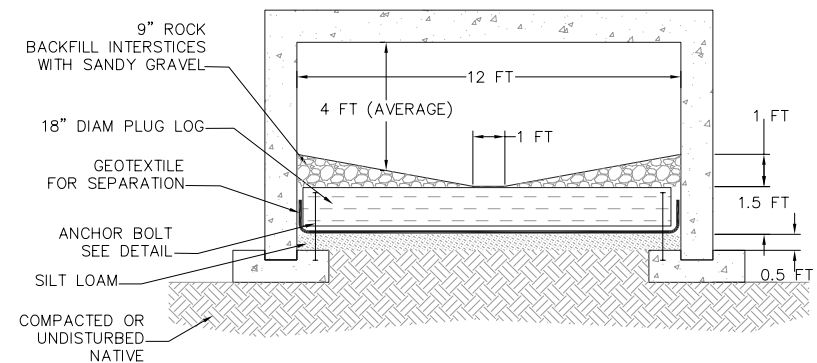
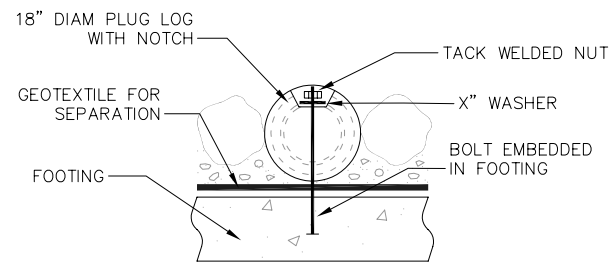


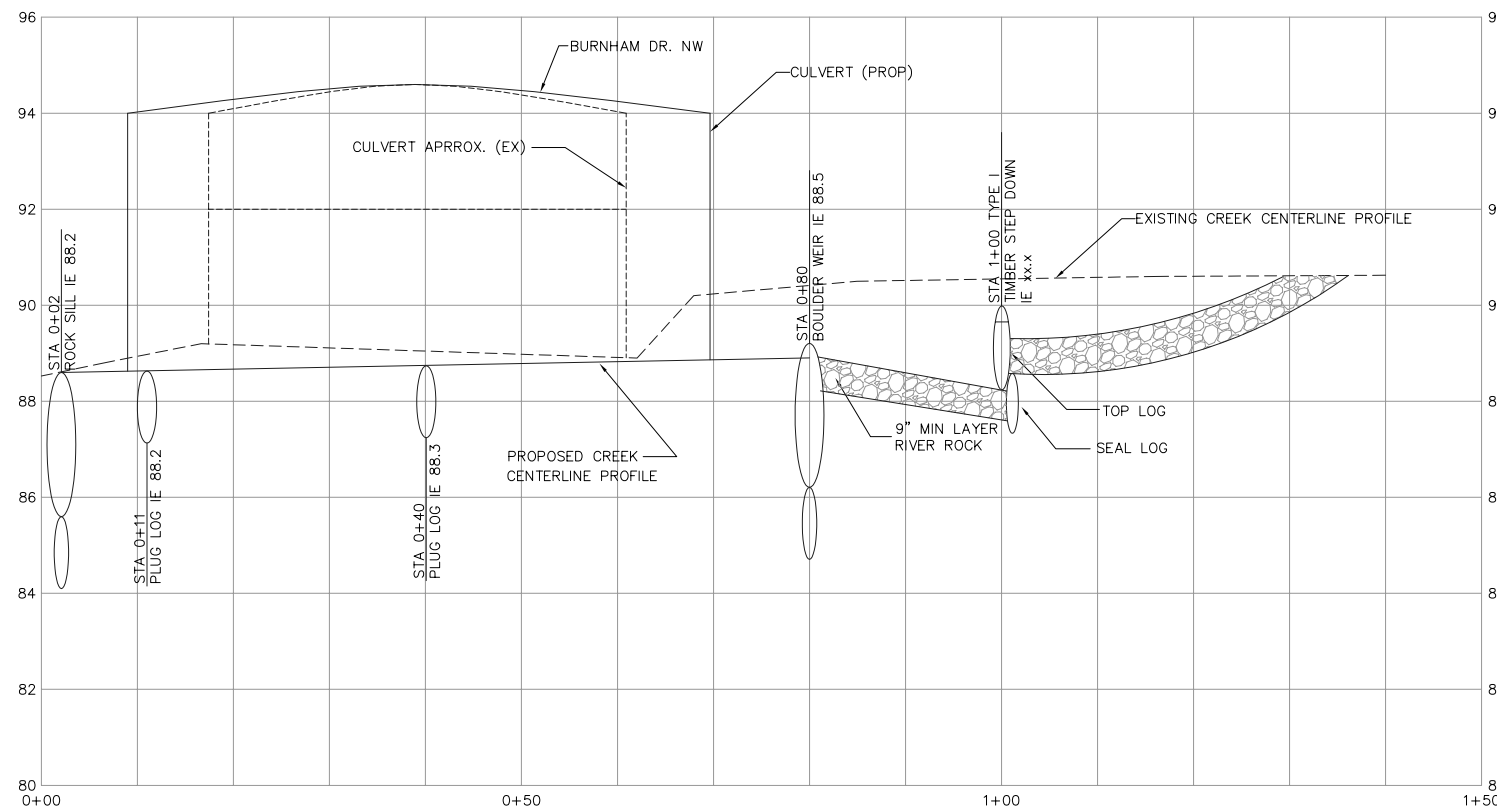
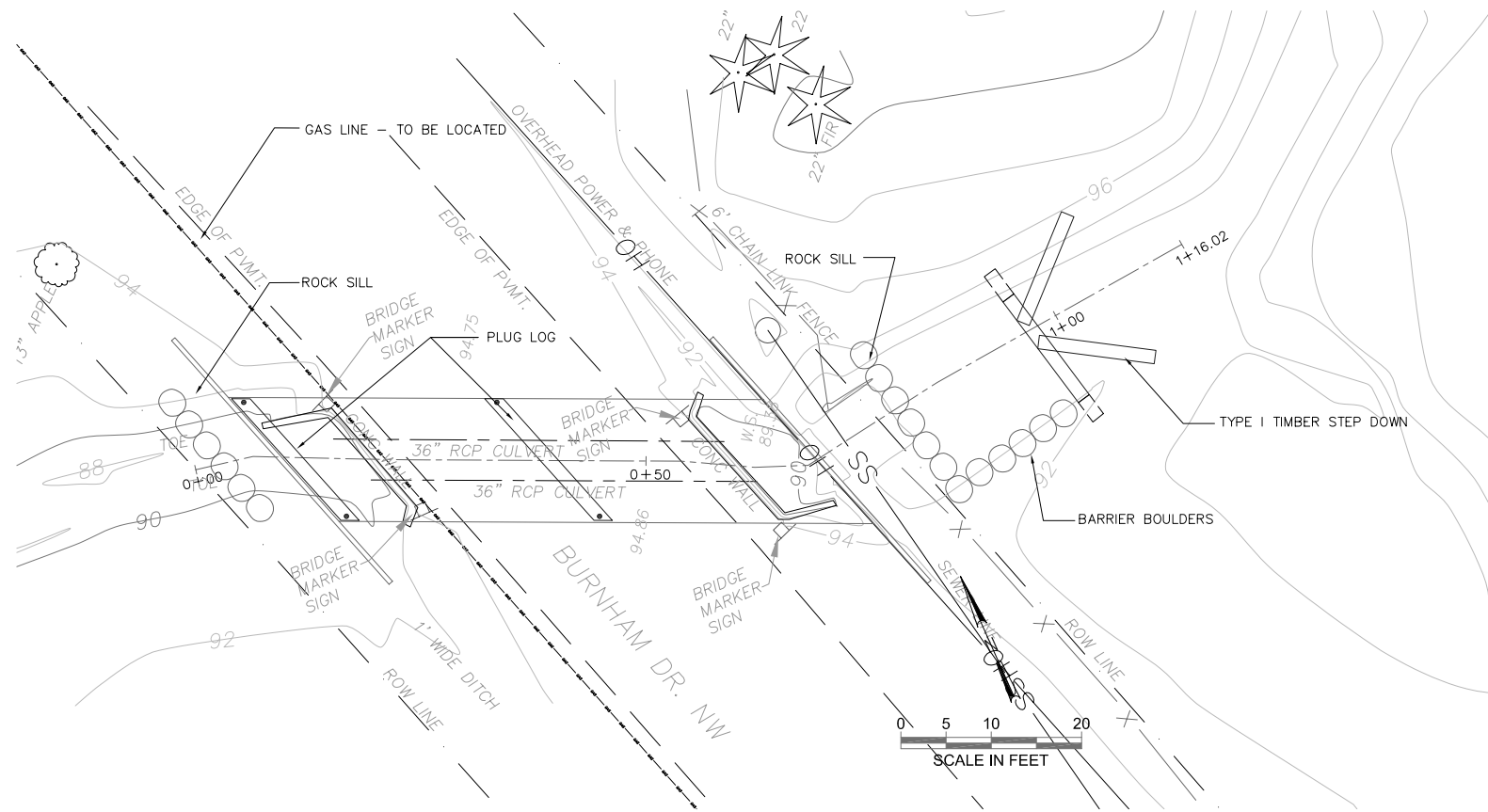
TYPICAL CULVERT CROSS SECTION
SCALE IN FEET



PLUG LOG CULVERT CROSS SECTION
SCALE IN FEET



PLUG LOG ANCHOR DETAIL
SCALE: EXAGGERATED TO SHOW DETAIL



NOTES:
ALL STRUCTURES SHALL BE BACKFILLED WITH RIVER ROCK UNLESS OTHERWISE SHOWN ON DRAWINGS. TO ENSURE 9" ROCK IS INCLUDED IN RIVER ROCK BACKFILL, CONTRACTOR SHALL MACHINE OR HAND PLACE LAST COURSE WITH 9" ROCK (TOUCHING) AND FILL INTERSTICES WITH SPANNING GRAVEL.

LOCATE AND PROTECT UTILITIES AND TREES IN THE WORK AREA. THE LOCATIONS OF ALL EXISTING UTILITIES AND TREES SHOWN HAVE BEEN OBTAINED FROM OWNER'S AVAILABLE RECORDS AND SHOULD BE CONSIDERED APPROXIMATE ONLY AND NOT NECESSARILY COMPLETE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INDEPENDENTLY VERIFY THE ACCURACY OF ALL UTILITY AND TREE LOCATIONS SHOWN, AND TO FURTHER DISCOVER AND AVOID ANY OTHER UTILITIES AND TREES NOT SHOWN WHICH MAY BE AFFECTED BY THE IMPLEMENTATION OF THIS PLAN.

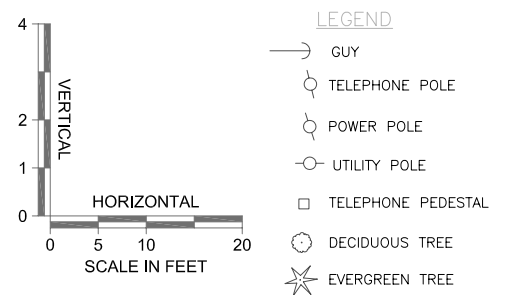
DEVICE LOCATIONS SHALL BE FIELD ADJUSTED BY THE ENGINEER TO PREVENT DAMAGE TO EXISTING TREES.

DISTURBANCE OF THE STREAMBED SHALL BE LIMITED TO THE WORK AREA SHOWN ON THE DRAWINGS AND DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL EXECUTE WORK IN ACCORDANCE WITH THE CARE OF STREAM SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING A COMPLETE CARE OF STREAM PLAN THAT INCORPORATES ALL RELATED ITEMS AND ANY ADDITIONAL ELEMENTS THAT ARE NECESSARY TO MEET PERMIT REQUIREMENTS.

THE FOLLOWING PROVISIONS FOR THE STREAM BYPASS OPERATION ARE CONSIDERED THE MINIMUM EFFORT REQUIRED. THE CONTRACTOR MAY CHANGE THE MINIMUM PROVISIONS ONLY WITH WRITTEN APPROVAL OF THE OWNER AND REGULATING AGENCIES.

- A. THE IN-STREAM IMPROVEMENTS SHALL BE INSTALLED IN A DRY OR DE-WATERED CONDITION.
- B. THE BYPASS SYSTEM MUST BE IN OPERATION PRIOR TO COMMENCING GRADING AND CLEARING ON THE SITE.
- C. FLOW SHALL BE DIVERTED BY GRAVITY OR WITH PUMPS TO A POINT DOWNSTREAM OF THE CONSTRUCTION SITE USING CONVEYANCE FACILITIES SUCH AS CHANNELS AND PIPE.
- D. THE CONTRACTOR SHALL ENSURE DIVERTED STREAM FLOW MOVES THROUGH THE CONVEYANCE FACILITIES (E.G., PIPE OR CHANNEL) REGARDLESS OF THE DIVERSION MECHANISM (E.G., PUMPING SYSTEM OR GRAVITY). IF THE CONTRACTOR USES PUMPS, THE CONTRACTOR SHALL HAVE A REDUNDANT SYSTEM AVAILABLE (INCLUDING POWER SOURCE) IN THE EVENT OF A FAILURE OF THE PRIMARY SYSTEM.
- E. THE SYSTEM SHALL HAVE A MINIMUM CAPACITY OF 1.5 TIMES THE MINIMUM STREAM FLOW AT THE TIME CONSTRUCTION COMMENCES. BECAUSE THE CONTRACTOR IS TOTALLY RESPONSIBLE AND SHALL ASSUME ALL RISKS, INCLUDING FLOODING, FOR PROTECTION OF THE CONSTRUCTION SITE, THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE AS MUCH ADDITIONAL STREAM DIVERSION CAPACITY AS HE/SHE DETERMINES TO BE NEEDED TO MEET THE OBLIGATIONS OF THE CONTRACT.
- F. A TEMPORARY PERMEABLE BARRIER STRUCTURE OR DEVICE SHOULD BE INSTALLED DOWNSTREAM OF THE CONSTRUCTION SITE DESIGNED TO TRAP RESIDUAL SEDIMENTS AFTER CONSTRUCTION IS COMPLETE AND BEFORE FULL FLOW IS RESTORED.



PRELIMINARY PLANS
SUBJECT TO REVISION

DRAWING NO. ACAD FILE NAME	SURVEYED BY: W.H. PACIFIC
DRAWN BY: C. STICKEL	DATE SURVEYED: JUNE 21, 2004
DESIGNED BY: D. SOVERN	BOOK NO. -
CHECKED BY: D. SOVERN	DATE: NOV 12, 2004
<small>FILENAME: C:\p03\PierceCounty\McCormick Creek\60C R1\07 BD Stream Plan & Profile.dwg EDIT DATE: 12/14/04 AT: 14:53</small>	

DATE	REVISION	BY	APPROVED



Pierce County
DEPARTMENT OF PUBLIC WORKS AND UTILITIES
WATER PROGRAMS
9850 64th STREET WEST
UNIVERSITY PLACE, WA 98467-1078

APPROVED BY:
HAROLD SMELT, P.E. WATER PROGRAMS MANAGER

**60%
SUBMITTAL**

McCORMICK CREEK
BURNHAM DR NW

BURNHAM - STREAM PLAN & PROFILE

C.I.P. # D180-005