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STORM DRAINAGE NOTES

- D. THE BACKFILL SHALL BE PLACED EQUALLY ON BOTH SIDES OF THE PIPE OR PIPE ARCH IN LAYERS WITH A LOOSE AVERAGE DEPTH OF 6", MAXIMUM DEPTH 8", THOROUGHLY TAMPING EACH LAYER. THESE COMPACTED LAYERS MUST EXTEND FOR ONE DIAMETER ON EACH SIDE OF THE PIPE OR TO THE SIDE OF THE TRENCH. MATERIALS TO COMPLETE THE FILL OVER PIPE SHALL BE THE SAME AS DESCRIBED. (REFER TO WSDOT STANDARD SPECIFICATION 7-04.3(3) AND STANDARD SPECIFICATION 2-03.3(14)C, METHOD B & C.
- E. GALVANIZED STEEL CMP SHALL MEET THE REQUIREMENTS OF AASHTO DESIGNATION M-36, TYPE 1 AND TYPE 2. PIPE SHALL HAVE ASPHALT TREATMENT 1 OR BETTER.
- F. CORRUGATED ALUMINUM PIPE AND COUPLING BANDS SHALL MEET THE REQUIREMENTS OF AASHTO M196 AND M197.
- G. DOUBLE WALLED (SMOOTH INTERIOR) CORRUGATED POLYETHYLENE PIPE, MEETING THE REQUIREMENTS OF AASHTO M252 IN 8 INCH SIZE AND AASHTO M294S IN SIZES 12" THROUGH 36", IS AN ACCEPTABLE ALTERNATIVE TO SCHEDULE A CULVERT PIPE, AS SHOWN ON WSDOT/APWA STANDARD PLAN B-17 AND FOR STORM SEWERS IN ACCORDANCE WITH SNOHOMISH COUNTY STANDARDS.
- H. BAND SIZE SHALL BE 12" FOR PIPE LESS THAN 42" DIAMETER AND 49" X 33" ARCH PIPE.
- I. BACKFILL AROUND PIPE MUST BE COMPACTED TO A SPECIFIED AASHTO T-99 DENSITY OF 90%. USE REASONABLE CARE IN HANDLING AND INSTALLATION.
- J. ALL NON-PERFORATED METAL PIPE SHALL HAVE NEOPRENE GASKETS AT THE JOINTS. O-RING GASKETS MAY BE USED FOR TYPE F COUPLING BAND.
- K. A NOTE SPECIFYING THE GAGE AND BAND SIZE FOR ALL PIPES USED IN THE DESIGN SHALL BE PLACED ON THE PLANS.
- 2. CATCH BASINS AND MANHOLES A. ALL CATCH BASINS SHALL BE TYPE 1 UNLESS OTHERWISE
- B. ALL CATCH BASINS WITH A DEPTH OVER 5.0 FEET TO THE FLOW
- LINE SHALL BE A TYPE II CB OR LARGER (MANHOLE). C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING ALL MANHOLE, INLET, AND CATCH BASIN FRAMES AND GRATES JUST
- D. ALL GRATES SHALL BE DEPRESSED 0.1 FEET BELOW PAVEMENT

PRIOR TO POURING OF CURBS AND PAVING.

- E. CATCH BASIN FRAME AND GRATES SHALL BE OLYMPIC FOUNDRY VANE GRATES MODEL 5435, 5435A, LOCKING TYPE OR EQUAL. MODEL 5435A IS REFERRED TO AS A "THROUGH CURB INLET" ON THE PLAN.
- F. ALL TYPE II CATCH BASIN MANHOLES, INLET, AND CATCH BASINS SHALL HAVE LOCKING LIDS.
- G. STANDARD LADDER STEPS SHALL BE PROVIDED IN ALL CATCH BASINS AND MANHOLES EXCEEDING 5 FEET IN DEPTH. THE FOLLOWING NOTES SHALL BE PLACED ON THE PLANS AS APPLICABLE:
- 3. PRIOR TO SIDEWALK CONSTRUCTION, CONSTRUCT THE LOT DRAINAGE CONNECTIONS AND/OR STUB OUTS BEYOND SIDEWALK. STUB OUTS SHALL BE MARKED WITH A 2" X 4" AND LABELED LOCATIONS OF THESE INSTALLATIONS SHALL BE PLACED ON THE AS-BUILT CONSTRUCTION PLANS AND SUBMITTED TO THE CITY.
- 5. STORM WATER RETENTION/DETENTION FACILITIES, STORM DRAINAGE PIPE AND CATCH BASINS SHALL BE FLUSHED AND CLEANED PRIOR TO CITY ACCEPTANCE. POND SIZE SHALL BE CERTTIFIED UPON COMPLETION:

GENERAL NOTES

- 1. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CITY OF MILL CREEK ENGINEERING DESIGN STANDARDS WASHINGTON STATE DEPARTMENT OF TRANSPERTIATION/AMERICAN PUBLIC WORKS ASSOCIATION CURRENT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION, AND THE CURRENT WSDOT HYDRAULICS MANUAL.
- 2. ALL WORK PERTAINING TO THIS PROJECT SHALL BE SUBJECT TO INSPECTION BY THE CITY ENGINEER OR HIS DESIGNATED REPRESENTATIVE. PRIOR TO ANY SITE WORK, THE CONTRACTOR SHALL CONTACT THE CITY INSPECTOR TO SCHEDULE A PRECONSTRUCTION CONFERENCE.
- 3. PRIOR TO ANY SITE DISTURBING ACTIVITY INCLUDING CLEARING, LOGGING OR GRADING, THE SITE CLEARING LIMITS AS SHOWN ON THESE PLANS SHALL BE LOCATED AND FIELD IDENTIFIED BY THE PROJECT SURVEYOR OR ENGINEER. THE PROJECT SURVEYOR OR ENGINEER'S NAME AND TELEPHONE NUMBER ARE DVE CONSULTANTS INC., (425) 348-3700.
- 4. THE DEVELOPER AND PROJECT ENGINEER ARE RESPONSIBLE FOR WATER QUALITY. A MONITORING PROGRAM SHALL BE ESTABLISHED BY THE PROJECT ENGINEER. THE PROJECT ENGINEER'S NAME AND PHONE NUMBER ARE DVE CONSULTANTS, INC., (425) 348-3700.

THE FOLLOWING NOTES SHALL BE PLACED ON THE PLANS AS APPLICABLE:

5. ENGINEERED AS-BUILTS SHALL BE REQUIRED PRIOR TO FINAL APPROVAL.

PLAT APPROVED BY THE CITY OF MILL CREEK.

6. ALL WETLANDS AND ASSOCIATED BUFFERS SHALL BE LEFT IN A SUBSTANTIALLY NATURAL STATE. NO CLEARING, GRADING, FILLING, BUILDING CONSTRUCTION OR PLACEMENT, OR ROAD CONSTRUCTION OF ANY KIND SHALL OCCUR WITHIN THESE AREAS; PROVIDED THAT UNDERGROUND UTILITY LINES AND DRAINAGE DISCHARGE SWALES MAY CROSS SUCH AREAS UTILIZING THE SHORTEST ALIGNMENT POSSIBLE IF AND ONLY IF NO FEASIBLE ALIGNMENT IS AVAILABLE WHICH WOULD AVOID SUCH A CROSSING. REMOVAL OF VEGETATION BY THE PROPERTY OWNER SHALL BE LIMITED TO THAT WHICH IS HAZARDOUS. NO ADJUSTMENT TO THE BOUNDARY OF ANY SUCH AREA SHALL OCCUR WITHOUT FURTHER ENVIRONMENTAL REVIEW AND AMENDMENT OF THE

7. PRIOR TO INITIATION OF SITE WORK, HIGHLY VISIBLE MARKERS SUCH AS BRIGHT ORANGE BARRIER FENCING OF FLAGGING SHALL BE USED TO IDENTIFY WETLANDS, ASSOCIATED BUFFERS AND THE CLEARING LIMITS ESTABLISHED ON THIS PLAN. PRIOR TO RECORDING, ALL WETLANDS AND ASSOCIATED BUFFERS SHALL BE DESIGNATED WITHIN A SEPARATE TRACT CLEARLY AND PERMANENTLY MARKED ON THE PROJECT SITE IN A MANNER TO BE APPROVED BY THE CITY OF MILL CREEK DEPARTMENT OF COMMUNITY DEVELOPMENT. SIGNS SHALL BE PLACED NO GREATER THAN 100 FEET APART AROUND THE PERIMETER OF THE TRACT. THE DESIGN FOR THE SIGN SHALL BE SUBMITTED TO THE CITY OF MILL CREEK DEPARTMENT OF COMMUNITY DEVELOPMENT FOR REVIEW AND APPROVAL. NO CLEARING OF ANY VEGETATION OR GRADING IS TO BE ALLOWED WITHIN THE WETLANDS AND ASSOCIATED BUFFER AREAS.

SURVEY MONUMENTATION

1. SURVEY MONUMENTS SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF MILL CREEK DESIGN STANDARD.S

SITE GRADING AND T.E.S.C. NOTES

- 1. ALL GRADING SHALL COMPLY TO CHAPTER 70 OF THE UNIFORM BUILDING CODE.
- 2. TESC MEASURES SHALL BE INSTALLED PRIOR TO ANY SITE WORK (SEE ATTACHED DETAILED DRAINAGE PLAN).
- 3. PUBLIC STREETS ARE TO BE KEPT CLEAR OF DIRT AND DEBRIS DURING EXCAVATION AND FILL OPERATIONS.
- 4. THE TEMPORARY EROSION/SEDIMENTATION CONTROL FACILITY SHALL BE CONSTRUCTED PRIOR TO ANY GRADING OR EXTENSIVE LAND CLEARING IN ACCORDANCE WITH THE APPROVED TEMPORARY EROSION/SEDIMENTATION CONTROL PLAN. THESE FACILITIES MUST BE SATISFACTORILY MAINTAINED UNTIL CONSTRUCTION AND LANDSCAPING IS COMPLETED AND THE POTENTIAL FOR ON-SITE EROSION HAS PASSED.
- 5. NON-COMPLIANCE WITH THE EROSION CONTROL REQUIREMENTS, WATER QUALITY REQUIREMENTS AND/OR CLEARING LIMITS MAY RESULT IN REVOCATION OF PROJECT PERMITS, PLAN APPROVAL AND BOND FORECLOSURES.
- 6. CONSTRUCTION ACCEPTANCE WILL BE SUBJECT TO A WELL ESTABLISHED GROUND COVER THAT FULFILLS THE REQUIREMENT OF THE APPROVED CONSTRUCTION PLANS.
- 7. ALL AREAS TO BE SEEDED SHALL BE CULTIVATED TO THE SATISFACTION OF THE COUNTY INSPECTOR. THIS MAY BE ACCOMPLISHED BY DISCING, RAKING, HARROWING OR OTHER ACCEPTABLE MEANS. PERFORM ALL CULTURAL OPERATIONS ACROSS OR AT RIGHT ANGLES TO THE SLOPE. IF NECESSARY, SURFACE RUNOFF CONTROL MEASURES SUCH AS GRADIENT TERRACES, INTERCEPTOR DIKE/SWALES, LEVEL SPREADERS, AND SEDIMENT BASINS SHALL BE INSTALLED PRIOR TO SEEDING.
- 8. ALL DISTURBED AREAS SUCH AS RETENTION FACILITIES, ROADWAY BACK-SLOPES, ETC. SHALL BE SEEDED WITH A PERENNIAL GROUND COVER GRASS TO MINIMIZE EROSION. GRASS SEEDING WILL BE DONE USING AN APPROVED HYDROSEEDER OR AS OTHERWISE APPROVED BY THE CITY OF MILL CREEK.
- 9. IMMEDIATELY FOLLOWING FINISH GRADING, PERMANENT VEGETATION (CONSISTING OF RAPID, PERSISTENT AND LEGUME) WLL BE APPLIED (MINIMUM 80# PER ACRE). THIS IS TO INCLUDE THE FOLLOWING: 20% ANNUAL, PERENNIAL OR HYBRID RYE GRASS, 40% CREEPING RED FESCUE, 40% WHITE CLOVER.
- 10. FERTILIZER SHALL BE APPLIED AT 400# PER ACRE OF 10-20-20 (10 POUNDS PER 1100 SQUARE FEET) OR EQUIVALENT. DEVELOPMENTS ADJACENT TO WATER BODIES SHALL USE NON-PHOSPHOROUS FERTILIZER.

THE FOLLOWING NOTES SHALL BE PLACED ON THE PLANS AS

- 11. THESE PLANS INDICATE CUT AND FILL SLOPES WHICH EXCEED A MAXIMUM OF TWO FEET HORIZONTAL TO ONE FOOT VERTICAL (2:1), A ROCK OR CONCRETE RETAINING WALL MAY BE REQUIRED.
- 12. STOCKPILES ARE TO BE LOCATED IN SAFE AREAS AND ADEQUATELY PROTECTED TO PREVENT EROSION. HYDROSEED PREFERRED.

CONSTRUCTION SEQUENCE

- 1. ATTEND PRE-CONSTRUCTION MEETING.
- 2. FLAG CLEARING LIMITS. 3. INSTALL FILTER FENCE.
- 4. INSTALL TEMPORARY CONSTRUCTION ENTRANCE.
- 5. CLEAR AND GRUB SITE TO LIMITS OF CLEARING AS SHOWN ON PLANS.
- 6. ROUGH GRADE SITE
- 7. INSTALL UTILITIES (POWER, STORM, SANITARY, ETC.) 8. FINAL GRADE/PAVE, MAINTAIN MINIMAL CB PROTECTION.
- 9. FLUSH STORM DRAINAGE SYSTEM (IE., CLEAN OUT & TEST SYSTEM).
- 10. REMOVE ALL TESCP FACILITIES ONLY WHEN ENTIRE SITE IS STABILIZED.

POND MAINTENANCE SCHEDULE

City maintenance crews shall inspect detention facility on an annual basis. Inspection shall include the following:

- 1. Drain pond using valve outside of pond and inspect all outfall and discharge pipes. Clear any obstructions as necessary.
- 2. Inspect dead storage basin, checking for adequate volume capacity by comparing bottom elevation with original design value. Remove any accumulated sediment from base of pond as necessary to maintain proper depth and storage capacity.
- 3. Open and inspect control structure, including orifices and overflow. Remove any material from structure obstructing release orifices and overflow. Remove any accumulated sediment from sump.
- 4. Close pond drain valve and finish inspection by checking all fencing and security measures.

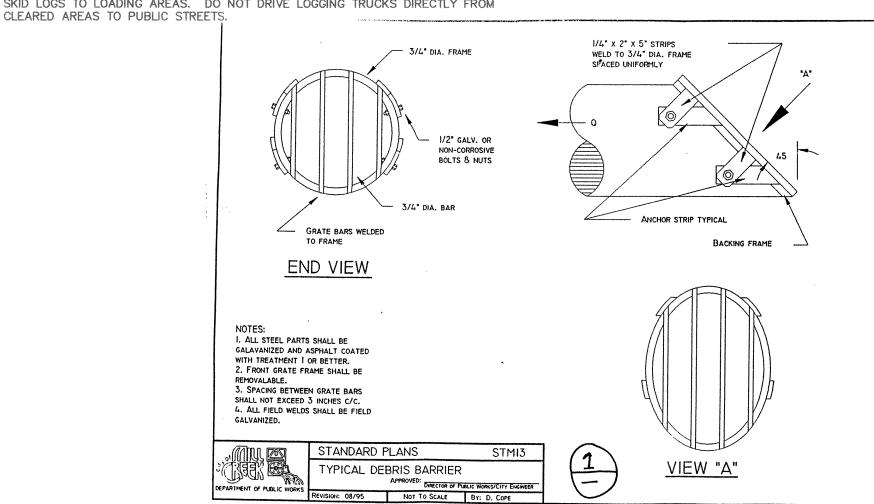
WINTER BEST MANAGEMENT PRACTICES

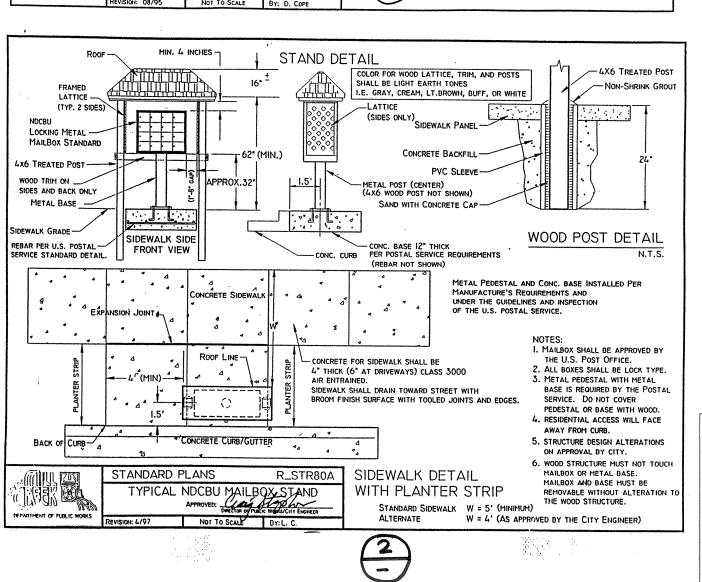
THE FOLLOWING ADDITIONAL REQUIREMENTS SHALL APPLY TO ALL CLEARING, GRUBBING AND GRADING WORK PERFORMED BETWEEN OCTOBER 01 AND APRIL 30 OF ANY YEAR.

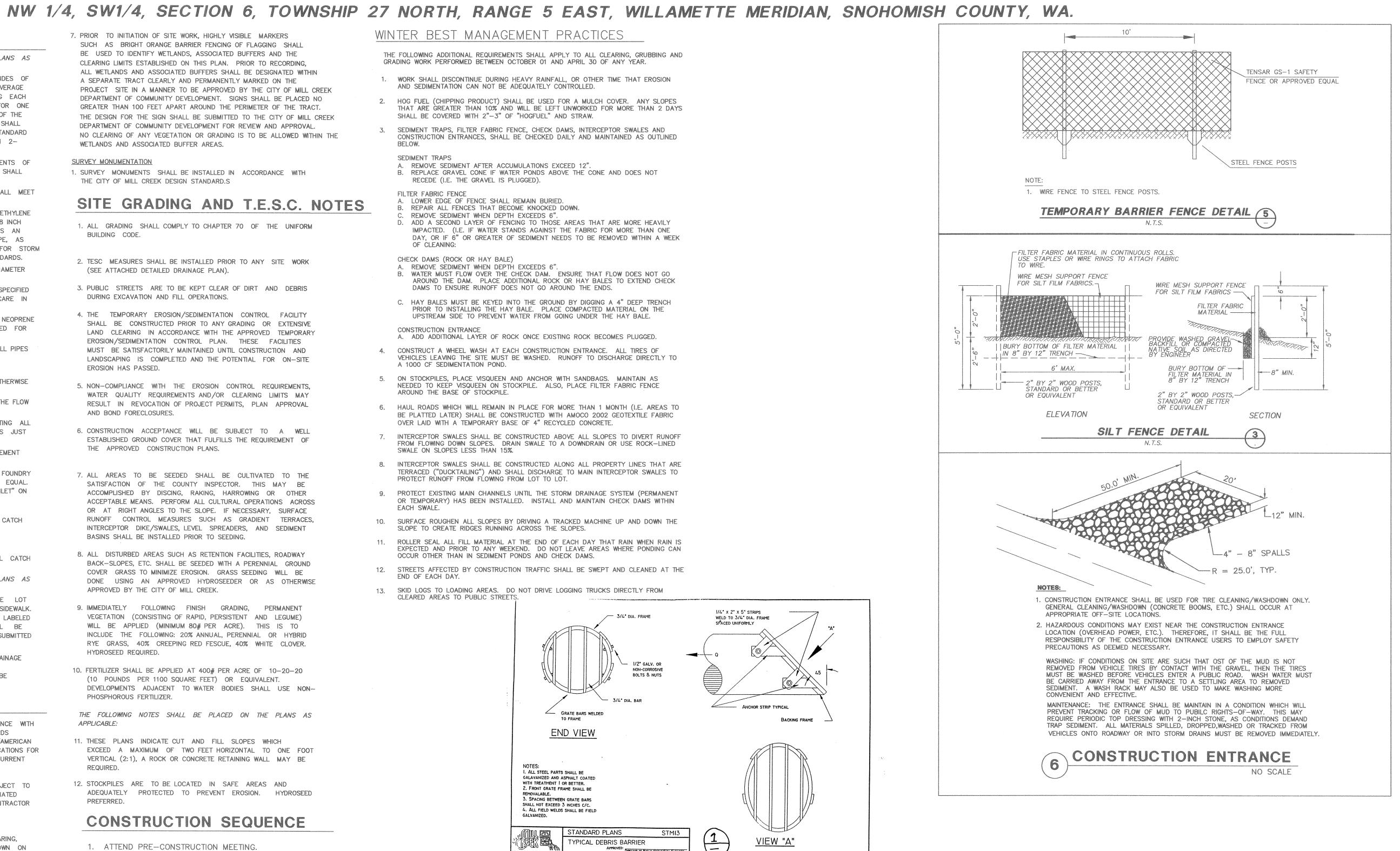
- WORK SHALL DISCONTINUE DURING HEAVY RAINFALL. OR OTHER TIME THAT EROSION AND SEDIMENTATION CAN NOT BE ADEQUATELY CONTROLLED.
- HOG FUEL (CHIPPING PRODUCT) SHALL BE USED FOR A MULCH COVER. ANY SLOPES THAT ARE GREATER THAN 10% AND WILL BE LEFT UNWORKED FOR MORE THAN 2 DAYS SHALL BE COVERED WITH 2"-3" OF "HOGFUEL" AND STRAW.
- SEDIMENT TRAPS, FILTER FABRIC FENCE, CHECK DAMS, INTERCEPTOR SWALES AND CONSTRUCTION ENTRANCES, SHALL BE CHECKED DAILY AND MAINTAINED AS OUTLINED BELOW.
- SEDIMENT TRAPS
- A. REMOVE SEDIMENT AFTER ACCUMULATIONS EXCEED 12". B. REPLACE GRAVEL CONE IF WATER PONDS ABOVE THE CONE AND DOES NOT
- RECEDE (I.E. THE GRAVEL IS PLUGGED).
- LOWER EDGE OF FENCE SHALL REMAIN BURIED. REPAIR ALL FENCES THAT BECOME KNOCKED DOWN
- REMOVE SEDIMENT WHEN DEPTH EXCEEDS 6". ADD A SECOND LAYER OF FENCING TO THOSE AREAS THAT ARE MORE HEAVILY IMPACTED. (I.E. IF WATER STANDS AGAINST THE FABRIC FOR MORE THAN ONE DAY, OR IF 6" OR GREATER OF SEDIMENT NEEDS TO BE REMOVED WITHIN A WEEK

CHECK DAMS (ROCK OR HAY BALE)

- A. REMOVE SEDIMENT WHEN DEPTH EXCEEDS 6". WATER MUST FLOW OVER THE CHECK DAM. ENSURE THAT FLOW DOES NOT GO AROUND THE DAM. PLACE ADDITIONAL ROCK OR HAY BALES TO EXTEND CHECK DAMS TO ENSURE RUNOFF DOES NOT GO AROUND THE ENDS.
- C. HAY BALES MUST BE KEYED INTO THE GROUND BY DIGGING A 4" DEEP TRENCH PRIOR TO INSTALLING THE HAY BALE. PLACE COMPACTED MATERIAL ON THE UPSTREAM SIDE TO PREVENT WATER FROM GOING UNDER THE HAY BALE.
- CONSTRUCTION ENTRANCE A. ADD ADDITIONAL LAYER OF ROCK ONCE EXISTING ROCK BECOMES PLUGGED.
- 4. CONSTRUCT A WHEEL WASH AT EACH CONSTRUCTION ENTRANCE. ALL TIRES OF VEHICLES LEAVING THE SITE MUST BE WASHED. RUNOFF TO DISCHARGE DIRECTLY TO A 1000 CF SEDIMENTATION POND.
- ON STOCKPILES, PLACE VISQUEEN AND ANCHOR WITH SANDBAGS. MAINTAIN AS NEEDED TO KEEP VISQUEEN ON STOCKPILE. ALSO, PLACE FILTER FABRIC FENCE AROUND THE BASE OF STOCKPILE.
- 6. HAUL ROADS WHICH WILL REMAIN IN PLACE FOR MORE THAN 1 MONTH (I.E. AREAS TO BE PLATTED LATER) SHALL BE CONSTRUCTED WITH AMOCO 2002 GEOTEXTILE FABRIC OVER LAID WITH A TEMPORARY BASE OF 4" RECYCLED CONCRETE.
- INTERCEPTOR SWALES SHALL BE CONSTRUCTED ABOVE ALL SLOPES TO DIVERT RUNOFF FROM FLOWING DOWN SLOPES. DRAIN SWALE TO A DOWNDRAIN OR USE ROCK-LINED SWALE ON SLOPES LESS THAN 15%.
- INTERCEPTOR SWALES SHALL BE CONSTRUCTED ALONG ALL PROPERTY LINES THAT ARE TERRACED ("DUCKTAILING") AND SHALL DISCHARGE TO MAIN INTERCEPTOR SWALES TO PROTECT RUNOFF FROM FLOWING FROM LOT TO LOT.
- PROTECT EXISTING MAIN CHANNELS UNTIL THE STORM DRAINAGE SYSTEM (PERMANENT OR TEMPORARY) HAS BEEN INSTALLED. INSTALL AND MAINTAIN CHECK DAMS WITHIN
- SURFACE ROUGHEN ALL SLOPES BY DRIVING A TRACKED MACHINE UP AND DOWN THE SLOPE TO CREATE RIDGES RUNNING ACROSS THE SLOPES.
- ROLLER SEAL ALL FILL MATERIAL AT THE END OF EACH DAY THAT RAIN WHEN RAIN IS EXPECTED AND PRIOR TO ANY WEEKEND. DO NOT LEAVE AREAS WHERE PONDING CAN OCCUR OTHER THAN IN SEDIMENT PONDS AND CHECK DAMS.
- STREETS AFFECTED BY CONSTRUCTION TRAFFIC SHALL BE SWEPT AND CLEANED AT THE
- 13. SKID LOGS TO LOADING AREAS. DO NOT DRIVE LOGGING TRUCKS DIRECTLY FROM







ACCEPTED FOR CONSTRUCTION BY: 5.15.00

DEVELOPMENT

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ACCEPTED FOR CONSTRUCTION BY:

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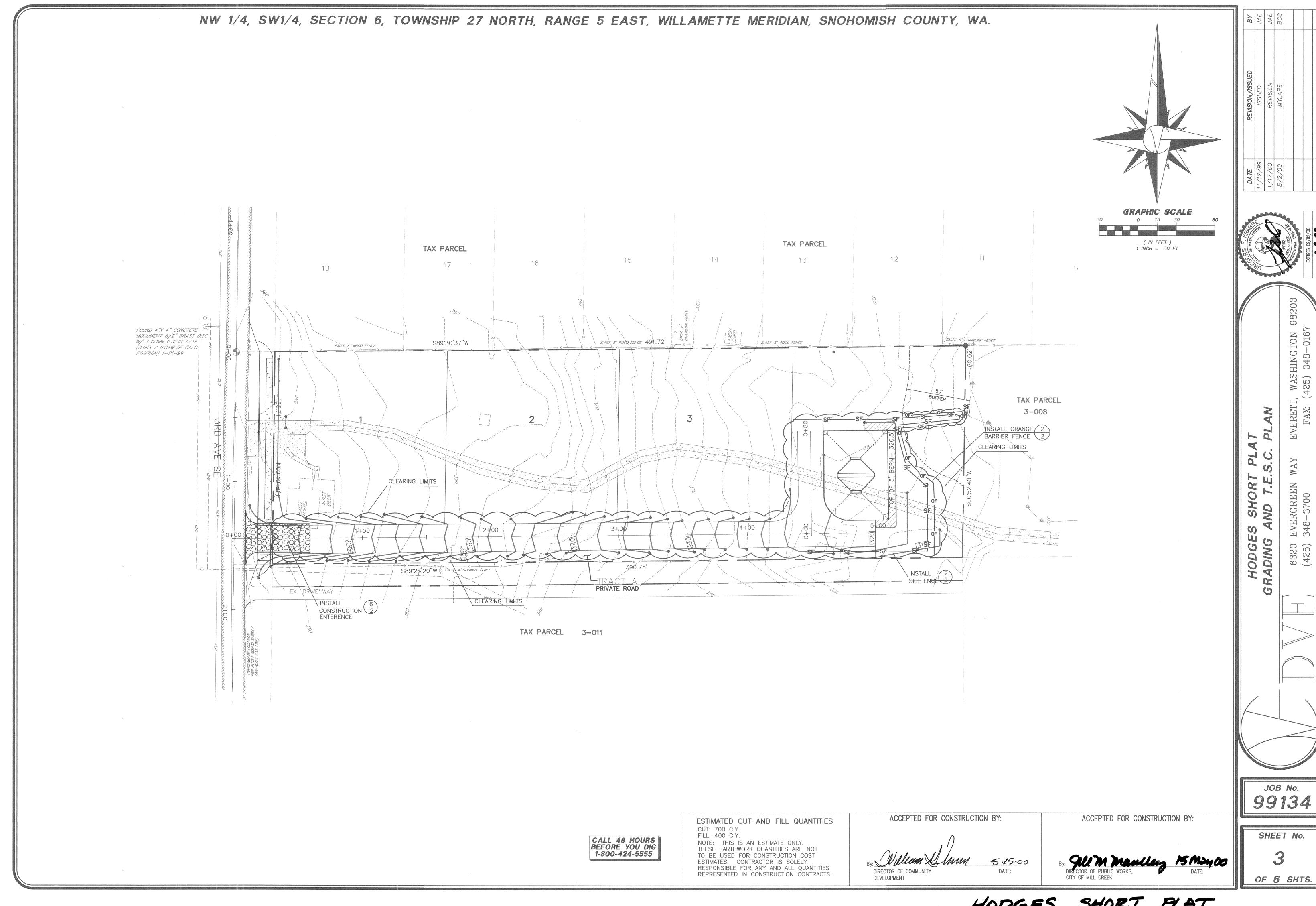
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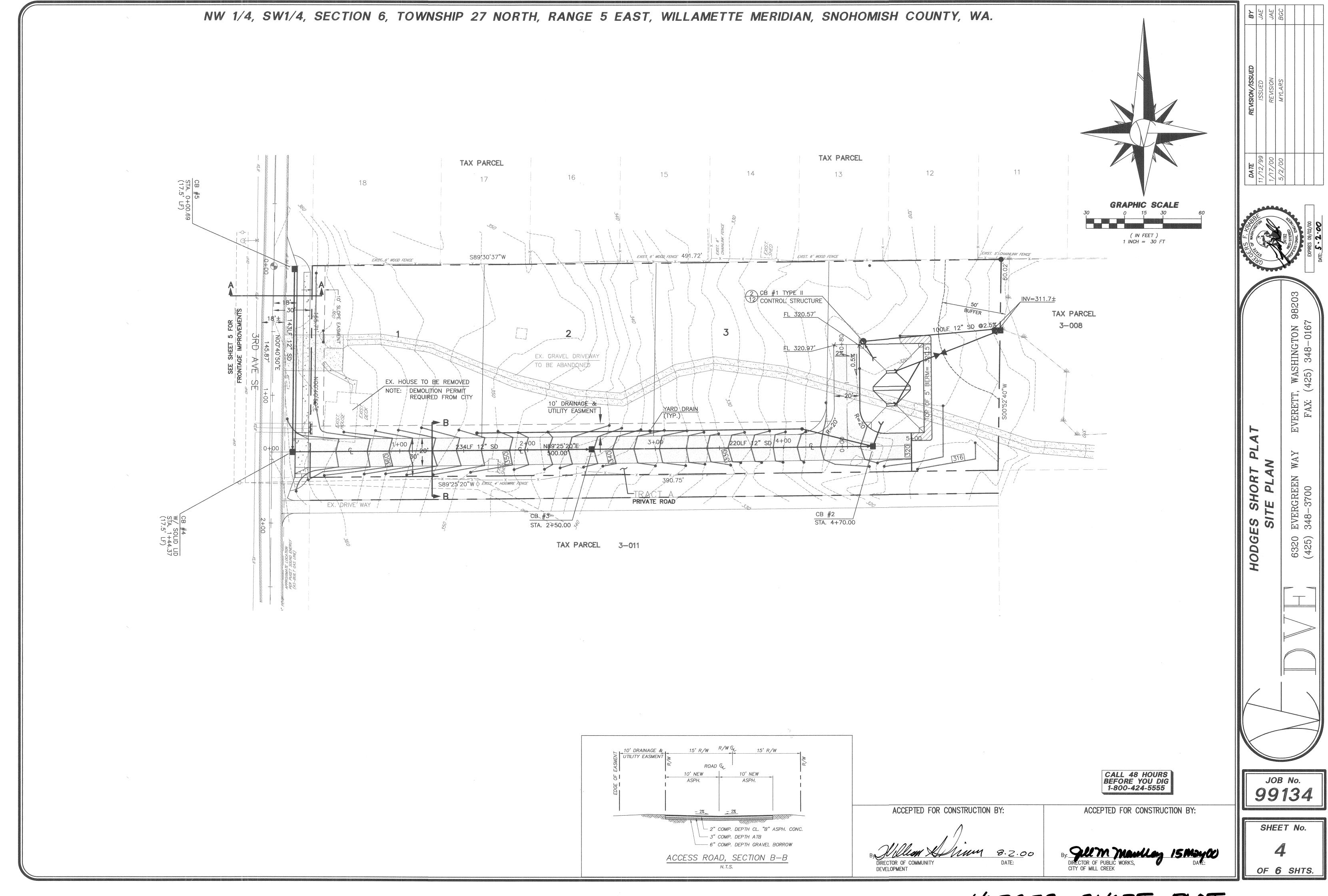
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