CONSTRUCTION STORMWATER COVER COMPLETION REPORT

District on the River Redevelopment; PPCD No., 21200059-36, Hamilton Street Bridge Site

Prepared for: Sagamore Spokane, LLC

Project No. 190210 • January 16, 2024

Aspect
A Geosyntec Company

earth + water

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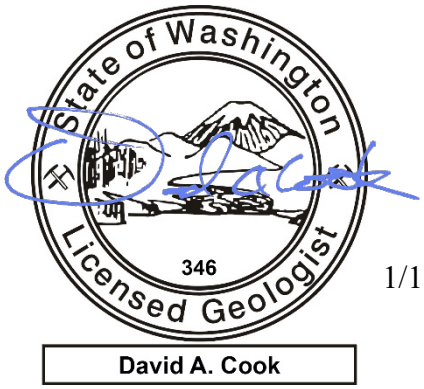

1/16/24

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Contents

Acronyms ..... **ii**

1 Introduction **1**
1.1 Background 1

2 Summary of Alternative Stormwater Plan Construction Activities **3**
2.1 Construction Summary 3
2.1.1 Backfill and Grading 3
2.1.2 Construction Stormwater Cover Completion 4
2.1.3 Stormwater Management 4
2.2 Construction Quality Assurance/Quality Control 5

3 Operation and Maintenance Procedures **6**
3.1 Operation 6
3.2 Maintenance 6
3.2.1 Construction Stormwater Soil Covers 6
3.2.2 Stormwater Management 6
3.3 Reporting 6
3.4 Future Construction 7

4 References **8**

5 Limitations **9**

List of Figures

1 Subject Property and Site Plan

List of Appendices

A Alternative Stormwater Plan Memo and July 11, 2023 Corrective Action Notice

B Backfill Compaction Nuclear Density Test Reports

C Material Proctor Test Results – Budinger & Associates Inc.

D Photo Log of Field Activities and Backfilling

E Report Limitations and Guidelines for Use

Acronyms

AO	Administrative Order
Aspect	Aspect Consulting
BMPs	Best Management Practices
BNSF	BNSF Railway Company
CACR	Cleanup Action Completion Report
CAP	Cleanup Action Plan (2001)
CAP-A	Cleanup Action Plan Amendment (2020)
CQC	Construction Quality Control
CSWGP	Construction Stormwater General Permit
Ecology	Washington Department of Ecology
EDR	Engineering Design Report
O&M	Operations and Maintenance
O&M Plan	Operations and Maintenance Plan
PLPs	Potentially Liable Parties
PPCD	Prospective Purchaser Consent Decree
QA	Quality Assurance
SOW	Scope of Work
SWPPP	Stormwater Pollution Prevention Plan

1 Introduction

Aspect Consulting (Aspect) completed this Construction Stormwater Cover Completion Report (Completion Report) on behalf of Sagamore Spokane, LLC (Sagamore). This Completion Report documents the implementation of the Washington State Department of Ecology (Ecology)-approved Alternative Stormwater Plan (Plan; Aspect, 2023; Appendix A) for the management of construction stormwater at the District on the River Redevelopment project (Project).

The Plan (fill placement, compaction and grading) was implemented in October 2023 in response to Ecology's Corrective Action Notice dated July 11, 2023 (Appendix A). The Corrective Action Notice pertained to temporary construction Project conditions that deviated from those approved by Ecology in the 2001 Cleanup Action Plan (CAP; Ecology, 2001). The deviation was that shallow construction excavation for planned buildings at the Project was started, then halted, thus changing the protective environmental soil cover and stormwater management as set forth in the 2001 CAP.

The primary objective of the Plan was to manage construction stormwater by restoring portions of the Site to grade and replacing a portion of the Soil Cap[1] as documented in the 2003 Engineering Design Report (2003 EDR; Landau, 2003) and the 2006 Cleanup Action Completion Report (CACR; Landau, 2006) that was disturbed during redevelopment construction in 2023.

The objectives of the Completion Report are to document the implementation of the Alternative Stormwater Plan and summarize the management, inspection, and repair of the construction Soil Cap until superseded by the future restart of construction of the Project.

1.1 Background

Sagamore is redeveloping a portion of the Hamilton Street Bridge Site (Site; Cleanup Site ID: 3509; Facility/Site ID: 84461527) into a multi-family residential complex referred to as the District on the River. Sagamore entered into a Prospective Purchaser Consent Decree (PPCD) No. 21200059-32 with Ecology on January 15, 2021, for their acquisition of property located at 111 North Erie Street in Spokane, Washington. The CAP was implemented at the Site under the original Consent Decree 02205445-0 between potentially liable parties (PLPs) Avista Corporation (Avista) and BNSF Railway Company (BNSF), and Ecology. The cleanup action provided in the CAP consisted of streambank bioengineering, limited soil cap, natural attenuation, groundwater monitoring, institutional controls, and stormwater management (Landau, 2006).

The PPCD requires that Sagamore implement a CAP Amendment (CAP-A; Ecology, 2020a) and Scope of WORK (SOW; Ecology, 2020b), which are exhibits to the PPCD.

[1] The Soil Cap extends over the Spokane Gas Plant (SGP) Property as outlined in the Landau, 2006 report.

Implementation of the CAP-A will enhance the existing cleanup action by converting the existing soil cover to a more extensive, protective, and resilient hardscape cap. The engineering design of cleanup components of the Project required by the CAP-A are documented in the 2022 Final Engineering Design Report (2022 EDR) dated April 16, 2022 (Aspect, 2022).

The 2023 Alternative Stormwater Plan addressed the temporary construction conditions that deviated from those approved by Ecology in the CAP, which included, "*stormwater management to reroute stormwater to swales outside the area of contamination or to nearby storm sewers*" (Ecology, 2001).

Per Ecology's July 2023 Corrective Action Notice, Sagamore was to either:

- (Option 1) "*Restore the Site to the original pre-construction grade using the materials described in the February 2, 2006 Cleanup Action Report within 90 days of receipt of this letter;*"

- Or, (Option 2) "*Sagamore may propose an alternative plan to manage and divert stormwater from contaminated soils, instead of restoring the Site surface to its original grade. Sagamore must submit a plan to Ecology describing this alternative within 30 days of receipt of this letter and must complete the installation of the alternative within 30 days of receiving Ecology's written approval of the alternative plan*."

Sagamore selected Option 2 and the Alternative Stormwater Plan was developed to manage construction stormwater. The Alternative Stormwater Plan was implemented in October 2023.

The Plan and this Completion Report pertain to construction Project conditions and do not replace the CAP, CAP-A, or 2022 EDR. The construction stormwater soil covers that are currently present within the planned Building 2A and Building 2B footprints will be superseded by permanent impervious surfacing (building footprints, paved driveways, parking lots, and/or hard landscaping) during Project completion. Post construction Site conditions will be subject to the forthcoming CAP-A and required Operations and Maintenance Plan Addendum (O&M Plan).

2 Summary of Alternative Stormwater Plan Construction Activities

This section presents the Plan elements as executed by Spokane Environmental Solutions, LLC (Contractor), during October 2023. Onsite construction stormwater soil cover replacement activities were conducted between October 6 and October 19, 2023. Serving as Sagamore's representative, Aspect provided environmental and geotechnical oversight during Plan construction. Construction generally consisted of the following:

- Backfill of Building 2A footprint to original grade, sloping to the east (away from contamination)
- Grading of Building 2B footprint to slope to the west (away from contamination)
- Placement of a soil cap over the building 2A and 2B footprints
- Stormwater management (ongoing)

2.1 Construction Summary

Plan construction consisted of earthwork to bring the Building 2A and 2B footprints to appropriate grades to direct stormwater away from contaminated soils associated with the Site and restore the soil cover specified in the 2003 EDR. Construction did not result in the penetration or exposure to any known contaminated soils.

Soil compaction monitoring and soil density testing was completed by a third-party (Budinger & Associates, Inc.) using a nuclear densometer. Nuclear density test results are included as Appendix B; material proctor results are included as Appendix C. A photo log of the completed earthworks project is included as appendix D.

2.1.1 Backfill and Grading

The Building 2A excavation footprint (the larger of the two building areas that had been excavated down to construction subgrade) was backfilled to the original pre-construction grade with existing onsite stockpiled soil (removed from the Building 2A and 2B building footprints). Backfill was placed in 1-foot lifts and compacted to 95-percent maximum dry density with a vibratory roller.

The pre-construction grade featured a "*drainage grade of 0.5 to 0.75 percent away from the impacted area in accordance with plans and specifications"* (Landau, 2003; Landau, 2006). The excavation footprints of both Building 2A and 2B were graded at 0.5 to 0.75 percent away from the Site impacted area (to the east with the Building 2A excavation footprint and to the west within the Building 2B excavation footprint). At the eastern limit of the Building 2A excavation footprint and the western limit of the Building 2B excavation footprint, a sumped stormwater collection basin was graded into the low point to collect and temporarily store any overland storm flow into this low area should this condition occur (see Section 2.1.3 Stormwater Management, below).

2.1.2 Construction Stormwater Cover Completion

A construction stormwater soil cover was placed with the Building 2A and 2B excavation footprints to match that documented in the 2003 EDR (Landau, 2003) for the Site. The 2003 EDR provides detail on the surfacing material:

> *"Approximately 6 inches of surfacing material will be placed over the grading area to promote surface water runoff and to serve as a running course for light traffic use. The surfacing course will be comprised of approximately 1 ¼ inch minus crushed rock, meeting the general requirements for "crushed surfacing" as defined in the WSDOT Standard Specifications [Section 9-03.9(3)]. The crushed surfacing will be placed in a single lift and compacted with a smooth drum roller to at least 95 percent of its maximum dry density."*

During Plan construction, a minimum of 6 inches of crushed surfacing material was placed within each building excavation footprint and compacted to at least 90 percent maximum dry density[2]. Crushed surfacing material met the general requirements for crushed surfacing per WSDOT Standard Specifications [Section 9-03.9(3)].

2.1.3 Stormwater Management

Construction stormwater management will be conducted in compliance with the Construction Stormwater General Permit (CSWGP) Permit No. WAR309537, dated December 3, 2020, accompanying Administrative Order (AO) Docket No. 19443, dated December 3, 2020, and in accordance with the 2022 Stormwater Pollution Prevention Plan (SWPPP; Appendix C of Aspect, 2022). Collectively, these documents outline stormwater best management practices (BMPs) that redirect stormwater from the contaminated portions of the Site and prevent contaminated stormwater discharges to waters of the state. These documents were previously provided to Ecology in the 2022 EDR.

To comply with the stormwater AO, SWPPP, and to address the January and July 2023 Corrective Action Notices, the crushed surfacing soil cover was restored within the Building 2A and 2B footprints in accordance with the 2003 EDR, the 2006 CACR, and as described in Section 2.1.1 and 2.1.2, above. At the low point of each excavation, a sumped stormwater collection basin was created to capture any precipitation induced overland flow generated within the building footprint. Stormwater, if any, collected within the sumped basin will be pumped into the nearest catch basin within 24 hours of observation and flow to the nearest infiltration basin. Infiltration basins will not receive contaminated stormwater runoff, in accordance with the 2022 EDR, 2020 AO, and 2020 SWPPP; any discharge to the infiltration basin are subject to the quality requirements of the CSWGP and the AO.

[2] Crushed surfacing material with the Building 2B excavation footprint was compacted to 95% to 95% dry density. Crushed surfacing material with the Building 2A excavation footprint was compacted to 89% to 93.9% maximum dry density. Aspect observed a couple of proof rolls with the 15,400-pound Volvo SD 75 66-inch roller and confirmed that the completed grade was firm and unyielding under the roller wheels. In our opinion, the proof rolls verify that the subgrade has been compacted to the extent practicable.

2.2 Construction Quality Assurance/Quality Control

Daily construction quality control (CQC) was performed by the Contractor. A Quality Assurance (QA) representative from Sagamore (Aspect) was also onsite daily during construction to confirm the work was being performed in accordance with the Alternative Stormwater Plan. In accordance with the WAC 173-340-400(6)(b)(i), the Sagamore representative was a professional engineer registered in the State of Washington.

3 Operation and Maintenance Procedures

This section describes the requirements and procedures associated with the operation and maintenance (O&M) of the construction stormwater soil cover to ensure ongoing performance and maintenance of intended design functions.

The long-term O&M of CAP-A implementation as a result of Project completion at the Site will be detailed in the forthcoming O&M Plan to be completed in accordance with the CAP-A and SOW. O&M requirements described herein pertain to the construction stormwater soil cover and this document does not supersede the forthcoming O&M Plan.

3.1 Operation

A Sagamore site security representative is conducting weekly site walks and observation reports which include any observances of standing water. Should standing water be observed in either of the sumped depressions (at the eastern limit of the Building 2A footprint and the western limit of the Building 2B building footprint), it will be pumped into the nearest catch basin within 24-hours of notification. This will be conducted with a trash-pump mobilized to the Site as needed. The catch basins flow to the northeastern and western infiltration basins in accordance with the SWPPP. Infiltration basins will not receive contaminated stormwater runoff in accordance with the 2022 EDR, AO, and SWPPP; any discharge to the infiltration basin are subject to the quality requirements of the CSWGP and AO.

3.2 Maintenance

3.2.1 Construction Stormwater Soil Covers

Visual inspections will be conducted informally during weekly site walks by Sagamore's security representative and formally during annual cover inspections to document the condition of the cover and determine if any repairs are necessary to correct the effects of settlement, erosion, or other damage. Repairs may consist of placement and compaction of cover materials, as needed, to restore the integrity of the cover.

Should construction resume and any excavations be made through the stormwater cover, all applicable requirements of the 2022 EDR, SWPPP, CSWGP, and Administrative Order will be implemented.

3.2.2 Stormwater Management

Pumps and water management infrastructure will not be on-site continuously. Pumps and equipment will be brought to the site if weekly monitoring observations necessitate stormwater management and pumping from the sumped portions of Buildings footprints 2A or 2B.

3.3 Reporting

Information on any operation and/or maintenance of the construction stormwater cover will be included in the PPCD-required monthly progress reports through the duration of

construction. The stormwater covers within the Building 2A and Building 2B footprints will be superseded by permanent impervious surfacing during Project completion. Therefore, no long-term reporting on the operation and maintenance of these covers is planned.

3.4 Future Construction

The construction stormwater covers documented in this Completion Report will be eliminated via implementation of the CAP-A via construction of the Project. Construction of the Project is currently planned to resume in 2024.

4 References

Aspect Consulting, LLC (Aspect), 2022, Final Engineering Design Report, District on the River Redevelopment, PPCD No. 21200059-32, April 26, 2022.

Aspect Consulting, LLC (Aspect), 2023, Alternative Stormwater Plan, District on the River Redevelopment, PPCD No. 21200059-32, September 14, 2023 (this reference is included as Appendix A of this document and includes various appendices, including Ecology's July 11, 2023 Corrective Action Notice).

Landau Associates, Inc. (Landau), 2003, Engineering Design Report, Hamilton Street Bridge Site, Spokane, Washington, May 28, 2003.

Landau Associates, Inc. (Landau), 2006, Cleanup Action Completion Report: Hamilton Street Bridge Site, Spokane, Washington, February 2, 2006.

Washington State Department of Ecology (Ecology), 2001, Final Cleanup Action Plan, Hamilton Street Bridge Site, Spokane, Washington, August 10, 2001.

Washington State Department of Ecology (Ecology), 2020a, Cleanup Action Plan Amendment 1, Hamilton Street Bridge Site, 111 North Erie Street, Spokane, December 2020.

Washington State Department of Ecology (Ecology), 2020b, Scope of Work and Schedule, Cleanup Action Plan Amendment 1, Hamilton Street Bridge Site, 111 North Erie Street, Spokane, December 2020.

Washington State Department of Ecology (Ecology), 2023a, Prospective Purchaser Consent Decree (PPCD) No. 21200059-32, Corrective Action Notice, January 23, 2023.

Washington State Department of Ecology (Ecology), 2023b, Prospective Purchaser Consent Decree (PPCD) No. 21200059-32, Corrective Action Notice, July 11, 2023.

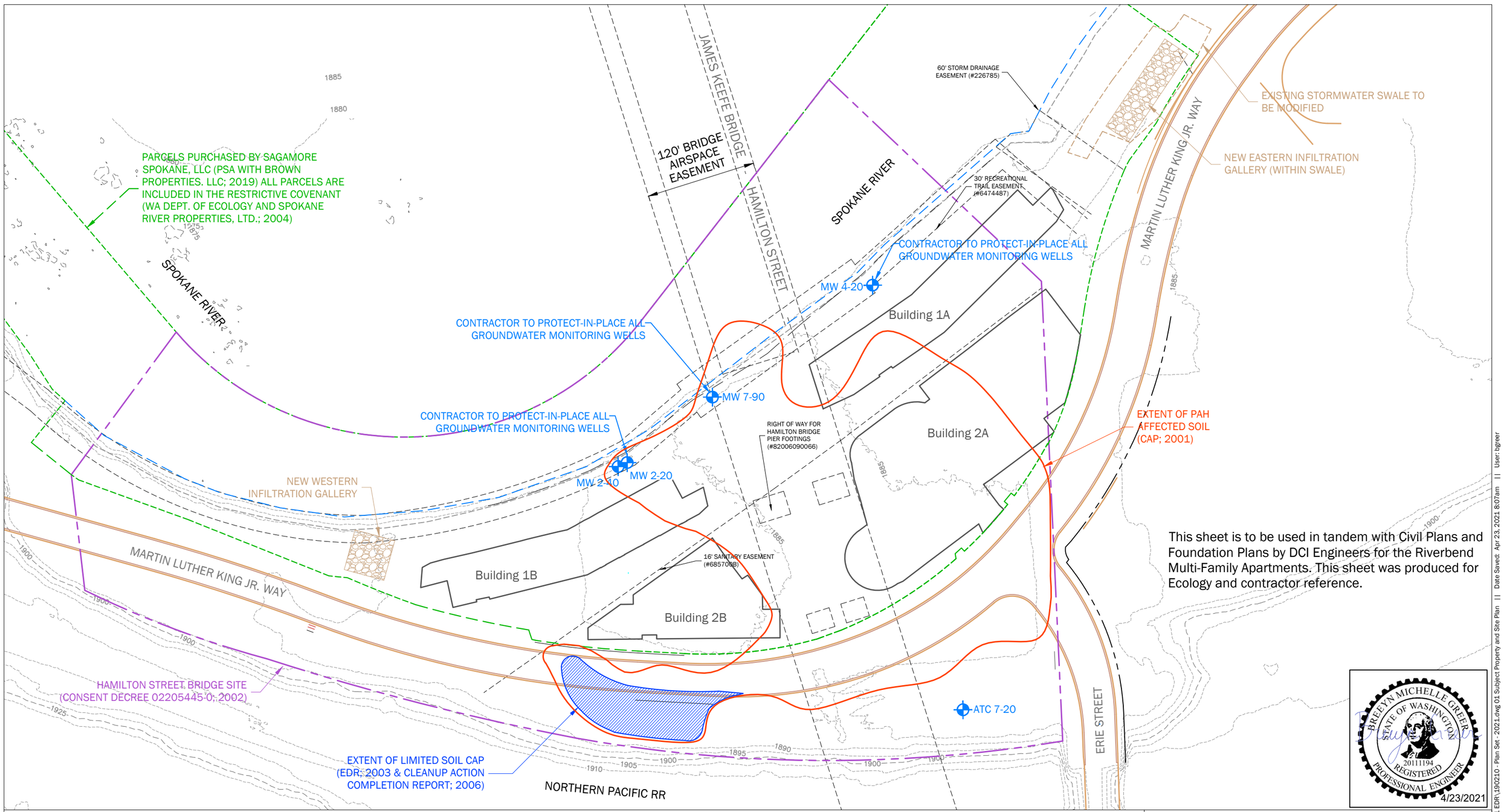
5 Limitations

Work for this project was performed for Sagamore Spokane, LLC, (Client), and this report was prepared in accordance with generally accepted professional practices for the nature and conditions of work completed in the same or similar localities, at the time the work was performed. This report does not represent a legal opinion. No other warranty, expressed or implied, is made.

All reports prepared by Aspect Consulting for the Client apply only to the services described in the Agreement(s) with the Client. Any use or reuse by any party other than the Client is at the sole risk of that party, and without liability to Aspect Consulting. Aspect Consulting's original files/reports shall govern in the event of any dispute regarding the content of electronic documents furnished to others.

Please refer to Appendix E titled "Report Limitations and Guidelines for Use" for additional information governing the use of this report.

FIGURES



This sheet is to be used in tandem with Civil Plans and Foundation Plans by DCI Engineers for the Riverbend Multi-Family Apartments. This sheet was produced for Ecology and contractor reference.

BREEYN MICHELLE GREER
STATE OF WASHINGTON
20111194
REGISTERED
PROFESSIONAL ENGINEER
4/23/2021

Legend

- Subject Property
- Proposed Buildings
- Hamilton Street Bridge Site
- Extent of PAH Affected Soil (CAP, 2001)
- Extent of Limited Soil Cap (EDR, 2003)
- Groundwater Compliance Monitoring Wells
- Ordinary High Water Mark
- Historical Features
- 1920 Existing Elevation Contours in Feet
- Existing Stormwater Features

CAP - Cleanup Action Plan
PAH - Polycyclic Aromatic Hydrocarbons
EDR - Engineering Design Report

0 100 200 Feet

Source: Surveyed base map provided by Druyea & Associates, dated November 2, 2019.

Elevation contour data from DEM file generated by ArcGIS™ software, March, 2018.

The Hamilton Street Bridge Site, Extent of PAH Affected Soil and Extent of Limited Soil CAP are approximated and have not been surveyed.

Subject Property and Site Plan

Engineering Design Report
Hamilton Street Bridge Site
Spokane, Washington

Aspect Consulting	April-26-2021	BY: BMG/CMV	FIGURE NO. 1
	PROJECT NO. 190210	REVISED BY: BMG	

CAD Path: Q:\Riverbend Redevelopment\2020-11 EDR\190210 - Plan Set - 2021.dwg 01 Subject Property and Site Plan || Date Saved: Apr 23, 2021 8:07am || User: bgreer

APPENDIX A

Alternative Stormwater Plan Memo and July 11, 2023 Corrective Action Notice

MEMORANDUM

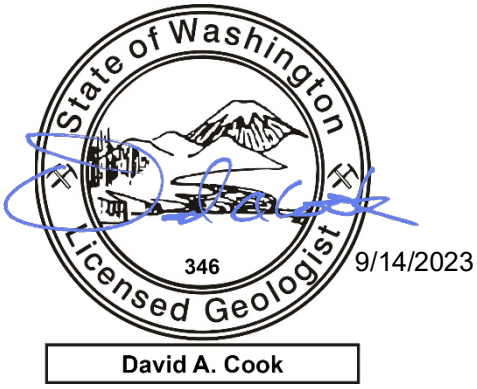
Project No. 190210

September 14, 2023

To: Christer Loftenius, Washington State Department of Ecology
Nicholas Acklam, Washington State Department of Ecology

cc: Charles Dubroff, Sagamore Spokane, LLC
Robert Hayes, Sagamore Spokane, LLC
Mike Ingram, Sagamore Spokane, LLC representative

From:



Breeyn Greer, PE
Project Engineer
bgreer@aspectconsulting.com

Dave Cook, LG, CPG
Principal Geologist
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Re: **Alternative Stormwater Plan – District on the River Redevelopment Prospective Purchaser Consent Decree (PPCD) No. 21200059-32 Corrective Action Notice, Hamilton Street Bridge Site**

Introduction

Aspect is presenting this Alternative Stormwater Plan (Plan) on behalf of Sagamore Spokane, LLC (Sagamore) in response to the Washington State Department of Ecology (Ecology) Corrective Action Notice dated July 11, 2023 (Ecology, 2023b; Appendix A). The July Corrective Action Notice pertains to the Prospective Purchaser Consent Decree (PPCD) No. 21200059-32 for the Hamilton Street Bridge Site (Site) located at 111 North Erie Street in Spokane, Washington (Cleanup Site ID: 3509; Facility/Site ID: 84461527). The primary concern presented in the July Corrective Action Notice is Site grade and stormwater diversion.

Aspect understands that Ecology is concerned about stormwater because temporary construction conditions at the District on the River (DOTR) project area are altered from those approved by Ecology as part of the 2001 Cleanup Action Plan (CAP), which included "*stormwater management to reroute stormwater to swales outside the area of contamination or to nearby storm sewers*" (Ecology, 2001).

Post-DOTR-construction conditions (building concrete slabs, hardscapes, and improved surface water drainage) will be completed in accordance with Cleanup Action Plan Amendment 1 (Ecology, 2020), Final Engineering Design Report (Aspect, 2022a), and the Final Amendment to the Final Engineering Design Report (Aspect, 2022b). As outlined in these documents, once complete, the DOTR project will "*protect and enhance the original cleanup action and ensure that human health and the environment are protected"* (Ecology, 2020).

In a previous Corrective Action Notice dated January 23, 2023 (Ecology, 2023a) Ecology observed that the subgrade for proposed Buildings 2A and 2B (Figure 1) have been excavated, resulting in 2- to 3-foot-deep depressions within the proposed building footprints and that construction was on hold. Ecology expressed concern that the clean cover material may be thin, and stormwater may infiltrate in these areas (Ecology, 2023a).

Per the July Corrective Action Notice, Sagamore was to either:

- (Option 1) "*Restore the Site to the original pre-construction grade using the materials described in the February 2, 2006 Cleanup Action Report within 90 days of receipt of this letter;*"

- Or, (Option 2) "*Sagamore may propose an alternative plan to manage and divert stormwater from contaminated soils, instead of restoring the Site surface to its original grade. Sagamore must submit a plan to Ecology describing this alternative within 30 days of receipt of this letter and must complete the installation of the alternative within 30 days of receiving Ecology's written approval of the alternative plan*[1]."

Sagamore selected Option 2 and this memorandum presents a stormwater management alternative (Plan).

Alternative Plan

The basis of the Plan is twofold and in accordance with specifications presented in the 2003 Engineering Design Report (EDR; Landau, 2003) and the 2006 Cleanup Action Completion Report (CACR; Landau, 2006):

1. Grading building footprint areas to slope at 0.5 to 0.75 percent away from the impacted area and placing 6 inches of 1 and 1/4-inch minus rock (crushed surfacing) cover across the Building 2A and 2B footprints.

2. Routing collected stormwater to infiltration basins located outside of the Site contamination zone (Appendix B).

Additional details related to the Plan are summarized in the following sections.

[1] Sagamore requested a schedule extension to 60 days via email correspondence with Ecology, making the alternative plan due September 15, 2023 (email dated July 21, 2023; Appendix C). Ecology responded that the schedule extension was granted via email correspondence dated August 16, 2023.

Soil Cover

Aspect recommends grading and covering the subgrade within the Building 2A and 2B footprints as follows: first, each building footprint will be graded at a 0.5 to 0.75 percent slope away from the Site contaminated zone; then approximately 6 inches of crushed surfacing material will be placed within each excavation and compacted to at least 95 percent maximum dry density. Crushed surfacing material will meet the general requirements for crushed surfacing per WSDOT Standard Specifications [Section 9-03.9(3)]. This is consistent with Section 2.1 of the 2003 EDR, which states that one of the primary components of cleanup action is: "*Use of existing fill materials as a barrier or cover for the contaminated soils in the former SGP area*" (Landau, 2003). Section 3.2.2 states that, "*fill will be added to the former SGP area to provide drainage grade of approximately 0.5 to 0.75 percent away from the impacted area*" and that, "*the gradation and placement requirements for the grading fill will be the same as described for the ACT* [American Coal Tar property] *soil cover material*" (Landau, 2003). The graded and covered area is shown and distinguished from the ATC Soil Cap in the Conceptual Grading Plan (Appendix D).

The 2003 EDR provides detail on the surfacing material:

> *"Approximately 6 inches of surfacing material will be placed over the grading area to promote surface water runoff and to serve as a running course for light traffic use. The surfacing course will be comprised of approximately 1 ¼ inch minus crushed rock, meeting the general requirements for "crushed surfacing" as defined in the WSDOT Standard Specifications [Section 9-03.9(3)]. The crushed surfacing will be placed in a single lift and compacted with a smooth drum roller to at least 95 percent of its maximum dry density."*

In order to check whether the soil cover was constructed as planned in the EDR, Aspect reviewed Section 3.1.3 of the 2006 CACP, which provides specifications for the cover over the SGP property and states, "*The base course and surfacing material was added to the former SGP area to provide a drainage grade of approximately 0.5 to 0.75 percent away from the impacted area in accordance with the project plans and specifications*[2] (Landau, 2004; Landau, 2006).

Stormwater Management

Construction stormwater management will be conducted in compliance with the Construction Stormwater General Permit (CSWGP) Permit No. WAR309537, dated December 3, 2020, accompanying Administrative Order (AO) Docket No. 19443, dated December 3, 2020, and in accordance with the 2022 Stormwater Pollution Prevention Plan (SWPPP; Appendix C of Aspect, 2022a). Collectively, these documents outline stormwater best management practices (BMPs) that redirect stormwater from the contaminated portions of the Site and prevent contaminated

[2] "*There were provisions included in the design allowing for the reuse of soils generated from the detention basin excavation for grading fill (base course) material:* (Landau, 2006). The record drawings have a general note that states, "*Underlying the top 6-inch layer of state of Washington specification crushed top course* (crushed surfacing) *is modified ballast approved by Avista. The ballast consists of native, on-site material excavated from the detention basins. The excavated material is very course, therefore Avista approved a one-half inch minus choker material to in-fill course aggregate gaps and ultimately provide a unified, tight fitting, 'ballast' surface which was topped by the six inch layer of crushed surfacing top course complying with the state of Washington Standard Specifications*" (USKH, 2006; Appendix E).

stormwater discharges to waters of the state. These documents were previously provided to Ecology in the 2022 Final Engineering Design Report (Aspect, 2022a).

Aspect understands that excavated subgrades of Buildings 2A and 2B during the wet season create a condition where special stormwater management is needed. The purpose of this Plan is to comply with Table 5 of the SWPPP (Appendix C of Aspect, 2022a) and AO BMPs.

To comply with the AO, SWPPP, and address the January and July 2023 Corrective Action Notices, the crushed surfacing Soil Cover will be restored within the Building 2A and 2B footprints in accordance with the 2006 CACR and as described in the section above. At the low point of each excavation a sumped stormwater collection basin will be created with the retention capacity of precipitation falling within the building footprint of the 10-year, 24-hour design storm. Any stormwater collected within the sumped basin will be pumped into the nearest catch basin within 24 hours and flow to the nearest infiltration basin. Infiltration basins will not receive contaminated stormwater runoff, in accordance with the 2022 Final Engineering Design Report, AO, and SWPPP; any discharge to the infiltration basin are subject to the quality requirements of the CSWGP and Table 1 of the AO.

In accordance with the timeline presented via email correspondence with Ecology dated August 16, 2023 (Appendix C), Sagamore will implement the Plan by October 15, 2023.

References

Aspect Consulting, LLC (Aspect), 2022a, Final Engineering Design Report, District on the River Redevelopment, PPCD No. 21200059-32, April 26, 2022.

Aspect Consulting, LLC (Aspect), 2022b, FINAL Amendment to the Final Engineering Design Report, District on the River Redevelopment, PPCD No. 21200059-32, April 22, 2022.

Landau Associates, Inc. (Landau), 2003, Engineering Design Report, Hamilton Street Bridge Site, Spokane, Washington, May 28, 2003.

Landau Associates, Inc. (Landau), 2006, Cleanup Action Completion Report: Hamilton Street Bridge Site, Spokane, Washington, February 2, 2006.

Washington State Department of Ecology (Ecology), 2001, Final Cleanup Action Plan, Hamilton Street Bridge Site, Spokane, Washington, August 10, 2001.

Washington State Department of Ecology (Ecology), 2020, Cleanup Action Plan Amendment 1, Hamilton Street Bridge Site, 111 North Erie Street, Spokane, December 2020.

Washington State Department of Ecology (Ecology), 2023a, Prospective Purchaser Consent Decree (PPCD) No. 21200059-32, Corrective Action Notice, January 23, 2023.

Washington State Department of Ecology (Ecology), 2023b, Prospective Purchaser Consent Decree (PPCD) No. 21200059-32, Corrective Action Notice, July 11, 2023.

Limitations

Work for this project was performed for the Sagamore Spokane, LLC (Client), and this memorandum was prepared in accordance with generally accepted professional practices for the nature and conditions of work completed in the same or similar localities, at the time the work was performed. This memorandum does not represent a legal opinion. No other warranty, expressed or implied, is made.

All reports prepared by Aspect Consulting for the Client apply only to the services described in the Agreement(s) with the Client. Any use or reuse by any party other than the Client is at the sole risk of that party, and without liability to Aspect Consulting. Aspect Consulting's original files/reports shall govern in the event of any dispute regarding the content of electronic documents furnished to others.

Attachments: Figure 1 – Subject Property and Site Plan
Appendix A – Stormwater Management Plan
Appendix B – Corrective Action Notice dated July 11, 2023
Appendix C – Email Communication dated August 16, 2023
Appendix D – Conceptual Grading Plan; Figure 6 (2003 EDR)
Appendix E – Construction Record Drawing (USKH, 2006)

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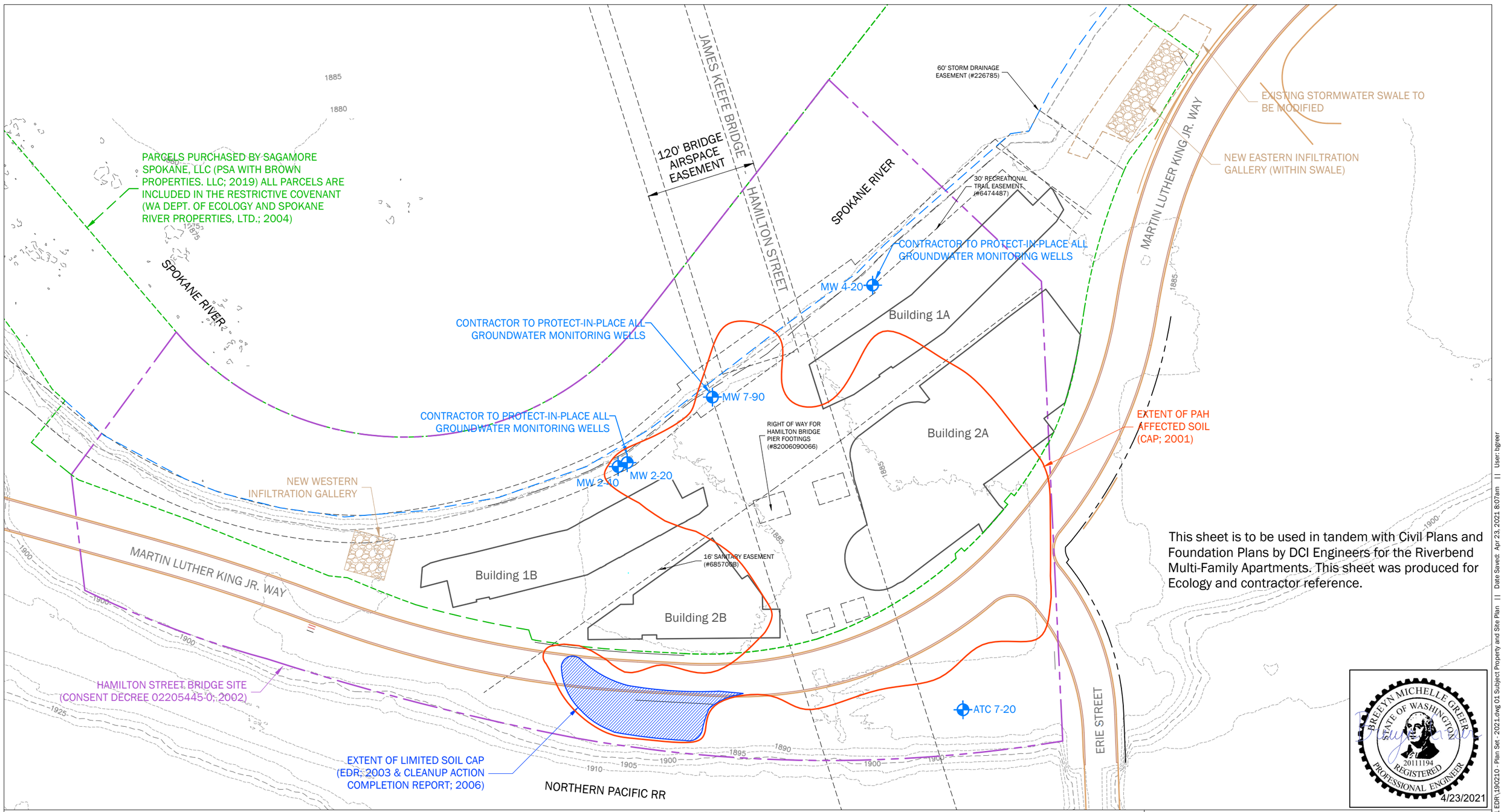
FIGURE



This sheet is to be used in tandem with Civil Plans and Foundation Plans by DCI Engineers for the Riverbend Multi-Family Apartments. This sheet was produced for Ecology and contractor reference.

BREEYN MICHELLE GREER
STATE OF WASHINGTON
20111194
REGISTERED
PROFESSIONAL ENGINEER
4/23/2021

Legend

- Subject Property
- Proposed Buildings
- Hamilton Street Bridge Site
- Extent of PAH Affected Soil (CAP, 2001)
- Extent of Limited Soil Cap (EDR, 2003)
- Groundwater Compliance Monitoring Wells
- Ordinary High Water Mark
- Historical Features
- 1920 Existing Elevation Contours in Feet
- Existing Stormwater Features

CAP - Cleanup Action Plan
PAH - Polycyclic Aromatic Hydrocarbons
EDR - Engineering Design Report

0 100 200 Feet

Source: Surveyed base map provided by Druyea & Associates, dated November 2, 2019.

Elevation contour data from DEM file generated by ArcGIS™ software, March, 2018.

The Hamilton Street Bridge Site, Extent of PAH Affected Soil and Extent of Limited Soil CAP are approximated and have not been surveyed.

Subject Property and Site Plan

Engineering Design Report
Hamilton Street Bridge Site
Spokane, Washington

Aspect Consulting	April-26-2021	BY: BMG/CMV	FIGURE NO. 1
	PROJECT NO. 190210	REVISED BY: BMG	

CAD Path: Q:\Riverbend Redevelopment\2020-11 EDR\190210 - Plan Set - 2021.dwg 01 Subject Property and Site Plan || Date Saved: Apr 23, 2021 8:07am || User: bgreer

APPENDIX A

Stormwater Management Plan

LEGEND

- Catchment A
- Catchment B
- Catchment C
- Catchment D
- Direction of Flow
- Extent of PAH Affected Soil (CAP, 2001)
- Bridge Outline
- Building Roof
- Hardscape (Asphalt or Concrete)
- Landscaping

Stormwater Plan C-140 was provided by DCI Engineers for the Riverbend Multi-Family Apartments.This sheet was produced by Ecology and is NOT FOR CONSTRUCTION

The Hamilton Street Bridge Site, Extent of PAH Affected Soil and Extent of Limited Soil CAP are approximated and have not been surveyed.

Existing Stormwater Swale to be modified Bottom Elev. = 1881.00

Eastern Infiltration Gallery within Existing Swale (Catchments A, B, C; Buildings 1A and 2A)

Western Infiltration Gallery (Catchment D; Buildings 1B and 2B)

CATCHMENT A

CATCHMENT B

CATCHMENT C

CATCHMENT D

BUILDING 1A

BUILDING 2A

BUILDING 1B

BUILDING 2B

120' BRIDGE AIRSPACE EASEMENT

JAMES KEEFE BRIDGE

HIGH WATER MARK (SCALED FROM BSP Z2006-30-FBSP)

HAMILTON STREET OVERHEAD BRIDGE

ON-SITE TBM

E. MARTIN LUTHER KING JR. WAY

ERIE AVENUE

200' SHORELINE MANAGEMENT PROGRAM BOUNDARY

110 LF 15" PERFORATED PIPE S= 0.00%

15 LF 15" PERFORATED PIPE S= 0.00%

75'± LF 15" SD LINE S= 0.50%

45'± LF 12" SD LINE S= 0.50%

160'± LF 12" SD LINE S= 0.50%

180'± LF 8" SD LINE S= 0.50%

135'± LF 8" SD LINE S= 0.50%

190'± LF 8" SD LINE S= 0.50%

95'± LF 8" SD LINE S= 0.50%

163'± LF 8" SD LINE S= 0.50%

60'± LF 8" SD LINE S= 0.50%

100'± LF 12" SD LINE S= 0.50%

44 LF 12" PERFORATED PIPE S= 0.00%

FOR PERMIT

THESE DRAWINGS ARE SUFFICIENTLY COMPLETE FOR SUBMISSION TO THE JURISDICTION HAVING AUTHORITY FOR PERMIT. THE CONTRACTOR SHALL NOT USE THESE DRAWINGS FOR CONSTRUCTION UNTIL THE CONTRACTOR RECEIVES WRITTEN APPROVAL FOR USE IN CONSTRUCTION BY THE JURISDICTION HAVING AUTHORITY AND DCI ENGINEERS.

CONTRACTOR NOTE

ALL EXISTING UTILITIES SHOWN ON PLANS ARE TO BE VERIFIED HORIZONTALLY AND VERTICALLY PRIOR TO ANY CONSTRUCTION. ALL EXISTING FEATURES INCLUDING BURIED UTILITIES ARE SHOWN AS INDICATED ON RECORD MAPS AND SURVEYS FURNISHED BY OTHERS. WE ASSUME NO LIABILITY FOR THE ACCURACY OF THOSE RECORDS AND SURVEYS. CONTACT THE UTILITY OWNER/AGENCY FOR THE FINAL LOCATION OF EXISTING UTILITIES IN AREAS CRITICAL TO CONSTRUCTION.

GRAPHIC SCALE

(IN FEET)
1 inch = 30 ft.

UNDERGROUND SERVICE ALERT
ONE-CALL NUMBER
811
CALL TWO BUSINESS DAYS BEFORE YOU DIG

ALSC ARCHITECTS
203 North Washington, Suite 9400
Spokane, WA 99201
509.838.8568
6500 Mineral Drive, Suite 101
Coure d' Alene, Idaho 83815
208.676.8292
alscarchitects.com

MATTHEW R. GRIFFIN
STATE OF WASHINGTON
41809
REGISTERED PROFESSIONAL ENGINEER
6/5/2020

DCI ENGINEERS
707 W. 2ND AVENUE
SPOKANE, WASHINGTON 99201
PHONE: (509) 455-4448 ● FAX: (509) 455-7492
WEBSITE: www.dci-engineers.com
CIVIL / STRUCTURAL

Aspect CONSULTING

NOT FOR CONSTRUCTION

SAGAMORE SPOKANE LLC

RIVERBEND MULTI-FAMILY APARTMENTS

PERMIT SET

REV	DATE	DESCRIPTION

PROJ. NO.	2018-050
DRAWN	JFS
CHECKED	MRG
DATE	6/5/20

STORM WATER PLAN

C-140

FIGURE 6

APPENDIX B

Corrective Action Notice dated July 11, 2023

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Eastern Region Office
4601 North Monroe St., Spokane, WA 99205-1295 • 509-329-3400

July 11, 2023

David Cook
Sagamore Spokane LLC Project Coordinator
Aspect Consulting
710 2nd Avenue, Suite 550
Seattle, Washington, 98104

Re: Prospective Purchaser Consent Decree (PPCD) No. 21200059-32, Corrective Action Notice:

- **Site Name:** Hamilton Street Bridge Site
- **Site Address:** 111 North Erie Street, Spokane, WA 99202
- **Cleanup Site ID:** 3509
- **Facility/Site ID:** 84461527

Dear David Cook:

On January 17, 2023, the Department of Ecology (Ecology) project coordinator visited the Hamilton Street Bridge Site ("Site") to inspect the current construction work, and to assess the damage from campers that cut down trees in 2022. Based on the observations from the Site visit, Ecology issued a corrective action notice to Sagamore, dated January 23, 2023. All deficiencies, except one regarding the alteration of the Site gradient and stormwater diversion, have been adequately addressed by Sagamore Spokane LLC (Sagamore).

In the January 23, 2023, corrective action notice, Ecology had requested a foundation piling schedule by February 15, 2023. The purpose of this request was to ensure that Sagamore is proceeding to construct the CAP remedy in a timely manner. As of the date of this letter, Ecology has not received a schedule update from Sagamore regarding when foundation piling work will resume at the Site.

The Schedule contained in the Prospective Purchaser Consent Decree (PPCD) as Exhibit D specifies that construction under the CAP amendment was due to be completed in accordance with the schedule described in the final Engineering Design Report (EDR), Section 11, Reporting and Schedule. The final EDR (2021), Section 11, Reporting and Schedule, Site construction was scheduled to end by April 2023, and the permanent structures for stormwater management

and diversion were to have been installed by that time. This has not taken place. Additionally, Ecology has not received a request for an extension of the schedule, a requirement set forth in Article XVII of the PPCD. Hence, Sagamore has not complied with the schedule for construction of the remedy, including the permanent hardscape capping and stormwater diversion required by the CAP Amendment.

The PPCD Article VI Work to be Performed, Section A requires that "The work will also include enhancing the existing stormwater management system by conveying stormwater to areas outside the area of contamination." To ensure that the underlying media are protected from stormwater infiltration in compliance with the PPCD, Ecology requires that Sagamore implement one of the two following options:

- Sagamore must restore the Site to the original pre-construction grade using the materials described in the February 2, 2006, Cleanup Action Report within 90 days of receipt of this letter.

- Or, Sagamore may propose an alternative plan to manage and divert stormwater from contaminated soils, instead of restoring the Site surface to its original grade. Sagamore must submit a plan to Ecology describing this alternative within 30 days of receipt of this letter and must complete the installation of the alternative within 30 days of receiving Ecology's written approval of the alternative plan.

We appreciate your cooperation in this matter. If you have any questions or need additional information about this corrective action notice, please contact me at 509-385 8380 or e-mail me at christer.loftenius@ecy.wa.gov.

Sincerely,

Christer Loftenius, LG, LHG
Site Manager
Toxics Cleanup Program, Eastern Region

By certified mail: 9214 8901 9403 8321 2974 88

cc: Nick Acklam, Ecology
Barry Rogowski, Ecology
Kara Tebeau, Office of the Attorney General
Bryce Robbert, Avista
Scott McDonald, BNSF
Ecology Site File

APPENDIX C

Email Communication dated August 16, 2023

Breeyn Greer

From: Loftenius, Christer (ECY) <clof461@ECY.WA.GOV>
Sent: Wednesday, August 16, 2023 3:27 PM
To: Dave Cook; Acklam, Nicholas (ECY)
Cc: Tebeau, Kara J. (ATG); cdubroff@gmail.com; Dunning, Michael L. (SEA); Breeyn Greer; Nick Szot
Subject: RE: FSID 84461527 - Hamilton Street Bridge Site: Corrective Action Notice - and Sagamore Response

Importance: High

Dave,

Please provide the alternative plan under Option 2 by September 15, 2023, with a timeframe when the plan can be implemented. Ecology would like to see measures implemented to minimize stormwater infiltration into contaminated soil by October 15, 2023 when the Spokane wet season commonly begins.
Question: do you have an approval letter from Ecology for the EDR Amendment dated April 22, 2022?

Best regards,

Chris Loftenius LG, LHG (he/him)
Site manager
Department of Ecology
Toxics Cleanup Program
Eastern Regional Office
4601 North Monroe Street
Spokane, WA 99205-1295

tel. 1-509-385 8380
e-mail: clof461@ecy.wa.gov

From: Dave Cook <dcook@aspectconsulting.com>
Sent: Friday, July 21, 2023 2:51 PM
To: Acklam, Nicholas (ECY) <nack461@ECY.WA.GOV>; Loftenius, Christer (ECY) <clof461@ECY.WA.GOV>
Cc: Tebeau, Kara J. (ATG) <Kara.Tebeau@atg.wa.gov>; bryce.robbert@avistacorp.com; Scott.Macdonald@BNSF.com; cdubroff@gmail.com; Dunning, Michael L. (SEA) <mdunning@perkinscoie.com>; Mike Ingram <mike@arttcon.com>; Breeyn Greer <bgreer@aspectconsulting.com>; Dave Cook <dcook@aspectconsulting.com>; Nick Szot <nszot@aspectconsulting.com>
Subject: RE: FSID 84461527 - Hamilton Street Bridge Site: Corrective Action Notice - and Sagamore Response

Hi Christer and Nick. On July 18 via certified mail I received the attached PPCD Corrective Action Notice on behalf of Sagamore Spokane LLC. On July 19, I received the letter via email from Nick. I am responding to the Correction Notice via this email on behalf of Sagamore Spokane. A few clarifications and responses:

1) Use of the term “campers” is incorrect. No individuals are allowed to legally “camp” or trespass on the property. Evidence of debris was noted along the river historically, but there is no direct evidence that trespassers are living along the river. Nevertheless, to address the potential for trespassing and related issues on the property, Sagamore Spokane fixed fences and hired a security guard to monitor the property.

2) The statement that Sagamore has not provided information related to construction schedule is incorrect. Sagamore acknowledged the January 23, 2023 Correction Notice's request for a construction schedule and has communicated with Ecology multiple times related to the schedule. For example, Aspect on behalf of Sagamore has submitted regular schedule updates to Ecology:
    a. Aspect's Corrective Action Notice Response letter dated February 7, 2023 (in advance of the February 15, 2023 date that Ecology requested an update).
    b. February Progress Report, dated March 10, 2023
    c. March Progress Report, dated April 3, 2023
    d. April Progress Report, dated June 9, 2023
    e. April 14, 18, and 19, 2023 Emails between Aspect and Ecology regarding pile testing and schedule update.
    f. April 18, 2023 Response to Ecology inquiry about the proposed test pile program.
    g. May 23, 2023 Email to Ecology related to an update on multiple site issues; including pile testing and construction schedule notification.
    h. May Progress Report, dated June 9, 2023
3) The comment in the Correction Notice referencing the 2021 EDR is outdated. It should refer to the EDR Amendment dated April 22, 2022. That EDR Amendment revised the schedule and indicated at that time that a Construction Completion Report would be submitted by June 1, 2024 (not April 2023 per the superseded 2021 EDR). Aspect has notified Ecology that the April 22, 2022 EDR (and schedule) will be updated once pile testing is complete. Further, it has been our understanding that because of our regular communications with Ecology about the construction schedule that updates to the PPCD and EDR would not be necessary until more certainty was established related to pile testing, procurement, and installation. Based on the July 11, 2023 PPCD Correction Notice, it appears that Ecology is not satisfied with the regular communications and monthly progress reporting related to the construction schedule. We understand from the development manager that there is progress related to solidifying the construction team and procuring equipment and materials to conduct pile testing. We would be happy to arrange a meeting/call with you and the development manager to convey schedule information and to better understand what additional communications would be helpful to Ecology.
4) Because pile testing and installation is anticipated to occur during the summer of 2023, Sagamore Spokane will work with Ecology related to the two options outlined in the July 11, 2023 PPCD Correction Notice Letter, as follows:
    a. Ecology Option 1. "Sagamore must restore the Site to the original pre-construction grade using the materials described in the February 2, 2006, Cleanup Action Report within 90 days of receipt of this letter."
        i. This would require restoration by October 16, 2023. Because construction and hardscape development will not be completed by October 16, 2023, a restoration method will need to be completed. But, it may not be feasible to replace the site to the historic grade if production pile installation is underway.
    b. Ecology Option 2. "Or, Sagamore may propose an alternate plan to manage and divert stormwater from contaminated soils, instead of restoring the Site surface to its original grade. Sagamore must submit a plan to Ecology describing this alternative within 30 days of receipt of this letter and must complete the installation of the alternative within 30 days of receiving Ecology's written approval of the alternative plan."
        i. This would require a plan to be submitted by August 17, 2023, and implementation 30 days after Ecology approval (whenever that may be). This timeframe will not be possible because of ongoing negotiations with the pile contractor. Sagamore requests a 60 day timeframe (by September 15, 2023) to respond to Ecology with a possible alternative plan.

Sagamore recognizes that If construction has not progressed by the time that fall wet weather commences (according to historic rain gauge data that period falls in October) then the site will need to be prepared for winter weather. Sagamore will work with Ecology to develop an appropriate plan to facilitate this condition. Sincerely, Dave

Dave Cook, LG, CPG | Principal Geologist | Direct: 206.838.5837 | Cell: 206.372.7637
Aspect Consulting LLC | 710 2nd Ave, Suite 550, Seattle, WA 98104 | www.aspectconsulting.com

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From: Acklam, Nicholas (ECY) <nack461@ECY.WA.GOV>
Sent: Wednesday, July 19, 2023 11:58 AM
To: Dave Cook <dcook@aspectconsulting.com>
Cc: Loftenius, Christer (ECY) <clof461@ECY.WA.GOV>; Tebeau, Kara J. (ATG) <Kara.Tebeau@atg.wa.gov>; bryce.robbert@avistacorp.com; Scott.Macdonald@BNSF.com; cdubroff@gmail.com; Dunning, Michael L. (SEA) <mdunning@perkinscoie.com>; Mike Ingram <mike@arttcon.com>; Breeyn Greer <bgreer@aspectconsulting.com>
Subject: RE: FSID 84461527 - Hamilton Street Bridge Site: Corrective Action Notice

Thanks Dave for the response. I apologize for our oversight, and we will make sure to include the property owner, Chuck Dubroffas as well as the rest of this distribution list in any future communications.

Nick

From: Dave Cook <dcook@aspectconsulting.com>
Sent: Wednesday, July 19, 2023 11:21 AM
To: Acklam, Nicholas (ECY) <nack461@ECY.WA.GOV>
Cc: Loftenius, Christer (ECY) <clof461@ECY.WA.GOV>; Tebeau, Kara J. (ATG) <Kara.Tebeau@atg.wa.gov>; bryce.robbert@avistacorp.com; Scott.Macdonald@BNSF.com; cdubroff@gmail.com; Dunning, Michael L. (SEA) <mdunning@perkinscoie.com>; Mike Ingram <mike@arttcon.com>; Breeyn Greer <bgreer@aspectconsulting.com>
Subject: RE: FSID 84461527 - Hamilton Street Bridge Site: Corrective Action Notice

Thanks Nick. Acknowledging receipt of this email and the certified letter that I received yesterday. Aspect will respond on behalf of Sagamore Spokane. I've asked Christer this before, but can Ecology please copy the property owner, Chuck Dubroff, on these types of communications? It seems odd to me that other PLPs are copied, but not the property owner. Thanks. Dave

Dave Cook, LG, CPG | Principal Geologist | Direct: 206.838.5837 | Cell: 206.372.7637
Aspect Consulting LLC | 710 2nd Ave, Suite 550, Seattle, WA 98104 | www.aspectconsulting.com

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From: Acklam, Nicholas (ECY) <nack461@ECY.WA.GOV>
Sent: Wednesday, July 19, 2023 10:24 AM
To: Dave Cook <dcook@aspectconsulting.com>
Cc: Loftenius, Christer (ECY) <clof461@ECY.WA.GOV>; Tebeau, Kara J. (ATG) <Kara.Tebeau@atg.wa.gov>; bryce.robbert@avistacorp.com; Scott.Macdonald@BNSF.com
Subject: FSID 84461527 - Hamilton Street Bridge Site: Corrective Action Notice

Good morning David,

Please find the attached Corrective Action Notice for the Hamilton Street Bridge Site. This letter is being sent on behalf of the Site Manager Christer Loftenius who is out of the office this week. If you have any questions about the content of this letter, please let Christer and/or myself know.

Thank you,

Nicholas M. Acklam
Section Manager - ERO
Toxics Cleanup Program
Washington State Department of Ecology
(509)818-7457
nack461@ecy.wa.gov

APPENDIX D

Conceptual Grading Plan; Figure 6 (2003 EDR)

LEGEND

- Current River Bank
- 1' Contour Interval
- 5' Contour Interval
- —1885— Proposed Grade
- Drywell (To Be Abandoned)
- Proposed Buildings
- Drainage Slope
- Approximate plan view of PAH affected soil (0–80'), based on Total cPAH conc. >1.0 mg/kg in one or more samples, or visual observation. Area boundary does not imply that all soil between 0–80' is affected.
- B B' Cross Section Line
- Riprap Slope Protection

N

Spokane River

JAMES KEEFE BRIDGE (HAMILTON STREET EXTENSION)

TRENT TUNNEL

Spokane River Properties BNSF

Soil Cap (min 2') (FCAP Requirement)

Toe of Fill

Fill

Cut

Proposed Dry Well (Dry Well Rims 1881.5)

Proposed Swale (Rim El. 1882.5) (Base El. 1880.5)

Proposed Bioengineering

Proposed Swale (Rim El. 1885.0) (Base El. 1883.0)

Proposed Swale (Rim El. 1884.0) (Base El. 1882.0)

Site Entrance

Ditch

ERIE STREET

0.75%

0.5%

A A' B B' C C' D D'

0 100' 200'

Scale in Feet

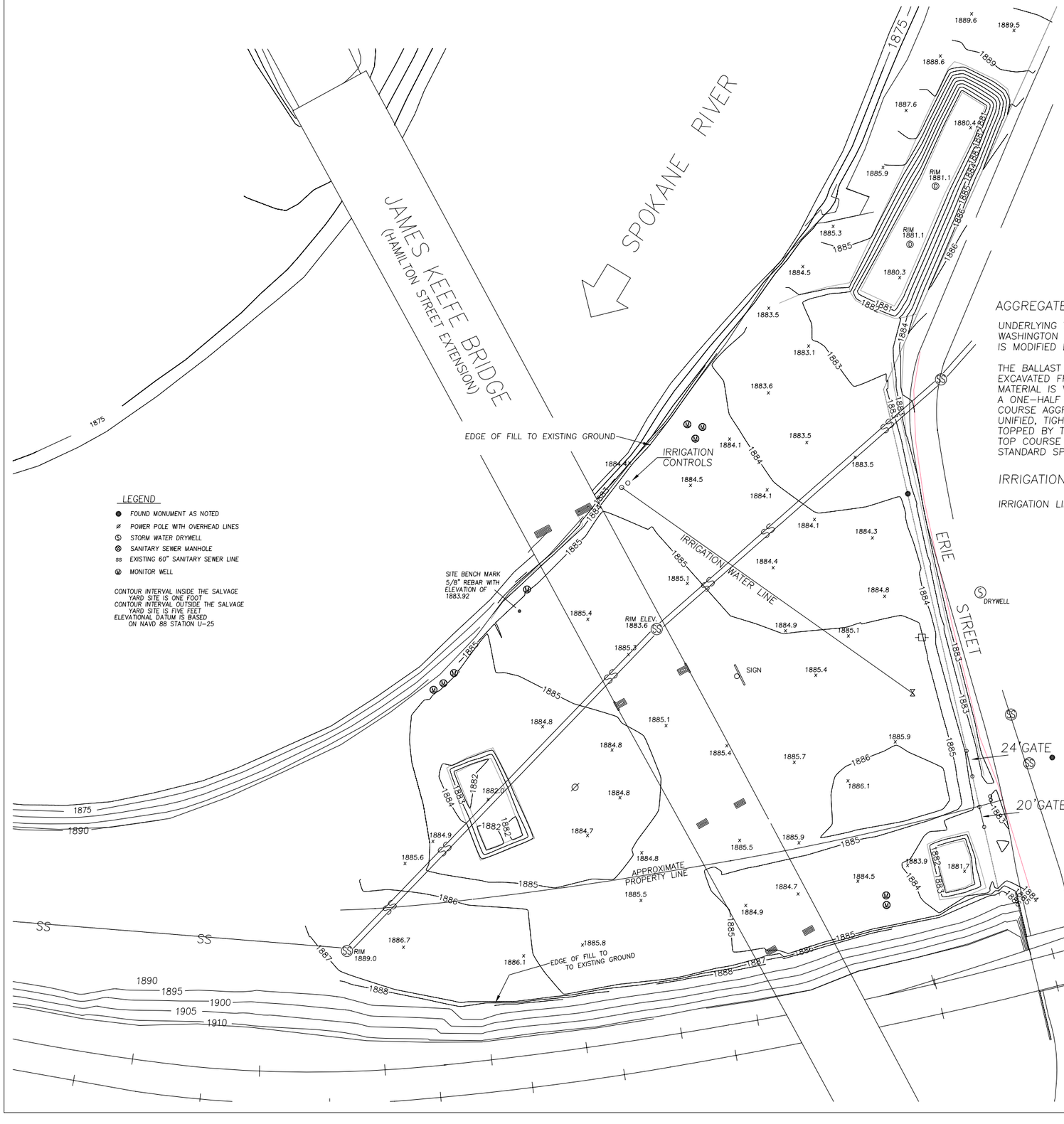
EDR Rpt. I:\cad\plt-file\236025\012\EDR03feb\grading (A) 2/2003

LANDAU ASSOCIATES

Hamilton St. Bridge Site Spokane, Washington	**Conceptual Grading Plan**	Figure 6

APPENDIX E

Construction Record Drawing (USKH, 2006)



AGGREGATE CAP MATERIAL COMPOSITION

UNDERLYING THE TOP 6 INCH LAYER OF STATE OF WASHINGTON SPECIFICATION CRUSHED TOP COURSE IS MODIFIED BALLAST APPROVED BY AVISTA.

THE BALLAST CONSISTS OF NATIVE, ON-SITE MATERIAL EXCAVATED FROM THE DETENTION BASINS. THE EXCAVATED MATERIAL IS VERY COURSE, THEREFORE AVISTA APPROVED A ONE-HALF INCH MINUS CHOKER MATERIAL TO IN-FILL COURSE AGGREGATE GAPS AND ULTIMATELY PROVIDE A UNIFIED, TIGHT FITTING "BALLAST" SURFACE WHICH WAS TOPPED BY THE SIX INCH LAYER OF CRUSHED SURFACING TOP COURSE COMPLYING WITH THE STATE OF WASHINGTON STANDARD SPECIFICATIONS.

IRRIGATION LINE INFORMATION:

IRRIGATION LINE CONSISTS OF 1 INCH PVC SCHEDULE 40

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)

NOTICE: THIS IS NOT A LEGAL DOCUMENT. INFORMATION SHOWN ON THIS MAP SHOULD NOT BE USED TO DETERMINE LOCATION OF FACILITIES IN RELATIONSHIP TO PROPERTY LINES, SECTION LINES, ROADS, STREETS, ETC.

GARY W. ERICKSON
STATE OF WASHINGTON
30431
REGISTERED
PROFESSIONAL LAND SURVEYOR
EXPIRES: 9/17/2006

Date 9/28/2005	USKH W.O. 877600	CAD File 877600-TOPO-WITH-XREF	Sheet 1 OF 1
Rev: 12/09/2005			
Scale 1" = 50'			
Dwn: DJB/CJL	Checked GE		
Ckd: GWE			

USKH
Engineering • Land Surveying
Planning • Materials Testing

Sheet Title

Project Hamilton St. Bridge Cleanup

Client Woodard Construction

APPENDIX B

Backfill Compaction Nuclear Density Test Reports

DAILY FIELD REPORT COMPACTION

Budinger & Associates

Project District on the River-Materials | Technician Robert Murray

Job # M23980:

Date 10/10/2023 | □Sun. | □Mon. | ☒Tue. | □Wed. | □Thur. | □Fri. | □Sat.

Weather: Rain | Temperature: 60 °F

Expenses: Vehicle | Equipment | Laboratory Tests

Mileage: 8 | C: Nuclear Densometer, Days

C:Soils

NOTES: Parking Lot Fill — Compaction

The contractor placed and compacted fill at Section 2A for the southeast parking lot. Tests were conducted at 3 feet below grade in the 4-foot fill with results indicating compaction ranging from 95.4% to 96.7%, exceeding the specified minimum (95%).

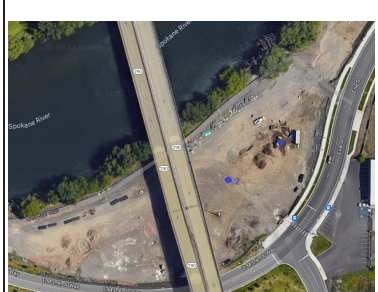
South of Hamilton Bridge Spokane, WA

Gauge Serial # 5117 | Gauge Make/Model # Instrotek 3500 Cal 06-22-2023 | Moisture Standard 665 | Density Standard 2487

Maximum Dry Unit Weight (lbs/ft³): 132.0 | Optimum Moisture (%): 7.7

Sandard check Moisture/Density in spec. 665 YES | 2487 YES

Test #	Location	Test Methods:	5	2	5	5			
	Section 2A	Depth Below Grade (ft)	Total Fill Height (ft)	Field Moisture %	Max. Unit Weight (lbs/ft³)	Field Unit Weight Wet (lbs/ft³)	Field Unit Weight Dry (lbs/ft³)	Comp. %	Spec. %	Test Mode & Depth
10/10- 1	TEST 1 (Secton 2A, NE parking lot)	3	4	6.1	132.0	135.4	127.6	96.7	95	DT 12"
10/10- 2	TEST 2 (Secton 2A, NW parking lot)	3	4	5.8	132.0	133.2	125.9	95.4	95	DT 12"



Test Methods:1.ASTM D-698 2.ASTM D-1557 3.AASHTO T-99 4.AASHTO T-180 5. ASTM D-6938

Attachments : □ yes ☒ no | Page 1 of 1 pages today

☒No Deficiencies Noted | □Deficiencies Noted/Corrected | □Deficiencies Noted/Not Corrected

Results Reported To: Breeyn Greer with Aspect | Signature: R M

1101 North Fancher Road
Spokane Valley, WA 99212
509-535-8841

9997 Lyle Loop Suite A
Hayden, Idaho 83835
208-719-9038

If the draft box is checked the information on this page and any attachments has not been reviewed by our management and may not represent our final opinion.

Reviewed By: KAH/RDC/TBB

☐ DRAFT ☒ FINAL

Thomas Block

Revised 9/1/2022

DAILY FIELD REPORT COMPACTION

Budinger & Associates

Project District on the River-Materials | Technician Ronnie Flores

Job # M23980:

Date 10/11/2023 | □Sun. | □Mon. | □Tue. | ☒Wed. | □Thur. | □Fri. | □Sat.

Weather: Partly Cloudy | Clear | Temperature: 54 °F

Expenses: Vehicle | Equipment | Laboratory Tests

Mileage: 8 | C: Nuclear Densometer, Days

C:Soils

NOTES: Lot Fill — Compaction

The contractor continued placing and compacting lot fill at parking lot section 2A. Tests were conducted at 4 feet below grade in the 5-foot fill with results indicating compaction ranging from 95.9% to 97.7%, exceeding the specified minimum (95%).

South of Hamilton Bridge Spokane, WA

Gauge Serial # 4705 | Gauge Make/Model # Instrotek 3500 Cal 06-01-2022 by NTS | Moisture Standard 745 | Density Standard 2672

Sandard check Moisture/Density in spec. 744 747 2691 2666 740 YES 2674 YES

Maximum Dry Unit Weight (lbs/ft³): 132.0 | Optimum Moisture (%): 7.7 | Test Methods:

Test #	Location	Depth Below Grade (ft)	Total Fill Height (ft)	Field Moisture %	Max. Unit Weight (lbs/ft³)	Field Unit Weight Wet (lbs/ft³)	Field Unit Weight Dry (lbs/ft³)	Comp. %	Spec. %	Test Mode & Depth
	Parking Lot Section 2A									
10/11- 1	Location 1	4	5	4.2	132.0	131.9	126.6	95.9	95	DT 12"
10/11- 2	Location 2	4	5	3.8	132.0	133.1	128.2	97.1	95	DT 12"
10/11- 3	Location 3	4	5	3.7	132.0	133.7	128.9	97.7	95	DT 12"

Test Methods:1.ASTM D-698 2.ASTM D-1557 3.AASHTO T-99 4.AASHTO T-180 5. ASTM D-6938

Attachments : □ yes ☒ no | Page 1 of 2 pages today

☒No Deficiencies Noted | □Deficiencies Noted/Corrected | □Deficiencies Noted/Not Corrected

Results Reported To: Jeff, Spokane Environmental Solutions | Signature: R. E

1101 North Fancher Road
Spokane Valley, WA 99212
509-535-8841

9997 Lyle Loop Suite A
Hayden, Idaho 83835
208-719-9038

If the draft box is checked the information on this page and any attachments has not been reviewed by our management and may not represent our final opinion.

Reviewed By: KAH/RDC/TBB

☐ DRAFT ☒ FINAL

Thomas Black

Revised 9/1/2022

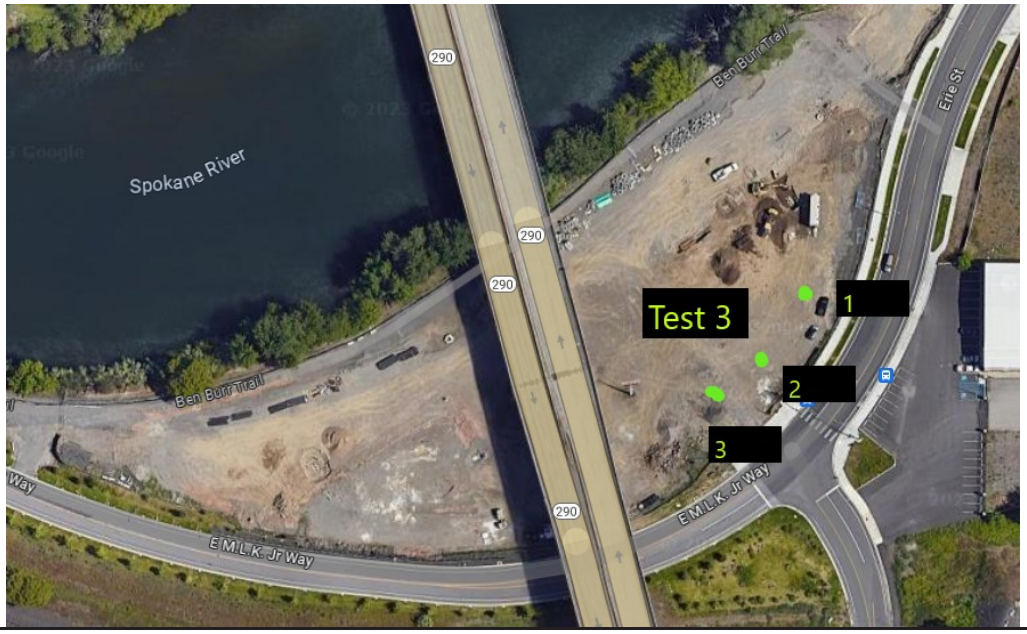
Budinger & Associates

Compaction Test Locations - Soils

Project: District on the River-Materials Technician: Ronnie Flores

Job #: M23980:

Date: 10/11/2023 ☐Sun. ☐Mon. ☐Tue. ☒Wed. ☐Thur. ☐Fri. ☐Sat.



Attachments : ☐yes ☒no | Page 2 of 2 pages today

☒No Deficiencies Noted ☐Deficiencies Noted/Corrected ☐Deficiencies Noted/Not Corrected

Results Reported To: Jeff, Spokane Environmental Solutions Signature: R. E

1101 North Fancher Road
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509-535-8841

9997 Lyle Loop Suite A
Hayden, Idaho 83835
208-719-9038

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Reviewed By: KAH/RDC/TBB

☐ DRAFT ☒ FINAL

Thomas Block

Budinger & Associates — DAILY FIELD REPORT COMPACTION

Project: District on the River-Materials
Technician: Ronnie Flores
Job #: M23980:
Date: 10/12/2023 ☐Sun. ☐Mon. ☐Tue. ☐Wed. ☒Thur. ☐Fri. ☐Sat.

Weather: Partly Cloudy
Temperature: 62 °F

Expenses: Vehicle
Mileage: 8
Equipment: C: Nuclear Densometer, Days
Laboratory Tests:

C:Soils

NOTES: Parking Lot Subgrade — Compaction

The contractor compacted parking lot subgrade at Section 2A ~~and 2B.~~ Tests were conducted at grade with results indicating compaction ranging from 96.5% to 97.9%, exceeding the specified minimum (95%).

Aspect: This report only pertains to bulk backfill placed in 2A

South of Hamilton Bridge Spokane, WA

Gauge Serial # 4705 Gauge Make/Model # Instrotek 3500 Cal 06-01-2022 by NTS Moisture Standard 725 Density Standard 2680

Sandard check Moisture/Density in spec. 744 744 656 YES 2691 2690 2482 YES

Maximum Dry Unit Weight (lbs/ft³): 132.0 Optimum Moisture (%): 7.7 Test Methods: 5 1 5 5

Test #	Location Section 2A ~~and Section 2B~~	Depth Below Grade (ft)	Total Fill Height (ft)	Field Moisture %	Max. Unit Weight (lbs/ft³)	Field Unit Weight Wet (lbs/ft³)	Field Unit Weight Dry (lbs/ft³)	Comp. %	Spec. %	Test Mode & Depth
10/12- 1	Location 1	0	0	6.3	132.0	136.1	128.0	97.0	95	DT 6"
10/12- 2	Location 2	0	0	6.1	132.0	135.2	127.4	96.5	95	DT 6"
10/12- 3	Location 3	0	0	6.4	132.0	137.5	129.2	97.9	95	DT 6"

Test Methods:1.ASTM D-698 2.ASTM D-1557 3.AASHTO T-99 4.AASHTO T-180 5. ASTM D-6938

Attachments : ☐ yes ☒ no Page 1 of 2 pages today

☒No Deficiencies Noted ☐Deficiencies Noted/Corrected ☐Deficiencies Noted/Not Corrected

Results Reported To: Jeff, Spokane Environmental Solutions
Signature:

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Thomas Black

Revised 9/1/2022

DAILY FIELD REPORT COMPACTION

Budinger & Associates

Project District on the River-Materials | Technician Ronnie Flores

Job # M23980:

Date 10/16/2023 | □Sun. | ☒Mon. | □Tue. | □Wed. | □Thur. | □Fri. | □Sat.

Weather: Partly Cloudy | Temperature: 59 °F

Expenses: Vehicle | Equipment | Laboratory Tests

Mileage: 8 | C: Nuclear Densometer, Days

C:Soils

NOTES: Parking Lot CSBC — Compaction

The contractor continued placing and compacting CSBC for parking lot at Section 2B. Tests were conducted at grade in the 1-foot fill with results indicating compaction ranging from 95.0% to 97.0%, meeting or exceeding the specified minimum (95%).

South of Hamilton Bridge Spokane, WA

Gauge Serial # 4705 | Gauge Make/Model # Instrotek 3500 Cal 06-01-2022 by NTS | Moisture Standard 735 | Density Standard 2660

Sandard check Moisture/Density in spec. 740 725 2655 2665 740 YES 2655 YES

Maximum Dry Unit Weight (lbs/ft³): 140.6 | Optimum Moisture (%): 9.4 | Test Methods:

Test #	Location	Depth Below Grade (ft)	Total Fill Height (ft)	Field Moisture %	Max. Unit Weight (lbs/ft³)	Field Unit Weight Wet (lbs/ft³)	Field Unit Weight Dry (lbs/ft³)	Comp. %	Spec. %	Test Mode & Depth
10/16- 1	Test 1 - See Photo	0	1	8.1	140.6	144.3	133.5	95.0	95	DT 12"
10/16- 2	Test 2 - See Photo	0	1	8.0	140.6	145.4	134.6	95.7	95	DT 12"
10/16- 3	Test 3 - See Photo	0	1	7.8	140.6	147.0	136.4	97.0	95	DT 12"

Test Methods:1.ASTM D-698 2.ASTM D-1557 3.AASHTO T-99 4.AASHTO T-180 5. ASTM D-6938

Attachments : □ yes ☒ no | Page 1 of 2 pages today

☒No Deficiencies Noted | □Deficiencies Noted/Corrected | □Deficiencies Noted/Not Corrected

Results Reported To: Jeff, Spokane Environmental Solutions | Signature: R. E

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Reviewed By: KAH/RDC/TBB

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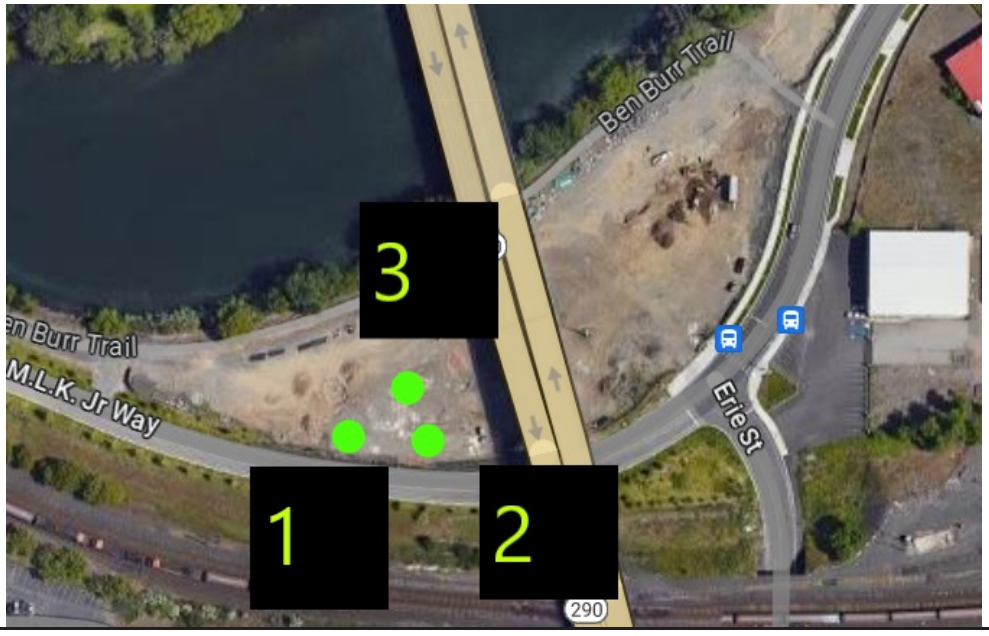
Thomas Black

Revised 9/1/2022

Budinger & Associates

Compaction Test Locations - Soils

Project: District on the River-Materials
Technician: Ronnie Flores
Job #: M23980:
Date: 10/16/2023 ☐Sun. ☒Mon. ☐Tue. ☐Wed. ☐Thur. ☐Fri. ☐Sat.



Attachments : ☐yes ☒no | Page 2 of 2 pages today

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Results Reported To: Jeff, Spokane Environmental Solutions

Signature: R. E

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Reviewed By: KAH/RDC/TBB

☐ DRAFT ☒ FINAL

Thomas Block

Budinger & Associates — DAILY FIELD REPORT COMPACTION

Project: District on the River-Materials
Technician: Ronnie Flores
Job #: M23980:
Date: 10/19/2023 ☐Sun. ☐Mon. ☐Tue. ☐Wed. ☒Thur. ☐Fri. ☐Sat.

Weather: Clear
Temperature: 65 °F

Expenses: Vehicle
Mileage: 8
Equipment: C: Nuclear Densometer, Days
Laboratory Tests:

C:Soils

NOTES: Parking Lot CSBC — Compaction

The contractor continued placing and compacting CSBC for parking lot at Section 2B. Tests were conducted at grade in the 8-inch fill with results indicating compaction ranging from 89.6% to 93.9%, not meeting the specified minimum (95%).

We notified the contractor of areas testing below the specified minimum.

Compaction ranging from 89.6% to 93.9%, not meeting the specified minimum (95%).

South of Hamilton Bridge Spokane, WA

Gauge Serial # 4705 Gauge Make/Model # Instrotek 3500 Cal 06-01-2022 by NTS Moisture Standard 744 Density Standard 2655

Sandard check Moisture/Density in spec. 735 725 744 YES 2655 2665 2690 YES

Maximum Dry Unit Weight (lbs/ft³): 145.2 Optimum Moisture (%): 8.1 Test Methods:

Test #	Location	Depth Below Grade (in)	Total Fill Height (in)	Field Moisture %	Max. Unit Weight (lbs/ft³)	Field Unit Weight Wet (lbs/ft³)	Field Unit Weight Dry (lbs/ft³)	Comp. %	Spec. %	Test Mode & Depth
10/19- 1	Test 1	0	8	4.5	145.2	142.2	136.1	93.7	95	DT 6"
10/19- 2	Test 2	0	8	4.3	145.2	142.2	136.3	93.9	95	DT 6"
10/19- 3	Test 3	0	8	4.9	145.2	141.8	135.2	93.1	95	DT 6"
10/19- 4	Test 4	0	8	5.1	145.2	141.8	134.9	92.9	95	DT 6"
10/19- 5	Test 5	0	8	5.4	145.2	137.1	130.1	89.6	95	DT 6"

Test Methods:1.ASTM D-698 2.ASTM D-1557 3.AASHTO T-99 4.AASHTO T-180 5. ASTM D-6938

Attachments : ☒ yes ☐ no

☐No Deficiencies Noted ☐Deficiencies Noted/Corrected ☒Deficiencies Noted/Not Corrected

Results Reported To: Breeyn Greer, Aspect Consulting

Signature: R. E

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Reviewed By: KAH/RDC/TBB

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Thomas Block

Revised 9/1/2022

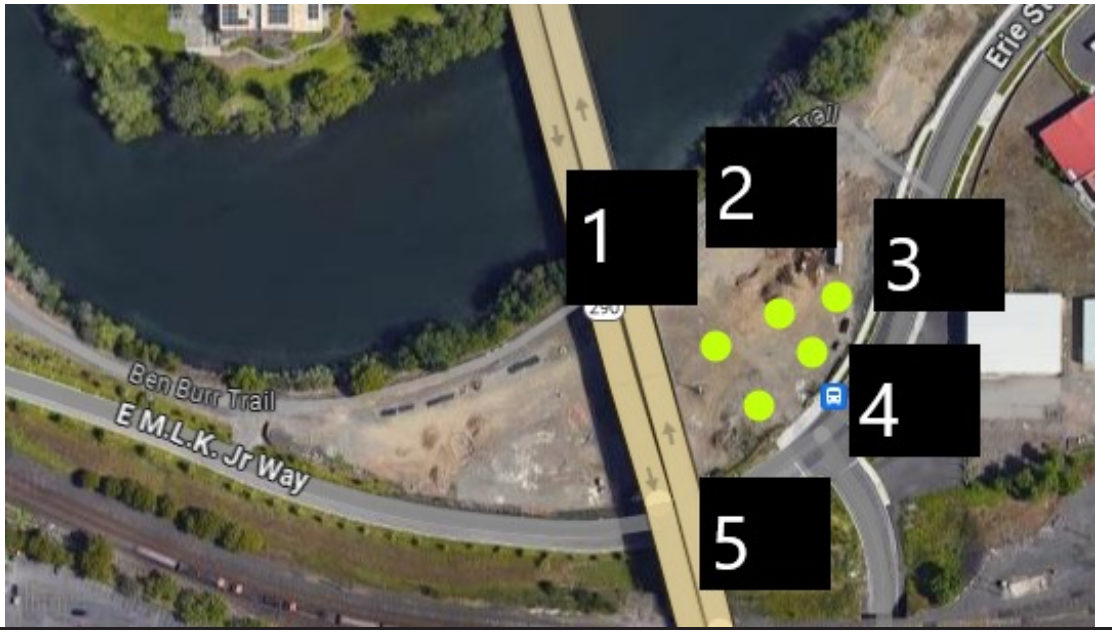
Budinger & Associates

Compaction Test Locations - Soils

Project District on the River-Materials Technician Ronnie Flores

Job # M23980:

Date 10/19/2023 ☐Sun. ☐Mon. ☐Tue. ☐Wed. ☒Thur. ☐Fri. ☐Sat.



Attachments : ☒yes ☐no Page 2 of 2 pages today

☐No Deficiencies Noted ☐Deficiencies Noted/Corrected ☒Deficiencies Noted/Not Corrected

Results Reported To: Breeyn Greer, Aspect Consulting Signature: R. F

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Reviewed By: KAH/RDC/TBB

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Thomas Black

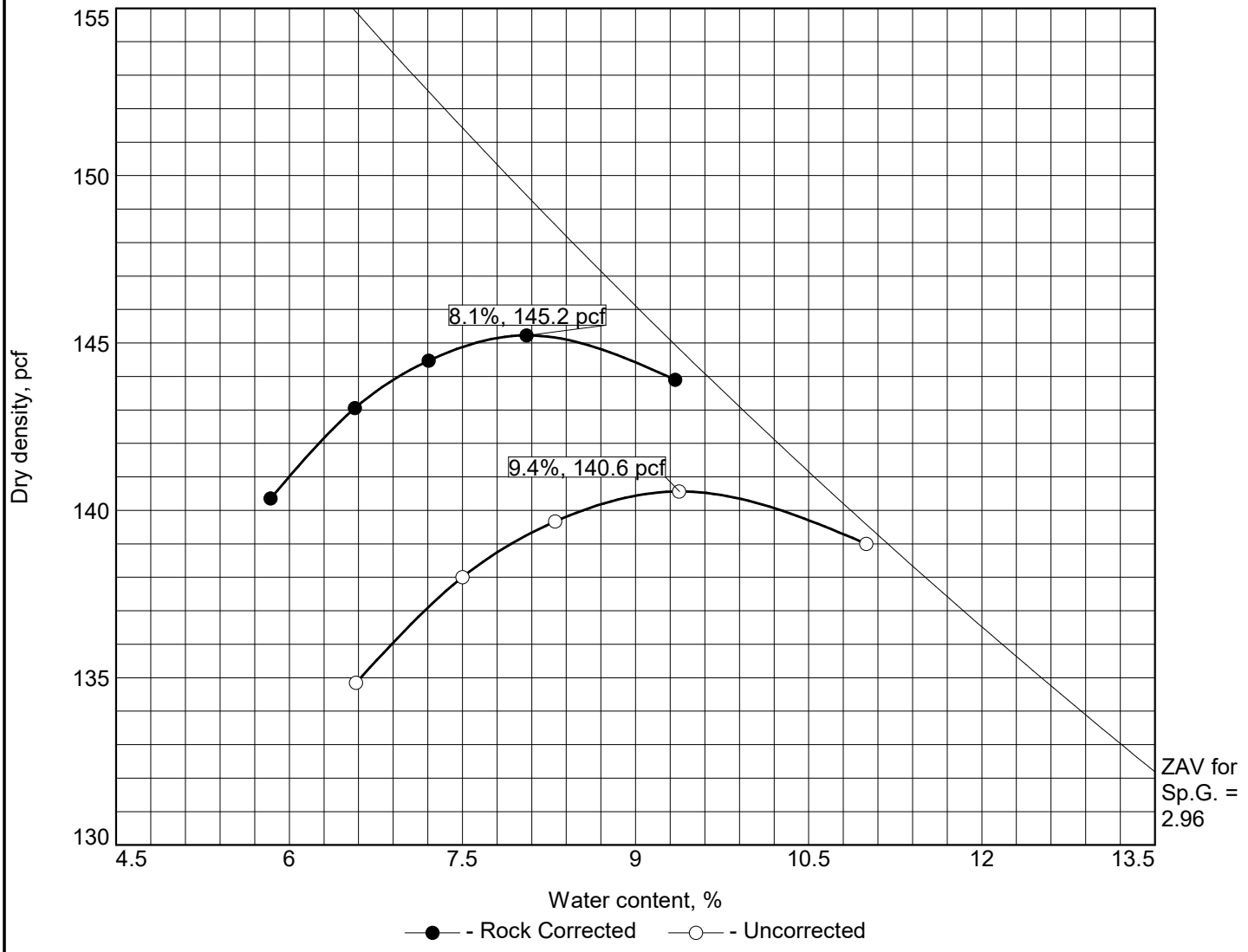
APPENDIX C

Material Proctor Test Results – Budinger & Associates Inc.

WSDOT CRUSHED SURFACING BASE COURSE
LABORATORY SUMMARY

LABORATORY NUMBER					23-0227
SAMPLED BY					Client
SAMPLE TYPE					Bulk
DATE RECEIVED					3/16/23
SAMPLE SOURCE					P2
		UNITS	WSDOT FOP for TEST METHOD	WSDOT 9-03.9 (3) SPEC	
PROCTOR			AASHTO T180		
Maximum Unit Weight		pcf			140.6
Optimum Moisture		%			9.4
Sample Moisture		%			5.5
Bulk Specific Gravity (+3/4")			AASHTO T85		2.665
Maximum Unit Weight, Corrected		pcf			145.2
Optimum Moisture, Corrected		%			8.1
SAND EQUIVALENT			AASHTO T176	40 min	75
FRACTURED FACES	+#4	%	AASHTO T335	75 min	96
WA DEGRADATION		D	WSDOT T113	15 min	38
SIEVE ANAYLSIS			AASHTO T27/11		
S	1 1/4"			99-100	100
I	1"	%		80-100	97
E	5/8"			50-80	67
V	1/2"	P			53
E	3/8"	A			44
	#4	S		25-45	27
S	#10	S			15
I	#16	I			10
Z	#30	N			7
E	#40	G		3-18	6
	#100				4
	#200			7.5 max	3.0

Moisture-Unit Weight Relationship



Test specification: AASHTO T 180-19 Method D Modified
AASHTO T 224-01 Oversize Corr. Applied to Each Test Point

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/4 in.	% < No.200
	USCS	AASHTO						
			5.5	+3/4"= 2.665			20.7	

ROCK CORRECTED TEST RESULTS	UNCORRECTED	MATERIAL DESCRIPTION
Maximum dry density = 145.2 pcf	140.6 pcf	Crushed Surfacing Base Course
Optimum moisture = 8.1 %	9.4 %	

Project No. L23071 **Client:** Action Materials
Project: Action 2023 Materials

○ **Source of Sample:** P2 **Sample Number:** 23-0227

Remarks:
Sampled By Client

BUDINGER & ASSOCIATES, INC.

Date: 2/22/23

Tested By: JB **Checked By:** KC

Budinger & Associates

Geotechnical Engineering
Environmental Engineering
Construction Materials Testing
Subsurface Exploration
Special Inspection

Proudly serving the Inland Northwest since 1976

Mari Otto
Aspect Consulting, LLC
710 2nd Ave, Suite 550
Seattle, WA 98104

October 10, 2023

Project Number M23980

PROJECT: District on the River -Materials

SUBJECT: Results of Laboratory Testing
Report #1

At your request, we provided laboratory testing services for the subject project. Services were limited to the performance of specific laboratory tests, selected at your discretion.

For this period, our involvement was limited to laboratory testing of one sample delivered to our laboratory on October 5, 2023. Laboratory tests were performed in general accordance with methods listed in the attached *Laboratory Summary* sheet.

If you have questions regarding this report, please call.

Respectfully Submitted,
Budinger & Associates, Inc.

Kiel Couch
Laboratory Manager

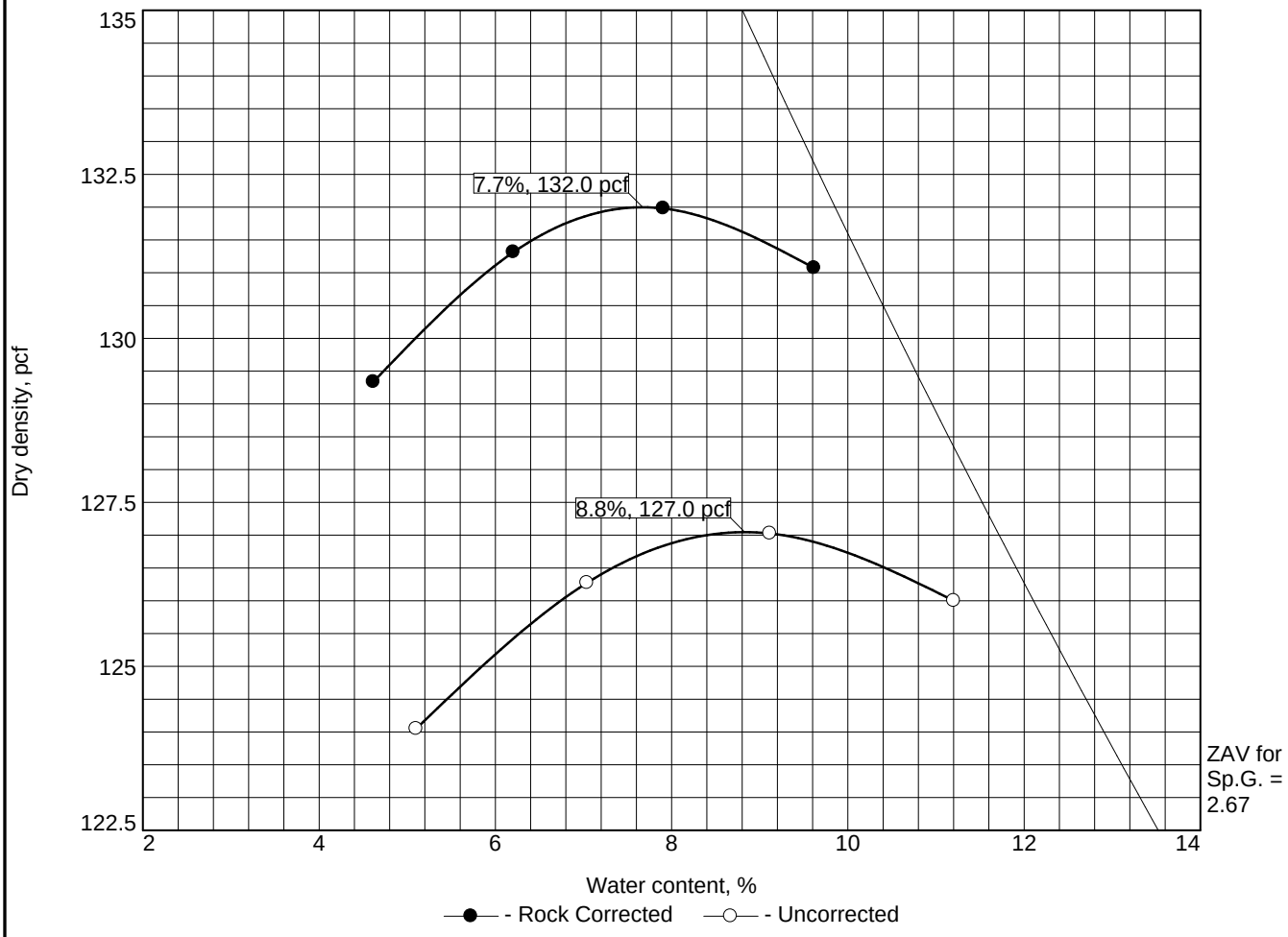
KC/lat/Addressee –
Mari Otto – motto@aspectconsulting.com
Breeyn Greer – bgreer@aspectconsulting.com

Attachments:
Proctor Laboratory Summary – 1 page
Moisture-Unit Weight Relationship Report – 1 page

PROCTOR
LABORATORY SUMMARY

LABORATORY NUMBER				23-1048
SAMPLED BY				Client
SAMPLE TYPE				Bulk
DATE RECEIVED				10/5/23
SAMPLE DESCRIPTION				Silty sand with gravel and brick
SAMPLE SOURCE				On site
		UNITS	TEST METHOD	
PROCTOR			ASTM D1557	
Maximum Unit Weight		pcf		127.0
Optimum Moisture		%		8.8
Sample Moisture		%		3.3
Bulk Specific Gravity (+3/4")			ASTM C127	2.571
Maximum Unit Weight, Corrected		pcf		132.0
Optimum Moisture, Corrected		%		7.7
SIEVE ANALYSIS			ASTM D6913	
	6"			100
	3"			95
S	1 1/2"			89
I	1"	%		85
E	3/4"			82
V	1/2"	P		74
E	3/8"	A		71
	#4	S		59
S	#10	S		46
I	#16	I		39
Z	#30	N		31
E	#40	G		27
	#100			19
	#200			14

Moisture-Unit Weight Relationship



Test specification: ASTM D 1557-12 Method C Modified
ASTM D4718-15 Oversize Corr. Applied to Each Test Point

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/4 in.	% < No.200
	USCS	AASHTO						
			3.3	+3/4"= 2.571			18.0	

ROCK CORRECTED TEST RESULTS	UNCORRECTED	MATERIAL DESCRIPTION
Maximum dry density = 132.0 pcf	127.0 pcf	Silty sand with gravel and brick (Site generated Backfill)
Optimum moisture = 7.7 %	8.8 %	

Project No. M23980 **Client:** Aspect Consulting LLC
Project: District on the River-Materials

○**Source of Sample:** On-site **Sample Number:** 23-1048

Remarks:
Sampled By Client

BUDINGER & ASSOCIATES, INC.

Date: 10/10/23

Tested By: HD **Checked By:** KC

APPENDIX D

Photo Log of Field Activities and Backfilling

Photograph 1. View of proposed Building 2A footprint with building footprint excavation backfilled and stormwater cover placed and compacted. Looking northeast.

Photograph 2. View of proposed Building 2A footprint with building footprint excavation backfilled and stormwater cover placed and compacted. Looking southwest.

Photograph 3. View of proposed Building 2B footprint with building footprint excavation backfilled and stormwater cover placed and compacted. Looking west.

Photograph 4. View of proposed Building 2B footprint with building footprint excavation backfilled and stormwater cover placed and compacted. Looking east. Stormwater collection depression is in foreground.

APPENDIX E

Report Limitations and Guidelines for Use

REPORT LIMITATIONS AND USE GUIDELINES

Reliance Conditions for Third Parties

This report was prepared for the exclusive use of the Client. No other party may rely on this report or the product of our services without the express written consent of Aspect Consulting (Aspect). This limitation is to provide our firm with reasonable protection against liability claims by third parties with whom there would otherwise be no contractual conditions or limitations and guidelines governing their use of the report. Within the limitations of scope, schedule and budget, our services have been executed in accordance with our Agreement with the Client and recognized standards of professionals in the same locality and involving similar conditions.

Services for Specific Purposes, Persons and Projects

Aspect has performed the services in general accordance with the scope and limitations of our Agreement. This report has been prepared for the exclusive use of the Client and their authorized third parties, approved in writing by Aspect. This report is not intended for use by others, and the information contained herein is not applicable to other properties.

This report is not, and should not, be construed as a warranty or guarantee regarding the presence or absence of hazardous substances or petroleum products that may affect the subject property. The report is not intended to make any representation concerning title or ownership to the subject property. If real property records were reviewed, they were reviewed for the sole purpose of determining the subject property's historical uses. All findings, conclusions, and recommendations stated in this report are based on the data and information provided to Aspect, current use of the subject property, and observations and conditions that existed on the date and time of the report.

Aspect structures its services to meet the specific needs of our clients. Because each environmental study is unique, each environmental report is unique, prepared solely for the specific client and subject property. This report should not be applied for any purpose or project except the purpose described in the Agreement.

This Report Is Project-Specific

Aspect considered a number of unique, project-specific factors when establishing the Scope of Work for this project and report. You should not rely on this report if it was:

- Not prepared for you
- Not prepared for the specific purpose identified in the Agreement
- Not prepared for the specific real property assessed
- Completed before important changes occurred concerning the subject property, project or governmental regulatory actions

If changes are made to the project or subject property after the date of this report, Aspect should be retained to assess the impact of the changes with respect to the conclusions contained in the report.

Discipline-Specific Reports Are Not Interchangeable

The equipment, techniques and personnel used to perform an environmental study differ significantly from those used to perform a geotechnical or geologic study and vice versa. For that reason, a geotechnical engineering or geologic report does not usually address any environmental findings, conclusions or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. Similarly, environmental reports are not used to address geotechnical or geologic concerns regarding the subject property.

Environmental Regulations Are Not Static

Some hazardous substances or petroleum products may be present near the subject property in quantities or under conditions that may have led, or may lead, to contamination of the subject property, but are not included in current local, state or federal regulatory definitions of hazardous substances or petroleum products or do not otherwise present potential liability. Changes may occur in the standards for appropriate inquiry or regulatory definitions of hazardous substance and petroleum products; therefore, this report has a limited useful life.

Property Conditions Change Over Time

This report is based on conditions that existed at the time the study was performed. The findings and conclusions of this report may be affected by the passage of time (for example, Phase I ESA reports are applicable for 180 days), by events such as a change in property use or occupancy, or by natural events, such as floods, earthquakes, slope failure or groundwater fluctuations. If more than six months have passed since issuance of our report, or if any of the described events may have occurred following the issuance of the report, you should contact Aspect so that we may evaluate whether changed conditions affect the continued reliability or applicability of our conclusions and recommendations.

Historical Information Provided by Others

Aspect has relied upon information provided by others in our description of historical conditions and in our review of regulatory databases and files. The available data does not provide definitive information with regard to all past uses, operations or incidents affecting the subject property or adjacent properties. Aspect makes no warranties or guarantees regarding the accuracy or completeness of information provided or compiled by others.