



# CONSTRUCTION DRAWINGS PHASE 1 LINER CONSTRUCTION OUTAGAMIE COUNTY NORTHWEST LANDFILL OUTAGAMIE COUNTY, WISCONSIN

PREPARED FOR: **OUTAGAMIE COUNTY LANDFILL RECYCLING & SOLID WASTE DEPARTMENT**  
1409 HOLLAND ROAD  
APPLETON, WISCONSIN

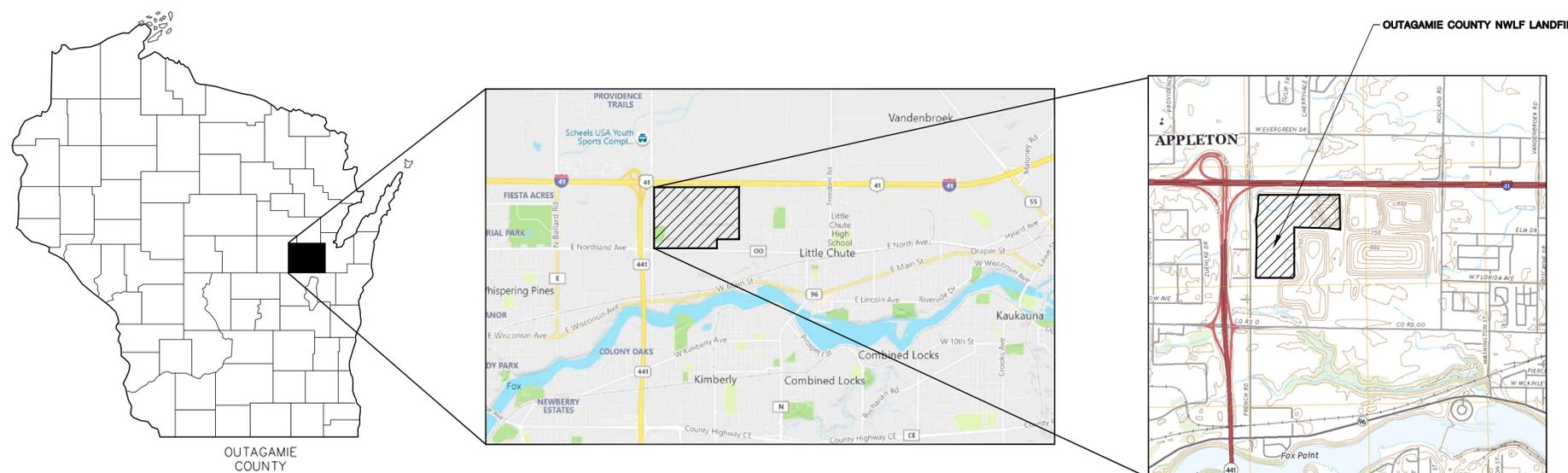
PREPARED BY: **SCS ENGINEERS**  
MADISON, WISCONSIN

DATE: **FEBRUARY 2024**

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\* - DRAWINGS PREPARED BY SUBURBAN ENTERPRISES, INC.  
NOTE: ELECTRICAL SHEETS ARE PRELIMINARY AND AN ISSUED FOR BIDDING VERSION WILL BE INCLUDED AS AN ADDENDUM.



**SITE LOCATOR MAP**

APPROXIMATE SCALE: 1"=2,000'

PROJECT NO. 25223132.02  
 DRAWN: 02/12/2024  
 CHECKED BY: MH  
 APPROVED BY: MFS

OUTAGAMIE COUNTY RECYCLING & SOLID WASTE DEPARTMENT

SCS ENGINEERS  
 2830 DARY DRIVE, MADISON, WI 53718-0751  
 PHONE: (608) 224-2830

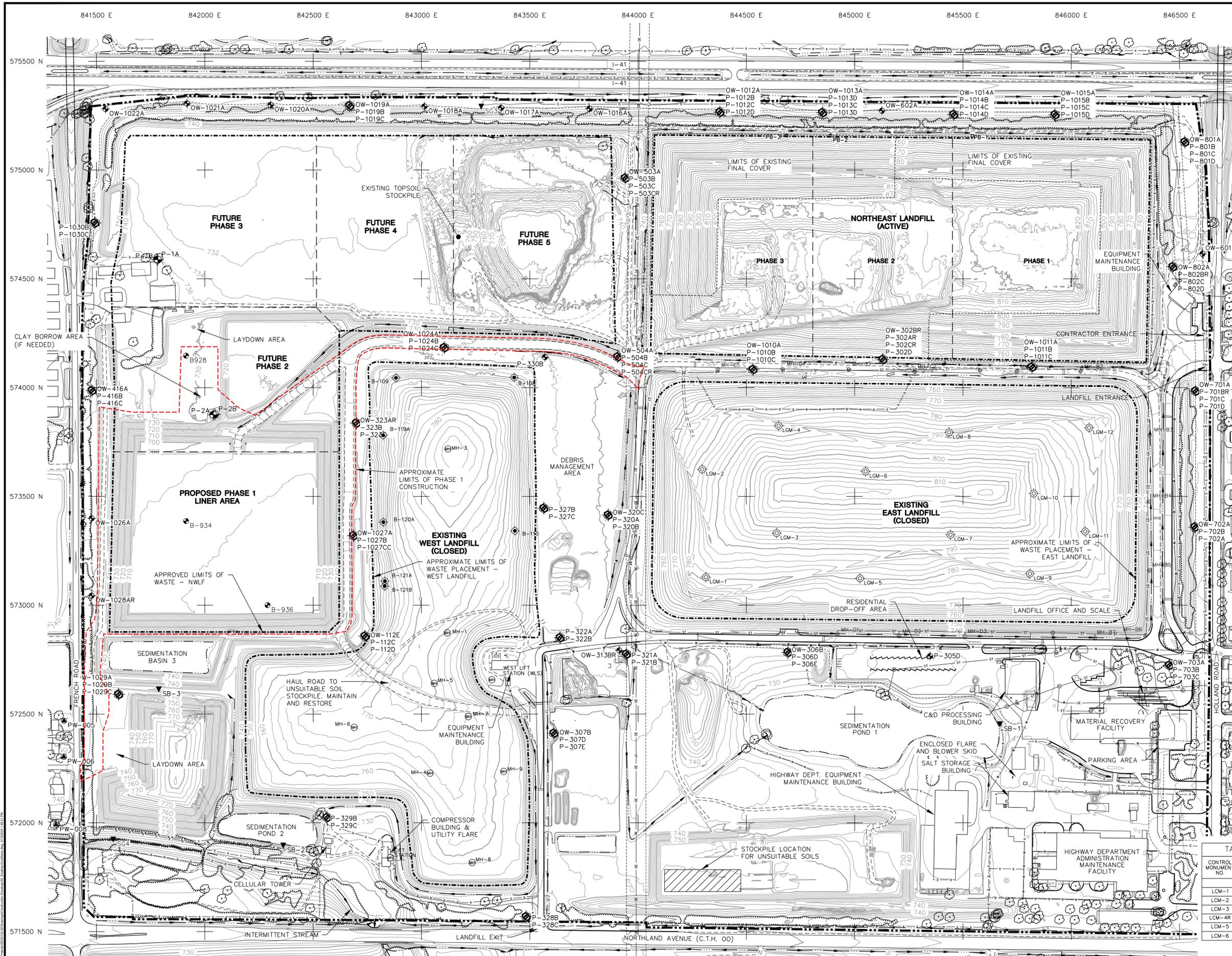
ENGINEER

CONSTRUCTION DRAWINGS  
 PHASE 1 LINER CONSTRUCTION  
 OUTAGAMIE COUNTY NORTHWEST LANDFILL  
 OUTAGAMIE COUNTY, WISCONSIN

SITE

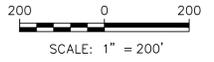
TITLE SHEET

SHEET 1 of 24



- LEGEND**
- PROPERTY BOUNDARY
  - - - - - APPROXIMATE LIMITS OF WASTE PLACEMENT
  - - - - - APPROXIMATE LIMITS OF EXISTING FINAL COVER PLACEMENT - NLF
  - PHASE LIMIT LINE
  - 770' EXISTING GROUND CONTOUR (10' INTERVAL)
  - EXISTING GROUND CONTOUR (2' INTERVAL)
  - UNPAVED ROAD
  - PAVED ROAD
  - CULVERT
  - TREE LINE
  - FENCE
  - WATER
  - DITCH/DRAINAGE
  - TREE LINE
  - TREES AND / OR SHRUBS
  - BUILDING
  - GAS LINE AND EASEMENT
  - ATC 138KV OVERHEAD ELECTRICAL UTILITY LINE AND EASEMENT
  - STORM SEWER
  - MANHOLE
  - WATER MAIN
  - HYDRANT/VALVE
  - LIGHT POLE
  - POWER POLE
  - SITE MONITORING WELL
  - SITE MONITORING WELL NEST
  - STAFF GAUGE
  - PRIVATE WELL
  - B-935 BORING
  - NLF LEACHATE PUMP BUILDING
  - LCM-5 LOCATION CONTROL MONUMENT
  - APPROXIMATE LIMITS OF PHASE 1 CONSTRUCTION

- NOTES:**
1. THE OUTAGAMIE PROPERTY IS LOCATED IN S 2/3 SECTION 17, T21N, R18E, VILLAGE OF LITTLE CHUTE, OUTAGAMIE COUNTY, WISCONSIN.
  2. TOPOGRAPHIC BASE MAP PREPARED FROM AERIAL SURVEY BY DRONEVIEW TECHNOLOGIES. DATE OF PHOTOGRAPHY NOVEMBER 18, 2021. TOPOGRAPHY UPDATED BY RIVERVIEW DRONE SURVEY ON SEPTEMBER 21, 2023.
  3. SITE GRID SYSTEM IS THE OUTAGAMIE COUNTY COORDINATE SYSTEM.
  4. VERTICAL DATUM IS NAVD 88.



**TABLE 1 - SITE SURVEY CONTROL MONUMENTS**

CONTROL MONUMENT NO.	COUNTY COORDINATES		STATE PLANE COORDINATES NAD 1927 SOUTH ZONE		SITE ELEVATION	NAVD 88 ELEVATION
	EAST	NORTH	EAST	NORTH		
LCM-1	843,979.11	572,820.80	2,433,795.04	839,267.29	741.58	741.28
LCM-2	843,956.69	574,134.72	2,433,749.03	840,580.61	732.82	732.57
LCM-3	843,989.50	575,225.11	2,433,762.25	841,671.42	747.32	747.07
LCM-4R	846,386.86	575,162.14	2,436,132.44	841,646.85	745.72	745.48
LCM-5	846,415.97	573,986.76	2,436,210.70	840,476.80	742.52	742.31
LCM-6	846,421.39	572,846.75	2,436,236.60	839,337.06	731.48	731.29

**ISSUED FOR BIDDING**

PROJECT NO. 25221312.02  
 DRAWN BY: SB  
 CHECKED BY: MH  
 APPROVED BY: MRS

OUTAGAMIE COUNTY RECYCLING & SOLID WASTE DEPARTMENT

**SCS ENGINEERS**  
 2830 DAIRY DRIVE, MADISON, WI 53718-0791  
 PHONE: (608) 224-8830

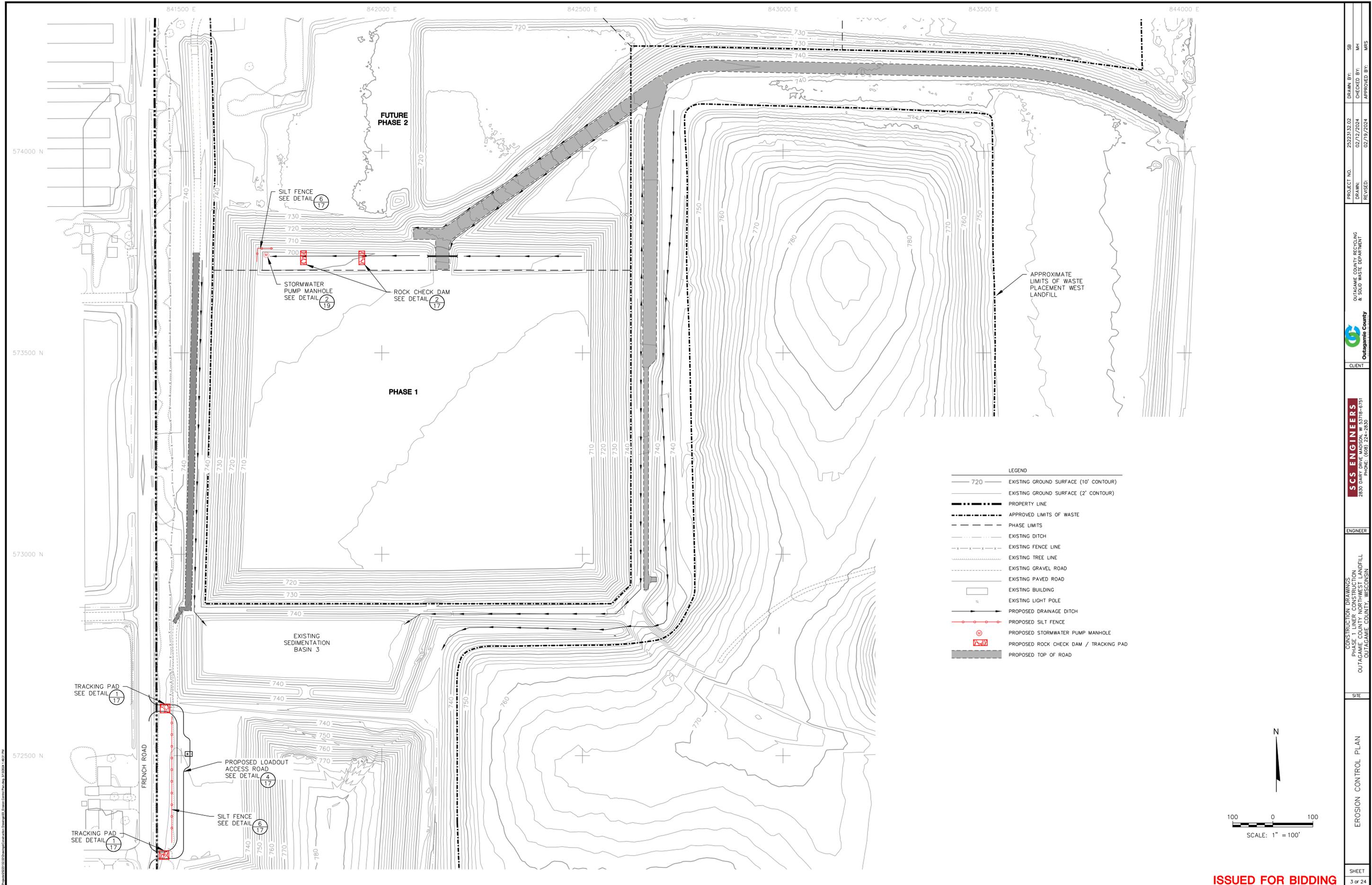
ENGINEER

CONSTRUCTION DRAWINGS  
 PHASE 1 LINER CONSTRUCTION  
 OUTAGAMIE COUNTY NORTHWEST LANDFILL  
 OUTAGAMIE COUNTY, WISCONSIN

SITE

EXISTING CONDITIONS

SHEET 2 of 24



574000 N

573500 N

573000 N

572500 N

841500 E

842000 E

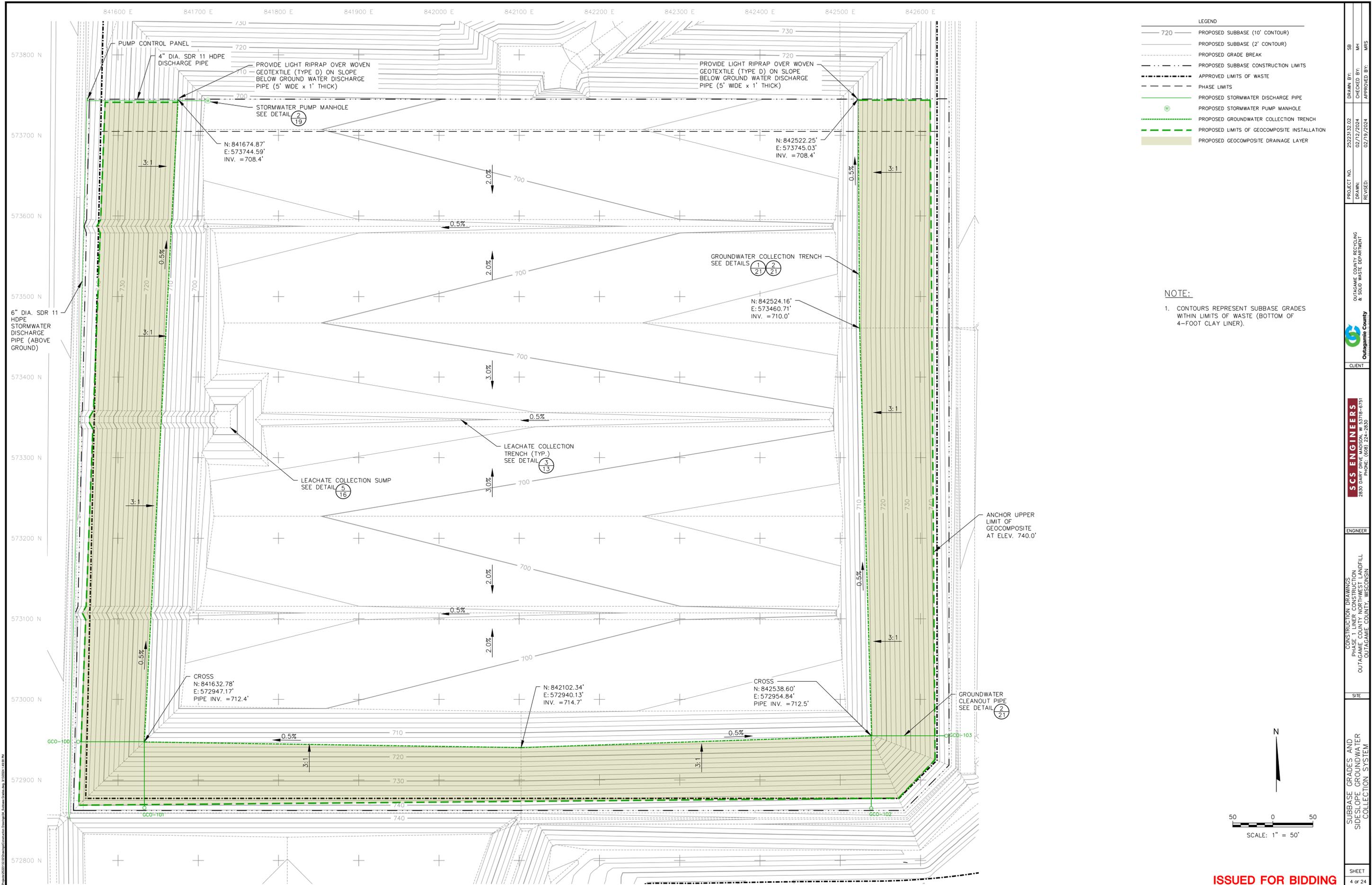
842500 E

843000 E

843500 E

844000 E

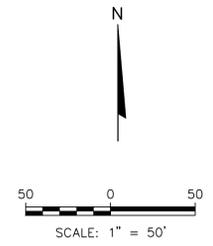
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DRAWN:	02/12/2024	CHECKED BY:	MH
REVISED:	02/19/2024	APPROVED BY:	MRS
CLIENT:	OUTAGAMIE COUNTY, RECYCLING & SOLID WASTE DEPARTMENT	ENGINEER:	SCS ENGINEERS
SITE:	CONSTRUCTION DRAWINGS PHASE 1 LINER CONSTRUCTION OUTAGAMIE COUNTY NORTHWEST LANDFILL OUTAGAMIE COUNTY, WISCONSIN	PHONE:	2830 DARIY DRIVE MADISON, WI 53718-6751 (608) 224-2830
SHEET:	EROSION CONTROL PLAN		
			3 of 24



LEGEND

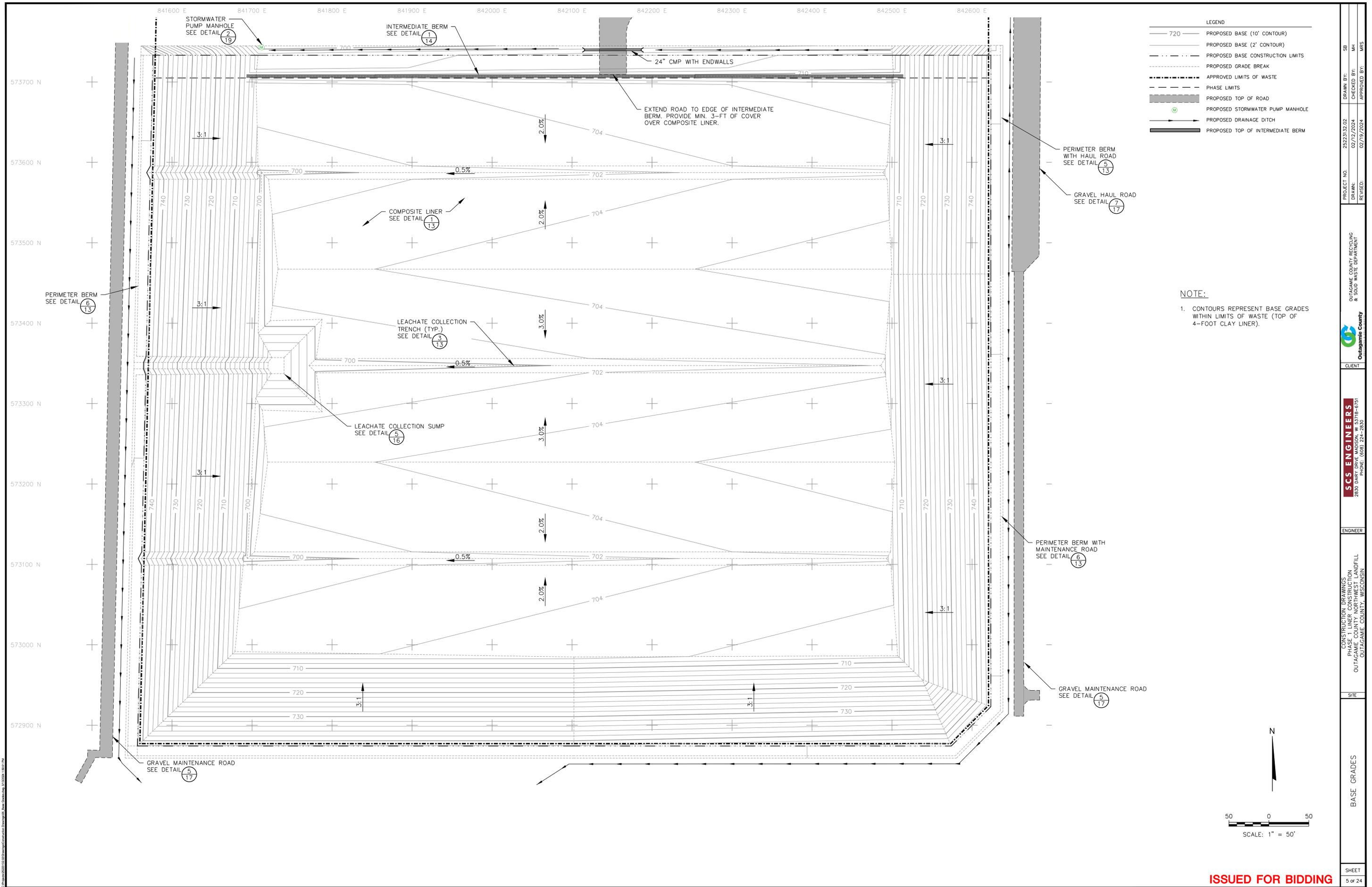
720	PROPOSED SUBBASE (10' CONTOUR)
710	PROPOSED SUBBASE (2' CONTOUR)
- - - - -	PROPOSED GRADE BREAK
- - - - -	PROPOSED SUBBASE CONSTRUCTION LIMITS
- - - - -	APPROVED LIMITS OF WASTE
- - - - -	PHASE LIMITS
—○—	PROPOSED STORMWATER DISCHARGE PIPE
⊕	PROPOSED STORMWATER PUMP MANHOLE
—○—	PROPOSED GROUNDWATER COLLECTION TRENCH
- - - - -	PROPOSED LIMITS OF GEOCOMPOSITE INSTALLATION
■	PROPOSED GEOCOMPOSITE DRAINAGE LAYER

NOTE:  
 1. CONTOURS REPRESENT SUBBASE GRADES WITHIN LIMITS OF WASTE (BOTTOM OF 4-FOOT CLAY LINER).



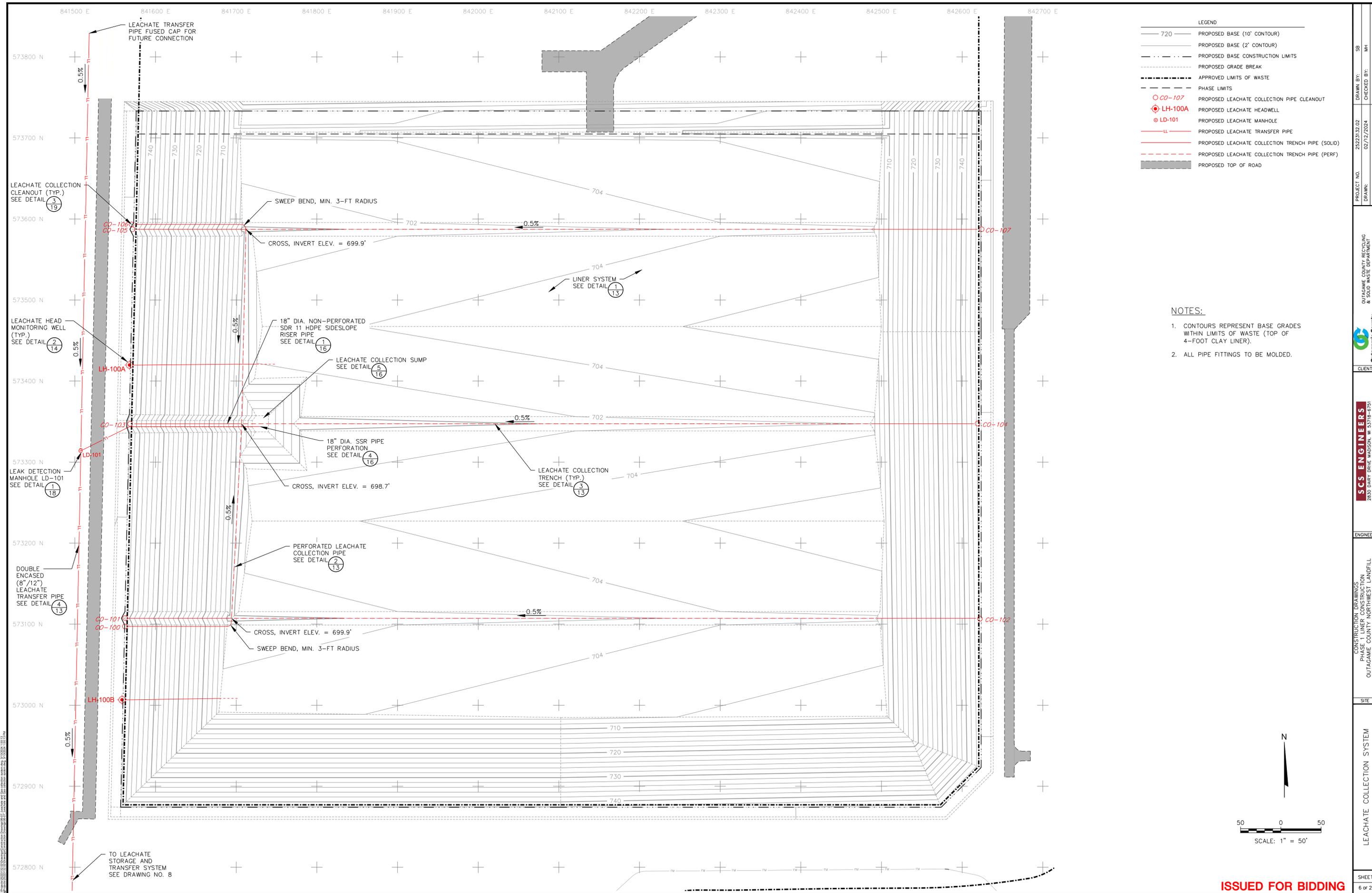
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REVISED:	02/19/2024	APPROVED BY:	MRS
CLIENT:	OUTAGAMIE COUNTY, RECYCLING & SOLID WASTE DEPARTMENT		
ENGINEER:	SCS ENGINEERS 2830 DARY DRIVE MADISON, WI 53718-0797 PHONE: (608) 224-2830		
SITE:	CONSTRUCTION DRAWINGS PHASE 1 LINER CONSTRUCTION OUTAGAMIE COUNTY NORTHWEST LANDFILL OUTAGAMIE COUNTY, WISCONSIN		
SHEET:	SUBBASE GRADES AND SIDESLOPE GROUNDWATER COLLECTION SYSTEM		
	4 OF 24		

ISSUED FOR BIDDING



PROJECT NO.	2522032.02	DRAWN BY:	SB
DRAWN:	02/12/2024	CHECKED BY:	MH
REVISED:	02/19/2024	APPROVED BY:	MRS
CLIENT:	OUTAGAMIE COUNTY, RECYCLING & SOLID WASTE DEPARTMENT		
ENGINEER:	SCS ENGINEERS 2830 DAIRY DRIVE MADISON, WI 53718-6797 PHONE: (608) 224-2830		
SITE:	CONSTRUCTION DRAWINGS PHASE 1 LINER CONSTRUCTION OUTAGAMIE COUNTY NORTHWEST LANDFILL OUTAGAMIE COUNTY, WISCONSIN		
SHEET:	BASE GRADES		
	5 of 24		

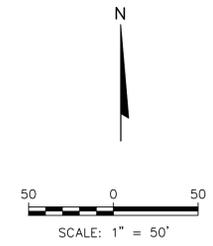
ISSUED FOR BIDDING



**LEGEND**

	720	PROPOSED BASE (10' CONTOUR)
		PROPOSED BASE (2' CONTOUR)
		PROPOSED BASE CONSTRUCTION LIMITS
		PROPOSED GRADE BREAK
		APPROVED LIMITS OF WASTE
		PHASE LIMITS
	CO-107	PROPOSED LEACHATE COLLECTION PIPE CLEANOUT
	LH-100A	PROPOSED LEACHATE HEADWELL
	LD-101	PROPOSED LEACHATE MANHOLE
	LL	PROPOSED LEACHATE TRANSFER PIPE
		PROPOSED LEACHATE COLLECTION TRENCH PIPE (SOLID)
		PROPOSED LEACHATE COLLECTION TRENCH PIPE (PERF)
		PROPOSED TOP OF ROAD

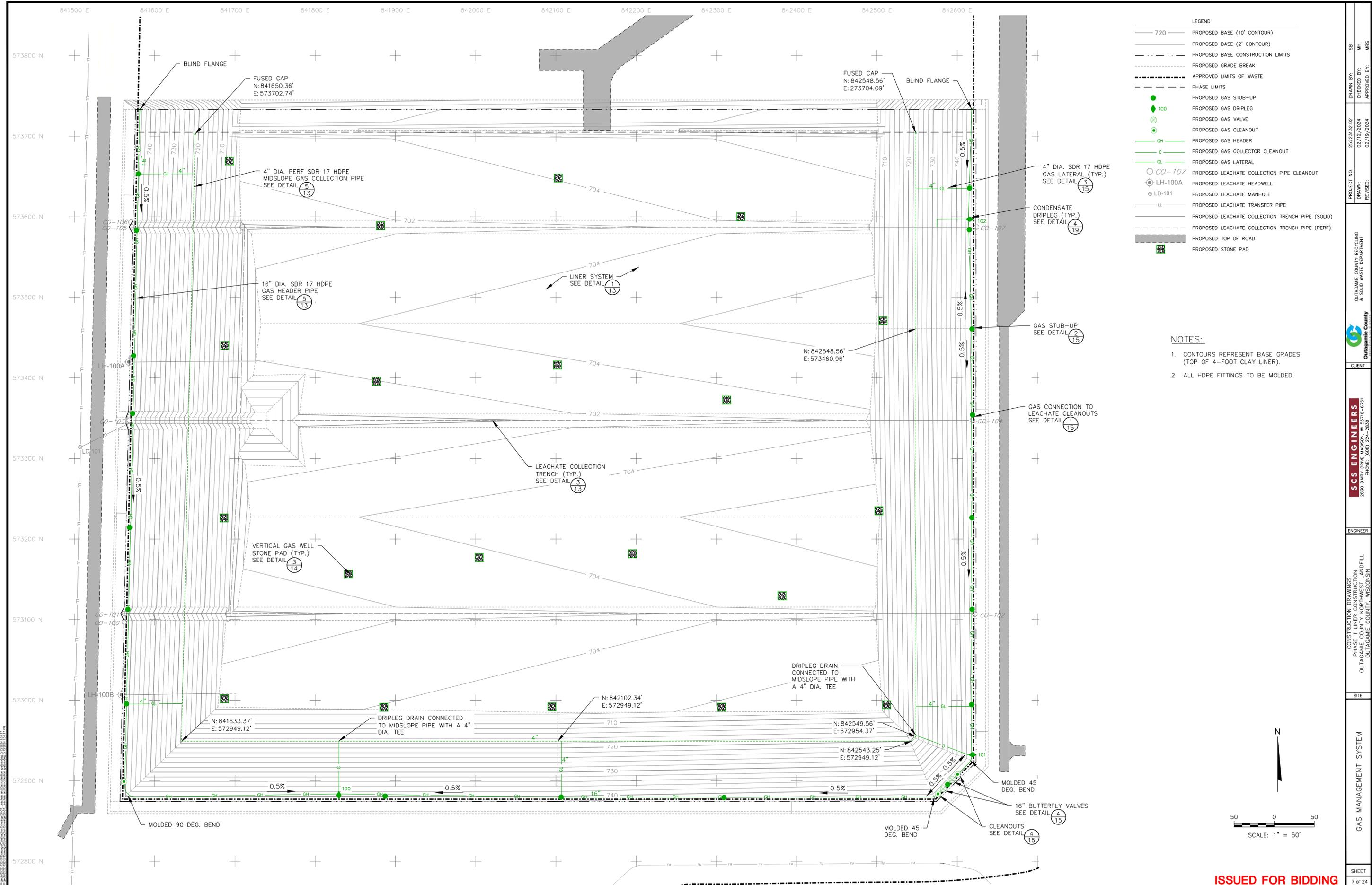
- NOTES:**
1. CONTOURS REPRESENT BASE GRADES WITHIN LIMITS OF WASTE (TOP OF 4-FOOT CLAY LINER).
  2. ALL PIPE FITTINGS TO BE MOLDED.



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PROJECT NO. 25223132.02	DRAWN BY: MH	CHECKED BY: MRS	APPROVED BY: MRS
OUTAGAMIE COUNTY, WISCONSIN & SOLID WASTE DEPARTMENT Outagamie County			
CLIENT			
<b>SCS ENGINEERS</b> 2830 DUNBAR DRIVE MADISON, WI 53718-9791 PHONE: (608) 224-2830			
ENGINEER			
CONSTRUCTION DRAWINGS FOR PHASE 1B, NORTHWEST LANDFILL OUTAGAMIE COUNTY, WISCONSIN			
SITE			
LEACHATE COLLECTION SYSTEM			
SHEET			6 of 24

ISSUED FOR BIDDING

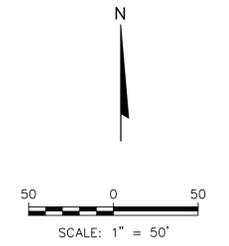


**LEGEND**

720	PROPOSED BASE (10' CONTOUR)
720	PROPOSED BASE (2' CONTOUR)
---	PROPOSED BASE CONSTRUCTION LIMITS
---	PROPOSED GRADE BREAK
---	APPROVED LIMITS OF WASTE
---	PHASE LIMITS
●	PROPOSED GAS STUB-UP
◆	PROPOSED GAS DRIPLEG
⊗	PROPOSED GAS VALVE
○	PROPOSED GAS CLEANOUT
GH	PROPOSED GAS HEADER
C	PROPOSED GAS COLLECTOR CLEANOUT
GL	PROPOSED GAS LATERAL
CO-107	PROPOSED LEACHATE COLLECTION PIPE CLEANOUT
LH-100A	PROPOSED LEACHATE HEADWELL
LD-101	PROPOSED LEACHATE MANHOLE
LL	PROPOSED LEACHATE TRANSFER PIPE
---	PROPOSED LEACHATE COLLECTION TRENCH PIPE (SOLID)
---	PROPOSED LEACHATE COLLECTION TRENCH PIPE (PERF)
---	PROPOSED TOP OF ROAD
---	PROPOSED STONE PAD

**NOTES:**

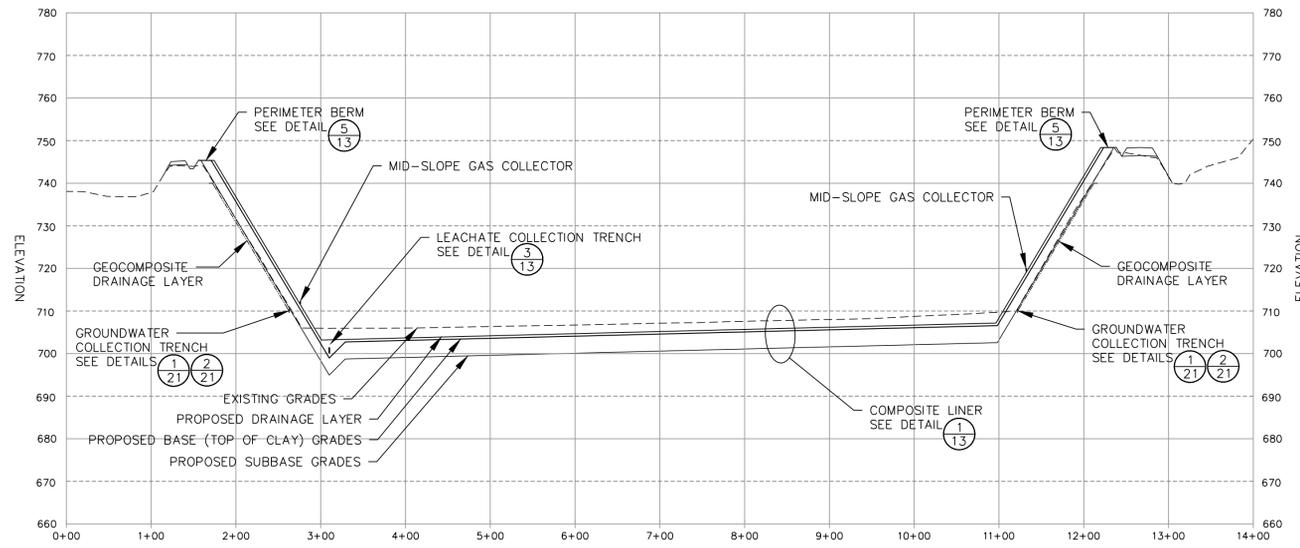
- CONTOURS REPRESENT BASE GRADES (TOP OF 4-FOOT CLAY LINER).
- ALL HDPE FITTINGS TO BE MOLDED.



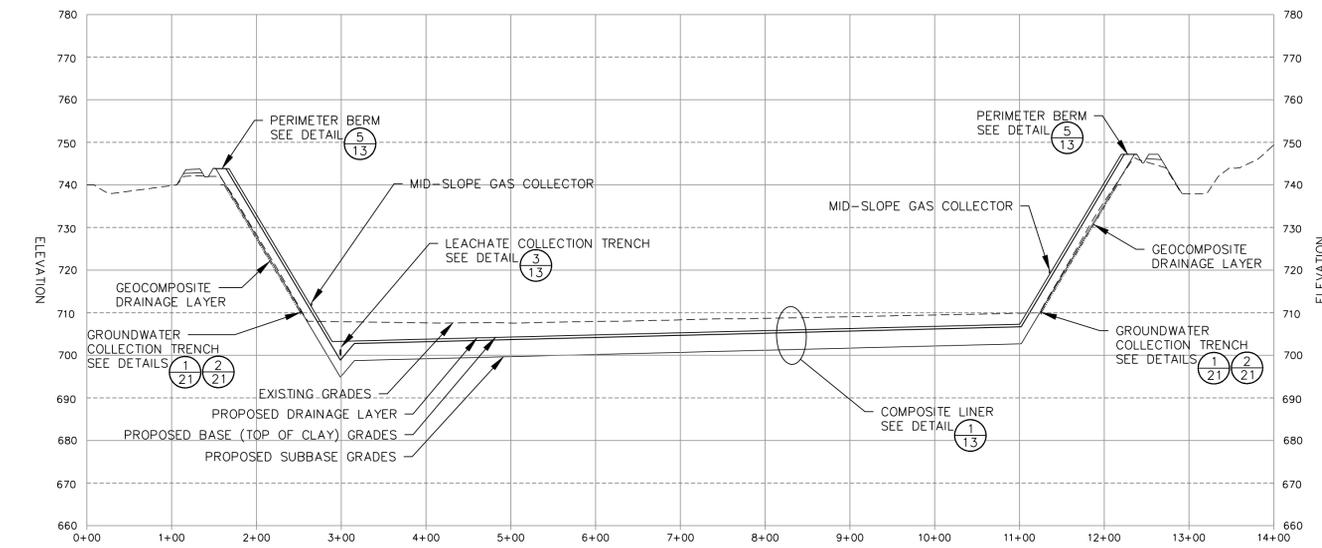
PROJECT NO.	25223132.02	DRAWN BY:	SB
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REVISED:	02/19/2024	APPROVED BY:	MRS
 OUTAGAMIE COUNTY, WISCONSIN & SOLID WASTE DEPARTMENT			
<b>SCS ENGINEERS</b> 2800 DUNBAR DRIVE, MADISON, WI 53718-9791 PHONE: (608) 224-2830			
ENGINEER			
CONSTRUCTION DRAWINGS PHASE 1A OUTAGAMIE COUNTY, NORTHWEST LANDFILL OUTAGAMIE COUNTY, WISCONSIN			
SITE			
GAS MANAGEMENT SYSTEM			
SHEET			
7 of 24			

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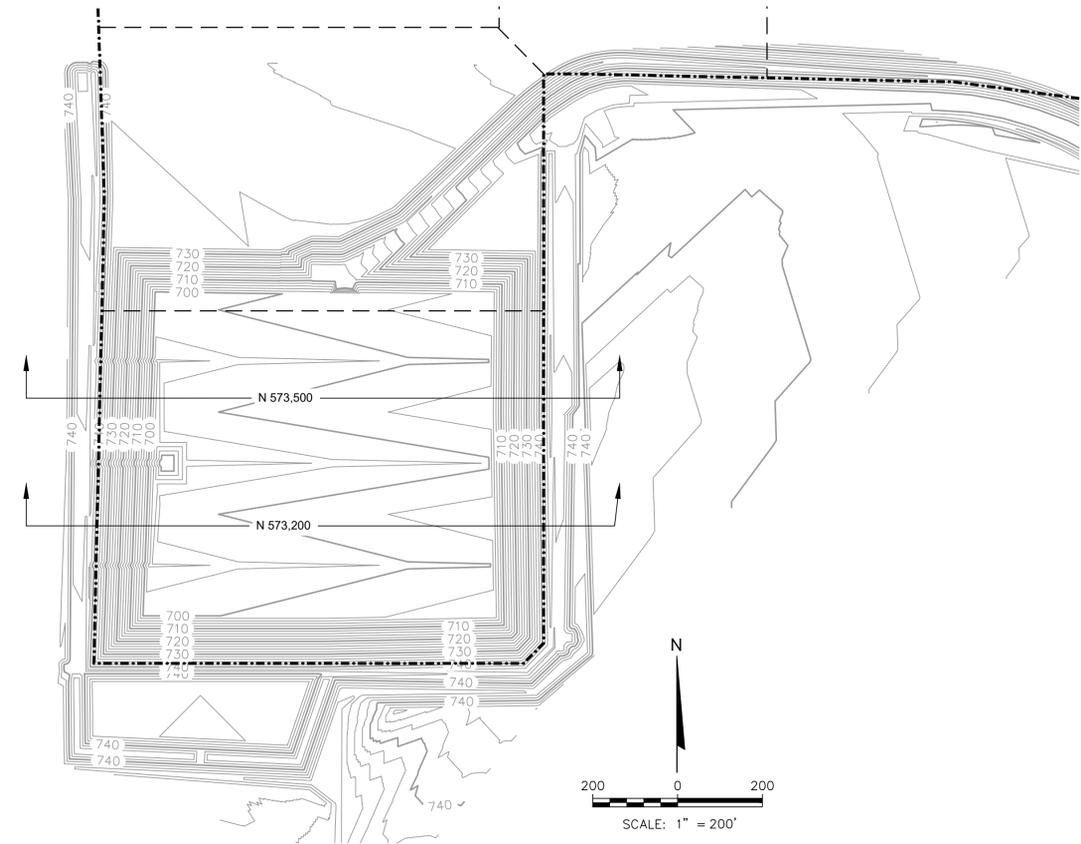




**ENGINEERING CROSS SECTION N 573,500**



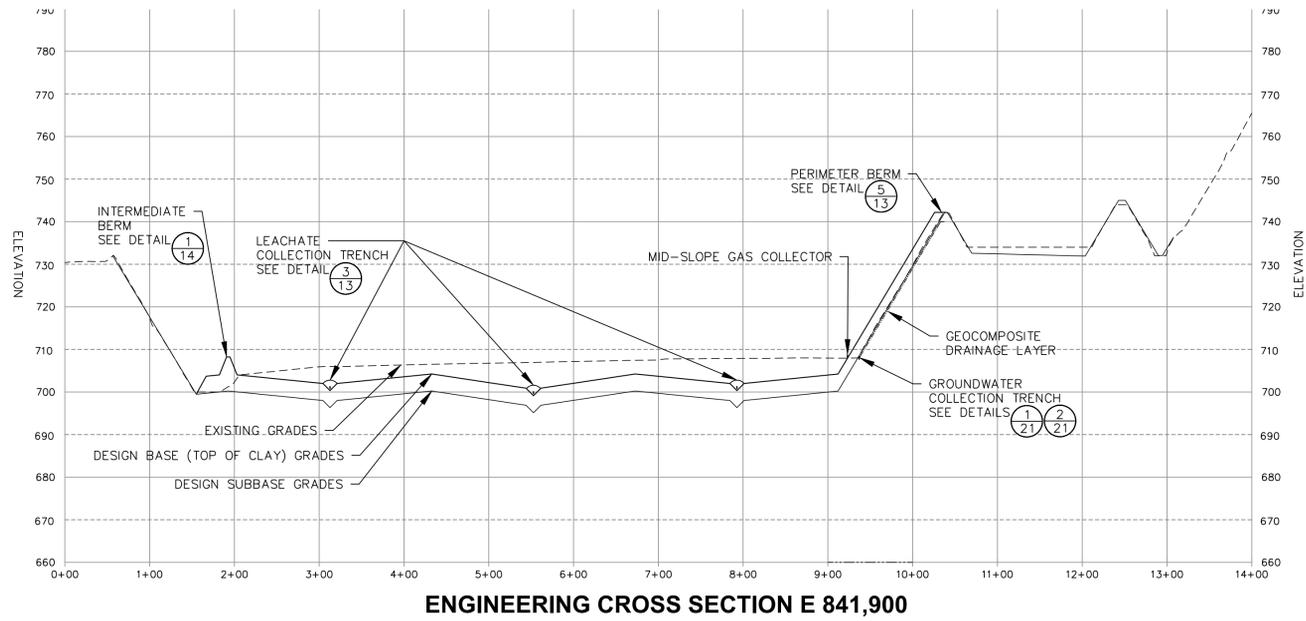
**ENGINEERING CROSS SECTION N 573,200**



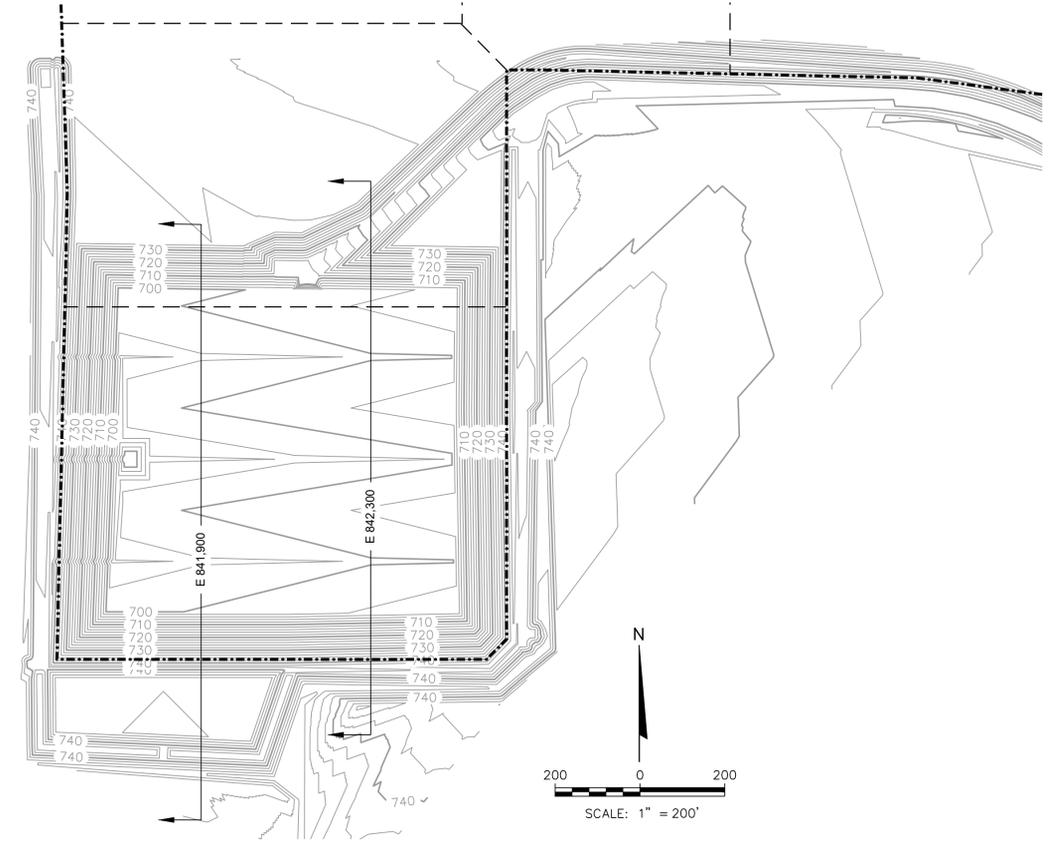
**CROSS SECTION LOCATION MAP**

PROJECT NO.	25223132.02	DRAWN BY:	SB
DRAWN:	02/12/2024	CHECKED BY:	MH
REVISED:	02/19/2024	APPROVED BY:	MRS
OUTAGAMIE COUNTY, RECYCLING & SOLID WASTE DEPARTMENT			
 CLIENT			
<b>SCS ENGINEERS</b> 2830 DARY DRIVE MADISON, WI 53718-6797 PHONE: (608) 224-2830			
ENGINEER			
CONSTRUCTION DRAWINGS PHASE 1 LINER CONSTRUCTION OUTAGAMIE COUNTY NORTHWEST LANDFILL OUTAGAMIE COUNTY, WISCONSIN			
SITE			
CROSS SECTIONS			
SHEET			
9 of 24			

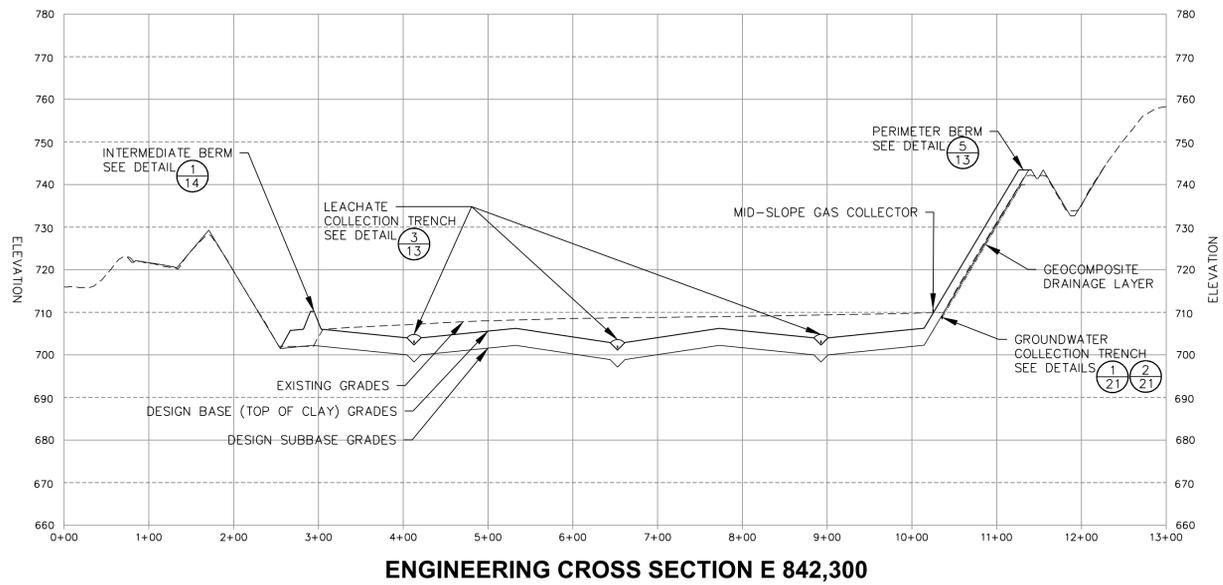
**ISSUED FOR BIDDING**



**ENGINEERING CROSS SECTION E 841,900**



**CROSS SECTION LOCATION MAP**

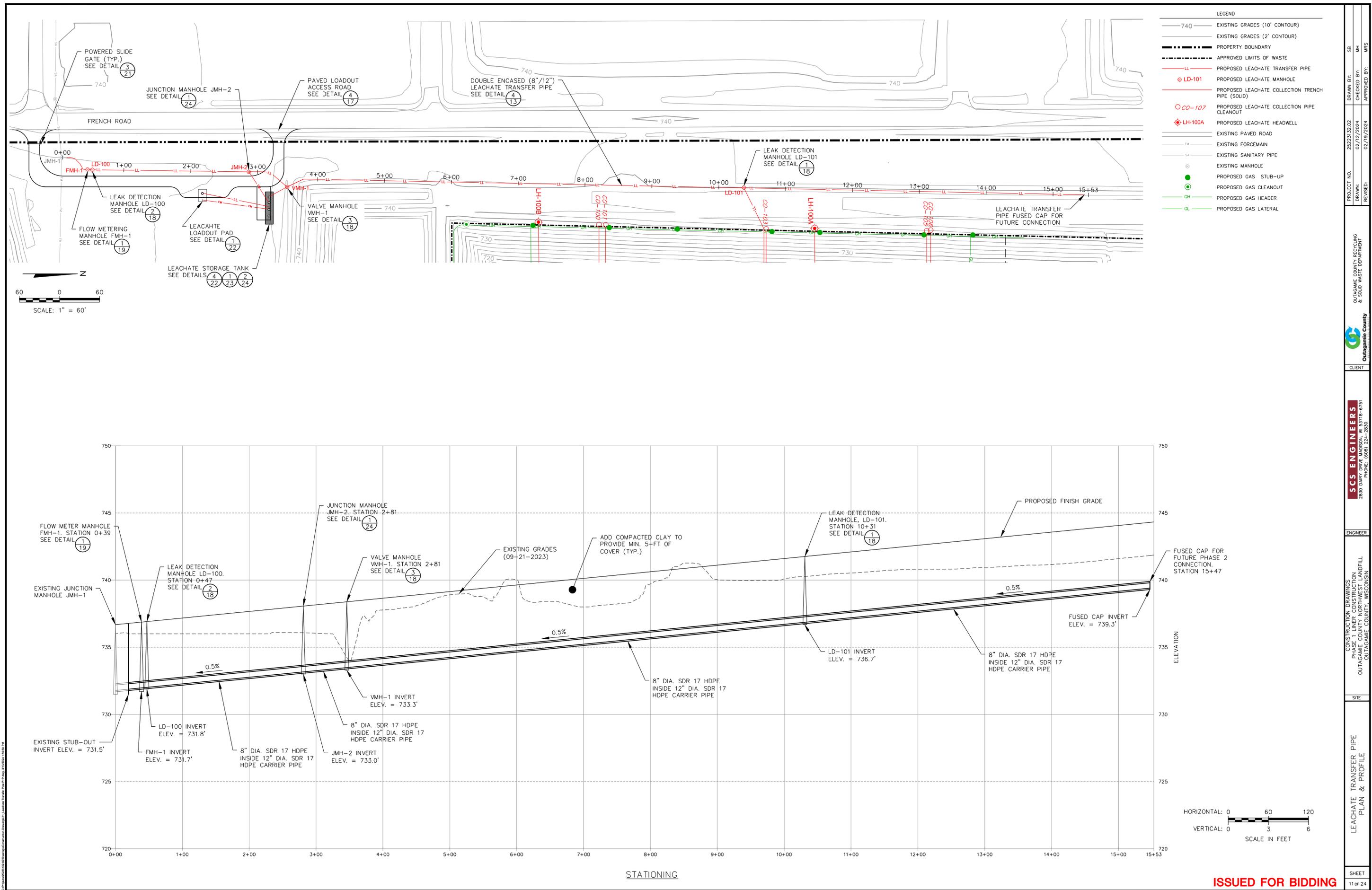


**ENGINEERING CROSS SECTION E 842,300**

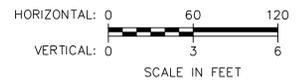
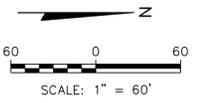
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PROJECT NO.	25223132.02	DRAWN BY:	SB
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REVISED:	02/19/2024	APPROVED BY:	MRS
 CLIENT: OUTAGAMIE COUNTY, WISCONSIN			
 ENGINEER: SCS ENGINEERS 2830 DARY DRIVE, MADISON, WI 53718-6797 PHONE: (608) 224-2830			
CONSTRUCTION DRAWINGS PHASE 1 LINER CONSTRUCTION OUTAGAMIE COUNTY NORTHWEST LANDFILL OUTAGAMIE COUNTY, WISCONSIN			
SITE			
CROSS SECTIONS			
SHEET			
10 OF 24			

**ISSUED FOR BIDDING**

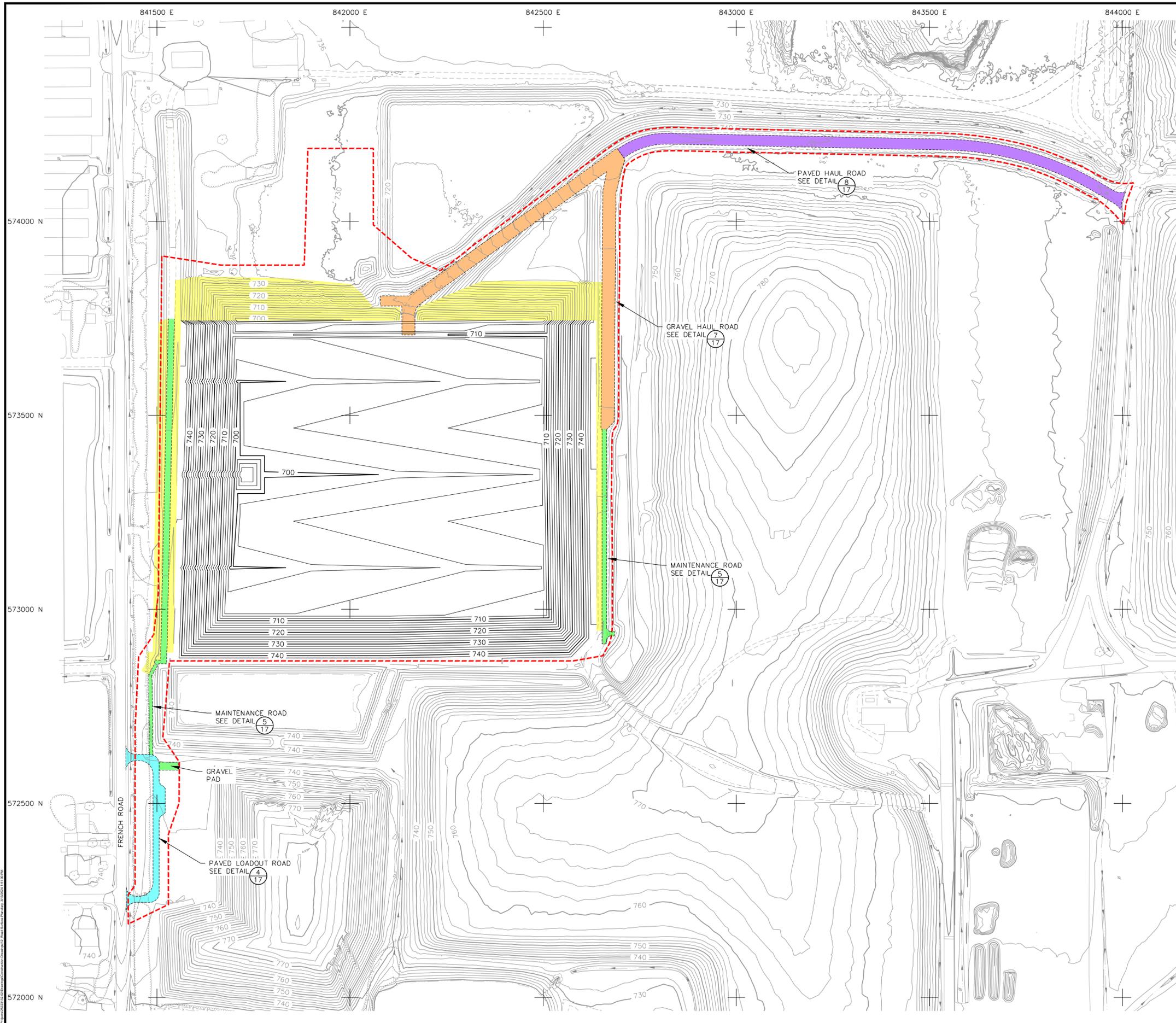


- LEGEND**
- 740 — EXISTING GRADES (10' CONTOUR)
  - 740 — EXISTING GRADES (2' CONTOUR)
  - PROPERTY BOUNDARY
  - APPROVED LIMITS OF WASTE
  - LL — PROPOSED LEACHATE TRANSFER PIPE
  - LD-101 — PROPOSED LEACHATE MANHOLE
  - CO-107 — PROPOSED LEACHATE COLLECTION TRENCH PIPE (SOLID)
  - LH-100A — PROPOSED LEACHATE HEADWELL
  - EXISTING PAVED ROAD
  - EXISTING FORCEMAIN
  - SA — EXISTING SANITARY PIPE
  - ⊙ — EXISTING MANHOLE
  - — PROPOSED GAS STUB-UP
  - — PROPOSED GAS CLEANOUT
  - GH — PROPOSED GAS HEADER
  - GL — PROPOSED GAS LATERAL



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 CLIENT: OUTAGAMIE COUNTY, RECYCLING & SOLID WASTE DEPARTMENT  
 ENGINEER: SCS ENGINEERS  
 2830 DAIRY DRIVE, MADISON, WI 53718-6751  
 PHONE: (608) 224-2830  
 CONSTRUCTION DRAWINGS  
 PHASE 1 LINER CONSTRUCTION  
 OUTAGAMIE COUNTY NORTHWEST LANDFILL  
 OUTAGAMIE COUNTY, WISCONSIN  
 SHEET: 11 of 24

**ISSUED FOR BIDDING**



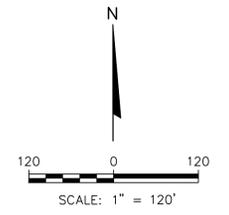
- LEGEND**
- PROPERTY BOUNDARY
  - - - - - APPROXIMATE LICENSED LIMITS OF WASTE PLACEMENT
  - - - - - APPROXIMATE LIMITS OF EXISTING FINAL COVER PLACEMENT - NElf
  - NElf PHASE LINE
  - 770--- EXISTING GROUND CONTOUR (10' INTERVAL)
  - EXISTING GROUND CONTOUR (2' INTERVAL)
  - UNPAVED ROAD
  - PAVED ROAD
  - TREE LINE
  - FENCE
  - WATER
  - DITCH/DRAINAGE
  - TREE LINE
  - HAUL ROAD
  - TREES AND / OR SHRUBS
  - BUILDING
  - CULVERT
  - GAS LINE AND EASEMENT
  - ATC 138KV OVERHEAD ELECTRICAL UTILITY LINE AND EASEMENT
  - STORM SEWER
  - STORM SEWER MANHOLE
  - WATER MAIN
  - HYDRANT/VALVE
  - LIGHT POLE
  - POWER POLE
  - SITE MONITORING WELL
  - SITE MONITORING WELL NEST
  - LEACHATE HEAD MONITORING WELL
  - GAS MONITORING PROBE
  - CLEANOUT
  - STAFF GAUGE
  - PRIVATE WELL
  - NElf LEACHATE PUMP BUILDING
  - LCM-5
  - LOCATION CONTROL MONUMENT
  - CONSTRUCTION LIMITS
  - PAVED HAUL ROAD
  - GRAVEL HAUL ROAD
  - GRAVEL MAINTENANCE ROAD
  - PAVED LOADOUT ROAD
  - AREA TO BE TOPSOILED, SEEDED, FERTILIZED, AND MULCHED
  - APPROXIMATE LIMITS OF PHASE 1 CONSTRUCTION
  - 720--- PROPOSED BASE CONTOUR (10' INTERVAL)
  - PROPOSED BASE CONTOUR (2' INTERVAL)

**NOTES:**

- TOPOGRAPHY UPDATED BY RIVERVIEW DRONE SURVEY ON SEPTEMBER 21, 2023.
- PAVING THE HAUL ROAD TO BE PERFORMED IN 2025. CONTRACTOR IS RESPONSIBLE FOR REPAIR OF ALL ROADS SURFACES WHICH MAY BE DAMAGED PRIOR TO FINAL COMPLETION.

**ROAD SURFACE QUANTITY SUMMARY:**

TYPE:	AREA:
PAVED HAUL ROAD:	37,600 SF.
GRAVEL HAUL ROAD:	50,400 SF.
GRAVEL MAINTENANCE ROAD:	24,200 SF.
PAVED LOADOUT ROAD:	10,400 SF.
TOPSOILED, SEEDED, FERTILIZED, AND MULCHED:	138,400 SF.



PROJECT NO. 252213E.02  
 DRAWN BY: MHI  
 CHECKED BY: MRS  
 APPROVED BY: MRS

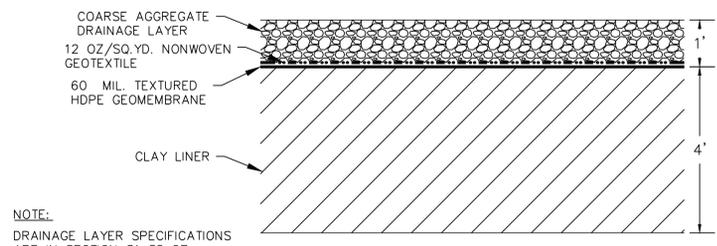
OUTAGAMIE COUNTY RECYCLING & SOLID WASTE DEPARTMENT  
 Outagamie County  
 CLIENT

**SCS ENGINEERS**  
 2830 DAIRY DRIVE, MADISON, WI 53718-0751  
 PHONE: (608) 224-2830  
 ENGINEER

CONSTRUCTION DRAWINGS  
 PHASE 1 LINER CONSTRUCTION  
 OUTAGAMIE COUNTY NORTHWEST LANDFILL  
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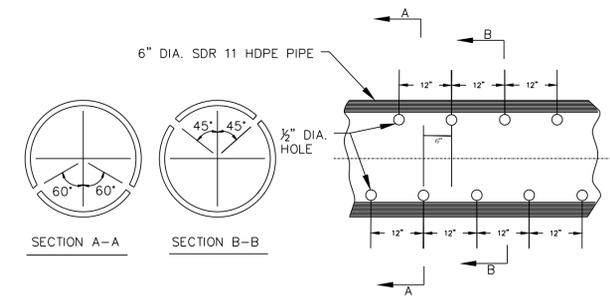
ROAD SURFACING AND LANDSCAPING PLAN  
 SHEET  
 12 of 24

**ISSUED FOR BIDDING**

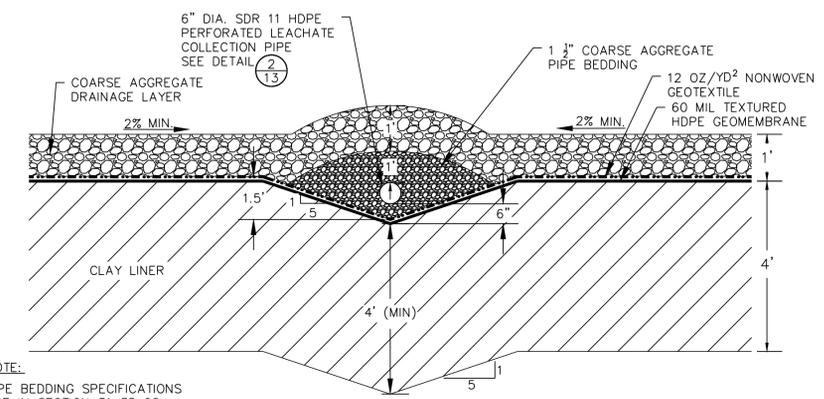


NOTE:  
DRAINAGE LAYER SPECIFICATIONS  
ARE IN SECTION 31 35 27.

**1**  
**13** TYPICAL LINER DETAIL  
NOT TO SCALE

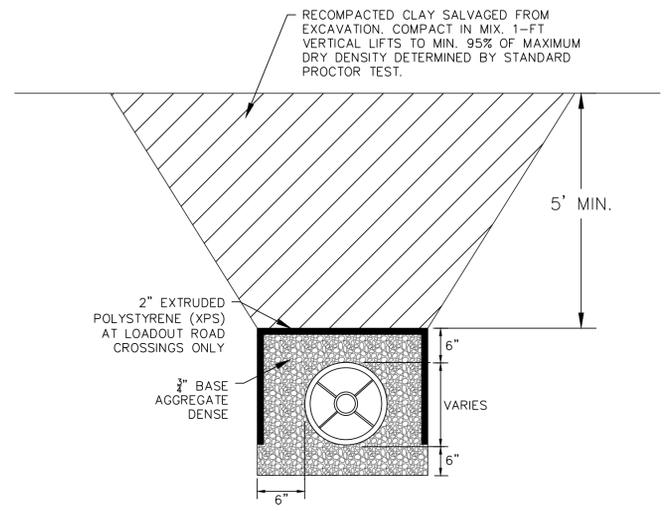


**2**  
**13** PIPE PERFORATION DETAIL  
NOT TO SCALE

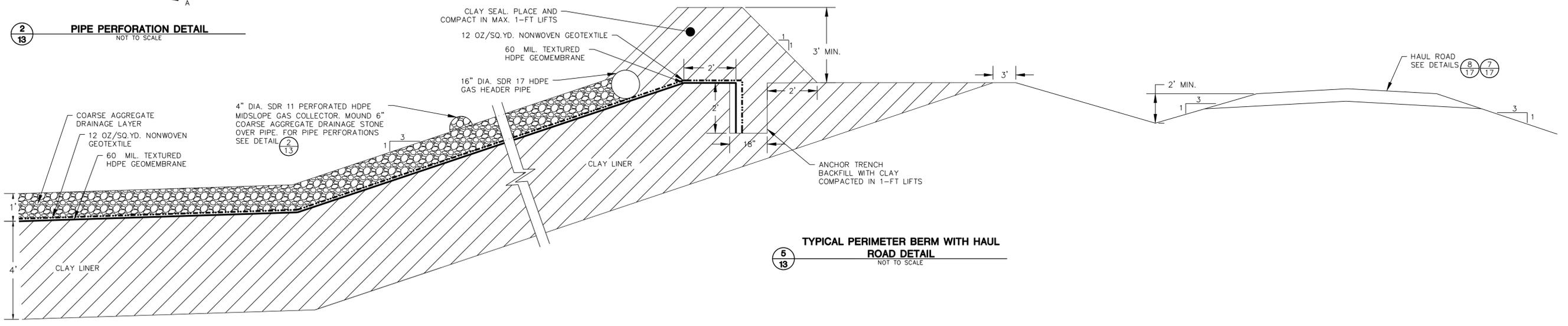


NOTE:  
PIPE BEDDING SPECIFICATIONS  
ARE IN SECTION 31 35 28.

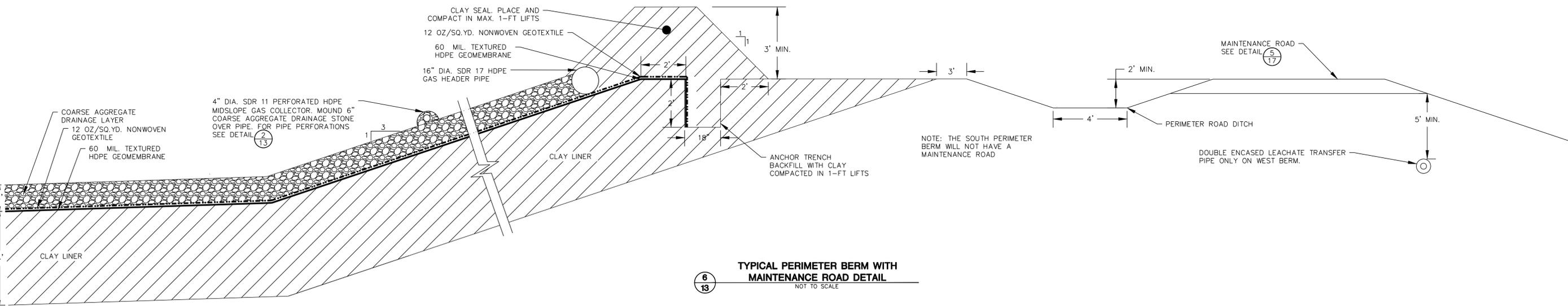
**3**  
**13** TYPICAL LEACHATE COLLECTION TRENCH DETAIL  
NOT TO SCALE



**4**  
**13** TYPICAL DOUBLE-ENCASED PIPE TRENCH DETAIL  
NOT TO SCALE



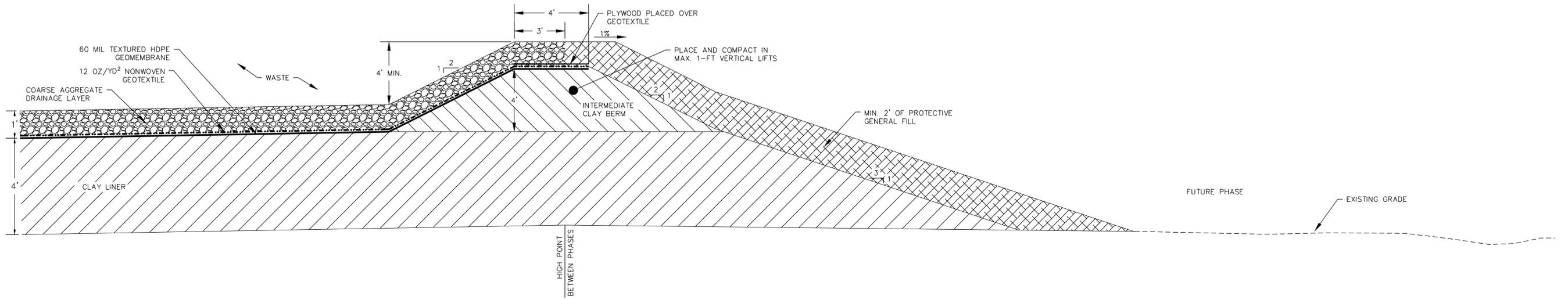
**5**  
**13** TYPICAL PERIMETER BERM WITH HAUL ROAD DETAIL  
NOT TO SCALE



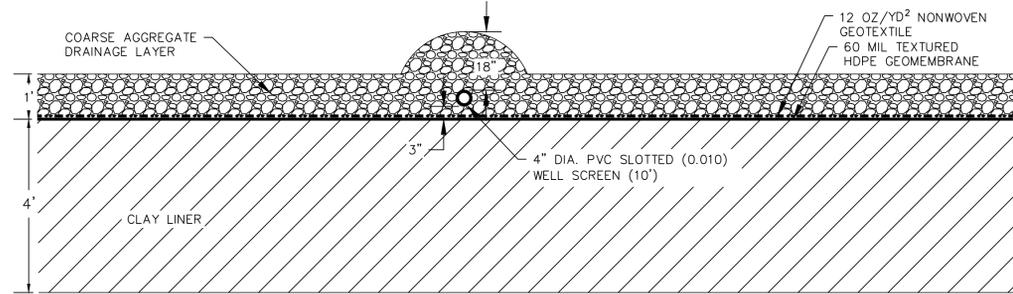
**6**  
**13** TYPICAL PERIMETER BERM WITH MAINTENANCE ROAD DETAIL  
NOT TO SCALE

PROJECT NO. 25223132.02  
DRAWN BY: SB  
CHECKED BY: MH  
APPROVED BY: MRS  
DATE: 02/12/2024  
REVISION: 02/19/2024  
CLIENT: OUTAGAMIE COUNTY, RECYCLING & SOLID WASTE DEPARTMENT  
ENGINEER: SCS ENGINEERS  
2830 DARY DRIVE MADISON, WI 53718-0797  
PHONE: (608) 224-2830  
CONSTRUCTION DRAWINGS  
PHASE 1 LINER CONSTRUCTION  
OUTAGAMIE COUNTY NORTHWEST LANDFILL  
OUTAGAMIE COUNTY, WISCONSIN  
SITE  
DETAILS  
SHEET  
13 OF 24

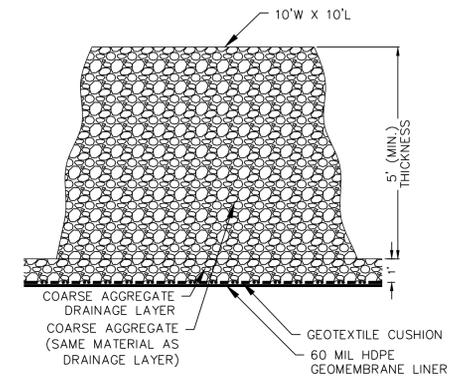
ISSUED FOR BIDDING



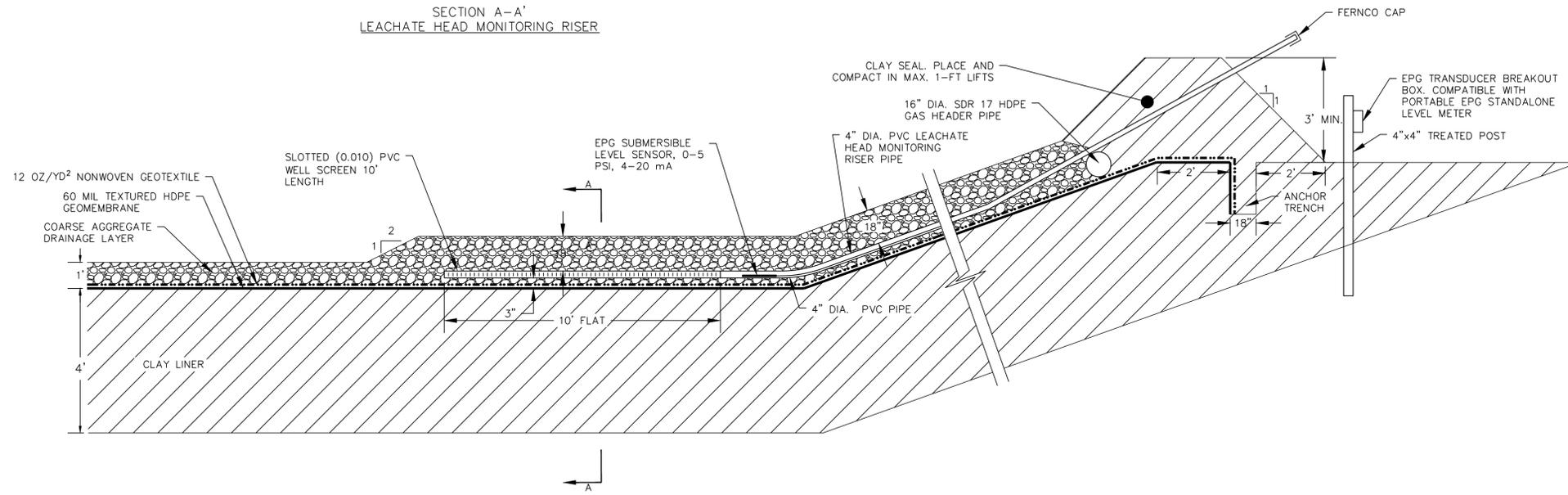
**1**  
**14** TYPICAL INTERMEDIATE BERM DETAIL  
NOT TO SCALE



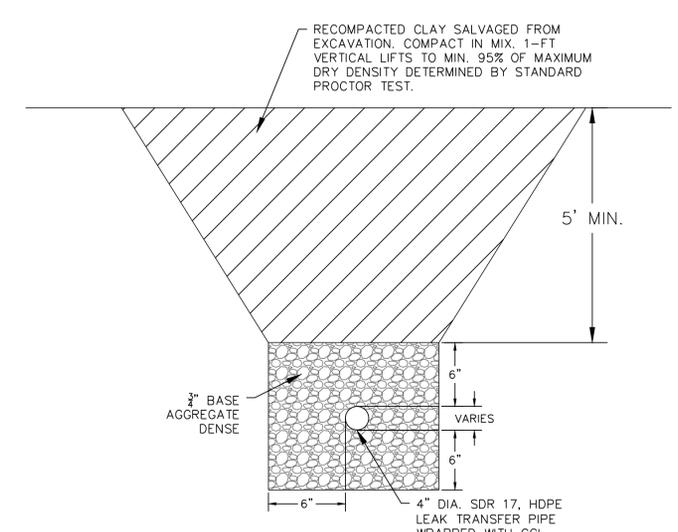
SECTION A-A'  
LEACHATE HEAD MONITORING RISER



**3**  
**14** VERTICAL GAS EXTRACTION WELL STONE PILE DETAIL  
NOT TO SCALE



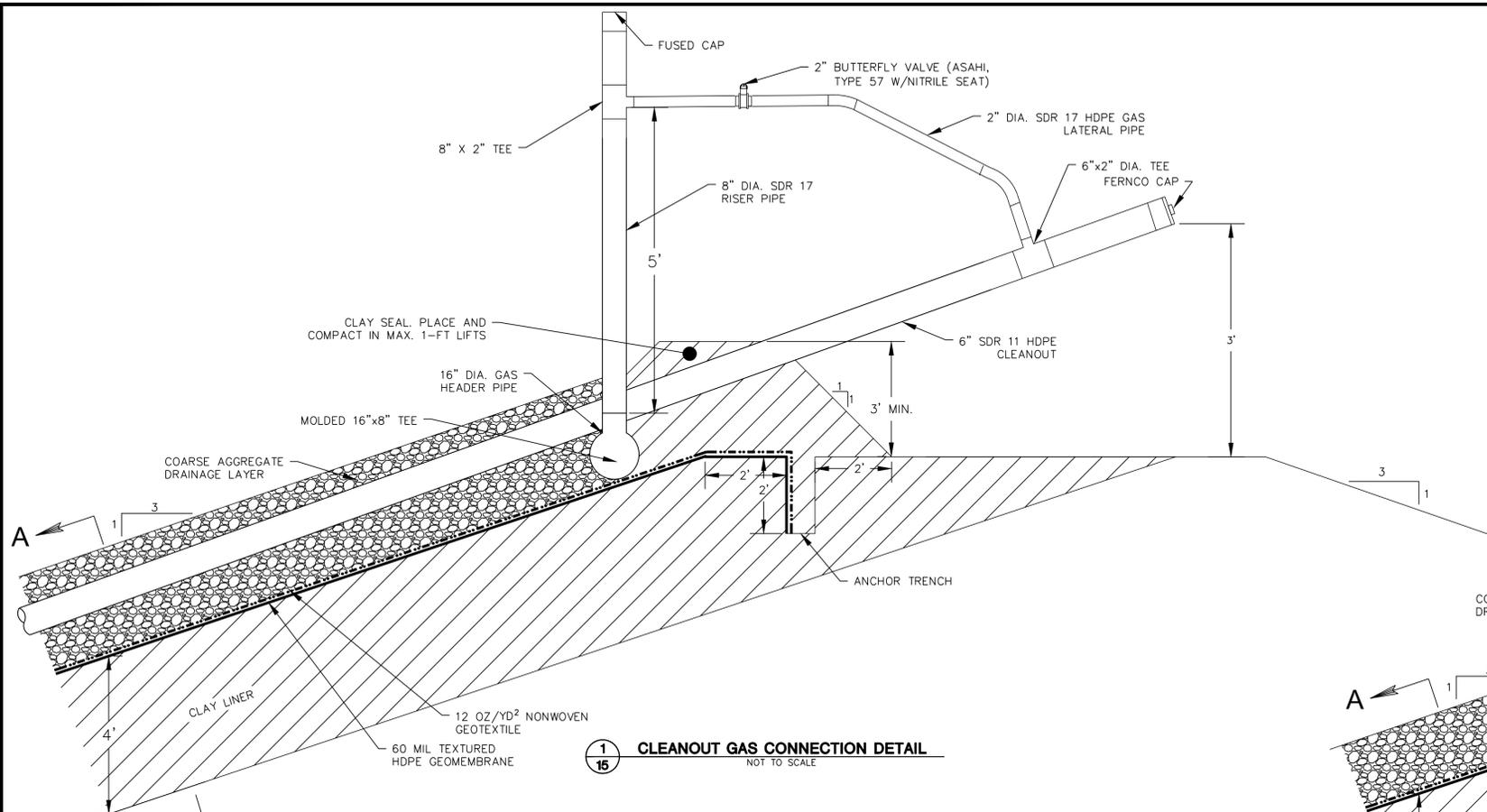
**2**  
**14** LEACHATE HEAD MONITORING RISER DETAIL  
NOT TO SCALE



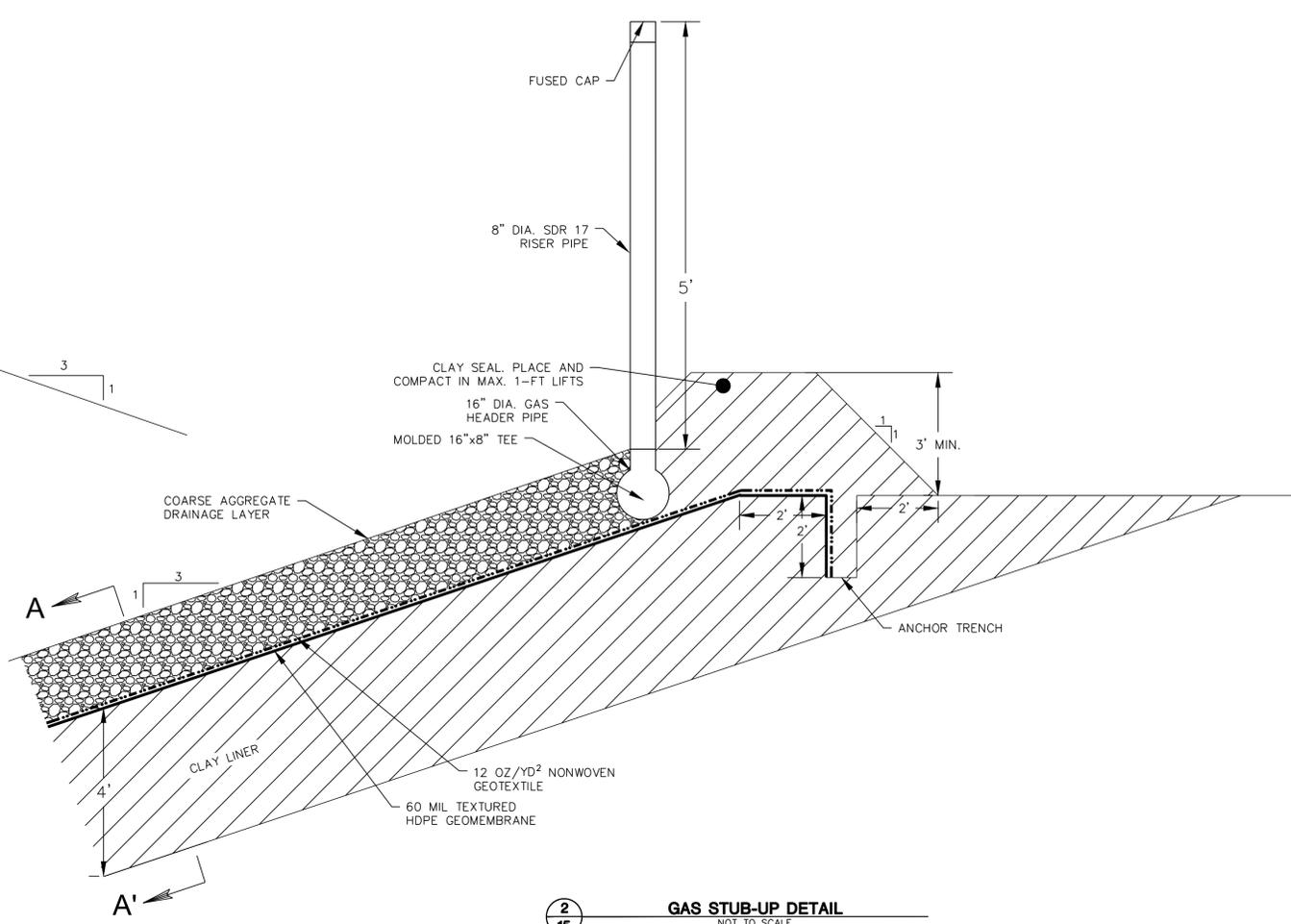
**4**  
**14** TYPICAL LEAK TRANSFER PIPE DETAIL  
NOT TO SCALE

PROJECT NO. 25223132.02  
DRAWN BY: SB  
CHECKED BY: MH  
APPROVED BY: MRS  
DATE: 02/12/2024  
REVISION: 02/19/2024  
CLIENT: OUTAGAMIE COUNTY, RECYCLING & SOLID WASTE DEPARTMENT  
ENGINEER: SCS ENGINEERS  
2830 DARY DRIVE MADISON, WI 53718-6797  
PHONE: (608) 224-2830  
CONSTRUCTION DRAWINGS  
PHASE 1 LINER CONSTRUCTION  
OUTAGAMIE COUNTY NORTHWEST LANDFILL  
OUTAGAMIE COUNTY, WISCONSIN  
SITE  
DETAILS  
SHEET  
14 OF 24

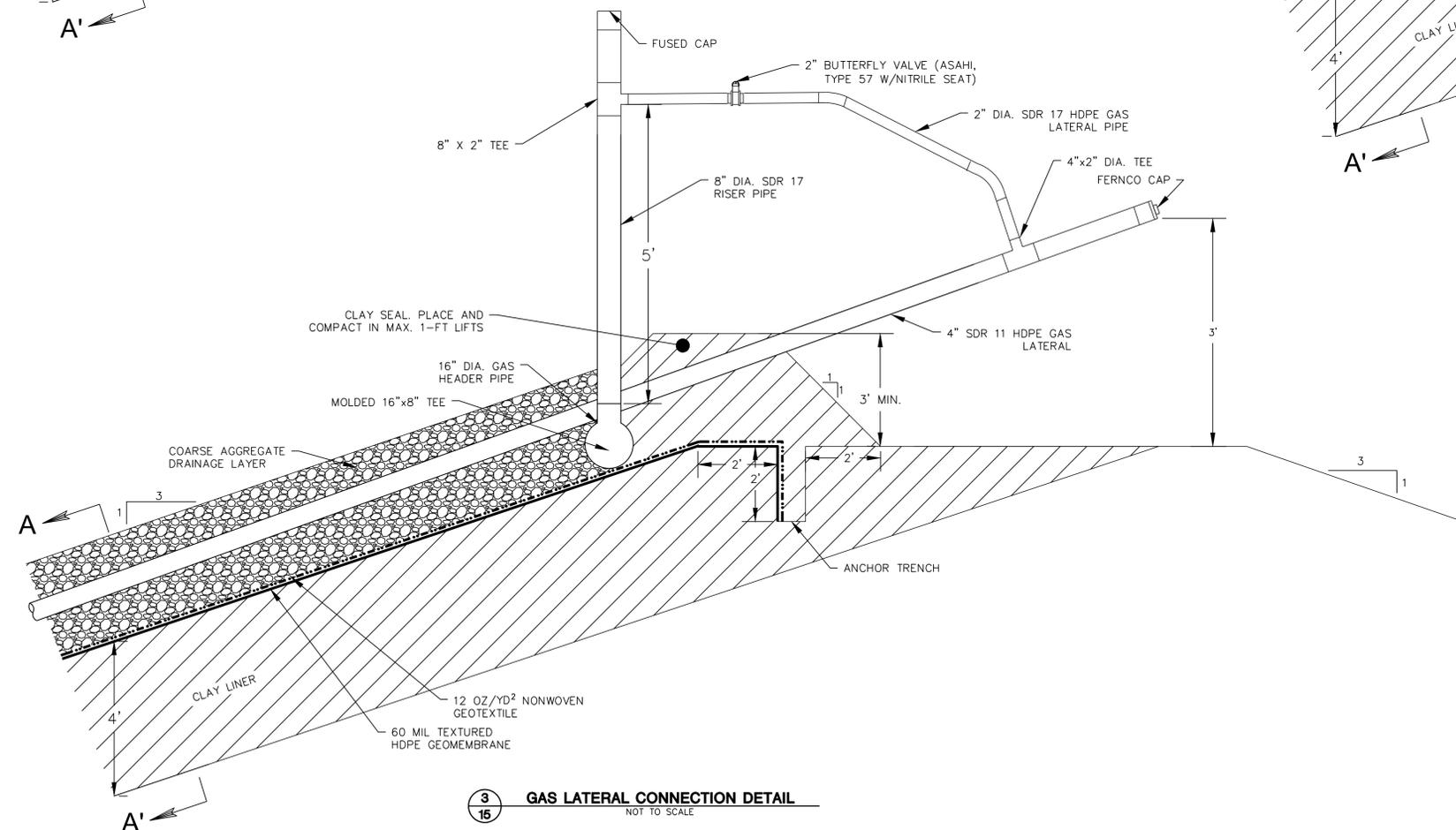
ISSUED FOR BIDDING



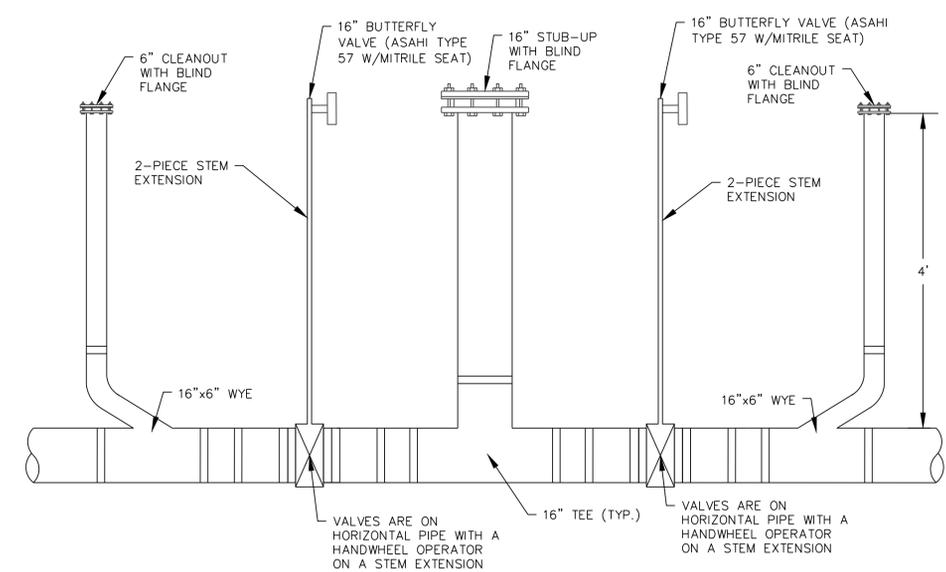
**1**  
15  
**CLEANOUT GAS CONNECTION DETAIL**  
NOT TO SCALE



**2**  
15  
**GAS STUB-UP DETAIL**  
NOT TO SCALE



**3**  
15  
**GAS LATERAL CONNECTION DETAIL**  
NOT TO SCALE

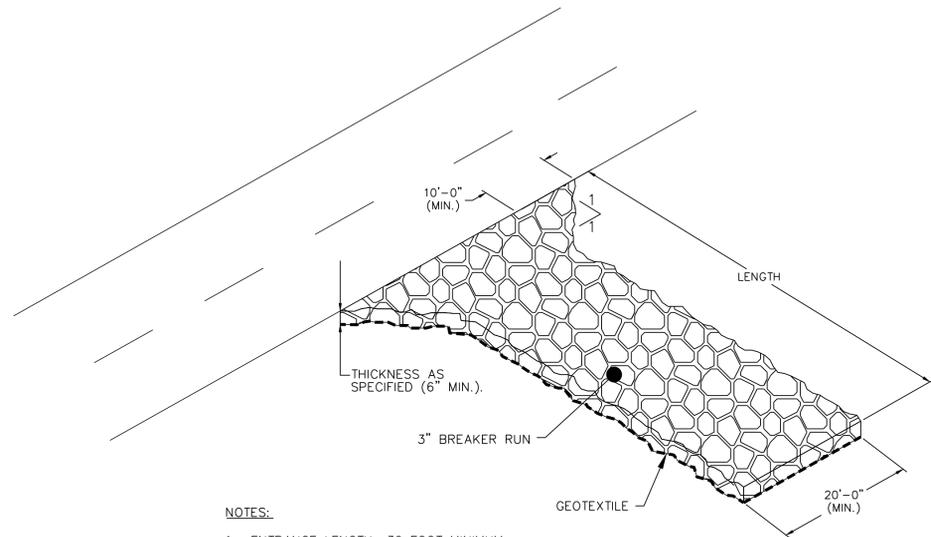


**4**  
15  
**SOUTHEAST GAS HEADER STUB-UP AND CLEANOUTS CONNECTION DETAIL**  
NOT TO SCALE

**ISSUED FOR BIDDING**

PROJECT NO.	2523132.02	DRAWN BY:	SB
DRAWN:	02/12/2024	CHECKED BY:	MH
REVISED:	02/19/2024	APPROVED BY:	MRS
OUTAGAMIE COUNTY, RESOLVING & SECS WASTE DEPARTMENT			
Outagamie County			
CLIENT			
SCS ENGINEERS 2800 DUNAY DRIVE, WAUKESHA, WI 53186-9751 PHONE: (608) 224-2830			
ENGINEER			
CONSTRUCTION DRAWINGS OUTAGAMIE COUNTY, NORTHWEST LANDFILL OUTAGAMIE COUNTY, WISCONSIN			
SITE			
DETAILS			
SHEET 15 of 24			

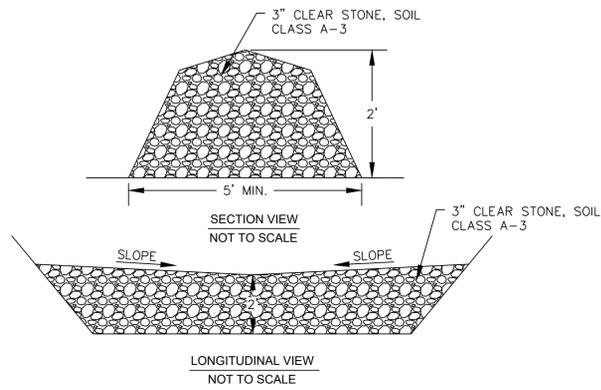




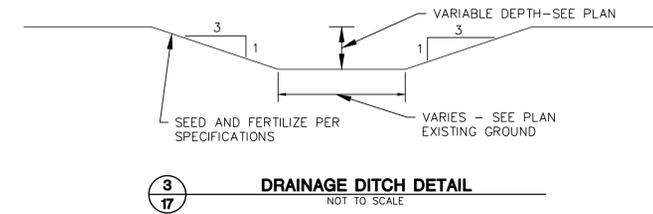
**NOTES:**

- ENTRANCE LENGTH: 30 FOOT MINIMUM. LENGTH OF ENTRANCE MAY BE INCREASED IF SEDIMENT TRACK-OUT OCCURS.
- INSTALL SUBGRADE AGGREGATE SEPARATION GEOTEXTILE BELOW STONE.

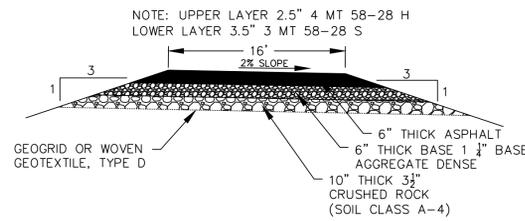
**1**  
**TYPICAL TRACKING PAD DETAIL**  
NOT TO SCALE



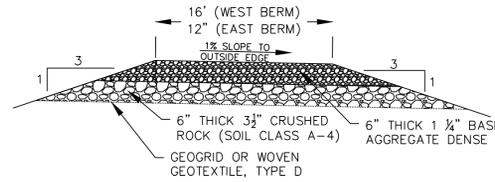
**2**  
**ROCK CHECK DAM DETAIL**  
NOT TO SCALE



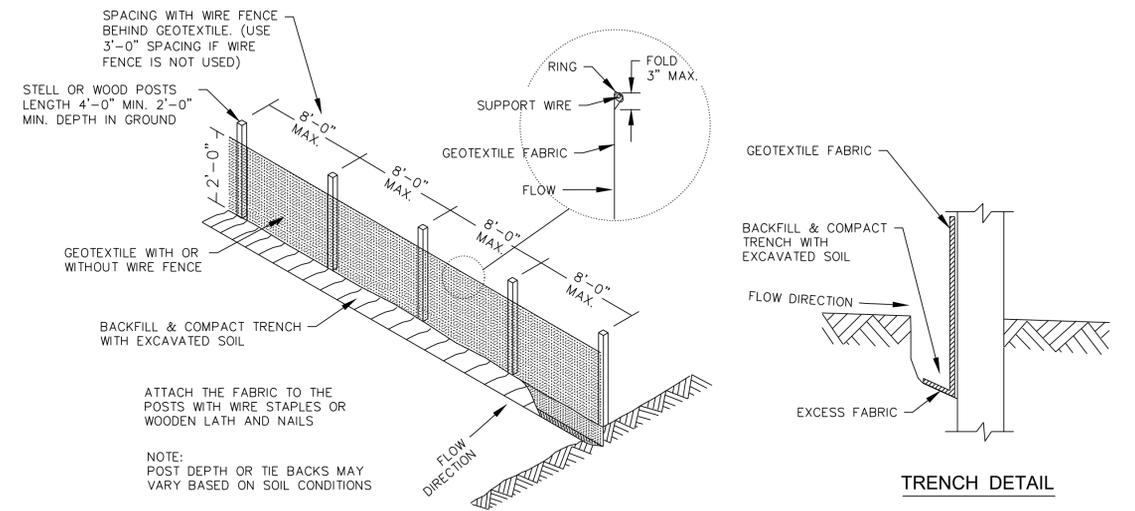
**3**  
**DRAINAGE DITCH DETAIL**  
NOT TO SCALE



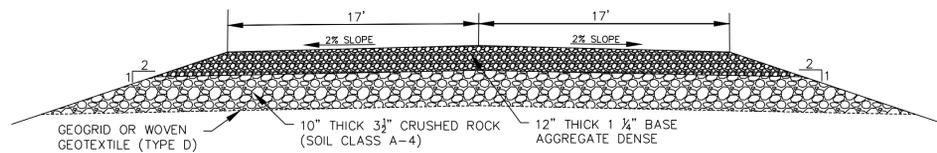
**4**  
**TYPICAL PAVED LOADOUT ROAD SECTION DETAIL**  
NOT TO SCALE



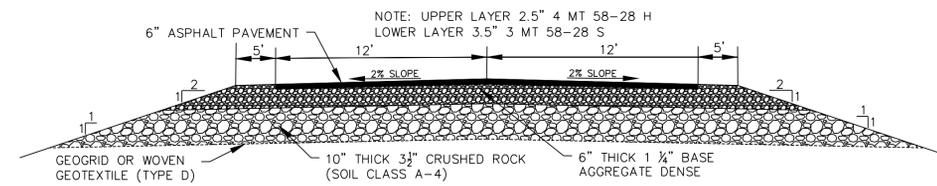
**5**  
**TYPICAL MAINTENANCE ROAD DETAIL**  
NOT TO SCALE



**6**  
**TYPICAL SILT FENCE DETAIL**  
NOT TO SCALE

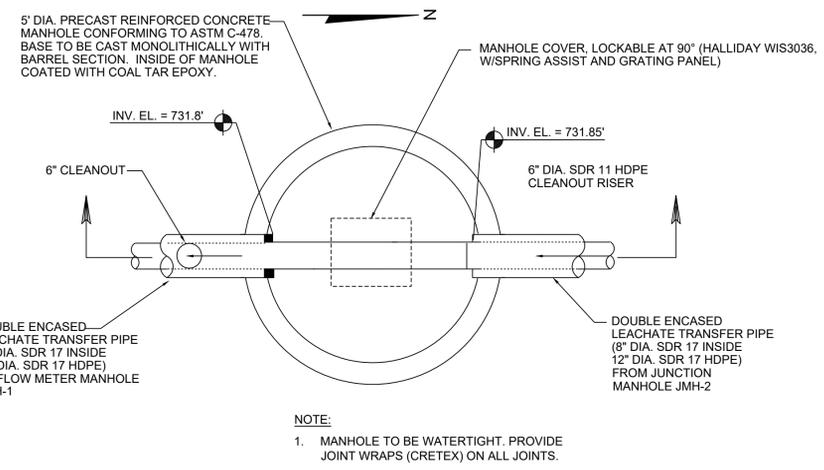


**7**  
**TYPICAL GRAVEL HAUL ROAD DETAIL**  
NOT TO SCALE

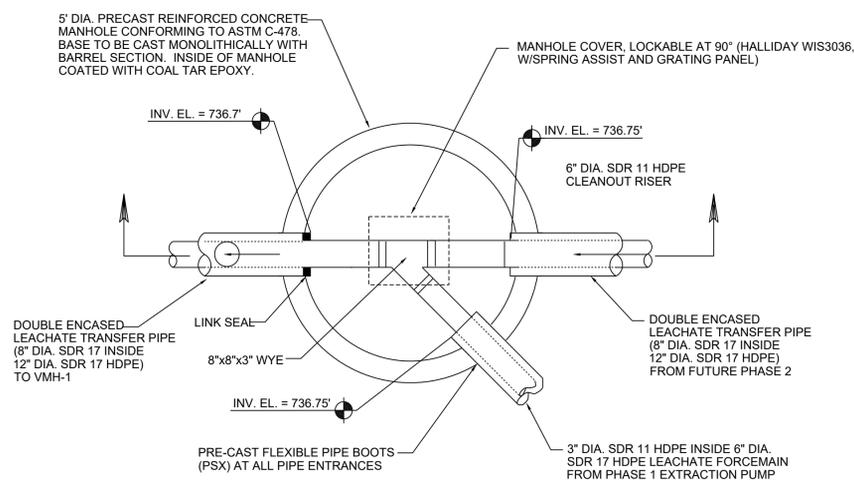


**8**  
**TYPICAL PAVED HAUL ROAD DETAIL**  
NOT TO SCALE

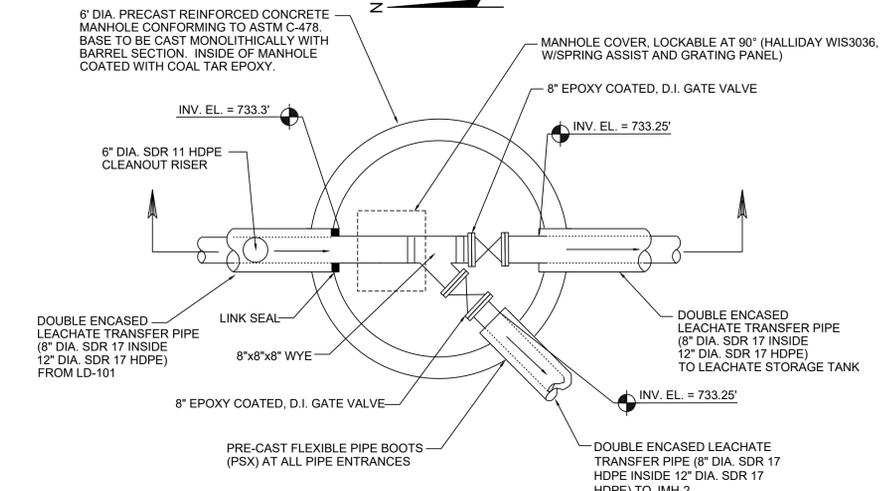
PROJECT NO. 25223132.02  
 DRAWN BY: SB  
 CHECKED BY: MH  
 APPROVED BY: MRS  
 DATE: 02/17/2024  
 REVISED: 02/19/2024  
 CLIENT: Outagamie County  
 ENGINEER: SC5 ENGINEERS  
 2830 DARY DRIVE MADISON, WI 53718-0791  
 PHONE: (608) 224-2830  
 CONSTRUCTION DRAWINGS  
 PHASE 1 LINER CONSTRUCTION  
 OUTAGAMIE COUNTY NORTHWEST LANDFILL  
 OUTAGAMIE COUNTY, WISCONSIN  
 SHEET  
 17 OF 24



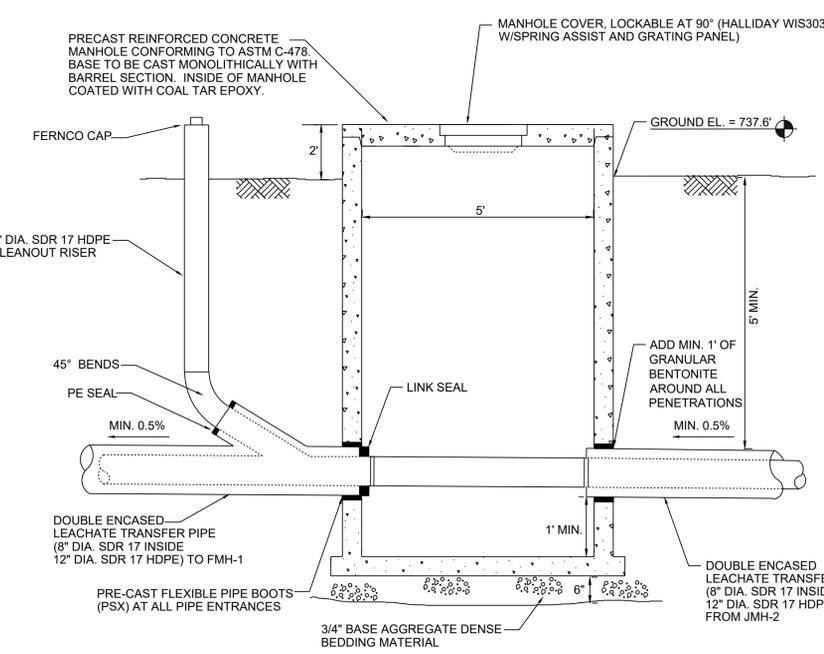
**PLAN VIEW**  
NOT TO SCALE



**PLAN VIEW**  
NOT TO SCALE



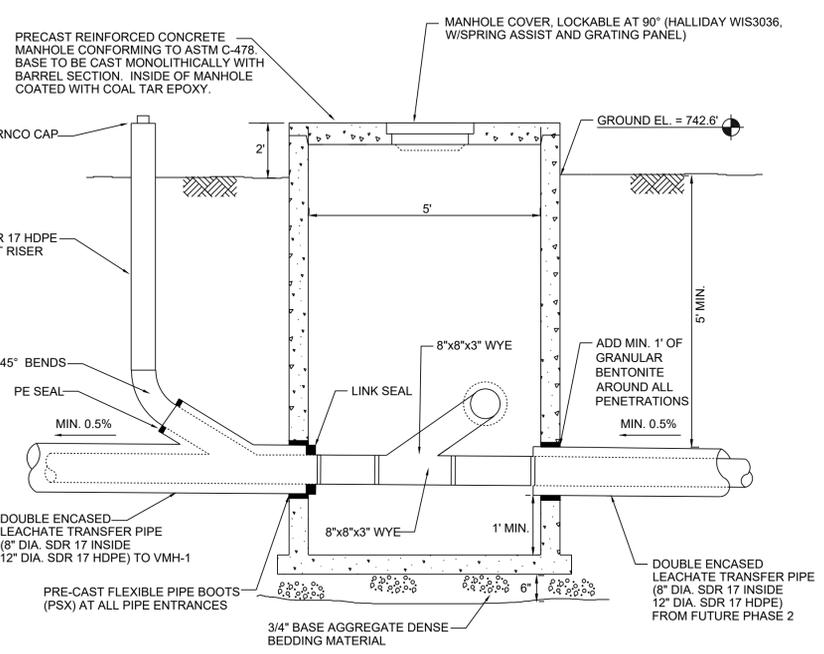
**PLAN VIEW**  
NOT TO SCALE



**SECTION**  
NOT TO SCALE

**LEAK DETECTION MANHOLE LD-100  
DETAIL**  
NOT TO SCALE

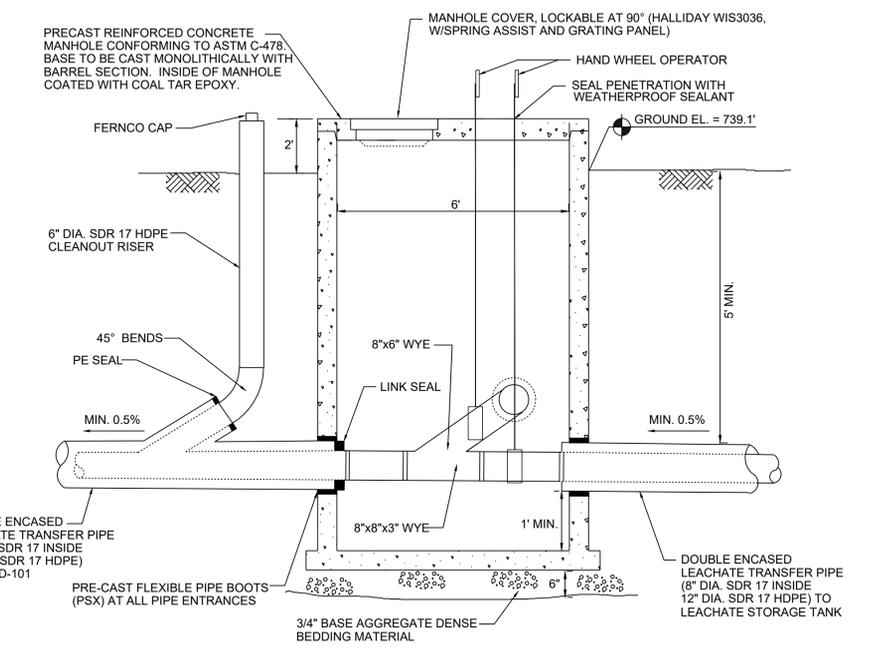
2  
18



**SECTION**  
NOT TO SCALE

**LEAK DETECTION MANHOLE LD-101  
DETAIL**  
NOT TO SCALE

1  
18

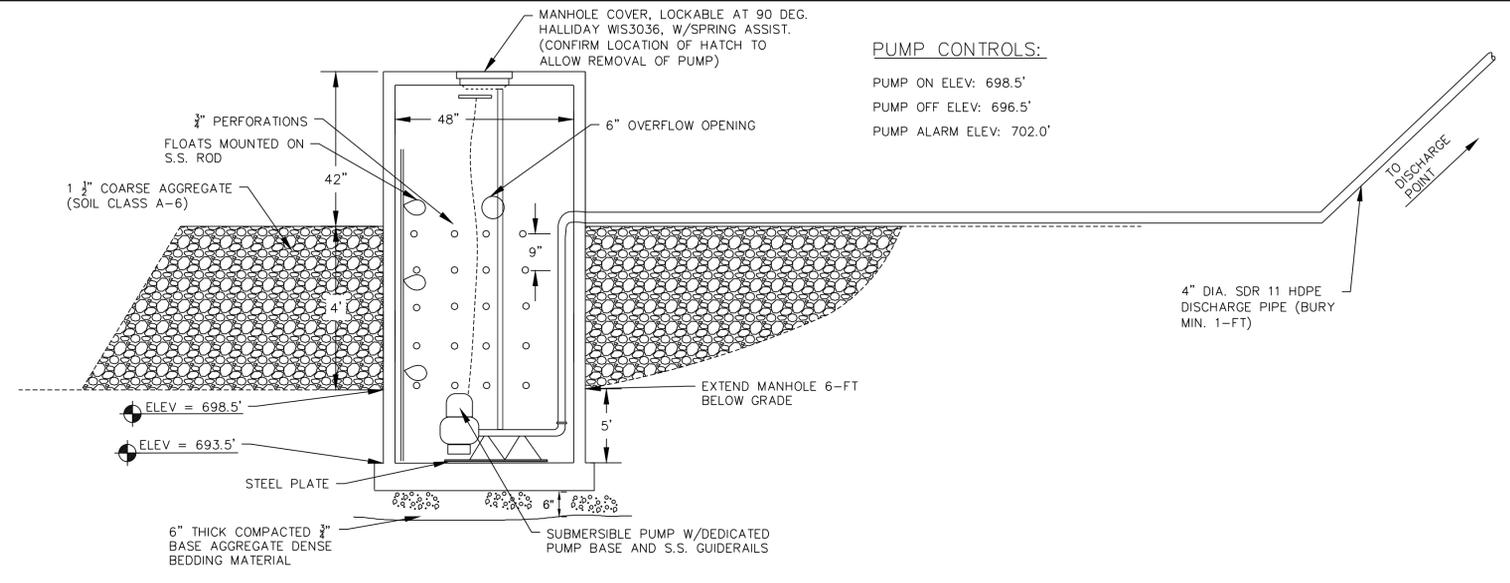
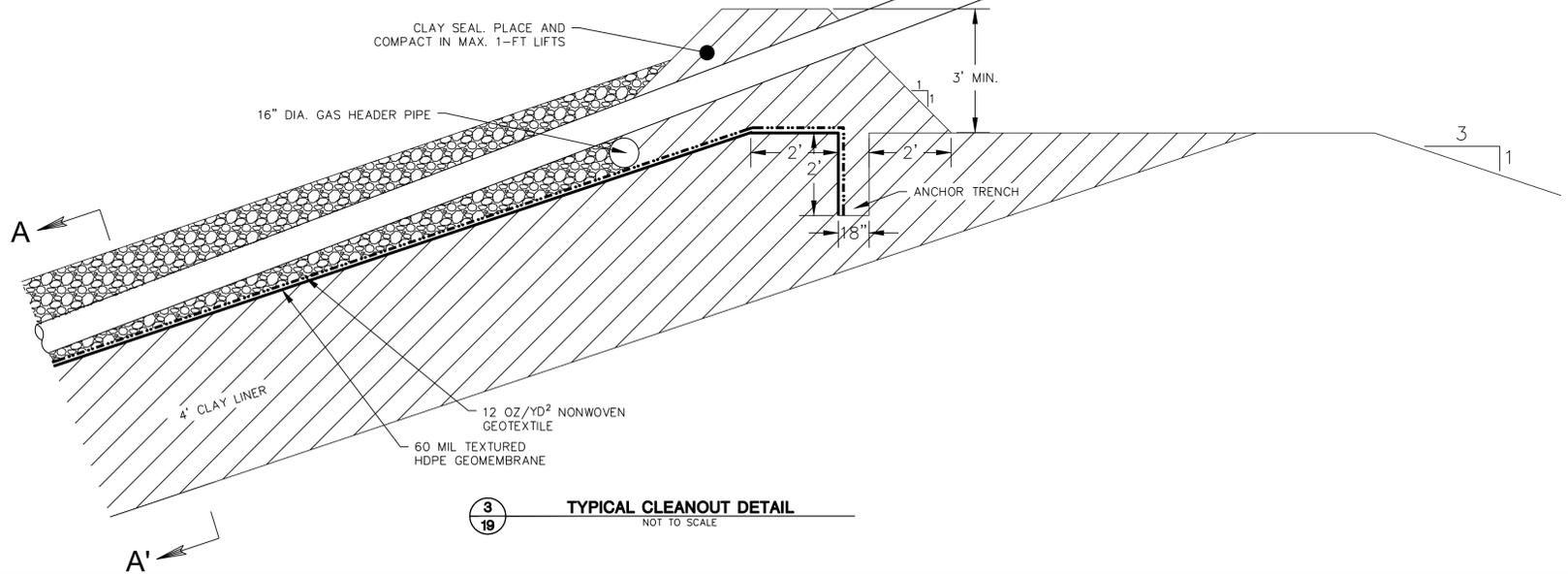
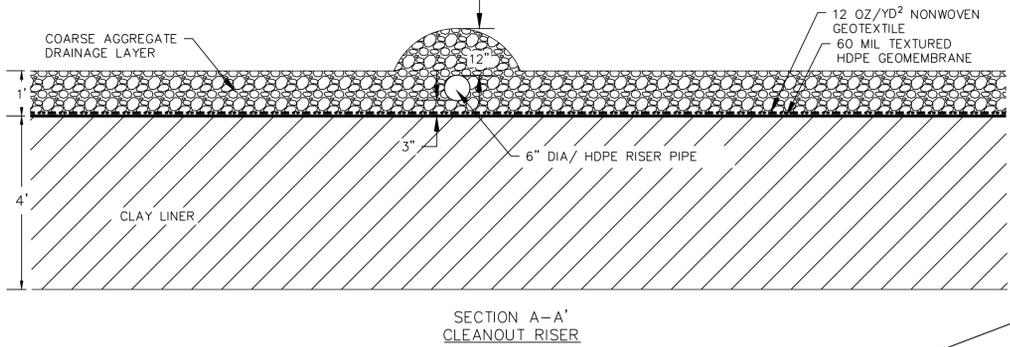
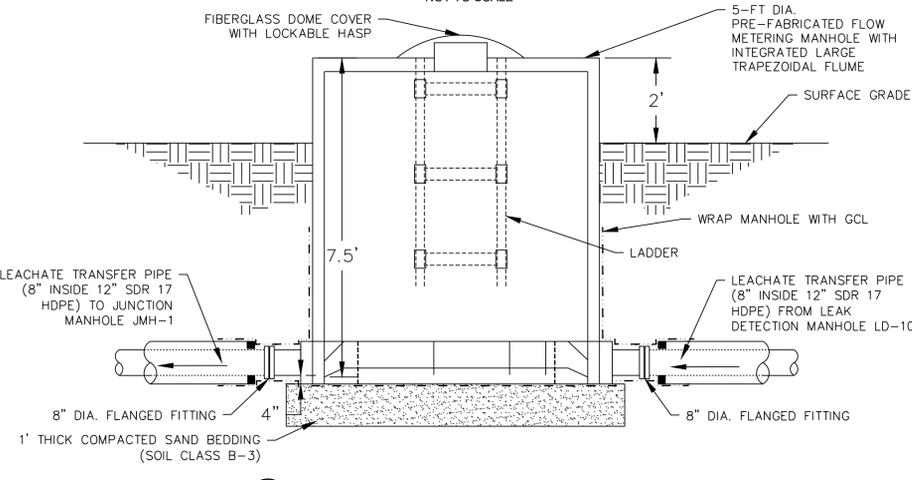
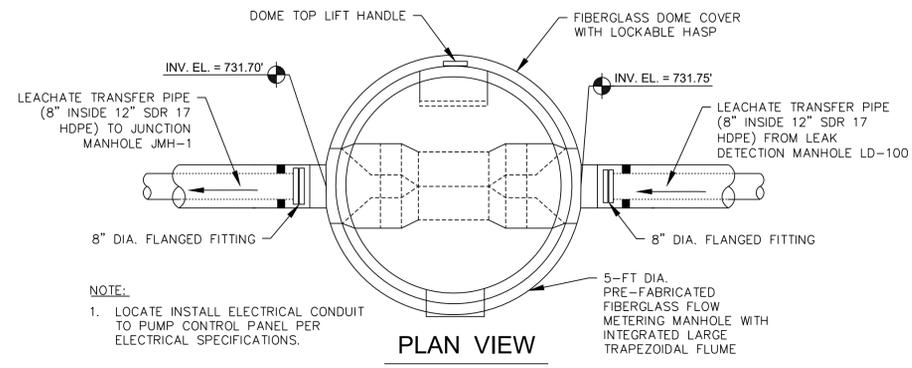


**SECTION**  
NOT TO SCALE

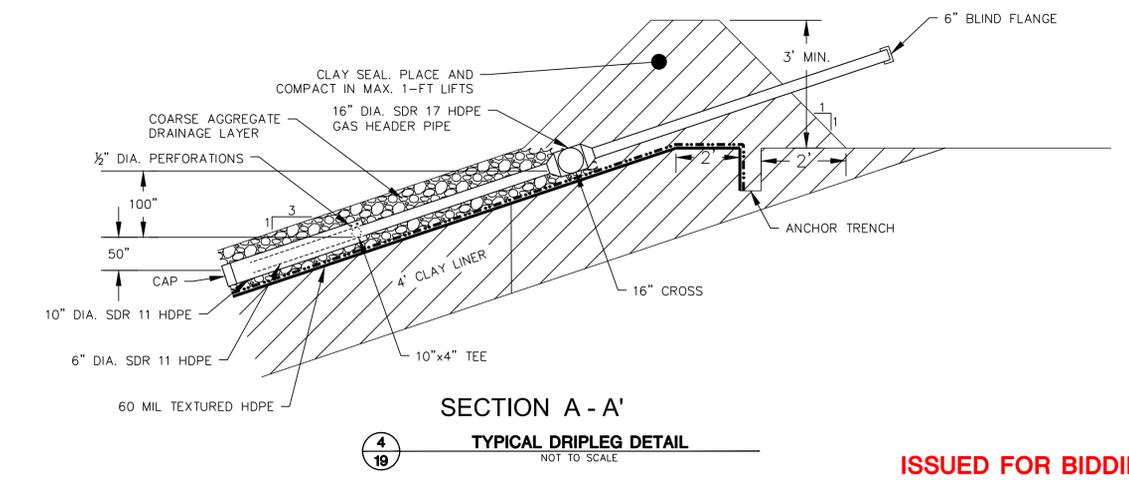
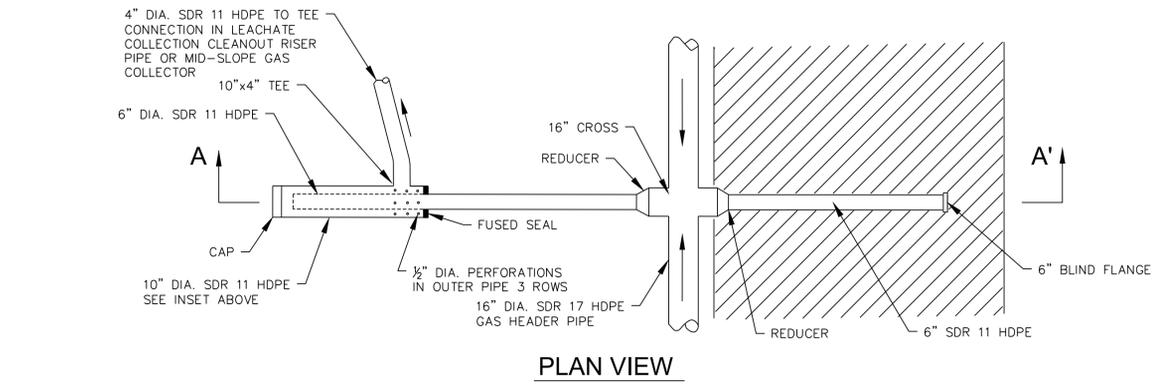
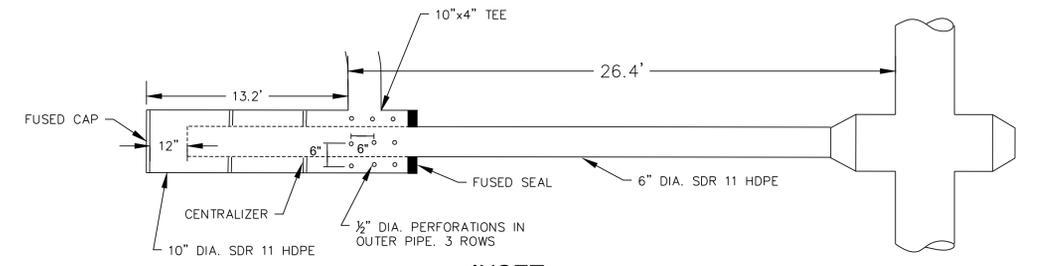
**VALVE MANHOLE VMH-1 DETAIL**  
NOT TO SCALE

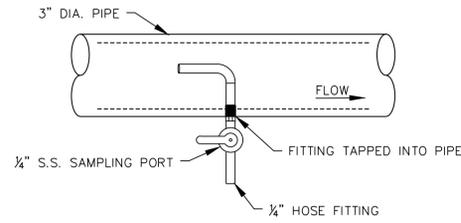
3  
18

**ISSUED FOR BIDDING**

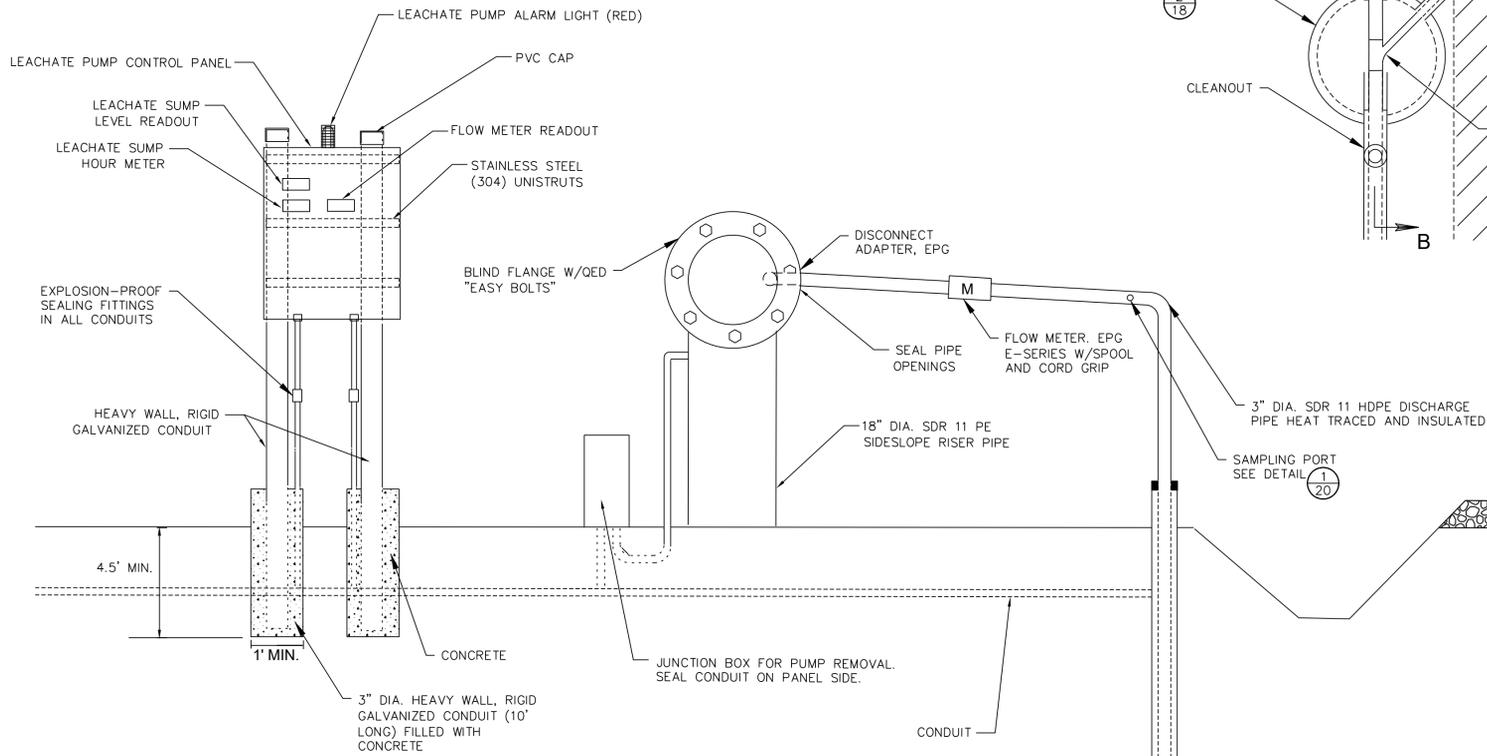


**PUMP CONTROLS:**  
 PUMP ON ELEV: 698.5'  
 PUMP OFF ELEV: 696.5'  
 PUMP ALARM ELEV: 702.0'





**1**  
**20** SAMPLING PORT DETAIL  
NOT TO SCALE



**CONTROL PANEL NOTES:**

1. ALL HARDWARE TO BE STAINLESS STEEL (304)
2. ALL CONTROLS AND METERS TO BE INSTALLED IN STAINLESS STEEL (304) NEMA 4X ENCLOSURES
3. PUMP CONTROL PANELS TO BE PROVIDED BY PUMP MANUFACTURERS.
4. PROVIDE SEAL-OFF FOR ALL CONDUITS PENETRATING THE GROUND. PROVIDE 10' OF PVC COATED RIGID GALVANIZED STEEL CONDUIT FROM THE SEAL-OFF TO THE PVC CONDUIT UNDER GRADE. ALL ABOVE GROUND CONDUIT SHALL BE RIGID GALVANIZED STEEL.

**3**  
**20** SECTION B-B DETAIL  
NOT TO SCALE

DOUBLE ENCASED LEACHATE FORCEMAIN PIPE (3" SDR 11 INSIDE 6" SDR 17 HDPE)

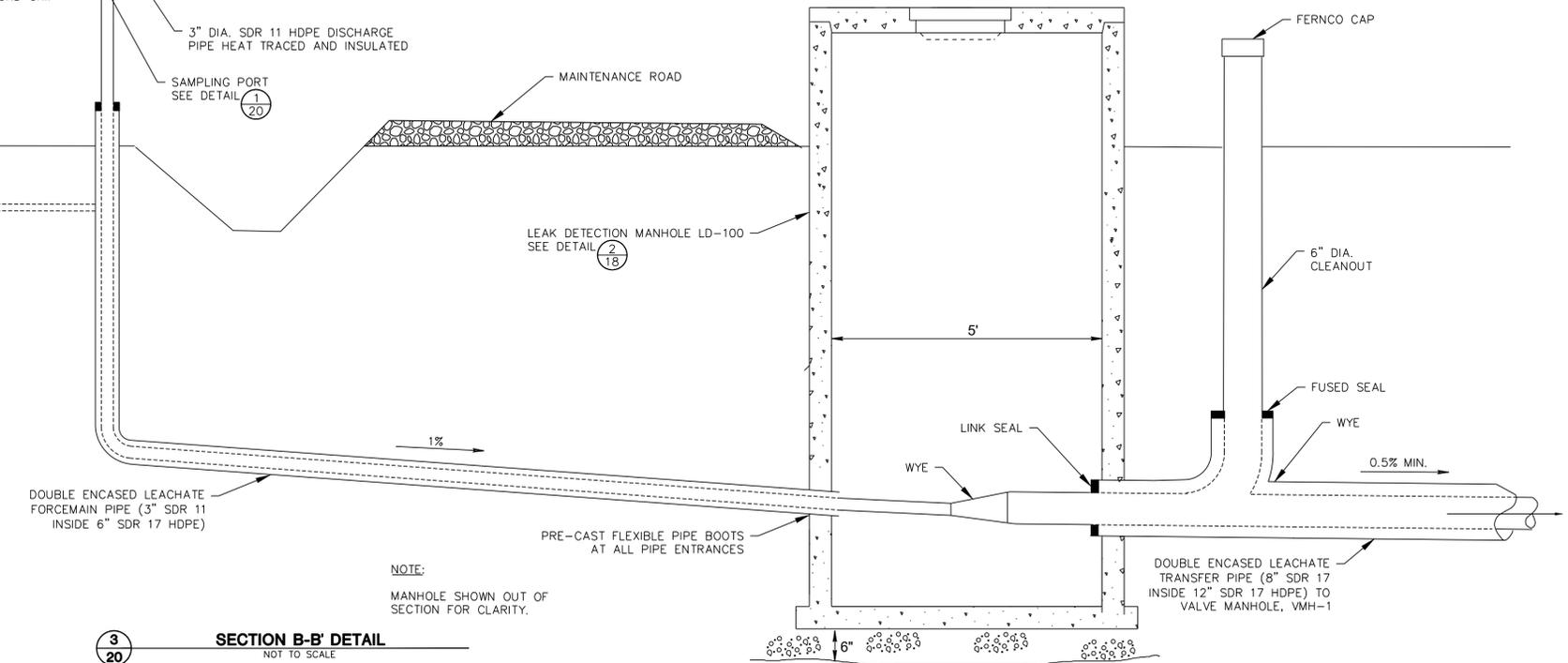
DOUBLE ENCASED LEACHATE TRANSFER PIPE (8" SDR 17 INSIDE 12" SDR 17 HDPE)

LEAK DETECTION MANHOLE LD-100 SEE DETAIL **2**/**18**

CLEANOUT

B

**2**  
**20** LEACHATE EXTRACTION SYSTEM - PLAN VIEW DETAIL  
NOT TO SCALE

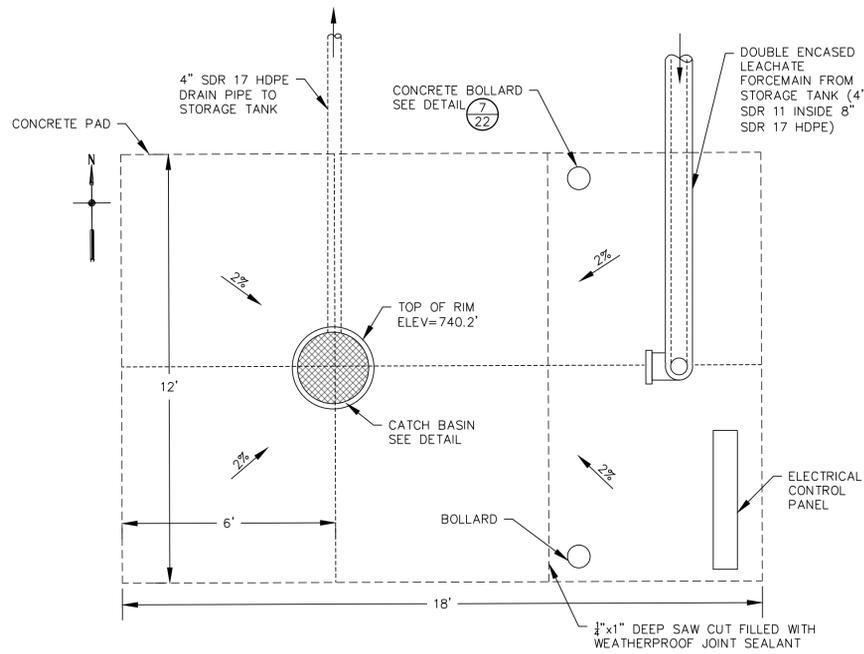


**NOTE:**  
MANHOLE SHOWN OUT OF SECTION FOR CLARITY.

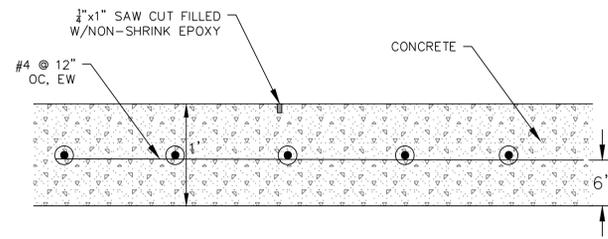
**ISSUED FOR BIDDING**

PROJECT NO.	20221212.02	DRAWN BY:	SB
DRAWN:	02/12/2024	CHECKED BY:	MH
REVISED:	02/19/2024	APPROVED BY:	MRS
OUTAGAMIE COUNTY RECYCLING & SOLID WASTE DEPARTMENT			
CLIENT			
<b>SCS ENGINEERS</b> 2830 DAIRY DRIVE MADISON, WI 53718-6751 PHONE: (608) 224-2830			
ENGINEER			
CONSTRUCTION DRAWINGS PHASE 1 LINER CONSTRUCTION OUTAGAMIE COUNTY NORTHWEST LANDFILL OUTAGAMIE COUNTY, WISCONSIN			
SITE			
DETAILS			
SHEET 20 of 24			

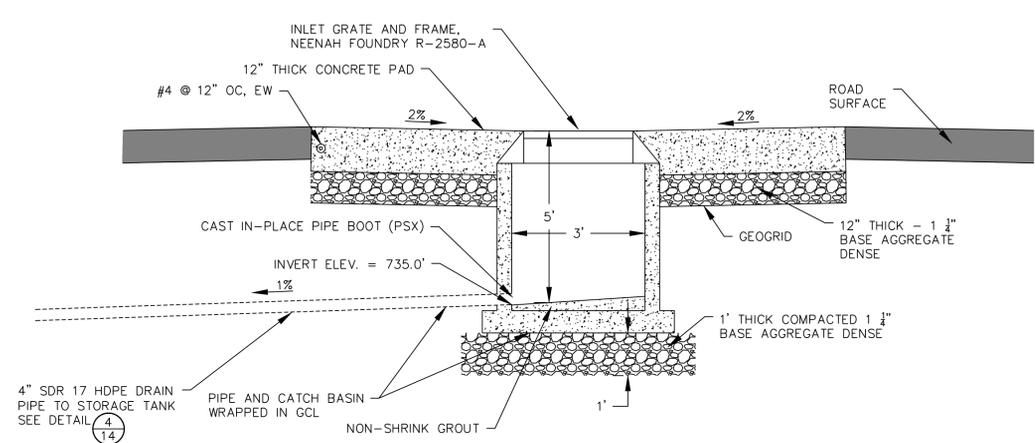




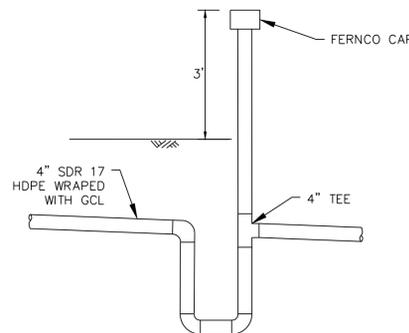
**1**  
**22** LEACHATE LOADOUT PAD PLAN VIEW  
DETAIL  
NOT TO SCALE



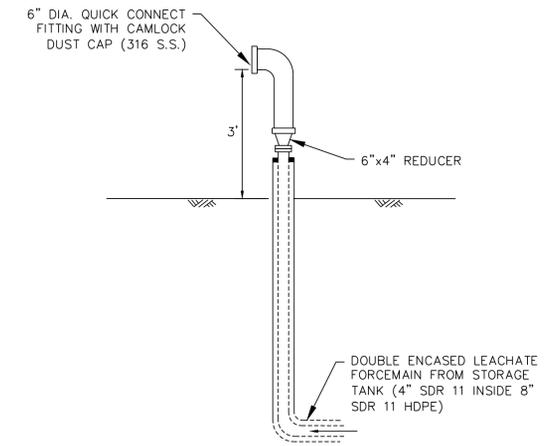
**2**  
**22** LOADOUT PAD - SECTION DETAIL  
NOT TO SCALE



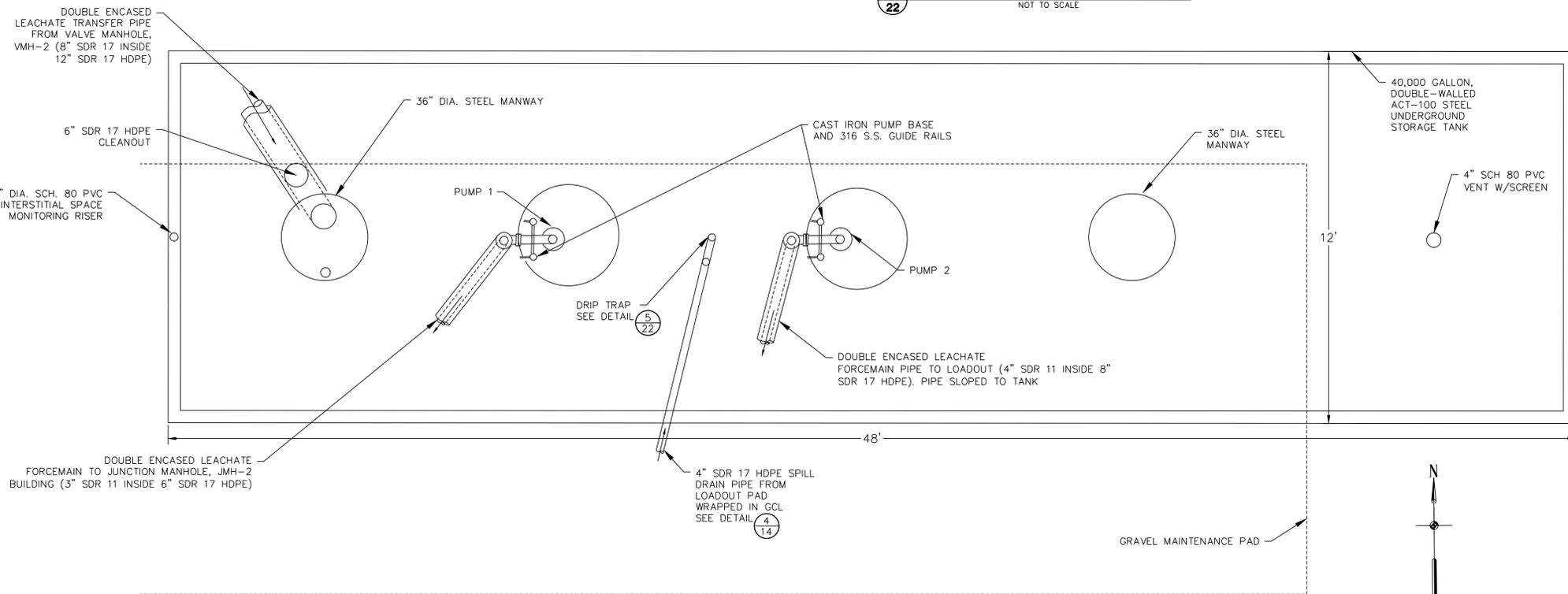
**3**  
**22** CATCH BASIN DETAIL  
NOT TO SCALE



**5**  
**22** TYPICAL DRIP-TRAP DETAIL  
NOT TO SCALE



**6**  
**22** TYPICAL DRIP-TRAP DETAIL  
NOT TO SCALE



**4**  
**22** LEACHATE STORAGE TANK - PLAN VIEW  
DETAIL  
NOT TO SCALE

**NOTES:**

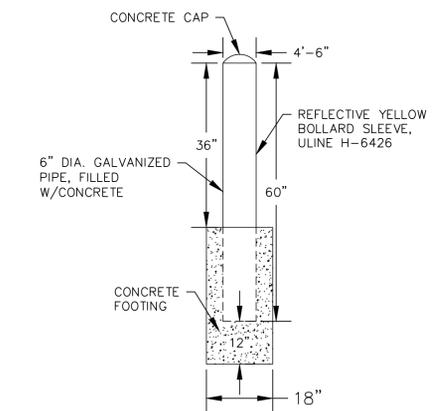
1. MANUFACTURER - LANNON TANK COMPANY OR APPROVED EQUAL
2. CAPACITY - 40,000 GALLON
3. STEEL TANK INSTITUTE ACT-100
4. 100 MIL FRP LAMINATE EXTERIOR
5. INTERIOR COATED WITH 2 COATS TNEC #6 EPOXY, MIN. 10 MIL
6. DEADMAN ANCHORING PACKAGE PER TANK MANUFACTURER

**PUMP 1 OPERATION:**

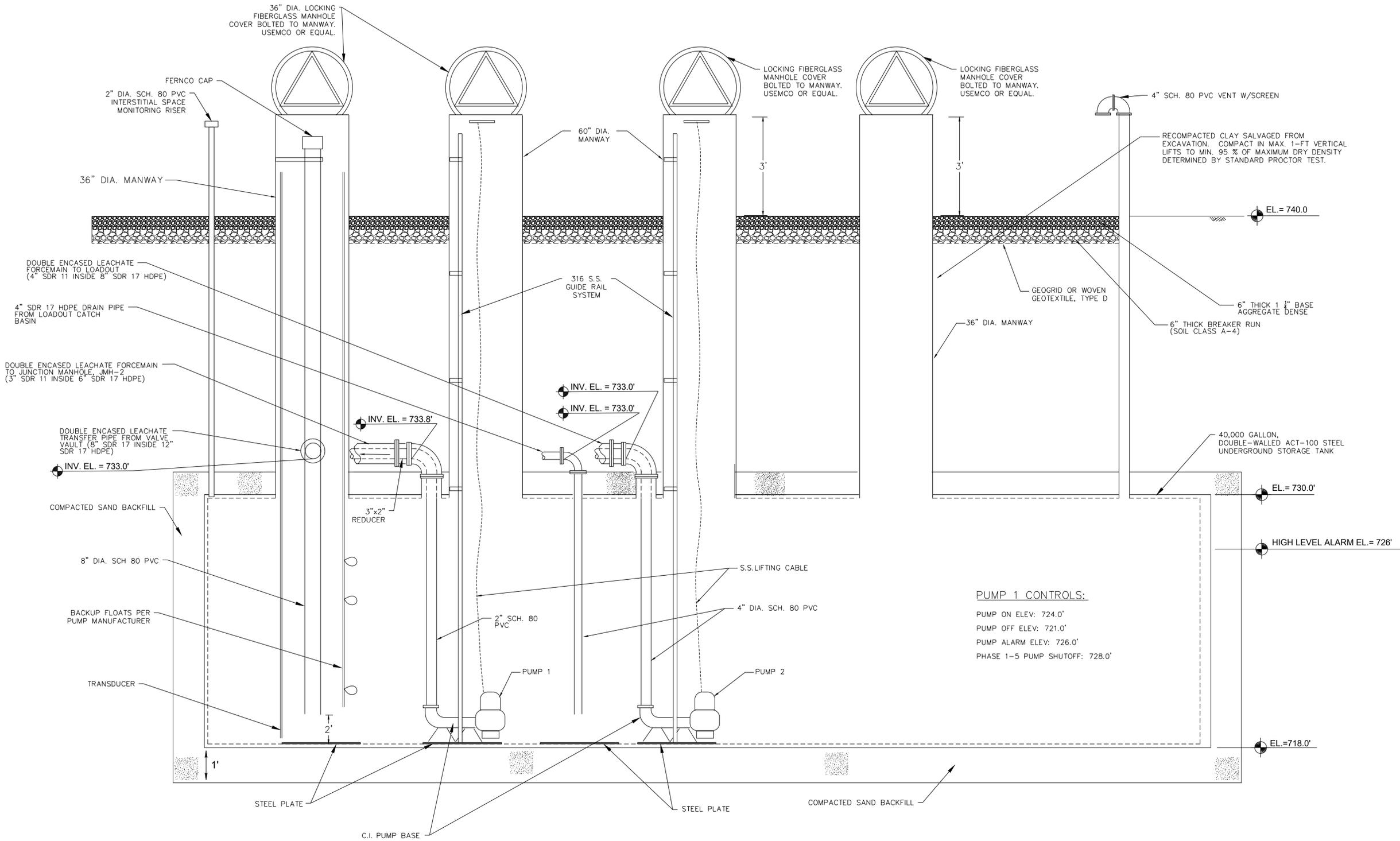
1. VARIABLE FREQUENCY DRIVE CONTROLLED
2. OPERATOR SET DISCHARGE RATE - PASSWORD PROTECTED TOUCHSCREEN
3. HIGH LEVEL ALARM - 726'
4. LOW LEVEL ELEVATION SHUTOFF PER PUMP MANUFACTURER

**PUMP 2 OPERATION:**

1. MANUAL OPERATION - PASSWORD PROTECTED TOUCHSCREEN
2. HIGH LEVEL ALARM - 726'
3. LOW LEVEL ELEVATION SHUTOFF PER PUMP MANUFACTURER



**7**  
**22** CONCRETE BOLLARD  
NOT TO SCALE



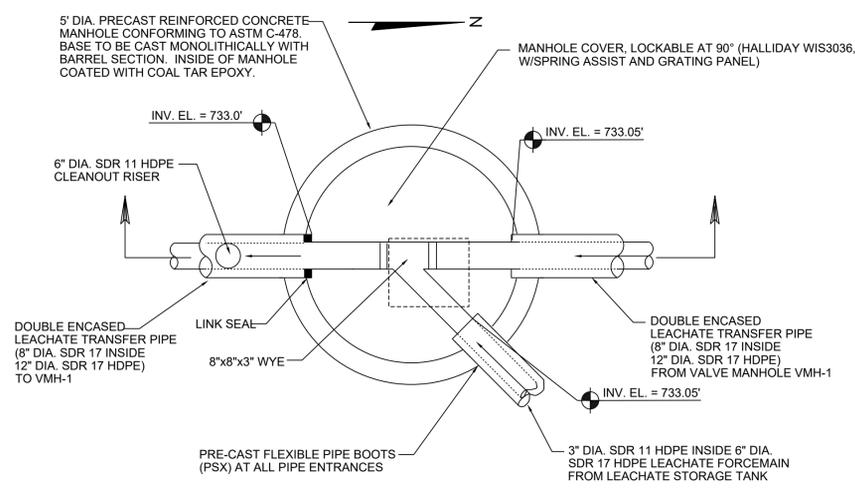
**PUMP 1 CONTROLS:**  
 PUMP ON ELEV: 724.0'  
 PUMP OFF ELEV: 721.0'  
 PUMP ALARM ELEV: 726.0'  
 PHASE 1-5 PUMP SHUTOFF: 728.0'

**LEACHATE STORAGE TANK - SECTION VIEW DETAIL**  
 1  
 23  
 NOT TO SCALE

PROJECT NO.	2522312.02	DRAWN BY:	SB
DRAWN:	02/12/2024	CHECKED BY:	MH
REVISED:	02/19/2024	APPROVED BY:	MRS
OUTAGAMIE COUNTY, RECYCLING & SOLID WASTE DEPARTMENT			
 Outagamie County			
CLIENT			
<b>SCS ENGINEERS</b> 2830 DARY DRIVE MADISON, WI 53718-6797 PHONE: (608) 224-2830			
ENGINEER			
CONSTRUCTION DRAWINGS PHASE 1 LINER CONSTRUCTION OUTAGAMIE COUNTY NORTHWEST LANDFILL OUTAGAMIE COUNTY, WISCONSIN			
SITE			
DETAILS			
SHEET			
23 OF 24			

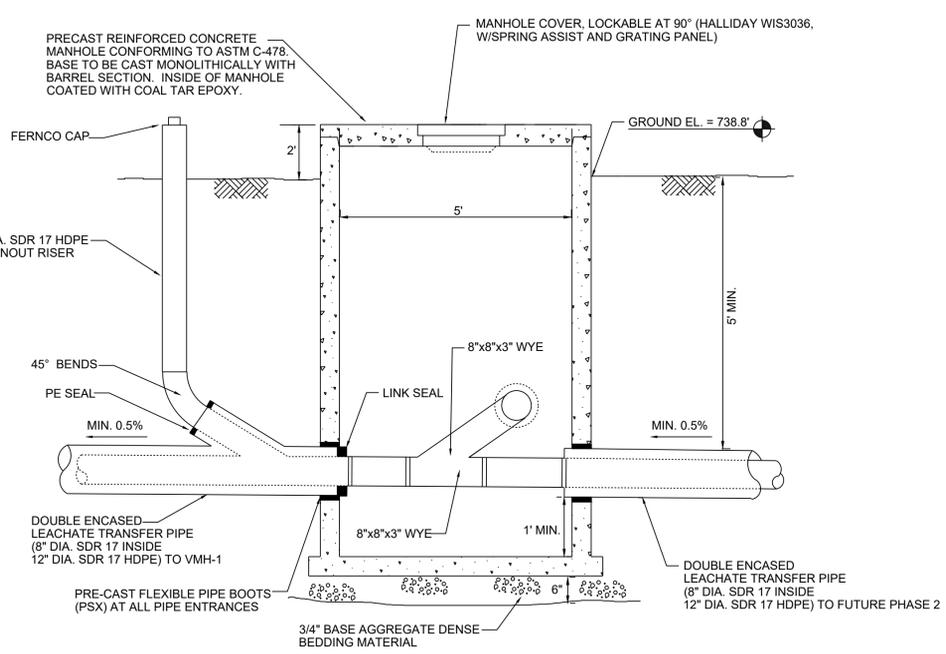
**ISSUED FOR BIDDING**

RECOMPACTED CLAY SALVAGED FROM EXCAVATION. COMPACT IN MAX. 1-FT VERTICAL LIFTS TO MIN. 95% OF MAXIMUM DRY DENSITY DETERMINED BY STANDARD PROCTOR TEST.



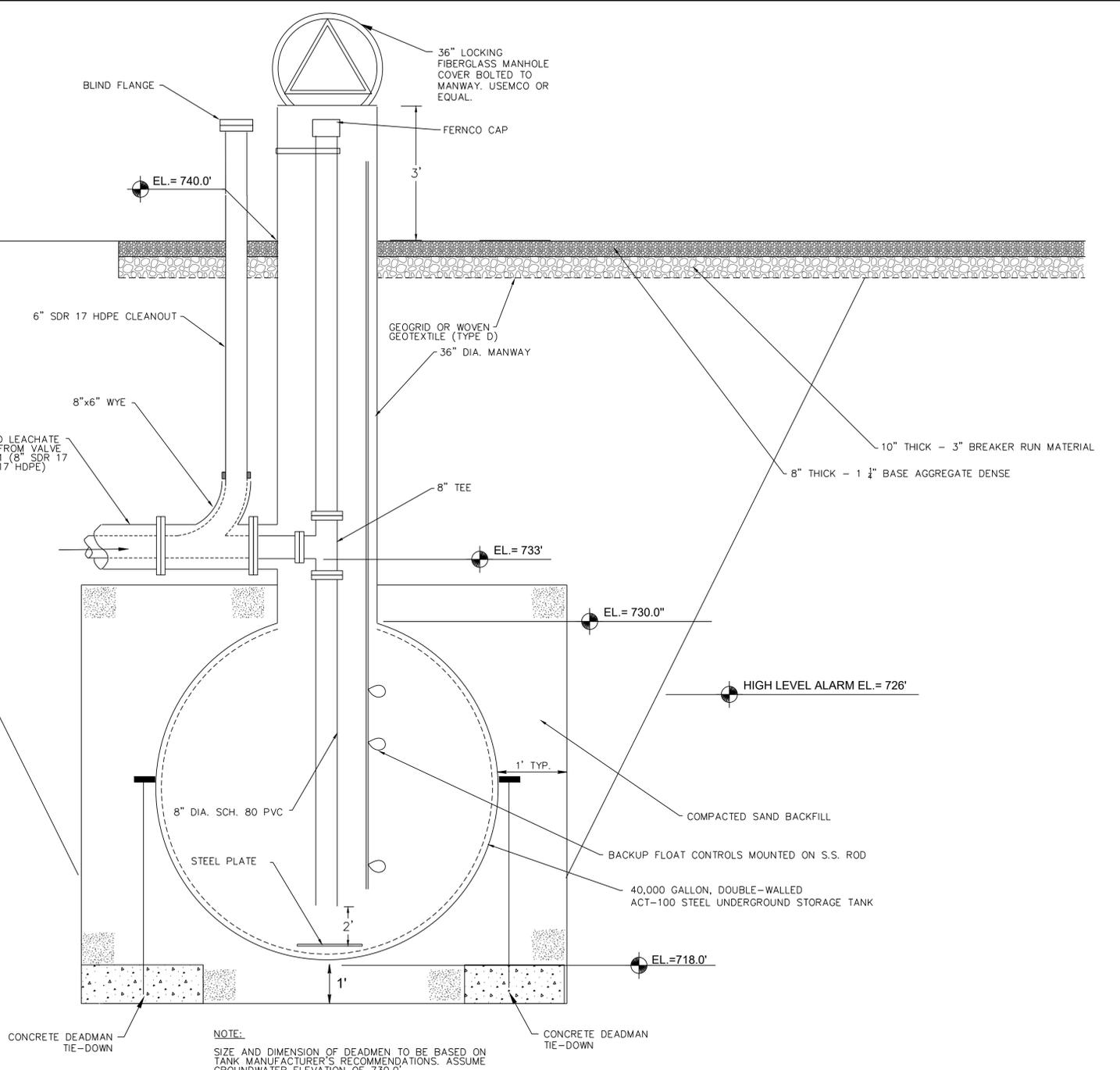
NOTE:  
1. MANHOLE TO BE WATERTIGHT. PROVIDE JOINT WRAPS (CRETEX) ON ALL JOINTS.

**PLAN VIEW**  
NOT TO SCALE



**SECTION**  
NOT TO SCALE

**1**  
**JUNCTION MANHOLE JMH-2 DETAIL**  
NOT TO SCALE



**2**  
**LEACHATE STORAGE TANK - SECTION VIEW DETAIL**  
NOT TO SCALE

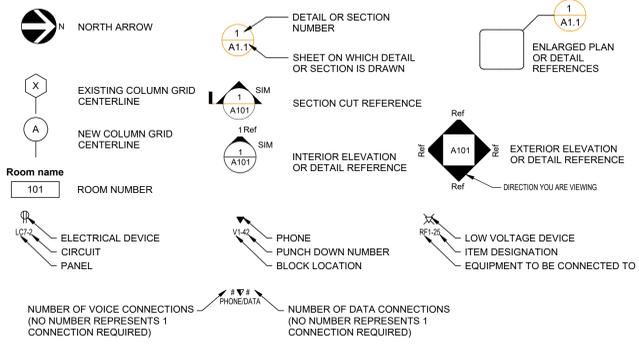
PROJECT NO.	252313202	DRAWN BY:	SB
DRAWN:	02/12/2024	CHECKED BY:	MH
REVISED:	02/19/2024	APPROVED BY:	MRS
OUTAGAMIE COUNTY RECYCLING & SOLID WASTE DEPARTMENT			
Outagamie County			
CLIENT			
<b>SCS ENGINEERS</b> 2850 DAIRY DRIVE MADISON, WI 53718-6751 PHONE: (608) 224-2820			
ENGINEER			
CONSTRUCTION DRAWINGS PHASE 1 LINER CONSTRUCTION OUTAGAMIE COUNTY NORTHWEST LANDFILL OUTAGAMIE COUNTY, WISCONSIN			
SITE			
DETAILS			
SHEET			
24 of 24			

**ISSUED FOR BIDDING**

## ELECTRICAL ABBREVIATIONS LIST

1P	1 POLE (2P, 3P, 4P, ETC.)	DCP	DOMESTIC WATER CIRCULATING PUMP	HP	HORSEPOWER	NC	NORMALLY CLOSED	SW	SWITCH
A	AMPERE	DEPT	DEPARTMENT	HPF	HIGH POWER FACTOR	NEC	NATIONAL ELECTRICAL CODE	SWB	SWITCHBOARD
AC	ABOVE COUNTER OR AIR CONDITIONER	DET	DETAIL	HT	HEIGHT	NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION	SYS	SYSTEM
ACLG	ABOVE CEILING	DIA	DIAMETER	HTR	HEATER	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION	TEL	TELEPHONE
ADO	AUTOMATIC DOOR OPENER	DISC	DISCONNECT	HV	HIGH VOLTAGE	NFDS	NON-FUSED SAFETY DISCONNECT SWITCH	TEL/DATE	TELEPHONE/DATE
AF	AMP FRAME	DIST	DISTRIBUTION	HVAC	HEATING, VENTILATING AND AIR CONDITIONING	NIC	NOT IN CONTRACT	TERM	TERMINAL
AFB	ABOVE FINISHED FLOOR	DIV	DIVISION	IC	INTERLOCK WITH	NL	NIGHT LIGHT	TR	TWIST LOCK
AFG	ABOVE FINISHED GRADE	DN	DOWN	HC	HYDRONIC WATER PUMP	NO	NORMALLY OPEN	TRM	TAMPER RESISTANT THERMOSTAT
AFI	AIRC FAULT CIRCUIT INTERRUPTER	DS	DOUBLE THROW SWITCH	HW	INTERMEDIATE METAL CONDUIT	NPF	NORMAL POWER FACTOR NOT TO SCALE	TTC	TELEPHONE TERMINAL CABINET
AHU	AIR HANDLING UNIT	DWG	DRAWING	INC	INCANDESCENT	NTS	NORMAL TO SCALE	TV	TELEVISION
AL	ALUMINUM	EP	ELECTRIC PNEUMATIC	INCAND	INCANDESCENT	OH	OVERHEAD	TVC	TELEVISION TERMINAL CABINET
ALT	ALTERNATE	EC	ELECTRICAL CONTRACTOR	IR	INFRA-RED	OL	OVERLOADS	TYP	TYPICAL
AMP	AMPLIFIER	ELEC	ELECTRICAL	IR	INTERLOCK WITH	PA	PUBLIC ADDRESS	UC	UNDER COUNTER
ANLN	ANNUNCIATOR	ELEV	ELEVATOR	J-BOX	JUNCTION BOX	PB	PULL BOX OR PUSHBUTTON	UC	UNDERGROUND ELECTRICAL
APPROX	APPROXIMATELY	EM	EMERGENCY	KV	KILOVOLT	PE	PEDESTAL	UG	UNDERGROUND
AQ-STAT	AQUASTAT	EMS	ENERGY MANAGEMENT SYSTEM	KVA	KILOVOLT-AMPERE	PH	PHASE	UH	UNIT HEATER
ARCH	ARCHITECT, ARCHITECTURAL	EPT	ELECTRICAL METALLIC TUBING	KVAR	KILOVOLT-AMPERE REACTIVE	PH	PHASE	UT	UNDERGROUND TELEPHONE
AS	AMP SWITCH	EQU	EQUIPMENT	KWH	KILOWATT HOUR	PV	POST INDICATING VALVE	UV	ULTRAVIOLET
AT	AMP TRIP	ETR	EXISTING TO REMAIN	LCP	LIGHTING CONTROL PANEL	PP	POWER POLE	V	VOLT
ATS	AUTOMATIC TRANSFER SWITCH	EW	ELECTRIC WATER COOLER	LOC	LOCATE OR LOCATION	PR	PAIR	V	VOLTS
AUTO	AUTOMATIC	EX	EXISTING	LTG	LIGHTING	PROJ	PROJECTION	VA	VIDEO DISPLAY TERMINAL
AUX	AUXILIARY	EXH	EXHAUST	LTN	LIGHTNING	PRV	POWER ROOF VENTILATOR	VERT	VERTICAL
AV	AUDIO VISUAL	EXP	EXPLOSION PROOF	LV	LOW VOLTAGE	PVC	POLYVINYL CHLORIDE (CONDUIT)	VFD	VARIABLE FREQUENCY DRIVE
AWG	AMERICAN WIRE GAUGE	EXT	EXTERIOR	MAX	MAXIMUM	PWR	POWER	VOL	VOLUME
BATT	BATTERY	FA	FIRE ALARM	MAG	MAGNETIC	QUAN	QUANTITY	W	WATT
BD	BOARD	FABP	FIRE ALARM BOOSTER POWER SUPPLY PANEL	MAGS	MAGNETIC STARTER	RCPT	RECEPTACLE	WG	WIRE GUARD
BLDG	BUILDING	FACP	FIRE ALARM CONTROL PANEL	MC	MECHANICAL CONTACT	REQD	REQUIRED	WH	WATER HEATER
BMS	BUILDING MANAGEMENT SYSTEM	FAN	FAN COIL UNIT	MCC	MOTOR CONTROL CENTER	RM	ROOM	W/O	WITHOUT
C	CONDUIT	FCU	FIXTURE	MDC	MAIN DISTRIBUTION CENTER	RSC	RIGID STEEL CONDUIT	WP	WEATHERPROOF
CAB	CABINET	FLR	FLOOR	MFR	MANUFACTURER	RTU	ROOF TOP UNIT	XFRM	TRANSFORMER
CAT	CATALOG	FLU	FLUORESCENT	MFS	MAIN FUSED DISCONNECT SWITCH	SEC	SECONDARY	XFR	TRANSFER
CATV	CABLE TELEVISION	FJ	FUSE	MH	MANHOLE	SEC	SECONDARY	ANGLE	ANGLE
CB	CIRCUIT BREAKER	FJDS	FUSED SAFETY DISCONNECT SWITCH	MC	MECHANICAL CONTRACTOR	SEC	SECONDARY	AT	AT
CCTV	CLOSED CIRCUIT TELEVISION	GA	GAUGE	MCCB	MOTOR CIRCUIT BREAKER	SEC	SECONDARY	Δ	DELTA
CLG	CEILING	GALV	GALVANIZED	MCC	MOTOR CONTROL CENTER	SEC	SECONDARY	Δ	DELTA
CLG	CEILING	GEN	GENERATOR	MCCB	MOTOR CIRCUIT BREAKER	SEC	SECONDARY	Δ	DELTA
COMB	COMBINATION	GEN	GENERATOR	MCCB	MOTOR CIRCUIT BREAKER	SEC	SECONDARY	Δ	DELTA
CMPR	COMPRESSOR	GEN	GENERATOR	MCCB	MOTOR CIRCUIT BREAKER	SEC	SECONDARY	Δ	DELTA
CONN	CONNECTION	GEN	GENERATOR	MCCB	MOTOR CIRCUIT BREAKER	SEC	SECONDARY	Δ	DELTA
CONSTR	CONSTRUCTION	GEN	GENERATOR	MCCB	MOTOR CIRCUIT BREAKER	SEC	SECONDARY	Δ	DELTA
CONT	CONTINUATION OR CONTINUOUS	GEN	GENERATOR	MCCB	MOTOR CIRCUIT BREAKER	SEC	SECONDARY	Δ	DELTA
CONTR	CONTRACTOR	GEN	GENERATOR	MCCB	MOTOR CIRCUIT BREAKER	SEC	SECONDARY	Δ	DELTA
CONV	CONVEYOR	GEN	GENERATOR	MCCB	MOTOR CIRCUIT BREAKER	SEC	SECONDARY	Δ	DELTA
CP	CIRCULATING PUMP	GEN	GENERATOR	MCCB	MOTOR CIRCUIT BREAKER	SEC	SECONDARY	Δ	DELTA
CRT	CATHODE RAY TUBE	GEN	GENERATOR	MCCB	MOTOR CIRCUIT BREAKER	SEC	SECONDARY	Δ	DELTA
CT	CURRENT TRANSFORMER	GEN	GENERATOR	MCCB	MOTOR CIRCUIT BREAKER	SEC	SECONDARY	Δ	DELTA
CTR	CENTER	GEN	GENERATOR	MCCB	MOTOR CIRCUIT BREAKER	SEC	SECONDARY	Δ	DELTA
CU	COPPER	GEN	GENERATOR	MCCB	MOTOR CIRCUIT BREAKER	SEC	SECONDARY	Δ	DELTA
		GEN	GENERATOR	MCCB	MOTOR CIRCUIT BREAKER	SEC	SECONDARY	Δ	DELTA

## SYMBOLS



## GENERAL ELECTRICAL SYMBOLS

	UNDERGROUND / UNDERFLOOR RACEWAY
	SWITCHED CIRCUIT
	UNSWITCHED CIRCUIT
	HOMERUN TO CIRCUITING INDICATED
	KEYED NOTE

## NURSE CALL SYMBOLS

HT AFF	SYMBOL	DESCRIPTION	HT AFF	SYMBOL	DESCRIPTION
80"		EMERGENCY STAFF	80"		DOME LIGHT WALL
80"		EMERGENCY PATIENT	80"		SINGLE PATIENT - STAFF
80"		CODE BLUE EM STATION	80"		SINGLE PATIENT - PATIENT
80"		DUTY STATION - STAFF	80"		DUAL PATIENT - STAFF
80"		DUTY STATION - PATIENT	80"		DUAL PATIENT - PATIENT
80"		EMERGENCY STATION - STAFF	80"		NURSE CALL - ANNUNCIATOR PANEL
80"		EMERGENCY STATION - PATIENT	80"		EQUIPMENT CABINET
80"		STAFF STATION - STAFF	80"		MASTER STATION
80"		STAFF STATION - PATIENT			

NOTE:  
ALL WALL MOUNTED DIMENSIONS ARE TO TOP OF BOX.

## FIRE ALARM SYMBOLS

HT AFF	SYMBOL	DESCRIPTION	HT AFF	SYMBOL	DESCRIPTION
48"		ABORT SWITCH	44"		POST INDICATOR VALVE
80"		BELL - WALL	80"		RELAY PANEL
80"		BELL STROBE - WALL	80"		REMOTE ANNUNCIATOR PANEL
80"		BUZZER STROBE - WALL	80"		REMOTE TEST STATION - CEILING
80"		CHIME - WALL	48"		REMOTE TEST STATION - WALL
80"		CHIME STROBE - WALL	80"		SCRAMBLE STROBE STACK LIGHT
80"		CHIME STROBE - CEILING			SMOKE DAMPER
		FLAME DETECTOR			FIRE ALARM SPEAKER - CEILING
		GAS DETECTOR	80"		FIRE ALARM SPEAKER - WALL
		HEAT DETECTOR			SPEAKER STROBE - CEILING
		LINEAR HEAT DETECTOR	80"		SPEAKER STROBE - WALL
		DUCT SMOKE IONIZATION			TAMPER SWITCH
		DUCT SMOKE PHOTOELECTRIC			TRANSCIVER
		DUCT SMOKE RELAY			TRANSPONDER
80"		SELF CONTAINED SMOKE, AV			VOICE EVACUATION PANEL
80"		SMOKE DETECTOR - WALL			WATER LEVEL SWITCH
80"		SMOKE DETECTOR - CEILING			TEMPERATURE SWITCH
80"		DOOR CLOSER			ZONE ADDRESSABLE MODULE
80"		DOOR HOLDER			FIRE FIGHTER PHONE
		FAN SHUNT DOWN RELAY			FIRE SUPPRESSION CONTROL PANEL
		FLOW SWITCH	80"		MASS NOTIFICATION HORN STROBE
90"		HORN - WALL	80"		MASS NOTIFICATION SPEAKER STROBE
		HORN STROBE - CEILING			NAC POWER SUPPLY
80"		HORN STROBE - WALL			FIRE ALARM CONTROL PANEL
		STROBE - CEILING	48"		FIRE ALARM KEY PAD
80"		STROBE - WALL			FLEX INPUT/OUTPUT PANEL
		INDIVIDUAL ADDRESSABLE MODULE			FIRE DOCUMENT BOX
		ADDRESSABLE RELAY MODULE			SMOKE DETECTOR w/ SOUNDER BASES
48"		KEY REPOSITORY	90"		LOW FREQUENCY HORN WALL
		CARBON MONOXIDE DETECTOR	90"		LOW FREQUENCY HORN STROBE (WALL)
		LINE ISOLATION MODULE			FUTURE ROUGH-IN (WALL)
48"		MASTER BOX			MULTI CRITERIA DETECTOR
80"		MINI HORN STROBE	43"		2-WAY CALL STATION
			43"		2 WAY MASTER STATION

NOTE:  
ALL WALL MOUNTED DIMENSIONS ARE TO BOTTOM OF BOX.  
WP = WEATHER PROOF

## SECURITY & CCTV

HT AFF	SYMBOL	DESCRIPTION	HT AFF	SYMBOL	DESCRIPTION
		CCTV CAMERA IN RECESSED DOME			REQUEST TO EXIT
		CCTV CAMERA			GLASS BREAK
		CCTV CAMERA WITH PAN AND TILT DRIVE			MOTION SENSOR - CEILING
		CCTV CAMERA PANORAMIC GRAND EYE	80"		MOTION SENSOR - WALL
		CCTV CAMERA PANORAMIC	48"		INTERCOM
42"		CARD READER	48"		SECURITY KEY PAD
80"		DOOR CONTACT	80"		NOTIFICATION APPLIANCE - WALL
		DOOR SIGNAL	80"		DURESS ALERT STROBE - WALL
		ELECTRIC STRIKE			DURESS PUSH BUTTON - UNDER COUNTER
		MAGNETIC LOCK			INTRUSION DETECTION PANEL
		VOICE EVACUATION PANEL			DURESS BUTTON - STANDARD
48"		DOOR RELEASE BUTTON - WALL			PANIC BUTTON - STANDARD
48"		PANIC BUTTON - WALL			DIGITAL VIDEO RECORDER
		NETWORK VIDEO RECORDER			

NOTE:  
ALL WALL MOUNTED DIMENSIONS ARE TO TOP OF BOX.  
WP = WEATHER PROOF

## SHEET INDEX - OUTAGAMIE CTY-NWLF-PHASE 1

SHEET NUMBER	SHEET TITLE
E0.0	ELECTRICAL - ARREVIATIONS, SYMBOLS & SHEET INDEX
E0.1	ELECTRICAL - SITE PLAN
E2.0	ELECTRICAL - POWER DETAILS
E3.0	ELECTRICAL - SPECIFICATIONS
E3.1	ELECTRICAL - SCOPE & PANEL SCHEDULES
E3.2	ELECTRICAL - SITE PHOTOMETRICS

## ELECTRICAL SYMBOLS

HT AFF	SYMBOL	DESCRIPTION	HT AFF	SYMBOL	DESCRIPTION
		BUS CONNECTION			DUPLEX RECEPTACLE - CEILING
		BUS DUCT WITH DISCONNECT			DUPLEX RECEPTACLE - FLOOR
		COMBINATION MOTOR STARTER	20"		DUPLEX RECEPTACLE - WALL
		SAFETY DISCONNECT SWITCH	20"		DUPLEX RECEPTACLE - WATER PROOF
		WIRE WAY OR MULTIOUTLET	20"		DUPLEX RECEPTACLE - WALL GROUND FAULT CIRCUIT INTERRUPTER
		JUNCTION BOX - CEILING	20"		DUPLEX EMERGENCY RECEPTACLE
		JUNCTION BOX - FLOOR	20"		DUPLEX ISOLATED GROUND RECEPTACLE
		JUNCTION BOX - WALL	20"		DUPLEX SPLIT RECEPTACLE
		MAGNETIC MOTOR STARTER			DOUBLE DUPLEX RECEPTACLE - CEILING
		MECHANICAL EQUIPMENT CONNECTION	20"		DOUBLE DUPLEX RECEPTACLE - FLOOR
		MOTOR	20"		DOUBLE DUPLEX EMERGENCY RECEPTACLE
		PHOTO CELL	20"		DOUBLE DUPLEX ISOLATED GROUND RECEPTACLE
		POWER POLE	20"		DOUBLE DUPLEX SPLIT RECEPTACLE
		RELAY			SINGLE RECEPTACLE - CEILING
		PUSH BOTTOM - SINGLE			SINGLE RECEPTACLE - FLOOR
		PUSH BUTTON - UP/DOWN/STOP	20"		SINGLE RECEPTACLE - WALL
		PUSH BUTTON - START/STOP			SPECIAL PURPOSE RECEPTACLE - CEILING
		LIGHTING CONTROL PANEL			SPECIAL PURPOSE RECEPTACLE - FLOOR
		POWER OR DISTRIBUTION PANEL	20"		SPECIAL PURPOSE RECEPTACLE - WALL
		CIRCUIT BREAKER PANEL BOARD			SPECIALTY VOLTAGE RECEPTACLE - CEILING
		TRANSFORMER			SPECIALTY VOLTAGE RECEPTACLE - FLOOR
		EPO SWITCH	20"		SPECIALTY VOLTAGE RECEPTACLE - WALL
48"		SINGLE POLE SWITCH			
48"		THREE WAY SWITCH			CORD REEL DUPLEX RECEPTACLE
48"		FOUR WAY SWITCH			CORD DROP DUPLEX RECEPTACLE
48"		DIMMER SWITCH			CORD REEL SPECIAL PURPOSE RECEPTACLE
48"		WALL OCCUPANCY SENSOR			CORD DROP SPECIAL PURPOSE RECEPTACLE
48"		FAN SPEED CONTROL SWITCH			DUPLEX RECEPTACLE - WALL TAMPER PROOF RESISTANT
		ELECTRIC WALL HEATER			DOUBLE DUPLEX RECEPTACLE - WALL TAMPER PROOF RESISTANT
		TIME CLOCK	20"		
		THERMOSTAT	20"		

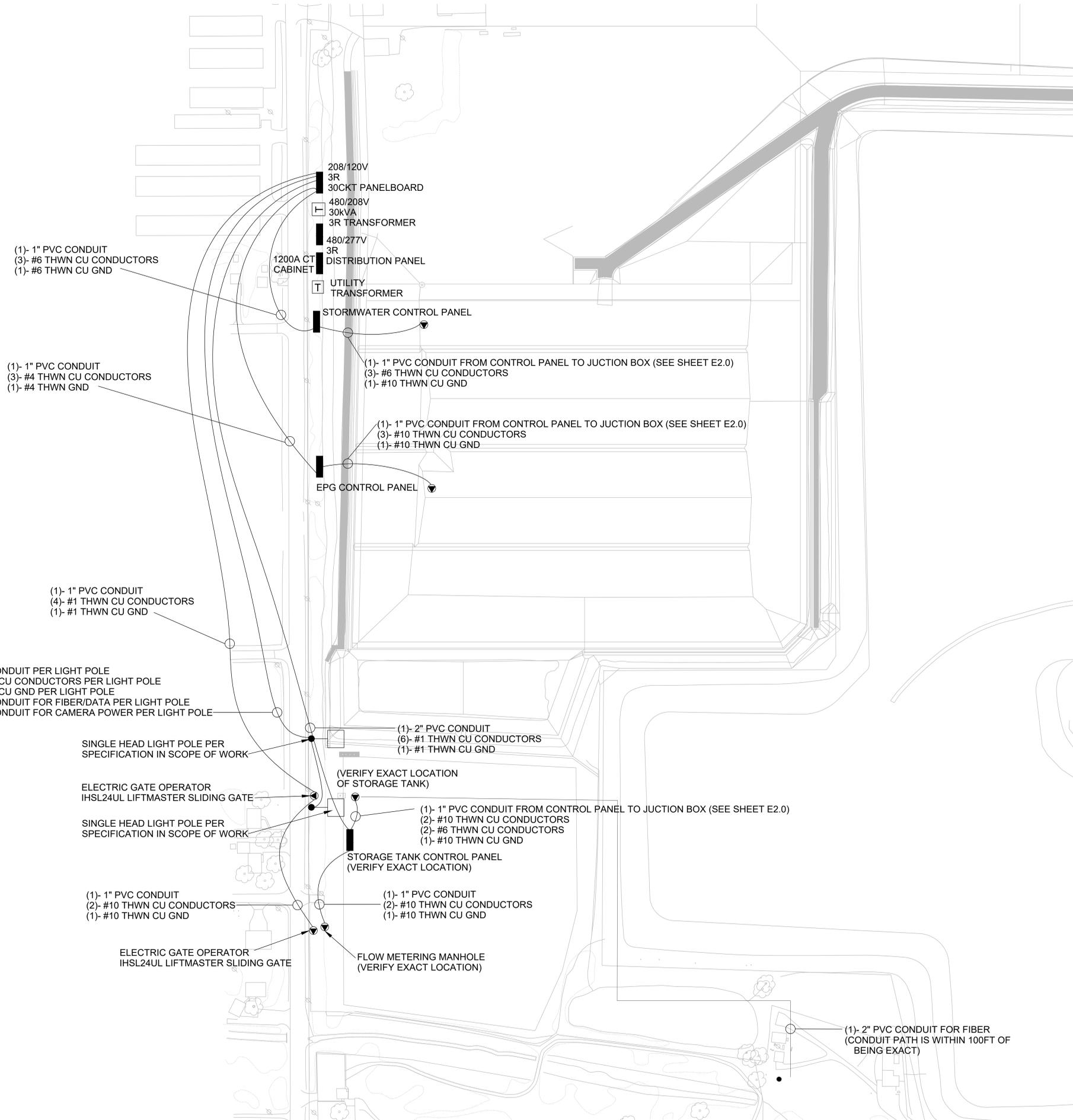
NOTE:  
ALL WALL MOUNTED DIMENSIONS ARE TO TOP OF BOX.  
WP = WEATHER PROOF

## LIGHTING SYMBOLS

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
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**GENERAL NOTES**

1. THE ENVIRONMENT IS HIGHLY CORROSIVE. PVC COATED RIGID CONDUIT AND PVC COATED FITTINGS ARE REQUIRED.
2. ALL ELECTRICAL CONNECTIONS TO BE MADE BY DIV 26.
3. ALL WIRING TO BE INTRINSICALLY SAFE.
4. ALL EQUIPMENT SHALL BE SECURELY MOUNTED.
5. ALL DIVISION 26 CONDUITS ARE TO BE INSTALLED IN SEPARATE TRENCH AWAY FROM PROCESS PIPING.
6. ALL SEAL-OFFS ARE TO BE FILLED WITH CROUSE-HINDS BRAND CHICO OR EQUAL.
7. VERIFY ALL LOCATIONS OF EQUIPMENT WITH THE OWNER PRIOR TO INSTALLATION.
8. ALL ELECTRICAL INSTALLATIONS SHALL COMPLY WITH NEC.
9. ALL EQUIPMENT AND MATERIAL SHALL BE UL LISTED.
10. PUMP STARTUP AND TESTING DONE BY REPRESENTATIVE'S OF THE CONTROL PANEL SUPPLIER.
11. DIVISION 26 CONTRACTOR SHALL REVIEW SPECIFICATIONS AND SCOPE OF WORK FOR WORK REQUIRED BY DIVISION 26.
12. PVC COATED RIGID CONDUIT SHALL BE USED FOR ABOVE GROUND INSTALLATIONS.
13. RESTORE GREENSPACE EXCAVATIONS UPON COMPLETION.
14. RACEWAYS SHALL BE DIRECTIONALLY BORED UNDER EXISTING ROADWAYS AND DRIVEWAYS.



**1** ELECTRICAL SITE PLAN  
SCALE: 1" = 100'-0"

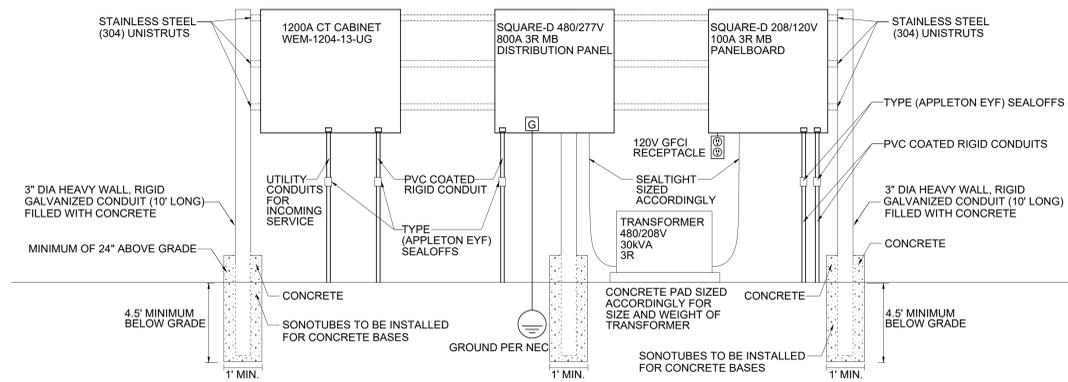
OWNER REVIEW DRAWING - 03.18.2024

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TITLE	
NAME	

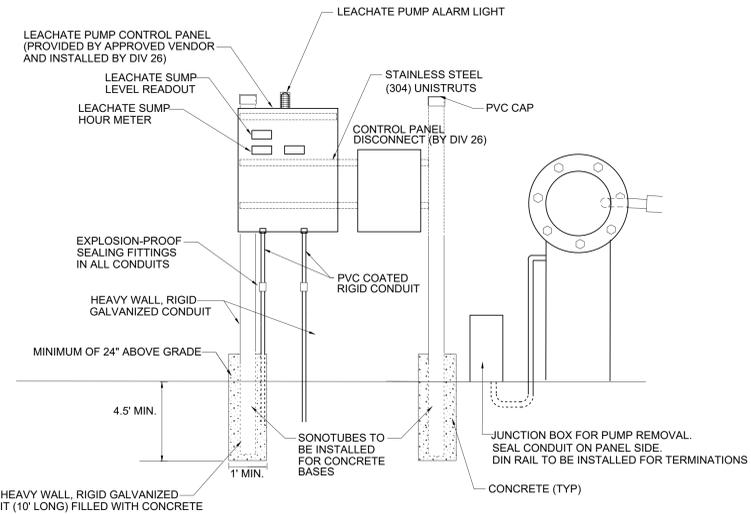
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DRAWN BY	DRG
CHECKED BY	DRG
JOB NO.	10252409

DATE	REVISIONS DESCRIPTION	BY

APPLETON, WISCONSIN  
OUTAGAMIE COUNTY  
NORTHWEST LANDFILL  
PHASE 1  
ELECTRICAL - SITE PLAN



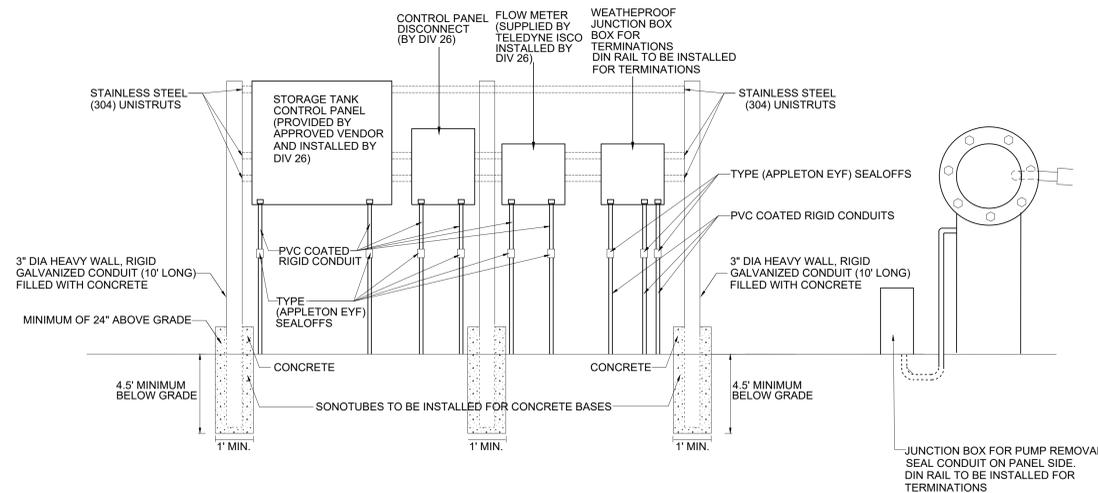
**1 SERVICE DISTRIBUTION RACK**  
SCALE: NTS



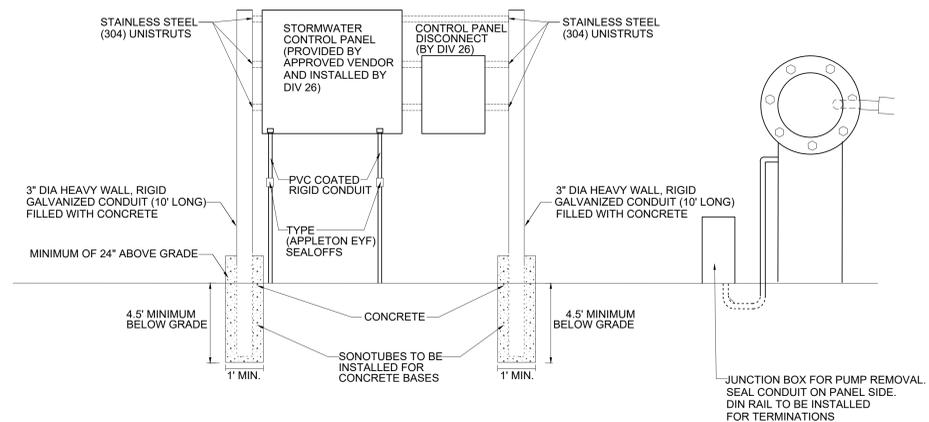
**2 EPG CONTROL PANEL**  
SCALE: NTS

**CONTROL PANEL NOTES:**

1. ALL HARDWARE TO BE STAINLESS STEEL (304).
2. ALL CONTROL PANELS AND JUNCTION BOXES ARE TO BE INSTALLED IN STAINLESS STEEL (304) NEMA 4X ENCLOSURES WITH DIN RAIL FOR TERMINATIONS.
3. IF CONTROL PANELS HAVE AN INTEGRATED DISCONNECT, A SEPARATE CONTROL PANEL DISCONNECT IS NOT REQUIRED.
4. PROVIDE SEAL-OFF'S FOR ALL CONDUITS PENETRATING THE GROUND. PROVIDE 10' OF PVC COATED RIGID GALVANIZED STEEL CONDUIT FROM THE SEAL-OFF TO THE PVC COATED RIGID GALVANIZED CONDUIT UNDER GRADE. ALL CONDUITS ABOVE GROUND SHALL BE PVC COATED RIGID OR SEAL-TIGHT.
5. PROVIDE DUX-SEAL IN ALL CONDUITS, PANELS AND JUNCTION BOXES.
6. ALL ELECTRICAL SERVICE EQUIPMENT SUPPLIED AND INSTALLED BY DIV 26.



**3 STORAGE TANK CONTROL PANEL**  
SCALE: NTS



**4 STORMWATER PUMP CONTROL PANEL**  
SCALE: NTS

OWNER REVIEW DRAWING - 03.18.2024

NAME \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

DATE	REVISIONS DESCRIPTION	BY

DATE: 02/27/2024  
SCALE: SEE PLAN TITLE  
DRAWN BY: RAC  
CHECKED BY: BJA  
JOB NO: 10252409

APPLETON, WISCONSIN  
OUTAGAMIE COUNTY  
NORTHWEST LANDFILL  
PHASE 1  
ELECTRICAL - POWER PLAN



ELECTRICAL SCOPE OF WORK

- PROVIDE (2) 3" GRC CONDUITS AND PVC CAPS FOR EACH CONTROL PANEL STATION AND SERVICE DISTRIBUTION STATION.
  - GENERAL CONTRACTOR TO AUGER HOLES AND PROVIDE CONCRETE BASE AND FILLING OF CONDUIT
- FURNISH AND INSTALL ALL EQUIPMENT ASSOCIATED FOR PHASE 1 OF THE NORTHWEST LANDFILL PROJECT
  - SQUARE D 100A, 120/208V, NEMA 4X, 30 CIRCUIT MAIN BREAKER PANELBOARD AND ASSOCIATED BREAKERS
  - SQUARE D 800A 480/277V, NEMA 4X SERVICE ENTRANCE RATED MAIN BREAKER DISTRIBUTION PANEL AND ASSOCIATED BREAKERS
  - SQUARE-D 30 KVA, NEMA 4X, 480V PRIMARY TO 120/240V SECONDARY TRANSFORMER
  - SQUARE D, NEMA 4X, FUSED DISCONNECTS FOR ALL CONTROL PANELS.
  - WIM-1204-13UG MILBANK CT ENCLOSURE
  - TYCO-RAYCHEM SELF-REGULATING TYPE BTV HEAT TRACE CABLE, MODEL# AMC-1A THERMOSTAT AND ASSOCIATED ACCESSORIES NECESSARY FOR COMPLETE INSTALLATION
  - STAINLESS STEEL STRUT
  - APPLETON TYPE SEALOFFS
  - STAINLESS-STEEL HARDWARE
  - STAINLESS STEEL JUNCTION BOXES
  - PVC COATED RMC
  - PVC CONDUIT
  - ALL NECESSARY WIRE FOR POWER CONNECTIONS
  - ALL FITTINGS AND CONNECTORS REQUIRED FOR ELECTRICAL INSTALLATION.
  - ENGRAVED LABELS FOR ALL ELECTRICAL EQUIPMENT.
  - FURNISH AND INSTALL A (1HP) 230V 3 PHASE 60HZ VFD FOR STORAGE TANK PUMP.
    - Brand- Rockwell Automation, Model-Powerflex 525 or equal.
    - HP: 1 HP
    - Voltage Class: 230VAC, 3 phase
    - Duty: Normal duty
  - PROVIDE PROGRAMMING CONTROLS FOR THE 1 HP VFD.
  - INSTALL MOTOR JUNCTION BOXES AND ASSOCIATED WIRING.
  - INSTALL LEACHATE LEVEL BREAKOUT BOX AND ASSOCIATED WIRING.
  - PROVIDE ALL 208/120V AND 480/277V ELECTRICAL CONNECTIONS NECESSARY FOR NORTHWEST LANDFILL PHASE 1 PROJECT.
  - PROVIDE WIRING FOR BACK-UP FLOATS.
  - PROVIDE ALL CONDUIT, SEALOFFS AND WIRING FOR STORM WATER CONTROL PANEL, PUMP AND ACCESSORIES.
  - PROVIDE ALL CONDUIT, SEALOFFS AND WIRING FOR STORAGE TANK CONTROL PANEL, PUMP AND ACCESSORIES.
  - PROVIDE ALL CONDUIT, SEALOFFS AND WIRING FOR EPG CONTROL PANEL, PUMP AND ACCESSORIES.
  - PROVIDE ALL CONDUIT, SEALOFFS AND WIRING FOR FLOW METER.
- FURNISH AND INSTALL THE FOLLOWING FOR ELECTRONIC GATE OPERATORS
  - (2)-HSL24UL LIFTMASTER HEAVY DUTY GATE OPERATOR CONTROL PANELS.
  - (2) LIFTMASTER AK-11 ACCESS CONTROL KEYPAD'S WITH PEDESTAL FROM PEDESTAL PRO-MODEL #72-9C-S - VERIFY EXACT LOCATION OF PEDESTAL WITH OWNER.

- (6)-LIFTMASTER 811LM REMOTE CONTROLLERS PER SLIDING GATE.
- (1) 2-BUTTON MANUAL OPERATOR PER GATE- MOUNTED ON THE SECURE SIDE OF THE GATE.
- ALL CONDUIT, WIRING AND ASSOCIATED CONNECTORS
- CONNECTION FROM GATE CONTROL PANEL TO ACCESS CONTROL KEYPAD.
- FURNISH AND INSTALL THE FOLLOWING FOR SITE LIGHTING
  - (2)- SQUARE STRAIGHT STEEL POLES- LITHONIA-SSS36GT20VDDDDXD
  - (2)- LITHONIA-RSX4 LED P8 50K WFL BV MVOLT IS DDBXD
  - (2) DLL127F 1.5 JU PHOTOEYE
  - (2)- CONCRETE POLE BASES AT 36" IN DIAMETER, HAVING A FINISHED HEIGHT OF 36" ABOVE GRADE, A FINISH DEPTH OF 60" BELOW GRADE, FURNISHED WITH STEEL REINFORCING CAGE AND HAVE A HAND RUB FINISH
  - ANCHOR BOLTS- AB36
  - TEMPLATE- P350011

➢ ALTERNATE FOR FIBER AND CONDUIT

- PROVIDE PROPERLY RATED FIBER OPTIC CABLE. ALL FIBER OPTIC CABLE SHALL BE OS2 SINGLEMODE INSIDE-OUTSIDE PLANT RATED, ALL DIELECTRIC, RATED FOR UNDERGROUND INSTALLATION. USE PANDUIT FIBER OPTIC CABLE PART #FSCR912Y (12 STRAND).
- AT THE FLARE BUILDING IDF, TERMINATE THE FIBER OPTIC CABLES WITH SINGLEMODE LC CONNECTORS, USE PANDUIT LC SPLICE-ON CONNECTOR, SINGLE MODE, PART # FLS2980CU9BU, PANDUIT ADAPTER PANEL (FAPWBUDLCZ), USE PRINTED LABEL MAKER TO PROPERLY LABEL FIBER ENCLOSURE.
- AT THE LEACHATE STATION NEAR THE NORTHWEST LANDFILL LOCATION, IN HEATED/COOLED NEMA ENCLOSURE, PROVIDE FIBER OPTIC WALL MOUNT ENCLOSURE. USE PANDUIT PART #FWME4.
- AT THE HEATED/COOLED NEMA ENCLOSURE, TERMINATE THE FIBER OPTIC CABLES WITH SINGLE MODE LC CONNECTORS. USE PANDUIT LC SPLICE-ON CONNECTOR, SINGLEMODE, PART # FLS2980CU9BU, PANDUIT ADAPTER PANEL (FAPWBUDLCZ), USE PRINTED LABEL MAKER TO PROPERLY LABEL FIBER ENCLOSURE.
- ALL FIBER CONNECTORS WILL BE FUSION SPLICED.
- ALL UNDERGROUND BORE PATHS SHALL USE A 2" MAXICELL FIBER INNERDUCT/CONDUIT OR ANOTHER MANUFACTURER.
- THE CONTRACTOR SHALL PROVIDE A 15-YEAR PRODUCT WARRANTY. THE WARRANTY SHALL STATE THAT THE INSTALLED CABLE SYSTEM WILL BE FREE OF DEFECTS AND WILL MEET OR EXCEED THE REQUIREMENTS OF THE APPLICABLE IAT/ISA STANDARDS FOR A PERIOD OF 15 YEARS. WARRANTY REPAIRS SHALL COVER ALL MATERIAL AND LABOR. THE VENDOR SHALL PASS ALONG TO THE CUSTOMER ANY ADDITIONAL WARRANTIES OFFERED BY THE MANUFACTURER, AT NO ADDITIONAL COSTS TO THE CUSTOMER, SHOULD SAID WARRANTIES EXTEND BEYOND THE PERIOD SPECIFIED HEREIN.

Panel MDP 480/277V - 3P, 4W																		
MOUNT	PANEL I.D.			MDP		AMPS		1200		OUTAGAMIE CTY-NMLF								
SURFACE	TYPE I-LINE	MAIN CB	AMPS	CT	PHASE	WIRE	VOLTAGE	MLO	SFL	FTL								
LOAD ID	BREAKER TYPE	CIRCUIT DESIGNATION	A <sub>0</sub>	B <sub>0</sub>	C <sub>0</sub>	AMP	POLE	KVA	BREAKER #	CKT #	BREAKER AMP	POLE	A <sub>0</sub>	B <sub>0</sub>	C <sub>0</sub>	CIRCUIT DESIGNATION	BREAKER TYPE	LOAD ID
										1	2	20	3					
										3	4							
										5	6							
										7	8	20	3					BJ
										9	10							
										11	12							
										13	14	60	3					BJ
										15	16							
										17	18							
										19	20	60	3					BJ
										21	22							
										23	24							
	BJ	SPARE BREAKER							20	3	25	26	60	3				BJ
										27	28							
										29	30							
	BJ	SPARE BREAKER							20	3	31	32	60	3				BJ
										33	34							
										35	36							
	MJ	BRANCH MOUNTED MAIN						800	3	37	38	60	3					30KVA TRANSFORMER
										39	40							
										41	42							
TOTAL LINE-NEUTRAL KVA			0.00	0.00	0.00								0.00	0.00	0.00			
TOTAL CONNECTED KVA			0.00															
TOTAL CONNECT AMPS			0.00															
TOTALS BY LOAD ID:																		
			R (RECEPTACLES)					0.00										
			L (LIGHTING)					0.00										
			M (MOTORS)					0.00										
			X (MISC. EQUIP)					0.00										
			WH (ELEC WITHR)					0.00										
			A (AC)					0.00										
			E (ELEC. HEAT)					0.00										
			ESTIMATED DEMAND					0.00										
			BY TYPE:															
			NOTES:															

BRANCH PANEL 208/120V - 3P, 4W																		
MOUNT	PANEL I.D.			BP		AMPS		100		OUTAGAMIE CTY-NMLF								
SURFACE	TYPE NQ	MAIN CB	AMPS	30KVA TRANSFORMER	PHASE	WIRE	VOLTAGE	MLO	SFL	FTL								
LOAD ID	BREAKER TYPE	CIRCUIT DESIGNATION	A <sub>0</sub>	B <sub>0</sub>	C <sub>0</sub>	AMP	POLE	KVA	BREAKER #	CKT #	BREAKER AMP	POLE	A <sub>0</sub>	B <sub>0</sub>	C <sub>0</sub>	CIRCUIT DESIGNATION	BREAKER TYPE	LOAD ID
M	QOB	STORMWATER PUMP								3	4							
M										5	6							
M	QOB	SIDESLOPE RISER PUMP							30	3	7	8	15	3				
M										9	10							
M										11	12							
	QOB								15	2	13	14	15	2				QOB
										15	16							
X	QOB	FLOW METER							20	1	17	18	20	1				QOB
X	QOB	SLIDING GATE #1							20	1	19	20	20	1				QOB
X	QOB	SLIDING GATE #2							20	1	21	22	20	1				QOB
L	QOB	SITE LIGHT							20	1	23	24	20	1				QOB
R		PANEL GFCI							20	1	25	26	20	1				QOB
E	QOB-GFI	HEAT TRACE							20	2	27	28	20	1				QOB
										29	30	20	1					QOB
TOTAL LINE-NEUTRAL KVA			0.00	0.00	0.00								0.00	0.00	0.00			
TOTAL CONNECTED KVA			0.00															
TOTAL CONNECT AMPS			0.00															
TOTALS BY LOAD ID:																		
			R (RECEPTACLES)					0.00										
			L (LIGHTING)					0.00										
			M (MOTORS)					0.00										
			X (MISC. EQUIP)					0.00										
			WH (ELEC WITHR)					0.00										
			A (AC)					0.00										
			E (ELEC. HEAT)					0.00										
			ESTIMATED DEMAND					0.00										
			BY TYPE:															
			NOTES:															

OWNER REVIEW DRAWING - 03.18.2024

DATE: \_\_\_\_\_  
TITLE: \_\_\_\_\_  
NAME: \_\_\_\_\_

DATE	REVISION DESCRIPTION	BY

DATE: 02/27/2024  
SCALE: NTS  
DRAWN BY: RAK  
CHECKED BY: BBA  
JOB NO: 10252409

APPLETON, WISCONSIN  
OUTAGAMIE COUNTY  
NORTHWEST LANDFILL  
PHASE 1  
ELECTRICAL - SCOPE & PANEL SCHEDULES

