

01/20/2026

**ADDENDUM NO. 2
TO CONTRACT DOCUMENT PLANS SPECIFICATIONS**

**PROJECT: MWA METRO PARK WEST LANDFILL
P-67 CELL E LINER, LEACHATE LAGOON, AND SED POND
TO: PROSPECTIVE BIDDERS AND OTHER INTERESTED PARTIES**

The Contract Documents and Specifications, including the Contract Drawings, are hereby modified by the following items:

CHANGES TO DRAWINGS

AD-1 Item 1 REISSUANCE OF DRAWING SET

A. REPLACE Addendum #1 drawing set with attached set Addendum #2. Updates are clouded.

CHANGES TO SPECIFICATIONS

AD-1 Item 2 SECTION 00 41 00 – BID FORM

REPLACE the specification section 00 41 00 – BID FORM with the attached 00 41 00 as part of this Addendum No. 2.

AD-1 Item 3 SECTION 01 29 01 PAYMENT PROCEDURES

REPLACE the specification section 01 29 01 – PAYMENT PROCEDURES with the attached 00 41 00 as part of this Addendum No. 2.

AD-1 Item 4 SECTION 31 23 00 EARTHWORK

REMOVE the specification section 31 23 00, 2.1, B, 2, a, 2) “Maximum 10% Calcium Carbonate content per ASTM D4373.”

REPLACE the specification section 31 23 00, 2.1, B, 2, a, 3) with “Max allowable Weak reaction of 10% of total reactions per ASTM D2488, section 10.6 HCl Reaction. No Strong reactions for testing of the granular material for drainage layer is allowed.”

REMOVE the specification section 31 23 00, 2.1, B, 3, a, 3) “Maximum 10% Calcium Carbonate content per ASTM D4373.”

REPLACE the specification section 31 23 00, 2.1, B, 3, a, 3) with “Max allowable Weak reaction of 10% of total reactions per ASTM D2488, section 10.6 HCl Reaction. No Strong reactions for testing of the granular material for coarse aggregate is allowed.”

AD-1 Item 5 SECTION 01 71 24 GEOMEMBRANE ELECTROSTATIC LEAK LOCATION SURVEY

ADD Section 3.3, C, 3. "All leaks identified shall be repaired by the liner installer and resurveyed by the Owner's Leak Location Contractor until the leak is not present. Cost of retesting by the Owner's Leak Location Contractor is the responsibility of the contractor. Owner assumes one (1) day of leak testing for the Leachate Pond and one (1) day of leak testing for Cell E.

CLARIFICATIONS & INFORMATION

AD-1 Item 6 PROSPECTIVE BIDDER QUESTIONS AND RESPONSES NOT INCLUDED IN ABOVE ADDENDUM ITEMS:

Question 1: *Is there a smaller additional forcemain line in the pond? And if so, what is it hooking into?*

Answer 1: There is a 2" x 4" dual contained HDPE forcemain from Cell E to the Leachate Pond then a 2" x 4" dual contained HDPE forcemain from the pond to the Leachate Loadout Area. See Detail 1 and Detail 2 on Sheet C508.

Question 2: *There are details for a 4"x8" forcemain and a 4"x2" forcemain – Please clarify which is needed.*

Answer 2: A 2" by 4" Leachate Forcemain is needed between Cell E and the Leachate Pond and the Leachate Pond to the Leachate Loadout Area. 4" by 8" dual contained references are removed.

Question 3: *There is a 24" detail for the CMP coming out of the 36" CMP risers – but is also 36" in other details – please clarify.*

Answer 3: Riser pipe for standpipe shall be 48" diameter per Detail 1, Sheet C507.

Question 4: *Does trench backfill (coarse aggregate) have to be used for overdig backfill?*

Answer 4: Overdig backfill shall be Structural Fill per Specification 31 23 00.

Question 5: *For Item 118, there are no terraces or stormwater control system items on the plans. Can you confirm this is correct?*

Answer 5: Please see updated drawing Sheet C101 for stormwater diversion berm details and Sheet C105 which includes terraces on the soil stockpile.

Question 6: *Can you please provide additions details to the Z-Wall guardrail detail to include material type (kind of aluminum, wall thickness, etc...), diameter of pipe, dimension for the center rail, etc.?*

Answer 6: The guardrail portion of the Z-wall has been replaced with concrete. Please see Sheet C105 and Sheet C510 for updated Z-wall design.

Question 7: *Can you please provide details for the electrical extension in Item 116.*

Answer 7: See revised Bid Item 116 description in the Payment Procedures attached as part of Addendum #2.

Question 8: *For item 112, plans call for 24" CMP, not 30". Can you please confirm?*

Answer 8: 24" CMP confirmed for Bid Item 112. See Detail 1 on Sheet C507 for Drop Structure size.

Question 9: *Can you please provide a thickness for the topsoil respread?*

Answer 9: Topsoil respread will be 6" in thickness.

Question 10: *If clay liner material is taken from working face stockpile, will that be included as part of pay item 110?*

Answer 10: Soil hauled from the Owner's stockpile at the working face stockpile will be used for daily cover and may not be borrowed for clay liner material. Clay liner material is not a unit price item and will be paid under Bid Item 113.

Question 11: *Detail 5 on sheet C502 shows Edge of Liner signage but no call out. Detail 2 on Sheet C502 & detail 1 on Sheet C503 have notes for the signage. Are signs also required for the North Liner Termination? Can you provide a detail for the "EDGE OF LINER" signs? Are they required to be reflective?*

Answer 11: Edge of liner signage will be per Specification 10 14 23. Edge of liner signs are required at the north, east and south liner terminations.

Question 12: *Detail 4 on sheet C506 for the Rain Cover shows the rain cover extending into the geomembrane anchor trench. Per the drawings, the only geomembrane anchor located in the area of the Rain Cover is on the south side. How should we plan on anchoring the Rain Cover along the west side?*

Answer 12: The Rain Cover on the west side of the cell will be anchored into existing soil cover approximately 15 feet up the slope. Rain cover should be anchored in a trench 1' depth by 2' horizontal to prevent stormwater undermining.

Question 13: *Currently not seeing paving on the access roads, please confirm dimensions/limits of PCC paving.*

Answer 13: Correct, access roads will not be paved. Paving will only occur within the Z-wall and leachate loadout areas. See Sheets C105 and C508 for paving extents.

Question 14: Can you please provide groundwater control trench elevations per the note on sheet C506 that slows for positive drainage of the GWT pipe? Can you provide a detail of the GWT cleanout riser?

Answer 14: Please see updated groundwater control trench detail on Sheet C506 and updated drawing Sheet C505 for additional GWT cleanout riser details on the Leachate Extraction Headwall detail.

Question 15: Can we get additional details on routing, wire sizes, panel expectation for this project please?

Answer 15: See revised Bid Item 116 description in the Payment Procedures attached as part of Addendum #2.

Question 16: The scale on Sheet G002 doesn't appear to be correct. The grid is 200' x 200' and based on that, the scale is 1"=150'. Can you please confirm?

Answer 16: Scale on Sheet G002 has been revised to 1" = 150'.

Question 17: Detail 2:C101 on sheet C505 calls out for turf reinforcement mat in the permanent perimeter drainage channel. There is no call out for such a channel on sheet C102. Is the reinforcement mat to be installed in the ditch along the east access road? Can you please confirm the location of the channel?

Answer 17: This detail has been removed and is not a part of the project.

Question 18: No fence detail is included in the plans. Can you confirm the following? At what interval do you want the tension wire bracing (100', 250', 500')? There are no gates indicated on plans yet there is a gate detail, can you please provide a quantity of gates needed?

Answer 18: Fencing is per Specification 32 31 13. See Bid Item 124 description. Contractor to provide three (3) swing style gates, a minimum of 16' wide to be placed in coordination with the Owner.

Question 19: Could SS40 pipe be an approved alternate to the SCH40 pipe for the fence posts?

Answer 19: The selected contractor can submit a substitution request for review following award of bid. All contractors are to bid the project as designed.

Question 20: Plans indicate a 36" CMP culvert to be installed on East Perimeter Road. Should that be included with the cost of item 123 Construct East Perimeter Road?

Answer 20: Installation of the 36" CMP culvert is incidental to Bid Item 123. Contractor to include cost of the culvert in Bid Item 123.

Question 21: Plans indicate a 48" RCP culvert to be installed on NW Perimeter Road. Should that be included with the cost of item A-128? Also, the only drop structure detail in the plans is for a 36" CMP. Can you please provide a detail for the drop structure for the 48" RCP?

Answer 21: Culvert installation is incidental to Bid Item 123. The 48" Standpipe is included in Addendum #2 reissued drawings.

Question 22: Can you please provide a detail for the tipping pad?

Answer 22: Tipping pad surfacing is per detail 4 on sheet C509, East Perimeter Road Typical Section.

Question 23: Sheet C105 in the PDFs in Addendum 1 doesn't seem to align with the CAD Files. It doesn't seem to be a scale issue. Can you please review?

Answer 23: Reviewed and found no issue.

Question 24: Concrete details on sheet C510 do not have a detail for the paving pads. Can you please provide that detail?

Answer 24: See Detail on Sheet C510 for paving.

Question 25: The Z wall detail in the bottom left of sheet C510 does not show the thickness of the footing. Can you please provide that? This detail also shows the wall is to extend 1' above to top of concrete pavement, but there is no indication on the plans for concrete pavement in or around the Z wall. Can you please confirm if that means 1' above top of aggregate surface course?

Answer 25: See revised Z-wall detail on Sheet C510 showing footing thickness. Railing has been replaced with concrete. Elevations are included on Sheet C105.

Question 26: On sheet C508, detail 1 calls out of 4 EA 2'-0" DIA CONCRETE BOLLARD, TYP and detail 4 is for 8" steel bollard. Can you confirm which bollards you would like installed and provide additional details (depth of bollard, height bollard is to extend above grade, etc...)?

Answer 26: Bollards shall be 8" diameter per Detail 4 on Sheet C508. Detail 1 on Sheet C501 has been revised.

Question 27: On sheet C508, detail 1 calls out for a 6" raised concrete pad with sealed expansion joint between the leachate loadout pad and the leachate pipe with a panel and pump. Can you please provide a detail on this concrete pad? Can you also provide reinforcement details on detail 2 for the containment pad?

Answer 27: Concrete pad is 8" in thickness, see Detail 2 on Sheet C508 of Addendum #2.

Question 28: Can you please provide additional details (dimensions, reinforcement details, etc...) for the Leachate Extraction Headwall on sheet C505?

Answer 28: Please see updated Leachate Extraction Headwall detail on sheet C505.

Question 29: Erosion control is to be included in item 101, but there is nothing in the plans indicating where these erosion control measures are to be installed. Can you please provide an erosion control plan for the project?

Answer 29: Erosion control is Contractor's responsibility for meeting minimum Federal, State, Local Regulations and Site SWPPP.

Question 30: Elevations on sheet C105 for the Z wall don't indicate if they are top of grade, top of wall, top of footing, or bottom of footing. Can you please let us know what those elevations indicate?

Answer 30: Please see updated Z-wall Enlarged Layout detail on drawing Sheet C105.

Question 31: What is the material of the groundwater drain page C101?

Answer 31: Groundwater drain pipe will be 8" schedule 80 PVC with perforation pattern per detail 4 on sheet C503. 8" perforated PVC pipe transitions to solid wall when going up a side slope.

Question 32: It looks like there is a "Leachate Transducer Riser" on sheet C103 but it is not present in the detail – Please let me know what material you would like here and provide detail.

Answer 32: Please see updated Leachate Collection Sump detail on sheet C504. Leachate Transducer riser will be 8" PVC (SCH 80) Perforated pipe.

Question 33: Detail 2/505 shows turf matting, but I cannot find on the plan sheets where this detail specifically applies too, please clarify.

Answer 33: See question and answer to #17.

Question 34: Sheet C104, Bid item 112, Calls out 30" pipe, plan view is 24" pipe, also no detail is provided for the sediment pond outlet(pipe number??)

Answer 34: Corrected to 24" culvert, please see updated bid form for more information.

Question 35: Sheet C104, can a detail be provided for the 12' overflow weir?

Answer 35: 12' overflow weir is constructed of structural fill with 6" topsoil applied.

Question 36: Sheet C507, Detail 1, shows grating on top of the drop inlet structures, please clarify what this grating is to be.

Answer 36: Grating to be beehive grate (Neenah 4340-A or approved similar) with top cover to fit grate onto inlet.

Question 37: Sheet C504, Detail 2, Can you clarify the dimensions required for the sheet stock at the bottom of the sump?

Answer 37: Flat stock removed from sump detail.

Question 38: Sheet C505, Detail 1, Can you clarify requirement for the headwall, IE: wall thickness, depth of footings, height of walls?

Answer 38: See Sheet C510.

Question 39: Bid Item 122, Sheet C510 & Sheet C105, The details and bid item description mentions pavement beyond the Z wall, but no limits are described in the plan sheets. Please clarify what is to be paved beyond the Z wall, and provide additional details on what this pavement is to be.

Answer 39: See Z-wall enlarged view on Sheet C105. Pavement will be 12" in thickness with 12" granular subbase.

Question 40: Please provide plan sheets with wire/racking/paneling requirements for the electrical work associated with bid item 116.

Answer 40: See revised Bid Item 116 description in the Payment Procedures attached as part of Addendum #2.

Question 41: Please provide additional details on the tipping pad, regarding thickness, particularly how it overlays the new FML.

Answer 41: Tipping pad surfacing is per detail 4 on sheet C509, East Perimeter Road Typical Section.

Question 42: What size are the culvert pipes for bid item #112? Bid form says 30" CMP, detail on C104 calls out the culvert pipe as 24"

Answer 42: Culvert sizes are 24".

Question 43: Is the perforation pattern for the Groundwater Control pipe the same as the Leachate Collection pipe?

Answer 43: Perforation pattern and sizing is the same for the groundwater control piping and leachate collection piping.

Question 44: Is there a detail available for the Groundwater Cleanout Riser?

Answer 44: Groundwater Cleanout Riser terminates the same as the Leachate Cleanout sideslope riser per Detail 2, Sheet C503.

Question 45: What size is the Leachate Forcemain? 2" x 4" and 4" x 8" are both called out on sheet C103

Answer 45: Leachate Forcemain is 2" by 4". References to 4" by 8" have been removed.

Question 46: Is there a detail of a "Shop Fabricated Boot", called out on sheet C104?

Answer 46: Shop fabricated boot will be ISCO provided and utilize 1" sheet stock with minimum with 2' of pipe on each side. Sheet stock to match angle of side slope.

Question 47: Pipe size of the Leachate Transducer Riser called out on sheet C103?

Answer 47: Pipe for Leachate Transducer Riser will be 8" PVC.

Question 48: Please confirm if the 8" DR11 HDPE Sleeve and 6" pipe is needed on the Headwall Detail, 1/C505?

Answer 48: See revised Detail 1, Sheet C505.

Question 49: What material should the back up ring, bolt pack, gasket be for the job?

Answer 49: See Detail 1, Sheet C504.

Question 50: Is there a spec on the Flowmeter located on detail 2/C508?

Answer 50: EPG Magnetic flow meter or approved equal.

Question 51: How does the 8" Sch 80 PVC pipe terminate at the lateral termination, detail 2/C506?

Answer 51: Cap and screw end of 8" Schedule PVC to terminate.

ALL ITEMS IN CONFLICT WITH THIS ADDENDUM ARE HEREBY DELETED.

THIS ADDENDUM IS MADE PART OF THE CONTRACT DOCUMENTS AND SHALL BE NOTED ON THE BID FORM.

HDR Engineering, Inc.



Katie Kinley, P.E.

Certified copy provided to Owner on January 20, 2026

SECTION 00 41 00
BID FORM
METRO WASTE AUTHORITY
PROJECT P-67 - CELL E LINER, LEACHATE LAGOON, AND SED POND

ARTICLE 1 – BID RECIPIENT

- 1.01 This Bid is submitted to:
Metro Waste Authority
300 East Locust Street, Suite 100
Des Moines, IA 50309
- 1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2 – BIDDER’S ACKNOWLEDGEMENTS

- 2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.
- 2.02 BIDDER will sign and deliver the required number of counterparts of the AGREEMENT with the Bonds and other documents required by the Bidding Requirements within 15 days after the date of OWNER's Notice of Award.

ARTICLE 3 – BIDDER’S REPRESENTATIONS

- 3.01 In submitting this Bid, Bidder represents that:
- A. Bidder has examined and carefully studied the Bidding Documents, and any data and reference items identified in the Bidding Documents, and hereby acknowledges receipt of the following Addenda:

<u>Addendum No.</u>	<u>Addendum, Date</u>
_____	_____
_____	_____
_____	_____
_____	_____

- B. Bidder has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfied itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

- C. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.
- D. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and any Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs.
- E. Bidder agrees, based on the information and observations referred to in the preceding paragraph, that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.
- F. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
- G. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and confirms that the written resolution thereof by Engineer is acceptable to Bidder.
- H. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.
- I. The submission of this Bid constitutes an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, and that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.
- J. Bidder has examined and carefully prepared the proposal from the Bidding Documents and has checked the same in detail before submitting this Bid.
- K. Bidder will submit written evidence of its authority to do business in the state where the Project is located not later than the date of its execution of the Contract.
- L. Bidder agrees to waive any claim it has or may have against the Owner, the Engineer and the respective employees, arising out of or in connection with the administration, evaluation or recommendation of the Bid.

ARTICLE 4 – BIDDER'S CERTIFICATION

4.01 Bidder certifies that:

- A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;
- B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;
- C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and
- D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:
 - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process;

2. “fraudulent practice” means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
3. “collusive practice” means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels; and
4. “coercive practice” means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

ARTICLE 5 – BASIS OF BID

5.01 Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

Item No.	Description	Estimated Quantity	Unit	Bid Unit Price	Bid Price
101	Mobilization, demobilization, and all work not included in Bid Item Nos. 102 through 125	1	LS		
102	Clearing and Grubbing, Culvert Removal and Salvage, drain tile management	1	LS		
103	Excavate and Load Soils from Cell, Runout Area, North Cell Access Road, South Perimeter Road, Leachate Pond, and Stormwater Pond	505,000	CY		
104	Haul, place, and Compact Structural Fill in Cell, Runout Area, North Cell Access Road, South Perimeter Road, Leachate Pond, and Stormwater Pond	15,000	CY		
105	Excavate and Load Soils from North Perimeter Road & Convenience Area	33,500	CY		
106	North Perimeter Road & Convenience Area Structural fill	1,500	CY		
107	Excavate and Load Soils from East Perimeter Road	25,000	CY		
108	Haul, place, and Compact Structural Fill for East Perimeter Road	650	CY		
109	Remove and Replace Unsuitable Soils Below Base Grade (Cell E Liner System)	5,000	CY		
110	Excavate, Haul, and Place Soil at Owner Operation’s Stockpile as Daily Cover	50,000	CY		
111	Excavate, Haul, and Place Soil at Owner Designated Stockpile	405,000	CY		
112	24" CMP 16 Gauge Culverts (2) with drop structures (1) & end sections (3), Riprap	500	LF		
113	Construct Cell E Groundwater Control System, Liner, Leachate Collection System, sump & loadout, and Raincover	1	LS		

114	Construct Leachate Pond, Liner, Loadout, sump and pump	1	LS		
115	Construct Leachate forcemain to leachate pond	1	LS		
116	Underground Electrical Extension - South of Cell	1	LS		
117	Construct Stormwater Pond- grading, outfall, topsoil, riprap	1	LS		
118	Terraces and stormwater control system	1	LS		
119	Construct South Perimeter Road	1	LS		
120	Tipping Pad & North Access Road with Culverts	1	LS		
121	Citizen's Campus & North Perimeter Road-aggregate surfacing	1	LS		
122	Citizen's Campus Z-wall with pavement	1	LS		
123	Construct East Perimeter Road	1	LS		
124	Chain Link Fence - Salvage and Install New	5,700	LF		
125	Seeding All Areas (Install Owner supplied Topsoil. Install Seed, Fertilize, and Mulch)	20	AC		
126	Allowance (2.5% of Total Combined Price of Bid Items 101 – 125)	1	LS		

A-127	Haul, Place, and compact structural fill at Northwest Perimeter Road	11,500	CY		
A-128	Northwest Perimeter Road – aggregate surfacing	1	LS		
A-129	Additional Seeding and Fertilizing (without topsoiling)	25	AC		
A-130	Alternate South Stockpile – excavate, haul and place soil at Owner designated Stockpile	150,000	CY		
A-131	Alternate for supply and installation of leachate pond aerators	2	EA		

Bidder acknowledges that (1) each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and (2) estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all unit price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

**Total Base Bid Price for Bid Items 101 through 126
(Total of Lump Sum and Unit Price Bids = Total Bid Price)**

\$

(numerals)

(words)

**Total Bid Price with Bid Alternate Items A127 through A131, with
150,000-cy less in bid item 111
(Total of Lump Sum and Unit Price Bids and Alternate Bid Items =
Total Alternate Bid Price)**

\$

(numerals)

(words)

- 5.02 If the Contract is to be awarded, it will be awarded to the lowest responsive Bidder for the Work selected by Owner (Items 101-126, with consideration of the alternate bid items, Items A127 – A131). Owner will select the Work that will be in the best interest of the Owner.
- 5.03 Contractor computed quantity for bulk excavation is not guaranteed. Daily operational activities may result in varying quantities of soil to be excavated. Contractor to provide alternate pricing for various quantities that may be encountered. Owner will confirm quantity of soil excavation in addition to base bid with Contractor during Contract Negotiations. Total amount will be the unit price multiplied by the highest quantity of the range. Contractor to provide both unit price and total amount for the highest quantity of the range for all line items.
- 5.04 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement.
- 5.05 Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 6 – ATTACHMENTS TO THIS BID

- 6.01 The following documents are submitted with and made a condition of this Bid:
- A. Required Bid security;
 - B. List of Project References;
 - C. Evidence of authority to do business in the state of the Project; or a written covenant to obtain such license within the time for acceptance of Bids;
 - D. Required Bidder Qualification Statement with supporting data.

ARTICLE 7 – DEFINED TERMS

- 7.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

ARTICLE 8 – BID SUBMITTAL

BIDDER: *[Indicate correct name of bidding entity]*

By:

[Signature] _____

[Printed name] _____

(If Bidder is a corporation, a limited liability company, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest:

[Signature] _____

[Printed name] _____

Title: _____

Submittal Date: _____

Address for giving notices:

Telephone Number: _____

Fax Number: _____

Contact Name and e-mail address: _____

State Contractor's License
No.: _____

(where applicable)

END OF BID FORM

SECTION 01 29 01
PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

A. This Section Includes:

1. Administrative and procedural requirements necessary to prepare and process Applications for Payment.

1.2 SCHEDULE OF VALUES

A. For lump sum contracts, furnish a statement allocating portions of the Contract Sum to various portions of the Work which will be used as the basis for reviewing Applications for Payment.

1. Submit preliminary Schedule of Values utilizing the template format and work breakdown provided as an attachment to this Section within 10 days after the effective date of the Agreement.
2. Before submittal of first progress payment, make corrections and adjustments as necessary to obtain an acceptable Schedule of Values and resubmit to the Engineer.
 - a. No progress payment requests will be processed until the Schedule of Values is accepted by the Engineer.

B. Format and Content:

1. Use the form provided and supplement as necessary using the Project Manual table of contents as a guide to establish additional line items for the Schedule of Values. Provide at least one line item for each Specification Section.
2. Include the following project identification on the Schedule of Values:
 - a. Project name, location, and Owner contract/project number.
 - b. Name of Engineer.
 - c. Engineer's project number.
 - d. Contractor's name and address.
 - e. Date of submittal.
3. Arrange the Schedule of Values for the lump sum Bid Item No. 1 (or, alternatively, the Bid Item No. fully executed) per Specification Section 00 80 00, with the following subdivisions, description of work and dollar values for each:
 - a. Subcontractor work.
 - b. Manufacturer or fabricator.
 - c. Supplier.
 - d. Contractor work.
4. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports.
5. Round amounts to nearest whole dollar; total shall equal the Contract Sum.
6. Provide a separate line item in the Schedule of Values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.
7. Each item in the Schedule of Values and Applications for Payment shall be complete. Include total cost and proportionate share of general overhead and profit for each item.
 - a. Temporary facilities and other major cost items that are not direct cost of actual work-in-place may be shown either as separate line items in the Schedule of Values or distributed as general overhead expense at Contractor's option.

1.3 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment shall be consistent with previous applications and payments as recommended by the Engineer and approved by Owner.
- B. The date for each progress payment is on or about the first of each month. The period covered by each Application for Payment starts on the day following the end of the preceding period and ends 10 days before the date for each progress payment.
- C. Requests for progress payments shall be submitted at least 10 days before the date established for each progress payment, but not more often than once a month. Use forms provided in Contract Documents for Applications for Payment. Sample copy of the Application for Payment and Continuation Sheet is included in Section 01 29 01A.
- D. Application Preparation Procedures:
 - 1. When requested by the Contractor, the Engineer will determine the estimated quantities and classifications of Unit Price Work performed.
 - a. Preliminary determinations will be reviewed with the Contractor before submitting Application for Payment.
 - b. Contractor will complete the Application for Payment based on Engineer's decision on actual quantities and classifications.
 - c. Engineer will submit copies of Application for Payment to Contractor for certification.
 - 1) Contractor shall submit signed Application for payment to Owner for approval within time frame agreed to at the Preconstruction Conference.
 - 2. For a lump sum price contract, the Contractor shall prepare a preliminary determination for payment based on the approved Schedule of Values and review with Engineer before completing Application for Payment.
 - a. Payment for lump sum bid items shall be in the amount of scheduled values of each of the aggregate components comprising the lump sum items multiplied by the respective percent completion estimate.
 - 3. If payment is requested for materials and equipment not incorporated in the Work, then the following shall be submitted with the Application for Payment:
 - a. Evidence that materials and equipment are suitably stored at the site or at another location agreed to in writing.
 - b. A bill of sale, invoice, or other documentation warranting that the materials and equipment are free and clear of all liens.
 - c. Evidence that the materials and equipment are covered by property insurance.
 - 4. Complete every entry on form. Execute by a person authorized to sign legal documents on behalf of Contractor.
- E. With each Application for Payment, submit the Following Documents:
 - 1. Waivers of liens from subcontractors and suppliers for the construction period covered by the previous application.
 - a. Submit partial waivers on each item for amount requested before deduction for retainage on each item.
 - b. When an application shows completion for an item, submit final or full waivers.
 - c. Owner reserves the right to designate which entities involved in the Work shall submit waivers.
 - d. Submit final Application for Payment with or preceded by final waivers from every entity involved with performance of the Work covered by the application.
 - e. Submit waivers of lien on forms executed in a manner acceptable to Owner.
 - 2. Project schedule updated in accordance with criteria contained in Section 01 11 20 - Job Conditions.

- F. The following administrative actions and submittals shall precede or coincide with submittal of first Application for Payment:
 - 1. List of subcontractors.
 - 2. Schedule of Values.
 - 3. Contractor's construction schedule.
 - 4. Copies of applicable permits.
 - 5. Copies of authorizations and licenses from authorities having jurisdiction for performance of the Work.
- G. Submit final Application for Payment with releases and supporting documentation not previously submitted and accepted including, but not limited, to the following:
 - 1. Evidence of completion of Project closeout requirements.
 - 2. Insurance certificates for products and completed operations where required and proof that taxes, fees and similar obligations were paid.
 - 3. Updated final statement, accounting for final changes to the Contract Sum.
 - 4. Consent of Surety to Final Payment.
 - 5. Final lien waivers as evidence that claims have been settled.
 - 6. Final liquidated damages settlement statement.
 - 7. Requirements listed in Section 01 77 01 - Closeout Procedures.

1.4 MEASUREMENT AND PAYMENT

- A. Lump Sum Bid Items General:
 - 1. Measurement of lump sum bid items will be based on an estimated percent complete of the various components of the lump sum item established by the Contractor's Schedule of Values and approved by the Engineer. Contractor will make progress estimates on or about the first day of the month and submit to Engineer for review and approval.
- B. Lump Sum & Unit Price Items:
 - 1. Bid Item 101: Mobilization, demobilization, and all work not included in Bid Item Nos. 102-125:
 - a. Item shall include all work not included in other bid items needed to complete this project.
 - b. Measurement and payment will be based on an estimated percent complete of the various components of the lump sum item established by the Contractor's Schedule of Values and approved by the Engineer. Contractor will make progress estimates on or about the first day of the month and submit to Engineer for review and approval.
 - 2. Bid Item 102: Clearing and Grubbing, Culvert Removal and Salvage, drain tile management:
 - a. Measurement shall be by the estimated percent complete of this item
 - b. Included in this item shall be management, extension, and tie-in of any encountered drain tiles.
 - c. Groundwater management is the responsibility of the contractor for the duration of the project.
 - d. Included in this item is removal and salvage of existing culverts in the project area.
 - e. Clearing and grubbing to include stockpiling of cleared vegetation at Owner designated stockpile.
 - 3. Bid Item 103: Excavate and Load Soils from Cell, Runout Area, North Cell Access Road, South Perimeter Road, Leachate Pond, and Stormwater Pond
 - a. Measurement and payment shall be by the cubic yard volume of soil excavated from the Cell E project area, including cell, runout, roads, and full area as measured by survey.

- b. The quantity of bulk excavation shall be paid for at the Unit Price per cubic yard within the project area and design boundaries. Incidental to this item is any temporary stockpiling, and segregation of any topsoil. Incidental to this item is any clearing and grubbing. No additional payment shall be made for excavation made beyond the design grades. No allowances for shrink/swell in this project for pay items.
4. Bid Item 104: Haul, place, and Compact Structural Fill in Cell, Runout Area, North Cell Access Road, South Perimeter Road, Leachate Pond, and Stormwater Pond
 - a. Measurement and payment shall be by the cubic yard volume of soil placed as structural fill in the project area as measured by survey instrument. No allowances for shrink/swell in this project for pay items.
 - b. The quantity of structural fill shall be paid for at the Unit Price per cubic yard placed as structural fill to the design grades as shown on the Drawings, and per the project specifications. Item includes structural fill to the bottom of clay in the cell, road fill, perimeter fill, and tipping pad fill, with testing per the specifications. Included in this item is all fill, smooth grading, and shaping of roads and drainageways.
5. Bid Item 105: Excavate and Load Soils from North Perimeter Road & Convenience Area
 - a. Measurement and payment shall be by the cubic yard volume of soil excavated from the area per the drawings, as measured by survey.
 - b. The quantity of bulk excavation shall be paid for at the Unit Price per cubic yard within the project area and design boundaries. Incidental to this item is any temporary stockpiling, and segregation of any topsoil. Incidental to this item is any clearing and grubbing. No additional payment shall be made for excavation made beyond the design grades. No allowances for shrink/swell in this project for pay items.
6. Bid Item 106: North Perimeter Road & Convenience Area Structural fill
 - a. Measurement and payment shall be by the cubic yard volume of soil placed as structural fill in the project area as measured by survey instrument. No allowances for shrink/swell in this project for pay items.
 - b. The quantity of structural fill shall be paid for at the Unit Price per cubic yard placed as structural fill to the design grades as shown on the Drawings, and per the project specifications. Item includes structural fill with testing per the specifications. Included in this item is all fill, smooth grading, and shaping of roads and drainageways.
7. Bid Item 107: Excavate and Load Soils from East Perimeter Road
 - a. Measurement and payment shall be by the cubic yard volume of soil excavated from the area per the drawings, as measured by survey.
 - b. The quantity of bulk excavation shall be paid for at the Unit Price per cubic yard within the project area and design boundaries. Incidental to this item is any temporary stockpiling, and segregation of any topsoil. Incidental to this item is any clearing and grubbing. No additional payment shall be made for excavation made beyond the design grades. No allowances for shrink/swell in this project for pay items.
8. Bid Item 108: Haul, place, and Compact Structural Fill for East Perimeter Road
 - a. Measurement and payment shall be by the cubic yard volume of soil placed as structural fill in the project area as measured by survey instrument. No allowances for shrink/swell in this project for pay items.
 - b. The quantity of structural fill shall be paid for at the Unit Price per cubic yard placed as structural fill to the design grades as shown on the Drawings, and per the project specifications. Item includes structural fill with testing per the specifications. Included in this item is all fill, smooth grading, and shaping of roads and drainageways.
9. Bid Item 109: Remove and Replace Unsuitable Soils Below Base Grade (Cell E Liner System):
 - a. Measurement and payment shall be by the cubic yard volume of unsuitable soil removed and replaced as measured by tape or survey instrument, in coordination and with approval of RPR.

- b. Incidental to this item is testing per the specifications for structural fill placement. Incidental to this item is hauling unsuitable soils to the active face of the landfill for use as daily cover.
10. Bid Item 110: Haul and Place Soil at Owner Operation's Stockpile as Daily Cover:
- a. Measurement and payment shall be by the cubic yard volume of soil excavated from the Cell E project area and placed as measured by survey instrument or verified load count in coordination with the RPR and as approved by the Engineer.
 - b. Total excavation and loading to be paid under Bid Item 103. This bid item measured by survey or load count shall be paid for material placed at the working face stockpile. At end of project, combined totals of Bid Items 104, 106, 108, 110, 111, and 35,000-cy for RCL placement, may exceed total excavation of Bid Item 103. No allowances will be made for soil shrink/swell.
 - 1) Anticipated to be ~300 CY/day, 6 days/week, for 27 weeks.
11. Bid Item 111: Haul, and Place Soil at Owner Designated Stockpile
- a. Measurement and payment shall be by the cubic yard volume of soil excavated from the project areas and placed in the Owner Designated stockpile as measured by survey instrument and verified by final survey.
 - b. Material shall be placed in lifts in accordance with the project specifications, and segregated by material type.
 - c. Designated stockpile location is to the northeast of the project area, in coordination with the Owner and Engineer provided grades. Incidental to this item is fine grading stockpiles, maintaining positive drainage in stockpile areas, segregation of topsoil or any sand encountered into separate stockpiles. Incidental to this item is clearing and grubbing and stripping vegetation and topsoil from the stockpile area and grading into a stockpile prior to stockpiling additional material in the area. Incidental to this item is stormwater drainage promoted around the stockpile to the tributary to the east.
12. Bid Item 112: 24" CMP 16 Gauge Culverts (2) with drop structures (1) & end sections (3), Riprap
- a. Measurement shall be by the lineal foot of corrugated metal pipe (CMP) culvert installed for the sediment pond inlet pipe as measured by survey instrument by the Owner's representative.
 - b. The quantity of CMP pipe installed shall be paid for at the Unit Price per lineal foot for this pay item. Drop inlet, flared end sections, erosion stone, and geotextile shall be incidental to this bid item. Fine grading around the inlets to the culvert, and setting culverts to the inverts and slopes as shown on the drawings is incidental to this item.
13. Bid Item 113: Construct Cell E Groundwater Control System, Liner, Leachate Collection System, sump & loadout, and raincover
- a. Measurement will be based on an estimated percent complete of the various components of the lump sum item established by the Contractor's Schedule of Values and approved by the Engineer. Contractor will make progress estimates on or about the first day of the month and submit to Engineer for review and approval.
 - b. Include in this item all labor, materials, and testing to supply and install the groundwater control system, liner system, leachate control system with sump and loadout, and raincover system as shown in the Drawings and described in the specifications. Incidental to this item is soil hauling and placement for the recompacted clay liner, all temporary stockpiling of materials, & material management and testing. Incidental to this item is installation of seepage drain with groundwater control system as needed, as shown on the drawings. Seepage drain to include an 8-inch pipe and 2'x2' granular drainage material to extend the groundwater trench. In this item, include an estimated 1,000-LF of seepage drain.
14. Bid Item 114: Construct Leachate Pond, Liner, Loadout, sump and pump
- a. Measurement will be based on an estimated percent complete of the various components of the lump sum item established by the Contractor's Schedule of Values

- and approved by the Engineer. Contractor will make progress estimates on or about the first day of the month and submit to Engineer for review and approval.
- b. Include in this item all labor, materials, and testing to supply and install the liner system, leachate control system, and pump and loadout system as shown in the Drawings and described in the specifications. Incidental to this item is soil hauling and placement for the recompacted clay liner, all temporary stockpiling of materials, & material management and testing. Incidental to this item is installation of seepage drain as needed, as shown on the drawings.
15. Bid Item 115: Construct Leachate Forcemain to Leachate Pond
- a. Item to include all HDPE piping installed to complete the forcemain from the Cell E sump to the leachate lagoon and the loadout line.
 - b. Incidental to this item is all fittings and appurtenances for forcemain installation.
 - c. Incidental to this item is all trenching and backfilling.
 - d. Measurement will be based on an estimated percent complete of the various components of the lump sum item established by the Contractor's Schedule of Values and approved by the Engineer. Contractor will make progress estimates on or about the first day of the month and submit to Engineer for review and approval.
16. Bid Item 116: Underground electrical extension – South of Cell
- a. Item to include all conduit and wire from tie-in to Cell E loadout and leachate pond loadout. Distance is estimated to be 1,200-LF of trenching, installation, and backfilling with this item.
 - b. Tie-in location to include coordination with Midland Power to upsize pole mounted transformer to minimum of 50-kVa to support future and current loads:
 - a) 10-HP, single phase, 220v Aerators (3)
 - b) 0.75-HP Pumps (3)
 - c) 7.5-HP Pump
 - d) Existing 30amp panel for Phase 1
 - c. Incidental to this item is all fittings and appurtenances for electrical installation. Panels, handholes, tie-in, and startup of panels and pumps to be included in this item.
 - d. Incidental to this item is all trenching and backfilling.
 - e. Measurement will be based on an estimated percent complete of the various components of the lump sum item established by the Contractor's Schedule of Values and approved by the Engineer. Contractor will make progress estimates on or about the first day of the month and submit to Engineer for review and approval.
17. Bid Item 117: Construct Stormwater Pond- grading, outfall, topsoil, riprap
- a. Measurement will be based on an estimated percent complete of the various components of the lump sum item established by the Contractor's Schedule of Values and approved by the Engineer. Contractor will make progress estimates on or about the first day of the month and submit to Engineer for review and approval.
 - b. The quantity of excavation shall be paid for at the Unit Price per cubic yard within the project area and design boundaries of the pond under bid item 103.
 - c. Included in this item is fine grading, placement of outfall, topsoil, and riprap with associated geotextile as shown on the drawings. Incidental to this item is smooth grading in and around the pond to promote positive drainage and all stormwater control, sediment control, and water control for the duration of the project.
18. Bid Item 118: Terraces and stormwater control system
- a. Measurement will be based on an estimated percent complete of the various components of the lump sum item established by the Contractor's Schedule of Values and approved by the Engineer. Contractor will make progress estimates on or about the first day of the month and submit to Engineer for review and approval.

- b. Include in this item all labor and materials to supply and install stormwater terraces as shown on the drawings, silt fence as needed, pumping equipment, and the stormwater control system as shown on the drawings and described in the project manual.
19. Bid Item 119: Construct South Perimeter Road
- a. Measurement will be based on an estimated percent complete of the various components of the lump sum item established by the Contractor's Schedule of Values and approved by the Engineer. Contractor will make progress estimates on or about the first day of the month and submit to Engineer for review and approval.
 - b. Include in this item all labor and materials to supply and install the road textile and aggregate, and tying in to the existing roadway as shown on the drawings and described in the project manual. Structural fill, excavation, and smooth grading road and perimeter ditch to be included in the structural fill and excavation bid items 103 and 104 above.
20. Bid Item 120: Tipping Pad & North Access Road with Culverts
- a. Measurement will be based on an estimated percent complete of the various components of the lump sum item established by the Contractor's Schedule of Values and approved by the Engineer. Contractor will make progress estimates on or about the first day of the month and submit to Engineer for review and approval.
 - b. Include in this item all labor and materials to supply and install textile and aggregate, grading in the drainageways to facilitate drainage, and tying in to the existing north roadway as shown on the drawings and described in the project manual. Structural fill, excavation, and smooth grading tipping pad, drainageways, and south road to be included in the structural fill and excavation bid items 103 and 104 above.
 - c. Include in this item supply and install of 24-inch culverts with riprap, geotextile, and flared end sections as shown on the drawings.
21. Bid Item 121: Citizen's Campus & North Perimeter Road-aggregate surfacing
- a. Measurement will be based on an estimated percent complete of the various components of the lump sum item established by the Contractor's Schedule of Values and approved by the Engineer. Contractor will make progress estimates on or about the first day of the month and submit to Engineer for review and approval.
 - b. Include in this item all labor and materials to supply and install the north area textile, and aggregate, and tying in to the existing roadway as shown on the drawings and described in the project manual. Structural fill, excavation, and smooth grading road and perimeter ditch to be included in the structural fill and excavation bid items 103 and 104 above.
22. Bid Item 122: Citizen's Campus Z-wall with pavement
- a. Measurement will be based on an estimated percent complete of the various components of the lump sum item established by the Contractor's Schedule of Values and approved by the Engineer. Contractor will make progress estimates on or about the first day of the month and submit to Engineer for review and approval.
 - b. Include in this item all labor and materials to supply and install the z-wall as shown on the project drawings. Included in this item is all material, material testing, and pavement.
 - c. Include in this item supply and install one 24-inch culvert with riprap, geotextile, and flared end sections as shown on the drawings.
23. Bid Item 123: Construct East Perimeter Road
- a. Measurement will be based on an estimated percent complete of the various components of the lump sum item established by the Contractor's Schedule of Values and approved by the Engineer. Contractor will make progress estimates on or about the first day of the month and submit to Engineer for review and approval.
 - b. Include in this item all labor and materials to supply and install the road textile and aggregate, and tying in to the north and south roadway as shown on the drawings and described in the project manual. Structural fill, excavation, and smooth grading road

and perimeter ditch to be included in the structural fill and excavation bid items 103 and 104 above.

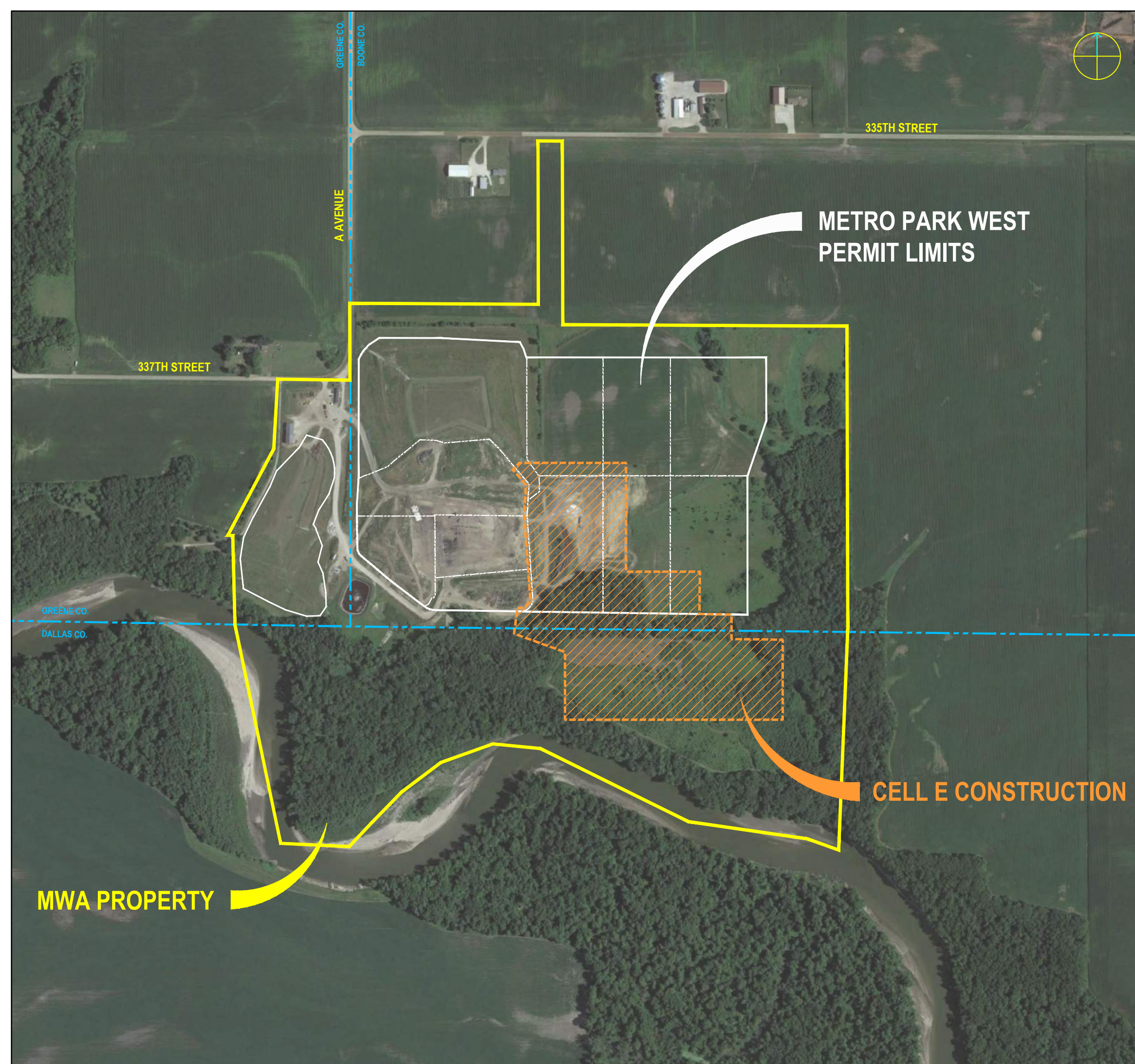
24. Bid Item 124: Chain Link Fence - Salvage and Install New
 - a. Measurement will be based on lineal feet installed as measured by survey and as designed on the drawings.
 - b. Include in this item all labor and materials to supply and install new chain link fence as shown on the project drawings. Included in this item is salvage of existing fencing and re-use to the extent possible. New materials due to unsalvageable fencing is incidental to this item.
 - c. Included in this item are 3-swing style gates, a minimum of 16-ft wide to be placed in coordination with the Owner.
25. Bid Item 125: Seeding All Areas (Install Owner supplied Topsoil. Install Seed, Fertilize, and Mulch):
 - a. Measurement & payment shall be by the acreage of surveyed area, as coordinated with and approved by the Owner.
 - b. Additional areas to be seeded outside of the project area (including all disturbed, vegetated areas resulting from Contractor's work activities) shall be included within Lump Sum pricing and included within the Contractor's submitted schedule of values and will not be paid under this item, and will be incidental to the project.
26. Bid Item 126: Allowance:
 - a. Item may not be used without written approval from Owner, for items outside of the existing scope of the project. See Specification Section 01 21 00 for more information.
27. ALTERNATE Bid Item 127: Haul, Place, and compact structural fill at Northwest Perimeter Road
 - a. Measurement and payment shall be by the cubic yard volume of soil placed as structural fill in the project area as measured by survey instrument. No allowances for shrink/swell in this project for pay items.
 - b. The quantity of structural fill shall be paid for at the Unit Price per cubic yard placed as structural fill to the design grades as shown on the Drawings, and per the project specifications. Item includes structural fill with testing per the specifications. Included in this item is all fill, smooth grading, and shaping of roads and drainageways. Included in this item is all stripping of vegetation and replacement after structural fill placement.
28. ALTERNATE Bid Item 128: Northwest Perimeter Road – aggregate surfacing
 - a. Measurement will be based on an estimated percent complete of the various components of the lump sum item established by the Contractor's Schedule of Values and approved by the Engineer. Contractor will make progress estimates on or about the first day of the month and submit to Engineer for review and approval.
 - b. Include in this item all labor and materials to supply and install the north area textile, and aggregate, and tying in to the existing roadway as shown on the drawings and described in the project manual. Structural fill, excavation, and smooth grading road and perimeter ditch to be included in the structural fill and excavation bid item 127 above.
 - c. Include in this item supply and install one 24-inch culvert with riprap, geotextile, and flared end sections as shown on the drawings.
29. ALTERNATE Bid Item 129: Additional Seeding and Fertilizing (without topsoiling)
 - a. Measurement & payment shall be by the acreage of surveyed area, as coordinated with and approved by the Owner.
 - b. Additional areas to be seeded outside of the project area (including all disturbed, vegetated areas resulting from Contractor's work activities) shall be included within Lump Sum pricing and included within the Contractor's submitted schedule of values and will not be paid under this item, and will be incidental to the project.

30. ALTERNATE Bid Item 130: South Stockpile - Haul, and Place Soil at Owner Designated Stockpile
- a. Measurement and payment shall be by the cubic yard volume of soil excavated from the project areas and placed in the Owner Designated stockpile as measured by survey instrument and verified by final survey.
 - b. Material shall be placed in lifts in accordance with the project specifications, and segregated by material type. This item shall not be additive to Bid Item 111.
 - c. Designated stockpile location is to the south of the leachate and stormwater ponds, in coordination with the Owner and Engineer provided grades. Incidental to this item is fine grading stockpiles, maintaining positive drainage in stockpile areas, segregation of topsoil or any sand encountered into separate stockpiles. Incidental to this item is clearing and grubbing and stripping vegetation and topsoil from the stockpile area and grading into a stockpile prior to stockpiling additional material in the area. Incidental to this item is stormwater drainage promoted around the stockpile to the stormwater pond.
31. ALTERNATE Bid Item 131: Aerator Supply and Installation
- a. Item to include all labor and materials to supply and install 2-leachate pond aerators within the new leachate pond.
 - b. Aerators to be Aire-O2 aspirator, 60-hz, 10-HP, single phase, 230v or engineer approved equivalent.
 - c. Incidental to this item is all fittings and appurtenances for electrical installation. Panels, handholes, tie-in, and startup of panels and pumps to be included in this item.
 - d. Incidental to this item is all trenching and backfilling.
 - e. Measurement will be based on an estimated percent complete of the various components of the lump sum item established by the Contractor's Schedule of Values and approved by the Engineer. Contractor will make progress estimates on or about the first day of the month and submit to Engineer for review and approval.

PART 2 - PRODUCTS - (NOT APPLICABLE TO THIS SPECIFICATION SECTION)

PART 3 - EXECUTION - (NOT APPLICABLE TO THIS SPECIFICATION SECTION)

END OF SECTION



METRO PARK WEST LANDFILL SITE LOCATION MAP
SCALE: 1" = 500'

Contract Drawings For

Metro Park West MSW Landfill

MWA Project P-67 Cell E Liner Construction

Project No.
10391837

Perry, Boone County, Iowa
November 2025

Issued for Bid

Addendum #1: December 23, 2025

Addendum #2 January 20, 2026

INDEX OF DRAWINGS

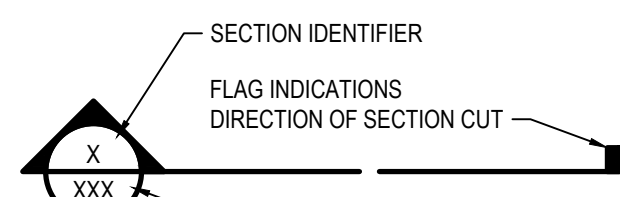
GENERAL

- G000 COVER SHEET
- G001 LEGEND AND GENERAL NOTES
- G002 EXISTING CONDITIONS AND REMOVALS PLAN

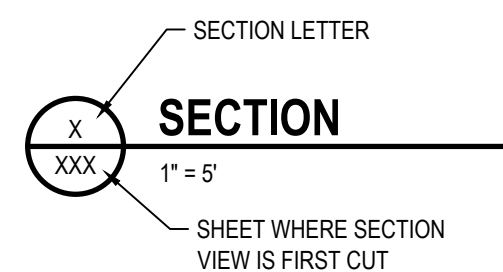
CIVIL

- C101 BASE GRADING PLAN
- C102 CLAY GRADING PLAN
- C103 DRAINAGE LAYER GRADING PLAN
- C104 LEACHATE POND AND STORMWATER POND GRADING PLAN
- C105 EAST PERIMETER ROAD GRADING AND DEVELOPMENT PLAN
- C106 NORTH AREA FINAL COVER ROAD GRADING PLAN
- C301 CROSS SECTIONS
- C501 DETAILS
- C502 DETAILS
- C503 DETAILS
- C504 DETAILS
- C505 DETAILS
- C506 DETAILS
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- C509 DETAILS
- C510 DETAILS

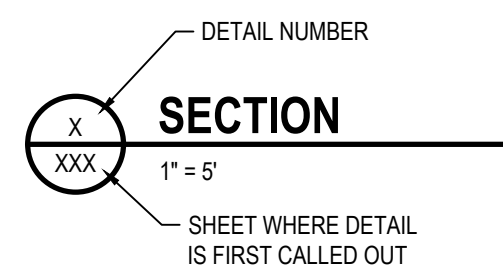
GENERAL SYMBOLOGY



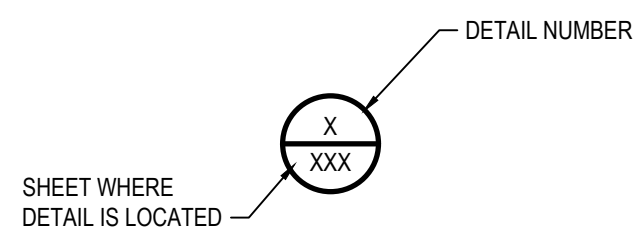
SECTION CUT MARKER



SECTION TITLE



DETAIL TITLE



DETAIL CALLOUT

CIVIL MAPPING SYMBOLOGY

- SURVEY CONTROL POINT
- MW-X GROUNDWATER MONITORING WELL
- GEW-X GAS EXTRACTION WELL
- DEW-X DUAL EXTRACTION WELL
- LEW LEACHATE EXTRACTION WELL
- MMP METHANE MONITORING PROBE
- PZ-X GROUNDWATER PIEZOMETER
- SP-X GROUNDWATER CONTROL TRENCH STAND PIPE
- ISOLATION VALVE
- MH UTILITY MANHOLE
- LEACHATE COLLECTION PIPE CLEANOUT
- Lx LEACHATE LIFT STATION
- OVERHEAD POWER POLE
- GUY WIRE
- LFG CONDENSATE HIGH POINT
- SURFACE DRAINAGE FLOW DIRECTION

MATERIALS IN PLAN / SECTION

- STRUCTURAL FILL (SECTION)
- PLACED SOIL (SECTION)
- NATIVE SOIL (SECTION)
- DAILY / INTERMEDIATE COVER (SECTION)
- WASTE (SECTION)
- RECOMPACTED CLAY (SECTION)
- VEGETATIVE SOIL LAYER (SECTION)
- PROTECTIVE SOIL COVER (SECTION)
- DRAINAGE LAYER (SECTION)
- RIP-RAP / REVETMENT STONE (PLAN/SECTION)
- SAND (SECTION)
- COARSE AGGREGATE (SECTION)
- LETDOWN (PLAN)
- HAUL ROAD (PLAN)
- RECOMPACTED CLAY LINER (SECTION)
- CAREFULLY COMPACTED BACKFILL (SECTION)

UTILITY/CIVIL LINE SYMBOLOGY

- PROP PROPERTY BOUNDARY
- WASTE LIMITS OF WASTE
- INTERNAL CELL/PHASE BOUNDARY
- FENCE - BARB WIRE
- FENCE - CHAIN LINK
- FENCE - WOOD
- EXISTING MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- VEGETATION/BRUSH LINE
- TREES / SHRUBBERY
- LEA LEACHATE PIPE - SOLID WALL
- LEA LEACHATE PIPE - PERFORATED
- FM LEACHATE FORCE MAIN
- GWT GROUNDWATER PIPE / TRENCH
- LARGE PIPELINE
- SD STORMWATER PIPING
- STORMWATER CULVERT
- DRAINAGE TERRACE
- DRAINAGE DITCH / SWALE
- G GAS HEADER PIPE
- G GAS COLLECTOR PIPE
- UGE UNDERGROUND POWER
- OHE OVERHEAD POWER LINE
- FO FIBER OPTIC SERVICE
- W WATER MAIN
- WTL WETLANDS DELINEATION

SYMBOLOGY NOTES

- THIS IS A STANDARD SHEET SHOWING COMMON SYMBOLOGY. ALL SYMBOLS ARE NOT NECESSARILY USED ON THIS PROJECT.
- SCREENING OR SHADING OF WORK IS USED TO INDICATE EXISTING COMPONENTS OR TO DE-EMPHASIZE PROPOSED IMPROVEMENTS TO HIGHLIGHT SELECTED TRADE WORK. REFER TO CONTEXT OF EACH SHEET FOR USAGE.

ABBREVIATIONS

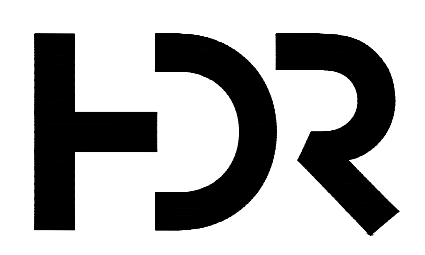
&	AND
@	AT
ADS	ADVANCED DRAINAGE SYSTEMS, INC.
AISI	AMERICAN IRON & STEEL INSTITUTE
APPROX	APPROXIMATE
C or CL	CENTERLINE
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
CWTS	CONSTRUCTED WETLANDS TREATMENT SYSTEM
CPP	CORRUGATED PLASTIC PIPE
Ø or DIA	DIAMETER
E	EAST or ELECTRICAL
EL or ELEV	ELEVATION
EXST	EXISTING
EXT	EXTENSION
FES	FLARED END SECTION
FL	FLOWLINE
FT	FOOT or FEET
GALV	GALVANIZED
GAL	GALLON
GEW	GAS EXTRACTION WELL
GW	GROUNDWATER
HDPE	HIGH DENSITY POLYETHYLENE
HORIZ	HORIZONTAL
ID	INNER DIAMETER
IE	INVERT ELEVATION
IN	INCH or INCHES
L	ANGLE
LB or LBS	POUND/S
LLDPE	LINEAR LOW DENSITY POLYETHYLENE
MAX	MAXIMUM
MFG'S	MANUFACTURER'S
MH	MANHOLE
MIN	MINIMUM
MPE	METRO PARK EAST
MWA	METRO WASTE AUTHORITY
N	NORTH
NA	NOT APPLICABLE
NO.	NUMBER
OD	OUTER DIAMETER
OZ	OUNCE
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
PL	PLATE
POB	POINT OF BEGINNING
POE	POINT OF END
PP	POLYPROPYLENE
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE
R or RAD	RADIUS
REQ'D	REQUIRED
ROW	RIGHT OF WAY
SEC	SECTION
S	SOUTH
SPA	SPACING
SS	STAINLESS STEEL
STA	STATION
STL	STEEL
TEMP	TEMPORARY
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
W	WEST
WI	WITH

GENERAL NOTES

- SITE TOPOGRAPHY AERIAL SURVEY PROVIDED BY AEROVIEW SERVICES, DATED JULY 2, 2025. SITE LINWORK IS A COMPILATION OF HISTORIC SITE INFORMATION PROVIDED BY METRO WASTE AUTHORITY AND RECORD DRAWING INFORMATION.
- SITE COORDINATES ARE BASED UPON IOWA STATE PLANE SOUTH, NAVD88. THIS SYSTEM SHALL BE USED FOR ALL PROJECT SURVEYING AND RECORD DOCUMENT PRODUCTION.
- DO NOT OBSTRUCT LANDFILL SITE ACCESS ROADS, MAIN ACCESS ROADS, OR PROJECT ACCESS/EGRESS ROUTE. COORDINATE ALL ROADWAY WORK TO ENSURE CONTINUOUS SITE ACCESS. SEE SPECIFICATIONS.
- OBTAIN ALL REQUIRED BORROW FROM WITHIN APPROVED SOIL BORROW AREA, UNLESS OTHERWISE APPROVED BY OWNER.
- BULK EXCAVATION AND SOIL PLACEMENT AREAS SHALL BE GRADED AS SHOWN ON PLANS OR AS OTHERWISE APPROVED BY OWNER.
- CONTRACTOR SHALL PROVIDE AND MAINTAIN THROUGHOUT CONSTRUCTION, TWO DIESEL POWERED PUMPS CAPABLE OF PUMPING 1,200 GPM AT 30' TDH, TO REMOVE ALL ACCUMULATED STORMWATER FROM WITHIN CELL E AND POND COORDINATE BOUNDARY, INCLUDING AT ALL TIMES OUTSIDE OF NORMAL WORK HOURS. STANDING WATER WITHIN THE CELL E LINER AREA IS NOT PERMITTED. NON-COMPLIANCE WITH THIS REQUIREMENT WILL RESULT IN OWNER HIRING A THIRD-PARTY TO COMPLETE CONSTRUCTION DEWATERING AT CONTRACTOR'S SOLE COST. STORMWATER SHALL BE DISCHARGED TO THE PERIMETER DITCH
- LOCATE AND PROTECT SITE UTILITIES AND STRUCTURES (INCLUDING MONITORING WELLS, PIEZOMETERS, GROUNDWATER CONTROL STANDPIPES, RISERS, TRENCHES, BURIED UTILITIES, LEACHATE MANHOLES, ELECTRICAL, ETC.). ANY STRUCTURES REMOVED OR DAMAGED SHALL BE REPAIRED AND REPLACED AT CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL WORK FROM EROSION AND SEDIMENT CAUSED BY THE ADJACENT EXISTING LANDFILL. SEDIMENT AND WASTE ACCUMULATION WITHIN THE LIMITS OF CONSTRUCTION SHALL BE REMOVED AT CONTRACTOR'S EXPENSE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE EROSION CONTROL MEASURES MEET MINIMUM FEDERAL, STATE, AND LOCAL REGULATIONS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EXISTING DRAINAGE CHANNELS, CULVERTS, SEDIMENT BASINS, AND TRAPS AFFECTED BY THE WORK. CONTRACTOR SHALL REMOVE ACCUMULATED SEDIMENT AND DEBRIS FROM THE CONTROL MEASURES AND ANY AFFECTED STRUCTURES FOLLOWING COMPLETION OF THE WORK AND PLACE AT LOCATION APPROVED BY OWNER.
- TERMINATION BERMS SHOWN ON SHEET 01C104 ARE PROVIDED TO BALLAST AND COMPLETE THE LINER SYSTEM. CONTRACTOR WILL PROVIDE ADDITIONAL TEMPORARY AND INTERMEDIATE BALLASTING UNTIL ALL TERMINATION BERMS ARE INSTALLED/COMPLETED. CONTRACTOR SHALL ALSO PROVIDE BALLASTING OF RAIN COVER. SEE PLAN SHEET 01C104, DETAIL 4/01C503 AND SPECIFICATIONS.
- WHERE DESIGNATED ACCESS ROADS TO SPECIFIC CONSTRUCTION AREAS ARE NOT SHOWN, COORDINATE PLANNED ACCESS ROUTES WITH OWNER AND ENGINEER AT THE PRE-CONSTRUCTION CONFERENCE.
- IN ALL CASES CONTRACTOR SHALL TAKE CARE TO PREVENT DAMAGE TO ESTABLISHED VEGETATION DUE TO CONTRACTOR VEHICLE TRAFFIC. CONTRACTOR SHALL REPAIR ALL VEGETATION AND SOIL DAMAGE (I.E. RUTTING) CAUSED BY CONSTRUCTION ACTIVITIES IN MANNER SUITABLE TO OWNER PRIOR TO COMPLETION OF PROJECT WORK.
- CONTRACTOR ACCESS ROAD FROM STAGING/LAYDOWN AREA INTO CELL D AREA TO BE CONSTRUCTED FOLLOWING COORDINATION WITH AND APPROVED BY OWNER IN THE APPROXIMATE ALIGNMENT SHOWN ON SHEET 01C101.

PROJECT SERIES DESCRIPTION

- CELL E BULK EXCAVATION, INCLUDING:
 - SITE PREPARATION.
 - EARTHWORK AND STORMWATER IMPROVEMENTS.
 - EXCAVATION AND FINE GRADING OF CELL PERIMETER FEATURES AND PERIMETER ACCESS.
 - PLACEMENT AND STOCKPILE OF EXCAVATED SOIL (IN ORDER OF OWNER'S PREFERENCE) STORMWATER DIVERSION BERMS, OWNER'S OPERATIONS STOCKPILE AT ACTIVE WORK FACE, MISCELLANEOUS AREAS AS APPROVED BY OWNER.
 - OTHERS - SEE DRAWINGS AND SPECIFICATIONS.
- CELL E LINER, LEACHATE POND, & LEACHATE COLLECTION SYSTEM, INCLUDING:
 - EXCAVATION, CUT TO FILL AND FINE GRADING TO BASE GRADE.
 - RECOMPACTED CLAY LINER.
 - 60-MIL GEOMEMBRANE.
 - GEOTEXTILE.
 - TERMINATION BERMS ON THE NORTH SIDE.
 - DRAINAGE LAYER AND COARSE AGGREGATE.
 - SOLID WALL AND PERFORATED PVC LEACHATE COLLECTION PIPES.
 - 12-MIL SCRIM REINFORCED HDPE RAINCOVER.
 - LEACHATE LOADOUT, PUMP, PIPING
 - MISCELLANEOUS STRUCTURES AND APPURTENANCES.
 - OTHERS - SEE DRAWINGS AND SPECIFICATIONS.
- PERIMETER ACCESS ROAD SURFACING:
 - FINE GRADING OF ACCESS ROAD.
 - ROADWAY GEOTEXTILE.
 - AGGREGATE SURFACING OF CELL E PERIMETER ACCESS ROAD.
 - EROSION CONTROLS.
 - CULVERT INSTALLATION.
- STORMWATER POND
 - EXCAVATION AND GRADING
 - STORMWATER OUTFALL STRUCTURE
 - CULVERTS, GRAVEL, AND SEEDING
 - INTERMEDIATE STORMWATER CONTROLS AND EROSION CONTROL FEATURES



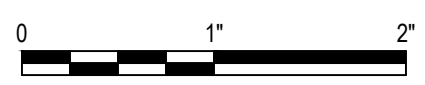
ISSUE	DATE	DESCRIPTION
3	01-20-2026	ADDENDUM NO. 2
2	12-23-2025	ADDENDUM NO. 1
1	11-26-2024	ISSUED FOR BID

PROJECT MANAGER	K. KINLEY
CIVIL	K. KINLEY
DRAWN BY	M. BICKFORD
QC BY	
PROJECT NUMBER	10408322

**PRELIMINARY
NOT FOR
CONSTRUCTION OR
RECORDING**

Metro Waste Authority

**METRO PARK WEST
MWA PROJECT P-67
CELL E LINER CONSTRUCTION**

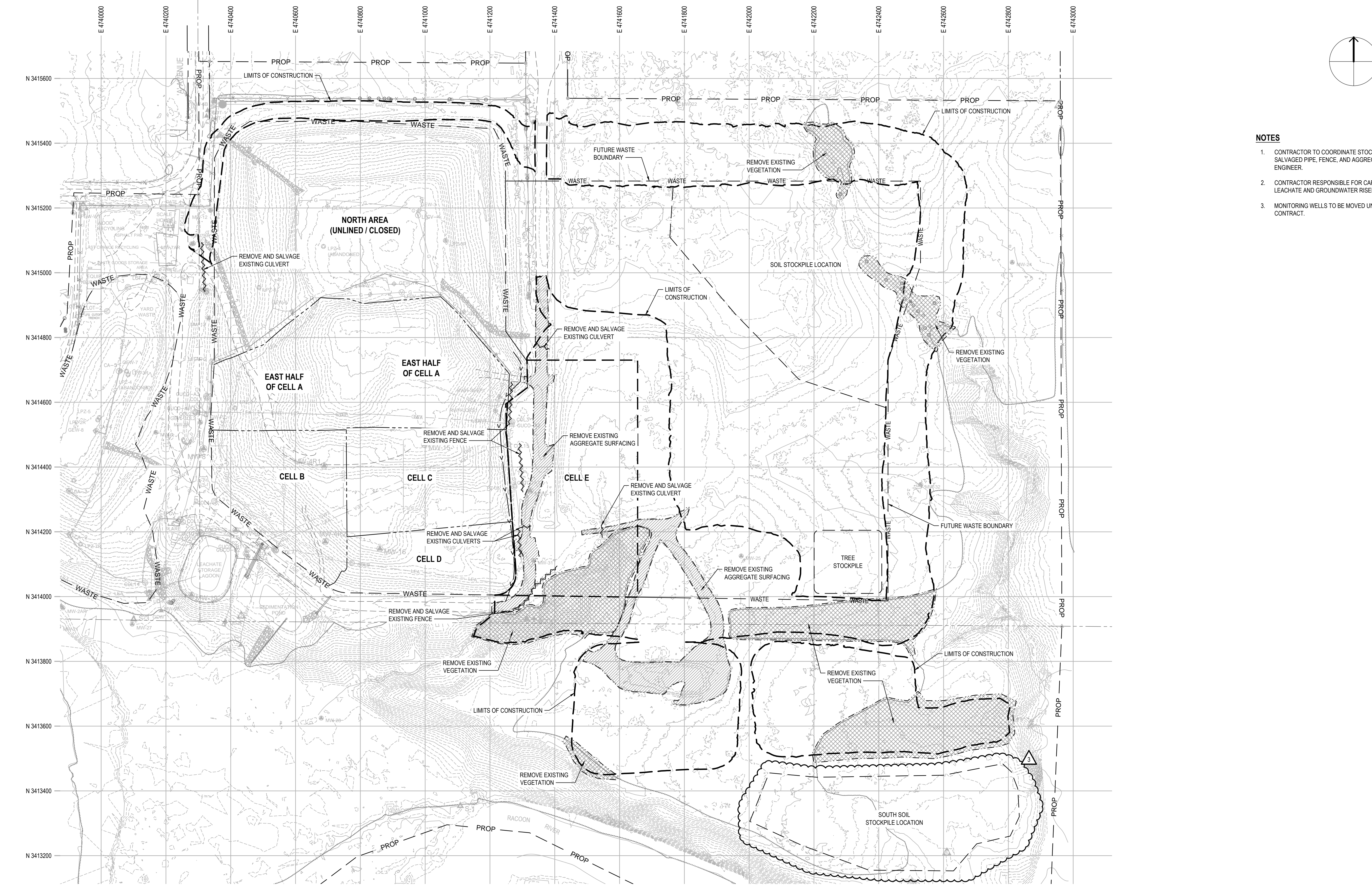


**CIVIL LEGEND
AND GENERAL NOTES**

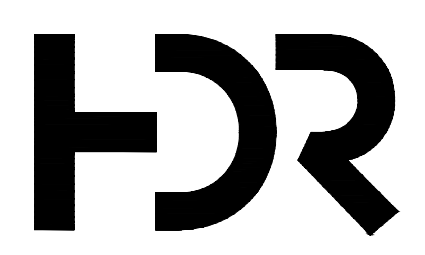
FILENAME | G001.dwg
SCALE

SHEET
G001

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- NOTES**
1. CONTRACTOR TO COORDINATE STOCKPIILING LOCATION OF SALVAGED PIPE, FENCE, AND AGGREGATE WITH OWNER / ENGINEER.
 2. CONTRACTOR RESPONSIBLE FOR CAPPING / EXTENDING ALL LEACHATE AND GROUNDWATER RISERS ALONG TIE-IN.
 3. MONITORING WELLS TO BE MOVED UNDER SEPARATE CONTRACT.

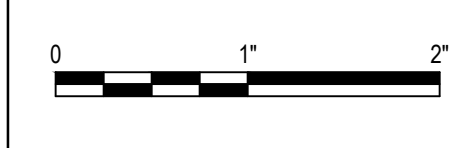


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CIVIL	K. KINLEY
DRAWN BY	M. BICKFORD
QC BY	
PROJECT NUMBER	10408322

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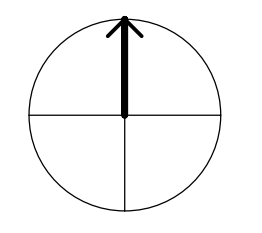
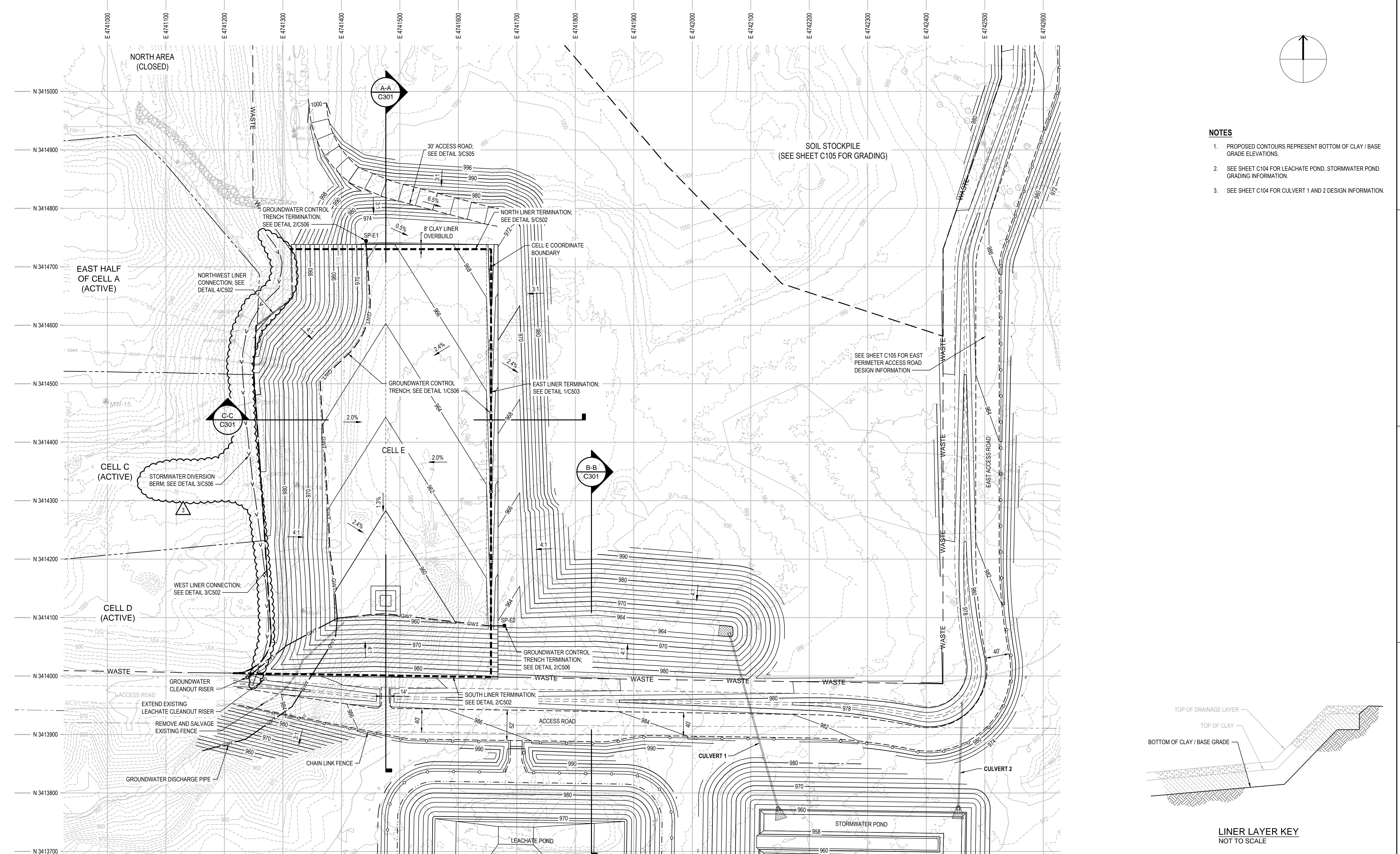
Metro Waste Authority
**METRO PARK WEST
MWA PROJECT P-67
CELL E LINER CONSTRUCTION**



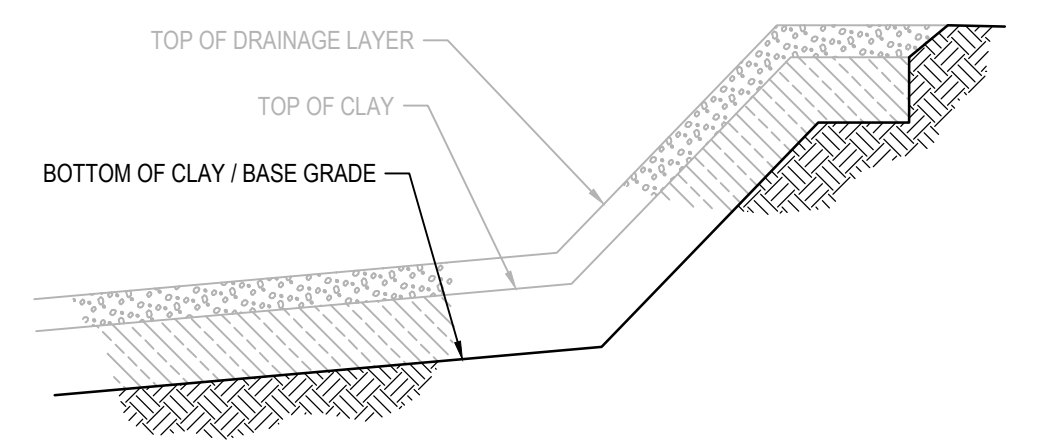
**EXISTING CONDITIONS AND
OVERALL DEVELOPMENT PLAN**

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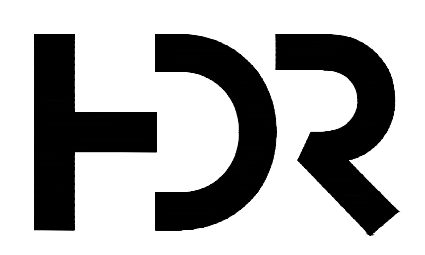
SHEET
G002



- NOTES**
1. PROPOSED CONTOURS REPRESENT BOTTOM OF CLAY / BASE GRADE ELEVATIONS.
 2. SEE SHEET C104 FOR LEACHATE POND, STORMWATER POND GRADING INFORMATION.
 3. SEE SHEET C104 FOR CULVERT 1 AND 2 DESIGN INFORMATION.



LINER LAYER KEY
NOT TO SCALE

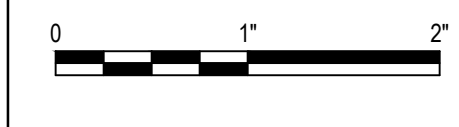


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Metro Waste Authority
**METRO PARK WEST
MWA PROJECT P-67
CELL E LINER CONSTRUCTION**

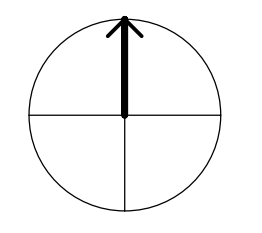


BASE GRADING PLAN

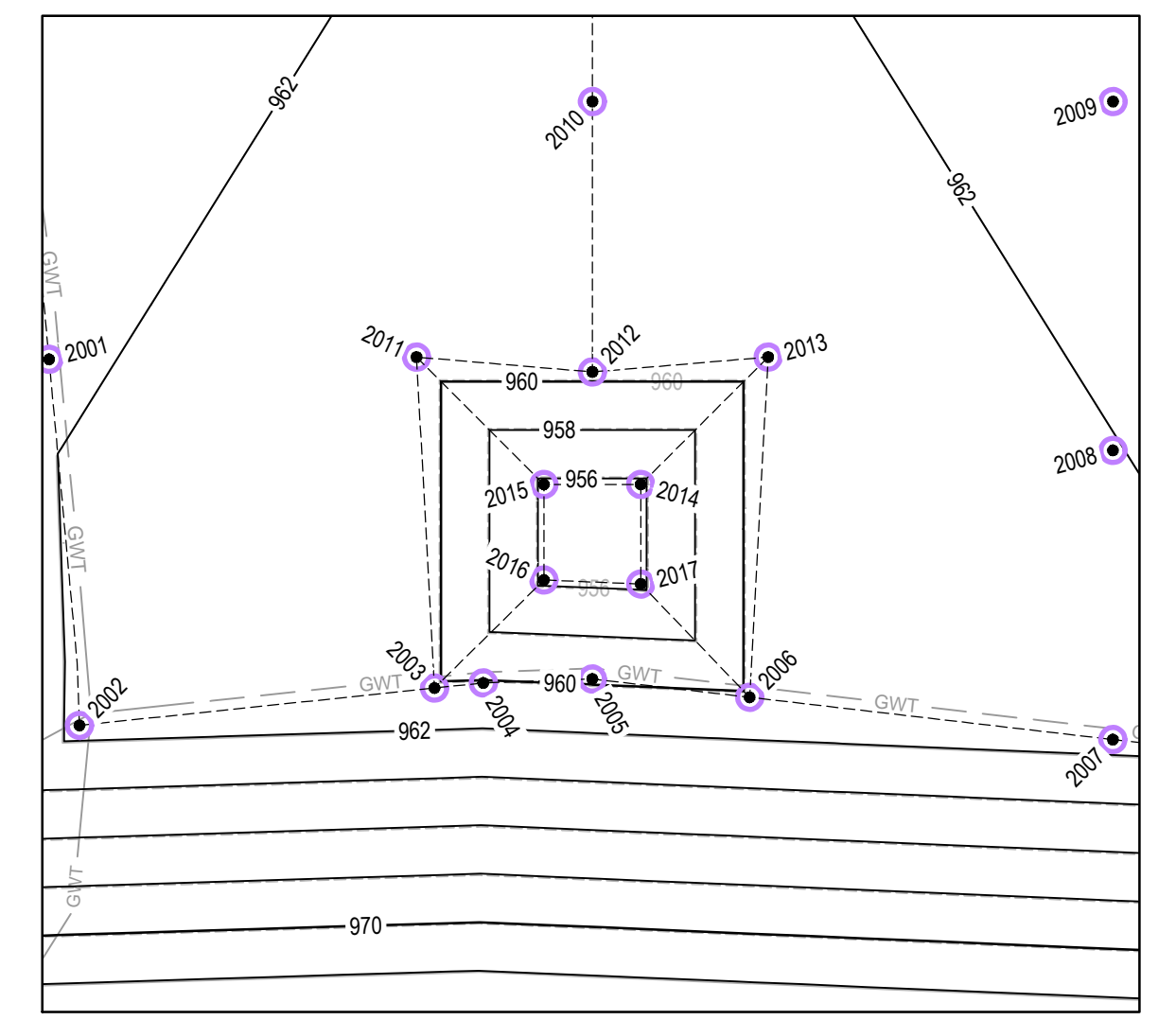
FILENAME | C101.dwg
SCALE | 1" = 80'

SHEET
C101

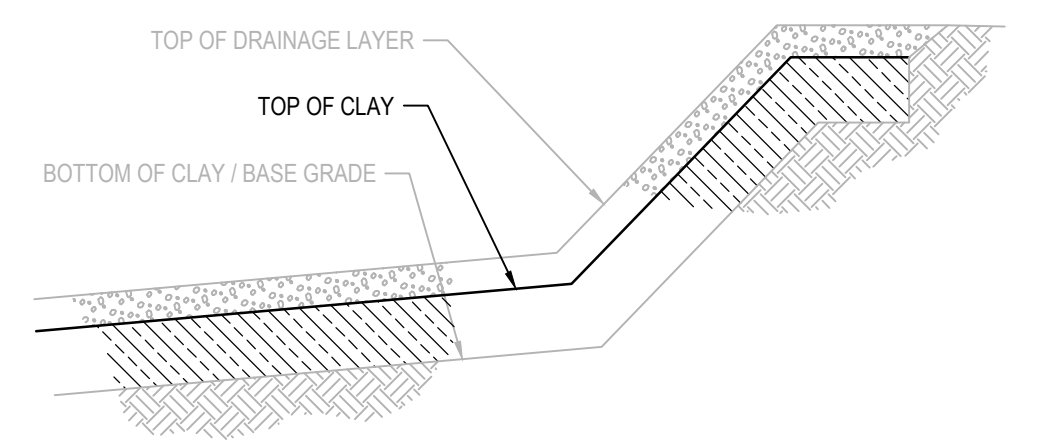
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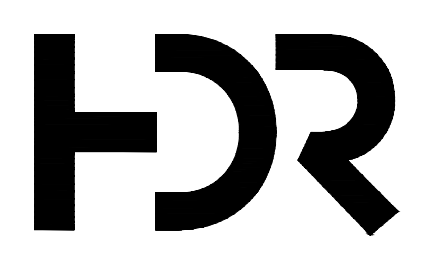
- NOTES**
1. PROPOSED CONTOURS REPRESENT TOP OF CLAY ELEVATIONS.
 2. SEE SHEET C105 FOR CERTIFICATION POINT TABLES.



ENLARGED LEACHATE SUMP
SCALE: 1" = 30'



LINER LAYER KEY
NOT TO SCALE

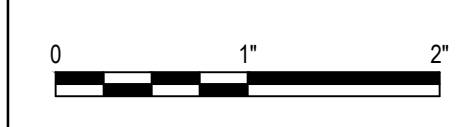


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Metro Waste Authority
**METRO PARK WEST
MWA PROJECT P-67
CELL E LINER CONSTRUCTION**

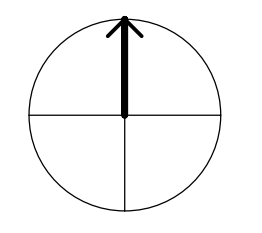
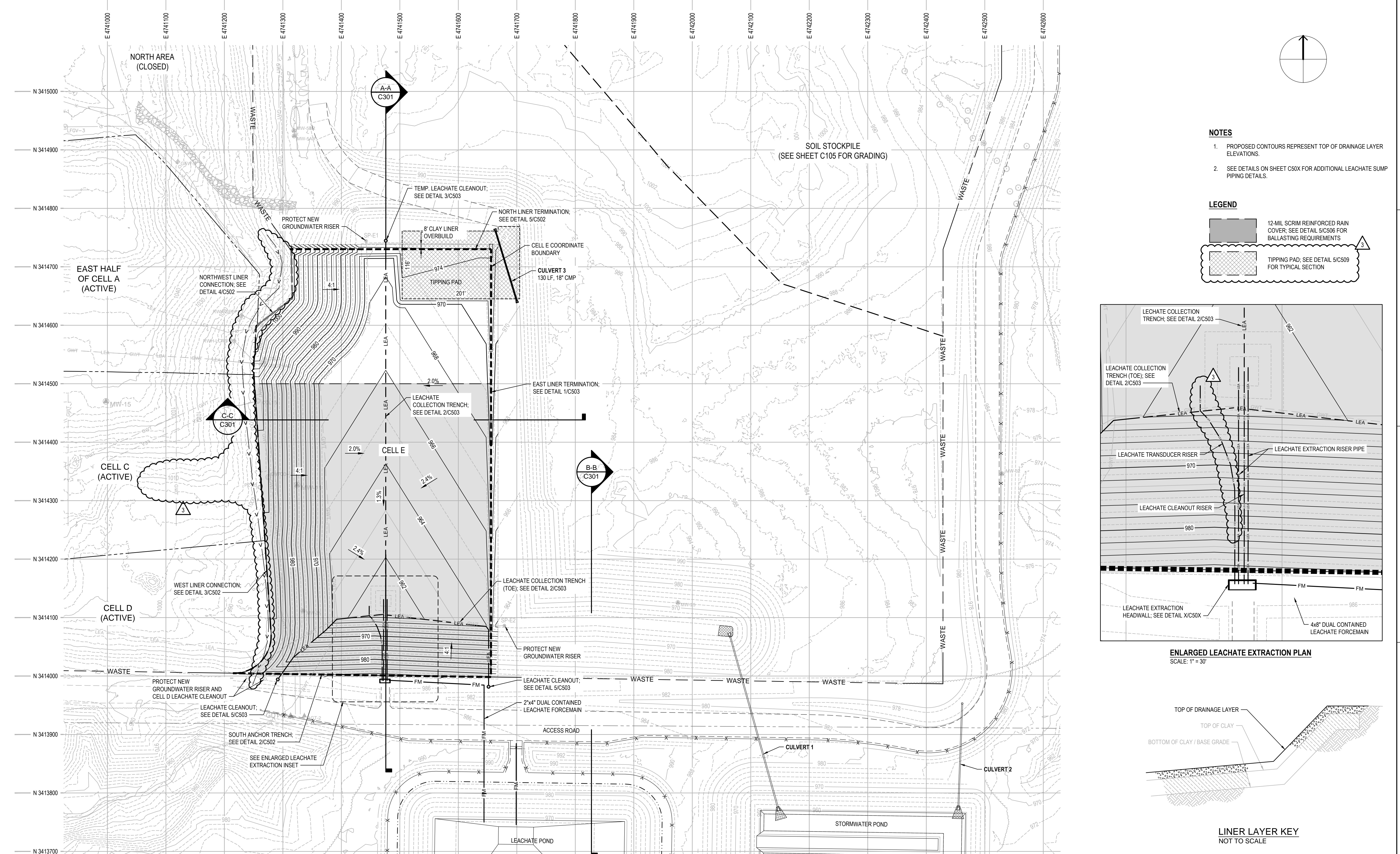


FILENAME | C102.dwg
SCALE | 1" = 80'

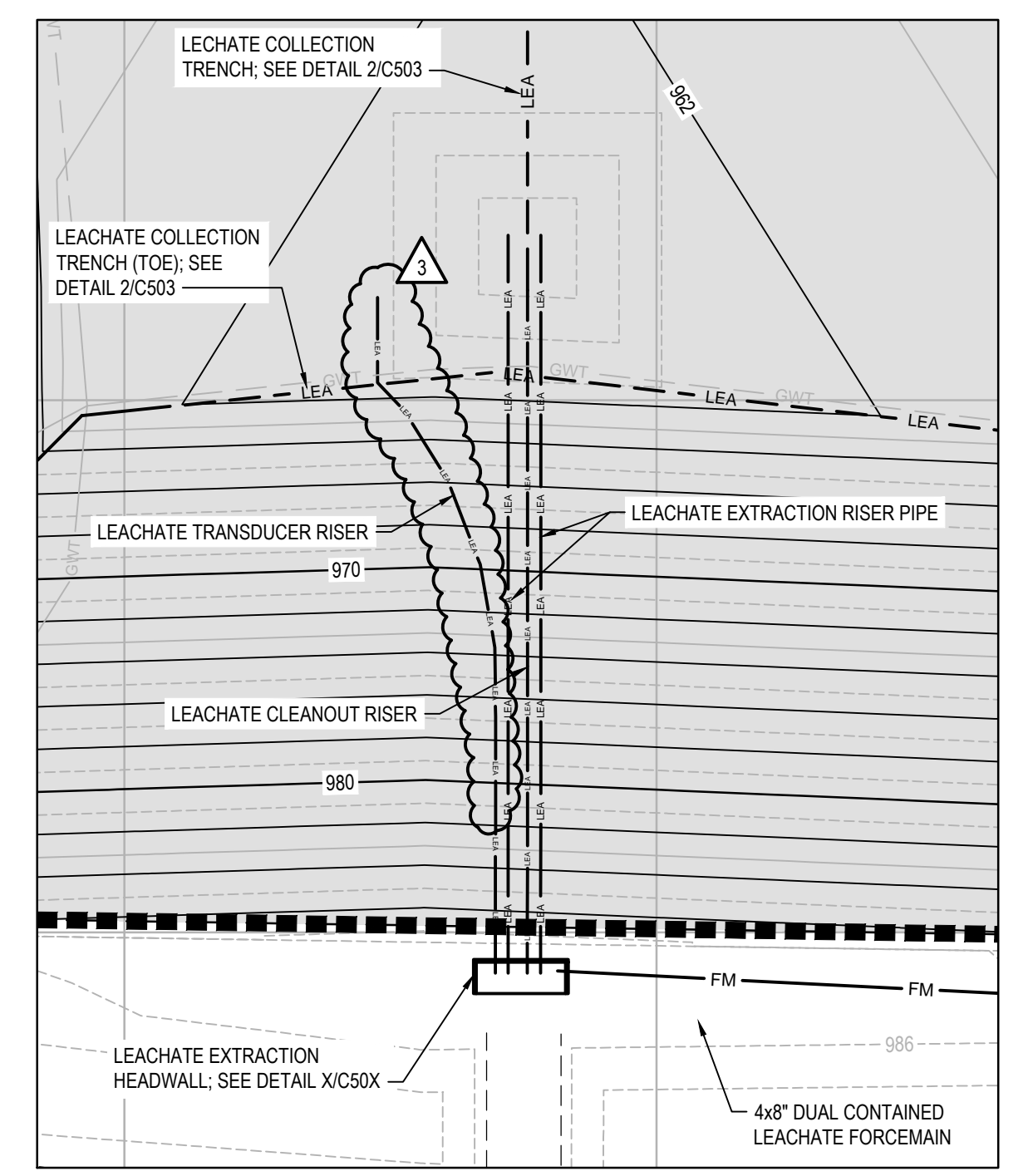
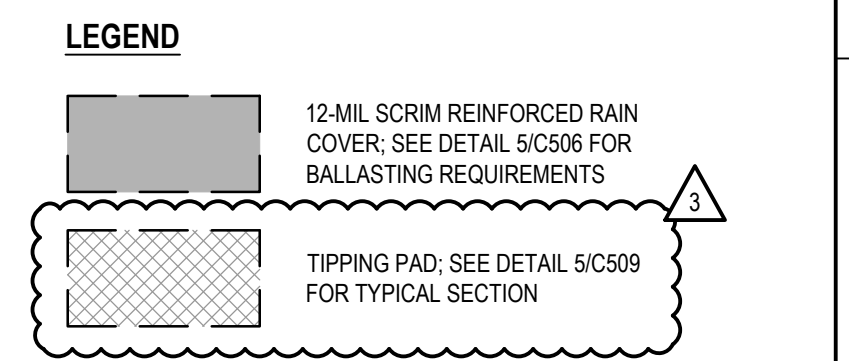
SHEET
C102

TOP OF CLAY GRADING PLAN

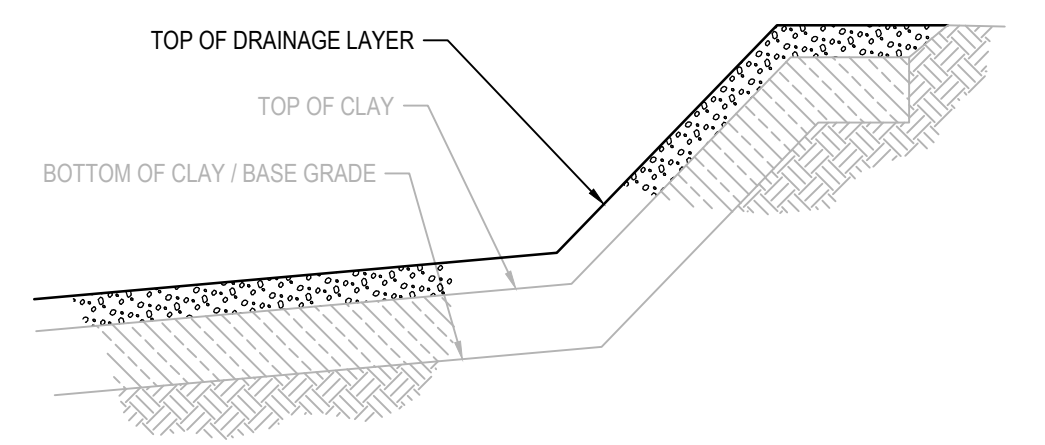
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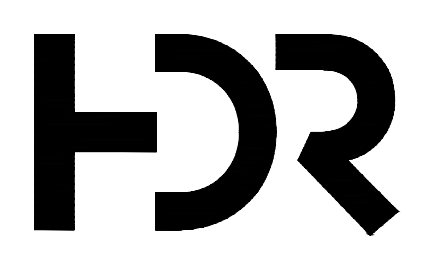
- NOTES**
- PROPOSED CONTOURS REPRESENT TOP OF DRAINAGE LAYER ELEVATIONS.
 - SEE DETAILS ON SHEET C50X FOR ADDITIONAL LEACHATE SUMP PIPING DETAILS.



ENLARGED LEACHATE EXTRACTION PLAN
SCALE: 1" = 30'



LINER LAYER KEY
NOT TO SCALE

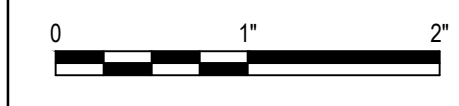


PROJECT MANAGER K. KINLEY		
CIVIL K. KINLEY		
DRAWN BY M. BICKFORD		
QC BY		
3	01-20-2026	ADDENDUM NO. 2
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1	11-26-2024	ISSUED FOR BID
ISSUE	DATE	DESCRIPTION
PROJECT NUMBER 10408322		

**PRELIMINARY
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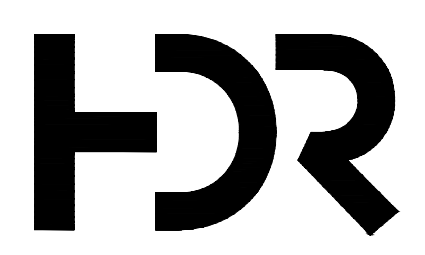
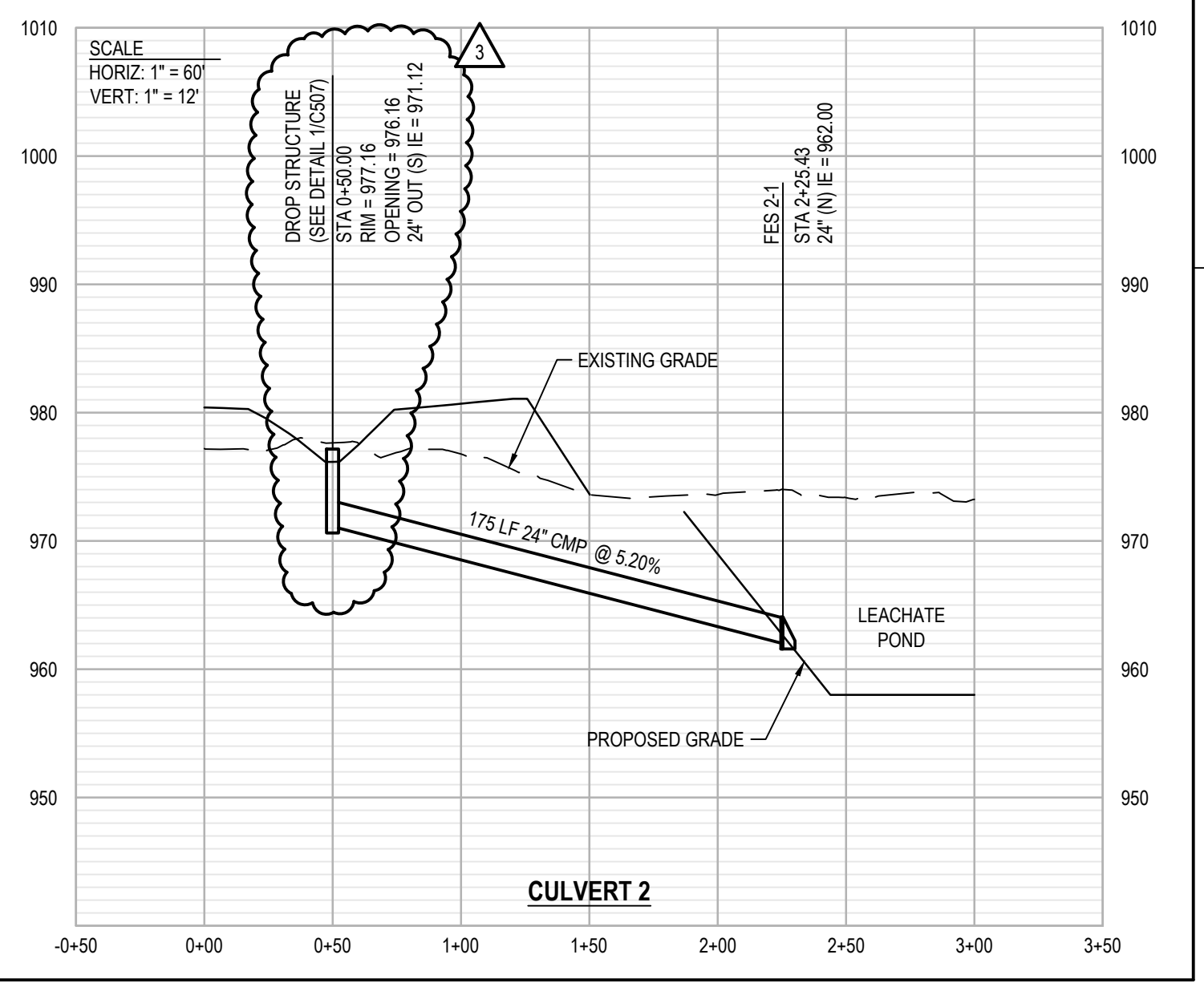
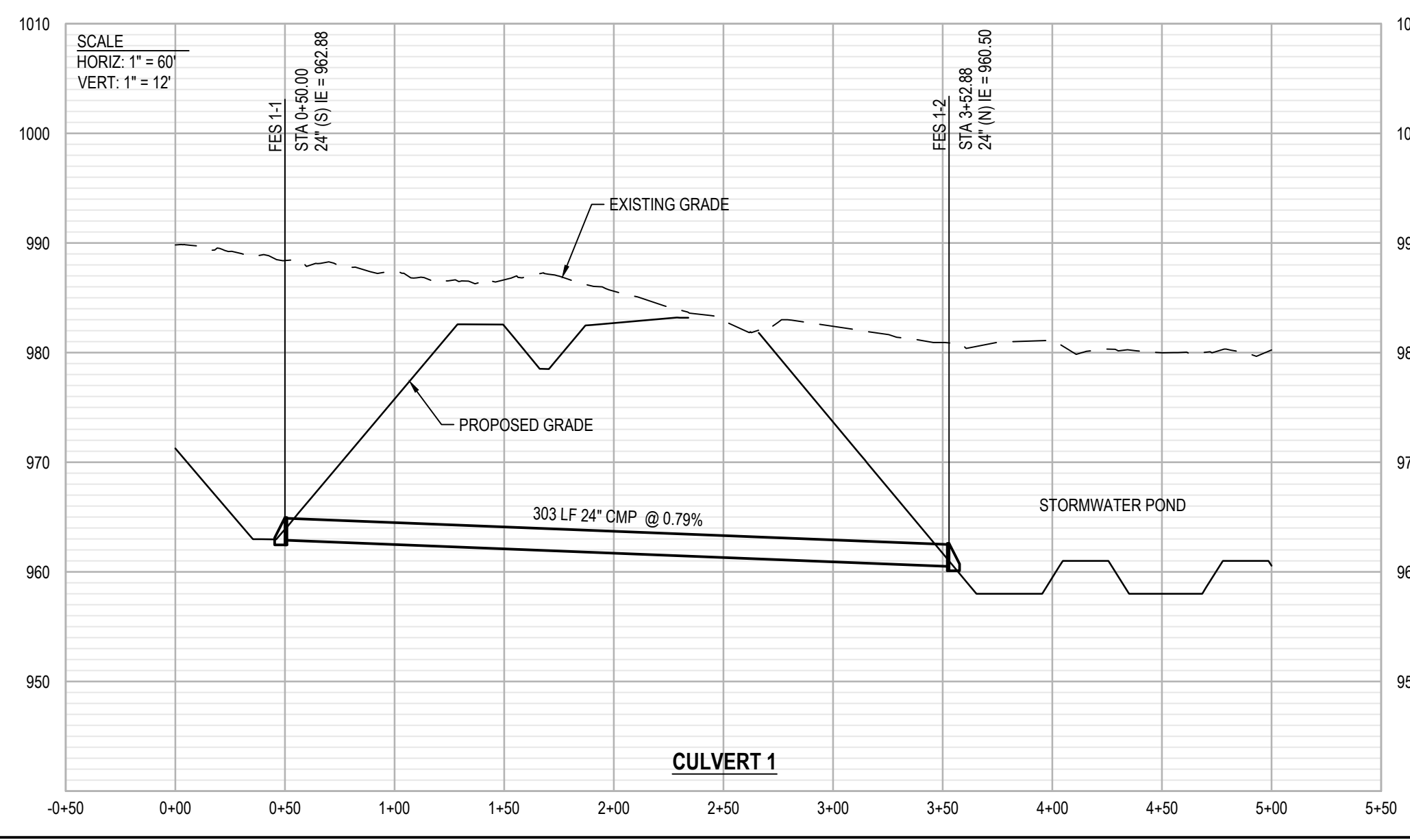
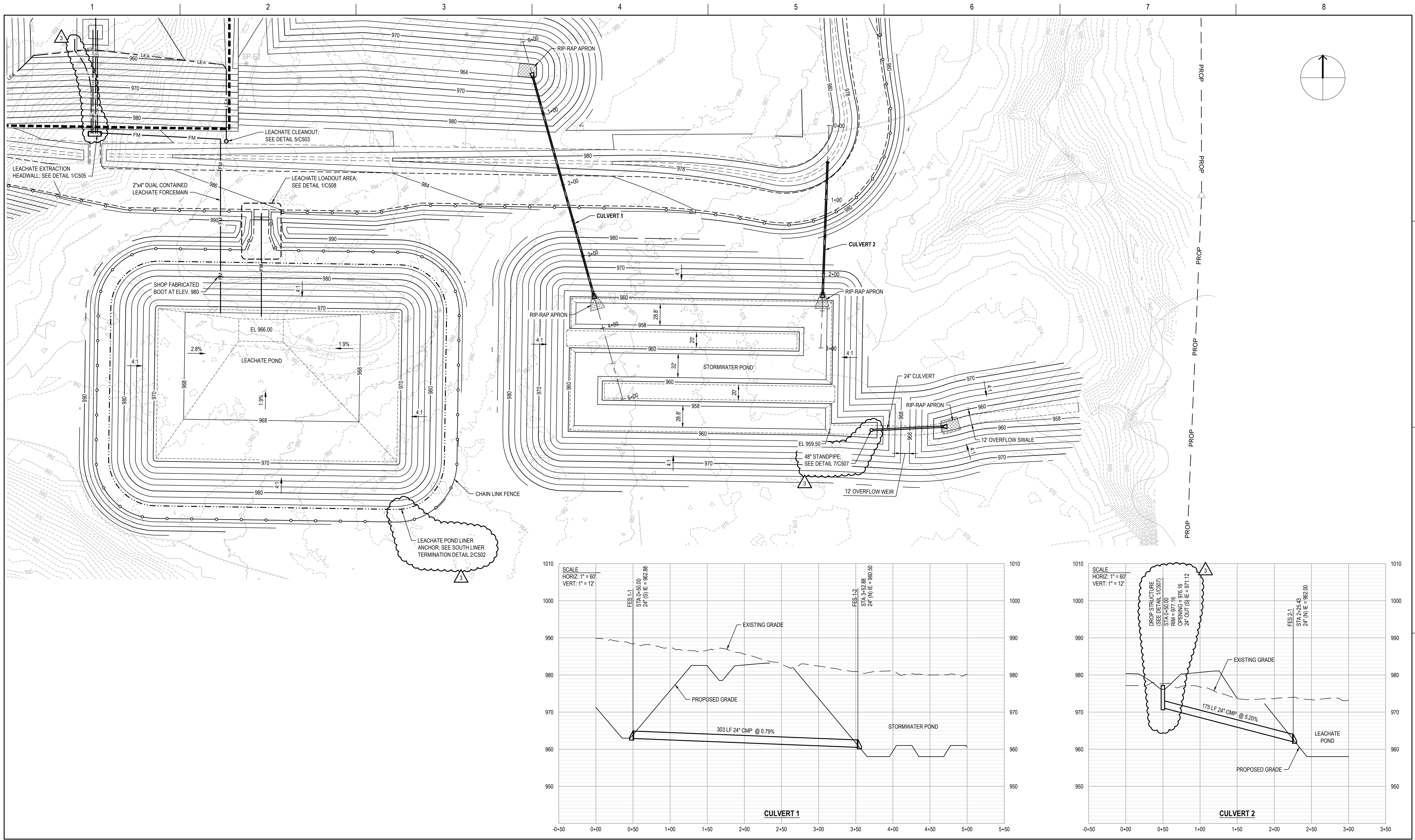
Metro Waste Authority
**METRO PARK WEST
MWA PROJECT P-67
CELL E LINER CONSTRUCTION**

DRAINAGE LAYER GRADING PLAN



FILENAME C103.dwg
SCALE 1" = 80'
SHEET
C103

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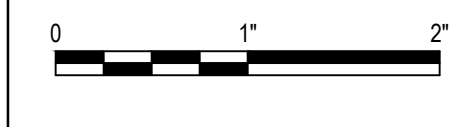


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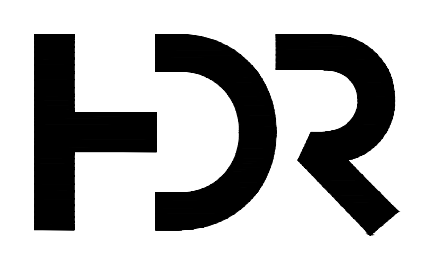
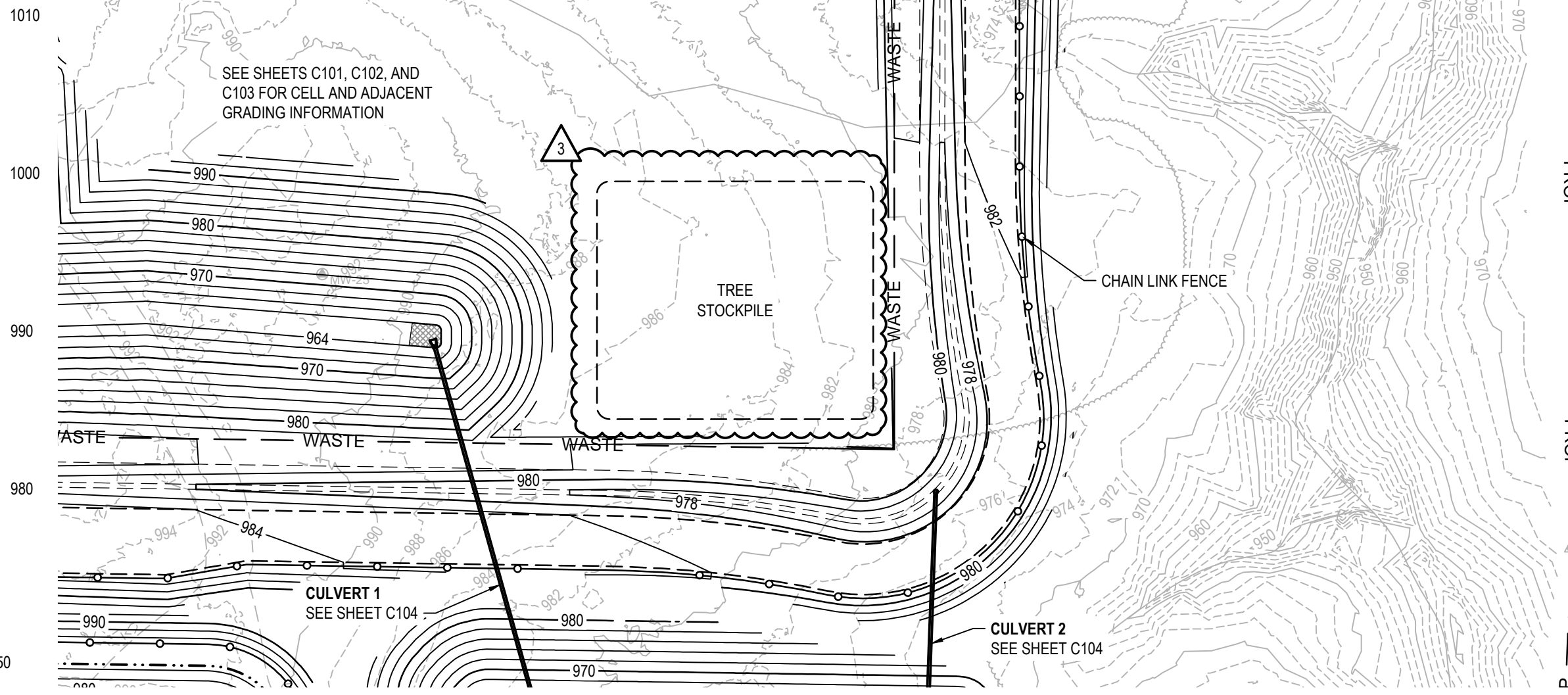
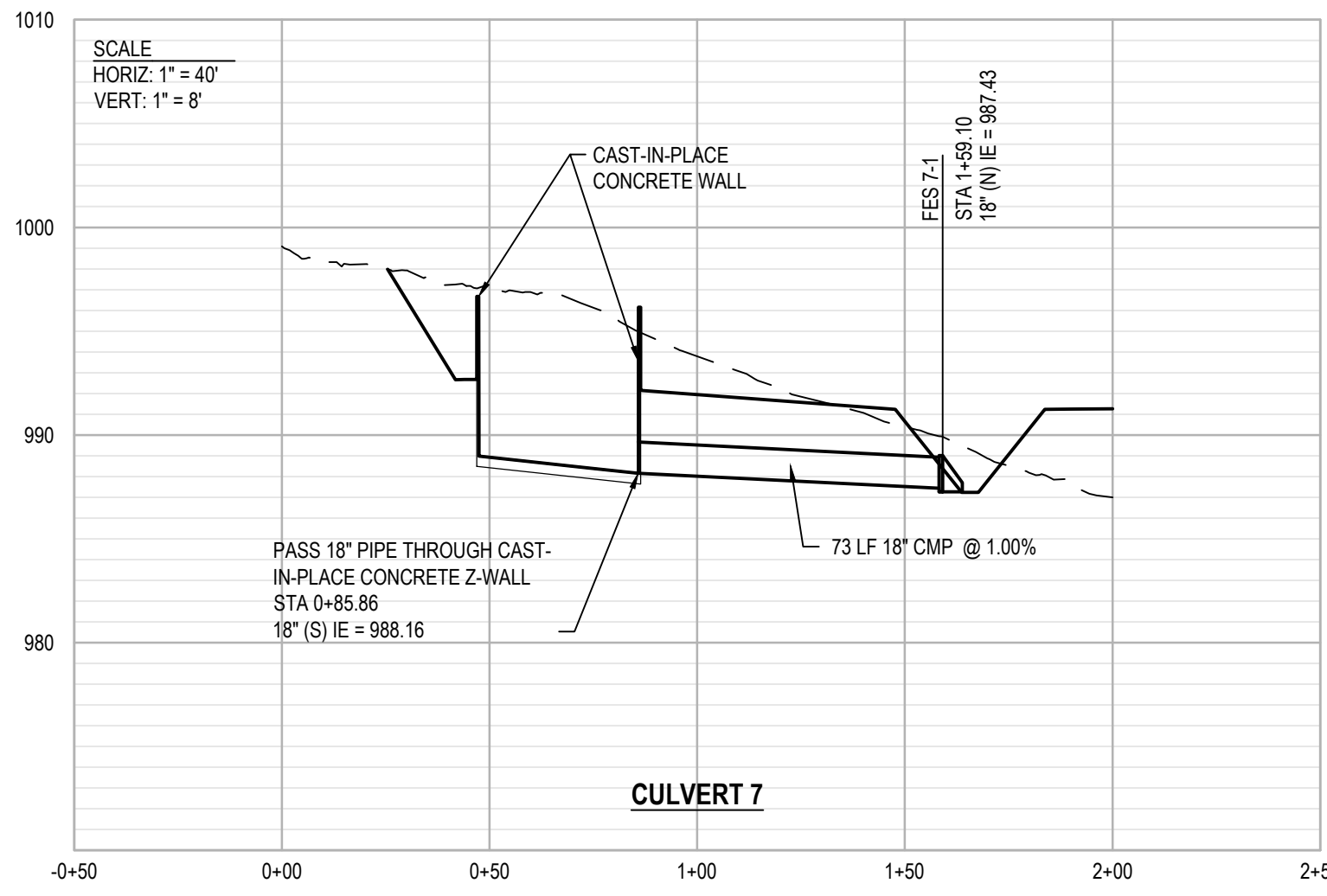
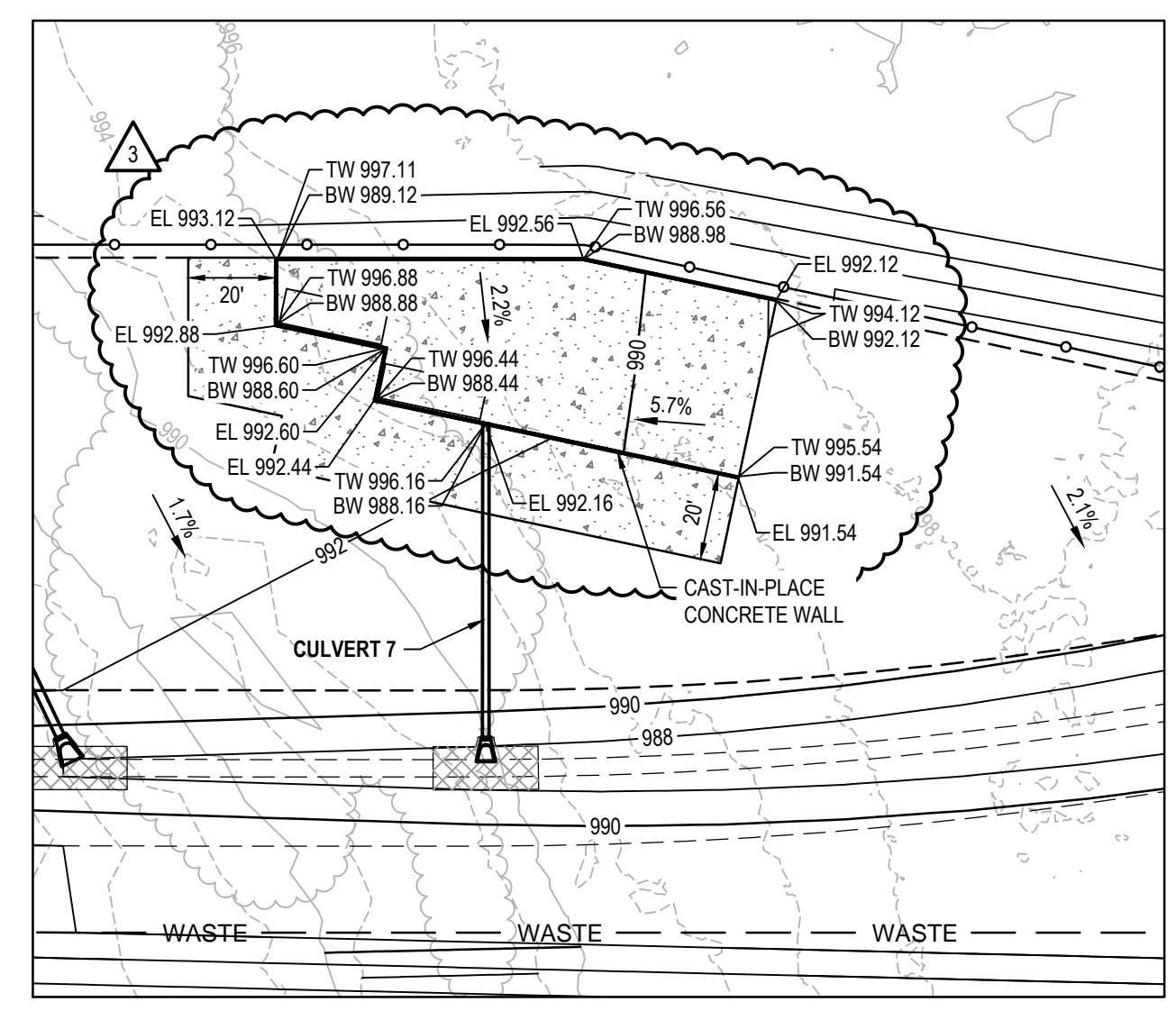
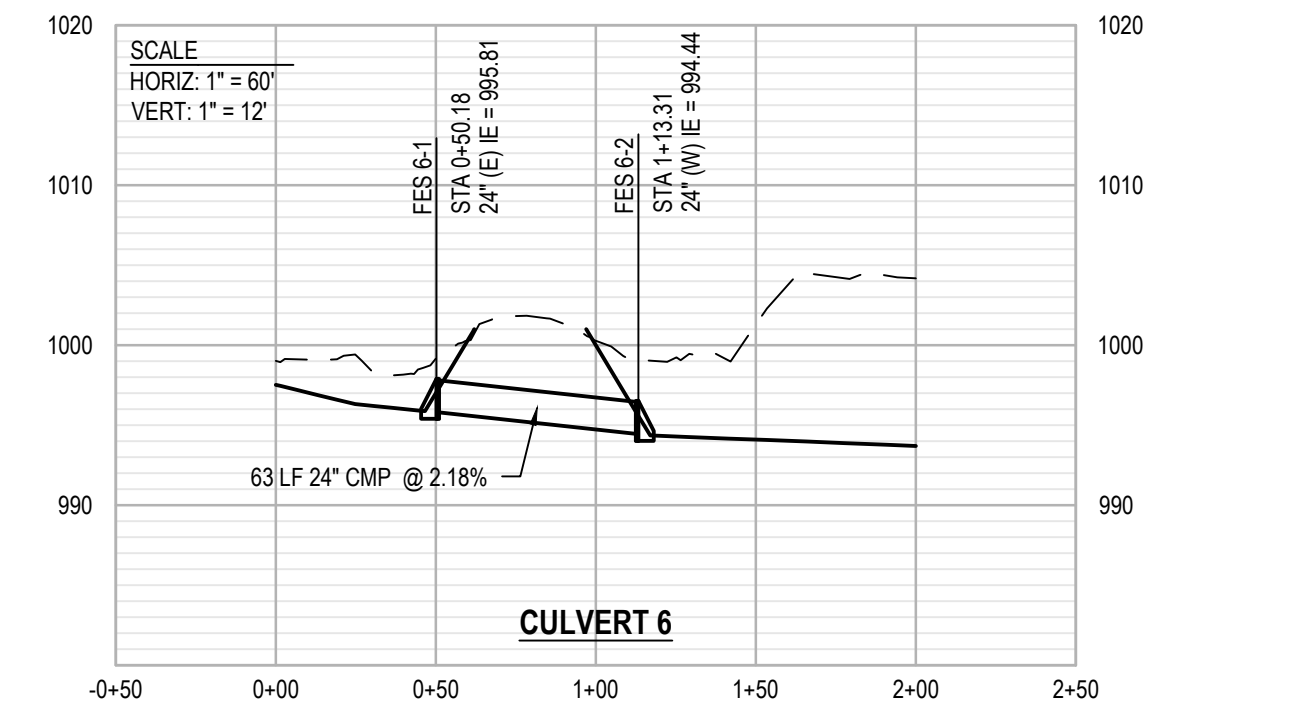
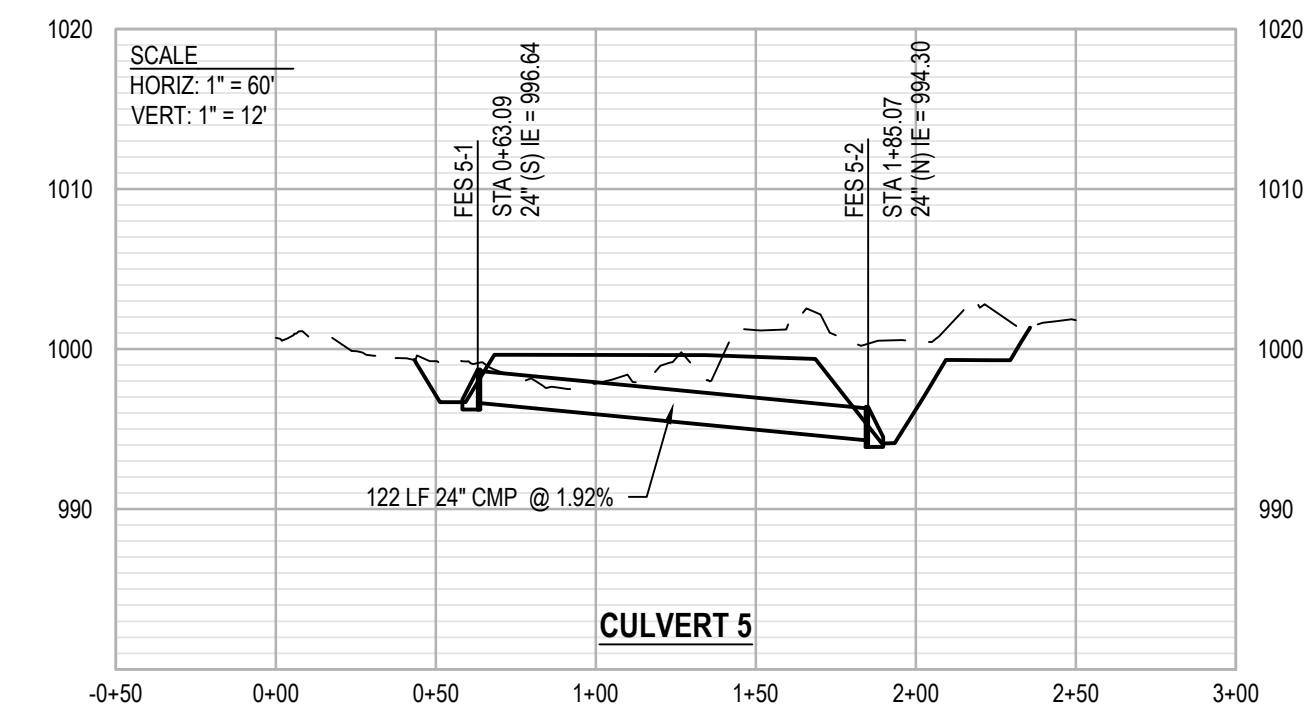
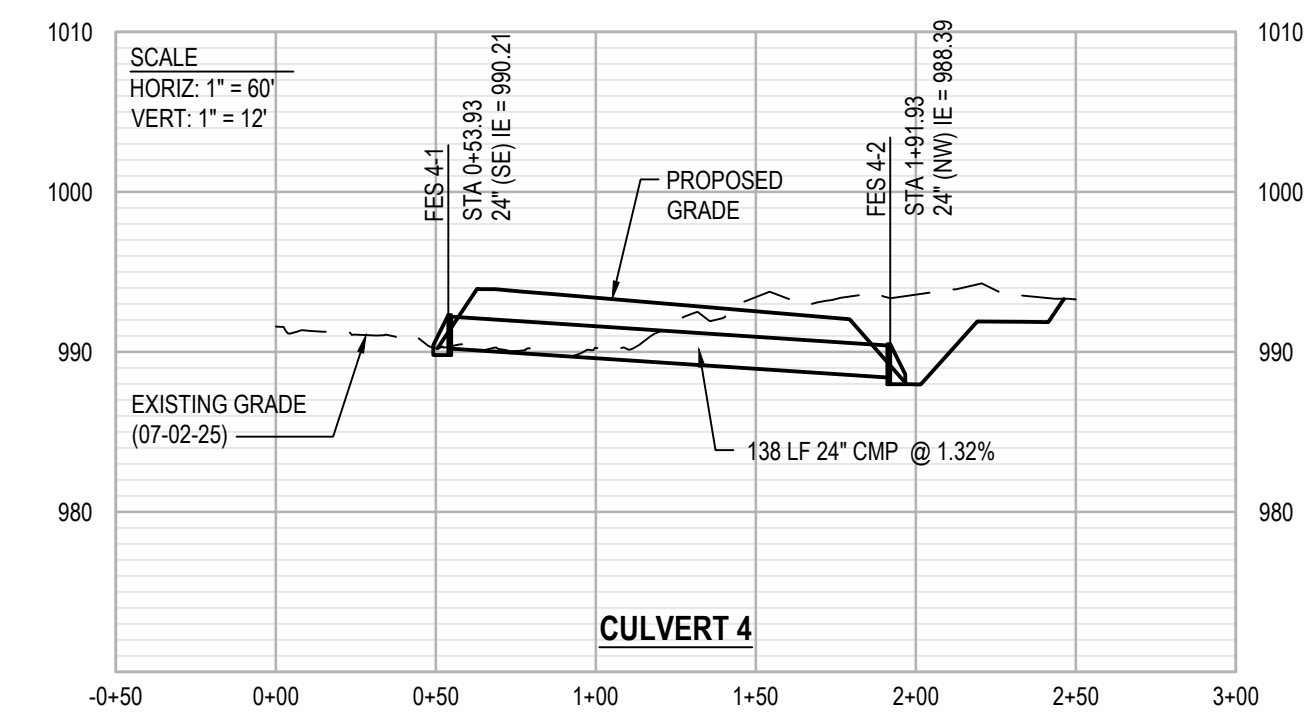
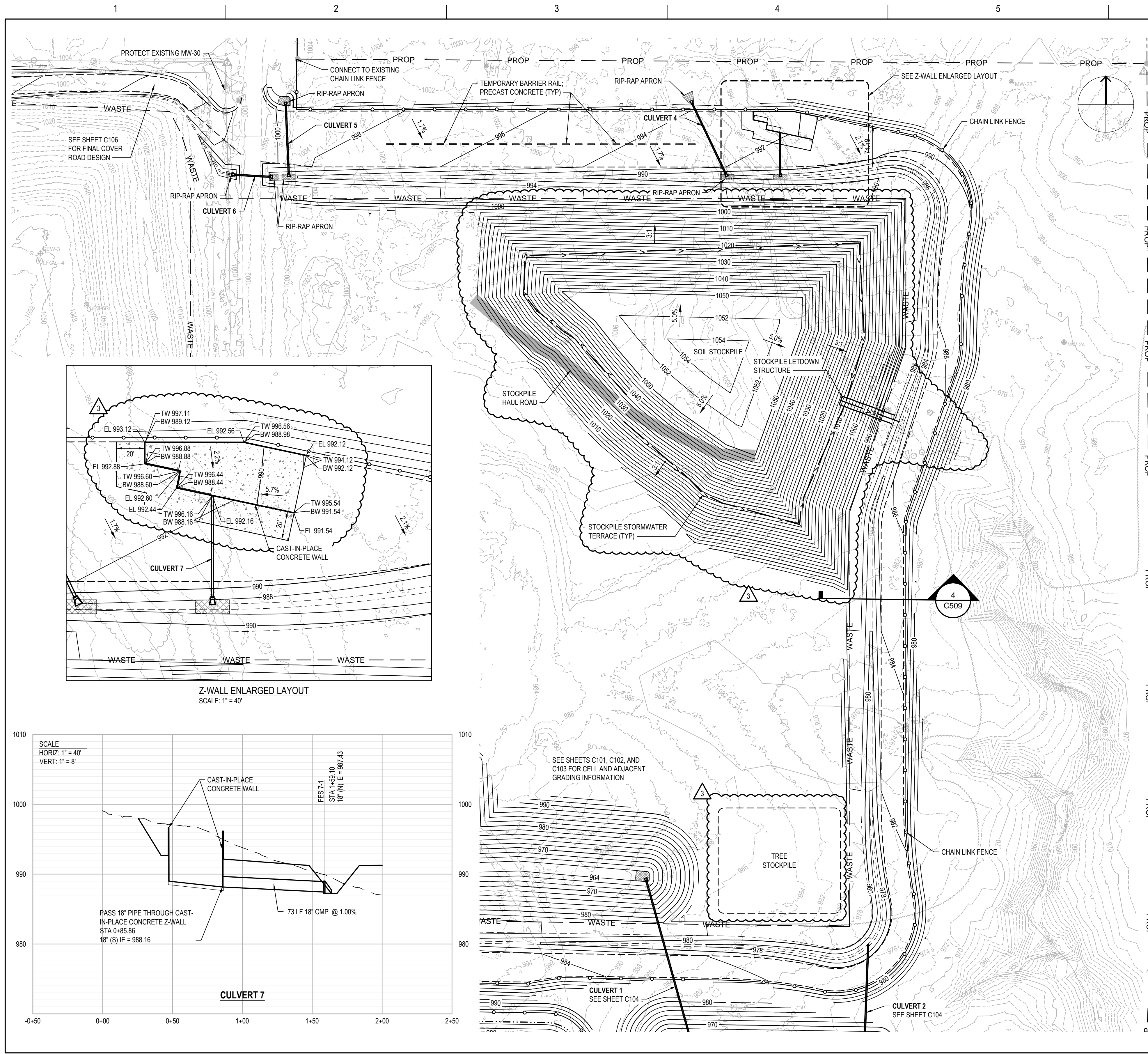
Metro Waste Authority
METRO PARK WEST
MWA PROJECT P-67
CELL E LINER CONSTRUCTION



FILENAME: C104.dwg
SCALE: 1" = 60'

SHEET
C104

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ISSUE	DATE	DESCRIPTION
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Metro Waste Authority
METRO PARK WEST
MWA PROJECT P-67
CELL E LINER CONSTRUCTION

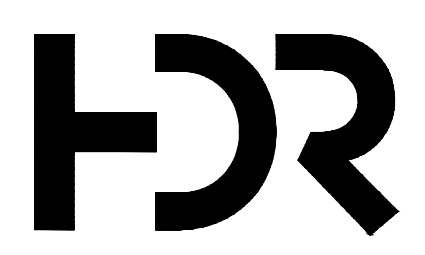
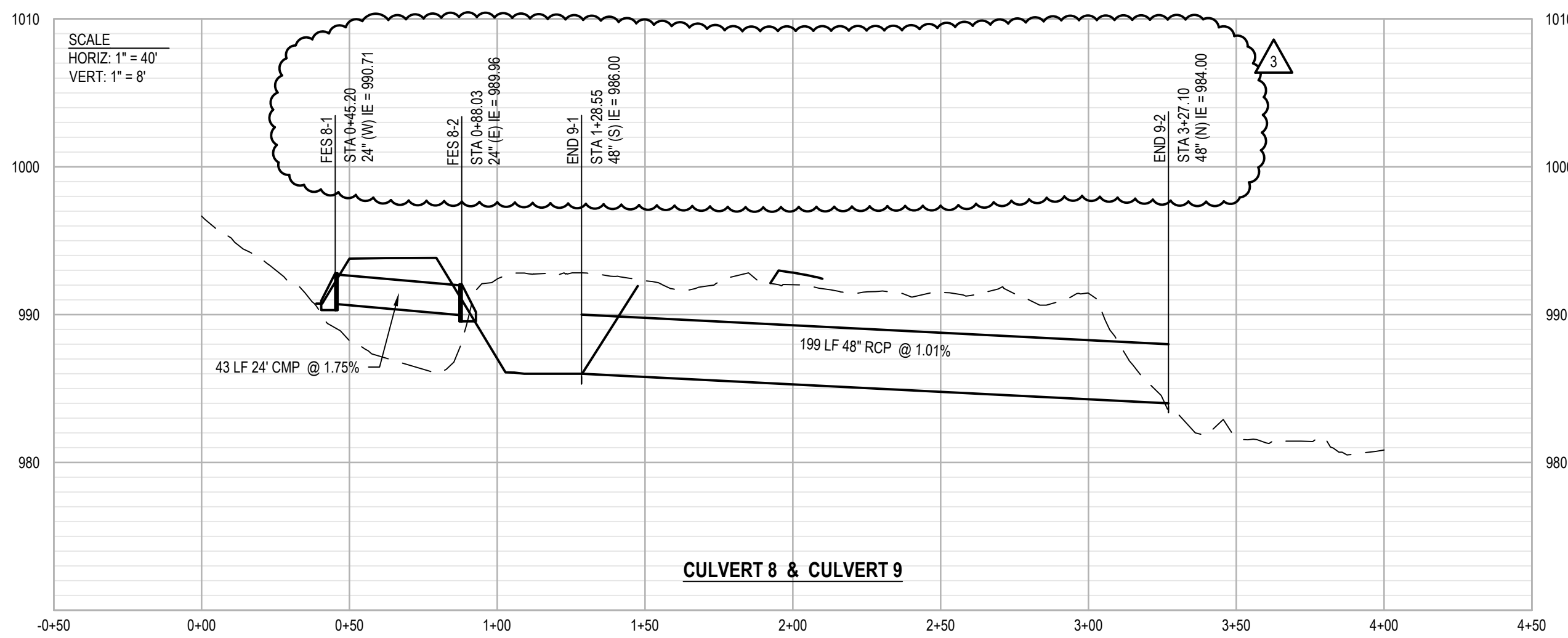
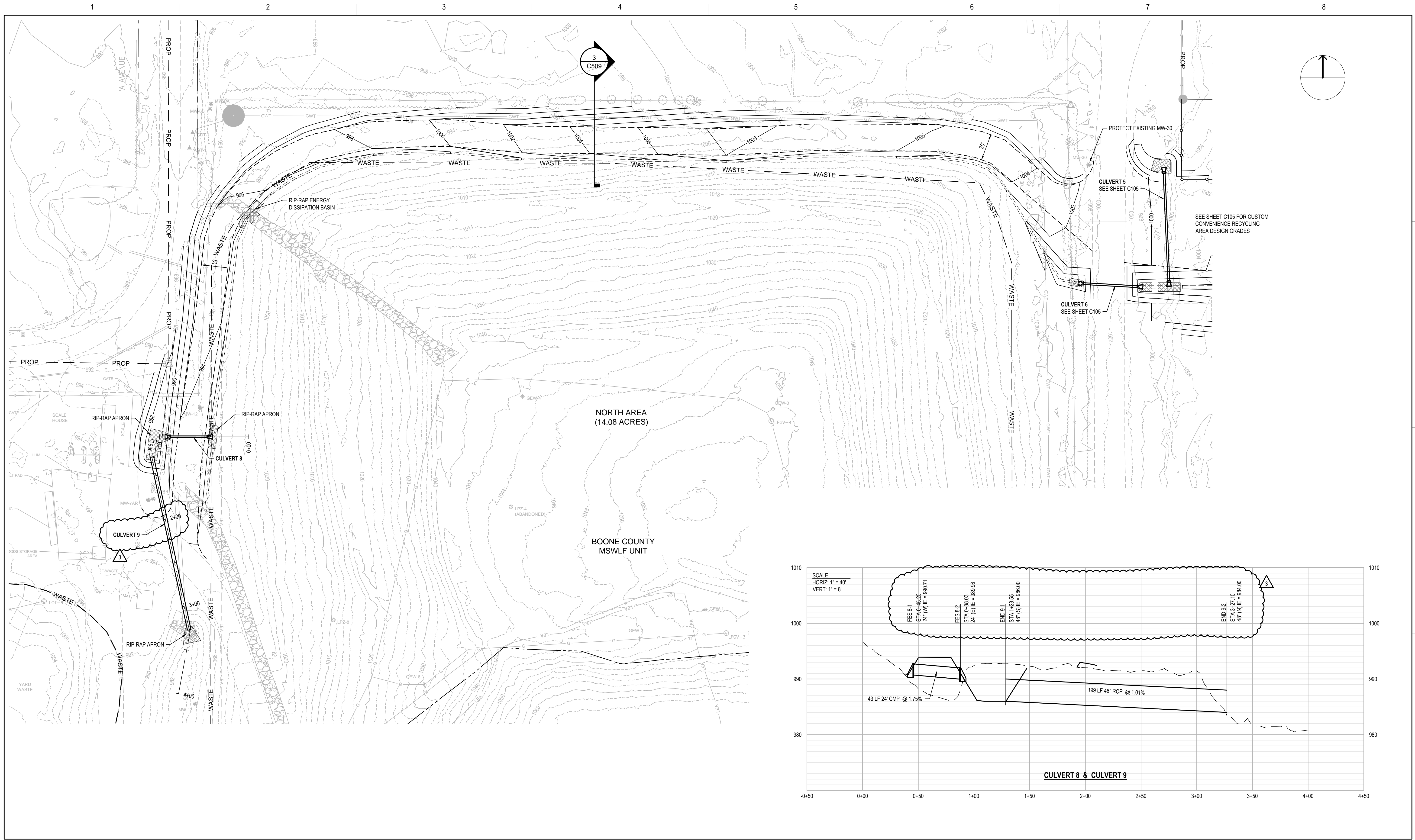


FILENAME: C105.dwg
SCALE: 1" = 100'

SHEET
C105

**EAST PERIMETER ROAD GRADING
AND DEVELOPMENT PLAN**

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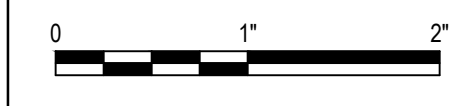
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Metro Waste Authority
METRO PARK WEST
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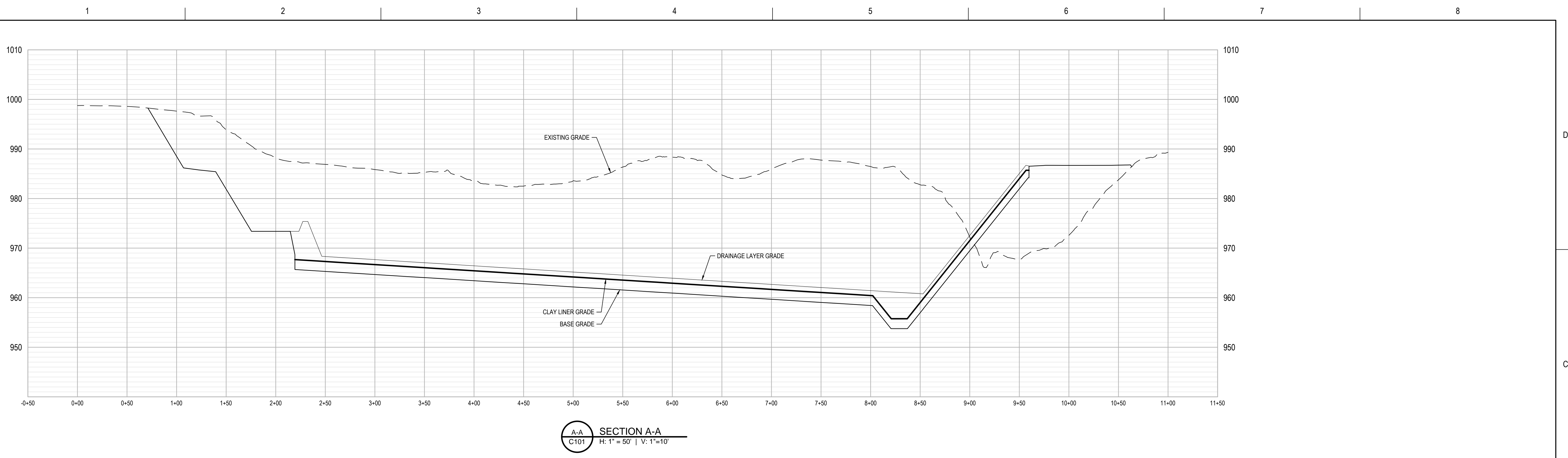
**NORTH AREA FINAL COVER ROAD
GRADING PLAN**



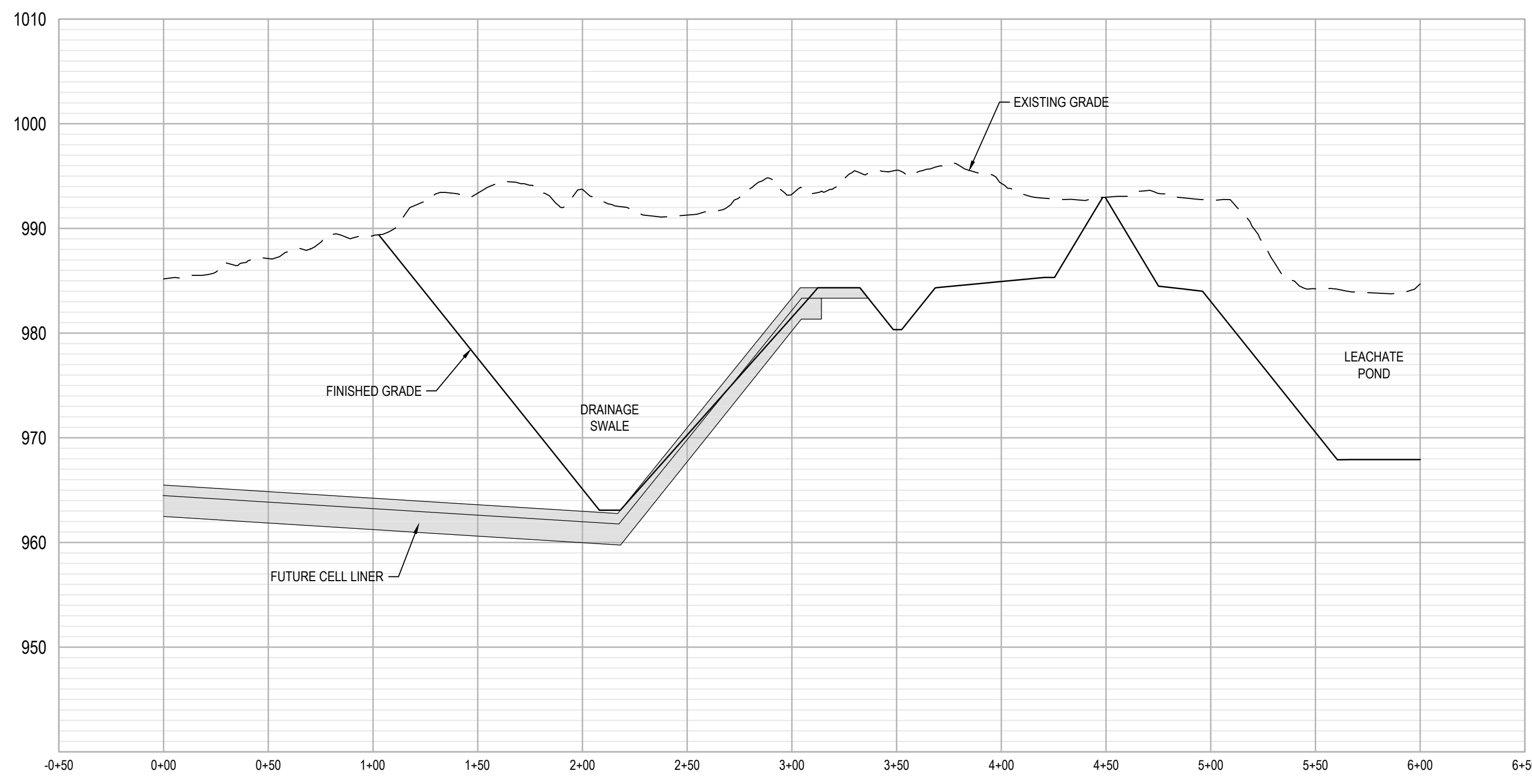
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 SCALE | 1" = 50'

SHEET
C106

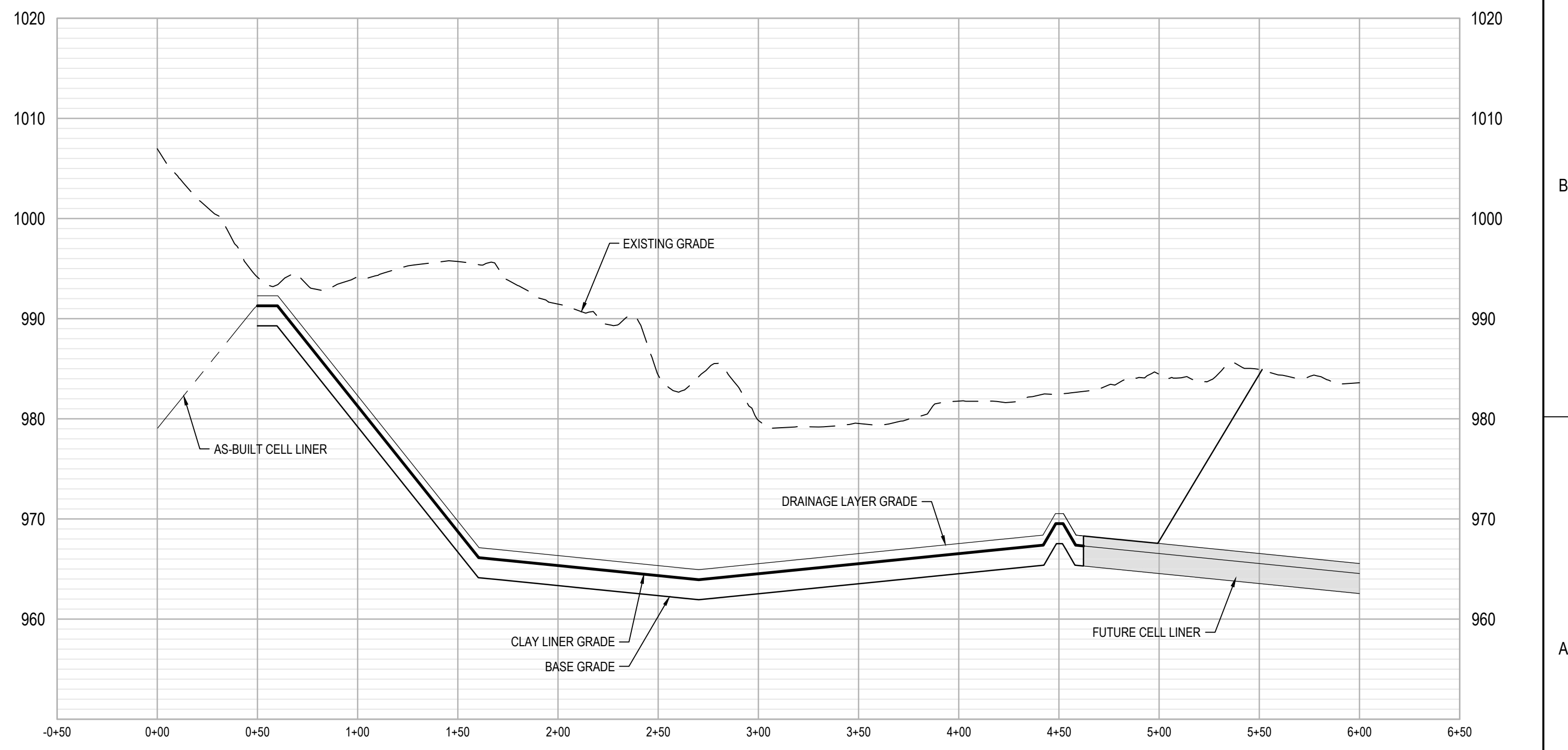
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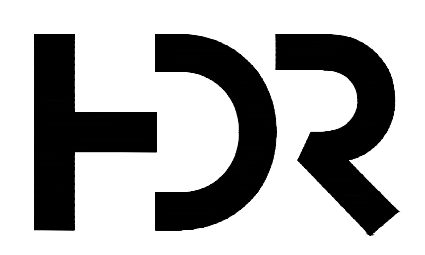
A-A SECTION A-A
 C101 H: 1" = 50' | V: 1" = 10'



B-B SECTION B-B
 C101 H: 1" = 50' | V: 1" = 10'



C-C SECTION C-C
 C101 H: 1" = 50' | V: 1" = 10'

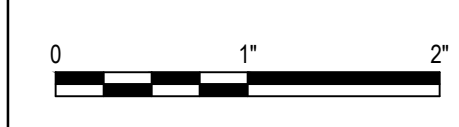


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1	11-26-2024	ISSUED FOR BID

PROJECT MANAGER	K. KINLEY
CIVIL	K. KINLEY
DRAWN BY	M. BICKFORD
QC BY	
PROJECT NUMBER	10408322

**PRELIMINARY
 NOT FOR
 CONSTRUCTION OR
 RECORDING**

Metro Waste Authority
METRO PARK WEST
MWA PROJECT P-67
CELL E LINER CONSTRUCTION

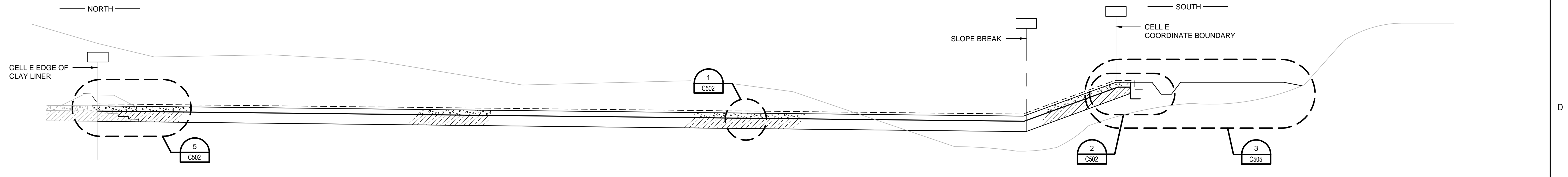


CROSS SECTIONS

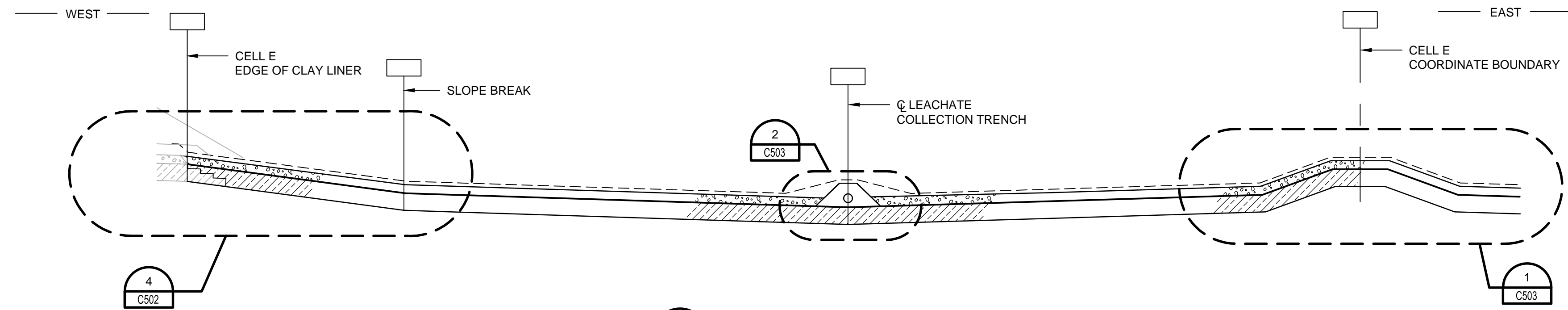
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SHEET
C301

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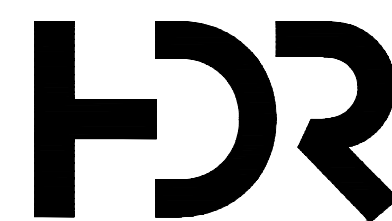
A NORTH-SOUTH LINER CROSS SECTION
NO SCALE



B WEST-EAST LINER CROSS SECTION
NO SCALE

CONSTRUCTION SEQUENCE FOR LINER TO LINER TRANSITION

- 1 REMOVE TERMINATION BERM/PROTECTIVE COVER, SAND, PLYWOOD, AND TOP SEPARATION GEOTEXTILE TO EXPOSE EXISTING DRAINAGE LAYER, 12 OZ CUSHION GEOTEXTILE, AND 60-MIL HDPE GEOMEMBRANE. AT ALL TIMES CONTRACTOR WILL TAKE NECESSARY MEASURES TO PROTECT EXISTING DRAINAGE LAYER FROM FINE SOIL INTRUSION AND STORM WATER INFILTRATION.
- 2 IMMEDIATELY FOLLOWING EXPOSURE OF EXISTING DRAINAGE LAYER, REMOVE SOLID WALL LEACHATE CLEANOUT RISER PIPE AND EXPOSE END OF PERFORATED LEACHATE COLLECTION PIPE AT EDGE OF EXISTING DRAINAGE LAYER.
- 3 IMMEDIATELY ROLL BACK EXISTING 12 OZ CUSHION GEOTEXTILE TO EXPOSE EXISTING 60-MIL HDPE GEOMEMBRANE. EXTRUSION WELD SACRIFICIAL 40-MIL HDPE RAIN FLAP TO EXPOSED 60-MIL HDPE GEOMEMBRANE ALONG ENTIRE LENGTH OF LINER TRANSITION. EXTEND HDPE RAIN FLAP A MINIMUM OF 12-FT UP EXISTING SIDESLOPE AND ANCHOR IN PLACE SO AS TO COMPLETELY COVER AND PROTECT EXISTING DRAINAGE LAYER AND LEACHATE TRENCH.
- 4 INSTALL NEW RECOMPACTED CLAY LINER USING STEP TRANSITION TO EXISTING CLAY LINER. SEE SPECIFICATIONS.
- 5 INSTALL NEW 60-MIL HDPE GEOMEMBRANE AND CONTINUOUSLY WELD TO EXISTING GEOMEMBRANE.
- 6 INSTALL NEW 12 OZ GEOTEXTILE TO CELL C COORDINATE BOUNDARY AND LEAVE END LOOSE UNTIL FINAL REMOVAL OF HDPE RAIN FLAP. WHERE NO RAIN FLAP IS USED, SEW NEW GEOTEXTILE TO EXISTING GEOTEXTILE.
- 7 INSTALL 8" SCH 80 PVC PERFORATED LEACHATE COLLECTION PIPE. LEAVE APPROX 2' GAP BETWEEN NEW AND EXISTING LEACHATE PIPES.
- 8 FOLLOWING SATISFACTORY COMPLETION OF LINER ELECTROSTATIC LEAK TESTING, REMOVE SACRIFICIAL HDPE RAIN FLAP.
- 9 IMMEDIATELY AFTER REMOVING SACRIFICIAL RAIN FLAP, REDEPLOY EXISTING GEOTEXTILE AND SEW TO NEW GEOTEXTILE LAYER; CONNECT EXISTING AND NEW LEACHATE PIPE ENDS WITH FERNCO SHEAR RING COUPLING; INSTALL COARSE AGGREGATE, DRAINAGE LAYER AND GEOTEXTILE, WHERE REQUIRED.
- 10 INSTALL 12-MIL SCRIM REINFORCED HDPE RAIN COVER AND ANCHOR RAIN COVER INTO EXISTING SOIL COVER APPROXIMATELY 12 FEET UP THE SLOPE.



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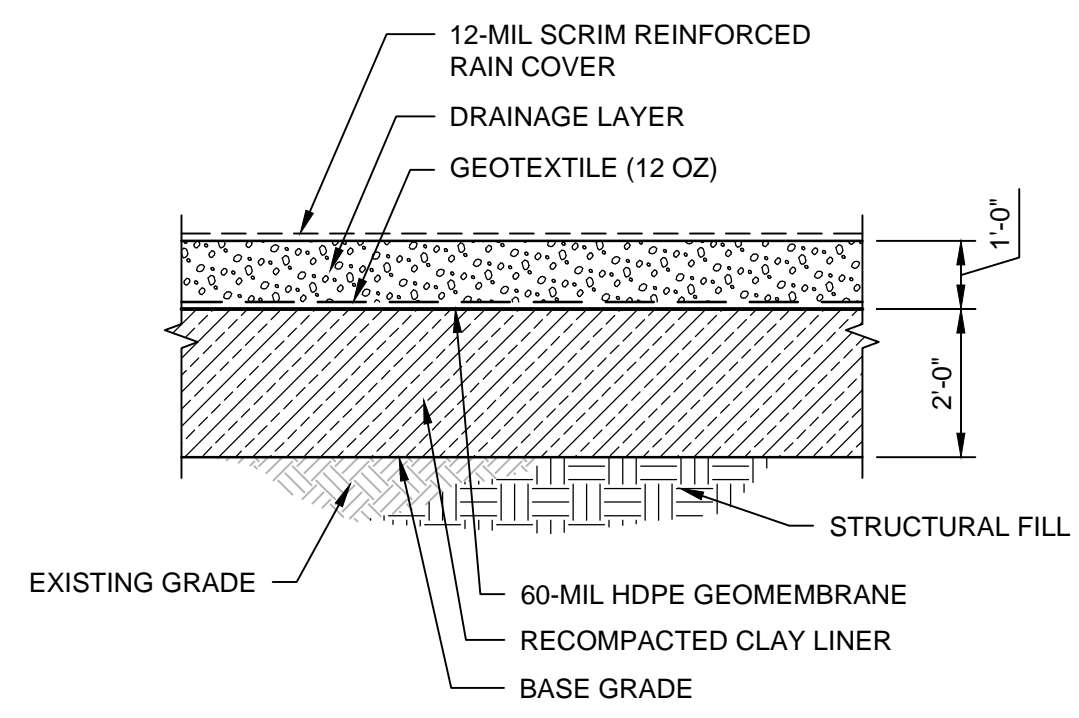
**METRO PARK WEST
MWA PROJECT P-67
CELL E LINER CONSTRUCTION**



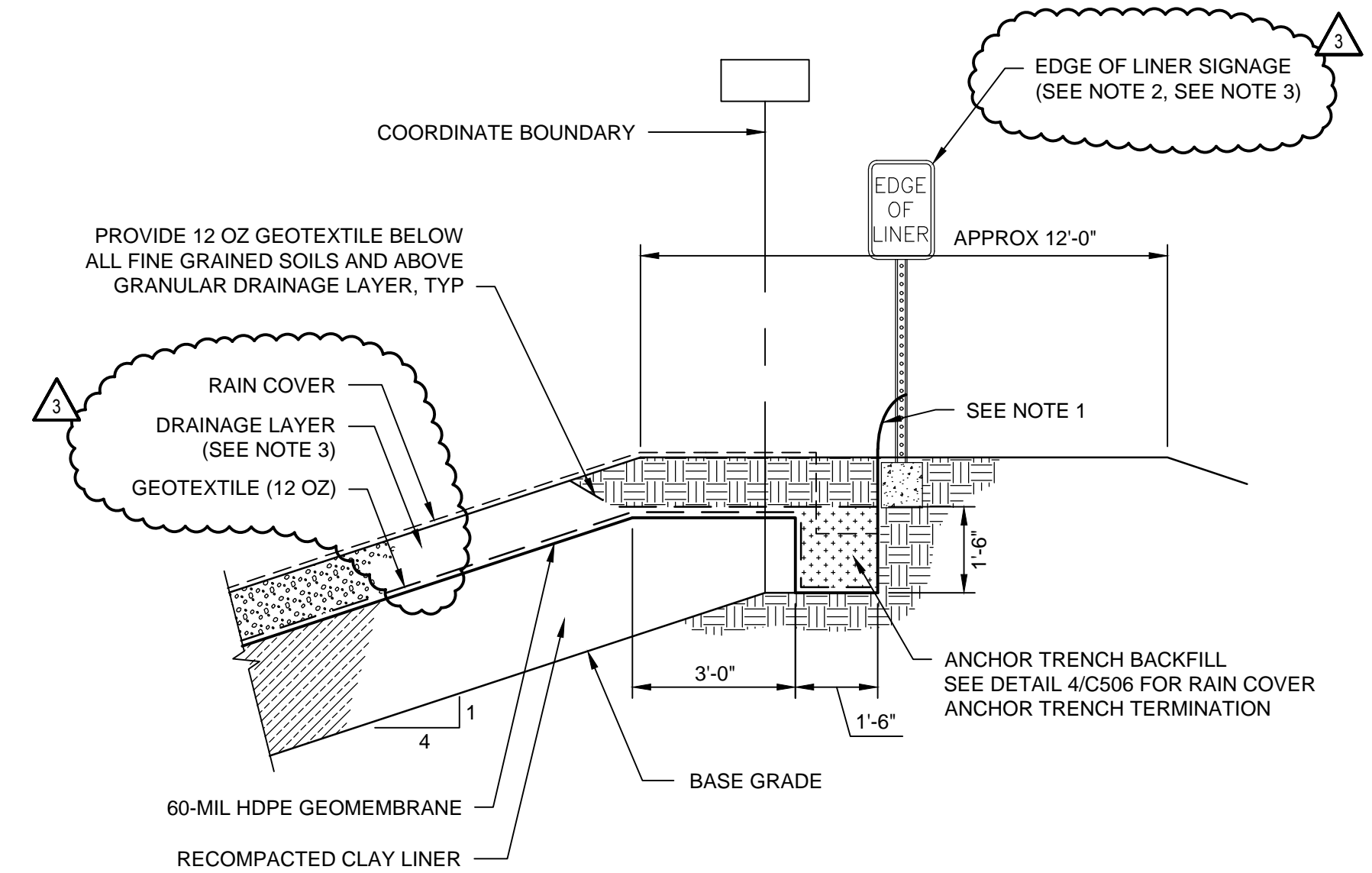
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FILENAME | C501.dwg
SCALE | AS NOTED

SHEET
C501

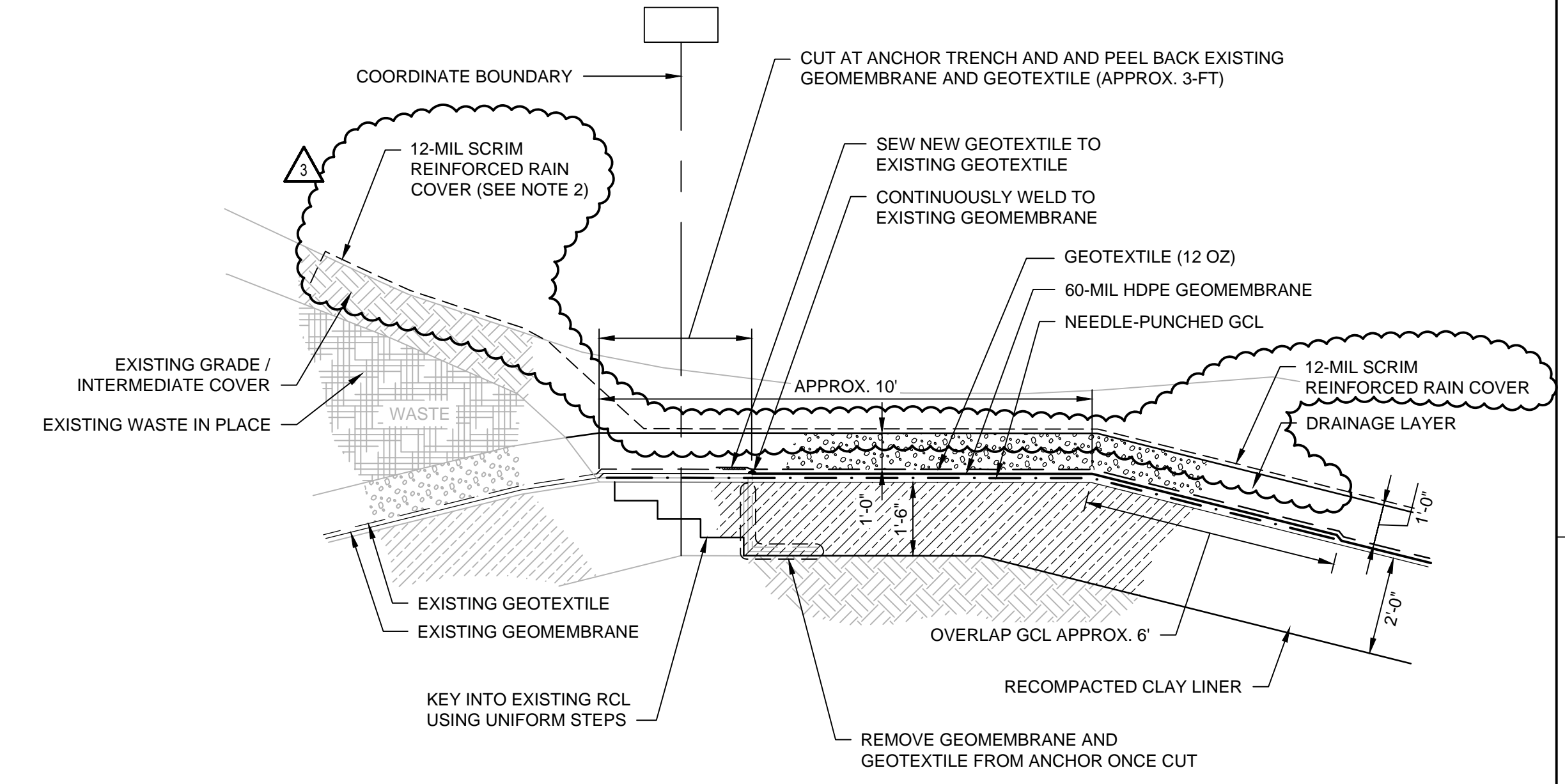


1 BOTTOM LINER
C101 NO SCALE



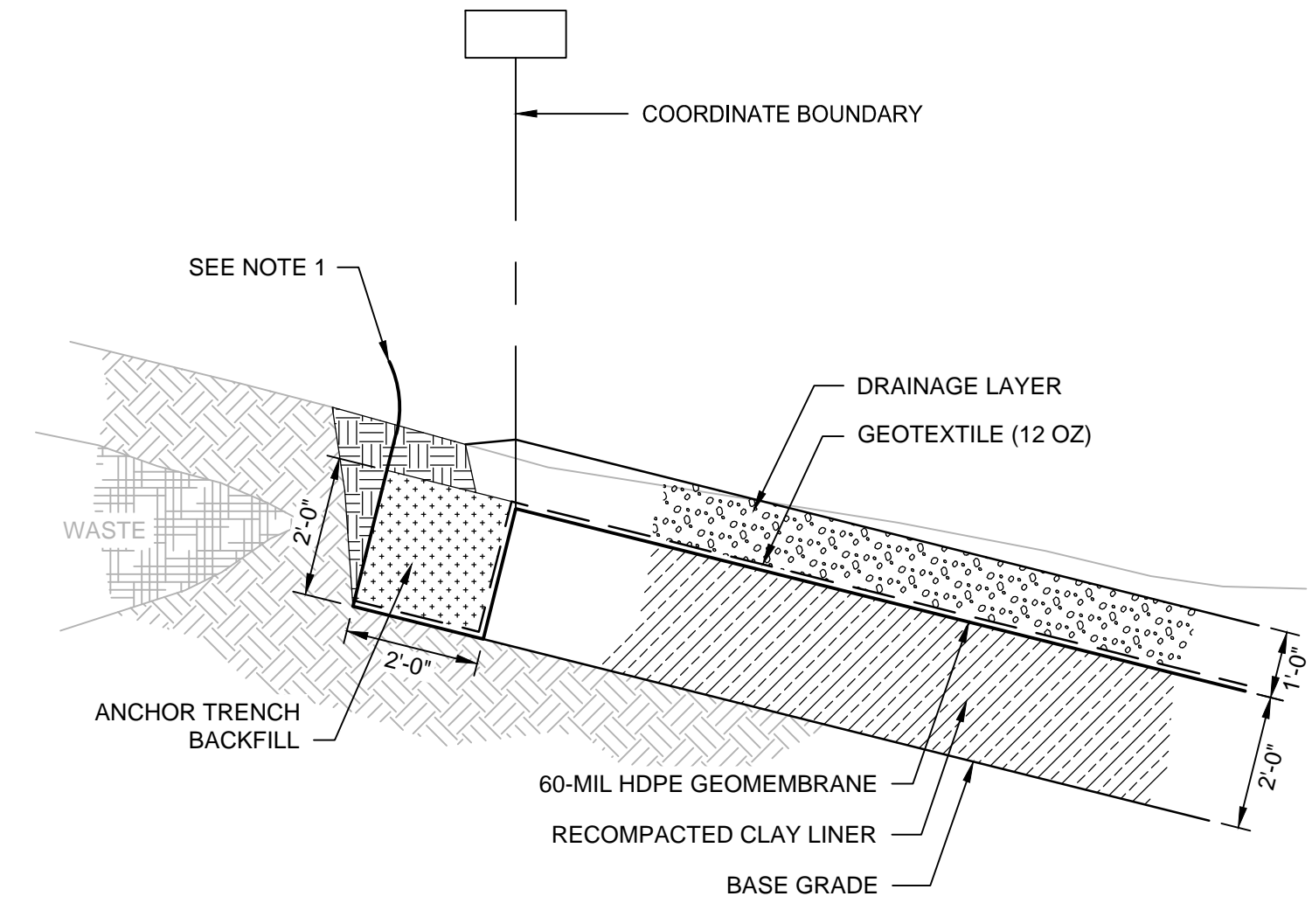
2 SOUTH LINER TERMINATION
C101 NO SCALE

- NOTES**
1. PROVIDE 1'-0" MINIMUM OF HDPE GEOMEMBRANE ABOVE GRADE FOR ELECTRICAL LEAK LOCATION SURVEY. SEE SPECIFICATIONS. TERMINATE HDPE GEOMEMBRANE AT GROUND SURFACE FOLLOWING COMPLETION OF ALL TESTING.
 2. SIGN MOUNTED WITH SS BOLTS ON 8" GALV STEEL. "U" SIGN POST SET IN 5-GAL. BUCKET FILLED WITH CONCRETE FILL. SET TOP OF BUCKET BELOW GRADE. PLACE SIGNS ALONG EAST AND SOUTH HDPE LINER TERMINATIONS EVERY 100' AND AT SOUTHEAST, SOUTHWEST, AND NORTHEAST CORNERS.
 3. FOR CONSTRUCTION OF LEACHATE POND, NO DRAINAGE LAYER OR SIGNAGE TO BE PLACED.



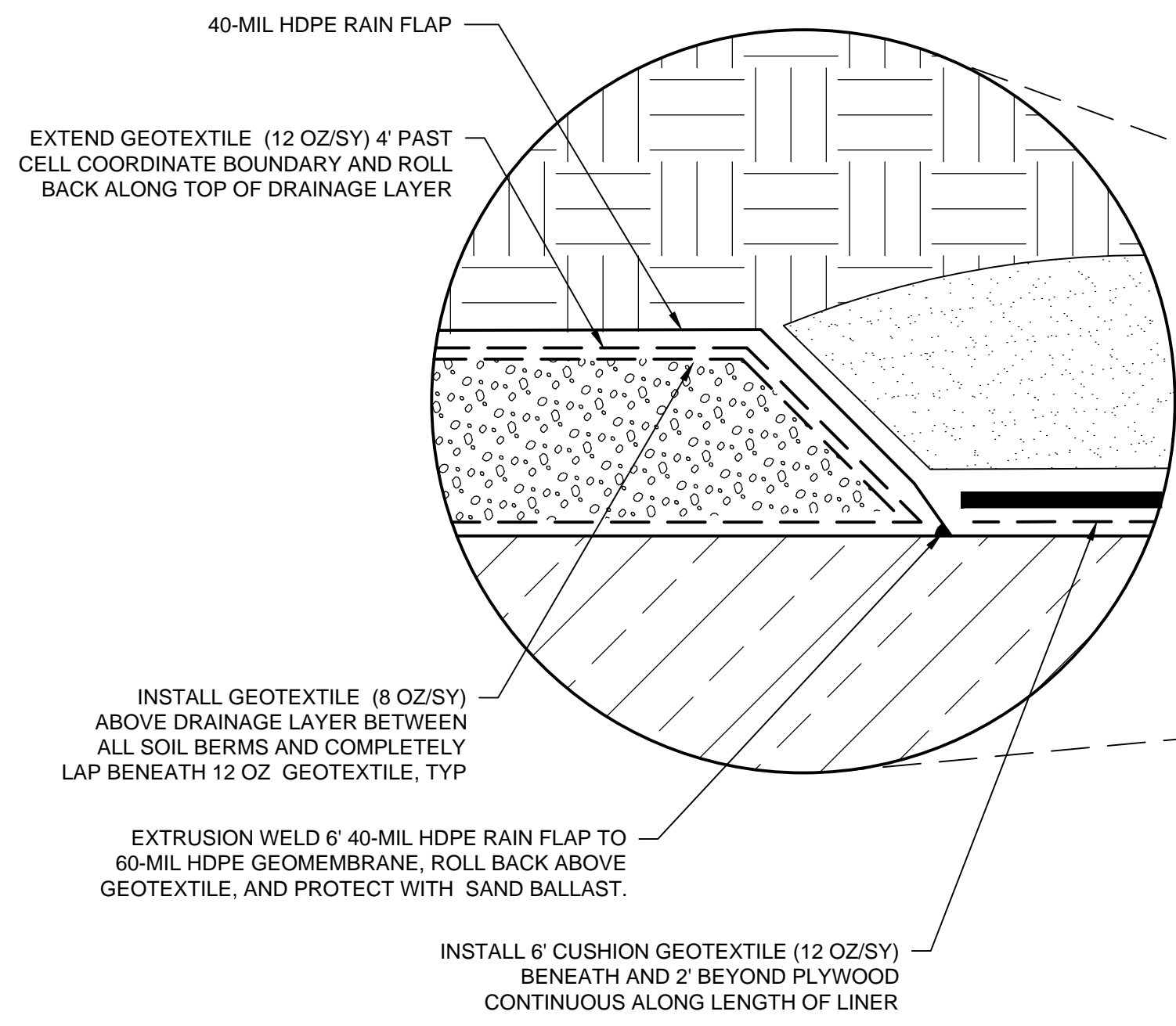
3 WEST LINER CONNECTION
C101 NO SCALE

- NOTES**
1. GCL TO UTILIZE ONE FULL 16-FOOT PANEL.
 2. INSTALL 12-MIL SCRIM REINFORCED HDPE RAIN COVER AND ANCHOR INTO EXISTING SOIL COVER, APPROXIMATELY 15-FEET UP SLOPE.

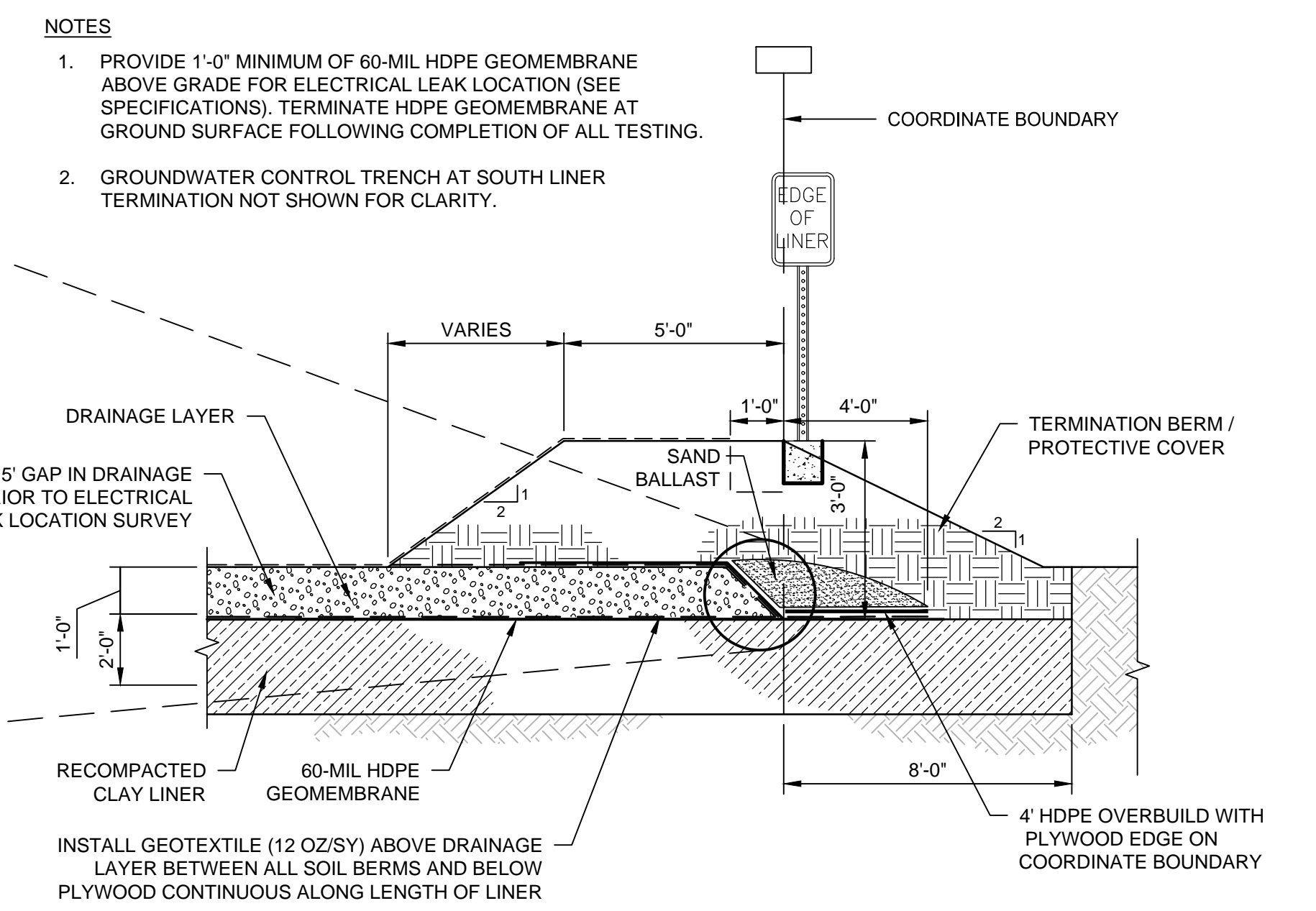


4 NORTHWEST LINER CONNECTION
C101 NO SCALE

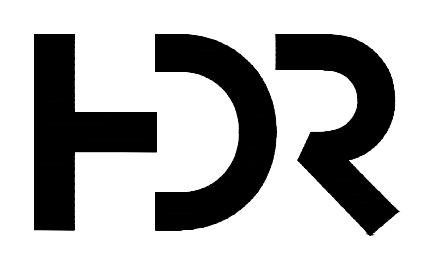
- NOTES**
1. PROVIDE 1'-0" MINIMUM OF HDPE GEOMEMBRANE ABOVE GRADE FOR ELECTRICAL LEAK LOCATION SURVEY. SEE SPECIFICATIONS. TERMINATE HDPE GEOMEMBRANE AT GROUND SURFACE FOLLOWING COMPLETION OF ALL TESTING.
 2. IF WASTE IS ENCOUNTERED DURING EXCAVATION FOR CLAY PLACEMENT, CONTRACTOR TO HAUL TO ACTIVE FACE OF LANDFILL.



5 NORTH LINER TERMINATION
C101 NO SCALE



- NOTES**
1. PROVIDE 1'-0" MINIMUM OF 60-MIL HDPE GEOMEMBRANE ABOVE GRADE FOR ELECTRICAL LEAK LOCATION (SEE SPECIFICATIONS). TERMINATE HDPE GEOMEMBRANE AT GROUND SURFACE FOLLOWING COMPLETION OF ALL TESTING.
 2. GROUNDWATER CONTROL TRENCH AT SOUTH LINER TERMINATION NOT SHOWN FOR CLARITY.



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CIVIL	K. KINLEY
DRAWN BY	M. BICKFORD
QC BY	
PROJECT NUMBER	10408322

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RECORDING**

Metro Waste Authority
**METRO PARK WEST
MWA PROJECT P-67
CELL E LINER CONSTRUCTION**

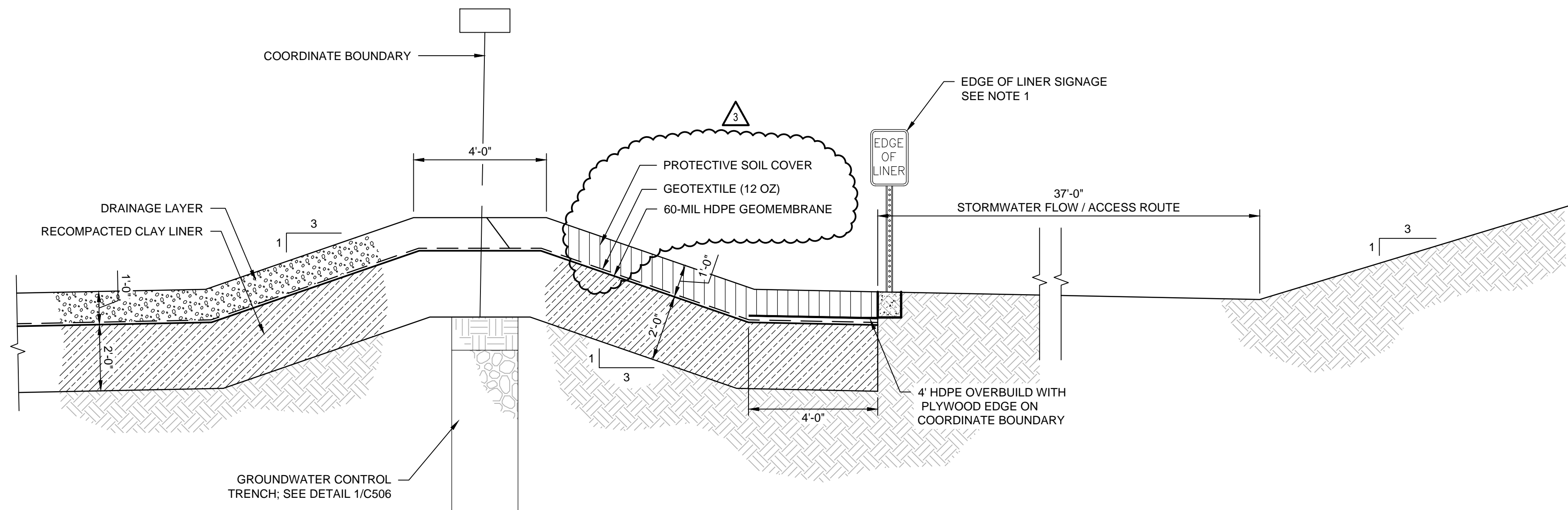


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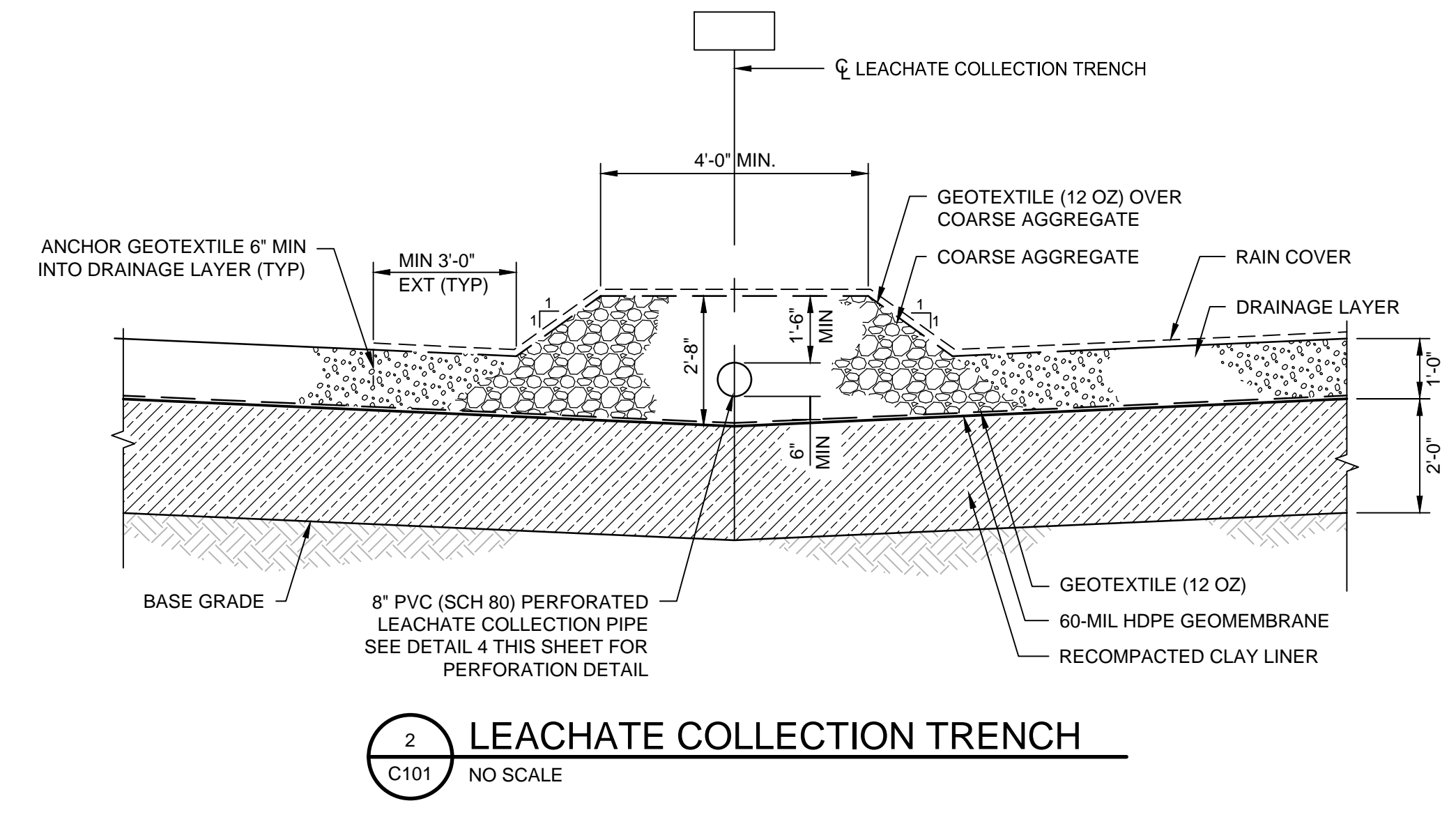
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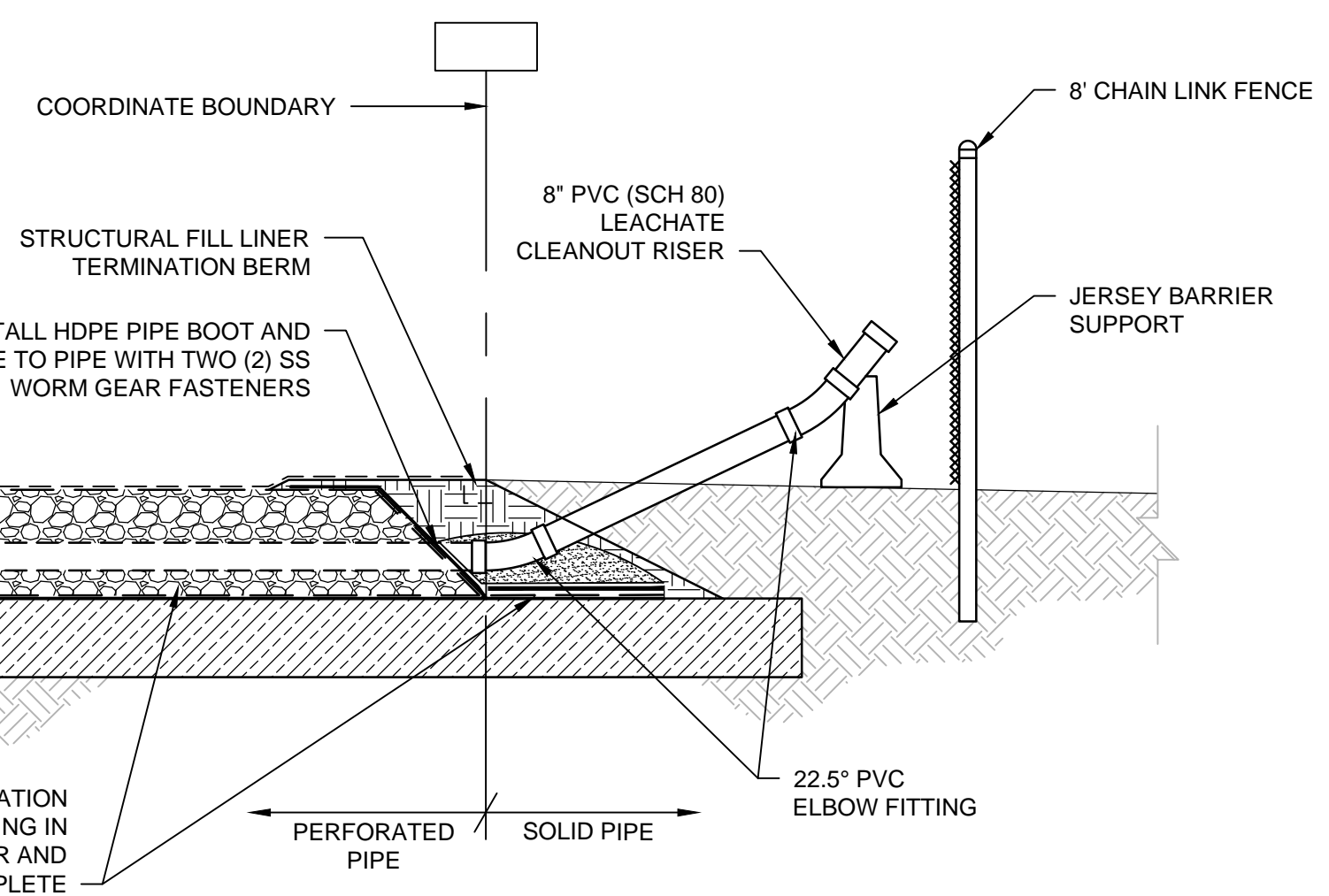
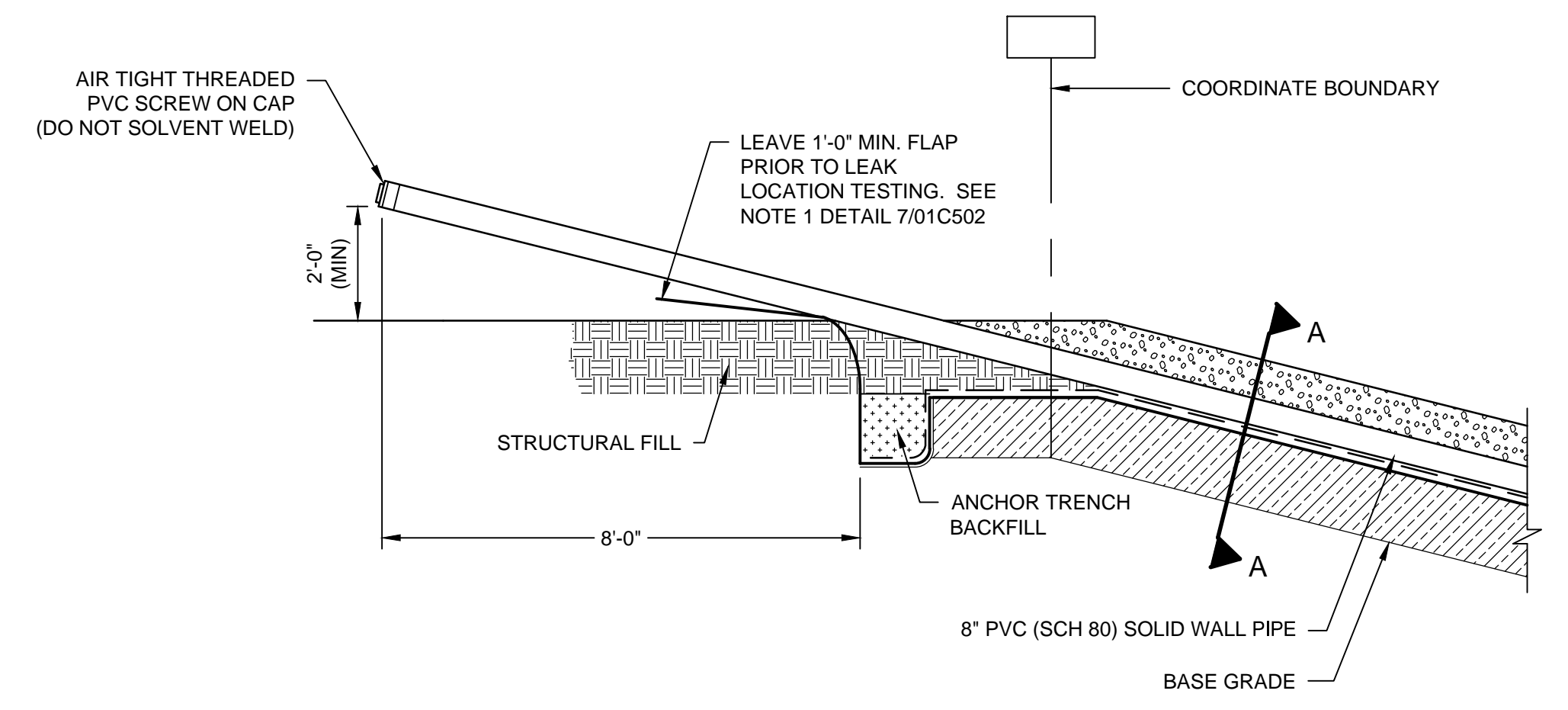


NOTES
 1. SIGN MOUNTED WITH SS BOLTS ON 8" GALV STEEL. "U" SIGN POST SET IN 5-GAL. BUCKET FILLED WITH CONCRETE FILL. SET TOP OF BUCKET BELOW GRADE. PLACE SIGNS ALONG EAST AND SOUTH HDPE LINER TERMINATIONS EVERY 100' AND AT SOUTHEAST, SOUTHWEST, AND NORTHEAST CORNERS.

1 EAST LINER / INTERCELL BERM TERMINATION
 C101 NO SCALE

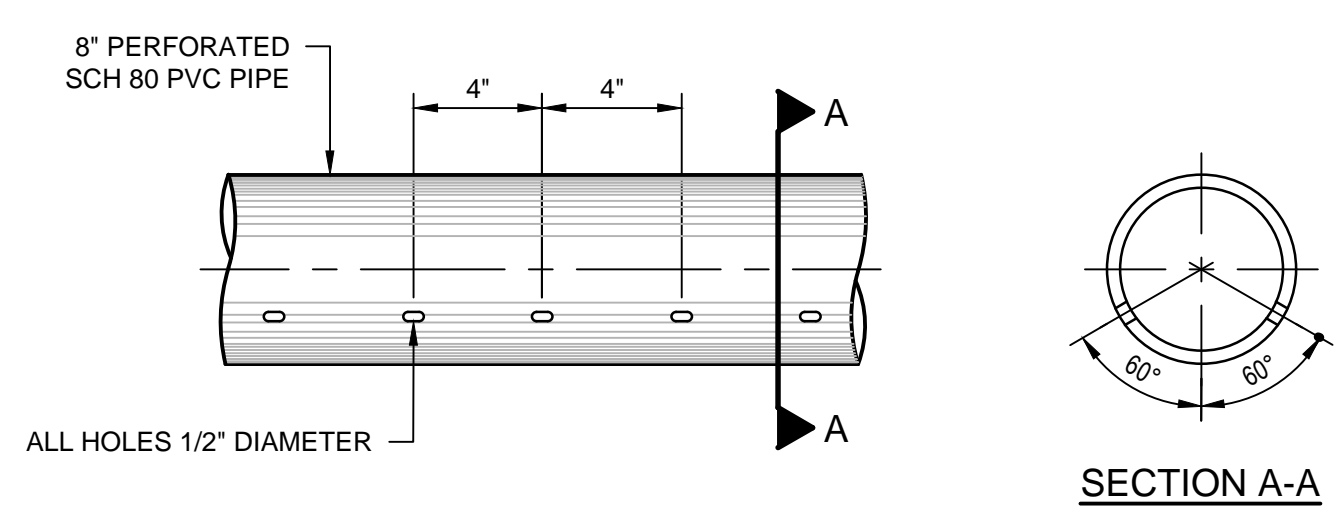


2 LEACHATE COLLECTION TRENCH
 C101 NO SCALE



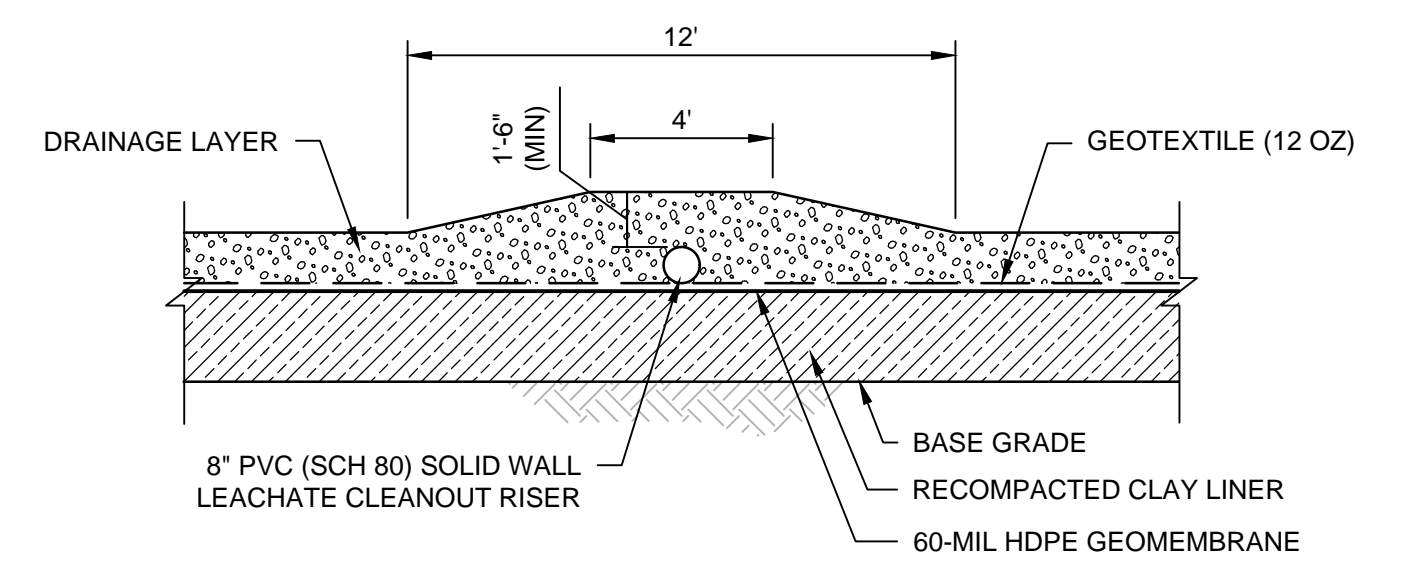
CONTRACTOR TO MAINTAIN SEPARATION FOR LEAK DETECTION TESTING IN COORDINATION WITH OWNER AND ENGINEER UNTIL TESTING IS COMPLETE

3 TEMPORARY LEACHATE CLEANOUT
 C103 NO SCALE



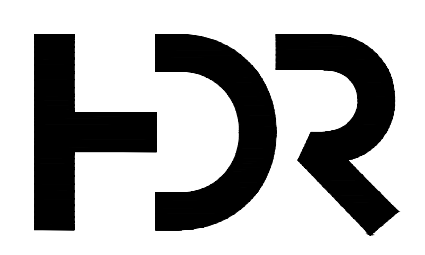
NOTES
 1. PROVIDE TWO (2) ROWS 0.5" DIAMETER HOLES SPACED 4" ON CENTER ALIGNED 60 DEG FROM BOTTOM-CENTER OF PIPE.

4 PERFORATED LEACHATE COLLECTION AND GROUNDWATER CONTROL PIPE
 NO SCALE



NOTES
 1. EDGE OF LINER SIGNAGE AND RAIN COVER NOT SHOWN FOR CLARITY.
 2. ENSURE A MINIMUM 1'-6" DRAINAGE LAYER ABOVE LEACHATE CLEANOUT RISER ALONG ENTIRE LENGTH OF SIDESLOPE.
 3. CONTRACTOR TO AVOID VEHICLE TRAFFIC ABOVE LEACHATE CLEANOUT RISER AT ALL TIMES, INCLUDING DURING PLACEMENT OF DRAINAGE LAYER.

5 LEACHATE CLEANOUT SIDESLOPE RISER
 C101 NO SCALE

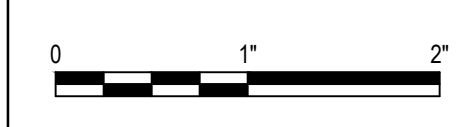


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Metro Waste Authority
METRO PARK WEST
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CELL E LINER CONSTRUCTION

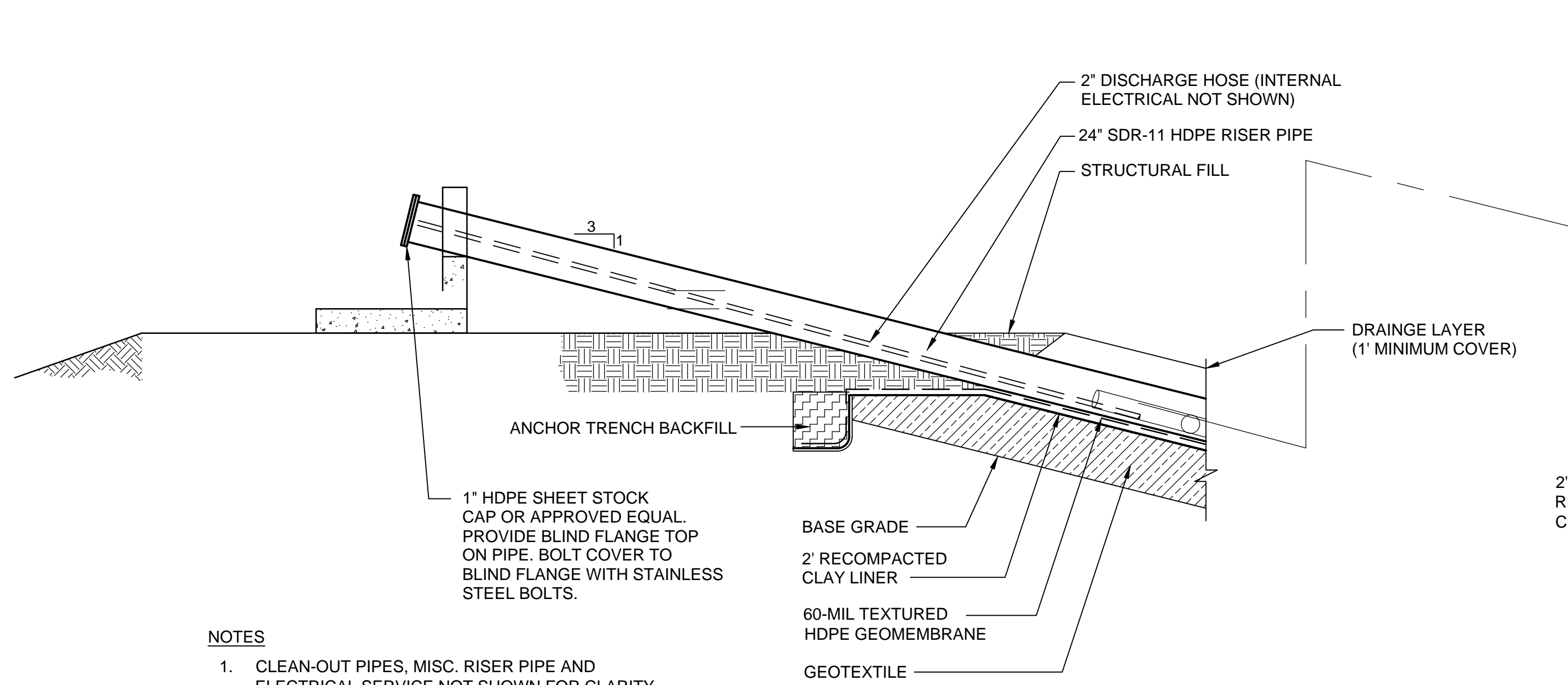


DETAILS

FILENAME | C503.dwg
 SCALE | AS NOTED

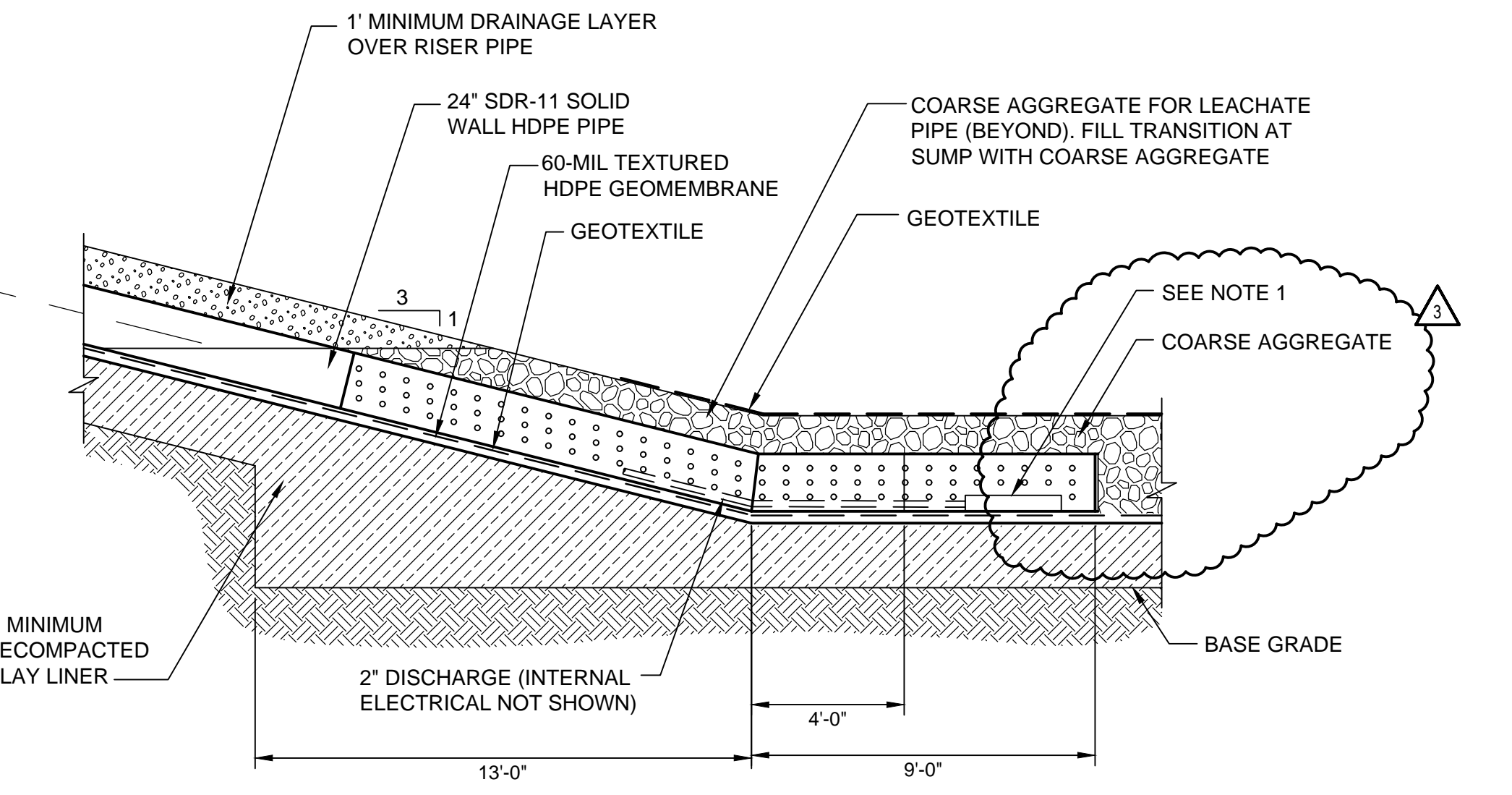
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C503

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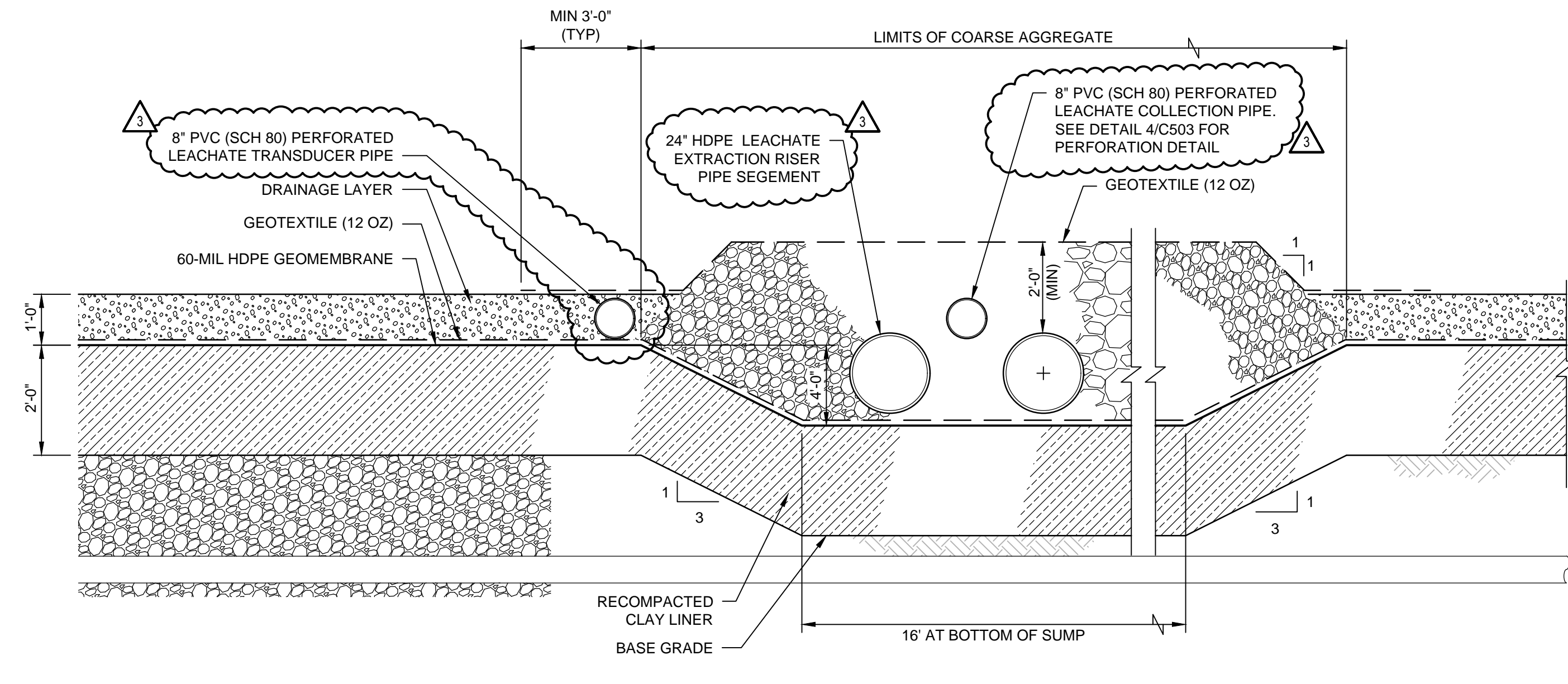
NOTES
 1. CLEAN-OUT PIPES, MISC. RISER PIPE AND ELECTRICAL SERVICE NOT SHOWN FOR CLARITY.

1 LEACHATE EXTRACTION RISER
 C103 NO SCALE

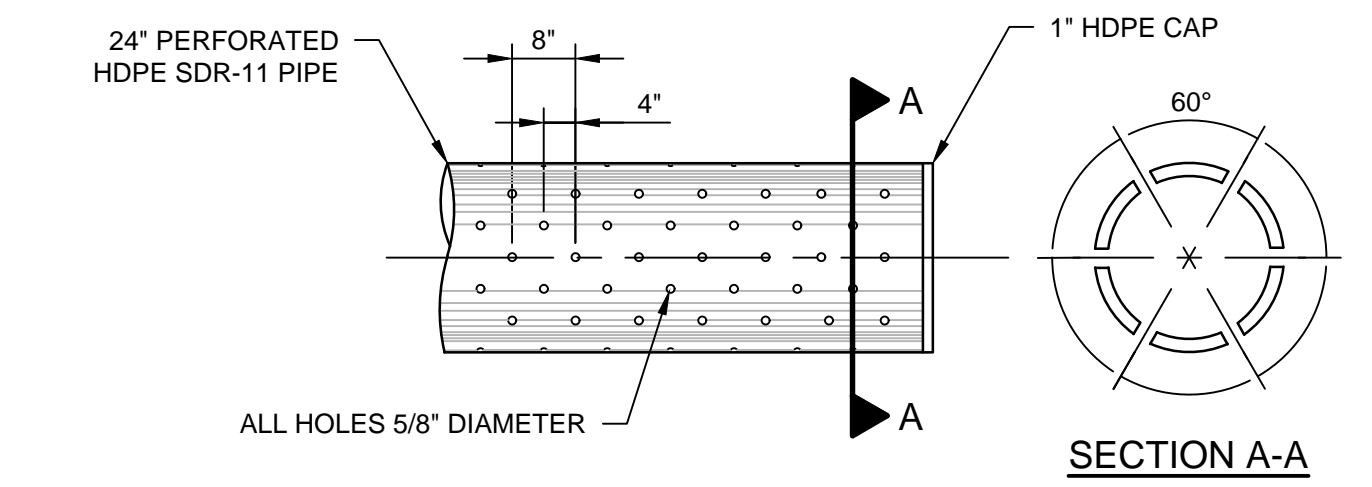


NOTES
 1. PUMP, ELECTRICAL AND LEVEL TRANSDUCER DETAILS NOT SHOWN FOR CLARITY.

2 LEACHATE COLLECTION SUMP
 C103 NO SCALE

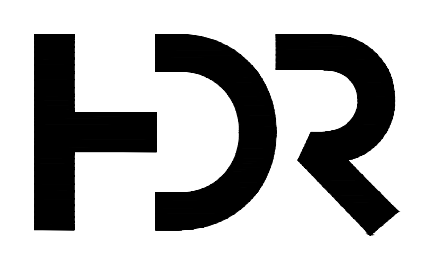


3 LEACHATE COLLECTION SUMP
 C103 NO SCALE



4 PERFORATED LEACHATE EXTRACTION PIPE
 NO SCALE

NOTES:
 1. 0.5" DIAMETER HOLES, 6 ROWS EVENLY SPACED AROUND PERIMETER (60 DEGREES APART), 8" CENTER-TO-CENTER STAGGERED 4" BETWEEN ROWS.
 2. SEE SPECIFICATIONS ON PIPE JOINTING, REMOVING BEADS AND CLEANING INSIDE OF ALL PIPES. FOR 24" LEACHATE EXTRACTION RISERS AND LEACHATE COLLECTION LINES (INCLUDING SLOPE RISERS) PROVIDE BEVELED EDGE ON INSIDE OF JOINT SUCH THAT JOINT HAS MINIMAL TO NO BEAD PROJECTION ON INSIDE OF PIPE. PIPE TO BE REAMED TO REMOVED EXCESS BEADS.

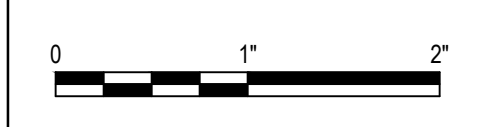


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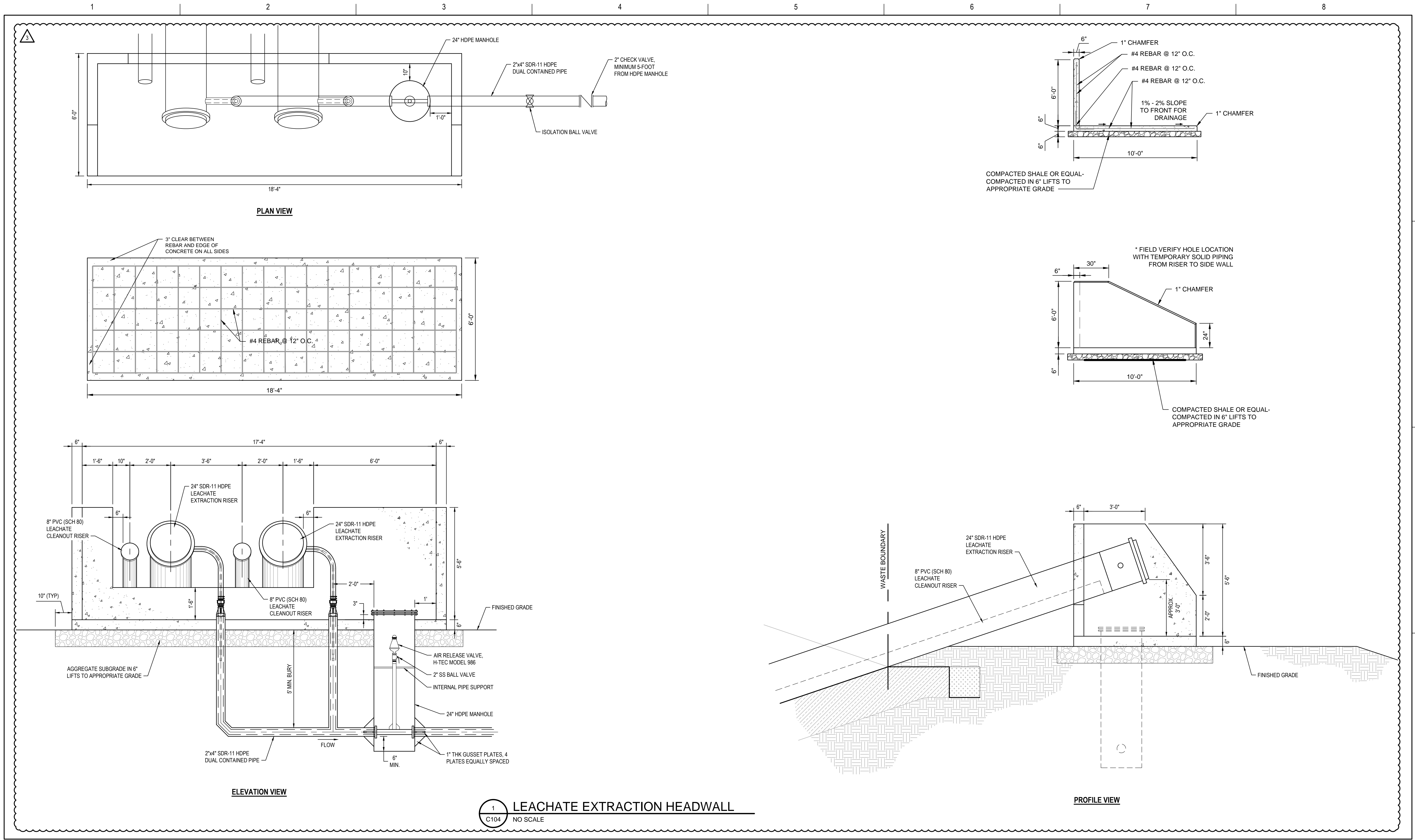
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Metro Waste Authority
**METRO PARK WEST
 MWA PROJECT P-67
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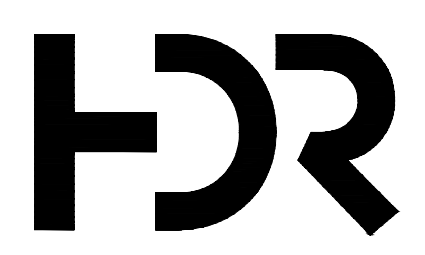


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 SCALE: AS NOTED

SHEET
C504



1 LEACHATE EXTRACTION HEADWALL
 C104 NO SCALE

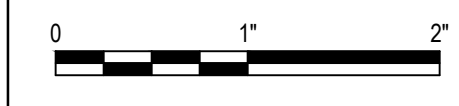


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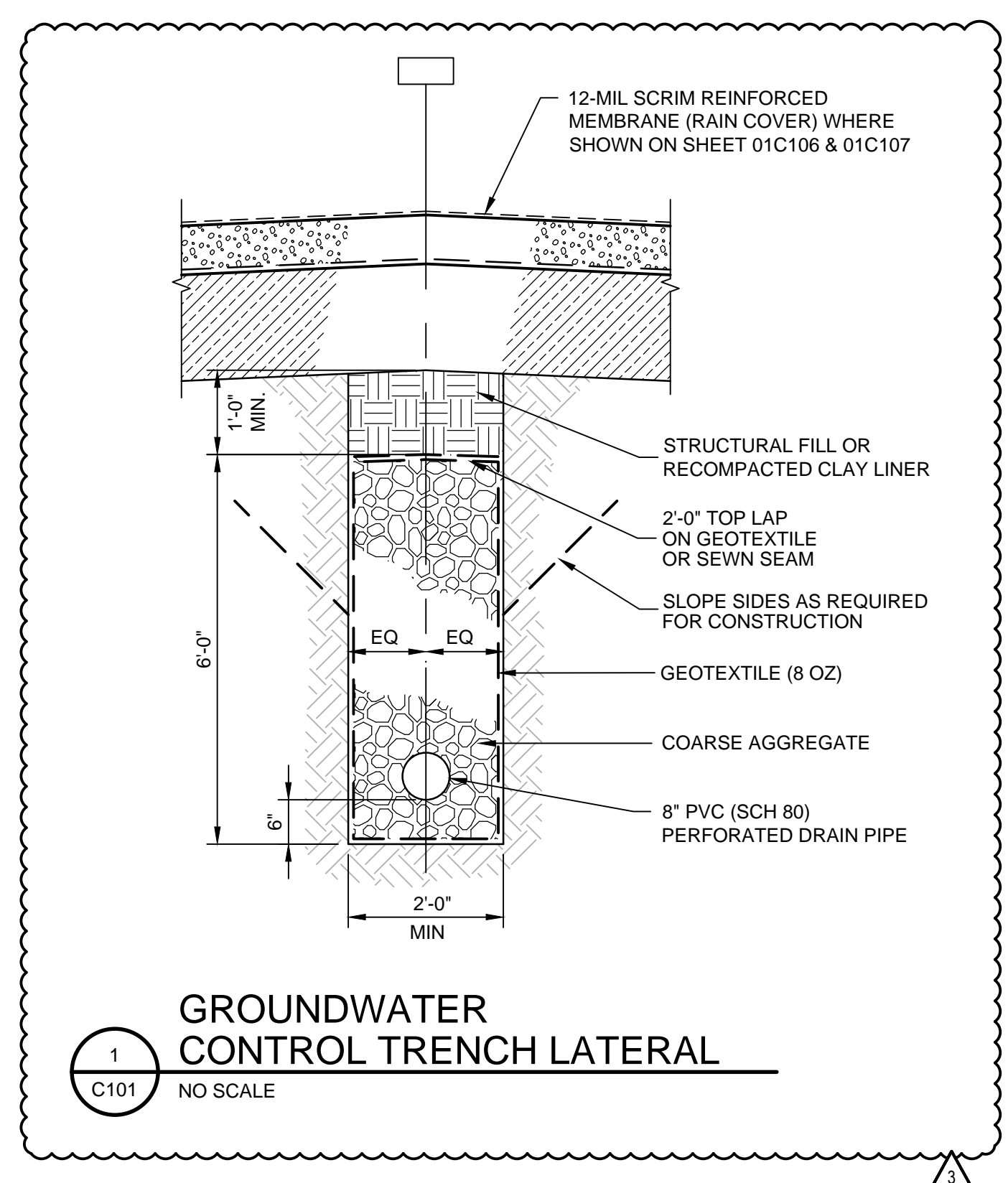
Metro Waste Authority
METRO PARK WEST
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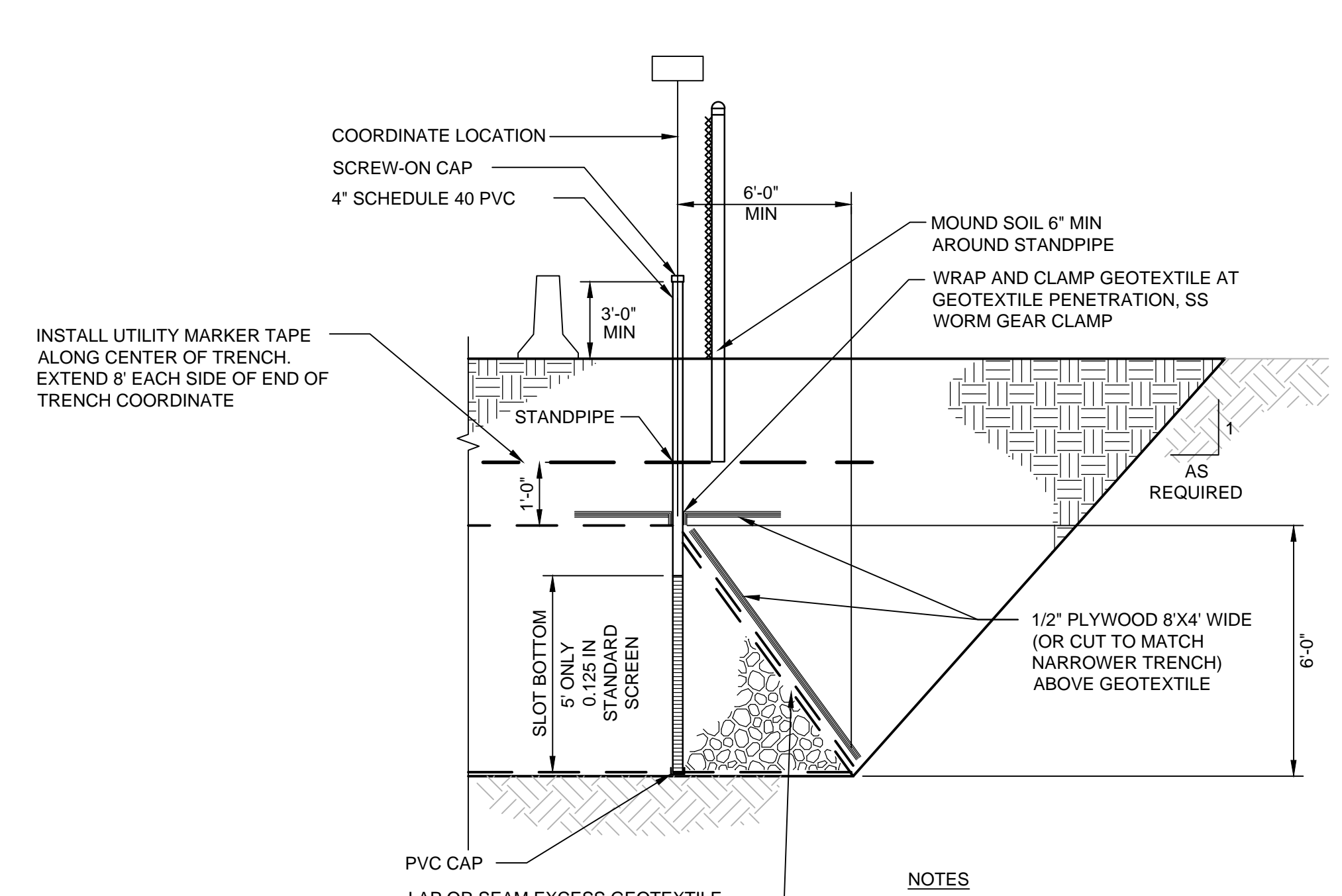
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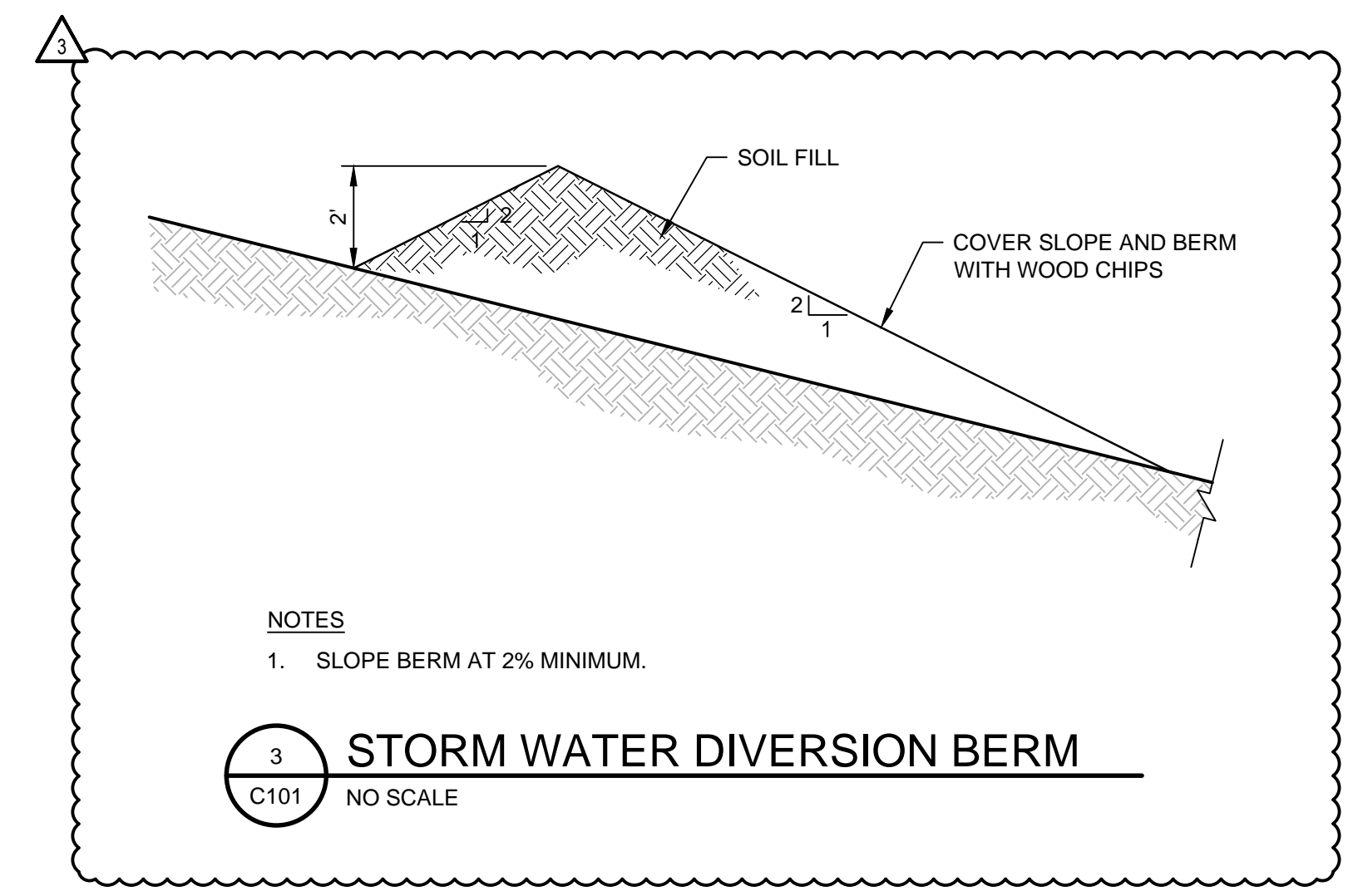
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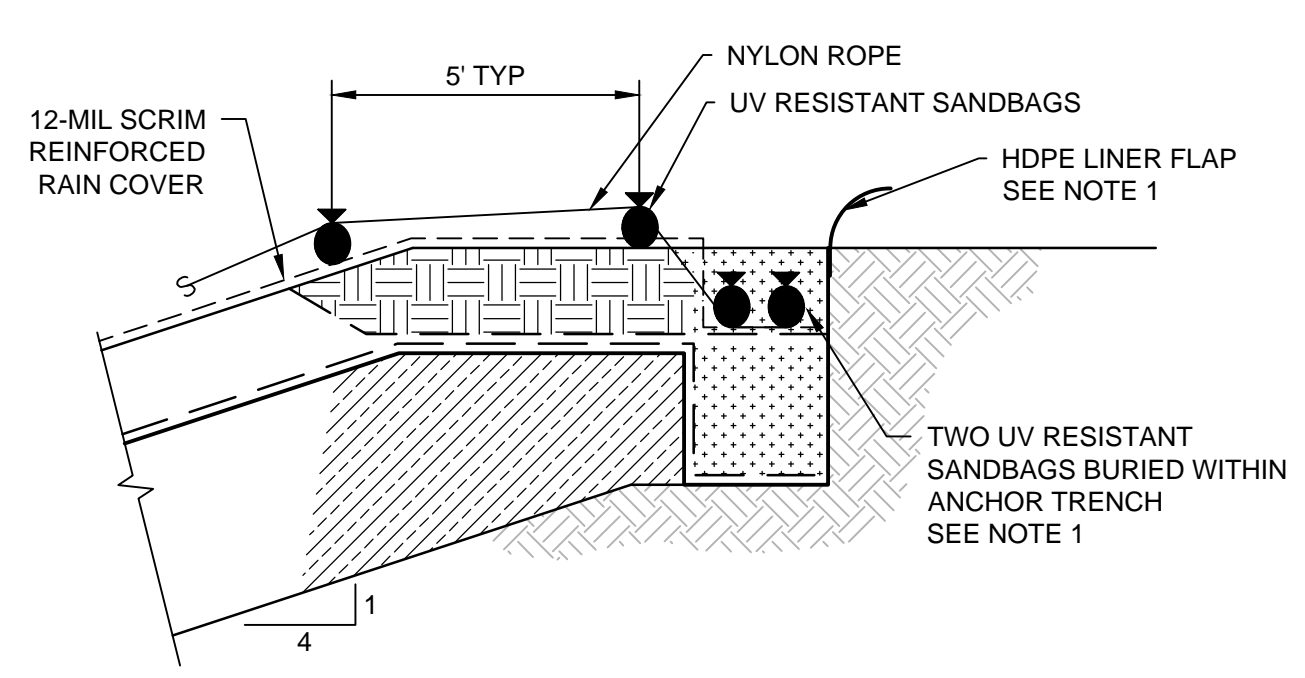
1 GROUNDWATER CONTROL TRENCH LATERAL
C101 NO SCALE



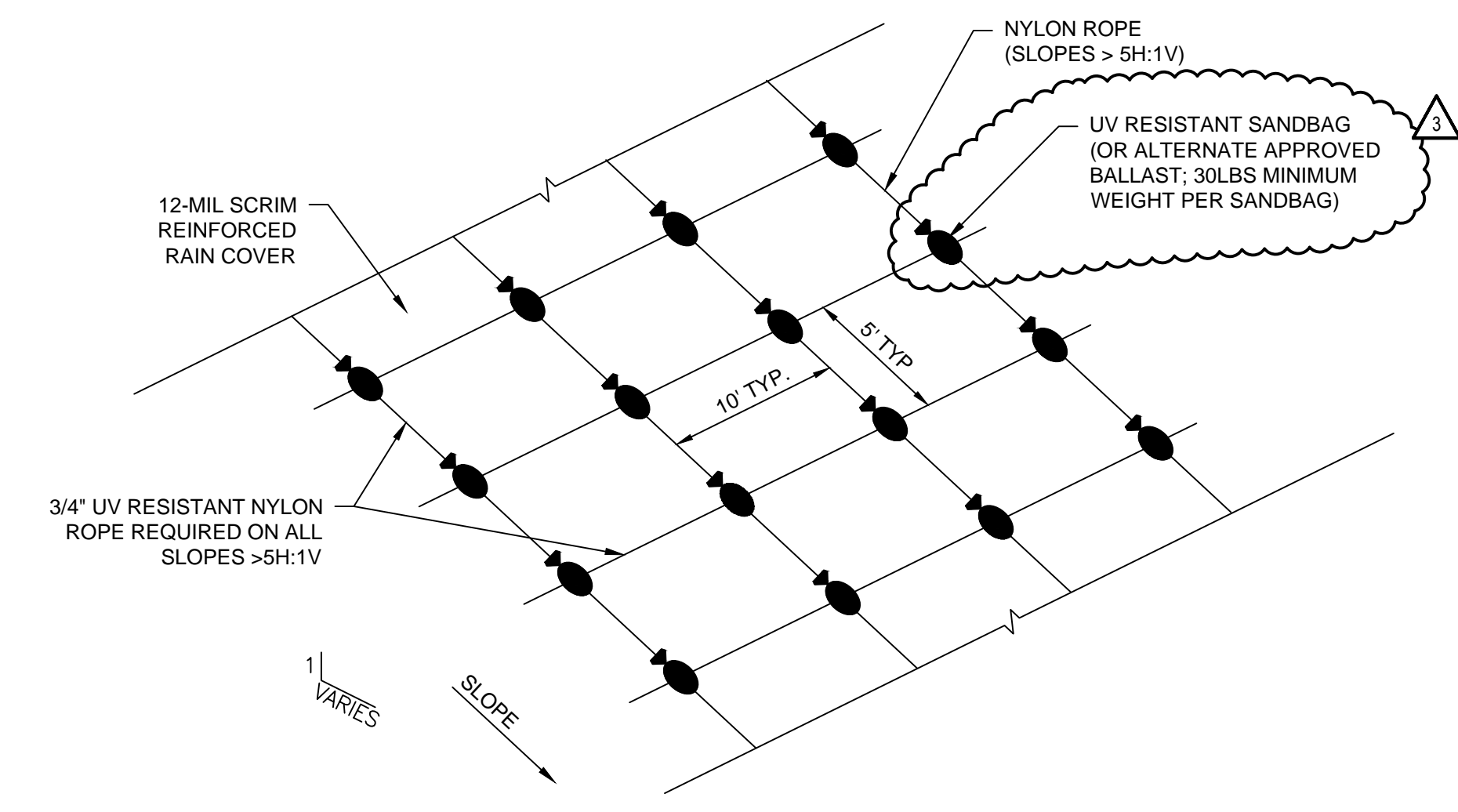
2 GROUNDWATER CONTROL TRENCH LATERAL TERMINATION
C101 NO SCALE



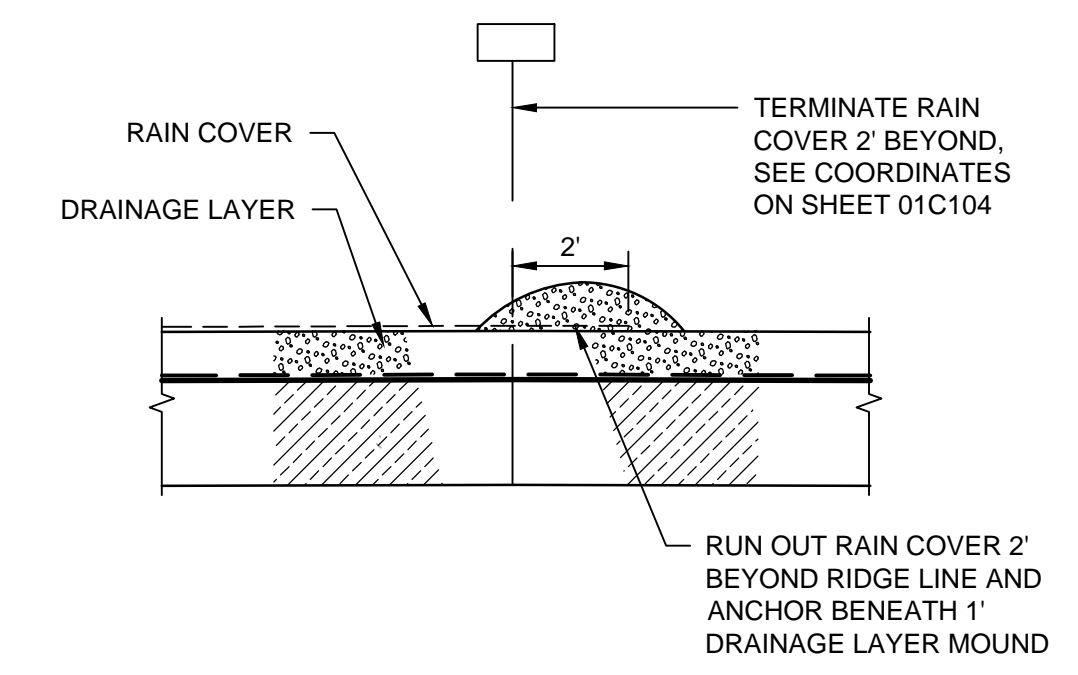
3 STORM WATER DIVERSION BERM
C101 NO SCALE



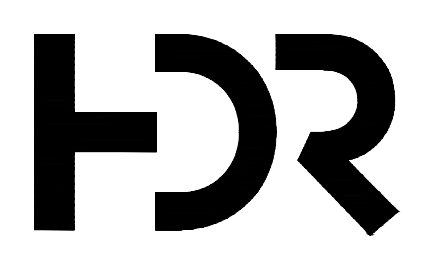
4 RAIN COVER ANCHOR TRENCH TERMINATION
C103 NO SCALE



5 BALLASTING FOR 12-MIL SCRIM REINFORCED RAIN COVER
C103 NO SCALE



6 RAIN COVER TERMINATION
C103 NO SCALE

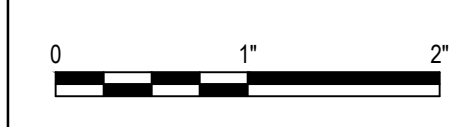


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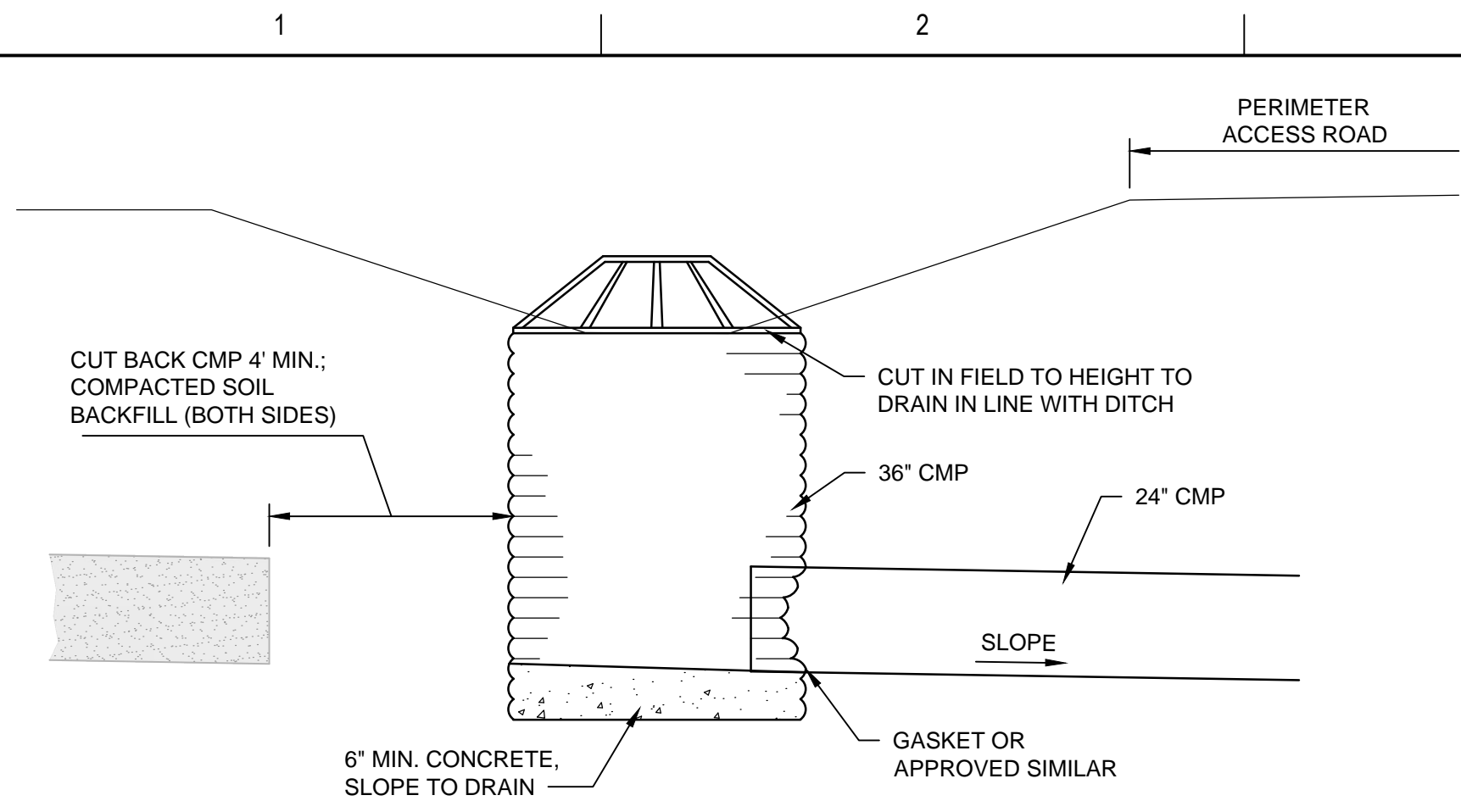
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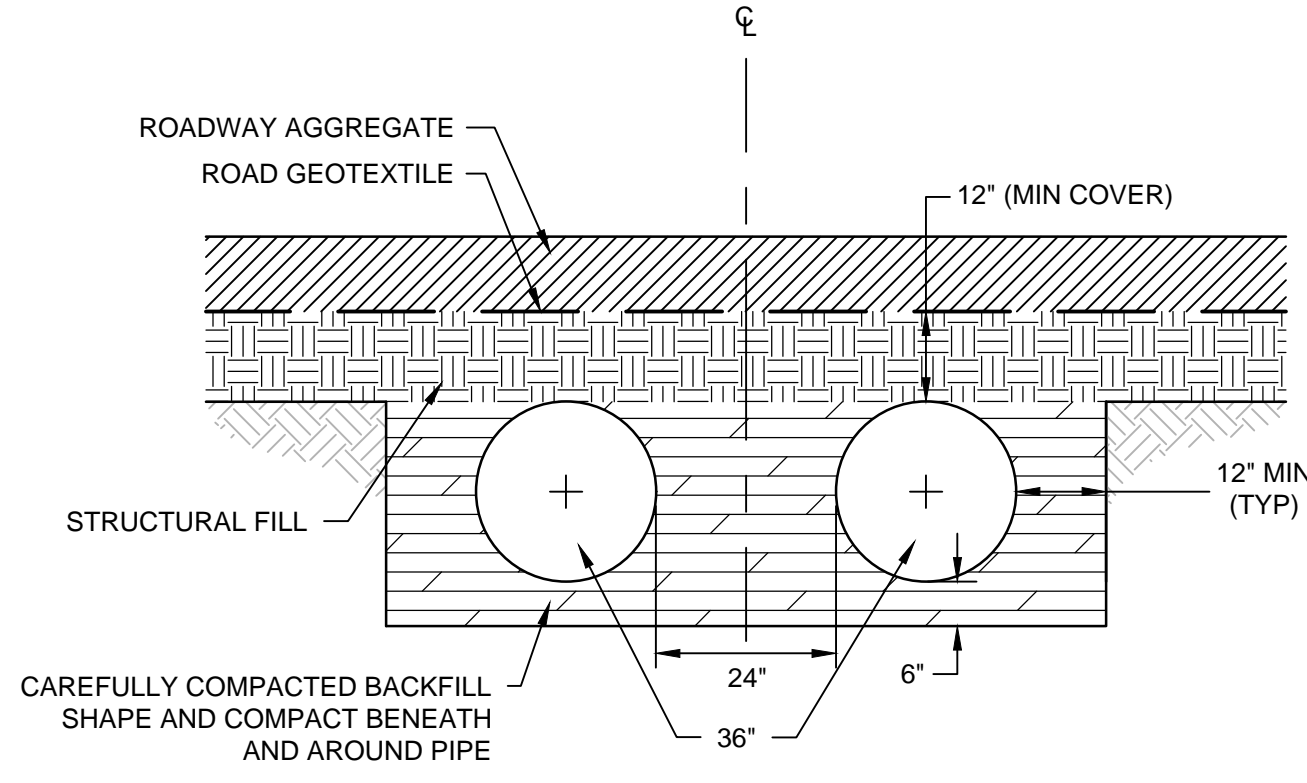
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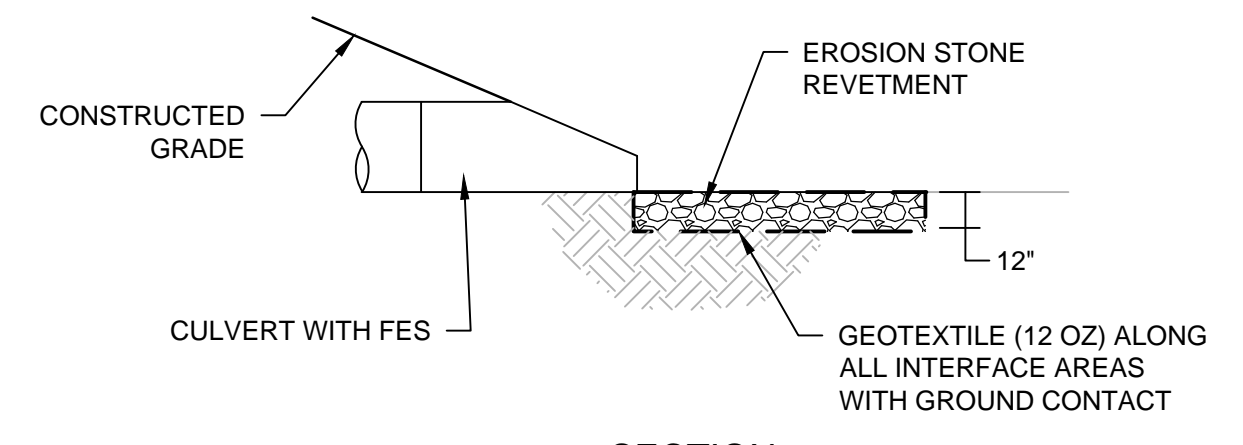
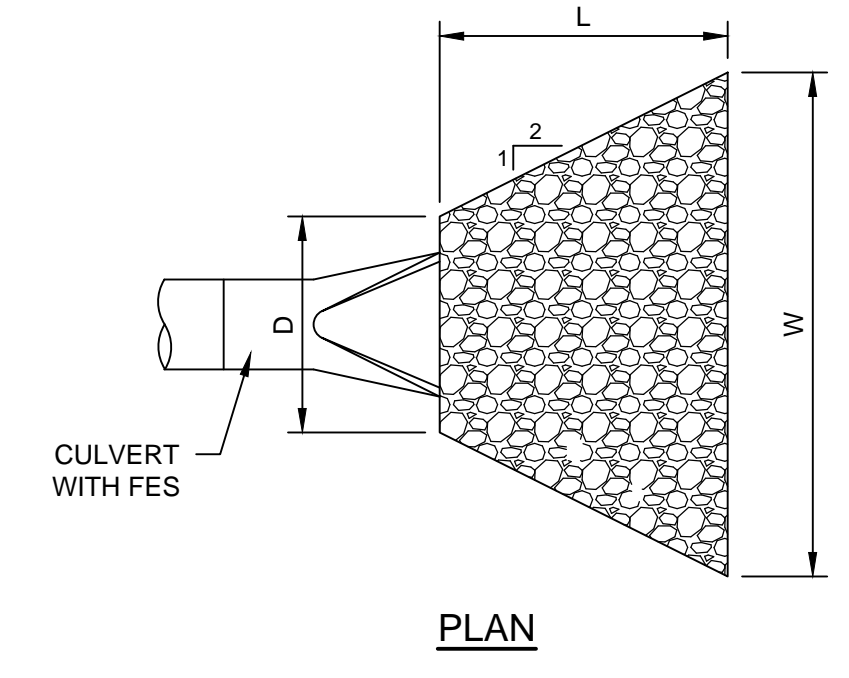
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1 DROP STRUCTURE
C101 NO SCALE

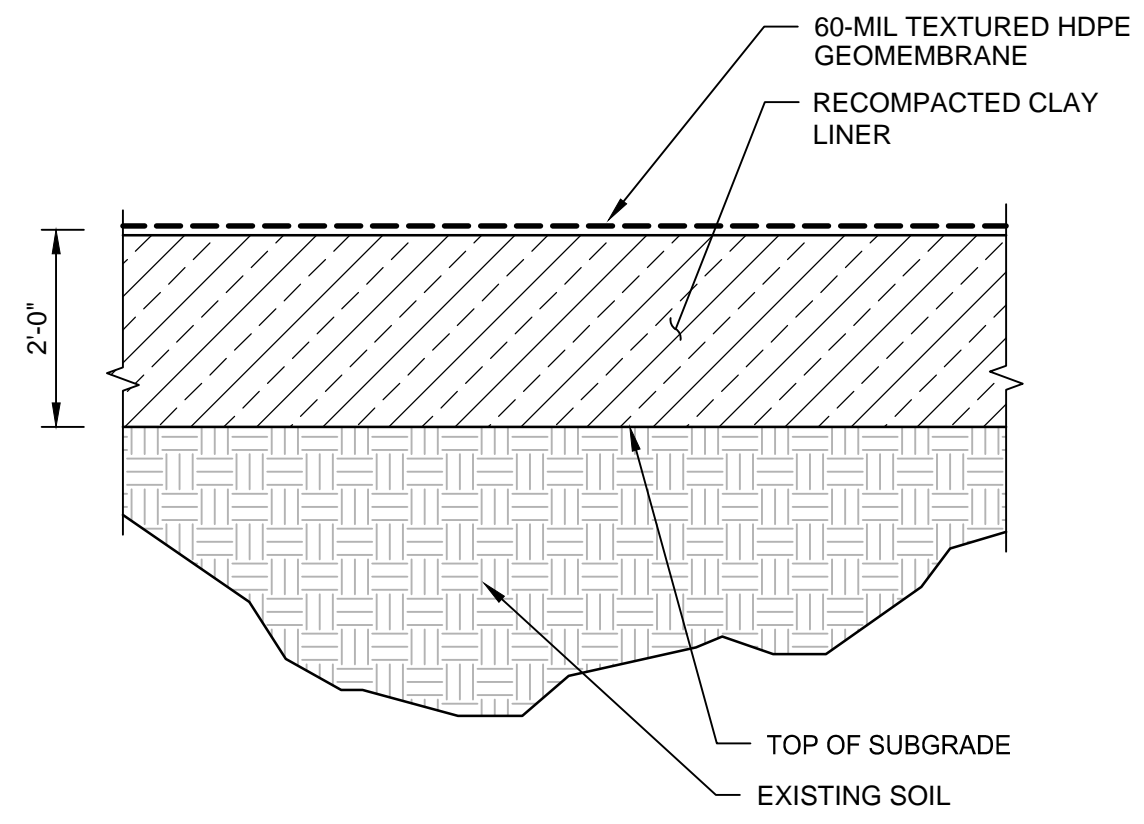


2 CULVERT ROAD CROSSING
C101 NO SCALE

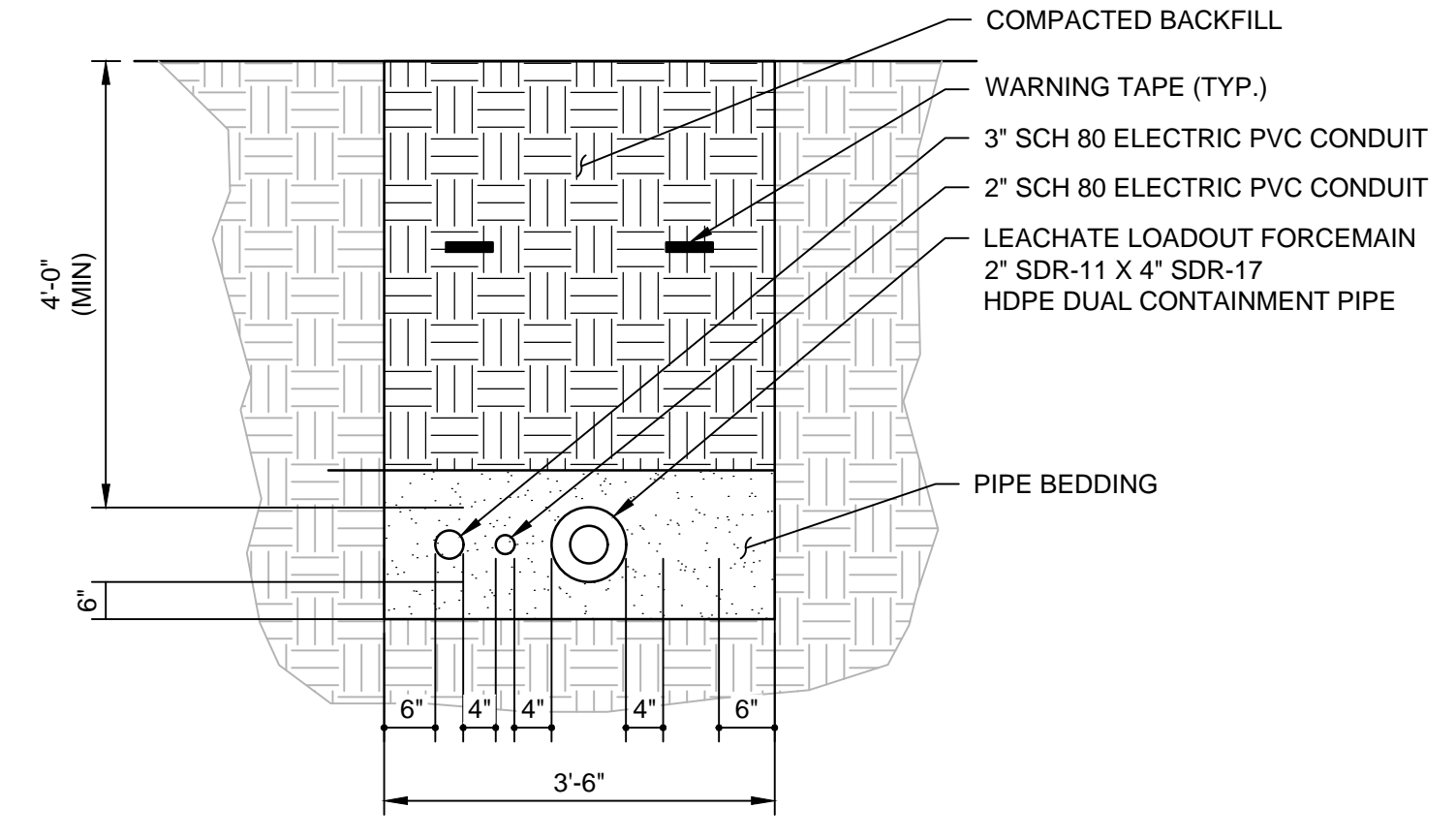


PIPE DIA.	D	W	L
2-24"	14'	14'	10'
12"	5'	5'	5'

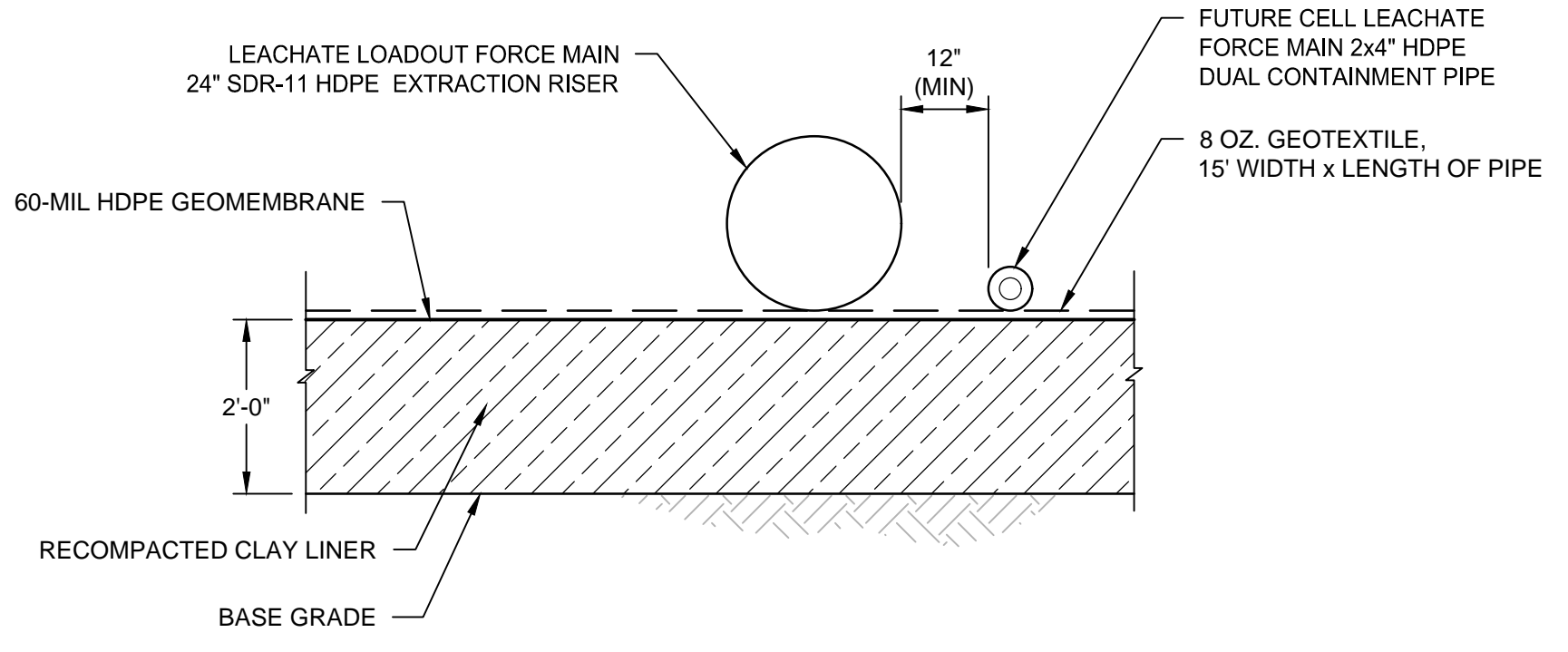
3 RIP-RAP APRON
NO SCALE



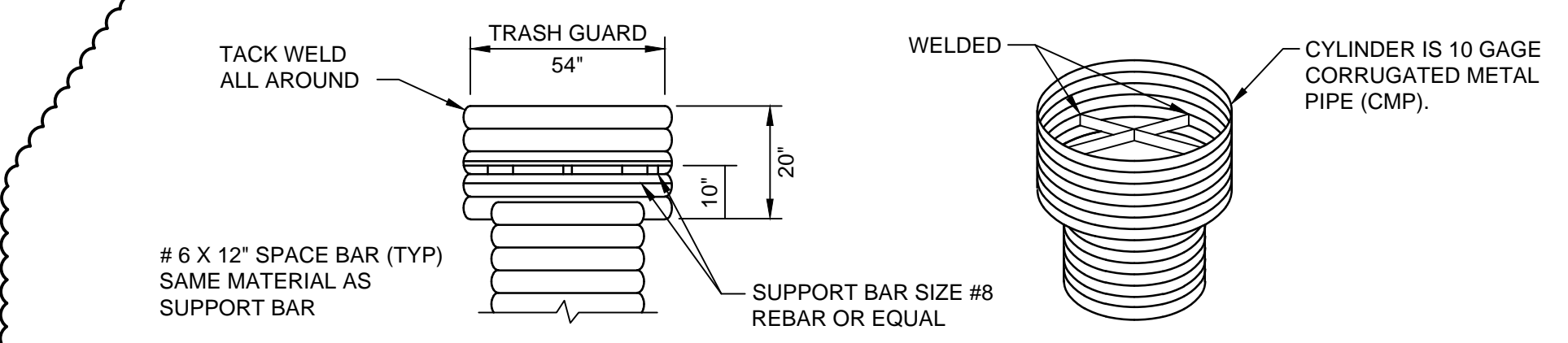
4 LEACHATE POND LINER
C104 NO SCALE



6 LEACHATE CONVEYANCE TRENCH OUTSIDE OF SOLID WASTE BOUNDARY
C104 NO SCALE

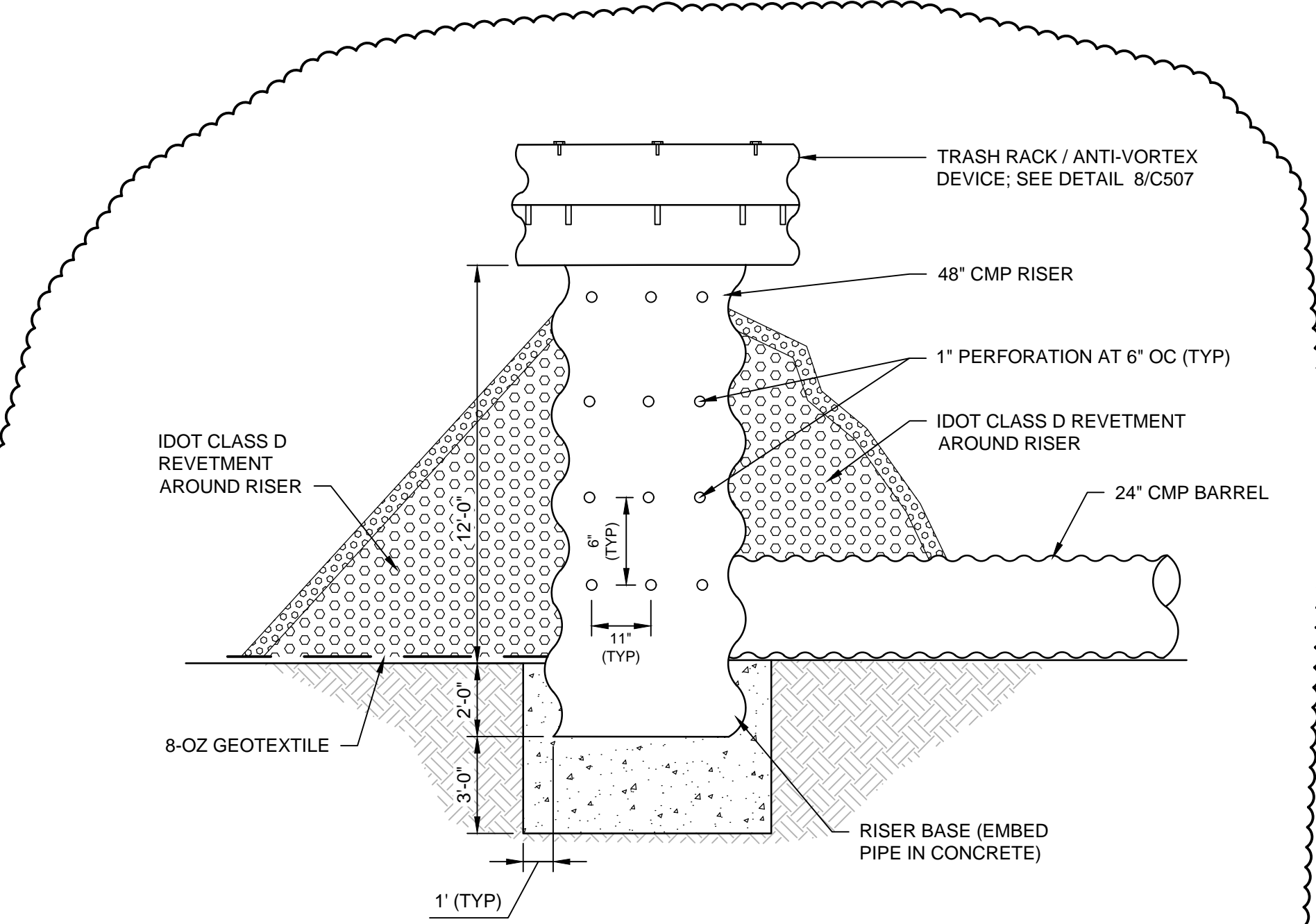


5 LEACHATE RISER AND DISCHARGE SLOPE SECTION
C104 NO SCALE



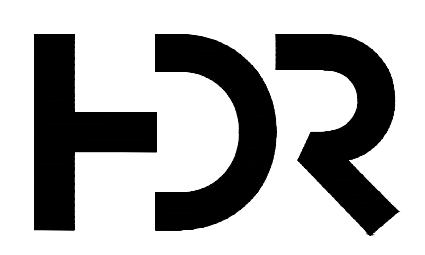
- NOTES**
1. THE CYLINDER MUST BE FIRMLY FASTENED TO THE TOP OF THE RISER.
 2. SUPPORT BARS ARE WELDED TO THE TOP OF THE RISER OR ATTACHED BY STRAPS BOLTED TO THE TOP OF THE RISER.

8 TRASH RACK / ANTI-VORTEX DEVICE
NO SCALE



- NOTES**
1. ALL CMP SHALL BE GALVANIZED, 10 GA. OR HEAVIER PERFORATIONS:
 2. - VERTICAL SPACING: 6"
 - HORIZONTAL SPACING: 11"
 - FIRST ROW IS EVEN WITH BARREL INVERT ELEVATION

7 STORMWATER POND RISER BARREL OUTLET STRUCTURE
C104 NO SCALE

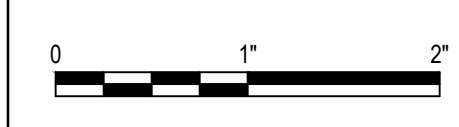


ISSUE	DATE	DESCRIPTION
3	01-20-2026	ADDENDUM NO. 2
2	12-23-2025	ADDENDUM NO. 1
1	11-26-2024	ISSUED FOR BID

PROJECT MANAGER	K. KINLEY
CIVIL	K. KINLEY
DRAWN BY	M. BICKFORD
QC BY	
PROJECT NUMBER	10408322

**PRELIMINARY
NOT FOR
CONSTRUCTION OR
RECORDING**

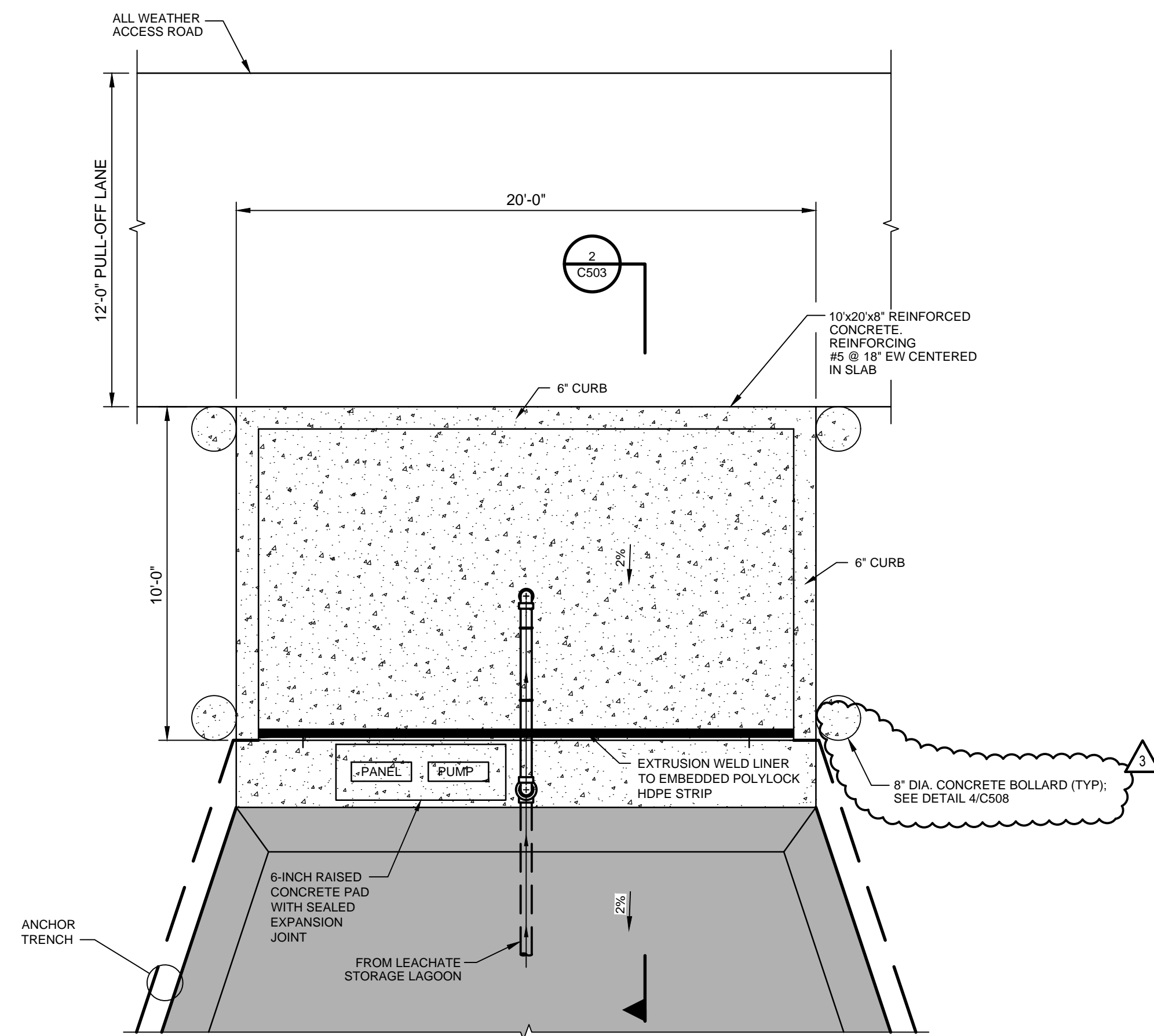
Metro Waste Authority
**METRO PARK WEST
MWA PROJECT P-67
CELL E LINER CONSTRUCTION**



DETAILS
FILENAME: C507.dwg
SCALE: AS NOTED

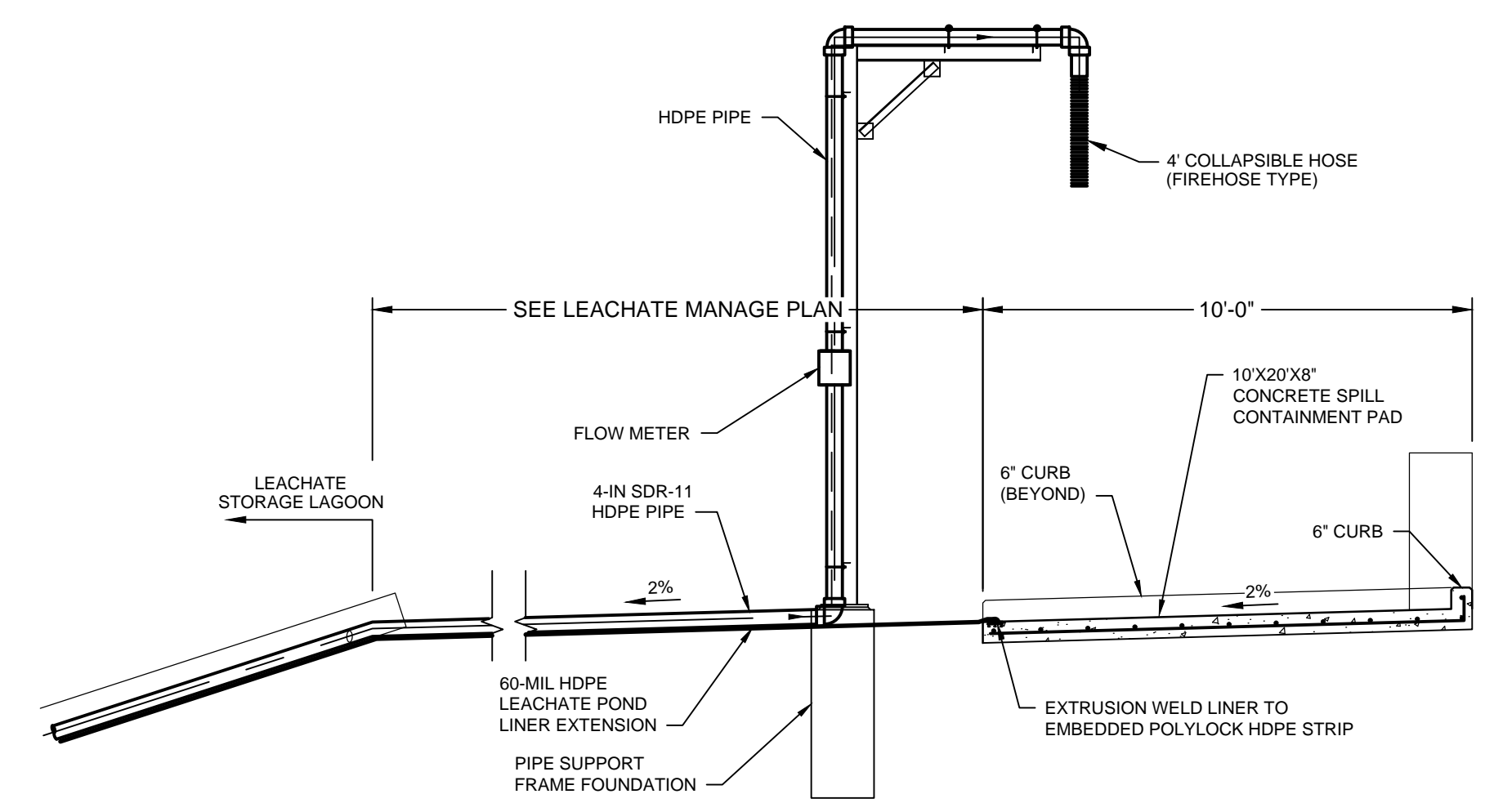
SHEET
C507

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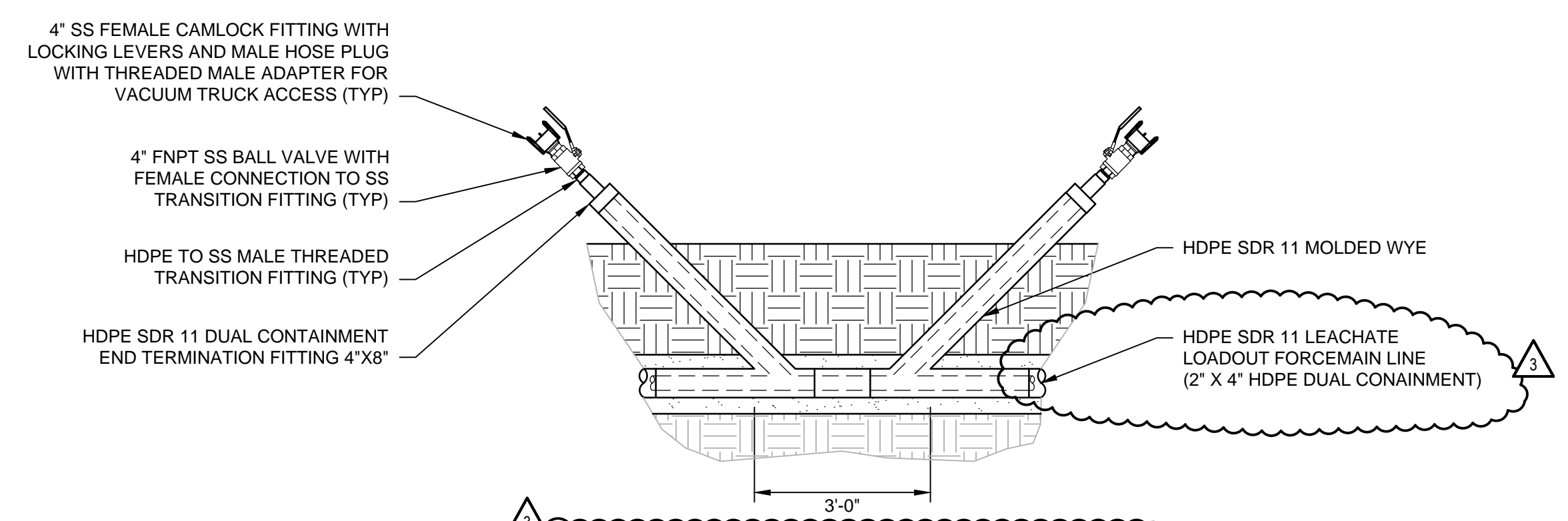
- NOTES**
1. ALL PIPING CONNECTIONS SHALL BE LEAKPROOF.
 2. SLOPE/GRADE ALL SURFACES SURROUNDING CONCRETE TO SLOPE AWAY FROM CONCRETE PAVING.
 3. CONCRETE JOINTED TO BE SEALED WITH WATERPROOF SEALANT.

1 LEACHATE LOAD-OUT AREA PLAN
C104 NO SCALE



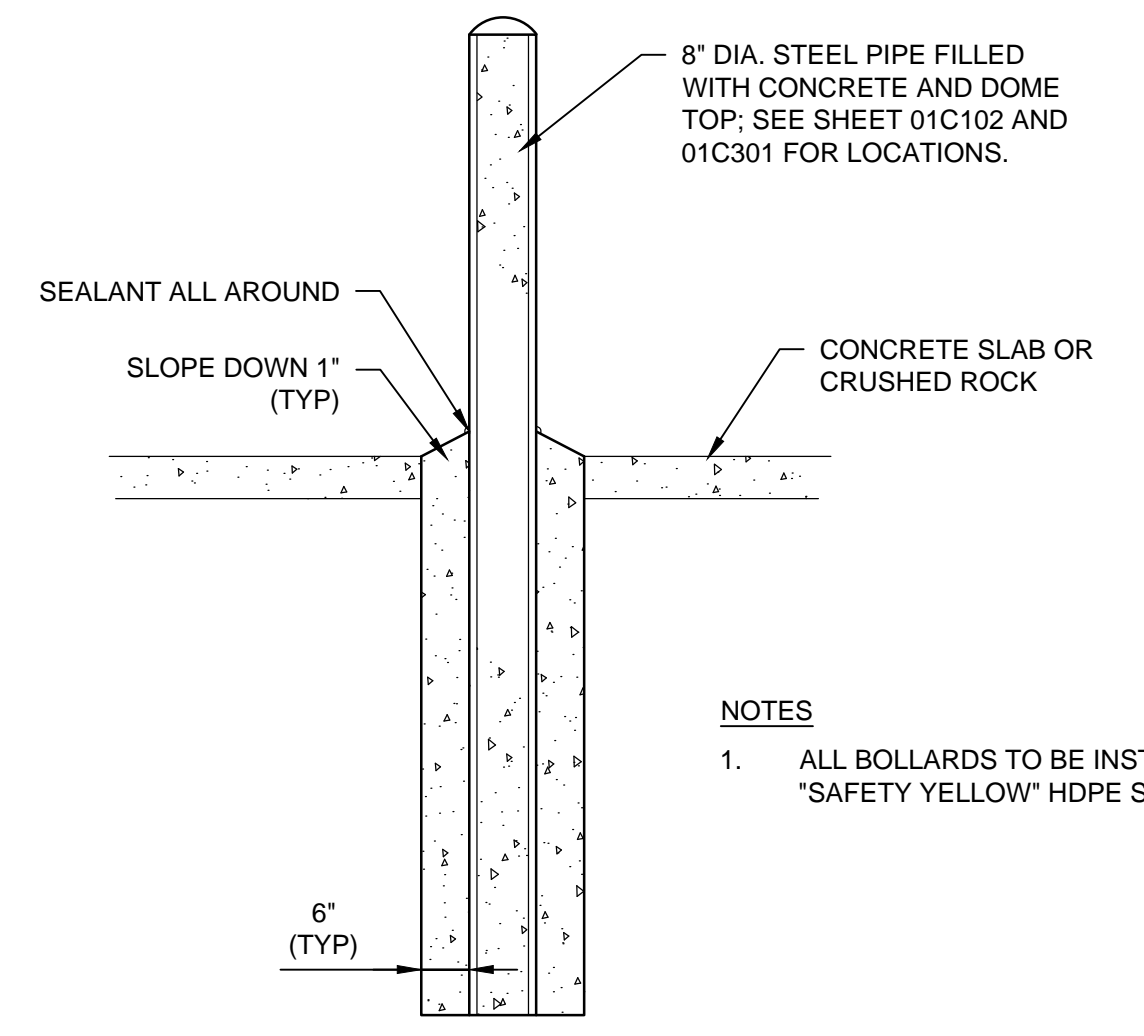
- NOTES**
1. PUMP TO BE AN EPG 77-1, 7.5-HP OR APPROVED EQUIVALENT CAPABLE OF DELIVERING APPROX. 250-GPM AT 60-FT TDH. DRILL OUT ABOVE PUMP.
 2. INSTALL EPG QUICK DISCONNECT TO MAINTAIN DRAINAGE BACK INTO POND.
 3. ANCHOR SUMP RISER AT POND SUMP WITH 6-BLACK HDPE CONCRETE FILLED BUCKETS, CONNECT WITH STAINLESS STEEL CABLE OR APPROVED SIMILAR.

2 LEACHATE LOAD-OUT AREA SECTION
C104 NO SCALE



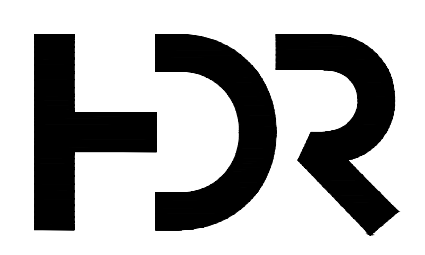
- NOTES**
1. CONTRACTOR TO INSTALL ONE LEACHATE FORCEMAIN CLEANOUT AT LOCATION IN COORDINATION WITH OWNER.

3 LEACHATE FORCEMAIN CLEANOUT
NO SCALE



- NOTES**
1. ALL BOLLARDS TO BE INSTALLED WITH "SAFETY YELLOW" HDPE SLIP COVERS.

4 BOLLARD
NO SCALE

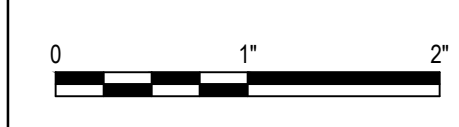


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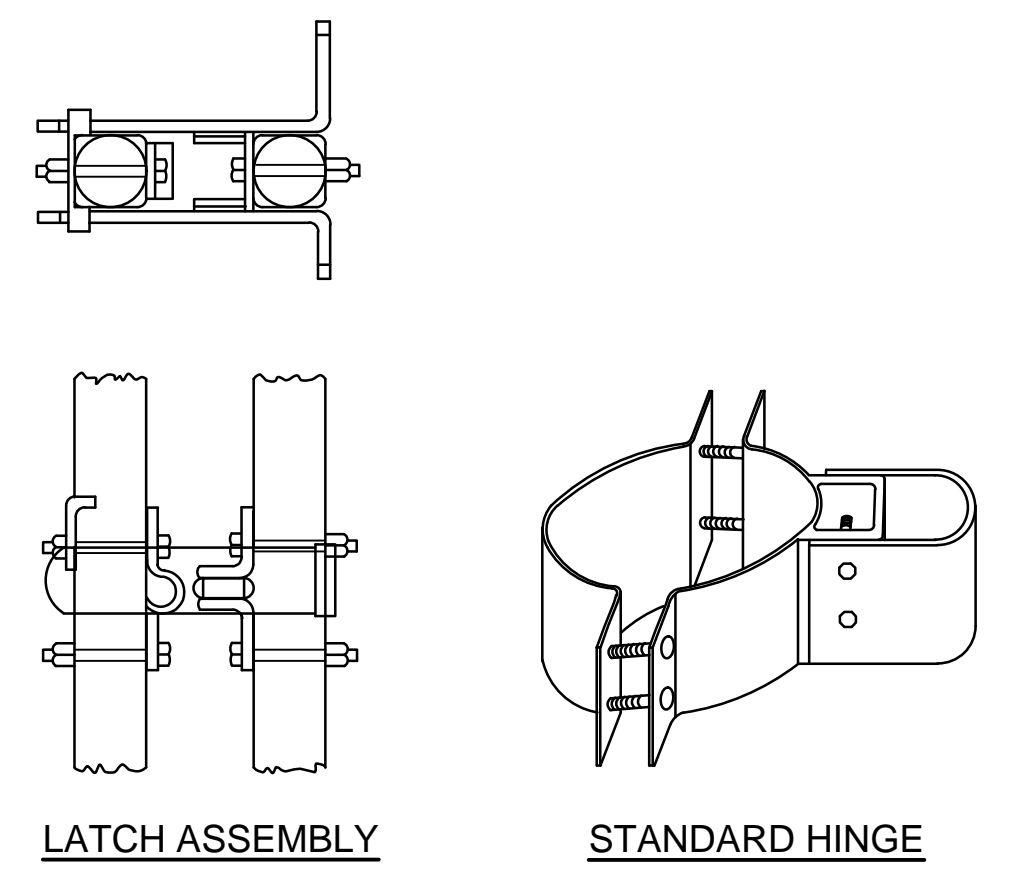
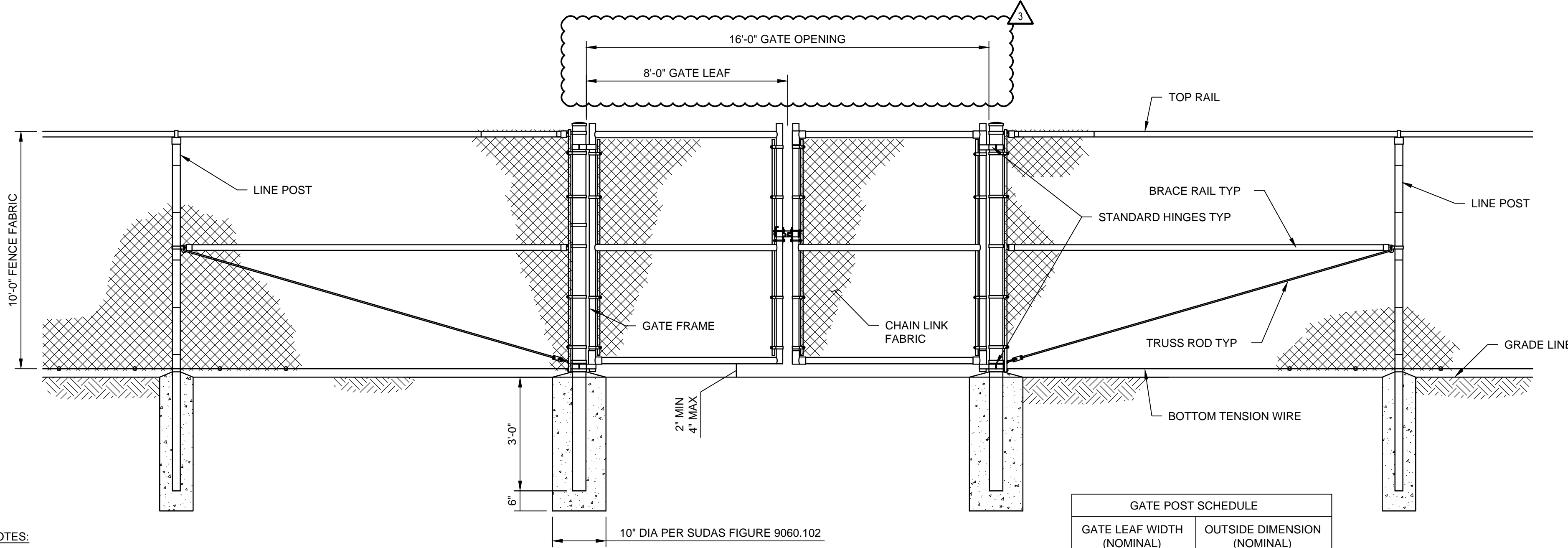
Metro Waste Authority
**METRO PARK WEST
MWA PROJECT P-67
CELL E LINER CONSTRUCTION**



DETAILS
FILENAME | C508.dwg
SCALE | AS NOTED

SHEET
C508

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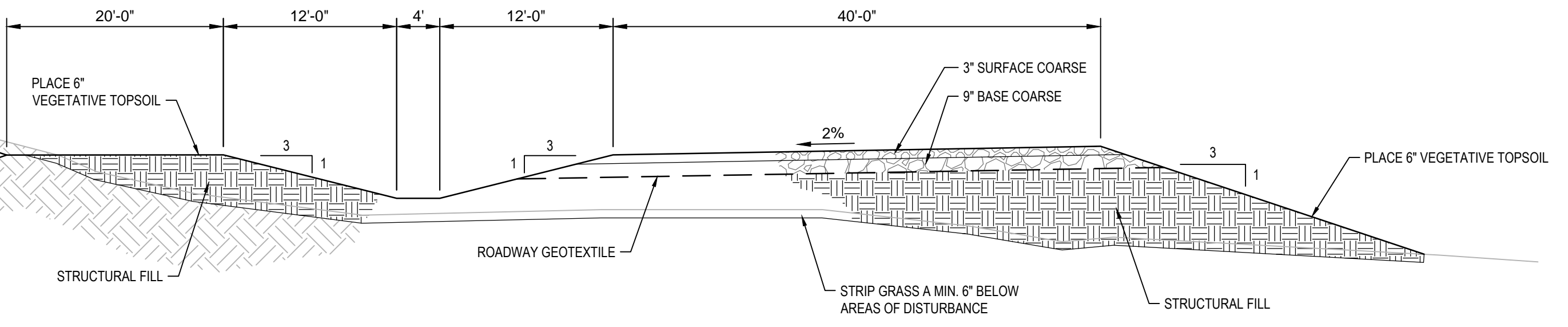
LATCH ASSEMBLY STANDARD HINGE

2 FENCE DETAILS
NO SCALE

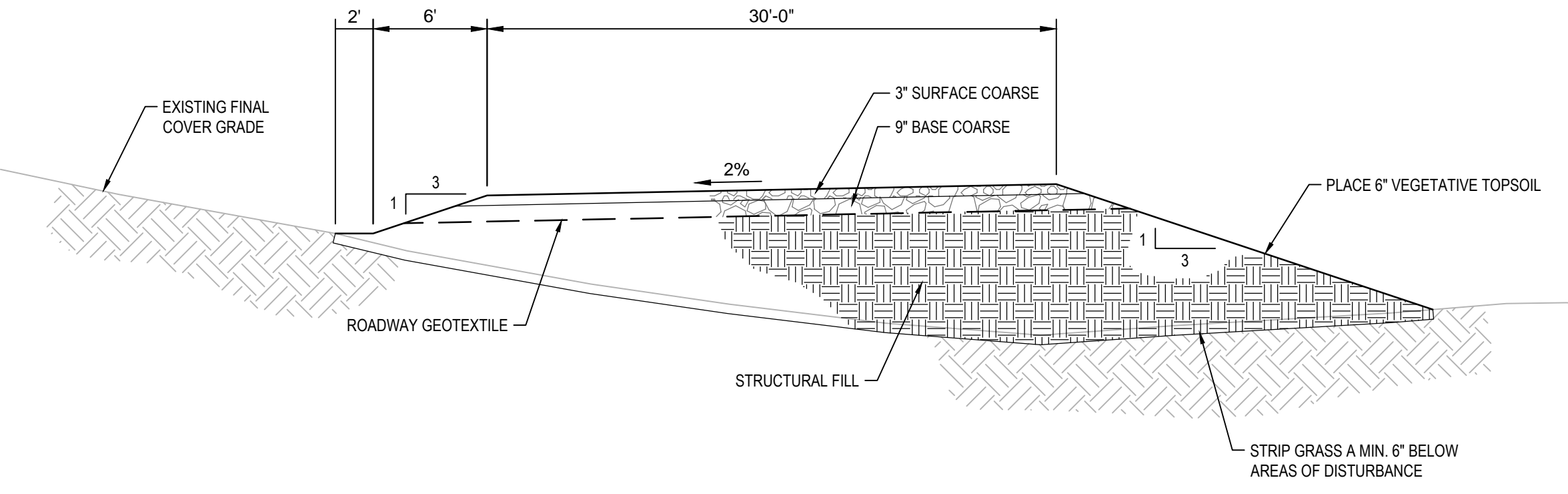
- NOTES:
- DETAILS SHOWN ARE TO CLARIFY REQUIREMENTS AND ARE NOT INTENDED TO LIMIT OTHER TYPES OF FENCE SECTIONS AND METHODS OF INSTALLATION.
 - SWING GATES SHALL BE CONSTRUCTED WITH PADLOCKS, AND LATCH ASSEMBLY.
 - ALL GATE FRAMES SHALL BE A MINIMUM 1.90" NOMINAL (ROUND) OR 2.00" NOMINAL (SQUARE). GATE FRAMES SHALL BE OF WELDED CONSTRUCTION OR ASSEMBLED USING HEAVY FITTINGS.

GATE POST SCHEDULE	
GATE LEAF WIDTH (NOMINAL)	OUTSIDE DIMENSION (NOMINAL)
5'	2.875" OD 2.5' SQ

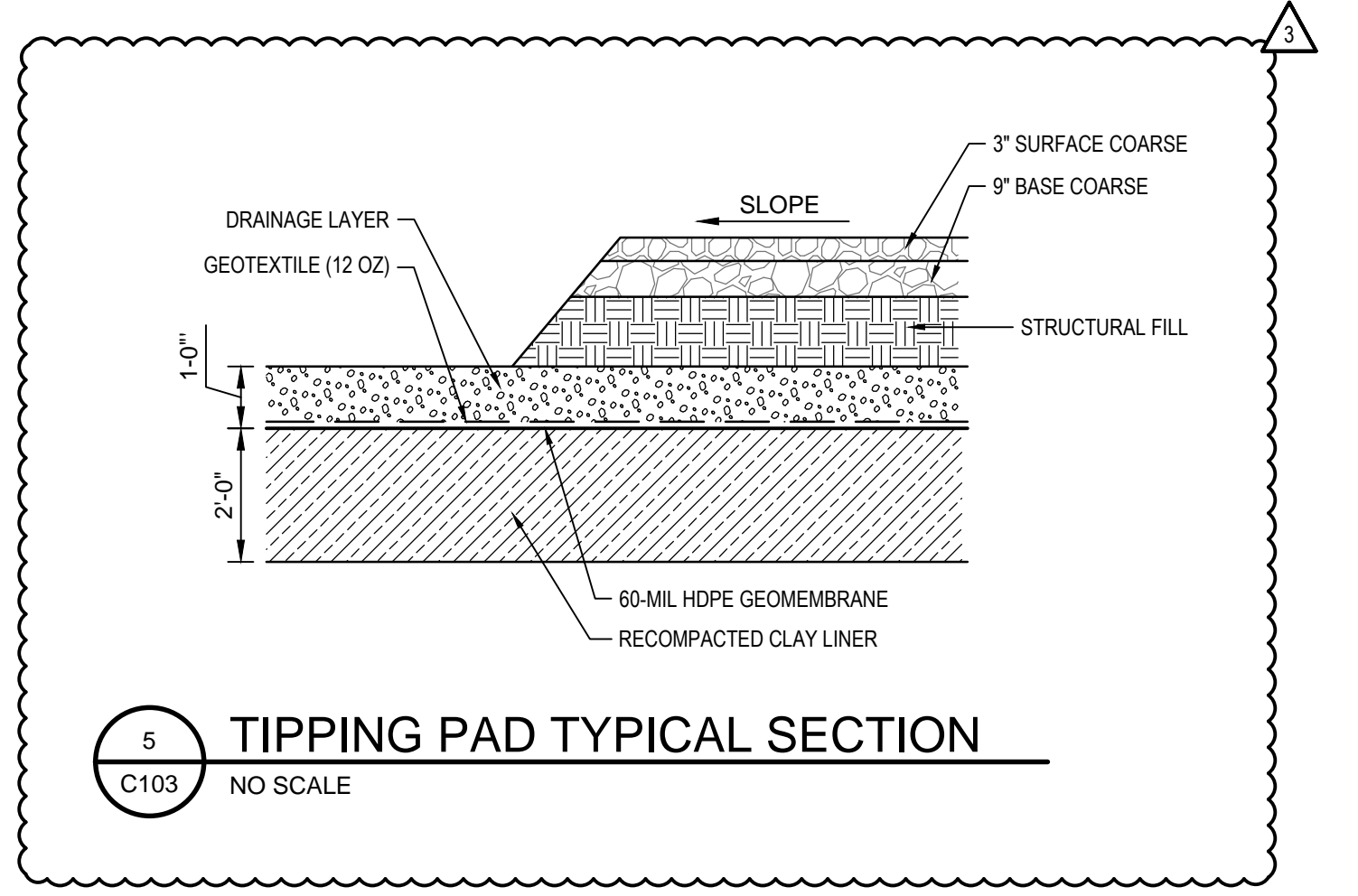
1 DOUBLE SWING GATE
NO SCALE



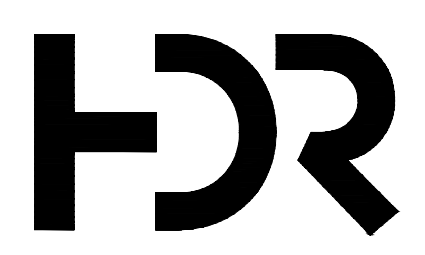
4 EAST PERIMETER ROAD TYPICAL SECTION
C105 NO SCALE



3 FINAL COVER ROAD TYPICAL SECTION
C106 NO SCALE



5 TIPPING PAD TYPICAL SECTION
C103 NO SCALE

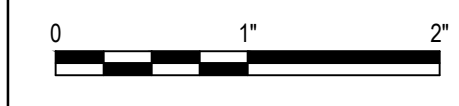


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MWA PROJECT P-67
CELL E LINER CONSTRUCTION

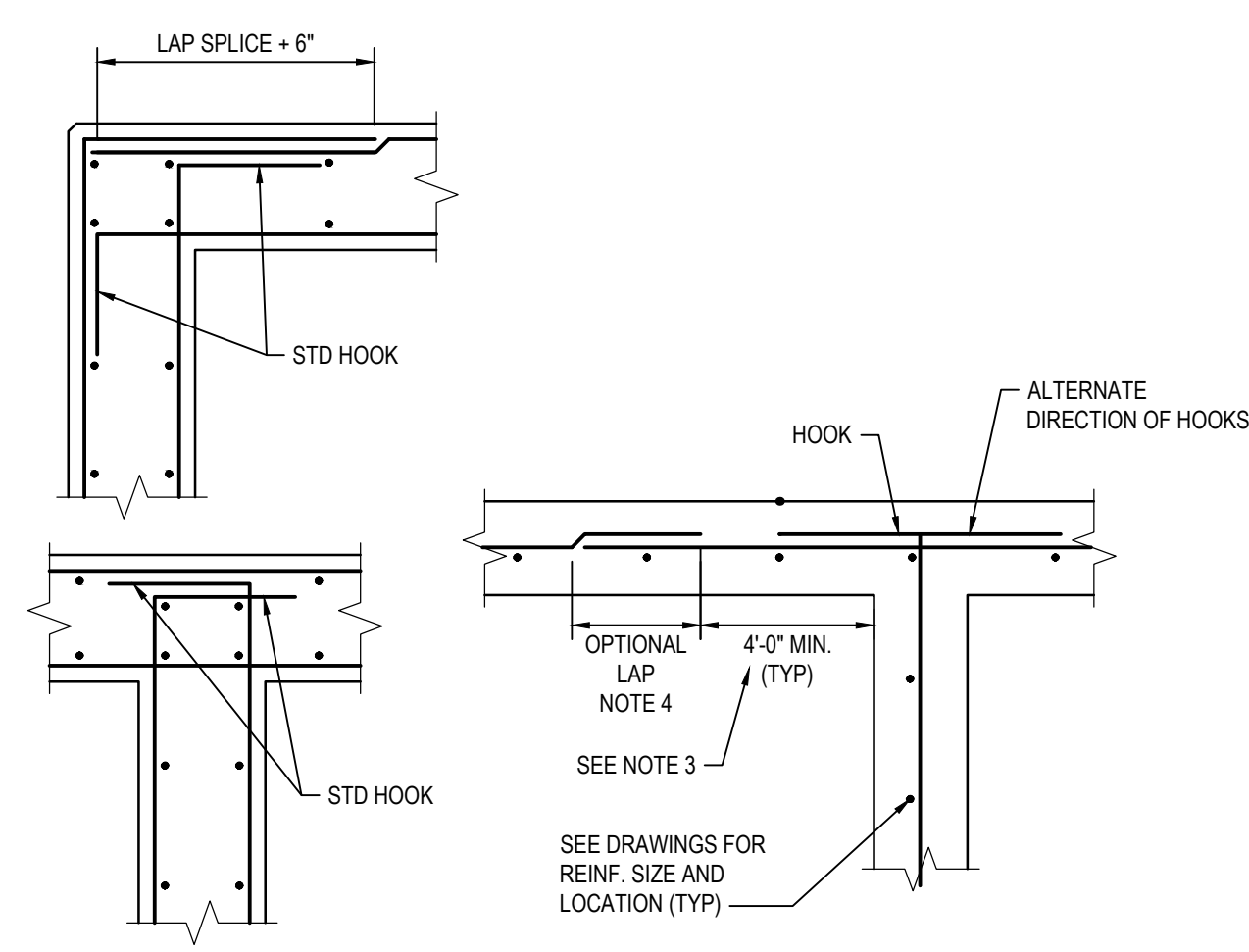


DETAILS

FILENAME | C509.dwg
SCALE | AS NOTED

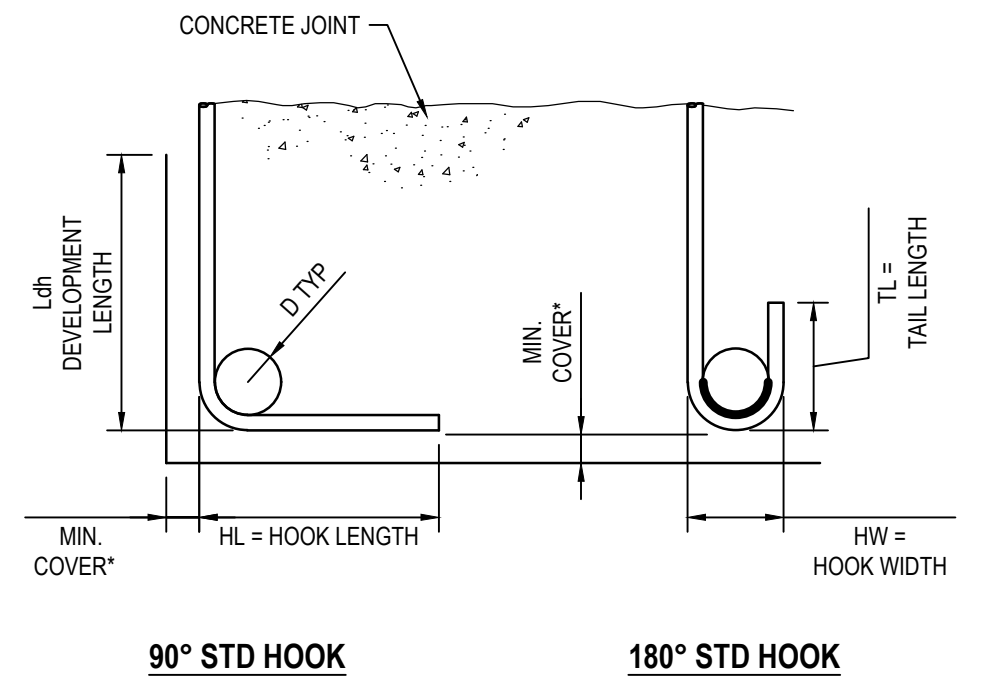
SHEET
C509

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LAP SPLICE AND EMBEDMENT LENGTHS
 $f_c = 4.0 \text{ ksi}$ $f_y = 60 \text{ ksi}$

BAR	BARS SPACED GREATER THAN 4"	BARS SPACED LESS THAN OR EQUAL TO 4"
#3	14"	14"
#4	19"	19"
#5	24"	30"
#6	29"	43"
#7	46"	74"
#8	60"	96"
#9	76"	122"
#10	97"	155"
#11	120"	191"

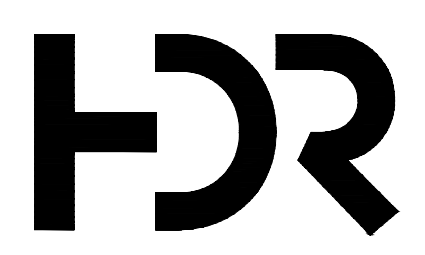
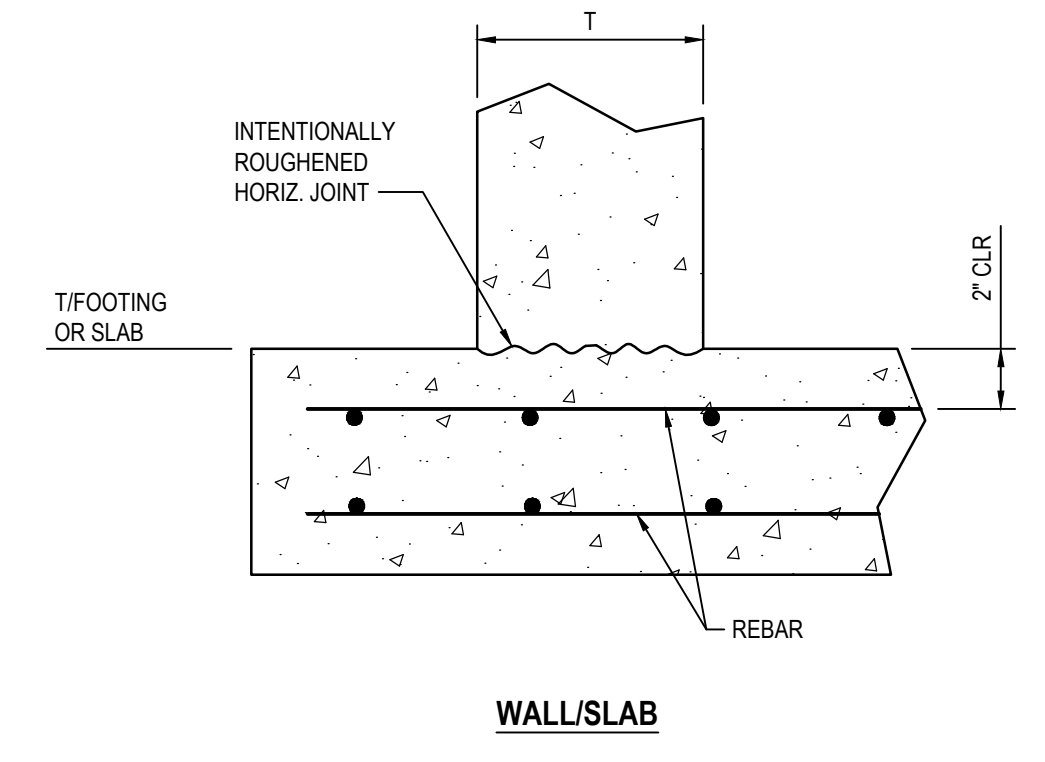
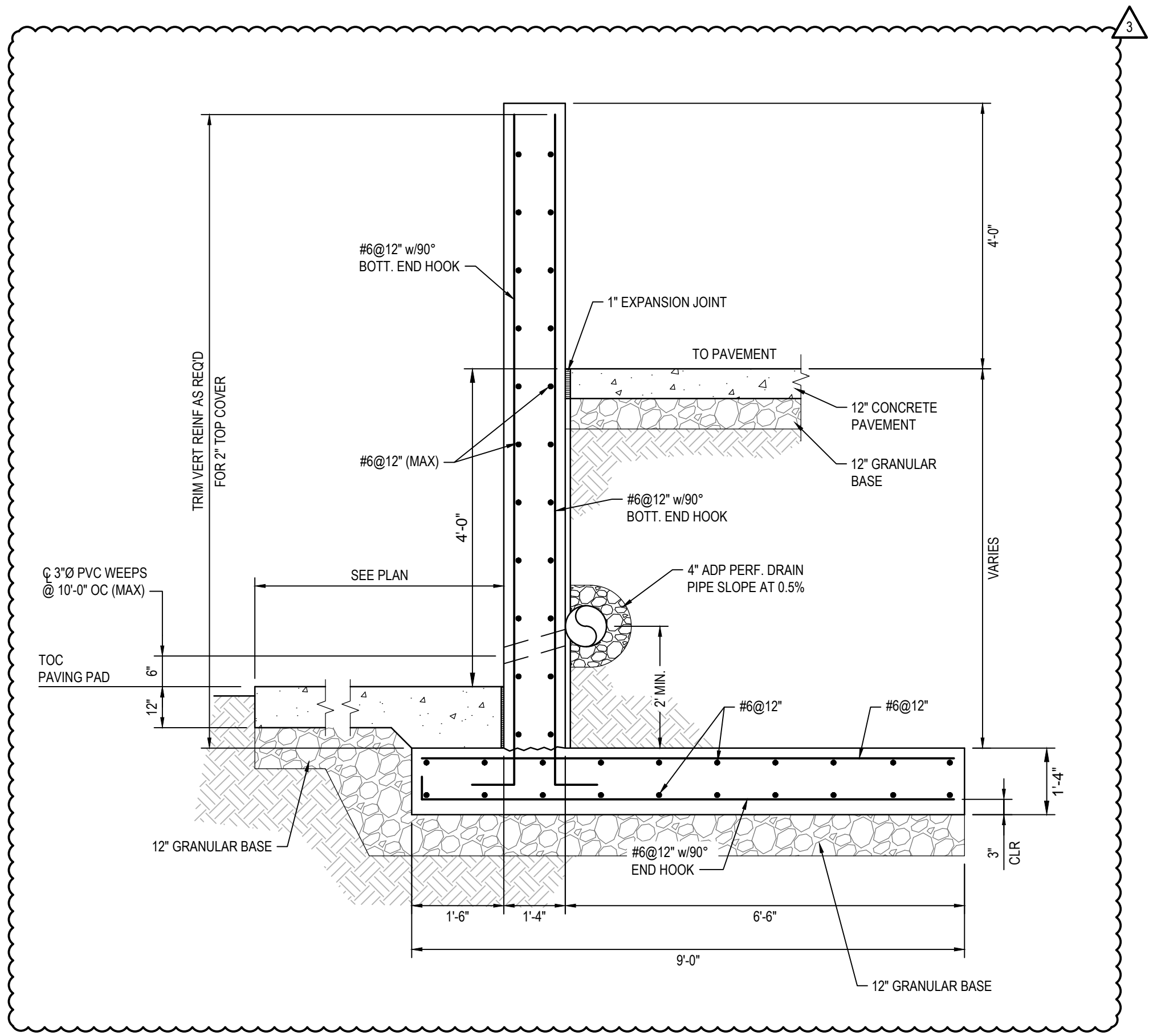


BAR SIZE GRADE 60	HL	HW	TL	D	$f_c = 4000 \text{ psi}$ OR GREATER L_{dh} *
#5	10"	5"	5"	3 3/4"	9"
#6	1'-0"	6"	6"	4 1/2"	10"

* COMPLYING WITH MINIMUM COVER REQUIREMENTS OF ACI 318, 12.5.3. OTHERWISE L_{dh} MUST BE RE-CALCULATED.

- NOTES**
1. ALL HOOKS SHALL BE STD 90 DEGREE HOOKS.
 2. SEE DRAWINGS FOR ADDITIONAL HORIZONTAL BARS. STAGGER BETWEEN TYPICAL REINF. SPACING. EXTEND TO 1/5 OF DISTANCE TO NEAREST ADJACENT WALL IN EACH DIRECTION, UNO.
 3. OPTIONAL LAP LOCATION APPLIES TO BOTH DOUBLE AND SINGLE LAYER CONDITIONS TYP.
 4. BARS MAY BE ONE PIECE CONTINUOUS, THUS TWO PIECE REBAR NOT REQUIRED WITH LAP.

- NOTES**
1. PROVIDE MINIMUM LAP SPLICE LENGTHS AND EMBEDMENTS PER TABLE UNLESS NOTED OTHERWISE. EMBEDMENT LENGTH EQUALS THE LAP SPLICE LENGTH UNLESS OTHERWISE NOTED.
 2. BAR SPACING AT LAP SPLICE IS THE MINIMUM CLEAR DISTANCE BETWEEN LAPPED BARS PLUS ONE BAR DIAMETER.
 3. ALL SPLICES TO BE CONTACT SPLICES AND WIRED TOGETHER UNLESS OTHERWISE APPROVED BY ENGINEER.

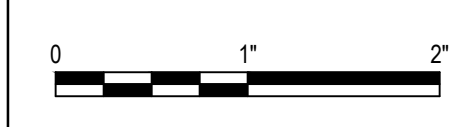


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MWA PROJECT P-67
CELL E LINER CONSTRUCTION



DETAILS
 FILENAME | C510.dwg
 SCALE | AS NOTED

SHEET
C510

REFERENCE INFORMATION FOR AERATOR - ADDENDUM 2



Aeration Industries International
 4100 Peavey Road • Chaska, MN 55318-2353 USA
 TEL +1-952-448-6789 • FAX +1-952-448-7293
 aiii@aireo2.com • www.aireo2.com

REMIT TO: Aeration Industries International
 4100 Peavey Rd
 Chaska, MN 55318-2353

INVOICE

INVOICE NO. 0155530	DATE 12/11/2017	PAGE 1
CUSTOMER ORDER NO. 709069	SALES ORDER NO. 0102604	TAXABLE YES
MASTER NO. 39983	TERMS NET 30	CUST NO. 3420-2

BILL TO:

METRO WASTE AUTHORITY
 300 EAST LOCUST ST
 SUITE 100
 DES MOINES IA 50309

SHIP TO:

METRO PARK WEST
 2499 337TH ST
 PERRY IA 50220

RECEIVED

DEC 15 2017

Metro Waste Authority

UNITED STATES			UNITED STATES			SHIPPED VIA		SHIPPING TERMS	
SALES PERSON	SERVICE	MANAGER	BILL OF LADING NO.	DATE OF SHIPMENT					
117		DTB/JIS/JMH		12/7/2017		OLD DOMINION		FOFP	
ORDERED	SHIPPED	B/O	PRODUCT NO.	DESCRIPTION	TAX	DISCOUNT	UNIT PRICE	EXT. PRICE	
1	1	0	5101655	AIRE-O2 ASPIRATOR, NEMA, 60 HZ, 10 HP, 2 USE CRB BEARING	TAX		\$0.00	\$0.00	
1	1	0	5101218	TRI-FLT ASP 14" S.S. W/GRT	TAX		\$0.00	\$0.00	
1	1	0	510760	SWG ARM 3-6 FLUC 3/8" CABLE S.S.	TAX		\$0.00	\$0.00	
1	1	0	5101283	FLOAT SUPPORT ASSY 3/4-FLT ASP/TRT/MD	TAX		\$0.00	\$0.00	
1	1	0	777778	REP. TO START UP	TAX		\$0.00	\$0.00	

Tag Shipment:
 PO 709069
 Delivery hours: 8am-4pm, shipping phone # 515-244-0021
 Send invoice to Accounting@mwatoday.com and ghi@mwatoday.com

Contact:
 Greg Hicks
 515-333-4420
 ghi@mwatoday.com



SINGLE PHASE
 TRANSFORMER -
 CONTRACTOR TO
 COORDINATE WITH
 MIDLAND POWER
 TO INCREASE SIZE
 TO 50-KVA

WEG W22 14074618
MADE IN GERMANY 090UT2017 1041037842

PH 1 FR 213/5TC	HP(kw) 10.0(7.50)	Hz 60	SF 1.15
V. 230/460	A 40.8 /20.4	RPM 1740	
SFA	PF 0.97	DUTY CONT.	
NEMA NGM EFF 74.0	%	INS. CL. F ΔT 80	K AMB -20°C to 40°C
USABLE @208V 44.3A 1.00SF		CODE G	IP55 ENCL TEFC

TO REVERSE ROTATION INTERCHANGE T5 AND T8

LOW VOLTAGE	T5 T8 T2 T1 T3 T4 L1 L2	HIGH VOLTAGE	T5 T8 T2 T1 T3 T4 L1 L2
--------------------	-------------------------------	---------------------	-------------------------------

6308-ZZ
6206-ZZ
MOBIL POLYREX EM
ALT 1000 m.a.s.l./196 lbs

MODEL 0101BESTE215TC-W22

3PT9 LISTED MOD. WE19FOXK

Aeration