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August 26, 2010

Mr. Scott Alfonse, Director
City of New Bedford
Department of Environmental Stewardship
133 William Street
New Bedford, Massachusetts 02740

**Subject: Summer 2010 Cap Inspection
Keith Middle School
New Bedford, Massachusetts**

Dear Mr. Alfonse:

At the request of the City of New Bedford (City), TRC performed the seventh inspection of the protective cap installed at the Keith Middle School Site located at 225 Hathaway Boulevard in New Bedford, Massachusetts. A TRC engineer conducted the inspection on August 12, 2010 in accordance with the Long-term Monitoring and Maintenance Implementation Plan (LMMIP) dated October 20, 2006 prepared by the BETA Group, Incorporated (BETA). The LMMIP requires three inspections per year in April, August and November to confirm that the cap is being properly maintained to prevent exposure to the impacted fill beneath.

The inspection consisted of a walking traverse of the entire Site with visual observations of the entire cap including the first floor concrete slab of the building, the courtyard within the building footprint, and concrete, asphalt and landscaped surfaces outside the building. Access to locked rooms within the building was provided by the facility engineer, Gary Gomes and/or a school custodian. The inspection was documented in a log book. Copies of the log book pages are presented as Attachment 1. The findings of the inspection are documented in a site-specific Cap Inspection Form (Attachment 2) provided in the LMMIP. Annotated photographs taken during the inspection are presented as Attachment 3.

Based on TRC's inspection, the concrete floor within the footprint of the building is currently acting to prevent exposure to the impacted fill beneath. The courtyard within the building and pavement and concrete surfaces outside the building were also acceptable.

The landscaped areas outside the building were acceptable with the exception of the following:

- Sloughing riprap stabilization stone that is undermining the concrete fence support at the top of the slope and filling the outlet of the storm water drainage culvert on the west side of the Site. Design and planning of a permanent solution is currently underway. The area is stable at this time.
- The gopher hole located at the northwestern corner of the Site was not visible at the time of the inspection due to vegetation. There was no evidence of erosion or additional gopher activity. This area will be re-inspected during the November visit to confirm that the hole was filled in.
- The southern slope, adjacent to the Bethel A.M.E., has erosion rills and grassed areas are sparse. The slope is currently inaccessible for full inspection and repair due perimeter fencing.
- Woody vegetation is established at the culvert outlets and should be removed to allow unobstructed flow from each discharge.

At this time the black separation fabric that demarcates the underlying contaminated fill from the clean imported fill is not visible. However, these areas should be repaired in order to prevent further erosion or cap damage that could eventually expose the separation fabric. Please refer to the attached Cap Inspection Form for additional details concerning observed conditions.

If you have any questions, please contact me at 978-656-3560.

Sincerely,



David M. Sullivan, LSP, CHMM
Senior Project Manager

Attachments

Attachment 1

Log Book

SUNNY, H 70s

THURSDAY, 8/12/10

0800 A. HAMILTON ARRIVES AT (KMS)

LEITH MIDDLE SCHOOL TO CONDUCT THE AUGUST INSPECTION OF THE ASP. TRC PROVIDED ACCESS TO ALL AREAS OF THE FIRST FLOOR TO CONDUCT THE INSPECTION.

THERE ARE NO AREAS OF CRACKING IN CONCRETE GREATER THAN $\frac{1}{4}$ " IN WIDTH IN ANY AREA WHERE CONCRETE IS VISIBLE.

OTHER AREAS WHERE THE FLOOR IS COVERED WITH TILE ARE WELL MAINTAINED AND THERE IS NO EVIDENCE OF SIGNIFICANT WEAR OR SETTLEMENT.

PIPE PENETRATIONS WERE INSPECTED AND THERE ARE NO CHANGES

0930 TRC CONDUCTED INSPECTION OF EXTERIOR SCHOOL GROUNDS.

ALL PAVED AREAS ARE IN GOOD CONDITION WITH NO EVIDENCE OF CRACKING. ALL CONCRETE WALKWAYS / PATIOS ARE IN EXCELLENT CONDITION WITH NO EVIDENCE OF CRACKING.

ALL COURTYARDS AND LANDSCAPED AREAS ARE WELL MAINTAINED WITH NO

THURSDAY, 8/12/10

EVIDENCE OF EROSION OR EXCAVATION. 1000 MET UP WITH BOB SYLVIA TO DISCUSS DRAINAGE OF THE VARSITY FIELD. INSPECTED FIELD.

1045 MET UP W/ R. JACKSON AND D. ANDREWS TO COMPLETE INSPECTION OF WETLANDS AT KMS.

VEGETATION WELL ESTABLISHED WITH EXCEPTION OF SOUTHERN SLOPE.

UNABLE TO SEE EROSION RILLS IN SW CORNER DUE TO THICK VEG. RIPRAP REPAIR TO SLOPE IS STABLE. HAY BALES / SILT FENCE REMOVED.

COMPLETING ESTIMATE OF AREAL EXTENT OF JAPANESE KNOTWEED IN BUFFER ZONE.

1200 OFFSITE

~~C. H. H.~~

Attachment 2
Cap Inspection Form

CAP INSPECTION FORM KEITH MIDDLE SCHOOL

Use this inspection form to document cap inspections. If unacceptable conditions are observed, complete an additional form immediately after repairs are completed.

Inspection Date: August 12, 2010 Inspection by: Amy Hamilton

A. ASPHALT AND CONCRET PAVING – observe asphalt and concrete paving for cracking, holes, asphalt removed during construction, other damage.

All Asphalt and concrete paving acceptable? YES NO

If no, attach photograph

If no, describe unacceptable condition:

Location

Condition

Describe any repairs to asphalt and/or concrete paving conducted since previous inspection

All repairs adequate YES NO Photograph of repair attached

B. INTERIOR CONCRETE FLOORS – observe concrete for cracking, holes, concrete removed during construction, other damage.

All interior concrete floors acceptable? YES NO

The two cracks in the boiler room floor are still less than ¼-inch wide. The majority of interior concrete floors are covered with tiles or other type of flooring material. Based on visual inspection and conversations with current employees, there are no breaches or other significant damage or deterioration of the interior surficial flooring materials or, where visible, concrete floors. No construction was occurring within the building at the time of the inspection.

If no, attach photograph

If no, describe unacceptable condition:

Location

Condition

Describe any repairs to interior concrete floors conducted since previous inspection

All repairs adequate YES NO Photograph of repair attached

C. LANDSCAPING – observe landscaping for erosion animal holes, excavation, erosion control vegetation health.

All landscaped areas acceptable? YES NO

If no, attach photograph

If no, describe unacceptable condition:

Location: The southeastern and northeastern ends of the school property and the steep slope just above the wetland and to the west of the southern parking lot and school.

Condition:

1. Riprap stabilization rock placed around the outlet of one of the storm water drainage culverts is falling down the slope and filling the end of the culvert. The outlet in question is the fourth outlet south of the above ground oil storage tank. The falling riprap undermined the concrete fence support at the top of the slope. See Photograph #14. The structural integrity of the fence may be compromised if the sloughing of the riprap continues. The cap soils beneath the riprap may also become exposed and susceptible to erosion. The area appears stable at the moment. The extent of erosion seems similar to the conditions observed during the previous inspection. See inspection report letter dated May 11, 2010, Attachment 3, Photograph #10.

2. Woody vegetation is becoming more established, Photographs #8 and #10. Woody vegetation should be removed from the culvert outlets so unobstructed flow occurs at each discharge.

3. Erosion is occurring on the southern end of the cap adjacent to the Bethel A.M.E. property. Access to this area is currently blocked by fencing. The rills in this area should be filled in and efforts should be taken to establish vegetation along this slope.

Describe any repairs to landscaping since previous inspection: This is the seventh cap inspection to be completed as required by the December 2006 Long-term Monitoring Plan.

All repairs adequate YES NO Photograph of repair attached

D. Areas Not Inspected:

Southern end of cap.

Reason:

Perimeter fence installed

A perimeter security fence installed around the Bethel A.M.E. property (immediately south of the KMS property) limits access to the southern end of the KMS cap.

Additional Notes: None

Attachment 3
Site Inspection Photographs

SITE PHOTOGRAPHS
August 2010 Cap Inspection
Keith Middle School
New Bedford, Massachusetts



1) Pipe penetrations in boiler room.

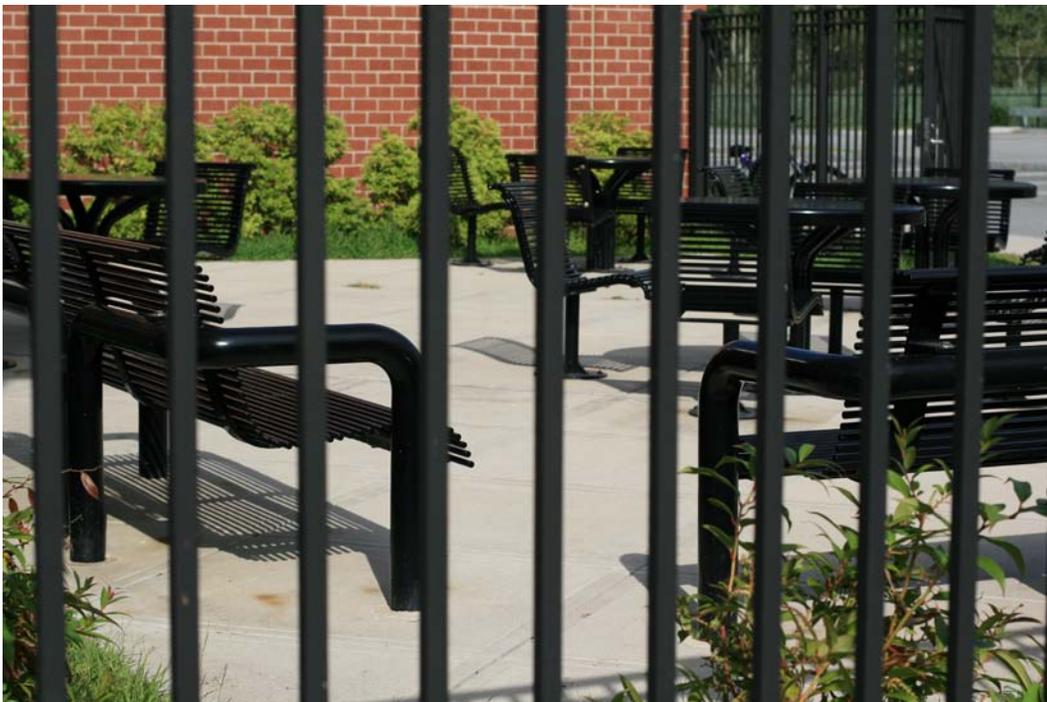


2) Kitchen.

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3) Courtyard looking North.



4) Community room courtyard.

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5) West side of school looking South.



6) North parking lot facing Southeast.

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7) East side of school facing North.



8) Woody Vegetation in front of culvert outlet.

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9) Temporary slope failure repair.



10) Vegetation on Southern slope.

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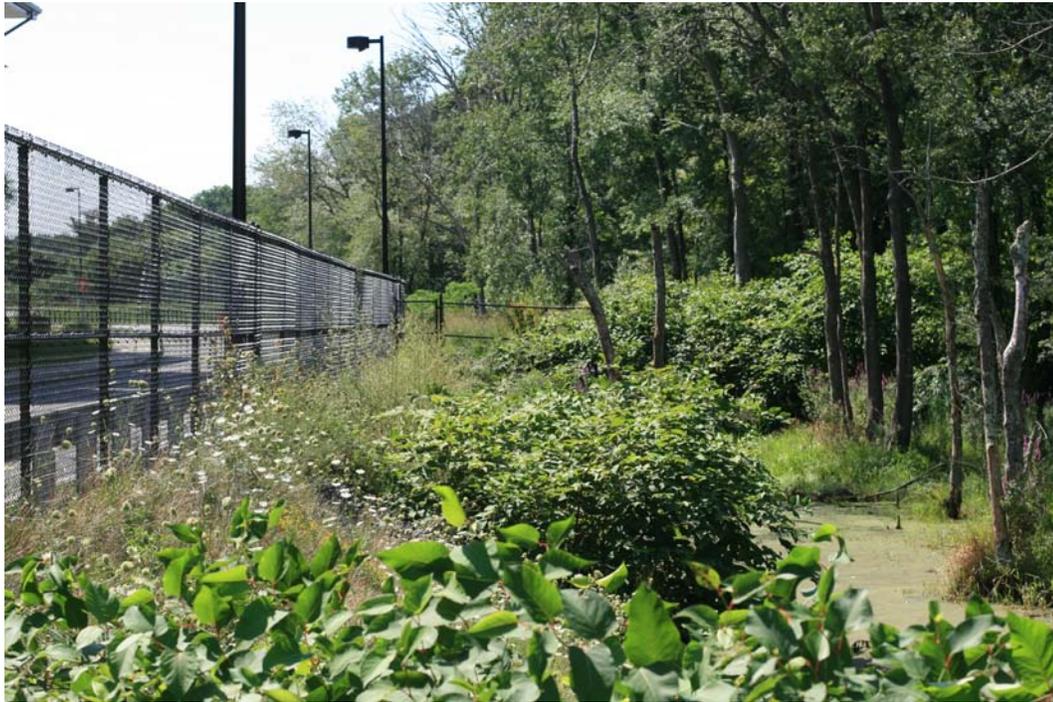


11) Northern slope facing Southwest.

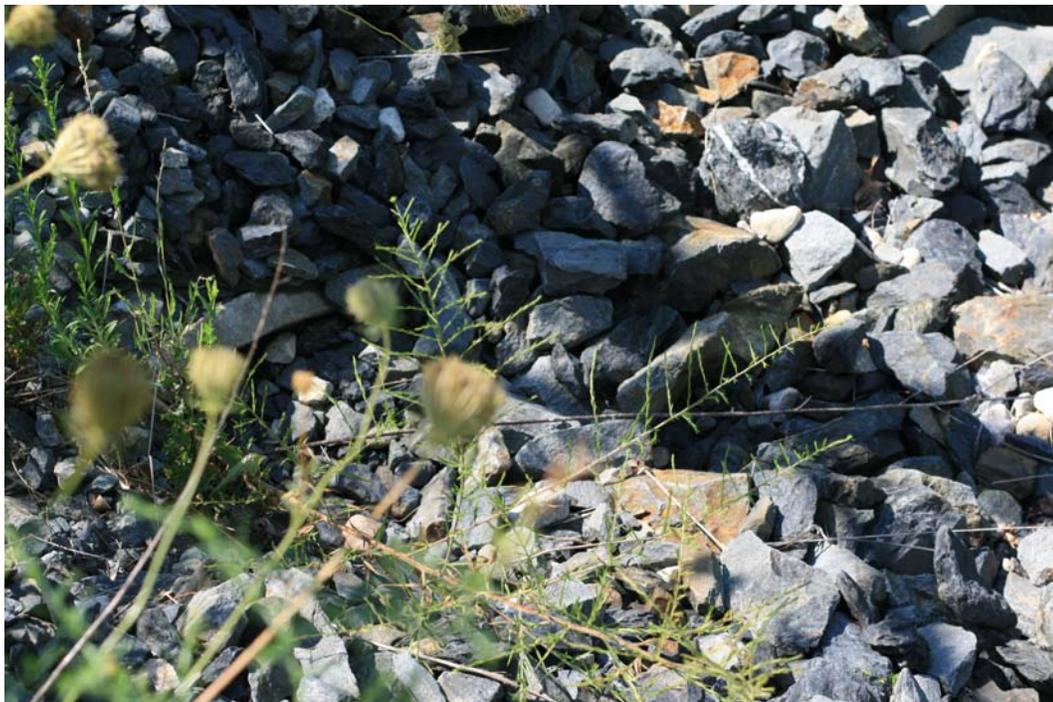


12) Northern slope facing North.

SITE PHOTOGRAPHS
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13) Eastern slope facing South.



14) Culvert filled in with riprap.