WOODFORD	22	10
CONTRACT NO. 68101				
ILLINOIS FEDERAL-AID INTERSTATE				

LEGEND

-  EROSION CONTROL BLANKET
-  RIPRAP CLASS 3A
-  SILT FENCE

SEEDING:
 CLASS 1 SEEDING TO BE PLACED OUTSIDE OF THE SILT FENCE.
 CLASS 3 SEEDING TO BE PLACED INSIDE OF THE SILT FENCE.



MODEL: Mackinaw Dell Eastbound Lagoon Erosion Control.dgn
 FILE NAME: P:\Caledonia\2024\18 Transportation\18 Transportation\CADD\Sheet11 Erosion Control.dgn
 DATE: 2/9/2024

KLINGNER & ASSOCIATES, P.C.
 Engineers • Architects • Surveyors
 Galesburg, Illinois

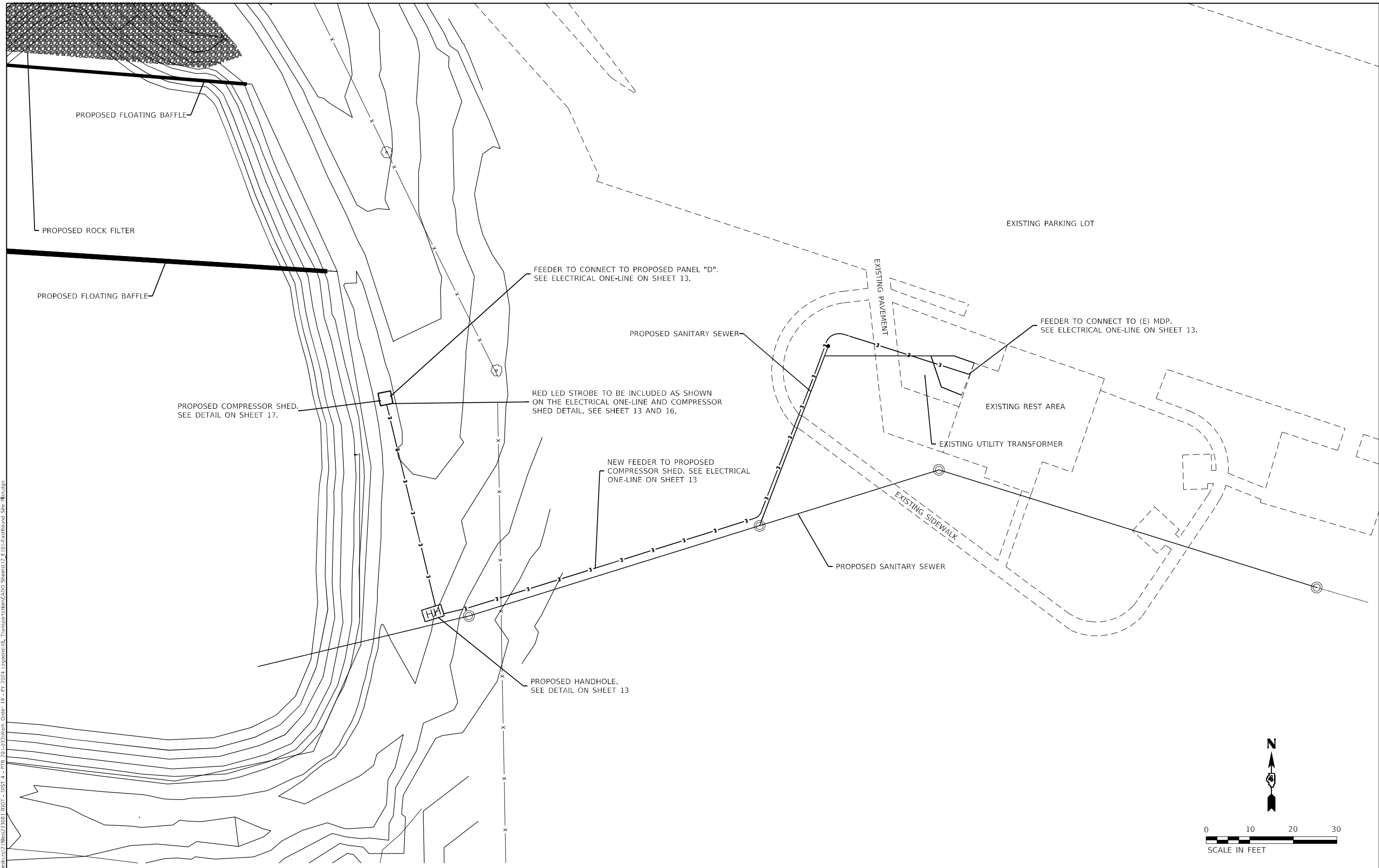
USER NAME = mrich	DESIGNED - ANM	REVISED -
PLOT SCALE = 2,000 / in.	DRAWN - MCR	REVISED -
PLOT DATE = 2/9/2024	CHECKED - MCL	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

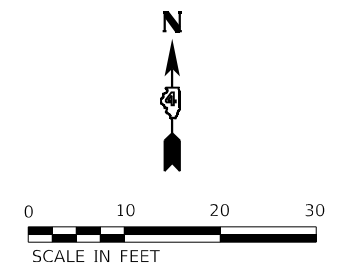
**MACKINAW DELL EASTBOUND LAGOON
 EROSION CONTROL PLAN**

SCALE: 1"=30' SHEET 1 OF 1 SHEETS STA. N/A TO STA. N/A

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(X3-16RA)-15	WOODFORD	22	11
CONTRACT NO. 68101				
ILLINOIS FEDERAL-AID INTERSTATE				



MODEL: Mch1
 FILE NAME: P:\Galesburg\21filed13081\DOT - DIST 4 - PTB 201-033\Work Order 19 - FY 2024\Lagoon18_Transportation\CADD_Sheets\13_E101-Eastbound Site Plan.dgn
 Galesburg, Illinois
 49 North Park Street
 61601-1002



KLINGNER & ASSOCIATES, P.C.
 Engineers • Architects • Surveyors
 Galesburg, Illinois
 49 North Park Street
 61601-1002

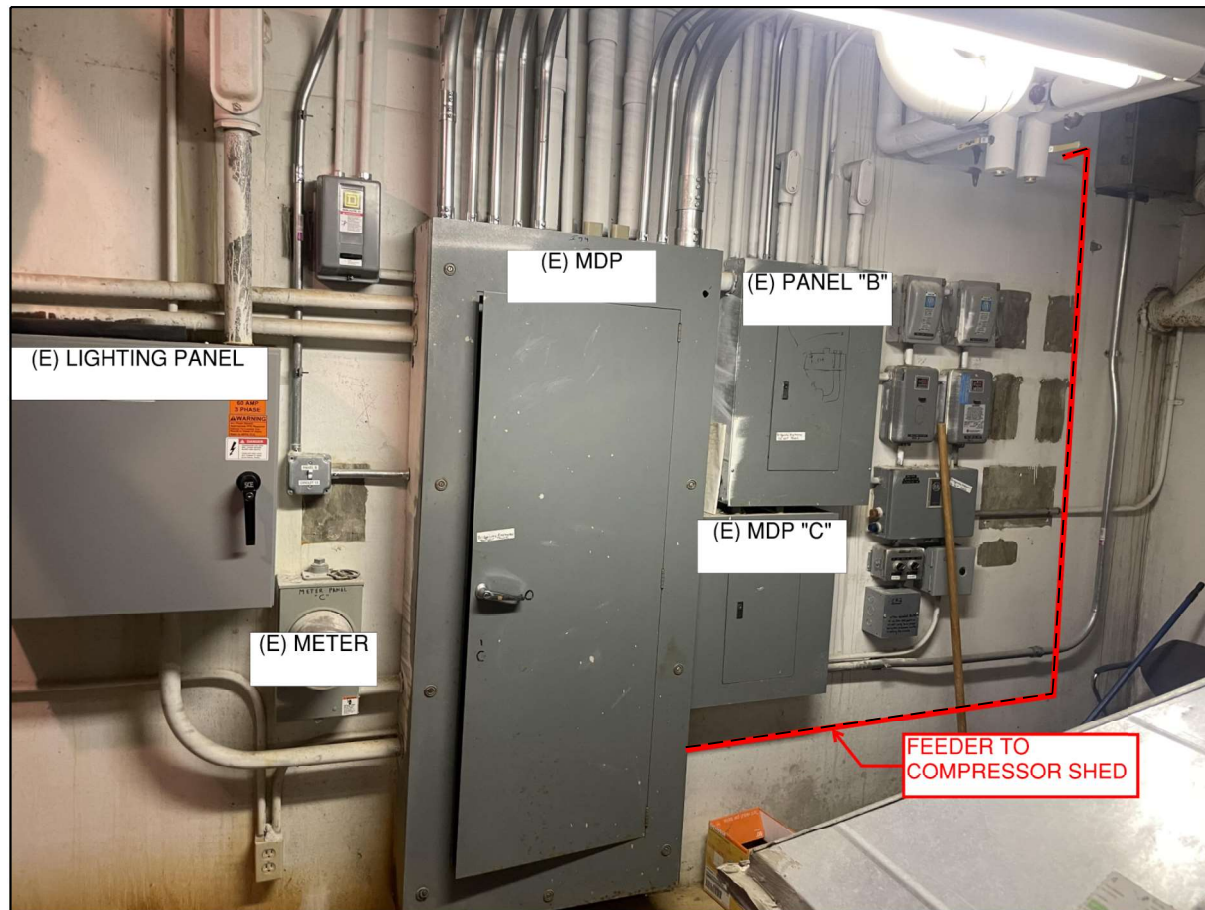
USER NAME = mrich	DESIGNED - ANM	REVISED -
	DRAWN - MCR	REVISED -
PLOT SCALE = 2,000 / in.	CHECKED - MCL	REVISED -
PLOT DATE = 2/9/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

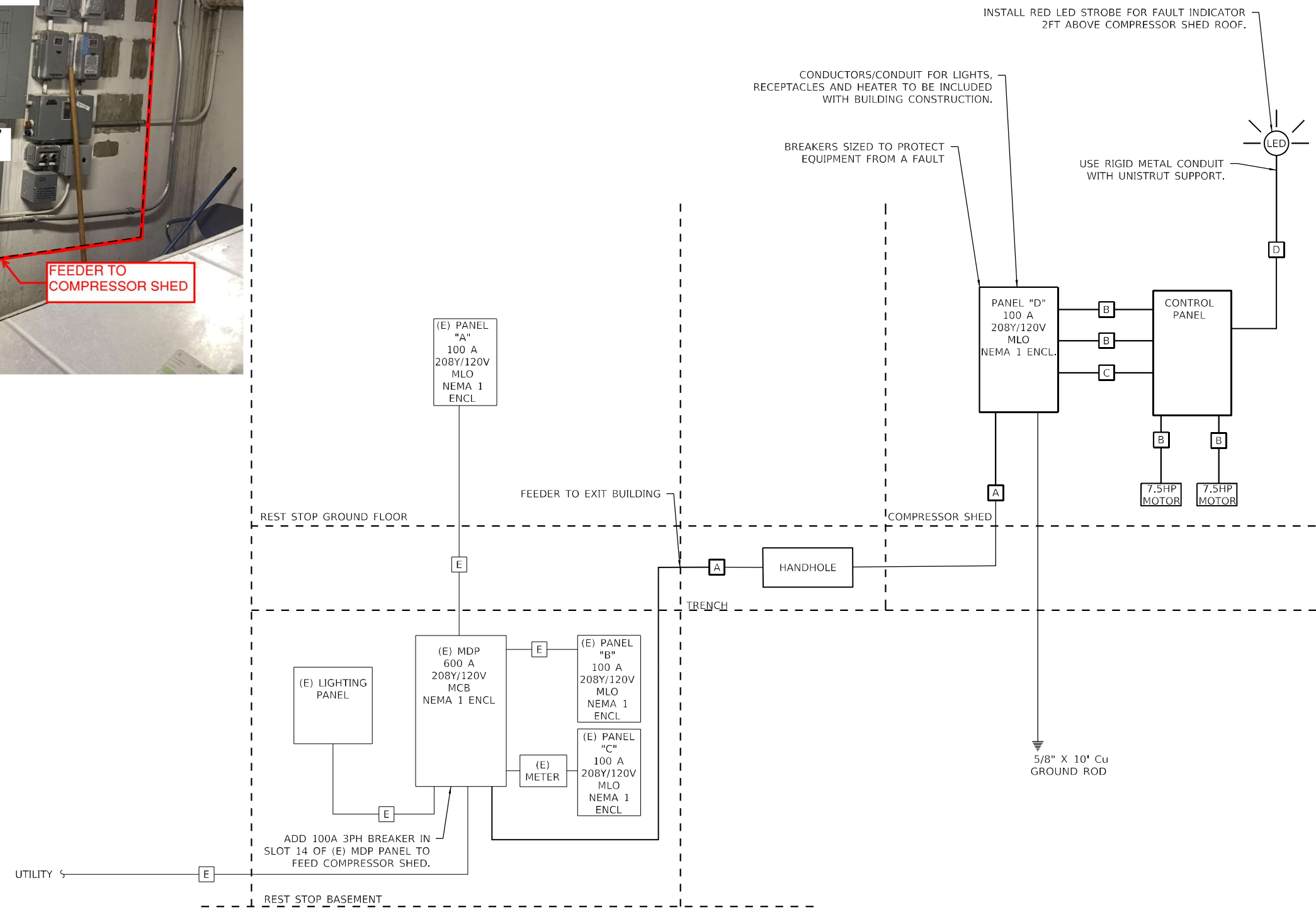
MACKINAW DELL EASTBOUND LAGOON
ELECTRICAL PLAN

SCALE: 1"=10' SHEET 1 OF 2 SHEETS STA. N/A TO STA. N/A

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(X3-16RA)I-15	WOODFORD	22	12
CONTRACT NO. 68101				
ILLINOIS FEDERAL-AID INTERSTATE				



FEEDER SCHEDULE				
TAG	ELECTRICAL FEEDER	CONDUIT	BREAKER	LENGTH
A	(4) 1/0 AWG CU W/ (1)#4 AWG CU EGC	2" PVC & 1" SPARE	100A	450'
B	(4)#6 AWG CU W/ (1)#10 AWG CU EGC	1" PVC	60A	40'
C	(2)#12 AWG CU W/ (1)#12 AWG CU EGC	3/4" PVC	20A	10'
D	(2)#12 AWG CU W/ (1)#12 AWG CU EGC	3/4" RMC	20A	10'
E	EXISTING	EXISTING	EXISTING	EXISTING



MODEL: Mch1
 FILE NAME: P:\Galesburg\2\filed13081\DDOT - DIST - 4 - PTB 201-023\Work Order 19 - FY 2024\Galesburg\18_Transportation\CADD_Sheets\13_5501-Eastbound Elect One-Line.dgn



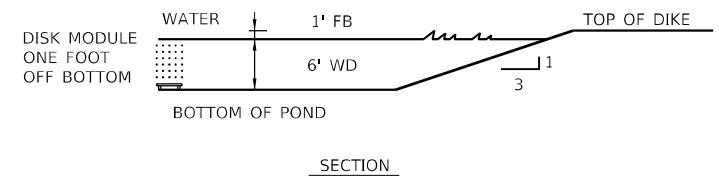
USER NAME = mrich	DESIGNED - ANM	REVISED -
DRAWN - MCR	REVISIONS -	
PLOT SCALE = 2,000 / in.	CHECKED - MCL	REVISED -
PLOT DATE = 2/9/2024	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**MACKINAW DELL EASTBOUND LAGOON
ELECTRICAL PLAN**

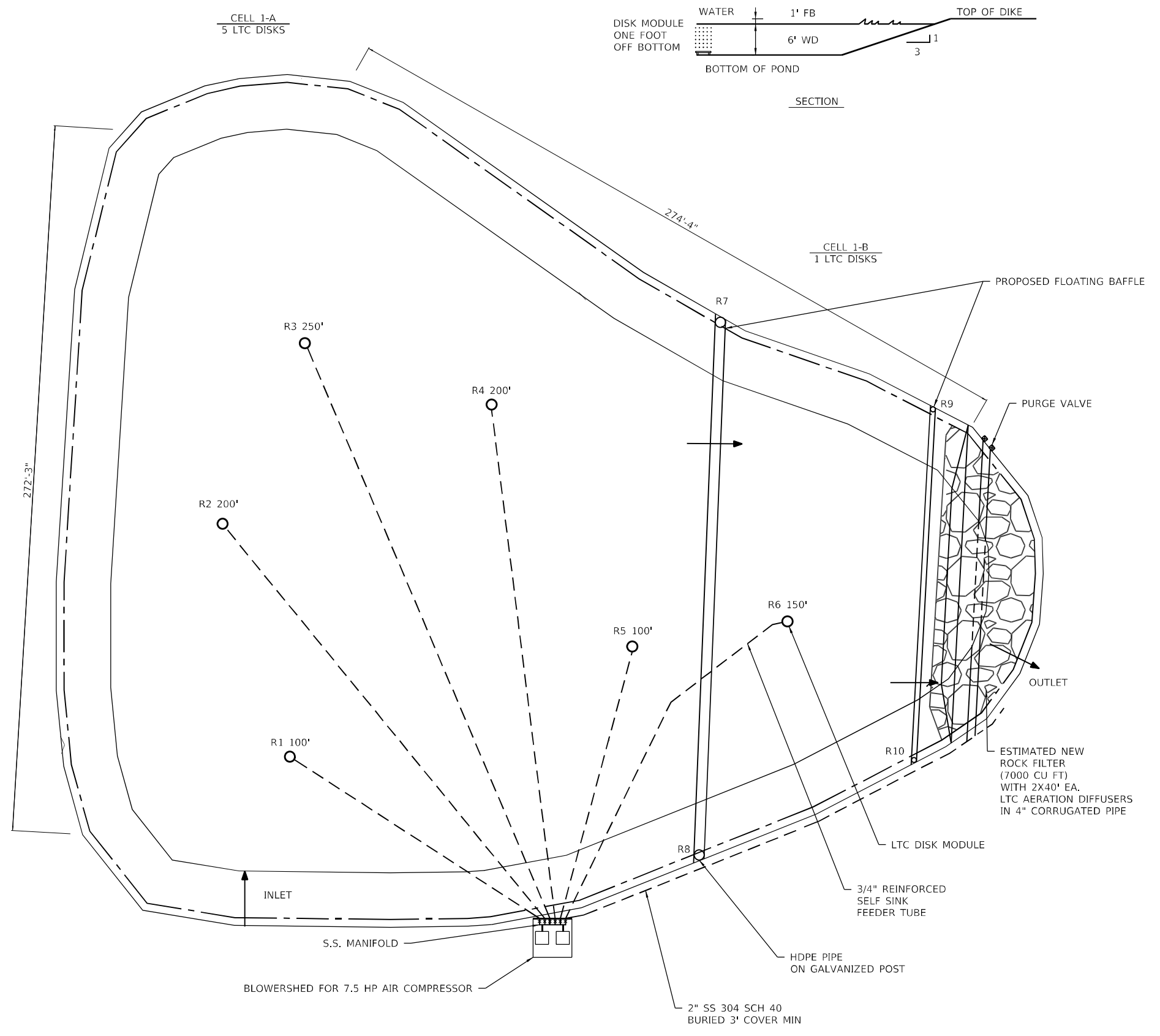
SCALE: NONE SHEET 2 OF 2 SHEETS STA. N/A TO STA. N/A

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(X3-16RA)-15	WOODFORD	22	13
CONTRACT NO. 68101				
ILLINOIS FEDERAL-AID INTERSTATE				



AERATION DISK COORDINATE POINTS			
POINT #	DESC.	NORTHING	EASTING
34	R1	1438087.623	2552048.2347
35	R2	1438063.3379	2551955.0767
36	R3	1438089.0674	2551884.5049
37	R4	1438171.4137	2551910.5532
38	R5	1438224.7291	2552008.0816
39	R6	1438286.6040	2551999.7583
40	R7	1438261.5102	2551903.1398
41	R8	1438249.3432	2552091.7436
42	R9	1438345.0402	2551936.2807
43	R10	1438334.7324	2551936.2807

AERATION EQUIPMENT	
6	LTC STAINLESS STEEL DISK MODULE WITH LEGS 100' WEIGHTED AERATION TUBE
80'	LTC WEIGHTED AERATION TUBING IN CORRUGATED PIPE
1200'	3/4" REINFORCED SELF SINK FEEDER TUBE
200'	1" REINFORCED SELF SINK FEEDER TUBE
2	7.5 HP AIR COMPRESSOR TO DELIVER 52 SCFM AT 10 PSI; 31 PSI MAX 208/230 VOLT; 3 PHASE; 60HZ 2 REQUIRED, ONE STANDBY



EAST BOUND
AERATION PLAN



MODEL: Mch21; FILE: Mch21; PROJECT: C:\Users\mch21\OneDrive - State of Illinois\Documents\2024\18-Transportation\18-Transportation\CADD_Sheets\14_Area_Plans.dgn
 FILE NAME: P:\Cadd\Galesburg\2024\18-Transportation\18-Transportation\CADD_Sheets\14_Area_Plans.dgn

KLINGNER & ASSOCIATES, P.C.
 Engineers • Architects • Surveyors
 Galesburg, Illinois
 49 North Park Street
 Galesburg, IL 62541

USER NAME = mrich	DESIGNED - ANM	REVISED -
DRAWN - MCR	REVISIONS	
PLOT SCALE = 2,000 / in.	CHECKED - MCL	REVISED -
PLOT DATE = 2/9/2024	DATE -	REVISED -

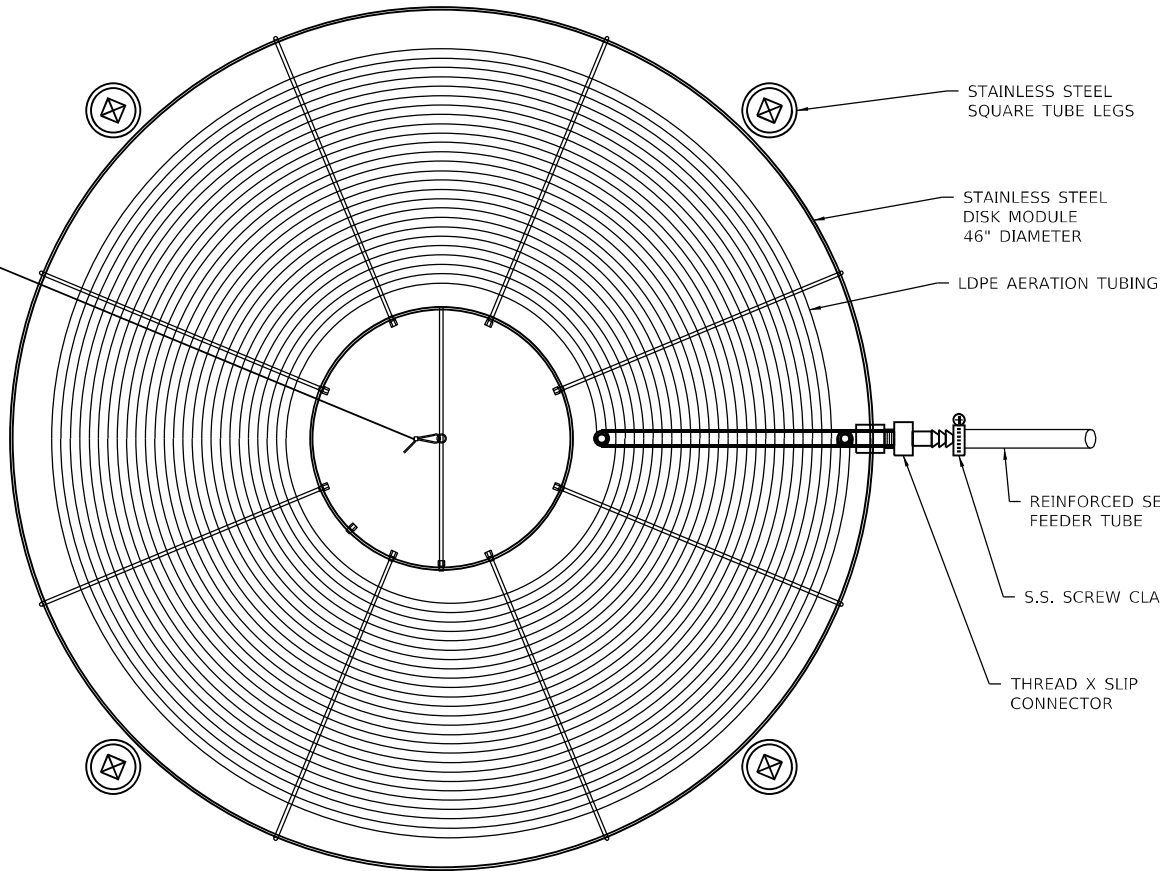
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

**MACKINAW DELL EASTBOUND LAGOON
AERATION PLAN**

SCALE: 1"=20' SHEET 1 OF 1 SHEETS STA. N/A TO STA. N/A

F.A.I. RTE. 74	SECTION (X3-16RA)J-15	COUNTY WOODFORD	TOTAL SHEETS 22	SHEET NO. 14
CONTRACT NO. 68101				
ILLINOIS FEDERAL-AID INTERSTATE				

RETRIEVABLE FLOAT WITH ROPE + SS CLAMP



STAINLESS STEEL SQUARE TUBE LEGS

STAINLESS STEEL DISK MODULE 46" DIAMETER

LDPE AERATION TUBING

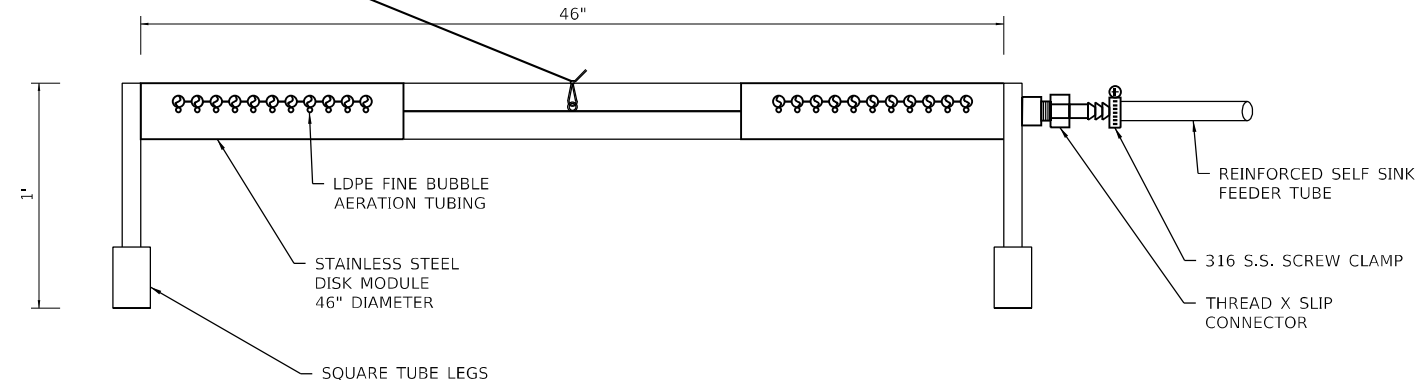
REINFORCED SELF SINK FEEDER TUBE

S.S. SCREW CLAMP

THREAD X SLIP CONNECTOR

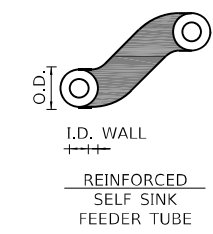
RETRIEVABLE FLOAT WITH ROPE + SS CLAMP

PLAN



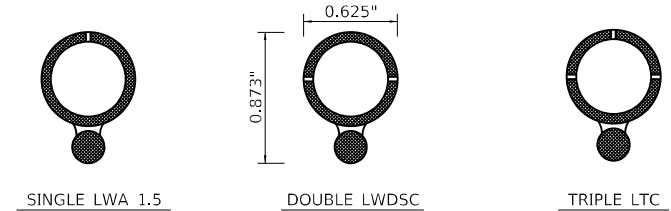
DETAIL

1 DISK DETAIL WITH WEIGHTED TUBING NTS



	SSFT - 50	SSFT - 75	SSFT - 100	SSFT - 125	SSFT - 150
I.D. (IN)	0.50	0.75	1.00	1.25	1.50
O.D. (IN)	1.00	0.36	1.81	2.25	2.55
WALL (IN)	0.25	0.30	0.40	0.50	0.525
WT/FT (LBS)	0.50	0.74	1.31	2.40	2.80

MATERIAL - HIGHLY FILL VINYL COMPOUND
 COLOR - BLACK WITH CARBON ADDITIVE FOR UV PROTECTION
 RATED MAXIMUM WORKING PRESSURE: 150 PSI AT 70°
 MINIMUM BURST PRESSURE (ASTIM D380): 600 PSI AT 70°



MODEL #	AERATION TUBING DESCRIPTION	AIR FLOW RATES
LTC	AERATION TUBING WITH AIR RELEASE LOCATED ON TOP AND BOTH SIDES, SPACED ON 1-1/2" CENTERS	8.1 SCFM

MATERIAL: LOW DENSITY POLYETHYLENE COPOLYMER COMPOUND WITH CARBON BLACK FOR ULTRAVIOLET STABILIZATION. MEETS OR EXCEEDS FEDERAL SPECIFICATION L-P-3906, REA PE-200, ASTM D-1248
 NOTE: RANGE OF AIR FLOW CAN BE 1/2 OR 2 TIMES STANDARD RATE

MODEL: Mch21; FILE NAME: P:\Caleburg\2116313081\DOT - DIST - 4 - PTB 201-023\Work Order - 19 - FY 2024\Transportation\CADD_Sheets\15_Aera Det.dwg

KLINGNER & ASSOCIATES, P.C.
 Engineers • Architects • Surveyors
 Galesburg, Illinois

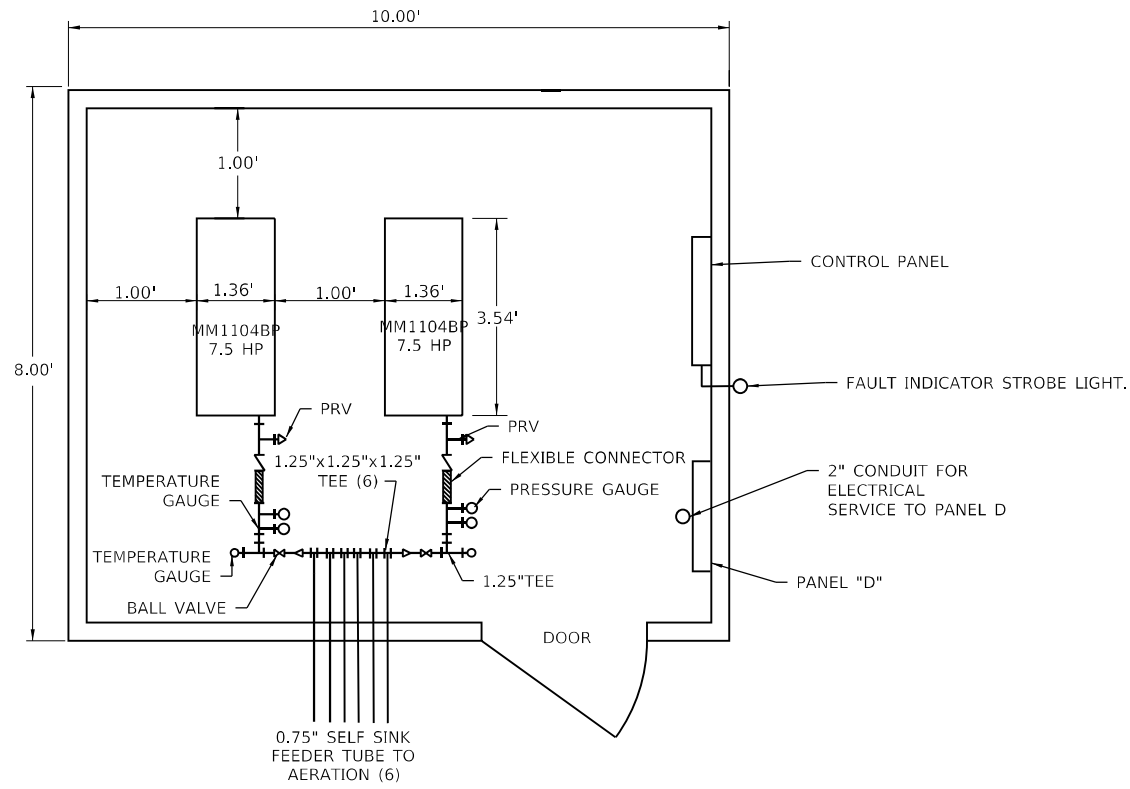
USER NAME = mrich	DESIGNED - ANM	REVISED -
PLOT SCALE = 2,000 / in.	DRAWN - MCR	REVISED -
PLOT DATE = 2/9/2024	CHECKED - MCL	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

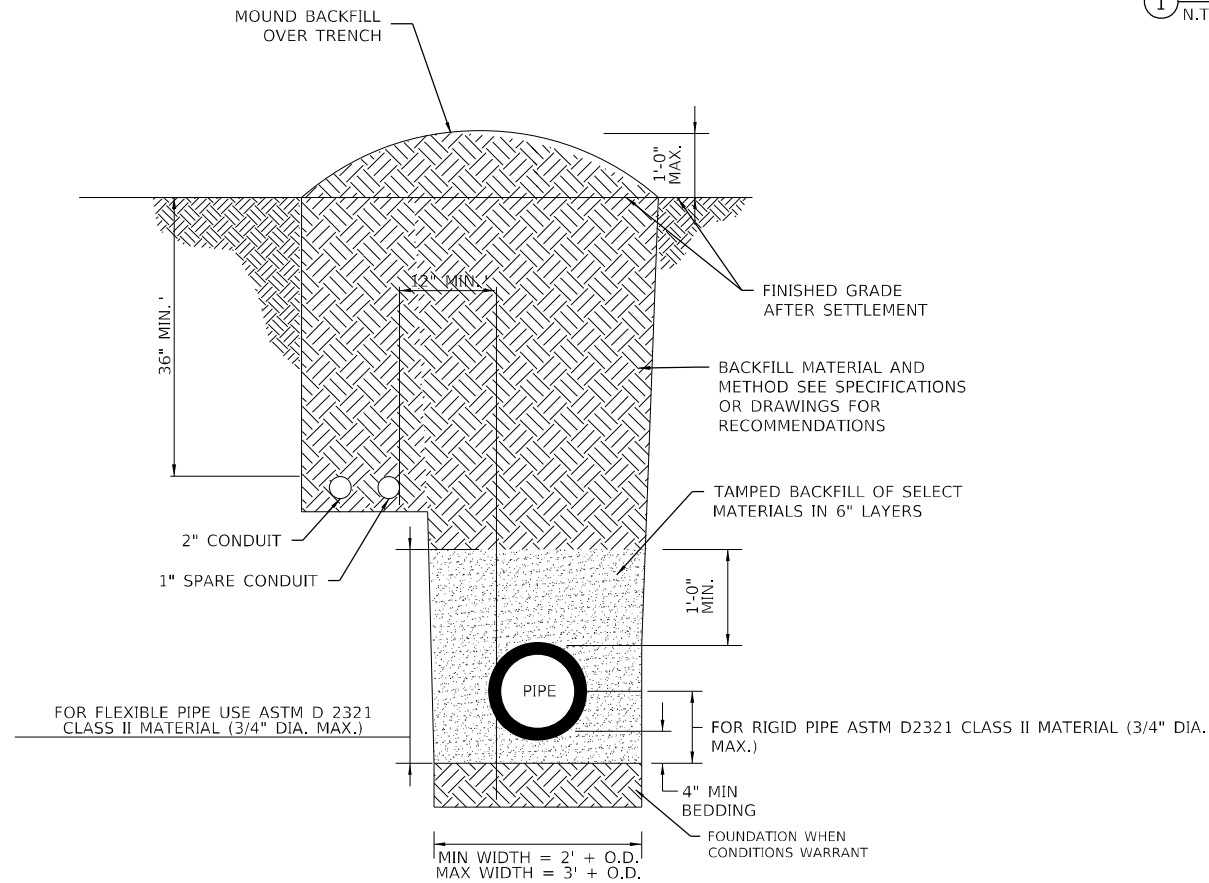
**MACKINAW DELL EASTBOUND LAGOON
 AERATION DETAIL**

SCALE: NONE SHEET 1 OF 1 SHEETS STA. N/A TO STA. N/A

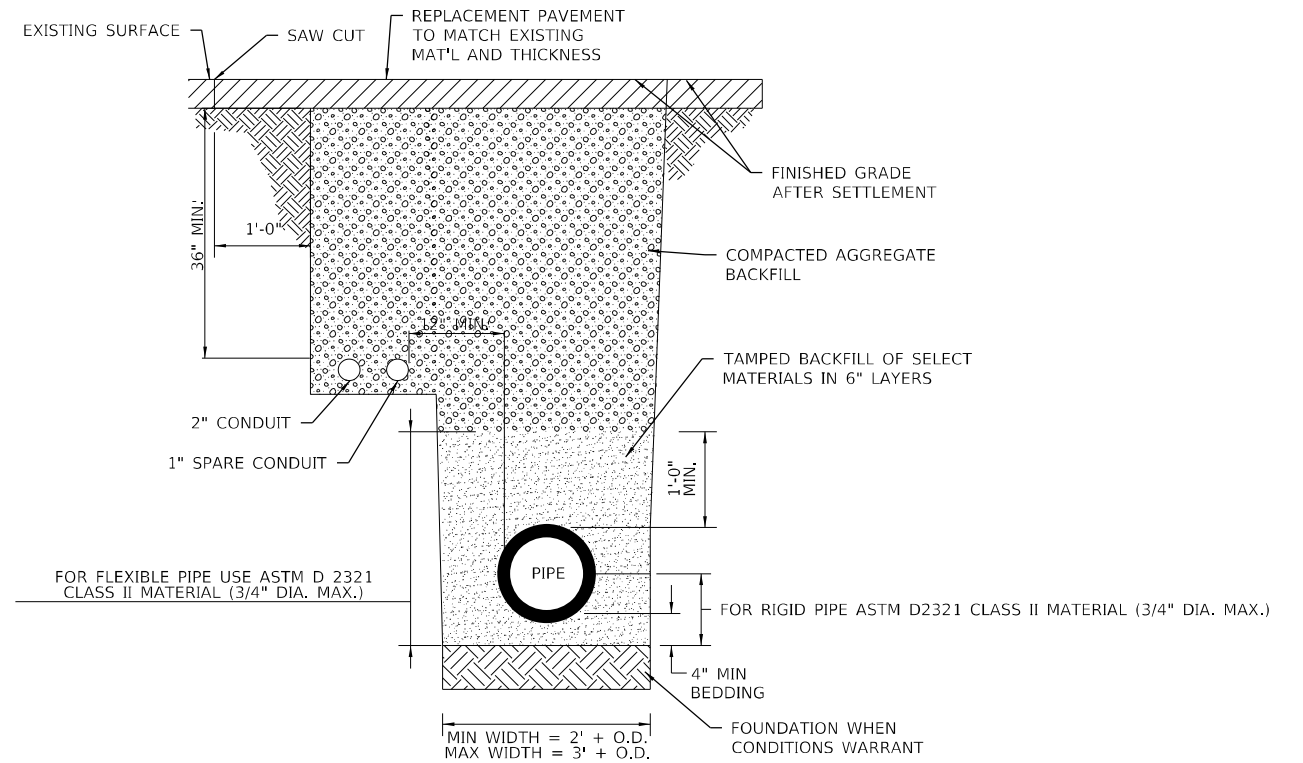
F.A.I. RTE. 74	SECTION (X3-16RA)I-15	COUNTY WOODFORD	TOTAL SHEETS 22	SHEET NO. 15
CONTRACT NO. 68101				
ILLINOIS FEDERAL-AID INTERSTATE				



① COMPRESSOR SHED DETAIL
N.T.S.



② JOINT UTILITY TRENCH DETAIL NON-PAVEMENT AREAS
N.T.S.



③ JOINT UTILITY TRENCH DETAIL PAVEMENT AREAS
N.T.S.

MODEL: Mech1
FILE NAME: P:\Galesburg\211613081\DDOT - DIST 4 - PTB 201-0323\Work Order 19 - FY 2024\18000118_Transportation\CADD_Sheets\16_Electrical_Details.dgn

KLINGNER & ASSOCIATES, P.C.
Engineers • Architects • Surveyors
Galesburg, Illinois
497 North Park Street
Galesburg, IL 62541

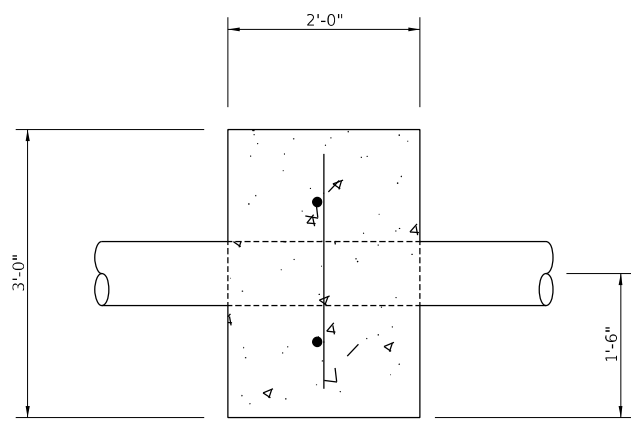
USER NAME = mrich	DESIGNED - ANM	REVISED -
DRAWN - MCR	REVISED -	
PLOT SCALE = 2,000 / in.	CHECKED - MCL	REVISED -
PLOT DATE = 2/9/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

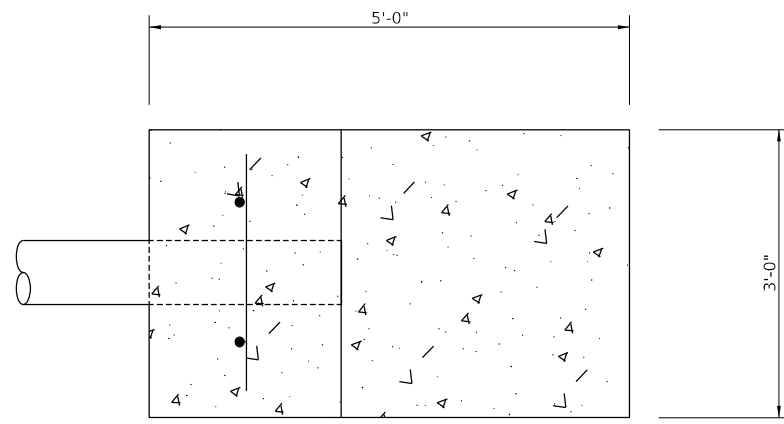
MACKINAW DELL EASTBOUND LAGOON
ELECTRICAL DETAIL

SCALE: NONE SHEET 1 OF 1 SHEETS STA. N/A TO STA. N/A

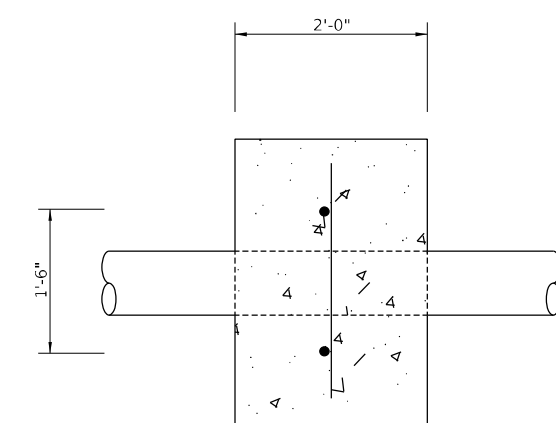
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(X3-16RA)I-15	WOODFORD	22	16
CONTRACT NO. 68101				
ILLINOIS FEDERAL-AID INTERSTATE				



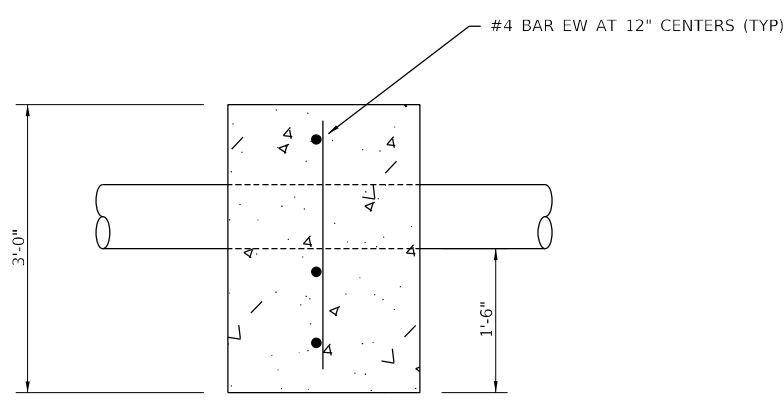
① TYPICAL PIPE SUPPORT DETAIL
N.T.S.



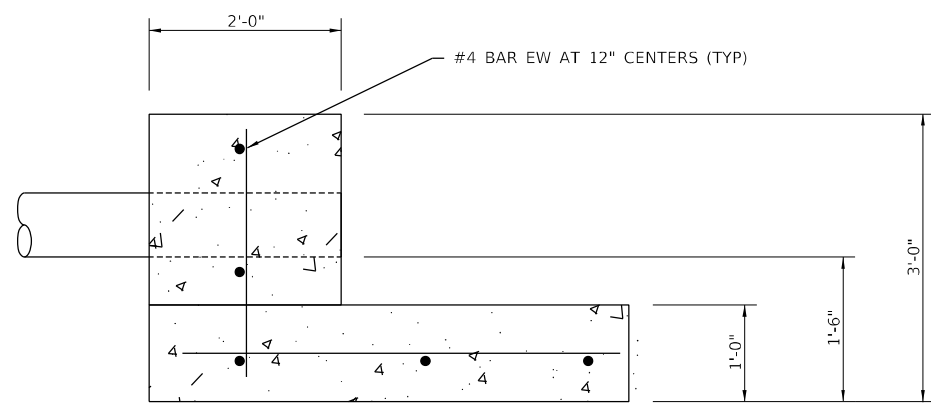
② TYPICAL SPLASH PAD/PIPE SUPPORT DETAIL
N.T.S.



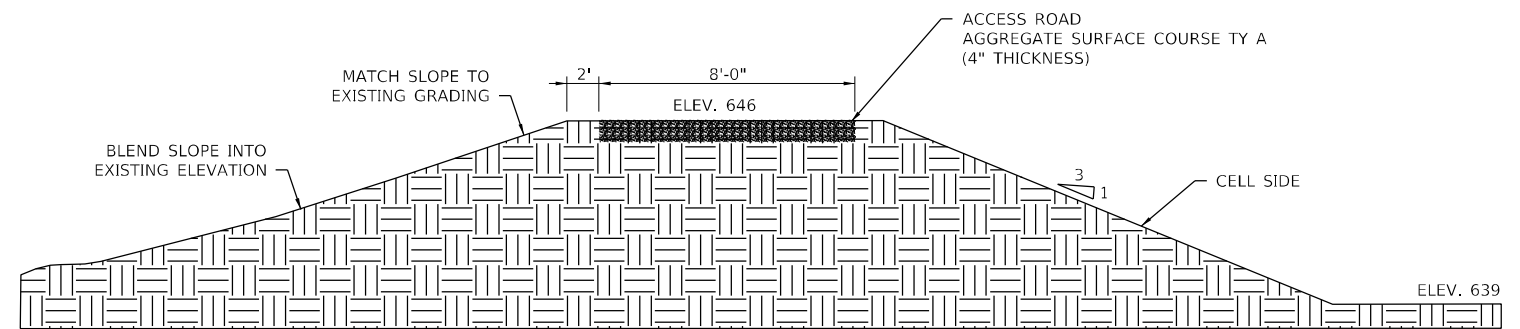
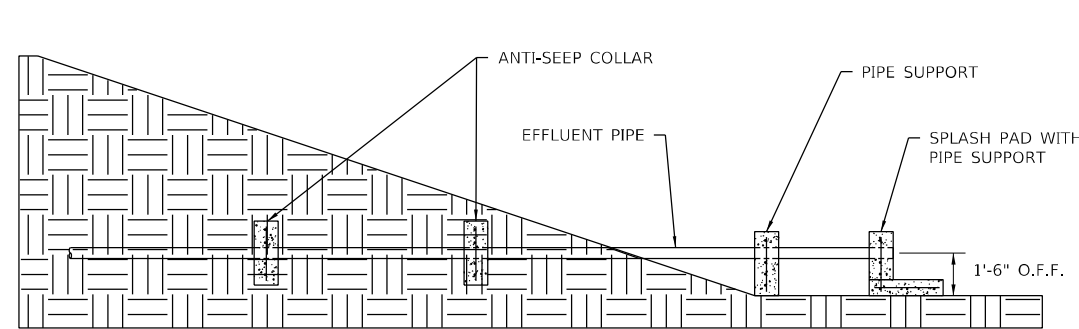
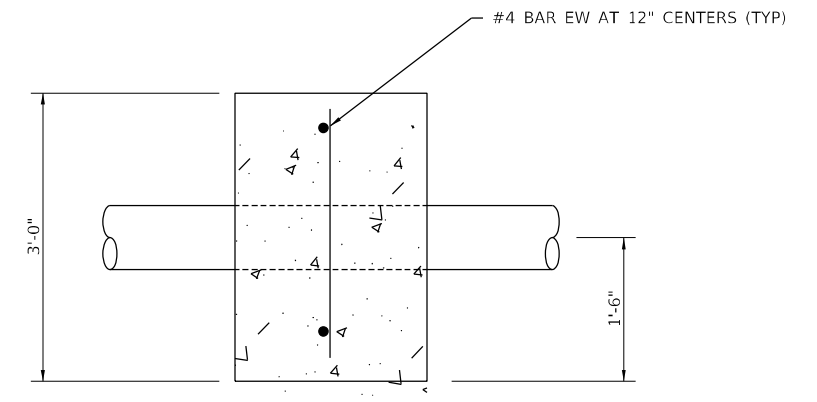
③ TYPICAL ANTI-SEEP COLLAR DETAIL
N.T.S.



④ TYPICAL CELL EFFLUENT PIPE DETAIL
N.T.S.



⑤ BERM GRADING DETAIL
N.T.S.



MODEL: Mch21
FILE NAME: P:\Caleburg\2\filed13081\DDOT - DIST 4 - PTB 201-0321\Work Order 19 - FY 2024\Lapson\18_Transportation\CADD_Sheets\17_LAG_DET_1.dgn

KLINGNER & ASSOCIATES, P.C.
Engineers • Architects • Surveyors
Galesburg, Illinois
497 North Park Street
Galesburg, IL 62541

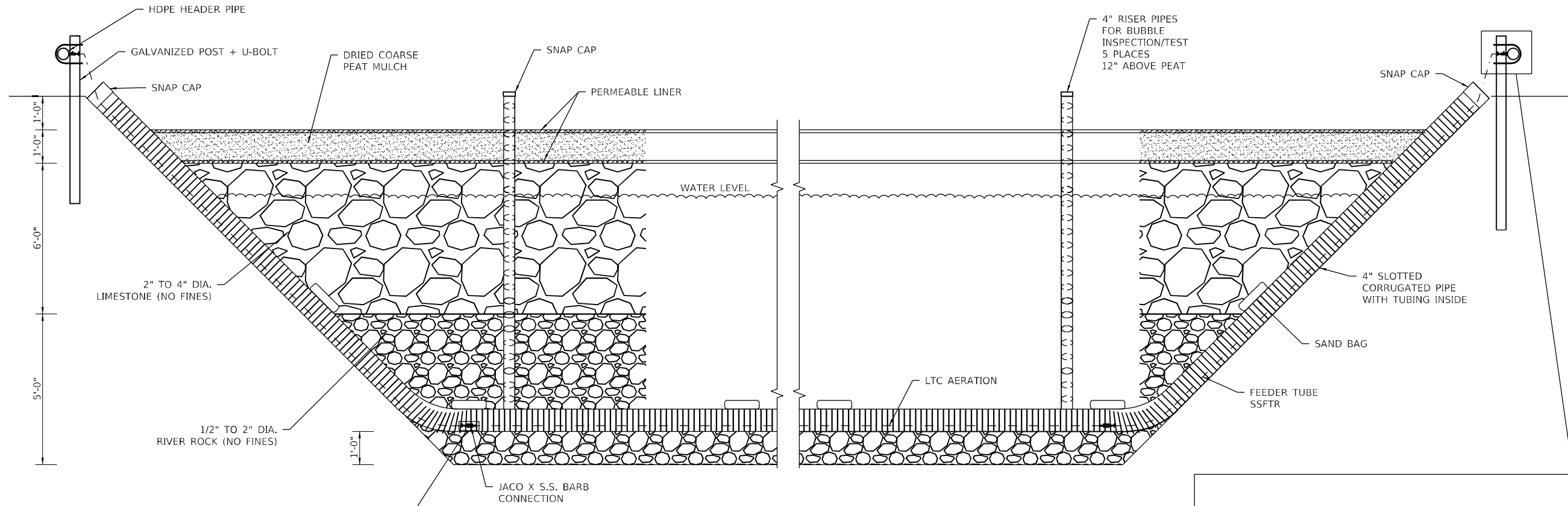
USER NAME = mrich	DESIGNED - ANM	REVISED -
DRAWN - MCR	REVISIONS -	
PLOT SCALE = 2,000 / in.	CHECKED - MCL	REVISED -
PLOT DATE = 2/9/2024	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

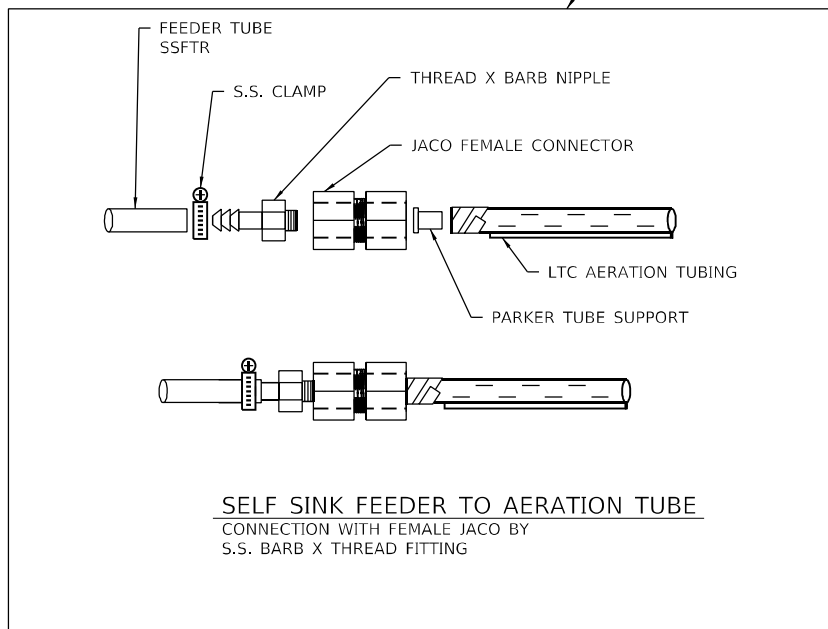
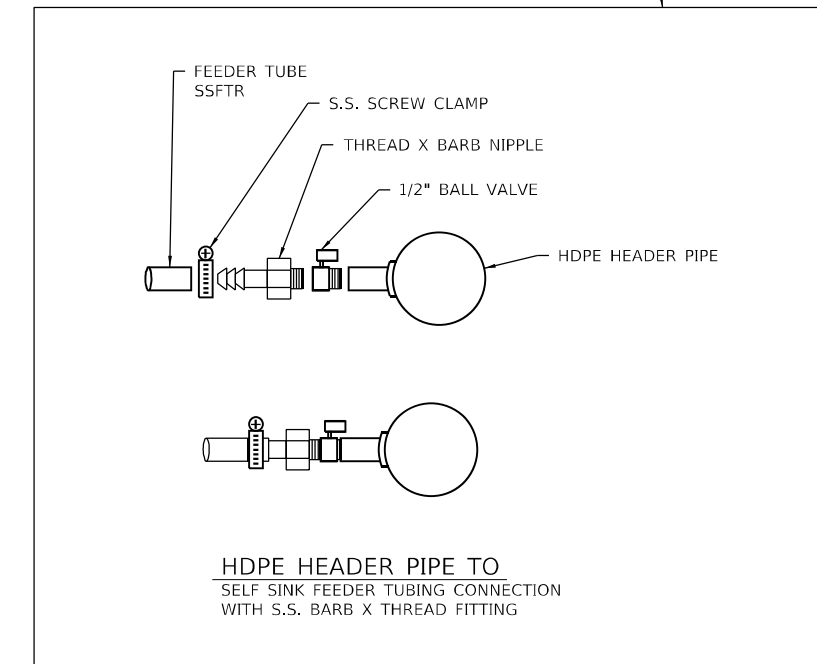
**MACKINAW DELL EASTBOUND LAGOON
LAGOON DETAIL**

F.A.I. RTE. 74	SECTION (X3-16RA)I-15	COUNTY WOODFORD	TOTAL SHEETS 22	SHEET NO. 17
CONTRACT NO. 68101				
ILLINOIS FEDERAL-AID INTERSTATE				

SCALE: NONE SHEET 1 OF 1 SHEETS STA. N/A TO STA. N/A



ROCK FILTER DETAILS
NOT TO SCALE



MODEL: Mchd1
FILE NAME: P:\Galesburg\2\filed13081\DOT - DIST - 4 - PTB 201-023\Work Order 19 - FY 2024\London18_Transportation\CADD_Sheets\18_Rock_Filter.dgn

KLINGNER & ASSOCIATES, P.C.
Engineers • Architects • Surveyors
Galesburg, Illinois
497 North Park Street
Galesburg, IL 62541

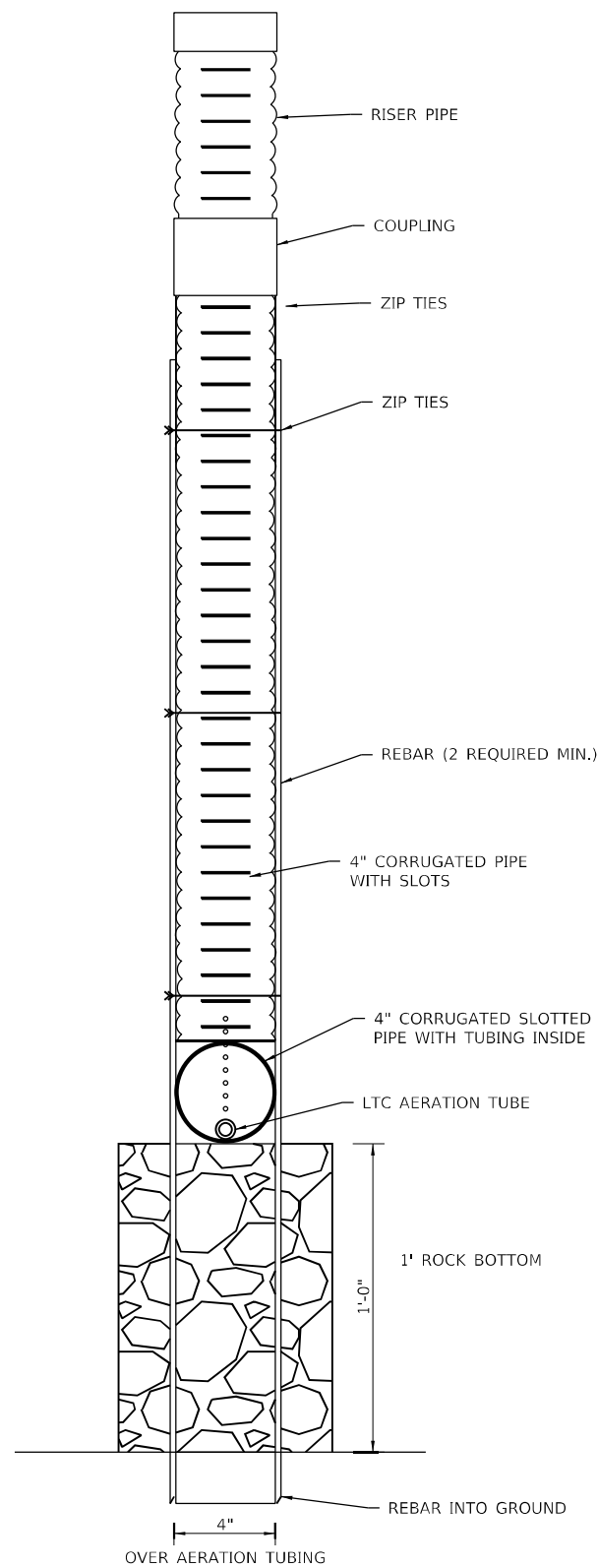
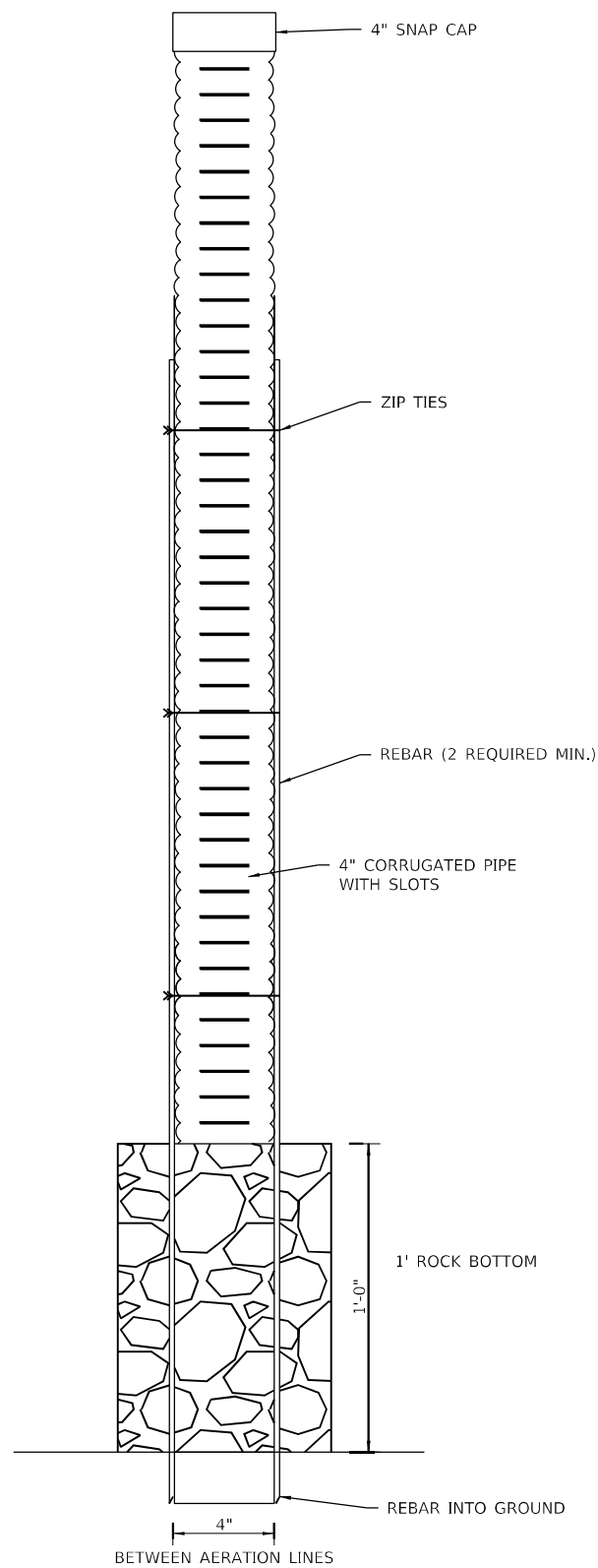
USER NAME = mrich	DESIGNED - ANM	REVISED -
PLOT SCALE = 2,000 / in.	DRAWN - MCR	REVISED -
PLOT DATE = 2/9/2024	CHECKED - MCL	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MACKINAW DELL EASTBOUND LAGOON			
ROCK FILTER DETAIL			
SCALE: NONE	SHEET 1	OF 3 SHEETS	STA. N/A TO STA. N/A

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(X3-16RA)I-15	WOODFORD	22	18
CONTRACT NO. 68101				
ILLINOIS FEDERAL-AID INTERSTATE				

MODEL: Mchd1
 FILE NAME: P:\Galesburg\2116313081\DOT - DIST 4 - PTB 201-033\Work Order 19 - FY 2024\Transportation\CADD_Sheets\20_Rock_Filter.dgn
 Galesburg, Illinois
 49 North Park Street
 61501-4402



4" CORRUGATED SLOTTED INSPECTION PIPE

KLINGNER & ASSOCIATES, P.C.
 Engineers • Architects • Surveyors
 Galesburg, Illinois
 49 North Park Street
 61501-4402

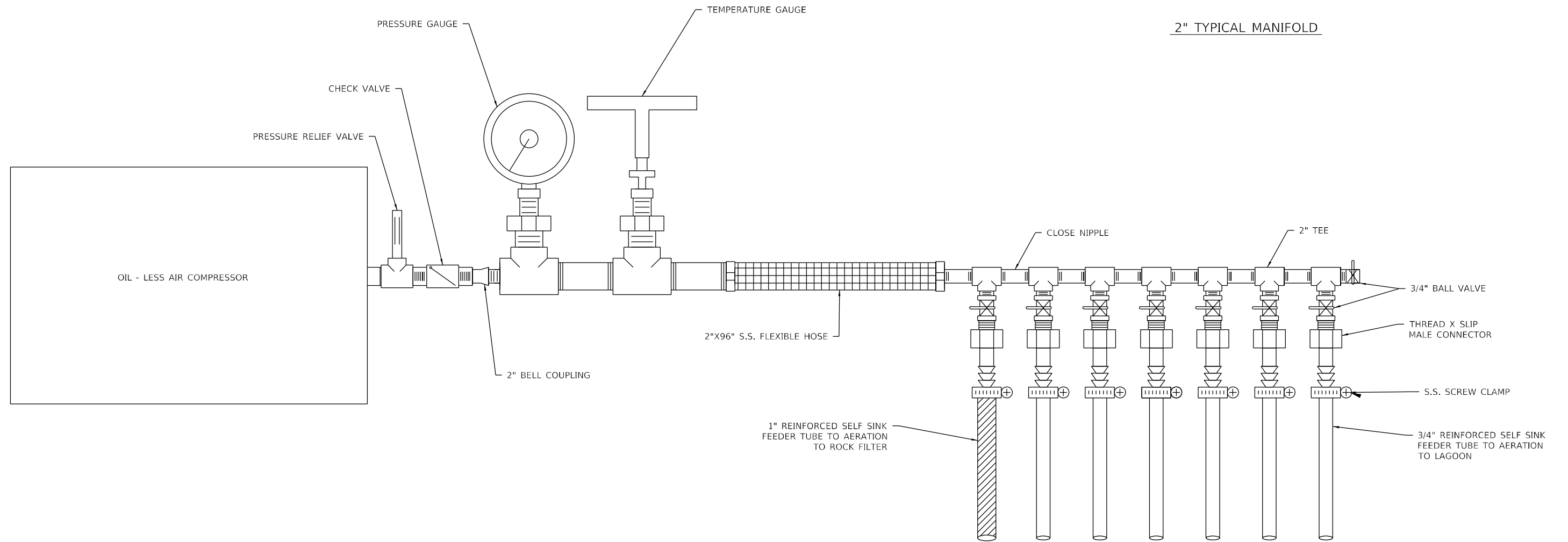
USER NAME = mrich	DESIGNED - ANM	REVISED -
	DRAWN - MCR	REVISED -
PLOT SCALE = 2,000 / in.	CHECKED - MCL	REVISED -
PLOT DATE = 2/9/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MACKINAW DELL EASTBOUND LAGOON
ROCK FILTER DETAIL

SCALE: NONE SHEET 3 OF 3 SHEETS STA. N/A TO STA. N/A

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(X3-16RA)I-15	WOODFORD	22	20
CONTRACT NO. 68101				
ILLINOIS FEDERAL-AID INTERSTATE				



① MANIFOLD DETAIL
NTS

MODEL: Mchd1
 FILE NAME: P:\Galesburg\2116013081\DOT - DIST - 4 - PTB 201-032\Work Order 19 - FY 2024\18-Transportation\CADD_Sheets\21_Manifold.dgn

KLINGNER & ASSOCIATES, P.C.
 Engineers • Architects • Surveyors
 Galesburg, Illinois
49 North Park Street, Galesburg, IL 61601, USA
 309.342.4444

USER NAME = mrich	DESIGNED - ANM	REVISED -
DRAWN - MCR	REVISOR -	
PLOT SCALE = 2,000 / in.	CHECKED - MCL	REVISED -
PLOT DATE = 2/9/2024	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MACKINAW DELL EASTBOUND LAGOON
MANIFOLD DETAIL

SCALE: NONE SHEET 1 OF 1 SHEETS STA. N/A TO STA. N/A

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(X3-16RA)-15	WOODFORD	22	21
CONTRACT NO. 68101				
ILLINOIS FEDERAL-AID INTERSTATE				

