Jean Fraser - Planner City of Portland Planning & Urban Development Department 389 Congress St., Room 308 Portland, Maine 04101 $March\ 20^{th},\ 2012$

Re: Comment Response to City of Portland Peer Review Engineer Harborview Development, LLC – 121 York Street

Dear Jean Fraser,

On behalf of the project team Acorn Engineering, Inc. is pleased to respond to the comments provided by the City Peer Review Engineer dated June 23rd, 2011 by David Senus, P.E. and Ashley Auger, E.I.T. of Woodard & Curran.

To facilitate the review Woodard & Curran's comments are provided below in italics followed by Acorn Engineering, Inc.'s response. Acorn Engineering's plans were updated to reflect applicable conditions of approval and changes as a result of comment responses.

Comments:

1. In the Applicant's response to comments letter, an explanation was provided on how the proposed grading will match into adjacent, existing conditions; however, this is not clearly presented on the most recent plans. Proposed contours along the majority of the perimeter of the property are not shown to connect to existing contours. Additional clarification is needed on the plans, especially along the eastern side of the property and the northwest portion of the parking lot.

Response:

The project team requested Ocean Park Land Surveying, Inc. provide additional information regarding the existing contours and the presence of retaining walls both on and abutting the property. The revised survey provided some additional information on how the existing contours within the parcel connect to the abutting parcels along the eastern property line. Please refer to the Existing Conditions Survey Plan from Ocean Park Land Surveying, Inc.

The following additional information has been added to the plans.

Eastern Property Line –

• Locations adjacent to the proposed parking lot. Acorn Engineering added the following note to the Grading, Drainage, Erosion & Sed. Control Plan, Grading and

- Drainage Notes 7, "Curb along the eastern parking lot perimeter may not have soil flush with the top of curb depending upon the grades at the adjacent property." Given the proposed grading within the parking lot is consistent and the surrounding existing grades are not the use of the curb is proposed to account for these irregularities. Please refer to Soren Deniord Design Studio's Site Plan for the location of granite curbing. Through the use of the granite curbing no offsite grading is anticipated.
- Locations adjacent to the proposed building. Kaplan Thompson Architects in coordination with Casco Bay Engineering have added a perimeter retaining wall parallel to the property line. Please refer to the attached Kaplan Thompson Architect's Retaining Wall Elevation Plan, Northeast Retaining Elevation for the proposed retaining wall elevations and existing abutting property grades. Acorn Engineering's Grading, Drainage, Erosion & Sed. Control Plan was updated to reflect the use of the retaining wall. Through the use of the retaining wall no offsite grading is anticipated.

Northern Property Line -

• Kaplan Thompson Architects in coordination with Casco Bay Engineering have added a perimeter retaining wall parallel to the property line. Please refer to the attached Kaplan Thompson Architect's – Retaining Wall Elevation Plan, Northwest Retaining Elevation for the proposed retaining wall elevations and existing abutting property grades. Acorn Engineering's Grading, Drainage, Erosion & Sed. Control Plan was updated to reflect the use of the retaining wall. Through the use of the retaining wall no offsite grading is anticipated.

Western Property Line -

- Locations adjacent to the proposed building. Kaplan Thompson Architects in coordination with Casco Bay Engineering have added a perimeter retaining wall parallel to the property line. Please refer to the attached Kaplan Thompson Architect's Retaining Wall Elevation Plan, Southwest Retaining Elevation for the proposed retaining wall elevations and proposed abutting property grades. Acorn Engineering's Grading, Drainage, Erosion & Sed. Control Plan was updated to reflect the use of the retaining wall. It is anticipated that offsite grading will be necessary adjacent to McCormick Place. Please see response 2 below regarding abutting property easements.
- Locations adjacent to the Northwest parking lot. Acorn Engineering revised the Grading, Drainage, Erosion & Sed. Control Plan to depict a 2:1 slope. The plan includes a note allowing either a 2:1 slope on the abutting property or the extension of the building perimeter retaining wall. If offsite grading is necessary adjacent to Bethany Cary then please see response 2 below regarding abutting property easements.
- 2. The updated plans show proposed grading on the adjacent McCormick Place Condominium property as a means to match into the existing conditions. Because this work will occur beyond the applicant's property, the applicant must provide appropriate easements or temporary construction rights granted by the adjacent land owner(s).

Response: Harborview Development, LLC is aware that any proposed grading or disturbance on an adjacent property line will require an appropriate easement or temporary construction right. Acorn Engineering has added the following applicable notes on the Grading, Drainage, Erosion & Sed. Control Plan.

General Note 2. – The contractor shall verify with a professional land surveyor that the location of any proposed permanent structures are within the property line prior to construction. The contractor shall be responsible for providing adequate shoring between the permanent structure and property line during construction.

Grading and Drainage Note 6. - Harborview Development, LLC shall be responsible for obtaining any easement or temporary construction rights as necessary by adjacent landowners. The contractor shall not disturb any soil beyond the property line without notifying and obtaining such easement or temporary construction right from Harborview Development, LLC.

3. The updated plans still do not provide clarity to the location and type of proposed curbing and sidewalks within the site.

Response: Please refer to Soren Deniord Design Studio's - Site Plan for the location of granite curbing. To facilitate your review the curbing linetype was darkened and depicted within the symbols legend. Refer to Soren Deniord Design Studio's – Landscape Details for curbing within the reconstructed brick driveway apron.

4. The applicant has provided additional documentation for the Stormwater Maintenance and Inspection Plan. The plan suggests that the Subsurface Sand Filter (SSSF) should be inspected annually. The frequency of SSSF inspections should be revised to reflect the requirements outlined in Section 7.3 of Volume III of the Maine Department of Environmental Protection's BMP Manual: "The system should be inspected after every major storm in the first few months to ensure proper function. Thereafter, the filter should be inspected at least once every six months to ensure that it is draining within 24 hours to 36 hours."

Response: The Post Construction – Stormwater Inspection & Maintenance Plan dated March 2012 was updated to reflect the maintenance criteria within Section 7.3 of Volume III BMPS Technical Design Manual listed above. Please refer to the attached.

5. Based on the clarification provided in the applicant's response to comments, we understand the applicant is considering using underdrains with down-facing perforations for the proposed foundation drain system, which will also convey surface drainage from area drains & roof leaders. We also understand that the applicant will coordinate and review the use of the building foundation drain with the project's geotechnical and structural engineers (per applicant's response to comments letter), The applicant should ensure that the design of the underdrain system from a geotechnical and structural building foundation perspective is not compromised by the addition of surface flows into the subsurface drainage gravels.

Response: Acorn Engineering revised the Grading, Drainage, Erosion & Sed. Control Plan with the addition of the perimeter retaining wall, revised condominium finish floors, and the inclusion of inlet drains within the sidewalk adjacent to the western edge of the building. At such time the inlet and roof drains (surface flows) were removed from the buildings foundation drain. The Roof/Foundation Drain Detail - Detail Sheet 2 was also modified to depict these changes. The inline drain detail was separated into two details. An Inline Drain Detail (Vegetated Areas Only) or Inline Drain Detail (Concrete Areas Only). This was completed at the request of Soren Deniord Design Studio to have a galvanized grate for point drains within concrete areas. The Grading, Drainage, Erosion & Sed. Control Plan was updated to reflect the spot grade, pipe lengths, slopes and elevations. The foundation underdrain and inline drain/roof drain shall tee into one another south of the proposed building below the elevation of the lowest footing elevation. The above changes do not result in an increase to the post development peak stormwater flows. As a result of separating the surface flows from the building foundation drain a review by the project's geotechnical and structural engineer is no longer necessary.

6. Based on the applicant's response to comments letter, we understand that the utility contractor installed the proposed sewer, water, and storm drain connections within the City ROW on June 9th 10th following approval of this work by Planning DPS. Plans should updated to the work performed to date, and should clarify how these connections were installed (ie. -The plans currently reflect proposed inserta-tee connections at 45 degree angles to both the sewer and storm drain lines; however, instera-tees must meet the mainline perpendicular)

Response: The Utility Plan and Detail Sheet 1 was updated to provide the work performed by Leavitt Earthworks. The installed work within the ROW was differentiated from the proposed on the plans. Length and elevations of provided by Leavitt Earthworks were provided with on the Utility Plan under the header titled, "ROW Utility Notes".

Brian Leavitt of Leavitt Earthworks confirmed that the inserta-tee for both the sewer and storm drain lines were installed perpendicular to the mainline and not at 45 degrees angles as Acorn Engineering previously depicted.

The gas service for 127 York Street was installed by Unitil on August 12th, 2011. The location of the gas line was provided by Unitil and is depicted on the revised Utility Plan.

Acorn Engineering and the project team appreciates the opportunity to respond to Woodard and Curran's review of the proposed project. Please do not hesitate to contact me with any further questions of comments.

Sincerely,

William H. Savage, P.E.

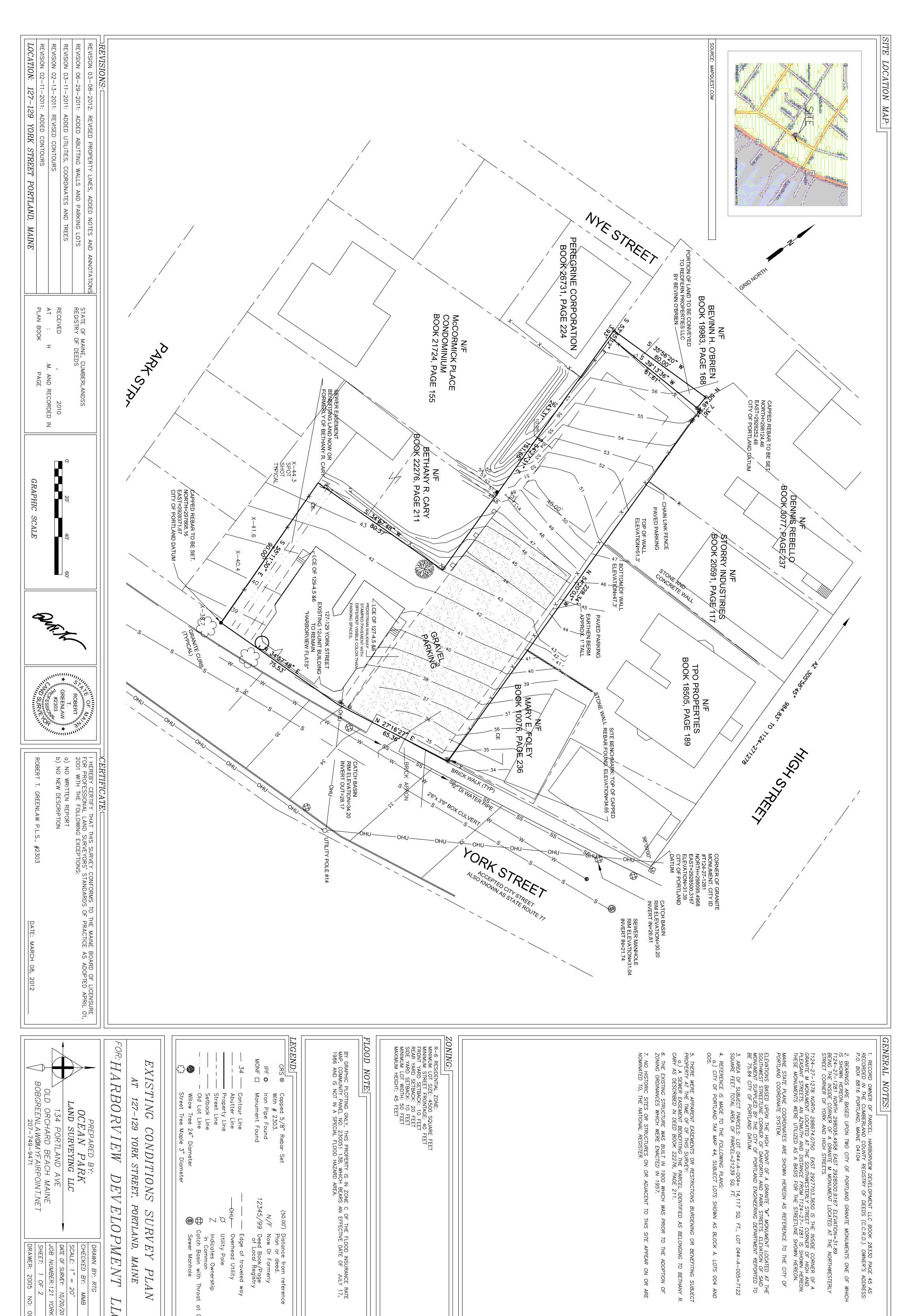
Will surg

Project Manager

Acorn Engineering, Inc.

Attached:

- 1. Existing Conditions Survey Plan, by Ocean Park Land Surveying, Revised 3-8-12
- 2. L1-Site Plan and L-3 Landscape Details, by Soren Denord Design Studio, Revised March 20th.
- 3. Post Construction Stormwater Inspection & Maintenance Plan, by Acorn Engineering, Inc. Revised March 2012.
- 4. Retaining Wall Elevations Plan A-2.4, by Kaplan Thompson Architects, dated March 9, 2012.
- 5. Revised Acorn Engineering Plan Set, Sheet C-1 C-6, dated 3-19-12



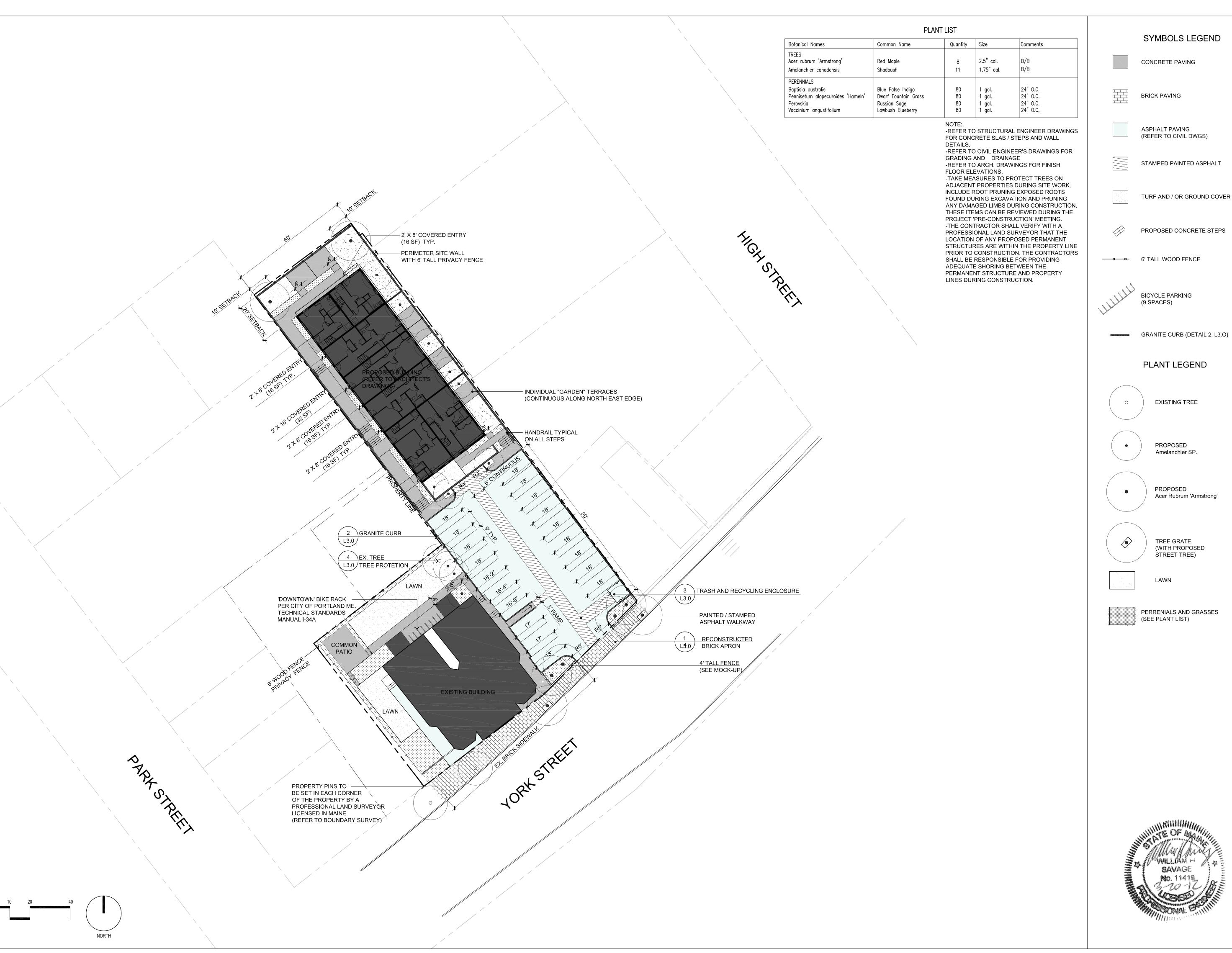
MMB

Curl

10/20/2010

YORK

004 AND



STAMPED PAINTED ASPHALT

TURF AND / OR GROUND COVER

PROPOSED CONCRETE STEPS

Acer Rubrum 'Armstrong'

PORTLAND, MAINE

PROJECT:

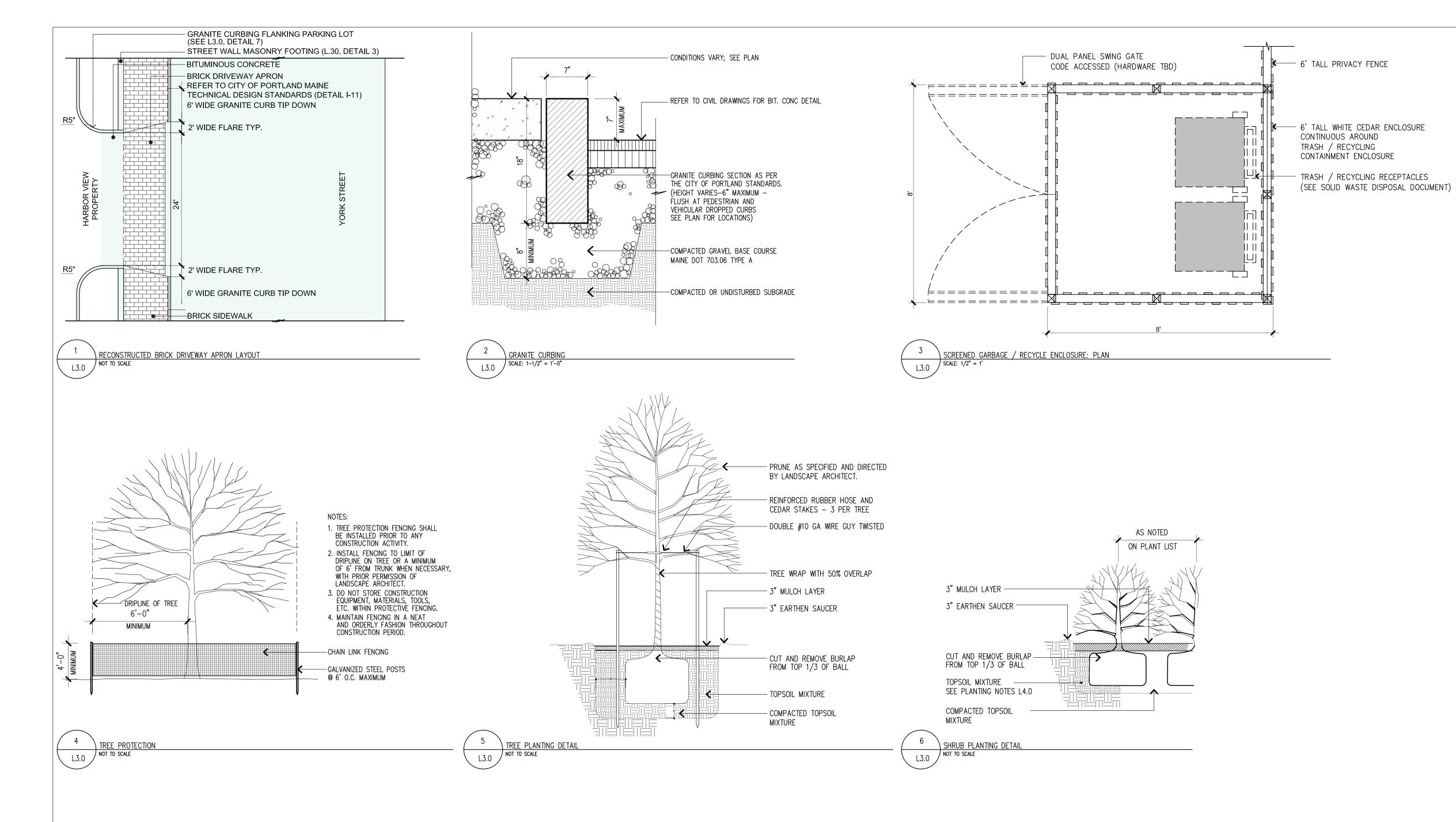
HARBORVIEW DEVELOPMENT LLC. DBA, RED FERN PROPERTIES

issue: PERMIT SET date: MARCH 20, 2012 scale: As Noted drawn: sd checked: TITLE:

SITE PLAN

SHEET:

SOREN DENIORD DESIGN STUDIO 43 WELLWOOD RD. PORTLAND, ME 04103 t: 207.400.2450 soren@sorendeniord.com



PROJECT:

121 YORK ST.

PORTLAND, MAINE

CLIENT:
HARBORVIEW DEVELOPMENT LLC.
DBA, RED FERN PROPERTIES

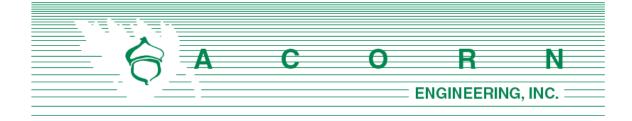
issue: PERMIT SET date: MARCH 20, 2012 scale: As Noted drawn: sd checked:

LANDSCAPE DETAILS

SHEET:

L3.0

SOREN DENIORD DESIGN STUDIO 43 WELLWOOD RD. PORTLAND, ME 04103 t: 207.400.2450 soren@sorendeniord.com



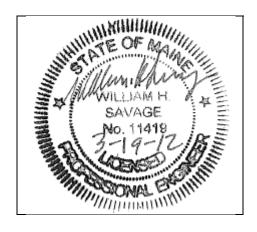
POST CONSTRUCTION - STORMWATER INSPECTION & MAINTENANCE PLAN

Prepared For:

Harborview Development, LLC P.O. Box 8816 Portland, Maine 04104

Prepared By:

Acorn Engineering, Inc. PO Box 3372 Portland, Maine 04104



March 2012

RESPONSIBLE PARTY

The owner, Harborview Development, LLC, and or their successor shall be responsible for contracting with a qualified stormwater professional to implement the Inspection and Maintenance Plan. The qualified stormwater professional shall maintain a stormwater log (report) summarizing inspections, maintenance, and corrective action taken. The Qualified Stormwater Professional shall annually submit the Stormwater Log to the Department of Public Services prior to June 30th.

The following is an example of a qualified stormwater professional that the homeowners association may contract through.

Organization: Will Savage, PE - Acorn Engineering, Inc

Phone: (207) 775-2655

Qualifications:

- Maine Professional Engineering License #11419
- Maine DEP Certified in Maintenance & Inspection of Stormwater BMP's Cert #14
- Certified Erosion, Sediment and Storm Water Inspector (CESSWI) Cert #0293
- Certified Professional in Erosion and Sediment Control (CPESC) Cert. #4620

The inspection and maintenance criteria based upon the Maine DEP - Stormwater Management for Maine, Volume III: BMPs Technical Design Manual. Refer to the Grading and Drainage Plan for the location of the BMP's

PURPOSE

This Inspection and Maintenance Plan has been individually tailored to this parcel's stormwater infrastructure, site characteristics, and their respective opportunities and limitations related to reducing the pollutant load on the receiving watershed. The maintenance of a parcel's impervious surfaces and stormwater infrastructure is critical to extending the long term performance and effectiveness of Best Management Practices (BMP's). The Inspection and Maintenance Plan represents the parcel's minimum activities to meet the permit requirements. The parcel shall still be subject to any applicable Civil Site Plans, Permit Applications, Erosion and Sedimentation Control Plans Reports, Stormwater Management Plans, Inspection and Maintenance Manuals, and all Municipal, State, and Federal rules.

OPERATION AND MAINTENANCE ACTIVITY

Underdrained Subsurface Sand Filter:

The maintenance of the underdrained subsurface sand filter shall be in accordance with the following activities identified below and the Stormwater Drainage System Maintenance Agreement included within Stormwater Report, Attachment F.

- ➤ The system should be inspected after every major storm in the first few months to ensure proper function. Thereafter, the filter should be inspected at least once every six months to ensure that it is draining within 24 hours to 36 hours.
- ➤ Inspect Outlet Control Structures (OCS) to ensure they are in good working order and that the orifice and trash racks are unobstructed from trash and debris.
- > Inspect and maintain the StormTech Isolator Row in accordance with the attached proprietary Operation and Maintenance Plan.

Sweeping:

Annual sweeping of the parking lot following the snow melt for accumulated winter sand, if necessary. Appropriately dispose of all collected material.

Storm Drains:

The storm drain shall be annually inspected for the presence of accumulated sediment or debris any sediment shall be removed as required.

- > The equipment shall meet the following minimum specifications; power jet and water source for washing down the storm drain, vacuum attachment for catch basin cleaning, and a liquid handling method to dewater the material.
- ➤ Inspect and legally dispose of accumulated sediment and debris within the storm drains between basins.

Catch Basins:

Catch basins shall be inspected to confirm the structure is operating properly.

- > Inspect the catch basin to confirm the structure is operating properly.
- > Sediment shall be removed when accumulation is within 6 inches of the outfall pipe invert. Legally dispose of accumulated sediment and debris from the bottom of the basin, inlet grates, and inflow channels to the basin.
- ➤ If the basin outlet is designed with a hood to trap floatable materials (e.g. Snout), check to ensure watertight seal is working. Remove floating debris and hydrocarbons (e.g. using absorbent pads) at the time of the inspection.
- Remove and replace any hydrocarbon absorptive pads.
- Remove and replace any sediment sacks.

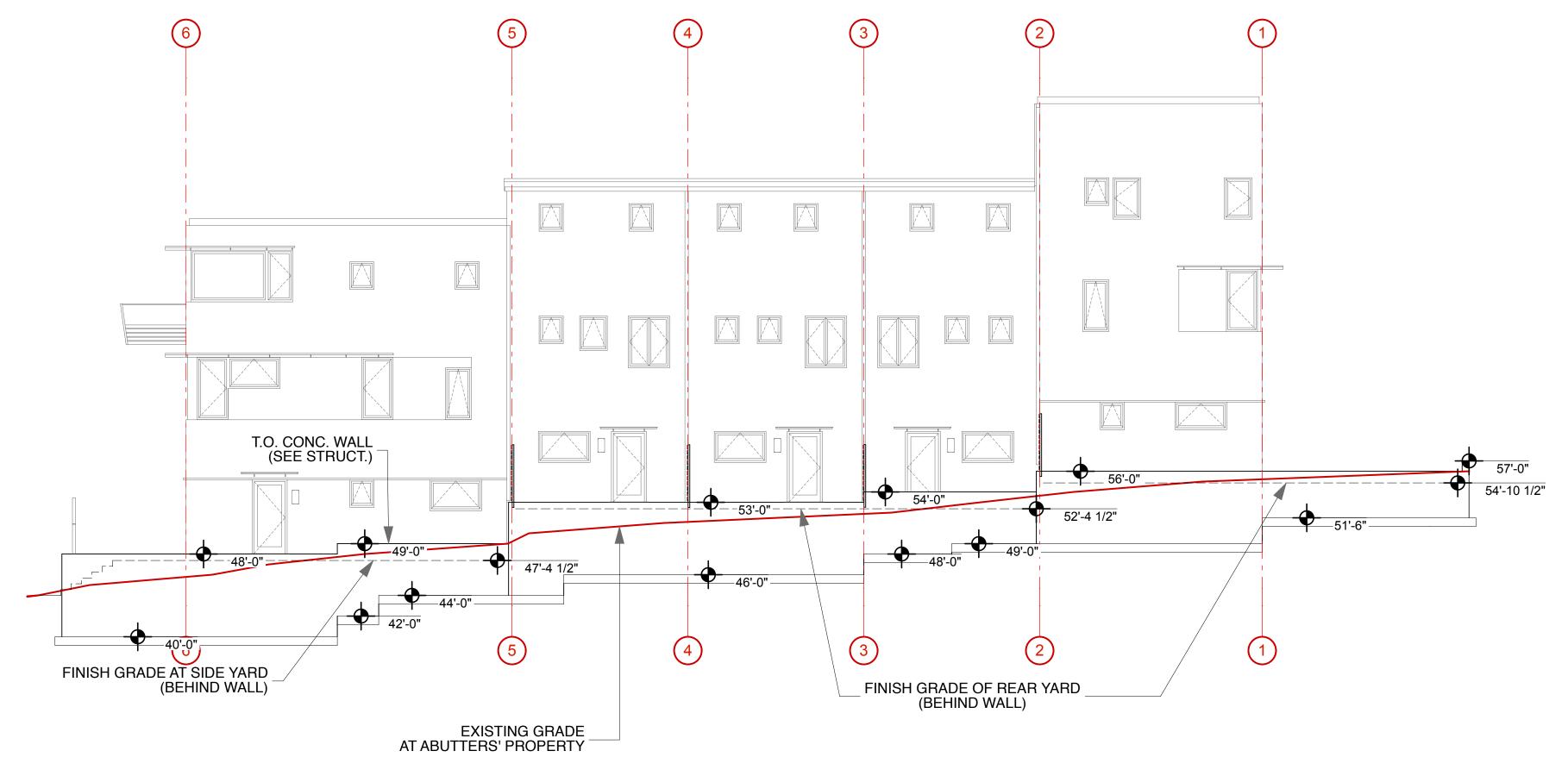
Vegetated Areas:

Inspect all vegetated slopes and embankments on an annual basis. Replant bare areas with sparse growth (<90% coverage) and armor areas showing signs of rill erosion with an appropriate lining.

INSPECTION AND MAINTENANCE TABLE

Inspection and Maintenance Frequency	Spring or Yearly	Fall
Underdrained subsurface sand filter	X	X
Sweeping	X	
Storm Drains	X	
Catch Basins	X	
Vegetated Areas	X	

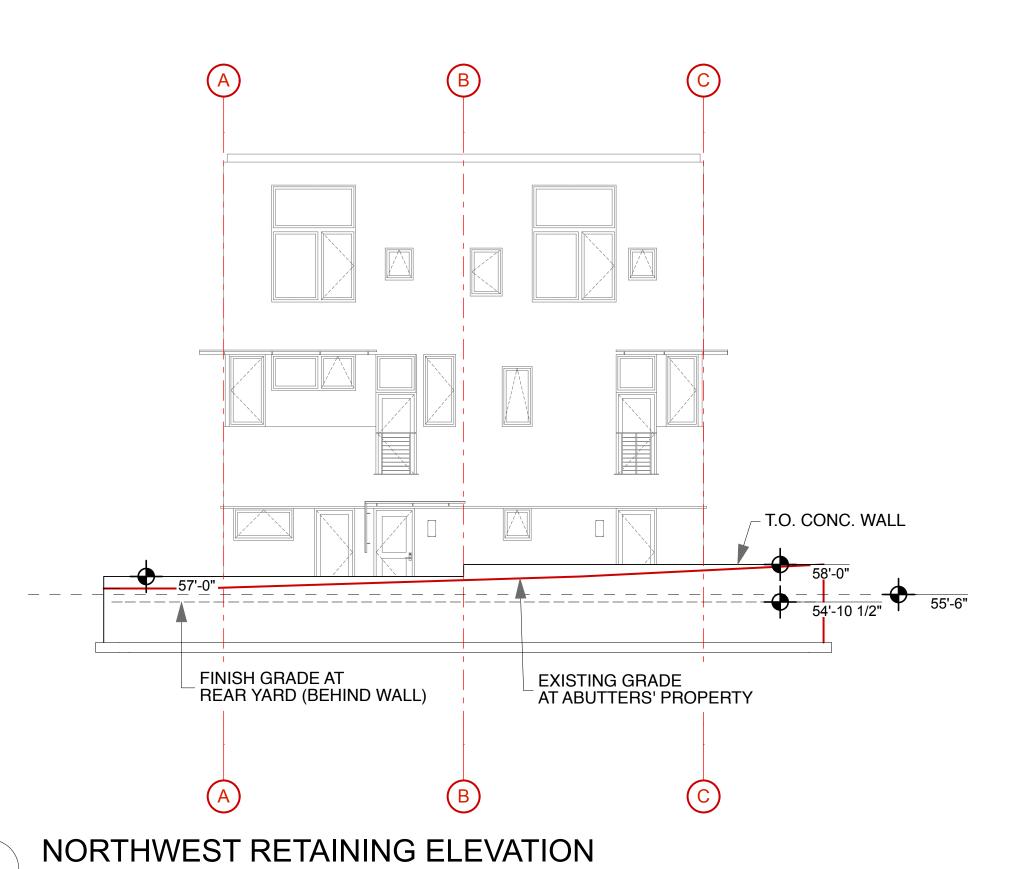






2 SOUTHWEST RETAINING ELEVATION

SCALE: 1/8" = 1'-0"



KAPLAN THOMPSON
A R C H I T E C T S

424 FORE ST., PORTLAND, ME 04101
207-842-2888 FAX:842-2828

FOR PERMIT

PROJECT:

HARBORVIEW DEVELOPMENT LLC

DBA REDFERN HOMES LLC

121 YORK STREET
PORTLAND, ME

DRAWING: RETAINING WALL ELEVATIONS

DRAWN BY: JB

A-2.4

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND ELEVATION OF THE EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED UPON RECORDS OF VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO TEST PIT TO DETERMINE THE EXACT LOCATION AND ELEVATION OF UTILITIES TO COORDINATE WITH THE PROPOSED CONNECTIONS. ANY DISCREPANCIES SHALL BE IMMEDIATELY REPORTED TO THE CIVIL ENGINEER FOR FURTHER DIRECTIONS BEFORE ANY ADDITIONAL WORK PROCEEDS. 2. IT/ SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS. 3. DO NOT SCALE THESE DRAWINGS. ANY DISCREPANCIES BETWEEN DRAWINGS, DETAILS, SPECIFICATIONS, AND THE FIELD CONDITION SHALL BE IMMEDIATELY REPORTED TO THE CIVIL ENGINEER FOR FURTHER DIRECTIONS BEFORE ANY ADDITIONAL WORK PROCEEDS. 4. COORDINATE ALL UTILITY ENTRY POINTS WITH ARCHITECTURAL PLANS PRIOR TO START OF CONSTRUCTION. 5. COORDINATE EXIT POINT FOR SECONDARY ELECTRIC SERVICE WITH ARCHITECT/ELECTRIC ENGINEER. SECONDARY ELECTRIC LINES NOT DEPICTED AT THIS TIME WITHIN THE UTILITY PLAN. 6. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO OBTAIN ALL NECESSARY PERMITS FOR THE INSTALLATION OF THE UTILITIES WITHIN THE PUBLIC WAY. THE CONTRACTOR SHALL SUBMIT A MAINTENANCE OF TRAFFIC PLAN TO THE CITY IN ACCORDANCE WITH THE CITY OF PORTLAND TECHNICAL MANUAL PRIOR TO 7. THE DEPTH OF UTILITY INSTALLATION SHALL BE BASED UPON THE PROPOSED GRADES AND NOT THE EXISTING. 8. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO COMPLETE THE INSTALLATION OF THE WATER SERVICE IN ACCORDANCE WITH THE PORTLAND WATER DISTRICT'S STANDARD SPECIFICATIONS AND DETAILS. THE CONTRACTOR SHALL NOTIFY THE DISTRICT 72 HOURS PRIOR TO DISRUPTING WATER SERVICE. PORTLAND WATER DISTRICT CONTACT: RICO 9 ALL SEWER UTILITY MATERIALS, INSTALLATION METHODS, INSPECTIONS AND TESTING SHALL CONFORM TO THE CITY OF PORTLAND REQUIREMENTS. PORTLAND PUBLIC SERVICES CONTACT: DAVID MARGOLIS-PINEO (207) 874-8850 10. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE ONSITE NATURAL GAS SUPPLY SYSTEM WITH UNITIL. THE GAS COMPANY SHALL BE RESPONSIBLE FOR THE JNSTALLATION OF THE GAS LINE, APPURTENANCES AND ANY TEMPORARY STUB. CONTACT: KELLY FOWLER (207) 541-2505 11. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF OVERHEAD AND WINDERGROUND TELEPHONE AND CABLE UTILITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR CONDUITS. JIME WARNER CONTACT: MARK PELLETIER (207) 253-2324 12. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OR RELOCATION OF THE OVERHEAD AND UNDERGROUND ELECTRIC WITH CENTRAL MAINE POWER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TOTAL INSTALLATION OF THE UNDERGROUND SERVICE INCLUDING BUT NOT LIMITED TO, ALL TRENCHING, CONDUIT, PRIMARY AND SECONDARY CABLES, TERMINATORS, CONNECTORS, PULL WIRES, SPARE CONDUIT, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COST TO RELOCATE ANY OVERHEAD ELECTRIC SERVICE. CENTRAL MAINE POWER CONTACT JAMIE COUGH (207) 842-2367. 13. THE CONTRACTOR SHALL PROVIDE THE CIVIL ENGINEER WITH THE LOCATION, ELEVATION, AND TYPE OF MATERIAL OF

14. SITE LIGHTING REFER TO APEX LIGHTING SOLUTIONS SITE LIGHTING PLAN SHEET SL-AB DATED 6-22-11 FOR

BOLLARD, POLE, OR WALL LIGHT INFORMATION. CONTACT THE ARCHITECT FOR ADDITIONAL INFORMATION.

ANY UTILITY STUBS.

- PROPOSED UGE/T/C FROM NEW SERVICE CONNECTION 6" SEWER SEVVER IVIAIVITULE RIM ELEVATION=31.04 INVERT IN=21.74 UTILITY CLOSET -LOCATION S=.0104 MIN. SUBSURFACE DETENTION // NEW POLE AND ARPURTENANCE\ 1.5" DOMESTIC SERVICE (TYP.) LIGHT POLE (TYP.) -2" FIRE — SERVICE (TYP.) **ROW UTILITY NOTES:** ON JUNE 9-10TH, 2011 LEAVITT EARTHWORKS CO INC. INSTALLED THE WATER, SEWER AND STORMDRAIN WITH THE YORK STREET ROW ON BEHALF OF HARBORVIEW DEVELOPMENT. WATER - INSTALLED FROM THE MAIN UP TO AND INCLUDING THE CURB STOPS. SEWER - APPROX. 30 FT INSTALLED PERPENDICULAR TO THE MAINLINE. STUB ELEVATION APPROX 29.55' STORMDRAIN - APPROX 16 FT INSTALLED FROM THE PUBLIC STORMDRAIN. STUB ELEVATION 28.80' HEAVYS DUTY CYRB — LENGTHS AND ELEVATIONS PROVIDED BY LEAVITT EARTHWORKS. STOP (TYR.) PROPOSED NEW OVERHEAD SERVICE SADDLE ELECTRIC TELEPHONE WITH CORPORATION CABLE SERVICE STOP (TYP.) GRANITE CURB — 6" INSERTA TEE SAWCUT (PER DETAIL) — (TYPICAL) PERPENDICULAR TO THE MAINLINE SERVICE FOR 127 YORK STREET INSTALLED BY UNITIL ON AUGUST 12, 2011. REFER TO UNITIL SERVICE CARD FOR ADDITIONAL INFORMATION. ISSUED FOR PERMITTING

PRELIMINARY

FINAL SITE/SUB

REVISION

UTILITIES

LLC

DEVELOPMENT,

HARBORVIEW

FILE: ACORNPLAN

DATE: 03/14/11

DESIGNED BY: WHS

DRAWN BY: WHS

CHECKED BY: HPS

SAVAGE

DRAWING NO.

1"=20'

JN: 1035

SCALE:

COMMENT RESPONSE WHS

COMMENT RESPONSE WHS 03/19/12

NOTES:

GENERAL:

1. REFER TO THE PLANS TITLED, FINAL SITE PLAN AND LANDSCAPE DETAILS PREPARED BY SOREN DENIORD DESIGN STUDIO FOR INFORMATION REGARDING THE LOCATION, DIMENSIONS, AND MATERIALS OF THE PROPOSED VEHICLE AND PEDESTRIAN ACCESS WAYS, AND BICYCLE ACCESS WAYS, WITH CORRESPONDING CURBING. REFER TO THE EXISTING CONDITIONS PLAN BY OCEAN PARK LAND SURVEYING, LLC FOR EXISTING SITE FEATURES. THE CONTRACTOR SHALL NOTIFY ACORN ENGINEERING IF ANY CONFLICTS OR DISCREPANCIES EXIST.

2. THE CONTRACTOR SHALL VERIFY WITH A PROFESSIONAL LAND SURVEYOR THAT THE LOCATION OF ANY PROPOSED PERMANENT STRUCTURES ARE WITHIN THE PROPERTY LINE PRIOR TO CONSTRUCTION. THE CONTRACTORS SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SHORING BETWEEN THE PERMANENT STRUCTURE AND PROPERTY LINES DURING CONSTRUCTION.

GRADING AND DRAINAGE NOTES:

1. UNLESS OTHERWISE NOTED, ALL SANITARY SEWER, STORM SEWERS, CATCH BASIN DRAINS, OR UNDERDRAINS WITHIN THE CITY OF PORTLAND RIGHT OF WAY SHALL BE IN ACCORDANCE WITH THE CITY OF PORTLAND TECHNICAL MANUAL SECTION 2.5.2.

2. TOPSOIL STRIPPED FROM THE SITE THAT IS SUITABLE FOR REUSE AS LOAM SHALL BE STOCKPILED WITHIN THE PROPOSED LIMIT OF WORK AREA.

3. THE CONTRACTOR SHALL ANTICIPATE THAT GROUNDWATER WILL BE ENCOUNTERED DURING CONSTRUCTION AND SHALL INCLUDE SUFFICIENT COSTS WITHIN THEIR BID TO PROVIDE DEWATERING AS NECESSARY; NO SEPARATE PAYMENT SHALL BE MADE TO THE CONTRACTOR FOR DEWATERING.

4. SPOT GRADES SHOWN ARE THE ELEVATIONS AT THE BOTTOM OF THE CURB. THE TOP OF THE CURB SHALL BE 0.50' OR 6" HIGHER WITHIN THE PROPERTY AND 7" ON THE STREET UNLESS OTHERWISE

5. THE CONTRACTOR SHALL PROVIDE THE CIVIL ENGINEER WITH THE LOCATION, ELEVATION, AND TYPE OF MATERIAL OF ANY STORMWATER STUBS.

6. HARBORVIEW DEVELOPMENT, LLC SHALL BE RESPONSIBLE FOR OBTAINING ANY EASEMENT OR TEMPORARY CONSTRUCTION RIGHTS AS NECESSARY BY ADJACENT LAND OWNERS. THE CONTRACTOR SHALL NOT DISTURB ANY SOIL BEYOND THE PROPERTY LINE WITHOUT NOTIFYING AND OBTAINING SUCH EASEMENT OR TEMPORARY CONSTRUCTION RIGHT FROM HARBORVIEW DEVELOPMENT, LLC.

7. CURB ALONG THE EASTERN PARKING LOT PERIMETER MAY NOT HAVE SOIL FLUSH WITH THE TOP OF CURB DEPENDING UPON THE GRADES AT THE ADJACENT PROPERTY LINE.

FROSION CONTROL NOTES:

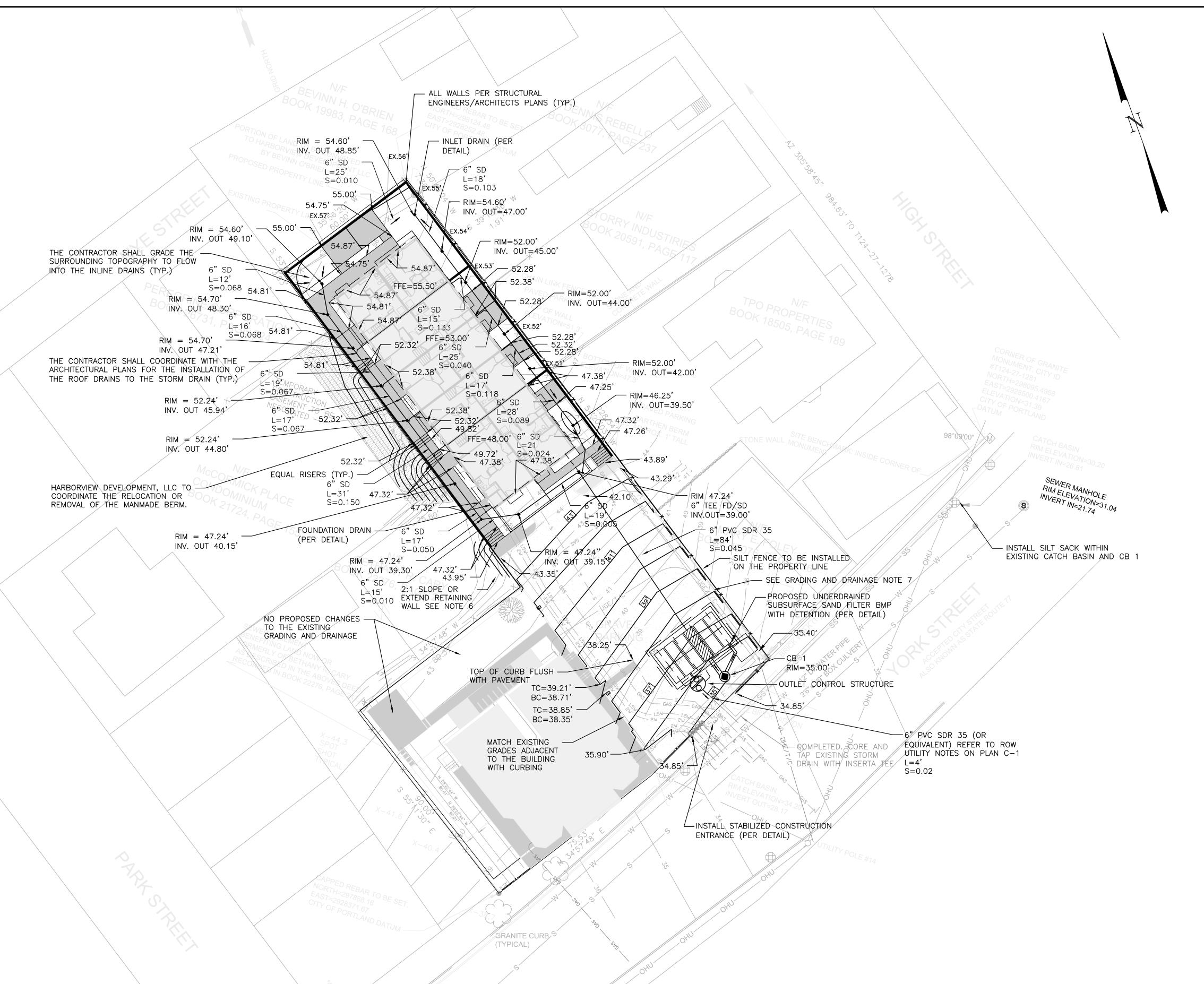
1. ALL LAND DISTURBING ACTIVITIES SHALL BE CONDUCTED IN SUCH A WAY TO LIMIT THE AMOUNT OF DISTURBED AREA AT ONE TIME TO THE EXTENT PRACTICABLE.

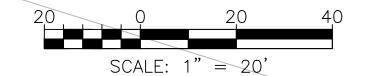
2. PRIOR TO THE START OF ANY CLEARING/LAND DISTURBING ACTIVITIES, THE CONTRACTOR SHALL INSTALL APPLICABLE EROSION CONTROL DEVICES SUCH AS PERIMETER SILT FENCE, AND OTHER APPLICABLE MEASURES. IN THE EVENT THE CONTRACTOR IS NOT SURE A EROSION CONTROL MEASURE SHOULD BE IMPLEMENTED, THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD TO CONFIRM IMPLEMENTATION OF ANY EROSION CONTROL DEVICES.

3. ALL GROUND AREAS GRADED FOR CONSTRUCTION SHALL BE GRADED, LOAMED, SEEDED AND MULCH SHALL BE APPLIED AS SOON AS POSSIBLE WITHIN 7 DAYS FOLLOWING THE COMPLETION OF ANY SOIL DISTURBANCE, AND PRIOR TO ANY STORM EVENT.

4. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL SHALL BE INSTALLED TO THE SATISFACTION OF THE CITY. THE CONTRACTOR SHALL REFERENCE THE APPROVED EROSION AND SEDIMENTATION CONTROL REPORT FOR TEMPORARY AND PERMANENT EROSION AND SEDIMENTATION CONTROL DEVICES IN ADDITION TO THE PLAN SET. THE CONTRACTOR SHALL ALSO REFER TO THE MAINE D.E.P.'S PERMIT CONDITIONS, FINDINGS OF FACT AND ORDER (IF ANY), AND THE CURRENT MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR ADDITIONAL INFORMATION.

5. ALL DISTURBED AREAS ARE TO RECEIVE A MINIMUM OF 4" OF TOPSOIL PRIOR TO PERMANENT SEEDING.





ISSUED FOR PERMITTING

DRAWING NO. C-2

SAVAGE

FILE: ACORNPLAN

DATE: 03/14/11

DESIGNED BY: WHS

DRAWN BY: WHS

CHECKED BY: HPS

1"=20'

JN: 1035

SCALE:

PRELIMINARY
FINAL SITE/SUB

REVISION

UTILITIES

CONTROL

SED.

EROSION

DRAINAGE,

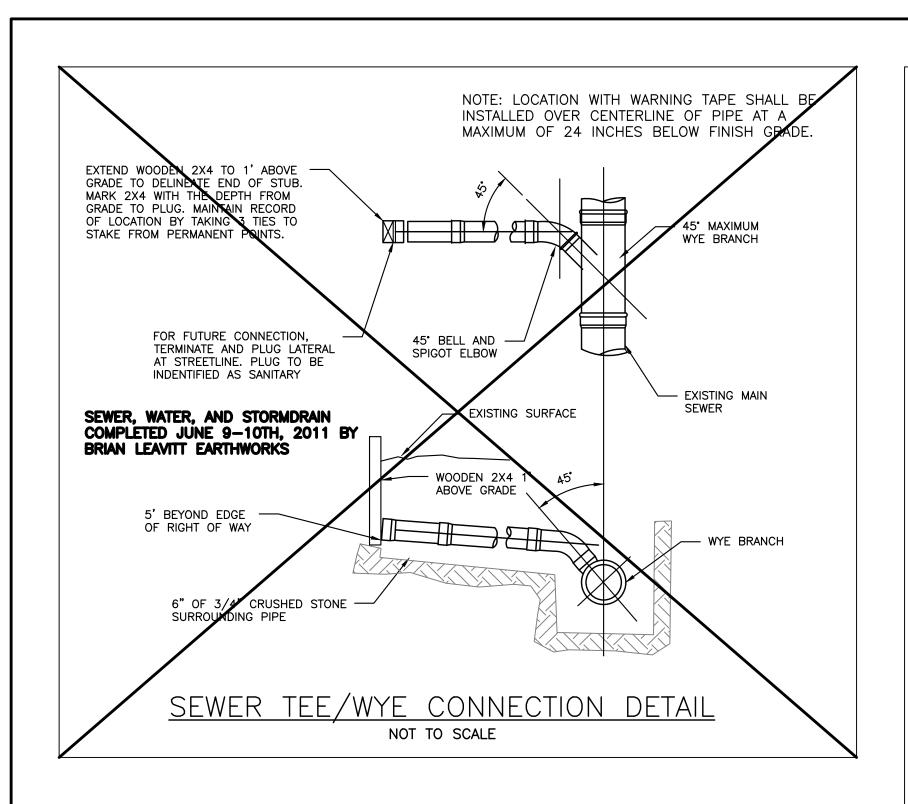
TLC

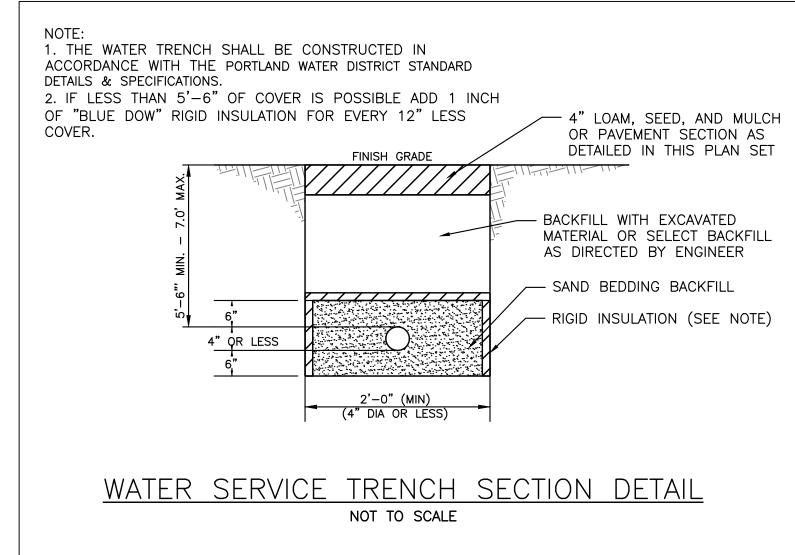
DEVELOPMENT,

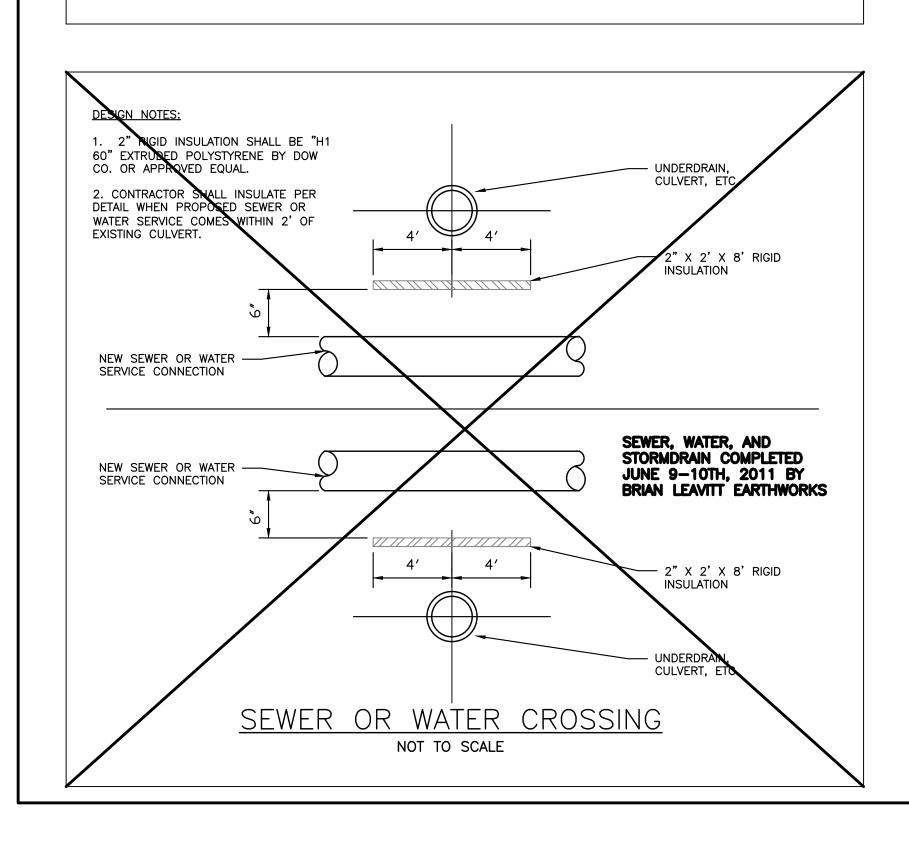
HARBORVIEW

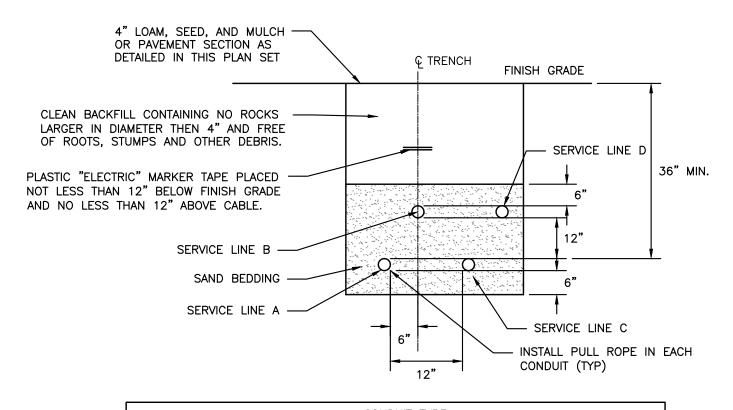
COMMENT RESPONSE

COMMENT RESPONSE 03/19/









CONDUIT TYPE					
<u>SERVICE</u>	CONDUIT SIZE	GRASS AND PAVED AREAS	<u>UTILITY</u>	<u>REMARKS</u>	
А	2-5"	SCHEDULE 40 PVC ELECTRICAL GRADE	PRIMARY POWER	SEE NOTE 1	
В	2-4"	SCHEDULE 40 PVC	COMMUNICATION	-	
С	2-4"	SCHEDULE 40 PVC ELECTRICAL GRADE	SPARE	IF REQUIRED	
D	2-4"	SCHEDULE 40 PVC	CABLE	-	

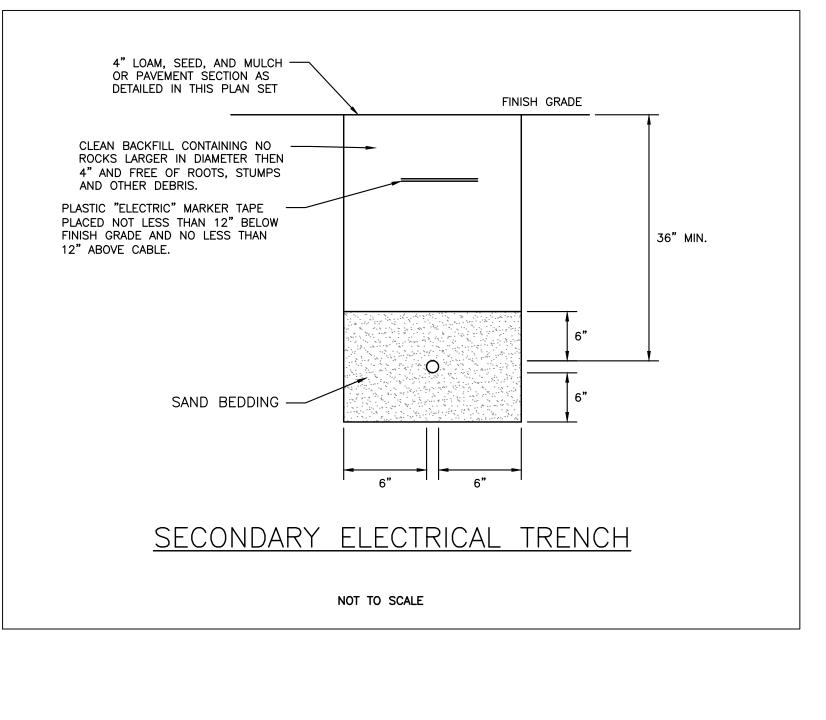
NOTE:

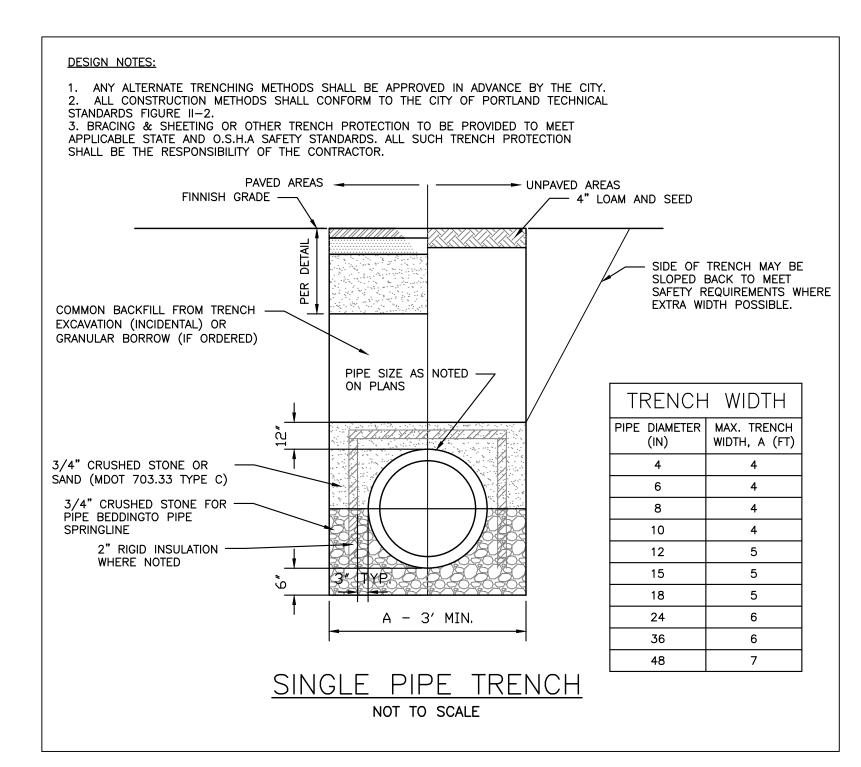
1. ONE CONDUIT CAPPED FOR SPARE, PROVIDE GALVANIZED STEEL LONG SWEEP AT RISER POLE AND EXTEND GALVANIZED CONDUIT TO 10" ABOVE GRADE AT POLE WITH STAND-OFF BRACKETS.

2. MINIMUM SEPARATION OF 24 INCHES BETWEEN PRIMARY CABLE/CONDUIT AND GAS LINES SHALL BE MAINTAINED.

<u>UTILITY TRENCH - PRIMARY AND SECONDARY</u> <u>POWER, TELEPHONE, AND CABLE</u>

NOT TO SCALE





ABBREVIATIONS:

PARTIAL LIST OF ABBREVIATIONS AND THERE CORRESPONDING MEANING. PLEASE CONTACT THE ENGINEER FOR ANY CLARIFICATION:

ENGINEER FOR ANY CLARIFICATION:

EX. = EXISTING
PROP. = PROPOSED

PVC = POLYVINYL CHLORIDE

SDR = STANDARD DIMENSION RATIO
PE = PROFESSIONAL ENGINEER
PLS = PROFESSIONAL LAND SURVEYOR

TYP = TYPICAL
ELEV. = ELEVATION
INV. = INVERT
BOT. = BOTTOM
MAX. = MAXIMUM
CB = CATCH BASIN
ID = INNER DIMENSION
DIA. = DIAMETER
IN. = INCH

FT. = FEET

PSI = POUNDS PER SQUARE INCH

REVISION UTILITIES TLC DEVELOPMENT, SHEET DETAIL HARBORVIEW FILE: ACORNPLAN DATE: 12/6/10 JN: 1035 SCALE: N/A DESIGNED BY: WHS DRAWN BY: WHS CHECKED BY: HPS SAVAGE DRAWING NO.

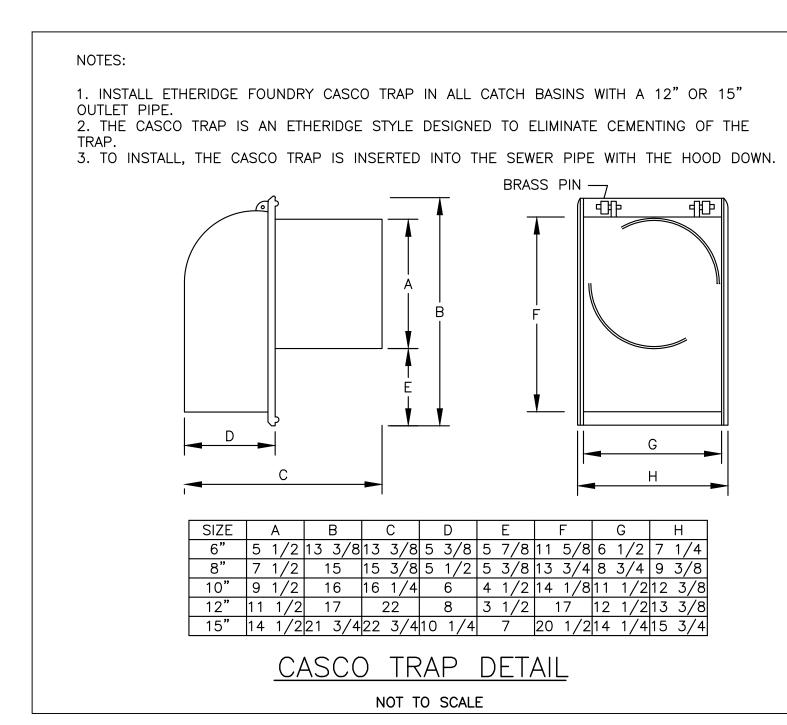
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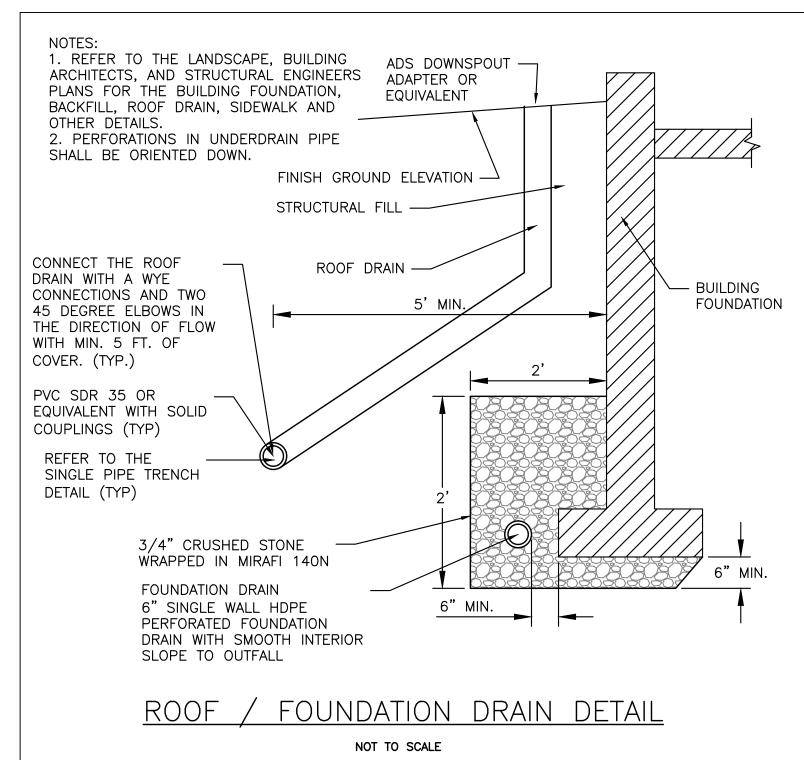
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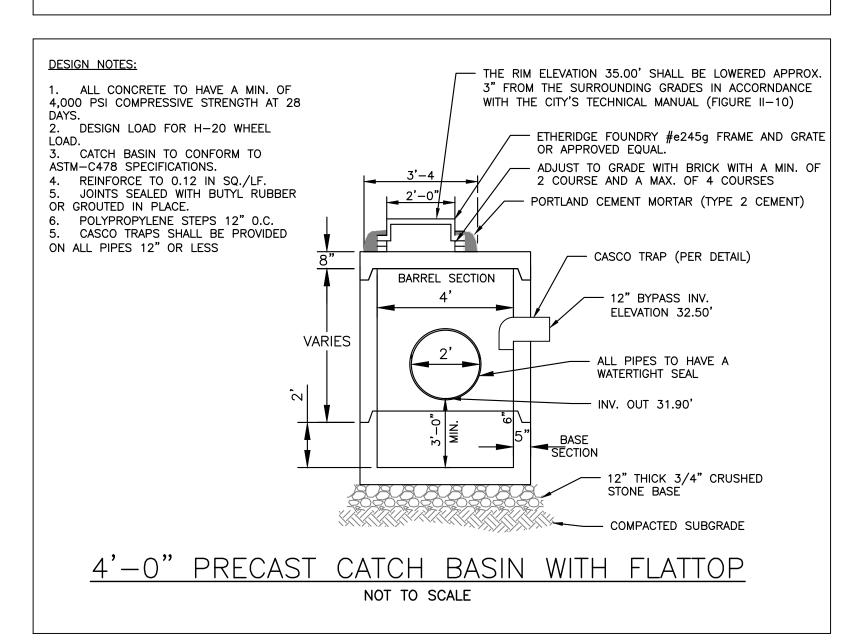
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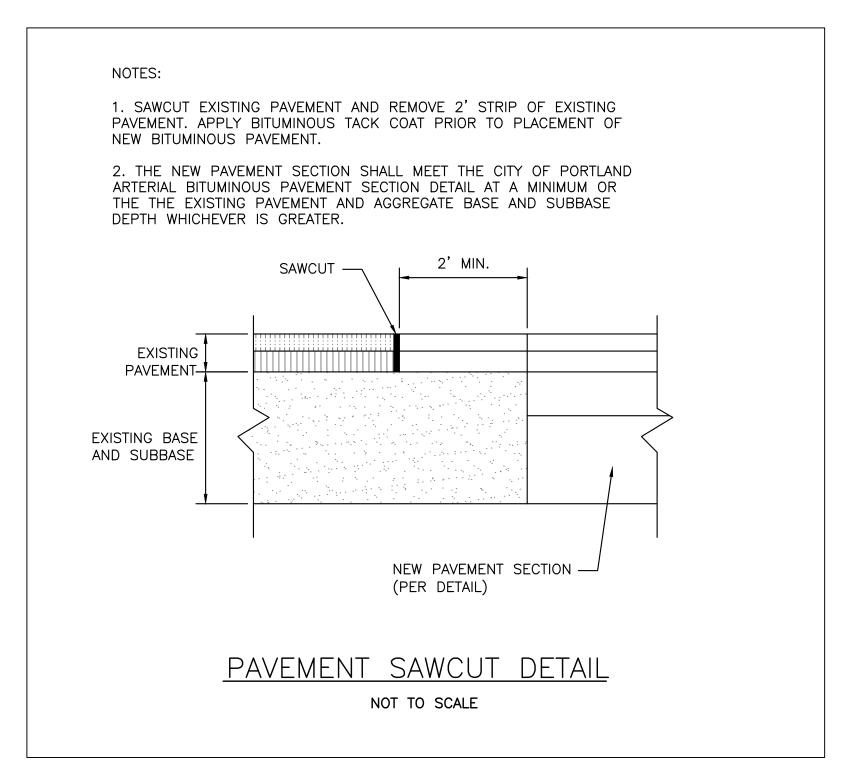
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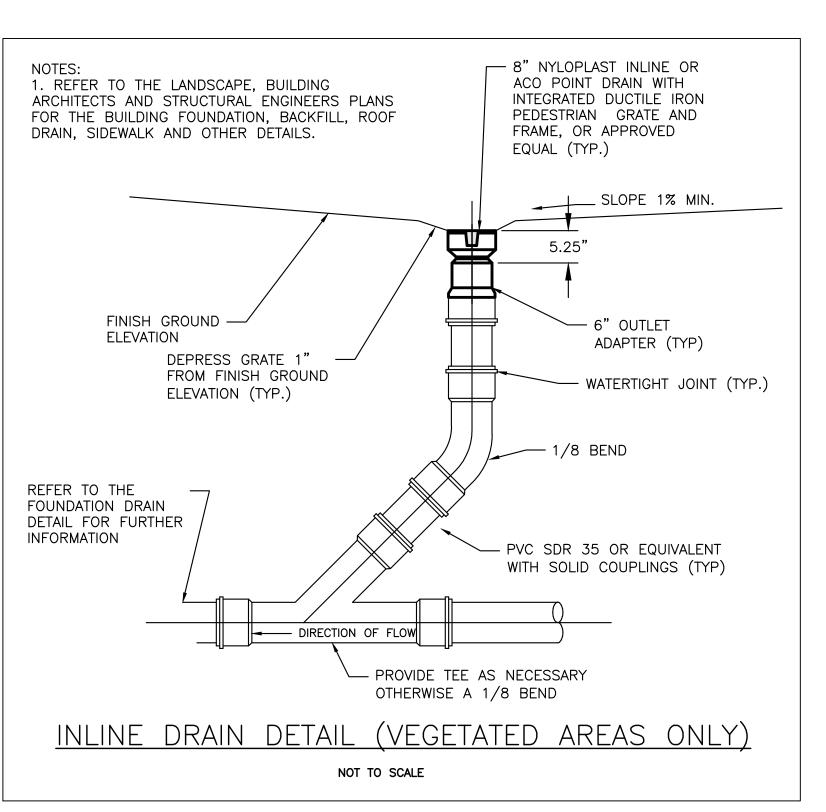
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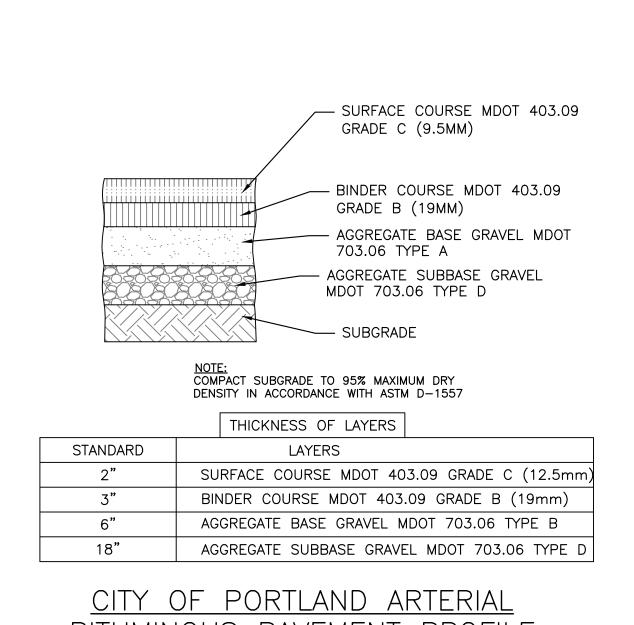








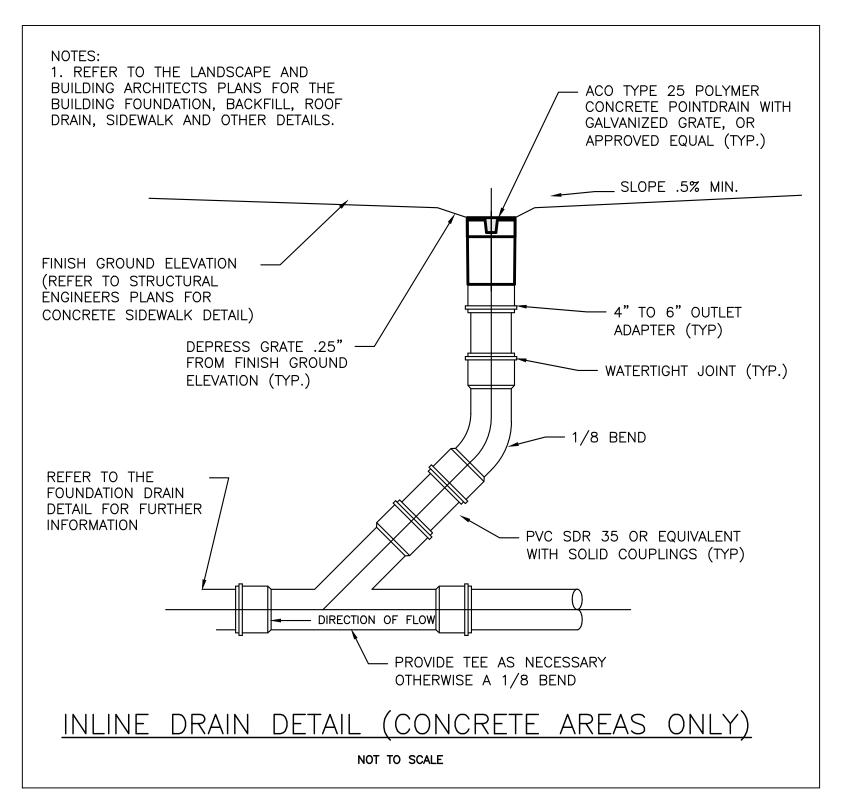




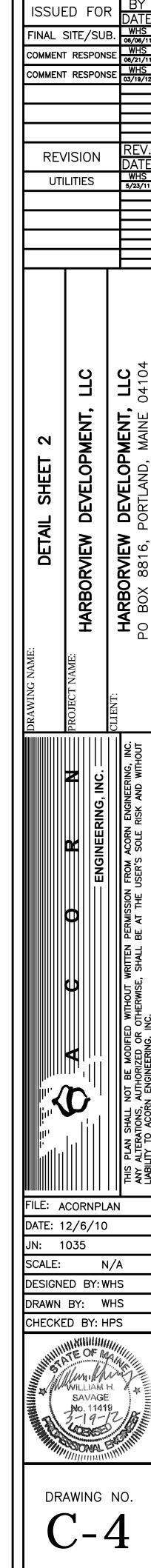
CITY OF PORTLAND ARTERIAL
BITUMINOUS PAVEMENT PROFILE
NOT TO SCALE

SURFACE COURSE MDOT 403.09 GRADE C (9.5MM) - BINDER COURSE MDOT 403.09 GRADE B (19MM) - AGGREGATE BASE GRAVEL MDOT 703.06 TYPE A AGGREGATE SUBBASE GRAVEL MDOT 703.06 TYPE D SUBGRADE NOTE: COMPACT SUBGRADE TO 95% MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D-1557 THICKNESS OF LAYERS STANDARD LAYERS 1.25" SURFACE COURSE MDOT 403.09 GRADE C (9.5mm) BINDER COURSE MDOT 403.09 GRADE B (19mm) AGGREGATE BASE GRAVEL MDOT 703.06 TYPE A AGGREGATE SUBBASE GRAVEL MDOT 703.06 TYPE D BITUMINOUS PAVEMENT PROFILE

NOT TO SCALE



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EROSION CONTROL MEASURES AND SITE STABILIZATION

AS PART OF THE SITE DEVELOPMENT, THE FOLLOWING TEMPORARY AND PERMANENT EROSION AND SEDIMENTATION CONTROL DEVICES SHALL BE IMPLEMENTED. DEVICES SHALL BE INSTALLED AS DESCRIBED IN THIS REPORT OR WITHIN THE PLAN SET. SEE THE MAINE EROSION AND SEDIMENT CONTROL HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES FOR FURTHER REFERENCE.

TEMPORARY EROSION CONTROL MEASURES

ROAD WAYS.

THE FOLLOWING TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES ARE PLANNED FOR THE PROJECT'S CONSTRUCTION

CRUSHED STONE STABILIZED CONSTRUCTION ENTRANCES SHALL BE PLACED AT ALL ACCESS POINTS TO THE PROJECT SITE WHERE THERE ARE DISTURBED AREAS. THE FOLLOWING SPECIFICATIONS SHALL BE FOLLOWED AT A MINIMUM:

STONE SIZE SHALL BE 2-3 INCHES, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.

THE THICKNESS OF THE ENTRANCE SHALL BE NO LESS THAN 6 INCHES.

THE ENTRANCE SHALL NOT BE LESS THAN 10 FEET WIDE, HOWEVER NOT LESS THAN THE FULL WIDTH OF POINTS WHERE INGRESS OR EGRESS OCCURS. THE LENGTH SHALL NOT BE LESS THAN 50 FEET IN LENGTH.

WATER DRAINAGE SHALL BE PROVIDED UNDER THE ENTRANCE; HOWEVER A MOUNTABLE BERM WITH 5:1 SLOPES SHALL BE PERMITTED.

GEOTEXTILE FABRIC (WOVEN OR NON WOVEN) SHALL BE PLACED OVER THE ENTIRE ENTRANCE AREA. PIPING FOR SURFACE

THE ENTRANCE/EXIT SHALL BE MAINTAINED TO THE EXTENT THAT IT WILL PREVENT THE TRACKING OF SEDIMENT ONTO PUBLIC

SILTATION FENCE OR EROSION CONTROL BERM SHALL BE INSTALLED DOWNSTREAM OF ANY DISTURBED AREAS TO TRAP RUNOFF BORNE SEDIMENTS UNTIL PERMANENT STABILIZATION IS ACHIEVED. THE SILT FENCE OR EROSION CONTROL BERM SHALL BE INSTALLED PER THE DETAILS PROVIDED IN THE PLAN SET AND INSPECTED BEFORE AND IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. REPAIRS SHALL BE MADE IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THE FENCE LINE OR BERM. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THE FENCE OR BERM, THE BARRIER SHALL BE REPLACED WITH A STONE CHECK DAM.

HAY MULCH INCLUDING HYDRO SEEDING IS INTENDED TO PROVIDE COVER FOR DENUDED OR SEEDED AREAS UNTIL REVEGETATION IS ESTABLISHED. MULCH PLACED BETWEEN APRIL 15TH AND NOVEMBER 1ST ON SLOPES OF LESS THAN 15 PERCENT SHALL BE COVERED BY FABRIC NETTING AND ANCHORED WITH STAPLES IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION. MULCH PLACED BETWEEN NOVEMBER 1ST AND APRIL 15TH ON SLOPES EQUAL TO OR STEEPER THAN 8 PERCENT AND EQUAL TO OR FLATTER THAN 2:1 SHALL USE MATS OR FABRIC NETTING AND ANCHORED WITH STAPLES IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION.

ALL SLOPES GREATER THAN 3:1 SHALL BE STABILIZED WITH DOUBLE NET EROSION CONTROL BLANKET BIONET SC150BN BY NORTH AMERICAN GREEN OR APPROVED EQUAL, OR EROSION CONTROL MIX SLOPE PROTECTION AS DETAILED WITHIN THE PLANS.

YORK STREET SHALL BE SWEPT TO CONTROL MUD AND DUST AS NECESSARY. ADD ADDITIONAL STONE TO THE STABILIZED CONSTRUCTION ENTRANCE TO MINIMIZE THE TRACKING OF MATERIAL OFF THE SITE AND ONTO THE SURROUNDING ROADWAYS.

DURING CLEARING AND GRUBBING OPERATIONS STONE CHECK DAMS SHALL BE INSTALLED AT ANY AREAS OF CONCENTRATED FLOW. THE TRIBUTARY AREA TO A DITCH OR SWALE SHALL NOT EXCEED 10 ACRES IN SIZE. THE MAXIMUM HEIGHT OF THE CHECK DAM SHALL NOT EXCEED 2 FEET. THE CENTER OF THE CHECK DAM SHALL BE 6 INCHES BELOW THE OUTER EDGES OF THE DAM. THE CONTRACTOR SHALL MULCH THE SIDE SLOPES AND INSTALL STONE CHECK DAMS FOR ALL NEWLY EXCAVATED DITCHLINES WITHIN 24 HOURS OF THEIR

SILT FENCE STAKE SPACING SHALL NOT EXCEED 6 FEET UNLESS THE FENCE IS SUPPORTED WITH 14 GAUGE WIRE IN WHICH CASE THE MAXIMUM SPACING SHALL NOT EXCEED 10 FEET. THE SILT FENCE SHALL BE "TOED" INTO THE GROUND.

STORMDRAIN INLET PROTECTION SHALL BE PROVIDED THROUGH THE USE OF ANY OF THE FOLLOWING: HAY BALE DROP INLET STRUCTURES, SILT FENCE DROP INLET SEDIMENT FILTER, GRAVEL AND WIRE MESH DROP INLET SEDIMENT FILTER, OR CURB INLET SEDIMENT FILTER. BARRIERS SHALL BE INSPECTED AFTER EVERY RAINFALL EVENT AND REPAIRED AS NECESSARY. SEDIMENTS SHALL BE REMOVED WHEN ACCUMULATION HAS REACHED ½ THE DESIGN HEIGHT.

DUST CONTROL SHALL BE ACCOMPLISHED BY THE USE OF ANY OF THE FOLLOWING: WATER, CALCIUM CHLORIDE, STONE, OR AN APPROVED MDEP PRODUCT. DUST CONTROL SHALL BE APPLIED AS NEEDED TO ACCOMPLISH DUST CONTROL.

TEMPORARY LOAM, SEED, AND MULCHING SHALL BE USED IN AREAS WHERE NO OTHER EROSION CONTROL MEASURE IS USED. APPLICATION RATES FOR SEEDING ARE PROVIDED AT THE END OF THIS REPORT.

STOCKPILES SHALL BE STABILIZED WITHIN 7 DAYS OF FORMATION UNLESS A SCHEDULED RAIN EVENT OCCURS PRIOR TO THE 7 DAY WINDOW, IN WHICH CASE THE STOCKPILE SHALL BE STABILIZED. METHODS OF STABILIZATION SHALL BE MULCH, EROSION CONTROL MIX, OR EROSION CONTROL BLANKETS/MATS. SILT FENCE OR A WOOD WASTE COMPOST FILTER BERM SHALL BE PLACED DOWNHILL OF ANY SOIL STOCKPILE LOCATION.

FOR DISTURBANCE BETWEEN NOVEMBER 1 AND APRIL 15, PLEASE REFER TO WINTER STABILIZATION PLAN IN THIS REPORT AND THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR FURTHER INFORMATION.

IT IS OF THE UTMOST IMPORTANCE THAT STORMWATER RUNOFF AND POTENTIAL SEDIMENT FROM THE CONSTRUCTION SITE BE DIVERTED AROUND THE UNDERDRAINED SUBSURFACE SAND FILTER BMP (USSF) UNITL THE WORK AREA IS STABILIZED.

PERMANENT EROSION CONTROL MEASURES

PARAGRAPH 4.1 OF THIS REPORT.

THE FOLLOWING PERMANENT EROSION CONTROL MEASURES ARE INTENDED FOR POST DISTURBANCE AREAS OF THE PROJECT ALL DISTURBED AREAS DURING CONSTRUCTION, NOT SUBJECT TO OTHER PROPOSED CONDITIONS, SHALL BE LOAMED, LIMED, FERTILIZED, SEEDED, AND MULCHED. EROSION CONTROL BLANKETS OR MATS SHALL BE PLACED OVER THE MULCH IN AREAS NOTED II

ALL STORMDRAIN OUTLETS SHALL HAVE RIPRAP APRONS OR STABILIZED SWALES AS DEPICTED ON THE PLANS. THE RIPRAP APRONS OR STABILIZED APRONS SHALL BE CONSTRUCTED WITHIN 48 HOURS OF THE CONSTRUCTION OF THE STORMDRAIN OUTLET.

ALL STORMWATER DEVICES SHALL BE INSTALLED AND STABILIZED PRIOR RECEIVING STORMWATER.

REFER TO THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR ADDITIONAL INFORMATION.

EROSION AND SEDIMENTATION CONTROL PLAN

EROSION AND SEDIMENTATION CONTROL PLANS ARE INCLUDED IN THE PLAN SET.

DETAILS AND SPECIFICATIONS

EROSION CONTROL DETAILS AND SPECIFICATION ARE INCLUDED IN THE PLAN SET.

STABILIZATION PLAN FOR WINTER CONSTRUCTION

WINTER CONSTRUCTION CONSISTS OF EARTHWORK DISTURBANCE BETWEEN THE DATES OF NOVEMBER 1 AND APRIL 15. IF A CONSTRUCTION SITE IS NOT STABILIZED WITH PAVEMENT, A ROAD GRAVEL BASE, 75% MATURE VEGETATION COVER OR RIPRAP BY NOVEMBER 15 THEN THE SITE SHALL BE PROTECTED WITH OVER-WINTER STABILIZATION. ANY AREA NOT STABILIZED WITH PAVEMENT. VEGETATION, MULCHING, EROSION CONTROL MIX, EROSION CONTROL MATS, RIPRAP OR GRAVEL BASE ON A ROAD SHALL BE CONSIDERED OPEN.

THE CONTRACTOR SHALL LIMIT THE WORK AREA TO AREAS THAT WORK WILL OCCUR IN THE FOLLOWING 15 DAYS AND SO THAT IT CAN BE MULCHED ONE DAY PRIOR TO A SNOW EVENT. THE CONTRACTOR SHALL STABILIZE WORK AREAS PRIOR TO OPENING ADDITIONAL WORK AREAS TO MINIMIZE AREAS WITHOUT EROSION CONTROL MEASURES.

THE FOLLOWING MEASURES SHALL BE IMPLEMENTED DURING WINTER CONSTRUCTION PERIODS:

SEDIMENT BARRIERS

DURING FROZEN CONDITIONS, SEDIMENT BARRIERS MAY CONSIST OF EROSION CONTROL MIX BERMS OR ANY OTHER RECOGNIZED SEDIMENT BARRIERS AS FROZEN SOIL PREVENTS THE PROPER INSTALLATION OF HAY BALES OR SILT FENCES.

MULCHING

ALL AREAS SHALL BE CONSIDERED TO BE DENUDED UNTIL SEEDED AND MULCHED. HAY AND STRAW MULCH SHALL BE APPLIED AT A RATE OF 150 LB. PER 1,000 SQUARE FEET OR 3 TONS/ACRE (TWICE THE NORMAL ACCEPTED RATE OF 75-LBS./1,000 S.F. OR 1.5 TONS/ACRE) AND SHALL BE PROPERLY ANCHORED. EROSION CONTROL MIX MUST BE APPLIED WITH A MINIMUM 4 INCH THICKNESS. MULCH SHALL NOT BE SPREAD ON TOP OF SNOW. THE SNOW WILL BE REMOVED DOWN TO A ONE-INCH DEPTH OR LESS PRIOR TO APPLICATION. AFTER EACH DAY OF FINAL GRADING, THE AREA WILL BE PROPERLY STABILIZED WITH ANCHORED HAY OR STRAW OR EROSION CONTROL MATTING. AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER 10. COMPLETE REMAINING EARTHWORK OPERATIONS MULCHED OR ADEQUATELY ANCHORED SO THAT GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH. BETWEEN THE DATES OF NOVEMBER 1 AND APRIL 15, ALL MULCH SHALL BE ANCHORED BY EITHER MULCH NETTING, ASPHALT EMULSION CHEMICAL, TRACKING OR WOOD CELLULOSE FIBER. THE COVER WILL BE CONSIDERED SUFFICIENT WHEN THE GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH. AFTER NOVEMBER 1ST, MULCH AND ANCHORING OF ALL EXPOSED SOIL SHALL OCCUR AT THE END OF EACH FINAL GRADING WORKDAY.

SOIL STOCKPILING

STOCKPILES OF SOIL OR SUBSOIL SHALL BE MULCHED FOR OVER WINTER PROTECTION WITH HAY OR STRAW AT TWICE THE NORMAL RATE OR WITH A FOUR-INCH LAYER OF EROSION CONTROL MIX. THIS SHALL BE DONE WITHIN 24 HOURS OF STOCKING AND RE-ESTABLISHED PRIOR TO ANY RAINFALL OR SNOWFALL.

BETWEEN THE DATES OF OCTOBER 15TH AND APRIL 1ST, LOAM OR SEED SHALL NOT BE REQUIRED. DURING PERIODS OF ABOVE FREEZING TEMPERATURES FINISHED AREAS SHALL BE FINE GRADED AND EITHER PROTECTED WITH MULCH OR TEMPORARILY SEEDED AND MULCHED UNTIL SUCH TIME AS THE FINAL TREATMENT CAN BE APPLIED. IF THE DATE IS AFTER NOVEMBER 1ST AND IF THE EXPOSED AREA HAS NOT BEEN LOAMED, FINAL GRADING WITH A UNIFORM SURFACE, THEN THE AREA MAY BE DORMANT SEEDED AT A RATE OF 3 TIMES HIGHER THAN SPECIFIED FOR PERMANENT SEED AND THEN MULCHED.

DORMANT SEEDING MAY BE PLACED PRIOR TO THE PLACEMENT OF MULCH OR EROSION CONTROL BLANKETS. IF DORMANT SEEDING IS USED FOR THE SITE. ALL DISTURBED AREAS SHALL RECEIVE 4' OF LOAM AND SEED AT AN APPLICATION RATE OF 5LBS/1.000 S.F. ALL AREAS SEEDED DURING THE WINTER SHALL BE INSPECTED IN THE SPRING FOR ADEQUATE CATCH. ALL AREAS INSUFFICIENTLY VEGETATED (LESS THAN 75% CATCH) SHALL BE REVEGETATED BY REPLACING LOAM, SEED AND MULCH. IF DORMANT SEEDING IS NOT USED FOR THE SITE, ALL DISTURBED AREAS SHALL BE REVEGETATED IN THE SPRING.

OVER WINTER STABILIZATION OF DISTURBED SOILS

BY SEPTEMBER 15TH, ALL DISTURBED SOILS ON AREAS HAVING A SLOPE LESS THAN 15% SHALL BE SEEDED AND MULCHED. IF THE DISTURBED AREAS ARE NOT STABILIZED BY THIS DATE, THEN ONE OF THE FOLLOWING ACTIONS SHALL BE TAKEN TO STABILIZE THE SOIL FOR LATE FALL AND WINTER:

STABILIZE THE SOIL WITH TEMPORARY VEGETATION - BY OCTOBER 1ST, SEED THE DISTURBED SOIL WITH WINTER RYE AT A SEEDING RATE OF 3LBS PER 1,000 S.F., LIGHTLY MULCH THE SEEDED SOIL WITH HAY OR STRAW AT 75 LBS PER 1,000 S.F., AND ANCHOR THE MULCH WITH PLASTIC NETTING. MONITOR GROWTH OF THE RYE OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR FAILS TO COVER AT LEAST 75% OF THE DISTURBED SOIL BEFORE NOVEMBER 1ST, THEN MULCH THE AREA FOR OVER-WINTER PROTECTION.

STABILIZE THE SOIL WITH SOD - STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY OCTOBER 1ST. PROPER INSTALLATION INCLUDES PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL.

STABILIZE THE SOIL WITH MULCH - BY NOVEMBER 15TH, MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150 LBS PER 1,000 S.F. ON THE AREA SO THAT NO SOIL IS VISIBLE THROUGH THE MULCH. IMMEDIATELY AFTER APPLYING THE MULCH, ANCHOR THE MULCH WITH PLASTIC NETTING TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SOIL. OVER WINTER STABILIZATION OF DISTURBED SLOPES

ALL STONE-COVERED SLOPES SHALL BE CONSTRUCTED AND STABILIZED BY NOVEMBER 15TH. ALL SLOPES TO BE VEGETATED SHALL BE SEEDED AND MULCHED BY SEPTEMBER 1ST. A SLOPE IS CONSIDERED A GRADE GREATER THAN 15%. IF A SLOPE TO BE VEGETATED IS NOT STABILIZED BY SEPTEMBER 1ST, THEN ONE OF THE FOLLOWING ACTION SHALL BE TAKEN TO STABILIZE THE SLOPE FOR LATE FALL

STABILIZE THE SOIL WITH TEMPORARY VEGETATION AND EROSION CONTROL MATS - BY OCTOBER 1ST THE DISTURBED SLOPE SHALL BE SEEDED WITH WINTER RYE AT A SEEDING RATE OF 3 LBS PER 1.000 S.F. AND THEN INSTALL EROSION CONTROL MATS OR ANCHORED MULCH OVER THE SEEDING. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR FAILS TO COVER AT LEAST 75% F THE SLOPE BY NOVEMBER 1ST, THEN THE CONTRACTOR SHALL COVER THE SLOPE WITH A LAYER OF EROSION CONTROL MIX OR WITH STONE

STABILIZE THE SOIL WITH SOD - THE DISTURBED SLOPE SHALL BE STABILIZED WITH PROPERLY INSTALLED SOD BY OCTOBER 1ST. PROPER INSTALLATION INCLUDES THE CONTRACTOR PINNING THE SOD ONTO THE SLOPE WITH WIRE PINS. ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL. THE CONTRACTOR SHALL NOT USE LATE-SEASON SOD INSTALLATION TO STABILIZE SLOPES HAVING A GRADE GREATER THAN 3H:1V OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.

STABILIZE THE SOIL WITH EROSION CONTROL MIX - EROSION CONTROL MIX SHALL BE PROPERLY INSTALLED BY NOVEMBER 15TH. THE CONTRACTOR SHALL NOT USE EROSION CONTROL MIX TO STABILIZE SLOPES HAVING GRADES GREATER THAN 2H:1V OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.

STABILIZE THE SOIL WITH STONE RIPRAP - PLACE A LAYER OF STONE RIPRAP ON THE SLOPE BY NOVEMBER 15TH. A REGISTERED PROFESSIONAL ENGINEER SHALL BE HIRED TO DETERMINE THE STONE SIZE NEEDED FOR STABILITY ON THE SLOPE AND TO DESIGN A FILTER LAYER FOR UNDERNEATH THE RIPRAP.

INSPECTION AND MAINTENANCE

A PERSON WITH KNOWLEDGE OF EROSION AND STORMWATER CONTROL, INCLUDING THE STANDARDS AND CONDITIONS IN THE PERMIT, SHALL CONDUCT PERIODIC VISUAL INSPECTIONS OF INSTALLED EROSION CONTROL MEASURES. THE FREQUENCY OF INSPECTION SHALL OCCUR AT LEAST ONCE EVERY TWO WEEKS, PRIOR TO COMPLETING PERMANENT STABILIZATION MEASURES, AS WELL AS AFTER A "STORM EVENT". A "STORM EVENT" SHALL CONSIST 0.5 INCHES OF RAIN WITHIN A 24 HOUR PERIOD. THE FOLLOWING EROSION AND SEDIMENT CONTROL - BEST MANAGEMENT PRACTICES (BMP'S) SHALL INSPECTED IN THE MANNER AS DESCRIBED.

SEDIMENT BARRIERS: HAY BALE BARRIERS, SILT FENCES AND FILTER BERMS SHALL BE INSPECTED AND REPAIRED FOR THE FOLLOWING, IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THEM. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES OF THE BARRIER, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THEM, SEDIMENT BARRIERS SHALL BE REPLACED WITH A TEMPORARY CHECK DAM. SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL IS NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY. SEDIMENT DEPOSITS SHOULD BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER. FILTER BERMS SHOULD BE RESHAPED AS NEEDED. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHOULD BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.

STABILIZED STONE CONSTRUCTION ENTRANCES THE EXIT SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. WHEN THE CONTROL PAD BECOMES INEFFECTIVE, THE STONE SHALL BE REMOVED ALONG WITH THE COLLECTED SOIL MATERIAL AND REDISTRIBUTED ON SITE IN A STABLE MANNER. THE ENTRANCE SHOULD THEN BE RECONSTRUCTED. THE CONTRACTOR SHALL SWEEP OR WASH PAVEMENT AT EXITS, WHICH HAVE EXPERIENCED MUD-TRACKING ON TO THE PAVEMENT OR TRAVELED WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH AGGREGATE, WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING STORM DRAINS,

MULCHED AREAS ALL MULCHES MUST BE INSPECTED PERIODICALLY, IN PARTICULAR AFTER RAINSTORMS, TO CHECK FOR RILL EROSION. IF LESS THAN 90% OF THE SOIL SURFACE IS COVERED BY MULCH, ADDITIONAL MULCH SHALL BE IMMEDIATELY APPLIED. NETS MUST BE INSPECTED AFTER RAIN EVENTS FOR DISLOCATION OR FAILURE. IF WASHOUTS OR BREAKAGE OCCUR, RE-INSTALL THE NETS AS NECESSARY AFTER REPAIRING DAMAGE TO THE SLOPE. INSPECTIONS SHALL TAKE PLACE UNTIL GRASSES ARE FIRMLY ESTABLISHED (95% SOIL SURFACE COVERED WITH GRASS). WHERE MULCH IS USED IN CONJUNCTION WITH ORNAMENTAL PLANTINGS, INSPECT PERIODICALLY THROUGHOUT THE YEAR TO DETERMINE IF MULCH IS MAINTAINING COVERAGE OF THE SOIL SURFACE. REPAIR AS NEEDED.

DUST CONTROL WHEN TEMPORARY DUST CONTROL MEASURES ARE USED. REPETITIVE TREATMENT SHALL BE APPLIED AS NEEDED TO ACCOMPLISH CONTROL.

STORMWATER APPURTENANCES INCLUDING THE UNDERDRAINED SUBSURFACE SAND FILTER, STORM DRAINS, AND CATCH BASIN. THE DOWNSTREAM CATCH BASIN SHALL INCLUDE A GEOSYNTHETIC CATCH BASIN SACK TO MINIMIZE ANY SEDIMENT, TRASH AND DEBRIS FROM ENTERING THE SYSTEM. ALTHOUGH ALL PRACTICAL MEASURES SHALL BE TAKEN TO MINIMIZE THE SEDIMENT TO THE USSF ISOLATOR ROW IF NECESSARY THE ISOLATOR ROW SHALL BE CLEANED ONCE SEDIMENT EXCEEDS 3 INCHES IN DEPTH.

EROSION AND SEDIMENTATION CONTROL INSPECTIONS:

THE FOLLOWING IS AN EXAMPLE OF A QUALIFIED EROSION AND SEDIMENTATION CONTROL PROFESSIONAL THAT THE DEVELOPER MAY CONTRACT THROUGH.

FIRM: ACORN ENGINEERING, INC.

CONTACT: WILL SAVAGE, PE TELEPHONE: (207) 775-2655

IMPLEMENTATION SCHEDULE

THE FOLLOWING IMPLEMENTATION SCHEDULE IS INTENDED TO MAXIMIZE THE EFFECTIVENESS OF THE ABOVE DESCRIBED EROSION CONTROL MEASURES. CONTRACTORS SHOULD BE CAUTIOUS OF OVER EXPOSING DISTURBED AREAS TO LIMIT THE AMOUNT OF

- INSTALL A STABILIZED CONSTRUCTION ENTRANCE IN ALL LOCATIONS WHERE CONSTRUCTION TRAFFIC WILL ENTER AND EXIT THE
- SITE. PARTICULARLY, AT INTERSECTIONS WITH PUBLIC RIGHTS OF WAY. INSTALL PERIMETER SILT FENCE OR WOOD WASTE BERM.
- INSTALL ALL OTHER EROSION CONTROL DEVICES AS NECESSARY THROUGHOUT THE REMAINDER OF THIS SCHEDULE
- COMMENCE CLEARING AND GRUBBING OPERATIONS
- COMMENCE EARTHWORK OPERATIONS
- COMMENCE INSTALLATION OF DRAINAGE INFRASTRUCTURE
- COMMENCE INSTALLATION OF UTILITY INFRASTRUCTURE CONTINUE EARTHWORK AND GRADING TO SUBGRADE AS NECESSARY FOR CONSTRUCTION
- 9. COMPLETE INSTALLATION OF DRAINAGE AND UTILITY INFRASTRUCTURE
- 11. INSTALL SUB-BASE AND BASE GRAVELS IN ROADWAY

12. IN COORDINATION WITH THE SUB-BASE AND BASE GRAVEL COMPLETE THE INSTALLATION OF THE UNDERDRAINED SUBSURFACE SAND FILTER BMP. IT IS OF THE UTMOST IMPORTANCE THAT ONCE THE CONSTRUCTION IS BEGUN ON THE USSF THAT IS BE CONTINUED UNTIL COMPLETE. RUNOFF SHALL BE TEMPORARILY DIVERTED AROUND THE WORK AREA UNTIL STABILIZATION IS COMPLETE.

- 13. INSTALL BASE COURSE PAVING
- 14. LOAM, LIME, FERTILIZE, SEED AND MULCH DISTURBED AREAS AND COMPLETE ALL LANDSCAPING.
- 15. INSTALL SURFACE COURSE PAVING

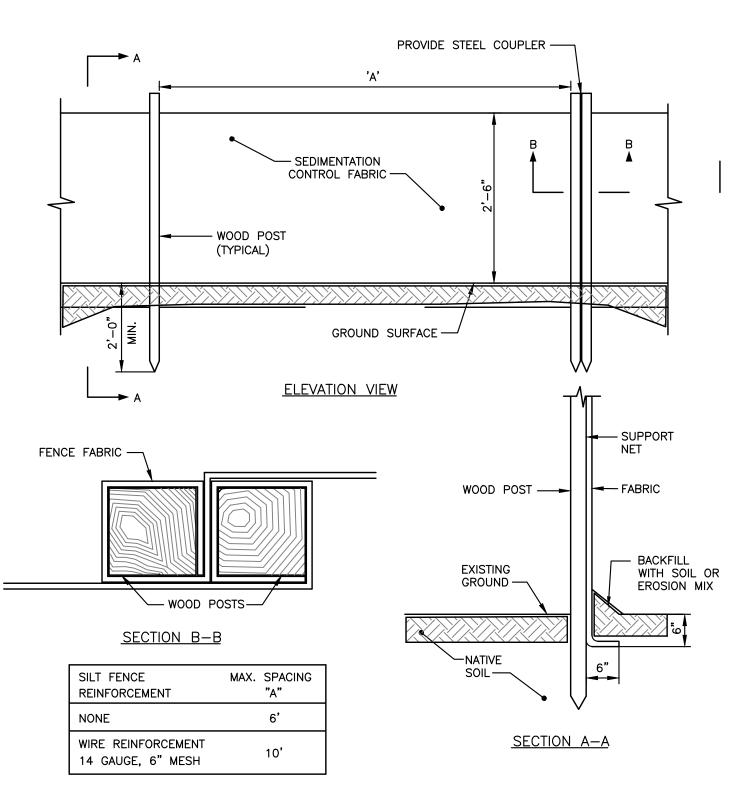
16. ONCE THE SITE IS STABILIZED AND 90% CATCH OF VEGETATION HAS BEEN OBTAINED, REMOVE ALL TEMPORARY EROSION CONTROL MEASURES.

17. TOUCH UP LOAM AND SEED.

THE ABOVE IMPLEMENTATION SCHEDULE SHOULD BE GENERALLY FOLLOWED BY THE SITE CONTRACTOR. HOWEVER, THE CONTRACTOR MAY CONSTRUCT SEVERAL ITEMS SIMULTANEOUSLY. A CONTRACTOR SHALL SUBMIT TO THE OWNER A SCHEDULE OF THE COMPLETION OF THE WORK. IF THE CONTRACTOR IS TO COMMENCE THE CONSTRUCTION OF MORE THAN ONE ITEM ABOVE, THEY SHALL LIMIT THE AMOUNT OF EXPOSED ARE TO THOSE AREAS IN WHICH WORK IS EXPECTED TO BE UNDERTAKEN DURING THE PRECEDING 30 DAYS.

THE CONTRACTOR SHALL REVEGETATE DISTURBED AREAS AS RAPIDLY AS POSSIBLE. ALL AREAS SHALL BE PERMANENTLY STABILIZED WITHIN 7 DAYS OF FINAL GRADING OR BEFORE A STORM EVENT. THE CONTRACTOR SHALL INCORPORATE PLANNED INLETS AND DRAINAGE SYSTEMS AS EARLY AS POSSIBLE INTO THE CONSTRUCTION PHASE.

THE ABOVE EROSION CONTROL NARRATIVE IS INTENDED TO MINIMIZE THE DEVELOPMENT IMPACT BY IMPLEMENTING TEMPORARY AND PERMANENT EROSION CONTROL MEASURES. THE CONTRACTOR SHALL ALSO REFER TO THE MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR ADDITIONAL INFORMATION.



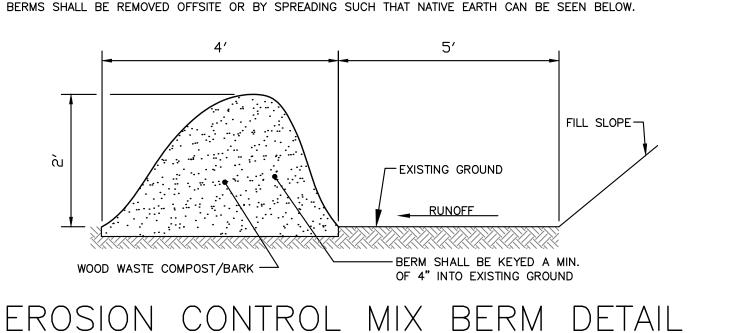


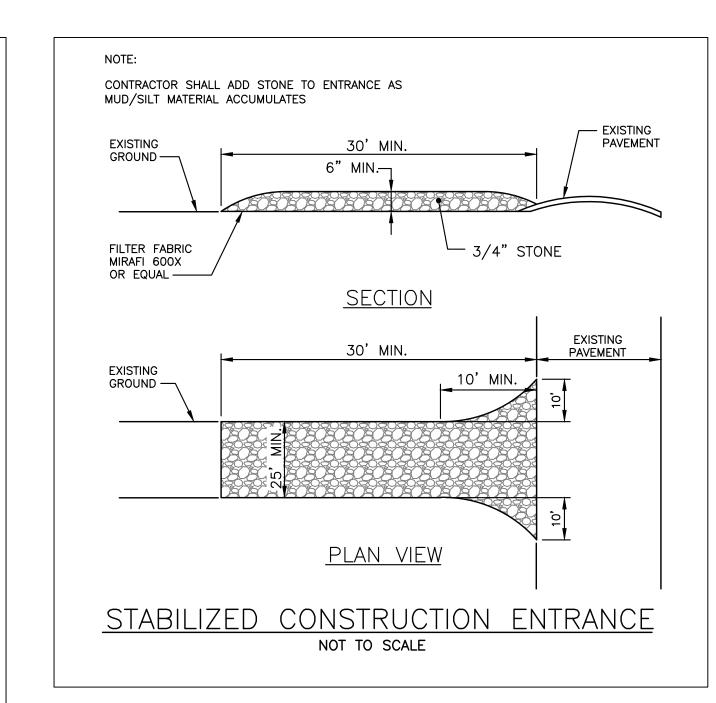
1. THE EROSION CONTROL MIX SHALL CONFORM TO THE FOLLOWING STANDARDS AND IN ACCORDANCE WITH THE MAINE DEP'S EROSION AND SEDIMENT CONTROL BMPS SECTION B-1:

- HE ORGANIC PORTIONS SHALL BE FIBROUS AND ELONGATED TO ALLOW FOR THE INTERLOCKING OF MATERIAL
- PARTICLE SIZE BY WEIGHT SHALL BE 100% PASSING A 6" SCREEN AND A MINIMUM OF 70% TO A MAXIMUM
- 85% PASSING A 0.75" (3/4") SCREEN. THE ORGANIC MATTER CONTENT SHALL BE BETWEEN 80 AND 100% DRY WEIGHT BASIS
- NO STONES LARGER THAN 4" IN DIAMETER. LARGE PORTIONS OF SILTS, CLAYS OR FINE SANDS ARE NOT ACCEPTABLE IN THE MIX.

2. THE BERM SHOULD BE PLACED, UNCOMPACTED, ALONG A RELATIVELY LEVEL CONTOUR, WHEN NECESSARY THE BERM MAY BE PLACED PERPENDICULAR TO THE SLOPE ALONG THE PROPERTY LINE TO CONTAIN THE SEDIMENT PROVIDED A BERM IS LOCATED AT THE BASE OF THE SLOPE.

3. THE BERM MAY BE USED IN LIEU OF SILTATION FENCE, AT THE TOE OF SHALLOW SLOPES, ON FROZEN GROUND, LEDGE OUT CROPS, VERY ROOTED FORESTED AREA OR AT THE EDGE OF GRAVEL PARKING AREAS. 4. BERMS SHALL REMAIN IN PLACE UNTIL UPSTREAM AREA IS STABILIZED OR 90% CATCH OF VEGETATION IS ATTAINED.





ISSUED FOR PERMITTING

EVELOP JN: 1035 SCALE: CHECKED BY: HPS SAVAGE

FINAL SITE/SUB

REVISION

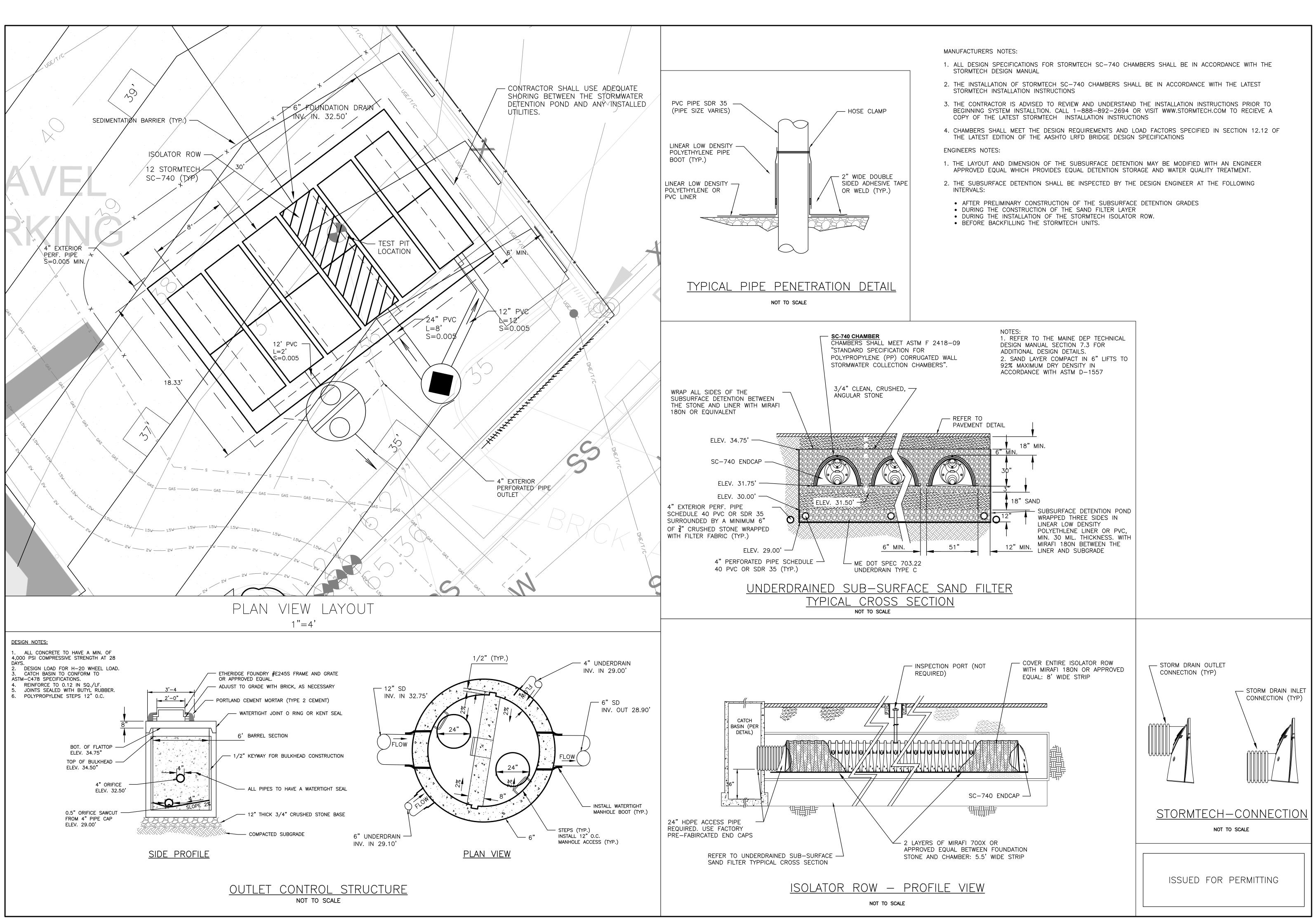
COMMENT RESPONSE

COMMENT RESPONSE 03/19/

FILE: ACORNPLAN DATE: 12/6/10

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REVISION

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DEVELOPMENT,

DETAIL

HARBORVIEW

FILE: ACORNPLAN

DATE: 6-6-11 JN: 1035

SCALE: NTS DESIGNED BY: WHS

DRAWN BY: WHS CHECKED BY: HPS

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