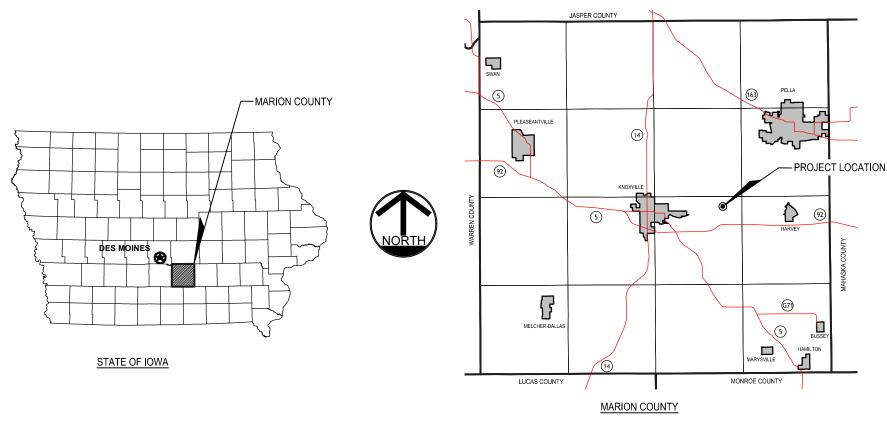
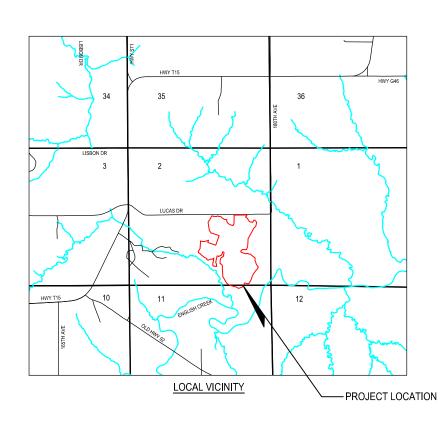
KUIPER (IA-024) AML RECLAMATION PROJECT

SE 1/4 SECTION 2, TOWNSHIP 75N, RANGE 19W, MARION COUNTY, IOWA

IOWA DEPARTMENT OF AGRICULTURE AND LAND STEWARDSHIP DIVISION OF SOIL CONSERVATION AND WATER QUALITY

U.S. DEPARTMENT OF THE INTERIOR OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT **GRANT NO: S23AF00089**





PREPARED FOR:

IOWA DEPARTMENT OF AGRICULTURE & LAND STEWARDSHIP DIVISION OF SOIL CONSERVATION AND WATER QUALITY HENRY A. WALLACE BUILDING 502 E. 9TH STREET DES MOINES, IOWA 50319 (515) 281-4246

LT LEON ASSOCIATES, INC. 1823 OHIO STREET, SUITE 101 DES MOINES, IOWA 50314 TEL: (515) 422-7016

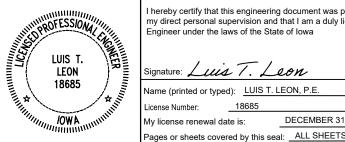
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DISCLAIMER:

Reference to particular products, tradenames, or manufacturers is intended for clarity only and does not represent endorsement by the State of Iowa. Equivalent products or materials may be suitable, subject to the approval of the Engineer or Division.



hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa

Date:07-08-2024

DECEMBER 31, 2025

KUIPER (IA-024)
RECLAMATION PROJECT SHEET

GENERAL NOTES:

- REFERENCES TO "DIVISION" SHALL MEAN "DIVISION OF SOIL CONSERVATION AND WATER QUALITY".
- 2. ALL IMPROVEMENTS SHOWN ON THESE PLANS SHALL COMPLY WITH THE GENERAL CONDITIONS, STANDARDS, AND SPECIFICATIONS SET FORTH IN PROJECT DOCUMENTS. THESE INCLUDE STANDARD CONSTRUCTION SPECIFICATIONS SET FORTH BY THE DIVISION OF SOIL CONSERVATION AND WATER QUALITY AS WELL AS THE SUPPLEMENTAL SPECIFICATIONS ESTABLISHED BY THE ENGINEER. SPECIFICATIONS OR STANDARDS INCORPORATED BY REFERENCE SHALL ALSO BE FOLLOWED.
- 3. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE DIVISION'S STANDARD SPECIFICATIONS AND THE ENGINEER'S SUPPLEMENTAL SPECIFICATIONS.
- . OWNERSHIP: THIS DOCUMENT, AND THE IDEAS AND DESIGN CONTAINED IN THIS DOCUMENT, ARE AN INSTRUMENT OF PROFESSIONAL SERVICE, AND MAY NOT BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN CONSENT OF THE DIVISION OF SOIL CONSERVATION AND WATER QUALITY.
- 5. REFERENCES TO PARTICULAR PRODUCTS, TRADENAMES, OR MANUFACTURERS IS INTENDED FOR CLARITY ONLY AND DO NOT REPRESENT EXCLUSION OR ENDORSEMENT BY THE STATE OF IOWA. FOUIVALENT PRODUCTS OR MATERIALS MAY BE SUITABLE, SUBJECT TO THE APPROVAL OF THE
- 6. CONTRACTOR SHALL PROVIDE AT LEAST 48 HOURS NOTICE TO THE ENGINEER AND DIVISION PRIOR TO COMMENCING CONSTRUCTION.
- 7. THE MEANS OF THE WORK AND THE SAFETY OF THE CONTRACTOR'S EMPLOYEES ARE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.
- 8. ANY WORK REQUIRED TO COMPLETE THE SCOPE OF THIS PROJECT BUT NOT SPECIFICALLY CALLED OUT, SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT NO ADDITIONAL COMPENSATION SHALL BE ALLOWED FOR THE COMPLETION OF THIS
- 9. ALL DEBRIS AND TRASH ENCOUNTERED DURING CONSTRUCTION WITHIN THE PROJECT LIMITS, OR DIRECTED BY THE ENGINEER, SHALL BE PROPERLY DISPOSED OF ACCORDING TO THE PROJECT REQUIREMENTS IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBSERVE EXISTING SITE CONDITIONS AND IDENTIFY ALL DEBRIS TO BE REMOVED.
- 10. CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION DE-WATERING THAT IS
- 11. REPAIR OR REPLACE DAMAGE TO EXISTING FACILITIES (TILE, UTILITIES, FENCES, ETC.) DESIGNATED TO REMAIN AT NO ADDITIONAL EXPENSE TO THE DIVISION.
- 12. THE CONTRACTOR SHALL KEEP ALL ROADS OPEN TO THROUGH TRAFFIC AT
- 13. NO TREES SHALL BE CLEARED BETWEEN THE DATES OF APRIL 1 TO SEPTEMBER 30.
- 14. SUBMIT MANUFACTURER'S CERTIFICATION AND MATERIAL DATA FOR ALL MATERIALS DELIVERED TO THE PROJECT SITE AS REQUIRED BY THE OWNER'S REPRESENTATIVE.
- 15. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEPARTMENT OF NATURAL RESOURCES (DNR) NPDES PERMIT AND

STORM WATER POLLUTION PREVENTION PLAN (SWPPP) REQUIREMENTS AND REQUIRED CONTAINMENT STRUCTURES. THE DIVISION HAS OBTAINED THE DNR GENERAL PERMIT #2 FOR THE PROJECT AND A TEMPLATE SWPPP HAS BEEN PREPARED BY THE ENGINEER. CONTRACTOR SHALL DEVELOP, IMPLEMENT, MAINTAIN, AND UPDATE THE SWPPP AS REQUIRED TO MEET ALL LOCAL, STATE, AND FEDERAL REQUIREMENTS. REFER TO THE SWPPP AND SWPPP DRAWINGS FOR ADDITIONAL INFORMATION.

UTILITY NOTES:

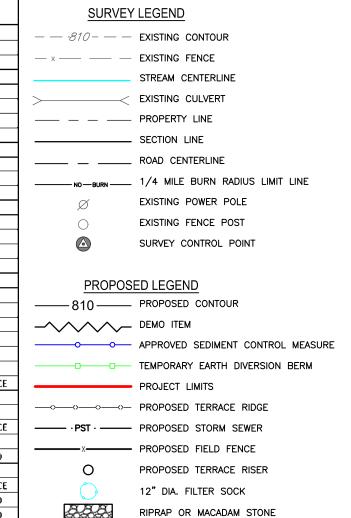
- 1. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL EXISTING UTILITIES AND PUBLIC ROADWAYS. INCLUDING ANY NOT SHOWN ON THESE DRAWINGS THE CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION AND NOTIFY THE ENGINEER IF ANY CONFLICTS WITH THE DRAWINGS OCCUR. ANY DAMAGE TO EXISTING UTILITIES AND/OR PAVED STREETS CAUSED BY TRENCHING AND GRADING OPERATIONS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. EXISTING UTILITY LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE.
- 2. UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS, PUBLIC RECORDS, AND FIELD INVESTIGATION. THEIR LOCATIONS SHALL BE CONSIDERED TO BE APPROXIMATE ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT IOWA ONE-CALL AND/OR EACH UTILITY COMPANY FOR THE FIELD LOCATION(S) OF EXISTING UTILITY LINES IN OR NEARBY THE CONSTRUCTION AREA PRIOR TO BEGINNING ANY CONSTRUCTION.
- 3. THERE MAY BE ADDITIONAL PRIVATE OR OTHER UNDERGROUND UTILITIES NOT SHOWN OR KNOWN AT THE TIME OF THE PUBLICATION OF THIS DRAWING. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXISTENCE AND LOCATION OF ANY ADDITIONAL UNDERGROUND UTILITIES NOT SHOWN ON THIS DRAWING IN ORDER TO AVOID DAMAGE THERETO.
- 4. ALL OPEN UTILITY TRENCH EXCAVATION SHALL BE PROTECTED.

CONSTRUCTION SURVEY NOTES:

- HORIZONTAL MEASUREMENTS ARE IN U.S. FEET. THIS DRAWING IS SET TO THE NAD 1983 IOWA STATE PLANE, SOUTH ZONE COORDINATE SYSTEM.
- ELEVATION MEASUREMENTS ARE BASED UPON THE NAVD 1988 AND ARE IN U.S. FFFT.
- EXISTING TOPOGRAPHY SHOWN ON THIS DRAWING WAS DEVELOPED FROM LIDAR INFORMATION BY ENGINEER AND SUPPLEMENTAL TOPOGRAPHIC SURVEY LIDAR DATA WAS COLLECTED ON 2023-05-10. LOCAL CONTROL POINTS HAVE BEEN ESTABLISHED FOR THIS PROJECT. SEE SHEET 3. CONTRACTOR SHALL VERIFY SURVEY CONTROL AND EXISTING SURFACE PRIOR TO CONSTRUCTION. REFER TO SPECIFICATIONS.
- SHOULD THERE EXIST SIGNIFICANT DIFFERENCES BETWEEN THE EXISTING ELEVATIONS SHOWN ON THE DRAWINGS AND THOSE REPORTED BY THE SURVEYING FOUIPMENT. THE CONTRACTOR SHALL DIRECT THEIR SURVEYOR TO CALIBRATE THE GPS INSTRUMENTS TO THE EXISTING ELEVATIONS SHOWN.
- REPLACE ANY PROPERTY MONUMENTS REMOVED OR DESTROYED BY CONSTRUCTION. MONUMENTS SHALL BE SET BY A LAND SURVEYOR REGISTERED TO PRACTICE IN THE STATE OF IOWA.

ESTIMATED QUANTITIES

TEM NO.	DESCRIPTION	SPEC. SECTION	QUANTITY	UNIT
1	MOBILIZATION	02100	1	LS
2	SITE CLEARING AND PREPARATION	02100	80.6	ACRE
3	OFFSITE WASTE DISPOSAL	02100	10	TON
4	HYDRATED LIME	02110	1	TON
5	IMPOUNDMENT DISCHARGE	02110	1	LS
6	TEMPORARY EARTH DIVERSION BERM	02120	2,430	LF
7	WATTLE	02120	4,307	LF
8	FILTER SOCK, 12" DIA.	02120	240	LF
9	EXCAVATION	02200	682,120	CY
10	MACADAM STONE	02300	216	TON
11	RIPRAP, CLASS 'E'	02300	636	TON
12	TERRACES	02300	18,390	LF
13	RISER - TERRACE, 6"	02300	16	EA
14	RISER - TERRACE, 12"	02300	3	EA
15	RISER - TERRACE, 24"	02300	2	EA
16	NYLOPLAST BASIN, 24"	02300	2	EA
17	NYLOPLAST BASIN, 30"	02300	2	EA
18	OPEN SIDED AREA INTAKE, 4'X4'	02300	2	EA
19	DUAL WALL HDPE PIPE, 6"	02300	3,252	LF
20	PPHP PIPE, 12"	02300	438	LF
21	PPHP PIPE, 18"	02300	265	LF
22	PPHP PIPE, 24"	02300	852	LF
23	PPHP PIPE, 36"	02300	131	LF
24	PIPE OUTLET, 6"	02300	1	EA
25	AGRICULTURAL LIME, SUBGRADE, (40 TON ECCE/ACRE)	02400	3,112	TON ECO
26	MULCH, SUBGRADE, (5 TONS/ACRE)	02400	77.8	ACRE
27	WETLAND UNDERCUT AND REPLACEMENT	02400	2.8	ACRE
28	AGRICULTURAL LIME, WETLAND SUBGRADE, (40 TON ECCE/ACRE)	02400	112	TON ECO
29	MULCH, WETLAND SUBGRADE, (10 TONS/ACRE)	02400	2.8	ACRE
30	WETLAND FERTILIZER, NITROGEN (N), (30 LB./ACRE)	02400	84	POUNE
31	FIELD FENCE	02500	2,248	LF
32	AGRICULTURAL LIME, SEEDING, (10 TON ECCE/ACRE)	02700	778	TON ECO
33	NITROGEN (N), (SO LB./ACRE)	02700	3,890	POUN
34	PHOSPHOROUS (P), (100 LB./ACRE)	02700	7,780	POUNE
35	POTASSIUM (K), (160 LB./ACRE)	02700	12,448	POUN
36	PASTURE SEEDING	02700	76.4	ACRE
37	WETLAND FRINGE SEEDING	02700	1.4	ACRE
38	MULCH, SEEDING (2 TONS/ACRE)	02700	77.8	ACRE



PROJECT CONSTRUCTION NOTES:

- 1. QUANTITIES OF FERTILIZER AND LIME ARE ESTIMATED FOR BIDDING PURPOSES. ACTUAL QUANTITIES APPLIED WILL BE DETERMINED BY SOIL TESTS.
- 2. CONTRACTOR IS RESPONSIBLE FOR ALL SURVEY LAYOUT AND CONTROL REQUIRED TO COMPLETE ALL WORK.
- 3. A SHRINKAGE FACTOR OF 15% WAS ESTIMATED FOR THIS PROJECT. THE CONTRACTOR SHALL MAKE CHANGES IN EARTHWORK AS NEEDED TO ADJUST FOR INACCURACIES INHERENT WITH ESTIMATING THE SHRINKAGE FACTOR. THESE CHANGES SHALL ONLY BE MADE AFTER CONSULTATION AND APPROVAL BY THE ENGINEER AND DIVISION. NO ADDITIONAL COMPENSATION SHALL BE GIVEN FOR ANY GRADE ADJUSTMENTS DUE TO DEVIATIONS OF SHRINKAGE FACTOR.
- 4. THE CONTRACTOR IS REQUIRED TO CONSTRUCT THE RECLAMATION SURFACE AS DEPICTED ON THE PLANS. SITE GRADING SHALL BE COMPLETED TO ± 0.3 FEET OF DESIGN ELEVATIONS. THE CONTRACTOR SHALL PROVIDE A GRADE CHECKER FOR SLOPE STAKING AND OFFSETS. THE USE OF GPS MACHINE MOUNTED GRADE CONTROL EQUIPMENT FOR FINISH GRADING IS RECOMMENDED. CONTOURS AND SPOT ELEVATIONS SHOWN ARE FINISHED GRADE.
- 5. BEYOND THE PROJECT LIMITS, NO WORK SHALL BE PERFORMED WITHOUT PRIOR AUTHORIZATION FROM THE DIVISION.

6. ACCESS TO THE SITE SHOULD BE LIMITED TO ONE ACCESS OFF OF LUCAS DRIVE AS SHOWN ON THE PLANS. BEFORE THE CLOSE OF THE PROJECT, THE CONTRACTOR SHALL REPAIR THE ACCESS ROAD TO ITS EXISTING CONDITION AND SEED THE AREA. QUANTITIES OF THE PERMANENT SEEDING ARE ESTIMATED FOR BIDDING PURPOSES AND INCLUDE THE SITE ACCESS AS SHOWN ON THE PLANS. IF THE CONTRACTOR REQUIRES ADDITIONAL SITE ACCESS, APPROVAL FROM THE ENGINEER AND DIVISION IS REQUIRED.

UTILITY CONTACTS

CONSTRUCTED WETLAND

PASTURE MIX SEEDING

WETLAND FRINGE MIX SEEDING

STAGING AREA

ONE CALL 1-800-292-8989

INTERNET, CARLE, TELEPHONES WINDSTREAM COMMUNICATIONS 3540 SW 61ST STREET DES MOINES, IA 50321 (800)289-1901

ELECTRIC: MIDAMERICAN 2411 N MARKET STREET OSKALOOSA, IA 52577 (515)281-2989

INTERNET, CABLE, TELEPHONE: **MEDIACOM** 2205 INGERSOLL AVE DES MOINES, IA 50312 (515)669 - 3647WATER:

MARION COUNTY RURAL WATER DISTRICT 1921 W BELL AVE KNOXVILLE, IA 50138 (641)842-3304

KUIPER (IA-024)
RECLAMATION PROJEC QUANTITIES, NOTES, (

AND

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IOWA DEPARTMENT OF AGRICULTURE AND LAND STEWARDSHIP DIVISION OF SOIL CONSERVATION AND WATER QUALITY HENRY A. WALAGE BULDING 502 E. 9th STEET, DES MONIES, IOWA 50319 (515)281-4246

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