
To:	Geoff Strack, P.E. Waste Connections	From:	Bradley W Sullivan, P.E. Stantec Consulting Services Inc.
File:	Project #227704387	Date:	January 7, 2022

Reference: SKB Rosemount Industrial Waste Facility 2021 Annual CCR Inspection Report

Purpose

This memorandum fulfills the requirements of 40 CFR § 257.84 Inspection Requirements for coal combustion residue (CCR) Surface Landfills, Part b, regarding an annual inspection by a qualified professional engineer.

Background and Applicability

SKB Environmental, Inc. owns and operates the SKB Rosemount Industrial Waste Facility (the Landfill or Facility herein), an industrial waste disposal facility operating under MPCA Solid Waste Permit SW-383, originally issued in January of 1992.

The site is located on a 236-acre parcel in Sections 19, 20 and 25 of Township 115 North, Range 18 West, in the City of Rosemount, Minnesota, which is in Dakota County. The site is located between Minnesota State Highway 55 (aka Courthouse Boulevard) and Dakota County Road 38, and is accessed via 13425 Courthouse Boulevard, Rosemount, MN 55068.

All industrial waste cells are permitted to accept CCR and operating records indicate that CCR Material is contained in Cells 1, 2, 3, and 6. See Figure 1 for a facility site plan.

CCR Landfill Inspection (40 CFR § 257.84)

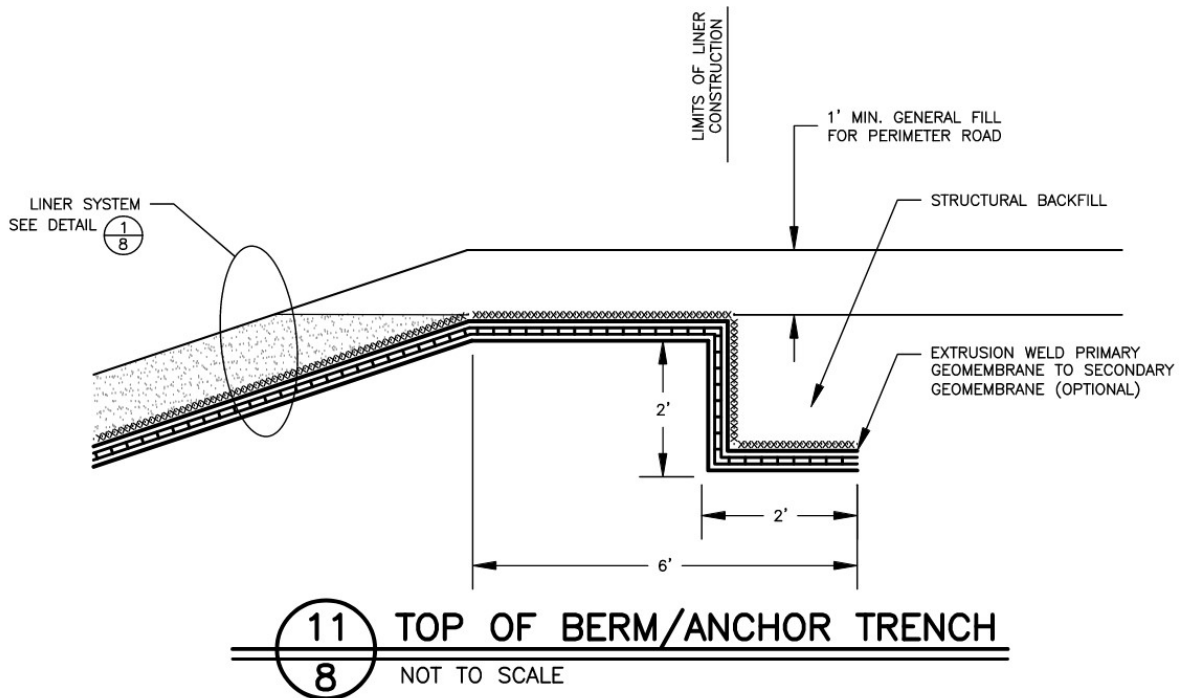
On October 19, 2021, Brad Sullivan, PE, of Stantec conducted the on-site inspection of the CCR Landfill. As part of the inspection, the following operating and inspection records were reviewed:

- Review of weekly visual CCR inspections performed by landfill operators for this annual reporting period;
- Previous annual inspections performed by a licensed professional engineer;
- CCR unit design and construction information required by §257.73(c)(1) and §257.74(c)(1); and
- Previous periodic structural stability assessments required under § 257.73(d).

Landfill Cell Design

In general, most of the facility's landfill cell embankments were constructed using granular borrow material, which consisted of silty clay and clayey sand type soils. The fill was placed and compacted to 95% of Standard Proctor Dry Density in lift thicknesses ranging from 8 inches to 12 inches. The final subgrade surface was proof rolled prior to geosynthetics installation. The landfill lining systems varies from cell to cell, but all meet the requirements of CFR 257.70. A typical perimeter section from the 2021 Cell 6 Construction Drawings prepared by Tetra-Tech dated February 2021 is shown below.

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During the inspection, no signs of landfill cell embankment distress or waste slope instability were observed and no other structural or containment CCR landfill issues were noted. The landfill embankments and interim covered slopes were generally in good condition with a well-established vegetation cover and no signs of significant erosion.

Photos of the landfill embankments and waste slopes were taken during the inspection. Figure 1 presents the photo locations, and Attachment 1 contains a photo log from the inspections.

CCR Landfill Inspection Report

40 CFR § 257.84, Subpart b.2 requires the following topics in italics be addressed within this report. The requirements are shown in italics with the response immediately afterwards for each item.

- (i) *Any changes in geometry of the impounding structure since the previous annual inspection;*

Approximately 20 acres of Cell 6 were constructed during the summer of 2021. At the time of the inspection, roughly half of the recently constructed Cell 6 (northwestern portion) had received MPCA operational approval with waste filling in progress. The other half was constructed and awaiting MPCA approval. Part of 2021's Cell 6 construction included installing the lining system on the outer portion of the Cell 2 southern berm.

January 7, 2022

Geoff Strack, PE

Page 3 of 4

Reference: SKB Rosemount Industrial Waste Facility 2021 Annual CCR Inspection Report

There were no other apparent changes to the embankment geometry of any other landfill cell when compared to the permit drawings or the past inspection reports other than the 2021 construction as noted above.

The annual aerial photogrammetry survey was performed on October 21, 2021, which the estimated in-place volume of total waste (including all accepted wastes) is based on. A comparison of the 2021 and 2020 aerial surveys confirm that the embankment and slope topography is substantially unchanged with no significant movement. The 2021 aerial survey is included as Figure 2.

(ii) The approximate volume of CCR contained in the unit at the time of the inspection;

The approximate volume of CCR material contained in the landfill at the time of the inspection is 664,300 cubic yards.

(iii) Any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit and appurtenant structures; and

None of the following were observed that could indicate structural weakness;

- Signs of slumping or rotational movement;
- Lateral or vertical distortion of the embankment crest;
- Seepage on the outboard slope; or
- Borrowing or damage due to vectors.

(iv) Any other change(s) which may have affected the stability or operation of the impounding structure since the previous annual inspection.

There were no changes noted that may could potentially affect the stability or operation of the impoundment. Observations were consistent with those noted in that report.

Notification Requirements

The SKB Rosemount Industrial Waste Landfill is in compliance with the recordkeeping requirements specified in § 257.105(g), the notification requirements specified in § 257.106(g), and the internet requirements specified in § 257.107(g).

January 7, 2022

Geoff Strack, PE

Page 4 of 4

Reference: SKB Rosemount Industrial Waste Facility 2021 Annual CCR Inspection Report

Conclusions and Recommendations

The SKB Rosemount Landfill facility has been constructed and operated in accordance with the facility permit and the CCR regulations. No embankment or waste slope stability issues were observed during the visual inspection.

40 CFR § 257.83, Subpart b.5 and 40 CFR § 257.84, Subpart b.5 each require that if a deficiency or release is identified during an inspection, the owner or operator must remedy the deficiency or release as soon as feasible and prepare documentation detailing the corrective measures taken. There were no deficiencies or releases related to CCR operations identified during the inspection.

Stantec Consulting Services Inc.



Bradley W. Sullivan, PE

Civil Engineer, Associate

Cell: (603) 289-5257

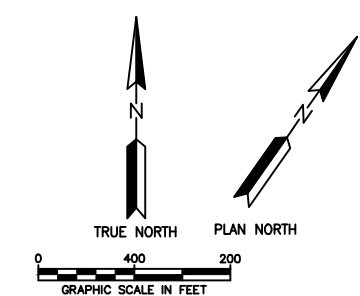
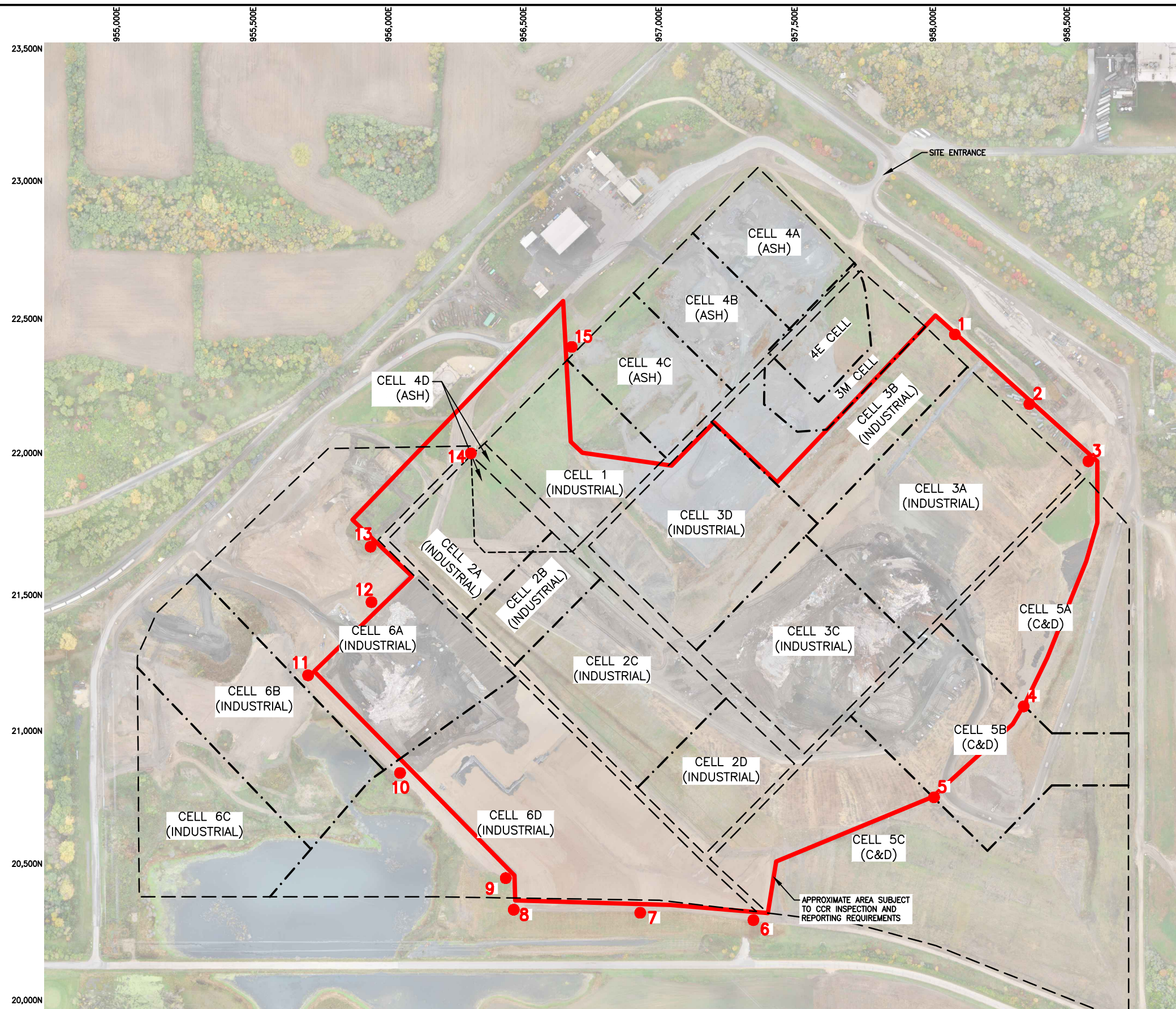
Brad.sullivan@stantec.com

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



Bradley W Sullivan, P.E. # 56502

January 7, 2022



LEGEND
 ● PHOTO LOCATIONS

NOTE:
 BASE MAPPING HAS BEEN UPDATED BY AERIAL SURVEY PROVIDED BY CONTINENTAL MAPPING COMPLETED ON OCTOBER 21, 2021.

#	DESCRIPTION	XXX	XXX	XX/XX/XX	
REV	REVISION DESCRIPTION	DWN	APP	REV DATE	

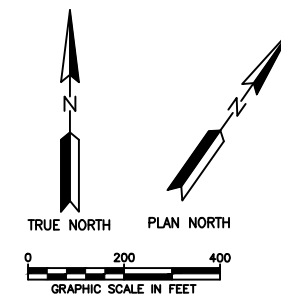
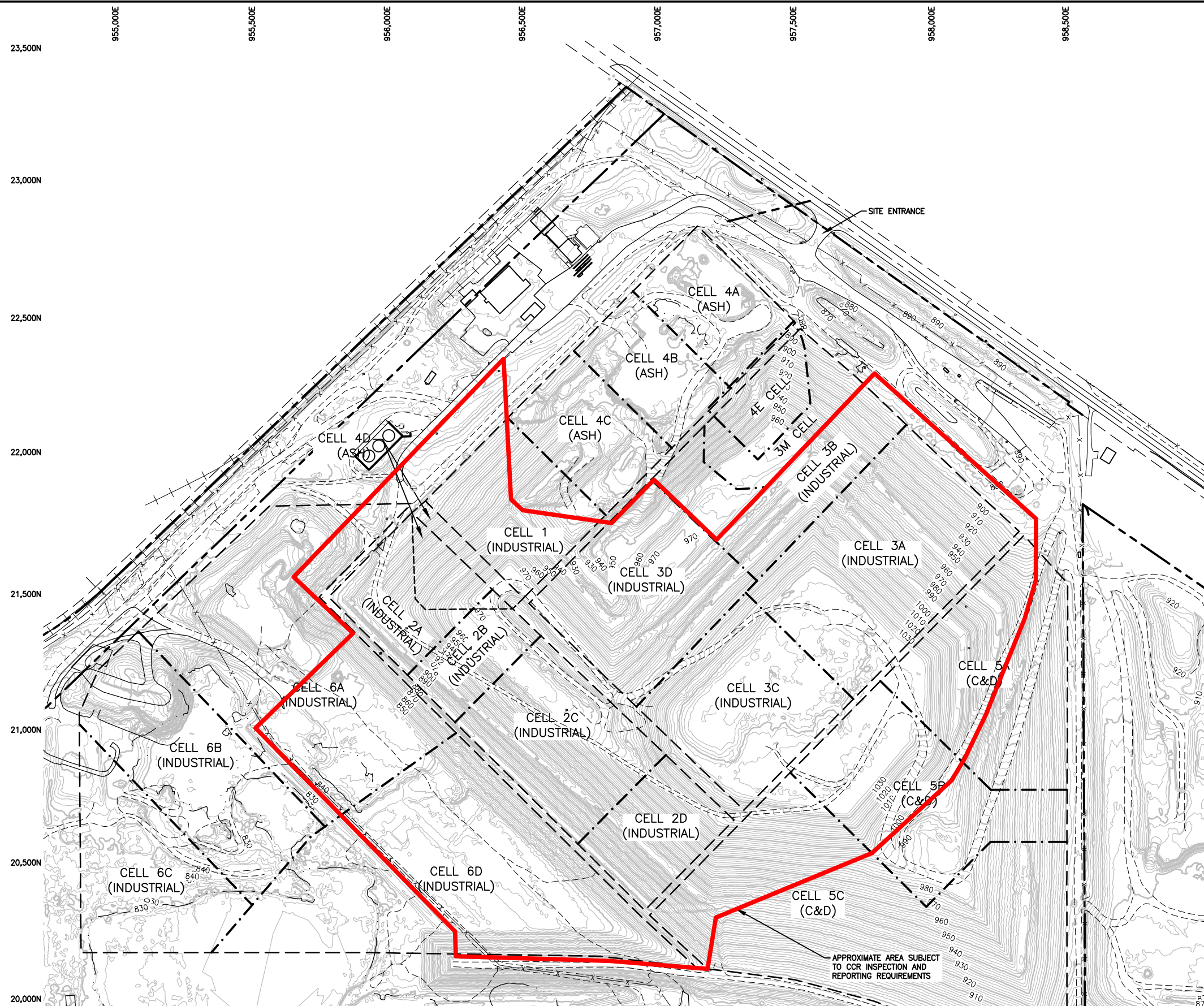
SEAL

SUB CONSULTANT

PRIME CONSULTANT

PROJECT TITLE
 2021 CCR INSPECTION REPORT
 SKB ROSEMOUNT LANDFILL
 ROSEMOUNT, MINNESOTA

SHEET TITLE
 PHOTO LOCATIONS
 DWN BY: JVB, CHK'D: TJS, APP'D: BWS, DWG DATE: JAN. 2022, SCALE: AS NOTED
 PROJECT NO.: 227704387, SHEET NO.: FIGURE 1, REV NO.: 0



NOTE:
BASE MAPPING HAS BEEN UPDATED BY AERIAL
SURVEY PROVIDED BY CONTINENTAL MAPPING
COMPLETED ON OCTOBER 21, 2021.

#	DESCRIPTION	XXX	XXX	XX/XX/XX	
REV	REVISION DESCRIPTION	DWN	APP	REV DATE	

SEAL

SUB CONSULTANT

PRIME CONSULTANT

PROJECT TITLE
2021 CCR INSPECTION REPORT

SKB ROSEMOUNT LANDFILL
ROSEMOUNT, MINNESOTA

SHEET TITLE
SITE MAP

DWN BY: JVB, CHK'D: TJS, APP'D: BWS, DWG DATE: JAN. 2022, SCALE: AS NOTED
PROJECT NO.: 227704387, SHEET NO.: FIGURE 2, REV NO.: 0

2021 Rosemount Landfill CCR Inspection



Location 1 – Looking Southeast, Cell 3A & 3B Waste Slope & Anchor Trench



Location 1 – Looking Northwest, Cell 3 Berm

2021 Rosemount Landfill CCR Inspection



Location 2 – Looking Northwest, Cell 3 Berm & Stormwater Pond



Location 2 – Looking Northwest, Cell 3 Anchor Trench and Waste Slope

2021 Rosemount Landfill CCR Inspection



Location 2 – Looking Southeast, Phase 3A Anchor Trench and Northeastern Waste Slope



Location 3 – Looking Northwest, Phase 3A Anchor Trench and Northeastern Waste Slope



Location 3 – Looking Southwest, Phase 3 East Corner at toe of Interior Access Road



Location 3 – Looking Southwest along Cell 3 Access road/Phase 3 Liner Limit

2021 Rosemount Landfill CCR Inspection



Location 4 – Looking Northeast, Phase 3 Liner Limit



Location 4 – Looking Southwest, Phase 3 Liner Limit

2021 Rosemount Landfill CCR Inspection



Location 5 – Looking Southwest, Phase 3 Liner Limit



Location 5 – Looking Northeast, Phase 3 Liner Limit

2021 Rosemount Landfill CCR Inspection



Location 6 – Cell 6 SE corner, inner berm, looking west



Location 6 – Cell 6 SE corner, outer berm, looking west

2021 Rosemount Landfill CCR Inspection



Location 6 – Cell 6, SE corner Looking northwest



Location 7 – Cell 6, midpoint of inner berm, looking east

2021 Rosemount Landfill CCR Inspection



Location 7 – Cell 6, midpoint of outer berm, looking east



Location 7 – Cell 6, midpoint of inner berm, looking west

2021 Rosemount Landfill CCR Inspection



Location 7 – Cell 6, midpoint of outer berm, looking west



Location 8 – Cell 6, SW corner inner berm, looking east

2021 Rosemount Landfill CCR Inspection



Location 8 – Cell 6, SW corner outer berm, looking east



Location 8 – Cell 6, SW corner inner berm, looking west

2021 Rosemount Landfill CCR Inspection



Location 9 – Cell 6, looking northwest



Location 9 – Cell 6, looking south

2021 Rosemount Landfill CCR Inspection



Location 10 – Cell 6, SW limit at midpoint, looking southeast



Location 10 – Cell 6, SW limit at midpoint, looking northwest

2021 Rosemount Landfill CCR Inspection

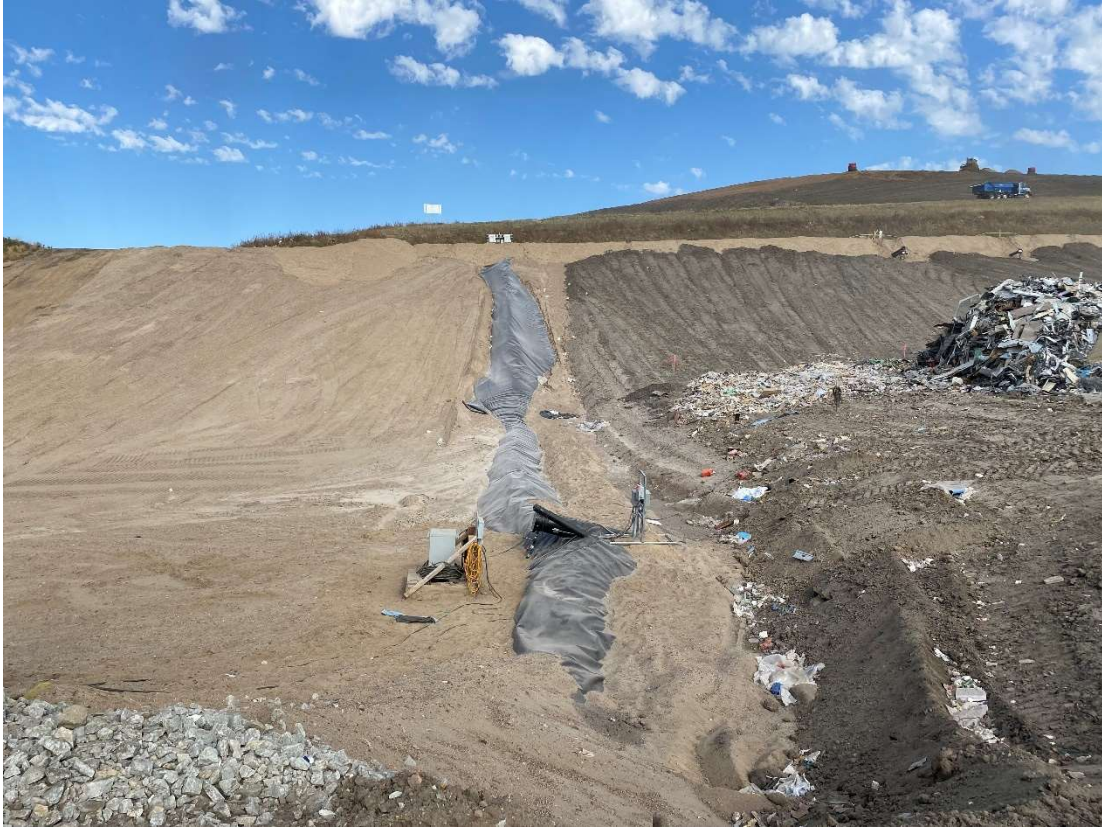


Location 11 – Cell 6, SW corner, looking southeast



Location 11 – Cell 6, SW corner, looking northeast

2021 Rosemount Landfill CCR Inspection



Location 12 – Cell 6, midpoint of NW limit, looking northeast



Location 12 – Cell 6, midpoint of NW limit, looking southwest

2021 Rosemount Landfill CCR Inspection



Location 13 – Looking Southeast, Cell 2A Southwestern Berm and into Cell 6



Location 13 – Looking Northeast, Cell 2A Northwestern Berm

2021 Rosemount Landfill CCR Inspection



Location 14 – Looking Southwest, Cell 2A Northwestern Waste Slope and Anchor Trench



Location 14 – Looking Northeast, Cell 1 Northwestern Waste Slope

2021 Rosemount Landfill CCR Inspection



Location 15 – Looking Southwest, Cell 1 Toe of Waste Slope



Location 15 – Looking South, Edge of Cap over Cell 1