

Appendix A

- A1 -- Letter dated October 14, 2021, to Bryant Esch, Waupaca Foundry Inc. from Douglas W. Coenen, WDNR: *Contingent Close Out – Hazardous Waste Compliance Assessment, Waupaca Foundry, Inc. Landfill; Hazardous Waste Long-Term Care License No. 2638; EPA ID WID981093248*
- A2 – Drawings 13344-1SCD through 10SCD, As-Built Construction Plan Sections 4 and 5. Submitted with *Site Construction Documentation Report for Sections 4 and 5*, December 22, 1987, STS Consultants, Ltd.
- A3 – Drawing 17114XF-14, Sedimentation Basin and Outfall Details. Submitted with: *Landfill Construction Documentation Plans, Waupaca Foundry Landfill – Phase I Expansion*, December 1990, STS Consultants, Ltd.
- A4 – Drawings 18382XF-102, 103, and 104, Geologic Cross-Sections A-A' to G-G'. Submitted with: *Groundwater Monitoring Plan, Sections 1, 2, 3, 4, and 5, Waupaca Foundry Landfill*, December 20, 1990, STS Consultants, Ltd.
- A5 – Letter dated January 31, 2011, to Bryant Esch, Waupaca Foundry Inc., from James A. Zellmer, WDNR: *Exemption from Solid Waste Regulation to Reduce Frequency of Leachate Pipe Cleaning at the ThyssenKrupp Waupaca Landfills, Town of Waupaca, Waupaca County, Wisconsin, WDNR License Nos. 3412, 3171, and 2638*
- A6 – Letter dated March 9, 2016, to Bryant Esch, Waupaca Foundry Inc., from Valerie Joosten, WDNR: *Environmental Monitoring Modification, Waupaca Foundry Landfill License #2638*

A1 -- Letter dated October 14, 2021, to Bryant Esch, Waupaca Foundry Inc. from Douglas W. Coenen, WDNR: *Contingent Close Out – Hazardous Waste Compliance Assessment, Waupaca Foundry, Inc. Landfill; Hazardous Waste Long-Term Care License No. 2638; EPA ID WID981093248*

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
101 S. Webster Street
Box 7921
Madison WI 53707-7921

Tony Evers, Governor
Preston D. Cole, Secretary
Telephone 608-266-2621
Toll Free 1-888-936-7463
TTY Access via relay - 711



October 14, 2021
Transmitted via e-mail

FID no. 469015360
Waupaca County
HW/COMPL

Mr. Bryant Esch
Waupaca Foundry, Inc.
1955 Brunner Drive, P.O. Box 249
Waupaca, WI 54981

Subject: Contingent Close Out – Hazardous Waste Compliance Assessment
Waupaca Foundry, Inc. Landfill
Hazardous Waste Long-Term Care License no. 2638
EPA ID WID981093248

Dear Mr. Esch:

In 2020, the Department of Natural Resources (department) initiated a hazardous waste compliance assessment of the Waupaca Foundry Inc. (WFI) Landfill no. 2638 (Landfill). This facility is a closed landfill with hazardous waste long-term care (LTC) obligations.

The following key communications occurred in the course of the compliance assessment:

- Department information request letter dated September 18, 2020
- WFI information submittal dated November 11, 2020
- Department site visit on November 12, 2020
- Department information request (via email) dated February 17, 2021
- WFI information submittal dated March 3, 2021

Please note that there are two other separate WFI industrial landfills in the immediate area: closed solid waste landfill no. 3171, and active solid waste landfill no. 3412; these other non-hazardous waste landfills were not included in this compliance assessment. Also, solid waste program standards in chs. NR 500 through 538, Wis. Adm. Code that may apply to Landfill license no. 2638 were not considered in this compliance assessment.

Additionally, please note the following clarifications.

- The department's information requests may have inadvertently referred to ch. NR 665, Wis. Adm. Code. These references should have been to the companion (and generally similar) requirements in ch. NR 664, Wis. Adm. Code.
- The department's September 18, 2020 letter mis-identified the EPA ID number in the subject line. Our records indicate that the correct EPA ID is WID981093248.
- Today's letter voids and replaces the Department's recent letter (incorrectly dated September 28, 2020) in order to provide some additional minor corrections.

Landfill License no. 2638 (facility) History

The facility has been in place since the mid-1970s and most closure activities occurred more than 30 years ago. This hazardous waste compliance assessment provided WFI and the department the opportunity to identify and review relevant hazardous waste approvals and key background documents, many of which are quite old. Attachment A provides a list of historical documents considered in this effort. Because of the age of the facility and its files, there may be other relevant documents. Therefore, Attachment A is not intended to be a complete listing of all relevant documents, approvals, approval conditions, or other compliance requirements.

According to historical documents and more recent summaries provided by WFI:

- a. The facility was conditionally approved by the department for WFI foundry waste disposal in a letter dated September 20, 1976 and was used by WFI for the disposal of its foundry-related wastes during the 1970s and 1980s.
- b. In addition to non-hazardous foundry wastes, hazardous wastes were determined to have been disposed in Landfill Sections 1, 2, 3, and 4 from 1976 to 1984. These wastes included lead- and cadmium-bearing fines generated by a wet scrubber system that treated cupola flue gas at foundry Plants 2 and 3 in Waupaca. These wastes were found to be characteristically toxic under the Extraction Procedure (EP), which preceded the current TCLP test. The scrubber residue was placed in settling ponds at Plants 2 and 3, and pond sediment was periodically dredged and disposed at the Landfill. According to WFI, the dredged material was a relatively small portion of the wastes that was disposed at the Landfill.
- c. WFI agreed to cease disposing hazardous waste in the Landfill in accordance with a consent order dated July 23, 1984. According to WFI, no hazardous waste was placed in Section 5, which was approved for use in 1988. By approximately 1986, WFI began operating a new wastewater treatment plant which took the place of the ponds.
- d. According to WFI, Sections 1, 2, 3 and 4 were constructed with a base retarder liner consisting of 2 feet of compacted foundry sand. Section 5 was constructed with a 2-foot compacted clay liner and leachate collection piping, which drains to an underground leachate holding tank outside of the Landfill footprint.
- e. The department issued a conditional closure and long-term care plan approval dated September 18, 1987.
- f. Phased covering, capping and closure activities occurred during the 1980s and early 1990s, and the department issued conditional closure approval in a letter dated March 29, 1991.
- g. After closure approval conditions were met, the department issued long-term care license no. 2638 on June 30, 1992, bearing an expiration date of June 30, 2022.
- h. Several plan modifications were subsequently proposed and approved, primarily involving the groundwater monitoring plan.
- i. Long-term care activities continue to be implemented by WFI, including but not limited to final cover inspection and maintenance, leachate-related inspections and extraction, and groundwater monitoring.
- j. According to WFI and department records, the facility has not had and currently has no corrective action requirements pursuant to s. 289.37, Wis. Stats, and subch. F of ch. NR 664, Wis. Adm. Code.

WFI proactively contacted the department in early 2020 to inquire about its responsibilities for extending the expiration date of long-term care license no. 2638. The department and WFI informally agreed that the hazardous waste compliance assessment scheduled to begin during 2020 also provided a good opportunity to identify information needed for this process.

No alleged areas of non-compliance were found in the course of this compliance assessment. Three specific areas of concern were identified, as discussed below.

Areas of Concern

1. Long-Term Care License

WFI is required to have a long-term care license by s. NR 670.001(3), Wis. Adm. Code. WFI's current long-term care license bears an expiration date of June 30, 2022. WFI has expressed a general willingness to develop and submit a LTC license application in order to acquire a re-issued license. WFI and the department have discussed that this licensing process provides the opportunity to clarify and refresh the site-specific hazardous waste compliance requirements for the facility.

To ensure that WFI's long-term care licensing requirements are met, the department recommends that by December 31, 2021, WFI submit a complete application for re-issuance of long-term care license no. 2638. Please refer to Attachment B for the information to be provided in the application and for recommendations regarding the application's format and contents. Attachment C identifies the minimum information requirements established in ch. NR 670, Wis. Adm. Code for long-term care license applications, and provides context and references for Attachment B. For the purposes of s. NR 670.014, Wis. Adm. Code, the long-term care license application will constitute the facility's feasibility and plan of operation report (FPOR).

Note that the recommended submittal date of December 31, 2021 (180 days before the expiration date) is consistent with s. 670.010(8), Wis. Adm. Code. Please note that the applicable long-term care requirements of chs. 289 and 291, Wis. Stats., and chs. NR 600 through 679, Wis. Adm. Code, will continue to be effective irrespective of the license and its re-issuance.

2. Long-Term Care Plan

Section NR 664.0112(1), Wis. Adm. Code requires that WFI maintain, and make available to the department, the approved long-term care plan. The minimum contents of the plan are identified in ss. 664.0112(2), Wis. Adm. Code.

The department's September 18, 2020 letter (Item 2, corrected and reiterated on February 17, 2021) requested WFI's current long-term care plan and applicable department approvals. WFI's November 11, 2020 response provided department approvals but did not include WFI's long-term care plan. The department again asked for the plan in its request dated February 17, 2021. In its March 3, 2021 response WFI stated, "WFI would like to pursue submission of a revised long-term care plan that consolidates current activities and monitoring at this facility as part of the relicensing efforts". This approach is generally acceptable to the department.

To ensure that WFI's long-term care plan requirements are met, the department recommends that the long-term care license application (to include the long-term care plan) addressed in Item 1 above be developed and submitted. Attachment B provides recommended contents and formatting for the long-term care plan.

3. Long-Term Care Cost Estimate and Financial Assurance

Financial assurance in accordance with the approved long-term care plan is required by s. NR 664.0145, Wis. Adm. Code. The amount for financial assurance is determined by first estimating the annual cost of long-term care monitoring and maintenance of the facility, per s. NR 664.0144(1), Wis. Adm. Code. Then, per s. NR 664.0144(1)(b), Wis. Adm. Code, "The long-term care cost estimate is calculated by multiplying the annual long-term care cost estimate by the number of years of long-term care required under s. NR 664.0117."

Per s. 289.41(1m)(c), Wis. Stats., responsibility for the long-term care does not terminate. Long-term care activities are required for a minimum of 40 years after completion of closure by s. NR 664.0117(1)(a), Wis. Adm. Code. Per NR 664.0117(b), Wis. Adm. Code, the department may extend the long-term care period if the extended period is necessary to protect human health and the environment.

Per s. 289.41(1m)(b)1., Wis. Stats., requires that proof of financial responsibility be established for 40 years after the closing of the approved facility unless the time period is extended as necessary to protect human

health or the environment. An important reason for financial assurance is to provide funds to the State of Wisconsin in the event that WFI is unable or unwilling to carry out its long-term care responsibilities.

In addition, ss. NR 664.0142 and NR 664.0073(2)(h), Wis. Adm. Code, require WFI to maintain the latest long-term care cost estimate. Annual adjustments for inflation (and any associated changes to the financial assurance instrument) are required by s. NR 664.0144(2), Wis. Adm. Code.

WFI's November 11, 2020 information submittal presented documentation regarding an irrevocable letter of credit for \$161,124 and included the following discussion in its section 3:

"A copy of the current long-term care cost estimate and applicable WDNR approval are included in Appendix B. WFI is responsible for \$40,281 of long-term care for every year remaining of the term. The long-term care value was last decreased in 2016, so at this time the financial assurance is approximately \$150,000 over-insured for the years remaining. Additionally, WDNR has previously confirmed that no inflation correction is needed for this site (Appendix B)."

The department has the following concerns about WFI's current LTC financial assurance.

- The current LTC plan and associated cost estimates are quite old and may not reflect current and anticipated requirements, needs, and associated costs.
- WFI's current remaining cost estimate appears to assume LTC activities through 2022, rather than the minimum 40 years after closure (i.e. at least through about 2032).
- The term for which financial assurance is established should recognize the period of time during which long-term care activities are expected to be needed, rather than the date of any license expiration or minimum required time period.
- Appendix B of WFI's November 11, 2020 letter included email correspondence (from A. Bagchi, April 7, 2010) in which the department indicated that annual inflation adjustments were not needed. The department is unsure of the basis for this 2010 guidance and is unable to continue to support it. Annual LTC cost estimate updates are required by s. NR 664.0144(2), Wis. Adm. Code.

To ensure that the financial assurance requirements are met, the department recommends that:

- a. WFI include its detailed long-term care cost estimate in the long-term care plan discussed in Item 2 above. This should be based on the following:
 - The annual long-term care cost estimate based on and tracked with the activities described in the updated LTC plan. Further details for the annual cost estimate are included in Attachment B.
 - Regarding the number of years used to establish the total LTC cost estimate, the LTC Plan must estimate the number of years until LTC activities are no longer needed. The department has found that the period needed for landfill long-term care activities often extends beyond the minimum 40-year period after closure that is required for financial assurance, and in some cases may last into perpetuity. Rather than requiring the long-term care cost estimate be based on an indeterminate or perpetual number of years, department has established (for other hazardous waste facilities in long-term care) that the LTC plan utilize a "rolling 30-year window" for the long-term care period used in the cost estimate. This approach provides that, each year, the facility maintains financial assurance for the subsequent 30 years, until the facility demonstrates (and the department approves) that a shorter time period for financial assurance is justified. Another way of describing this is that the cost estimate is based on (and remains at) 30 years of long-term care activities, and is not automatically reduced (or "drawn down") annually. The department anticipates that this sort of approach will be established as a condition of the long-term care license, and recommends it be followed in the long-term care plan's cost estimate.

WFI Landfill no. 2638; Hazardous Waste Compliance Assessment Contingent Close Out

Oct. 14, 2021

- b. WFI establish an updated financial assurance proof mechanism for at least the new amount within 60 days of submitting the revised LTC Plan (and its LTC cost estimate) as part of the LTC license application. Please contact Dustin Sholly at dustin.sholly@wisconsin.gov with any questions regarding proof mechanisms.

In summary, WFI's long-term care license application should capture and address the department's recommendations regarding these areas of concern as part of a revised long-term care plan.

Contingent-Close Out

Today's letter is to close-out the compliance assessment, contingent on remaining actions to be taken by WFI regarding the identified areas of concern. If WFI takes the recommended actions identified herein by December 31, 2021, this compliance assessment will be considered closed and the department will not pursue any further action regarding this assessment.

Closing Remarks

As previously mentioned, we hope that this process provides the opportunity to clarify and refresh the site-specific hazardous waste compliance requirements for Landfill no. 2638. In the same way, we suggest that WFI take advantage of this opportunity to review and confirm that its plans meet the requirements of the solid waste regulations, currently chs. NR 500-538, Wis. Adm. Code, that are applicable to Landfill no. 2638. I would be pleased to assist in coordinating such efforts with department solid waste program staff.

Thank you for the information submittals and for your cooperation through the course of this compliance assessment effort. Please contact me with any questions by calling 608-843-2160 (mobile) or via email at douglas.coenen@wisconsin.gov.

Regards,



Douglas W. Coenen, P.E.

Waste Management Specialist, Hazardous Waste Prevention and Management Section
Waste and Materials Management Program

cc: Alex Beyer, WDNR
Jackie Marciulionis, WDNR
Sally Hronek, WDNR
Dustin Sholly, WDNR
Ben Petrus, WDNR
Paula Leier-Engelhardt - HydroGeo Solutions

Enclosed: Attachments A through C

Attachment A – Historical Documents

1976-09-20 Plan of Operation Approval (LIC 2638)
 1984-07-17 Consent Order
 1984-08-15 Consent Agreement and Final Order
 1984-09-04 STS GW and Leachate Monitoring
 1985-05-22 GW Monitoring Plan Approval & Closure & LTC Plan Approval (LIC 2638)
 1986-07-24 Permission to Eliminate Pesticides from Monitoring Program (LIC 2638)
 1986-09-09 STS Closure Plan Mod
 1987-08-03 Public Notice - Closure and LTC
 1987-09-18 Approval of Closure and LTC Plan
 1987-10-15 GWM Plan Comments
 1987-10-30 STS Closure Plan Mod
 1987-12-22 STS Const Doc Report (select pages);

- Drawings 13344-5SCD, 6SCD and 8SCD were provided by WFI on 8/20/21

 1988-02-26 Final Cover and Section 5 Liner/LCS Construction Plan Approval
 1998-10-08 WFI Leachate Disposal
 1989-03-21 Final Cover Plan Modification (LIC 2638)
 1988-07-27 WFI Leachate Disposal
 1989-02-16 STS Plan Mod Request
 1990-01-11 Stipulated Judgement
 1990-02-15 STS Status Report (incl storage on Section 5)
 1990-03-22 Approval of Off-site Investigation (LIC 2638)
 1990-10-01 Review of Phase 1 Off-site Reconnaissance Report; Approval of Remedial Action Plan (LIC 2638)
 1991-01-03 WFI - EPA Part A Application
 1991-03-29 Construction Documentation Conditional Approval - Closure
 1991-04-30 LTC License Application
 1991-05-02 LTC License App Fee \$20K
 1991-06-14 Public Notice of Intent for LTC License
 1991-08-08 EPA Fact Sheet - Req for Comment
 1992-06-23 EPA RCRA Permit (no CA required at that time)
 1992-06-30 Conditional Plan Modification for GW Monitoring Plan (LIC 2638)
 1992-06-30 Herrick (DNR) memo on LTC License
 1992-06-30 LTC License 2638
 1993-10-25 WFI Sampling and Analysis Plan REV3
 1994-02-22 Approval of GW Monitoring Changes (LIC 2638)
 1995-02-28 LTC License App Request-Invoice
 1995-04-03 Plan Modification regarding GWM (LIC 2638)
 1997-01-17 STS 1996 Annual Report incl LTC Costs
 1998-08-27 Not. of Intent to Modify Plan Approval (LIC 2638)
 1998-10-02 Approval of Environmental Monitoring Modification (LIC 2638)
 1999-06-10 WFI LTC Cost Revisions
 2010-04-07 Email from A. Bagchi (DNR) to WFI (Financial Responsibility)
 2015-09-29 Request to Modify GWM Program
 2016-03-09 Plan Mod Approval – GWM Program
 2016-08-23 MUFG Letter of Credit
 2017-2020 Monthly Inspection Records (Leachate)
 2019-05-13 and 2019-09-24 Site Inspection Report (form)
 2020-09-18 DNR Information Request
 2020-11-11 WFI information Response
 2021-02-17 DNR Information Request
 2021-03-03 WFI information Response

Attachment B – Application Contents

This attachment summarizes the minimum information requirements for a long-term care (LTC) license application under ch. 670, Wis. Adm. Code, and provides the recommended contents and format for the application. For many of the items outlined below, a code is provided that identifies the source(s) of the requirement within the Attachment C regulatory citations (e.g., code “C.2” refers to section 2 of Attachment C, located immediately after this Attachment B).

While there is no standard format prescribed for the long-term care application, the department suggests that WFI incorporate all application information into its proposed long-term care plan (LTCP), thus establishing one standalone document for future review and consultation. The suggested organizational format is included below in Section A of this attachment. Section B discusses other aspects of submittal format and logistics.

The information in *italics* addresses certain site-specific topics identified by the department in the course of the compliance assessment, and in some cases, information that is touched on in WFI’s information request responses.

In general, historical documents that contain or represent LTCP provisions going forward, as a part of this new LTCP, should be included. Historical documents that are discussed for context or background but are not integral to the LTCP may be referenced rather than included in the application.

Please note that previous submittals and approvals may establish requirements that remain in effect. We recommend that WFI carefully review these documents for such requirements. If the long-term care application seeks to rescind or replace such requirements, it should specifically identify and propose these changes in the application, perhaps in the application’s cover letter.

A. Long-Term Care Plan (C.5.a)

1. General Facility Description

A description of the facility and history (C.1 and C.14). This should be written to assist the unindoctrinated reader with understanding the key aspects of the facility and its hazardous waste requirements. At a minimum, this should be sure to include:

- a. A brief description of the property, location, and current status of the facility (C.1). The property information should refer to and briefly describe WFI’s two other non-hazardous waste industrial landfills located nearby. The location information should include the address, the name of the local municipality in which it is located, and the latitude/longitude (C.14.b). This should also address Indian lands (C.14.e) and floodplain information (C.4).
- b. Facility owner, operator, and contact information (C.5.d.iii, C.14.c, C.14.d.).
- c. A brief history of the waste management activities at the facility that may be relevant to current hazardous waste requirements, such as the types, approximate quantities, locations, and timeframe of hazardous wastes disposed (C.1, C.14.a, C.14.h). This should briefly describe the different Landfill sections/cells that were developed and used (i.e. Sections 1 – 5) and which sections were used for hazardous wastes.
- d. A summary of closure and capping activities that were completed (C.5.b).
- e. A brief description of any other environmental licenses, permits, or authorizations (C.14.i).
- f. Maps and drawings, which include maps/drawings that are needed to support the general description of the facility and that are:
 - (i) required in NR 670.014(2)(s) (C.10). Note that if certain detailed NR 670.014(2)(s) mapping requirements are not of value, the applicant should identify them and state the reason they are not needed.

- (ii) required as part of the groundwater monitoring plan (C.11.b).
- (iii) required for the Part A application (C.14.f and C.14.j). Note that if certain NR 670.013 detailed mapping requirements are not of value, the applicant should identify them and state the reason they are not needed.
- g. Photos (C.14.f). Please describe the purpose of the photo, and indicate the date, location from which the photo was taken, and the direction faced.
- h. If corrective action requirements are not applicable, the facility description should assert and briefly substantiate this.
- i. If WFI chooses, a statement that the LTC Plan also is intended to address and meet the applicable solid waste rules (NR 500-series rules).

2. Long-Term Care Summary

- a. Identification of the components and systems that require or facilitate long-term care (e.g. final cover, leachate collection systems, run-on control systems, run-off control systems, monitoring systems, etc.). (C.1) (C.5.c.i) (C.5.d.i) (C.5.d.ii) (6.c)
- b. A general summary of the site maintenance and repair program activities (e.g. for the final cover, run-on and run-off controls, leachate collection system, and monitoring equipment) (C.5.c.i) (C.5.d.ii) (C.6) (C.6.a through e)
- c. A general description of LTC-related monitoring program (C.5.d.i) (C.6.d)
- d. The minimum and remaining duration of LTC activities (see Area of Concern 3).

Details of these components and their associated LTC activities should be addressed as discussed in section 3 below.

3. Long-Term Care Details

This should include a detailed description of each of the existing systems that require or facilitate long-term care and the detailed site maintenance and repair program activities. All discrete tasks and subtasks should be broken out and described such that they support the LTC cost estimate.

- a. Final Cover (C.5.c.i) (C5.d.ii) (C.6.a) (C.6.e)

This should include a detailed description the entire final cover system, and drawings/schematics that depict its key components and location(s). Different caps placed in different areas should be addressed. If cover systems were left in place to separate and or/create barriers between landfill cells/sections this should be described. This should also address any perimeter berms that provide structural support.

A detailed description of the routine and contingent operational and maintenance activities of the final cover systems should be provided.

- b. Leachate Management (C.5.c.i) (C.5.d.ii) (C.6.b)

This should include a detailed description the leachate collection system, the pressure relief pipe between the Section 4 cover and the Section 5 liner, drawings/schematics that depict its key components, and all routine and contingent operational and maintenance activities.

- (i) *Note that the department's February 6, 1988 letter leachate collection system establishes annual leachate collection pipe cleaning requirements. Please address these pipe cleaning activities.*

- (ii) *This should discuss the purpose of the leachate collection system and how it is operated and maintained to achieve its purpose. (Note that the department's February 6, 1988 letter establishes annual pipe cleaning requirements; pipe cleaning should be addressed). Inspections of the leachate system components (e.g. the leachate tank, tank levels, backfill monitoring device, valve/valve manway, piping) should be built into the inspection plan.*
- (iii) *This should describe how removed leachate quantities are measured and recorded, and how/where leachate is disposed. Note that the LTCP should also include how often leachate is removed (which is touched on in WFI's November 11, 2020 letter) and how leachate removal volumes are measured and recorded in the operating record. The "device monitoring the tank backfill" and "valve manway" mentioned in WFI's November 11, 2020 letter should be better described/depicted, and how these are inspected or checked.*
- (iv) *We understand that the leachate tank is fed by gravity from the LCS piping within the Landfill. Please also describe how WFI prevents the tank from overflowing.*
- (v) *Please include a discussion about frequency of leachate tank integrity inspections and the results of the most recent inspection.*

e. Run-on and Run-off Controls (5.C.i, C.5.d.ii, C.6.e)

This should include a detailed description of the run-on and run-off control system(s), drawings/schematics that depict its key components, and all routine and contingent operational and maintenance activities.

f. Groundwater Monitoring Program (C.5.d.i) (C.6.d) (C.11) (C.13.a.iii)

This should include a detailed description the groundwater monitoring program, drawings/schematics that depict its key components, and all routine and contingent activities.

WFI's November 11, 2020 letter indicates that Landfill no. 2638 is currently implementing a detection monitoring program per ss. NR 664.0091(1)(d) and NR 664.0098, Wis. Adm. Code, so this should be articulated along with the basis for this status. The plan should then identify and describe how each of the applicable monitoring program requirements in NR 664.0091 through NR 664.0099 are met, including but not limited to requirements for well network/layout, parameters, frequencies, points of compliance, data evaluation, concentration limits, reporting, etc.); more information is presented in subsection C below. The plan should briefly address the triggers for moving into compliance monitoring.

- (i) We recommend that the groundwater monitoring plan address the applicable requirements of NR 507. The plan may be written and organized in a manner typical of other monitoring plans (such as NR 507 plans) but must and address each of the applicable monitoring program requirements in NR 664.0091 through NR 664.0099.
- (ii) Note that NR 670.014(3) requires information regarding protection of groundwater and the monitoring plan, including for example site hydrogeologic information, a map, and specific details regarding the monitoring program. Please see section 11 of Attachment (C.11) for more information.
- (iii) The plan should address each of the applicable monitoring program requirements in NR 664.0091 through NR 664.0099. We recommend that the plan include a "crosswalk" that identifies where each of these requirements is addressed. The following is list of examples of these requirements for facilities in detection monitoring:

NR 664.0091(1)(e) Certified lab use
 NR 664.0091(2) Specific program elements
 NR 664.0092 Groundwater protection standard(s)

NR 664.0093(1), (2), and (2m) Hazardous constituents that apply
 NR 664.0093(3) Groundwater use/exempted aquifers
 NR 664.0094(1), (2), (2m) Concentration limits
 NR 664.0094(3) Groundwater use/exempted aquifers
 NR 664.0095 Point of standards application
 NR 664.0097(1) Number, location, and depth of wells (background, POS, and detection)
 NR 664.0097(3) Casing
 NR 664.0097(4) Sampling and analysis procedures
 NR 664.0097(5) Sampling and analysis methods
 NR 664.0097(6) GW elevation
 NR 664.0097(7) Sampling procedures (including establishment of background)
 NR 664.0097(8) and (9) Data evaluation and methods
 NR 664.0097(10) Recordkeeping and reporting

(iv) Certain parts of NR 664.0091 through NR 664.0099 refer to requirements to be established in the license and/or by the department. The groundwater monitoring program plan presented by WFI should identify and propose these requirements for the department's consideration in reviewing and approving the plan as part of the re-issued LTC license.

(v) *WFI's November 11, 2020 indicates that LF no. 2638 does not have any unsaturated zone monitoring. Please confirm this in the LTC Plan.*

g. Benchmarks: Please describe the locations of surveyed benchmarks and how they are protected and maintained (C.6.f).

h. Please address any other facility components and systems identified in section 2 above that require or facilitate long-term care.

4. Other Applicable NR 664 Requirements

This should describe how the following requirements are met:

a. Security procedures and equipment (C.2.a) (C.5.c.ii).

b. Inspection program (C.2.b) (C.5.c.ii) (C.6). This should include documentation forms and protocols for maintaining the operating record.

- (i) *WFI's November 11, 2020 letter indicates that inspections are completed for the purpose of "checking the condition of the cover and the condition of the leachate tank". It also mentions a monthly site walkover for cover inspections. The inspection program should include all the components fitting within NR 664.0015(2)9(a), which includes "monitoring equipment, safety and emergency equipment, security devices and operating and structural equipment (such as dikes and sump pumps) that are important to preventing, detecting, or responding to environmental or human health hazards". This would also include, for example, monitoring wells, fencing/gates, run-off controls, etc.*
- (ii) *The inspection program should identify the types of problems (e.g., malfunctions or deterioration) which are to be looked for during the inspection, per NR 664.0015(2)(c).*
- (iii) *The inspection program should describe the frequencies of inspections, per NR 664.0015(2)(d).*
- (iv) *In addition to meeting NR 664.0015(4), the inspection forms should match with the LTC plan's inspection program description. clearly identify the item(s) that are inspected. For example, it is recommended that the "Landfill Leachate Monitoring Records" form (see Appendix C of WFI's November 11, 2020 letter) appears to address two landfills, but it is not clear which component*

(lysimeters, leachate head wells, tanks, “leak detection” and “valve manway”) relates to which landfill, and it is not clear what these components are. Also, the “Landfill Site Inspection Report” forms appears to involve “Foundry Landfill 1-2-3-4” and “1-2-3”, which are unclear.

(v) The inspection forms should provide for documentation of remedies/repairs per NR 664.0015(3).

- c. Personnel training program (C.5.c.ii) (C.13.a.ii). This should include documentation protocols for maintaining the operating record. *WFI’s November 11, 2020 letter indicated that no training plan has been developed because hazardous waste is not generated, handled, or stored. However, it then refers to trained personnel regarding its “Consolidated Emergency Response Plan”. The LTC Plan should briefly summarize this training, and associated documentation/records, as it relates to Landfill no. 2638. The LTC Plan should also describe any training that is appropriate to ensure that proper inspections and repairs for Landfill no. 2638 occur, and awareness training such that key facility components (e.g. the cap and monitoring equipment) are not inadvertently damaged by personnel doing work at the facility.*
- d. The Contingency Plan (C.5.c.ii) (C.13.a.i), which should also address all applicable preparedness and prevention requirements in subch. C of ch. NR 664, Wis. Adm. Code.
 - (i) WFI’s November 11, 2020 letter refers to a “Consolidated Emergency Response Plan” covering its Waupaca-area facilities. The application should state that this functions as the required Contingency Plan. The application should briefly summarize this plan and describe how it addresses Landfill no. 2638, how often it is reviewed and updated, and where the plan is kept on file.*
 - (ii) WFI should ensure that the Consolidated Emergency Response Plan addresses the minimum contingency plan contents in subch. C of ch. NR 664.*
 - (iii) Regarding the arrangements with local authorities addressed in NR 664.0037, the letter indicated that no arrangements have been made. It is recommended that the LTC Plan refer to the fact that the regulation requires such arrangements “as appropriate for the type of waste handled at the facility and the potential need for the services of these organizations” and describe how Landfill no. 2638 may fit with this exception.*
- e. The operating record requirements of NR 664.0073. WFI’s November 11, 2020 letter suggests that old operating records have been archived and are maintained, and that monitoring records are submitted and maintained. It is recommended that the LTC plan describe this, and address the other (more current) applicable operating record and recordkeeping requirements, such as the following:
 - (i) NR 664.0073(2)(d), contingency plan incident records
 - (ii) NR 664.0073(2)(e), inspection records
 - (iii) NR 664.0073(2)(h), LTC cost estimates
 - (iv) NR 664.0016(4), training records
- f. Annual reporting requirements per s. NR 664.0075, Wis. Adm. Code.
- g. Documentation regarding long-term care notices per s. NR 664.0119, Wis. Adm. Code (C.7).

5. Long-Term Care Cost Estimate (C.9)

The long-term care cost estimate should be certified by a qualified professional engineer or professional geologist. The cost estimate should be summarized in tabular form showing tasks and subtasks in rows, and units, quantities, unit costs, and extended totals, along with a grand total of all tasks and subtasks, and provide sufficient detail and support to ensure that they:

- a. estimate LTC costs for the duration of the long-term care period;

- b. are based on and present costs for each of the discrete tasks and subtasks described in the work descriptions contained in the LTC Plan. An example of a task may be groundwater monitoring, with example subtasks for sampling, lab analyses, data review, reporting, etc.;
- c. for each discrete task and sub-task, include units, quantities, unit costs, and extended totals, along with a grand total of all tasks and subtasks.
- d. for each quantity and unit cost, provide the source of or basis for the numbers;
- e. are based on exclusive use of a third parties to perform the work, and include costs to procure, administer and manage the third-party work;
- f. include a minimum 10% contingency for unforeseen activities;
- g. clearly show the basis year of the cost estimate (costs “as of” year, e.g. “all costs are in 2021 dollars”); and
- h. cover all costs until the end of the projected long-term care period. The department recommends that WFI establish a “rolling 30-year window” for its LTC cost estimate (and associated financial assurance) that annually maintains financial assurance for the following 30 years, until WFI demonstrates (and the department approves) that a shorter time period is justified.

See also Area of Concern no. 3 regarding the LTC cost estimate.

6. Long-Term Care Financial Assurance (C.9)

This should address documentation to demonstrate the establishment of LTC financial assurance. See Area of Concern no. 3.c regarding LTC financial assurance.

7. Solid Waste Management Units (C.12.a - c).

This should identify and describe all SWMUs (C.12.a - c). Note that NR 670.014(4)(a)1. through (a)5. specifies minimum information to be provided for each SWMU (C.12.a). Also note that that NR 670.014(4)(b) requires all available information pertaining to any release of hazardous wastes or hazardous constituents from the unit or units (C.12.c). Note that WFI may refer to previous reports rather than repeating such information, to the extent the previous reports may provide some of this information.

The discussion in section 5.c WFI's November 11, 2020 letter can be used as a basis for this application information. Please consider the apparent SWMU involving foundry waste that was the subject of Case No. 89-CV-302 (Stipulated Judgement letter dated January 11, 1990) and any other SWMUs.

B. Submittal Format and Logistics

- a. Please provide a cover letter addressed to Mr. Coenen that introduces the application submittal.
- b. The license application must be certified in accordance with s. NR 670.011, Wis. Adm. Code, which can be included as part of the cover letter. Per s. NR 670.010(2), Wis. Adm. Code, the signature requirements apply to the operator and to the owner. If these are separate entities, separate certifications and signatures are needed. Please ensure that the LTC license application describes the relationship between such multiple entities.
- c. Two original copies of the license application must bear wet signatures. Please submit one copy to the Northeast Region office of the Wisconsin Department of Natural Resources, in Green Bay, Wisconsin, attn. Alex Beyer. Please submit the second original copy to Wisconsin Department of Natural Resources, Attention: Doug Coenen, 101 S. Webster St. (Floor 5), Madison, WI 53707. In addition, submit one copy to the U.S. Environmental Protection Agency, Attention: Mr. Jae Lee, LR-8J, 77 West Jackson Blvd., Chicago, IL 60604. Upon receipt, the department will invoice WFI for the appropriate plan review fee.
- d. Please cc the following department personnel with the cover letter via email. Attachments need not be included if they exceed server capacity.

- Jackie Marciulionis, WDNR
 - Sally Hronek, WNDR
 - Dustin Sholly, WDNR
 - Ben Petrus, WDNR
- e. Provide a single portable document format (PDF) file in readable format the entire application. The PDF file should be identical to the paper copy. Please include a Table of Contents which is "hot-linked" so clicking on any entry takes you directly to the spot in a document, include helpful PDF bookmarks, and ensure that all text is searchable. Please submit this electronic file simultaneously along with the paper copies. It may be easiest to include a thumb drive within the binder.
- f. Please include a table of contents. Please use a page numbering system where every page is marked with the page number, including the chapter and the date so revised pages (in later versions) are clearly identified. For example, a page numbering system of 5-13 (rev. 12-23-21), indicates Chapter 5, page 13 including revisions made on December 23, 2021. Please refrain from the use of using roman numerals for numbering pages.
- g. The department requests that WFI provides, along with its application, a "crosswalk" that points to the page or section of the application which addresses each of the informational contents identified in Section B of this attachment. This is intended assist both WFI and the department in assuring the application is complete. This can be provided with the cover letter.

Attachment C - Long-Term Care License Information Identified in NR 670.028 and NR 670.013

Section NR 670.028, Wis. Adm. Code, states, “Information requirements for long-term care licenses. For long-term care licenses, the owner or operator shall submit only the information specified in ss. NR 670.014 (2) (a), (d) to (f), (k), (m), (n), (p) and (s), (3) and (4), unless the department determines that additional information from s. NR 670.014, 670.016, 670.017, 670.018 or 670.021 is necessary...”. Each of these elements is identified below and is part of the minimum required elements to be addressed in the long-term care (LTC) license application. Attachment B presents a summary of the information needed in the application.

This Attachment C is provided for the purpose of providing regulatory references used in Attachment B.

1. NR 670.014(2)(a), “*A general description of the facility*”.
2. Security- and inspection-related information:
 - a. NR 670.014(2)(d), “A description of the security procedures and equipment required by s. NR 664.0014”.
 - b. NR 670.014(2)(e), “A copy of the general inspection schedule required by s. NR 664.0015 (2)...”
3. NR 670.014(2)(f), “*A justification of any request for a waiver of the preparedness and prevention requirements of subch. C of ch. NR 664*” (if applicable).
4. NR 670.014(2)(k), floodplain information.
5. The first part of NR 670.014(2)(m) begins with, “*A copy of the closure plan and, where applicable, the long-term care plan required by ss. NR 664.0112, 664.0118 and 664.0197.*”
 - a. A copy of the long-term care plan is required. (A copy of the closure plan is not needed).
 - b. NR 664.0112 also involves future closure-related information, which is not applicable.
 - c. The first part of NR 664.0118 requires the inclusion of “activities that will be carried on after closure of each disposal unit and the frequency of these activities”. This should include:
 - (i) A description of the existing systems that require long-term care (e.g. final cover, leachate collection systems, run-on control systems, run-off control systems, monitoring systems, etc.) and describe associated routine and contingent LTC activities.
 - (ii) A description of the activities to comply with other applicable requirements of NR 664, including for example:
 - o NR 664.0014, Security.
 - o NR 664.0015, General inspection requirements.
 - o NR 664.0016, Personnel training.
 - o NR 664, Subchapter C, Preparedness and Prevention.
 - o NR 664, Subchapter D, Contingency Plan and Emergency Procedures.
 - o The operating record requirements of NR 664.0073.
 - o Annual reporting requirements of NR 664.0075.
 - d. The second part of NR 664.0118 goes on to require “at least all of the following”:
 - (i) NR 664.0118(2)(a), regarding monitoring: This should describe the groundwater monitoring and corrective action program and describe how it complies with the requirements of NR 664, Subchapter F, Releases From Solid Waste Management Units.
 - (ii) NR 664.0118(2)(b). This should include the planned maintenance activities and frequencies to ensure integrity of the cap and final cover or other containment systems and the function of the monitoring equipment.
 - (iii) NR 664.0118(2)(c), facility contact information.
 - (iv) NR 664.0118(2)(d), alternate requirements for monitoring and LTC financial assurance (not applicable to WFI)
 - e. NR 664.0197 involves tank systems (not applicable to WFI).

6. The last part of NR 670.014(2)(m) goes on to require, “Include, where applicable, as part of the plans, specific requirements in ss. NR 664.0178, 664.0197, 664.0228, 664.0258, 664.0310, 664.0351, 664.0601 and 664.0603”. (Note that most of these sections are not applicable because they relate to units other than landfills). NR 664.0310(2) applies to landfill long-term care below (for ease of reference, each of these requirements is labelled in bold as 6 and 6.a through 6.e):
- (6)** “After final closure, the owner or operator shall comply with all long-term care requirements contained in ss. NR 664.0117 to 664.0120, including maintenance and monitoring throughout the long-term care period (specified in the operating license under s. NR 664.0117). The owner or operator shall do all of the following:
- (6.a)** (a) Maintain the integrity and effectiveness of the final cover, including making repairs to the cap as necessary to correct the effects of settling, subsidence, erosion, or other events.
- (6.b)** (b) Continue to operate the leachate collection and removal system until leachate is no longer detected.
- (6.c)** (c) Maintain and monitor the leak detection system in accordance with ss. NR 664.0301 (3) (c) 4. and (d) and 664.0303 (3), and comply with all other applicable leak detection system requirements of this chapter.
- (6.d)** (d) Maintain and monitor the groundwater monitoring system and comply with all other applicable requirements of subch. F.
- (6.e)** (e) Prevent run-on and run-off from eroding or otherwise damaging the final cover.
- (6.f)** (f) Protect and maintain surveyed benchmarks used in complying with s. NR 664.0309.” **(6.f)**
7. NR 670.014(2)(n): “...documentation that notices required under s. NR 664.0119 have been filed.”
- a. NR 664.0119(1): Submit a record of the type, location and quantity of hazardous wastes disposed of within each cell, to be submitted to the local land use authority.
- b. NR 664.0119(2)(a): File a notation on the property’s deed regarding hazardous waste management, restriction of use, and survey plan information.
- c. NR 664.0119(2)(b): Certification of the deed notation, to be provided to the department.
8. NR 670.014(2)(p) relates to closure costs and is not applicable.
9. NR 670.014(2)(p): “...the most recent long-term care cost estimate for the facility prepared according to s. NR 664.0144 plus a copy of the documentation required to demonstrate financial assurance under s. NR 664.0145.”
10. NR 670.014(2)(s): “A topographic map showing a distance of 1,000 feet around the facility...”. This section goes on to establish the specifications and minimum contents of the map.
11. NR 670.014(3): This establishes the required information regarding protection of groundwater. NR 670.014(3)(b) through (h) identifies the detailed groundwater-related information required to be provided for the regulated unit(s), such as:
- a. NR 670.014(3)(b) requires “Identification of the uppermost aquifer and aquifers hydraulically interconnected beneath the facility property, including groundwater flow direction and rate, and the basis for the identification (i.e., the information obtained from hydrogeologic investigations of the facility area).”
- b. NR 670.014(3)(c) requires “On the topographic map required under sub. (2) (s), a delineation of the waste management area, the property boundary, the point of compliance as defined under s. NR 664.0095, the proposed location of groundwater monitoring wells as required under s. NR 664.0097, and, to the extent possible, the information required in par. (b).”
- c. NR 670.014(3)(e) requires “Detailed plans and an engineering report describing the proposed groundwater monitoring program to be implemented to meet s. NR 664.0097”
- d. NR 670.014(3)(e) requires “If the presence of hazardous constituents has not been detected in the groundwater at the time of the license application, the owner or operator shall submit sufficient

information, supporting data and analyses to establish a detection monitoring program which meets s. NR 664.0098. This submission shall address all of the following items specified under s. NR 664.0098:

1. A proposed list of indicator parameters, waste constituents or reaction products that can provide a reliable indication of the presence of hazardous constituents in the groundwater.
2. A proposed groundwater monitoring system.
3. Background values for each proposed monitoring parameter or constituent, or procedures to calculate the values.
4. A description of proposed sampling, analysis and statistical comparison procedures to be utilized in evaluating groundwater monitoring data.”

12. NR 670.014(4): This establishes the required information regarding solid waste management units.
 - a. NR 670.014(4)(a)1. through (a)5. includes information regarding SWMUs.
 - b. NR 670.014(4)(a)6. requires past and future corrective action information (if applicable):
 - c. NR 670.014(4)(b) requires all available information pertaining to any release of hazardous wastes or hazardous constituents from the unit or units.
 - d. NR 670.014(4)(c) refers to contingent future department requirements and does not need to be addressed in the LTC license application.
13. The final part of NR 664.028 goes on further to allow the department to determine that additional information related to NR 670.014 (General Requirements), 670.016 (Tanks), 670.017 (Surface Impoundments), 670.018 (Waste Piles) or 670.021 (Landfills) is necessary. The department has currently identified the following additional informational requirements that should be included in a long-term care application:
 - a. From NR 670.014, General Requirements
 - (i) Per NR 670.014(2)(g), a copy of the contingency plan.
 - (ii) Per NR 670.014(2)(L), an outline of both the introductory and continuing training programs.
 - (iii) Per NR 670.014(2)(h)3., prevention of contamination of water supplies.
 - b. From NR 670.021, Landfills. Most of these additional informational requirements generally relate to active landfill operations and closure, so they do not need to be addressed. However, NR 670.021(5) requires “...a description of how each landfill will be maintained and monitored after closure according to s. NR 664.0310(2). This is covered in item 6 above.
14. Part A Application: NR 670.001(2) states, “A license application consists of two parts, part A (see s. NR 670.013) and a feasibility and plan of operation report (see s. NR 670.014 and applicable sections in ss. NR 670.015 to 670.029”. The feasibility and plan of operation report (FPOR) is not needed for closed facilities. However, the following Part A application information specified in NR 670.013 should be included:
 - a. NR 670.013(1) The activities conducted by the applicant which require it to obtain a license.
 - b. NR 670.013(2) Name, mailing address and location, including latitude and longitude of the facility for which the application is submitted.
 - c. NR 670.013(4) The operator's name, address, telephone number, ownership status and status as federal, state, private, public, or other entity.
 - d. NR 670.013(5) The name, address, and phone number of the owner of the facility.
 - e. NR 670.013(6) Whether the facility is located on Indian lands.
 - f. NR 670.013(8) For existing facilities, all of the following:
 - (a) A scale drawing of the facility showing the location of all past, present, and future treatment, storage, and disposal areas.
 - (b) Photographs of the facility clearly delineating all existing structures; existing treatment, storage, and disposal areas; and sites of future treatment, storage, and disposal areas.
 - g. NR 670.013(9) A description of the processes to be used for treating, storing and disposing of hazardous waste, and the design capacity of these items.

- h. NR 670.013(10) A specification of the hazardous wastes listed or designated under ch. NR 661 to be treated, stored or disposed of at the facility, an estimate of the quantity of wastes to be treated, stored or disposed annually, and a general description of the processes to be used for the wastes.
- i. NR 670.013(11) A listing of all permits, licenses or construction approvals received or applied for under any applicable federal or state regulations.
- j. NR 670.013(12) A topographic map (or other map if a topographic map is unavailable) extending one mile beyond the property boundaries of the source, depicting the facility and each of its intake and discharge structures; each of its hazardous waste treatment, storage or disposal facilities; each well where fluids from the facility are injected underground; and those wells, springs, other surface water bodies, and drinking water wells listed in public records or otherwise known to the applicant within $\frac{1}{4}$ mile of the facility property boundary.
- k. NR 670.013(13) A brief description of the nature of the business.

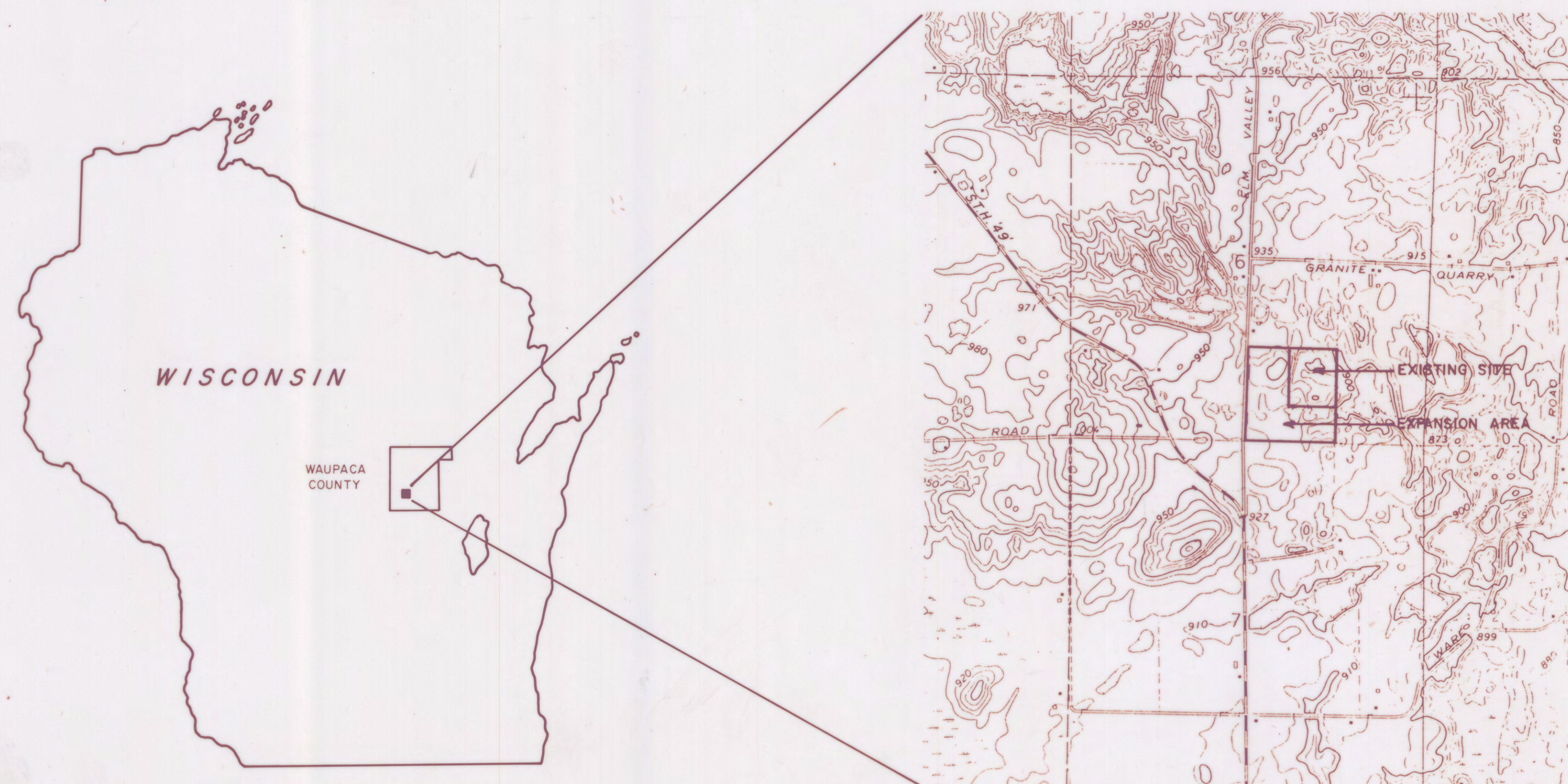
A2 – Drawings 13344-1SCD through 10SCD, As-Built Construction Plan Sections 4 and 5.
Submitted with *Site Construction Documentation Report for Sections 4 and 5*, December
22, 1987, STS Consultants, Ltd.

CLOSURE PLAN MODIFICATION II

WAUPACA FOUNDRY LANDFILL

TOWN OF WAUPACA, WAUPACA COUNTY, WISCONSIN
SW 1/4, SE 1/4, SEC. 6, T22N, R12E

AS-BUILT CONSTRUCTION PLAN SECTIONS 4 AND 5

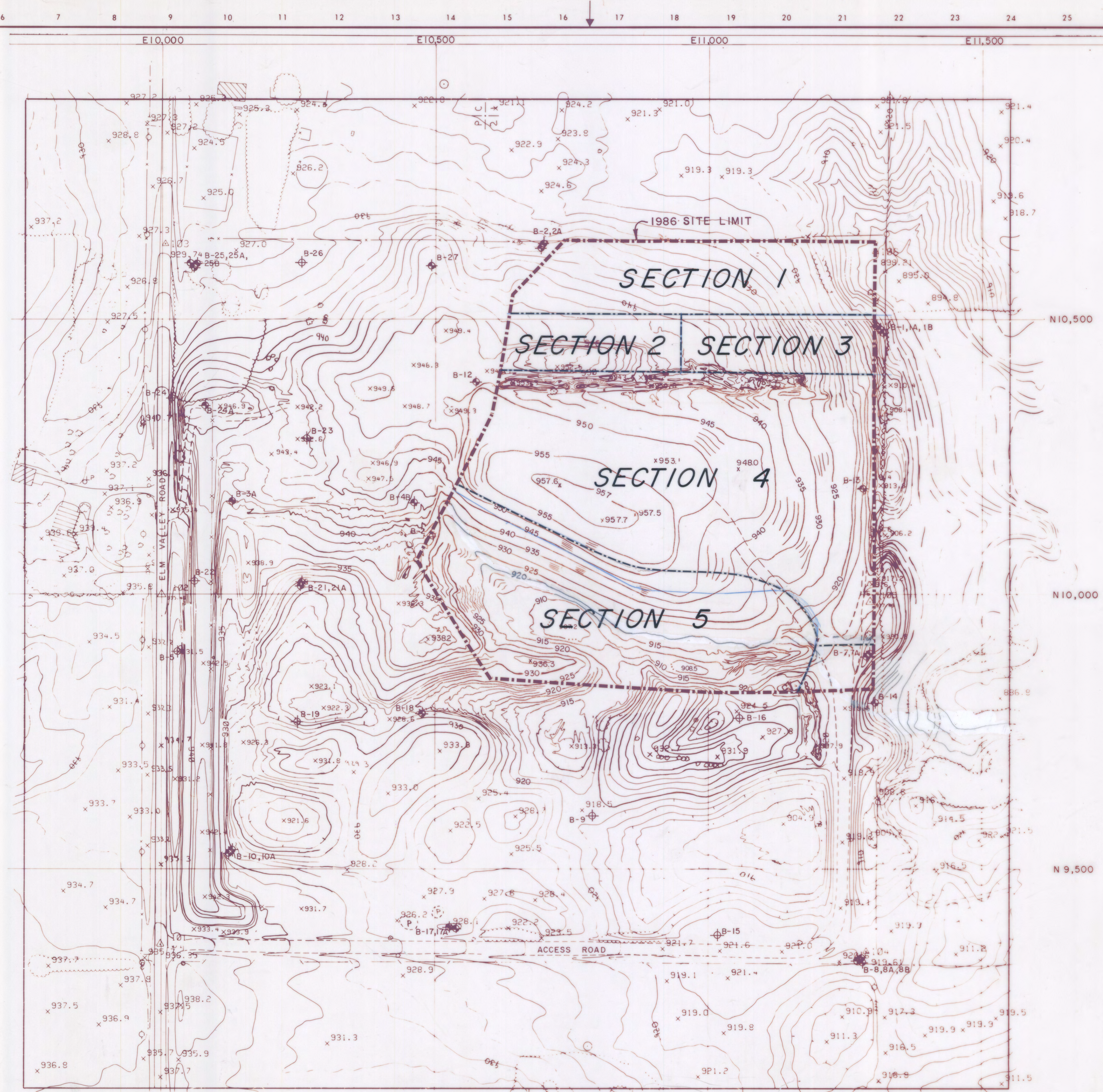


DRAWING INDEX

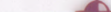
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13344 - 2SCD	AS-BUILT FOR SECTION 4 WORK COMPLETED IN FALL, 1986 AS OF 4/10/87
13344 - 3SCD	SUBGRADE PRIOR TO PLACEMENT OF SECTION 4 COVER AND SECTION 5 LINER-FALL, 1987
13344 - 4SCD	AS-BUILT PLAN FOR LANDFILL
13344 - 5SCD	LEACHATE COLLECTION SYSTEM AS-BUILT
13344 - 6SCD	SITE CROSS-SECTIONS A-A', B-B', C-C'
13344 - 7SCD	SITE CROSS-SECTIONS D-D', E-E'
13344 - 8SCD	SITE CONSTRUCTION DETAILS
13344 - 9SCD	TANK INSTALLATION AND CONSTRUCTION DETAILS
13344 - 10SCD	SITE CONSTRUCTION DETAILS

PREPARED BY
STS CONSULTANTS LTD.





LEGEND

-  SOIL BORING
 SOIL BORING WITH OBSERVATION WELL
 LIMITS OF EXISTING LANDFILL
 910 GROUND SURFACE CONTOUR
 BOUNDARY SECTION LINE

NOTE:

SECTION 5 NORTH BOUNDARY LINE
BASED ON PROPOSED FINAL COVER LIMITS.



STS Consultants Ltd.
540 Lambeau St. Green Bay, Wisconsin
ph.414-494-9656

SCALE	1"=100'	DATE	12-9-87	DRAWN BY	P.D.P.	APPROVED BY	J.M.B.
REVISIONS:	DATE	BY	DESCRIPTION				
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SUBGRADE FOR SECTION 4 PRIOR TO PLACEMENT OF FINAL COVER IN FALL 1986						DRAWING NUMBER 13344-1SCC	

THIS MAP COMPLIES WITH WITH NATIONAL MAP ACCURACY
STANDARDS FOR ONE FOOT CONTOUR INTERVAL MAPPING.
CONTOUR INTERVAL ONE FOOT BASED ON MEAN SEA LEVEL DATUM.
HORIZONTAL DATUM BASED ON LOCAL GRID SYSTEM.
DATE OF PHOTOGRAPHY: 5-30-86
AERO-METRIC ENGINEERING PROJECT NO. 058627

NOTE: DASHED CONTOURS INDICATE APPROXIMATE ELEVATIONS AS DEFINED
IN PARAGRAPH 7.1.3.6 OF THE MANUAL OF PHOTOGRAMMETRY, 4th EDITION.

TOLERANCES
UNLESS NOTED

FRAC. $\pm$

DEC. $\pm$

ANG. $\pm$

MACH $\pm$

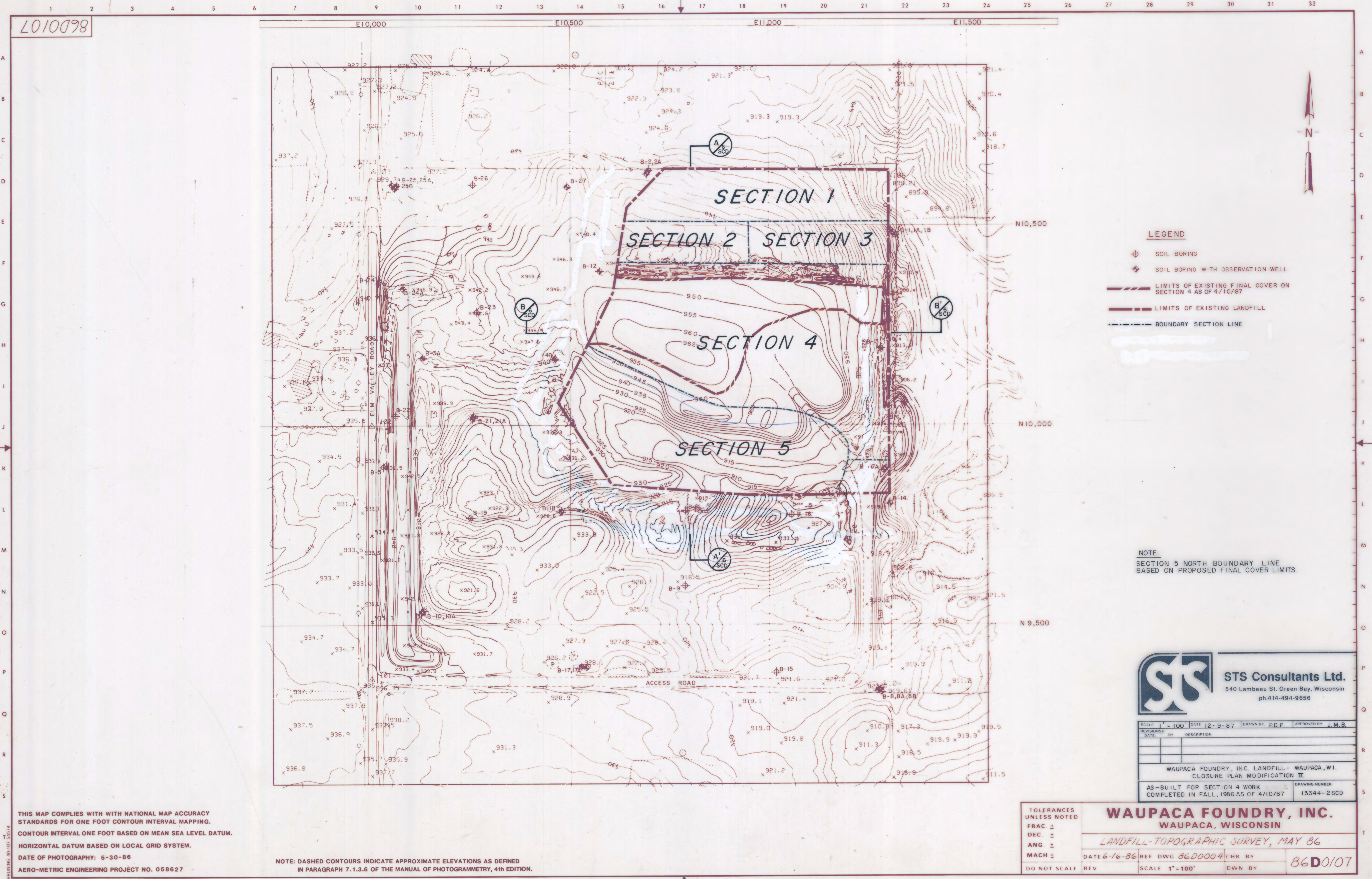
WAUPACA FOUNDRY, INC.
WAUPACA, WISCONSIN

LANDFILL-TOPOGRAPHIC SURVEY, MAY 86

DATE 6-16-86	REF DWG 86D0004	CHK BY	86D0107
DESIGNED BY	CHECKED BY	DATE	

86 D0/07

86D0107



- LEGEND**
- SOIL BORING
 - SOIL BORING WITH OBSERVATION WELL
 - LIMITS OF EXISTING FINAL COVER ON SECTION 4 AS OF 4/10/87
 - LIMITS OF EXISTING LANDFILL
 - BOUNDARY SECTION LINE

NOTE:
SECTION 5 NORTH BOUNDARY LINE
BASED ON PROPOSED FINAL COVER LIMITS.



STS Consultants Ltd.
540 Lambeau St. Green Bay, Wisconsin
ph.414-494-9656

SCALE: 1" = 100'		DATE: 12-9-87	DRAWN BY: P.D.P.	APPROVED BY: J.M.B.
REVISIONS:	DATE:	BY:	DESCRIPTION:	
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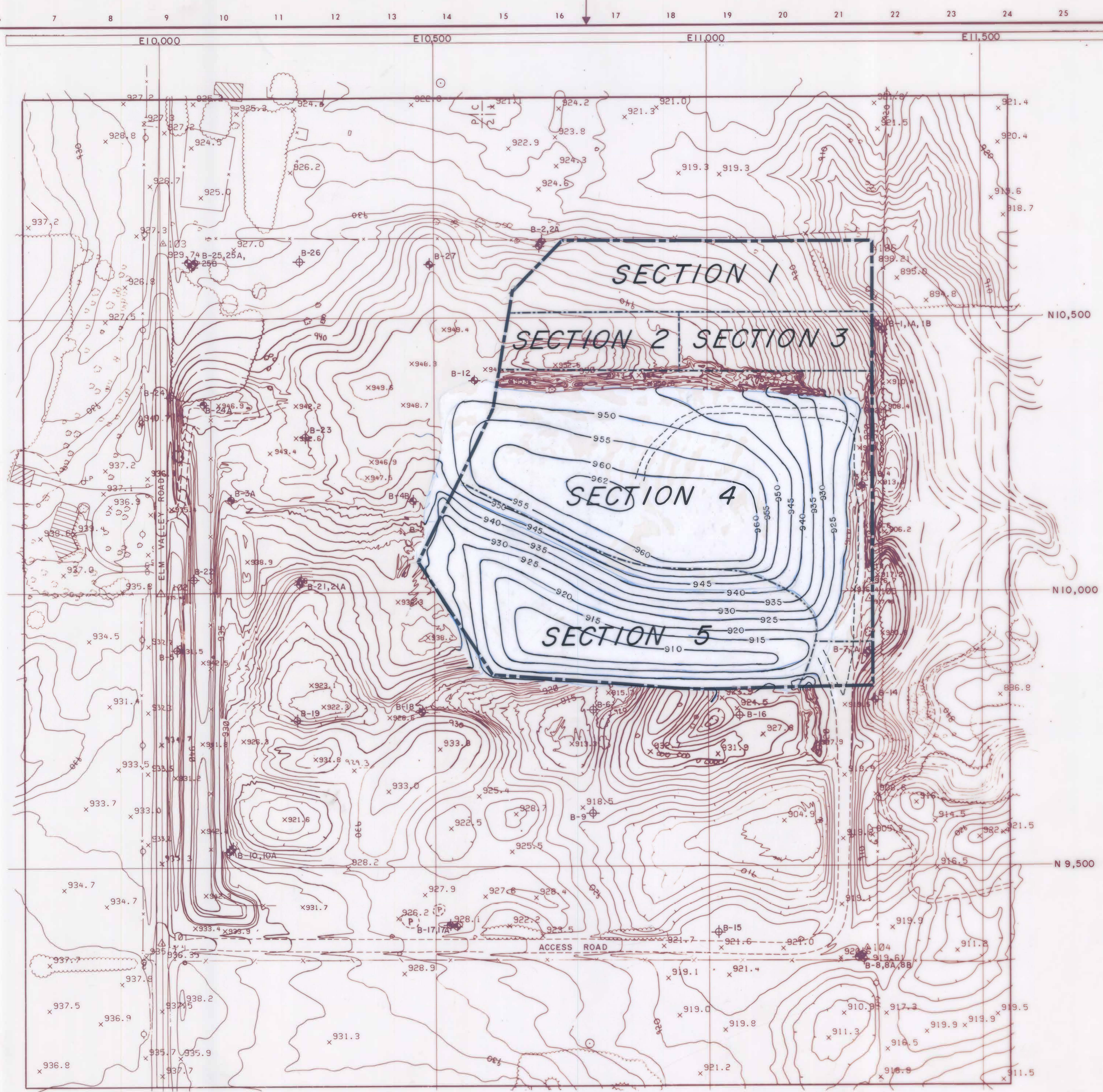
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CONTOUR INTERVAL ONE FOOT BASED ON MEAN SEA LEVEL DATUM.
HORIZONTAL DATUM BASED ON LOCAL GRID SYSTEM.
DATE OF PHOTOGRAPHY: 5-30-86
AERO-METRIC ENGINEERING PROJECT NO. 058627

NOTE: DASHED CONTOURS INDICATE APPROXIMATE ELEVATIONS AS DEFINED IN PARAGRAPH 7.1.3.6 OF THE MANUAL OF PHOTOGRAMMETRY, 4th EDITION.

WAUPACA FOUNDRY, INC.
WAUPACA, WISCONSIN

LANDFILL-TOPOGRAPHIC SURVEY, MAY 86

TOLERANCES UNLESS NOTED	DATE: 6-16-86	REF DWG: 86D0004	CHK BY:	86D0107
FRAC. ±	REV	SCALE: 1"=100'	DWN BY:	
DEC. ±				
ANG. ±				
MACH. ±				
DO NOT SCALE				



LEGEND

-  SOIL BORING
 SOIL BORING WITH OBSERVATION WELL
 LIMITS OF EXISTING LANDFILL
 —950— GROUND SURFACE CONTOUR
 - - - - - BOUNDARY SECTION LINE

NOTE:
SECTION 5 NORTH BOUNDARY LINE
BASED ON PROPOSED FINAL COVER LIMITS.



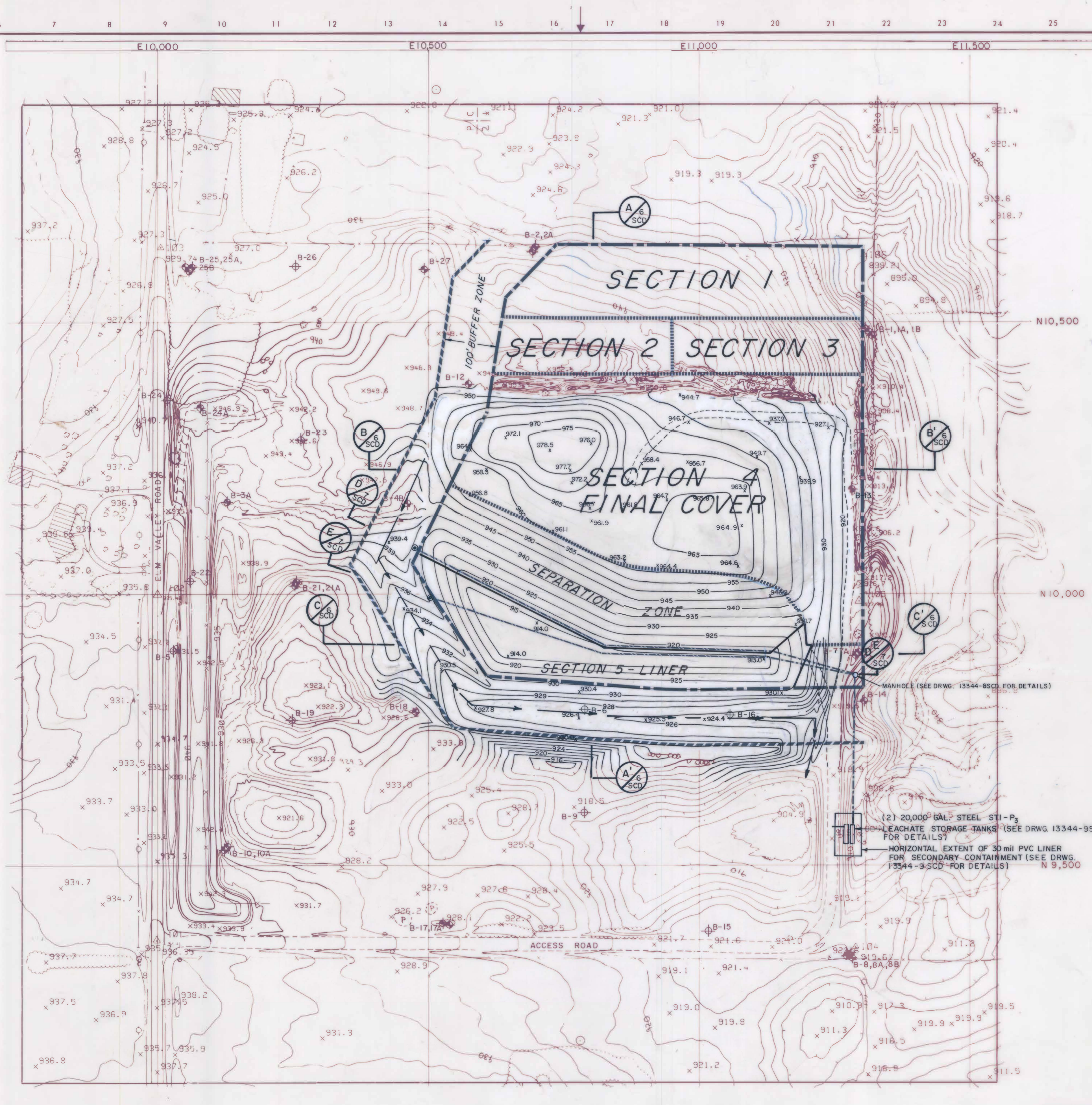
STS Consultants Ltd.
540 Lambeau St. Green Bay, Wisconsin
ph.414-494-9656

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REVISIONS							
DATE	BY	DESCRIPTION					
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SUBGRADE PRIOR TO PLACEMENT OF SECTION 4 COVER AND SECTION 5 LINING						DRAWING NUMBER: 13344-38CD	

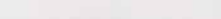
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HORIZONTAL DATUM BASED ON LOCAL GRID SYSTEM.
DATE OF PHOTOGRAPHY: 5-30-86
AEROMETRIC ENGINEERING PROJECT NO. 08562

NOTE: DASHED CONTOURS INDICATE APPROXIMATE ELEVATIONS AS DEFINED
IN PARAGRAPH 7.3.6 OF THE MANUAL OF PHOTOGRAMMETRY, 4 EDITION.

TOLERANCES UNLESS NOTED FRAC. ± DEC. ± ANG. ± MACH ±	WAUPACA FOUNDRY, INC. WAUPACA, WISCONSIN		
	LANDFILL-TOPOGRAPHIC SURVEY, MAY 86		
	DATE 6-16-86	REF DWG 86D0004	CHK BY
	DO NOT SCALE REV	SCALE 1"=100'	DWN BY 86D0107



LEGEND

-  SOIL BORING
 SOIL BORING WITH OBSERVATION WELL
 LIMIT OF 100' BUFFER ZONE
 LIMITS OF EXISTING LANDFILL
 DRAINAGE DITCH (WITH FLOW DIRECTION) IN 100' BUFFER ZONE
 961.8_x GROUND SURFACE SPOT ELEVATION
 950 GROUND SURFACE CONTOUR
 MANHOLE LOCATION
 CLEANOUT PORT LOCATION
 6" DIA. SCH. 80 PERFORATED PIPE
 6" DIA. SCH. 80 SOLID PIPE
 6" DIA. SCH. 80 SOLID PIPE ENCASED IN 8" DIA. SCH. 80 SOLID PIPE

NOTE:

SECTIONS 1 THROUGH 4 GRADES ARE TOP OF TOPSOIL GRADES. SEPARATION ZONE GRADES ARE TOP OF UPPER SAND DRAINAGE LAYER. SECTION 5 GRADES ARE TOP OF DRAINAGE BLANKET GRADES.

(2) 20,000 GAL STEEL STI-P₃
LEACHATE STORAGE TANKS (SEE DRWG. 13344-9SCD
FOR DETAILS)
— HORIZONTAL EXTENT OF 30 mil PVC LINER
FOR SECONDARY CONTAINMENT (SEE DRWG.
13344-9.SCD FOR DETAILS) N 9,500



STS Consultants Ltd.

540 Lambeau St. Green Bay, Wisconsin
ph.414-494-9656

SCALE 1" = 100'		DATE 12-7-87		DRAWN BY: K.J.C.		APPROVED BY: J.M.B.	
REVISIONS							
NO.	DATE	BY	DESCRIPTION				
WAUPACA FOUNDRY, INC. - WAUPACA, WI							
LANDFILL CLOSURE PLAN MODIFICATION II							
AS-BUILT PLAN FOR LANDFILL						DRAWING NUMBER	
						13344-4SCD	

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY
STANDARDS FOR ONE FOOT CONTOUR INTERVAL MAPPING.
CONTOUR INTERVAL ONE FOOT BASED ON MEAN SEA LEVEL DATUM.

HORIZONTAL DATUM BASED ON LOCAL GRID SYSTEM.

DATE OF PHOTOGRAPHY: 5-30-86

AERO-METRIC ENGINEERING PROJECT NO. 058627

NOTE: DASHED CONTOURS INDICATE APPROXIMATE ELEVATIONS AS DEFINED
IN PARAGRAPH 7.1.3.6 OF THE MANUAL OF PHOTOGRAMMETRY, 4th EDITION.

**TOLERANCES
UNLESS NOTED**

FRAC. $\pm$
DEC. $\pm$
ANG. $\pm$
MACH $\pm$

DO NOT SCALE

WAUPACA FOUNDRY, INC.
WAUPACA, WISCONSIN

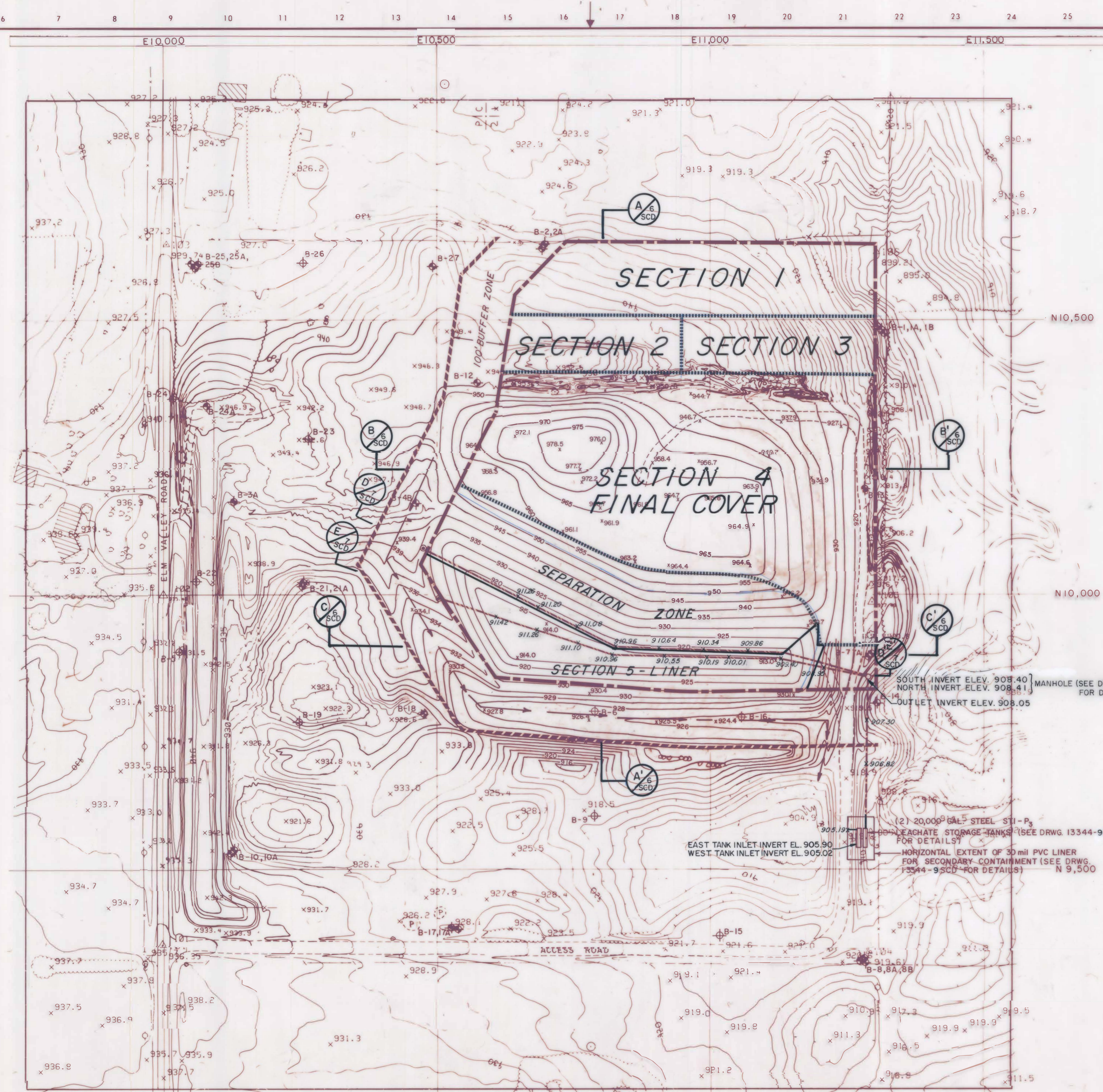
LANDFILL-TOPOGRAPHIC SURVEY, MAY 86

DATE 6-16-86	REF DWG 86D0004	CHK BY
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REV	SCALE 1"=100'	DWN 8
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04	CHK BY	86D0107
	DWN BY	

THIS MAP COMPLIES WITH WITH NATIONAL MAP ACCURACY
STANDARDS FOR ONE FOOT CONTOUR INTERVAL MAPPING.
CONTOUR INTERVAL ONE FOOT BASED ON MEAN SEA LEVEL DATUM.
HORIZONTAL DATUM BASED ON LOCAL GRID SYSTEM.
DATE OF PHOTOGRAPHY: 5-30-86
AERO-METRIC ENGINEERING PROJECT NO. 058627



 SOIL BORING
 SOIL BORING WITH OBSERVATION WELL
 LIMIT OF 100' BUFFER ZONE
 LIMITS OF EXISTING LANDFILL
 DRAINAGE DITCH (WITH FLOW DIRECTION) IN 100' BUFFER ZONE
 961.8 x GROUND SURFACE SPOT ELEVATION
 950 GROUND SURFACE CONTOUR
 MANHOLE LOCATION
 CLEANOUT PORT LOCATION
 6" DIA. SCH. 80 PERFORATED PIPE
 6" DIA. SCH. 80 SOLID PIPE
 6" DIA. SCH. 80 SOLID PIPE ENCASED IN 8" DIA. SCH. 80 SOLID PIPE
 x 911.10 SPOT ELEVATION AT PIPE INVERT

NOTE:
SECTIONS 1 THROUGH 4 GRADES ARE TOP OF TOPSOIL GRADES. SEPARATION ZONE GRADES ARE TOP OF UPPER SAND DRAINAGE LAYER. SECTION 5 GRADES ARE TOP OF DRAINAGE BLANKET GRADES.



STS Consultants Ltd.
540 Lambeau St. Green Bay, Wisconsin
ph.414-494-9656

SCALE: 1" = 100' DATE: 12-7-87 DRAWN BY: K.J.C. APPROVED BY: J.M.B.

REVISIONS	DATE	BY	DESCRIPTION

WAUPACA FOUNDRY, INC. LANDFILL-WAUPACA, WI.
CLOSURE PLAN MODIFICATION II

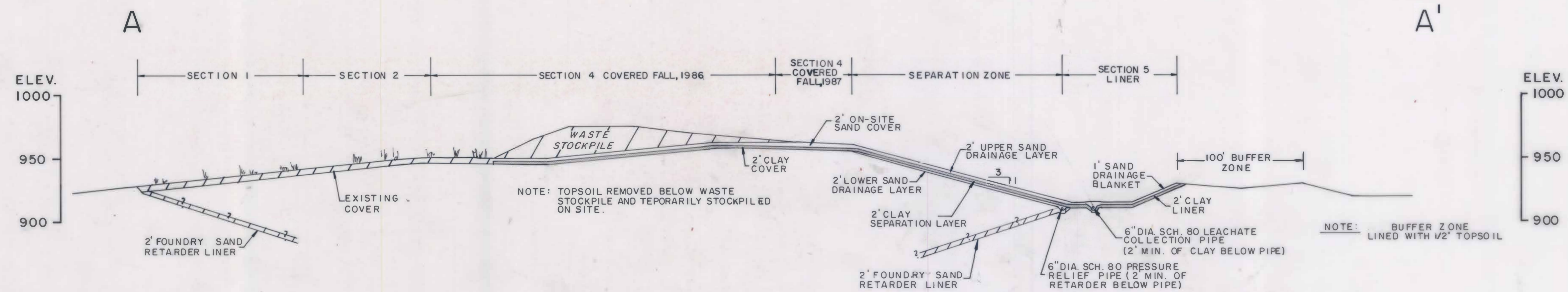
LEACHATE COLLECTION SYSTEM AS-BUILT.	DRAWING NUMBER 13344 - 5SCD
--------------------------------------	--------------------------------

WAUPACA FOUNDRY, INC.
WAUPACA, WISCONSIN

LANDFILL-TOPOGRAPHIC SURVEY, MAY 86

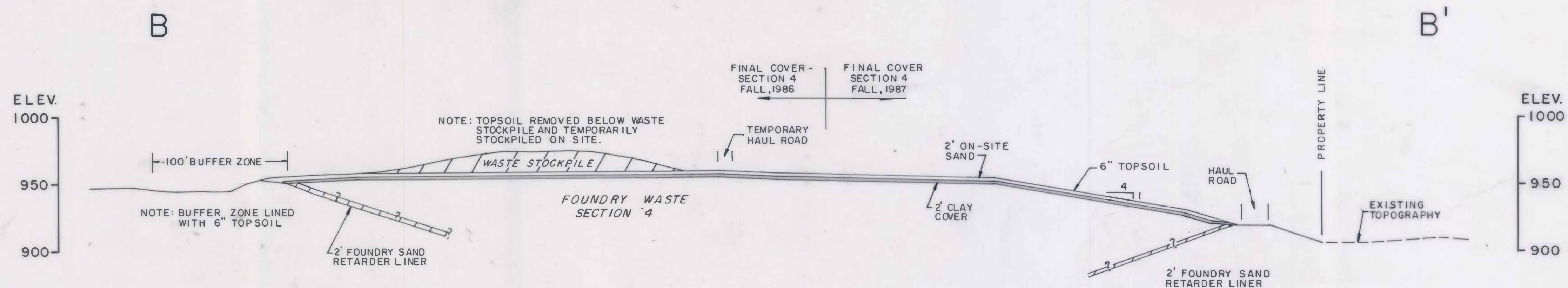
DATE 6-16-86	REF DWG 86D0004	CHK BY	86D0107
REV	SCALE 1"=100'	DWN BY	

NOTE: DASHED CONTOURS INDICATE APPROXIMATE ELEVATIONS AS DEFINED IN PARAGRAPH 7.1.3.6 OF THE MANUAL OF PHOTOGRAMMETRY, 4th EDITION.



CONSTRUCTION CROSS-SECTION A-A'

SCALE: 1" = 50'



CONSTRUCTION CROSS-SECTION B-B'

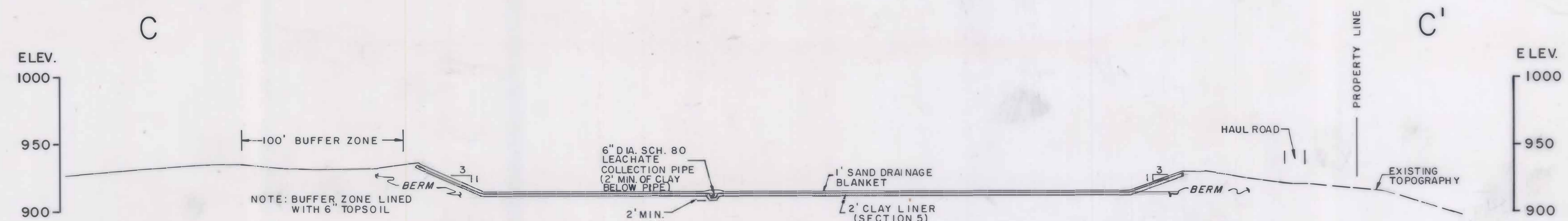
SCALE: 1" = 50'

LEGEND

CLAY

FOUNDRY SAND RETARDER

SAND



CONSTRUCTION CROSS-SECTION C-C'

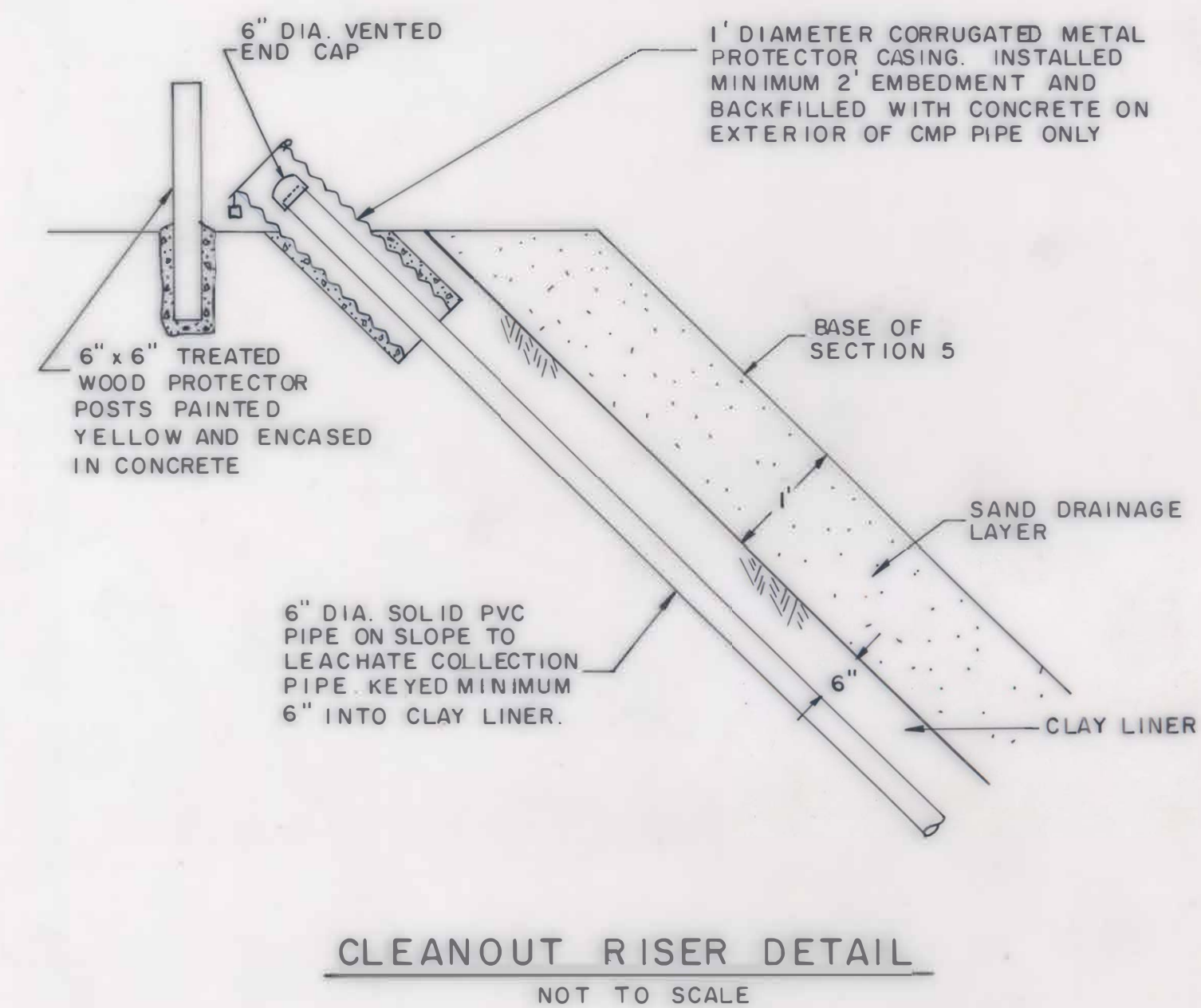
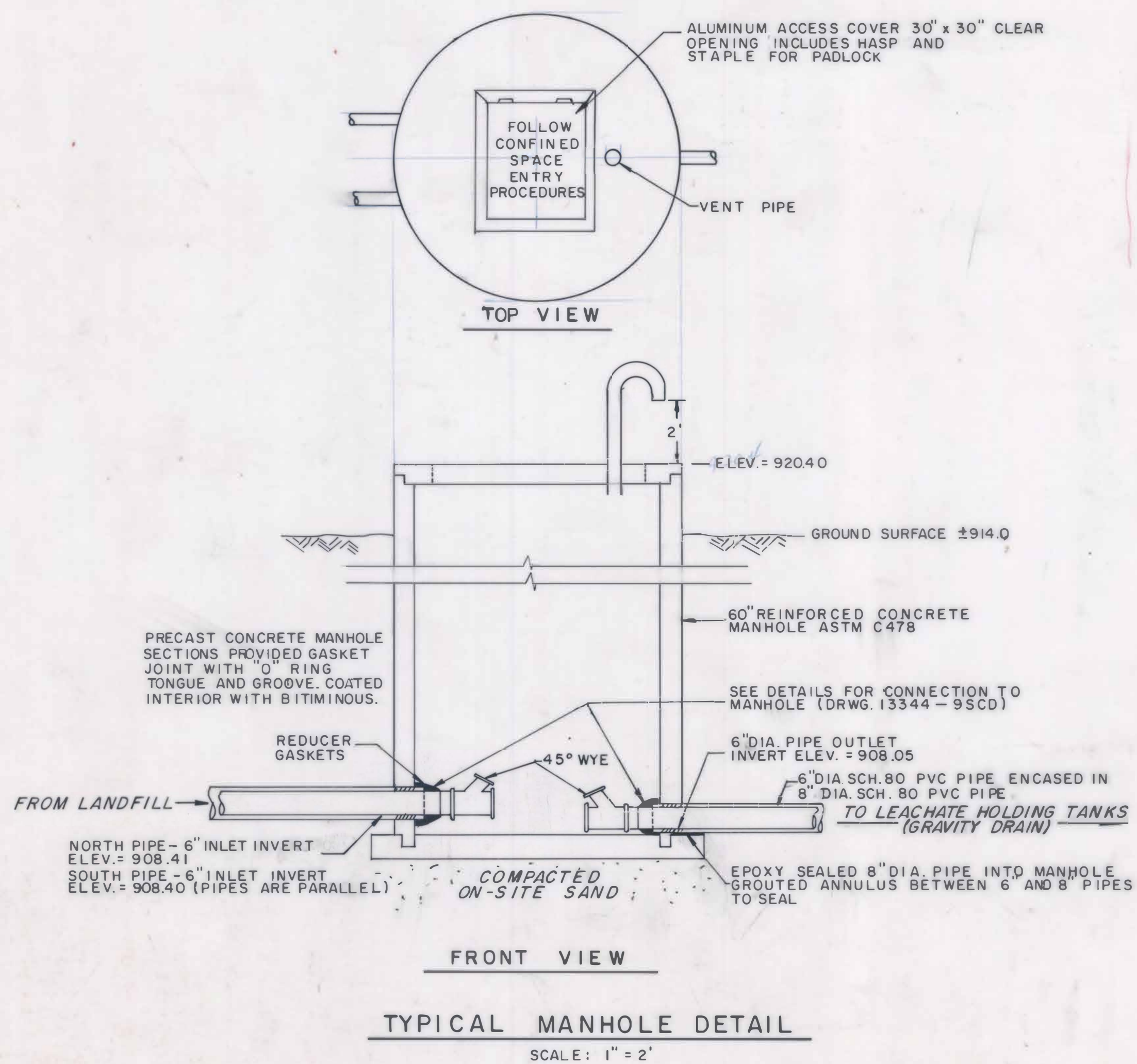
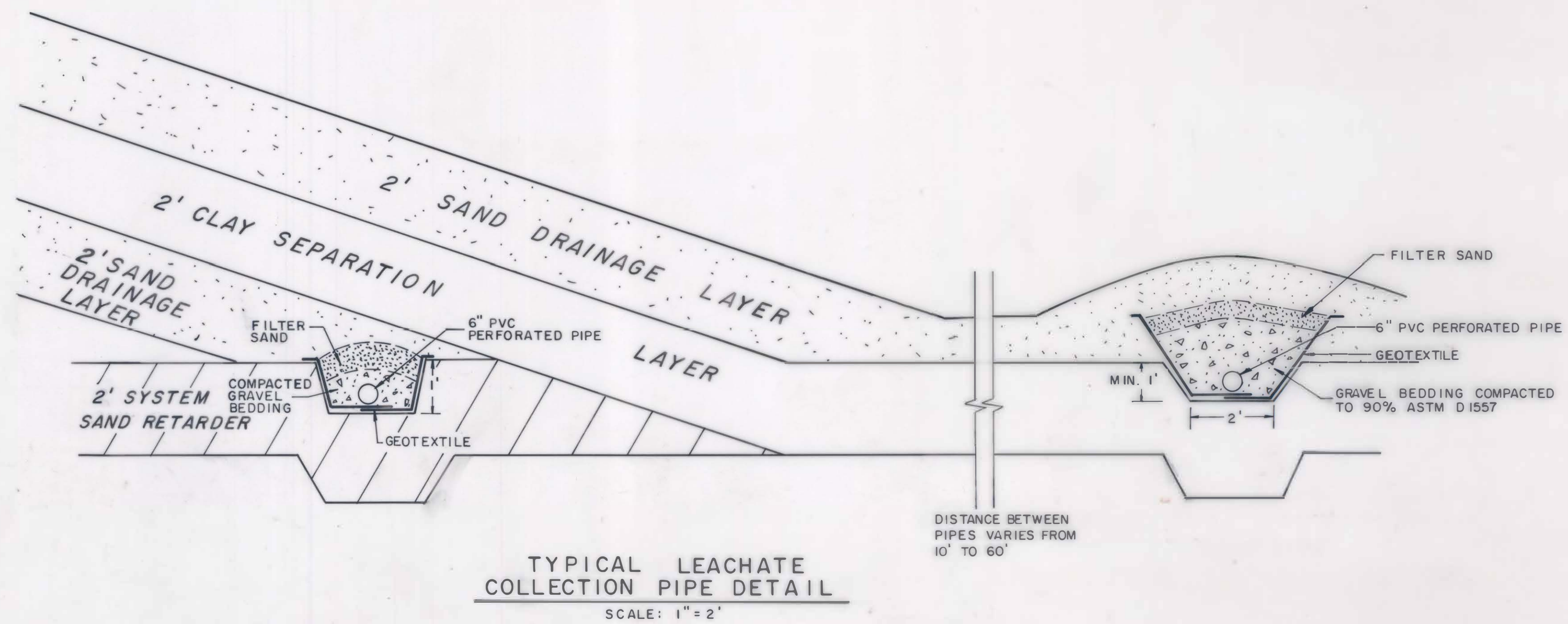
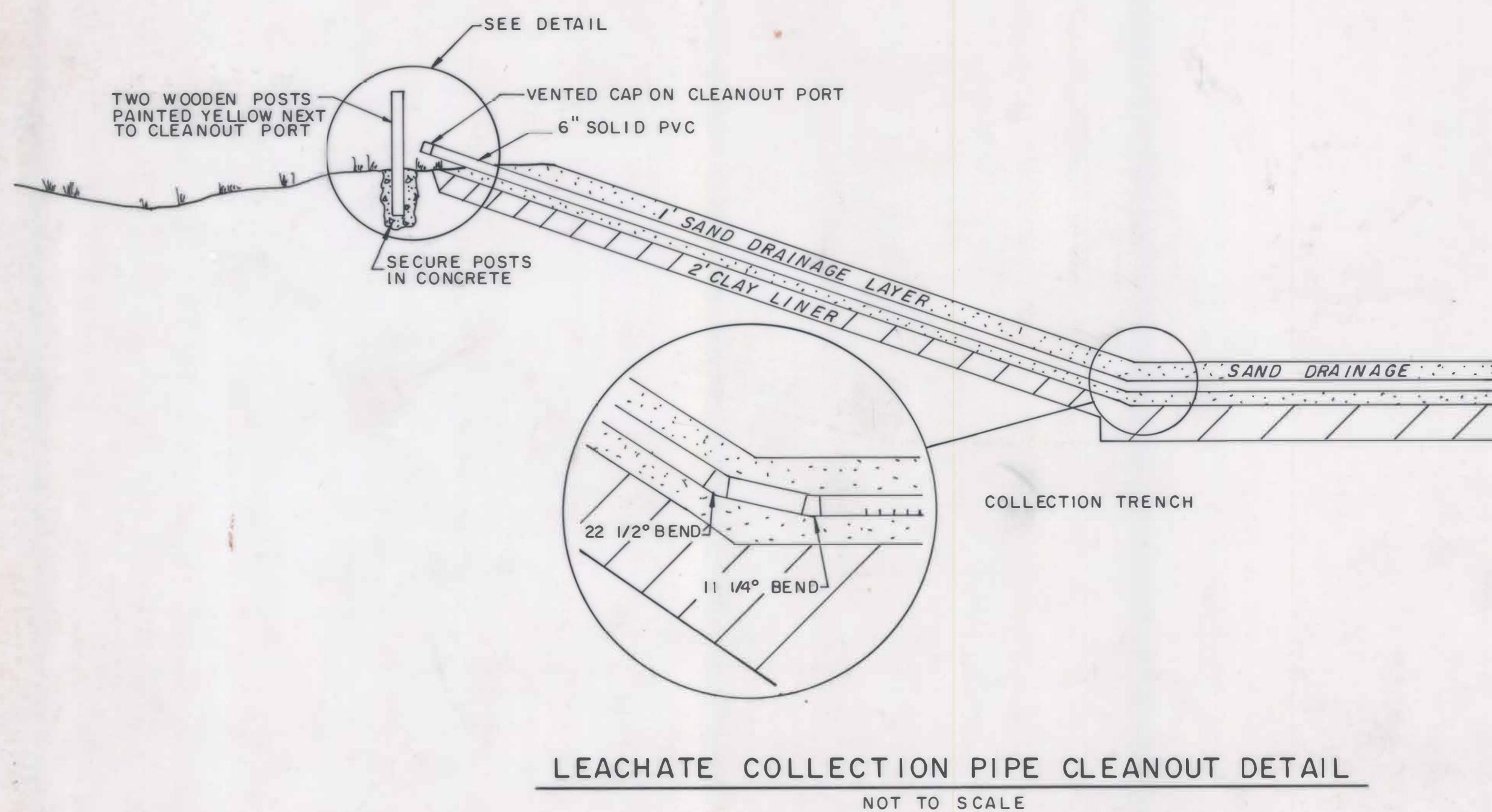
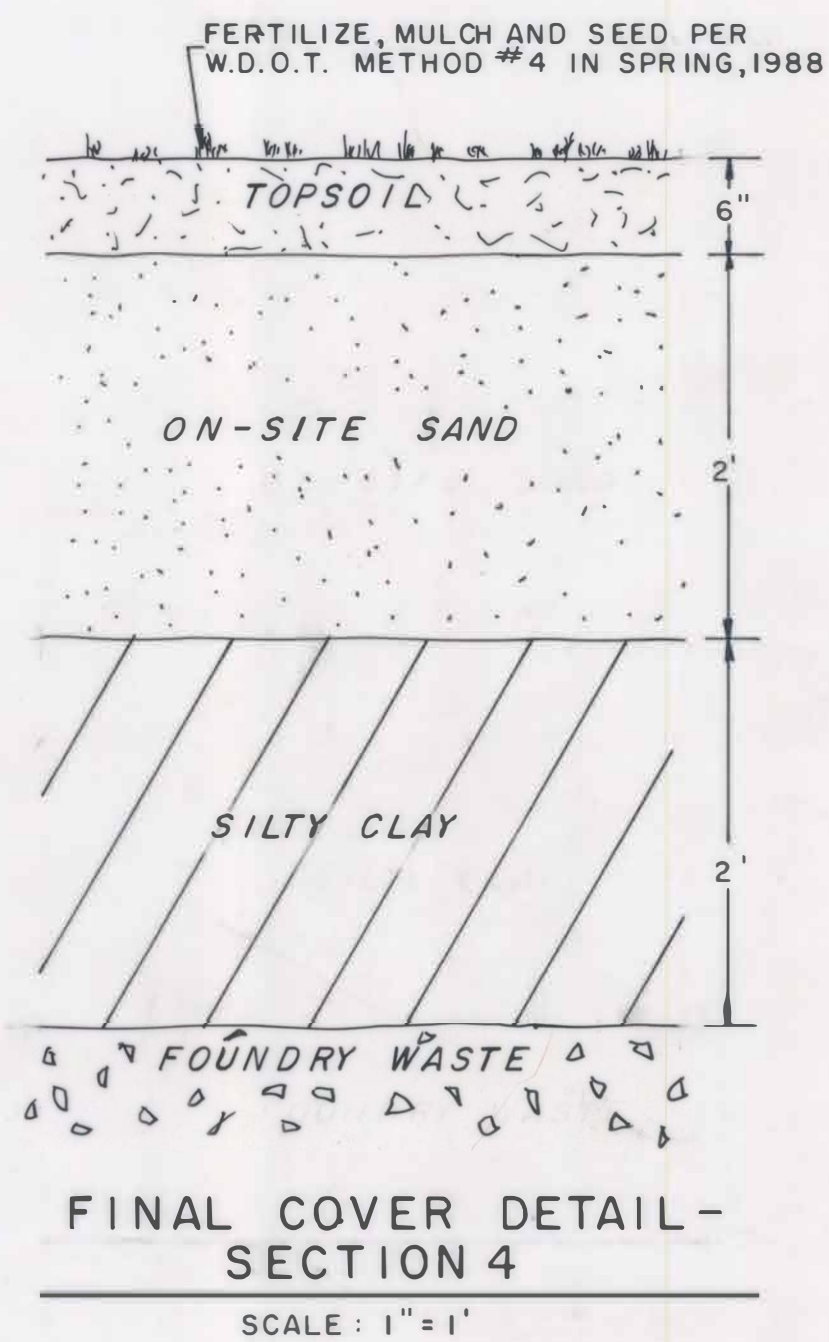
SCALE: 1" = 50'

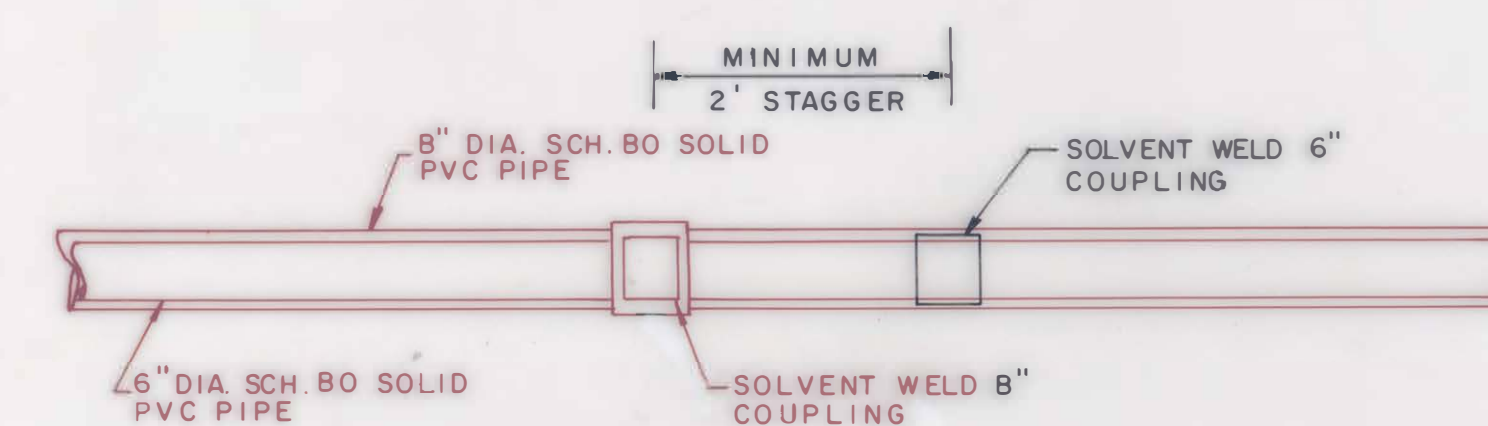
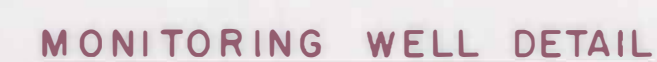
NOTE: PIPE DIAMETERS SHOWN ARE 1.5 TIMES LARGER THAN ACTUAL SIZE.



SCALE: AS SHOWN	DATE: 12-18-87	DRAWN BY: P.D.P.	APPROVED BY: J.M.B.
REVISIONS:	DATE	BY	DESCRIPTION
WAUPACA FOUNDRY, INC. LANDFILL - WAUPACA, WI. CLOSURE PLAN MODIFICATION II			
CONSTRUCTION CROSS-SECTIONS A-A', B-B', C-C'			DRAWING NUMBER: 13344-6 SCD

W.D.O.T. SEED MIXTURE #2
WILL BE APPLIED AT A
LOADING RATE OF
2.1bs./1000 ft.² IN THE
SPRING OF 1988



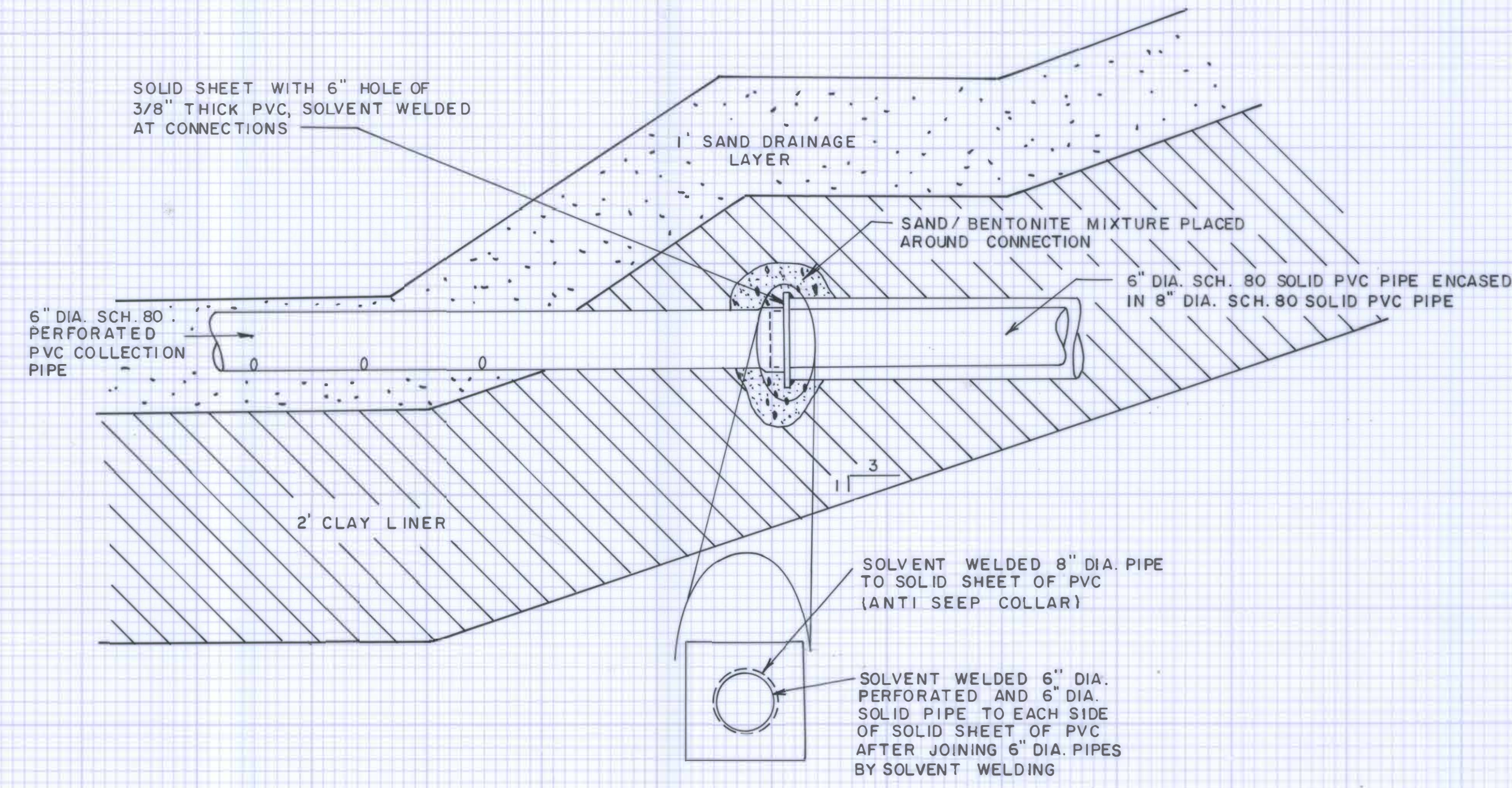


SLIP COUPLINGS WITH SOLVENT WELD JOINTS

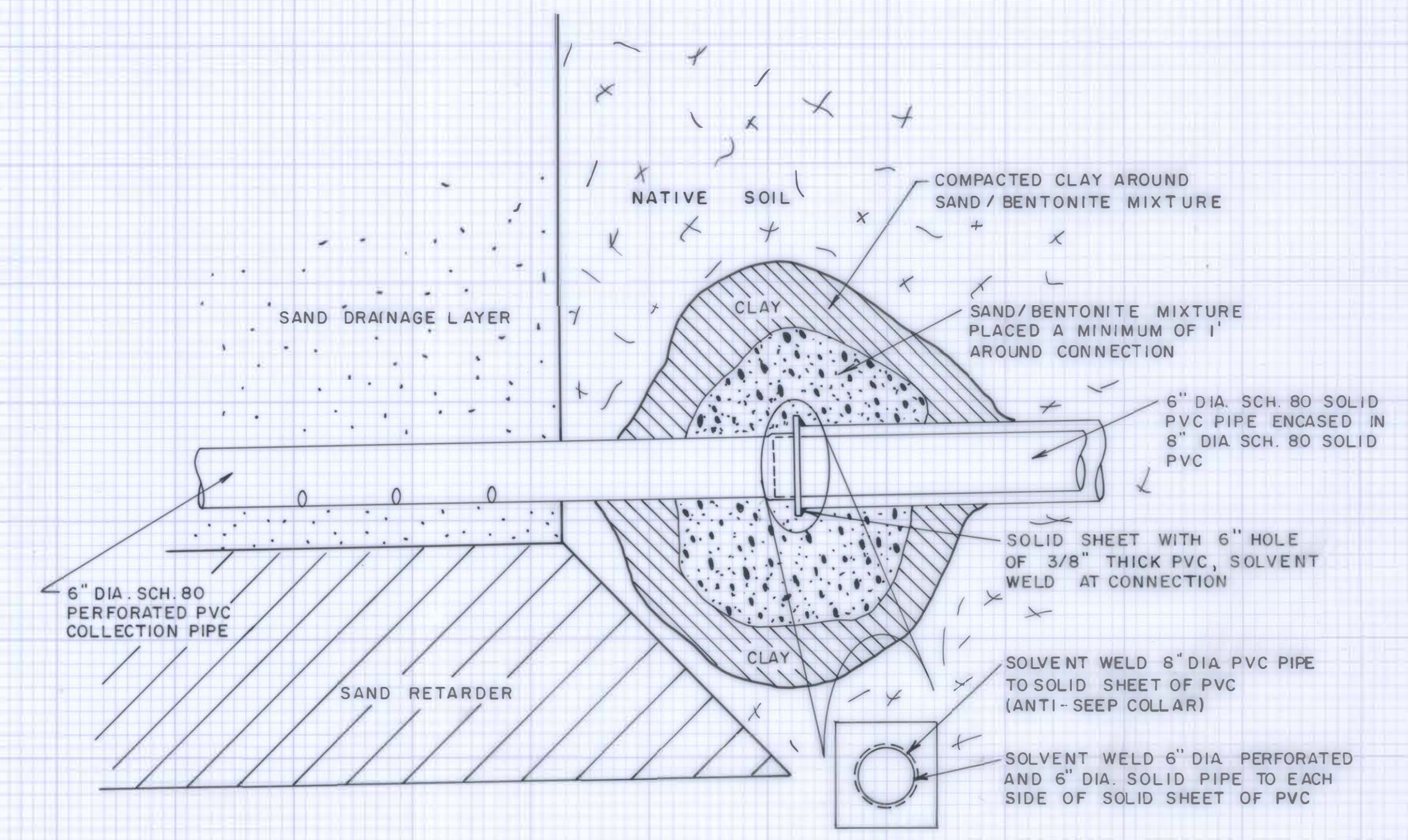


STS Consultants Ltd.
540 Lambeau St. Green Bay, Wisconsin
ph.414-494-9656

SCALE AS SHOWN		DATE 12-15-87	DRAWN BY: P. D. P.	APPROVED BY: J. M. B.
REVISIONS				
DATE:	BY:	DESCRIPTION		
WAUPACA FOUNDRY, INC. LANDFILL - WAUPACA, WI. CLOSURE PLAN MODIFICATION II TANK INSTALLATION AND CONSTRUCTION DETAILS				
			DRAWING NUMBER 13344 - 9SCD	



SECTION 5 SOUTH LEACHATE COLLECTION PIPE TO TRANSFER PIPE AT LINER-DETAIL



SECTION 4 LEACHATE COLLECTION PIPE TO TRANSFER PIPE AT SAND DRAINAGE TO NATURAL SOILS - DETAIL

NO.	DESCRIPTION	DATE	BY



STS Consultants Ltd.
Consulting Engineers

PROJECT/CLIENT

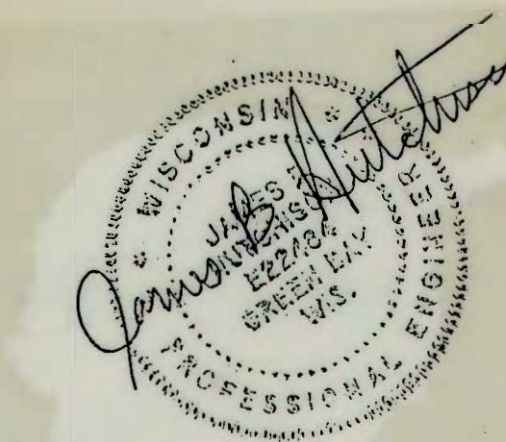
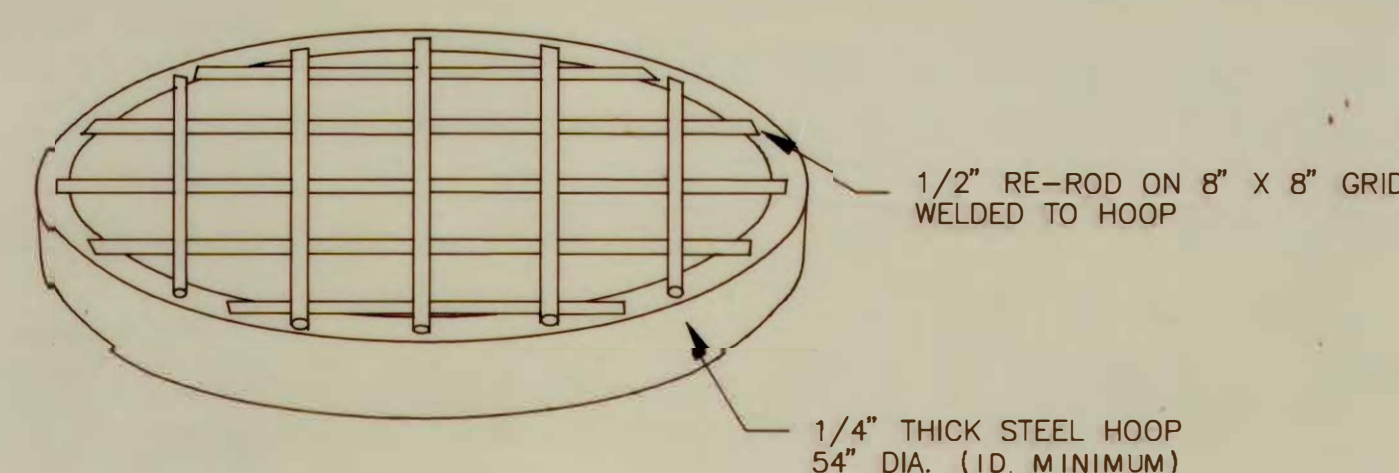
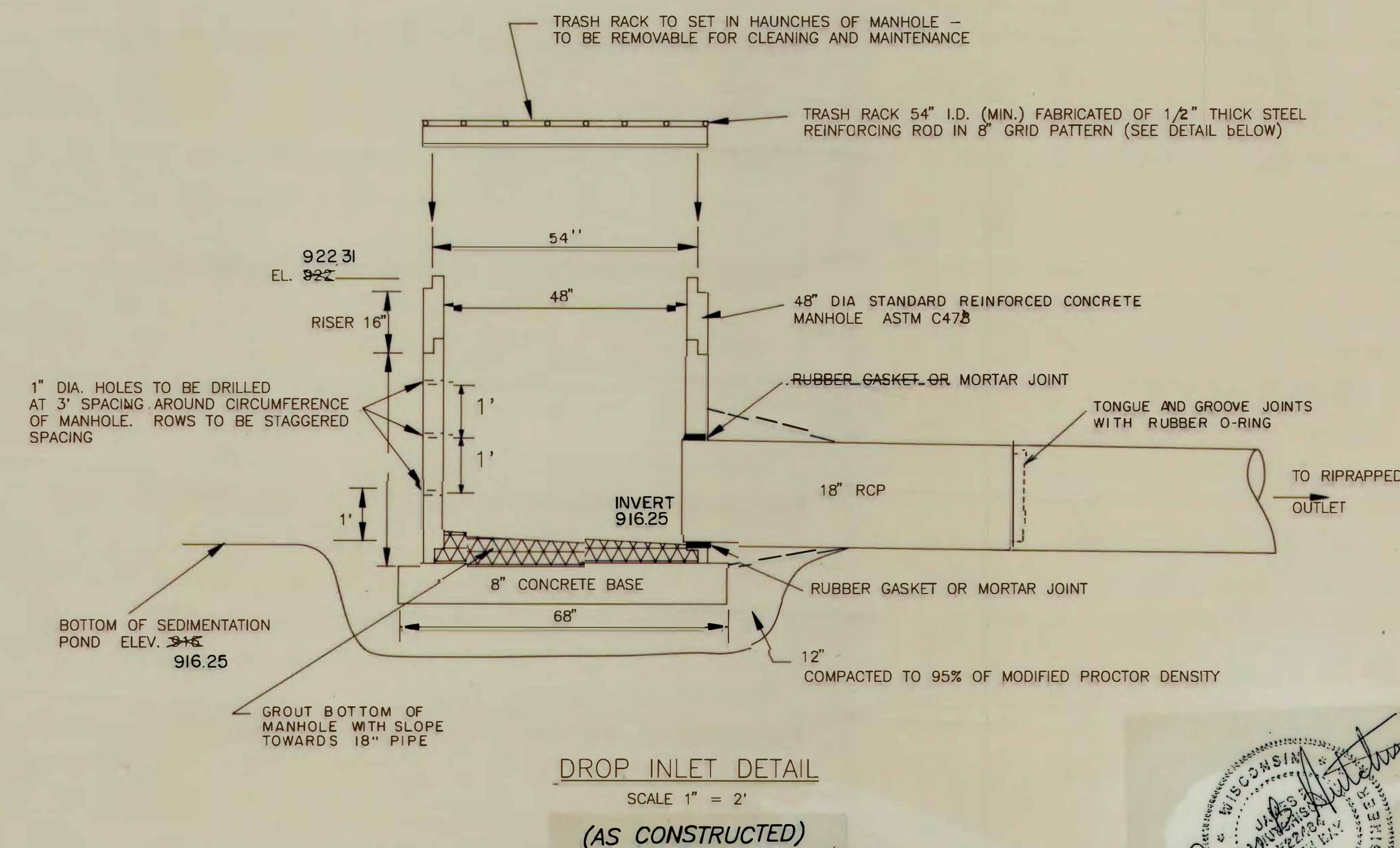
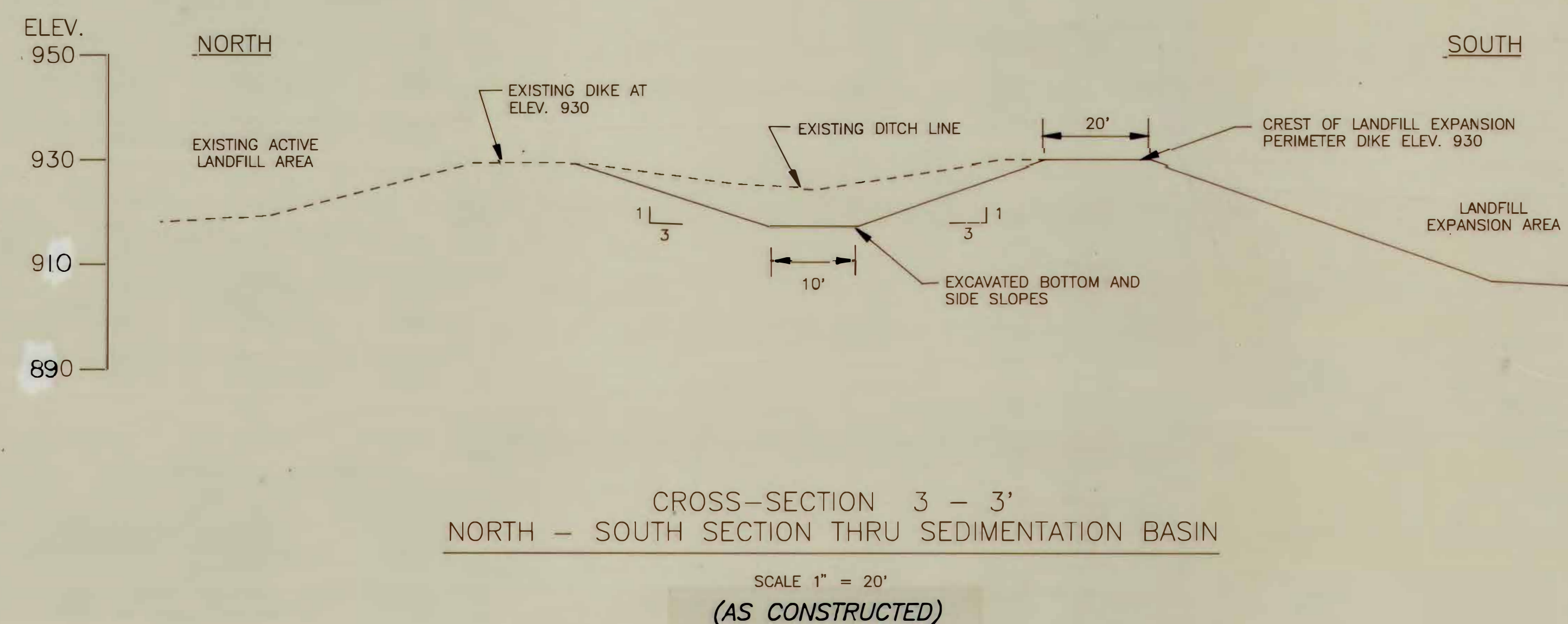
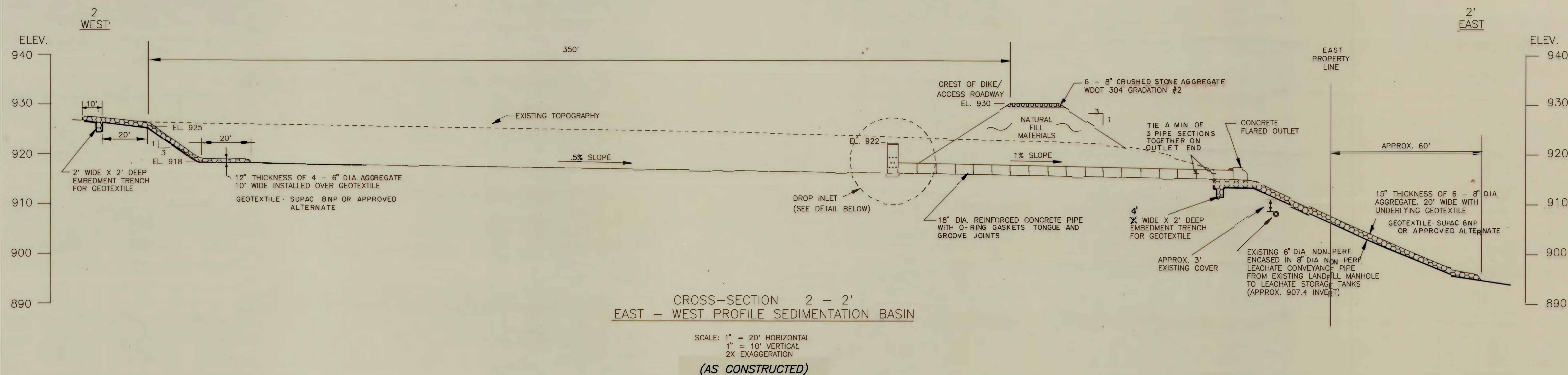
WAUPACA FOUNDRY LANDFILL

SITE CONSTRUCTION DETAIL

DRAWN BY	J.J.T.	2-17-87	SCALE	NO SCALE	FIGURE NO.
CHECKED BY					
APPROVED BY					

STS DRAWING NO. 13344 - 10 SCD

A3 – Drawing 17114XF-14, Sedimentation Basin and Outfall Details. Submitted with: *Landfill Construction Documentation Plans, Waupaca Foundry Landfill – Phase I Expansion*, December 1990, STS Consultants, Ltd.



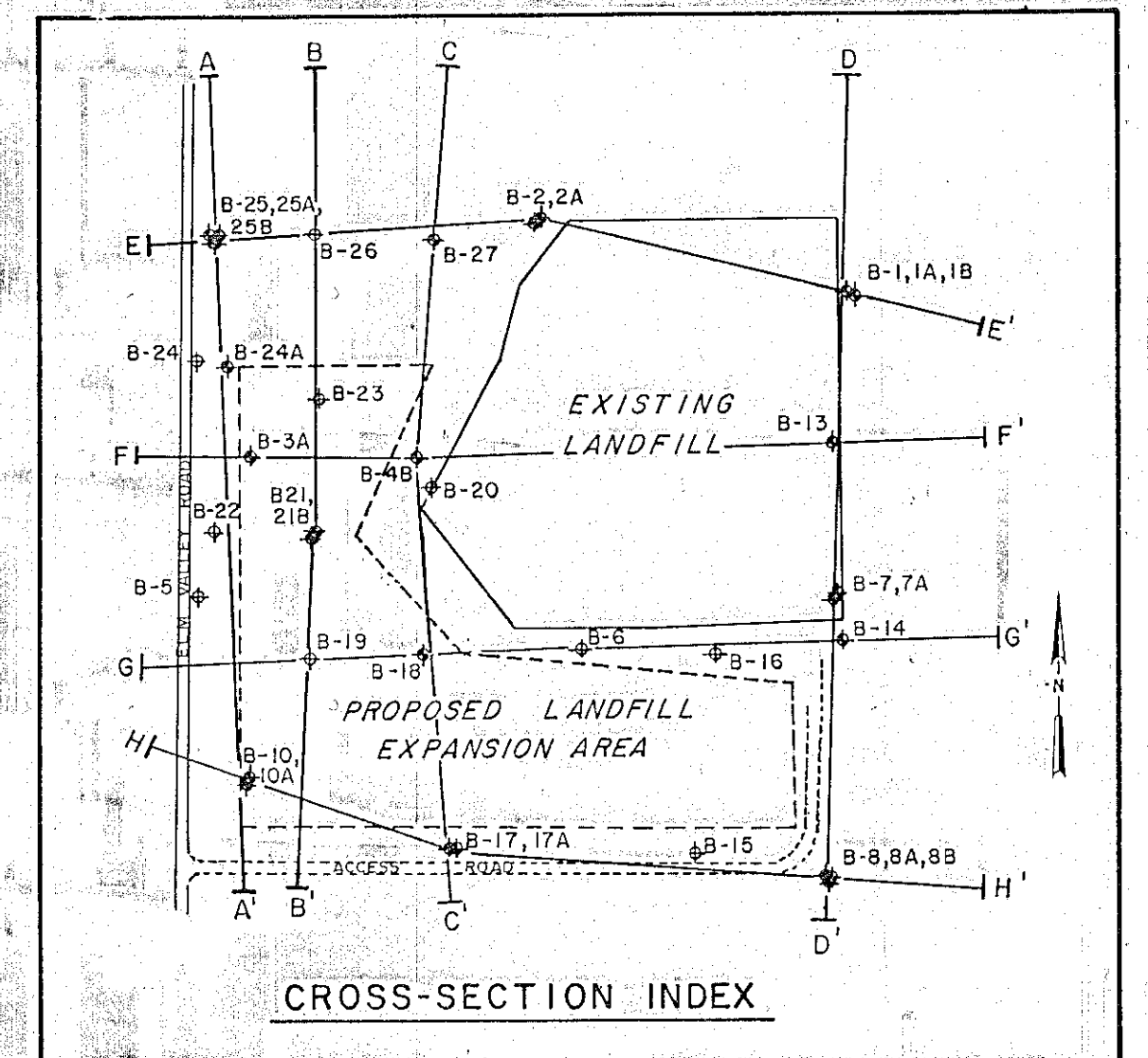
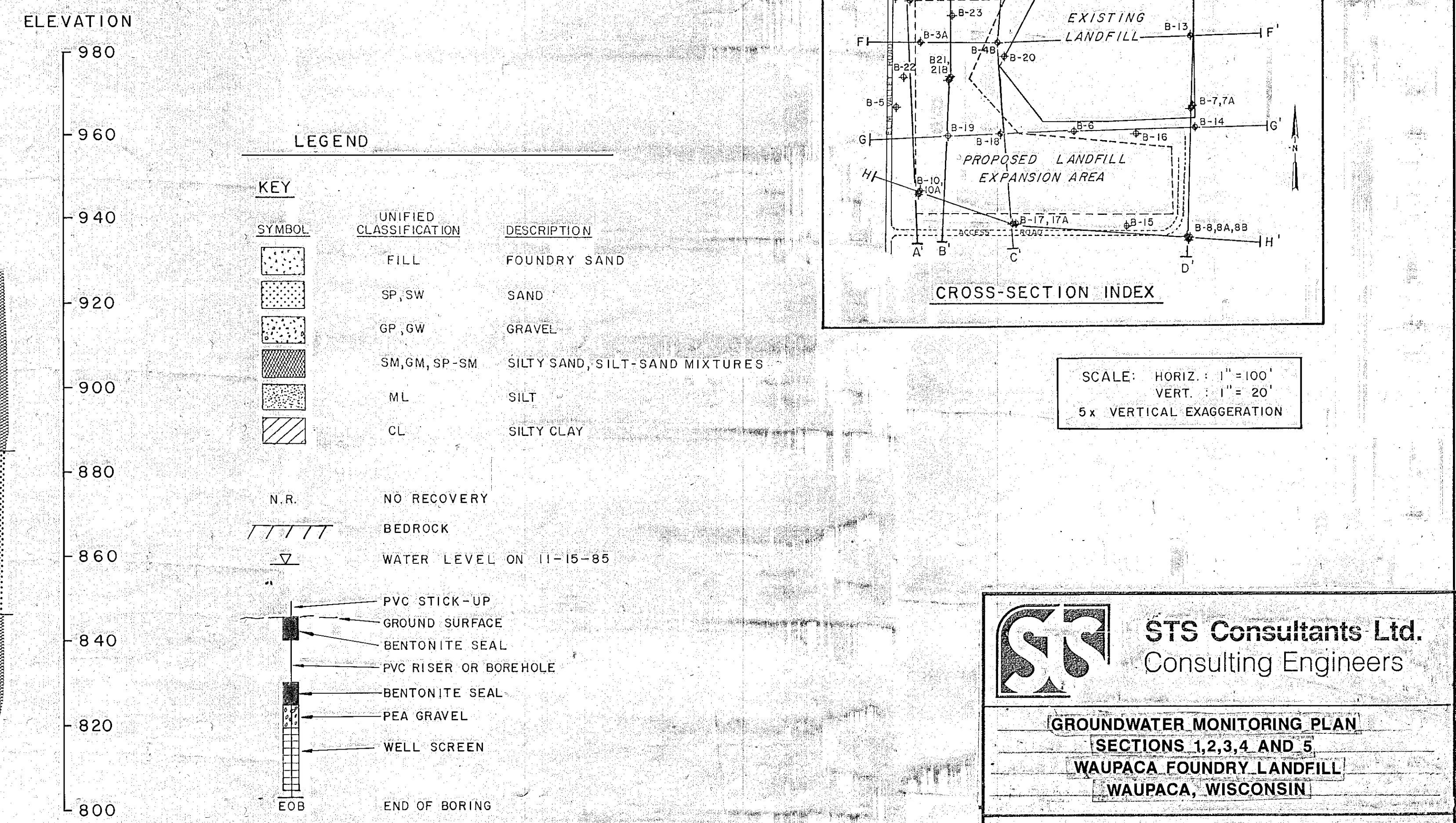
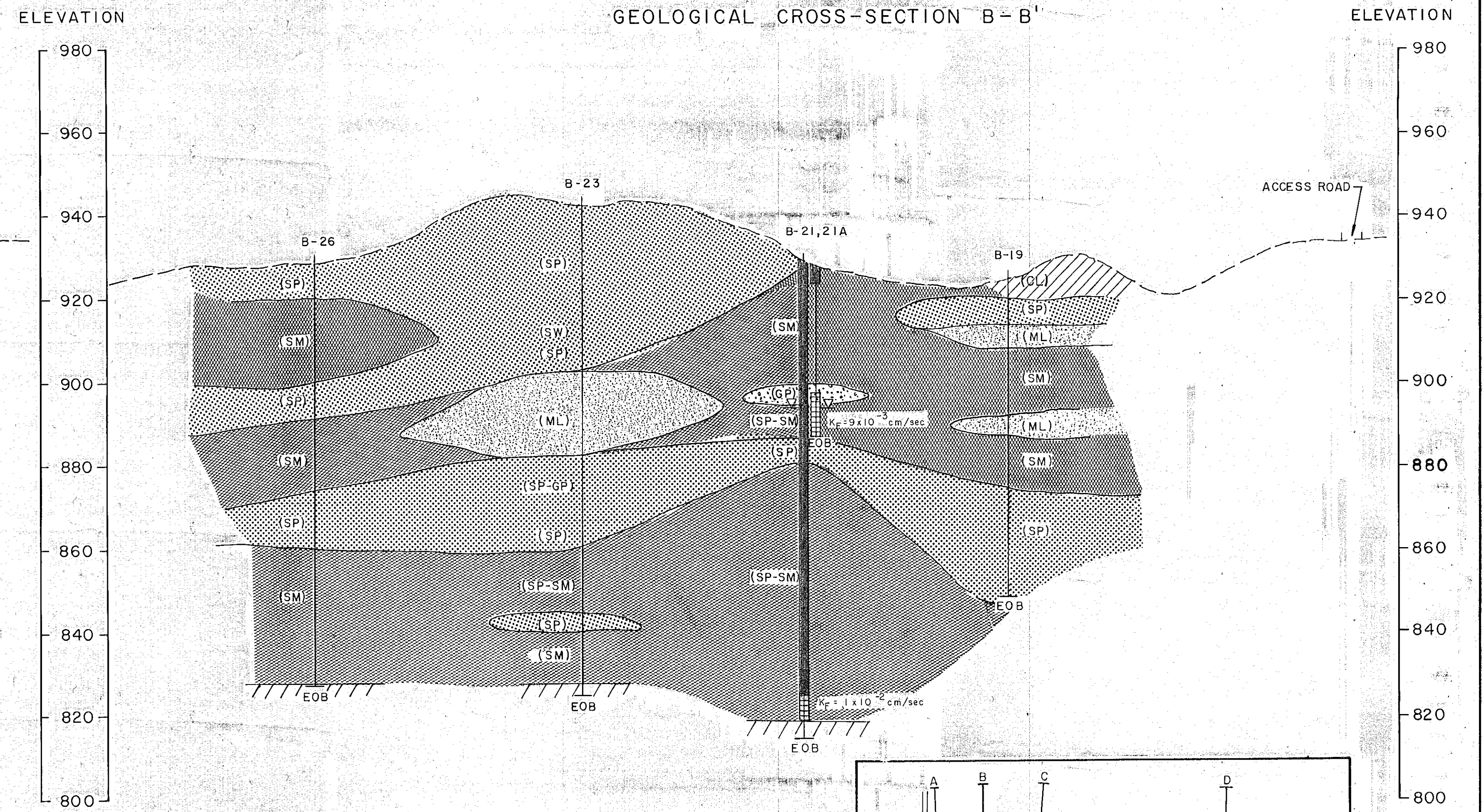
STS Consultants Ltd.
Consulting Engineers

CONSTRUCTION DOCUMENTATION PLANS
LANDFILL EXPANSION PHASE 1
WAUPACA FOUNDRY LANDFILL
WAUPACA, WISCONSIN

SEDIMENTATION BASIN AND OUTFALL DETAILS

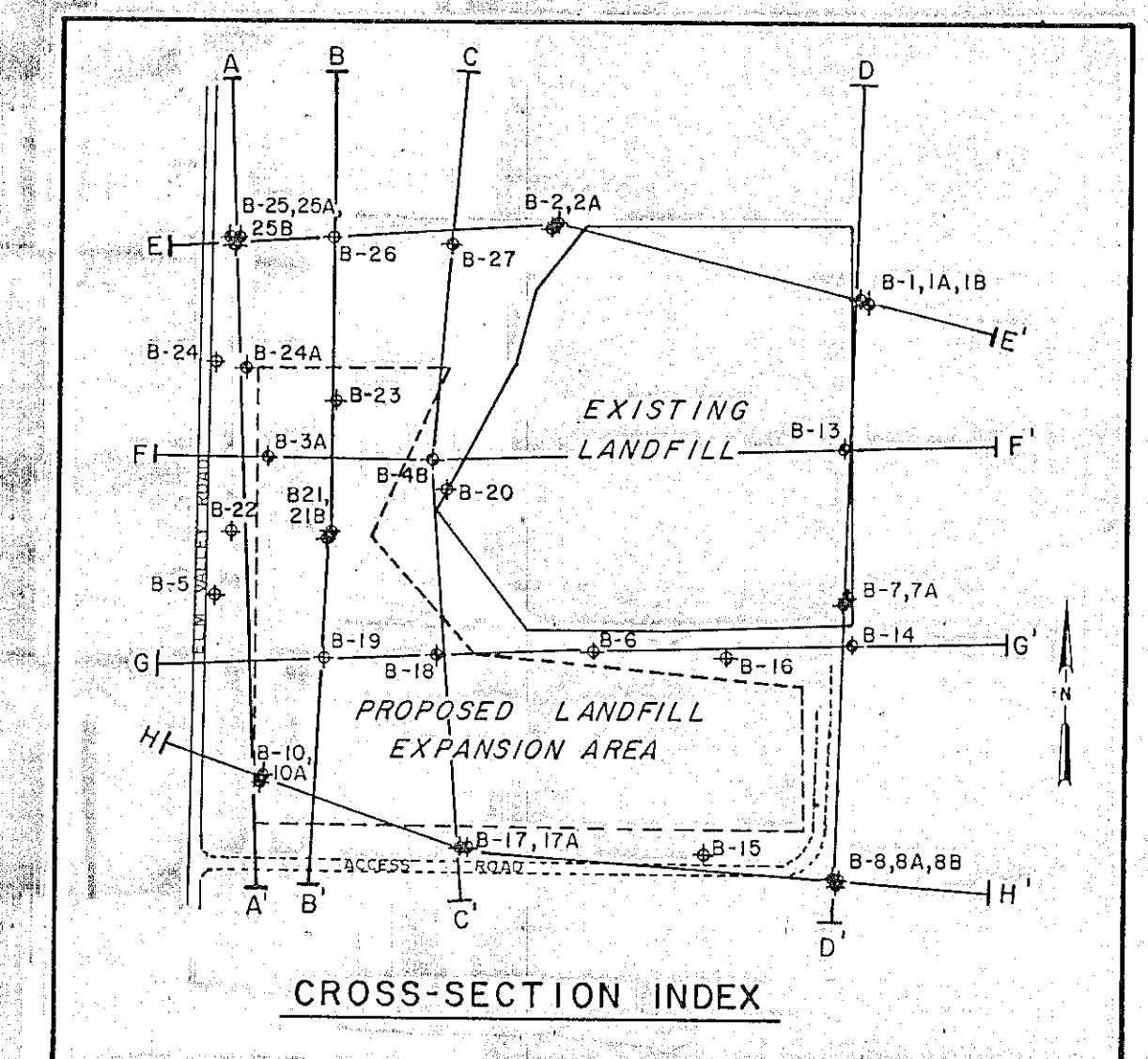
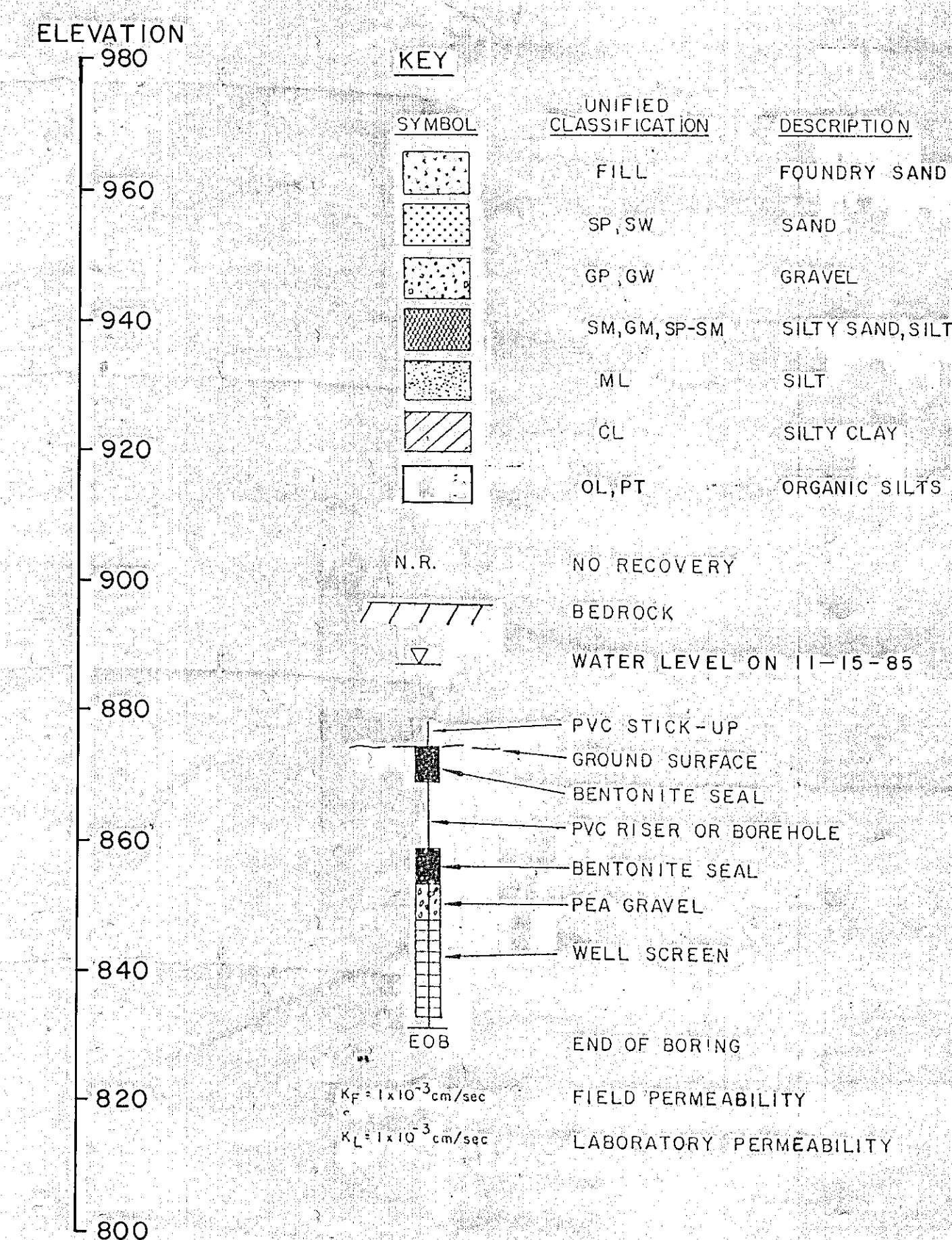
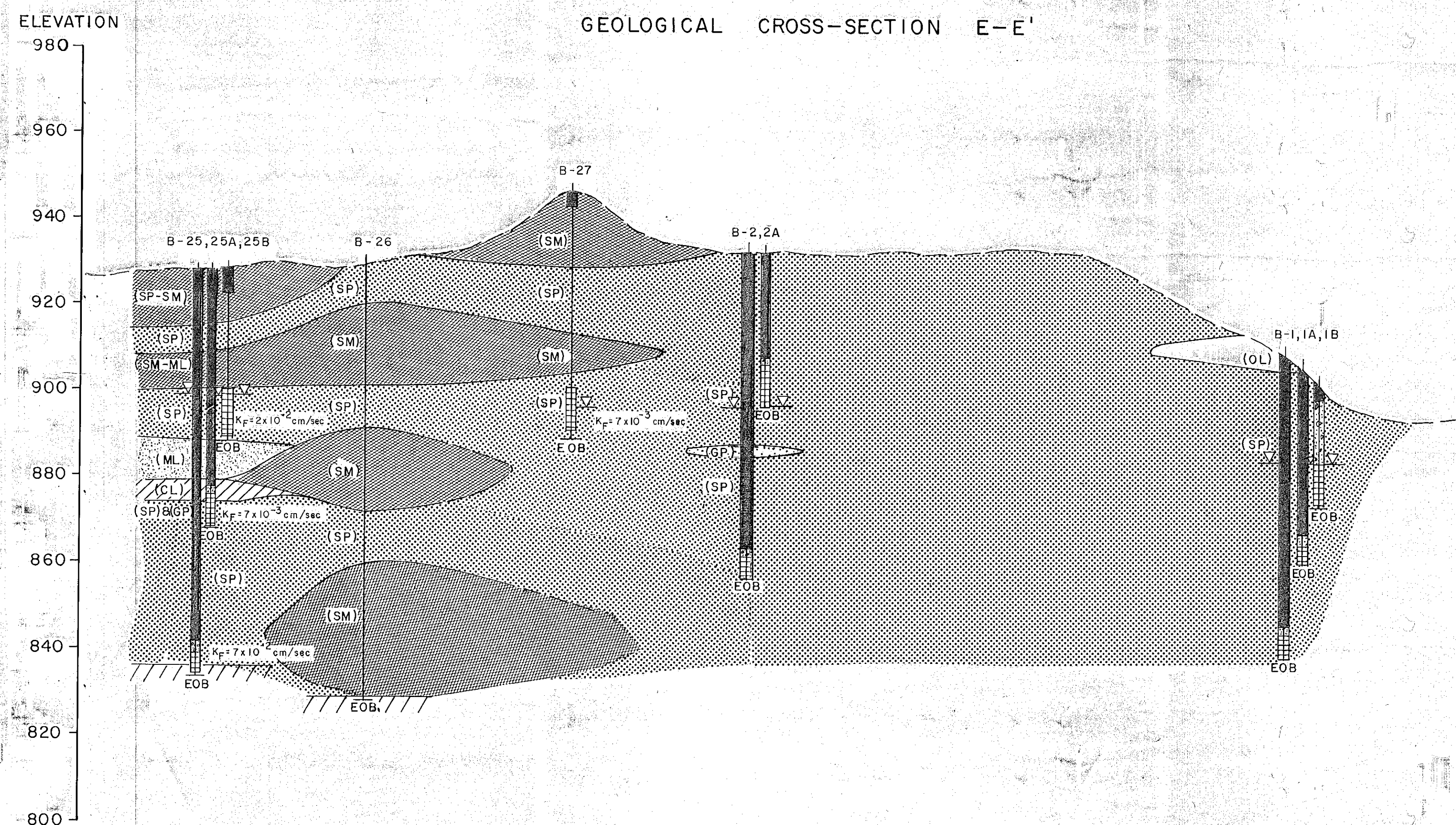
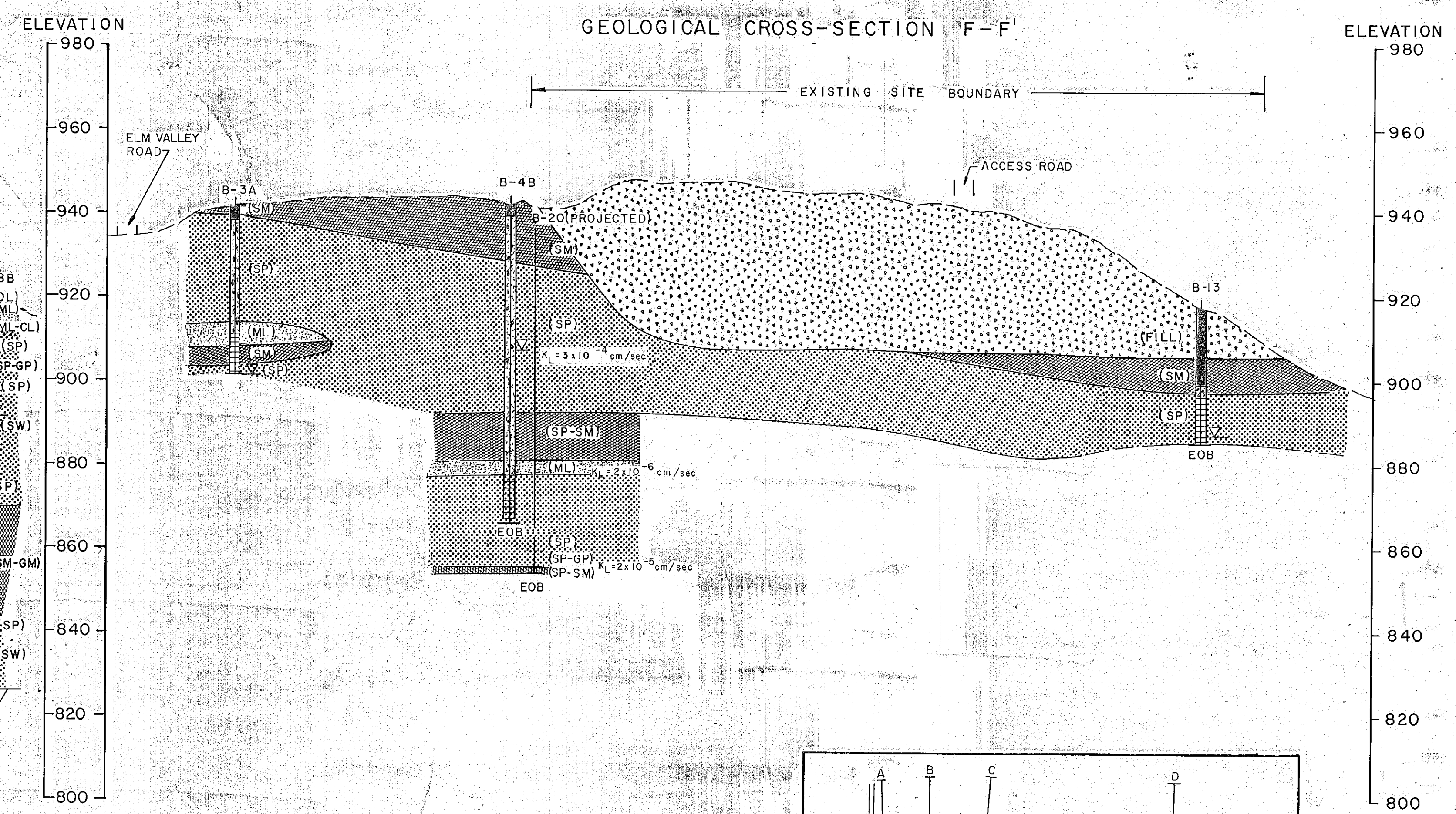
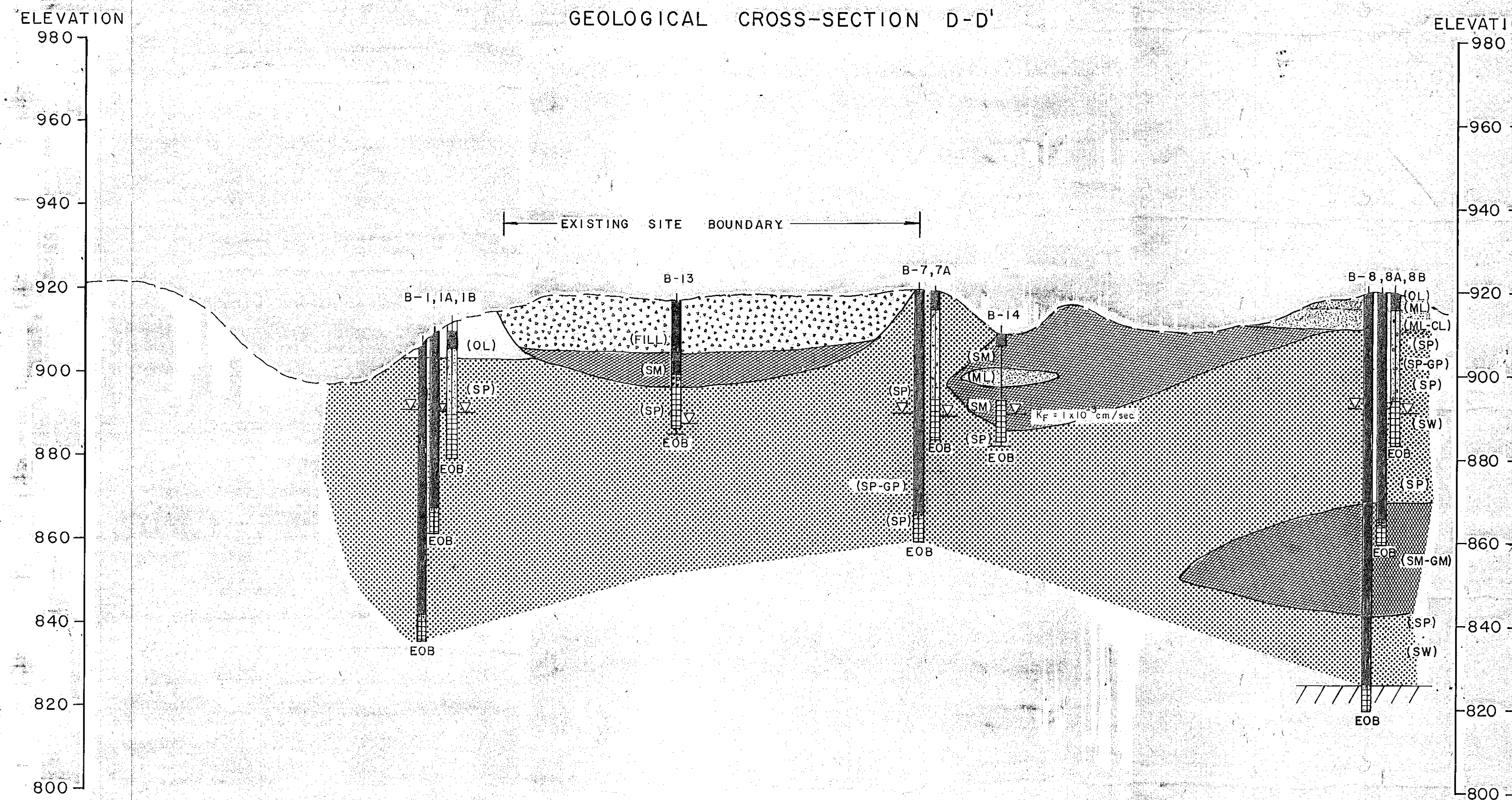
NO.	DESCRIPTION	DATE	BY	DRAWN BY	DATE	SCALE	STS PROJECT NO.
				J.J.T.	9-8-89	AS NOTED	
				CHECKED BY	DATE	SHEET NO.	
				K.O.O.			17004XF-14

A4 – Drawings 18382XF-102, 103, and 104, Geologic Cross-Sections A-A' to G-G'. Submitted with: *Groundwater Monitoring Plan, Sections 1, 2, 3, 4, and 5, Waupaca Foundry Landfill*, December 20, 1990, STS Consultants, Ltd.



SCALE: HORIZ. : 1" = 100'
VERT. : 1" = 20'
5 x VERTICAL EXAGGERATION

	STS Consultants Ltd. Consulting Engineers	
	GROUNDWATER MONITORING PLAN SECTIONS 1,2,3,4 AND 5 WAUPACA FOUNDRY LANDFILL WAUPACA, WISCONSIN	
GEOLOGICAL CROSS-SECTION A-A', B-B' & C-C'		
DRAWN BY D. T.B.	DATE 12-17-90	SCALE AS NOTED
CHECKED BY P. L.-E.	DATE 12-17-90	STS PROJECT NO. 18382XF SHEET NO. 18382XF-102



STS Consultants Ltd.
Consulting Engineers

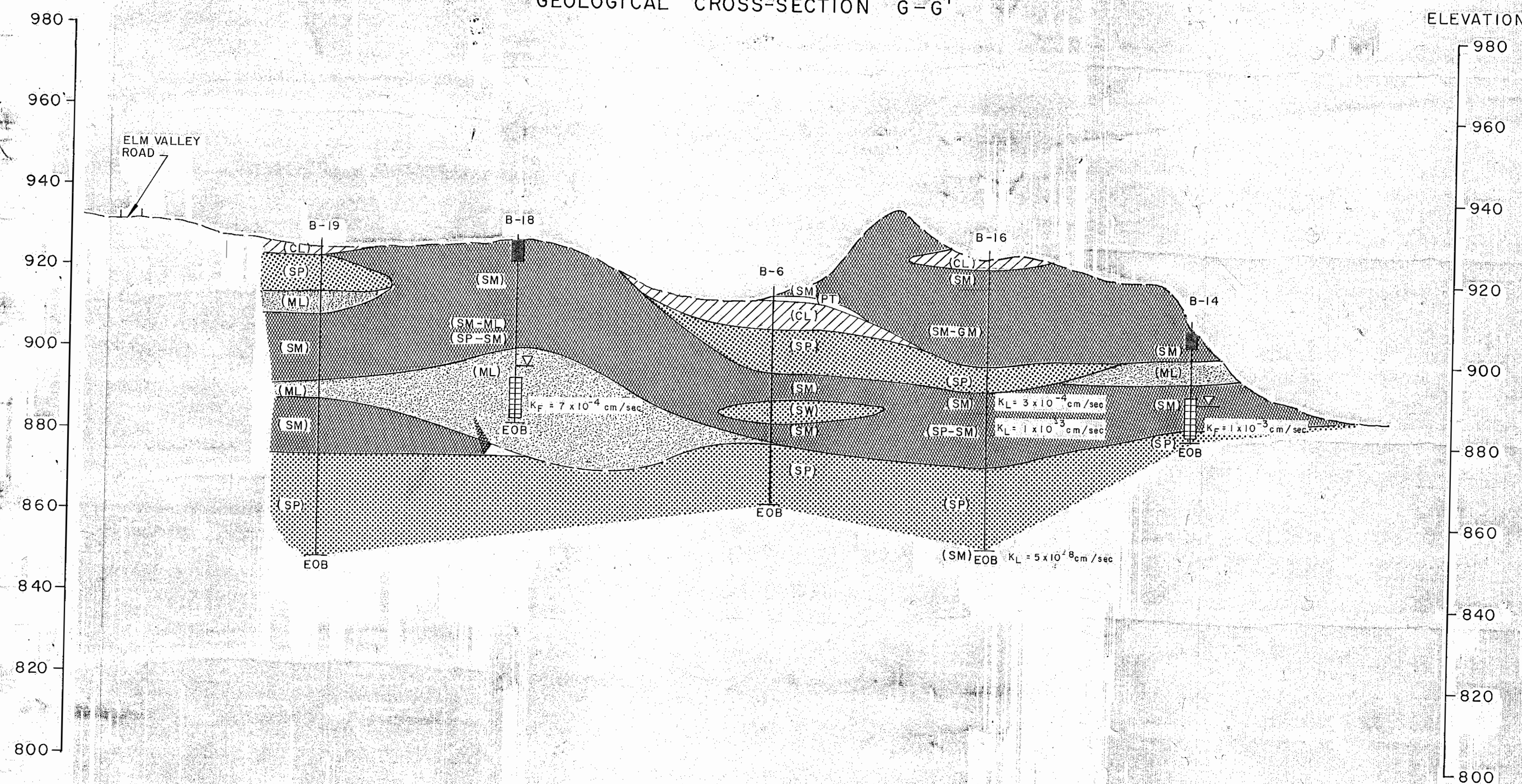
GROUNDWATER MONITORING PLAN
SECTIONS 1, 2, 3, 4 AND 5
WAUPACA FOUNDRY LANDFILL
WAUPACA, WISCONSIN

GEOLOGICAL CROSS-SECTION D-D', E-E' & F-F'

DRAWN BY	DATE	SCALE	STS PROJECT NO.
D.T.B.	12-17-90	AS NOTED	18382XF
CHECKED BY	DATE	SHEET NO.	
P.L.E.	12-17-90		18382XF-103

ELEVATION

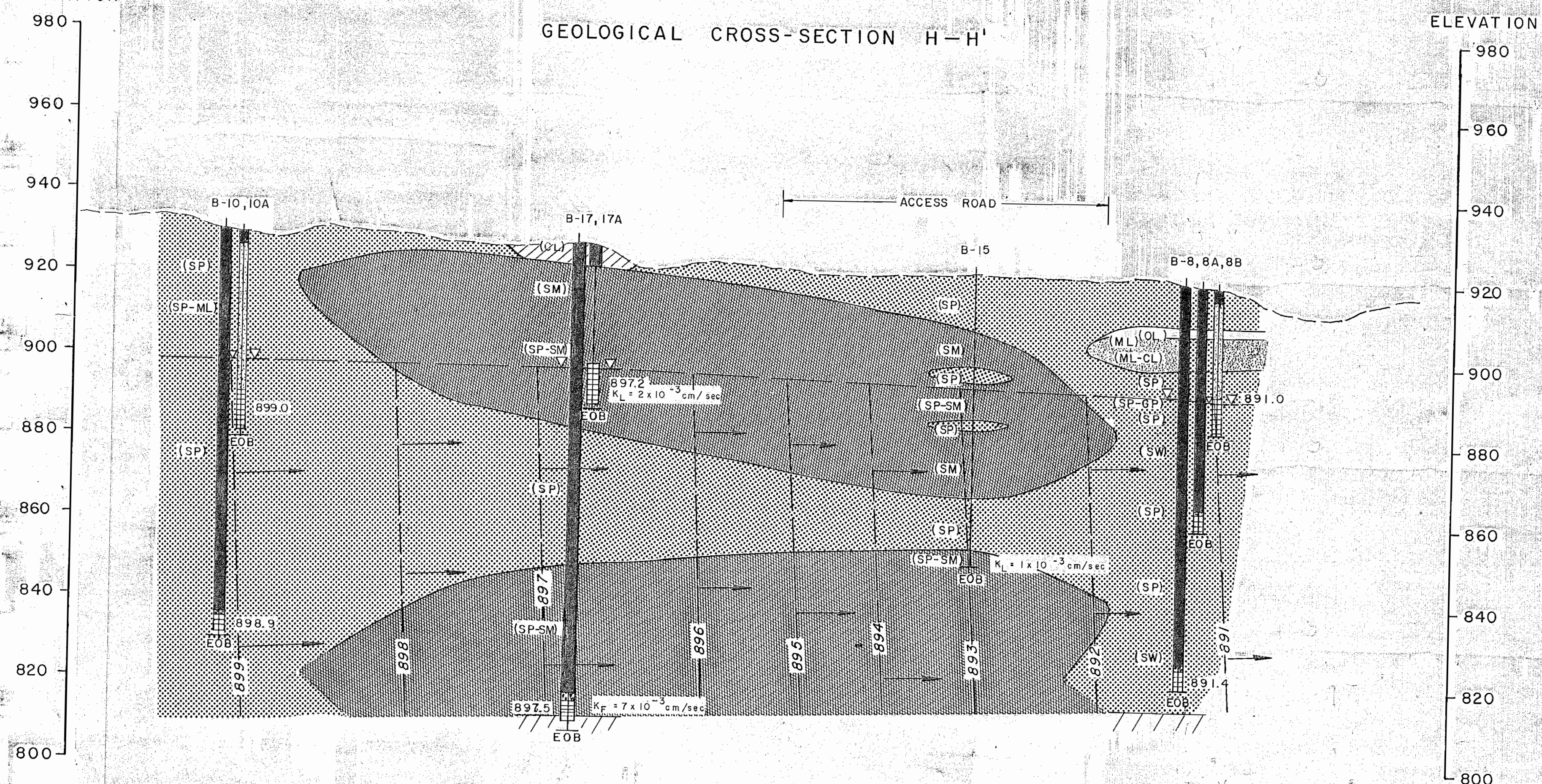
GEOLOGICAL CROSS-SECTION G-G'



Note:
Best available
copy of drawing

ELEVATION

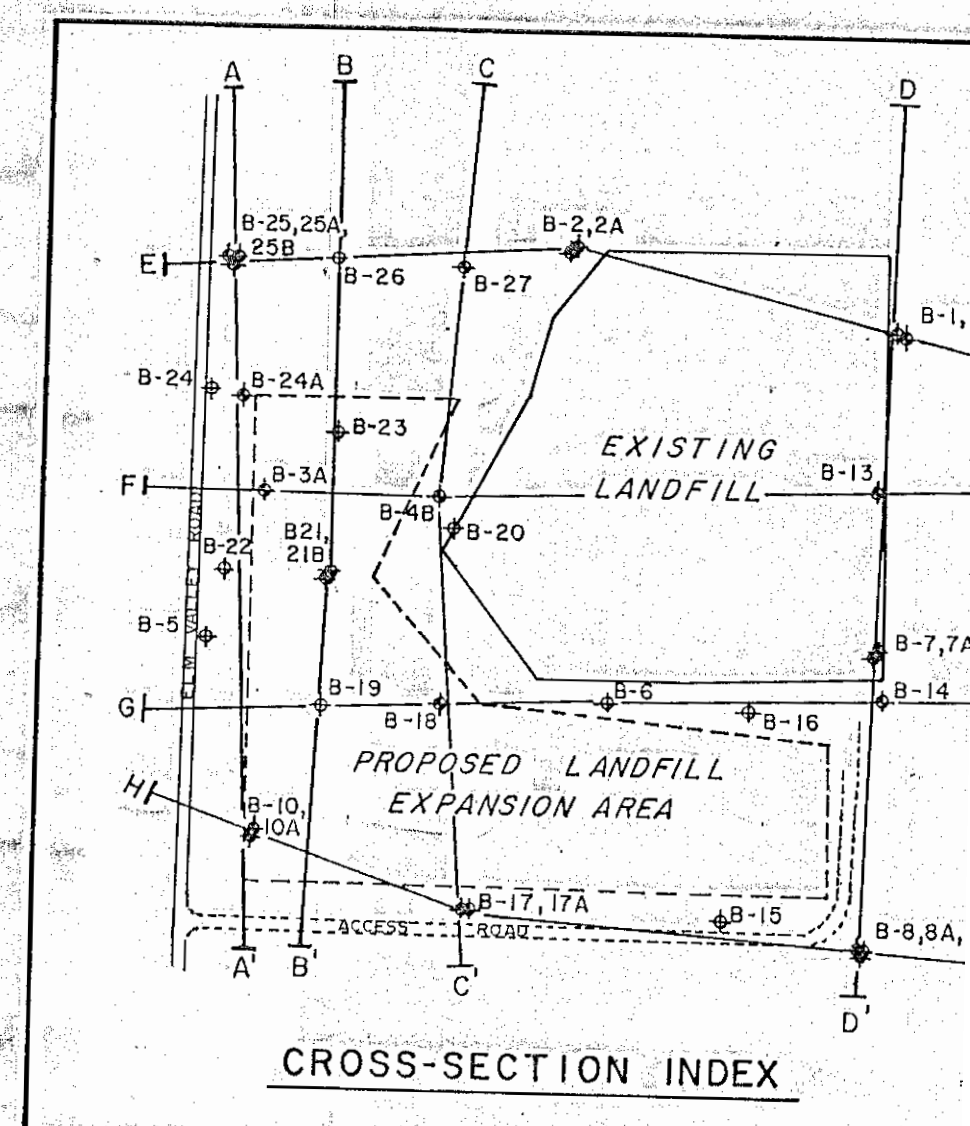
GEOLOGICAL CROSS-SECTION H-H'



LEGEND

KEY

SYMBOL	UNIFIED CLASSIFICATION	DESCRIPTION
[Pattern]	FILL	FOUNDRY SAND
[Pattern]	SP, SW	SAND
[Pattern]	GP, GW	GRAVEL
[Pattern]	SM, GM, SP-SM	SILTY SAND, SILT-SAND MIXTURES
[Pattern]	ML	SILT
[Pattern]	CL	SILTY CLAY
[Pattern]	OL, PT	ORGANIC SILTS
[Symbol]	897	EQUIPOTENTIAL CONTOUR ON 11-15-85 AND DIRECTION OF GROUNDWATER FLOW
[Symbol]	N.R.	NO RECOVERY
[Symbol]	[Pattern]	BEDROCK
[Symbol]	[Symbol]	WATER LEVEL ON 11-15-85
[Symbol]	[Symbol]	PVC STICK-UP
[Symbol]	[Symbol]	GROUND SURFACE
[Symbol]	[Symbol]	BENTONITE SEAL
[Symbol]	[Symbol]	PVC RISER OR BOREHOLE
[Symbol]	[Symbol]	BENTONITE SEAL
[Symbol]	[Symbol]	PEA GRAVEL
[Symbol]	[Symbol]	WELL SCREEN
[Symbol]	EOB	END OF BORING
[Symbol]	$K_p = 1 \times 10^{-3}$ cm/sec	FIELD PERMEABILITY
[Symbol]	$K_L = 1 \times 10^{-3}$ cm/sec	LABORATORY PERMEABILITY



SCALE: HORIZ. 1" = 100'
VERT. 1" = 20'
5x VERTICAL EXAGGERATION

STS Consulting

GROUNDWATER MONITORING
SECTIONS 1, 2, 3, 4 AND
WAUPACA FOUNDRY LTD.
WAUPACA, WISCONSIN

GEOLOGICAL CROSS-SECTION

DRAWN BY	DATE	SCALE
D.T.B.	12-17-90	AS N
CHECKED BY	DATE	SHEET
P.L.E.	12-17-90	

A5 – Letter dated January 31, 2011, to Bryant Esch, Waupaca Foundry Inc., from James A. Zellmer, WDNR: *Exemption from Solid Waste Regulation to Reduce Frequency of Leachate Pipe Cleaning at the ThyssenKrupp Waupaca Landfills, Town of Waupaca, Waupaca County, Wisconsin, WDNR License Nos. 3412, 3171, and 2638*

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
Northeast Region Headquarters
2984 Shawano Avenue
Green Bay WI 54313-6727

Scott Walker, Governor
Cathy Stepp, Secretary
Jean Rombach-Bartels, Acting Regional Dir.
Telephone 920-662-5100
FAX 920-662-5413
TTY Access via relay - 711



January 31, 2011

Mr. Bryant Esch, Environmental Engineer
ThyssenKrupp Waupaca Inc
1955 Brunner Drive
PO Box 249
Waupaca WI 54981

Subject: Exemption from Solid Waste Regulation to Reduce Frequency of Leachate Pipe Cleaning at the ThyssenKrupp Waupaca Landfills, Town of Waupaca, Waupaca County, Wisconsin, WDNR License Nos. 3412, 3171 and 2638

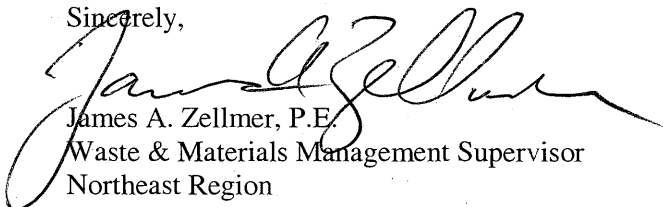
Dear Mr. Esch:

This letter is to inform you that your request for an exemption from the Wisconsin solid waste rules to reduce the frequency of leachate line cleaning has been approved. ThyssenKrupp Waupaca (TKW) requested an exemption to the requirement of s. NR 506.07(5)(c), Wis. Adm. Code, to allow a reduction in leachate line cleaning from annual to biennial at its Waupaca landfills.

TKW operates an industrial monofill that receives only foundry by-products from its local foundry operations. Recent leachate pipe cleaning records indicate that there have not been any issues at this site relating to pipe blockages, breaks or impedances that would impair the operation of the leachate collection system. Leachate collection pipe fouling and clogging has not been a problem at this facility due to the inorganic nature of the by-products.

Please feel free to contact me by telephone at 920-662-5431 or email: james.zellmer@wisconsin.gov if you have questions regarding this exemption.

Sincerely,



James A. Zellmer, P.E.
Waste & Materials Management Supervisor
Northeast Region

**BEFORE THE
STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES**

**EXEMPTION FROM SOLID WASTE RULE
FOR THE
FREQUENCY OF LEACHATE PIPE CLEANING
AT THE
THYSSENKRUPP WAUPACA INC. INDUSTRIAL BYPRODUCT DISPOSAL FACILITIES
WDNR LICENSE NOS. 3412, 3171 AND 2638**

FINDINGS OF FACT

1. ThyssenKrupp Waupaca, Inc. (TKW) owns and operates a nonhazardous foundry byproduct disposal facility located in Section 7, T22N, R12E, Town of Waupaca, Waupaca County, Wisconsin, WDNR License No. 3412. TKW owns two closed landfills, license nos. 3171 and 2638, on the same property.
2. On May 17, 2002, the Department issued a conditional plan of operation approval for an expansion of the TKW disposal facility.
3. On January 14, 2011, the Department received a letter requesting an exemption from s. NR 506.07(5)(c), Wis. Adm. Code, to allow a reduction in frequency of leachate collection line cleaning from annual to biennial.
4. A review of past leachate line cleaning reports for the TKW landfills indicates that there have not been issues with cleaning the collection pipes or evidence of pipe fouling or clogging.
5. The Department has not yet received the correct review fee of \$550 for this exemption request.
6. Additional documents considered in connection with the modification request include the following:
 - a. The Department's May 17, 2002, Conditional Plan of Operation Approval for the Horizontal and Vertical Expansion of the ThyssenKrupp Waupaca Inc., Industrial Byproduct Disposal Facility.
 - b. The Department's file for the ThyssenKrupp Waupaca Inc., Industrial Byproduct Disposal Facility.

CONCLUSIONS OF LAW

1. The Department has promulgated Section NR 506, Wis. Adm. Code, which established minimum operating standards for solid waste disposal facilities under the authority of Section 289, Stats.
2. The Department has authority under s. NR 500.08(4) to grant exemptions from the requirements of chs. NR 500 to 538, Wis. Adm. Code.
3. The Department has authority to issue an exemption with conditions if the conditions are necessary to ensure compliance with the applicable provisions of chapters NR 500 to 538, Wis. Adm. Code, or to assure that environmental pollution will not occur.

4. The condition set forth below as necessary to ensure compliance with the applicable provisions of chapters NR 500 to 538, Wis. Adm. Code, and to assure that environmental pollution will not occur.
5. In accordance with the foregoing, the Department has the authority under s. NR 500.08(4), Wis. Adm. Code, to issue the following conditional grant of exemption:

CONDITIONAL GRANT OF EXEMPTION

The Department hereby issues this exemption from s. NR 506.07(5)(c), Wis. Adm. Code, by reducing the frequency of leachate line cleaning from annual to biennial at the ThyssenKrupp Waupaca, Inc., Industrial Byproduct Disposal Facility, subject to the following condition:

1. All leachate collection lines shall be cleaned with a water jet cleanout device with a maximum pressure of 10,000 pounds per square inch immediately after construction of new cells and **biennially** thereafter. The frequency of leachate pipe cleaning shall revert back to an annual basis if biennial jetting reveals significant blockages or impedances that could, in the Department's opinion, be avoided by more frequent jetting.

The Department retains the right to require the submittal of additional information or to modify this exemption at any time if, in the Department's opinion, further modifications are necessary.

NOTICE OF APPEAL RIGHTS

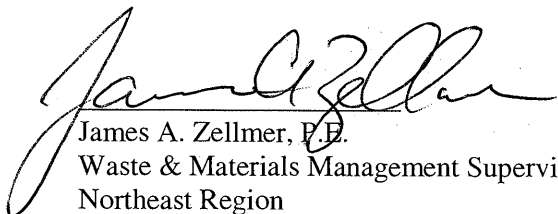
If you believe you have a right to challenge this decision made by the Department, you should know that Wisconsin statutes and administrative codes establish time periods and requirements for reviewing Department decisions:

To seek judicial review of the Department's decision, sections 227.52 and 227.53, Stats., establish criteria for filing a petition for judicial review. You have 30 days after the decision is mailed or otherwise served by the Department to file your petition with the appropriate circuit court and serve the petition on the Department. The petition shall name the Department of Natural Resources as the respondent.

Dated: January 31, 2011

DEPARTMENT OF NATURAL RESOURCES

For the Secretary



James A. Zellmer, P.E.
Waste & Materials Management Supervisor
Northeast Region

A6 – Letter dated March 9, 2016, to Bryant Esch, Waupaca Foundry Inc., from Valerie Joosten,
WDNR: *Environmental Monitoring Modification, Waupaca Foundry Landfill License #2638*



March 9, 2016

Mr. Bryant Esch
Waupaca Foundry, Inc.
1955 Brunner Drive
P.O. Box 249
Waupaca, WI 54981

FILE REF: FID# 469011400
Waupaca
SW/APPR

Subject: Environmental Monitoring Modification, Waupaca Foundry Landfill License #2638

Dear Mr. Esch:

We have received your request for modification of the plan of operation approval for the Waupaca Foundry Landfill License #2638. Specifically, the request is to reduce the amount of parameters analyzed for in groundwater samples collected from the site. The requested modification has been reviewed and is hereby approved.

The specific proposal is to:

- Eliminate the requirement to analyze groundwater samples for metals from an unfiltered sample (requirement to analyze samples for most metals from a filtered sample remains),
- Eliminate the requirement to analyze all groundwater samples for barium, copper, selenium, and zinc, and
- Eliminate the requirement to analyze all groundwater samples for Chemical Oxygen Demand (COD)

The Department believes that the modifications to the environmental monitoring program will not have an adverse effect on the performance of the closed hazardous waste landfill provided the condition in the attached plan approval modification are fulfilled. You should attach this conditional plan approval modification directly to the June 30, 1992 plan modification for the Waupaca Foundry Landfill, License #2638.

The revised environmental monitoring program is detailed in the tables attached to the conditional plan approval modification. If you have any questions regarding this approval please contact Greg Tilkens at (920) 662-5433.

Sincerely,

Valerie Joosten, P.E.
Waste & Materials Management Supervisor
Northeast Region

Attachments: Plan Approval Modification & Monitoring Requirement Tables
cc: Paula Leier-Engelhardt – HydroGeo Solutions via email

BEFORE THE
STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

CONDITIONAL PLAN OF OPERATION APPROVAL MODIFICATION
FOR THE WAUPACA FOUNDRY LANDFILL LICENSE #2638
FID # 469011400

FINDINGS OF FACT

The Department finds that:

1. Waupaca Foundry, Inc. owns and operates a solid and hazardous waste disposal facility located in the SW ¼ of the SE ¼ of Section 6, T22N, R12E, Town of Waupaca, Waupaca County, Wisconsin.
2. The hazardous waste landfill unit has been closed and is in long term care. A 30 year long term care license was issued by the Department on June 30, 1992.
3. The Department issued a conditional plan of operation approval for the facility on June 30, 1992.
4. A plan modification request that includes a proposal to reduce the amount of parameters analyzed from samples collected at the site was submitted to the Department on behalf of Waupaca Foundry, Inc. by HydroGeo Solutions, LLC. This request is dated September 29, 2015 and was received by the Department on September 30, 2015.
5. The special conditions set forth below are needed to assure compliance with chs. NR 660 through 670 and ch. NR 140, Wis. Adm. Code.

CONCLUSIONS OF LAW

1. The Department has promulgated chs. NR 660 to 679, Wis. Adm. Code, establishing minimum requirements for hazardous waste management under the authority of ch. 291, Wis. Stats.
2. The Department has authority pursuant to ch. NR 140, Wis. Adm. Code, and the applicable portions of chs. NR 660 through 670, Wis. Adm. Code, to require sampling of groundwater. Specifically the Department has authority under subch. F of ch. NR 664, Wis. Adm Code, to require environmental monitoring at hazardous waste disposal facilities.
3. The Department has authority under subch. G of ch. NR 664, Wis. Adm. Code, to modify a hazardous waste facility's closure and long term care plans.
4. In accordance with the preceding, the Department has authority under chs. 160, 289 and 291, Stats., and chs. NR 660 through 670, Wis. Adm. Code, to issue the following conditional plan modification approval.
5. In accordance with s. NR 670.042, Wis. Adm. Code, the Department concludes that the revision described in Findings of Fact #4 requires a Class 1 license modification needing Department approval.

CONDITIONAL PLAN OF OPERATION APPROVAL MODIFICATION

The Department hereby modifies the approved plan of operation for the Waupaca Foundry Landfill License #2638 subject to the following condition:

1. Waupaca Foundry, Inc. shall undertake groundwater monitoring at the Waupaca Foundry Landfill License #2638 according to the attached tables detailing the monitoring requirements.

This approval is based on the information available to the Department as of the date of approval. If additional information, project changes or other circumstances indicate a possible need to modify this approval, the Department may ask you to provide further information relating to this activity. Likewise, the Department accepts proposals to modify approvals, as provided for in state statutes and administrative codes.

NOTICE OF APPEAL RIGHTS

If you believe you have a right to challenge this decision made by the Department, you should know that Wisconsin statutes and administrative codes establish time periods and requirements for reviewing Department decisions.

To seek judicial review of the Department's decision, sections 227.52 and 227.53, Stats., establish criteria for filing a petition for judicial review. You have 30 days after the decision is mailed or otherwise served by the Department to file your petition with the appropriate circuit court and serve the petition on the Department. The petition shall name the Department of Natural Resources as the respondent.

Dated: March 9, 2016

DEPARTMENT OF NATURAL RESOURCES
For the Secretary



Valerie Joosten, P.E.
Waste & Materials Management Supervisor
Northeast Region



Greg Tilkens
Waste & Materials Management Hydrogeologist
Northeast Region

GROUNDWATER MONITORING WELLS

The groundwater monitoring wells will be monitored for parameters at the frequency listed in the tables below. S/A = Semi-Annually A = Annually. Also, note the sample color, odor and turbidity at the time of sampling:

Lic. #2638	Parameter	Total Alkalinity, Filt.	Arsenic, Diss.	Cadmium, Diss.	Chloride	Chromium, Diss.	Conductance, Field	Total Dissolved Solids	Fluoride, Diss.	Groundwater Elev.	Total Hardness, Filtered	Lead, Diss.	PH, Field
Well Name	DNR ID#	39036	01000	01025	00940	01030	00094	70295	00950	72020	22413	01049	00400
B-1	401	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A
B-1A	402	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A
B-1B	403	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A
B-3A-88R	422	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A
B-7	408	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A
B-7A	409	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A
B-25	428	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A
B-25A	429	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A
B-25B	430	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A
B-28	420	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A
B-28A	444	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A
B-29	421	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A
B-30	431	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A	S/A

Lic. #2638	Parameter	Sodium, Diss.	Sulfate, Diss	Water Temp.	Base/Neutral & Acid Extractable	Iron, Diss.	Manganese, Diss.	NO3-N, Total	NO2 & NO3, N, Diss.	Phenols, Total	VOC Scan
Well Name	DNR ID#	00930	00946	00010	n/a	01046	01056	00620	00631	34043	n/a
B-1	401	S/A	S/A	S/A	A	A	A	A	A	A	A
B-1A	402	S/A	S/A	S/A	A	A	A	A	A	A	A
B-1B	403	S/A	S/A	S/A	A	A	A	A	A	A	A
B-3A-88R	422	S/A	S/A	S/A	A	A	A	A	A	A	A
B-7	408	S/A	S/A	S/A	A	A	A	A	A	A	A
B-7A	409	S/A	S/A	S/A	A	A	A	A	A	A	A
B-25	428	S/A	S/A	S/A	A	A	A	A	A	A	A
B-25A	429	S/A	S/A	S/A	A	A	A	A	A	A	A
B-25B	430	S/A	S/A	S/A	A	A	A	A	A	A	A
B-28	420	S/A	S/A	S/A	A	A	A	A	A	A	A
B-28A	444	S/A	S/A	S/A	A	A	A	A	A	A	A
B-29	421	S/A	S/A	S/A	A	A	A	A	A	A	A
B-30	431	S/A	S/A	S/A	A	A	A	A	A	A	A