PIONEER MEADOWS MONTESSORI SCHOOL

2377 DOUGLAS RD, FERNDALE, WA 98248
S30, T39N, R2E, W.M.

INDEX TO DRAWINGS:

SITE PLAN LEGEND

- (E) CONNECT TO BUILDING ELECTRICAL SYSTEM. SEE BUILDING/ ELECTRICAL PLANS FOR CONECTION.
- (T) CONNECT TO BUILDING TELECOMMUNICATION SYSTEM. SEE BUILDING/ TELECOMMUNICATION PLANS FOR CONECTION.
- (W) CONNECT TO BUILDING POTABLE WATER SYSTEM. SEE BUILDING/ PLUMBING PLANS FOR CONECTION.
- (S) CONNECT TO BUILDING WASTEWATER SYSTEM. SEE BUILDING/ PLUMBING PLANS FOR CONECTION.
- (G) CONNECT TO BUILDING GAS SYSTEM. SEE PLUMBING PLANS FOR CONNECTION.
- ASPHALT CONCRETE PAVEMENT
- CONCRETE SIDEWALK
- RAINWATER ROOF FLOW
- DS DOWNSPOUT
- CO CLEANOUT

EXISTING SITE PLAN LEGEND

- PROPERTY LINE
- W WATER MAIN
- WATER VALVE
- FIRE HYDRANT
- WELL
- D STORM DRAIN
- STORM DRAIN CATCH BASIN
- S SANITARY SEWER MAIN
- SANITARY SEWER MANHOLE
- G GAS MAIN
- P OVERHEAD POWER LINE
- P-PSE UNDERGROUND POWER LINE
- UTIL OVERHEAD UTILITY POLE
- PWR OVERHEAD POWER POLE
- T OVERHEAD TELEPHONE LINE
- TEL OVERHEAD TELEPHONE POLE
- COM UNDERGROUND COMMUNICATIONS LINE
- TEL_R TELEPHONE/COMMUNICATIONS RISER
- X FENCE LINE
- DECIDUOUS TREE
- WETLAND
- EXISTING BUILDING

DEMOLITION LEGEND

- DEMOLISH AND REMOVE ITEM
- SAWCUT EXISTING CONCRETE CURB AND ASPHALT PAVEMENT. REMOVE FROM SITE AND DISPOSE OF IN A PROPER MANNER.
- CUT AND CAP EXISTING UTILITY LINE AT A MINIMUM OF 18" BELOW PROPOSED GRADE.
- (!!) LOCATE AND PROTECT EXISTING UTILITY STUBS PRIOR TO PLACING PILING FOR THE FOUNDATION.

EROSION CONTROL LEGEND

- IP INLET PROTECTION (1 C3.01)
- CE TEMPORARY CONSTRUCTION ENTRANCE (3 C3.01)
- SF SILT FENCE (2 C3.01)

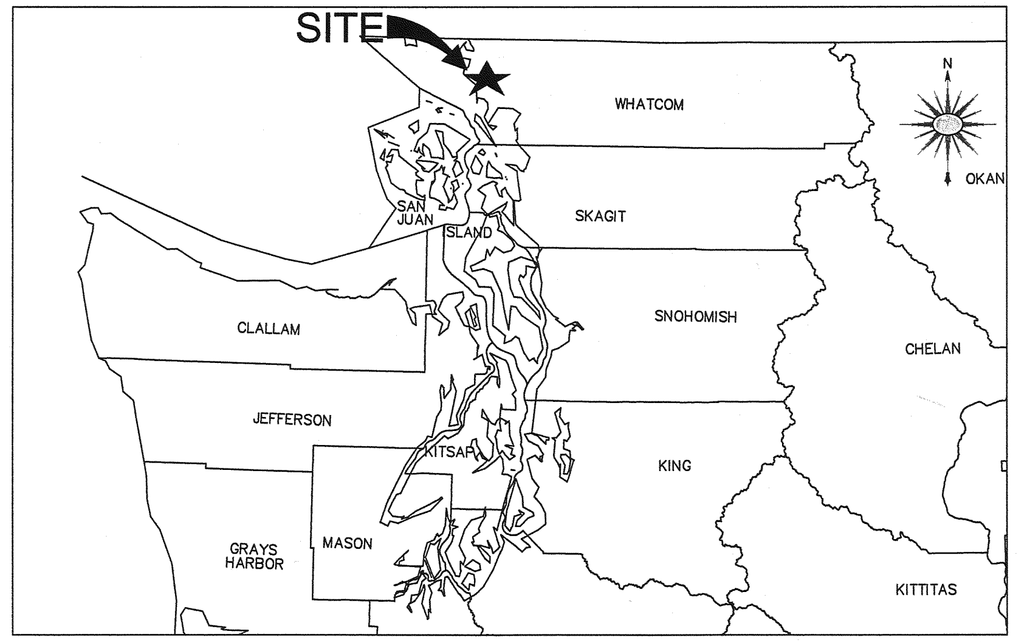
APPROVED

DEC 28 2011

BY _____, P.E.

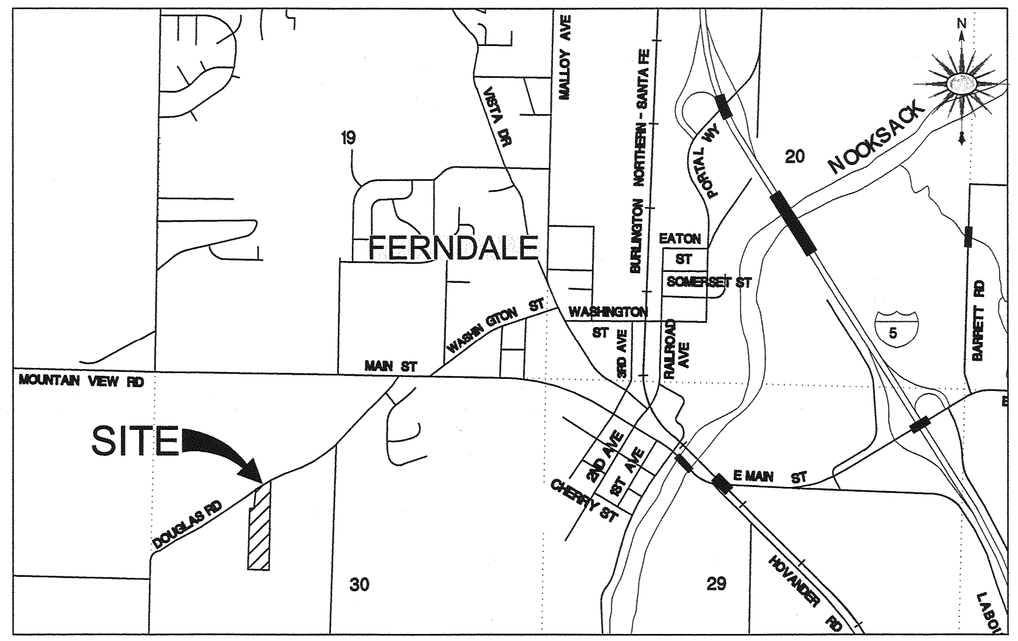
CITY OF FERNDALE

811 Know what's **below.** **Call** before you dig.



VICINITY MAP

NTS



LOCATION MAP

SCALE - 1" = 1250'

CONTACT LIST:

OWNER:
DATCO EDU LLC.
8687 GREAT HORNED OWL LN
BLAINE, WA 98230-6306
PH: (360) 371-5487
CONTACT: GOERGE MILLS

CIVIL ENGINEER:
2020 ENGINEERING
814 DUPONT STREET
BELLINGHAM, WASHINGTON 98225
PH: (360) 671-2020
CONTACT: MARK BUEHRER, PE

SURVEYOR:
DAVID EVANS & ASSOCIATES INC.
1620 W. MARINE VIEW DRIVE, SUITE 200
EVERETT, WA 98201
PH: (425) 259-4099

SERVICE CONTACTS:

WATER / SEWER:
CITY OF FERNDALE
2095 MAIN STREET
FERNDALE, WA. 98248

NATURAL GAS:
CASCADE NATURAL GAS
1600 IOWA STREET
BELLINGHAM, WA. 98229

ELECTRICITY:
PUGET SOUND ENERGY
10885 NE 4TH STREET
P.O. BOX 97034
BELLEVUE, WA. 98009
PH: (888) 321-7779

FIRE PROTECTION:
WHATCOM COUNTY FIRE DISTRICT #7
P.O. BOX 1599
FERNDALE, WA. 98248

SITE INFORMATION:

PROPERTY ADDRESSES:
2377 DOUGLAS AVE
FERNDALE, WA 98248

PROPERTY ZONING:
RS 6.5 SINGLE FAMILY DWELLING

TAX PARCEL NUMBER:
390230 130306 0000

GROSS SITE AREA:
244,371 SF (5.61 AC.)

RECORD DRAWING

NO.	DATE	BY	APPR.	REVISION

ENGINEER:	M. RANDALL		
DESIGNED BY:	M. RANDALL	DATE:	10-25-11
DRAWN BY:	J. FORD	DATE:	10-25-11
CHECKED BY:		DATE:	
PROJ. MNGR:	M. RANDALL		
PROJ. NO:	596PMM		
FILE NAME:	596_PD_Cover.dwg		
SCALE:	1" = 20'		

2020 ENGINEERING, INC.
WELLSPRING BUILDING
814 DUPONT STREET
BELLINGHAM, WA. 98225
P: (360) 671-2020
F: (360)671-0322
www.2020engineering.com

MARK S. BUEHRER — STATE OF WASHINGTON — 25353 — REGISTERED PROFESSIONAL ENGINEER — 12-14-11

PIONEER MEADOWS MONTESSORI SCHOOL
2377 DOUGLAS ROAD
FERNDALE, WA

PIONEER MEADOWS - PHASE II

COVER

SHEET: C1.00

00402.001 01.27.12 SH

GENERAL REQUIREMENTS:

1. 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 STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION" (WSDOT SPECS.), THE CITY OF FERNDALE DEVELOPMENT STANDARDS (COFDS) AND THE 2005 VERSION OF THE DEPARTMENT OF ECOLOGY STORM WATER MANAGEMENT MANUAL FOR WESTERN WASHINGTON (DOE MANUAL). IN CASE OF A CONFLICT BETWEEN PLANS, REGULATORY STANDARDS OR SPECIFICATIONS, THE MORE STRINGENT REQUIREMENT WILL PREVAIL.

2. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER CONSTRUCTION DOCUMENTS APPROVED BY ALL OF THE PERMITTING AUTHORITIES. THROUGHOUT THE PERIOD OF CONSTRUCTION, CONTRACTOR SHALL COMPLY WITH THE TERMS OF ALL PERMITS.

3. THE CONTRACTOR MUST HAVE A FULL SET OF CITY CONTRACT DOCUMENTS ON THE SITE WHENEVER CONSTRUCTION IS IN PROGRESS.

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

5. THE CONTRACTOR SHALL CONTACT THE UTILITIES UNDERGROUND LOCATION CENTER AT LEAST 72 HOURS PRIOR TO STARTING CONSTRUCTION. PHONE: 1-800-424-5555. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT ALL OF THE VARIOUS UTILITY COMPANIES TO ARRANGE FOR FIELD LOCATIONS OF ALL EXISTING UTILITY FACILITIES. NO EXTRA COMPENSATION WILL BE PAID TO THE CONTRACTOR FOR COSTS INCURRED BECAUSE OF DAMAGE DONE TO EXISTING FACILITIES BY THE CONTRACTOR'S WORK FORCE, INCLUDING COSTS FOR REPAIRS, WHICH WILL BE CONTRACTOR'S SOLE RESPONSIBILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE INTEGRITY OF ALL EXISTING UTILITIES AND TO NOTIFY THE ENGINEER PROMPTLY OF ANY CONFLICT BETWEEN THE APPROVED PLANS AND THE LOCATION OF ANY EXISTING UTILITIES.

6. THE CONTRACTOR SHALL PROTECT ALL PRIVATE AND PUBLIC UTILITIES FROM DAMAGE RESULTING FROM THE WORK. CONTRACTOR SHALL RESTORE ALL PRIVATE AND PUBLIC PROPERTY DISRUPTED BY THE PROJECT IMMEDIATELY AFTER CONSTRUCTION.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EROSION CONTROL MEASURES THROUGHOUT THE DURATION OF THE PROJECT. EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY CLEARING OR GRADING IN CONFORMANCE WITH THE EROSION & SEDIMENTATION CONTROL PLAN AND THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP). THE SWPPP SHALL BE ONSITE AT ALL TIMES DURING CONSTRUCTION ACTIVITIES.

8. SITE CLEARING SHALL INCLUDE THE LOCATION AND REMOVAL OF ALL ABOVE GROUND AND BURIED DEBRIS AND WASTE THAT MAY BE PRESENT.

9. THE CONTRACTOR SHALL OBTAIN REVOCABLE ENCROACHMENT PERMITS FROM THE CITY OF FERNDALE AND/OR WHATCOM COUNTY PRIOR TO COMMENCING WORK WITHIN THE PUBLIC RIGHT-OF-WAY.

10. THE CONTRACTOR SHALL ATTEND A PRE-CONSTRUCTION MEETING WITH REPRESENTATIVES OF THE CITY OF FERNDALE PUBLIC WORKS DEPARTMENT AND THE PROJECT ENGINEER A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION. THE CITY WILL SCHEDULE THE MEETING.

11. ALL WORK AND MATERIALS SHALL BE SUBJECT TO APPROVAL BY THE CITY OF FERNDALE PUBLIC WORKS DEPARTMENT, REPRESENTATIVES FROM THE CITY OF FERNDALE PUBLIC WORKS DEPARTMENT MUST INSPECT ALL WORK IDENTIFIED ON THE PLANS, BOTH PUBLIC AND PRIVATE. THE CONTRACTOR SHALL CALL AT LEAST 24 HOURS IN ADVANCE TO SCHEDULE INSPECTIONS AS FOLLOW:

A. PLACEMENT OF TEMPORARY EROSION CONTROL MEASURES.

B. CONSTRICTION OF STORMWATER MANAGEMENT FACILITIES.

C. PLACEMENT OF WATER MAIN AND BACKFILLING OF WATER MAIN TRENCH WITHIN ROAD RIGHTS OF WAY OR IN WATERLINE EASEMENT TO BE DEDICATED TO THE CITY OF FERNDALE.

D. PLACING OR BACKFILLING OF UNDERGROUND UTILITIES, STORM SEWER AND SANITARY SEWER WITHIN ROAD RIGHTS-OF-WAY, IN EASEMENTS TO BE DEDICATED TO THE CITY OF FERNDALE, OR OTHER PUBLICLY SHARED FACILITIES.

E. GRADING OF PUBLIC OR PRIVATE ROADWAY AT:

1. COMPLETION OF EXCAVATION TO SUBGRADE.

2. COMPLETION OF BALLAST COURSE PLACEMENT

3. COMPLETION OF CRUSHED SURFACING COURSE PLACEMENT

F. POURING OF CURB AND GUTTER AND SIDEWALK IN PUBLIC ROADWAY.

G. ASPHALT PAVING IN PROGRESS IN PUBLIC ROADWAY.

H. OVERALL INSPECTION FOR FINISHED SHOULDERS, DITCHES, PERMANENT SEEDING AND MONUMENT PLACEMENT.

I. END OF MAINTENANCE PERIOD

12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SAFEGUARDS, SAFETY DEVICES, PROTECTIVE EQUIPMENT FLAGGERS, AND ANY OTHER NEEDED ACTIONS TO PROTECT THE LIFE, HEALTH AND SAFETY OF THE PUBLIC, AND TO PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF WORK COVERED BY THE CONTRACTOR. ANY WORK WITHIN THE TRAVELED RIGHT-OF-WAY THAT MAY INTERRUPT NORMAL TRAFFIC FLOW SHALL REQUIRE AT LEAST ONE FLAGGER FOR EACH LANE OF TRAFFIC AFFECTED. A TRAFFIC CONTROL PLAN SHALL BE SUBMITTED TO THE CITY FOR APPROVAL PRIOR TO PERFORMING THE WORK. ALL SECTIONS OF THE WSDOT STANDARD SPECIFICATIONS 1-07.23- TRAFFIC CONTROL, SHALL APPLY.

13. THE CONTRACTOR SHALL INFORM THE ENGINEER AND OBTAIN APPROVAL FROM THE CITY OF FERNDALE PUBLIC WORKS DIRECTOR OF ANY PROPOSED DEVIATION FROM THE APPROVED PLANS PRIOR TO CONSTRUCTION OF THE REVISED IMPROVEMENTS. THE CONTRACTOR SHALL KEEP RECORDS OF ALL DEVIATIONS AND SHALL FORWARD THEM TO THE ENGINEER AND TO THE CITY OF FERNDALE PUBLIC WORKS DEPARTMENT.

14. AS-BUILT DATA SHALL BE PROVIDED TO THE CITY OF FERNDALE UPON COMPLETION OF CONSTRUCTION AND PROVIDED IN CITY OF FERNDALE DATUM - VERTICAL (NAVD-88) AND HORIZONTAL (NAD 27). CONTACT THE CITY FOR MORE INFORMATION ON SUBMITTAL REQUIREMENTS.

UNDERGROUND UTILITIES CONSTRUCTION

A. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE ENGINEER TO ASSURE ACCURATE AND TIMELY COLLECTION OF ALL REQUIRED AS-BUILT DATA. THIS DATA MUST ACCURATELY REFLECT THE LOCATIONS OF ALL UNDERGROUND UTILITIES, BOTTOM OF PIPE ELEVATIONS, INVERT ELEVATIONS, MANHOLE LOCATIONS, WATER SERVICE TAPS, BLOW-OFF LOCATIONS AND INVERTS OF SERVICE CONNECTIONS (BOTH AT PIPE AND AT PROPERTY LINE), VERTICAL AND HORIZONTAL BENDS, SERVICE BOXES AND METERS, VALVES AND HYDRANTS. CALL THE PROJECT ENGINEER AT LEAST 48-HOURS BEFORE BURYING UNDERGROUND PIPE TO ASSURE AND FACILITATE REQUIRED AS-BUILT SURVEY.

B. THE CONSTRUCTION OF UNDERGROUND UTILITY LINES SHALL BE SUBJECT TO THE FOLLOWING CRITERIA:

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

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

iii. TRENCH DEWATERING DEVICES SHALL DISCHARGE INTO SEDIMENT TRAPS OR SEDIMENT PONDS.

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

C. UTILITY CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY OF FERNDALE DEVELOPMENT STANDARDS.

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

E. ALL UTILITY TRENCHES SHALL BE BACKFILLED AND COMPACTED TO 95% DENSITY IN LIFTS NOT TO EXCEED 24 INCHES WITH A "HOE PACK, OR 8 INCHES WITH HAND-OPERATED COMPACTION."

F. 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.

EARTHWORK

A. 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.

B. THE CONTRACTOR SHALL EXCAVATE AND GRADE TO THE ALIGNMENT, GRADE AND CROSS-SECTIONS SHOWN IN THE PLANS OR ESTABLISHED BY THE ENGINEER.

C. 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 BACKFILL MATERIAL.

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

BASE COURSES & CRUSHED SURFACING

A. GRAVEL BASES AND BALLAST MATERIAL GRADATION SHALL MEET WSDOT STANDARD SPECIFICATIONS.

B. BALLAST, GRAVEL BASE AND CRUSHED SURFACING SHALL BE COMPACTED TO AT LEAST 95% OF MAXIMUM DRY DENSITY.

C. THE GRADED AND COMPACTED SURFACE OF THE CRUSHED SURFACING TOP COURSE SHALL BE WITHIN ½ INCH OF FINISHED GRADE.

D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MATERIAL AND COMPACTION TESTING. PRIOR TO IMPORTING 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

1. THE FOLLOWING STANDARD DETAILS SHALL BE USED FOR CONSTRUCTION OF STORM DRAIN IMPROVEMENTS:

CATCH BASINS TYPE 1, 1L OR 2	WSDOT STD. DETAILS B-5.20, B-5.40 OR B-10.20
"RESIDENTIAL SERVICE LINE"	COFSD ST-7 (CITY OF FERNDALE STD DETAIL)
CATCH BASINS	

2. STORM SEWER PIPE HAVING DIAMETERS GREATER THAN 8" SHALL BE CORRUGATED POLYETHYLENE PIPE (CPEP), ALL OTHER STORM SEWER PIPE SHALL BE PVC.

3. COVER OVER PIPES SHALL BE MAINTAINED DURING CONSTRUCTION. DEPTH OF COVER REQUIRED SHALL CONFORM TO THE MANUFACTURER'S RECOMMENDATIONS AND WILL VARY WITH THE VEHICLE LOADS TRAVELING OVER THE PIPE. NO ADDITIONAL COMPENSATION SHALL BE PROVIDED FOR DAMAGE TO PIPE DURING CONSTRUCTION ACTIVITIES.

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

WATER

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

PIPE BEDDING	COFSD W-11
TRENCH BACKFILL	COFSD W-11
FIRE HYDRANT ASSEMBLY	COFSD W-1
THRUST BLOCKING	COFSD W-2, W-3 & W-4
WATER SERVICE	COFSD W-5

2. ALL WORK AND MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE CITY OF FERNDALE DEVELOPMENT STANDARDS, SECTIONS 702 AND 705 AND THE MOST RECENT VERSION OF WSDOT STANDARD SPECIFICATIONS.

3. MATERIAL FOR FITTINGS SUCH AS CROSSES, TEES, BENDS, REDUCERS AND SLEEVES SHALL BE DUCTILE IRON. JOINTS SHALL BE M.J., FLANGED OR PUSH-ON JOINTS AND SHALL CONFORM TO AWWA SPECIFICATIONS C-110-71 AND C-104-71.

4. CONCRETE BLOCKING SHALL BE AS SPECIFIED IN CITY OF FERNDALE STANDARD DETAILS 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 WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE OR MUNICIPAL CONSTRUCTION. NO PRE-CAST BLOCKS ARE ALLOWED.

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

6. ALL HYDROSTATIC TESTING AND DISINFECTION OF WATER MAINS SHALL CONFORM TO SECTION 7-09.3(23) AND SECTION 7-09.3(24)OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE OR MUNICIPAL CONSTRUCTION - CURRENT EDITION. HYDROSTATIC TEST PRESSURE FOR WATER MAIN ACCEPTANCE SHALL BE 250 PSI AND SHALL BE DONE ACCORDING TO CITY OF FERNDALE REQUIREMENTS. THE CITY OF FERNDALE LABORATORY SHALL CONDUCT ALL DISINFECTION TESTS AND BACTERIOLOGICAL TESTS. THE PIPE WILL NOT PASS TESTING UNLESS A ZERO BACTERIAL COUNT IS MEASURED ON TWO CONSECUTIVE TESTS, CONDUCTED 24 HOURS APART.

7. BACKFILL SHALL BE GRAVEL BASE, CLASS B, IN ALL STREET RIGHTS-OF-WAY, COMPACTED TO MINIMUM 95% OPTIMUM DENSITY. IN UNIMPROVED AREAS, MINIMUM COMPACTION SHALL BE 90% OF OPTIMUM DENSITY.

8. ALL PIPE SHALL HAVE A MINIMUM COVER OF 36".

9. ALL VALVES SHALL BE EITHER GATE OR BUTTERFLY TYPE VALVES AND SHALL BE INSTALLED WITH SLIP TYPE CAST IRON VALVE BOXES. GATE VALVES SHALL BE USED FOR LINES 2 INCHES THROUGH 10 INCHES IN DIAMETER. SHORT-BODY VALVES SUITABLE FOR A NON-SHOCK SHUT-OFF PRESSURE OF 130 PSI AND SUITABLE FOR DIRECT BURIAL ARE SPECIFIED. GATE VALVES SHALL BE RESILIENT SEATED IRON-BODY, FULL-BRONZE MOUNTED VALVES CONFORMING TO AWWA C509 AND SUITABLE FOR SERVICE WITH THE TYPE AND CLASS OF PIPE USED. ALL VALVES SHALL HAVE NON-RISING STEMS AND SHALL OPEN COUNTERCLOCKWISE AND SHALL BE EQUIPPED WITH A 2 INCH SQUARE OPERATING NUT. VALVES WILL BE FLANGE OR M.J. JOINTS. VALVE MARKERS SHALL BE LOCATED OUTSIDE OF PAVEMENT SECTIONS.

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

11. ALL WATER SERVICE PIPE, 2" AND SMALLER, SHALL MEET THE STANDARD SPECIFICATIONS SECTION 7-09 AND CITY OF FERNDALE STANDARDS. PIPE TYPE SHALL BE HIGH DENSITY POLYETHYLENE PIPE (PE), FOR POTABLE WATER SERVICE AND DISTRIBUTION SYSTEMS. PE PIPE SHALL BE NSF LISTED AND MEET ASTM F 714-01 FOR COPPER TUBE SIZE TUBING.

ROAD

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

TYPICAL STREET SECTION	(PER PROJECT)
PCC CURB AND GUTTER	COFSD R-9
PCC SIDEWALKS	COFSD R-12 (SEE CONSTRUCTION DOCUMENTS TYPICAL SECTION)
PCC CURB RAMPS	WSDOT STD. DETAIL F-40.

2. ROADWAY EXCAVATION WITHIN THE ROADWAY PRISM SHALL BE CUT TO A UNIFORM GRADE. THE COMPLETED SUBGRADE SURFACE SHALL NOT VARY MORE THAN 0.10-FOOT FROM THE LOWER EDGE OF A 15-FOOT STRAIGHTEDGE PLACED ON THE SUBGRADE PARALLEL TO THE CENTERLINE UNLESS APPROVED BY THE ENGINEER.

3. THE OWNER SHALL PROVIDE TO THE ENGINEER A REPORT FROM A QUALIFIED GEOTECHNICAL FIRM CERTIFYING THE COMPACTION OF THE GRAVEL BASE UNDER ALL PAVING AREAS.

4. ASPHALT CONCRETE PAVEMENT SHALL BE CLASS "B" MATERIALS AND CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS, SECTION 5-04, EXCEPT AS MODIFIED HEREIN. CONNECTION TO EXISTING PAVEMENT SHALL BE TO A STRAIGHT NEATLY-TRIMMED LINE.

5. CRUSHED ROCK SURFACING FOR PAVEMENT SHALL BE IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATION, SECTION 9-03.9(3); BALLAST PER SECTION 9-03.9(1).

6. CEMENT CONCRETE SHALL BE CLASS 3000 (WITH AIR ENTRAINMENT) IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATION, SECTION 6-02.3(2)B.

7. CEMENT CONCRETE SIDEWALK SHALL BE CONSTRUCTED AS SHOWN ON THE PLANS OR AS DESIGNATED BY THE ENGINEER IN ACCORDANCE WITH CITY STANDARDS, DRAWING NO. R-12.

8. CEMENT CONCRETE CURB AND GUTTER SHALL BE CONSTRUCTED WHERE SHOWN ON THE PLANS OR AS DESIGNED BY THE ENGINEER, IN ACCORDANCE WITH WSDOT STANDARDS SPECIFICATIONS, SECTION 8-04 AND CITY OF FERNDALE STANDARDS, DRAWING R-8 AND R-9. HANDICAP RAMPS SHALL BE CONSTRUCTED PER WSDOT STANDARD PLANS F-40. WHERE NEW CEMENT CONCRETE CURB AND GUTTER IS CONNECT TO EXISTING CURB AND GUTTER, ASSURE THAT NO ABRUPT OFFSETS IN LINE OR GRADE SHALL BE CONSTRUCTED WHICH WILL BE UNSIGHTLY OR IMPEDE FLOW IN THE GUTTER LINE.

9. 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. CONTRACTOR SHALL COLD PLANE PER DIMENSIONS SPECIFIED ON THE PLANS, AND INSTALL A MINIMUM 2-FOOT WIDE PETROTAC PAVING FABRIC, OR EQUIVALENT, OVER JOINT BETWEEN PAVING LIFTS.

10. THRU-CURB BASINS AND THRU-CURB INLETS CONFORMING TO THE WSDOT STANDARD SPECIFICATIONS, SECTION 7-05 SHALL BE CONSTRUCTED AT THE LOW POINT OF THE CURB FLOW LINES AND TO THE LOCATIONS, DIMENSIONS, AND DETAILS AS SHOWN ON THE PLANS OR DESIGNATED BY THE ENGINEER AND CITY STANDARDS, DRAWING NO. R-8.

11. TRENCH EXCAVATIONS, BEDDING AND PIPE FOR STORMWATER PIPE LAYING SHALL BE IN ACCORDANCE WITH THE WSDOT STANDARD SPECIFICATIONS, SECTION 7-08.

12. STORM SEWER PIPE CONSTRUCTION REQUIREMENTS SHALL BE IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATION, SECTION 7-04. MATERIAL SHALL BE HANCOR SURE-LOK F477 PIPE OR CITY APPROVED EQUAL. LOTS' STORM DRAIN SERVICE LINE SHALL BE 6" PVC PER WSDOT STANDARD SPECIFICATION, SECTION 9-05.1(5)

13. PERFORATED UNDERDRAIN PIPE SHALL MEET THE WSDOT STANDARD SPECIFICATION 7-01.3(2) .

SANITARY SEWER SYSTEMS

1. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH CITY OF FERNDALE STANDARD SPECIFICATIONS AND DETAILS, A.P.W.A. STANDARD SPECIFICATIONS, AND WSDOT STANDARD SPECIFICATIONS, MOST RECENT EDITIONS. SANITARY SEWER SYSTEM INSTALLATION, BOTH PUBLIC AND PRIVATE, IS SUBJECT TO CITY REVIEW AND APPROVAL.

2. 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.

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

4. ALL MANHOLES SHALL BE INSTALLED PER CITY OF FERNDALE STANDARD DETAILS AND SHALL BE PRE-CHANNELED. MANHOLE CONES ARE TO BE OFFSET SUCH THAT LADDER RUNGS ARE PARALLEL TO THE FLOW.

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

6. CONTRACTOR SHALL EXTEND SEWER STUBS 5 FT BEYOND UTILITY CORRIDOR OR 15 FEET BEYOND RIGHT-OF-WAY LINE.

7. EACH SIDE SEWER STUB SHALL BE CAPPED WITH A WATERTIGHT PLUG. EACH STUB SHALL BE MARKED FOR LOCATION WITH A 2" DIA. PVC PIPE (MIN. SCHEDULE 40) WITH THE TOP 18" PAINTED GREEN AND STENCILED WITH THE WORD "SEWER" AND THE PIPE INVERT INDICATED. THE LOCATION MARKER SHALL BE CONNECTED TO THE SERVICE STUB BY A #12 COPPER WIRE.

8. 22. ALL CLEANOUTS SHALL BE IN ACCORDANCE WITH CITY STANDARDS, DRAWING NO. SS-5.

APPROVED

DEC 28 2011

BY _____ P.E.

CITY OF FERNDALE

RECORD DRAWING

NO.	DATE	BY	APPR.	REVISION

ENGINEER:	M. RANDALL		
DESIGNED BY:	M. RANDALL	DATE:	10-25-11
DRAWN BY:	J. FORD	DATE:	10-25-11
CHECKED BY:		DATE:	
PROJ. MNGR:	M. RANDALL		
PROJ. NO:	596PMM		
FILE NAME:	596_PD_Cover.dwg		
SCALE:	1" = 20'		

2020 ENGINEERING

2020 ENGINEERING, INC.
WELLSPRING BUILDING
814 DUPONT STREET
BELLINGHAM, WA. 98225
P: (360) 671-2020
F: (360)671-0322
www.2020engineering.com

MARK S. BUEHLER — STATE OF WASHINGTON — 26358 — REGISTERED PROFESSIONAL ENGINEER

12-14-11

PIONEER MEADOWS MONTESSORI SCHOOL
2377 DOUGLAS ROAD
FERNDALE, WA

PIONEER MEADOWS - PHASE II

CITY OF FERNDALE

GENERAL REQUIREMENTS

SHEET: C1.01

0402.002 01.27.12 SH

00402.003 01.27.12 SH

LEGEND

- PROPERTY LINE
- WATER MAIN
- WATER VALVE
- FIRE HYDRANT
- WELL
- STORM DRAIN
- STORM DRAIN CATCH BASIN
- SANITARY SEWER MAIN
- SANITARY SEWER MANHOLE
- GAS MAIN
- OVERHEAD POWER LINE
- UNDERGROUND POWER LINE
- OVERHEAD UTILITY POLE
- OVERHEAD POWER POLE
- OVERHEAD TELEPHONE LINE
- OVERHEAD TELEPHONE POLE
- UNDERGROUND COMMUNICATIONS LINE
- TELEPHONE/COMMUNICATIONS RISER
- FENCE LINE
- DECIDUOUS TREE
- WETLAND
- EXISTING BUILDING

DATUM

HORIZONTAL CONTROL (NAD83):

FERN 615:
FOUND A BRASS DISK AT THE APPARENT INTERSECTION OF MAIN AND HENDRICKSON
NORTHING: 679,184.78'
EASTING: 1,213,412.55'

FERN 616:
FOUND ENCASED 1" IP OD AT THE APPARENT INTERSECTION OF CHURCH AND MOUNTAIN VIEW
NORTHING: 679,239.38'
EASTING: 1,211,040.50'

VERTICAL CONTROL (NAVD 88):

REFERENCE BENCHMARK: FERN 07

FOUND ENCASED 2" BRASS DISK IN ASPHALT DRIVEWAY INTO TRIUMPH LUTHERAN CHUCH ON CHURCH ROAD
NORTHING: 679,459.13'
EASTING: 1,211,031.14'
ELEVATION:150.63' (NAVD 88)
147.15' (NGVD 29)

SITE BENCHMARK:

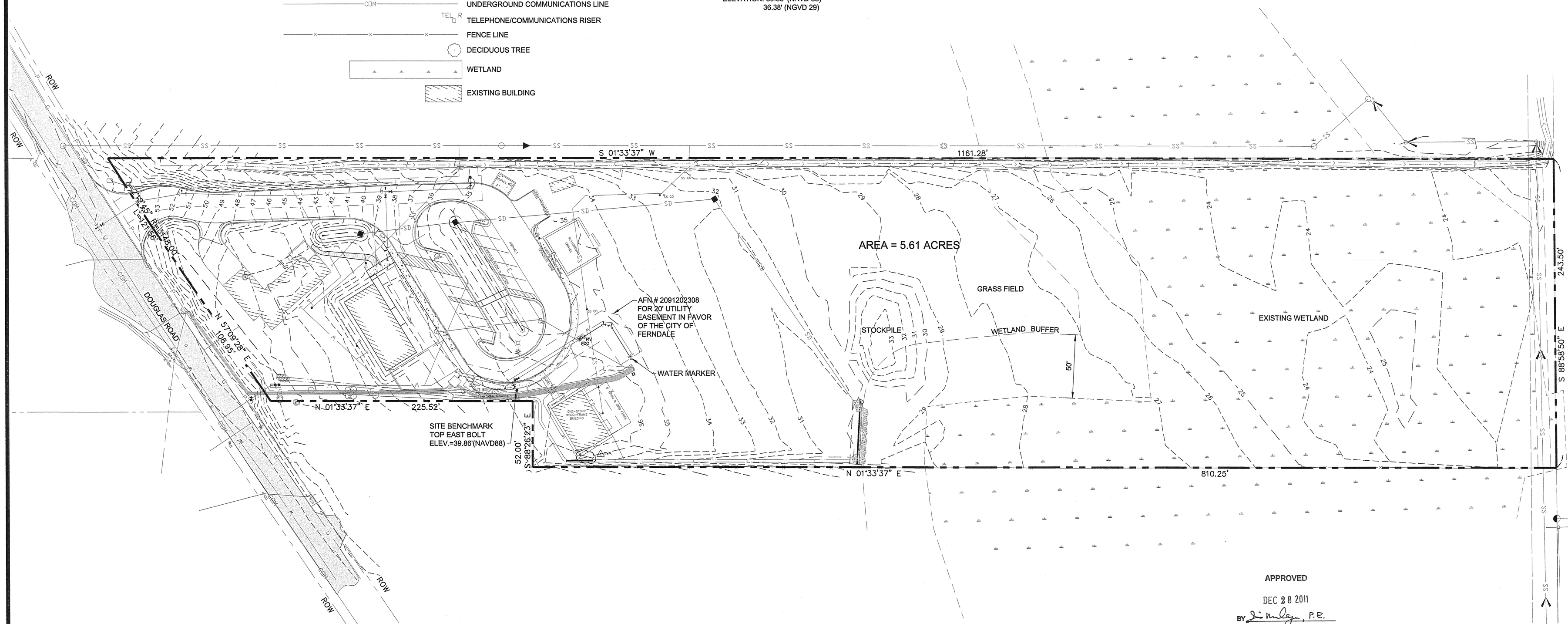
WESTERLY MOST FIRE HYDRANT ON SUBJECT PROPERTY, CHISELED "X" TOP EAST BOLT.
ELEVATION: 39.86' (NAVD 88)
36.38' (NGVD 29)

NOTE

1. EXISTING CONDITIONS SITE PLAN PREPARED BASED ON TOPOGRAPHIC SURVEY PERFORMED BY STEFAN LAUFER P.L.S. IN JUNE OF 2010 AND AS-BUILTS OF PREVIOUS PHASES BY DAVID EVANS AND ASSOCIATES.

N

GRAPHIC SCALE
40' 0 40' 80'
SCALE IN FEET



APPROVED
DEC 28 2011
BY _____, P.E.
CITY OF FERNDALE

RECORD DRAWING

NO.	DATE	BY	APPR.	REVISION

ENGINEER:	M. RANDALL		
DESIGNED BY:	M. RANDALL	DATE:	10–25–11
DRAWN BY:	J. FORD	DATE:	10–25–11
CHECKED BY:		DATE:	
PROJ. MNGR:	M. RANDALL		
PROJ. NO:	596PMM		
FILE NAME:			
SCALE:			

2020 ENGINEERING
ENGINEERING

2020 ENGINEERING, INC.
WELLSPRING BUILDING
814 DUPONT STREET
BELLINGHAM, WA. 98225
P: (360) 671-2020
F: (360)671-0322
www.2020engineering.com

PIONEER MEADOWS MONTESSORI SCHOOL
2377 DOUGLAS ROAD
FERNDALE, WA

PIONEER MEADOWS - PHASE II

EXISTING SITE PLAN

SHEET:
C2.00

EROSION CONTROL LEGEND

- IP — INLET PROTECTION (1/C3.01)
- CE — TEMPORARY CONSTRUCTION ENTRANCE (3/C3.01)
- SF — SILT FENCE (2/C3.01) OR COMPOST BERM (4/C3.01)
- DISPERSION TRENCH (TYP)

DEMOLITION LEGEND

- DEMOLISH AND REMOVE ITEM
- SAWCUT EXISTING CONCRETE CURB AND ASPHALT PAVEMENT. REMOVE FROM SITE AND DISPOSE OF IN A PROPER MANNER.
- CUT AND CAP EXISTING UTILITY LINE AT A MINIMUM OF 18" BELOW PROPOSED GRADE.
- (!!) LOCATE AND PROTECT EXISTING UTILITY STUBS PRIOR TO EXCAVATING FOR THE FOUNDATION.

N

GRAPHIC SCALE
20' 0 20' 40'
SCALE IN FEET

EXISTING STORAGE SHED AND LOGS AROUND PLAYGROUND MAY BE TEMPORARILY MOVED DURING CONSTRUCTION FOR EASE OF VEHICULAR MOVEMENT ON-SITE

REMOVE GRAVEL PAD AS NECESSARY

DEMOLISH AND REMOVE CURB

INSTALL INLET PROTECTION AT THIS LOCATION AS NECESSARY

TEMPORARILY REMOVE WHEEL STOPS FOR CONSTRUCTION ACCESS

REMOVE CONCRETE WALKWAY

REMOVE STRIPING

DEMOLISH AND REMOVE CURB & SIDEWALK

REMOVE PEA GRAVEL

6" FIRE LINE ABANDONED & CAPPED IN PLACE

REMOVE EXISTING BUILDING

SITE BENCHMARK TOP EAST BOLT ELEV.=39.86'(NAVD88)

PROPOSED BUILDING FOUNDATION LIMITS

CONTRACTOR TO IMMEDIATELY REGRADE AND HYDROSEED AREA AFTER CONSTRUCTION OF DISPERSION TRENCHES

GRASS FIELD

STOCKPILE

ASPHALT

CONCRETE SIDEWALK

CONCRETE CURB

PLAYGROUND GRAVEL

UNDERGROUND GARDEN

ONE-STORY WOOD-FRAME BUILDING

6' WOOD & GRID FENCE

TOP

TOE DITCH

APPROVED
DEC 28 2011
BY _____, P.E.
CITY OF FERNDALE

RECORD DRAWING

00402.004 01.27.12 SH

NO.	DATE	BY	APPR.	REVISION

ENGINEER:	M. RANDALL		
DESIGNED BY:	M. RANDALL	DATE:	10-25-11
DRAWN BY:	J. FORD	DATE:	10-25-11
CHECKED BY:		DATE:	
PROJ. MNGR:	M. RANDALL		
PROJ. NO:	596PMM		
FILE NAME:	596_PD_Tesc.dwg		
SCALE:	1" = 20'		

2020 ENGINEERING
2020 ENGINEERING, INC.
WELLSPRING BUILDING
814 DUPONT STREET
BELLINGHAM, WA. 98225
P: (360) 671-2020
F: (360)671-0322
www.2020engineering.com

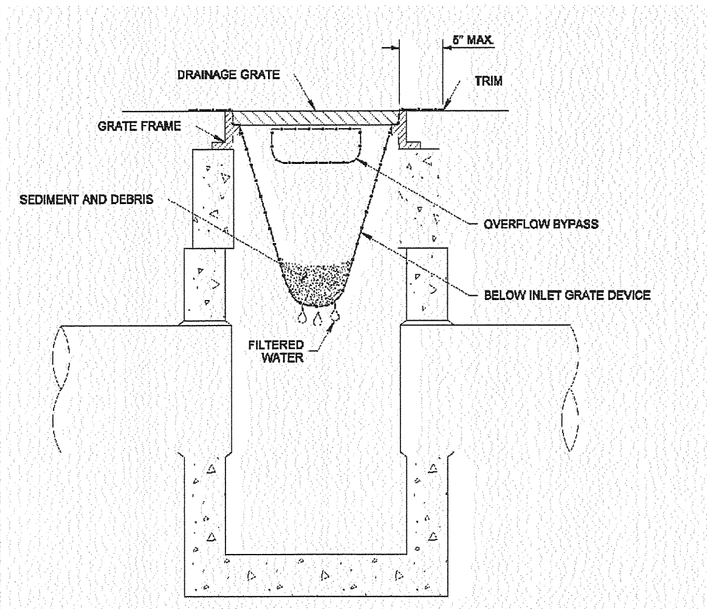
MARK S. BUSHNER — STATE OF WASHINGTON — 26353 — REGISTERED PROFESSIONAL ENGINEER
12-14-11

PIONEER MEADOWS MONTESSORI SCHOOL
2377 DOUGLAS ROAD
FERNDALE, WA

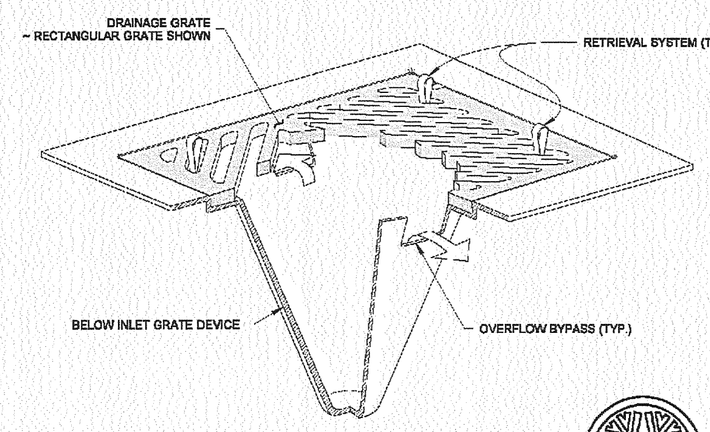
PIONEER MEADOWS - PHASE II

TESC, DEMOLITION, AND PROTECTION ZONE PLAN

SHEET: C3.00



SECTION VIEW
NOT TO SCALE



ISOMETRIC VIEW

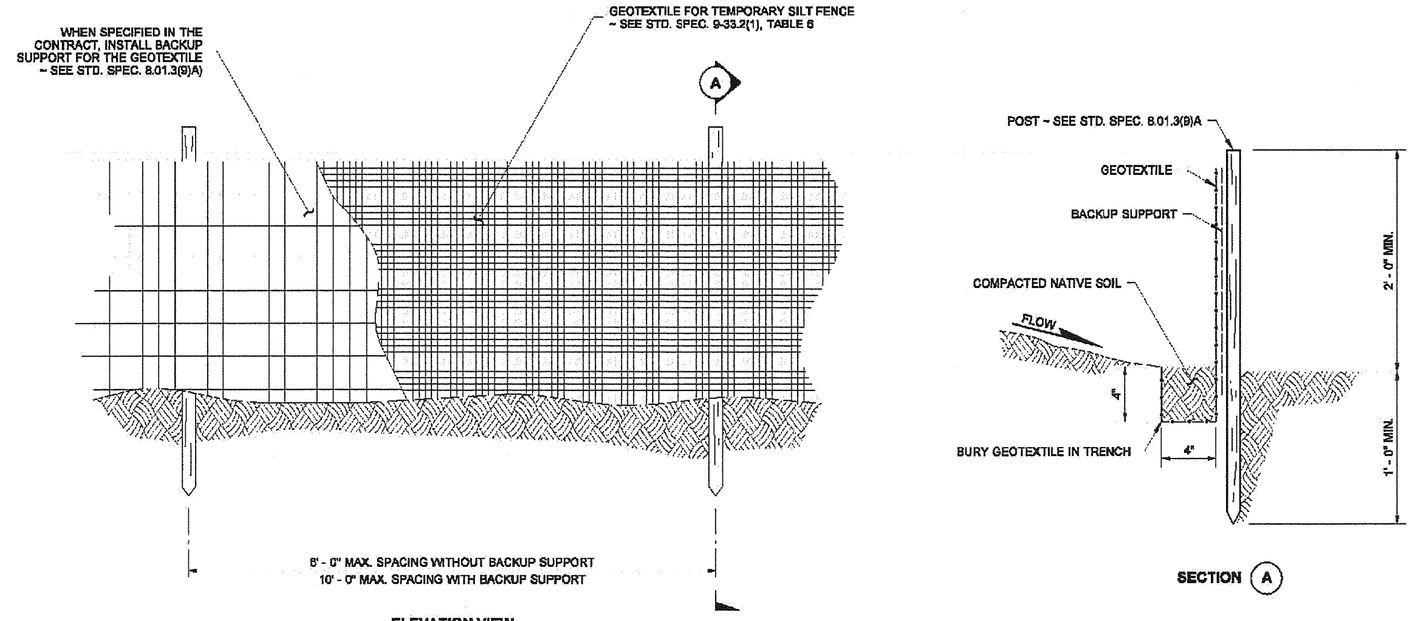
NOTES

1. Size the Below Inlet Grate Device (BIGD) for the storm water structure it will service.
2. The BIGD shall have a built-in high-flow relief system (overflow bypass).
3. The retrieval system must allow removal of the BIGD without spilling the collected material.
4. Perform maintenance in accordance with Standard Specification 8-01.3(15).

1 / C3.00 INLET PROTECTION
NTS

STATE OF WASHINGTON
REGISTERED
LANDSCAPE ARCHITECT
MARK W. MAURER
CERTIFICATE NO. 000598
NOTE: THIS PLAN IS NOT A LEGAL ENGINEERING DOCU-MENT BUT AN ELECTRONIC FACSIMILE. ONLY THE ORIGINAL, SIGNED BY THE ENGINEER AND APPROVED FOR PUBLICATION, IS KEPT ON FILE AT THE WASHINGTON STATE DEPART-MENT OF TRANSPORTATION. A COPY MAY BE OBTAINED UPON REQUEST.

STORM DRAIN INLET PROTECTION
STANDARD PLAN I-40.20-00
SHEET 1 OF 1 SHEET
APPROVED FOR PUBLICATION
Pasco Bakotich III 09-20-07
STATE DESIGN ENGINEER — DATE
Washington State Department of Transportation



ELEVATION VIEW

SECTION (A)

NOTES

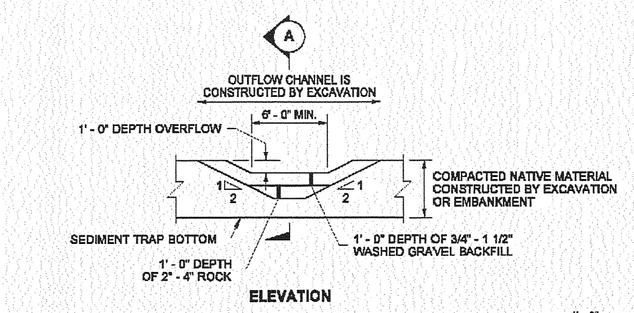
1. Maximize detention of stormwater by placing fence as far away from toe of slope as possible without encroaching on sensitive areas or outside of the clearing boundaries.
2. Install silt fencing along contours whenever possible.
3. Install the ends of the silt fence to point slightly up-slope to prevent sediment from flowing around the ends of the fence.
4. Perform maintenance in accordance with Standard Specifications 8.01.3(9)A and 8.01.3(15).

2 / C3.00 SILT FENCE
NTS

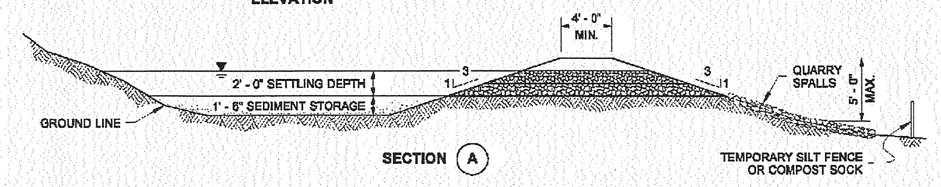
STATE OF WASHINGTON
REGISTERED
LANDSCAPE ARCHITECT
MARK W. MAURER
CERTIFICATE NO. 000598
NOTE: THIS PLAN IS NOT A LEGAL ENGINEERING DOCU-MENT BUT AN ELECTRONIC FACSIMILE. ONLY THE ORIGINAL, SIGNED BY THE ENGINEER AND APPROVED FOR PUBLICATION, IS KEPT ON FILE AT THE WASHINGTON STATE DEPART-MENT OF TRANSPORTATION. A COPY MAY BE OBTAINED UPON REQUEST.

SILT FENCE
STANDARD PLAN I-30.10-00
SHEET 1 OF 1 SHEET
APPROVED FOR PUBLICATION
Pasco Bakotich III 09-20-07
STATE DESIGN ENGINEER — DATE
Washington State Department of Transportation

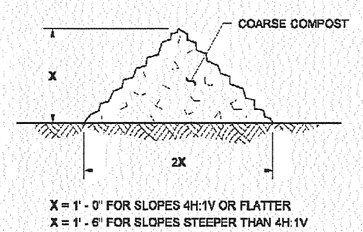
DRAWN BY: MARK SUSKA



ELEVATION

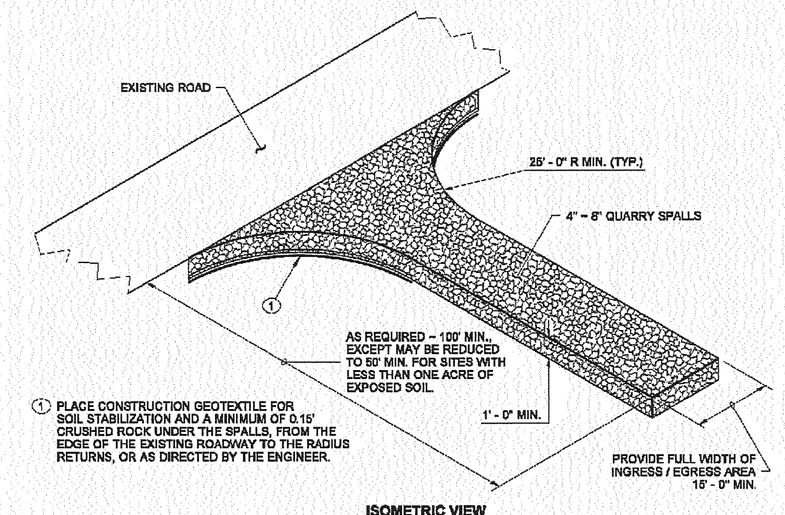


TEMPORARY SEDIMENT TRAP



TYPICAL SECTION

COMPOST BERM DETAIL

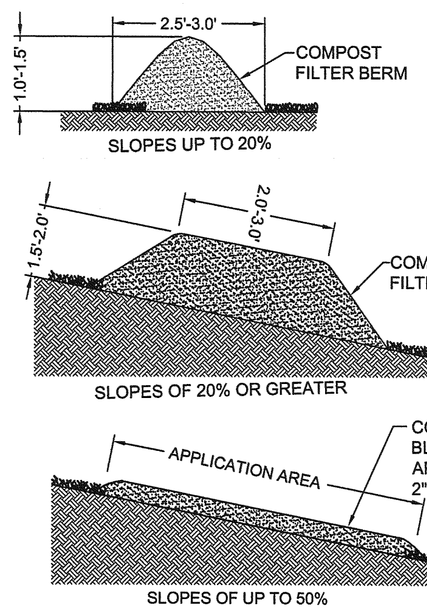


ISOMETRIC VIEW
STABILIZED CONSTRUCTION ENTRANCE

STATE OF WASHINGTON
REGISTERED
LANDSCAPE ARCHITECT
MARK W. MAURER
CERTIFICATE NO. 000598
NOTE: THIS PLAN IS NOT A LEGAL ENGINEERING DOCU-MENT BUT AN ELECTRONIC FACSIMILE. ONLY THE ORIGINAL, SIGNED BY THE ENGINEER AND APPROVED FOR PUBLICATION, IS KEPT ON FILE AT THE WASHINGTON STATE DEPART-MENT OF TRANSPORTATION. A COPY MAY BE OBTAINED UPON REQUEST.

MISCELLANEOUS EROSION CONTROL DETAILS
STANDARD PLAN I-80.10-00
SHEET 1 OF 1 SHEET
APPROVED FOR PUBLICATION
Pasco Bakotich III 08-31-07
STATE DESIGN ENGINEER — DATE
Washington State Department of Transportation

3 / C3.00 TEMPORARY CONSTRUCTION ENTRANCE
NTS



BERM NOTES:

1. FILTER BERM COMPOST AND COMPOST BLANKET MATERIAL SHALL BE COMPRISED OF ORGANIC MATERIAL PRODUCED BY AEROBIC DECOMPOSITION. IT MUST MEET THE US COMPOSTING COUNCIL'S SEAL OF TESTING ASSURANCE FOR WEEDS, PATHOGEN AND VECTOR ATTRACTION, DISCLOSURE OF HEAVY METALS, NUTRIENT LEVELS, AND MATURITY. CEDAR GROVE COMPOSTING COMPOST, OR APPROVED EQUIVALENT, WILL BE ADEQUATE.
2. AN EROSION CONTROL BERM SHALL BE PLACED, UNCOMPACTED, IN LOCATIONS INDICATED BY ENGINEERING DRAWINGS.
3. THE METHOD OF PLACEMENT SHALL BE VIA "BLOWER TRUCK." CEDAR-GROVE COMPOSTING BLOWER SERVICE, OR AN APPROVED EQUIVALENT, WILL BE ADEQUATE.
4. THE SIZE AND SHAPE OF THE BERM IS DICTATED BY THE SLOPE OF THE APPLICATION AREA. SEE DRAWINGS.
5. THE CONTRACTOR SHALL MAKE A DAILY REVIEW OF THE FILTER BERM TO ENSURE PROPER FUNCTION.
6. WHEN RETAINED SEDIMENT HAS REACHED ½ THE HEIGHT OF THE BERM, IT SHALL BE REMOVED BY THE CONTRACTOR TO A LOCATION WHERE IT CANNOT ENTER DRAINAGE PATHWAYS AND CONTRIBUTE TO OFF-SITE SEDIMENTATION.
7. THE BERM SHALL BE DISPERSED AS A SOIL AMENDMENT UPON COMPLETION OF THE PROJECT, AS DIRECTED BY THE OWNER OR ENGINEER.

CEDAR-GROVE COMPOSTING
PHONE# 1-877-764-5748
WEB SITE: HTTP://WWW.CEDAR-GROVE.COM/

APPROVED
DEC 28 2011
BY _____ P.E.
CITY OF FERNDALE

4 / C3.00 COMPOST BERM
NTS

RECORD DRAWING

NO.	DATE	BY	APPR.	REVISION

ENGINEER:	M. RANDALL		
DESIGNED BY:	M. RANDALL	DATE:	10-25-11
DRAWN BY:	J. FORD	DATE:	10-25-11
CHECKED BY:		DATE:	
PROJ. MNGR:	M. RANDALL		
PROJ. NO:	596PMM		
FILE NAME:	596_PD_TESC Details.dwg		
SCALE:	N/A		

2020 ENGINEERING
ENGINEERING
2020 ENGINEERING, INC.
WELLSPRING BUILDING
814 DUPONT STREET
BELLINGHAM, WA. 98225
P: (360) 671-2020
F: (360)671-0322
www.2020engineering.com

MARK S. BUEHRER
STATE OF WASHINGTON
25353
REGISTERED
PROFESSIONAL ENGINEER
12-14-11

PIONEER MEADOWS MONTESSORI SCHOOL
2377 DOUGLAS ROAD
FERNDALE, WA

PIONEER MEADOWS - PHASE II

TESC DETAILS

SHEET:
C3.01

00402.006 01.27.12 SH

LEGEND

- ASPHALT CONCRETE PAVEMENT
- CONCRETE SIDEWALK
- RAINWATER ROOF FLOW
- PAVEMENT RUNOFF FLOW
- PROPOSED MAJOR CONTOUR (35)
- PROPOSED MINOR CONTOUR (36)
- AREA DRAIN (9 / C5.00)

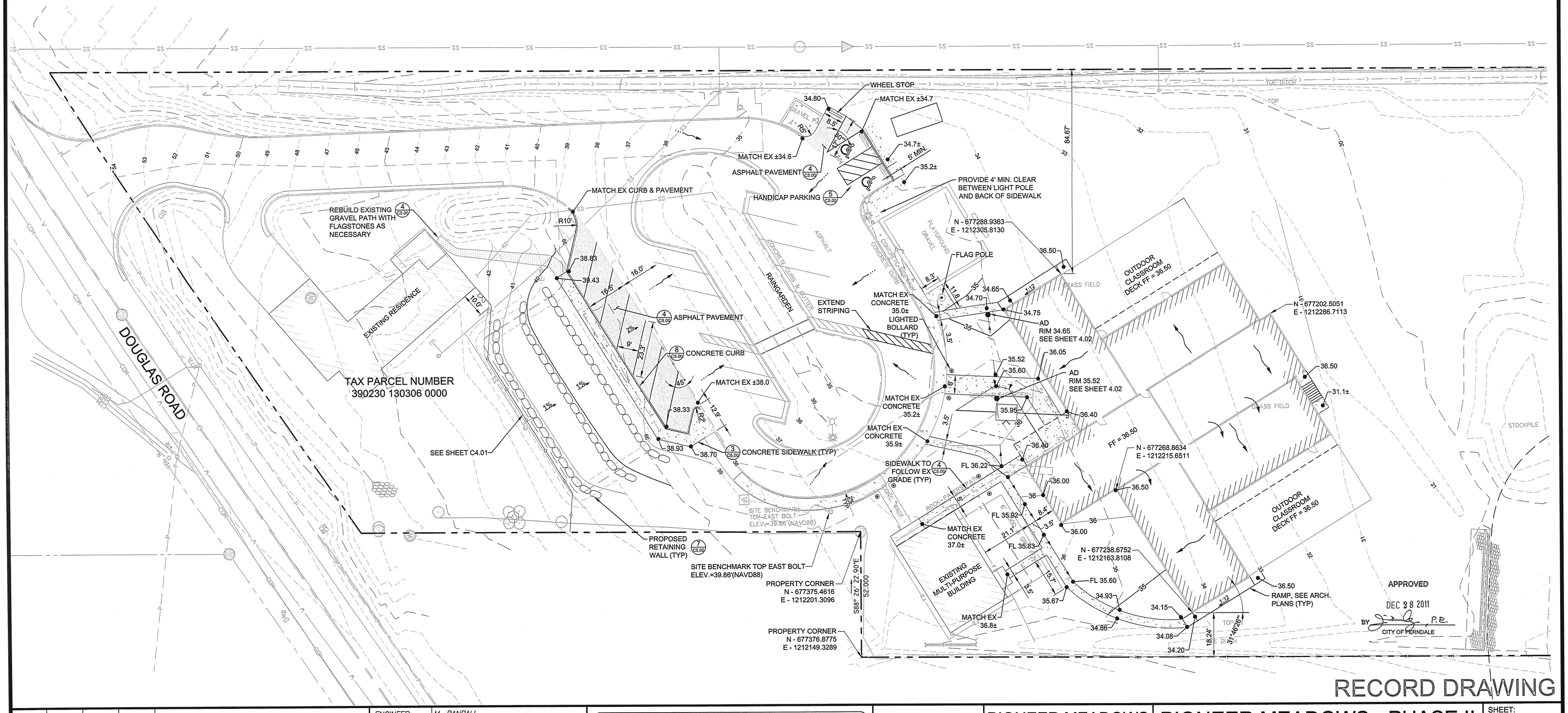
NOTES

1. COORDINATE & FINALIZE DOWNSPOUT LOCATIONS IN FIELD.
2. SEE FENCING PLAN, SHEET C4.02
3. SEE ARCHITECTURAL PLANS FOR BUILDINGS, FOUNDATION, AND OUTDOOR CLASSROOM INFORMATION.

SITE AREA: 244,371 S.F. (5.61 AC.)
TOTAL IMPERVIOUS AREA : 41,525 S.F. (0.95 AC.)

N

GRAPHIC SCALE
20' 0 20' 40'
SCALE IN FEET



RECORD DRAWING

NO.	DATE	BY	APPR.	REVISION

ENGINEER:	M. RANDALL		
DESIGNED BY:	M. RANDALL	DATE:	10-25-11
DRAWN BY:	J. FORD	DATE:	10-25-11
CHECKED BY:		DATE:	
PROJ. MNGR:	M. RANDALL		
PROJ. NO:	596PMM		
FILE NAME:	596_PD_Site.dwg		
SCALE:	1" = 20'		

2020 ENGINEERING
2020 ENGINEERING, INC.
WELLSPRING BUILDING
814 DUPONT STREET
BELLINGHAM, WA. 98225
P: (360) 671-2020
F: (360)671-0322
www.2020engineering.com

MARK S. BUEHNER — STATE OF WASHINGTON — 20333 — REGISTERED PROFESSIONAL ENGINEER — 10-25-11

PIONEER MEADOWS MONTESSORI SCHOOL
2377 DOUGLAS ROAD
FERNDALE, WA

PIONEER MEADOWS - PHASE II

SITE & GRADING PLAN

SHEET: C4.00

LEGEND

- (E) CONNECT TO BUILDING ELECTRICAL SYSTEM. SEE BUILDING/ ELECTRICAL PLANS FOR CONECTION.
- (T) CONNECT TO BUILDING TELECOMMUNICATION SYSTEM. SEE BUILDING/ TELECOMMUNICATION PLANS FOR CONECTION.
- (W) CONNECT TO BUILDING POTABLE WATER SYSTEM. SEE BUILDING/ PLUMBING PLANS FOR CONECTION.
- (S) CONNECT TO BUILDING WASTEWATER SYSTEM. SEE BUILDING/ PLUMBING PLANS FOR CONECTION.
- (G) CONNECT TO BUILDING GAS SYSTEM. SEE PLUMBING PLANS FOR CONNECTION.
- (F) CONNECT EXISTNG FIRE LINE TO BUILDING FIRE SPRINKLER SYSTEM. SEE EMERALD FIRE PLANS.
- DS ● DOWNSPOUT
- CO ▣ CLEANOUT
- ROOF FLOW PATH
- FLOW FROM UPPER ROOF TO LOWER ROOF
- CONNECT TO DOWNSPOUT
- ● AREA DRAIN (9 / C5.00)
- ■ TYPE 1 CATCH BASIN (PER CITY OF FERNDALE STANDARD DRAWING ST-1)

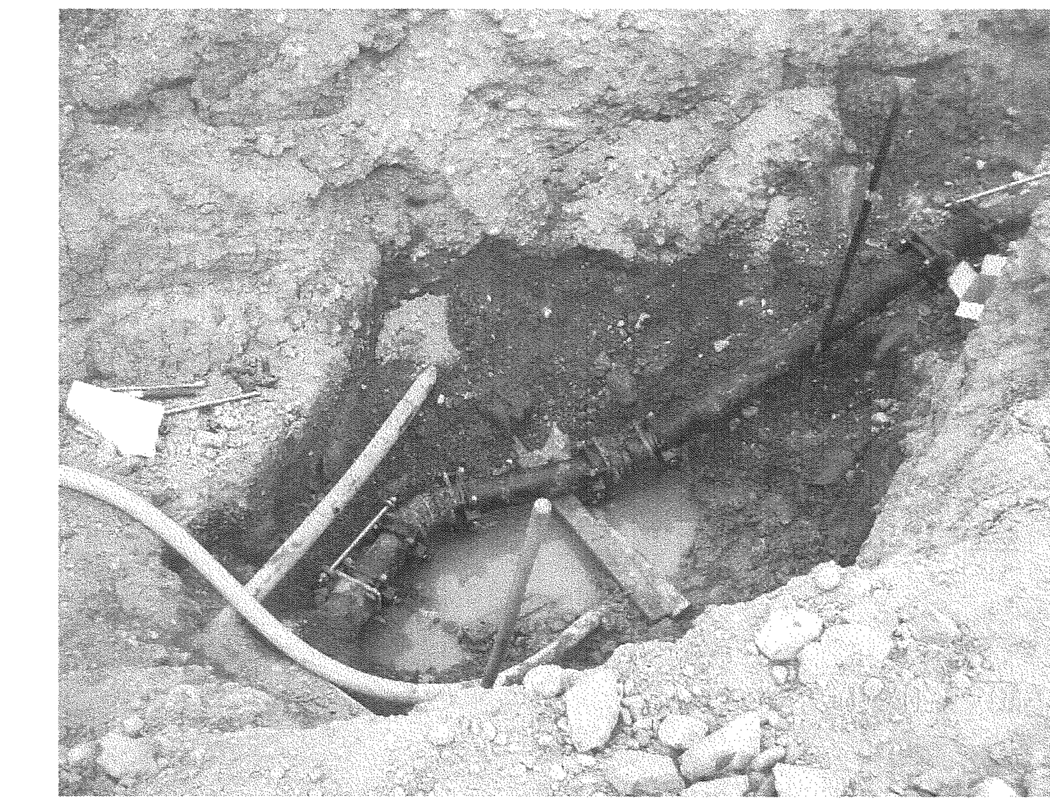
NOTES

1. COORDINATE & FINALIZE DOWNSPOUT LOCATIONS IN FIELD.
2. SEE FENCING PLAN, SHEET C4.02
3. SEE ARCHITECTURAL PLANS FOR BUILDINGS, FOUNDATIONS, AND OUTDOOR CLASSROOM INFORMATION.
4. ALL DISPERSION TRENCHES SHALL BE CONSTRUCTED OUTSIDE OF THE WETLAND BUFFER.
5. DISPERSION TRENCHES SHALL FOLLOW AS WELL AS POSSIBLE A PROPOSED CONTOUR.

ROOF BASIN A: 6877 S.F.
REQUIRED TOTAL DISPERSION TRENCH LENGTH: 98.24 LF
PROPOSED DISPERSION TRENCH LENGTH: 2 @ 50L.F. EACH (100 L.F. TOTAL)

ROOF BASIN B: 3925 S.F.
REQUIRED TOTAL DISPERSION TRENCH LENGTH: 56.1 LF
PROPOSED DISPERSION TRENCH LENGTH: 2 @ 28.5 L.F. EACH (59 L.F. TOTAL)

ROOF BASIN C: 142 S.F.
TO SPLASH BLOCK



(1) CONNECTION TO EX FIRE LINE
NTS

GRAPHIC SCALE
20' 0 20' 40'
SCALE IN FEET

APPROVED
DEC 28 2011
BY [signature], P.E.
CITY OF FERNDALE

RECORD DRAWING

NO.	DATE	BY	APPR.	REVISION

ENGINEER:	M. RANDALL		
DESIGNED BY:	M. RANDALL	DATE:	10-25-11
DRAWN BY:	J. FORD	DATE:	10-25-11
CHECKED BY:		DATE:	
PROJ. MNGR:	M. RANDALL		
PROJ. NO:	596PMM		
FILE NAME:	596_PD_Site.dwg		
SCALE:	1" = 20'		

2020 ENGINEERING, INC.
WELLSPRING BUILDING
814 DUPONT STREET
BELLINGHAM, WA. 98225
P: (360) 671-2020
F: (360)671-0322
www.2020engineering.com

MARK S. BUEHRER, STATE OF WASHINGTON, 25353, REGISTERED PROFESSIONAL ENGINEER
10-25-11

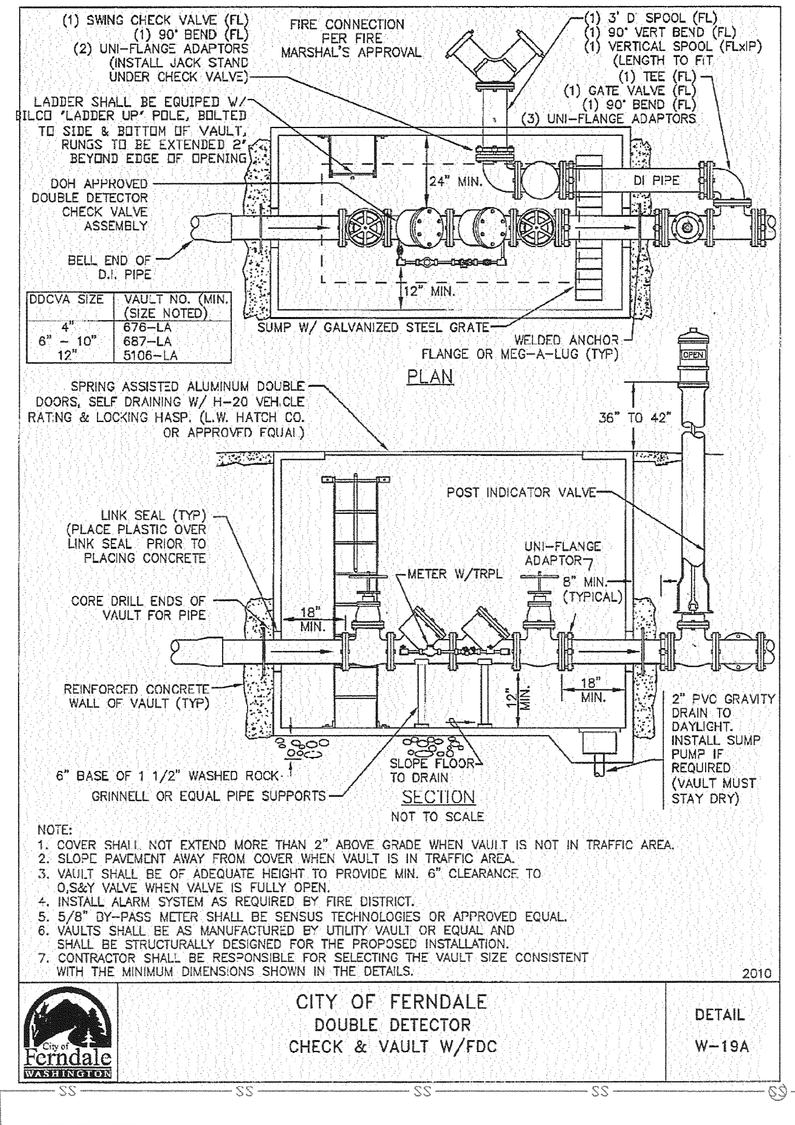
PIONEER MEADOWS MONTESSORI SCHOOL
2377 DOUGLAS ROAD
FERNDALE, WA

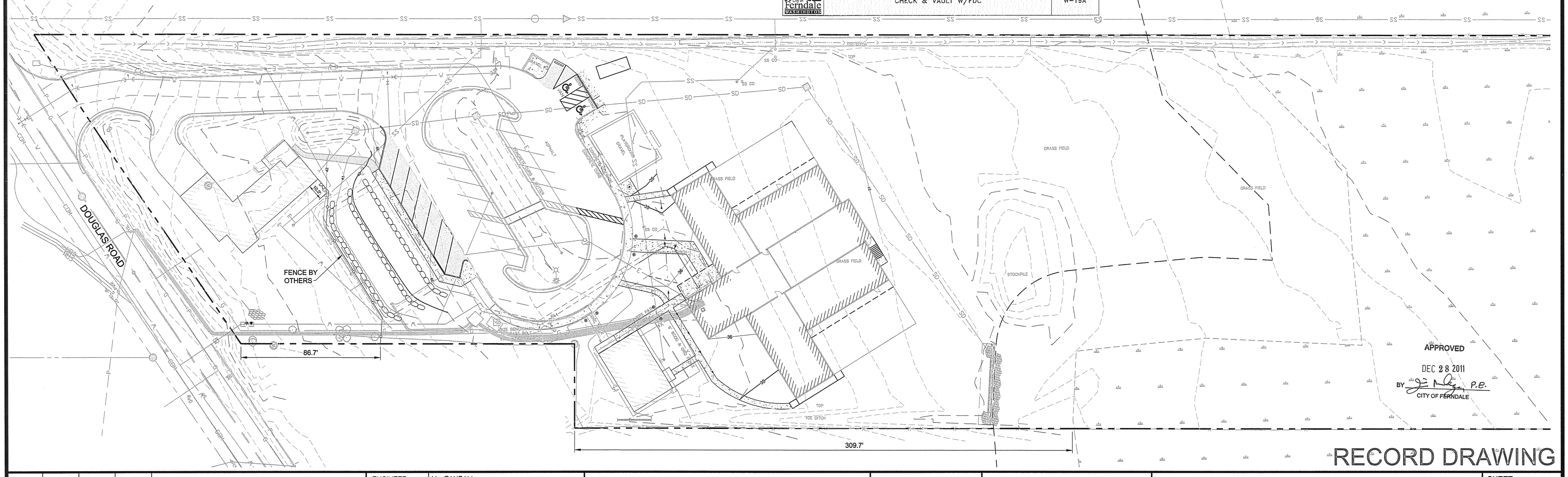
PIONEER MEADOWS - PHASE II

UTILITY PLAN

SHEET: C4.01

00402.007 01.27.12 SH





N

GRAPHIC SCALE
30' 0 30' 60'
SCALE IN FEET

00402.008 01.27.12 SH

NO.	DATE	BY	APPR.	REVISION

ENGINEER:	M. RANDALL		
DESIGNED BY:	M. RANDALL	DATE:	10-25-11
DRAWN BY:	J. FORD	DATE:	10-25-11
CHECKED BY:		DATE:	
PROJ. MNGR:	M. RANDALL		
PROJ. NO:	596PMM		
FILE NAME:	596_PD_Site.dwg		
SCALE:	1" = 20'		

2020 ENGINEERING
2020 ENGINEERING, INC.
WELLSPRING BUILDING
814 DUPONT STREET
BELLINGHAM, WA. 98225
P: (360) 671-2020
F: (360)671-0322
www.2020engineering.com

MARK S. BUEHLER
STATE OF WASHINGTON
25353
REGISTERED
PROFESSIONAL ENGINEER
10-25-11

PIONEER MEADOWS MONTESSORI SCHOOL
2377 DOUGLAS ROAD
FERNDALE, WA

PIONEER MEADOWS - PHASE II

FENCING PLAN

SHEET: C4.02

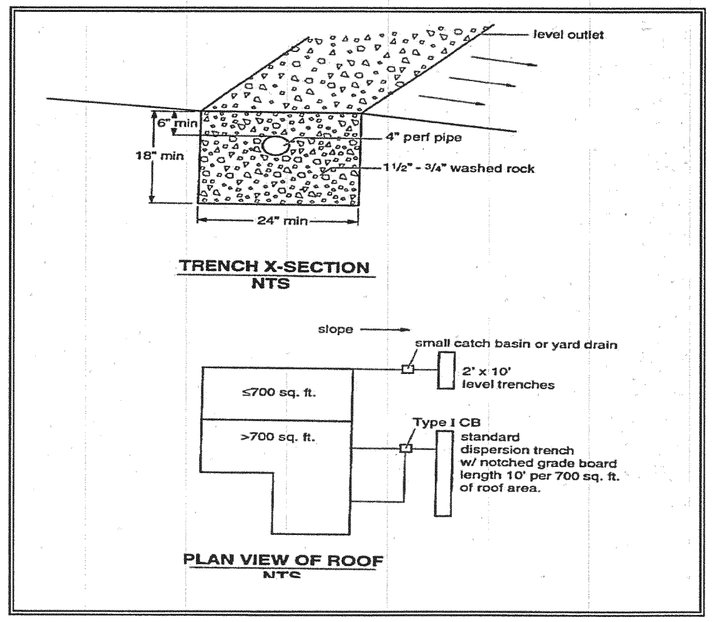
00402.009 01.27.12 SH

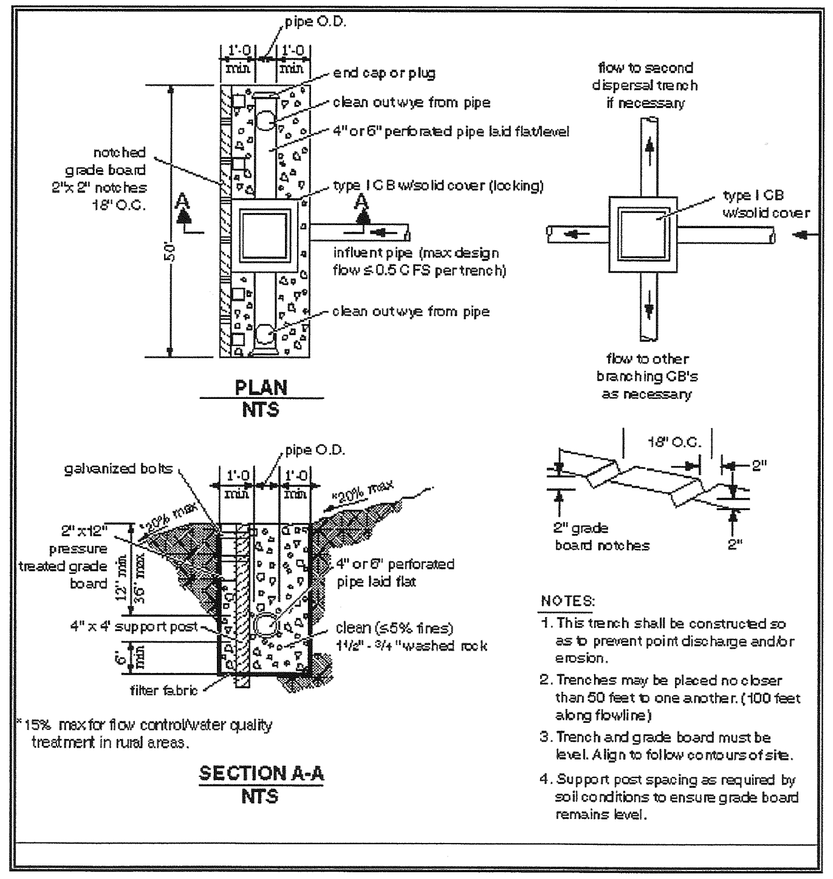
2. Downspout Dispersion Systems

Downspout dispersion systems are splash blocks or gravel-filled trenches, which serve to spread roof runoff over vegetated pervious areas. Dispersion attenuates peak flows by slowing entry of the runoff into the conveyance system, allows for some infiltration, and provides some water quality benefits.

1. A vegetated flowpath of at least 50 feet should be maintained between the discharge point and any property line, structure, steep slope, stream, wetland, lake, or other impervious surface. Sensitive area buffers may count toward flowpath lengths.
2. A maximum of 700 square feet of roof area may drain to each splashblock or standard dispersion trench.
3. A trench with a notched grade board may be used for larger areas.
4. No erosion or flooding of downstream properties may result.
5. Runoff discharged towards landslide hazard areas must be evaluated by a professional engineer with geotechnical expertise or a qualified geologist. Downspout dispersion systems may not be placed on or above slopes greater than 20% or above erosion hazard areas without evaluation by a professional engineer with geotechnical expertise or qualified geologist and jurisdiction approval.

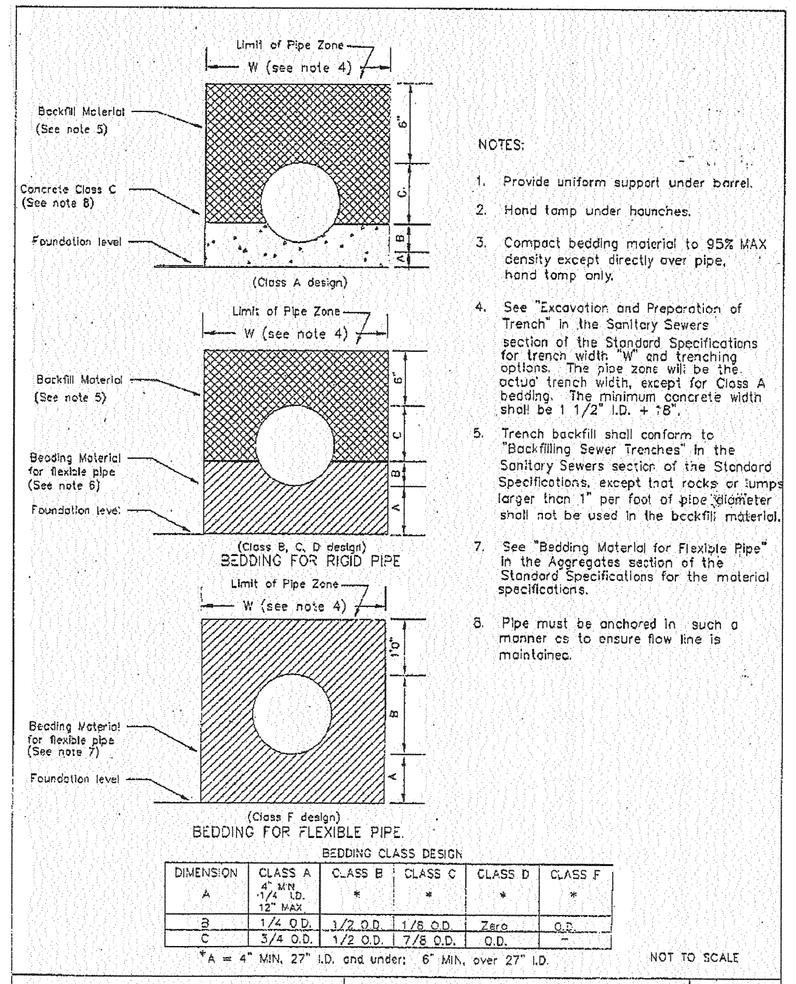
Figure 4 Typical Downspout Dispersion Trench





NOTES:
1. This trench shall be constructed so as to prevent point discharge and/or erosion.
2. Trenches may be placed no closer than 50 feet to one another. (100 feet along flowline)
3. Trench and grade board must be level. Align to follow contours of site.
4. Support post spacing as required by soil conditions to ensure grade board remains level.

Figure 5 Standard Dispersion Trench with Notched Grade Board



NOTES:
1. Provide uniform support under barrel.
2. Hand tamp under haunches.
3. Compact bedding material to 95% MAX density except directly over pipe, hand tamp only.
4. See "Excavation and Preparation of Trench" in the Sanitary Sewers section of the Standard Specifications for trench width "W" and trenching options. The pipe zone will be the actual trench width, except for Class A bedding. The minimum concrete width shall be I 1/2" I.D. + 18".
5. Trench backfill shall conform to "Backfilling Sewer Trenches" in the Sanitary Sewers section of the Standard Specifications, except that rocks or lumps larger than 1" per foot of pipe diameter shall not be used in the backfill material.
7. See "Bedding Material for Flexible Pipe" in the Aggregates section of the Standard Specifications for the material specifications.
8. Pipe must be anchored in such a manner as to ensure flow line is maintained.

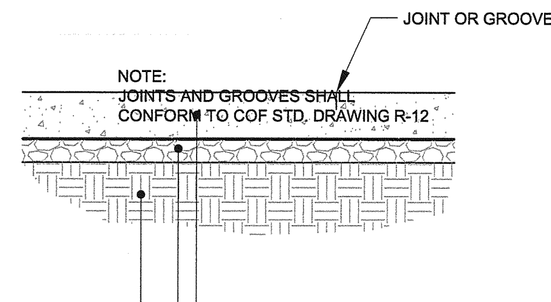
BEDDING CLASS DESIGN

DIMENSION	CLASS A 4" min. 1¼" I.D. 12" MAX	CLASS B *	CLASS C *	CLASS D *	CLASS F *
B	1/4 O.D.	1/2 O.D.	1/8 O.D.	Zero	O.D.
C	3/4 O.D.	1/2 O.D.	7/8 O.D.	O.D.	--

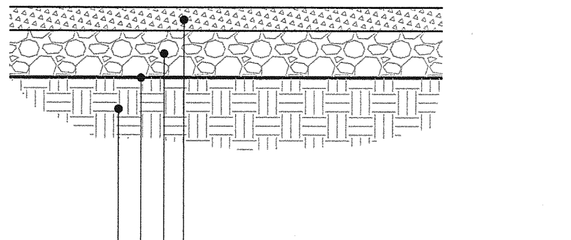
*A = 4" MIN. 27" I.D. and under; 6" MIN. over 27" I.D.

NOT TO SCALE

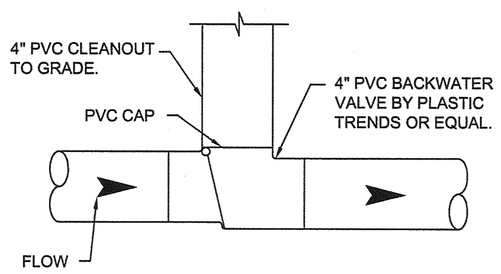
APPROVED	CITY OF FERNDALE	DRAWING
Public Works Director Date	PIPE BEDDING FOR SANITARY SEWERS	SS-1



3 C4.00 CONCRETE SIDEWALK SECTION NTS



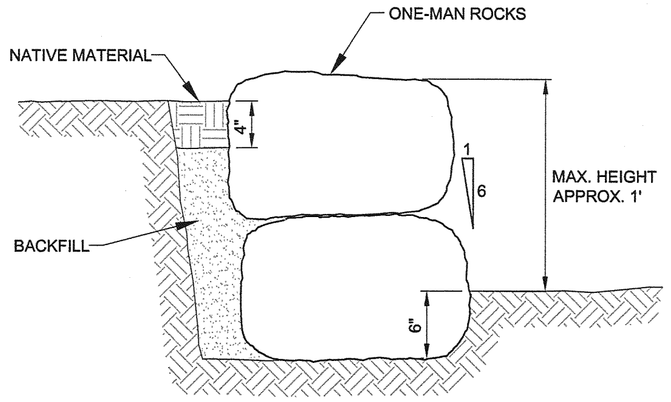
4 C4.00 GRAVEL PATH SECTION NTS



10 C4.00 BACKWATER VALVE NTS

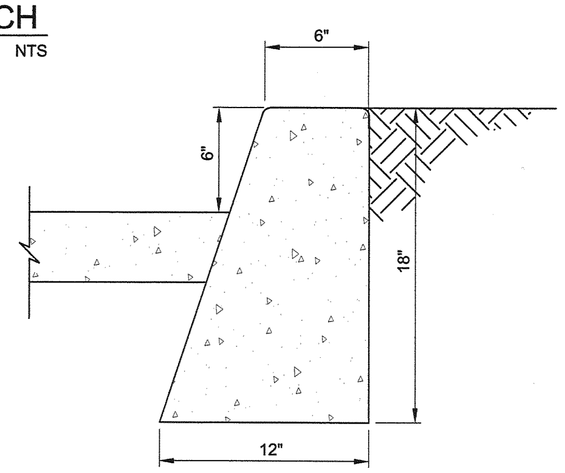
1 C4.00 DISPERSION TRENCH NTS

2 C4.00 UTILITY TRENCH NTS



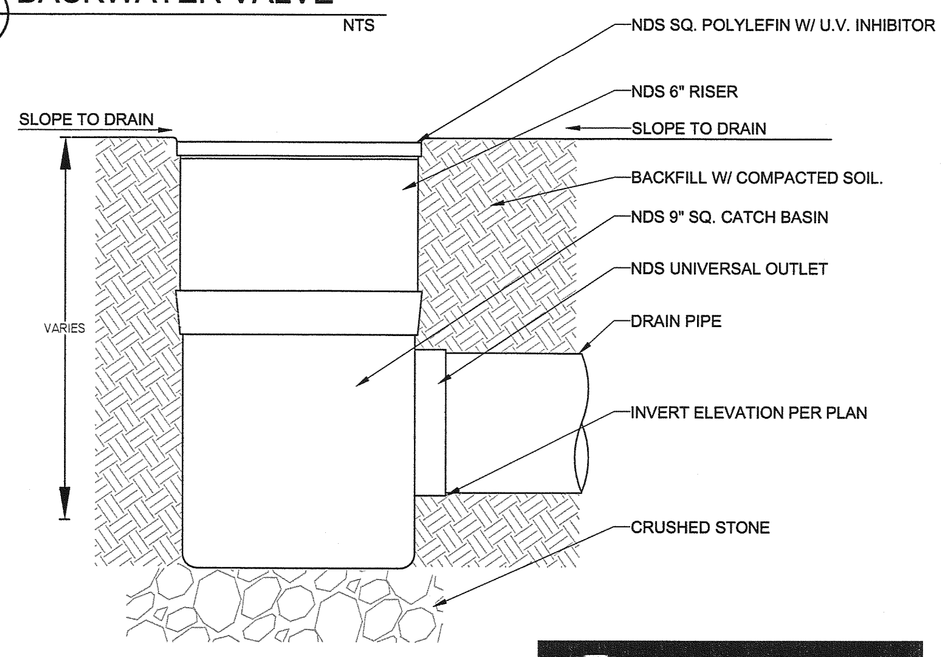
NOTES:
1. ROCKS FOR ROCK WALL SHALL BE PER WSDOT STANDARD SPECIFICATIONS 9-13.7(1), ONE-,MAN ROCKS AND CHINKING MATERIAL
2. BACKFILL SHALL BE PER WSDOT STANDARD SPECIFICATIONS 9-13.7(2).

7 C4.00 ROCKERY WALL NTS



NOTES:
1. DUMMY JOINTS SHALL EXTEND 2" BELOWGUTTER LINE, BE MINIMUM OF ¾" THICK AND BE 10' C/C OR AS DIRECTED BY THE ENGINEER. PARTIAL DIVISION PLATES MAY BE USED IN LIEU OF DUMMY JOINTS IF APPROVED BY THE ENGINEER.
2. 2" WEEP HOLES EVERY 60' AND EACH SIDE OF DRIVEWAYS.
3. CONCRETE SHALL BE CLASS "C". (3000 PSI)

8 C4.00 TYPE "E" BARRIER CURB NTS

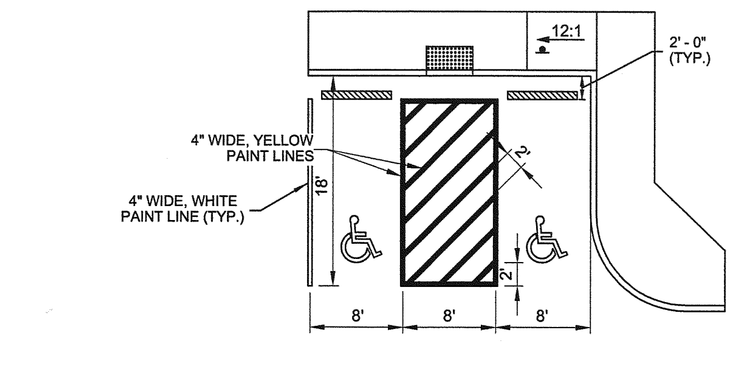


NOTE:
INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

9 C4.01 AREA DRAIN NTS

NDS
TECHNICAL SERVICES
1-888-825-4716
TECHSERVICE@NDSPRO.COM

APPROVED
DEC 28 2011
BY P.E.
CITY OF FERNDALE



5 C4.00 ASPHALT PAVEMENT SECTION NTS

6 C4.00 HANDICAP PARKING DETAIL NTS

RECORD DRAWING

NO.	DATE	BY	APPR.	REVISION

ENGINEER:	M. RANDALL		
DESIGNED BY:	M. RANDALL	DATE:	10-25-11
DRAWN BY:	J. FORD	DATE:	10-25-11
CHECKED BY:		DATE:	
PROJ. MNGR:	M. RANDALL		
PROJ. NO:	596PMM		
FILE NAME:	596_PD_Details.dwg		
SCALE:	N/A		

2020 ENGINEERING, INC.
WELLSPRING BUILDING
814 DUPONT STREET
BELLINGHAM, WA. 98225
P: (360) 671-2020
F: (360)671-0322
www.2020engineering.com

MARK S. BUEHNER — STATE OF WASHINGTON — 25353 — REGISTERED PROFESSIONAL ENGINEER — 12-14-11

PIONEER MEADOWS MONTESSORI SCHOOL
2377 DOUGLAS ROAD
FERNDALE, WA

PIONEER MEADOWS - PHASE II

DETAILS

SHEET: C5.00