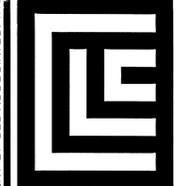
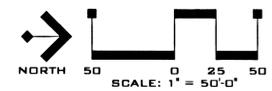


COVER SHEET FOR SANDY RIDGE P.U.D. STREET AND STORM DRAINAGE PLANS SEC. 31, T. 26 N., R. 44 E, W.M. SPOKANE COUNTY, WASHINGTON



CLC ASSOCIATES
707 WEST 7TH AVENUE
SUITE 200
SPOKANE
WASHINGTON 99204
P 509 458 6840
F 509 458 6844
CLC@SBC.COM

ARCHITECTURE
ENGINEERING PLANNING
LANDSCAPE ARCHITECTURE
LAND SURVEYING

TABLE OF CONTENTS	
COVER SHEET.....	SHEET 1
ELTON LANE STA. 10+00 TO STA. 14+96.13.....	SHEET 2
STREET DETAIL.....	SHEET 3

STREET GENERAL NOTES

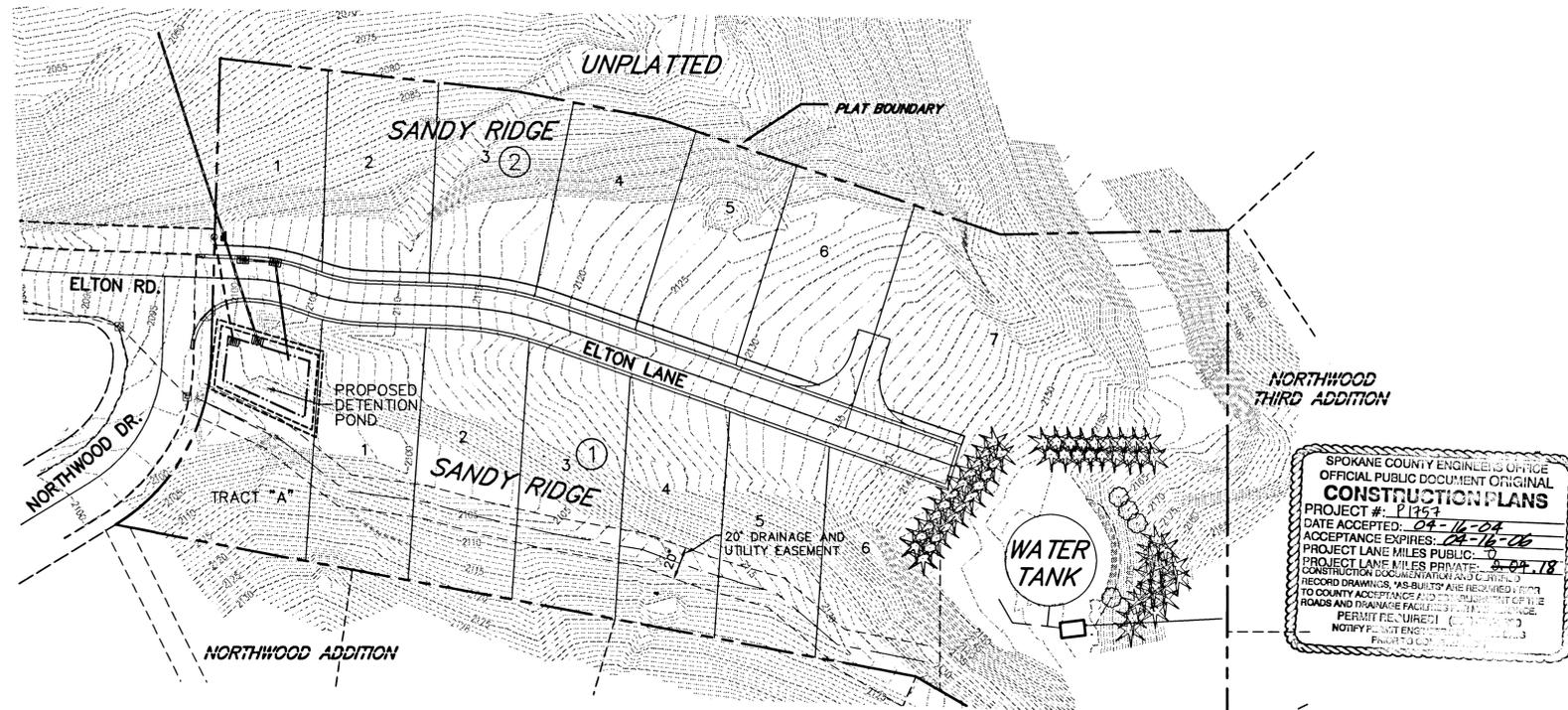
1. THE CONTRACTOR SHALL PROVIDE ALL MATERIALS, LABOR, AND EQUIPMENT TO CONSTRUCT AND INSTALL TO PROPER WORKING ORDER ALL IMPROVEMENTS AS DETAILED OR CALLED OUT ON THESE PLANS.
1. ALL WORK AND MATERIALS SHALL BE IN CONFORMANCE WITH THE "SPOKANE COUNTY STANDARDS FOR ROAD AND SEWER CONSTRUCTION 2001", AND AS AMENDED.
2. THE CONTRACTOR IS REQUIRED TO HAVE A VALID CONSTRUCTION PERMIT ON SITE AT ALL TIMES. THE ABSENCE OF THE PERMIT WILL RESULT IN AN IMMEDIATE SHUTDOWN OF WORK AND THE POSSIBLE REMOVAL OF THOSE ITEMS CONSTRUCTED WITHOUT THE PERMIT.
3. LOCATIONS OF EXISTING UTILITIES SHOWN IN THE PLANS ARE APPROXIMATE. PRIOR TO SITE CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES. CALL THE UNDERGROUND UTILITY LOCATION SERVICE AT 456-8000 BEFORE YOU DIG. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES. ANY CONFLICTING UTILITIES SHALL BE RELOCATED PRIOR TO CONSTRUCTION OF ROAD AND DRAINAGE FACILITIES.
4. THE CONTRACTOR IS REQUIRED TO HAVE A COMPLETE SET OF THE APPROVED ROAD AND DRAINAGE PLANS ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
5. IF THE CONTRACTOR DISCOVERS ANY DISCREPANCIES BETWEEN THE PLANS AND EXISTING CONDITIONS ENCOUNTERED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE DESIGN ENGINEER, JOHN F. SAYWERS, P.E., 458-6840, THE SITE/PROJECT INSPECTING ENGINEER OR HIS REPRESENTATIVE, S.T.I., BOB GRAHAM, 534-9711 AND THE SPOKANE COUNTY ENGINEER'S OFFICE, CONSTRUCTION ENGINEER, 477-3600.
6. THE CONTRACTOR SHALL EMPLOY A LICENSED SURVEYOR TO VERIFY THAT THE CROSS-GUTTER FORMS ARE THE CORRECT PLANE GRADE PRIOR TO CONCRETE PLACEMENT. THE CROSS-GUTTERS SHALL BE CONSTRUCTED PRIOR TO PAVING, AND THE PAVEMENT SHALL THEN MATCH THE EDGE OF CONCRETE GUTTER.
7. FOR ANY CURB GRADES LESS THAN 0.8 % (0.008 FT./FT.), A WASHINGTON STATE LICENSED PROFESSIONAL LAND SURVEYOR SHALL VERIFY THAT THE CURB FORMS ARE AT THE GRADES NOTED ON THE APPROVED PLANS, PRIOR TO PLACEMENT OF CURB MATERIAL. THE CONTRACTOR IS RESPONSIBLE FOR ARRANGING AND COORDINATING WORK WITH THE PROFESSIONAL LAND SURVEYOR.

STORM DRAINAGE GENERAL NOTES

1. SEE STREET PLAN AND PROFILE SHEETS FOR DRYWELL AND CATCH BASIN TYPES AND LOCATIONS.
 2. PONDS SHALL BE CONSTRUCTED PER THE REQUIREMENTS OF THESE DRAWINGS INCLUDING GRADING, SOD, AND DRYWELL INSTALLATION. ALL PONDS WITHIN TRACTS SHALL INCLUDE AN IRRIGATION SYSTEM. ALL IRRIGATION SHALL CONFORM TO SPOKANE COUNTY POND IRRIGATION SYSTEM GUIDELINES.
 3. ALL "20B" PONDS SHOWN SHALL BE ROUGH GRADED PRIOR TO PAVING OF ADJACENT ROADWAY.
 4. CONTRACTOR SHALL PROVIDE SPOKANE COUNTY WITH AS-BUILT IRRIGATION PLANS UPON COMPLETION OF ALL POND CONSTRUCTION.
 5. ALL PONDS WITHIN THE COUNTY RIGHT-OF-WAY, IN THE AREA ASSOCIATED WITH THIS PROJECT, SHALL BE COMPLETED DURING THE CONSTRUCTION OF THE ROADWAY. THE CONTRACTOR SHALL PERFORM THE POND GRADE WORK, INSTALL THE IRRIGATION SYSTEM, AND PLACE THE SOD WITHIN THE PONDS FOLLOWING THE ROAD PAVING WORK. INSTALL "AMOCO" #4545 FILTER FABRIC (OR APPROVED EQUAL) IN ALL DRYWELLS. SEE SPOKANE COUNTY STANDARDS (1999 EDITION) SHEET B-1a FOR INSTALLATION LOCATIONS.
 6. THE CONTRACTOR SHALL MAKE AN EFFORT TO PROTECT ALL DRAINAGE STRUCTURES FROM BEING CONTAMINATED WITH SILT BY INSTALLING FILTER FABRIC UNDER THE LID FOR AT LEAST 6 WEEKS, OR UNTIL THE ESTABLISHMENT OF GRASS AND/OR OTHER SITE CONSTRUCTION WORK HAS ENDED. IN THE EVENT THAT SILT OR OTHER DELETERIOUS MATERIAL IS ALLOWED TO ENTER THE DRYWELLS OR CATCH BASINS, THE CONTRACTOR WILL BE REQUIRED TO CLEAN THE DRYWELL OR CATCH BASIN OUT TO THE SATISFACTION OF THE CERTIFYING ENGINEER.
 7. ALL DRYWELL CONNECTION PIPES SHALL BE PLACED BELOW THE DRYWELL CONE AND SHALL FLOW AS DIRECTED IN THE PLANS.
 8. ALL LANDSCAPE AREAS ("20B" PONDS) ARE TO BE IRRIGATED BY AN AN AUTOMATIC IRRIGATION SYSTEM INSTALLED BY OR UNDER THE DIRECTION OF THE LANDSCAPE CONTRACTOR. THE IRRIGATION SYSTEM SHALL COMPLY WITH ALL LOCAL CODES AND ORDINANCES (90 DAY GUARANTEE). AN APPROVED BACKFLOW DEVICE SHALL BE INSTALLED TO PREVENT WATER FROM GOING BACK INTO THE WATER SUPPLY.
- SLEEVING:** PROVIDE SLEEVING AS REQUIRED UNDER SIDEWALKS, PATHS, CURBING, PAVING, ETC. AS NEEDED FOR IRRIGATION ACCESS. ALL SLEEVING TO BE 4" PVC WITH AT LEAST 12" OF COVER (1) FOOT BELOW FINISH GRADE. THE OWNER/GENERAL CONTRACTOR IS RESPONSIBLE FOR INSTALLING SLEEVING BEFORE CURBING, SIDEWALKS, PAVING, ETC. IS INSTALLED. PATCH ASPHALT AS NEEDED.
- LAWN AREAS:** LAWN AREAS ARE TO BE IRRIGATED WITH TORO POP-UP HEADS OR EQUIVALENT. (TEST SYSTEM BEFORE BACKFILLING).
- ADJUSTMENT:** AFTER INSTALLATION, ADJUST VALVES, HEADS, EMITTERS, ETC. TO PROVIDE UNIFORM COVERAGE AND TO MINIMIZE OVER SPRAY ON WALLS, FENCES, WALKS, DRIVES, ETC.
- WATER POWER SUPPLY:** THE OWNER/ GENERAL CONTRACTOR IS TO SUPPLY WATER TAPS FOR HOOK-UP AND SUPPLY POWER FOR CONTROLLER.
9. THE FLOOR OF A GRASSED PERCOLATION AREA (GPA) SWALE INCLUDES THE LEVEL PORTION OF THE FLOOR OF THE SWALE, AND THE SIDE SLOPES OF THE SWALE UP TO THE GPA OVERFLOW ELEVATION OR TOP OF DRYWELL. THE SOIL LOCATED IN THE FLOOR OF THE GPA SWALE SHALL BE A MEDIUM TO WELL-DRAINING MATERIAL, WITH A MINIMUM INFILTRATION RATE OF 0.5 INCHES PER HOUR. THE ENGINEER SHALL PROVIDE A WRITTEN STATEMENT WHICH VERIFIES THAT ALL GPA SWALES CONFORM TO THIS REQUIREMENT. THIS WRITTEN STATEMENT SHALL BE SUBMITTED TO THE SPOKANE COUNTY ENGINEER'S OFFICE PRIOR TO INSTALLING FINISHED LANDSCAPING/SOD AND PRIOR TO FINAL ACCEPTANCE. THE SWALE FLOOR MATERIAL SHALL BE INSTALLED TO A NATIVE SOIL STRATUM WHICH ALSO MEETS OR EXCEEDS THIS MINIMUM PERCOLATION RATE OF 0.5 INCHES PER HOUR.



LEGEND		
EXISTING	GENERAL	PROPOSED
ROADWAY CENTER LINE		
RIGHT OF WAY LINE		
PROPERTY LINE		
EASEMENT LINE		
FENCE		
CURB		
PAVEMENT		
GRAVEL		
PLAT BOUNDARY		
BUILDINGS & STRUCTURES		
SANITARY SEWER		
SANITARY SEWER		
MANHOLE		
CLEANOUT		
SEWER SERVICE		
WATER		
WATER LINE		
VALVE		
FIRE HYDRANT		
SERVICE		
METER		
BLOWOFF		
AIR VACUUM RELIEF STATION		
STORM DRAINAGE		
DRAINAGE LINE		
MANHOLE		
DRYWELL		
CATCH BASIN		
DITCH		



SPOKANE COUNTY ENGINEER'S OFFICE
OFFICIAL PUBLIC DOCUMENT ORIGINAL
CONSTRUCTION PLANS
PROJECT #: P1757
DATE ACCEPTED: 04-16-04
ACCEPTANCE EXPIRES: 04-16-06
PROJECT LANE MILES PUBLIC: 0
PROJECT LANE MILES PRIVATE: 0.0478
CONSTRUCTION DOCUMENTATION AND CORRECTIONS
RECORD DRAWINGS, AS-BUILTS ARE REQUIRED FROM
TO COUNTY ACCEPTANCE AND MUST BE SUBMITTED WITH THE
ROADS AND DRAINAGE FACILITIES. THE ENGINEER
PERMIT FEE: \$1000
NOTIFY: 509-458-6840
FACILITY: 509-458-6844

NAV'D'88 DATUM
ELEVATION=2055.19
NAV'D 88 BASED ON A FOUND CHISELED
"4" AT EASTERLY RETURN ON TOP OF
CURB AT 23RD AND BURNS.

UNDERGROUND SERVICE ALERT
ONE-CALL NUMBER
456-8000
CALL TWO BUSINESS DAYS
BEFORE YOU DIG

CAUTION: NOTICE TO CONTRACTOR
THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

THE DESIGN IMPROVEMENTS SHOWN IN THIS SET OF PLANS AND CALCULATIONS CONFORM TO APPLICABLE EDITIONS OF THE SPOKANE COUNTY STANDARDS FOR ROAD AND SEWER CONSTRUCTION AND THE SPOKANE COUNTY GUIDELINES FOR STORMWATER MANAGEMENT. ALL DESIGN DEVIATIONS HAVE BEEN APPROVED BY THE SPOKANE COUNTY ENGINEER. I APPROVE THESE PLANS FOR CONSTRUCTION.

Bryan Walden
DEVELOPER'S APPROVAL 11/26/03
DATE

STREET PLANS
SANDY RIDGE P.U.D.
COVER SHEET
SPOKANE COUNTY, WA



EXPIRES 5/18/04
PREPARED UNDER THE DIRECT SUPERVISION OF JOHN F. SAYWERS, P.E., WASHINGTON REGISTRATION NO. 36212 FOR AND ON BEHALF OF CLC ASSOCIATES

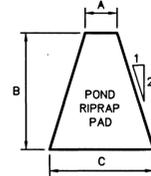
DESCRIPTION	DATE
ORIGINAL PREPARATION	06/11/03
SECOND SUBMITTAL	10/16/03

PROJECT # : S010421
DRAWN BY : AKF
DESIGNED BY : AKF
CHECKED BY : JFS

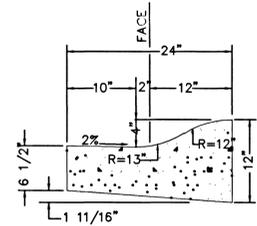
P-1757 Eng Road Drainage

EMERG. OVER	3.0'	13'	8"	3"
POND IN	3.0'	16'	9"	3"

NOTE: MINIMUM THICKNESS 1 FOOT

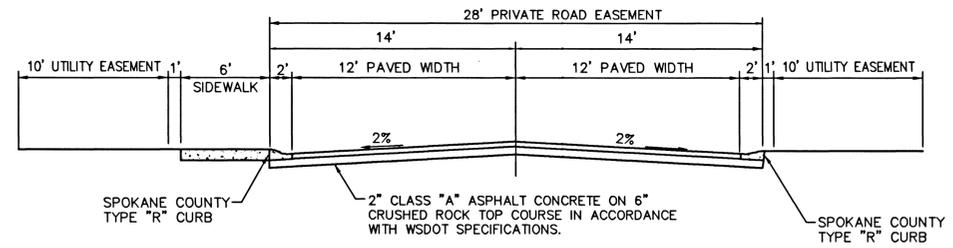


NOTE: PROVIDE A GEOTEXTILE FABRIC UNDER EACH RIP-RAP PAD. FABRIC SHALL BE NORTH AMERICAN GREEN-P300 FLEXIBLE LINING FABRIC OR APPROVED EQUIVALENT.

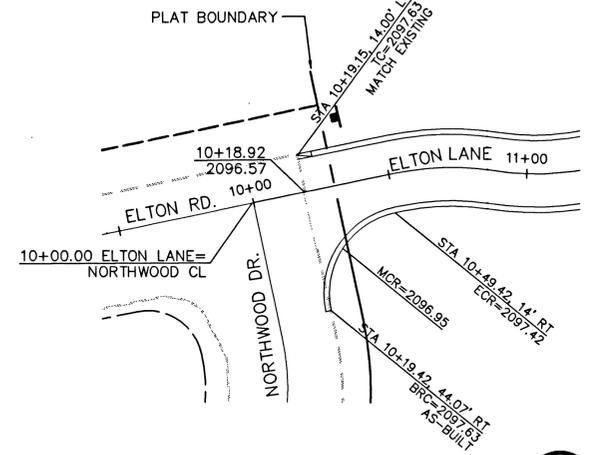


TYPE "R" CURB
NOT TO SCALE

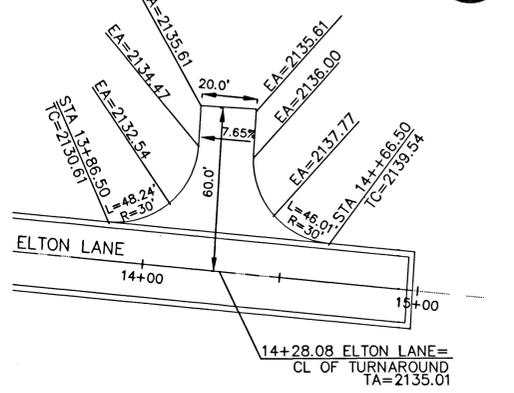
TYPICAL RIPRAP PAD
NOT TO SCALE



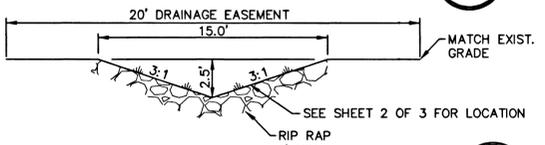
ELTON LANE CROSS SECTION
NOT TO SCALE



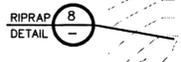
INTERSECTION DETAIL
SCALE: 1" = 30'



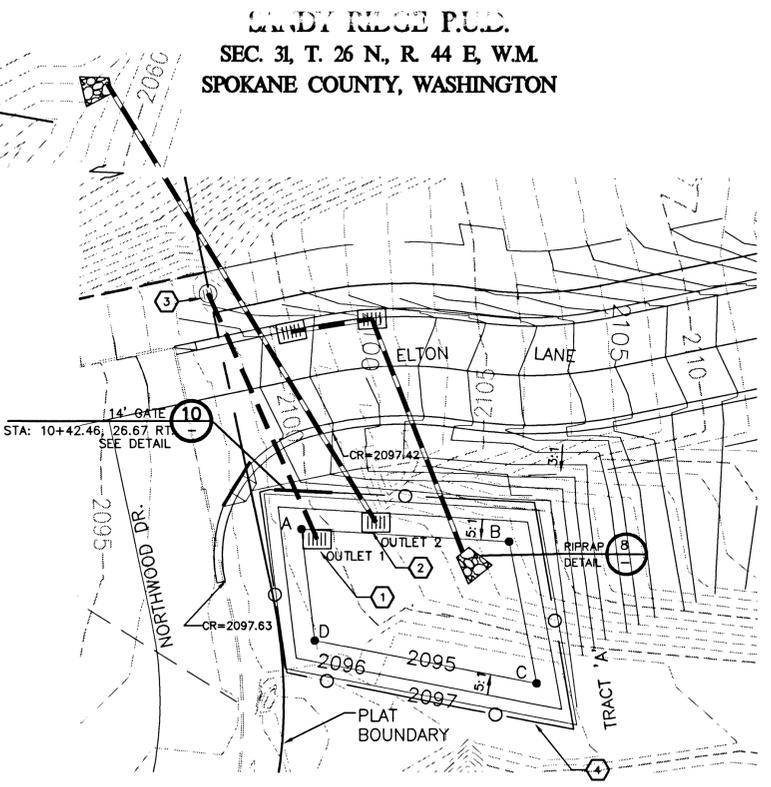
TURNAROUND DETAIL
SCALE: 1" = 30'



DRAINAGE SWALE DETAIL
NOT TO SCALE



RIPRAP DETAIL

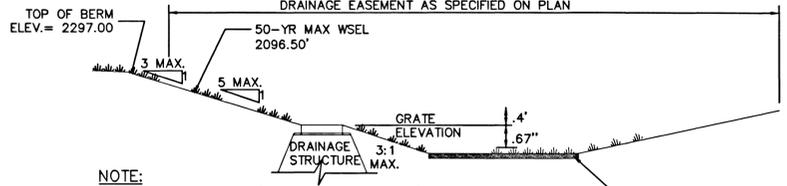


POND DETAIL
SCALE: 1" = 20'

POND BOTTOM LOCATION TABLE (ELTON LN. STATION & OFFSET)			
POINT	STATION	OFFSET	POINT LENGTH
A	10+42.46	126.67' RT	34.87'
B	10+42.46	126.67' RT	34.87'
C	10+42.46	126.67' RT	34.87'
D	10+42.46	126.67' RT	34.87'

POND "A"	
POND BOTTOM EL	= 2095.00
POND BOTTOM AREA	= 1546 S.F.
208' VOLUME REQ'D	= 1012.5 C.F.
208' VOLUME PROVIDED	= 1036 C.F.
(8" DEPTH)	
MIN. BERM ELEV	= 2097.00
POND PERIMETER	= 166.41

NOTE: ORGANIC CARBON TESTING IS REQUIRED FOR THE TOPSOIL IF THE DRYWELL GRATE IS GREATER THAN 0.5' ABOVE SOD



NOTE: PROVIDE FILTER FABRIC (AMOCO 4545 OR EQUAL) BETWEEN THE NATIVE SOIL AND THE WASHED DRAIN ROCK AND BETWEEN THE WASHED DRAIN ROCK AND THE DRYWELL BARREL.

* WARNING - THE USE OF SILTY LOAM IS PROHIBITED AS POND BOTTOM MATERIAL

TYPICAL "208" POND WITH DRAINAGE STRUCTURE
NOT TO SCALE

***DRYLAND GRASS SEED MIX**

SPOKANE COUNTY PUBLIC WORKS, FEBRUARY 1998

GRASS SEED: PROVIDE FRESH, CLEAN, NEW CROP SEED COMPLYING WITH TOLERANCE OF PURITY AND GERMINATION ESTABLISHED BY THE OFFICIAL SEED ANALYSIS OF NORTH AMERICA. PROVIDE SEED MIXTURE COMPOSED OF GRASS SPECIES AND PERCENTAGES AS FOLLOWS:

20%	ELKA PERENNIAL RYE
20%	DURAR HARD FESCUE
45%	COVAR SHEEP/FESCUE
15%	REUBENS CANADIAN BLUEGRASS

PROVIDE MIXTURE COMPOSED OF GRASS SEED AND FERTILIZER IN PERCENTAGES AS FOLLOWS:

GRASS SEED: 90 LBS. PER ACRE
FERTILIZER: 16-16-16 TIMED RELEASE COMPOSITION, 300 LBS. PER ACRE

ALL SEEDING OF SLOPES SHALL BE DONE IN ACCORDANCE WITH THE W.S.D.O.T. STANDARD SPECIFICATIONS, SEC. 8-01.

NOTE:

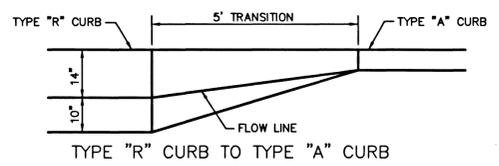
DUE TO THE PROPOSAL TO UTILIZE 8 INCHES VERSUS 6 INCHES OF PONDING WATER QUALITY TREATMENT DEPTH BETWEEN THE POND BOTTOM AND DRYWELL RIM ELEVATION, PRIOR TO FINAL CERTIFICATION OF THESE ROAD AND DRAINAGE FACILITIES, CATION EXCHANGE CAPACITY (CEC) TESTING WILL NEED TO BE PERFORMED ACCORDING TO THE PROCEDURE AS DESCRIBED ON PAGE 5-5 OF THE SPOKANE COUNTY GUIDELINES FOR STORMWATER MANAGEMENT. SHOULD THE CEC RESULTS INDICATE THAT THE SOIL IS NOT SUITABLE FOR STORMWATER TREATMENT, THE DESIGN ENGINEER HAS TWO OPTIONS: 1) REVISE AND RESUBMIT THE ROAD AND DRAINAGE PLANS, INDICATING THAT THE REQUIRED POND BOTTOM AREA (NECESSARY TO ACHIEVE THE REQUIRED 208 VOLUME BASED UPON A 6" DEPTH) IS PROVIDED; OR 2) APPROPRIATELY AMEND THE TOP 6 INCHES OF TOPSOIL UNTIL CEC TESTING INDICATES THAT THE COMPOSITION OF THE SOIL IS SUITABLE FOR STORMWATER TREATMENT.

NAVD'88 DATUM
NAVD 88 BASED ON A FOUND CHISELED "+*" AT EASTERLY RETURN ON TOP OF CURB AT 23RD AND BURNS. ELEVATION=2055.19

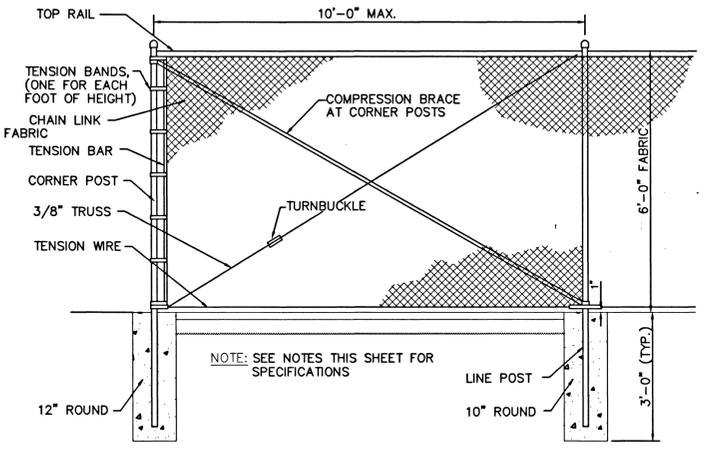
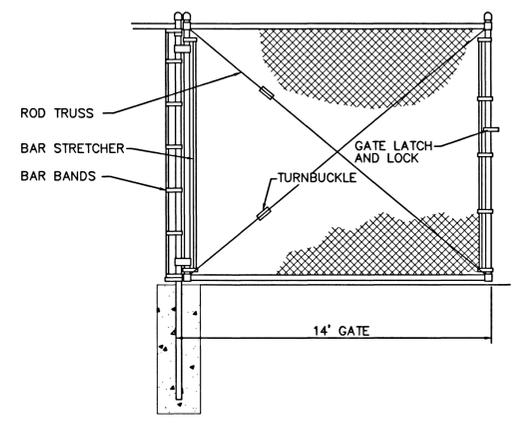
UNDERGROUND SERVICE ALERT
ONE-CALL NUMBER
456-8000
CALL TWO BUSINESS DAYS BEFORE YOU DIG

CONSTRUCTION NOTES

- INSTALL SPOKANE COUNTY TYPE 1 INLET WITH TYPE 2 GRATE PER SPOKANE COUNTY STD PLANS B-5 AND B-13. STA=10+61.60, 10.26' RT, RIM=2095.67.
- EMERGENCY OVERFLOW-INSTALL SPOKANE COUNTY TYPE 1 INLET WITH TYPE 2 GRATE PER SPOKANE COUNTY STD PLANS B-5 AND B-13. STA=10+44.25, 37.19' RT, RIM=2096.50.
- EXISTING SPOKANE COUNTY TYPE B DRYWELL. PROVIDE AND INSTALL SOLID LID PER SPOKANE COUNTY STANDARD PLAN B-15.
- CHAIN LINK FENCE AROUND THE PERIMETER OF POND. SEE DETAIL 10 THIS SHEET.

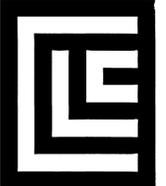


CURB TRANSITION "R" TO "A" DETAIL
NOT TO SCALE



FENCE DETAIL
NOT TO SCALE

SPOKANE COUNTY ENGINEERS OFFICE
OFFICIAL PUBLIC DOCUMENT ORIGINAL
CONSTRUCTION PLANS
PROJECT # 0421
SCALE AS SHOWN
PROJECT LANE MILES PUBLIC
SANDY RIDGE P.U.D.
SPOKANE COUNTY, WASHINGTON
FOR RECORD AND AS SHOWN IN THE RECORD DRAWINGS. ALL UTILITIES ARE RECORDED PRIOR TO CONSTRUCTION. PERMIT REQUIRED FOR BUSINESS DAYS PRIOR TO CONSTRUCTION.
NOTIFY PERMIT ENGINEER & BUSINESS DAYS PRIOR TO CONSTRUCTION.



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ARCHITECTURE
ENGINEERING PLANNING
LANDSCAPE ARCHITECTURE
LAND SURVEYING

STREET PLANS
SANDY RIDGE P.U.D.
STANDARD DETAILS
SPOKANE COUNTY, WASHINGTON



PREPARED UNDER THE DIRECT SUPERVISION OF JOHN F. BAYERS, P.E. WASHINGTON REGISTRATION NO. 36212 FOR AND ON BEHALF OF CLC ASSOCIATES

DATE: 06/10/03
DESCRIPTION: ORIGINAL PREPARATION
10/16/03 SECOND SUBMITTAL

PROJECT #: S010421
DRAWN BY: REP
DESIGNED BY: SKM
CHECKED BY: JFB

Bryan Walker
DEVELOPER'S APPROVAL

11-26-03
DATE