

Exhibit 16- Storm water and Erosion Control Plan

GENERAL NOTES:

- (1) ALL DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH PERMIT CONDITIONS, CITY OF MERCER ISLAND MUNICIPAL CODE AND STANDARDS, WASHINGTON STATE DOT (WSDOT) STANDARD SPECIFICATIONS AND THE CONDITIONS OF PRELIMINARY APPROVAL.
- (2) A COPY OF THESE APPROVED PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
- (3) GRADING ACTIVITIES (SITE ALTERATION) ARE LIMITED TO THE HOURS OF 7 A.M. TO 6 P.M. MONDAY THROUGH FRIDAY, UNLESS OTHERWISE APPROVED WITH A WRITTEN DECISION BY THE REVIEWING AGENCY.
- (4) IT SHALL BE THE APPLICANT'S/CONTRACTOR'S RESPONSIBILITY TO OBTAIN ALL CONSTRUCTION EASEMENTS NECESSARY BEFORE INITIATING OFF-SITE WORK. EASEMENTS REQUIRE REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
- (5) DEWATERING SYSTEM (UNDERDRAIN) CONSTRUCTION SHALL BE WITHIN A RIGHT-OF-WAY OR APPROPRIATE DRAINAGE EASEMENT, BUT NOT UNDERNEATH THE ROADWAY SECTION. ALL UNDERDRAIN SYSTEMS MUST BE CONSTRUCTED IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATIONS.
- (6) ALL UTILITY TRENCHES AND ROADWAY SUBGRADE SHALL BE BACKFILLED AND COMPACTED TO 95 PERCENT DENSITY, STANDARD PROCTOR.
- (7) THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SAFEGUARDS, SAFETY DEVICES, PROTECTIVE EQUIPMENT, FLAGGERS, AND ANY OTHER NEEDED ACTIONS TO PROTECT THE LIFE, HEALTH, AND SAFETY OF THE PUBLIC, AND TO PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF WORK COVERED BY THE CONTRACTOR. ANY WORK WITHIN THE TRAVELED RIGHT-OF-WAY THAT MAY INTERRUPT NORMAL TRAFFIC FLOW SHALL REQUIRE AT LEAST ONE FLAGGER FOR EACH LANE OF TRAFFIC AFFECTED. MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) SHALL APPLY.

STORM DRAINAGE NOTES:

- (1) ALL PIPE AND APPURTENANCES SHALL BE LAID ON A PROPERLY PREPARED FOUNDATION IN ACCORDANCE WITH WSDOT SPECIFICATIONS. THIS SHALL INCLUDE LEVELING AND COMPACTING THE TRENCH BOTTOM, THE TOP OF THE FOUNDATION MATERIAL, AND ANY REQUIRED PIPE BEDDING, TO A UNIFORM GRADE SO THAT THE ENTIRE PIPE IS SUPPORTED BY A UNIFORMLY DENSE UNYIELDING BASE.
- (2) STEEL PIPE SHALL BE ALUMINIZED, OR GALVANIZED WITH ASPHALT TREATMENT #1 OR BETTER INSIDE AND OUTSIDE.
- (3) ALL DRIVEWAY CULVERTS LOCATED WITHIN THE RIGHT-OF-WAY SHALL BE OF SUFFICIENT LENGTH TO PROVIDE A MINIMUM 3:1 SLOPE FROM THE EDGE OF THE DRIVEWAY TO THE BOTTOM OF THE DITCH. CULVERTS SHALL HAVE BEVELED END SECTIONS TO MATCH THE SIDE SLOPE KCRS.
- (4) ROCK FOR EROSION PROTECTION OF ROADWAY DITCHES, WHERE REQUIRED, MUST BE OF SOUND QUARRY ROCK, PLACED TO A DEPTH OF 1 FOOT, AND MUST MEET THE FOLLOWING SPECIFICATIONS: 4"-8"/40%-70% PASSING; 2"- 4" ROCK/30%-40% PASSING; AND -2" ROCK/10%-20% PASSING. INSTALLATION SHALL BE IN ACCORDANCE WITH KCRS.
- (5) ALL DISTURBED PERVIOUS AREAS (COMPACTED, GRADED, LANDSCAPED, ETC.) OF THE DEVELOPMENT SITE MUST DEMONSTRATE ONE OF THE FOLLOWING: THE EXISTING DUFF LAYER SHALL BE STAGED AND REDISTRIBUTED TO MAINTAIN THE MOISTURE CAPACITY OF THE SOIL, OR; AMENDED SOIL SHALL BE ADDED TO MAINTAIN THE MOISTURE CAPACITY.
- (6) SEASONAL CLEARING IS LIMITED BETWEEN OCTOBER 1 AND MARCH 30 INCLUSIVE, UNLESS OTHERWISE APPROVED WITH A WRITTEN DECISION BY THE REVIEWING AGENCY.
- (11) IMPROVEMENTS AND/OR BUILDINGS SHALL NOT BE INSTALLED UNTIL DRAINAGE FACILITIES ARE 'IN OPERATION'.

SANITARY SEWER SERVICE NOTES:

SIDE SEWER CONSTRUCTION REQUIREMENTS:

1. FOUR-INCH (4") PIPE MUST BE LAID AT A MINIMUM 2% GRADE.
2. SIX-INCH (6") PIPE MUST BE LAID AT A MINIMUM 1.2% GRADE.
3. SIDE SEWERS MUST NOT BE CLOSER THAN 30" TO ANY FOUNDATION WALL OR OUTER LINE OF ANY FOOTINGS, PILING, OR BUILDING SUPPORTS. A CLEAN-OUT MUST BE INSTALLED AT THE CONNECTION, AND MUST BE 36" FROM THE FOUNDATION.
4. MINIMUM COVER MUST BE 42" IN THE PUBLIC RIGHT-OF-WAY, 30" IN PRIVATE ROADWAYS AND UNDER DITCHES, AND 18" ON PRIVATE PROPERTY.
5. SIDE SEWERS TO A SINGLE HOUSE MUST BE AT LEAST 4". ALL SIDE SEWERS SERVING TWO SINGLE FAMILY HOUSES, MULTIPLE DWELLINGS, COMMERCIAL ESTABLISHMENTS, SCHOOLS, OR ANY BUILDING OTHER THAN SINGLE FAMILY MUST BE AT LEAST 6".
6. SIDE SEWERS INSTALLED UNDER FUTURE WALLS OR ROCKERIES SHALL BE SLEEVED WITH D.I.P. WITH ENDS GROUTED IN.
7. SEWER MAINS MAY BE CORED OR A "T" INSTALLED IN THE MAIN LINE WHERE NO SEWER STUB EXISTS.
8. SIDE SEWERS WHEN USING OPEN CUT CONSTRUCTION METHODS MUST BE BEDDED WITH IMPORTED MATERIAL TO 4" BELOW AND 6" ABOVE THE INSTALLED PIPE. THE BROAD, "BELL" ENDS OF PIPE MUST BE LAID UPHILL.
9. IMPORTED BACKFILL MATERIAL WILL BE REQUIRED IN ALL PAVED AREAS AND MUST BE COMPACTED TO 95% OF MAXIMUM DENSITY IN 1 FT. LIFTS. IN PUBLIC RIGHT OF WAY, ONLY SELECT MATERIAL (3/4" MINUS C.R.) WILL BE ALLOWED FOR BEDDING AND BACKFILL.
10. PARALLEL SEWER AND WATER SERVICE LINES MUST BE AT LEAST 4 FEET APART WHEN LAID HORIZONTALLY, AND AT LEAST 2 FEET APART WHEN LAID VERTICALLY, WITH THE SEWER THE DEEPER OF THE TWO LINES. IF THE LINES MUST CROSS, THEY MUST CROSS AT 90 DEGREES TO ONE ANOTHER AND HAVE AT LEAST 2 FEET OF VERTICAL CLEARANCE.
11. ALL CHANGES IN DIRECTION MUST BE MADE WITH 1/8 BENDS (45 DEGREES), 1/16 BENDS (22 1/2 DEGREES), OR "Y" BRANCHES WITH THE STRAIGHT-THROUGH OPENING PLUGGED FOR CLEAN-OUT. NO MORE THAN TWO BENDS ARE PERMITTED BETWEEN CLEAN-OUTS, WHICH MUST BE PLACED AT LEAST EVERY 100 FEET. CLEAN-OUTS MUST EXTEND TO WITHIN 12" OF THE FINISHED GRADE AND CAPPED WITH A WATER-TIGHT PLUG. CLEAN-OUTS IN PAVED AREAS, PATIOS, OR SIDEWALKS MUST HAVE CAST IRON FRAMES AND COVERS WITH LOCKING LIDS SET TO FINISHED PAVED GRADE.
12. HOUSES THAT CONNECT DIRECTLY TO THE LAKE SEWER LINE REQUIRE A BACKFLOW CHECK VALVE. (SUBMIT COPY OF MANUFACTURER'S SPECIFICATIONS FOR APPROVAL PRIOR TO INSTALLATION.)
13. GRINDER PUMP SYSTEMS ARE APPROVED ON A CASE BY CASE BASIS. PLANS AND CALCULATIONS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
14. HOUSES MAY NOT BE BUILT BELOW THE SEWER HYDRAULIC GRADIENT WITHOUT AN APPROVED GRINDER PUMP DESIGN. AUDIBLE AND VISUAL ALARMS ARE REQUIRED FOR PUMP FAILURE AND HIGH WATER LEVEL IN THE WET WELL. WET WELL SHALL BE LOCATED OUTSIDE THE BUILDING.

ALLOWABLE MATERIALS:

1. ALL MATERIALS, EQUIPMENT AND CONSTRUCTION TECHNIQUES MUST MEET WITH THE APPROVAL AND PASS ALL REQUIREMENTS OF THE CITY ENGINEER. THE MATERIALS LISTED BELOW CONFORM TO THESE STANDARDS.
2. ASTM 3034 SDR 35 PVC PIPE, FUSED SOLID WALL HDPE, SCHEDULE 40 ABS, DIP OR CIP (UP TO 8 FT. DEPTH). OVER 8 FT. DEPTH AND SLOPES MORE THAN 20%, DIP, CIP, OR FUSED SOLID WALL HDPE ARE REQUIRED.
3. BEDDING MATERIAL FOR OPEN CUT CONSTRUCTION MUST BE PEA GRAVEL, SAND, CONTROL DENSITY FILL (CDF), OR 3/4" MINUS C.R.
4. SELECT BACKFILL MATERIAL SHALL BE 3/4" MINUS C.R. OR CONTROL DENSITY FILL (CDF).
5. IMPORTED BACKFILL MATERIAL SHALL BE BANK RUN GRAVEL OR PIT RUN GRAVEL FROM AN APPROVED SUPPLIER MEETING APWA/WSDOT GRADATION SPECIFICATIONS. NOT ALLOWED IN RIGHT-OF-WAY.
6. RUBBER GASKETS MUST BE USED WHEN APPROPRIATE.
7. RIGID COUPLINGS MUST BE USED FOR CONNECTIONS TO EXISTING STUBS IN RIGHT-OF-WAY.
8. A STAINLESS STEEL STRAP AND SADDLE (ROMAC) MUST BE USED FOR CORING.

WATER SERVICE NOTES:

WATER METER INSTALLATION NOTES:

1. CALL FOR UTILITY LOCATES, MARK AREAS OF EXCAVATION WITH WHITE MARKING PAINT.
2. OBTAIN RIGHT-OF-WAY USE PERMIT IF APPLICABLE.
3. CITY OF MERCER ISLAND MAINTENANCE DEPARTMENT MUST STAKE METER LOCATION, PLEASE CALL (206) 275-7800 FOR LOCATION OF NEW METER INSTALLATION.
4. * PROJECTS THAT REQUIRE BACKFLOW PROTECTION MUST HAVE PRIOR APPROVAL FOR LOCATION OF BACKFLOW PREVENTION ASSEMBLY. LOCATION CAN BE VERIFIED AT PRE-CONSTRUCTION MEETING.
5. * CALL THE INSPECTION LINE 24-HOURS IN ADVANCE TO SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE CITY INSPECTOR. (206) 275-7730. THE PURPOSE OF THE MEETING IS TO:
 - * VERIFY THE LOCATION OF THE NEW METER AFTER UTILITY LOCATES HAVE BEEN MARKED. ANY CHANGE TO THE METER LOCATION REQUIRES APPROVAL BY THE MAINTENANCE DEPARTMENT.
 - * VERIFY THAT THE CUSTOMER IS READY FOR THE INSTALLATION.
 - * VERIFY THAT ALL MATERIALS ARE ON SITE AND READY FOR THE INSTALLATION (SEE PRECONSTRUCTION WORKSHEET)
6. * SCHEDULE THE WATER TAP AND INSPECTIONS.
7. * WATER MAIN TAPS ARE SCHEDULED TO BE PERFORMED ONLY ON THE FOLLOWING DAYS:
 - * TUESDAY, WEDNESDAY AND THURSDAY UNLESS IT IS A HOLIDAY WEEK.
 - * IF A HOLIDAY WEEK, TAPS WILL NOT BE ALLOWED ON THE HOLIDAY, THE DAY BEFORE OR THE DAY AFTER THE HOLIDAY. THE CITY INSPECTOR SHALL BE ON SITE DURING ALL WATER TAPS. PLEASE DO NOT COVER ANY PIPING PRIOR TO INSPECTION.
8. THE CITY INSPECTOR WILL INSPECT ALL CONNECTIONS AND VERIFY THAT THE SERVICES ARE INSTALLED PER CITY OF MERCER ISLAND STANDARD DRAWINGS.
9. THE CITY WILL INSTALL THE WATER METER UPON COMPLETION AND APPROVAL OF WATER SERVICE. PLEASE ALLOW TWO WEEKS FOR THE METER TO BE INSTALLED AFTER MAKING A REQUEST FOR THE WATER METER TO BE INSTALLED.
10. ABANDON THE EXISTING SERVICES AT THE MAIN FOLLOWING INSTALLATION OF THE NEW SERVICE.
11. THE CONTRACTOR MUST FILL OUT THE WATER SERVICE AS-BUILT FORM DURING CONSTRUCTION AND GIVE IT TO THE CITY INSPECTOR AT FINAL INSPECTION.

NOTE: 3/4" CRUSHED ROCK BACKFILL IS REQUIRED IN RIGHT OF WAY AND PRIVATE ROADS/DRIVEWAYS.

GEOTECHNICAL NOTES

THE PROJECT GEOTECHNICAL ENGINEER OF RECORD OR HIS REPRESENTATIVE MUST BE ONSITE DURING CRITICAL EARTHWORK OPERATIONS. THE GEOTECHNICAL ENGINEER SHALL OBSERVE ALL EXCAVATIONS AND FILL AREAS. IN ADDITION, THE ENGINEER SHALL INSPECT THE SOIL CUTS PRIOR TO CONSTRUCTION OF THE ULTRALOOK WALL AND INSPECT THE COMPACTION IN FILL AREAS. THE ENGINEER MUST SUBMIT FIELD REPORTS IN WRITING TO THE CITY INSPECTOR FOR SOILS VERIFICATION AND FOUNDATION CONSTRUCTION IF REQUESTED. ALL EARTHWORK SHOULD BE IN CONFORMANCE WITH THE RECOMMENDATIONS IN THE GEOTECHNICAL REPORT.

RECOMMENDED CONSTRUCTION SEQUENCE

- EROSION AND SEDIMENT CONTROL RECOMMENDED CONSTRUCTION SEQUENCE
- (1) PRE-CONSTRUCTION MEETING.
 - (2) POST SIGN WITH NAME AND PHONE NUMBER OF ESC SUPERVISOR (MAY BE CONSOLIDATED WITH THE REQUIRED NOTICE OF CONSTRUCTION SIGN).
 - (3) FLAG OR FENCE CLEARING LIMITS.
 - (4) INSTALL CATCH BASIN PROTECTION IF REQUIRED.
 - (5) GRADE AND INSTALL CONSTRUCTION ENTRANCE(S).
 - (6) INSTALL PERIMETER PROTECTION (SILT FENCE, BRUSH BARRIER, ETC.).
 - (7) GRADE AND STABILIZE CONSTRUCTION ROADS.
 - (8) CONSTRUCT SURFACE WATER CONTROLS (INTERCEPTOR DIKES, PIPE SLOPE DRAINS, ETC.) SIMULTANEOUSLY WITH CLEARING AND GRADING FOR PROJECT DEVELOPMENT.
 - (9) MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH CITY OF MERCER ISLAND STANDARDS AND MANUFACTURER'S RECOMMENDATIONS.
 - (10) RELOCATE EROSION CONTROL MEASURES OR INSTALL NEW MEASURES SO THAT AS SITE CONDITIONS CHANGE THE EROSION AND SEDIMENT CONTROL IS ALWAYS IN ACCORDANCE WITH THE CITY EROSION AND SEDIMENT CONTROL STANDARDS.
 - (11) COVER ALL AREAS THAT WILL BE UNWORKED FOR MORE THAN SEVEN DAYS DURING THE DRY SEASON OR TWO DAYS DURING THE WET SEASON WITH STRAW, WOOD FIBER MULCH, COMPOST, PLASTIC SHEETING OR EQUIVALENT.
 - (12) STABILIZE ALL AREAS THAT REACH FINAL GRADE WITHIN SEVEN DAYS.
 - (13) SEED OR SOD ANY AREAS TO REMAIN UNWORKED FOR MORE THAN 30 DAYS.
 - (14) UPON COMPLETION OF THE PROJECT, ALL DISTURBED AREAS MUST BE STABILIZED AND BMPS REMOVED IF APPROPRIATE.



EROSION & SEDIMENTATION CONTROL NOTES

- (1) APPROVAL OF THIS EROSION AND SEDIMENTATION CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G. SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.)
- (2) THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE APPLICANT/ESC SUPERVISOR UNTIL ALL CONSTRUCTION IS APPROVED.
- (3) THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED BY SURVEY TAPE OR FENCING, IF REQUIRED, PRIOR TO CONSTRUCTION (SWDM APPENDIX D). DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE CLEARING LIMITS SHALL BE PERMITTED. THE CLEARING LIMITS SHALL BE MAINTAINED BY THE APPLICANT/ESC SUPERVISOR FOR THE DURATION OF CONSTRUCTION.
- (4) STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES, SUCH AS CONSTRUCTED WHEEL WASH SYSTEMS OR WASH PADS, MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN AND TRACK OUT TO ROAD RIGHT OF WAY DOES NOT OCCUR FOR THE DURATION OF THE PROJECT.
- (5) THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED PRIOR TO OR IN CONJUNCTION WITH ALL CLEARING AND GRADING SO AS TO ENSURE THAT THE TRANSPORT OF SEDIMENT TO SURFACE WATERS, DRAINAGE SYSTEMS, AND ADJACENT PROPERTIES IS MINIMIZED.
- (6) THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND MODIFIED TO ACCOUNT FOR CHANGING SITE CONDITIONS (E.G. ADDITIONAL COVER MEASURES, ADDITIONAL SUMP PUMPS, RELOCATION OF DITCHES AND SILT FENCES, PERIMETER PROTECTION ETC.).
- (7) THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE APPLICANT/ESC SUPERVISOR AND MAINTAINED TO ENSURE CONTINUED PROPER FUNCTIONING. WRITTEN RECORDS SHALL BE KEPT OF WEEKLY REVIEWS OF THE ESC FACILITIES.
- (8) ANY AREAS OF EXPOSED SOILS, INCLUDING ROADWAY EMBANKMENTS, THAT WILL NOT BE DISTURBED FOR TWO DAYS DURING THE WET SEASON OR SEVEN DAYS DURING THE DRY SEASON SHALL BE IMMEDIATELY STABILIZED WITH THE APPROVED ESC COVER METHODS (E.G., SEEDING, MULCHING, PLASTIC COVERING, ETC.).
- (9) ANY AREA NEEDING ESC MEASURES, NOT REQUIRING IMMEDIATE ATTENTION, SHALL BE ADDRESSED WITHIN SEVEN (7) DAYS.
- (10) THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN 24 HOURS FOLLOWING A STORM EVENT.
- (11) AT NO TIME SHALL MORE THAN ONE (1) FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT-LADEN WATER INTO THE DOWNSTREAM SYSTEM.
- (12) COVER MEASURES WILL BE APPLIED IN CONFORMANCE WITH APPENDIX D OF THE SURFACE WATER DESIGN MANUAL.
- (13) PRIOR TO THE BEGINNING OF THE WET SEASON (OCT. 1), ALL DISTURBED AREAS SHALL BE REVIEWED TO IDENTIFY WHICH ONES CAN 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 MAP OF THOSE AREAS TO BE SEEDED AND THOSE AREAS TO REMAIN UNCOVERED SHALL BE SUBMITTED TO THE CITY INSPECTOR FOR REVIEW.

SHEET INDEX

- C0.0 GENERAL NOTES
- C1.0 TEMPORARY EROSION & SEDIMENT CONTROL PLAN
- C1.1 DETAILS
- C2.0 GRADING AND STORM DRAINAGE PLAN
- C3.0 WATER AND SANITARY SEWER PLAN

SITE INFORMATION:

PROJECT ADDRESS: 8114 WEST MERCER WAY,
MERCER ISLAND, WA 98040
PROJECT PARCEL NO. 3358500974
SECTION/TOWNSHIP/RANGE: S36, T24N, R4E, WM
TOTAL LOTS AREA = 17,603 S.F.

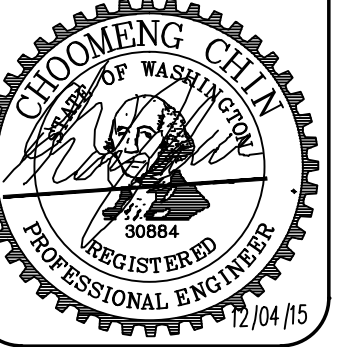
CONSTRUCTION NOTE

PRIOR TO STARTING CONSTRUCTION, CONTACT ONE--CALL 811 OR (1-800-424-5555) FOR UTILITY LOCATIONS..

ISSUED DATE:

PERMIT SET NOV 18, 2013

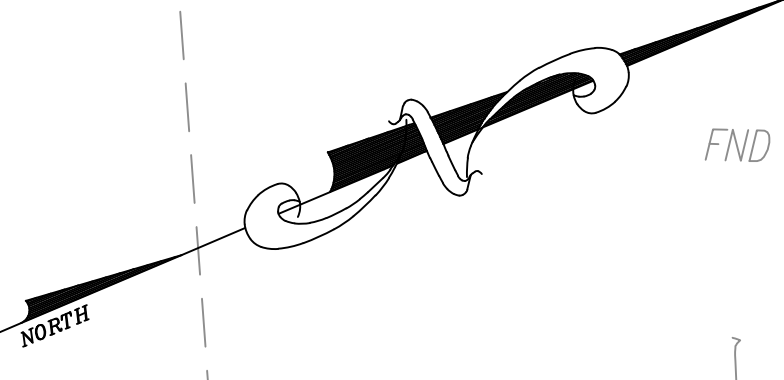
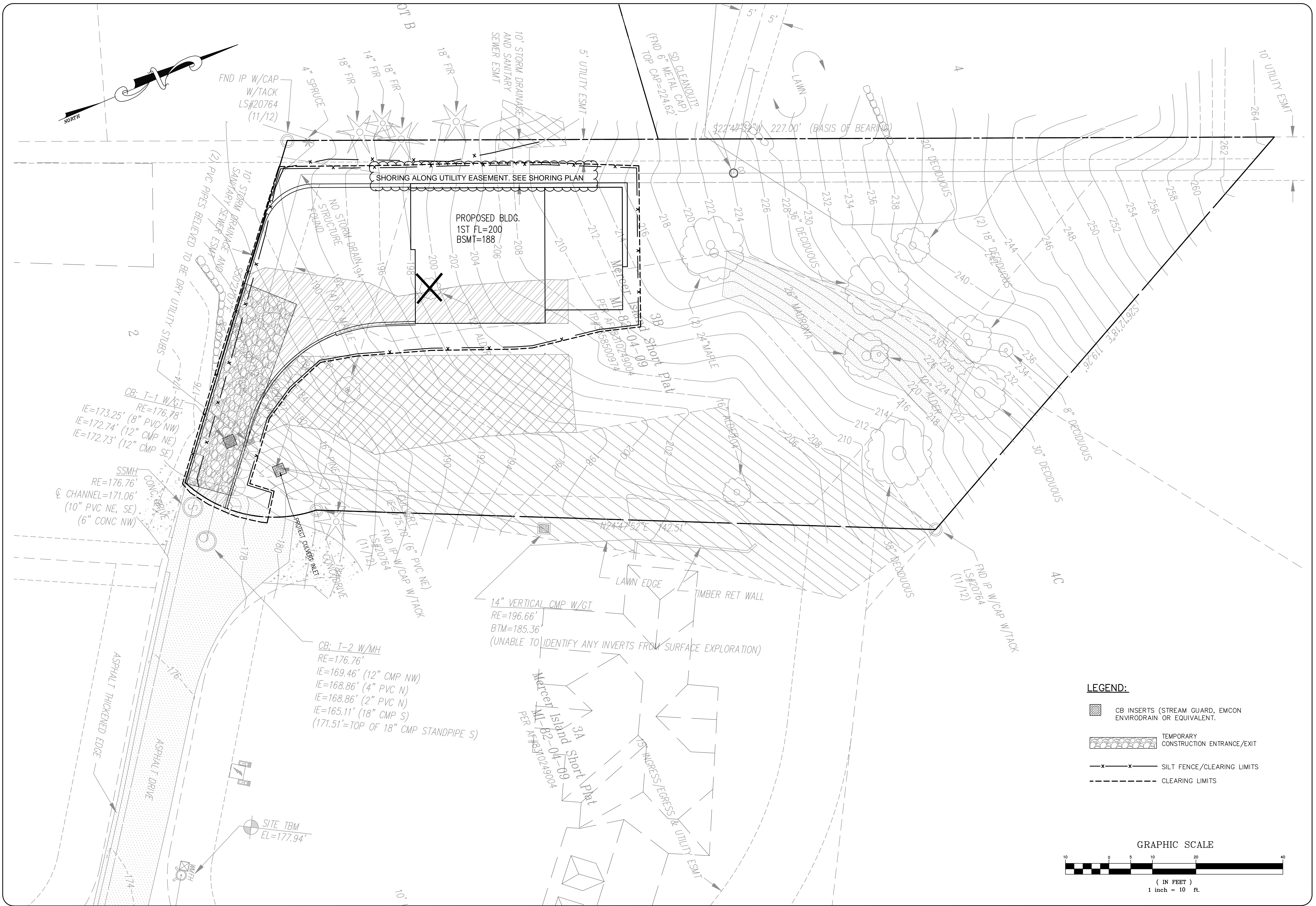
CIVIL ENGINEER:
CHOOMENG CHIN, P.E.
5610 145TH AVE. SE
BELLEVUE, WA 98006
(206) 427-4533
cm_chin@yahoo.com



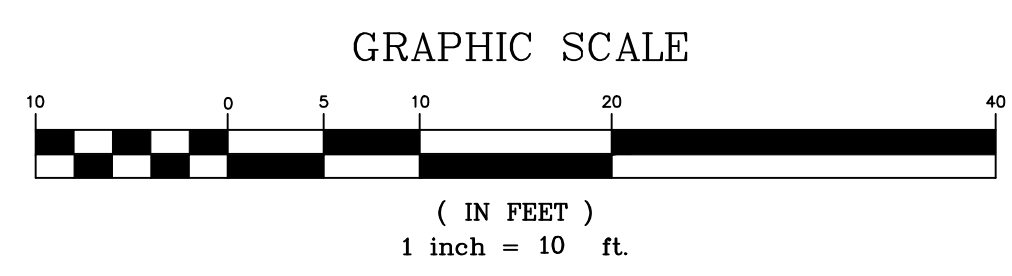
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LEE RESIDENCE
8114 WEST MERCER WAY
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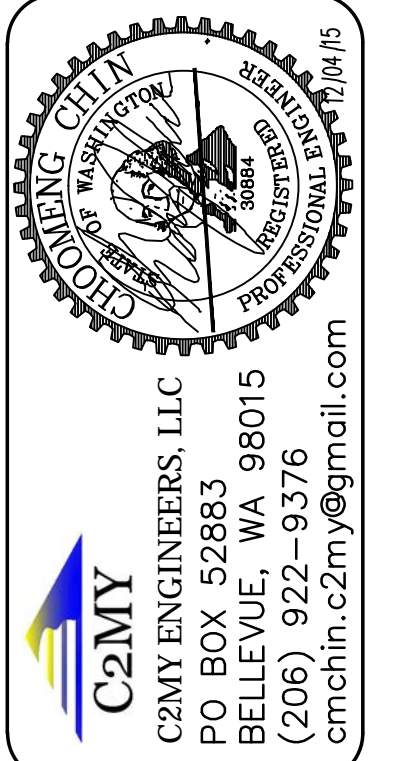
GENERAL NOTES
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- LEGEND:**
- CB INSERTS (STREAM GUARD, EMCON, ENVIRODRAIN OR EQUIVALENT.)
 - TEMPORARY CONSTRUCTION ENTRANCE/EXIT
 - SILT FENCE/CLEARING LIMITS
 - CLEARING LIMITS



ISSUED DATE:
 CRITICAL AREA DETERMINATION
 SEP 25, 2018



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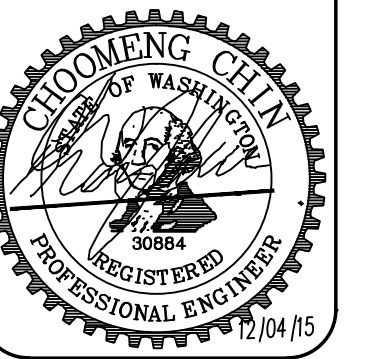
LEE RESIDENCE
 8114 WEST MERCER WAY
 MERCER ISLAND WA 98040

FILE 21230
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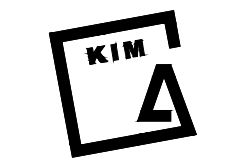
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NOV 18, 2013

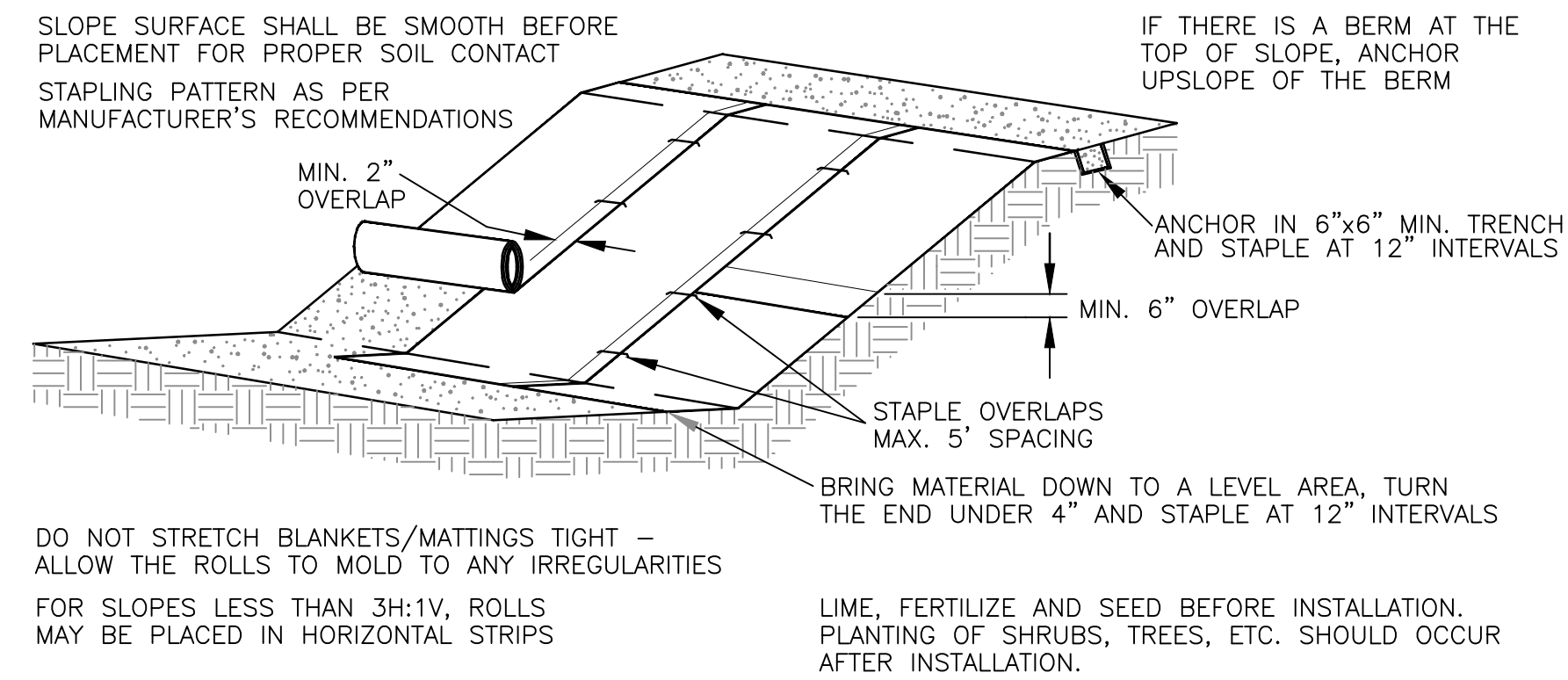
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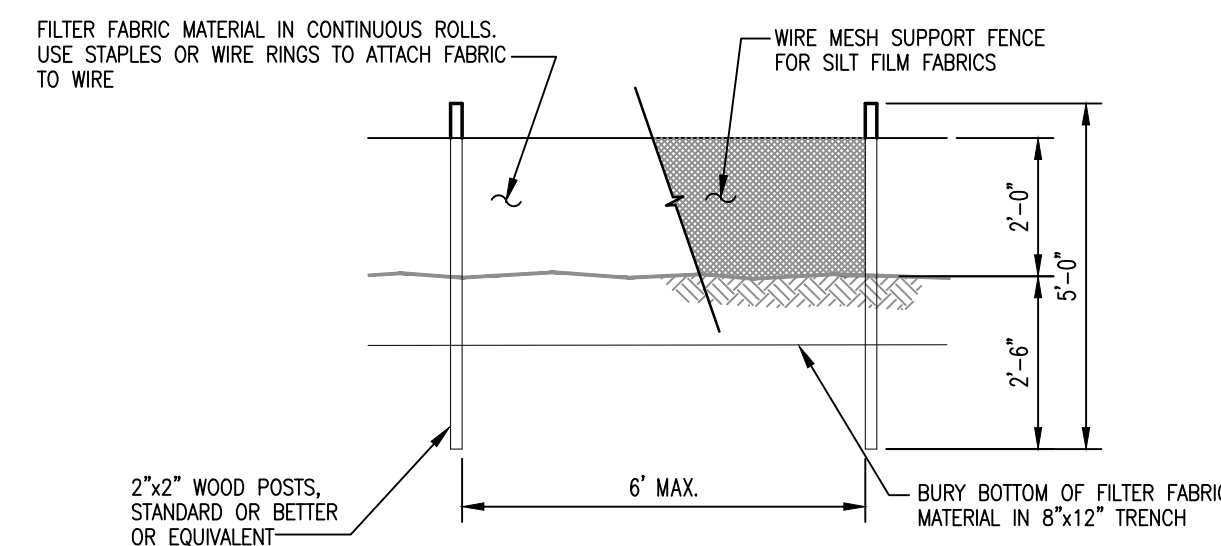
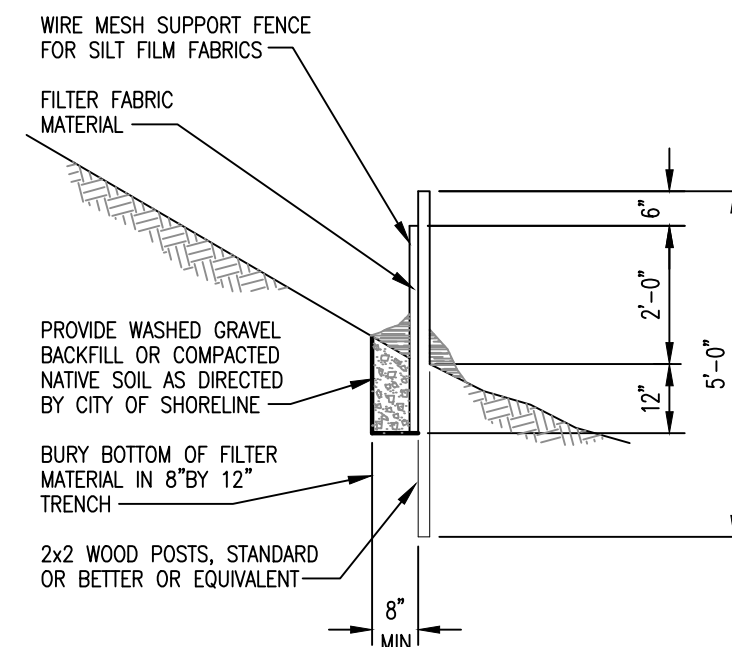


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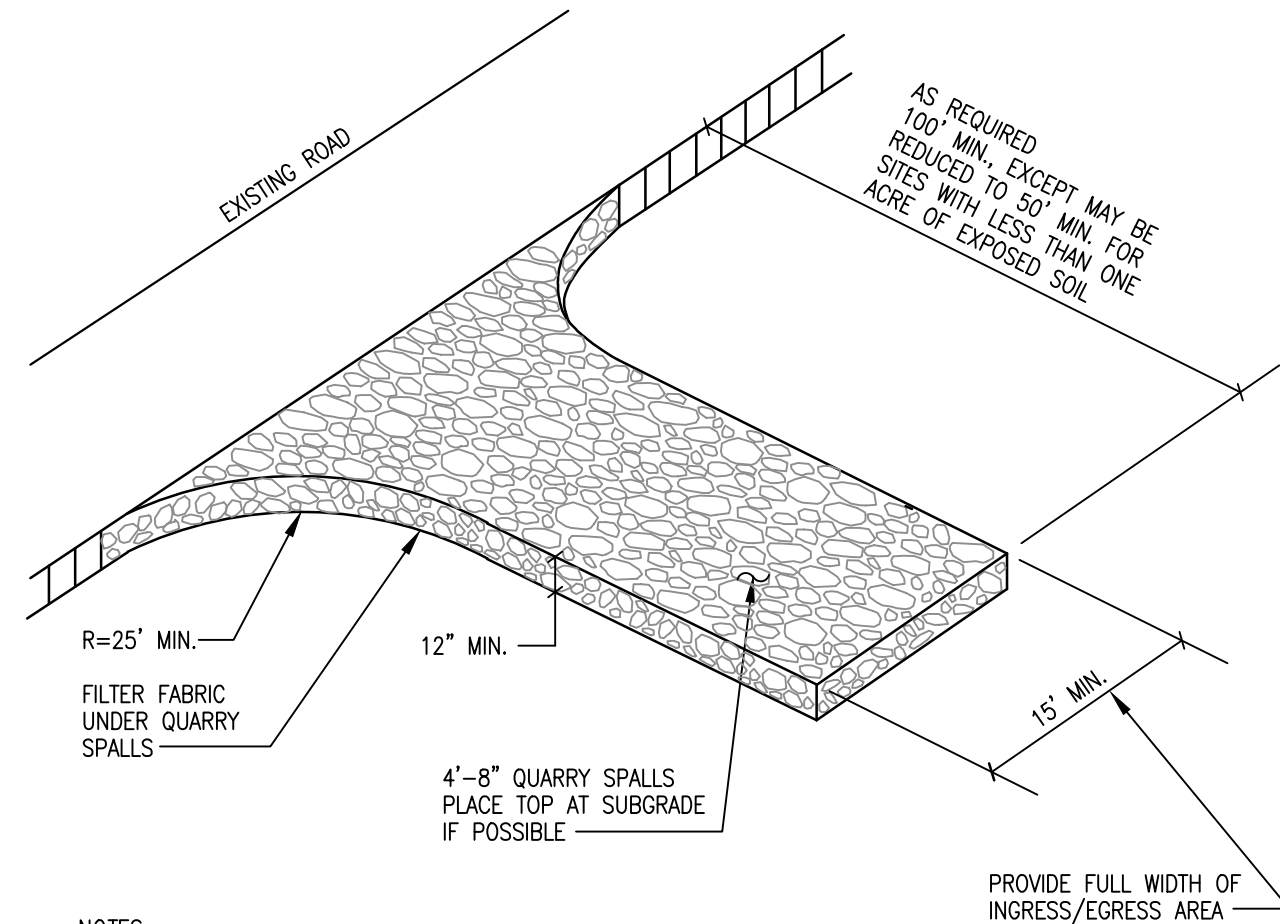
PERMANENT SLOPE PROTECTION MATTING DETAIL

NO SCALE



SILT FENCE

NO SCALE

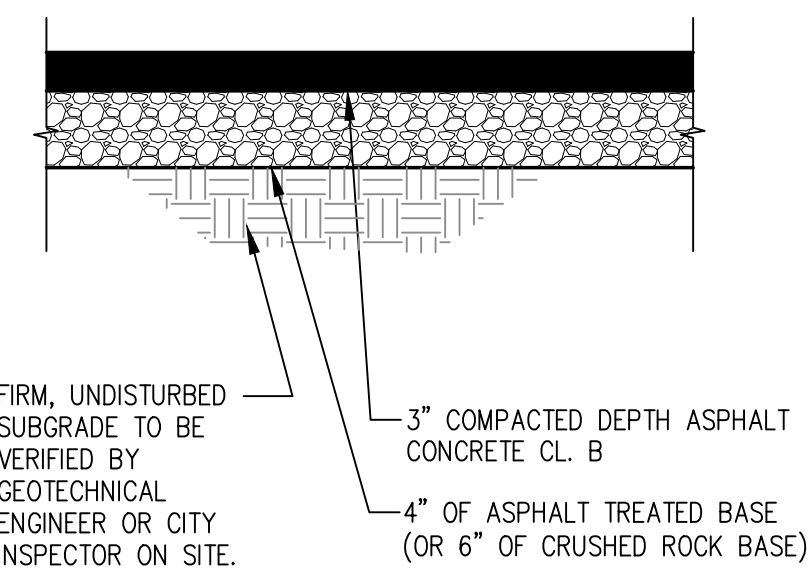


NOTES:

1. STONE SIZE - USE 4" QUARRY SPALLS.
2. LENGTH - AS REQUIRED, BUT NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS - NOT LESS THAN 12"
4. WIDTH - 15 FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. FILTER WILL NOT BE REQUIRED ON A SINGLE FAMILY RESIDENCE LOT.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

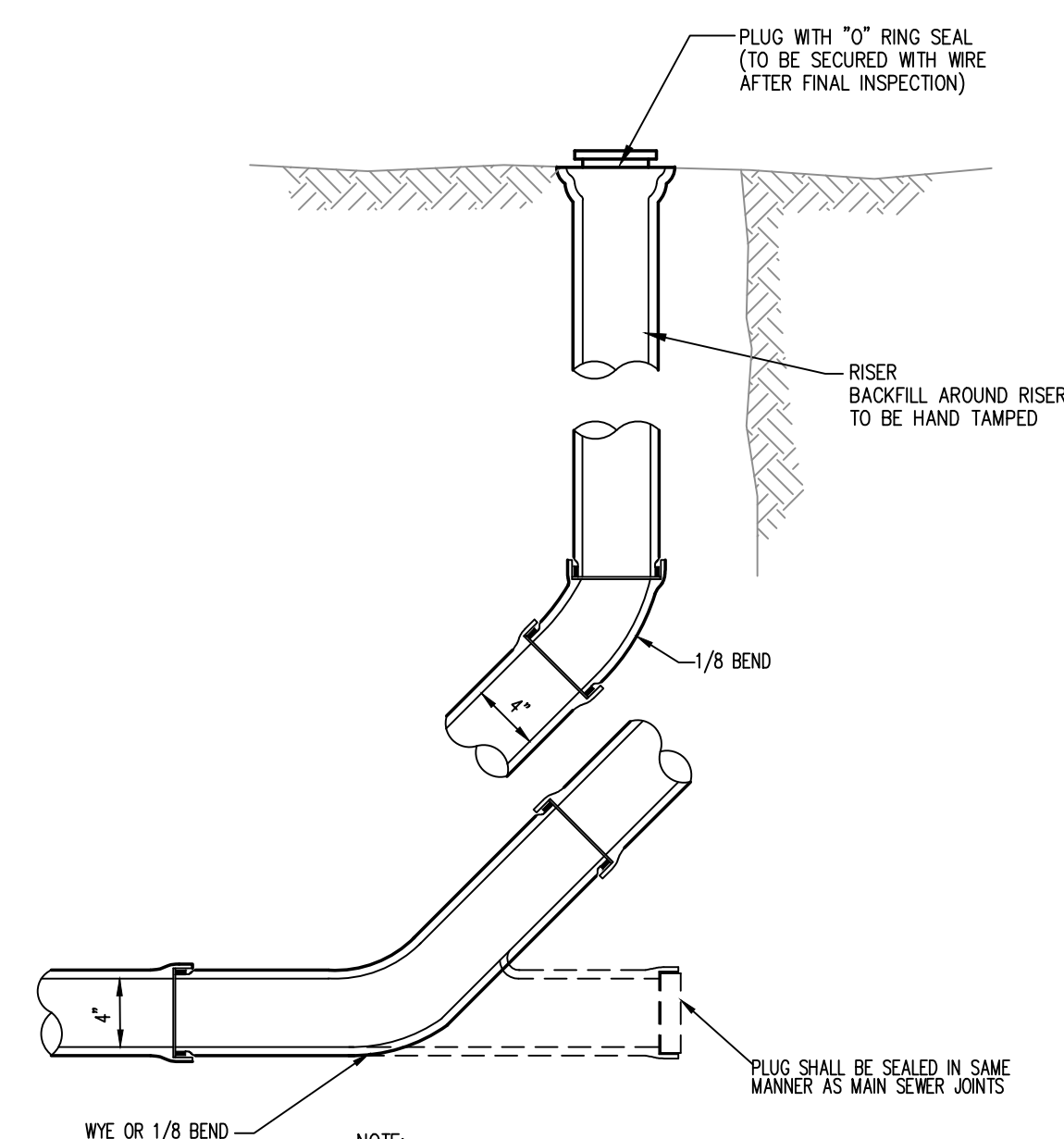
STABILIZED CONSTRUCTION ENTRANCE

NO SCALE



DRIVEWAY AC-PAVEMENT SECTION

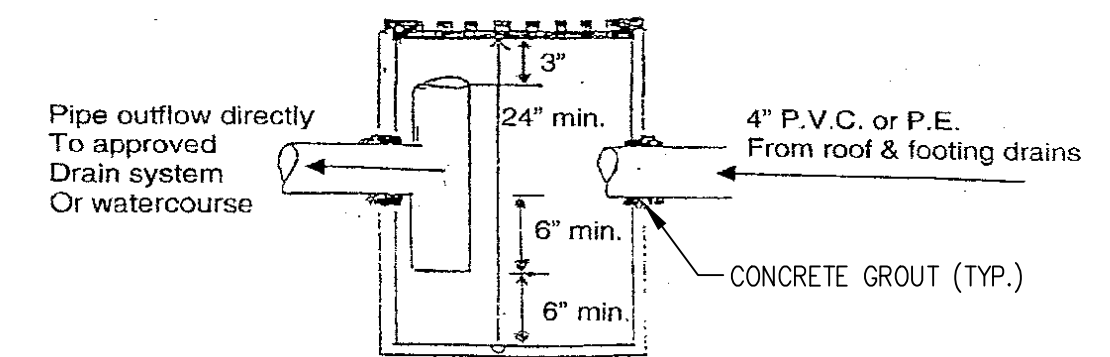
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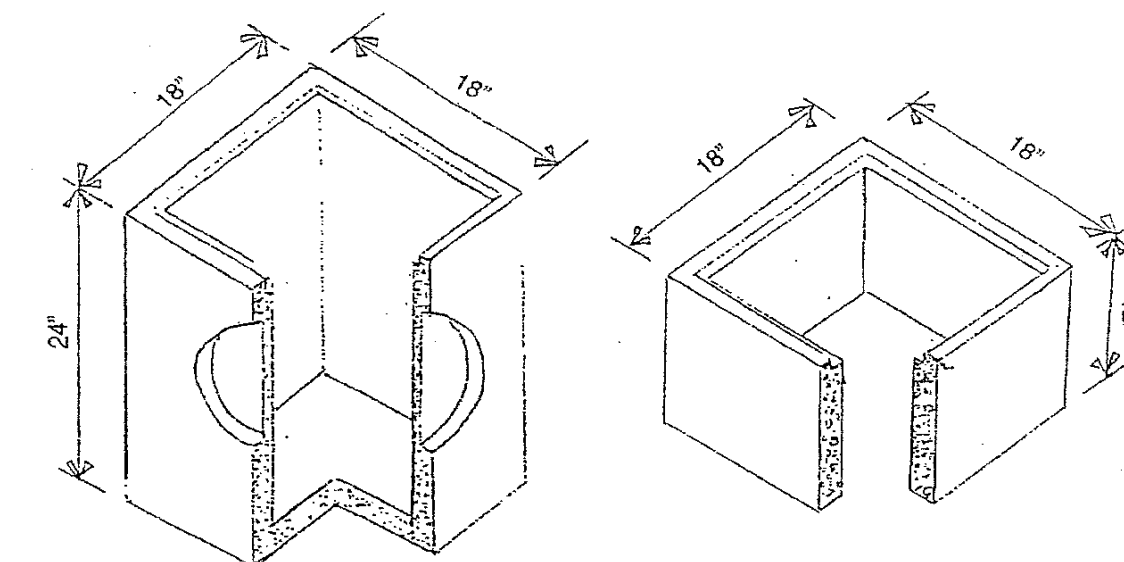
STORM DRAIN CLEANOUT

NTS

- NOTE:
1. FOR SIDE SEWER AND SERVICE DRAINS ON UNPAVED AREA.



Catch Basin with Oil Separator



Catch Basin (C.B.)
Depth & Volume are Minimum Dimensions.
Minimum Volume = 24 gal.

6" & 12" Adjustment Riser

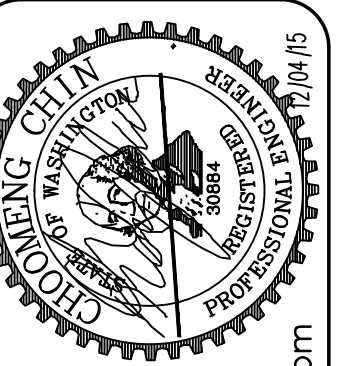
DETAILS

FILE 21230

C1.1

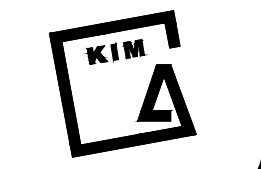
ISSUED DATE:

CRITICAL AREA DETERMINATION
SEP 25, 2018



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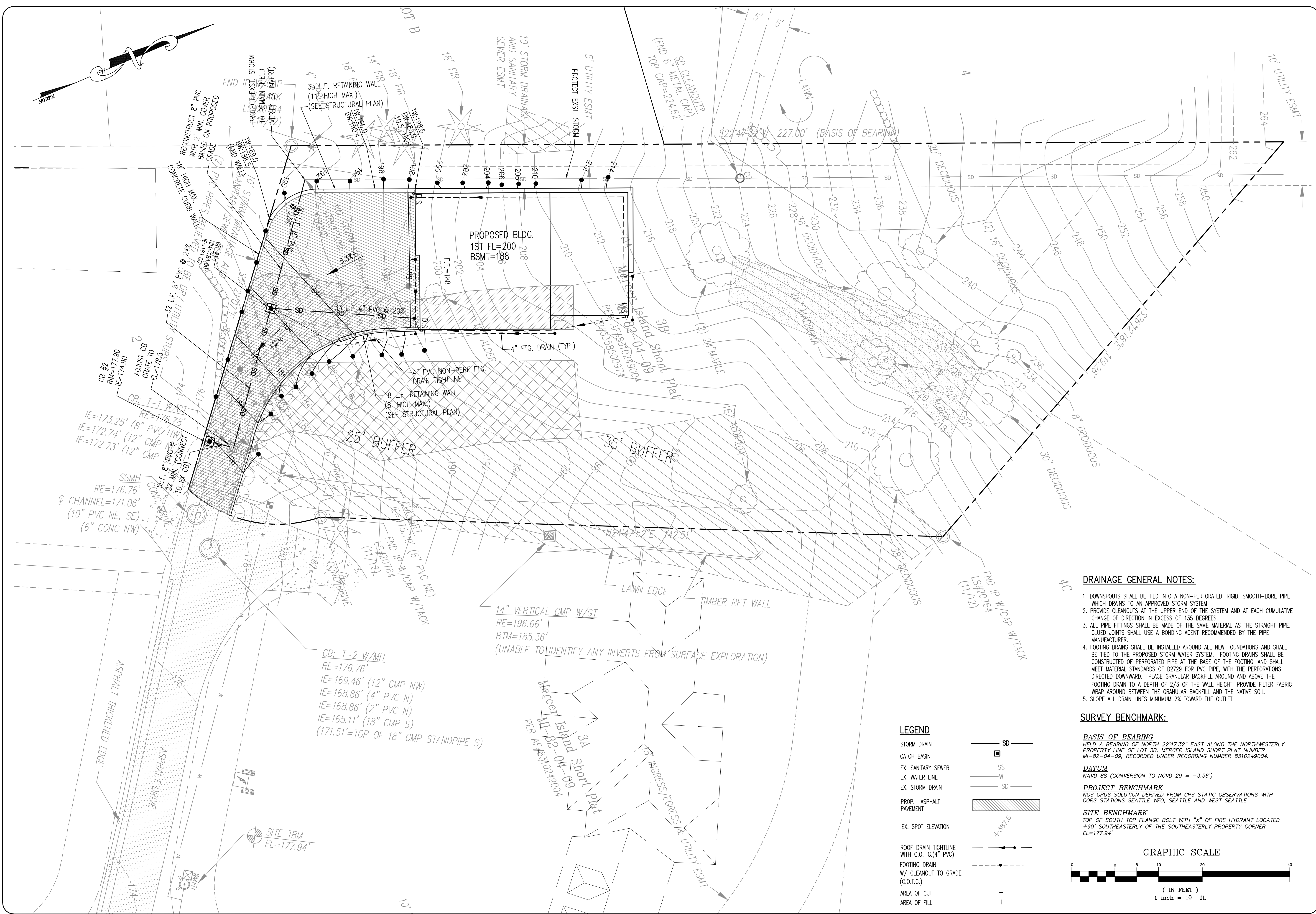


LEE RESIDENCE
8114 WEST MERCER WAY
MERCER ISLAND WA 98040

PAVING AND GRADING PLAN

FILE 21230

C2.0



DRAINAGE GENERAL NOTES:

1. DOWNSPOUTS SHALL BE TIED INTO A NON-PERFORATED, RIGID, SMOOTH-BORE PIPE WHICH DRAINS TO AN APPROVED STORM SYSTEM
2. PROVIDE CLEANOUTS AT THE UPPER END OF THE SYSTEM AND AT EACH CUMULATIVE CHANGE OF DIRECTION IN EXCESS OF 135 DEGREES.
3. ALL PIPE FITTINGS SHALL BE MADE OF THE SAME MATERIAL AS THE STRAIGHT PIPE. GLUED JOINTS SHALL USE A BONDING AGENT RECOMMENDED BY THE PIPE MANUFACTURER.
4. FOOTING DRAINS SHALL BE INSTALLED AROUND ALL NEW FOUNDATIONS AND SHALL BE TIED TO THE PROPOSED STORM WATER SYSTEM. FOOTING DRAINS SHALL BE CONSTRUCTED OF PERFORATED PIPE AT THE BASE OF THE FOOTING, AND SHALL MEET MATERIAL STANDARDS OF D2729 FOR PVC PIPE, WITH THE PERFORATIONS DIRECTED DOWNWARD. PLACE GRANULAR BACKFILL AROUND AND ABOVE THE FOOTING DRAIN TO A DEPTH OF 2/3 OF THE WALL HEIGHT. PROVIDE FILTER FABRIC WRAP AROUND BETWEEN THE GRANULAR BACKFILL AND THE NATIVE SOIL.
5. SLOPE ALL DRAIN LINES MINIMUM 2% TOWARD THE OUTLET.

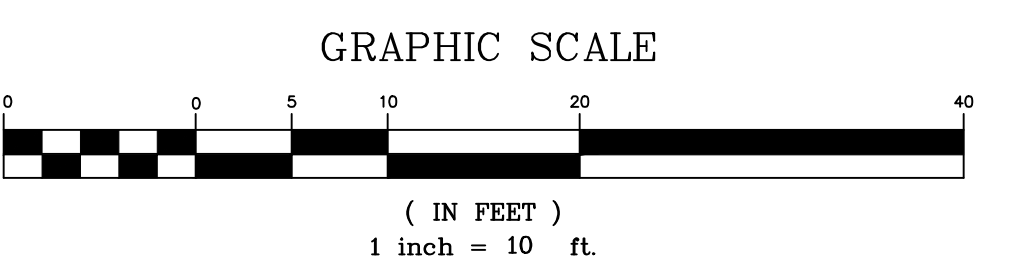
SURVEY BENCHMARK:

BASIS OF BEARING
HELD A BEARING OF NORTH 22°47'32" EAST ALONG THE NORTHWESTERLY PROPERTY LINE OF LOT 3B, MERCER ISLAND SHORT PLAT NUMBER M-82-04-09, RECORDED UNDER RECORDING NUMBER 8310249004.

DATUM
NAVD 88 (CONVERSION TO NGVD 29 = -3.56')

PROJECT BENCHMARK
NGS OPUS SOLUTION DERIVED FROM GPS STATIC OBSERVATIONS WITH CORS STATIONS SEATTLE WFO, SEATTLE AND WEST SEATTLE

SITE BENCHMARK
TOP OF SOUTH TOP FLANGE BOLT WITH "X" OF FIRE HYDRANT LOCATED ±90° SOUTHEASTERLY OF THE SOUTHEASTERLY PROPERTY CORNER.
EL=177.94'



LEGEND

- STORM DRAIN — SD —
- CATCH BASIN □
- EX. SANITARY SEWER — SS —
- EX. WATER LINE — W —
- EX. STORM DRAIN — SD —
- PROP. ASPHALT PAVEMENT [Hatched Area]
- EX. SPOT ELEVATION x=367.6
- ROOF DRAIN TIGHTLINE WITH C.O.T.G.(4" PVC) ———
- FOOTING DRAIN W/ CLEANOUT TO GRADE (C.O.T.G.) - - -
- AREA OF CUT -
- AREA OF FILL +