

PRELIMINARY PLAT OF OAK SPRINGS

SITE DATA

ORIGINAL PARCEL NUMBER: 1182524000
 TOTAL AREA: 20.02 ACRES
 ZONING: LD3-6Low-Density Residential
 TOTAL LOTS: 90
 DENSITY: 4.50 D.U. per acre (90/20.02)
 OPEN SPACE: 3.60 acres (18%)

USE OF TRACTS
 TRACT "A"
 TRACT "B"
 TRACT "C"

STORM DRAINAGE/ OAK HABITAT/ TREE TRACT/ ACTIVE RECREATION OPEN SPACE

SMALLEST LOT SIZE: 5,000 S.F.
 AVERAGE LOT SIZE: 6,106 S.F.
 LENGTH OF PUBLIC ROADS: 2,923 L.F.
 AREA OF PUBLIC ROADS: 3.81 ACRES
 WATER: CITY OF LACEY
 SEWER: CITY OF LACEY

LEGAL DESCRIPTION

PARCEL "A"
 THE SOUTH HALF OF THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER OF SECTION 25, TOWNSHIP 18 NORTH, RANGE 1 WEST, W.M.; EXCEPTING THEREFROM THAT PORTION, IF ANY, LYING IN RIGHT OF WAY OF COUNTY ROAD KNOWN AS MARVIN ROAD, IN THURSTON COUNTY, WASHINGTON.

PARCEL "B"
 AN EASEMENT FOR INGRESS, EGRESS AND UTILITIES OVER, UNDER UPON AND THROUGH A 40 FOOT WIDE PORTION OF LAND AS DESCRIBED IN INSTRUMENT RECORDED DECEMBER 3, 2007 UNDER RECORDING NO. 3580788 IN THURSTON COUNTY, WASHINGTON.

PROJECT PROPONENT

CONWELL INVESTMENTS, LLC
 2415 CARPENTER RD SE
 LACEY, WA 98503
 (360) 438-0525

SHEET INDEX

1. PRELIMINARY SITE PLAN / T.E.S.C. PLAN
2. PRELIMINARY T.E.S.C. DETAILS
3. PRELIMINARY GRADING & DRAINAGE PLAN
4. PRELIMINARY GRADING & DRAINAGE DETAILS
5. PRELIMINARY UTILITY PLAN

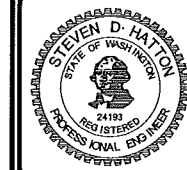
CITY OF LACEY

VERTICAL DATUM
 THURSTON COUNTY
 PHOTOGRAMMETRY
 NOVEMBER 2009

MERIDIAN HORIZONTAL DATUM

SCALE: 1" = 50'

DESIGNED BY: SDH
 DRAWN BY: MM
 CHECKED BY: SDH
 DATE: SEPT. 2013
 SCALE: H
 V

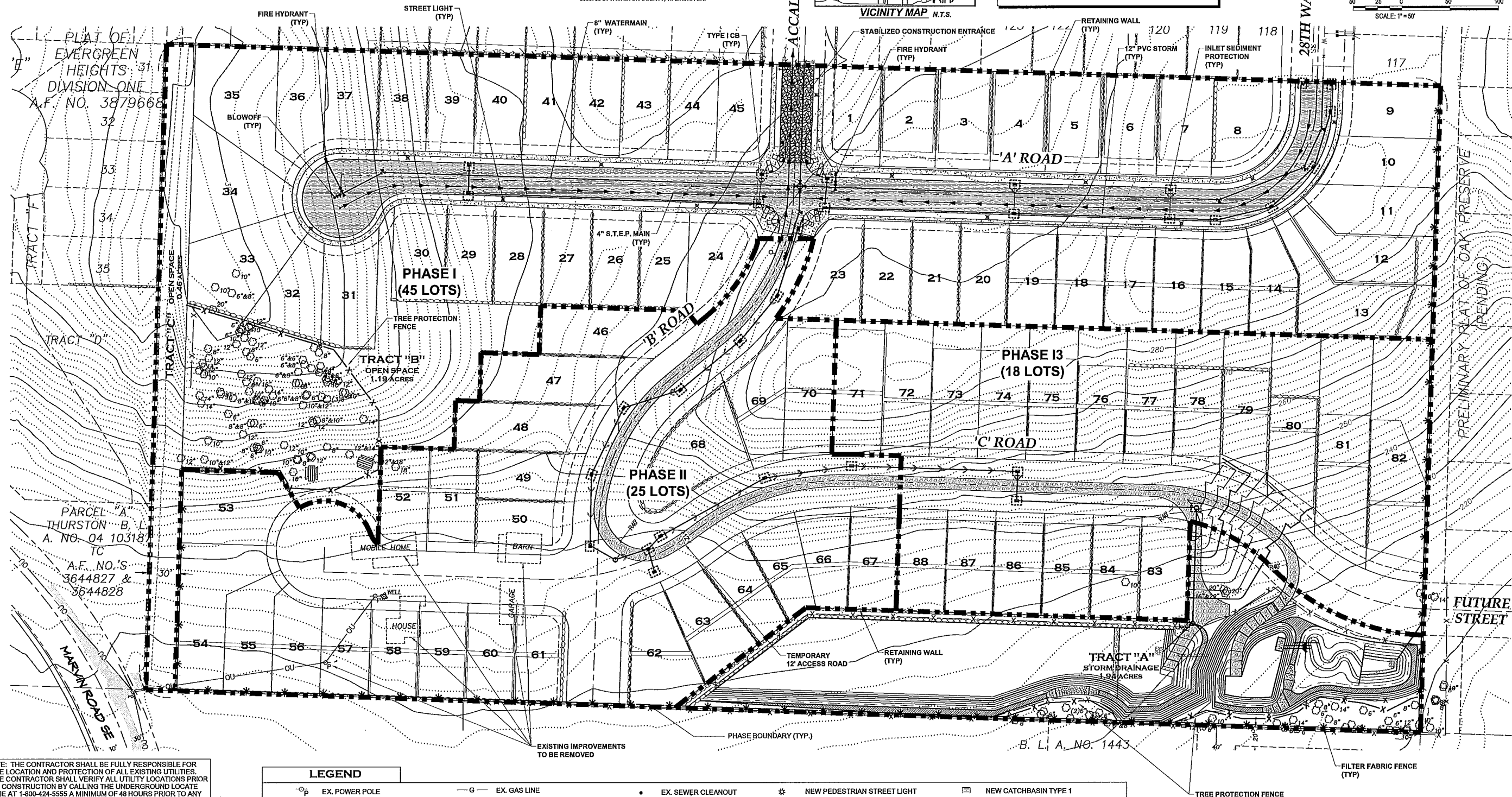


HATTON GODAT PANTIER
 ENGINEERS AND SURVEYORS
 3910 MARTIN WAY E, SUITE B
 LACEY, WA 98503
 TEL: 360.943.1559 FAX: 360.357.8299
 hattonpantier.com

REVISIONS: DATE: 04/09/2014
 CITY COMMENTS: 04/09/2014

OAK SPRINGS
 PRELIMINARY PLAT
 PRELIMINARY SITE PLAN /
 T.E.S.C. PLAN

AGENCY NO. 1 OF 5
 SHEET: 13-0043-046(Preliminary)
 INDEX: 13-046pre-con.dwg
 JOB: 13-046



NOTE: THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION BY CALLING THE UNDERGROUND LOCATE LINE AT 1-800-424-5555 A MINIMUM OF 48 HOURS PRIOR TO ANY EXCAVATION.

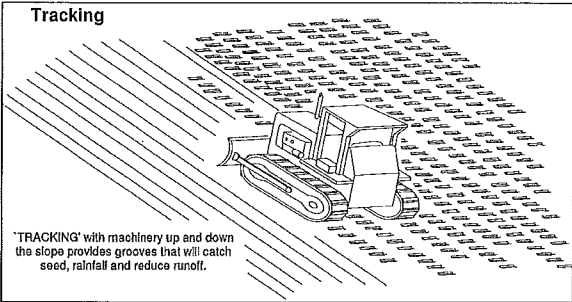
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LEGEND

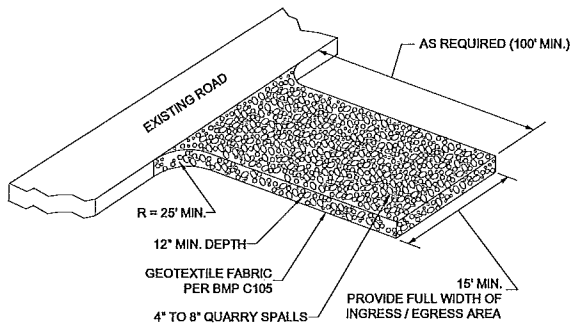
- | | | | | |
|------------------------|------------------------|----------------------|--------------------------------------|-----------------------------------|
| EX. POWER POLE | EX. GAS LINE | EX. SEWER CLEANOUT | NEW PEDESTRIAN STREET LIGHT | NEW CATCHBASIN TYPE 1 |
| EX. POWER VAULT | EX. POWER JUNCTION BOX | EX. SEWER MANHOLE | NEW HIGH MAST W/ PED SCALE LIGHT | NEW CATCHBASIN TYPE 2-48 |
| EX. POWER TRANSFORMER | EX. CATCHBASIN TYPE 1 | EX. SEWER LINE | NEW LIGHTING J BOX | NEW STORM CATCHBASIN W/ SOLID LID |
| EX. POWER PEDESTAL | EX. STORM MAIN LINE | EX. CONCRETE | NEW TRANSFORMER & SERVICE DISCONNECT | NEW STORM MAIN LINE |
| EX. PVC RISER | EX. CULVERT | EX. EDGE OF PAVEMENT | NEW WATERMETER | NEW LOT DRAINAGE LINE |
| EX. OVERHEAD POWER | EX. SIGNS | EX. MAJOR CONTOUR | NEW HYDRANT | NEW SEWER CLEANOUT |
| EX. UNDER GROUND POWER | EX. FENCE | EX. MINOR CONTOUR | NEW VALVE | NEW SEWER MANHOLE |
| EX. TELEPHONE PEDESTAL | EX. WATERMETER | FINISH MAJOR CONTOUR | NEW BLIND FLANGE | NEW GRAVITY SEWER LINE |
| EX. TELEPHONE MANHOLE | EX. HYDRANT | FINISH MINOR CONTOUR | NEW BLOCKING | NEW PIGG LAUNCH PORT |
| EX. CABLE PEDESTAL | EX. VALVE | NEW ROCK WALL | NEW WATERMAIN | NEW SEWER FORCEMAIN |
| EX. TELEPHONE LINE | EX. BLOWOFF | | | |
| EX. GAS VALVE | EX. WATER LINE | | | |



"TRACKING" with machinery up and down the slope provides grooves that will catch seed, rainfall and reduce runoff.

FILL AREA STABILIZATION:

1. ALL SLOPES SHALL BE ROUGHENED USING ONE OF THE METHODS FROM BMP C130 AS FILL IS BEING PLACED.
2. ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED PER THE NOTES AND DETAILS IN THIS PLAN SET AND PER BMP'S C120 AND C121.
3. IN NO CASE SHALL DISTURBED SOILS REMAIN UNSTABILIZED AND UNWORKED FOR MORE THAN 7 DAYS DURING THE DRY SEASON (MAY 1 TO SEPTEMBER 30) OR MORE THAN 2 DAYS DURING THE WET SEASON (OCTOBER 1 TO APRIL 30)



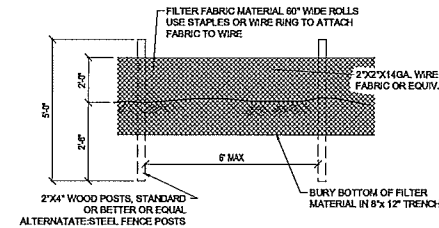
STABILIZED CONSTRUCTION ENTRANCE

STABILIZED CONSTRUCTION ENTRANCE NOTES:

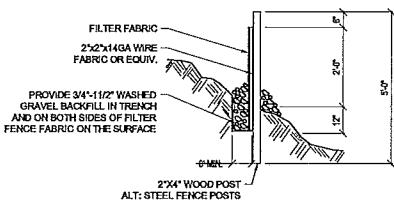
1. MATERIAL SHALL BE 4" TO 8" QUARRY SPALLS AND MAY BE TOP-DRESSED WITH 1" TO 3" ROCK (STANDARD SPECIFICATIONS).
2. THE ROCK PAD SHALL BE AT LEAST 12 INCHES THICK AND 100 FEET LONG. WIDTH SHALL BE THE FULL WIDTH OF THE VEHICLE INGRESS AND EGRESS AREA. SMALLER PADS MAY BE APPROVED FOR SINGLE-FAMILY RESIDENTIAL AND SMALL COMMERCIAL SITES.
3. ADDITIONAL ROCK SHALL BE ADDED PERIODICALLY TO MAINTAIN PROPER FUNCTION OF THE PAD.
4. IF THE PAD DOES NOT ADEQUATELY REMOVE THE MUD FROM THE VEHICLE WHEELS, THE WHEELS SHALL BE HOSED OFF BEFORE THE VEHICLE ENTERS A PAVED STREET. THE WASHING SHALL BE DONE ON AN AREA COVERED WITH CRUSHED ROCK AND WASH WATER SHALL DRAIN TO A SEDIMENT RETENTION FACILITY OR THROUGH SILT FENCE.

FILTER FABRIC FENCE NOTES:

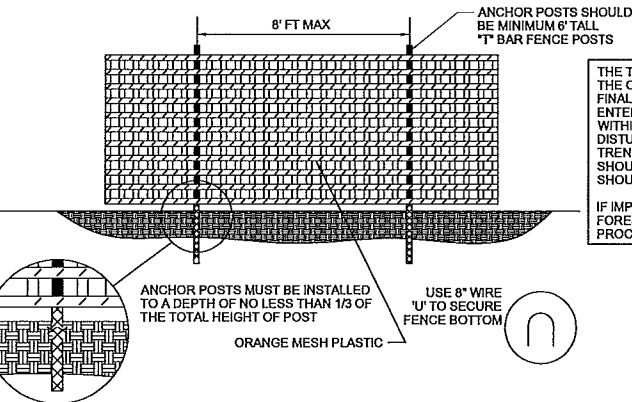
1. FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6-INCH OVERLAP, AND SECURELY FASTENED AT BOTH ENDS TO POST.
2. POSTS SHALL BE SPACED A MAXIMUM OF 8 FEET APART AND DRIVEN SECURELY INTO THE GROUND (MINIMUM OF 30 INCHES).
3. A TRENCH SHALL BE EXCAVATED APPROXIMATELY 8 INCHES WIDE AND 12 INCHES DEEP ALONG THE LINE OF POSTS AND UPSLOPE FROM THE BARRIER.
4. WHEN STANDARD STRENGTH FILTER FABRIC IS USED, A WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY-DUTY WIRE STAPLES AT LEAST 1 INCH LONG. THE WIRES OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 4 INCHES AND SHALL NOT EXTEND MORE THAN 30 INCHES ABOVE THE ORIGINAL GROUND SURFACE. FILTER FABRIC SHALL NOT BE STAPLED TO EXISTING TREES.
5. THE STANDARD STRENGTH FILTER FABRIC SHALL BE STAPLED OR WIRED TO THE FENCE, AND 20 INCHES OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE FABRIC SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE. FILTER FABRIC SHALL NOT BE STAPLED TO EXISTING TREES.
6. WHEN EXTRA-STRENGTH FILTER FABRIC AND CLOSER POST SPACING IS USED, THE WIRE MESH SUPPORT FENCE MAY BE ELIMINATED. IN SUCH A CASE, THE FILTER FABRIC IS STAPLED OR WIRED DIRECTLY TO THE POSTS WITH ALL OTHER PROVISIONS OF ABOVE NOTES APPLYING.
7. FILTER FABRIC FENCES SHALL NOT BE REMOVED BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.
8. FILTER FABRIC FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.



FILTER FABRIC FENCE DETAIL N.T.S.



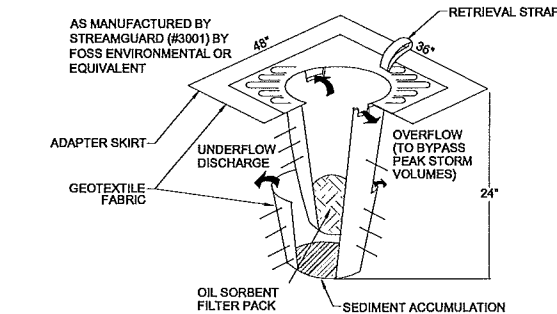
FILTER FABRIC FENCE DETAIL N.T.S.



THE TREE PROTECTION FENCE SHOULD BE MAINTAINED THROUGHOUT THE CONSTRUCTION AND GRADING, AND NOT BE REMOVED UNTIL FINAL LANDSCAPING IS IN PROGRESS. AT NO TIME SHALL EQUIPMENT ENTER INTO THE ROOT PROTECTION ZONE (RPZ). ALL BRUSH CLEANUP WITHIN THE RPZ SHOULD BE COMPLETED BY HAND TO PREVENT DISTURBANCE OF NATIVE GROUND COVERS. NO CUTS OR FILLS, UTILITY TRENCHING, MODIFICATIONS TO DRAINAGE OR CONCRETE RISE WATER SHOULD IMPACT THE RPZ. NO WIRES, CABLES, OR OTHER DEVICES SHOULD BE ATTACHED TO PROTECTED TREES DURING CONSTRUCTION.

IF IMPACTS MUST OCCUR WITHIN THE RPZ, CONTACT PROJECT'S FORESTER PRIOR TO THE OPERATIONS TO DETERMINE THE PROPER PROCEDURE TO PROTECT THE TREE'S HEALTH.

HIGH VISIBILITY TREE PROTECTION / CLEARING LIMITS FENCING



1. INSTALL INSERT PER THE MANUFACTURER'S SPECIFICATIONS
2. MAINTAIN AND REPLACE INSERTS AS RECOMMENDED BY THE MANUFACTURER, AS REQUIRED BY THE INSPECTOR OR PROJECT ENGINEER, AND AS OTHERWISE NECESSARY.

INLET SEDIMENT PROTECTION

MAINTENANCE OF EROSION CONTROL FACILITIES:

IN GENERAL, ALL BMP'S SHALL BE CHECKED WEEKLY AND AFTER A SIGNIFICANT RAINFALL (MORE THAN APPROXIMATELY 0.5 INCHES IN 24 HOURS). THE FOLLOWING ITEMS SHALL BE CHECKED IN PARTICULAR:

1. SEDIMENT BASINS SHALL BE CLEANED OUT WHEN THE LEVEL OF SEDIMENT REACHES 1-1/2 FEET FROM THE TOP OF THE RISER PIPE.
2. GRAVEL AROUND THE RISER PIPE SHALL BE CHECKED REGULARLY FOR SEDIMENT BUILDUP WHICH WOULD RESTRICT DRAINAGE. IF THE GRAVEL BECOMES CLOGGED WITH SILT, IT SHALL BE REPLACED.
3. DIVERSION DIKES AND SWALES SHALL BE CHECKED FOR BLOCKAGE AND DAMAGE ON A REGULAR BASIS. WATER SHALL MOVE FREELY BEHIND DIKES AND IN SWALES AT ALL TIMES.
4. PIPE SLOPE DRAINS SHALL BE CHECKED FOR STABILITY. NO UNDERMINING OF THE PIPE SHALL BE ALLOWED.
5. FILTER FENCE SHALL BE CHECKED REGULARLY FOR UNDERMINING AND SEDIMENT BUILDUP. SEDIMENT SHALL BE REMOVED ONCE IT REACHES A DEPTH OF 1-FOOT.
6. EROSION CONTROL BLANKETS SHALL BE CHECKED FOR STABILITY. BLANKETS SHALL BE HELD IN PLACE AND HAVE GOOD CONTACT WITH THE FILL SLOPE AT ALL TIMES.
7. ALL SEEDED AND SODDED AREAS, ESPECIALLY FILL SLOPES, SHALL BE CHECKED REGULARLY TO MAKE SURE VEGETATIVE COVERAGE IS COMPLETE. AREAS SHALL BE RESEEDED AND FERTILIZED AS NEEDED.
8. TRACKING OF MUD OFF-SITE WILL NOT BE ALLOWED. IF EXCESSIVE MUD IS TRACKED OFF SITE, IT SHALL BE CLEANED WITH A STREET SWEEPER. FURTHER TRACKING SHALL THEN BE PREVENTED BY WASHING TRUCK TIRES OR SWEEPING CONTINUOUSLY.

MULCH NOTES

1. MULCH MATERIALS USED SHALL BE HAY OR STRAW, AND SHALL BE APPLIED AT THE RATE OF 75 TO 100 LBS/1000 SF OR OTHER WOOD FIBER CELLULOSE MATERIAL TO BE APPLIED AT THE RATE OF 20 TO 30 LBS/1000 SF.
2. MULCHES SHALL BE APPLIED IN ALL AREAS WITH EXPOSED SLOPES GREATER THAN 2:1.
3. MULCHING SHALL BE USED IMMEDIATELY AFTER SEEDING OR IN AREAS WHICH CANNOT BE SEEDED BECAUSE OF THE SEASON.
4. ALL AREAS NEEDING MULCH SHALL BE COVERED BY NOVEMBER 1.

SEEDING NOTES

1. SEE BMP C120 FOR SEEDING MIXTURES AND APPLICATION RATES.
2. SEED BEDS PLANTED BETWEEN MAY 1 AND OCTOBER 31 WILL REQUIRE IRRIGATION AND OTHER MAINTENANCE AS NECESSARY TO FOSTER AND PROTECT THE ROOT STRUCTURE.
3. FOR SEED BEDS PLANTED BETWEEN OCTOBER 31 AND APRIL 30, ARMORING OF THE SEED BED WILL BE NECESSARY. (E.G., GEOTEXTILES, JUTE MAT, CLEAR PLASTIC COVERING).
4. BEFORE SEEDING, INSTALL NEEDED SURFACE RUNOFF CONTROL MEASURES SUCH AS GRADIENT TERRACES, INTERCEPTOR DIKES, SWALES, LEVEL SPREADERS AND SEDIMENT BASINS.
5. THE SEEDBED SHALL BE FIRM WITH A FAIRLY FINE SURFACE, FOLLOWING SURFACE ROUGHENING. PERFORM ALL CULTURAL OPERATIONS ACROSS OR AT RIGHT ANGLES TO THE SLOPE.
6. FERTILIZERS ARE TO BE USED ACCORDING TO SUPPLIERS RECOMMENDATIONS. AMOUNTS USED SHOULD BE MINIMIZED, ESPECIALLY ADJACENT TO WATER BODIES AND WETLANDS.

GENERAL EROSION CONTROL NOTES:

1. A CERTIFIED EROSION AND SEDIMENT CONTROL LEAD (CESCL) IS REQUIRED FOR ALL CONSTRUCTION PROJECTS. THE NAMED PERSON OR FIRM SHALL BE ON-SITE OR ON-CALL AT ALL TIMES. FOR THIS SITE, THE PERSON / FIRM IS TBD AND THEIR OFFICE TELEPHONE NUMBER IS TBD.
2. APPROVAL OF THIS EROSION / 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.).
3. THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE APPLICATION CONTRACTOR UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED AND VEGETATION LANDSCAPING IS ESTABLISHED.
4. THE CLEARING LIMIT BOUNDARIES SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED IN THE FIELD PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE FLAGGED CLEARING LIMITS SHALL BE PERMITTED. THE FLAGGING SHALL BE MAINTAINED BY THE APPLICANT/CONTRACTOR FOR THE DURATION OF CONSTRUCTION.
5. THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES, AND IN SUCH A MANNER AS TO ENSURE THAT SEDIMENT AND SEDIMENT-LADEN WATER DO NOT ENTER THE DRAINAGE SYSTEM, ROADWAYS, OR VIOLATE APPLICABLE SURFACE WATER, GROUND WATER, OR DISCHARGE STANDARDS.
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 TO ENSURE THAT SEDIMENT AND SEDIMENT-LADEN WATER DO NOT LEAVE THE SITE.
7. THE ESC FACILITIES ON ACTIVE SITES SHALL BE INSPECTED DAILY BY THE APPLICANT/CONTRACTOR-AND MAINTAINED, REPAIRED, OR AUGMENTED AS NECESSARY-TO ENSURE THEIR CONTINUED FUNCTIONING.
8. THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED MONTHLY, OR WITHIN 48 HOURS FOLLOWING A MAJOR STORM EVEN, BY THE APPLICANT/CONTRACTOR-AND MAINTAINED, REPAIRED, OR AUGMENTED AS NECESSARY-TO ENSURE THEIR CONTINUED FUNCTIONING.
9. STORM INLETS OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT STORMWATER RUNOFF DOES NOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR TREATED TO REMOVE SEDIMENT. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEARED PRIOR TO PROJECT COMPLETION AND ACCEPTANCE. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT-LADEN WATER OFF-SITE WITHOUT TREATMENT.
10. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF THE CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
11. ROADS SHALL BE CLEANED THOROUGHLY AS NEEDED TO PROTECT DOWNSTREAM WATER RESOURCES OR STORMWATER INFRASTRUCTURE. SEDIMENT SHALL BE REMOVED FROM ROADS BY SHOVELING OR PICKUP SWEEPING AND SHALL BE TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL AREA.
12. FROM OCTOBER 15 THROUGH APRIL 1, NO SOILS SHALL REMAIN EXPOSED AND UNWORKED FOR MORE THAN 2 DAYS. FROM APRIL 2 TO OCTOBER 14, NO SOILS SHALL REMAIN EXPOSED AND UNWORKED FOR MORE THAN 7 DAYS. SOILS SHALL BE STABILIZED AT THE END OF THE SHIFT BEFORE A HOLIDAY OR WEEKEND IF NEEDED BASED ON THE WEATHER FORECAST. LINEAR CONSTRUCTION ACTIVITIES, SUCH AS RIGHT OF WAY AND EASEMENT CLEARING, ROADWAY DEVELOPMENT, PIPELINE, AND TRENCHING FOR UTILITIES, SHALL COMPLY WITH THESE REQUIREMENTS. THESE STABILIZATION REQUIREMENTS APPLY TO ALL SOILS ON SITE, WHEATHER AT FINAL GRADE OR NOT. THE LOCAL PERMITTING AUTHORITY MAY ADJUST THESE TIME LIMITS IF IT CAN BE SHOWN THAT A DEVELOPMENT SITE'S EROSION OR RUNOFF POTENTIAL JUSTIFIES A DIFFERENT STANDARD.
13. FROM OCTOBER 15 THROUGH APRIL 1, CLEARING, GRADING AND OTHER SOIL-DISTURBING ACTIVITIES SHALL ONLY BE PERMITTED IF SHOWN TO THE SATISFACTION OF THE LOCAL PERMITTING AUTHORITY THAT THE TRANSPORT OF SEDIMENT FROM THE CONSTRUCTION SITE TO RECEIVING WATER WILL BE PREVENTED.
14. SOIL STOCKPILES MUST BE STABILIZED AND PROTECTED WITH SEDIMENT-TRAPPING MEASURES.
15. ALL POLLUTANTS, INCLUDING WASTE MATERIALS AND DEMOLITION DEBRIS, THAT OCCUR ON SITE DURING CONSTRUCTION SHALL BE HANDLED AND DISPOSED OF IN A MANNER THAT DOES NOT CAUSE CONTAMINATION OF STORMWATER. WOODY DEBRIS MAY BE CHOPPED AND SPREAD ON SITE.
16. MAINTENANCE AND REPAIR OF HEAVY EQUIPMENT AND VEHICLES AND OTHER ACTIVITIES WHICH MAY RESULT IN DISCHARGE OF POLLUTANTS TO THE GROUND OR INTO STORMWATER RUNOFF MUST BE CONDUCTED USING SPILL PREVENTION MEASURES, SUCH AS DRIP PANS. REPORT ALL SPILLS TO 911.
17. WATER FROM MOST DEWATERING OPERATION SHALL BE DISCHARGED INTO A SEDIMENT TRAP OR POND. CLEAN, NON-TURBID WATER MAY BE DISCHARGED TO STATED SURFACE WATERS, PROVIDED THE DISCHARGE DOES NOT CAUSE EROSION OR FLOODING. HIGHLY TURBID OR CONTAMINATED DEWATERING WATER FROM CONSTRUCTION EQUIPMENT OPERATION, CLAMSHELL DIGGING, CONCRETE TREMIE POUR, OR WORK INSIDE A COFFERDAM SHALL BE HANDLED SEPARATELY FROM STORMWATER AND PROPERLY DISPOSED.

CONSTRUCTION SEQUENCE

1. CONSTRUCTION ON THIS SITE SHALL BE CONDUCTED SUBSTANTIALLY IN ACCORDANCE WITH THE PHASES DESCRIBED HEREON. DEVIATIONS FROM THIS PHASING SHALL BE SUBMITTED TO THE PROJECT ENGINEER AND REVIEWING AGENCY. DEVIATIONS MUST BE APPROVED PRIOR TO ANY SITE DISTURBING ACTIVITY NOT CONTAINED WITHIN THE APPROVED PLANS.
2. FOR DEVELOPMENT OF THIS SITE, THE FOLLOWING GENERAL SEQUENCE SHALL BE OBSERVED:
 - A. INSTALL PERIMETER FILTER FABRIC FENCE AND CONSTRUCTION ENTRY AS SHOWN.
 - B. INSTALL INLET PROTECTION FOR EXISTING INLETS IN THE VICINITY OF AREAS TO BE DISTURBED.
 - C. INSTALL TREE PROTECTION FENCING AS SHOWN.
 - D. CALL FOR INSPECTION BY THE REVIEWING AGENCY AND PROJECT ENGINEER.
 - E. CLEARING AND GRUBBING OF AREAS WHICH ARE TO BE GRADED.
 - F. GRADING OF AREA TO SUBGRADE AS SPECIFIED.
 - G. INSTALLATION OF STORM DRAINAGE FACILITIES (I.E., PIPING, CATCH BASINS, AND OTHER UTILITIES).
 - H. ROADWAY CONSTRUCTION.
 - I. PERMANENT EROSION CONTROL MEASURES (I.E., HYDROSEEDING, GRASSING, PLANTINGS, ETC.)
3. ONCE THE SITE HAS BEEN DISTURBED, CONTINUE OPERATIONS DILIGENTLY TOWARD COMPLETION AND STABILIZATION OF THE SITE.
4. MONITOR ALL EROSION CONTROL FACILITIES, REPAIR, MODIFY, AND ENHANCE AS DIRECTED OR AS REQUIRED

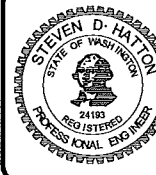
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DESIGNED BY: SDH
DRAWN BY: MM
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SCALE: H
V



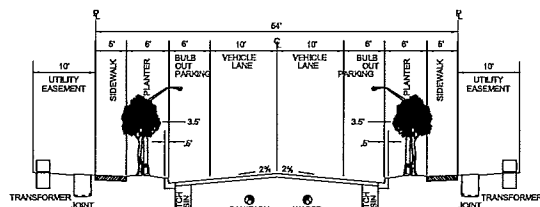
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REVISIONS: DATE: 04/09/2014
CITY COMMENTS: 04/09/2014

OAK SPRINGS
PRELIMINARY PLAT

PRELIMINARY T.E.S.C. DETAILS

AGENCY NO.:
SHEET: 2 OF 5
INDEX: 13-016pre-con.dwg
JOB: 13-046



MAJOR LOCAL RESIDENTIAL
N.T.S.



50 25 0 50 100
SCALE: 1"=50'

CITY OF LACEY
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THURSTON COUNTY PHOTOGRAMMETRY NOVEMBER 2009
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GEOTECHNICAL SPECIFICATIONS:

- ALL EMBANKMENT MATERIAL SHALL CONFORM TO SECTION 9-03.14(1) GRAVEL BORROW OF THE WSDOT STANDARD SPECIFICATIONS.
- EMBANKMENT MATERIAL SHALL BE PLACED AND COMPACTED TO 95% OF THE MAXIMUM DENSITY PER WSDOT/APWA STANDARDS 2-03.3(14).
- EMBANKMENTS FOR ROADWAYS, BUILDINGS, ETC. SHALL BE PLACED PER WSDOT STANDARD SPECIFICATIONS METHOD C.
- AREAS TO BE FILLED SHALL BE CLEARED AND GRUBBED PRIOR TO PLACING ANY FILL MATERIAL.
- A GEOTECHNICAL FIRM CAPABLE OF SUCH WORK SHALL SUPERVISE ALL FILL PLACEMENT AND SUBMIT INSPECTION AND COMPACTION REPORTS TO THE PROJECT ENGINEER.
- NO FILL SHALL BE PLACED DURING PERIODS OF UNFAVORABLE WEATHER OR WHILE THE FILL IS FROZEN OR THAWING.
- WHEN THE WORK IS STOPPED BY RAIN, PLACEMENT OF FILL SHALL NOT RESUME UNTIL THE GEOTECHNICAL FIRM DETERMINES THAT THE MOISTURE CONTENT IS SUITABLE FOR COMPACTION EFFORT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND REWORKING OF ANY FILL THAT HAS SOFTENED OR HAS LESS THAN THE REQUIRED COMPACTION.
- ALL DISTURBED SOILS SHALL BE SEEDED, MULCHED OR OTHERWISE PROTECTED FROM SHEET WASHING AS SOON AS POSSIBLE FOLLOWING GRADING.
- ALL DISTURBED AREAS SHALL BE SEEDED OR SODDED UPON COMPLETION OF WORK. THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT COMPLETE COVERAGE OF THE DISTURBED AREAS IS PROVIDED AND THAT GROWTH OF THE VEGETATION IS ESTABLISHED. SEE ADDITIONAL REQUIREMENTS FOR EROSION CONTROL SHEET 2.

CUT / FILL NOTES:

- THE GROUND SURFACE FOR THE PLANNED FILL AREAS SHALL BE PREPARED TO RECEIVE FILL BY REMOVING ALL TREES, BRUSH, LANDSCAPING DEBRIS AND OTHER DELETERIOUS MATERIAL.
- EXISTING SOILS IN FILL AREA SHALL BE EXAMINED BY SOILS ENGINEER/GEOLOGIST RETAINED FOR PROJECT.
- TOP SOIL AND ANY OTHER SOILS THAT CAN NOT WILL NOT MEET COMPACTION REQUIREMENTS ESTABLISHED BY THE THURSTON COUNTY AND AS SHOWN IN THESE PLANS SHALL BE REMOVED PRIOR TO THE COMMENCEMENT OF FILL OPERATIONS.
- EXISTING SOILS IN FILL AREAS SHALL BE COMPACTED FOLLOWING THE RECOMMENDATIONS OF THE GEOLOGIST/SOILS ENGINEER.
- THE GEOLOGIST RETAINED FOR THE PROJECT SHOULD BE INVOLVED IN PLANNING THE EXTENT OF EXISTING SOILS TO BE REMOVED, THE LOCATION AND THICKNESS OF FILL PLACEMENT, OBSERVING PLACEMENT AND COMPACTION OF FILL SOILS AND IN VERIFYING COMPACTION REQUIREMENTS HAVE BEEN MET.

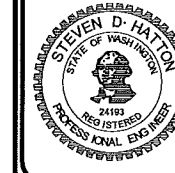
EARTHWORK CALCULATIONS

CUT	178,000 CY
FILL	87,000 CY

FOR PERMITTING PURPOSES ONLY
NOT TO BE USED FOR BIDDING

ALL RETAINING WALLS NOT IN PUBLIC RIGHT-OF-WAY SHALL BE DESIGNED BY STRUCTURAL ENGINEER EXPERIENCED IN SOIL MECHANICS. SEE SEPARATE PLANS AND CALCULATIONS FOR RETAINING WALL DESIGN. THESE RETAINING WALLS WILL BE PERMITTED SEPARATELY.

DESIGNED BY: SDH
DRAWN BY: MM
CHECKED BY: SDH
DATE: SEPT. 2013
SCALE: H
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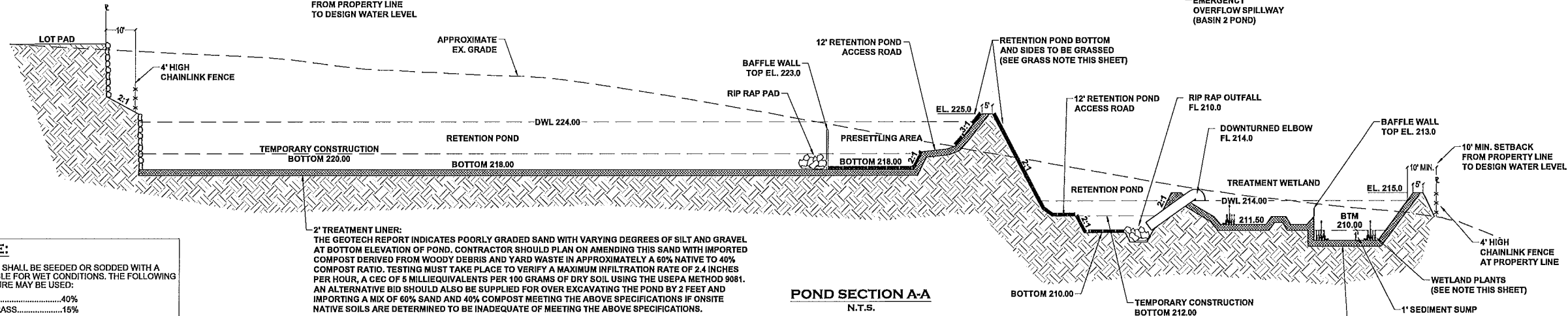
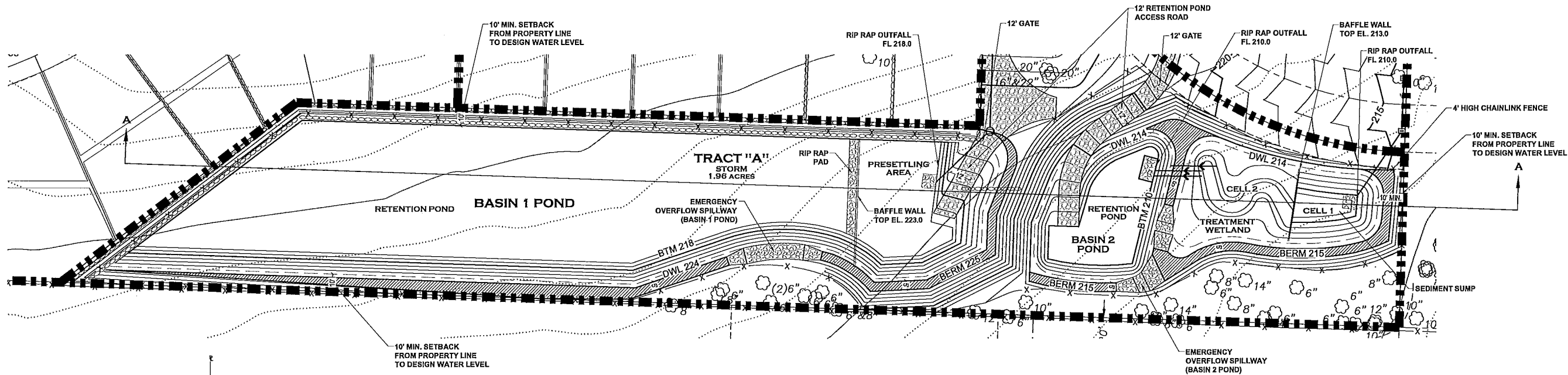


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REVISIONS: DATE: 04/09/2014
CITY COMMENTS:

OAK SPRINGS
PRELIMINARY PLAT
PRELIMINARY GRADING & DRAINAGE PLAN
A PORTION OF THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 25, ALL IN TOWNSHIP 18 NORTH, RANGE 1 WEST, W.M.

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GRASS NOTE:

THE RETENTION POND SHALL BE SEED OR SODDED WITH A SEED MIXTURE SUITABLE FOR WET CONDITIONS. THE FOLLOWING OR EQUIVALENT MIXTURE MAY BE USED:

TALL FESCUE.....	40%
KENTUCKY BLUEGRASS.....	15%
PERENNIAL RYE.....	30%
CHEWINGS FESCUE.....	15%

APPLICATION SHALL BE 120 LBS/ACRE. IN ADDITION, 500 LBS/ACRE OF 10-20-20 FERTILIZER, 200 LBS/ACRE MULCH, AND 40 LBS/ACRE SOIL STABILIZER SHALL BE APPLIED WITH THE SEED MIXTURE.

2" TREATMENT LINER:

THE GEOTECH REPORT INDICATES POORLY GRADED SAND WITH VARYING DEGREES OF SILT AND GRAVEL AT BOTTOM ELEVATION OF POND. CONTRACTOR SHOULD PLAN ON AMENDING THIS SAND WITH IMPORTED COMPOST DERIVED FROM WOODY DEBRIS AND YARD WASTE IN APPROXIMATELY A 60% NATIVE TO 40% COMPOST RATIO. TESTING MUST TAKE PLACE TO VERIFY A MAXIMUM INFILTRATION RATE OF 2.4 INCHES PER HOUR, A CEC OF 5 MILLIEQUIVALENTS PER 100 GRAMS OF DRY SOIL USING THE USEPA METHOD 9081. AN ALTERNATIVE BID SHOULD ALSO BE SUPPLIED FOR OVER EXCAVATING THE POND BY 2 FEET AND IMPORTING A MIX OF 60% SAND AND 40% COMPOST MEETING THE ABOVE SPECIFICATIONS IF ONSITE NATIVE SOILS ARE DETERMINED TO BE INADEQUATE OF MEETING THE ABOVE SPECIFICATIONS.

WETLAND PLANTING NOTE:

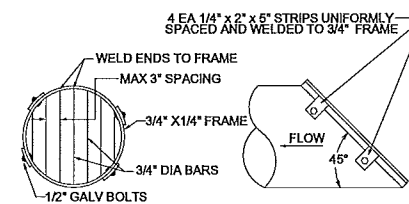
PLANT THE FOLLOWING NURSERY GROWN WETLAND PLANTS IN WET POND AT 3' SPACING IN HOMOGENOUS GROUPS PER THE NURSERY RECOMMENDATIONS FOR TIME AND GROUND MOISTURE.

	ELEVATION
12 GROUPS OF 10 IRIS PSEUDACORUS	211.5 TO 213
12 GROUPS OF 10 SAGITTARIA LATIFOLIA (ARROWHEAD)	211.5 TO 214
12 GROUPS OF 10 SCIRPUS ACUTUS (BULRUSH)	211.5 TO 213
12 GROUPS OF 10 CAREX OBNUPTA (SEDGE)	211.5 TO 213
12 GROUPS OF 10 JUNCUS EFFUSUS (RUSH)	212 TO 213
52 CORNUS STOLONIFERA (RED TWIG DOGWOOD)	213 TO 214
52 RUBUS SPECTABILIS (SALMONBERRY)	214

ALL SPECIES SHALL BE TOLERANT OF FREQUENT INUNDATION TO 3', REGULAR INUNDATION TO 1', AND POSSIBLE EXTENDED SUMMER DROUGHT.

PLANT DOGWOOD AND SALMONBERRY EVENLY SPACED AT THE DEAD DWL.

ALTERNATE PLANTINGS MAY BE PROPOSED. DENSITIES SHOWN MUST BE MAINTAINED AND "PEST" PLANTS, REED CANARY GRASS, CATTAILS, PURPLE LOOSESTRIPE, ETC., SHALL NOT BE USED.



NOTE: PREFAB RACK INTO PIPE (NO BOLTS)

NOTE: ALL PARTS SHALL BE ALUMINUM OR STEEL ALL STEEL PARTS TO BE HOT DIP GALVANIZED

TRASH RACK DETAIL N.T.S.

SPECIFIC CONSTRUCTION PRACTICE RECOMMENDATIONS, REHABILITATION, POND PROTECTION, OR OTHER SIMILAR FACETS SHOULD INCLUDE:

1. PREVENTION OF COMPACTION OF POND BOTTOM SOILS BY WHEELED TRAFFIC. COMPACTION OF SITE SOILS COULD SIGNIFICANTLY REDUCE THE INFILTRATION RATE. ONLY LOW-GROUND-PRESSURE VEHICLES SHOULD BE ALLOWED WITHIN THE POND BOTTOM DURING CONSTRUCTION AND ROUTINE MAINTENANCE.
2. DO NOT EXCAVATE POND TO FINISH GRADE UNTIL THE SITE IS STABILIZED AND FINISH LANDSCAPING HAS BEEN PLACED ON THE UPSLOPE LOTS.

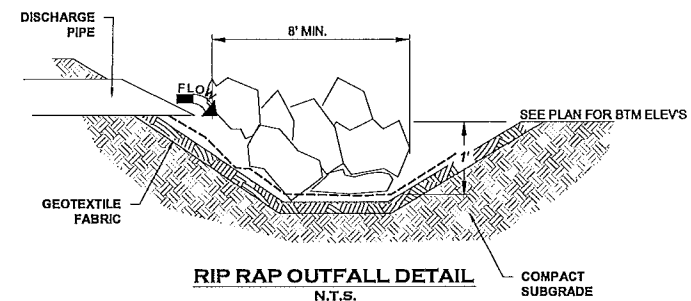
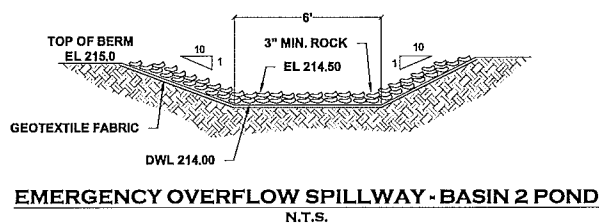
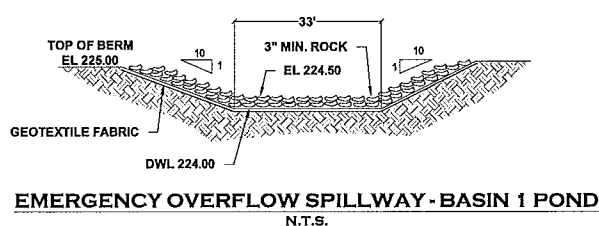
NOTE: THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION BY CALLING THE UNDERGROUND LOCATE LINE AT 1-800-424-5555 A MINIMUM OF 48 HOURS PRIOR TO ANY EXCAVATION.

THIS DRAWING DOES NOT REPRESENT A RECORD DOCUMENT, UNLESS CERTIFIED BY HATTON GODAT PANTIER.

ANY ALTERATIONS TO THE DESIGN SHOWN HEREON MUST BE REVIEWED AND APPROVED BY HATTON GODAT PANTIER.

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POND SECTION A-A N.T.S.



RIP RAP NOTE:

Riprap shall conform with Section 9-13.1 of the Standard Specifications

Rip rap shall be a reasonably well graded assortment of rock with the following gradation:

Maximum Stone Size.....	12-inches
Median Stone Size.....	8-inches
Minimum Stone Size.....	2-inches

Armor pond a min. of 6' in each side of outfall.

DESIGNED BY: SDH
DRAWN BY: MM
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DATE: SEPT. 2013
SCALE: N

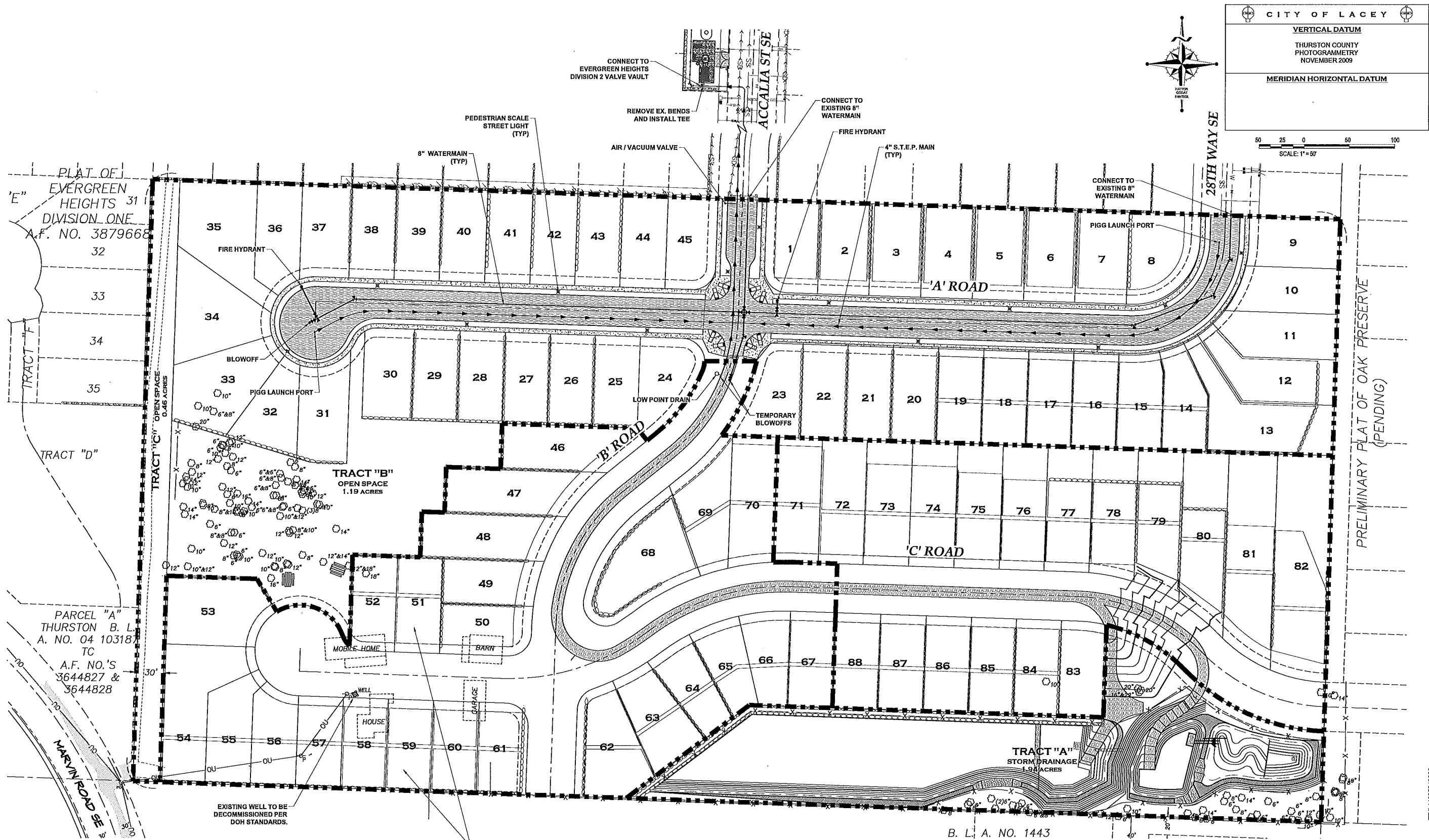


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REVISIONS: DATE: 04/02/2014
CITY COMMENTS:

OAK SPRINGS
PRELIMINARY PLAT
PRELIMINARY GRADING & DRAINAGE DETAILS
A PORTION OF THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 12, ALL IN TOWNSHIP 18 NORTH, RANGE 1 WEST, WA 6

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EXISTING PRIVATE SEPTIC TANKS AND DRAINFIELDS TO BE REMOVED PER THURSTON COUNTY HEALTH DEPT. STANDARDS

EXISTING WELL TO BE DECOMMISSIONED PER DOH STANDARDS.

DESIGNED BY: SDH
DRAWN BY: MM
CHECKED BY: SDH
DATE: SEPT. 2013
SCALE: H
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REVISIONS:
DATE: 04/09/2014
CITY COMMENTS: 04/09/2014

OAK SPRINGS
PRELIMINARY PLAT
PRELIMINARY UTILITY PLAN

AGENCY NO.
SHEET: 5 OF 5
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