

Basin Electric Power Cooperative

345kV Mercer-McLean-Ward-Mountrail-Williams Counties Case No. PU-24-361

Topsoil Removal Inspection Report



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85 PU-24-361 Filed 06/27/2025 Pages: 56 Topsoil Removal Inspection Report

SEH - Short Elliot Hendrickson Inc. Loretta Marshik, PE



June 24th, 2025

RE: Case No. PU-24-361

Basin Electric Power Cooperative 345kV Mercer-McLean-Ward-Mountrail-

Williams County

Topsoil Removal Inspection Report

Mr. Chris Hanson Public Utilities Analyst, Public Utilities Division North Dakota Public Service Commission 600 East Boulevard Avenue, Dept. 408 Bismarck, ND 58505-0480

Dear Mr. Hanson:

Attached is the Topsoil Removal Inspection Report for the above referenced project. This report includes the following:

- 1. Executive Summary
- 2. Inspection Report
- 3. Appendix A Photo Location Maps
- 4. Appendix B Photographs

Sincerely,

Lorétta A. Marshik, PE

Short Elliot Hendrickson Inc.

905 Tacoma Ave., Suite 2

Bismarck, ND 58504



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Date: 06/26/2025

Project: Leland Olds to Tande Station 162 Mile 345kV Transmission Line

Initial site visit was conducted by Inspector to document Topsoil Removal for construction of PU-24-361 Basin Electric Power Cooperative Leland Olds to Tande Station 162 Mile 345kV Transmission Line. Inspector was onsite to document existing conditions at various construction zones across project ROW and footprint, existing vegetation, topsoil removal methods, equipment being utilized, contractor correspondence, and depth checks of topsoil.

Documentation was conducted to verify contractor is able to successfully understand and demonstrate segregation of topsoil and subsoil in order to return disturbance area within construction right of way back to original conditions within reasonable means.

Prior to construction beginning, Brink Constructors, Inc. construction superintendent, Silver Line foreman, PAR's foreman, and Flare's foreman were able to go through days' plans. Plans included stripping topsoil around spoil mats, shake off mats, and bore holes for transmission structures, pouring concrete foundations for structures, stripping topsoil on haul roads, installing duck board for safe equipment maneuvers, and on second day of inspection, constructing crane pads for structure erection.

ISSUES REQUIRING RESOLUTION

No concerning issues were identified during inspection. Inspector only had to notify Silver Line foreman and equipment operator of one location at structure 182, where spoil pile was touching topsoil storage pile. Contractor began moving spoil pile away from topsoil storage pile.

PROPOSED RESOLUTION(S):

-Verify that at least 5' of clear space between spoil piles and topsoil storage piles be maintained for all current and future foundation boring operations.

Inspector stayed on site for both inspection days until operators were able to demonstrate proficiency in topsoil removal and segregation methods.

Upon Inspection, the site appears to follow the means and methods discussed with the inspector and meets the construction and Commission siting rules, laws, and applicable Orders except those listed above.

Inspector's Signature



INSPECTOR'S DIARY

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Project: PU-24-361 LOS to Tande 345kV Transmission Line		Contractor: Brink Constructors Inc.	
Date: 06/02/2025	Day: Monday		Subcontractor: Silver Line
Weather: Cloudy, ESE 10mph Temp: 62 F		Inspector: Dalton Jorgenson	

Work Activities:

- * Day's work consisted of removing topsoil for drilling of foundation holes for transmission structures and removing fence to access ROW for concrete pour of foundation.
- * Majority of work consisted of topsoil ripping by a skidsteer, specifically for construction of topsoil storage area, spoil storage areas, and topsoil from drilling locations inside right of way.

Labor Force:

Silver Line Crew: 1 foreman, 2 operators, 6 laborers. Brink: 1 Superintendent, 1 Foreman, 3rd party observer.

Contractor Correspondence:

Inspector arrived at laydown yard at 0750. Met up with AmberRae McGill and foreman named Byron. Brink had their own small meeting before heading to structure 182. Byron offered I ride with him to the structure.

0908 Silver Line crew had their safety meeting and kicked off their construction by 0945. At 1043 I spoke with skidsteer operator and had him stop work a moment so I could document topsoil strip depths for spoil pile, and auger shake off mat.

At 1130 I asked Byron when the crew was planning on installing fiber roll around topsoil. He said they'd be out shortly, though he stated that topsoil would be pushed back into place within 72 hours.

Around 1200 I notified the crew that their spoil pile was beginning to touch topsoil pile. The Foreman for Silver Line had the skidsteer driver begin depositing spoil material further back from the topsoil pile.

At 1247, the fiber roll crew showed up and began installing fiber roll around the topsoil piles. At 1400, during concrete testing for foundation pour of structure 182, I asked Byron if there was a plan for any more structures in that day, and if any unique topsoil stripping was going to occur. He said they might be able to get to another structure site, but he wasn't sure if that would occur that day due to issues with concrete mix. I told him that if nothing else was going to happen today, that I could be taken back to my vehicle, as I'd seen all I needed to for that day.

Other Remarks:

- -Brink has several staging yards along the footprint of the project. I visited the first, where equipment, cages, and bolt assemblies are being held for foundation construction.
- -I noticed during topsoil stripping, Silver Line did not dig in fiber roll, opting instead to place and stake on the soil surface. This was not an issue where I inspected, given the surrounding area was still vegetated, acting as natural erosion control. Moving forward, should keep an eye on any fiber roll installed (P18-19)

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Inspect	or's Signature



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Project: PU-24-361 LOS to Tande 345kV Transmission Line

Contractor or Sub: Brink Constructors, Inc.

Work Performed & Location:

- * No previous work completed before inspection for this project.
- * Inspector checked depth of existing topsoil near tie-in to wood mats with use of tape measure. Topsoil measured between 9 and 15 inches (See P8-9, 12). Day's planned work included structure 182, which resides in pasture. Majority of visible vegetation is 12-18inches tall. Within the structure 182 area of topsoil stripping, it was observed that subsoil layer 1 appeared as light brown in color compared to dark brown topsoil (See P14). Subsoil layer 1 appears to be a moist, clayey sand. Layer 2 was a grayish brown in color. Subsoil layer 2 appears to be a fatty clay (P17).
- * Prior to topsoil stripping activities, inspector took photos of the existing conditions in P3. 5. 7. and 13.
- * Method of Removal:
- 0945: Skidsteer operator used his skidsteer to first strip topsoil for the spoil pad, piling topsoil approximately 5 FT from Eastern edge of ROW. Once said topsoil was stripped, the skidsteer operator repeated the process for the auger shake off pad next to the auger excavator.
- 1000: Auger operator drilled down and removed topsoil and placed on shake off mat, where skidsteer operator then moved material to the growing topsoil pile nearby the spoil mat.

CONTRACTOR EQUIPMENT:

Silver Fox: (1) CAT 336 track excavator w/ Auger Attachment, (1) CAT 289D3 Skidsteer with fork and bucket attachments, (1) CAT TL1255 Crane with Fork Attachments,

Inspector's Signature

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Date: 06/02/2025

Project: PU-24-361 LOS to Tande 345kV Transmission Line	Contractor or Sub: Brink Constructors, Inc.

Photo Description:

Photo Name: Description:

Picture#

P1 – Equipment

P2 – Equipment

P3 – Existing Conditions

P4 – Site Safety

P5 – Existing Conditions

P6 – Equipment

P7 – Existing Conditions, topsoil stripping

P8 - Topsoil Depth

P9 - Topsoil Depth

P10 - Topsoil Storage

P11 - Topsoil Storage

P12 – Topsoil Depth

P13 – ROW/Existing Conditions

P14 - Subsoils

P15 - Topsoil Storage

P16 - Topsoil Storage

P17 - Subsoils

P18 – Erosion Control

P19 – Erosion Control

*See attached map with location of each photo in Appendix A, and attached pages of photos given in Appendix B.

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Inspector's Signature



INSPECTOR'S DIARY

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Project: PU-24-361 LOS to Tande 345kV Transmission Line		Contractor: Brink Constructors Inc.	
Date: 06/16/2025	Day: Monday		Subcontractor: PAR Construction
Weather: Sunny, E 8mph Temp: 70 F		Inspector: Dalton Jorgenson	

Work Activities:

- * Day's work consisted of removing topsoil for drilling of foundation holes for transmission structures and construction of crane pads for structure sites with foundations already poured.
- * Majority of work consisted of topsoil ripping by a skidsteer and by dozer, specifically for construction of topsoil storage area, spoil storage areas, topsoil from drilling locations inside right of way, and crane stripping.

Labor Force:

PAR Crew: 1 foreman, 3 operators, 8 laborers.

Brink: 1 Superintendent.

Flare: 1 operator

Contractor Correspondence:

Following the first day of inspections, I had email correspondence with AmberRae McGill pertaining to the date for day 2 of inspection. She had originally expected the next day of inspections to be after July 4th. However, the following week, she emailed again saying that their other subcontractor was going to be working the week of June 16th, and so we planned on meeting at the laydown site East of New Town at 9am on June 16th.

I arrived on site and met up with Byron again, who discussed day's plan for inspections with me, specifying that there were several structures we would be visiting with more varied work occurring. He had me follow him this time instead of riding along.

At 1030 I told Byron I'd seen everything I needed to at the first structure. He called the Flare Crew who was working on Crane pads to the north to see if they had anything I could look at.

After an hour drive we met up with the Flare crew and discussed operations.

At 1230, Byron told me he needed to leave, and that if I had any questions to call him. None arose. At 1315, I spoke with the dozer operator and had him hold a tape measure for one of my topsoil depth pictures, and answered some of his questions about what I do as a PSC inspector.

At 1330, the landowner came out and asked who I was, who I worked for, and what I was doing out here. He then asked me several questions about the necessity of Flare's work and if he'd be able to reestablish vegetation where the crane pad was being constructed when project is complete. I told him that's why we were out there: to ensure he could.

Other Remarks:

- -I noticed after my day 1 inspections that more fiber roll was used in storage of topsoil,
- -I noted that planking had been used in certain areas and that crews were stripping topsoil along certain haul roads.

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Inspector	r's Signature



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Project: PU-24-361 LOS to Tande 345kV Transmission Line

Contractor or Sub: Brink Constructors, Inc.

Work Performed & Location:

- * Previous work consisted of topsoil stripping for spoil mats and shake off mats. installing duck board, stripping topsoil for haul roads, setting rebar cages, and pouring concrete foundations.
- * Inspector checked depth of existing topsoil for spoil mats, shake off mats, and crane pads with use of tape measure. Topsoil measured between 4 and 18 inches across several structure sites (See P20, 24, 26, 38). Day's planned work included structure 546, which resides in crop land, and at structures 175 & 176, which are grazing pasture. Majority of visible vegetation is 12-18inches tall. Within the structure 546 area of topsoil stripping, it was observed that subsoil layer 1 appeared as yellow brown in color compared to dark brown topsoil (See P29). Subsoil layer seemed to be a sandy loam. This material was also present at Structures 175 and 176.

* Method of Removal:

- 0945: Skidsteer operator used his skidsteer to first strip topsoil for the spoil pad, piling topsoil approximately 5 FT from Eastern edge of ROW. Once said topsoil was stripped, the skidsteer operator repeated the process for the auger shake off pad next to the auger excavator.
- 1000: Auger operator drilled down and removed topsoil and placed on shake off mat, where skidsteer operator then moved material to the growing topsoil pile nearby the spoil mat.
- 1230: For Structure 175, the dozer pushed topsoil to East of Crane pad and windrowed it there. He also made a spoil mat to the north where he pushed excess subsoil to in order to build out the crane pad wider. He then smoothed and tread packed remaining subsoil on crane pad for future contractor use.
- 12:45: For Structure 176, the dozer stripped the topsoil to the south, piling instead of windrowing this time, and then cleared another spoil mat to the north and pushed excess subsoil there. Given that the crane pad's center is a local high spot, with the spoil pile and topsoil pile being on opposite ends of said high spot with at least 50' of space between them, segregation was achieved.

CONTRACTOR EQUIPMENT:

PAR: (1) Takeuchi TL12V2 skidsteer with fork and bucket attachments, (1) Cat 330 track excavator with auger attachment, (1) GTC 600 track crane, (1) JCB Loadall.

Flare: (1) CAT D6 Dozer.

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Inspector's Signature



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Date: 06/16/2025

Project: PU-24-361 LOS to Tande 345kV Transmission Line		Contractor or Sub: Brink Constructors, Inc.
Photo Description:		
Photo Name: Picture#	Description:	

P20 – Topsoil depth P21 – Equipment

P22 – Topsoil removal methods

P23 – Equipment

P24 – Topsoil depth

P25 – Topsoil storage

P26 – Topsoil depth

P27 – Equipment

P28 – Equipment

P29 - Subsoil

P30 – Topsoil storage, haul road management, erosion control

P31 - Topsoil storage, haul road

P32 - Topsoil segregation, crane pad

P33 – Crane pad

P34 – Equipment

P35 – Method of removal

P36 – Topsoil storage

P37 – Method of removal

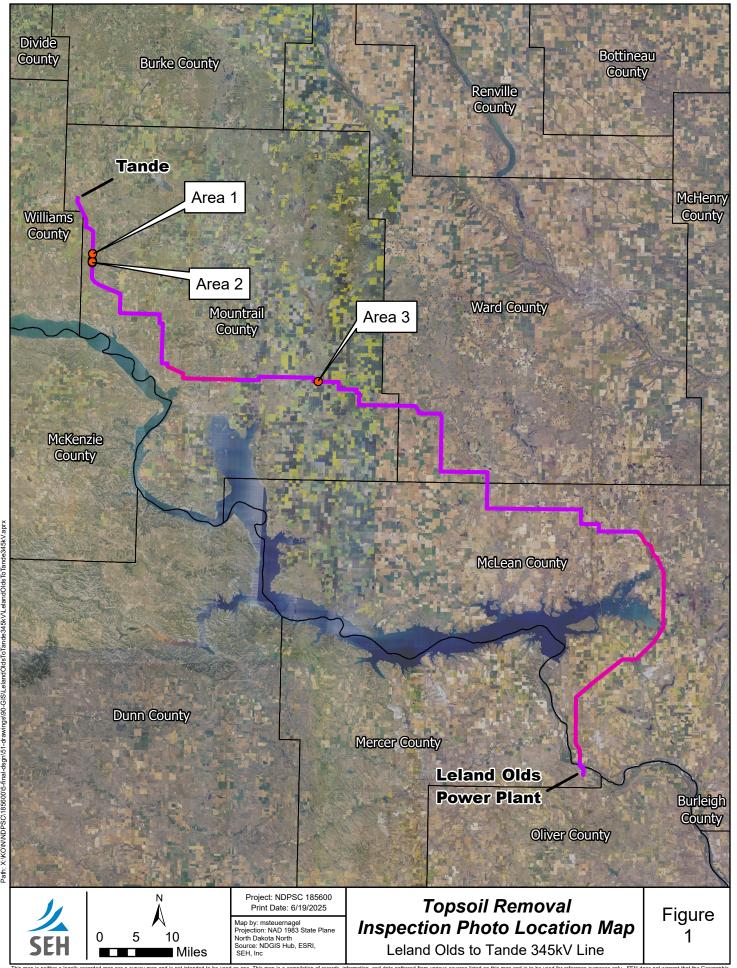
P38 – Topsoil depth

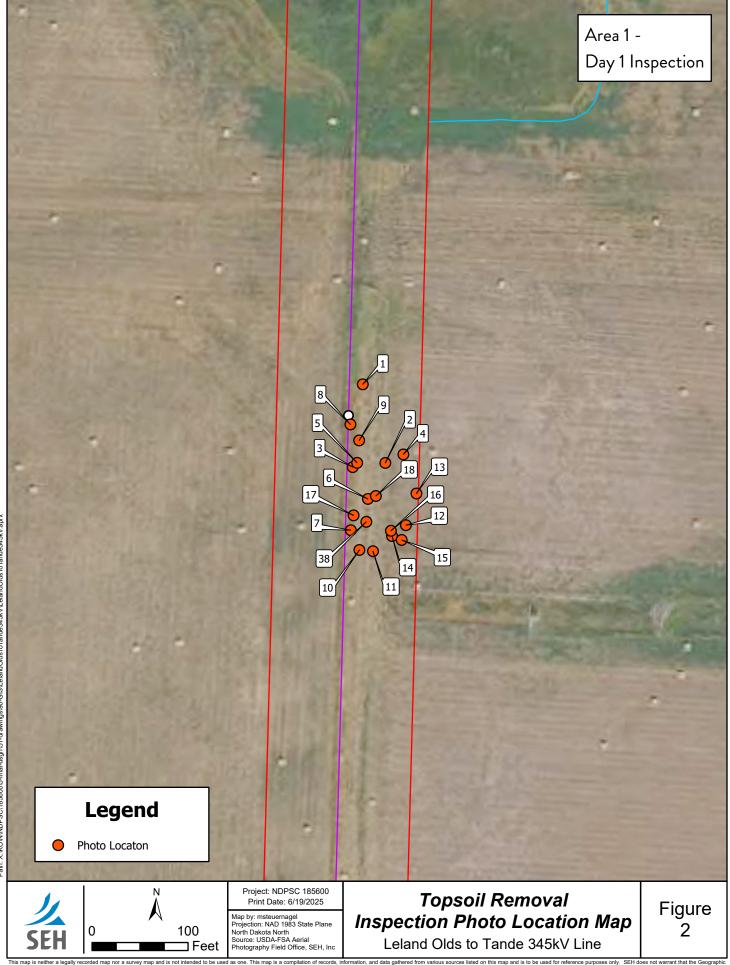
*See attached map with location of each photo in Appendix A, and attached pages of photos Given in Appendix B.

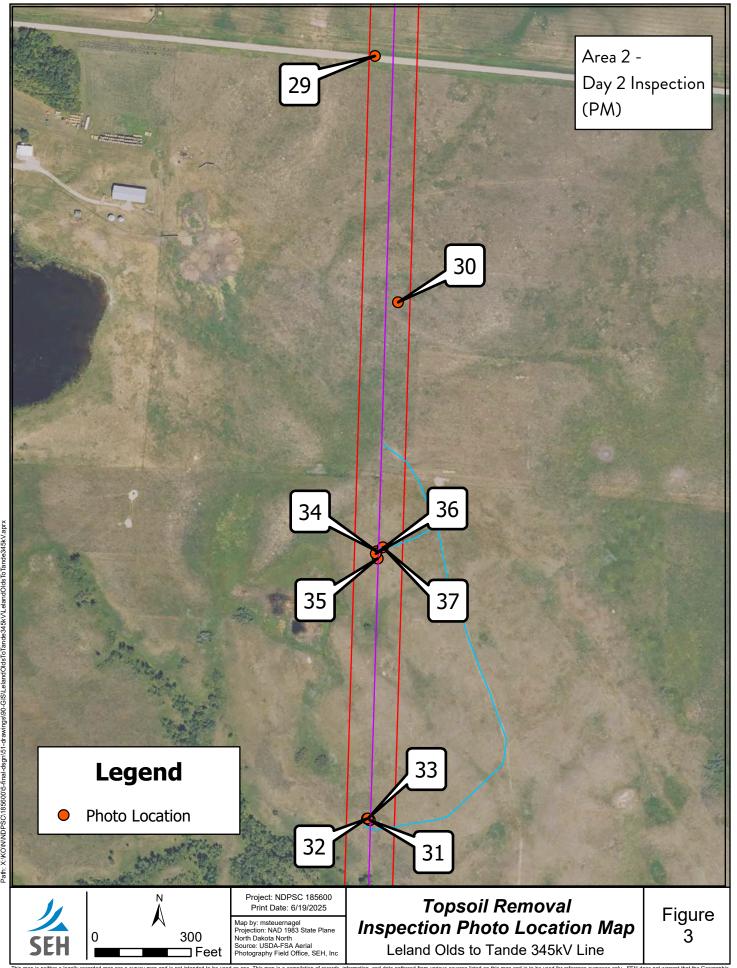
Polton Jorgenson

Inspector's Signature

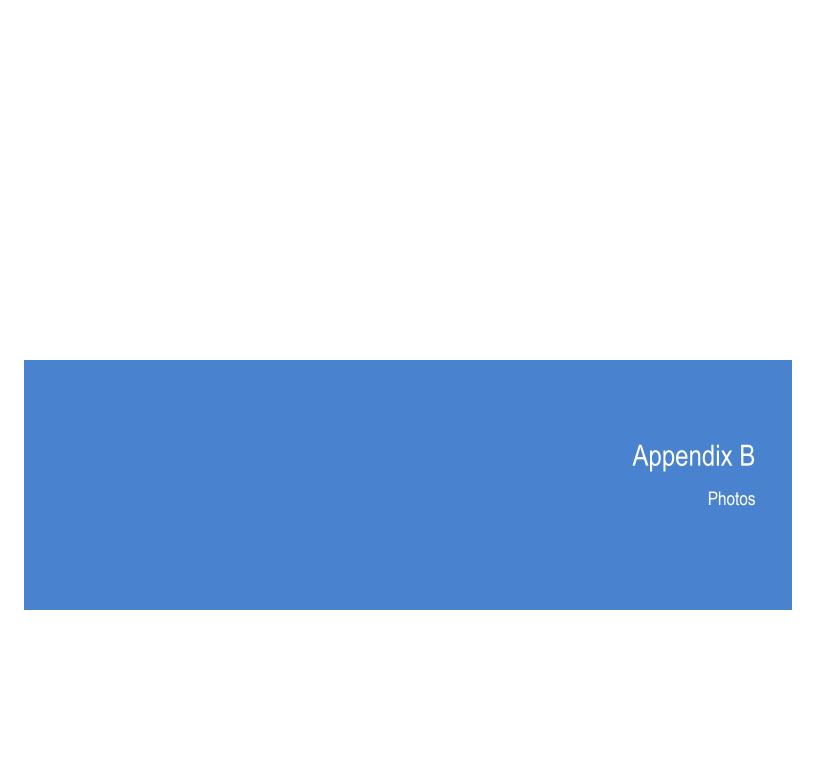














Daily Construction Observation Report

Job No./file

NDPSC 185600

Date

06/02/2025

Project:

Location: Tande Laydown Yard

RPR Name: Dalton Bruce

Start Time: 8:09 AM End Time: 8:09 AM

Morning Weather: Cloudy Afternoon Weather: Cloudy

Temp. (F): High 63 Low 45 Rainfall (in): 0

Utility Conflicts: No

Overall Comments: On site at 7:50, crew had kickoff meeting. Inspections on structures 178 and 218 with silver line crew.

Prime Contractor: Brink

Foreman Name: Justin Cronk

of Crews: 10

Equipment Onsite: Scrapers, dozers, loaders

Contractor Notes:

Item Records

Location: Structure 182

Time: 8:42 AM Direction Facing: S

Notes: CAT 336 track boring machine for pilot hole



Time: 8:43 AM Direction Facing: S

Notes: CAT 289D3 skid steer with fork attachments



Time: 8:44 AM Direction Facing: S

Notes: Access road/ROW existing conditions heading south of structure 182.



Time: 8:56 AM Direction Facing: NE

Notes: Crew getting PFAS set up and survey equipment ready.



Time: 9:30 AM Direction Facing: NW

Notes: Crew has cut wire fence to have access to ROW.



Time: 9:46 AM Direction Facing: NW

Notes: CAT TL1255 crane with forks



Time: 10:04 AM Direction Facing: N

Notes: Crew has begun boring hole for power pole foundation



Time: 10:10 AM Direction Facing: SE

Notes: Bore hole topsoil line at ~15 inches down



Time: 10:15 AM Direction Facing: W

Notes: Auger dump point. Skidsteer cleared topsoil so that no mixing occurs when subsoil is pulled out of

auger hole.



Time: 10:28 AM Direction Facing: NE

Notes: Topsoil piles. Crew has fiber roll for emergency and weather, but plans on having topsoil back in place

within 72 hours.



Time: 10:34 AM Direction Facing: E

Notes: Spoil pile. Visible subsoil layer. No evidence of topsoil and subsoil mixing. Adequate segregation.



Time: 10:42 AM Direction Facing: N

Notes: Spoil pile mat topsoil depth of ~9 inches.



Time: 10:49 AM Direction Facing: S

Notes: Verification: topsoil piles ARE WITHIN ROW.



Time: 10:54 AM Direction Facing: N

Notes: Subsoil seems to be a light brown, moist clayey sand.



Time: 11:01 AM Direction Facing: N

Notes: Spoil pile is beginning to touch topsoil pile.





Time: 11:09 AM Direction Facing: NE

Notes: Second layer of subsoil seems like a grayish brown fatty clay



Time: 12:57 PM Direction Facing: NE

Notes: Subcontractor is installing fiber roll for the topsoil piles.



Time: 1:00 PM Direction Facing: E

Notes: Fiber roll pounded in place, however fiber roll was NOT dug into the ground which raises concern of

material flowing under rolls.





Daily Construction Observation Report

Job No./file		
NDPSC 185600		
	Date	
	06/16/2025	

Project:

Location: Structure 546 **RPR Name:** Dalton Bruce

Start Time: 9:38 AM End Time: 9:39 AM

Morning Weather: Partly Cloudy Afternoon Weather: Partly Cloudy

Temp. (F): High 77 Low 64 Rainfall (in):

Utility Conflicts: No

Overall Comments: I arrived at 09:08. I observed topsoil stripping operations for a pole foundation, spoil and topsoil mats, and

auger shake off mats. I documented haul road topsoil segregation and planking in use, and finally documented

the process of topsoil stripping and construction of several crane pads.

Prime Contractor: Brink

Foreman Name: AmberRae Mcgill

of Crews: 13

Equipment Onsite: Loader, crane, track excavator, skid steer, dozer

Contractor Notes: Met with Byron at 09:08 at Crane Creek Yard. He led me to the first structure. After observations

with the Par Crew, Byron and I coordinated to meet up with the Flare crew to inspect crane pad

construction. Byron had to leave so I finished up & left.

Item Records

Location: Structure 546

Time: 9:48 AM Direction Facing: E

Notes: Spoil spot, 8.5" of topsoil depth. Topsoil is light brown. Subsoil layer appears to be blueish brown lean

clav.



Time: 9:50 AM Direction Facing: NW

Notes: Takeuchi TL12V2 skidsteer and CAT 330 track excavator with auger attachment



Time: 9:51 AM Direction Facing: NW

Notes: Crew augured topsoil and skidsteer then began scraping spin off pad for subsoils being moved to spoil

pile



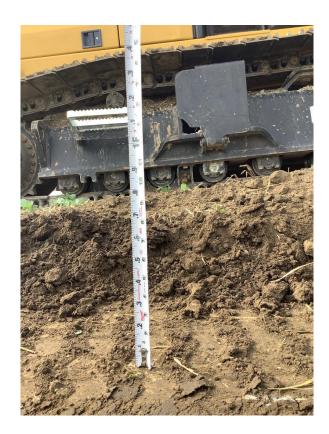
Time: 9:53 AM Direction Facing: NW

Notes: GTC 600 crane



Time: 10:00 AM Direction Facing: W

Notes: Topsoil depth for auger shake off pad. 8.5-9"



Time: 10:01 AM Direction Facing: NE

Notes: Topsoil storage pile and adjacent spoil mat.



Time: 10:06 AM Direction Facing: E

Notes: Depth of topsoil at bore hole ~15 inches deep



Time: 10:08 AM Direction Facing: NE

Notes: Mat used to disperse weight of crane.



Time: 10:09 AM Direction Facing: NW

Notes: JCB Loadall



Time: 10:11 AM Direction Facing: NE

Notes: Spoil being added to the spoil mat.



Location: Access road to structure 178

Time: 11:22 AM Direction Facing: N

Notes: Haul road topsoil storage pile and planking to prevent damage



Location: Haul road to 177

Time: 11:26 AM Direction Facing: N

Notes: Crew has stripped topsoil for access road.



Time: 11:33 AM Direction Facing: SE

Notes: Crane pad topsoil pile



Time: 11:34 AM Direction Facing: NE

Notes: Crane pad area.



Time: 11:35 AM Direction Facing: E

Notes: CAT D6 dozer



Time: 11:53 AM Direction Facing: E

Notes: Dozer stripping topsoil for next crane pad



Time: 12:05 PM Direction Facing: E

Notes: Topsoil pile from crane pad



Direction Facing: NE Time: 12:17 PM

Notes: Subsoil in this area is a light brown clayey sand. Excavator is pushing subsoil to spoil mat on north end

of structure footprint, while the topsoil pile is at the south end. Both piles are on opposite ends of the

slope meaning that contamination due to water erosion should not be an issue should it rain.



Time: 12:32 PM Direction Facing: W

Notes: Topsoil depth for structure approximately 4.5-5"





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Sustainable buildings, sound infrastructure, safe transportation systems, clean water, renewable energy and a balanced environment. Building a Better World for All of Us communicates a companywide commitment to act in the best interests of our clients and the world around us.

We're confident in our ability to balance these requirements.

