City of Bellevue
Development Services Department
Land Use Staff Report

Proposal Name:	**Eastside Reservoir Drainage Improvements**
Proposal Address:	**4404 146th Ave SE**
Proposal Description:	Applicant seeks Critical Areas Land Use approval for a proposal to repair leaking roof and wall joints, and to install site drainage improvements along an existing reservoir. A portion of the repairs and improvements is located within a steep slope critical area and steep slope buffers from adjacent steep slopes. The proposal is supported by a geotechnical report and restoration plan.
File Number:	**15-104108-LO**
Applicant:	**Brian Eng, Seattle Public Utilities**
Decisions Included:	Critical Areas Land Use Permit (Process II. LUC 20.30P)
Planner:	**David Wong**, Land Use Planner
State Environmental Policy Act Threshold Determination:	**Exempt (under WAC 197-11-800)**
Director's Decision:	**Approval with Conditions**

Carol V. Helland, Land Use Director
Development Services Department

Application Date:	February 4, 2015
Notice of Application Publication Date:	February 19, 2015
Decision Publication Date:	March 26, 2015
Project/SEPA Appeal Deadline:	April 9, 2015

For information on how to appeal a proposal, visit Development Services Center at City Hall or call (425) 452-6800. Comments on State Environmental Policy Act (SEPA) Determinations can be made with or without appealing the proposal within the noted comment period for a SEPA Determination. Appeal of the Decision must be received in the City's Clerk's Office by 5 PM on the date noted for appeal of the decision.

CONTENTS

Attachments

1. Site Plan

I. Proposal Description

The applicant requests a Land Use Review for and Critical Areas Land Use Permit to conduct minor repairs and maintenance on an existing Seattle Public Utilities reservoir to repair damage that occurred during the 2001 Nisqually earthquake. Included in this proposal are operations to install a waterproofing membrane along the exterior of the reservoir, and install subsurface drains on the lid and along the perimeter of the reservoir. Portions of this proposal are located within a slope that equal or exceed 40% and two different 50-foot top-of-slope buffers.

II. Site Description, Zoning, Land Use and Critical Areas

A. Site Description

The project site located to the south of Eastgate park between 146th Ave. SE and 148th PL. SE in the Factoria subarea. The site is bounded to east, southeast, and west by residential development zoning at a density of 3.5 units per acre. The site contains an existing drinking water reservoir that is operated by Seattle Public Utilities (SPU). Steep slope and steep slope buffers exist along the westerly and northerly portions of the lot.

B. Zoning

The property is zoned R-3.5, single-family residential.

C. Land Use Context

The site has a Comprehensive Plan Land Use Designation of SF-M (Single-Family Medium Density).

D. Critical Areas Functions and Values

i. Geologic Hazard Areas

Geologic hazards pose a threat to the health and safety of citizens when commercial, residential, or industrial development is inappropriately sited in areas of significant hazard. Some geologic hazards can be reduced or mitigated by engineering, design, or modified construction practices. When technology cannot reduce risks to acceptable levels, building in geologically hazardous areas is best avoided (WAC 365-190).

Steep slopes may serve several other functions and possess other values for the City and its residents. Several of Bellevue's remaining large blocks of forest are located in steep slope areas, providing habitat for a variety of wildlife species and important linkages between habitat areas in the City. These steep slope areas also act as conduits for groundwater, which drains from hillsides to provides a water source for the City's wetlands and stream systems. Vegetated steep slopes also provide a visual amenity in the City, providing a "green" backdrop for urbanized areas enhancing property values and buffering urban development.

III. Consistency with Land Use Code Requirements:

A. Critical Areas Requirements LUC 20.25H:

The City of Bellevue Land Use Code Critical Areas Overlay District (LUC 20.25H) establishes performance standards and procedures that apply to development on any site which contains in whole or in part any portion designated as critical area, critical area buffer or structure setback from a critical area or buffer. The proposal is located within a slope that exceeds 40% and a 50-foot top-of-slope buffer. The project is subject to the performance standards found in LUC 20.25H.100 which is reviewed below.

i. Consistency with LUC 20.25H.055.B

The proposed improvements are considered repair and maintenance of utility facilities, and are an allowed use according to the Uses and Development Allowed within Critical Areas table found in 20.25H.055.B.

ii. Consistency with LUC 20.25H.055.C.1

1. **Repair and Maintenance Performance Standards**
   a. **Work shall be consistent with all applicable City of Bellevue codes and standards;**
      The project will be consistent with all applicable City of Bellevue codes and standards.

   b. **Removal of significant trees is prohibited;**
      The project will remove two 8” trees that are within 15 feet of the reservoir in order facilitate the repair of the wall and lid joints, and installation of the protective membrane and drainage system. Alternative configurations would have required additional significant tree removal. To mitigate, the proposal includes the planting of two 6 to 8-foot trees within the steep slope buffer area.

   c. **Areas of temporary disturbance associated with the work shall be restored to pre-project conditions, pursuant to a restoration plan meeting the requirements of LUC 20.25H.210.**
      Areas of temporary disturbance will be restored to a level comparable to the existing condition using a native seed mix and protective matting.

B. Consistency with Land Use Code Critical Areas Performance Standards:

i. Geologic Hazards – 20.25H.125

1. **Structures and improvements shall minimize alterations to the natural contour of the slope, and foundations shall be tiered where possible to conform to existing topography;**
   Area of disturbance is to be backfilled to match existing contours. No new foundations are proposed.

2. **Structures and improvements shall be located to preserve the most critical portion of the site and its natural landforms and vegetation;**
   Roof and perimeter drains are designed to minimize impact on steep slope critical areas and vegetation on site. Alternative designs would have impacted additional trees and vegetation.

3. **The proposed development shall not result in greater risk or a need for increased buffers on neighboring properties;**
   No permanent disturbance is proposed and "the risk of damage to the proposed development or to adjacent properties from soil instability will be minimal..." (Geotechnical Review pg. 3).

4. **The use of retaining walls that allow the maintenance of existing natural slope area is preferred over graded artificial slopes where graded slopes would result in increased disturbance as compared to use of retaining wall;**
   No grade changes or retaining walls are proposed.

5. **Development shall be designed to minimize impervious surfaces within the critical area and critical area buffer;**
   No new impervious surface is included in this proposal.

6. **Where change in grade outside the building footprint is necessary, the site retention system should be stepped and regrading should be designed to minimize topographic modification. On slopes in excess of 40 percent, grading for yard area may be disallowed where inconsistent with this criteria;**
   No change of grade is proposed.

7. **Building foundation walls shall be utilized as retaining walls rather than rockeries or retaining structures built separately and away from the building wherever feasible. Freestanding retaining devices are only permitted when they cannot be designed as structural elements of the building foundation;**
   No foundation wall or retaining walls are included in this proposal.

8. **On slopes in excess of 40 percent, use of pole-type construction which conforms to the existing topography is required where feasible. If pole-type construction is not technically feasible, the structure must be tiered to conform to the existing topography and to minimize topographic modification;**
   No new structures or other improvements requiring pole-type construction are included in this proposal.

9. **On slopes in excess of 40 percent, piled deck support structures are required where technically feasible for parking or garages over fill-based**

construction types; and
No new garages or parking surfaces are included in this proposal.

10. **Areas of new permanent disturbance and all areas of temporary disturbance shall be mitigated and/or restored pursuant to a mitigation and restoration plan meeting the requirements of LUC 20.25H.210.**
A restoration plan for areas of temporary disturbance has been provided. Areas will be restored to conditions comparable to that which exist currently.

IV. Public Notice and Comment

Application Date:	February 4, 2015
Public Notice (500 feet):	February 19, 2015
Minimum Comment Period:	March 5, 2015

The Notice of Application for this project was published in the City of Bellevue weekly permit bulletin on February 19, 2015. It was mailed to property owners within 500 feet of the project site. No comments have been received from the public as of the writing of this staff report.

V. Summary of Technical Reviews

Clearing and Grading:
The Clearing and Grading Division of the Development Services Department has reviewed the proposed development for compliance with Clearing and Grading codes and standards. The Clearing and Grading staff found no issues with the proposed development.

VI. Decision Criteria

A. Critical Areas Land Use Permit Decision Criteria 20.30P

The Director may approve or approve with modifications an application for a critical areas land use permit if:

1. The proposal obtains all other permits required by the Land Use Code;

Finding: The proposal will obtain the necessary Clearing & Grading permit to conduct repairs and improvements.

2. The proposal utilizes to the maximum extent possible the best available construction, design and development techniques which result in the least impact on the critical area and critical area buffer;

Finding: The proposal is designed to provide the least impact to the steep slope critical area and steep slope buffers by utilizing existing stormwater facilities. Alternative designs would have required additional tree removal and disturbance. Temporary disturbance will be restored to a condition comparable to the existing conditions.

3. The proposal incorporates the performance standards of Part 20.25H to the maximum extent applicable, and ;

Finding: As discussed in Section III, this proposal incorporates the performance standards of LUC 20.25H.

4. The proposal will be served by adequate public facilities including street, fire protection, and utilities; and;

Finding: The proposal will be served by adequate public facilities.

5. The proposal includes a mitigation or restoration plan consistent with the requirements of LUC Section 20.25H.210; and

Finding: The proposal includes a restoration plan consistent with the requirements of LUC 20.25H.210.

6. The proposal complies with other applicable requirements of this code.

Finding: As discussed in Section III and V of this report, the proposal complies with all other applicable requirements of the Land Use Code.

VII. Conclusion and Decision

After conducting the various administrative reviews associated with this proposal, including Land Use Code consistency, SEPA, City Code and Standard compliance reviews, the Director of the Development Services Department does hereby **approve with conditions** the proposal to conduct repair operations, and to install new lid and perimeter drains within the steep slope critical area and steep slope buffer.

Note- Expiration of Approval: In accordance with LUC 20.30P.150 a Critical Areas Land Use Permit automatically expires and is void if the applicant fails to file for a Clearing and Grading Permit or other necessary development permits within one year of the effective date of the approval.

VIII. Conditions of Approval

The applicant shall comply with all applicable Bellevue City Codes and Ordinances including but not limited to:

Applicable Ordinances	Contact Person
Clearing and Grading Code- BCC 23.76	Tom McFarlane, 425-452-5207
Land Use Code- BCC 20.25H	David Wong, 425-452-4282
Noise Control- BCC 9.18	David Wong, 425-452-4282

The following conditions are imposed under the Bellevue City Code or SEPA authority referenced:

1. Restoration for Areas of Temporary Disturbance: A restoration plan for all areas of temporary disturbance is required to be submitted for review and approval by the City of Bellevue prior to the issuance of the Clearing and Grading Permit. The plan shall include photographic documentation of existing site conditions and shall identify the restoration measures (tree replacement species and quantities, seeding species, protection matting, etc.) to return the site to its existing conditions per LUC 20.25H.220.H.

Authority: Land Use Code 20.25H.220.H
Reviewer: Planner, Land Use

2. Monitoring: The temporary disturbance area shall be self-maintained for a period of one (1) year. Monitoring reports at six and twelve months are to be submitted to Land Use. Photos from selected photo points will be included in the monitoring reports to document the planting.

The reports can be sent to David Wong at dwong@bellevuewa.gov or to the address below:

Environmental Planning Manager
Development Services Department
City of Bellevue
PO Box 90012
Bellevue, WA 98009-9012

Authority: Land Use Code 20.30P.140
Reviewer: David Wong, Land Use

3. Land Use Inspection: A Land Use inspection is required to be completed prior to final inspection of the Clearing & Grading permit.

Authority: Land Use Code 20.25H.220
Reviewer: Planner, Land Use

4. Rainy Season restrictions: Due to the proximity to the steep slope and steep slope buffers, no clearing and grading activity may occur during the rainy season, which is defined as October 1 through April 30 without written authorization of the Development Services Department. Should approval be granted for work during the rainy season, increased erosion and sedimentation measures, representing the best available technology must be implemented prior to beginning or resuming site work.

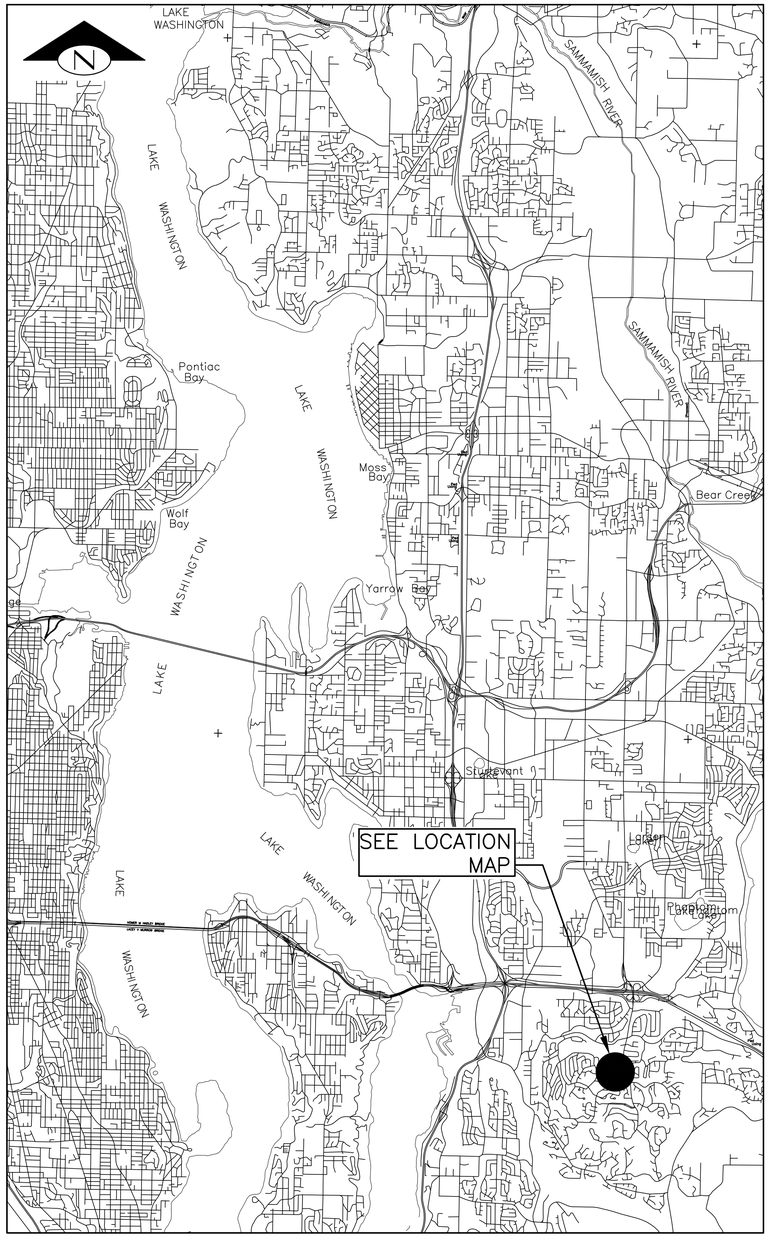
Authority: Bellevue City Code 23.76.093.A,
Reviewer: Tom McFarlane, Clearing and Grading

5. Pesticides, Insecticides, and Fertilizers: The applicant must submit as part of the required Clearing and Grading Permit information regarding the use of pesticides, insecticides, and fertilizers in accordance with the City of Bellevue's "Environmental Best Management Practices".

Authority: Land Use Code 20.25H.220.H
Reviewer: David Wong, Land Use

6. Noise Control: Noise related to construction is exempt from the provisions of BCC 9.18 between the hours of 7 am to 6 pm Monday through Friday and 9 am to 6 pm on Saturdays, except for Federal holidays and as further defined by the Bellevue City Code. Noise emanating from construction is prohibited on Sundays or legal holidays unless expanded hours of operation are specifically authorized in advance. Requests for construction hour extension must be done in advance with submittal of a construction noise expanded exempt hours permit.

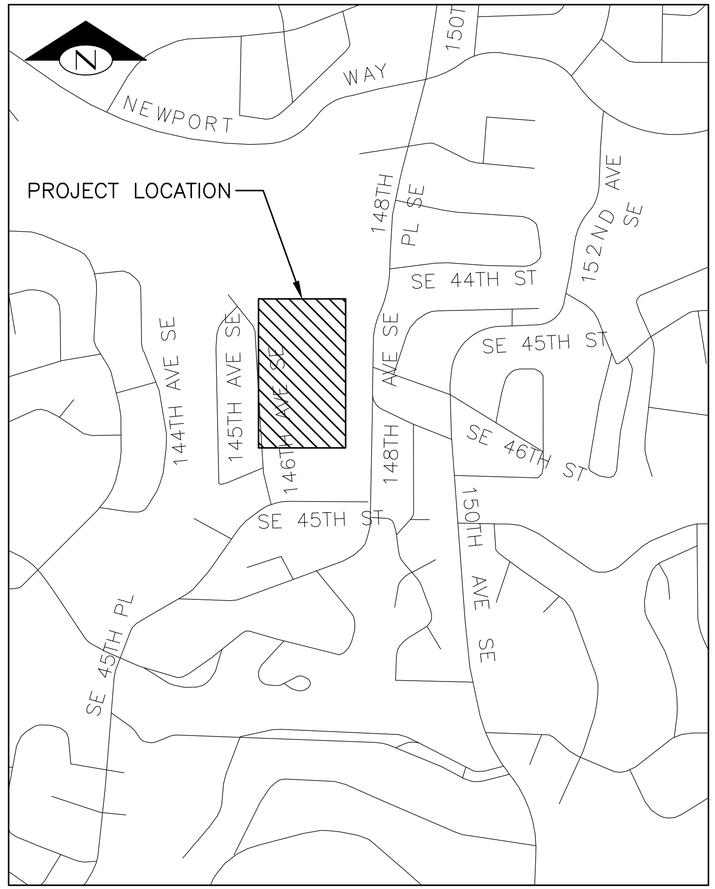
Authority: Bellevue City Code 9.18
Reviewer: David Wong, Land Use



VICINITY MAP

1 0 1 2

SCALE: 1" = 1 MILE



LOCATION MAP

SCALE: 1" = 500'

DETAIL AND SECTION REFERENCING

4 / 9 — DETAIL REFERENCE NUMBER; SHEET ON WHICH DETAIL APPEARS

(TITLE) 4 / 9 (SCALE) — DETAIL REFERENCE NUMBER; SHEET FROM WHICH DETAIL WAS TAKEN

("TYP" SPECIFIES THAT DETAIL IS UNIFORMLY TYPICAL THROUGHOUT PROJECT EXCEPT WHERE OTHERWISE NOTED.)
("VAR" SPECIFIES THAT DETAIL WAS TAKEN FROM SEVERAL SHEETS.)

A A 32 — SECTION A–A IS SHOWN ON SHEET 32.

SECTION A–A 30 — SECTION A–A IS TAKEN FROM SHEET 30.

GENERAL NOTES

UNLESS OTHERWISE NOTED:

1. ALL WORK SHALL CONFORM TO THE 2014 EDITION OF THE CITY OF SEATTLE STANDARD SPECIFICATIONS AND THE 2014 EDITION OF THE CITY OF SEATTLE STANDARD PLANS; A COPY OF THESE DOCUMENTS SHALL BE ON SITE DURING CONSTRUCTION.
2. A COPY OF THE APPROVED PLAN MUST BE ON SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
3. THE CONTRACTOR SHALL SUBMIT ALL APPLICABLE DOCUMENTS REQUIRED UNDER SECTION 1–05.3 OF THE STANDARD SPECIFICATIONS PRIOR TO CONSTRUCTION. A MATERIAL SOURCE FORM FOR ALL MATERIALS MUST BE SUBMITTED FOR REVIEW AND APPROVAL PRIOR TO BEGINNING CONSTRUCTION. A REVISED MATERIAL SOURCE FORM MUST BE SUBMITTED FOR REVIEW AND APPROVAL PRIOR TO PLACEMENT OF ANY SUBSTITUTE MATERIALS.
4. THE CONTRACTOR SHALL LOCATE AND PROTECT ALL CASTINGS AND UTILITIES DURING CONSTRUCTION.
5. THE CONTRACTOR SHALL CONTACT THE UNDERGROUND UTILITIES LOCATOR SERVICE (1–800–424–5555) AT LEAST 48 HOURS PRIOR TO CONSTRUCTION.
6. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE ACCURACY OF ALL UTILITY LOCATIONS SHOWN AND TO FURTHER DISCOVER AND AVOID ANY OTHER UTILITIES NOT SHOWN WHICH MAY BE AFFECTED BY THE IMPLEMENTATION OF THIS PLAN.
7. NO CONSTRUCTION RELATED ACTIVITY SHALL CONTRIBUTE TO THE DEGRADATION OF THE ENVIRONMENT, ALLOW MATERIAL TO ENTER SURFACE OR GROUND WATERS, OR ALLOW PARTICULATE EMISSIONS TO THE ATMOSPHERE, WHICH EXCEED STATE OR FEDERAL STANDARDS. ANY ACTIONS THAT POTENTIALLY ALLOW A DISCHARGE TO STATE WATERS MUST HAVE PRIOR APPROVAL OF THE WASHINGTON STATE DEPARTMENT OF ECOLOGY.
8. ALL SURVEYING AND STAKING OF IMPROVEMENTS IS TO BE PROVIDED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE, IN ACCORDANCE WITH COS STANDARDS.
9. INSPECTION AND ACCEPTANCE OF ALL WORK WILL BE ACCOMPLISHED BY ENGINEER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE AND SCHEDULE APPROPRIATE INSPECTIONS, ALLOWING PROPER ADVANCE NOTICE. THE ENGINEER MAY REQUIRE RECONSTRUCTION, AT CONTRACTOR'S EXPENSE, OF ITEMS THAT DO NOT MEET CITY STANDARDS OR THAT WERE CONSTRUCTED WITHOUT INSPECTION.
10. THE REQUIREMENTS OF THIS PLAN ARE THE MINIMUM REQUIREMENTS. THEY DO NOT REPLACE, REPEAL, ABROGATE, SUPERSEDE, OR AFFECT ANY OTHER MORE STRINGENT REQUIREMENTS, RULES, REGULATIONS, STANDARDS, OR RESTRICTIONS.
11. THE REFUSE RESULTING FROM CLEARING AND GRUBBING SHALL BE DISPOSED OF BY THE CONTRACTOR PER COS SPECIFICATIONS SECTIONS 1–07.3. IN NO CASE SHALL REFUSE MATERIAL BE LEFT ON THE PROJECT PROPERTY, PLACED ON ABUTTING PROPERTIES, OR BURIED IN EMBANKMENTS OR TRENCHES.

SHEET INDEX

90% DESIGN (NOT FOR CONSTRUCTION)

VICINITY MAP, LOCATION MAP, NOTES, DETAIL AND SECTION REFERENCING, AND DATUM

APPROVED FOR ADVERTISING
NANCY LOCKE
DEPARTMENT OF FINANCE & ADMINISTRATIVE SERVICES
SEATTLE, WASHINGTON 20
BY:
PURCHASING & CONTRACTING SERVICES DIRECTOR

NAME OR INITIALS AND DATE
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REVISED AS BUILT

ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CITY OF SEATTLE STANDARD PLANS AND SPECIFICATIONS AND OTHER DOCUMENTS CALLED FOR IN SECTION 0–02.3 OF THE PROJECT MANUAL.

GREG A. STEVENS — STATE OF WASHINGTON — 40083 — REGISTERED PROFESSIONAL ENGINEER

Seattle Public Utilities

City of Seattle
Ray Hoffman, Director

ORDINANCE NO.
FUND:
SCALE: AS NOTED
APPROVED
INSPECTOR'S BOOK

EASTSIDE RESERVOIR DRAINAGE IMPROVEMENTS

JOB NO. PC C114059 R/W CO 261–904
VAULT PLAN NO. 777–840
SHEET 1 OF 7

NATURE REVISIONS	MADE	CHK'D	REV'D

VAULT SERIAL NO.	DATE	MARK
36338		

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CLEARING, GRADING AND CSEC NOTES

UNLESS OTHERWISE NOTED

1. THE CONSTRUCTION, STORMWATER, AND EROSION CONTROL PLAN (CSEC) FEATURES ARE CONCEPTUAL AND ARE PROVIDED AS GUIDELINES FOR THE CONTRACTOR. THE CONTRACTOR IS REQUIRED TO SUBMIT A DETAILED CONTRACTOR'S EROSION AND SEDIMENT CONTROL PLAN (CESCP) IN ACCORDANCE WITH SPECIFICATION SECTION 8–01.

2. THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE CSEC FEATURES IS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL ALL CONSTRUCTION IS APPROVED BY THE OWNER AND VEGETATION/LANDSCAPING HAS BEEN ESTABLISHED.

3. THE CSEC FEATURES SHOWN ON THE DRAWINGS MUST BE CONSTRUCTED PRIOR TO OR IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES, AND IN SUCH A MANNER AS TO INSURE THAT SEDIMENT–LADEN WATER AND/OR WATER WITH PH IN AN UNACCEPTABLE RANGE DOES NOT LEAVE THE SITE, ENTER THE DRAINAGE SYSTEM OR VIOLATE APPLICABLE WATER QUALITY STANDARDS.

4. THE CSEC FEATURES SHOWN ON THE DRAWINGS ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE CSEC FACILITIES SHALL BE UPGRADED AS NEEDED FOR THE UNEXPECTED STORM EVENTS AND MODIFIED TO ACCOUNT FOR CHANGING SITE CONDITIONS (E.G., ADDITIONAL SUMP PUMPS, RELOCATION OF DITCHES AND SILT FENCES, ETC.) TO ENSURE THAT SEDIMENT AND SEDIMENT–LADEN WATER DO NOT LEAVE THE SITE.

5. THE CSEC FEATURES SHALL BE INSPECTED BY THE CONTRACTOR AND MAINTAINED AS NECESSARY OR AS DIRECTED BY THE OWNER TO ENSURE CONTINUED PROPER FUNCTIONING. AT A MINIMUM, CSEC FACILITIES SHALL BE INSPECTED WEEKLY AND AFTER ANY MEASURABLE RAIN EVENT (0.5 INCH OR GREATER).

6. ANY AREAS STRIPPED OF VEGETATION, INCLUDING ROADWAY EMBANKMENTS, WHERE NO FURTHER WORK IS ANTICIPATED FOR TWO DAYS DURING THE WET SEASON OR SEVEN DAYS DURING THE DRY SEASON SHALL BE IMMEDIATELY STABILIZED WITH APPROVED CSEC METHODS (E.G., SEEDING, MULCHING, NETTING, EROSION BLANKETS, PLASTIC COVERINGS, ETC.)

7. ANY AREA NEEDING CSEC MEASURES THAT DOES NOT REQUIRE IMMEDIATE ATTENTION SHALL BE ADDRESSED WITHIN FIFTEEN (15) DAYS.

8. WHERE STRAW MULCH FOR TEMPORARY EROSION CONTROL IS REQUIRED, IT SHALL BE APPLIED AT A MINIMUM THICKNESS OF 2 INCHES (DRY SEASON) OR 4 INCHES (WET SEASON).

9. PRIOR TO THE BEGINNING OF THE WET SEASON (NOV. 1), ALL DISTURBED AREAS SHALL BE REVIEWED BY THE CONTRACTOR TO IDENTIFY WHICH AREAS NEED TO BE SEEDED IN PREPARATION FOR THE WINTER RAINS. DISTURBED AREAS SHALL BE SEEDED WITHIN ONE WEEK OF THE BEGINNING OF THE WET SEASON. A SKETCH OF THOSE AREAS TO BE SEEDED AND THOSE AREAS TO REMAIN UNCOVERED SHALL BE SUBMITTED TO THE OWNER. THE OWNER MAY REQUIRE SEEDING OF ADDITIONAL AREAS IN ORDER TO PROTECT SURFACE WATERS, ADJACENT PROPERTIES OR DRAINAGE FACILITIES.

10. USE REINFORCED PLASTIC FABRIC TO COVER STOCKPILED ITEMS WHEN NOT IN USE. THIS APPLIES TO STOCKPILED ITEMS THAT, IF EXPOSED TO RAIN, COULD CAUSE OR CONTRIBUTE TO A WATER QUALITY VIOLATION. THE REINFORCED PLASTIC FABRIC SHALL BE HELD DOWN BY A MINIMUM OF 10 LB SANDBAGS PLACED EVERY 10 FEET ALONG THE EDGE AND ACROSS THE PILE.

11. REMOVE ACCUMULATED SILT BEHIND STRAW WATTLES PRIOR TO THEIR REMOVAL AND DISPOSE OF SILT IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL LAWS.

CLEARING, GRADING AND CSEC NOTES (CONT'D):

UNLESS OTHERWISE NOTED

12. PROVIDE INLET PROTECTION WITH CATCH BASIN INSERTS IN ORDER TO PREVENT SEDIMENT–LADEN RUNOFF FROM ENTERING THE STORM OR COMBINED DRAINAGE SYSTEMS.

13. UNLESS THE CONTRACTOR CAN SHOW THAT DEWATERING WATER MEETS DEPARTMENT OF ECOLOGY'S REQUIREMENTS, DEWATERING WATER SHALL BE TREATED PRIOR TO DISCHARGE INTO THE STORM DRAIN SYSTEM.

14. MAINTENANCE AND REPAIR OF HEAVY EQUIPMENT AND VEHICLES ON SITE SHALL ONLY OCCUR IN ACCORDANCE WITH THE PREVENTIVE MEASURES IN THE SPILL PREVENTION CONTROL AND COUNTERMEASURES PLAN (SPCCP) AND SPECIFICATION SECTION.

15. CSEC MEASURES SHALL BE REMOVED 30 DAYS AFTER FINAL FULL SITE STABILIZATION IS ACHIEVED OR AFTER THE CSEC MEASURES ARE NO LONGER NEEDED AS DETERMINED BY THE OWNER. FULL STABILIZATION INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING MEASURES: CONCRETE OR ASPHALT PAVING; QUARRY SPALLS USED AS DITCH LINING; AND THE USE OF EROSION CONTROL BLANKET, PERMANENT REVEGETATION MAT, OR A VEGETATIVE COVER IN A MANNER THAT WILL FULLY PREVENT SOIL EROSION. THE OWNER SHALL INSPECT AND APPROVE AREAS STABILIZED BY MEANS OTHER THAN PAVEMENT OR QUARRY SPALLS PRIOR TO REMOVAL OF CSEC MEASURES.

16. SOILS SHALL BE STABILIZED AT THE END OF THE SHIFT BEFORE A HOLIDAY OR WEEKEND IF NEEDED BASED ON WEATHER FORECAST.

17. THE ENGINEER HAS THE AUTHORITY TO HALT CONSTRUCTION IF EROSION CONTROLS ARE NOT MAINTAINED PROPERLY OR IF A VIOLATION HAS NOT BEEN CORRECTED. THE CONTRACTOR SHALL BEAR ALL RISK AND ALL COSTS OF ANY WORK DELAYS CAUSED BY THESE ACTIONS.

18. THE CONTRACTOR'S CESCL SHALL REVIEW AND MODIFY THE CSEC PLANS ON AN AS NEEDED BASIS TO REFLECT THE SITE CONDITIONS AND CONSTRUCTION METHODS USED. THE CONTRACTOR'S CESCL SHALL CONDUCT SITE INSPECTIONS AT LEAST ONCE EVERY CALENDAR WEEK AND WITHIN 24 HOURS OF ANY RUNOFF DISCHARGE FROM SITE. AFTER ANY 24–HOUR RUNOFF PRODUCING EVENT, THE CESCL WILL INSPECT CSEC MEASURES FOR INTEGRITY. ANY DAMAGED CSEC MEASURES WILL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND REPAIRED IMMEDIATELY.

19. IF A TIRE WASH IS NOT PROPOSED FOR THIS PROJECT, THE CONTRACTOR SHALL EMPLOY OTHER BMPS TO PREVENT TRACKING OF EXCAVATED DIRT ONTO ROADWAY AND OFFSITE. IF A TIRE WASH IS PROPOSED, WASH WATER MUST BE DISPOSED AT AN APPROPRIATE FACILITY.

20. ALL DISCHARGES TO SEWER REQUIRE PRIOR, WRITTEN PERMISSION FROM KING COUNTY INDUSTRIAL WASTE, IN COORDINATION WITH LOCAL JURISDICTION. TIRE WASH WATER AND OTHER PROCESS WATER MAY BE DISCHARGED TO THE SEWER SYSTEM AS PART OF THE KING COUNTY AUTHORIZATION. PERMITS FOR DISCHARGE TO SEWER MUST BE OBTAINED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.

21. TEMPORARY TRENCH DEWATERING SHALL BE DISCHARGED TO AN APPROVED LOCATION. DISCHARGES TO THE SEWER SYSTEM SHALL COMPLY WITH ALL PROVISIONS OF ANY DISCHARGE AUTHORIZATIONS FORM KING COUNTY AND LOCAL JURISDICTION, AS WELL AS COS SPECIFICATIONS SECTION 2–08.3.

22. EXCAVATION SPOILS MAY BE EXTREMELY WET. CONTRACTOR SHALL PREVENT MUD AND WATER FROM BEING TRACKED ALONG HAULING ROUTES BY LINING TRUCK BEDS OR BY OTHER MEANS AS NECESSARY.

CSEC CONSTRUCTION SEQUENCE

THE FOLLOWING CONSTRUCTION SEQUENCE PROVIDES A CONCEPTUAL APPROACH TO THE CONSTRUCTION ACTIVITIES REQUIRED BY THIS PROJECT. THE CONTRACTOR IS REQUIRED TO SUBMIT A MORE DETAILED CONSTRUCTION SCHEDULE AS PART OF THE CSEC PLAN AS DEFINED IN THE CONTRACT DOCUMENTS. THE SEQUENCE OF CONSTRUCTION INCLUDES PRECONSTRUCTION ACTIVITIES AND CSEC CONSTRUCTION.

PRECONSTRUCTION CSEC ACTIVITIES

1. PREPARE CESCP PLAN (SPECIFICATION SECTION)
2. PREPARE SPILL PREVENTION, CONTROL AND COUNTER MEASURE PLAN (SPECIFICATION SECTIONS)
3. PREPARE DEWATERING PLAN (SPECIFICATION SECTION)
4. ATTEND PRECONSTRUCTION CONFERENCE.

CSEC CONSTRUCTION

1. CLEARLY FLAG THE LIMITS OF CONSTRUCTION SHOWN ON THE DRAWINGS AND ESTABLISH STAGING AREA LIMITS.
2. WITHIN THE LIMITS OF CONSTRUCTION, FLAG ALL TREES TO BE SAVED AND OTHER VEGETATION TO REMAIN UNDISTURBED FOR THE APPROVAL OF THE ENGINEER.
3. CONSTRUCT ACCESS ROAD(S) AND INSTALL TIRE WASH(ES) OR BMPS TO PREVENT TRACKING DIRT OFFSITE.
4. INSTALL ALL OTHER TEMPORARY BMPS FOR EROSION CONTROL, INCLUDING FUGITIVE DUST CONTROL MEASURES AS APPLICABLE.
5. PERFORM SITE GRADING AND LANDSCAPING.
6. UPON COMPLETION OF THE PROJECT, STABILIZE ALL DISTURBED AREAS.
7. PERFORM FINAL CLEAN UP.
8. REMOVE AND DISPOSE OF CSEC BMPS.

CSEC BMP'S RESOURCES & METHODS

1. WASHINGTON STATE DEPARTMENT OF ECOLOGY 2012 STORMWATER MANAGEMENT MANUAL FOR WESTERN WASHINGTON : VOLUME IV–SOURCE CONTROLS BMP'S. WEB SITE: http://www.ecy.wa.gov/programs/wq/stormwater/manual.html

LANDSCAPING NOTES

UNLESS OTHERWISE NOTED:

1. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER TO REQUEST FIELD MARKING OF PLANT MATERIALS (INCLUDING TREES) TO BE REMOVED (48 HOUR NOTICE). ALL PLANT MATERIALS NOT DESIGNATED TO BE REMOVED SHALL BE RETAINED AND PROTECTED. PLANT MATERIAL DESTROYED AND/OR IRREPARABLY DAMAGED DUE TO LACK OF DIRECTION AND/OR LACK OF PROPER CARE BY THE CONTRACTOR SHALL BE REPLACED IN KIND AND/OR EVALUATED TO ASSESS DAMAGE WITH VALUE DEDUCTED FROM THE CONTRACT.
2. ALL RESTORED AREAS TO BE RESTORED WITH SEED MIX #2 PER SPECIFICATION SECTION 9–14 PER ENGINEER. CONTRACT ASSUMES 30,000 SF OF RESTORATION.
3. COIR MATTING AS SPECIFIED IN SECTION 9–14.5 SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS AND SECTION 8–01.3(7) ON SEEDED AREAS WHERE SLOPES ARE 40% OR GREATER.

PERIMETER AND ROOF DRAIN NOTES

UNLESS OTHERWISE NOTED:

1. PERIMETER, ROOF, AND STORM DRAINS SHALL BE HDPE SDR21. PERIMETER AND ROOF DRAINS SHALL BE SLOTTED PER STD PLAN 291.

REV'D	CHK'D	MADE	NATURE REVISIONS

MARK	DATE	VAULT SERIAL NO.
		36338

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NANCY LOCKE
DEPARTMENT OF FINANCE & ADMINISTRATIVE SERVICES
SEATTLE, WASHINGTON 20

BY:
PURCHASING & CONTRACTING SERVICES DIRECTOR

NAME OR INITIALS AND DATE	INITIALS AND DATE
DESIGNED	REVIEWED:
CHECKED	DES. CONST.
	SDOT PROJ. MGR.
DRAWN	RECEIVED
CHECKED	REVISED AS BUILT

ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CITY OF SEATTLE STANDARD PLANS AND SPECIFICATIONS AND OTHER DOCUMENTS CALLED FOR IN SECTION 0–02.3 OF THE PROJECT MANUAL.

GREG A. STEELEY
STATE OF WASHINGTON
40083
REGISTERED PROFESSIONAL ENGINEER

Seattle Public Utilities
City of Seattle
Ray Hoffman, Director

ORDINANCE NO.
FUND:
SCALE: NONE
APPROVED
INSPECTOR'S BOOK

EASTSIDE RESERVOIR DRAINAGE IMPROVEMENTS

NOTES

JOB NO. PC C114059 R/W CO 261–904
VAULT PLAN NO. 777–840
SHEET 2 OF 7

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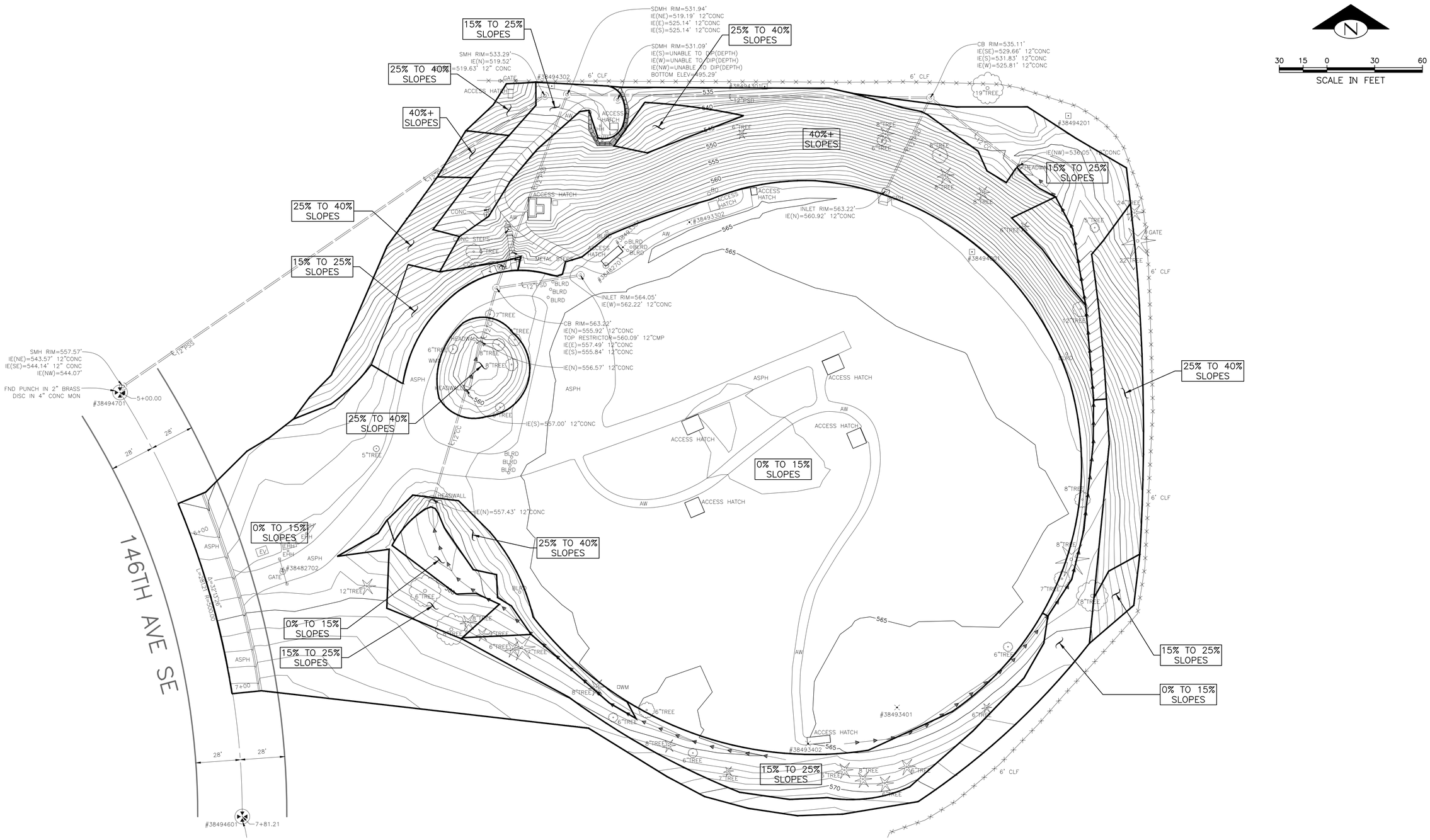

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SLOPE CATEGORIES

NATURE OF REVISIONS	DATE	MARK	MADE	CHK'D	REV'D

VAULT SERIAL NO. 36338

APPROVED FOR ADVERTISING
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SEATTLE, WASHINGTON 20

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REGISTERED PROFESSIONAL ENGINEER — STATE OF WASHINGTON — ENGINEER'S NAME

Seattle Public Utilities

City of Seattle
Ray Hoffman, Director

ORDINANCE NO. Ordinance Number
FUND: Fund
SCALE: 1"=30'
APPROVED
INSPECTOR'S BOOK

EASTSIDE RESERVOIR DRAINAGE IMPROVEMENTS

JOB NO. PC C114059 R/W CO 261-904
VAULT PLAN NO. 777-840
SHEET 3 OF 7

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LEGEND

- DITCH
- STRAW WATTLE (2/6)
- REMOVE AND REPLACE ASPHALT PAVEMENT
- CLEARING AND EXCAVATION LIMITS
- STAGING AND STOCKPILE AREA

1/6 PROTECT INLET

SCALE IN FEET: 30 15 0 30 60

HORIZONTAL DATUM: NAD83–2011 EPOCH 2010.00 DERIVED FROM THE WSRN AND NGS CORS

VERTICAL DATUM: THE VERTICAL DATUM IS NAVD88 DERIVED FROM THE WSRN AND NGS CORS USING GEOID 12A

BASIS OF BEARING: WASHINGTON STATE PLANE COORDINATE SYSTEM, NORTH ZONE

VERTICAL BENCHMARKS: #204A, #38482701

PROJECT FIELD BOOK: #3848 PG 27, #3849 PGS 36–53

PROJECT SCALE FACTOR: 0.999988271

CONVERGENCE ANGLE: –0°58'37.62151"

PROJECT COMBINED GRID FACTOR: 0.999964982

SCALE FACTOR BASIS: NORTHING: 209377.62 EASTING: 1316430.98

SURVEY PROJECT FOLDER NUMBER: 261–894

VIRTUAL VAULT PLAN NUMBER: N/A

DATE: 7–1–2014

PROJECT NUMBER: C114059

PROJECT NAME: EASTSIDE RESERVOIR SURFACE SURVEY

SURVEY PROJECT FOLDER NUMBER: 261–894

RESEARCH FIELD BOOKS:

REFERENCE DOCUMENTS: N/A

DATE: 7–1–2014

PRJ. SURVEYOR: R. BYARLAY

PRIMARY CREW: E. JOHNSON

OFFICE TECH: S. LAW/W. CHOATE

R/W CREATED BY: N/A

GEOREGISTRATION NOTES:

COMMENTS:

NOTES:
FIELD MEASUREMENTS FOR THIS SURVEY PERFORMED WITH A 1" LEICA TOTAL STATION USING TRAVERSE METHODS THAT MEET OR EXCEED ACCURACY REQUIREMENTS CONTAINED IN WAC 332.130.090.

THIS SURVEY WAS CONDUCTED WITHOUT THE BENEFIT OF A CURRENT TITLE REPORT AND THEREFORE DOES NOT PURPORT TO SHOW ALL EASEMENTS OR RESTRICTIONS OF RECORD, IN ANY.

#204A(CITY OF BELLEVUE): FND MIC IN CENTERLINE OF 148TH AVE SE, 75' SOUTH OF SE 46TH PL
ELEV=650.14

#38482701: FND 2"DOMED BRASSIE SET IN TOP OF 14.5' X 4.5' VAULT LID ON NORTH SIDE OF EASTSIDE RESERVOIR @ TOP OF HILL
ELEV=565.18

NO.	DATE	MARK	NATURE REVISIONS	MADE	CHK'D	REV'D

VAULT SERIAL NO. 36338

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CSEC, DEMOLITION AND PROTECTION PLAN

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SEATTLE, WASHINGTON 20

BY:
PURCHASING & CONTRACTING SERVICES DIRECTOR

INITIALS AND DATE	INITIALS AND DATE
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ENGINEER'S SEAL — STATE OF WASHINGTON — REGISTERED PROFESSIONAL ENGINEER

Seattle Public Utilities
City of Seattle
Ray Hoffman, Director

ORDINANCE NO. Ordinance Number APPROVED
FUND: Fund
SCALE: 1"=30' INSPECTOR'S BOOK

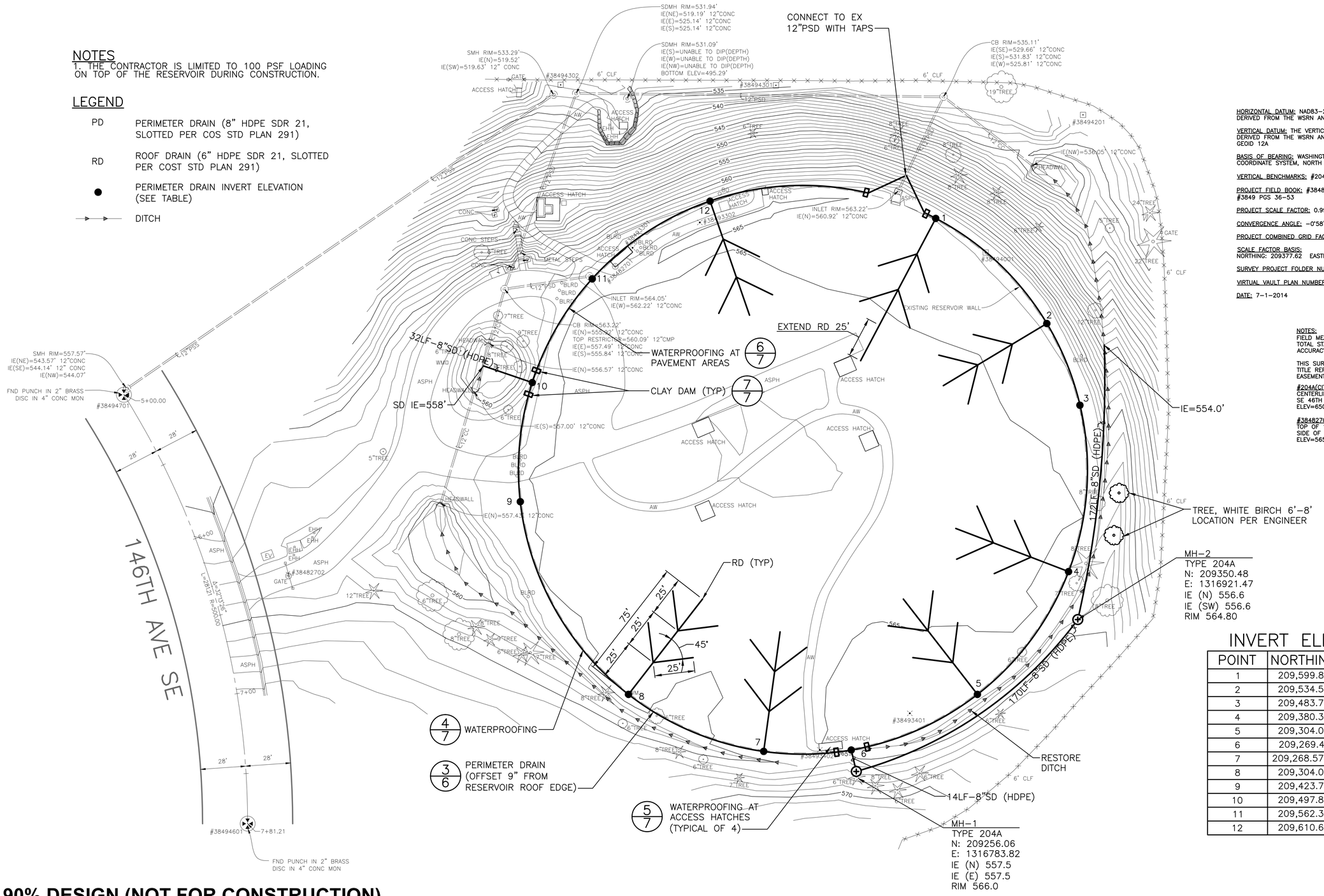
EASTSIDE RESERVOIR DRAINAGE IMPROVEMENTS

JOB NO. PC C114059 R/W CO 261–904
VAULT PLAN NO. 777–840
SHEET 4 OF 7

NOTES
1. THE CONTRACTOR IS LIMITED TO 100 PSF LOADING ON TOP OF THE RESERVOIR DURING CONSTRUCTION.

LEGEND

PD	PERIMETER DRAIN (8" HDPE SDR 21, SLOTTED PER COS STD PLAN 291)
RD	ROOF DRAIN (6" HDPE SDR 21, SLOTTED PER COST STD PLAN 291)
●	PERIMETER DRAIN INVERT ELEVATION (SEE TABLE)
→→→	DITCH



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30 15 0 30 60

SCALE IN FEET

HORIZONTAL DATUM: NAD83–2011 EPOCH 2010.00 DERIVED FROM THE WSRN AND NGS CORS

VERTICAL DATUM: THE VERTICAL DATUM IS NAVD88 DERIVED FROM THE WSRN AND NGS CORS USING GEOID 12A

BASIS OF BEARING: WASHINGTON STATE PLANE COORDINATE SYSTEM, NORTH ZONE

VERTICAL BENCHMARKS: #204A, #38482701

PROJECT FIELD BOOK: #3848 PG 27, #3849 PGS 36–53

PROJECT SCALE FACTOR: 0.999988271

CONVERGENCE ANGLE: –0°58'37.62151"

PROJECT COMBINED GRID FACTOR: 0.999964982

SCALE FACTOR BASIS: NORTHING: 209377.62 EASTING: 1316430.98

SURVEY PROJECT FOLDER NUMBER: 261–894

VIRTUAL VAULT PLAN NUMBER: N/A

DATE: 7–1–2014

PROJECT NUMBER: C114059

PROJECT NAME: EASTSIDE RESERVOIR SURFACE SURVEY

SURVEY PROJECT FOLDER NUMBER: 261–894

RESEARCH FIELD BOOKS:

REFERENCE DOCUMENTS: N/A

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PRJ. SURVEYOR: R. BYARLAY

PRIMARY CREW: E. JOHNSON

OFFICE TECH: S. LAW/W. CHOATE

R/W CREATED BY: N/A

GEOREGISTRATION NOTES:

COMMENTS:

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#204A(CITY OF BELLEVUE): FND MIC IN CENTERLINE OF 148TH AVE SE, 75' SOUTH OF SE 46TH PL
ELEV=650.14

#38482701: FND 2"DOMED BRASSIE SET IN TOP OF 14.5' X 4.5' VAULT LID ON NORTH SIDE OF EASTSIDE RESERVOIR @ TOP OF HILL
ELEV=565.18

INVERT ELEVATION TABLE

POINT	NORTHING	EASTING	INVERT EL
1	209,599.89	1,316,833.22	558.24'
2	209,534.56	1,316,902.24	558.72'
3	209,483.77	1,316,922.82	559.00'
4	209,380.33	1,316,915.74	558.47'
5	209,304.00	1,316,859.11	557.99'
6	209,269.41	1,316,780.72	557.60'
7	209,268.5700	1,316,726.30	557.83'
8	209,304.00	1,316,642.28	558.29'
9	209,423.79	1,316,575.06	559.00'
10	209,497.86	1,316,582.48	558.63'
11	209,562.30	1,316,619.74	559.00'
12	209,610.65	1,316,692.98	558.56'

NATURE	MADE	CHK'D	REV'D
REVISIONS			

VAULT SERIAL NO.	DATE	MARK
36338		

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DRAINAGE SITE PLAN

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DEPARTMENT OF FINANCE & ADMINISTRATIVE SERVICES
SEATTLE, WASHINGTON 20

BY:
PURCHASING & CONTRACTING SERVICES DIRECTOR

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	SDOT PROJ. MGR.
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GREG A. STEVENS STATE OF WASHINGTON 40083 REGISTERED PROFESSIONAL ENGINEER

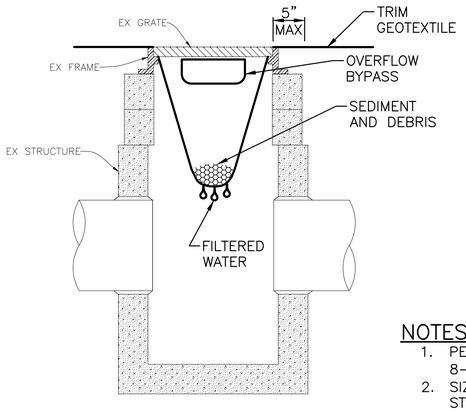
Seattle Public Utilities

City of Seattle
Ray Hoffman, Director

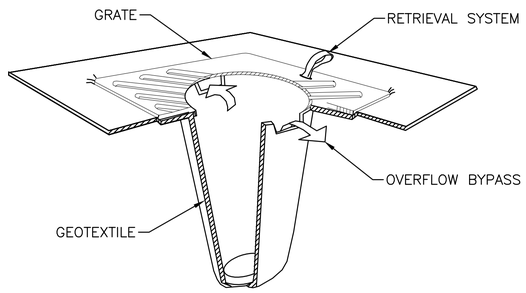
ORDINANCE NO. APPROVED
FUND:
SCALE: 1"=30' INSPECTOR'S BOOK

EASTSIDE RESERVOIR DRAINAGE IMPROVEMENTS

JOB NO. PC C114059 R/W CO 261–904
VAULT PLAN NO. 777–840
SHEET 5 OF 7



CROSS SECTION

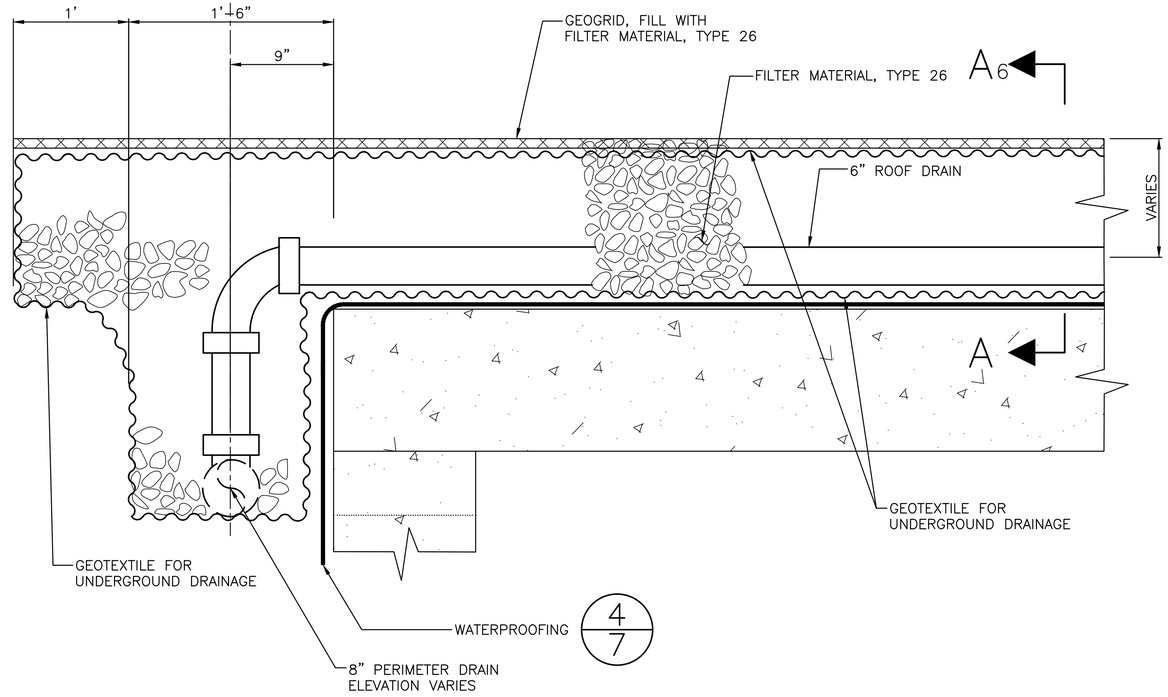


ISOMETRIC VIEW

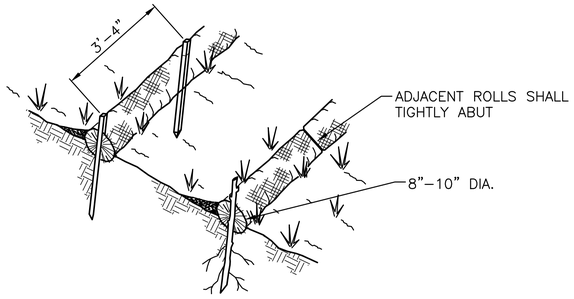
NOTES:

1. PERFORM MAINTENANCE IN ACCORDANCE WITH STANDARD SPECIFICATION 8-01.3 (12)B.
2. SIZE THE BELOW GRATE INLET DEVICE (BGID) FOR THE STORM WATER STRUCTURE IT WILL SERVICE.
3. THE BGID SHALL HAVE A BUILT-IN HIGH-FLOW RELIEF SYSTEM (OVERFLOW BYPASS).
4. THE RETRIEVAL SYSTEM MUST ALLOW REMOVAL OF THE BGID WITHOUT SPILLING THE COLLECTED MATERIAL.

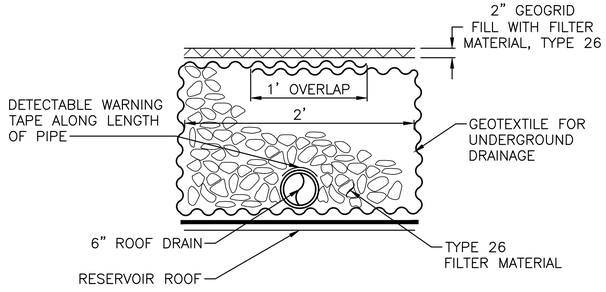
STORM DRAIN INLET PROTECTION 1/5
NTS



TYPICAL ROOF AND WALL DRAIN SECTION 3/5
NTS



STRAW WATTLE DETAIL 2/5
NTS



SECTION A-A 6
NTS

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DEPARTMENT OF FINANCE & ADMINISTRATIVE SERVICES
SEATTLE, WASHINGTON 20

BY:
PURCHASING & CONTRACTING SERVICES DIRECTOR

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GREG A. STEELE STATE OF WASHINGTON 40083 REGISTERED PROFESSIONAL ENGINEER

Seattle Public Utilities
City of Seattle
Ray Hoffman, Director
ORDINANCE NO. APPROVED
FUND:
SCALE: AS NOTED INSPECTOR'S BOOK

EASTSIDE RESERVOIR DRAINAGE IMPROVEMENTS

DETAILS

JOB NO. PC C114059
R/W
CO 261-904
VAULT PLAN NO. 777-840
SHEET 6 OF 7

MARK	DATE	NATURE REVISIONS	MADE	CHK'D	REV'D

VAULT SERIAL NO. 36338

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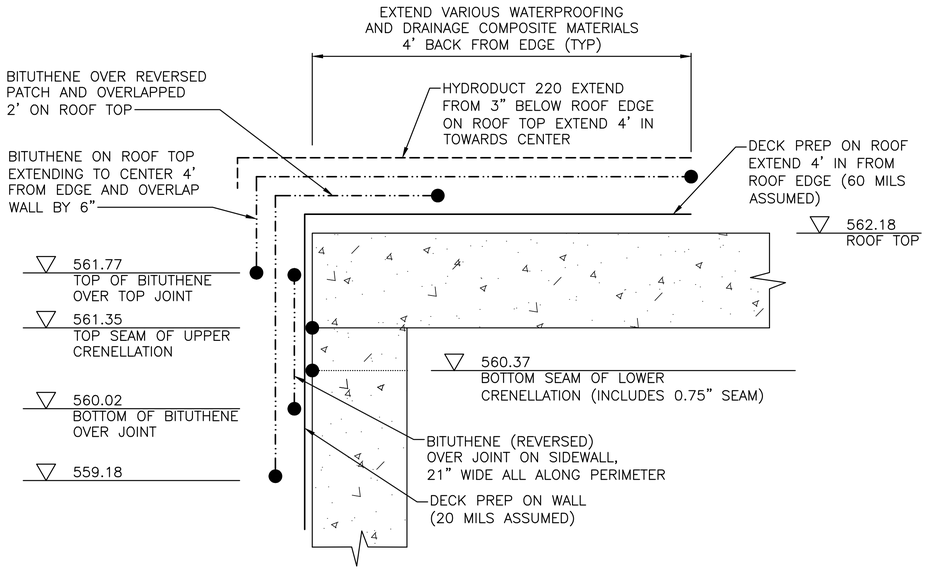
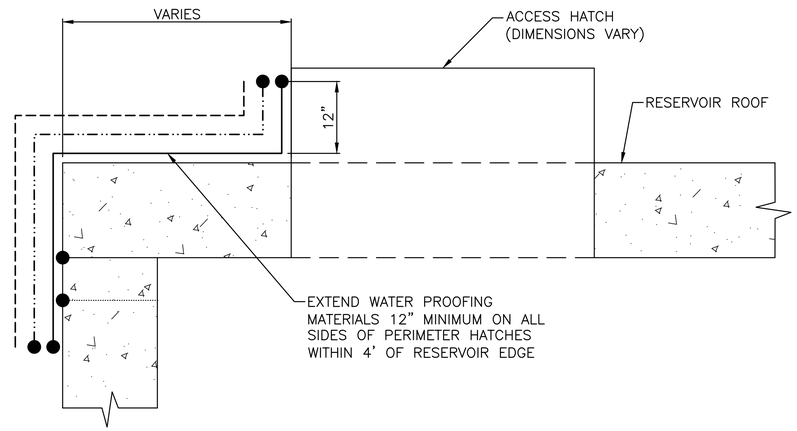


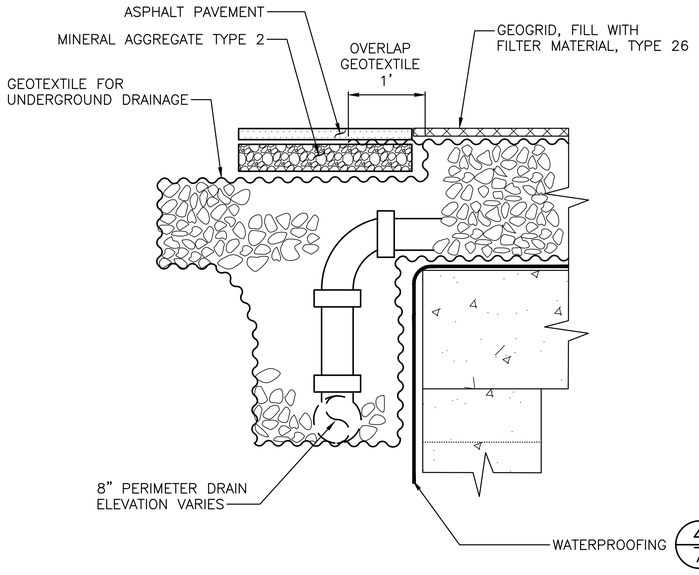
WATERPROOFING DETAIL 4/5
NTS



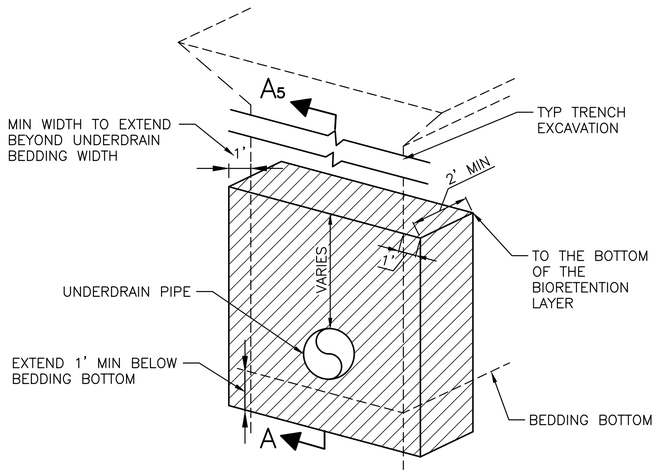
WATERPROOFING AT PERIMETER ACCESS HATCHES 5/5
NTS

NOTES
1. SEE OTHER DRAWINGS FOR GEOTEXTILE MATERIAL FOR PERIMETER TRENCH.

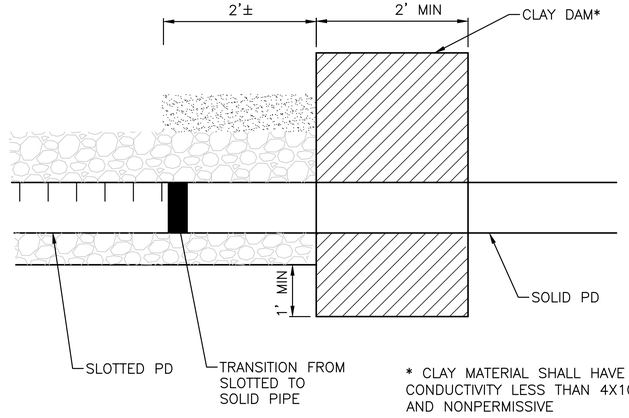
LEGEND
- "LIQUID MEMBRANE" JOINT/EDGE SEALER
- BITUTHENE 3000
- HYDRODUCT 220



WATERPROOFING AT PAVEMENT AREAS 6/5
NTS



CLAY DAM 7/5
NTS



* CLAY MATERIAL SHALL HAVE A HYDRAULIC CONDUCTIVITY LESS THAN $4X10^{-6}$ IN/SEC AND NONPERMISSIVE

SECTION A–A 7
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GREG A. STEVENS — STATE OF WASHINGTON — 40083 — REGISTERED PROFESSIONAL ENGINEER

Seattle Public Utilities

City of Seattle
Ray Hoffman, Director

ORDINANCE NO.
FUND:
SCALE: AS NOTED
APPROVED
INSPECTOR'S BOOK

EASTSIDE RESERVOIR DRAINAGE IMPROVEMENTS

DETAILS

JOB NO: PC C114059; R/W; CO 261–904
VAULT PLAN NO. 777–840
SHEET 7 OF 7

VAULT SERIAL NO.	DATE	MARK	NATURE REVISIONS
36338			

REV'D	CHK'D	MADE

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