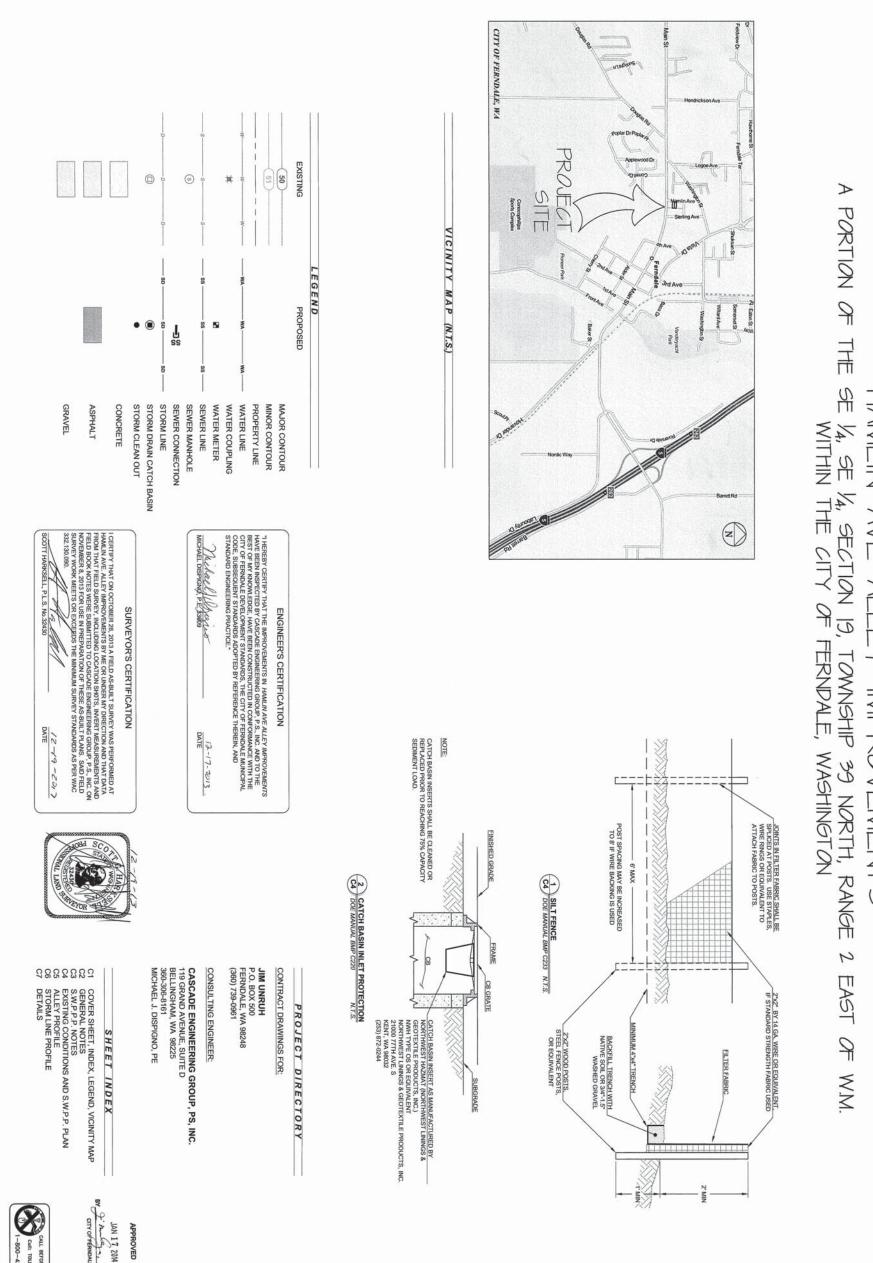
2 TOWNSHIP 39 NORTH, RANGE IMPROVEMENTS 2



UNRU0001

SCALE: AS SHOWN

CASCADE ENGINEERING GROUP, P.S., INC. 119 Grand Avenue, Suite D Bellingham, Washington 98225



FERNDALE, WA **HAMLIN AVE ALLEY IMPROVEMENTS**

RECORD DRAWING 12-17-2013

ALL WORK AND MATERIALS SHALL CONFORM TO THESE PLANS AND TO THE REQUIREMENTS OF THE CURRENT EDITION OF THE "STATE OF WASHINGTON, DEPARTMENT OF TRANSPORTATION STANDADD SPECIFICATIONS FOR ROAD, DERROBE AND MINICIPAL CONSTRUCTION, AND ITS AMENDMENTS (WISDOT SPECS.) AND STANDARD PLANS, THE CITY OF FERNDALE DEPALDMENT STANDARDS (COPPS) AND THE 2005 VERSION OF THE DEPARTMENT OF ECOLOGY STORM WATER MANAGEMENT MANUAL FOR WESTERN WASHINGTON (DOE MANUAL), IN CASE OF A CONFLICT BETTIEREN PLANS, REGULATORY STANDARDS OR SPECIFICATIONS, THE MORE STRINGENT REQUIREMENT WILL PREVAIL.

THE CONTRACTOR MUST HAVE A FULL SET OF CITY CONTRACT DOCUMENTS ON THE SITE WHENEVER CONSTRUCTION IS IN PROGRESS. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OF ABERCANTON SHALL EBGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER CONSTRUCTION DOCUMENTS APPROVED BY ALL OF THE PERMITTING ALTHORITIES, THROUGHOUT THE PERRIOD OF CONSTRUCTION, CONTRACTOR SHALL COMPLY WITH THE TERMS OF

CONSTRUCTION NOISE SHALL BE LIMITED TO BETWEEN 7 a.m. TO 8 $\rm p.m.,\ MONDAY$ THROUGH SATURDAY.

5. THE CONTRACTOR SHALL CONTACT THE UTILITIES UNDERGROUND LOCATION CENTER AT LEAST 72 HOURS PRIOR TO STRATING CONSTRUCTION, PHONE: 1400-424-5656, IT IS THE CONTRACTORS RESPONSIBILITY TO CONTACT ALL OF THE VARIOUS UTILITY COMPANIES TO ARRANGE FOR FIELD LOCATIONS OF ALL EXISTING UTILITY FACILITIES. NO EXTRA COMPRISACTION WILL BE PAUT OT THE CONTRACTOR FOR COSTS INCURRED BECAUSE OF DAMAGE DONE TO EXISTING FACILITIES BY THE CONTRACTOR SHALL BE CONTRACTORS SOLE RESPONSIBILITY. THE CONTRACTOR SHALL BE RESPONSIBLE OF THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE INTEGRITY OF ALL EXISTING UTILITIES AND TO NOTIFY THE PROJECT TENGRIBER OF ADDRESS PROMPTLY OF ANY CONFLICT BETWEEN THE APPROVED PLANS AND THE LOCATION OF ANY EXISTING UTILITIES.

THE CONTRACTOR SHALL PROTECT ALL PRIVATE AND PUBLIC LITELTIES FROM PANAGE RESULTING FROM THE WORK. CONTRACTOR SHALL RESTORE ALL PRIVATE AND PUBLIC PROFERTY DISRUPTED BY THE PROJECT IMMEDIATELY AFTER CONSTRUCTION.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EROSION CONTROL MEASURES THROUGHOUT THE DIPATION OF THE PROJECT. EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY CLEARING OR GRADING IN CONFORMANCE WITH THE EROSION & SEDMENTATION CONTROL PLAN AND THE STORM WATER POLULTION PREVENTION PLAN (SWPPP). THE SWPPP SHALL BE ONSITE AT ALL TIMES DURING CONSTRUCTION ACTIVITIES. SITE CLEARING SHALL INCLUDE THE LOCATION AND REMOVAL OF ALL ABOVE GROUND AND BURIED DEBRIS AND WASTE THAT MAY BE PRESENT.

THE CONTRACTOR SHALL ATTEND A PRE-CONSTRUCTION MEETING WITH REPRESENTATIVES OF THE CITY OF FERNDALE PUBLIC WORKS DEPARTMENT AND THE ENGINEER A MINIMAM OF THREE (3) WORKNOO DAYS PRIOR TO THE START OF CONSTRUCTION. THE CITY WILL SCHEDULE THE MEETING. THE CONTRACTOR SHALL OBTAIN REJOCABLE ENCROCHMENT PERMITS FROM THE COTT OF FERNINALE ANDOR WHATCOM COUNTY PRIOR TO COMMENCING WORK WITHIN THE PUBLIC RIGHT-OF-WAY.

11. ALL WORK AND MATERIALS SHALL BE SUBJECT TO APPROVAL BY THE CITY OF FERRIDALE PUBLIC WORKS DEPARTMENT, REPRESENTATIVES FROM THE CITY OF FERRIDALE PUBLIC WORKS DEPARTMENT MIST INSPECT ALL WORK DENTIFIED ON THE PLANS, BOTH PUBLIC CAND PRIVATE. THE CONTRACTOR SHALL CALL AT LEAST ALL HOURS IN ADVANCE TO SCHEDULE INSPECTIONS AS FOLLOW:

A. PLACEMENT OF FURTHER MAIN AND BACKFELLING OF WATER MAIN TENCH WITHIN ROAD RIGHTS OF WAY OR IN WATERLINE EASEMENT TO BE DEDICATED TO THE CITY OF FERRIALE.

D. PLACING OR BACKFELLING OF UNDERRIGOUND UTILITIES, STORM SEWER AND SANITARY SEWER WITHIN ROAD RIGHTS OF-WAY. IN EASEMENTS TO BE DEDICATED TO THE CITY OF FERRIALE.

D. PLACING OR BACKFELLING OF UNDERRIGOUND UTILITIES, STORM SEWER AND SANITARY SEWER WITHIN ROAD RIGHTS OF-WAY, IN EASEMENTS TO BE DEDICATED TO THE CITY OF FERRIALE.

C. COMPLETION OF EXCLANTION TO SUBGRADE.

2. COMPLETION OF EXLAST COURSE PLACEMENT
5. COMPLETION OF CRUSHED SUPFACING COURSE PLACEMENT
F. POURING OF CUBB AND GUTTER AND SUBPAKAR M PUBLIC ROADWAY.

G. ASPHALT PANNIG IN PROGRESS IN PUBLIC ROADWAY.

I. END OF MAINTENANCE PERSOD

1. END OF MAINTENANCE PERSOD

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SAFEGUARDS, SAFETY DEVICES, PROTECTIVE EQUIPMENT FLAGGERS, AND ANY OTHER NEEDED ACTIONS TO PROTECT THE LIFEL 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 TO SHACK THAT MAY INTERRUPT NORMAL TRAFFIC FLOW SHALL REQUIRE AT LEAST ONE FLAGGER FOR EACH LANG OF THE WORK ALL PRIOR TO PERFORMING THE WORK, ALL SECTIONS OF THE WISDOT SPECS., 1-07.23-TRAFFIC CONTROL, SHALL RESUBBITTED TO THE CITY FOR APPROVAL PRIOR TO PERFORMING THE WORK, ALL SECTIONS OF THE WISDOT SPECS., 1-07.23-TRAFFIC CONTROL, SHALL RESIDENTED TO THE WISDOT SPECS., 1-07.23-TRAFFIC CONTROL.

THE CONTRACTOR SHALL INFORM THE ENGINEER AND OBTAIN APPROVAL FROM THE CITY OF FERNINALE PUBLIC WORKS DIRECTOR OF ANY PROPOSED DEMATION FROM THE APPROVED PLANS PROOR TO CONSTRUCTION OF THE REVISED MIPROVENENTS. THE CONTRACTOR SHALL KEEP RECORDS OF ALL DEVIATIONS AND SHALL PORFMACH THEN TO THE ENGINEER AND TO THE CITY OF FERNINALE PUBLIC WORKS DEPARTMENT.

AS BUILT DATA SHALL BE PROVIDED TO THE CITY OF FERNDALE UPON COMPLETION OF CONSTRUCTION AND PROVIDED IN CITY OF FERNDALE DATUM. VERTICAL (NGVD 29) AND HORIZONTAL (NAO 8391). CONTACT THE CITY FOR MORE INFORMATION ON SUBMITTAL REQUIREMENTS.

CITY

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FERNDALE GENERAL

NOTES

THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE ENGINEER TO ASSURE ACCURATE AND TIMELY COLLECTION OF ALL REQUIRED AS-BUILT DAY. THIS DAYA MUST ACCURATELY REFLECT THE LOCATIONS OF ALL UNDERGROUND UTILITIES, BOTTOM OF PIPE ELEVATIONS, INVERT ELEVATIONS, MANHOLE LOCATIONS, WALTES REPROFE THES, BLOW-OFFE LOCATIONS, MAD INVERTS OF SERVICE CONNECTIONS (BOTH AT PIPE AND AT PROPERTY LINE), VERTICAL AND HORZOMTA, BENDS, SERVICE BOXES AND METERS, VALVES AND HYDRANTS, CALL THE ENGINEER AT LEAST 48-HOURS BEFORE BURYING UNDERGROUND PIPE TO ASSURE AND FACILITATE REQUIRED AS-BUILT SURVEY.

UTILITY CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE COFDS.

TESTING OF NEW WATER LINES, STORM SEWER SYSTEMS SHALL NOT BE PERFORMED UNTIL ALL OTHER ADJACENT UTILITIES HAVE BEEN INSTALLED.

THE CONTRACTOR SHALL REMOVE AND REPLACE ALL EXISTING UN-COMPACTED OR POORLY COMPACTED FILL SOILS WITHIN THE ROAD PRISM AT THE DIRECTION OF THE ENGINEER.

THE CONTRACTOR SHALL EXCAVAITE AND GRADE TO THE ALIGNMENT, GRADE AND GRADS-SECTIONS SHOWN IN THE PLANS OR ESTABLISHED BY THE PROJECT ENGINEER OF RECORD.

UNSUITABLE MATERIAL FOUND AND NOT FIT FOR USE AS A SUB-GRADE SHALL BE EXCAVATED TO THE BOUNDARIES SET BY THE ENGINEER AND REPLACED WITH A SUITABLE BOCKFUL MATERIAL

THE ENGINEER IS REQUIRED TO CERTIFY SUBGRADE, IN WRITING, PRIOR TO PAVING

BASE COURSES & CRUSHED SURFACING

BALLAST, GRAVEL BASE AND CRUSHED SURFACING SHALL BE COMPACTED TO AT LEAST 95% OF MAXIMUM DRY DENSITY. GRAVEL BASES AND BALLAST MATERIAL GRADATION SHALL MEET THE CURRENT EDITION OF WSDOT SPECS.

THE GRADED AND COMPACTED SURFACE OF THE CRUSHED SURFACING TOP COURSE SHALL BE WITHIN $\frac{1}{2}$ INCH OF FINISHED GRADE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MATERIAL AND COMPACTION TESTING. PRIOR TO MEPORTING OF MATERIAL FOR BASE AND CRUSHED SURFACING TOP COURSE THE CONTRACTOR SHALL PROVIDE EVIDENCE OF SATISFACTORY PASSING GRADING AND DEGRADATION TEST RESULTS TO THE ENGINEER.

STORM DRAINAGE

THE FOLLOWING STANDARD DETAILS SHALL BE USED FOR CONSTRUCTION OF STORM DRAIN IMPROVEMENTS:
CATCH BASINS TYPE 1, 11, 07, 22 WISDOT STD. DETAILS B-5,20, B-5,40 OR B-10 "RESIDENTIAL SERVICE LINE" COFSD ST-45
NILET & THRU-CURB INLET COFSD ST-7 & COFSD ST-8 WSDOT STD. DETAILS 8-5.20, B-5.40 OR B-10.20 COFSD ST-15 COFSD ST-8

ALL CATCH BASIN GRATES SHALL INCLUDE THE STAMPING "OUTFALL TO STREAM, DUMP NO POLLUTANTS". STORM SEWER PIPE HAVING DIAMETERS GREATER THAN 8" SHALL BE CORRUGATED POLYETHYLEME PIPE (CPEP) PERS SECTION 7-40 OF THE WISDOT SPECS, ALL OTHER STORM SEWER PIPE SHALL BE PVC UNLESS OTHERWISE SPECIFIED ON PLANS.

CONTROL DENSITY FILL SHALL BE USED IN AREAS WHERE LESS THAN 18" OF COVER IS MAINTAINED OVER THE PROPOSED STORM PIPES (PIPE IS IN ROAD BASE SECTION), AS SHOWN IN THE PLANS, DUCTILE IRON PIPE OR REINFORCED CONCRETE PIPE MAY BE USED FOR STORM PIPES WITH LESS THAN 18" OF COVER IF APPROVED BY THE CITY.

COVER OVER PIPES SHALL BE MANTAINED DURING CONSTRUCTION. DEPTH OF COVER REQUIRED SHALL CONFORM TO THE MANUFACTUREPS SECOMMENDATIONS AND WILL NARY WITH THE VEHICLE LOADS TRAVELING OVER THE PIPE. NO ADDITIONAL COMPENSATION SHALL BE PROVIDED FOR DAMAGE TO PIPE DURING CONSTRUCTION ACTIVITIES.

AT THE END OF ALL SITE CONSTRUCTION, THE CONTRACTOR SHALL CLEAN ALL DEBRIS FROM ALL NEW AND AFFECTED CATCH BASINS AND STORMWATER CONVEYANCES. DOEBRIS SHALL NOT BE ALLOWED TO ENTER STREAMS OR OFF-SITE STORMWATER SYSTEMS.

EACH STORM SEWERS STUB SHALL BE CAPPED WITH A WATERTIGHT PLUG. EACH STUB SHALL BE MARKED FOR LOCATION WITH A 2" DIA, WHITE PVO PIPE (MIN. SCHEDLUE 49. STENCILED WITH THE WORD "DIAM" AND THE PIPE INVERT HANDICATED. THE LOCATION MARKEN SHALL BE CONNECTED TO THE SERVICE STUB BY A #12 COPPERE WIRE.

RADDWAY EXCAVATION WITHIN THE ROADWAY PRISM SHALL BE CUT TO A UNIFORM GRADE. THE COMPLETED SUBGRADE SUFFACE SHALL NOT VARY MORE THE COMPLETED SUBGRADE SUFFACE SHALL NOT VARY MORE THE COURT BROWN THE LOWER EDGE OF A 15-FOOT STRANGHTEDGE PLACED ON THE SUBGRADE PARALLEL TO THE CENTERLINE UNLESS APPROVED BY THE ENGINEER.

THE CONNERS SHALL PROVIDE TO THE ENGINEER A REPORT FROM A QUALIFIED GEOTICCHNICAL FIRM CERTIFFING THE COMPACTION OF THE GRAVEL BASEBALLAST UNDER ALL PAVING AREAS.

THE FOLLOWING STANDARD DETAILS SHALL BE USED IN CONSTRUCTING WATER SUPPLY SYSTEM IMPROVEMENTS:

PIPE BEDDING
TRENCH BACKFILL
FIRE HYDRAWT ASSEMBLY
UNKER SERVICE
UNKER SERVICE
COFSD W-2
WATER SERVICE
COFSD W-2
WATER SERVICE
COFSD W-2
W-3 & W-4
WATER SERVICE
COFSD W-5

ALL WORK AND MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE CITY OF FERNINALE DEVELOPMENT STANDARDS, SECTIONS 702 AND 705 AND THE MOST RECENT VERSION OF THE WISDOT STANDARD PLANS.

THE CONSTRUCTION OF UNDERGROUND UTILITY LINES SHALL BE SUBJECT TO THE FOLLOWING CRITIERIA.

A NO MORE THAN 500 FEET OF TRENCH SHALL BE OPENED AT ONE TIME.

B. WHERE CONSISTENT WITH SAFETY AND SPACE CONSIDERATIONS, EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF DITCHES.

C. TRENCH DEWASTERING DEVICES SHALL DISCHARGE INTO SEDMENT TRAPS OR SEDMENT PONDS.

D. WHERE PRACTICAL, INSTALL GRAVITY PIPE UTILITIES PRIOR TO INSTALLATION OF OTHER UTILITIES.

ALL UTILITY TRENCHES IN THE RIGHT OF WAY SHALL BE BACKFILLED WITH BALLAST PER SECTION 9-03.9(1) WSDOT SPECS.

MATERIAL FOR FITTINGS SUCH AS CROSSES TEES, BEAUS, REDUCERS, AND SLEEVES SHALL BE DUCTILE IRON, JOINTS SHALL BE M.J., PAMGED OR PUSH-ON JOINTS AND SHALL COMPORM TO SECTION 9-30.2 (1) OF THE WEDOT SPECS.

CEMENT CONCRETE DRI WHERE SHOWN ON THE WITH THE COFSD R-15. A FOR DRIVEWAY BEDDING

JEWAYS SHALL BE 6 INCHES THICK AND CONSTRUCTED PLANS OR DESIGNATED BY THE ENGINEER IN ACCORDANCE 2- INCH LAYER OF 3/4 INCH DRAIN ROCK SHALL BE USED

ALL WATER MAIN PIPE SHALL BE DUCTILE IRON PER SECTION 9-30.1 (\dagger) OF THE WSDOT SPECS., UNLESS OTHERWISE APPROVED BY THE PUBLIC WORKS DIRECTOR

CONCRETE BLOCKING SHALL BE AS SPECIFIED IN CITY OF FERNDALE STANDARD DEFAILS W.2, W.3 AND W.4, OR AS DIRECTED BY THE PROJECT ENGINEER. BLOCKS SHALL BE INSTALLED AS SPECIFIED IN SECTION 7-09.3 (21) OF THE WISDOT SPECS NO PRE-CAST BLOCKS ARE ALLOWED.

CONNECTIONS TO EXISTING WATER MAINS - THE CONTRACTOR MUST NOTIFY THE CITY OF FERNALE PUBLIC WORKS DIRECTOR OF A PROPOSED CONNECTION AT LEAST FOUR WORKING DAYS IN ADVANCE.

OPEN CUTTING OF EXISTING ROADWAYS IS ONLY ALLOWED AS APPROVED AND MOTED ON THESE APPROVED PLANS. ANY OPEN CUT SHALL BE RESTORED IN ACCORDANCE WITH THE CITY OF FERNDALE STANDARD DETAIL (COFSD) R-11 AND SS-15. ALL UTILITY TRENCHES SHALL BE BACKFILLED AND COMPACTED TO 95% RELATIVE COMPACTION OR 95% MODIFIED PROCTOR PER TRENCHING DETAIL COFSD SS-15.

NO PART OF THE DRAINAGE SYSTEM MAY BE COVERED, CONCEALED, OR PUT INTO USE UNTIL IT HAS BEEN INSPECTED, TESTED, AND ACCEPTED BY THE CITY INSPECTOR.

BACKFILL SHALL BE BALLAST PER SECTION 9-03.9 (1) WSDOT SPECS, IN ALL STREET RIGHTS-OF-WAY, COMPACTED TO MINIMUM 95% RELATIVE COMPACTION. UNIMPROVED AREAS, MINIMUM COMPACTION SHALL BE 90% OF RELATIVE COMPACTION. ALL HYDROSTATIC TESTING AND DISINFECTION OF WATER MAINS SHALL CONFORM TO SECTION 7-98.3 (23) AND SECTION 7-98.3 (24) OF THE WISDOT SPECS. HYDROSTATIC TERESURE FOR WATER MAIN ACCEPTANCE SHALL BE 150 PSI IN EXCESS OF 100 PSI OPERATING PRESSURE FOR THE CITY OF FERMANLE OR 250 PSI, THE HYDROSTATIC TESTING IS TO BE INSPECTED BY THE CITY. THE CONTRACTION SHALL CALL AT LEAST 24 HOURS IN ADVANCE TO SCHEDULE INSPECTIONS. THE CITY OF FERMANLE LORGARITORY TALL DISINFECTION TESTINS AND BACTEROLOGICAL TESTS. THE PIPE WILL NOT PASS TESTING UNLESS A RESULT OF TERMOLOGICAL TESTS. THE PIPE WILL NOT PASS TESTING UNLESS A RESULT OF TERMOLOGICAL TESTS. THE PIPE WILL NOT PASS TESTING UNLESS A RESULT OF TERMOLOGICAL TESTS. THE PIPE WILL NOT PASS TESTING UNLESS A RESULT OF PEROLOGICAL TESTS. THE PIPE WILL NOT PASS TESTING UNLESS A RESULT OF TERMOLOGICAL TESTS. THE PIPE WILL NOT PASS TESTING UNLESS A RESULT OF TERMOLOGICAL TESTS. THE PIPE WILL NOT PASS TESTING UNLESS A RESULT OF TERMOLOGICAL TESTS. THE PIPE WILL NOT PASS TESTING UNLESS A RESULT OF TERMOLOGICAL TESTS. THE PIPE WILL NOT PASS TESTING UNLESS A RESULT OF TERMOLOGICAL TESTS. THE PIPE WILL NOT PASS TESTING UNLESS A RESULT OF TERMOLOGICAL TESTS. THE PIPE WILL NOT PASS TESTING UNLESS A RESULT OF TERMOLOGICAL TESTS. THE PIPE WILL NOT PASS TESTING UNLESS A RESULT OF TERMOLOGICAL TESTS. THE PIPE WILL NOT PASS TESTING UNLESS A RESULT OF TERMOLOGICAL TEST AND FLUSHED.

THRU-CURB BASINS AND SECTION 7-05 SHALL BE OLINES AND TO THE LOCAT PLANS OR DESIGNATED B

D THRU-CURB INLETS CONFORMING TO THE WSDOT SPECS, CONSTRUCTED AT THE LOW POINT OF THE CURB FLOW YTIONS, DIMENSIONS, AND DEFAILS AS SHOWN ON THE BY THE ENGINEER AND COFSD- R-8.

ALL PIPES SHALL HAVE A MINIMUM COVER OF 42".

10. ALL VALVES SHALL BE EITHER GATE OR BUTTERFLY TYPE VALVES AND SHALL BE INSTYLLED WITH SUP TYPE CAST IRON VALVE BOXES, GATE VALVES MALL BE USED FOR LINES. 2 INCHES THROUGH 10 INCHES IN DAMETER CASTE VALVE MAY BE USED IN LIEU OF BUTTERFLY VALVE FOR 172 LINES IN ANDERTER CASTE VALVE MAY BE USED IN LIEU OF BUTTERFLY VALVE FOR 172 LINES IF APPROVED BY THE CITY.

SHORT-ADDY VALVES SUTTABLE FOR A NON-SHOCK SULT-OFF PRESSURE OF 130 PSI AND SUITABLE FOR DIRECT BURRAL ARE SPECIFIED. GATE VALVES SHALL BE RESILIENT SEATED IRON-BODY, FULL BERONZE MOUNTED VALVES CONFORMING TO ANWA C509 AND SITTABLE FOR SERVICE WITH THE TYPE AND CLASS OF PIPE USED. ALL VALVES SHALL HAVE NON-BISHING STEMS AND SHALL OPEN COUNTERCU COUNTERCU COVENSE AND SHALL BE EQUIPPED WITH A 2 INCH SOLNARE OPERATING NUT. VALVES WILL BE HAVE OF ANALE OF THE TYPE AND SHALL BE LOCATED OUTSIDE OF PAVEMENT SECTIONS.

SANITARY SEWER SYSTEMS

PERFORATED UNDERDRAIN PIPE SHALL MEET THE WSDOT SPECS., 7-01.3 (2)

CASCADE

119 Grand Avenue, Suite D Bellingham, Washington 98225

ENGINEERING GROUP, P.S., INC.

STORM SEWER PIPE CONSTRUCTION REQUIREMENTS SHALL BE IN ACCORDANCE WITH WISDOT SPECS., SECTION 7 04, LOTS STORM DRAIN SERVICE LINE SHALL BE 6" PVC PER WISDOT SPECS., SECTION 9-05.1 (9) TRENCH EXCAVATIONS, BEDDING AND PIPE FOR STORMWATER PIPE LAYING SHALL BE IN ACCORDANCE WITH THE WSDOT SPECS., SECTION 7-08.

ALL WORK AND MATERIA A.P.W.A. STANDARD SPE SYSTEM INSTALLATION, I AND APPROVAL.

ALS SHALL BE IN ACCORDANCE WITH COFDS, COFSD, COIFICATIONS, AND WSDOT SPECS. SANITARY SEWER BOTH PUBLIC AND PRIVATE, IS SUBJECT TO CITY REVIEW

WATER SERVICE TAP INSTALLATIONS SHALL MEET THE REQUIREMENTS OF THE COFSD W-5.

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12. FIRE HYDRANTS AND FIRE MAINS MUST COMPORM TO COFDS (COFSD W-1, WSDOT B-19) AND THE FOLLOWING STANDARDS:

A FIRE HYDRANTS SHALL HAVE TWO NIDWIDUALLY VALVED 2-12" PORTS AND ONE 5-14" MAIN VALVE OPENING. A-1/2" NST PUMPER NOZZLE AND A 5" STORZ PORT MITH CAP AND AREA TO AND AREA THAN 1 FOOT IN ELEVATION FROM THE GRADE LEVEL OF THE REQUIRED ACCESS. THE LOWEST STEMS SHALL BE ANNIHAM OF 14" ADDVETTHE GROUND.

C. IF THE PUBLIC WOORS DIRECTOR DETERMINES THAT FIRE HYDRANT GLARD POSTS SHALL BE PROVIDED. NO OBSTRUCTIONS SHALL EXIST WITHIN A 3-FOOT WORKING AREA OF EACH REQUIRED ACCESS. GRASH POSTS SHALL BE 4" CEMBERT-FILLED IPPE AMIN, OF 5" IN HEIGHT WITH A MIN, OF 2" OF IPPE BELOW GRADE, HYDRANT SHUTIOFF VALVES SHALL BE LOCATED BETWEEN 5" AND 20" FROM THE HYDRANT SHUTIOFF VALVES SHALL BE LOCATED BETWEEN 5" AND 20" FROM THE HYDRANT SHUTIOFF VALVES SHALL BE LOCATED BETWEEN 5" AND 20" FROM THE HYDRANT SHUTIOFF VALVES SHALL BE LOCATED BETWEEN 5" AND 20" FROM THE HYDRANT SHUTIOFF VALVES SHALL BE LOCATED BETWEEN 5" AND 20" FROM THE HYDRANT SHUTIOFF VALVES SHALL BE CONDITION AND HYDROSTATIC PRESSURE TESTING TO A MIN, OF 500 PSI. A FLOW TEST WILL BE REQUIRED WHEN MISTALLATION IS COMPLETE.

E. FIRE HYDRANTS MIST BE REPLACED ON REPLACED WHEN DEFECTIVE. HYDRANTS SHALL BE FULLY OPERABLE BEFORE CONSTRUCTION COMMENCES ABOVE GRADE LEVEL.

THE FOLLOWING STANDARD DETAILS SHALL BE USED FOR CONSTRUCTION OF STANDARD STREET SECTION.

TYPICAL STREET SECTION (PER PROJECT)

PCC CURB AND GUTTER

COFED R-12 (SEE CONSTRUCTION DOCUMENTS

COFED R-12 (SEE CONSTRUCTION DOCUMENTS (PER PROJECT)

COFSD R-19

COFSD R-12 (SEE CONSTRUCTION DOCUMENTS

TYPICAL SECTION)

WSDOT STD. DETAIL F-40 ANF F-42

PCC SIDEWALK RAMPS

ALL WORK MUST BE INSPECTED TO THE SATISFACTION OF THE CITY OF FERNDALE. 24 HOUR, NOTICE MUST BE GIVEN PRIOR TO STARTING WORK. TESTING OF THE SEWER SYSTEM AND ALL CONNECTIONS TO EXISTING MAINS SHALL BE PERFORMED IN THE PRESENCE AND UNDER THE SUPERVISION OF A CITY OF FERNDALE REPRESENTATIVE. SANITARY SEWER MAINS SHALL BE A MINIMUM 8 INCH DIAMETER PVC PIPE CONFORMING TO WSDOT SPECS, 9-05-12 (1) AND INSTALLED PER COFDS.

SANITARY SEWER PIPE BEDDING SHALL BE PEA GRAVEL PER COFSD SS-1. ALL TRENCHES SHALL BE BACKFILLED WITH BALLAST WITHIN CITY RIGHT OF WAY AND TRANCLED WAYS OUTSIDE OF RIGHT OF WAY (ACCESS EASEMENTS). AND SHALL BE COMPACTED TO A MINIMAM DENSITY OF 95% MODIFIED PROCTOR. USE OF SUITABLE NATURE BACKFILL OUTSIDE OF TRAVELED WAY SHALL BE SUBJECT TO APPROVAL BY THE CITY.

ALL MANHOLES SHALL BE INSTALLED PER COFSD SS-2, SS-3, AND SS-4 AND SHALL BE PRE-CHANNELED. MANHOLE COMES ARE TO BE OFFSET SUCH THAT LADDER RUNGS ARE PARALLEL TO THE FLOW.

ALL SIDE SEWERS SHALL BE INSTALLED PER COFSD SS-6, SS-8 OR SS-13, EXCEPT THAT SINGLE SIDE SEWERS SHALL HAVE A MINIMUM DIAMETER OF 4".

EACH SIDE SEWER STUB SI SHALL BE MARKED FOR LO 40) WITH THE TOP 18" PAIL AND THE PIPE INVERT INDIC TO THE SERVICE STUB BY A CONTRACTOR SHALL EXTEND SEWER STUBS 5 FT BEYOND UTILITY CORRIDOR OR 15 FEET BEYOND RIGHT-OF-WAY LINE. INDICATED. THE CAPPED WITH A WATERFIGHT PLUG. EACH STILB RILOCATION WITH A Z" DIA WHITE PAY PER (MIN SCHEDULE PAMITE) OREEN AND STENCILED WITH THE WORD "SEWER" INDICATED. THE LOCATION MANAKER SHALL BE CONNECTED IN A AFT 2 COPPER WIRE.

CALE: AS SHOWN

12/05/2012 MJD ELR

JAN 17 2014

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CITY OF FERNDALE



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RECORD DRAWING 12-17-2013

10. PAVEMENT:
A SOIL RESIDUAL HERBICIDE SHALL BE PLACED WITHIN 24 HOURS OF PAVING.
B. A TACK COAT OF ASPHALT SHALL BE APPLIED BETWEEN ALL COURSES OF
ASPHALT.
C. ALL PAVEMENT REPAIR SHALL BE SAW-CUT BEFORE REMOVAL. AR-4000W
SHALL BE APPLIED TO ALL EDGES OF EXISTING PAVEMENT. WHERE NEWLY
CONSTRUCTED PAVING MEETS EXISTING PAVING, THE APPLICANT SHALL
PROVIDE A SMOOTH TRANSITION FROM EXISTING TO PROPOSED PAVING.
PROVIDE A SMOOTH TRANSITION FROM EXISTING TO PROPOSED PAVING.
CONTRACTOR SHALL COLD PLANE PER DIMENSIONS SPECIFIED ON THE PLANS,
AND INSTALL A MINIMIMA 2-FOOT WIDE PETROTAC PAVING FABRIC, OR
EQUIVALENT, OVER JOINT BETWEEN PAVING LIFTS.

CEMENT CONCRETE CURB AND GUTTER SHALL BE CONSTRUCTED WHERE SHOWN ON THE PLANS OR AS DESIGNED BY THE ENGINEER, IN ACCORDANCE WITH WISDOT SPECIS. SECTION & PAD AND COESD RS AND RS. HANDLOR PRAIPS SHALL BE CONSTRUCTED PER WISDOT STANDARD DETAIL F-4D. WHERE NEW CEMENT CONCRETE CURB AND GUTTER IS TO CONNECT TO SUSTING CURB AND GUTTER, ASSURE THAT NO JARRUPT OFFSETS IN LINE OR GRADE SHALL BE CONSTRUCTED WHICH WILL BE UNSIGHTLY OR MAPEDE FLOW IN THE GUTTER LINE.

CEMENT CONCRETE SIDEWALK SHALL BE CONSTRUCTED AS SHOWN ON THE PLANS OR AS DESIGNATED BY THE ENGINEER IN ACCORDANCE WITH COFSD R-12. CEMENT CONCRETE SHALL BE CLASS 3000 (WITH AIR ENTRAINMENT) IN ACCORDANCE WITH WSDOT SPECS., SECTION 6-02.3 (2) B. CRUSHED ROCK SURFACING FOR PAVEMENT SHALL BE IN ACCORDANCE WITH WSDOT SPECS., SECTION 9-03.9 (3) ; BALLAST PER SECTION 9-03.9 (1) . HOT MIX ASPIALT WORK SHALL BE DONE IN ACCORDANCE WITH SECTION 5 OF THE WOOT SPECES, EXCRETY AS MODIFIED HEREIN, CONNECTION TO EXISTING PAYEMENT SHALL BE TO A STRAIGHT NEATLY-TRIMMED LINE.

FERNDALE, WA HAMLIN AVE

STORMWATER POLLUTION PREVENTION PLAN (SWPPP):

THE CONTRACTOR IS REQUIRED TO HAVE A COPY OF THE SWPPP ONSITE AT ALL TIMES.

THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE EROSION CONTROL MEASURES SHOWN OR DESCRIBED IN THE CONTRACT DOCUMENTS AND ARY ADDITIONAL MEASURES THAT MAY BE REQUIRED BY THE CONTRACTORS MEA AND METHODS OF CONSTRUCTION AS NEEDED TO CONTROL EROSION AND SEDIMENT AT THE CONSTRUCTION SITE AND TO PREVENT VIOLATION OF SURFACE WATER QUALITY, GROUND WATER QUALITY, GROSION CONTROL MEASURES SHALL BE MANAGEMENT STANDARDS. EROSION CONTROL MEASURES SHALL BE MAINTAINED THROUGHOUT THE COURSE OF CONSTRUCTION AND UNTIL ALL DISTURBED EARTH IS STABILIZED IN FINISH GRADES.

THE FOLLOWING DESCRIBES HOW THE CONSTRUCTION SWPPP ADDRESSES EACH OF THE 12 REQUIRED ELEMENTS. REFER TO THESE PLANS FOR BEAWINGS OF THE PROJECT, VICINITY MAP, SITE MAP, CONVEYANCE SYSTEMS, EROSION AND SEDIMENT CONTROL MEASURES, AND EROSION AND SEDIMENT CONTROL DETAILS.

 SILT FENCE, GEOTEXTILE ENCASED BARRIERS, CONSTRUCTION FENCE, ORANGE PLASTIC FENCE, OR OTHER APPROVED MEASURES MAY BE USED TO MARK THE CLEARING LIMITS AT THE CONTRACTOR'S OPTION. ELEMENT #1: PRESERVE VEGETATIONMARK CLEARING LIMITS.
1. PRIOR TO BEGINNING LAND DISTURBING ACTIVITIES (INCLUDING CLEARING AND GRADING) CLEARLY MARK ALL CONSTRUCTION LIMITS AS SHOWN ON THE DRAWINGS.

3. THE DUFF LAYER, NATIVE TOPSOIL, AND NATURAL VEGETATION SHALL BE RETAINED IN AN UNDISTURBED STATE TO THE MAXIMUM DEGREE PRACTICABLE

ELEMENT #2: ESTABLISH CONSTRUCTION ACCESS
11. CONSTRUCTION VEHICLE ACCESS AND EXIT SHÂLL UTILIZE EXISTING SITE
APPROACH ROADS AND PAVED AREAS TO MINIMIZE TRACKING OF SEDIMENT
ONTO PUBLIC ROADS.

, IF SEDIMENT IS TRACKED OFF SITE, PUBLIC ROADS SHALL BE CLEANED HOROUGHLY AT THE END OF EACH DAY, OR MORE FREQUENTLY DURING WET FEATHER. SEDIMENT SHALL BE REMOYED FROM ROADS BY SHOVELING OR CIKUP SWEEPING AND SHALL BE TRANSPORTED TO A CONTROLLED SEDIMENT SPOSAL AREA.

3. STREET WASHING IS ALLOWED ONLY AFTER SEDIMENT IS REMOVED AS DESCRIBED ABOVE. STREET WASH WASTEWATER SHALL BE CONTROLLED BY PLIMPING BACK ON SITE OR OTHERWINGE BASE PREPARATED FROM DISCHARGING INTO SYSTEMS TRIBUTARY TO WATERS OF THE STATE.

ELEMENT #3: CONTROL FLOW RATES
1. PROPERTIES AND WATERWAYS DOWNSTREAM FROM DEVELOPMENT;
SHALL BE PROTECTED FROM EROSION DUE TO INCREASES IN THE VELO;
AND PEAK VOLUMETRIC FLOW RATE OF STORMWATER RUNOFF FROM TIPROJECT SITE. GESTED BMPs/BMPs TO BE USED: C105: STABILIZED CONSTRUCTION ENTRANCE C107: CONSTRUCTION ROAD / PARKING AREA STABILIZATION

ELEMENT #8: STABLIZE CHANNELS AND OUTLETS

1. ALL TEMPORARY ON-STIE CONVETANCE CHANNELS SHALL BE DESIGNED,
CONSTRUCTED AND STABLIZED TO PREVENT EROSION FROM THE EXPECTED
PEAK 10 MINUTE VELOCITY OF FLOW FROM A TYPE 14, 16-YR, 24-HR FREQUENCY
STORM FOR THE DEVELOPED CONDITION. ALTERNATIVELY, THE 10-YR, 1-HR
FLOW RATE INDICATED BY AN APPROVED CONTINUOUS RUNOFF MODEL,
INCREASED BY A FACTOR OF 1.6, MAY BE USED.

SUGGESTED BMP%BMP% TO BE USED; BMP C207: CHECK DAMS BMP C208: TRIANGULAR SILT DIKE BMP C235: STRAW WATTLES

ELEMENT #4: INSTALL SEDMENT CONTROLS

1. THE DUFF LAYER, NATIVE TOPSOIL, AND NATURAL VEGETATION SHALL BE
RETAINED IN AN UNDISTURBED STATE TO THE MAXIMUM DEGREE PRACTICABLE

SEDIMENT CONTROL BMPs SHALL BE CONSTRUCTED AS ONE OF THE FIRST STEPS IN GRADING. THESE BMPs SHALL BE FUNCTIONAL BEFORE OTHER LAND DISTURBING ACTIVITIES TAKE PLACE.

ELEMENT #9: CONTROL POLLUTANTS

T. ALL POLLUTANTS, INCLUDING WASTE MATERIALS AND DEMOLITION DEBRIS,
THAT COCUR ONSITE SHALL BE HANDLED AND DISPOSED OF IN A MANNER THAT
DOES NOT CAUSE CONTAMINATION OF STORMWATER.

3. PRIOR TO LEAVING THE CONSTRUCTION SITE, STORMWATER RUNOFF FROM DISTURBED AREAS SHALL PASS THROUGH AN APPROPRIATE SEDIMENT REMOVAL BMP. RUNOFF FROM FULLY STABILIZED AREAS MAY BE DISCHARGED WITHOUT A SEDIMENT REMOVAL BMP. BUT MUST MEET THE FLOW CONTROL PERFORMANCE STANDARD OF ELEMENT #3.

SUGGESTED BMPs/BMPs TO BE USED: BMP C232: GRAVEL FILTER BERMS BMP C233: SILT FENCE BMP C235: STRAW WATTLES

3. MAINTENANCE, FUELING, AND REPAIR OF HEAVY EQUIPMENT AND VEHICLES SHALL BE CONDUCTED USING SPILL PREVENTION AND CONTROL MEASURES. CONTAMINATED SURFACES SHALL BE CLEANED IMMEDIATELY FOLLOWING ANY SPILL INCIDENT. 2. COVER, CONTAINMENT, AND PROTECTION FROM VANDALISM SHALL BE PROVIDED FOR ALL CHEMICALS, LIQUID PRODUCTS, PETROLELM PRODUCTS, AND OTHER MATERIALS THAT HAVE THE POTENTIAL TO POSE A THREAT TO HUMAN HEALTH OR THE ENVIRONMENT. ONSITE FUELING YANKS SHALL INCLUDE SECONDARY CONTAINMENT.

S. APPLICATION OF FERTILIZERS AND PESTICIDES, SHALL BE CONDUCTED IN A
MANNER AND AT APPLICATION RATES THAT WILL NOT RESULT IN LOSS OF
CHEMICAL TO STORMWATER RUNOFF. MANUFACTURERS' LABEL
REQUIREMENTS FOR APPLICATION RATES AND PROCEDURES SHALL BE
FOLLOWED. 4. WHEEL WASH OR TIRE BATH WASTEWATER SHALL BE DISCHARGED TO A SEPARATE ONSITE TREATMENT SYSTEM OR TO THE SANITARY SEWER WITH LOCAL SEWER DISTRICT APPROVAL.

DURING THE WET SEASON (OCTOBER 1 - APRIL 30); 2 DAYS DURING THE DRY SEASON (MAY 1 - SEPT. 30); 7 DAYS

THIS STABILIZATION REQUIREMENT APPLIES TO ALL SOILS ON SITE, WHETHER AY FINAL GRADE OR NOT. THESE TIMES MAY BE ADJUSTED BY THE LOCAL AY FINAL GRADE OR NOT. THESE TIMES MAY BE ADJUSTED BY THE LOCAL BY AND AND THE SHOWN THAT SITE COMPITIONS OR THE PROPERTY OF THE STORM EVENTS JUSTIFIES A DIFFERENT STANDARD.

TO PREVENT EROSION, NO SOILS SHALL REMAIN EXPOSED AND UNWORKED FOR MORE THAN THE TIME PERIODS SET FORTH BELOW:

EMENT #5: STABILIZE SOJI.S
EXPOSED MOI HWKORRED SOILS SHALL BE STABILIZED BY APPLICATION OF FECTIVE BMPs THAT PROTECT THE SOIL FROM EROSIVE FORCES OF INDROPS, FLOWING WATER, AND WIND.

4. SOIL STORPHIES SHALL BE STABLICED FROM EROSION, ENCHOTECTED WITH SEDMENT TRAPPHIES SHALL BES, AND WHERE POSSIBLE, BE LORATECTED AWAY FROM STORM DRAIN INLETS, WATERWAYS, AND DRAINAGE CHANNELS.

5. APPLICABLE BMPS INCLUDE, BUT ARE NOT LIMITED TO: TEMPORARY AND PERMANENT SEEDING, SODDING, MULCHING, PLASTIC COVERING, EROSION CONTROL, FABRICS, AND MATTING, SOIL APPLICATION OF POLYACRYLAMDE (PAM), THE EARLY APPLICATION OF GRAVIEL BASE ON AREAS TO BE PAVED AND DUST CONTROL. SELECT SOIL STABILIZATION MEASURES SHALL BE APPROPRIATE FOR THE TIME OF VEARS, SITE CONDITIONS, ESTIMATED DURATION OF USE, AND THE POTENTIAL WATER QUALITY IMPROTS.

R. REMOVE ALL EROSION CONTROL MEASURES AS SOON AS PRACTICAL AFTER ESTABLISHMENT OF UNIFORM GRASS GROWTH OR INSTALLATION OF OTHER PERMANENT STABILIZATION MEASURES. REPAR ANY DAMAGE TO STABILIZED SURFACES AFTER REMOVAL OF TESC MEASURES.

SUGGESTED BUP-SIGNIPS TO BE USED:
BMP C120: TEMPORARY AND PERMANENT SEEDING
BMP C121: MULCHING
BMP C121: MULCHING
BMP C122: NETS AND BLANKETS
BMP C123: PLASTING COVERING
BMP C125: TOPSOILING

ELEMENT (8). PROTECT SLOPES

1. DESIGN, CONSTRUCT, AND PHASE CUT AND FILL SLOPES IN A MANNER THAT

WILL MINIMAZE EROSIGN, APPLICABLE PRACTICES INCLUDE, BUT ARE NOT

LIMITED TO, REDUCING CONTINUOUS LENGTH OF SLOPE WITH TERRACING AND

DIVERSIGNS, REDUCING SLOPE STEEPHESS, AND ROUGHENING SLOPE

SURFACES (6.g., TRACK WALKING).

OFF-SITE STORMWATER RUN-ON OR GROUNDWATER SHALL BE DIVERTED WWAY FROM SLOPES AND DISTURBED AREAS WITH INTERCEPTOR DIKES, PIPES, ANDIORS SWALES, OFF-SITE STORMWATER SHOULD BE MANAGED SEPARAITELY FROM STORMWATER GENERAITED ON THE SITE.

3. DO NOT CLEAR AND GRUB SLOPES GREATER THAN 4 (HORIZONTAL); (VERTICAL) UNLESS FURTHER WORK RESULTING IN STABILIZATION OF THE SLOPES TO BE CLEARED AND GRUBBED IS SCHEDULED.

4. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES, CONSISTENT WITH SAFETY AND SPACE CONSIDERATIONS.

5. CHECK DAMS SHALL BE PLACED AT REGULAR INTERVALS WITHIN CONSTRUCTED CHANNELS THAT ARE CUT DOWN A SLOPE.

SUGGESTED BMPs/BMPs TO BE USED:
BMP C120: TEMPORARY AND PERMANENT SEEDING
BMP C207: CHECK DAMS
BMP C208: TRIANGULAR SILT DIKE

ELEMENT 81. PROTECT DRAIN INLETS
1. ALL STORAI DRAIN NILETS DEPRABILE DURING CONSTRUCTION AND ALL
INLETS WITHIN 230 DOWNSTREAM OF THE PROJECT SITE SHALL BE PROTECTED
WITH CACHO BASIN FILE MESSO, THAT STORAMMATER AT READOF BOSE
THE CONVEYANCE SYSTEM WHOLD FIRST BEING FILETRIADOF TO RESATOF BYTER
REMOVE SEDMENT: CATCH BASIN FILTERS IN THE ROADWAY WILL BE OIL AND
SEDMENT FILERS AND CATCH BASIN FILTERS OUTSIDE OF THE ROADWAY WILL
BE SEDMENT FILTERS.

APPROACH ROADS SHALL BE KEPT CLEAN, SEDIMENT AND STREET WASH WATER SHALL NOT BE ALLOWED TO ENTER STORM DRAINS WITHOUT PRIOR AND ADEQUATE TREATMENT.

 INLET PROTECTION DEVICES SHALL BE CLEANED OR REMOVED AND REPLACED WHEN SEDIMENT HAS FILLED ONE-THIRD OF THE AVAILABLE STORAGE (OR WHEN FILLED WITH SIX-INCHES OF SEDIMENT). SUGGESTED BMPs TO BE USED:
BMP C220: STORM DRAIN INLET PROTECTION

b) CLEARING AND GRADING ACTIVITIES FOR DEVELOPMENTS SHALL BE PERMITTED ONLY IF CONDUCTED PURSUANT TO AN APPROVED SITE DEVELOPMENT FLAN (6.), SUBDIVISION, AMPROVALD, THAT ESTABLISHES APPROVED AREAS OF CLEARING, GRADING, CUTTING AND FILLING, WHEN ESTABLISHING THESE PERMITTED CLEARING, AND GRADING AREAS, CONSIDERATION SHOULD BE GIVEN TO MINIMIZING AREMOVAL OF EXISTING TREES AND MINIMIZING DISTURBANCE AND COMPACTION OF MATTRE SOILS EXCEPT AS MEEDED FOR BUILDING PURPOSES, THESE PERMITTED CLEARING AND GRADING AREAS AND ANY OTHER AREAS REQUIRED TO PRESERVE CRITICAL OR SENSITIVE AREAS, BUFFERS, MATIVE GROWTH PROTECTION EXSEMENTS, OR THEE RETENTION AREAS, SA MAY BE REQUIRED BY LOCAL JURISDICTIONS, SHALL BE DELINEATED ON THE SITE PLANS AND THE

2. SEASUMAL WORK LIMITATIONS:
FROM OCTOBER 1 THROUGH, APRIL 30, CLEARING, GRADING, AND OTHER SOIL DISTURBING ACTIVITIES SHALL ONLY BE PERMITTED IF SHOWN TO THE DISTURBING ACTIVITIES SHALL ONLY BE PERMITTED IF SHOWN TO THE TRANSPORT SATISFACTION OF THE LOCAL PERMITTING AUTHORITY THAT THE TRANSPORT OF SEDIMENT FROM THE CONSTRUCTION SITE TO RECEIVEN WATERS WILL BE PREVENTED THROUGH A COMBINATION OF THE FOLLOWING:

BASED ON THE INFORMATION PROVIDED AND LOCAL WEATHER CONDITIONS,
THE LOCAL PERMITTING AUTHORITY MAY EXPAND OR RESTRICT THE SEASONAL
LIMITATION ON SITE DISTRIBANCE. THE LOCAL PERMITTING AUTHORITY SHALL
TAKE INFORCEMENT ACTION - SUCH AS NOTICE OF VIOLATION,
ADMINISTRATIVE ORDER, PENALTY, OR STOP-WORK ORDER UNDER THE
FOLLOWING CIRCUMSTANCES:
- IF, DURING THE COURSE OF ANY CONSTRUCTION ACTIVITY OR SOIL
DISTURBANCE DURING THE SEASONAL LIMITATION PERIOD, SEDIMENT LEAVES
THE CONSTRUCTION SITE CAUSING A VIOLATION OF THE SURFACE WATER
QUALITY STANDARD; OR
- IF CLEARING AND GRADING LIMITS OR EROSION AND SEDIMENT CONTROL
MEASURES SHOWN IN THE APPROVED PLAN ARE NOT MAINTAINED.

PERMITTEES SHALL OBTAIN WRITTEN APPROVAL FROM ECOLOGY PRIOR TO USING CHEMICAL TREATMENT, OTHER THAN CARBON DIOXIDE OR DRY ICE TO ADJUST pH.

2. CLEAN, NON-TURBID DEWATERING WATER, SUCH AS WELL-POINT GROUND WATER, CAM BE DISCHARGED TO SYSTEMS TRIBUTARY TO, OR DIRECTLY NITO SURFACE WATERS, OF THE STATE, AS SPECIFIED IN ELEMENT #8, PROVIDED THE DEWATERING FLOW DOES NOT CAUSE EROSION OR FLOODING OF RECEIVING WATERS, CLEAN DEWATERING WATERS SHOULD NOT BE ROUTED THROUGH STORMWATER SEDIMENT PONDS.

4. HIGHLY TURBID CONTAMINATED DEWATERING WATER FROM CONSTRUCTION EQUIPMENT OPERATION, CLAMSHELL DIGGING, CONCRETE TREMIE POUR, OR WORK NISIDE A COFFERDAM SHALL BE HANDLED SEPARATELY FROM STORMWATER.

ELEMENT #11: MAINTAIN BMPs

I. INSPECT EROSION CONTROL DEVICES ON A WEEKLY BASIS AND AFTER EACH
RUNOFF EVENT. MAKE NECESSAPY REPAIRS AND MAINTENANCE TO ENSURE
CONTINUED PERFORMANCE OF EROSION AND SEDIMENT CONTROLS.

I. PHASING OF CONSTRUCTION:

a) DEVELOPMENT PROJECTS SHALL BE PHASED WHERE FEASIBLE IN ORDER TO PREVENT, TO THE MAXIMUM EXTENT PRACTICABLE, THE TRANSPORT OF SEDIMENT FROM THE DEVELOPMENT SITE DURING CONSTRUCTION. RE-YEGETATION OF EXPOSED AREAS AND MAINTENANCE OF THAT VEGETATION SHALL BE AN INTEGRAL PART OF THE CLEARING ACTIVITIES FOR ANY PHASE.

a) SITE CONDITIONS INCLUDING EXISTING VEGETATIVE COVERAGE, SLOPE, SOIL TYPE, AND PROXIMITY TO RECEIVING WATERS, AND b) LIMITATIONS ON ACTIVITIES AND THE EXTENT OF DISTURBED AREAS, AND c) PROPOSED EROSION AND SEDIMENT CONTROL MEASURES.

6. BAM'S SHALL BE USED TO PREVENT OR TREAT CONTAMINATION OF STORAMANTER RUNGFER PAR MODIFYING SOURCES. THESE SOURCES INCLUDE, BUT ARE NOT LIMITED TO: BULK CEMENT, CEMENT KILN DUST, RLY ASH, NEW CONCRETE WASHING AND INCLUDING WATERS, WASTE STREAMS GENERALED, FROM CONCRETE BYINDING AND SAMING, SCHOOLS DETERMENT OF PROCESSES, AND CONCRETE PUMPING AND MIXER WASHOUT WATERS, PERMITTEES SHALL ADJUST THE JIEP OF STORAMANTER IF NECESSARY TO PREVENT VIOLATIONS OF WATER QUALITY STANDARDS.

ELEMENT #10: CONTROL DEWATTERING
I. FOUNDATION, YAULT, AND TRENCH DEWATTERING WATER, WHICH HAVE
I. FOUNDATION, YAULT, AND TRENCH DEWATTERING WATER, WHICH HAVE
SIMILAR CHARACTERISTICS TO STORMIWATER RUNOFF AT THE SITE, SHALL BE
DISCHARGED INTO A CONTROLLED CONVEYANCE SYSTEM PRIOR TO
DISCHARGE TO A SEDIMENT TRAP OR SEDIMENT POND.

3. OTHER DEWATERING DISPOSAL OPTIONS MAY INCLUDE:
a) INFLITATION.
b) TRANSPORT OFF SITE IN A VEHICLE, SUCH AS A VACUUM FLUSH TRUCK, FOR ILEGAL DISPOSAL IN A MAINER THAT DOES NOT POLLUTE STATE WATERS.
c) ECOLOGY APPROVED ON INSITE CHEMICAL TREATMENT OR OTHER SUITABLE TREATMENT TECHNOLOGIES.
TREATMENT TECHNOLOGIES.
THERE IS NO OTHER OPTION.
THERE IS NO OTHER OPTION.
OUTFALT TO A SIDDMENTATION BAG DIRTBAG OR APPROVED EQUAL) WITH OUTFALT TO A DITCH OR SWALE FOR SMALL VOLUMES OF LOCALIZED DEWATERING.

2. WHEN SEDIMENT ACCUMULATION IN SEDIMENTATION STRUCTURES, OTHER THAN INLET PROTECTION DEVICES, HAS REACHED A POINT ONE-THIRD DEPTH OF SEDIMENT STRUCTURE OR DEVICE, OR HE FLOW THROUGH THE DEVICE IS REDUCED BY MORE THAN ONE-THIRD CAPACITY. THE CONTRACTOR SHALL REMOVE AND REPLACE DISPOSABLE DEVICES OR CLEAN AND DISPOSE OF SEDIMENT.

3. TEMPORARY EROSION AND SEDIMENT CONTROL BMPs SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY BMPs ARE NO LONGER NEEDED. TRAPPED SEDIMENT SHALL BE REMOVED OR STABILIZED ON SITE. DISTURBED SOLS SHALL BE PERMANENTL STABILIZED.

THE FOLLOWING ACTIVITIES ARE EXE GRADING LIMITATIONS:

HUNDRED PERCENT INFILTRATION OF E SITE IN APPROVED AND INSTALLED ACILITIES. FACILITIES OR EXISTING UTILITY
THE SOIL OR RESULT IN THE REMOVAL OF

a) ROUTINE MAINTEMANCE AND NECES SEDIMENT CONTROL BMPS;
b) ROUTINE MAINTEMANCE OF PUBLIC F STRUCTURES THAT DO NOT EXPOSE IT THE VEGETATIVE COVER TO SOIL, AND a) ACTIVITIES WHERE THERE IS ONE H, SUBFACE WAITER RUNOFE WITHIN THE EROSION AND SEDIMENT CONTROL FAC 3. COORDINATE WITH UTILITIES AND OTHER CONTRACTORS:
THE PRIMARY PROJECT PROPONENT SHALL EVALUATE, WITH INPUT FROM
UTILITIES AND OTHER CONTRACTORS, THE STORMWATER MANAGEMENT
REQUIREMENTS FOR THE ENTIRE PROJECT, INCLUDING THE UTILITIES, WHEN
PREPARING THE CONSTRUCTION SWPPP.

B) IF INSPECTION AND/OR WATER MONITORING OF SITE RUNOFF REVEALS THAT THE BMP's IDENTIFIED IN THE CONSTRUCTION SWPPP ARE INADEQUATE, THE CONTRACTOR SHALL IMMEDIATELY ADD BMP's TO THE SWPPP AS NECESSARY.

C) SITE LOG BOOK: THE CONTRACTO CONTAINS A RECORD OF THE IMPLEM PERMIT REQUIREMENTS, INCLUDING BMPS, SITE INSPECTIONS, AND STOR

D) SITE INSPECTIONS: THE CONTRACTOR MUST INSPECT ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES, ALL BIMPS, AMD ALL STORMWATER DISCHARGE POINTS AT LEAST ONCE EMERY CALLENDAR WEEK AND MITHIN 24 HOURS OF ANY DISCHARGE FROM THIS SITE. THE CONTRACTOR MUST EXAMINATER VISUALLY FOR THE PRESENCE OF SUSPENDED SEDMENT, TURBURY, DISCHARGE FROM THIS TO METER THE FREETIVENESS OF BIMPS MUST EXAMINATED AND DETERMINE IF IT IS NECESSARY TO INSTALL MAINTAIN, OR REPAIR BIMPS TO IMPROVE THE QUALITY OF STORMWATER DISCHARGES.

THE CONTRACTOR MUST ECONTRACTOR MUST REPORTION AND THE CONTRACTOR MUST BE THE DOE'S CONSTRUCTION AND THE INSPECTION S.A.B.S. FOR INFORMATION CONTRACTOR MUST SAMPLING RECOURSEMENTS

a. SAMPLING FRECOURCY

THE CONTRACTOR MUST SAMPLE ALL DISCHARGE LOCATIN LEAST TOWNE EVERY COLENDAR WEEK WHEN STORMWATER DISCHARGES FROM THE SITE OR ENTERS ANY ON-SITE SUR WATERS OF THE SYATE.

SAMPLING IS NOT RECUIRED WHEN THERE IS NO DISCHARGE DURING A CALENDAR WEEK.

SAMPLING IS NOT RECUIRED WHEN THERE IS NO DISCHARGE DURING A CALENDAR WEEK.

SAMPLING IS NOT RECUIRED WHEN THERE IS NO DISCHARGE DURING A CALENDAR WEEK.

SAMPLING IS NOT RECUIRED MUST NOT SECHARGE MONTONS.

IF THE CONTRACTOR IS UNABLE TO SAMPLE DURING A BRIED EXPLANATION IN THE MONTHLY DISCHARGE MONTON REPORMANTER ASSOCIATED WITH CONSTRUCTION ACTIVITY IS DISCHARGED OF SITE.

SAMPLING IS NOT REQUIRED BEFORE CONSTRUCTION ACTIVITY SAMPLING LOCATIONS.

SAMPLING IN THE CONTRACTOR MUST BEFORE MONTON IN THE FIELD WITH A FLAG. TAPE. STAKE OR OTHER VISIBLE MARKER.

SAMPLING AND ANALYSIS METHODS.

SAMPLING IN THE SITE LOG BOOK IN NEPHELOMETRIC TURBIDITY UNITS (NTU).

THE CONTRACTOR PERFORMS TO TURBIDITY ANALYSIS WITH A CALIBRATED TURBIDITY METER (TURBIDITY ANALYSIS WITH E RESULTS IN THE SITE LOG BOOK IN NEPHELOMETRIC TURBIDITY UNITS (NTU).

THE CONTRACTOR PERFORMS TO THE CONTRACTOR MUST RECORD THE RESULTS IN THE SITE LOG BOOK IN SEPHELOMETRIC TURBIDITY WITH THE CONTRACTOR PERFORMS TO SEPHENDERS. SEE THE DOES CONSTRUCTION STORMMATER GENERAL PERMIT, SECTION SECTION SECTION SECTION STORMMATER GENERAL PERMIT, SECTION SECTION SECTION SECTION SECTION SECTION S THE CONTRACTOR MUST SUMMARIZE THE RESULTS OF EACH INSPECTION IN AN INSPECTION REPORT OR CHECKLIST AND ENTER THE REPORTICHECKLIST INTO, OR ATTACH IT TO, THE SITE LOG BOOK, SEE THE DOES CONSTRUCTION STORMWATER GENERAL PERMIT, SECTION S.4.B.5. FOR INFORMATION REQUIREMENTS FOR COMPLETING THE INSPECTION FORMS.

METER	UNIT	METHOD	SAMPLING FREQUENCY	BENCHMARK	REPORTING TRIGGER VAL
TY	UN	SM2130 OR EPA 180.1	WEEKLY, IF DISCHARGING	25 NTU	250 NTU
ARENCY	CM	MANUFACTURER INSTRUCTIONS, OR ECOLOGY GUIDANCE	WEEKLY, IF DISCHARGING	33 CM	6 CM

JAN 17 2014

CALL BEFORE YOU DIG Call: TOLL FREE 1-800-424-5555

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ROJECT NUMBER: CALE: AS SHOWN

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FERNDALE, WA HAMLIN AVE ALLEY IMPROVEMENTS

S.W.P.P.P. NOTES

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