MONITORING AND MAINTENANCE PLAN
FOR THE
FIRST BAPTIST CHURCH ASBESTOS SOILS REPOSITORY
OROFINO, IDAHO

May 2018

Orofino Asbestos Site
First Baptist Church Asbestos Soils Repository
Monitoring and Maintenance Plan

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Attachments

1.0 INTRODUCTION

This Monitoring and Maintenance ("M&M") Plan specifies the requirements for M&M at the First Baptist Church Asbestos Soils Repository ("Repository") in Orofino, Idaho. Construction of the Repository was conducted pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986 ("CERCLA").

This M&M Plan has been prepared by Environmental Protection Agency Region 10, for the property located at 291 118th Street, Orofino, Clearwater County, Idaho (Clearwater County parcel #RPA1525001009H) ("Property"). The Property is currently owned by the First Baptist Church of Orofino, Idaho, Inc. ("Owner").

This M&M Plan describes the administrative and technical requirements to ensure the effectiveness and integrity of the removal action performed by EPA Region 10 so that it remains protective of human health and the environment.

The Owner and their successors in interest are responsible for conducting the M&M and EPA is the entity responsible for oversight of M&M activities. The Owner will conduct inspections and submit reports to the EPA. The annual plans for monitoring and maintenance work to be performed by the Owner or a contractor will be approved by the EPA.

In the event that the Repository's integrity is compromised or threatened, the Owner should contact the EPA Emergency Management Program as soon as possible (206-553-1263). EPA has authority to respond to a release or substantial threat of release of a hazardous substance into the environment, and to a release or substantial threat of release of a pollutant or contaminant which may present an imminent and substantial danger to the public, pursuant to CERCLA Section 104, 42 U.S.C. § 9604.

1.1 Background

The Property is the location of a repository designed to contain approximately 11,722 cubic yards of regulated asbestos-containing material ("ACM") and asbestos-contaminated soil beneath an asphalt and soil cap. The Repository was constructed as part of the CERCLA removal action that EPA conducted to clean up and secure ACM and asbestos-contaminated soil from several locations in and around Orofino, including the First Baptist Church Property, during the years 2010, 2011, and 2012.

Potential threats to human health have been addressed by containing ACM and asbestos-contaminated soils in an engineered on-site repository. The Repository was created on a hillside by constructing a Wilbert Precast Redi-Rock© retaining wall. The eastern portion of the Repository was capped with a protective barrier consisting of 8 inches of

clean aggregate and 4 inches of asphalt, and the western portion of the Repository was capped with a 25-mil PVC liner and approximately 12 to 15 inches of clean soil, also serving as a dry retention basin. A dry well was also installed from the surface of the soil cover down to a loam layer for surface water drainage. The narrow drainage swale leading from the asphalt to the dry well has approximately 6 to 9 inches of soil, which is a narrow swale and does not include all of the area between the asphalt and the dry well. Project specifications and drawings for the Repository are available from EPA on request. Property Record Drawings (*i.e.*, "As-Built Drawings") are included as Attachment 1, which also show the capped areas of the Property.

The asphalt cap serves as a parking lot for the Property. The asphalt was graded to control surface water run-on and run-off and to direct it to the soil cap. A drain rock apron was installed between the asphalt and soil caps and a drain rock layer was installed around the dry well to facilitate surface water drainage to the drywell.

A long-term M&M program is included as part of the removal action to monitor Property conditions and to ensure the continuing effectiveness of the removal action, particularly with respect to the dry retention basin, asphalt, retaining wall surfaces, fencing, and surface water drainage features. This document specifies those inspection and maintenance and repair requirements.

1.2 Project Overview

The post-removal activities described in this M&M Plan are necessary to ensure the continued protection of human health and the long-term protectiveness of the Repository. The elements of the M&M Plan include the inspection, maintenance, and repair of the removal action features, including:

- Retaining wall;
- Soil and asphalt covers;
- Dry well;
- Fencing; and
- Drainage and erosion control features.

The discussion of M&M activities is divided into inspection; maintenance and repair; best management practices (BMPs); and record keeping and reporting.

1.3 Property Use

Future use of the Property is anticipated to entail vehicle parking and light recreational use (sports activities and church fairs) for the Owner. The following limits on activities and use limitations for the “Restricted Area” at the Property (i.e., the Repository, which

includes the area below the asphalt and soil cap and behind the retaining wall), are in place:

1. The Restricted Area of the Property, and any portion thereof, may be used for commercial and industrial uses only. The Restricted Area of the property shall not be used for residential purposes.

2. Unless prior written approval is obtained from the EPA, any activity that damages or disturbs the integrity of the Restricted Area or otherwise results in the release or exposure to the environment of any hazardous substances beneath the Restricted Area is hereby prohibited. Some examples of activities that are prohibited in the Restricted Area include, but are not limited to, the following: drilling, digging, excavating, placement of any objects or use of any equipment which could deform or stress the surface beyond its load bearing capacity, piercing the surface with a rod, spike or similar item, bulldozing, or earthwork.

3. Any activity on the Property that may interfere with the integrity or operation or maintenance of the Restricted Area or the erosion and drainage controls, or any other component of the environmental response project, or the continued protection of human health and the environment, is prohibited without prior written approval from the EPA.

4. *Parking* – Vehicle parking should be limited to vehicles with rubber tires. Hard tire vehicles (such as fork lifts) should not be allowed and vehicles using snow chains should only be allowed if snow or ice is present. Note that the use of snow chains on the asphalt parking area may cause damage to the asphalt which may require more frequent maintenance and repair. Parking should be short-term only (*i.e.*, limited to one week) to prevent permanent deformation of the asphalt surface. Pavement striping is allowable. No vehicular traffic is allowed on the soil cap (dry retention basin).

5. *Placement of Permanent or Temporary Structures* – No permanent or temporary structures shall be placed on either the asphalt cap or the soil cap without certification by a professional engineer registered in the State of Idaho and approval of EPA.

6. *Snow Clearing* – Care should be taken when clearing snow to ensure that no gouging of the surface occurs with the plow blade. The edge of the asphalt, such as where the gravel driveway and asphalt meet, or the drain rock apron between the asphalt and soil cap, can be susceptible to accidental uplift from the blade; caution should be taken in these transitional areas. Snow should not be pushed against the fence. Additionally, excess snow from snow plowing or clearing activities should not be piled on the soil cap area.

7. *Recreation* – When recreational activities are being performed on the capped area, attempts to preserve the cover shall be taken. No disturbance (digging or excavation) of the cover is allowed, so permanent placement of equipment on the cap is not allowed. Portable basketball hoops, soccer nets, etc. can be used if weighted down using sandbags or other non-intrusive means as recommended by their manufacturer. The use of stakes is not permitted on the soil cap. The integrity of the PVC liner must be maintained.

8. *Soil Cap Maintenance* – The soil cap is comprised of approximately 12 to 15 inches of vegetated soil on top of the PVC liner. No trees, shrubs, or other deep rooting vegetation are allowed on the cap. Woody vegetation must be prevented from becoming established on the cap. Remove any burrowing animals and repair damage caused by them immediately upon detection. Maintain vegetation at 6 inches in height or less.

9. Owners, and their successors in interest, shall further comply with all of the requirements of the Monitoring and Maintenance Plan ("M&M Plan") for the Repository.

10. No conveyance of title, easement, lease, or other interest in the Property shall be consummated by Owners, or their successors in interest, without adequate and complete provision for continued compliance with the M&M Plan for the Repository.

11. Leases must be restricted to uses and activities consistent with this M&M Plan and all lessees must be notified of the restrictions on the use of the Property.

2.0 INSPECTIONS

Inspections shall be conducted by the Owner, or their authorized representative, to periodically assess the condition and functionality of the Repository caps (asphalt barrier and vegetated soil barrier), storm water drainage features, drywell and manhole assembly, fencing and retaining wall. Inspections will identify any situations warranting maintenance or repairs. Inspection activities and locations are discussed below. A Field Inspection Form has been included in Attachment 3. Reporting requirements are detailed in Section 7.0.

2.1 Inspections

The purpose of the inspections is to identify actual or potential deficiencies associated with components of the asphalt cap, soil cap, and retaining wall located at the Property.

Semi-annual inspections shall be conducted in the spring (April or May) and the fall (September or October) through the spring of 2018. Thereafter, the inspections shall be conducted annually in the spring (April or May). The Owner shall notify the EPA's project manager at least seven (7) calendar days before commencing each inspection. The inspections shall continue as long as contaminants remain on the Property beneath the protective barriers.

2.2 Features to be Inspected

The following features must be inspected to ensure that contaminated soils are controlled and the safety of the public is maintained. The features to be inspected are indicated on the Record Drawings (*i.e.*, "as-builts"), which are included in Attachment 1, and include:

- Asphalt Cap;
- Soil Cap;
- Drainage Features;
- Dry Well and Manhole Assembly;
- Retaining Wall; and
- Fencing.

Photographs of these key features are included in Attachment 2.

2.2.1 Asphalt Cap and Parking Space Stops

The asphalt-capped portion of the Repository will be inspected to ensure that the protective barrier is functioning as designed and constructed (see the final construction drawings in Attachment 1). The inspection should evaluate the overall quality of the asphalt surface to determine if resealing is required. Inspections will note indications of cracks, weathering (i.e., empty spaces around aggregate or loss of color), ruts, gouges from snowplows, or similar types of disturbance that have penetrated the Repository asphalt cap greater than or equal to ½-inch deep; any settlement or consolidation beneath the cap that causes a depression deep enough to pond 1 inch of water; or any other condition that may result in the release of or exposure to ACM or asbestos-contaminated soil.

Parking space stops have been permanently installed to prevent vehicles from contacting the retaining wall. Parking space stops will be inspected for signs of cracks or damage and to ensure that no damage has occurred to the asphalt cap. Inspections will also note whether the installed parking space stops in the asphalt parking area are loose, have moved, or are otherwise not functioning properly to prevent vehicles from bumping into the top of the retaining wall.

2.2.2 Soil Cap (Dry Retention Basin)

The soil capped portion of the Repository will be inspected to ensure that the protective barrier is functioning as designed and constructed (see the final construction drawings in Attachment 1). Inspections will note the formation of ruts, rills or gullies greater than or equal to 2 inches; indications of lack of vegetative cover (bare soil areas greater than or equal to 20 square feet, or total vegetation cover less than or equal to 70% of the total area); deep-rooted plants (presence of tree, shrub, brush, or other woody or deep-rooted plant growth); erosion, thinning of the cover, or settlement (any depression greater than 5 feet in length and greater than 2 inches deep); any settlement or consolidation beneath the cap that causes a depression deep enough to pond 2 inches of water; or damage due to wildlife (presence of burrowing animals, bare areas greater than or equal to 10 square feet, or holes greater than or equal to 2 inches deep) or any other condition that may result in the release of or exposure to ACM or asbestos-contaminated soil (e.g., exposure of PVC liner).

The soil cap should also be inspected to ensure that there are no disturbances or penetrations of the Repository cap that could expose or damage the PVC liner underneath (*i.e.*, any exposure of the PVC liner, or any penetration of the soil cap greater than or equal to 6 inches deep). The dry retention basin should be inspected for signs of slow water drainage, standing water, or saturated soil. Water in the dry retention basin should drain within 48 hours.

2.2.3 Drainage Features

The washed-rock drainage apron (between the vegetated soil barrier and the asphalt barrier), the drain rock layer around the dry well, the vegetated soil cap, and the dry well itself were constructed as sediment collection and run-off diversion features of the Repository, and they will be inspected to ensure that the features are functioning as designed and constructed (see the final construction drawings in Attachment 1).

The washed-rock drainage apron and drain rock layer around the dry well will be inspected to ensure that exposed aggregate or fines do not contain large debris or sediment, including leaves and pine cones, that could clog the drainage feature, and that there is no material movement, sloughing, scouring, or slumping. Also, inspect to ensure that vegetation is not growing in these drainage features. It should be noted if the areas around the washed-rock drainage apron, drain rock layer around the dry well or inside the dry well are wet or if standing water is present. It should also be noted if either the dry retention basin or the washed-rock drainage features (the washed-rock drainage apron and drain rock layer around the dry well) fail to drain into the dry well within 48 hours. The locations of the two buried dry wells located below the retaining wall (see Drawing C-2 in Attachment 1) should be inspected to ensure that there is no wet soil, standing water, or erosion. Inspections will note the condition of the washed-rock drainage apron and the

drain rock layer around the dry well and identify the need for repairs. Inspections will also identify drainage and erosion patterns that could indicate the need for additional drainage and erosion control features.

2.2.4 Dry Well and Manhole Assembly

The dry well and manhole assembly should be visually inspected to ensure that they are functioning as designed and constructed, there are no structural changes or damage, and that vegetation is not restricting proper drainage (see the final construction drawings in Attachment 1). This includes the safe removal of the manhole cover for a visual inspection inside the drywell for any accumulation of debris, obstructions, or water. No one should enter the drywell without implementing the proper confined space procedures as per 29 C.F.R. § 1910.146. The locking security (to prevent the unauthorized removal of the manhole cover) should also be confirmed to be in good working order.

2.2.5 Retaining Wall

The Wilbert Precast Redi-Rock© retaining wall will be visually inspected to ensure that the wall is functioning as designed and constructed (see the final construction drawings in Attachment 1). Inspections will note indications of materials being washed from between the retaining blocks or standing water or saturated soil at the base of the wall, and will identify areas that need repair and/or replacement. The inspection will note any movement of individual blocks within the wall or any movement of soil at the base of the wall.

The ramp to the base of the retaining wall, the toe of the retaining wall, and the adjacent soil slopes shall be inspected for erosion, washouts, and undermining. Inspections of the parking space stops are necessary to ensure they function as a protective measure for the retaining wall (see section 2.2.1).

2.2.6 Fencing

Fencing does not act as a barrier to contaminated soils; however, due to the height of the retaining wall, it becomes a necessary feature to ensure public safety. Fencing will be inspected to ensure that it is functioning as designed and constructed (see the final construction drawings in Attachment 1).

The fencing was constructed in accordance with City of Orofino regulations to prevent injury or death due to falls. Fencing for public safety applies for any portion of the retaining wall with a height greater than 4 feet above the lower ground elevation. The fencing should be inspected to ensure that no posts have become loose or damaged, all post caps remain in place, chain link fabric connections are in place, and that no other unsafe

conditions may be present. Inspections will note the condition of the fencing and identify the need for repair or replacement.

2.3 Non-Routine Inspections

Non-routine inspections should be performed by the Owner after any event that may impact the integrity of the Repository and/or interfere with its ability to prevent the release of asbestos or asbestos-contaminated soil. Events that would require a non-routine inspection include, but may not be limited to, earthquakes, fires, flooding, a significant rain event (see below), and vandalism. The Owner shall inform EPA's project manager (which will be assigned by the U.S. Environmental Protection Agency | Region 10 Office of Environmental Cleanup – Emergency Management Program Spill Prevention and Removal Unit through a letter) of the findings from non-routine inspections that may require action or follow-up inspection by the Owner and EPA.

For example, an inspection should be done immediately following a substantial rainfall or snowmelt event. A rainfall event could be a hard rain for a short period (30 minutes or longer) or a steady rain over a long period of time (greater than 6 hours). If there is a period of prolonged precipitation over 24 hours, an inspection during the event should be completed to confirm that the dry well and manhole assembly are functioning as intended. Any debris or obstructions around the drywell should be removed or corrected immediately, if they can be done safely. Any temporary corrections should be made permanent as soon as possible.

Non-routine inspections will be conducted within five (5) working days or as soon as possible of an incident being observed by or reported to the Owner. For the purpose of this inspection, a reported incident is any public or private notification indicating potential Property activity and/or damage that could adversely affect the overall integrity of the cleanup action, and particularly the cover of the Repository.

The purpose of these inspections will be to assess the condition of features discussed in Section 2.2 for routine maintenance activities that should be conducted prior to the next regularly scheduled annual maintenance and repair activity. The EPA's project manager shall be notified as soon as possible of a non-routine inspection.

In the event that the Repository's integrity is compromised or threatened, the Owner should contact the EPA Emergency Response Program as soon as possible (206-553-1263).

3.0 MAINTENANCE AND REPAIR

Inspection results will identify the maintenance and repair requirements.

Maintenance and repair activities are prevention focused (identifying conditions that could cause failures to the Repository), are performed to keep the installed features in good operating condition and working order, and address those issues that can generally be anticipated during the normal course of events. In general, the maintenance activities that are expected to occur under this section are those that are identified by the inspections specified in Section 2 and will be performed by the Owner or a contractor to ensure the integrity of the features described in Section 2.2. A Field Maintenance Form has been included in Attachment 3. Maintenance activities will be conducted in accordance with the project design specifications and drawings and the final construction drawings in Attachment 1 to ensure that the installed features are functioning as designed and constructed.

When the results of an inspection indicate that maintenance is required, maintenance shall be performed by the Owner within thirty (30) working days of completion of the inspection, weather permitting. If the required maintenance has a seasonal or weather-related component (*e.g.*, planting grass seeds, or asphalt repair), the maintenance work will be performed as soon as practicable once the weather permits. If the Owner is unable to conduct the maintenance in the timeframe required, the Owner shall contact the EPA to discuss and arrange for potential alternatives.

Maintenance and repairs shall be performed as discussed below and in the attached maintenance form (Attachment 3), provided that the maintenance and repair action does not involve a breach in the cap of the Repository such that the underlying material is exposed, or does not present a physical or safety hazard. If necessary, a temporary repair as described in Section 4.0 shall be performed.

Repairs associated with damage to the asphalt barrier, vegetated soil barrier, and/or the PVC liner that may result in the release of or exposure to ACM or contaminated soil must be performed by a licensed asbestos contractor with certified asbestos supervisors and workers. The specifics of any repairs associated with damage to the asphalt barrier, vegetated soil barrier, and/or the PVC liner, including the timeframe until a permanent repair is made, will be developed on a case-specific basis and will be subject to EPA approval.

During the implementation of any maintenance and repair activity, the BMPs as specified in Section 6.0 shall be used.

3.1 Asphalt Cap and Parking Space Stops

The asphalt cap consists of 8 inches of clean aggregate and 4 inches of asphalt.

If the asphalt surface exhibits sign of wear or weathering, then it should be resealed. If the asphalt is resealed by Owner, resealing may be required approximately every 2 years.

If an asphalt contractor is used, resealing may be required approximately every 5 years. The actual frequency for asphalt resealing can be identified through a discussion between the Owner and EPA. The actual rate of asphalt wear will depend on several factors, including weather conditions, the amount of use, and the frequency and quality of maintenance. Cracks in the surface should be filled with asphalt filler annually. Replacement of the asphalt cap and subbase will be performed as necessary. If any disturbance has penetrated the full depth of the asphalt cap (including the sub-base aggregate layer) which has resulted in ACM or asbestos-contaminated soil within the Repository being eroded or migrating outside of containment, then the contaminated material will be placed back into the Repository, if possible, and the exposed area will be re-covered with material meeting the original material design specifications for the asphalt cap. Alternately, ACM or contaminated soil exposed or released from the Repository can be disposed of properly at a licensed landfill for asbestos waste, followed by backfill and repair of the asphalt cap as indicated in the original design specifications. In either event, any such disturbance of the asphalt cap that results in exposure of ACM or ACM-contaminated soil must be immediately reported to EPA's Emergency Response Program as soon as possible (206-553-1263). Any such repairs will be completed by an experienced contractor. Repairs associated with damage to the asphalt barrier and cap that may result in the release of or exposure to ACM or contaminated soil must be performed by a licensed asbestos contractor with certified asbestos supervisors and workers, and will be subject to EPA approval.

3.2 Soil Cap (Dry Retention Basin)

The vegetated soil cap consists of a minimum of 12 inches and a maximum of 15 inches of soil cover over the PVC liner in all areas of the soil cap, except for the constructed drainage swale (from the parking lot to the drywell), which consists of a minimum of 6 inches and a maximum of 9 inches of soil cover in the center of the drainage path of the swale. The vegetated soil cap shall be monitored for signs of erosion or thinning relative to the elevation of the asphalt and the drywell.

Watering and reseeding of the vegetated soil cap is to be conducted as necessary to maintain the grass coverage of the soil cap. If woody growth is discovered it shall be removed.

Areas in the vegetated soil cap that become eroded below the level of the asphalt or dry retention basin shall be repaired immediately. The protective soil cover will also be repaired when erosion (*e.g.*, rills, ruts) or similar types of disturbance occur or indicate the mass movement of material. If erosion continues after a repair, then the root cause of the problem should be investigated by the Owner and mitigation measures taken.

When the required inspections indicate that maintenance or repair is necessary:

- The eroded area shall be backfilled to a level that matches the adjacent undisturbed area and achieves the design thickness for the barrier;
- The replacement material shall meet the original material design specifications of approximately 12 to 15 inches of soil, and 6 to 9 inches of soil along the drainage path of the swale; and
- The area will be re-vegetated with a seed mixture similar to what was previously installed.

If any disturbance has penetrated the full depth of the vegetated soil cap, or PVC liner, which has resulted in ACM or asbestos-contaminated soil within the Repository being eroded or migrating outside of containment, then the contaminated material will be placed back into the Repository, if possible, and the exposed area will be re-covered with material meeting the original material design specifications. Alternately, ACM or contaminated soil exposed or released from the Repository can be disposed of properly at a licensed landfill for asbestos waste, followed by backfill and repair of the soil cap and PVC liner as indicated in the original design specifications. In any event, any such disturbance of the asphalt cap that results in exposure of ACM or ACM-contaminated soil must be immediately reported to EPA's Emergency Response Program as soon as possible (206-553-1263). These types of repairs will be completed by an experienced contractor. Repairs associated with damage to the soil cap or PVC liner that may result in the release of or exposure to ACM or contaminated soil must be performed by a licensed asbestos contractor with certified asbestos supervisors and workers, and will be subject to EPA approval.

3.3 Drainage Features

The washed-rock drainage features (apron between vegetated soil and asphalt caps and area around the dry well) may need occasional maintenance to prevent the accumulation of fine solid particulates in the void spaces of the drain rock. The washed-rock drainage apron and drain rock layer around the dry well shall have any exposed aggregate or fines cleared of large debris, including leaves and pine cones that could clog the drainage feature. If any vegetation is growing in the washed rock drainage features, it should be removed by hand.

If the manual removal of debris such as leaves or pine cones from the drainage features does not improve drainage, pressure-washing or use of a leaf blower may be required once every two to three years to remove the fines that may have accumulated. Pressure-washing or blowing should be performed such that the debris (including wash water) is directed toward the soil cap area so that fines are transferred to the soil. If attempts at cleaning the surface of the washed rock are not sufficient at removing all of the fines and improving drainage, it may be necessary to lightly dislodge a portion of the washed rock at the surface temporarily to allow better access to the washed rock below the surface. When temporarily dislodging areas of the washed rock, care shall be used to only remove

a portion of the washed rock at the surface without removing all of the washed rock. The PVC liner should not be uncovered.

Drainage feature repair may be necessary if water does not drain or drainage is minimal.

If any disturbance has penetrated the full depth of the vegetated soil cap, or PVC liner, which has resulted in ACM or asbestos-contaminated soil within the Repository being eroded or migrating outside of containment, then the contaminated material will be placed back into the Repository, if possible, and the exposed area will be re-covered with material meeting the original material design specifications. Alternately, ACM or contaminated soil exposed or released from the Repository can be disposed of properly at a licensed landfill for asbestos waste, followed by backfill and repair of the drainage feature or PVC liner as indicated in the original design specifications. Any such disturbance that results in exposure of ACM or ACM-contaminated soil must be immediately reported to EPA's Emergency Response Program as soon as possible (206-553-1263). These types of repairs will be completed by an experienced contractor. Repairs associated with damage to the drainage feature or PVC liner that may result in the release of or exposure to ACM or contaminated soil must be performed by a licensed asbestos contractor with certified asbestos supervisors and workers, and will be subject to EPA approval.

If inspections indicate drainage issues (i.e., wet soil, standing water, or erosion) with the buried dry wells below the retaining wall, the cause of the issues should be investigated and repaired by an experienced contractor.

3.4 Drywell and Manhole Assembly

The drywell and manhole assembly should not require repair or maintenance under normal conditions unless damaged. A piece of rubber tubing has been placed as a protective guard over the edge of the galvanized corrugated metal pipe ("CMP") located just below the drain rock layer, and it should be repaired or replaced if damaged (*e.g.*, if not fully covering and protecting the metal edge). Replacement of the protective guard over the edge of the galvanized CMP may be completed by the Owner. Any repair or replacement to the concrete components or the manhole assembly should be completed by a contractor that has experience repairing such equipment. If there is any slumping of the drain rock around the drywell, additional drain rock should be added to return it to the proper level.

If any disturbance has penetrated the full depth of the vegetated soil cap, or PVC liner, which has resulted in ACM or asbestos-contaminated soil within the Repository being eroded or migrating outside of containment, then the contaminated material will be placed back into the Repository, if possible, and the exposed area will be re-covered with material meeting the original material design specifications. Alternately, ACM or contaminated soil exposed or released from the Repository can be disposed of properly at a licensed landfill

for asbestos waste, followed by backfill and repair of the drywell or PVC liner as indicated in the original design specifications. Any such disturbance that results in exposure of ACM or ACM-contaminated soil must be immediately reported to EPA's Emergency Response Program as soon as possible (206-553-1263). These types of repairs will be completed by an experienced contractor. Repairs associated with damage to the drywell or PVC liner that may result in the release of or exposure to ACM or contaminated soil must be performed by a licensed asbestos contractor with certified asbestos supervisors and workers, and will be subject to EPA approval.

3.5 Retaining Wall

The retaining wall should not require repair or maintenance. If repair or maintenance issues should arise, report the issue to the assigned EPA project manager as soon as possible. The EPA will send a letter to the Owner every time the project manager changes.

3.6 Fencing

Fencing for public safety applies for any portion of the retaining wall with a height greater than 4 feet above the lower ground elevation. Fencing will be repaired when the intended function (*i.e.*, public safety) is impaired or potentially compromised (*e.g.*, damaged fencing components, missing post caps).

When the required inspections indicate that maintenance or repair is necessary:

- Impaired fencing will be replaced, repaired, or modified to restore the function described in Section 2.

4.0 TEMPORARY REPAIRS

Failures that could lead to the release of asbestos or asbestos-contaminated soil may require temporary repair by the property Owner if it is not practical (*e.g.*, time to contract, weather, etc.) to perform permanent repairs within the timeframe discussed in Section 3. The specifics of any temporary repairs, including the timeframe until a permanent repair is made, will be developed on a case-specific basis and will be subject to EPA approval. If the Repository is compromised and there is a release or threat of release of asbestos, the Owner should contact the EPA (contact listed in Section 7.3).

For a failure that results in a breach of a protective barrier associated with the cover of the Repository, objectives of a temporary repair shall be:

- Isolation of the breach to prevent cross-contamination of the surrounding area;
- A temporary covering of the area of contaminated material exposed by the breach;

- BMPs, as discussed in Section 6, shall be utilized during implementation of the temporary repair and during the period between the temporary repair and the permanent repair to minimize the migration of contaminated material from the area of the breach; and
- Appropriate measures shall be taken to ensure that any temporary repairs remain functional until the permanent repair is performed.

5.0 MONITORING

No environmental sampling or monitoring is required for this M&M Plan.

6.0 BEST MANAGEMENT PRACTICES FOR CONTROL OF CONTAMINANT MIGRATION THAT MAY RESULT FROM MAINTENANCE AND REPAIR ACTIVITIES

Any work with the potential to disturb materials containing regulated ACM must be performed by a licensed asbestos contractor with certified asbestos supervisors and workers. BMPs shall be used during all inspection, maintenance, and monitoring activities. Consultation with EPA shall be conducted prior to the start of construction activities. Application of BMPs is discussed below.

6.1 Preservation of Vegetation

Work area limits will be established prior to the start of construction. The limits of all clearing and grubbing will be marked. Where appropriate, erosion control devices such as silt fencing and straw bales will be placed to protect vegetation from sediment laden run-off.

6.2 Controls to Prevent Cross-Contamination

Certain activities may require the excavation of the asbestos-contaminated soil that may be replaced beneath a protective barrier. Appropriate measures shall be taken to separate the excavated material from other non-disturbed areas of the protective barriers. These measures may include one or more of the following:

- Placement of the excavated material onto a temporary liner.
- Tarping or otherwise covering temporary stockpiles of excavated material to minimize dispersal of the material.
- The use of sediment control measures around any temporary stockpiles to

minimize transport of the materials by surface water run-off.

6.3 Minimize Disturbance of Protective Barriers and Other Portions of the Property

All inspection, maintenance, repair, and monitoring activities shall be performed in a manner that minimizes disturbance to other portions of the Property. Any such disturbance shall be corrected in accordance with the applicable requirements of this plan prior to completion of any activity.

6.4 Materials Handling

Handling of contaminated materials during repair and maintenance that may result in the release of or exposure to asbestos-contaminated soil must be performed by a licensed asbestos contractor with certified asbestos supervisors and workers. Proper handling of contaminated materials is required at all times. All tools, equipment, and vehicles that come into contact with contaminated materials must be decontaminated and the materials must be disposed of as described below. Asbestos-contaminated materials may be reconsolidated beneath protective barriers. All other debris and wastes must be disposed of in accordance with applicable federal, state, and local regulations.

7.0 RECORDKEEPING AND REPORTING

7.1 Record Keeping

The Owner will provide the EPA with copies of all project-related documents, including:

- Field Inspection Form with the actions that need to be taken;
- Field Maintenance Form with repair activities performed;
- All other pertinent records.

7.2 Annual Performance Reports

The Owner shall submit performance reports to EPA annually during the life of the project. Reports are due 30 days after the inspection and it shall be submitted to the EPA project manager and may be provided electronically.

A Field Inspection Form and a Field Maintenance Form have been included as Attachment 3. These forms should be used as the written report for inspections and maintenance and repair activity.

7.3 Notices and Submissions

All written notices required or permitted to be given hereunder shall be in writing and mailed in the United States Mail, postage prepaid, by certified or registered mail, return receipt requested, to the appropriate address indicated below or at such other place or places as either Owner or its successors, EPA or its successors may, from time to time, respectively, designate in a written notice given to the other. Notices which are deposited in the United States Mail in accordance with the terms of this provision shall be deemed received three (3) days after the date of mailing thereof:

OWNERS:	First Baptist Church PO Box 1070 291 118th Street Orofino, Idaho 83544 (OR use successor in interest's mailing address)
EPA:	Director Office of Environmental Cleanup U.S. Environmental Protection Agency, Region 10, Suite 155, M/S ECL 133 1200 6th Avenue Seattle, Washington 98101 EPA Emergency Response Program 1200 Sixth Ave Seattle, WA 98101 206-553-1263 – 24 Hour Spill Response Hotline Please mention Site Name: Orofino First Baptist Church. EPA Idaho Operations Office Boise, Idaho 208-378-6510

8.0 AMENDMENT

The requirements set forth in this M&M Plan may only be amended or modified in writing signed by the EPA and the Owner.

Attachment 1

Record Drawings

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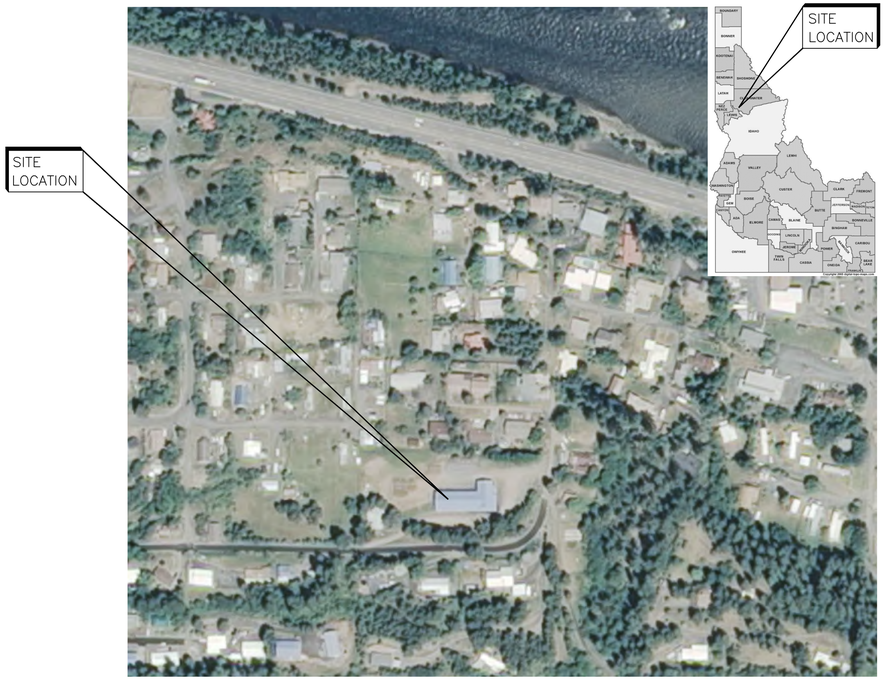
2015 SITE RESTORATION REPAIRS

OROFINO ASBESTOS SITE
OROFINO, CLEARWATER COUNTY, IDAHO
TDD NO.: 14-07-0012
PAN NO.: 1004530.0004.070.01



SOURCE: USGS

SCALE IN FEET
0 200 400 600

SITE VICINITY MAP

SCALE: 1" = 200'±

SOURCE: GOOGLE EARTH, IMAGERY DATE 8/17/2013

SCALE IN FEET
0 40 80 120

SITE LOCATION MAP

SCALE: 1" = 40'±

LIST OF DRAWINGS

DRAWING NO.	TITLE
1	VICINITY MAP, SITE LOCATION MAP, AND SHEET INDEX
2	FINAL SITE SURVEY
3	DRY RETENTION BASIN DRAINAGE DETAILS
4	DRAINAGE SWALE DETAILS
5	SITE CONTOUR AND ASPHALT REPAIR DETAILS
6	RETAINING WALL MONUMENT DATA

DRAWING NOTES:

1). Existing storm drainage facility details provided by JM Engineering, Spokane, Washington.

RECORD DRAWING

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Symbol	No.	Description	Date	Approved
	1	RECORD DRAWING ISSUED	07-14-15	TC
	0	ISSUED FOR CONSTRUCTION	04-17-15	TC

SIZE D
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ONE INCH

Designed by: M. FULTON
Drawn by: TCC
Spec No.:
Reviewed by: S. HALL
Approved by: T. CAMPBELL
EMAIL/PE REGISTRATION, WA 19340
Date: 07/2015
Rev. 1
TDD No. 14-07-0012
PAN No. 1004530.0004.070.01
File name: Orofino_041715.dwg
Plot date: 04-17-15
Dwg scale: AS SHOWN

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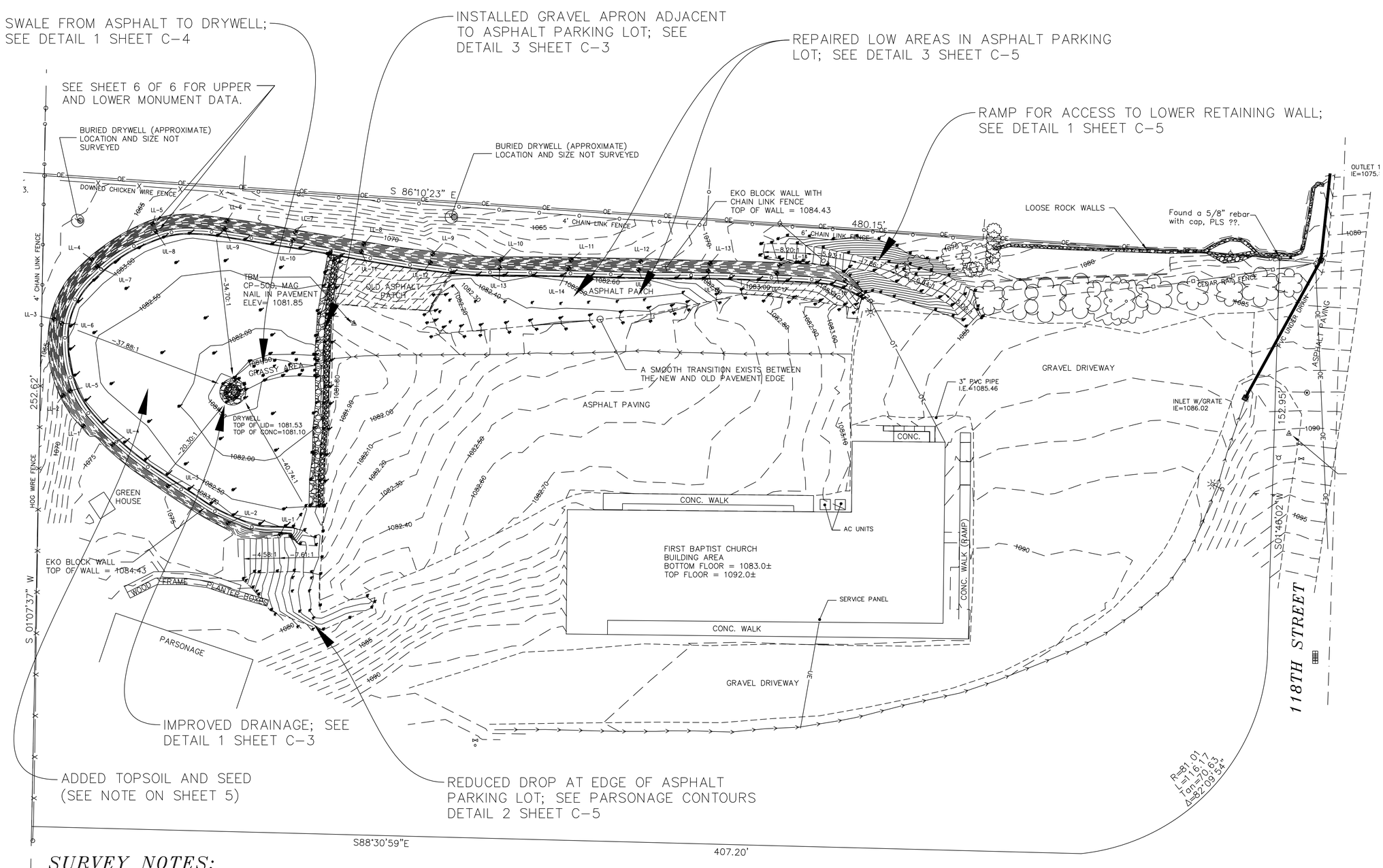
CLEARWATER COUNTY IDAHO
2015 SITE RESTORATION REPAIRS
OROFINO, CLEARWATER COUNTY, IDAHO

VICINITY MAP, SITE LOCATION MAP, AND SHEET INDEX

Sheet reference number:
C-1
SHEET 1 OF 6



SURVEY NOTES:

1). The Basis of Bearing for this survey is North American Datum of 1983 (NAD83), Idaho State Plane Coordinate system (SPCS), West Zone, U.S. Feet.

2). This survey was performed using a Nikon DTM-500 series Total Station Theodolite with a TDS Data Collector and a Topcon Hyper-Plus Realtime GPS with a TDS Data Collector.

3). This survey has an unadjusted mathematical error of closure exceeding the required minimum of one (1) part in five thousand (5000).

4). No attempt was made to show all the physical features of the property or prescriptive easements, recorded or unrecorded, written or unwritten.

5). The field work for the base map was performed on 2-10-2015, 3-03-2015 and 3-15-2015. Final survey performed 6-02 through 04, 2015. Monuments were placed and surveyed 6-05-2015.

6). Survey performed by Cuddy and Associates, Orofino, Idaho.

NOTES:

1. APPROXIMATE LOCATIONS OF BURIED UTILITIES AND SUBSURFACE FEATURES, AS WELL AS OVERHEAD POWER LINES WITHIN THE SITE ARE PRESENTED ON THE DRAWINGS FOR ILLUSTRATIVE PURPOSES ONLY. ASSUME OTHER OVERHEAD UTILITIES, BURIED UTILITIES, AND SUBSURFACE FEATURES COULD EXIST.

RECORD DRAWING

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Control	Description	Date	Approved
1	RECORD DRAWING ISSUED	07-14-15	TC
0	ISSUED FOR CONSTRUCTION	04-17-15	TC

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ONE INCH

Designed by: M. FULTON | Date: 07/2015 | Rev. 1
Drawn by: TCC | Spec No.: | TDD No. 14-07-0012
Reviewed by: S. HALL | PAN No. 10045.30.0004.070.01
Approved by: T. CAMPBELL | File name: Orofino_041715.dwg | Plot date: 04-17-15 | Dwg scale: AS SHOWN
EMAIL PE SIGNATURE ON FILE

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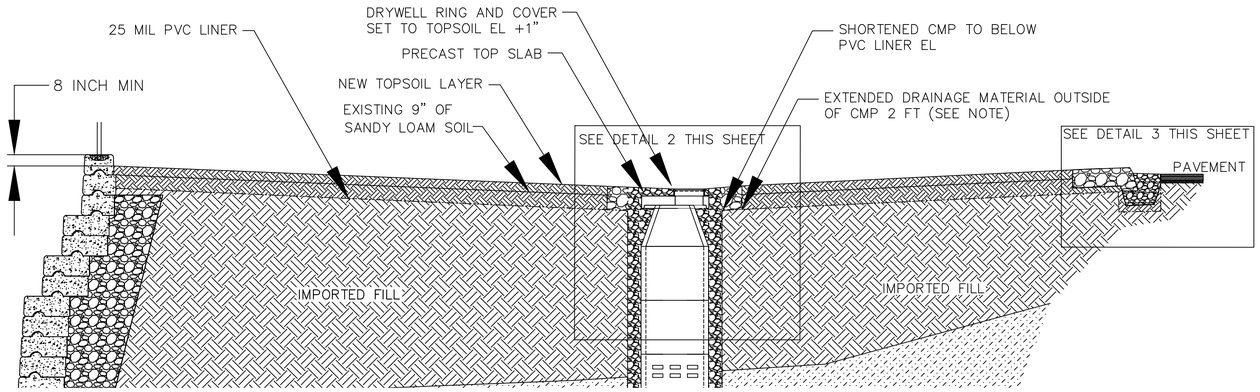
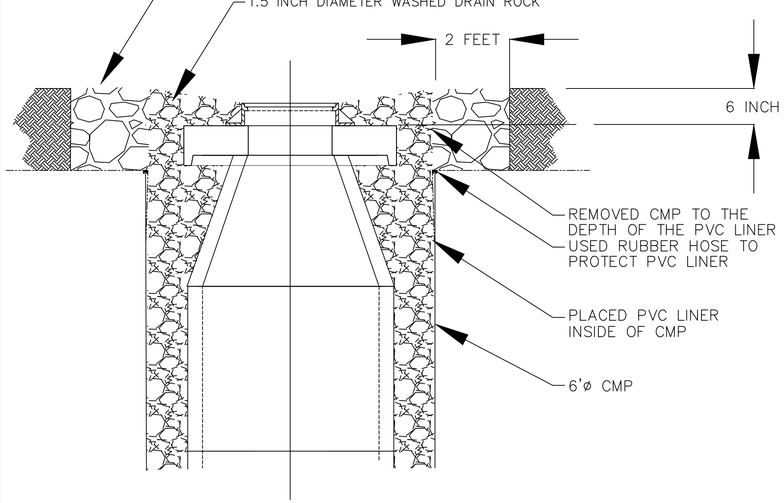
Global Environmental Specialists
333 SW F ☐ A ☐☐☐☐☐ S ☐☐ 600
P ☐☐☐☐☐☐ O ☐☐☐☐☐ 204
☐03 24 - 600

CLEARWATER COUNTY IDAHO
2015 SITE RESTORATION REPAIRS
OROFINO, CLEARWATER COUNTY, IDAHO
FINAL SITE SURVEY

Sheet reference number:
C-2
SHEET 2 OF 6



1 C-2 IMPROVED DRAINAGE DETAIL
NOT TO SCALE



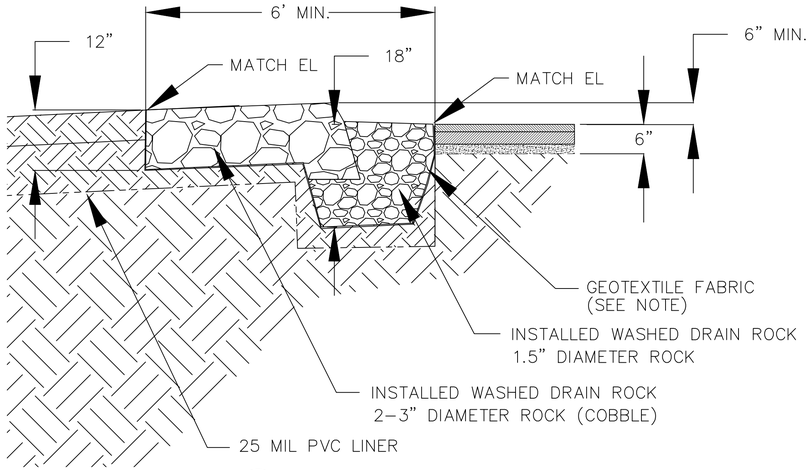
2 C-3 DRYWELL DRAINAGE DETAIL
NOT TO SCALE

DRAINAGE MATERIAL SPECIFICATION NOTES

1. WASHED ROCK APRON PLACED ALONG PARKING LOT TO EXISTING SANDY LOAM LAYER INTERFACE CONSISTS OF 1.5-INCH WASHED DRAIN ROCK, AND A TRANSITION OF 2 TO 3-INCH WASHED DRAIN ROCK (COBBLE) WAS PLACED AT THE NEW TOPSOIL INTERFACE (SEE DETAIL 3 THIS SHEET). GEOTEXTILE AT THE INTERFACE MATCHES GEOTEXTILE SPECIFICATIONS (SEE NOTE THIS SHEET).
2. DRYWELL DRAINAGE TO BE PLACED AROUND THE DRYWELL UP TO THE GRADE OF THE DRYWELL INLET CONSISTS OF 1.5-INCH WASHED DRAIN ROCK WITH 2 TO 3 INCH WASHED DRAIN ROCK(COBBLE) TO THE GRASS (SEE DETAIL 1 THIS SHEET).

GEOTEXTILE NOTES

1. GEOTEXTILE WAS USED AS A SEPARATION MATERIAL BETWEEN ASBESTOS-CONTAMINATED FILL MATERIALS AND THE RETAINING WALL AGGREGATE DRAINAGE LAYER, BETWEEN ASBESTOS-CONTAMINATED FILL AND CLEAN FILL IN DRY POND AREAS, AND AS NEEDED TO SEPARATE ASBESTOS CONTAMINATED FILL FROM CLEAN FILL OR SOIL LAYERS FROM AGGREGATE LAYERS.



3 C-2 GRAVEL APRON DETAIL
NOT TO SCALE

RECORD DRAWING

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Symbol	Description	Date	Approved
0	ISSUED FOR CONSTRUCTION	04-17-15	TC
1	RECORD DRAWING ISSUED	07-14-15	TC

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Reviewed by: S. HALL
Approved by: T. CAMPBELL
Date: 07/2015
Spec No.:
TDD No. 14-07-0012
PAN No. 10045330.0004.070.01
File name: Drwfnc_041715.dwg
Plot date: 04-17-15
Dwg scale: AS SHOWN
Rev. 1

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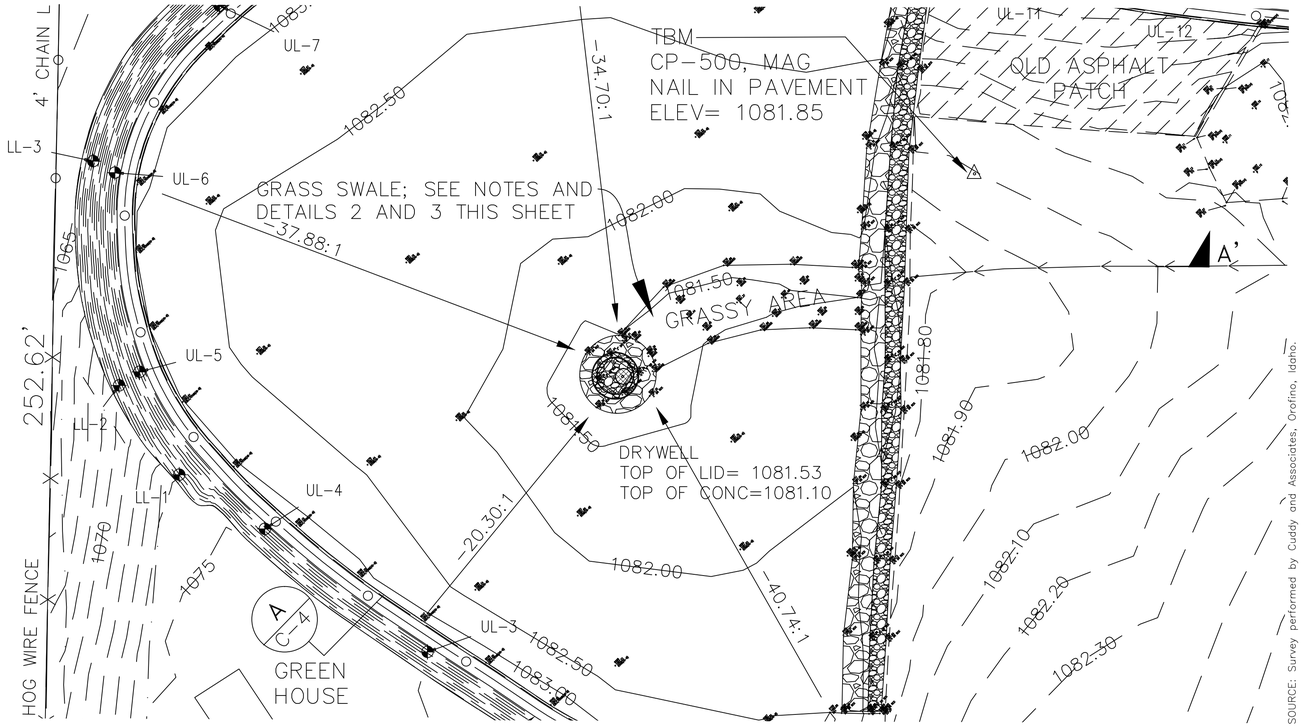
CLEARWATER COUNTY IDAHO
2015 SITE RESTORATION REPAIRS
OROFINO, CLEARWATER COUNTY, IDAHO

DRY RETENTION BASIN
DRAINAGE DETAILS

Sheet reference number: C-3
SHEET 3 OF 6

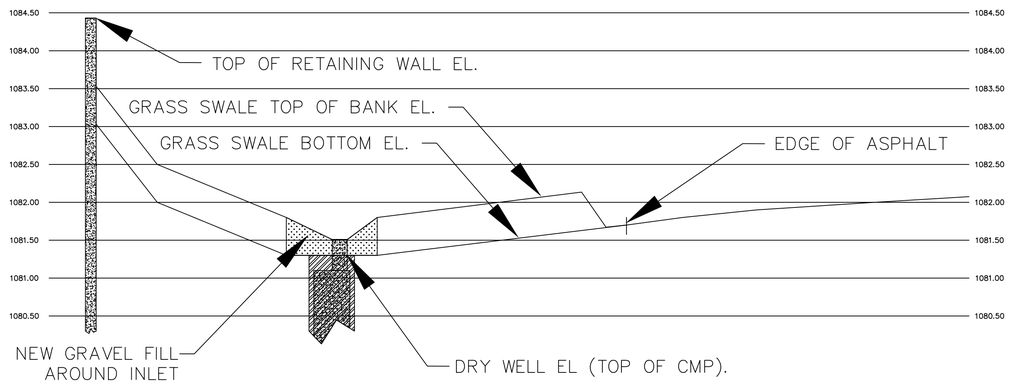
GRASS SWALE NOTES

1. THE GRASS SWALE IS DESIGNED TO CONVEY STORMWATER FROM THE PARKING LOT TO THE GRAVEL SURROUNDING THE INLET FOR THE DRYWELL.
2. THE BOTTOM ELEVATION OF THE GRASS SWALE ALLOWS FOR POSITIVE DRAINAGE.



1 C-2 GRASS SWALE PLAN ALONG LINE A - A'
SCALE: 1" = 10'-0"

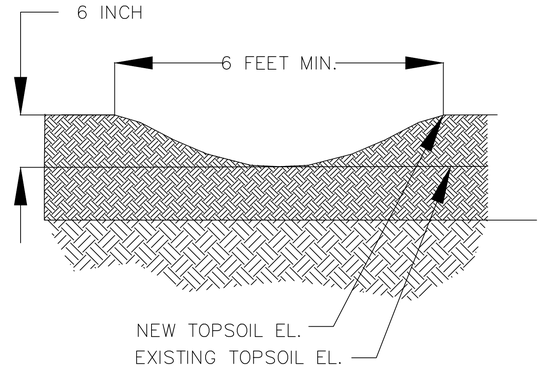
10' 0 10' 20'
SCALE OF FEET



2 C-4 GRASS SWALE PROFILE ALONG LINE A - A'
HORIZONTAL SCALE: 1" = 10'-0" VERTICAL SCALE: 1" = 0'-6"

10' 0 10' 20'
SCALE OF FEET (HORIZONTAL)

0.5' 0 0.5' 1'
SCALE OF FEET (VERTICAL)



3 C-4 GRASS SWALE DETAIL
NOT TO SCALE

RECORD DRAWING

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Symbol	No.	Description	Date	Approved
	1	RECORD DRAWING ISSUED	07-14-15	TC
	0	ISSUED FOR CONSTRUCTION	04-17-15	TC

SIZE D
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ONE INCH

Designed by: M. FULTON
Drawn by: TCC
Spec No.:
Reviewed by: S. HALL
Approved by: T. CAMPBELL
IDAHO REGISTRATION NO. 13946
Date: 07/2015
TDD No. 14-07-0012
PAN No. 10045300.0004.070.01
File name: Orofino_C4-1715.dwg
Plot date: 04-17-15
Dwg scale: AS SHOWN
Rev. 1

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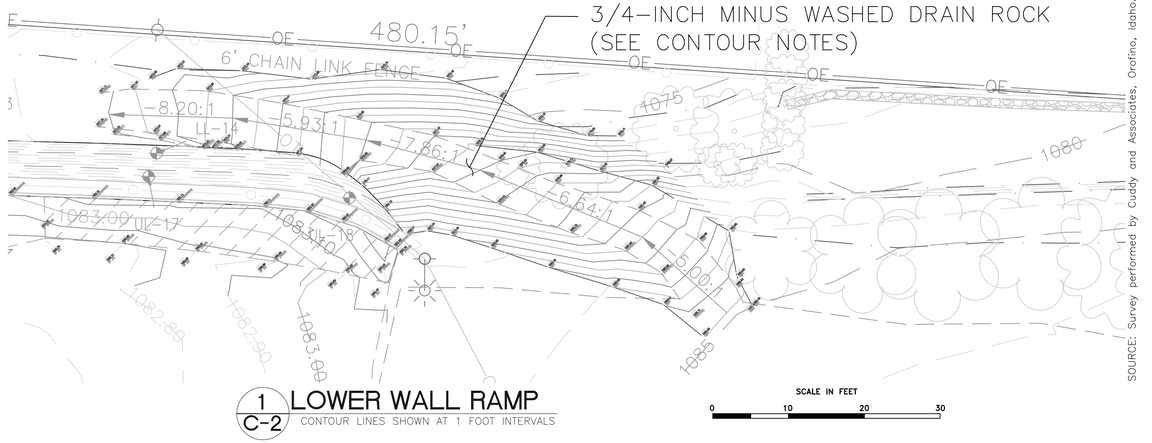
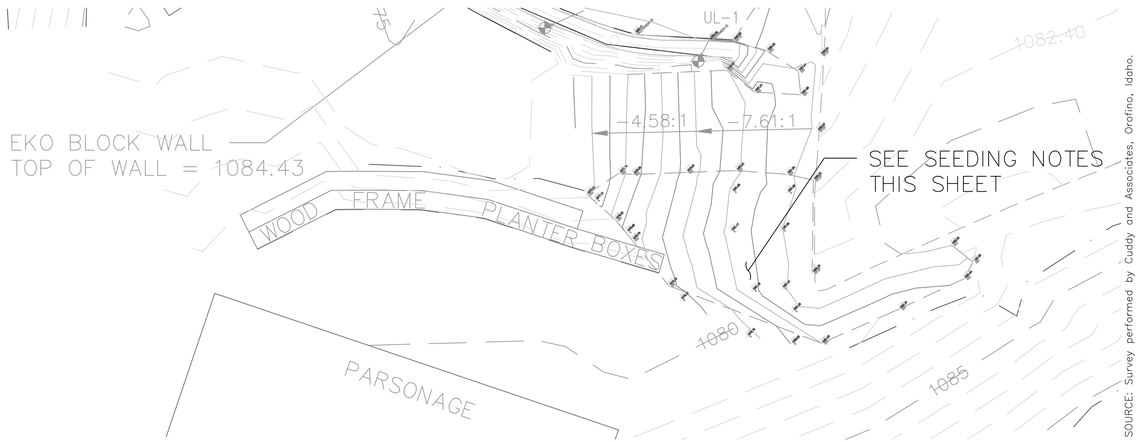
CLEARWATER COUNTY IDAHO
2015 SITE RESTORATION REPAIRS
OROFINO, CLEARWATER COUNTY, IDAHO
DRAINAGE SWALE DETAILS

Sheet reference number:
C-4
SHEET 4 OF 6



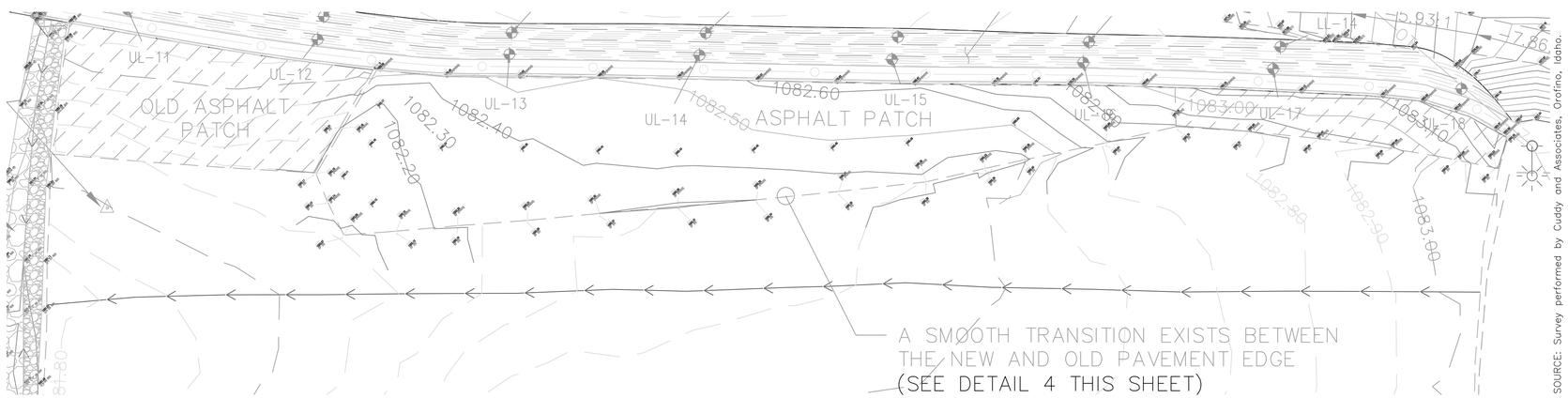
1 C-2 LOWER WALL RAMP
CONTOUR LINES SHOWN AT 1 FOOT INTERVALS

SCALE IN FEET
0 10 20 30



2 C-2 PARSONAGE CONTOURS
CONTOUR LINES SHOWN AT 0.5 FOOT INTERVALS

SCALE IN FEET
0 10 20 30



3 C-2 ASPHALT REPAIR AREA
SCALE: 1" = 10'-0"

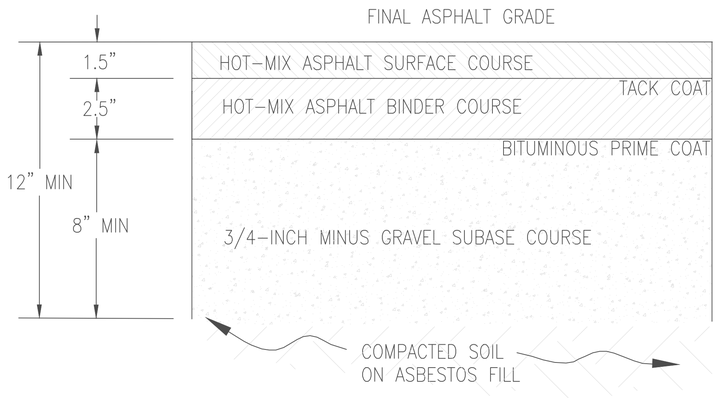
SCALE IN FEET
0 10 20 30

CONTOUR NOTES

1. THE LOWER WALL RAMP MAXIMUM SLOPE IS 20% (11.3 degrees).

SEEDING NOTES

1. BROADCAST SEED WAS CERTIFIED PURE LIVE SEED (PLS) OF A MINIMUM 4 LBS PER ACRE SHEEP FESCUE AND 4 LBS PER ACRE HARD FESCUE.



4 C-5 ASPHALT REPAIR CROSS-SECTION
NOT TO SCALE

RECORD DRAWING

Symbol	Description	Date	Approved
1	RECORD DRAWING ISSUED	07-14-15	TC
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SIZE D
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ONE INCH

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Drawn by: TCC
Spec No.:
Reviewed by: S. HALL
Approved by: T. CAMPBELL
IDAHO PE REGISTRATION NO. 13946
Date: 07/2015
TDD No. 14-07-0012
PAN No. 100453.0004.070.01
File name: Orofino_041715.dwg
Plot date: 04-17-15
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CLEARWATER COUNTY
2015 SITE RESTORATION REPAIRS
OROFINO, CLEARWATER COUNTY, IDAHO
IDAHO

SITE CONTOUR AND ASPHALT REPAIR DETAILS

Sheet reference number: C-□
SHEET 5 OF 6

MONUMENT DATA

POINT #	X (FT)	Y (FT)	EL.(FT)	DIAM.	DESCRIPTION	#STAMP
10000	1760353.68	2484857.91	1080.75	1.15	Diam. Brass Monument set in Block stamped	UL-1
10001	1760358.08	2484837.67	1080.74	1.15	Diam. Brass Monument set in Block stamped	UL-2
10002	1760372.37	2484814.34	1080.67	1.15	Diam. Brass Monument set in Block stamped	UL-3
10003	1760388.60	2484792.88	1080.66	1.15	Diam. Brass Monument set in Block stamped	UL-4
10004	1760409.34	2484776.34	1080.56	1.15	Diam. Brass Monument set in Block stamped	UL-5
10005	1760435.61	2484773.09	1080.67	1.15	Diam. Brass Monument set in Block stamped	UL-6
10006	1760457.66	2484786.90	1080.66	1.15	Diam. Brass Monument set in Block stamped	UL-7
10007	1760471.22	2484809.67	1080.79	1.15	Diam. Brass Monument set in Block stamped	UL-8
10008	1760472.21	2484836.33	1080.75	1.15	Diam. Brass Monument set in Block stamped	UL-9
10009	1760467.82	2484862.80	1080.78	1.15	Diam. Brass Monument set in Block stamped	UL-10
10010	1760463.38	2484889.40	1080.77	1.15	Diam. Brass Monument set in Block stamped	UL-11
10011	1760459.15	2484916.11	1080.73	1.15	Diam. Brass Monument set in Block stamped	UL-12
10012	1760457.06	2484943.09	1080.71	1.15	Diam. Brass Monument set in Block stamped	UL-13
10013	1760456.93	2484969.82	1080.50	1.15	Diam. Brass Monument set in Block stamped	UL-14
10014	1760456.35	2484996.90	1080.55	1.15	Diam. Brass Monument set in Block stamped	UL-15
10015	1760455.90	2485023.81	1080.71	1.15	Diam. Brass Monument set in Block stamped	UL-16
10016	1760455.02	2485050.50	1080.83	1.15	Diam. Brass Monument set in Block stamped	UL-17
10017	1760452.22	2485077.00	1080.87	1.15	Diam. Brass Monument set in Block stamped	UL-18
10031	1760395.76	2484781.58	1074.57	1.15	Diam. Brass Monument set in Block stamped	LL-1
10030	1760407.53	2484773.64	1074.60	1.15	Diam. Brass Monument set in Block stamped	LL-2
10029	1760437.13	2484770.22	1074.66	1.15	Diam. Brass Monument set in Block stamped	LL-3
10028	1760460.36	2484784.89	1074.65	1.15	Diam. Brass Monument set in Block stamped	LL-4
10027	1760474.13	2484808.35	1074.77	1.15	Diam. Brass Monument set in Block stamped	LL-5
10026	1760475.25	2484837.21	1074.71	1.15	Diam. Brass Monument set in Block stamped	LL-6
10025	1760470.76	2484863.75	1074.73	1.15	Diam. Brass Monument set in Block stamped	LL-7
10024	1760466.26	2484890.33	1074.66	1.15	Diam. Brass Monument set in Block stamped	LL-8
10023	1760462.40	2484916.99	1074.68	1.15	Diam. Brass Monument set in Block stamped	LL-9
10022	1760460.10	2484943.43	1074.64	1.15	Diam. Brass Monument set in Block stamped	LL-10
10021	1760460.05	2484970.70	1074.41	1.15	Diam. Brass Monument set in Block stamped	LL-11
10020	1760459.50	2484997.73	1074.51	1.15	Diam. Brass Monument set in Block stamped	LL-12
10019	1760458.77	2485024.60	1074.64	1.15	Diam. Brass Monument set in Block stamped	LL-13
10018	1760458.11	2485051.53	1074.76	1.15	Diam. Brass Monument set in Block stamped	LL-14

NOTES

1. REFER TO THE FINAL SURVEY PERFORMED BY CUDDY AND ASSOCIATES ON SHEET C-2 FOR UPPER LEVEL AND LOWER LEVEL WALL MONUMENT LOCATIONS.

RECORD DRAWING

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Symbol	Description	Date	Approved
1	RECORD DRAWING ISSUED	07-14-15	TC
0	ISSUED FOR CONSTRUCTION	04-17-15	TC

SIZE D
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Designed by: M. FULTON
Drawn by: TCC
Spec No.:
Reviewed by: S. HALL
Approved by: T. CAMPBELL
IDAHO PE REGISTRATION NO. 9845
Date: 07/2015
TDD No. 14-07-0012
PAN No. 10045.30.0004.070.01
File name: DraFing...04-1715.dwg
Plot date: 04-17-15
Dwg scale: AS SHOWN
Rev. 1

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Global Environmental Specialists
333 SW F[illegible] A[illegible] S[illegible] 600
P[illegible] O[illegible] 204
[illegible]03 .24 - 600

CLEARWATER COUNTY IDAHO
2015 SITE RESTORATION REPAIRS
OROFINO, CLEARWATER COUNTY, IDAHO

RETAINING WALL MONUMENT DATA

Sheet reference number:
C-6
SHEET 6 OF 6

Attachment 2

Photographs of Key Features

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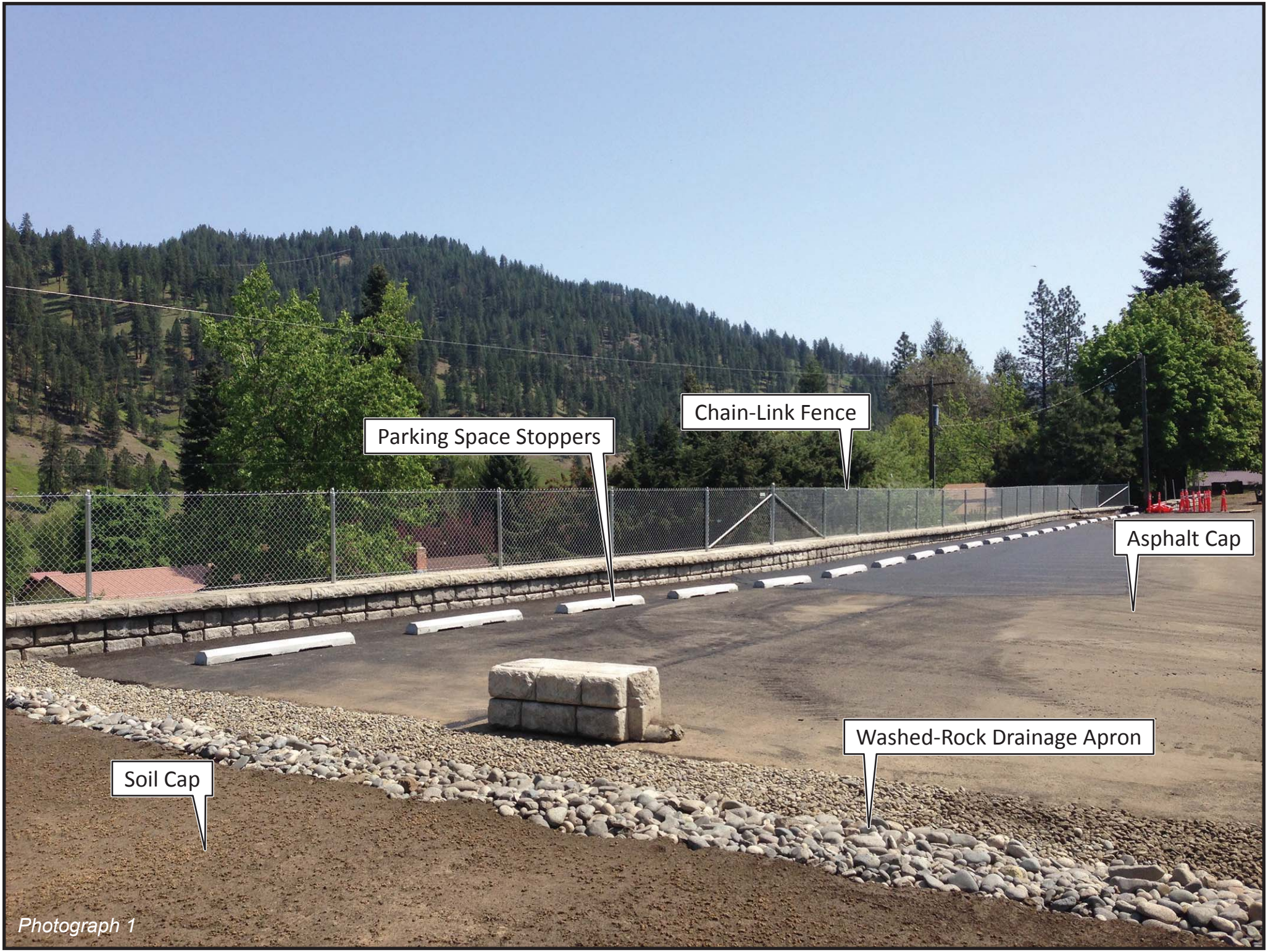
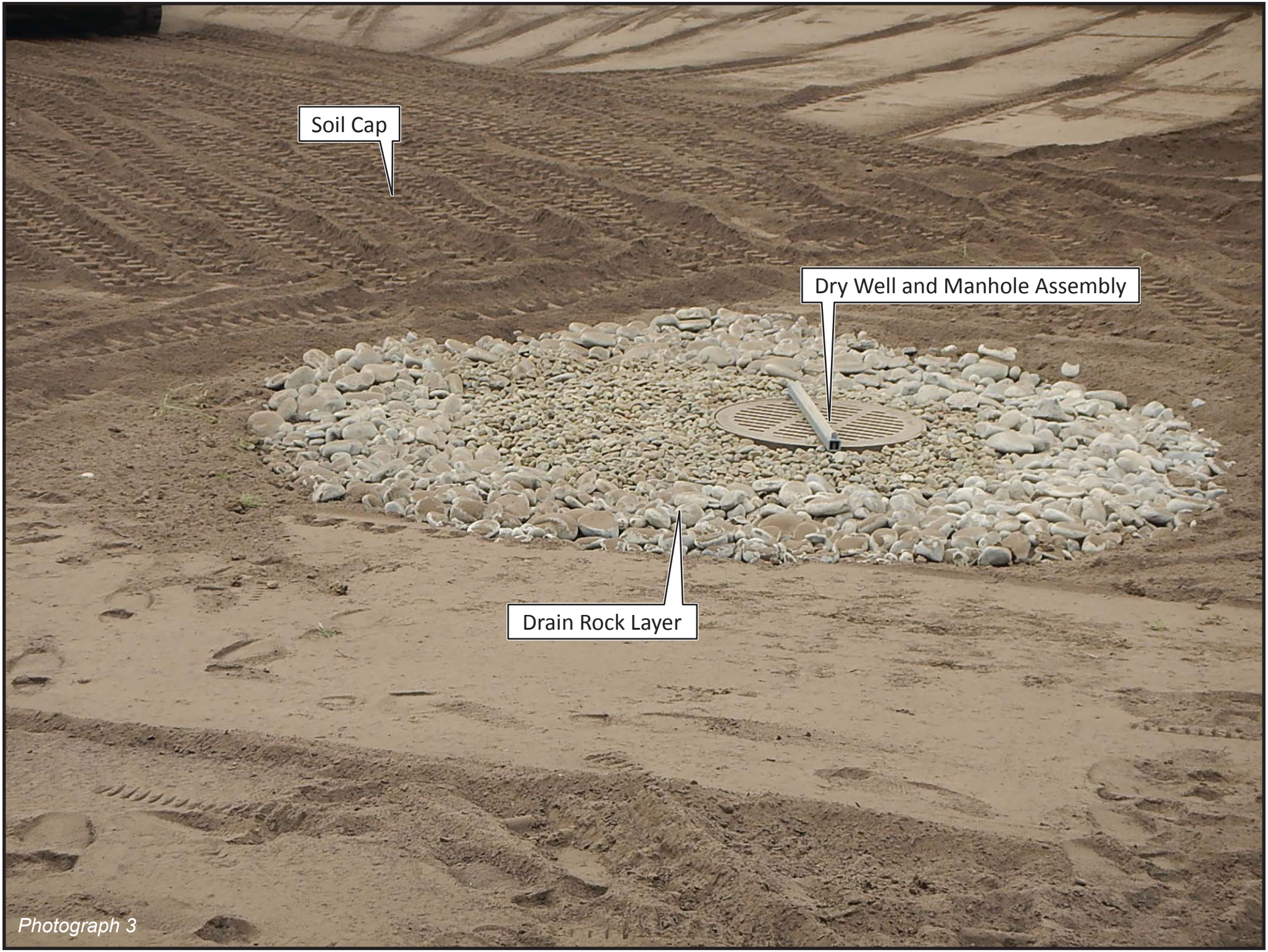


Photograph 1

Photograph 2



Photograph 3

Photograph 4

Attachment 3

Field Inspection and Maintenance Forms

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Field Inspection Form

Routine Inspection ☐ or Non-Routine Inspection ☐ Date Inspected: _____ Time: _____ Inspector (printed): _____

Reason for Non-Routine Inspection: _____

Site Structure	Failure Criteria	Criteria Exceeded		Inspection Observations	Recommendation		
		Yes	No		No Action	Monitor	Maintain (M) or Repair (R)
1. Asphalt Cap (see Section 2.2.1 of the M&M Plan); See Photograph 1 in Attachment 2.							
Asphalt surface	Surface cracking and signs of weathering such as empty spaces around aggregate or loss of color						
Cracks, weathering, ruts, gouges or penetrations	Formation of cracks, weathering, ruts, gouges or other disturbance on cap ≥ ½ inches deep						
Subsidence and settlement	Presence of a depression deep enough to pond 1 inch of water						
Parking space stops	Loose, damaged/cracked or movement of parking space stops						
Parking space stops	Evidence that vehicles are bumping into the top of the retaining wall						
2. Soil Cap (Dry Retention Basin) (see Section 2.2.2 of the M&M Plan); See Photograph 2 in Attachment 2.							
Erosion	Formation of ruts, rills or gullies on cap ≥ 2 inches deep						
Sparse vegetated areas or stressed vegetation	Bare soil areas ≥ 20 square feet or total vegetation cover ≤ 70%						
Deep-rooted vegetation	Presence of trees, shrubs, brush or other woody or deep-rooted plant growth						
Subsidence and differential settlement	Presence of depressions ≥ 5 feet in length and ≥ 2 inches						

Site Structure	Failure Criteria	Criteria Exceeded		Inspection Observations	Recommendation		
		Yes	No		No Action	Monitor	Maintain (M) or Repair (R)
	deep						
Damage due to wildlife	Presence of burrowing animals, bare areas ≥ 10 square feet, or holes ≥ 2 inches deep						
PVC liner	Exposed PVC liner or any penetration of the soil cap ≥ 6 inches (minimum cap thickness)						
Dry retention basin	Slow water drainage, standing water, or saturated soils; water should drain within 48 hours						
3. Drainage Features (see Section 2.2.3 of the M&M Plan) (15 to 20 minutes); See Photographs 1, 2 and 3 in Attachment 2.							
Aggregate and riprap for slope protection and stabilization	Debris and sediment accumulation, or material movement, sloughing, scouring, or slumping						
Washed-rock drainage apron between asphalt cap and soil cap	Debris and sediment accumulation, or material movement, sloughing, scouring, or slumping						
Washed-rock drainage apron between asphalt cap and soil cap	Wet or standing water; water should drain within 48 hours						
Drain rock around dry well	Debris and sediment accumulation, or material movement, sloughing, scouring, or slumping						
Drain rock around dry well	Wet or standing water around the dry well; water should						

Site Structure	Failure Criteria	Criteria Exceeded		Inspection Observations	Recommendation		
		Yes	No		No Action	Monitor	Maintain (M) or Repair (R)
	drain within 48 hours						
Buried dry wells below retaining wall	Wet soil, standing water, erosion.						
4. Dry Well and Manhole Assembly (see Section 2.2.4 of the M&M Plan); See Photographs 2 and 3 in Attachment 2.							
Dry well and manhole	Structural changes or damage						
Dry well	Vegetation restricting proper drainage						
Dry well	Accumulation of debris, sediment or other obstructions inside dry well impacting water infiltration; standing water inside dry well (do not enter dry well)						
Manhole cover	Security assembly properly in-place						
5. Retaining Wall (see Section 2.2.5 of the M&M Plan) (15 to 20 minutes); See Photograph 4 in Attachment 2.							
Ramp to base of retaining wall	Erosion, slumping, movement of soil at base.						
Blocks	Material washout from around/between retaining blocks or movement of blocks						
Base of retaining wall	Standing water, saturated soils, or movement of soil at the base of the wall						

Field Inspection Form

Site Structure	Failure Criteria	Criteria Exceeded		Inspection Observations	Recommendation		
		Yes	No		No Action	Monitor	Maintain (M) or Repair (R)
6. Fencing (see Section 2.2.6 of the M&M Plan) (15 to 20 minutes); See Photograph 1 in Attachment 4.							
Fencing	Loose or damaged posts, or missing post caps, or loose or damaged chain link						
☐ Check previous inspection form for potential issues to monitor.							
☐ Photos attached of inspected features.							
Additional Explanation/Comments/Notes:							
Areas of potential concern:							
Plans for maintenance:							
Need for repair to ensure integrity of repository (imminent or threatened release of asbestos or asbestos contaminated soil):							

Inspector signature: _____ Date: _____

Inspector title: _____ Inspector Affiliation: _____

Orofino Asbestos Repository Site – First Baptist Church

Field Maintenance Form

Routine Maintenance ☐ or Temporary Maintenance ☐ Date Completed: _____ Inspector Name (printed): _____

Reason for Temporary Maintenance: _____

Site Structure	Failure Criteria	Suggested Maintenance and Repair	Who will Perform the Task	Maintenance and Repair Completed [1]
1. Asphalt Cap (see Section 3.1 of the M&M Plan)				
Asphalt surface	Signs of wear, weathering	Reseal asphalt as needed. Estimated frequency is every 5 years. The frequency will depend on observed conditions.	Contractor or Church (To be discussed with the EPA Project Manager)	
Cracks, ruts, gouges or penetrations	Formation of cracks, ruts or gouges on cap ≥ ½ inch deep [2]	Annually fill in cracks with asphalt filler.	Contractor or Church	
Subsidence and differential settlement (mass movement of consolidated materials)	Presence of a depression deep enough to pond 1 inch of water	Place asphalt patch per specifications (see Specification Note A below).	Contractor Or Church (To be discussed with the EPA Project Manager)	
Parking space stop	Loose, damaged or movement of parking space stops	Stabilize stoppers. Replace stops if not effective for intended purpose.	Contractor	
2. Soil Cap (Dry Retention Basin) (see Section 3.2 of the M&M Plan)				
Vegetated Area	As needed	Water the grass (as needed)	Church Member	

Field Maintenance Form

Site Structure	Failure Criteria	Suggested Maintenance and Repair	Who will Perform the Task	Maintenance and Repair Completed [1]
Vegetation Height	As needed	Maintain vegetation height at less than 6 inches	Church Member	
Sparse vegetated areas or stressed vegetation	Bare soil areas ≥ 20 square feet or total vegetation cover ≤ 70%	Reseed bare areas with certified pure live seed of sheep fescue and hard fescue ***or similar suitable materia*** (4 lbs per acre each); consider use of fertilizers or soil amendments to improve vegetation growth. Evaluate conditions that may have caused formation of bare areas.	Contractor Or Church	
Deep-rooted vegetation	Presence of tree, shrub, brush or other woody or deep-rooted plant growth	Remove plant growth in such a manner that the underlying soils are not disturbed.	Contractor Or Church	
Erosion	Formation of rills or gullies on cap ≥ 2 inches deep	Place clean, loamy material free of roots, contaminants and other deleterious and objectionable material meeting Idaho Transportation Department topsoil specifications (see Specification Note B below) ***or similar suitable materia***. Reseed as stated above.	Contractor Or Church	
Subsidence and differential settlement (mass movement of consolidated materials)	Presence of depressions ≥ 5 feet in length and ≥ 2 inches deep			
Damage due to wildlife	Presence of burrowing animals, bare areas ≥ 10 square feet, or holes ≥ 2 inches deep			
PVC liner	Exposed PVC liner or any penetration of the soil cap ≥ 6 inches (minimum cap thickness)	Repair the area as stated for Erosion repairs, above. Contact the monitoring agency.	Contractor	

Field Maintenance Form

Site Structure	Failure Criteria	Suggested Maintenance and Repair	Who will Perform the Task	Maintenance and Repair Completed [1]
Dry retention basin	Slow water drainage, standing water, or saturated soils (water should drain within 48 hours)	Make repairs as stated in Drainage and Erosion, below. If these do not solve the issue of standing water then contact the monitoring agency.	Contractor Or Church	

Site Structure	Failure Criteria	Suggested Maintenance and Repair	Who will Perform the Task	Maintenance and Repair Completed [1]
3. Drainage Features (see Section 3.3 of the M&M Plan)				
Aggregate and riprap for slope protection and stabilization	Debris and sediment accumulation, or material movement, sloughing, scouring, or slumping	Remove debris and sediment accumulation. Add aggregate and riprap to match the specifications shown in the Record Drawings (Attachment 1 of the M&M Plan) for the area of repair.	Contractor Or Church	
Washed-rock drainage apron between asphalt cap and soil cap	Debris and sediment accumulation, or vegetation growing, or material movement, sloughing, scouring, or slumping	Remove debris and sediment accumulation using pressure washer or leaf blower (do not disturb underlying soil or PVC liner). Remove vegetation. Add 1.5 inch washed drain rock adjacent to asphalt cap or 1.5 inch to 3 inch washed drain rock adjacent to soil cap as necessary.	Church Member	
Washed-rock drainage apron between asphalt cap and soil cap	Wet or standing water	Remove debris and sediment. If attempted cleaning does not solve issue of standing water contact the monitoring agency.	Church Member	
Drain rock around dry well	Debris and sediment accumulation, or material movement, sloughing, scouring, or slumping	Remove debris and sediment accumulation using pressure washer or leaf blower (do not disturb underlying soil or PVC liner. Add 1.5 inch to 3 inch washed drain rock adjacent to dry well as necessary.	Church Member	
Drain rock around dry well	Wet or standing water around the dry well	Remove debris and sediment. If attempted cleaning does not solve issue of standing water contact the monitoring agency.	Church Member	
Buried dry wells below retaining wall	Wet soil, standing water, erosion.	Retain a contractor with experience in cleaning out dry wells to remove debris (Refer to Note 3 at the end)	Contractor	

Site Structure	Failure Criteria	Suggested Maintenance and Repair	Who will Perform the Task	Maintenance and Repair Completed [1]
4. Dry Well and Manhole Assembly (see Section 3.4 of the M&M Plan)				
Dry well	Vegetation restricting proper drainage	Remove vegetation from drain rock and keep vegetation in drainage swale trimmed to 6 inches or less.	Church Member	
Dry well	Accumulation of debris, sediment or other obstructions inside dry well impacting water infiltration; standing water inside dry well [3]	Retain a contractor with experience in cleaning out dry wells to remove debris (Refer to Note 3).	Contractor	
Manhole cover	Security assembly properly in place	Any repair to the manhole assembly should be completed by a contractor that has experience repairing such equipment.	Contractor	
5 Retaining Wall (see Section 3.5 of the M&M Plan)				
Retaining Wall	As needed	Remove vegetation between blocks	Church Member	
Ramp to base of retaining wall	Erosion, etc.	Rebuild or repair	Contractor Or Church	
Base of retaining wall	Erosion, slumping, movement of soil at base.	Contact EPA Emergency Management Program: 206-553-1263	Contractor	
Blocks	Material washout from around retaining blocks or movement of blocks	Contact EPA Emergency Management Program: 206-553-1263.	Contractor	
Toe of retaining wall	Standing water, saturated soils, or movement of soil at the base of the wall	Contact EPA Emergency Management Program: 206-553-1263.	Contractor	

Field Maintenance Form

Site Structure	Failure Criteria	Suggested Maintenance and Repair	Who will Perform the Task	Maintenance and Repair Completed [1]
6. Fencing (see Section 3.6 of the M&M Plan)				
Fencing	Loose or damaged posts, or missing post caps, or loose or damaged chain link sections	Repair loose posts. Replace damaged posts. Replace missing post caps. Repair loose or damaged chain link sections.	Church Member	
Additional Explanation/Comments/Notes:				
Areas of potential concern:				

1. The specifics of any repairs associated with damage to the asphalt barrier and cap and/or the PVC liner, including the timeframe until a permanent repair is made, will be developed on a case-specific basis and will be subject to EPA approval.
2. Repairs associated with damage to the asphalt barrier and cap and/or the PVC liner that may result in the release of or exposure to ACM or contaminated soil must be performed by a licensed asbestos contractor with certified asbestos supervisors and workers.
3. No one should enter the drywell without implementing the proper confined space procedures as per 29 CFR 1910.146.

Inspector signature: _____ Date: _____

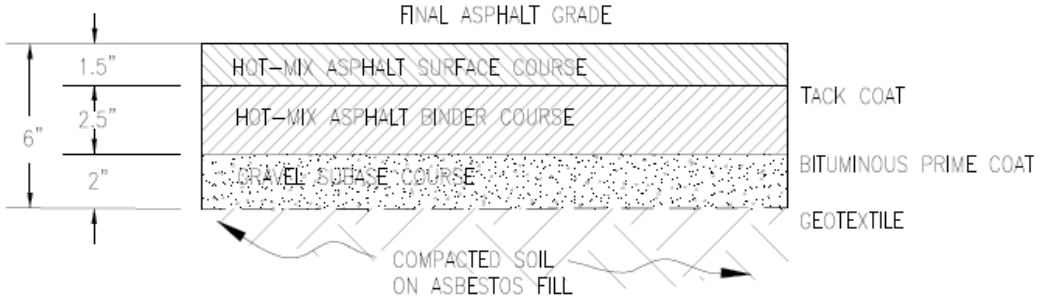
Inspector title: _____ Inspector Affiliation: _____

SPECIFICATION NOTES

Source of Specifications: 2015 Site Restoration Repairs (Ecology and Environment, Inc., April 2015, *2015 Site Restoration Repairs*, Orofino Asbestos Site, Orofino, Idaho, prepared for the United States Environmental Protection Agency, Seattle, Washington). These plans are included in Appendix D of the Repository Stability Assessment Report (Ecology and Environment, Inc., May 2017, *Final Report, Orofino Asbestos Site, Repository Stability Assessment*, Orofino, Idaho, prepared for the United States Environmental Protection Agency, Seattle, Washington), which is available at the US EPA Region 10 Records Center, 1200 6th Avenue, Seattle, Washington 98101.

A. Asphalt Repair

1. Use Idaho Transportation Department, Standard Specifications for Highway Construction [IDASPEC] for Asphalt Materials.
2. The existing asphalt shall be sawcut through the entire asphalt section prior to excavation.
3. Sawcut edges are to be tacked with hot liquid asphalt.
4. Work resulting in irregular trench widths or incidental damage to the lot surface will require another sawcut and subsequent removal of asphalt.
5. Restore asphalt section in accordance with the apshalt repair cross section shown below.



6. Asphalt joints/seams shall be sealed with hot liquid asphalt, or approved equal, and sanded.
7. Protect subgrades from softening, undermining, washout, and damage by rain or water accumulation.
8. Asphalt granular base and subbase courses shall be size three quarter inch (¾") meeting requirements as specified in IDASPEC Sections 703.01 and 703.04.

B. Topsoil

Table C-3.1 Topsoil Gradation	
Sieve Size	Percentage by Weight Required to Pass a Square Mesh Sieve
1 inch	98-100
No. 4	95-100
No. 8	80-100
No. 200	15-80

Table C-3.2 Topsoil Chemistry		
Property	Minimum	Maximum
pH	5.5	7.8
ESP	--	10
EC	--	80
Organic Material	0.5	15
ESP = Exchangeable Sodium Percentage		
EC = Electrical Conductivity, mOhhms/cm at 77 deg.		