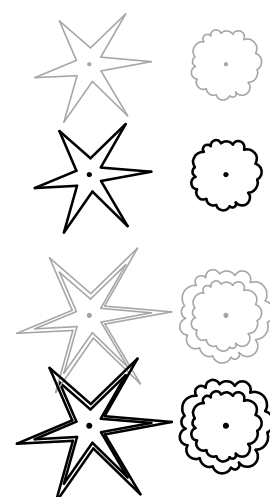
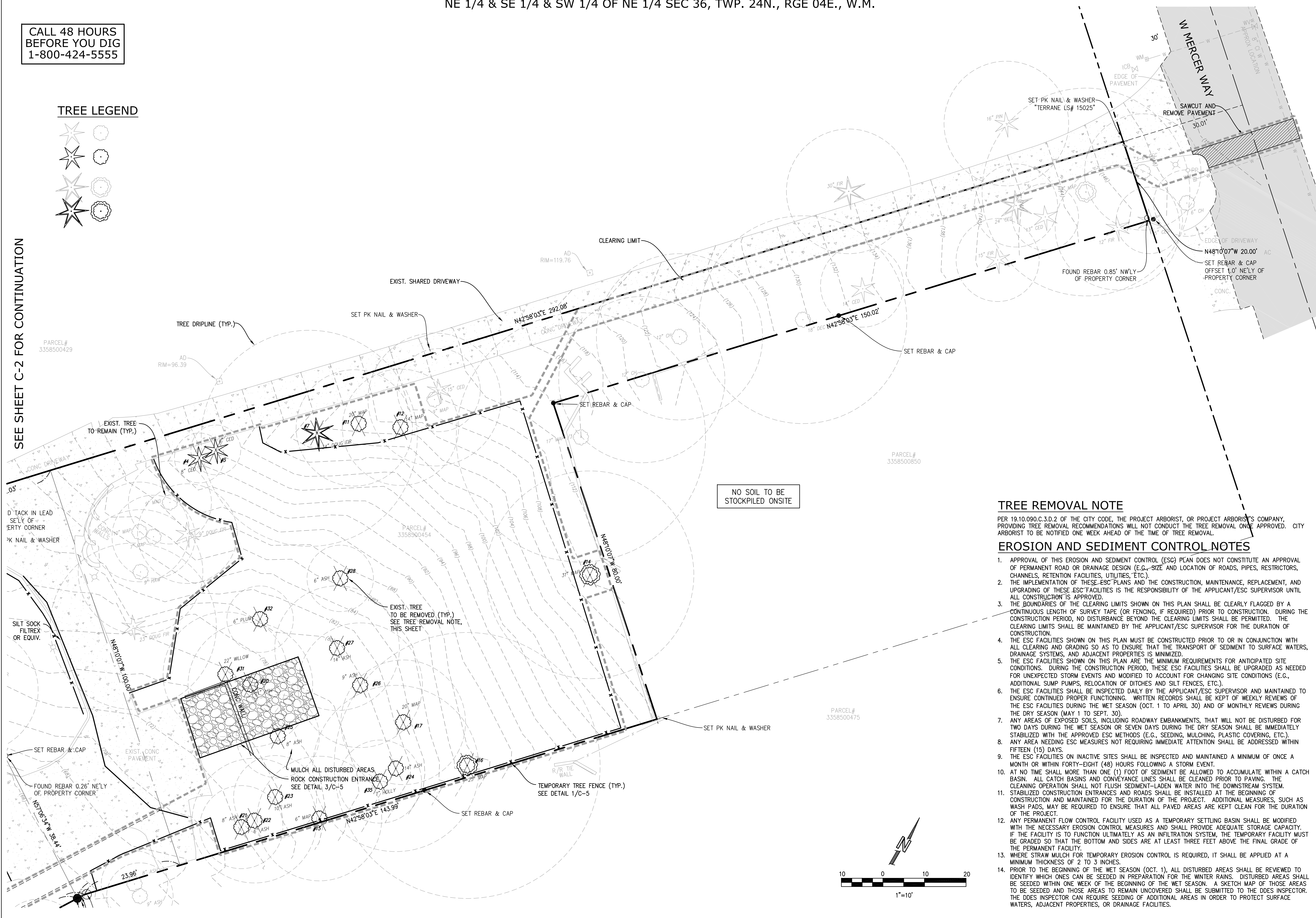


CALL 48 HOURS  
BEFORE YOU DIG  
1-800-424-5555

TREE LEGEND



SEE SHEET C-2 FOR CONTINUATION



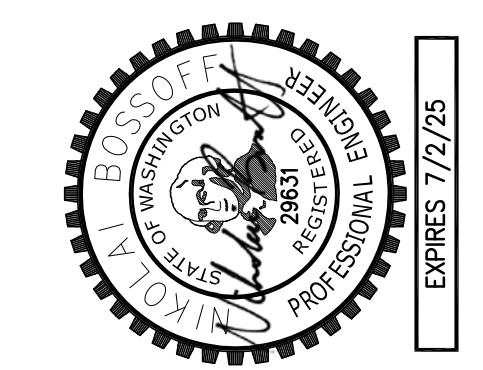
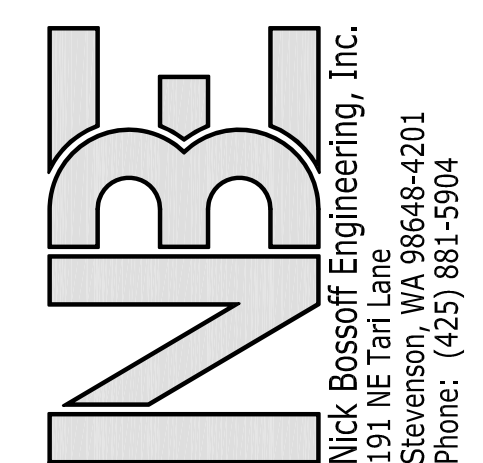
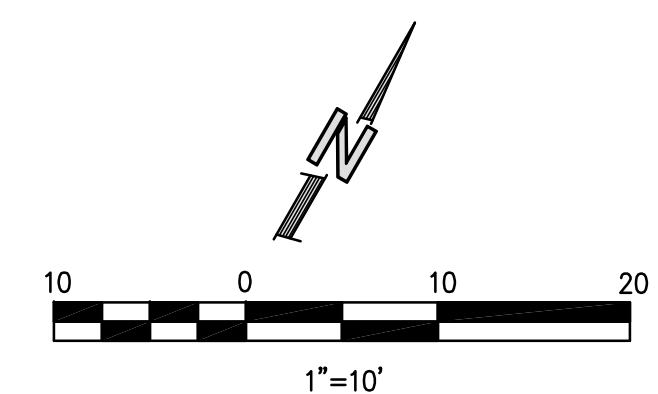
NO SOIL TO BE STOCKPILED ONSITE

TREE REMOVAL NOTE

PER 19.10.090.C.3.D.2 OF THE CITY CODE, THE PROJECT ARBORIST, OR PROJECT ARBORIST'S COMPANY, PROVIDING TREE REMOVAL RECOMMENDATIONS WILL NOT CONDUCT THE TREE REMOVAL ONCE APPROVED. CITY ARBORIST TO BE NOTIFIED ONE WEEK AHEAD OF THE TIME OF TREE REMOVAL.

EROSION AND SEDIMENT CONTROL NOTES

- APPROVAL OF THIS EROSION AND SEDIMENT 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.).
- 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.
- THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED BY A CONTINUOUS LENGTH OF SURVEY TAPE (OR FENCING, IF REQUIRED) PRIOR TO CONSTRUCTION. 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.
- 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.
- 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 SUMP PUMPS, RELOCATION OF DITCHES AND SILT FENCES, ETC.).
- 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 DURING THE WET SEASON (OCT. 1 TO APRIL 30) AND OF MONTHLY REVIEWS DURING THE DRY SEASON (MAY 1 TO SEPT. 30).
- 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 METHODS (E.G., SEEDING, MULCHING, PLASTIC COVERING, ETC.).
- ANY AREA NEEDING ESC MEASURES NOT REQUIRING IMMEDIATE ATTENTION SHALL BE ADDRESSED WITHIN FIFTEEN (15) DAYS.
- THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN FORTY-EIGHT (48) HOURS FOLLOWING A STORM EVENT.
- 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.
- STABILIZED CONSTRUCTION ENTRANCES AND ROADS SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES, SUCH AS WASH PADS, MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
- ANY PERMANENT FLOW CONTROL FACILITY USED AS A TEMPORARY SETTLING BASIN SHALL BE MODIFIED WITH THE NECESSARY EROSION CONTROL MEASURES AND SHALL PROVIDE ADEQUATE STORAGE CAPACITY. IF THE FACILITY IS TO FUNCTION ULTIMATELY AS AN INFILTRATION SYSTEM, THE TEMPORARY FACILITY MUST BE GRADED SO THAT THE BOTTOM AND SIDES ARE AT LEAST THREE FEET ABOVE THE FINAL GRADE OF THE PERMANENT FACILITY.
- WHERE STRAW MULCH FOR TEMPORARY EROSION CONTROL IS REQUIRED, IT SHALL BE APPLIED AT A MINIMUM THICKNESS OF 2 TO 3 INCHES.
- 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 DDES INSPECTOR. THE DDES INSPECTOR CAN REQUIRE SEEDING OF ADDITIONAL AREAS IN ORDER TO PROTECT SURFACE WATERS, ADJACENT PROPERTIES, OR DRAINAGE FACILITIES.



NO.	REVISION	DATE
1	PERMIT SUBMITTAL	09/21/18
2	CITY COMMENTS	10/09/19
3	CITY COMMENTS	02/01/21
4	OFFSITE PIPES REVISION	02/19/24

N. BOSSOFF, P.E.  
PROJECT MANAGER:  
NB  
DESIGNED:  
TKB  
DRAWN:  
PBAR-1801  
JOB NUMBER:  
PBAR-1801pin.dwg  
FILE NAME:

WASHINGTON  
MERCER ISLAND  
WEN HU RESIDENCE  
8251 W MERCER WAY

TITLE:  
T.E.S.C.  
PLAN

SHEET:  
C-1



NE 1/4 & SE 1/4 & SW 1/4 OF NE 1/4 SEC 36, TWP. 24N., RGE 04E., W.M.

**BASIS OF BEARINGS**

NAD83/2011, WASHINGTON NORTH COORDINATE SYSTEM, PER GPS OBSERVATIONS THE CENTERLINE OF W. MERCER WAY BEARS N48°10'07"W BETWEEN FOUND MONUMENTS

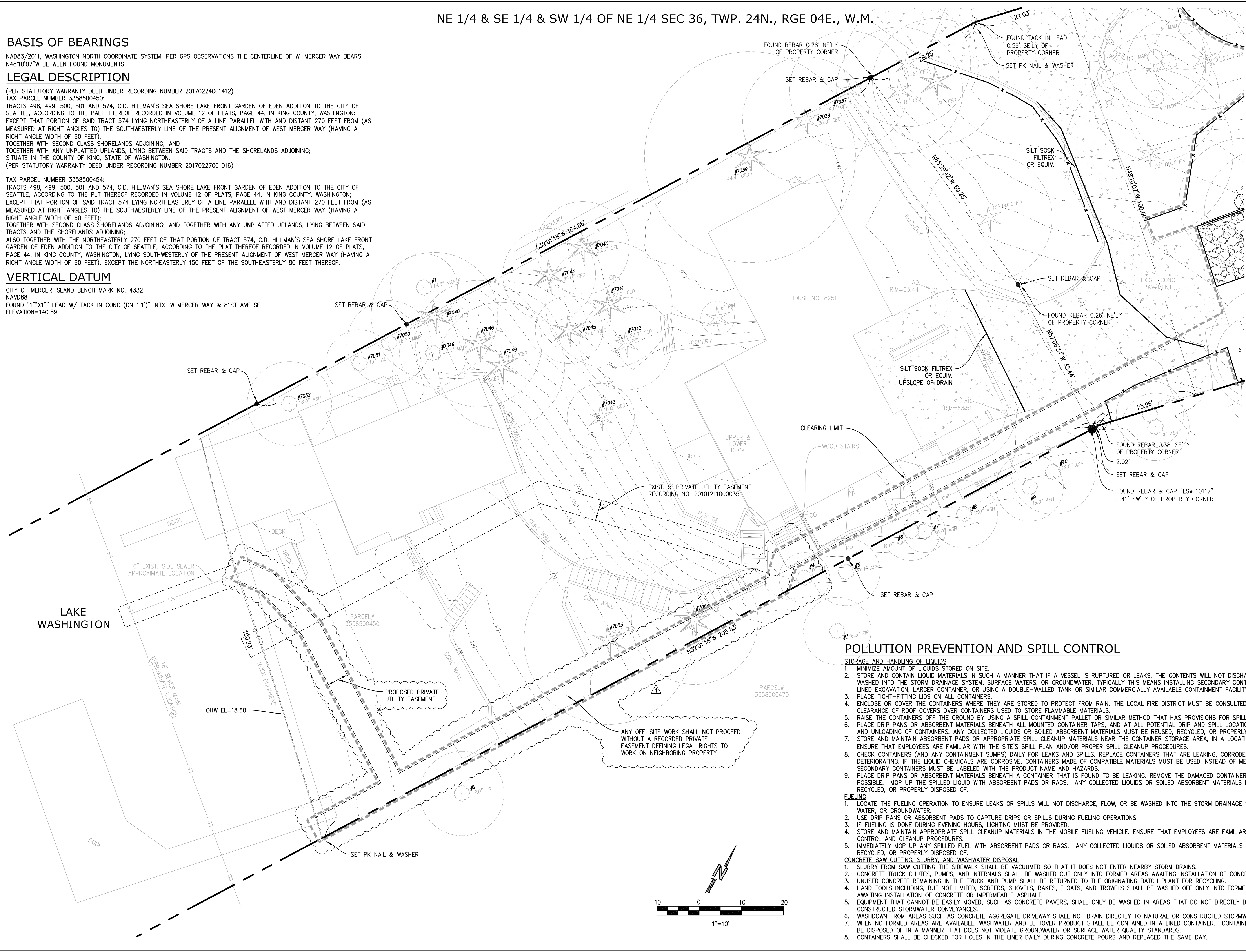
**LEGAL DESCRIPTION**

(PER STATUTORY WARRANTY DEED UNDER RECORDING NUMBER 20170224001412)  
 TAX PARCEL NUMBER 3358500450:  
 TRACTS 498, 499, 500, 501 AND 574, C.D. HILLMAN'S SEA SHORE LAKE FRONT GARDEN OF EDEN ADDITION TO THE CITY OF SEATTLE, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 12 OF PLATS, PAGE 44, IN KING COUNTY, WASHINGTON; EXCEPT THAT PORTION OF SAID TRACT 574 LYING NORTHEASTERLY OF A LINE PARALLEL WITH AND DISTANT 270 FEET FROM (AS MEASURED AT RIGHT ANGLES TO) THE SOUTHWESTERLY LINE OF THE PRESENT ALIGNMENT OF WEST MERCER WAY (HAVING A RIGHT ANGLE WIDTH OF 60 FEET);  
 TOGETHER WITH SECOND CLASS SHORELANDS ADJOINING; AND  
 TOGETHER WITH ANY UNPLATTED UPLANDS, LYING BETWEEN SAID TRACTS AND THE SHORELANDS ADJOINING;  
 SITUATE IN THE COUNTY OF KING, STATE OF WASHINGTON.  
 (PER STATUTORY WARRANTY DEED UNDER RECORDING NUMBER 20170227001016)

TAX PARCEL NUMBER 3358500454:  
 TRACTS 498, 499, 500, 501 AND 574, C.D. HILLMAN'S SEA SHORE LAKE FRONT GARDEN OF EDEN ADDITION TO THE CITY OF SEATTLE, ACCORDING TO THE PLT THEREOF RECORDED IN VOLUME 12 OF PLATS, PAGE 44, IN KING COUNTY, WASHINGTON; EXCEPT THAT PORTION OF SAID TRACT 574 LYING NORTHEASTERLY OF A LINE PARALLEL WITH AND DISTANT 270 FEET FROM (AS MEASURED AT RIGHT ANGLES TO) THE SOUTHWESTERLY LINE OF THE PRESENT ALIGNMENT OF WEST MERCER WAY (HAVING A RIGHT ANGLE WIDTH OF 60 FEET);  
 TOGETHER WITH SECOND CLASS SHORELANDS ADJOINING; AND TOGETHER WITH ANY UNPLATTED UPLANDS, LYING BETWEEN SAID TRACTS AND THE SHORELANDS ADJOINING;  
 ALSO TOGETHER WITH THE NORTHEASTERLY 270 FEET OF THAT PORTION OF TRACT 574, C.D. HILLMAN'S SEA SHORE LAKE FRONT GARDEN OF EDEN ADDITION TO THE CITY OF SEATTLE, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 12 OF PLATS, PAGE 44, IN KING COUNTY, WASHINGTON, LYING SOUTHWESTERLY OF THE PRESENT ALIGNMENT OF WEST MERCER WAY (HAVING A RIGHT ANGLE WIDTH OF 60 FEET), EXCEPT THE NORTHEASTERLY 150 FEET OF THE SOUTHEASTERLY 80 FEET THEREOF.

**VERTICAL DATUM**

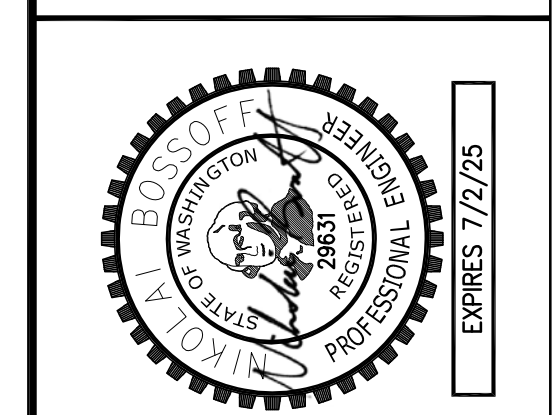
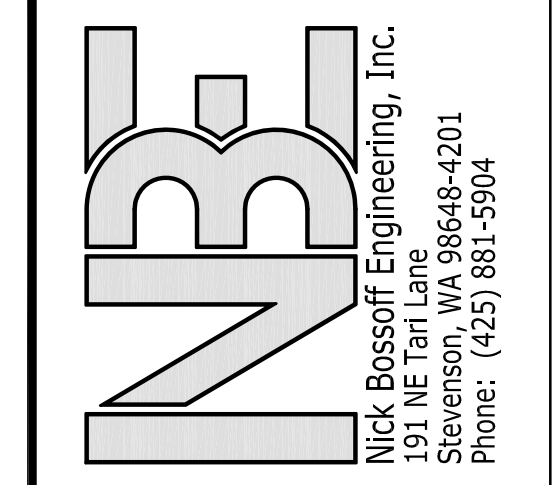
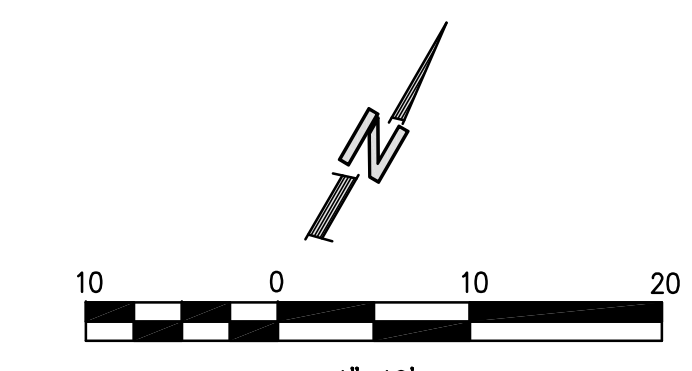
CITY OF MERCER ISLAND BENCH MARK NO. 4332  
 NAVD88  
 FOUND "1"X1" LEAD W/ TACK IN CONC (DN 1.1") INTX. W MERCER WAY & 81ST AVE SE.  
 ELEVATION=140.59



SEE SHEET C-1 FOR CONTINUATION

**POLLUTION PREVENTION AND SPILL CONTROL**

- STORAGE AND HANDLING OF LIQUIDS**
- MINIMIZE AMOUNT OF LIQUIDS STORED ON SITE.
  - STORE AND CONTAIN LIQUID MATERIALS IN SUCH A MANNER THAT IF A VESSEL IS RUPTURED OR LEAKS, THE CONTENTS WILL NOT DISCHARGE, FLOW, OR BE WASHED INTO THE STORM DRAINAGE SYSTEM, SURFACE WATERS, OR GROUNDWATER. TYPICALLY THIS MEANS INSTALLING SECONDARY CONTAINMENT, SUCH AS A LINED EXCAVATION, LARGER CONTAINER, OR USING A DOUBLE-WALLED TANK OR SIMILAR COMMERCIALY AVAILABLE CONTAINMENT FACILITY.
  - PLACE TIGHT-FITTING LIDS ON ALL CONTAINERS.
  - ENCLOSE OR COVER THE CONTAINERS WHERE THEY ARE STORED TO PROTECT FROM RAIN. THE LOCAL FIRE DISTRICT MUST BE CONSULTED FOR LIMITATIONS ON CLEARANCE OF ROOF COVERS OVER CONTAINERS USED TO STORE FLAMMABLE MATERIALS.
  - RAISE THE CONTAINERS OFF THE GROUND BY USING A SPILL CONTAINMENT PALLET OR SIMILAR METHOD THAT HAS PROVISIONS FOR SPILL CONTROL.
  - PLACE DRIP PANS OR ABSORBENT MATERIALS BENEATH ALL MOUNTED CONTAINER TAPS, AND AT ALL POTENTIAL DRIP AND SPILL LOCATIONS DURING FILLING AND UNLOADING OF CONTAINERS. ANY COLLECTED LIQUIDS OR SOILED ABSORBENT MATERIALS MUST BE REUSED, RECYCLED, OR PROPERLY DISPOSED OF.
  - STORE AND MAINTAIN ABSORBENT PADS OR APPROPRIATE SPILL CLEANUP MATERIALS NEAR THE CONTAINER STORAGE AREA, IN A LOCATION KNOWN TO ALL. ENSURE THAT EMPLOYEES ARE FAMILIAR WITH THE SITE'S SPILL PLAN AND/OR PROPER SPILL CLEANUP PROCEDURES.
  - CHECK CONTAINERS (AND ANY CONTAINMENT SUMPS) DAILY FOR LEAKS AND SPILLS. REPLACE CONTAINERS THAT ARE LEAKING, CORRODED, OR OTHERWISE DETERIORATING. IF THE LIQUID CHEMICALS ARE CORROSIVE, CONTAINERS MADE OF COMPATIBLE MATERIALS MUST BE USED INSTEAD OF METAL DRUMS. NEW OR SECONDARY CONTAINERS MUST BE LABELED WITH THE PRODUCT NAME AND HAZARDS.
  - PLACE DRIP PANS OR ABSORBENT MATERIALS BENEATH A CONTAINER THAT IS FOUND TO BE LEAKING. REMOVE THE DAMAGED CONTAINER AS SOON AS POSSIBLE. MOP UP THE SPILLED LIQUID WITH ABSORBENT PADS OR RAGS. ANY COLLECTED LIQUIDS OR SOILED ABSORBENT MATERIALS MUST BE REUSED, RECYCLED, OR PROPERLY DISPOSED OF.
- FUELING**
- LOCATE THE FUELING OPERATION TO ENSURE LEAKS OR SPILLS WILL NOT DISCHARGE, FLOW, OR BE WASHED INTO THE STORM DRAINAGE SYSTEM, SURFACE WATER, OR GROUNDWATER.
  - USE DRIP PANS OR ABSORBENT PADS TO CAPTURE DRIPS OR SPILLS DURING FUELING OPERATIONS.
  - IF FUELING IS DONE DURING EVENING HOURS, LIGHTING MUST BE PROVIDED.
  - STORE AND MAINTAIN APPROPRIATE SPILL CLEANUP MATERIALS IN THE MOBILE FUELING VEHICLE. ENSURE THAT EMPLOYEES ARE FAMILIAR WITH PROPER SPILL CONTROL AND CLEANUP PROCEDURES.
  - IMMEDIATELY MOP UP ANY SPILLED FUEL WITH ABSORBENT PADS OR RAGS. ANY COLLECTED LIQUIDS OR SOILED ABSORBENT MATERIALS MUST BE REUSED, RECYCLED, OR PROPERLY DISPOSED OF.
- CONCRETE SAW CUTTING, SLURRY, AND WASHWATER DISPOSAL**
- SLURRY FROM SAW CUTTING THE SIDEWALK SHALL BE VACUUMED SO THAT IT DOES NOT ENTER NEARBY STORM DRAINS.
  - CONCRETE TRUCK CHUTES, PUMPS, AND INTERNALS SHALL BE WASHED OUT ONLY INTO FORMED AREAS AWAITING INSTALLATION OF CONCRETE.
  - UNUSED CONCRETE REMAINING IN THE TRUCK AND PUMP SHALL BE RETURNED TO THE ORIGINATING BATCH PLANT FOR RECYCLING.
  - HAND TOOLS INCLUDING, BUT NOT LIMITED TO, SCREDS, SHOVELS, RAKES, FLOATS, AND TROWELS SHALL BE WASHED OFF ONLY INTO FORMED INTO FORMED AREAS AWAITING INSTALLATION OF CONCRETE OR IMPERMEABLE ASPHALT.
  - EQUIPMENT THAT CANNOT BE EASILY MOVED, SUCH AS CONCRETE PAVERS, SHALL ONLY BE WASHED IN AREAS THAT DO NOT DIRECTLY DRAIN TO NATURAL OR CONSTRUCTED STORMWATER CONVEYANCES.
  - WASHDOWN FROM AREAS SUCH AS CONCRETE AGGREGATE DRIVEWAY SHALL NOT DRAIN DIRECTLY TO NATURAL OR CONSTRUCTED STORMWATER CONVEYANCES.
  - WHEN NO FORMED AREAS ARE AVAILABLE, WASHWATER AND LEFTOVER PRODUCT SHALL BE CONTAINED IN A LINED CONTAINER. CONTAINED CONCRETE SHALL BE DISPOSED OF IN A MANNER THAT DOES NOT VIOLATE GROUNDWATER OR SURFACE WATER QUALITY STANDARDS.
  - CONTAINERS SHALL BE CHECKED FOR HOLES IN THE LINER DAILY DURING CONCRETE POURS AND REPLACED THE SAME DAY.



NO.	DATE	REVISION
1	09/21/18	PERMIT SUBMITTAL
2	06/19/19	CITY COMMENTS
3	10/09/19	CITY COMMENTS
4	02/01/21	CITY COMMENTS
5	02/19/24	OFFSITE PIPES REVISION

N. BOSSOFF, P.E.
PROJECT MANAGER:
DESIGNED: NB
DRAWN: TKB
JOB NUMBER: PBAR-1801
FILE NAME: PBAR-1801.pln.dwg

**WEN HU RESIDENCE**  
**8251 W MERCER WAY**

**WASHINGTON**

**MERCER ISLAND**

TITLE:  
**T.E.S.C. PLAN**

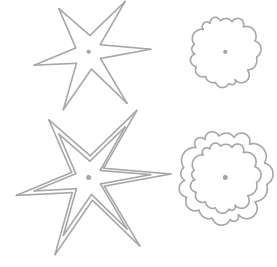
SHEET:  
**C-2**



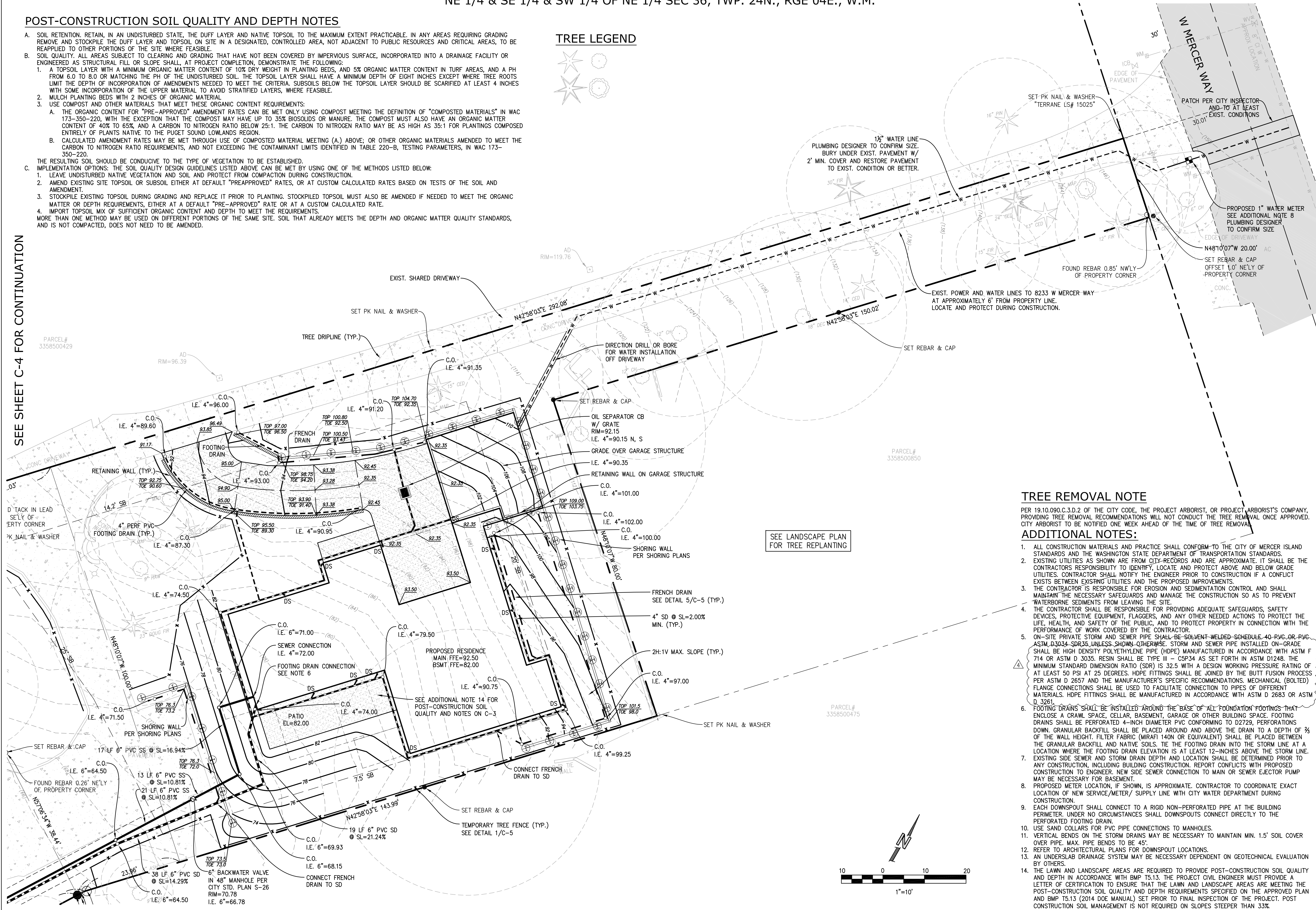
**POST-CONSTRUCTION SOIL QUALITY AND DEPTH NOTES**

- A. SOIL RETENTION. RETAIN, IN AN UNDISTURBED STATE, THE DUFF LAYER AND NATIVE TOPSOIL TO THE MAXIMUM EXTENT PRACTICABLE. IN ANY AREAS REQUIRING GRADING REMOVE AND STOCKPILE THE DUFF LAYER AND TOPSOIL ON SITE IN A DESIGNATED, CONTROLLED AREA, NOT ADJACENT TO PUBLIC RESOURCES AND CRITICAL AREAS, TO BE REAPPLIED TO OTHER PORTIONS OF THE SITE WHERE FEASIBLE.
- B. SOIL QUALITY. ALL AREAS SUBJECT TO CLEARING AND GRADING THAT HAVE NOT BEEN COVERED BY IMPERVIOUS SURFACE, INCORPORATED INTO A DRAINAGE FACILITY OR ENGINEERED AS STRUCTURAL FILL OR SLOPE SHALL, AT PROJECT COMPLETION, DEMONSTRATE THE FOLLOWING:
  1. A TOPSOIL LAYER WITH A MINIMUM ORGANIC MATTER CONTENT OF 10% DRY WEIGHT IN PLANTING BEDS, AND 5% ORGANIC MATTER CONTENT IN TURF AREAS, AND A PH FROM 6.0 TO 8.0 OR MATCHING THE PH OF THE UNDISTURBED SOIL. THE TOPSOIL LAYER SHALL HAVE A MINIMUM DEPTH OF EIGHT INCHES EXCEPT WHERE TREE ROOTS LIMIT THE DEPTH OF INCORPORATION OF AMENDMENTS NEEDED TO MEET THE CRITERIA. SUBSOILS BELOW THE TOPSOIL LAYER SHOULD BE SCARIFIED AT LEAST 4 INCHES WITH SOME INCORPORATION OF THE UPPER MATERIAL TO AVOID STRATIFIED LAYERS, WHERE FEASIBLE.
  2. MULCH PLANTING BEDS WITH 2 INCHES OF ORGANIC MATERIAL.
  3. USE COMPOST AND OTHER MATERIALS THAT MEET THESE ORGANIC CONTENT REQUIREMENTS:
    - A. THE ORGANIC CONTENT FOR "PRE-APPROVED" AMENDMENT RATES CAN BE MET ONLY USING COMPOST MEETING THE DEFINITION OF "COMPOSTED MATERIALS" IN WAC 173-350-220, WITH THE EXCEPTION THAT THE COMPOST MAY HAVE UP TO 35% BIOSOLIDS OR MANURE. THE COMPOST MUST ALSO HAVE AN ORGANIC MATTER CONTENT OF 40% TO 65%, AND A CARBON TO NITROGEN RATIO BELOW 25:1. THE CARBON TO NITROGEN RATIO MAY BE AS HIGH AS 35:1 FOR PLANTINGS COMPOSED ENTIRELY OF PLANTS NATIVE TO THE PUGET SOUND LOWLANDS REGION.
    - B. CALCULATED AMENDMENT RATES MAY BE MET THROUGH USE OF COMPOSTED MATERIAL MEETING (A.) ABOVE, OR OTHER ORGANIC MATERIALS AMENDED TO MEET THE CARBON TO NITROGEN RATIO REQUIREMENTS, AND NOT EXCEEDING THE CONTAMINANT LIMITS IDENTIFIED IN TABLE 220-B, TESTING PARAMETERS, IN WAC 173-350-220.
- C. THE RESULTING SOIL SHOULD BE CONDUCTIVE TO THE TYPE OF VEGETATION TO BE ESTABLISHED. IMPLEMENTATION OPTIONS: THE SOIL QUALITY DESIGN GUIDELINES LISTED ABOVE CAN BE MET BY USING ONE OF THE METHODS LISTED BELOW:
  1. LEAVE UNDISTURBED NATIVE VEGETATION AND SOIL AND PROTECT FROM COMPACTION DURING CONSTRUCTION.
  2. AMEND EXISTING SITE TOPSOIL OR SUBSOIL EITHER AT DEFAULT "PREAPPROVED" RATES, OR AT CUSTOM CALCULATED RATES BASED ON TESTS OF THE SOIL AND AMENDMENT.
  3. STOCKPILE EXISTING TOPSOIL DURING GRADING AND REPLACE IT PRIOR TO PLANTING. STOCKPILED TOPSOIL MUST ALSO BE AMENDED IF NEEDED TO MEET THE ORGANIC MATTER OR DEPTH REQUIREMENTS, EITHER AT A DEFAULT "PRE-APPROVED" RATE OR AT A CUSTOM CALCULATED RATE.
  4. IMPORT TOPSOIL MIX OF SUFFICIENT ORGANIC CONTENT AND DEPTH TO MEET THE REQUIREMENTS. MORE THAN ONE METHOD MAY BE USED ON DIFFERENT PORTIONS OF THE SAME SITE. SOIL THAT ALREADY MEETS THE DEPTH AND ORGANIC MATTER QUALITY STANDARDS, AND IS NOT COMPACTED, DOES NOT NEED TO BE AMENDED.

**TREE LEGEND**



SEE SHEET C-4 FOR CONTINUATION

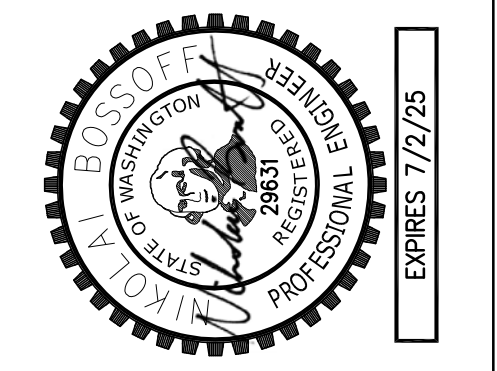
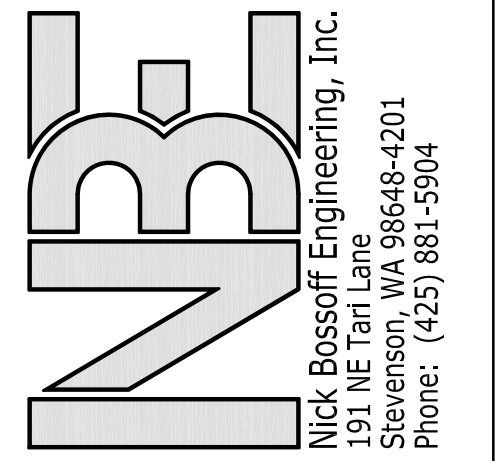


**TREE REMOVAL NOTE**

PER 19.10.090.C.3.D.2 OF THE CITY CODE, THE PROJECT ARBORIST, OR PROJECT ARBORIST'S COMPANY, PROVIDING TREE REMOVAL RECOMMENDATIONS WILL NOT CONDUCT THE TREE REMOVAL ONCE APPROVED. CITY ARBORIST TO BE NOTIFIED ONE WEEK AHEAD OF THE TIME OF TREE REMOVAL.

**ADDITIONAL NOTES:**

1. ALL CONSTRUCTION MATERIALS AND PRACTICE SHALL CONFORM TO THE CITY OF MERCER ISLAND STANDARDS AND THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARDS.
2. EXISTING UTILITIES AS SHOWN ARE FROM CITY RECORDS AND ARE APPROXIMATE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO IDENTIFY, LOCATE AND PROTECT ABOVE AND BELOW GRADE UTILITIES. CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO CONSTRUCTION IF A CONFLICT EXISTS BETWEEN EXISTING UTILITIES AND THE PROPOSED IMPROVEMENTS.
3. THE CONTRACTOR IS RESPONSIBLE FOR EROSION AND SEDIMENTATION CONTROL AND SHALL MAINTAIN THE NECESSARY SAFEGUARDS AND MANAGE THE CONSTRUCTION SO AS TO PREVENT WATERBORNE SEDIMENTS FROM LEAVING THE SITE.
4. 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.
5. ON-SITE PRIVATE STORM AND SEWER PIPE SHALL BE SOLVENT-WELDED SCHEDULE 40-RVC OR PVC-ASTM D3034-SDR35, UNLESS SHOWN OTHERWISE. STORM AND SEWER PIPE INSTALLED ON-GRADE SHALL BE HIGH DENSITY POLYETHYLENE PIPE (HDPE) MANUFACTURED IN ACCORDANCE WITH ASTM F 714 OR ASTM D 3035. RESIN SHALL BE TYPE III - CSP34 AS SET FORTH IN ASTM D1248. THE MINIMUM STANDARD DIMENSION RATIO (SDR) IS 32.5 WITH A DESIGN WORKING PRESSURE RATING OF AT LEAST 50 PSI AT 25 DEGREES. HDPE FITTINGS SHALL BE JOINED BY THE BUTT FUSION PROCESS PER ASTM D 2657 AND THE MANUFACTURER'S SPECIFIC RECOMMENDATIONS. MECHANICAL (BOLTED) FLANGE CONNECTIONS SHALL BE USED TO FACILITATE CONNECTION TO PIPES OF DIFFERENT MATERIALS. HDPE FITTINGS SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM D 2683 OR ASTM D 3261.
6. FOOTING DRAINS SHALL BE INSTALLED AROUND THE BASE OF ALL FOUNDATION FOOTINGS THAT ENCLOSE A CRAWL SPACE, CELLAR, BASEMENT, GARAGE OR OTHER BUILDING SPACE. FOOTING DRAINS SHALL BE PERFORATED 4-INCH DIAMETER PVC CONFORMING TO D2729, PERFORATIONS DOWN GRANULAR BACKFILL SHALL BE PLACED AROUND AND ABOVE THE DRAIN TO A DEPTH OF 2/3 OF THE WALL HEIGHT. FILTER FABRIC (MIRAFI 140N OR EQUIVALENT) SHALL BE PLACED BETWEEN THE GRANULAR BACKFILL AND NATIVE SOILS. TIE THE FOOTING DRAIN INTO THE STORM LINE AT A LOCATION WHERE THE FOOTING DRAIN ELEVATION IS AT LEAST 12-INCHES ABOVE THE STORM LINE. EXISTING SIDE SEWER AND STORM DRAIN DEPTH AND LOCATION SHALL BE DETERMINED PRIOR TO ANY CONSTRUCTION, INCLUDING BUILDING CONSTRUCTION. REPORT CONFLICTS WITH PROPOSED CONSTRUCTION TO ENGINEER. NEW SIDE SEWER CONNECTION TO MAIN OR SEWER EJECTOR PUMP MAY BE NECESSARY FOR BASEMENT.
7. PROPOSED METER LOCATION, IF SHOWN, IS APPROXIMATE. CONTRACTOR TO COORDINATE EXACT LOCATION OF NEW SERVICE/METER/ SUPPLY LINE WITH CITY WATER DEPARTMENT DURING CONSTRUCTION.
8. EACH DOWNSPOUT SHALL CONNECT TO A RIGID NON-PERFORATED PIPE AT THE BUILDING PERIMETER. UNDER NO CIRCUMSTANCES SHALL DOWNSPOUTS CONNECT DIRECTLY TO THE PERFORATED FOOTING DRAIN.
9. USE SAND COLLARS FOR PVC PIPE CONNECTIONS TO MANHOLES.
10. VERTICAL BENDS ON THE STORM DRAINS MAY BE NECESSARY TO MAINTAIN MIN. 1.5' SOIL COVER OVER PIPE. MAX. PIPE BENDS TO BE 45'.
11. REFER TO ARCHITECTURAL PLANS FOR DOWNSPOUT LOCATIONS.
12. AN UNDERSLAB DRAINAGE SYSTEM MAY BE NECESSARY DEPENDENT ON GEOTECHNICAL EVALUATION BY OTHERS.
13. THE LAWN AND LANDSCAPE AREAS ARE REQUIRED TO PROVIDE POST-CONSTRUCTION SOIL QUALITY AND DEPTH IN ACCORDANCE WITH BMP 15.13. THE PROJECT CIVIL ENGINEER MUST PROVIDE A LETTER OF CERTIFICATION TO ENSURE THAT THE LAWN AND LANDSCAPE AREAS ARE MEETING THE POST-CONSTRUCTION SOIL QUALITY AND DEPTH REQUIREMENTS SPECIFIED ON THE APPROVED PLAN AND BMP 15.13 (2014 DOE MANUAL) SET PRIOR TO FINAL INSPECTION OF THE PROJECT. POST CONSTRUCTION SOIL MANAGEMENT IS NOT REQUIRED ON SLOPES STEEPER THAN 33%.



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1	PERMIT SUBMITTAL	09/21/18	
2	CITY COMMENTS	06/09/19	
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N. BOSSOFF, P.E.  
PROJECT MANAGER  
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DESIGNED: TKB  
DRAWN: PBAR-1801  
JOB NUMBER: PBAR-1801  
FILE NAME: PBAR-1801.pln.dwg

**WEN HU RESIDENCE**

**8251 W MERCER WAY**

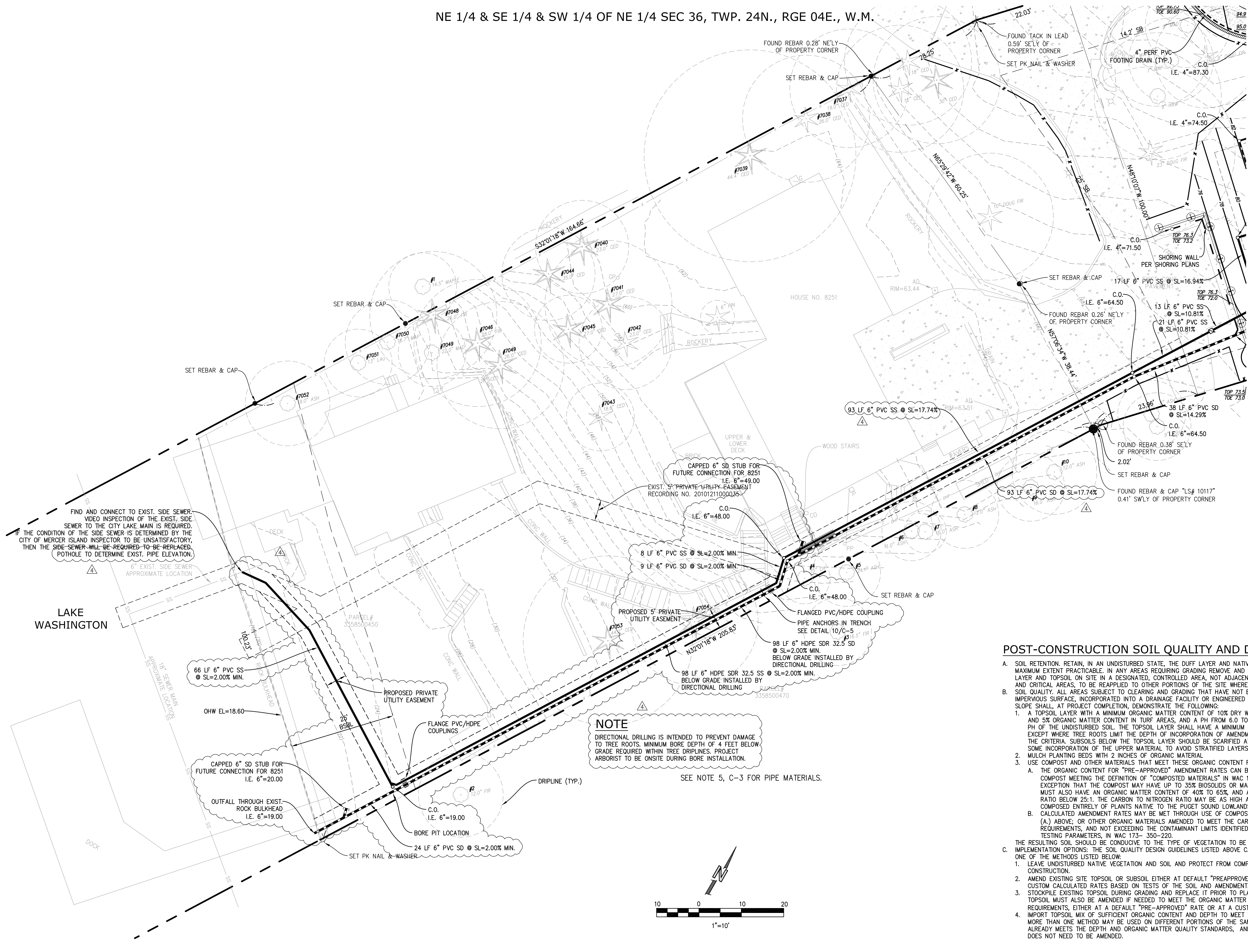
**WASHINGTON**

**MERCER ISLAND**

TITLE: **DRAINAGE PLAN**

SHEET: **C-3**

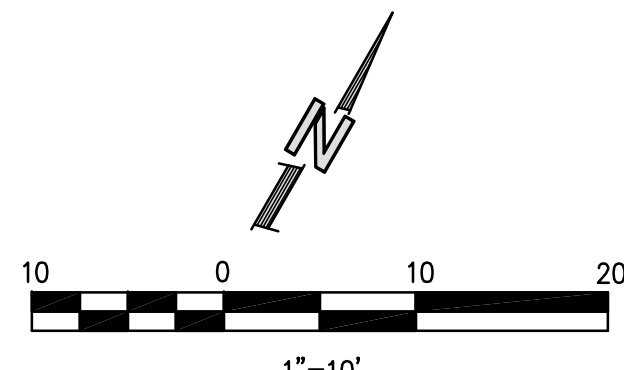




SEE SHEET C-3 FOR CONTINUATION

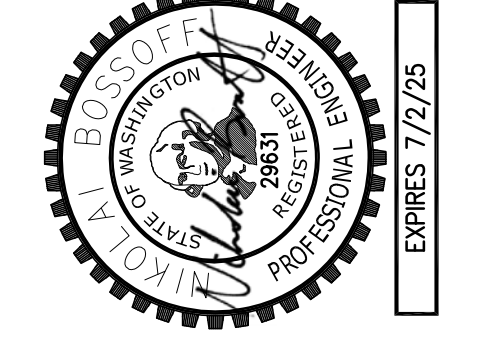
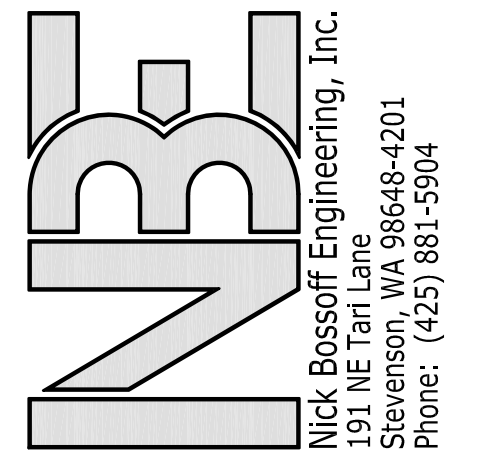
**NOTE**  
 DIRECTIONAL DRILLING IS INTENDED TO PREVENT DAMAGE TO TREE ROOTS. MINIMUM BORE DEPTH OF 4 FEET BELOW GRADE. REQUIRED WITHIN TREE DRILINES. PROJECT ARBORIST TO BE ONSITE DURING BORE INSTALLATION.

SEE NOTE 5, C-3 FOR PIPE MATERIALS.



**POST-CONSTRUCTION SOIL QUALITY AND DEPTH NOTES**

- A. SOIL RETENTION. RETAIN, IN AN UNDISTURBED STATE, THE DUFF LAYER AND NATIVE TOPSOIL TO THE MAXIMUM EXTENT PRACTICABLE. IN ANY AREAS REQUIRING GRADING REMOVE AND STOCKPILE THE DUFF LAYER AND TOPSOIL ON SITE IN A DESIGNATED, CONTROLLED AREA, NOT ADJACENT TO PUBLIC RESOURCES AND CRITICAL AREAS, TO BE REAPPLIED TO OTHER PORTIONS OF THE SITE WHERE FEASIBLE.
- B. SOIL QUALITY. ALL AREAS SUBJECT TO CLEARING AND GRADING THAT HAVE NOT BEEN COVERED BY IMPERVIOUS SURFACE, INCORPORATED INTO A DRAINAGE FACILITY OR ENGINEERED AS STRUCTURAL FILL OR SLOPE SHALL, AT PROJECT COMPLETION, DEMONSTRATE THE FOLLOWING:
  - 1. A TOPSOIL LAYER WITH A MINIMUM ORGANIC MATTER CONTENT OF 10% DRY WEIGHT IN PLANTING BEDS, AND 5% ORGANIC MATTER CONTENT IN TURF AREAS, AND A PH FROM 6.0 TO 8.0 OR MATCHING THE PH OF THE UNDISTURBED SOIL. THE TOPSOIL LAYER SHALL HAVE A MINIMUM DEPTH OF EIGHT INCHES EXCEPT WHERE TREE ROOTS LIMIT THE DEPTH OF INCORPORATION OF AMENDMENTS NEEDED TO MEET THE CRITERIA. SUBSOILS BELOW THE TOPSOIL LAYER SHOULD BE SCARIFIED AT LEAST 4 INCHES WITH SOME INCORPORATION OF THE UPPER MATERIAL TO AVOID STRATIFIED LAYERS, WHERE FEASIBLE.
  - 2. MULCH PLANTING BEDS WITH 2 INCHES OF ORGANIC MATERIAL.
  - 3. USE COMPOST AND OTHER MATERIALS THAT MEET THESE ORGANIC CONTENT REQUIREMENTS:
    - A. THE ORGANIC CONTENT FOR "PRE-APPROVED" AMENDMENT RATES CAN BE MET ONLY USING COMPOST MEETING THE DEFINITION OF "COMPOSTED MATERIALS" IN WAC 173-350-220, WITH THE EXCEPTION THAT THE COMPOST MAY HAVE UP TO 35% BIOSOLIDS OR MANURE. THE COMPOST MUST ALSO HAVE AN ORGANIC MATTER CONTENT OF 40% TO 65%, AND A CARBON TO NITROGEN RATIO BELOW 25:1. THE CARBON TO NITROGEN RATIO MAY BE AS HIGH AS 35:1 FOR PLANTINGS COMPOSED ENTIRELY OF PLANTS NATIVE TO THE PUGET SOUND LOWLANDS REGION.
    - B. CALCULATED AMENDMENT RATES MAY BE MET THROUGH USE OF COMPOSTED MATERIAL MEETING (A.) ABOVE; OR OTHER ORGANIC MATERIALS AMENDED TO MEET THE CARBON TO NITROGEN RATIO REQUIREMENTS, AND NOT EXCEEDING THE CONTAMINANT LIMITS IDENTIFIED IN TABLE 220-B, TESTING PARAMETERS, IN WAC 173-350-220.
- C. THE RESULTING SOIL SHOULD BE CONDUCTIVE TO THE TYPE OF VEGETATION TO BE ESTABLISHED. IMPLEMENTATION OPTIONS: THE SOIL QUALITY DESIGN GUIDELINES LISTED ABOVE CAN BE MET BY USING ONE OF THE METHODS LISTED BELOW:
  - 1. LEAVE UNDISTURBED NATIVE VEGETATION AND SOIL AND PROTECT FROM COMPACTION DURING CONSTRUCTION.
  - 2. AMEND EXISTING SITE TOPSOIL OR SUBSOIL EITHER AT DEFAULT "PRE-APPROVED" RATES, OR AT CUSTOM CALCULATED RATES BASED ON TESTS OF THE SOIL AND AMENDMENT.
  - 3. STOCKPILE EXISTING TOPSOIL DURING GRADING AND REPLACE IT PRIOR TO PLANTING. STOCKPILED TOPSOIL MUST ALSO BE AMENDED IF NEEDED TO MEET THE ORGANIC MATTER OR DEPTH REQUIREMENTS, EITHER AT A DEFAULT "PRE-APPROVED" RATE OR AT A CUSTOM CALCULATED RATE.
  - 4. IMPORT TOPSOIL MIX OF SUFFICIENT ORGANIC CONTENT AND DEPTH TO MEET THE REQUIREMENTS. MORE THAN ONE METHOD MAY BE USED ON DIFFERENT PORTIONS OF THE SAME SITE. SOIL THAT ALREADY MEETS THE DEPTH AND ORGANIC MATTER QUALITY STANDARDS, AND IS NOT COMPACTED, DOES NOT NEED TO BE AMENDED.



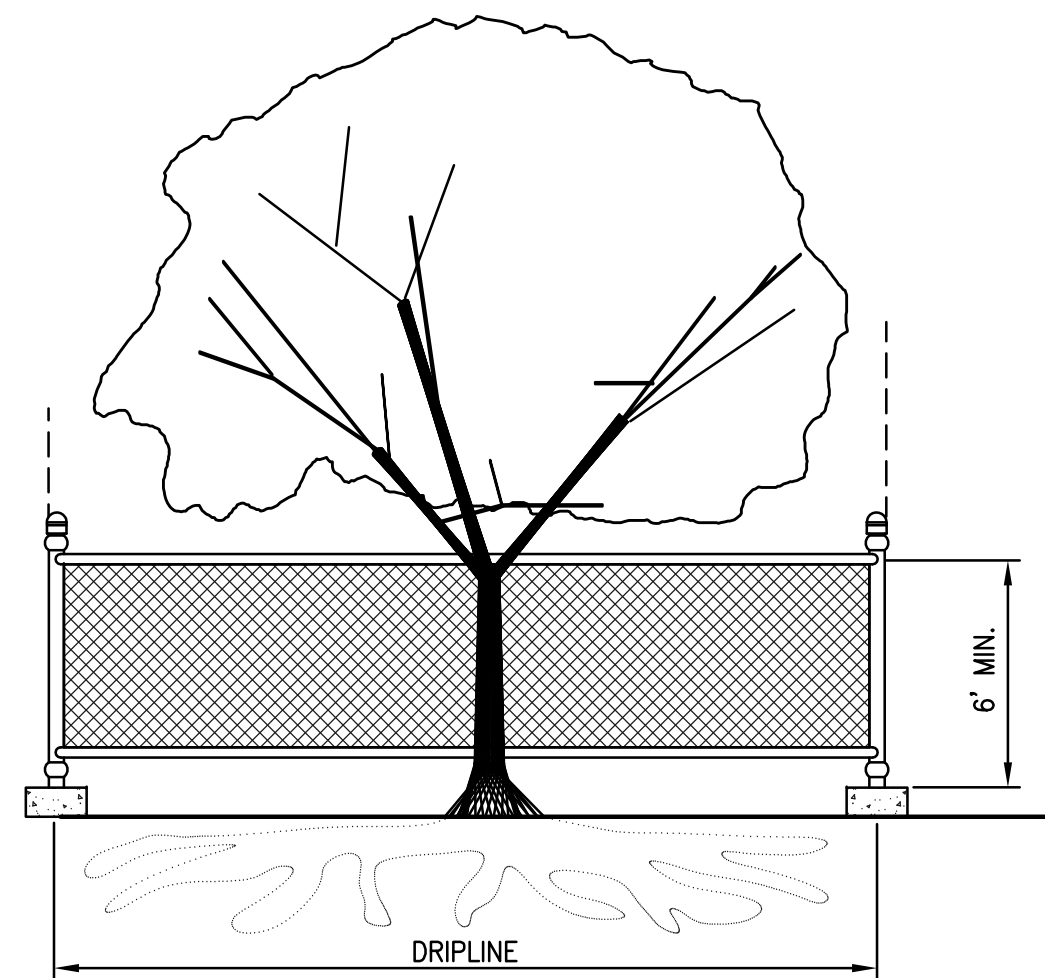
NO.	DATE	REVISION
1	09/21/18	PERMIT SUBMITTAL
2	06/19/19	CITY COMMENTS
3	10/09/19	CITY COMMENTS
4	02/01/21	CITY COMMENTS
5	07/19/24	OFFSITE PIPES REMISION

N. BOSSOFF, P.E.  
 PROJECT MANAGER  
 NB  
 DESIGNED: TKB  
 DRAWN: PBAR-1801  
 JOB NUMBER: PBAR-1801  
 FILE NAME: PBAR-1801.pln.dwg

**WEN HU RESIDENCE**  
**8251 W MERCER WAY**  
 WASHINGTON

DRAINAGE PLAN

SHEET: C-4



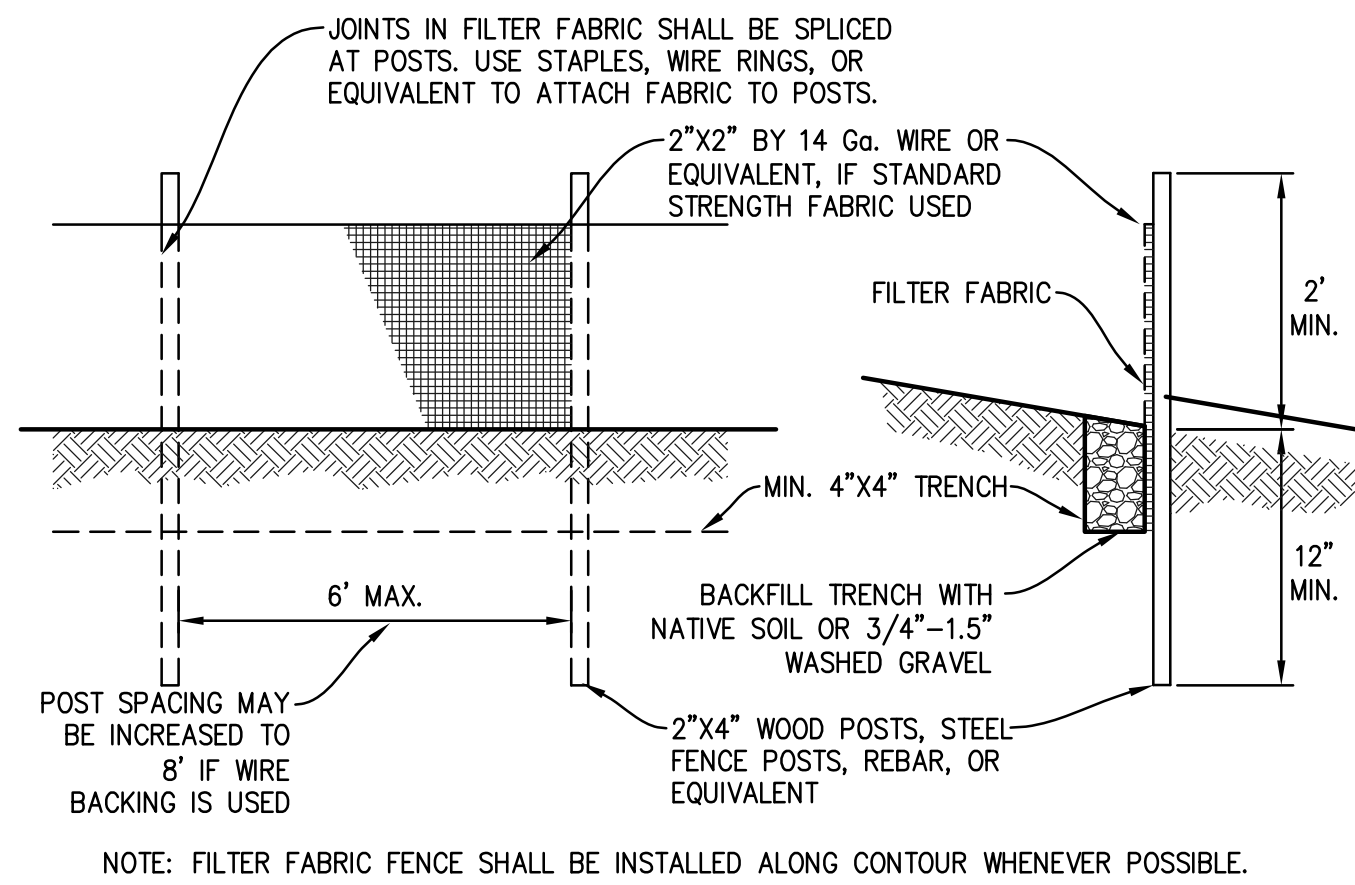
**TREE PROTECTION DURING CONSTRUCTION**

- 6-FT. HIGH TEMPORARY CHAIN LINK FENCE SHALL BE PLACED AT THE DRIPLINE OF THE TREE TO BE SAVED. FENCE SHALL COMPLETELY ENCIRCLE THE TREE(S). INSTALL FENCE POSTS USING PIER BLOCKS ONLY. AVOID DRIVING POSTS OR STAKES INTO MAJOR ROOTS.
- FOR ROOTS OVER 1-IN DIA. THAT ARE DAMAGED DURING CONSTRUCTION, MAKE A CLEAN, STRAIGHT CUT TO REMOVE THE DAMAGED PORTION. ALL EXPOSED ROOTS SHALL BE TEMPORARILY COVERED WITH DAMP BURLAP TO PREVENT DRYING, AND SHALL BE COVERED WITH SOIL AS SOON AS POSSIBLE.
- WORK WITHIN PROTECTION FENCE SHALL BE DONE MANUALLY. NO STOCKPILING OF MATERIALS, VEHICULAR TRAFFIC, OR STORAGE OF EQUIPMENT OR MACHINERY SHALL BE ALLOWED WITHIN THE LIMIT OF THE FENCING.

**TREE PROTECTION**

SCALE: NTS

1



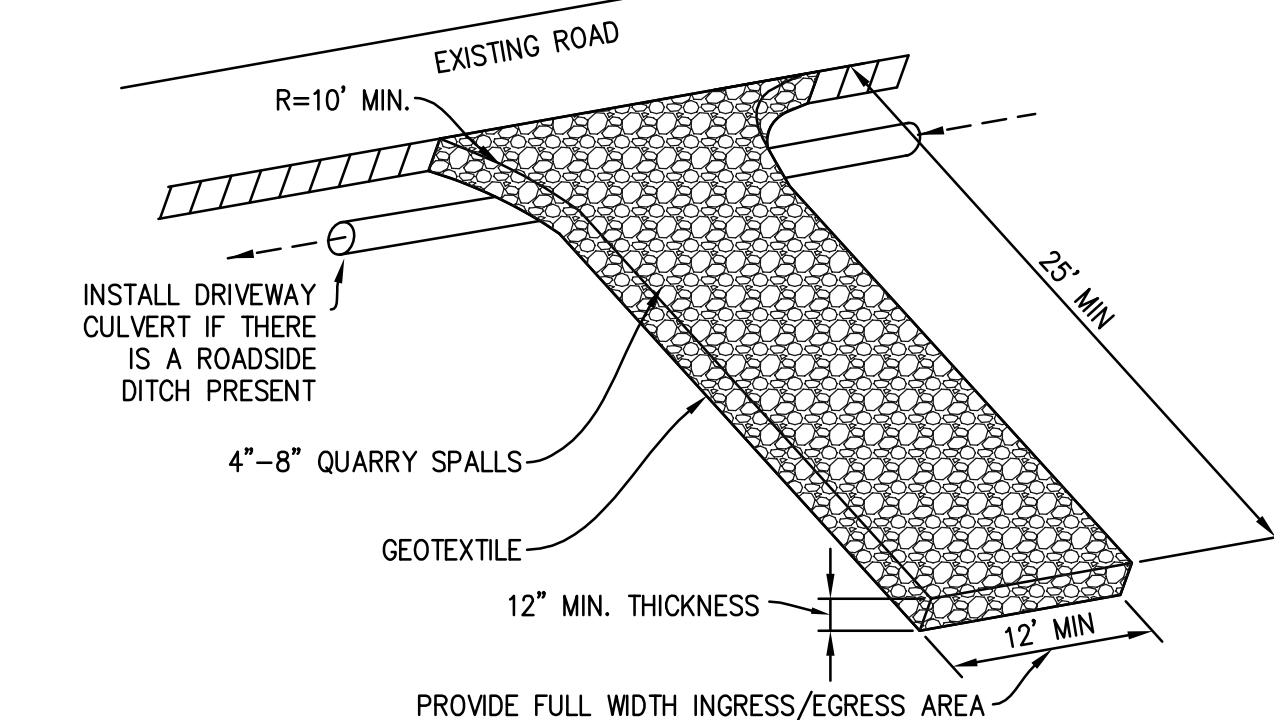
**MAINTENANCE STANDARDS**

- ANY DAMAGE SHALL BE REPAIRED IMMEDIATELY.
- IF CONCENTRATED FLOWS ARE EVIDENT UPHILL OF THE FENCE, THEY MUST BE INTERCEPTED AND CONVEYED TO A SEDIMENT TRAP OR POND.
- IT IS IMPORTANT TO CHECK THE UPHILL SIDE OF THE FENCE FOR SIGN OF THE FENCE CLOGGING AND ACTING AS A BARRIER TO FLOW AND THEN CAUSING CHANNELIZATION OF FLOWS PARALLEL TO THE FENCE. IF THIS OCCURS, REPLACE THE FENCE AND/OR REMOVE THE TRAPPED SEDIMENT.
- SEDIMENT MUST BE REMOVED WHEN THE SEDIMENT IS 6" HIGH.
- IF THE FILTER FABRIC HAS DETERIORATED DUE TO ULTRAVIOLET BREAKDOWN, IT SHALL BE REPLACED.

**SILT FENCE**

SCALE: NTS

2



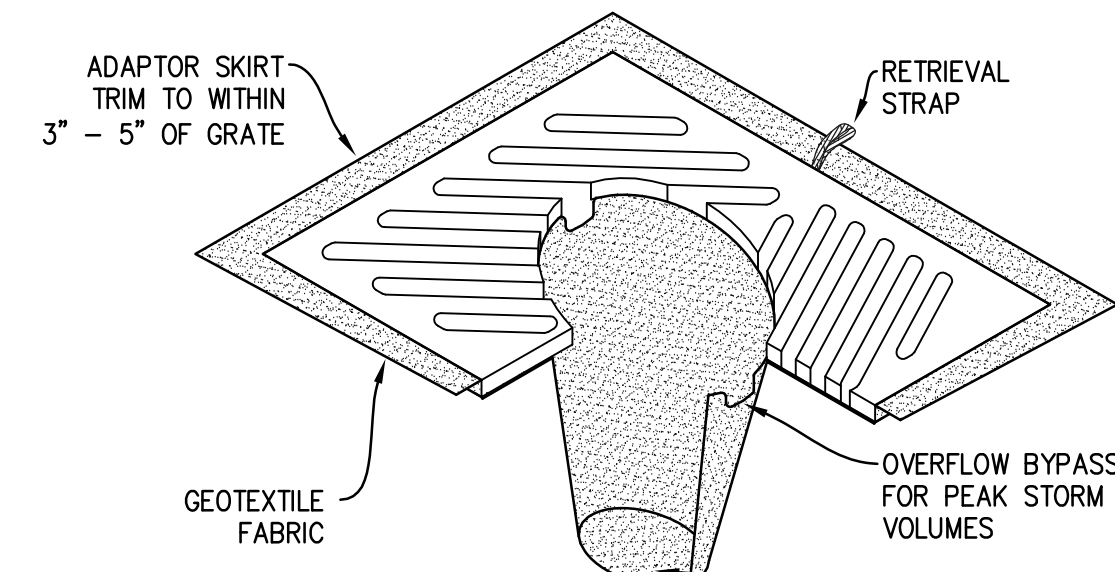
**MAINTENANCE STANDARDS**

- QUARRY SPALLS (OR HOG FUEL) SHALL BE ADDED IF THE PAD IS NO LONGER IN ACCORDANCE WITH THE SPECIFICATIONS.
- IF THE ENTRANCE IS NOT PREVENTING SEDIMENT FROM BEING TRACKED ONTO PAVEMENT, THEN ALTERNATIVE MEASURES TO KEEP THE STREETS FREE OF SEDIMENT SHALL BE USED. THIS MAY INCLUDE STREET SWEEPING, AN INCREASE IN THE DIMENSIONS OF THE ENTRANCE, OR THE INSTALLATION OF A WHEEL WASH. IF WASHING IS USED, IT SHALL BE DONE ON AN AREA COVERED WITH CRUSHED ROCK, AND WASH WATER SHALL DRAIN TO A SEDIMENT TRAP OR POND.
- ANY SEDIMENT THAT IS TRACKED ONTO PAVEMENT SHALL BE REMOVED IMMEDIATELY BY SWEEPING. THE SEDIMENT COLLECTED BY SWEEPING SHALL BE REMOVED OR STABILIZED ON-SITE. THE PAVEMENT SHALL NOT BE CLEANED BY WASHING DOWN THE STREET, EXCEPT WHEN SWEEPING IS INEFFECTIVE AND THERE IS A THREAT TO PUBLIC SAFETY. IF IT IS NECESSARY TO WASH THE STREET, THE CONSTRUCTION OF A SMALL SLUMP SHALL BE CONSIDERED. THE SEDIMENT WOULD THEN BE WASHED INTO THE SUMP.
- ANY ROCK SPALLS THAT ARE LOOSENED FROM THE PAD AND END UP ON THE ROADWAY SHALL BE REMOVED IMMEDIATELY.
- IF VEHICLES ARE ENTERING OR EXITING THE SITE AT POINTS OTHER THAN THE CONSTRUCTION ENTRANCE(S), FENCING (SECTION 5.4.1) SHALL BE INSTALLED TO CONTROL TRAFFIC.

**ROCK CONSTRUCTION ENTRANCE**

SCALE: NTS

3



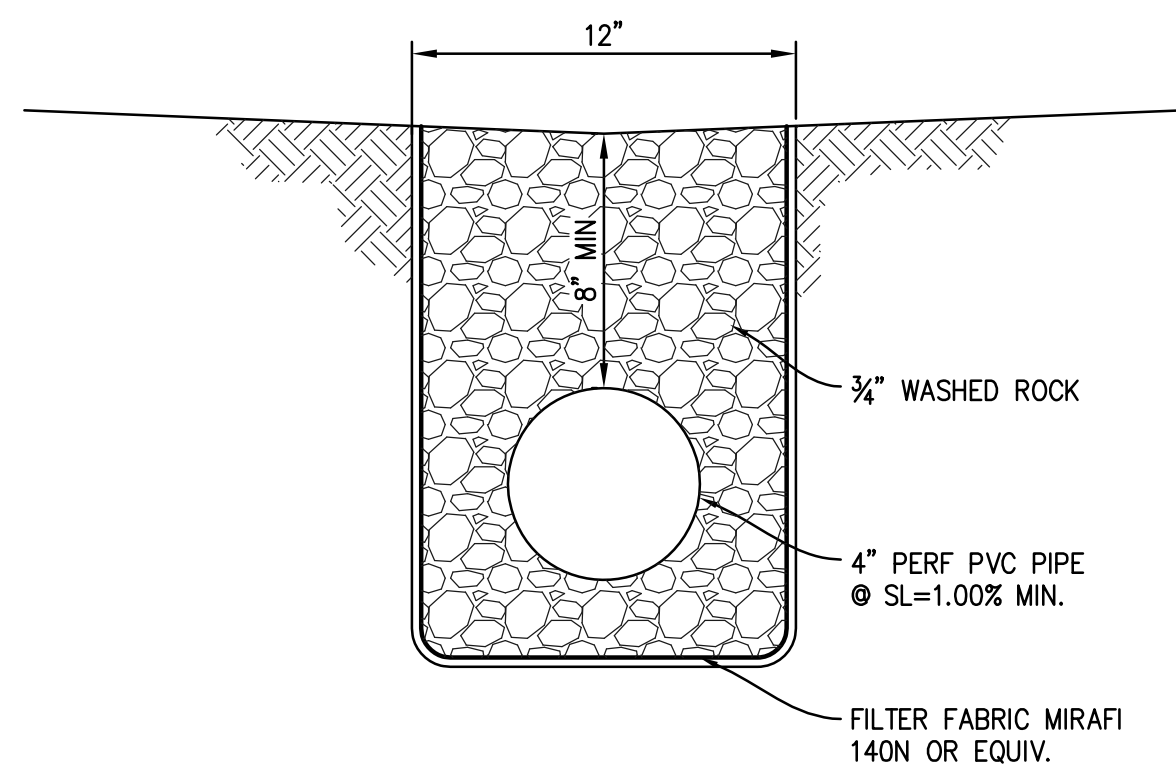
**NOTES**

- INSERT SHALL BE INSTALLED PRIOR TO CLEARING AND GRADING ACTIVITY, OR UPON PLACEMENT OF A NEW CATCH BASIN.
- SEDIMENT SHALL BE REMOVED FROM THE UNIT WHEN IT BECOMES HALF FULL.
- SEDIMENT REMOVAL SHALL BE ACCOMPLISHED BY REMOVING THE INSERT, EMPTYING, AND RE-INSERTING IT INTO THE CATCH BASIN.

**CB INSERT**

SCALE: NTS

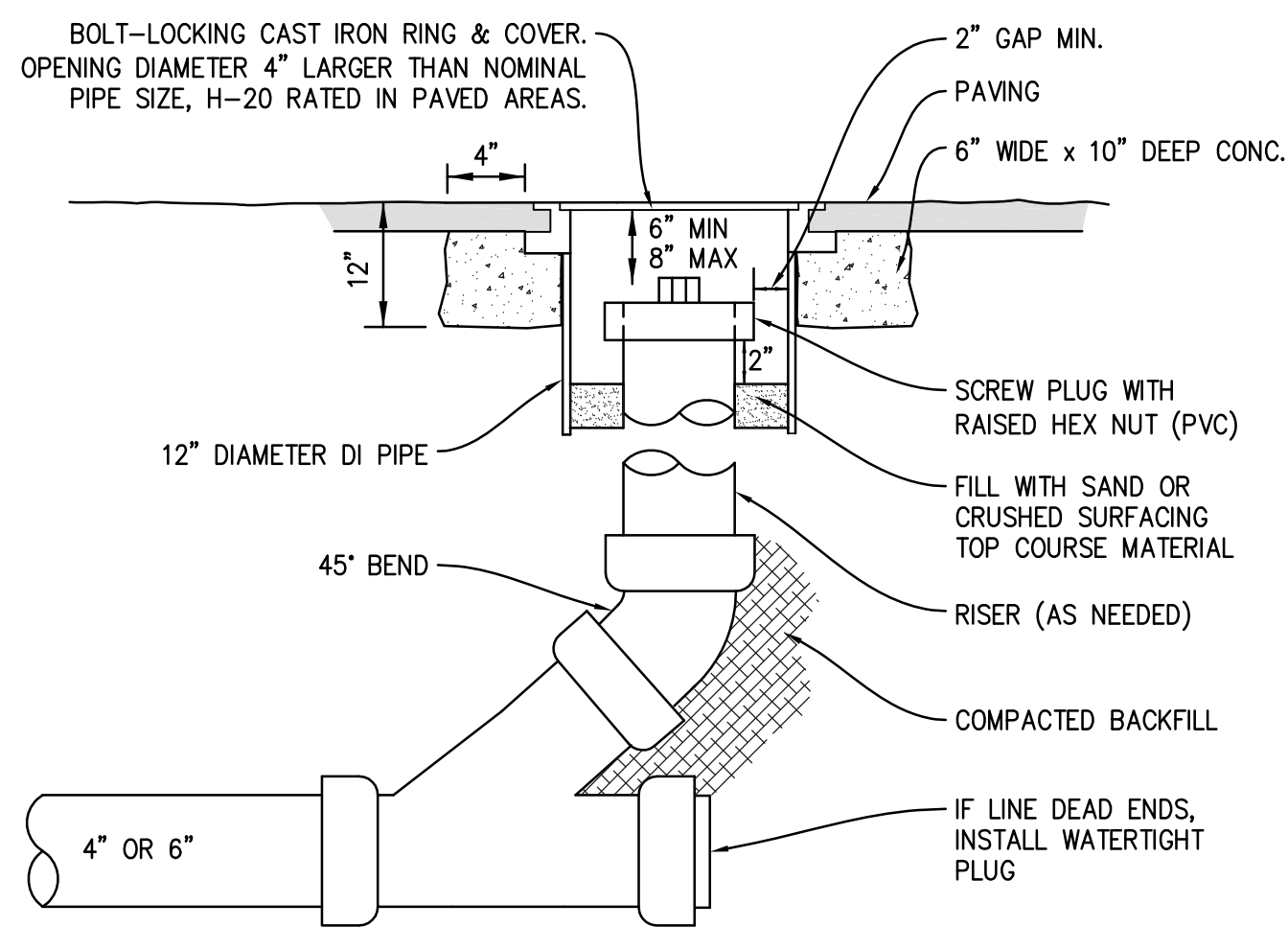
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**FRENCH DRAIN**

SCALE: NTS

5



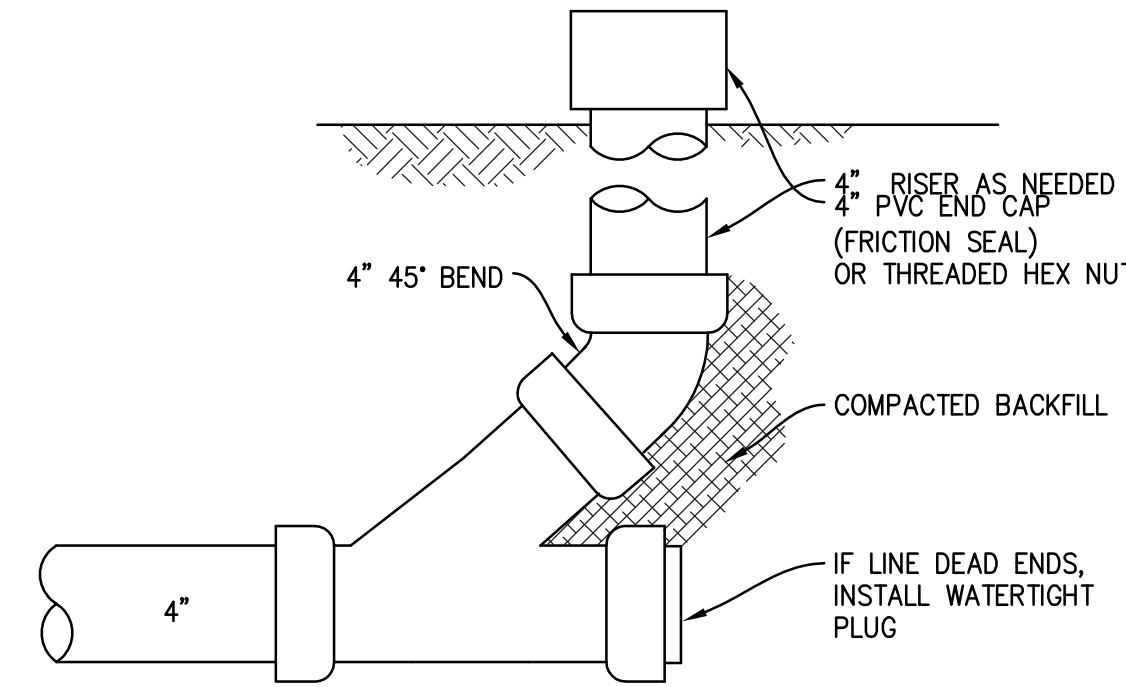
**NOTE:**

THIS DETAIL IS FOR PAVED AREAS. FOR UNPAVED AREAS, BURY PVC END CAP 6" BELOW GRADE.

**CLEANOUT (PAVED AREAS)**

SCALE: NTS

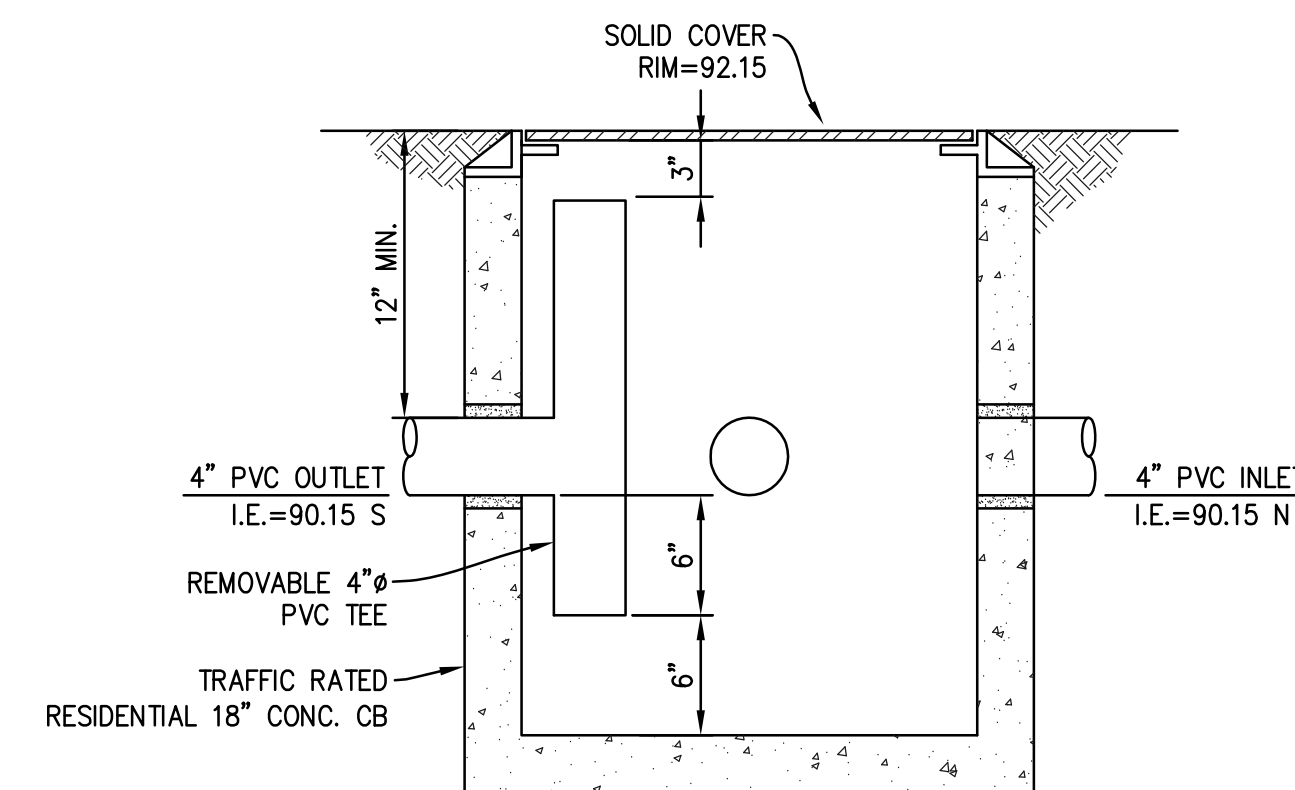
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**CLEANOUT (UNPAVED AREAS)**

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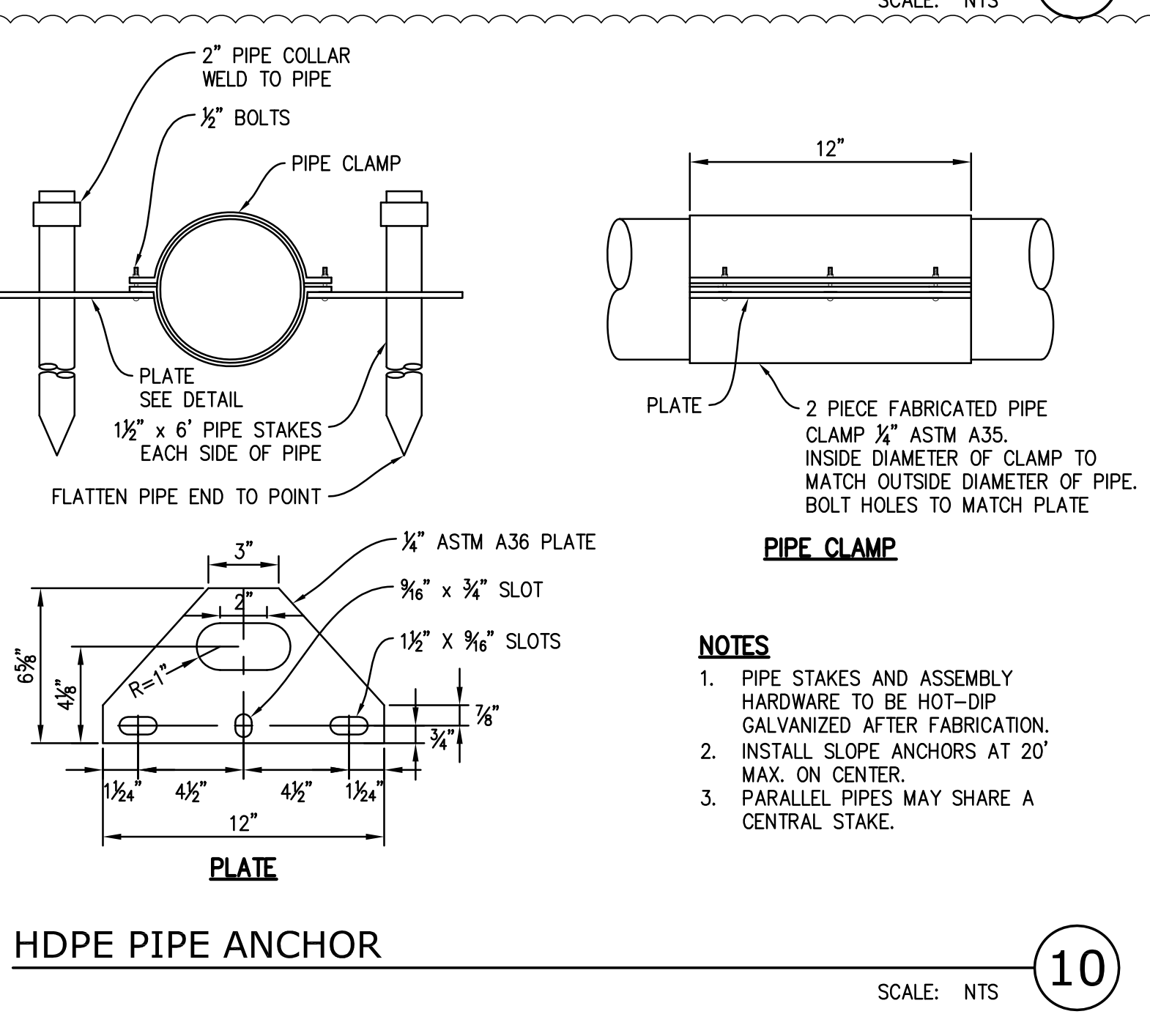
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**OIL SEPARATOR CB**

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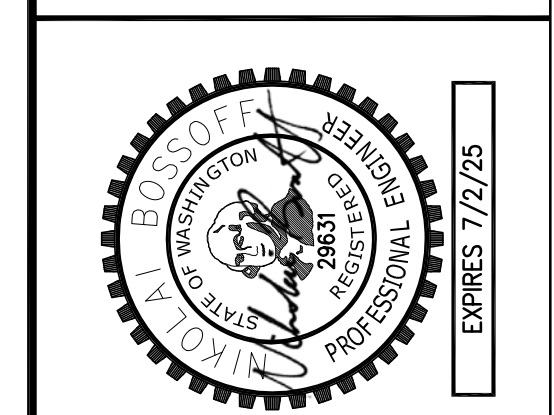
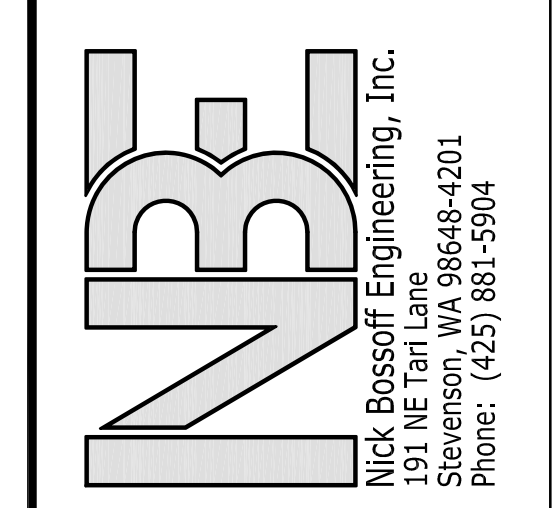
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**HDPE PIPE ANCHOR**

SCALE: NTS

10



NO.	DATE	REVISION
1	09/21/18	PERMIT SUBMITTAL
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PBAR-1801.pln.dwg	FILE NAME:

**WEN HU RESIDENCE**  
**8251 W MERCER WAY**  
**WASHINGTON**  
**MERCER ISLAND**

TITLE: DETAILS

SHEET: C-5