



Sanborn, Head & Associates

Consulting Engineers & Scientists

MEMORANDUM

To: Meeting Attendees

From: David Cedarholm, P.E. 

File: 2364

Date: October 4, 2004

Re: September 30, 2004 Construction Meeting Minutes
Grading Modifications Project
North Country Environmental Services, Inc. Landfill
Bethlehem, New Hampshire

Meeting Attendees:

Gene Martin, North Country Environmental Services, Inc. (NCES)
Sean Moran, NCES
Robby Maccini, Paragon Construction, Inc. (PCI)
Gary Tomlinson, PCI
Jim Chabot, Sanborn, Head & Associates, Inc. (SHA)
Dave Cedarholm, SHA

The Construction Meeting was held in the NCES office conference room and began at approximately 1045 hours.

ITEMS PROVIDED

The following items were provided:

1. SHA distributed copies of the September 21, 2004 Construction Meeting Minutes and provided copies of the electrical pull box submittal to PCI and NCES.

PREVIOUS MEETING MINUTES

Gary pointed out that Item Number 4 under New Business should state that Mike Hildenbrand was notified that the liner appeared to be bridging a void near the Stage II Phase II cleanout boots by James Vicniere and Bob Levigne prior to cutting open the liner. Gary noted that the

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Mathew A. DiPilato & Daniel B. Carr & Duncan W. Wood & Joseph C. Engels & Vernon R. Kokosa*

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same item should also state that the sand around the secondary leachate cleanout riser was stained black, possibly indicating the presence of leachate, and that the primary liner boot for the secondary cleanout riser was not properly welded.

OLD BUSINESS

1. Dave asked about the progress of the Stage III sideriser building. Gary indicated that the three forcemains within the sideslope riser pipes were pressure tested, and that Bob Levigne recorded the sideslope riser pipe lengths. Gary reported that the carpenter that PCI reported hiring to work full time on completing the sideriser building was temporarily re-assigned to work on the forcemain and the MSE berm installations due to limited available labor.
2. Dave asked if there were any health and safety issues reported during the past week. Gary indicated that there were no health and safety problems reported this past week.
3. *copy letter* Gary reported that RTD was expected to finish the geosynthetics installation work today (Thursday, September 30, 2004).
4. Dave asked how many workers PCI had on-site. Gary reported that PCI had 17 workers working on three separate tasks including completing Detention Pond No. 4, installing the 3-inch by 6-inch dual-walled leachate forcemain, and electrical conduit installation.
5. Dave provided copies of SHA's electrical pull box submittal response letter and read the response to the attendees. Jim suggested locating the pull boxes near the crest of the swale at the edge of the perimeter road and partially intersecting the stone lining of the swale to provide positive drainage from the pull box, and to keep the pull boxes out of the roadway. Jim indicated that PCI should check with Gates Electric prior to installing the pull boxes.
6. Gary reported that the south berm, northeast and southeast outer slopes, and the detention pond were hydroseeded. PCI will most likely hand seed the remaining areas rather than bringing Trans-America back to the site.
7. Gary reported that the "diaper" below the Volvo haul unit, as described in previous meeting minutes, was recently serviced.
8. Gary reported that four primary geocomposite panels near secondary liner panel SP-51 were replaced by RTD last week.
9. Dave reported that the alignment of the MSE berm appears to have fewer deviations.

10. Pay Application No. 9 was discussed, and it was agreed that this week's labor and materials through October 1, 2004 would be included in the Pay Application.
11. Gary reported that the Detention Pond No. 4 was loamed and seeded, and a crew was preparing to finish the detail work associated with the pond. *per [signature]*
12. Dave suggested that installing a stone check dam across the water bar downgradient of the level spreader might be more appropriate than installing silt fence there. Sean indicated that it appears more work was required to fill in the erosion rut on the lower part of Laurel Lane. Gary indicated that PCI would perform the repairs on Laurel Lane soon.
13. Gary reported that the fuel containment cell was removed. The associated liner materials were disposed of in the landfill, and that the fuel tank was emptied and taken out of service.
14. The potential for leachate breakout at either end of the project was discussed. Sean indicated that NCES plans to install berms and crushed stone drains at either end of the project to limit the potential for leachate breakouts.
15. Jim pointed out that there are a number of locations along the geosynthetics fold where PCI should plan to excavate the subgrade so the fold relaxes into depressions and drains. Gary indicated that PCI was planning to perform that task by the end of the week.
16. Jim noted that the reinforced concrete pipe (RCP) delivered to the site for Culverts C-1 and C-2 is Class IV pipe and that the specification calls for Class V. Robby indicated that PCI would contact their supplier and have Class V RCP delivered to the site.

PROGRESS REPORT

Gary provided PCI's progress report.

1. The protective casing on gas probe GP-5 was extended;
2. Installation of the 2-inch by 4-inch dual walled leachate forcemain was completed and it was placed into service, although the level sensor and wiring still needs to be installed in leak detection manhole C;
3. Detention Pond No. 4 slope protection was completed with the exception of the stone spillways;
4. Loam and seed were placed on the south berm, the southeast and the northeast outer slopes and within Detention Pond No. 4;

5. Select Sand was placed on 90% of the southwest-facing slope of the northeast berm;
6. The MSE berm was installed to elevation 1355.8 feet;
7. The 3-inch by 6-inch dual walled leachate forcemain was installed between leak detection manholes LDMH-A and LDMH- B;
8. The forcemain was insulated from leak detection manhole LDMH-A to 120 feet north towards leak detection manhole LDMH-B;
9. 100 feet of the forcemain was insulated between the underground storage tank and leak detection manhole LDMH-C;
10. Electrical conduit was installed between leak detection manholes LDMH-A and LDMH-B; and
11. The maintenance of erosion and sediment controls was ongoing;

NEW BUSINESS

1. Jim suggested that PCI consider assembling the PVC fittings in the leak detection manholes before backfilling the trench to maintain proper alignment of the flange adaptors.
2. The 4-inch under drain at leak detection manhole LDMH-B was discussed. Gary reported that 40-feet of the drain was installed in the direction of Detention Pond No. 4. Jim asked how many additional linear feet of pipe would need to be installed to reach Detention Pond No. 4. Dave estimated that from the site plan, it appears that approximately 80 to 90 feet of additional drain pipe would be required. Gary indicated that PCI would prepare a cost estimate to extend the 4-inch diameter drain pipe to Detention Pond No. 4.
3. Gary pointed out that the top of the leachate forcemain was shown 6 feet below ground surface on Detail 19, Sheet 11 of 18, and shown 5 feet below ground surface on Detail 20. It was agreed that PCI should provide the 6-foot minimum cover, and the leak detection manhole rim could be raised approximately 12 inches using a concrete grade ring, or brick and mortar.
4. Dave expressed concern over the erosion occurring along the anchor trench in the southwest corner near the top of the proposed gabion, and asked when the gabion and riprap lined swale would be installed. Gary indicated that PCI plans to install the riprap lined swale and gabion after the forcemains and the MSE berm are completed, and that PCI would address the erosion at that time.

5. Dave indicated he was still expecting submittals for concrete pipe, guardrail, litter fence, electrical components such as transducers for the sideriser pipes, and the tank manway with flanged penetration for the forcemain connection to the 30,000-gallon UST. Jim indicated that an important consideration for the tank manway is the coating.
6. Dave asked when the monitoring wells B-103D & B-103S in the northeast corner of the site will be extended. Gary indicated the area was directly adjacent to an access road for PCI's equipment, and that PCI planned to extend the remaining monitoring well risers and install the protective casings after more fill was placed in that area.
7. Dave asked when SHA could expect to receive RTD's signed warranty for the liner geosynthetics. Gary indicated that he would request the signed warranty from RTD.
8. The record drawing requirements were discussed. Gary reported that Blais Surveying would be providing a survey of the geomembrane panel layout and monitoring well elevation data. Gene indicated that differential level surveying, rather than using at total station, was the preferred method for surveying the monitoring wells. Gene also indicated that he felt the record drawings should also include an updated ground survey, and suggested that NCES would have an aerial survey of the Site performed when the grading modifications project was completed.
9. The cost for installing additional insulation over the leachate forcemains was discussed. Dave indicated that based on a phone message he received from Bob Maccini, PCI would install the additional insulation 24-inches wide by 4 inches thick for \$3 per linear foot of trench as referenced in Change Order No. 1. Gary confirmed Bob's message to Dave, and that the \$3 per linear foot unit price applies to insulation placed 4-inches thick in the forcemain trench, and that there was an existing budget of 120 linear feet of trench insulation from Change Order No.1.
10. Dave said that he anticipated Change Order No. 4 would include a credit for PCI not purchasing the valves and limit switch for Valve Box 301, a credit for relocating the sideriser building rather than building a new one, the cost for installing additional insulation over the leachate forcemains, and the additional cost for extending the drain from leak detection manhole LDMH-B to Detention Pond No. 4.
11. Gene reported that Pay Application No. 8 was processed, and expected that PCI should receive that payment shortly.
12. Gene reported that he received Paragon's letter dated September 27, 2004 from Bob Maccini regarding Change Order No. 3. Gene indicated that an October 8, 2004 Substantial Completion Date, was approved by NCES. Gene asked if PCI would be substantially complete by October 8, 2004 and asked if PCI would provide an updated

construction schedule at next Tuesday's construction meeting. Gary indicated that he would get as much done as he could by October 8th, and Robby said he would give the message to Bob Maccini regarding the need for an updated schedule.

13. The following items were identified during the post-meeting site walk.

- a. Water needs to be added to Condensate Trap CTB before it is placed into service.
- b. The penetrations through the concrete structure for Culvert C-1 and C-2 appear to intersect the top lip for the cover.
- c. Secure covers or caps are needed for monitoring wells (B-103D & B-103S) in the northeast corner.
- d. Grass seed was not visible in the biomulch placed on the southeast and northeast slopes, and Detention Pond No. 4.
- e. The disturbed areas at the toe of the slope near the southeast corner need loam and seed.

PUNCH LIST

Following is a Punch List of items to be completed that were discussed at previous meetings.

1. Installation of the float switch in LDMH-C for the leachate forcemain between Valve Box 301 and the 1,000-gallon underground storage tank; *not done*
2. Backfill the electrical pull box near the toe of the MSE berm; *not done*
3. Install monitoring well extension protective casings with Royer locking caps and labels; *partially complete*
4. Remove silt from the swale west of the stockpile area; *not done*
5. Install the 14-inch gas valves;
6. Install steel security risers on Monitoring wells B-103D and B-103S;
7. Possibly install a replacement floor drain in the Quonset Hut; *included*
8. Fill sink hole near the level spreader with compacted till; *done*
9. Install silt fence or stone check dam across the water bar downgradient of the level spreader; *not done*

- not done*
10. Install caps on exposed monitoring wells;
 11. Stabilize the outlet of Culvert C-4 including shortening the culvert by approximately 10 feet, install riprap apron, and place boulders to dissipate energy, and raise and stabilize the berm on the opposite side of the swale;
 12. Repair gas header near southeast corner of the landfill {noted by Mike H. on 10/1/04};
and
 13. Compact anchor trench on the northeast berm {noted by Mike H. on 10/1/04}.
- not done/cross issue?*

The meeting adjourned at approximately 1230 hours. The next meeting was scheduled for Tuesday, October 5, 2004 at 1030 hours.

DC/JAC:fcr/las/jsb