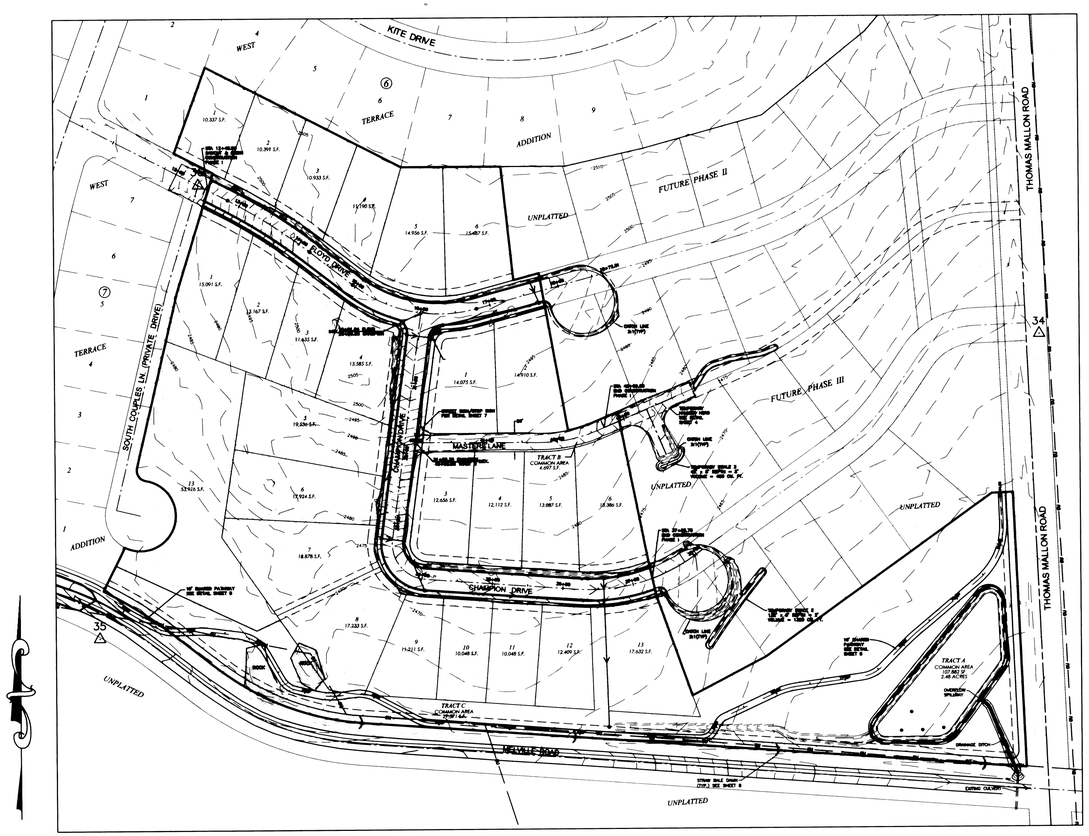
CONSTRUCTION PLANS FOR
WEST TERRACE FIFTH ADDITION - PHASE I
NE 1/4 OF SECTION 18, TOWNSHIP 24 NORTH RANGE 42 EAST W.M., SPOKANE COUNTY, WASHINGTON

GENERAL NOTES

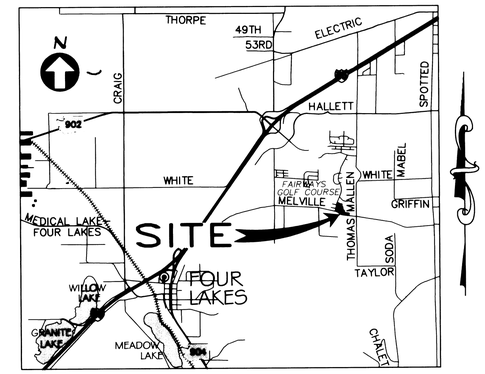
1. ALL WORK AND MATERIALS SHALL BE IN CONFORMANCE WITH THE "SPOKANE COUNTY STANDARDS FOR ROAD AND SEWER CONSTRUCTION" AUGUST 2006, AND AS AMENDED.
2. PRIOR TO SITE CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR LOCATING UNDERGROUND UTILITIES. CALL THE UNDERGROUND UTILITY LOCATION SERVICE AT 1-800-424-5555 BEFORE YOU DIG.
3. LOCATIONS OF EXISTING UTILITIES SHOWN IN THE PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES. ANY CONFLICTING UTILITIES SHALL BE RELOCATED PRIOR TO CONSTRUCTION OF PARKING AREAS AND DRAINAGE FACILITIES.
4. THE CONTRACTOR IS REQUIRED TO HAVE A COMPLETE SET OF THE ACCEPTED 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.
6. THE CONTRACTOR SHOULD TAKE PRECAUTIONS TO PROTECT THE INFILTRATION CAPACITY OF STORM WATER FACILITIES (E.G. LINE THE FACILITY WITH FILTER FABRIC, OVER-EXCAVATE UPON COMPLETION OF THE INFRASTRUCTURE, ETC.)
7. DURING CONSTRUCTION THE CONTRACTOR/DEVELOPER SHALL BE RESPONSIBLE FOR PROVIDING CONTINUOUS DUST CONTROL THROUGH THE USE OF WATER TRUCKS, SPRINKLING OR OTHER APPROVED METHODS.
8. THE CONTRACTOR SHALL OVEREXCAVATE BELOW PLANNED DRYWELL BOTTOMS TO REMOVE ANY LOW PERMEABILITY LAYERS ENCOUNTERED. OVEREXCAVATION SHALL BE BACKFILLED WITH DRAIN ROCK.
9. OWNER SHALL IRRIGATE GRASS AREAS USED FOR STORMWATER TREATMENT AS NECESSARY TO ESTABLISH AND MAINTAIN VEGETATION.

LEGEND

INTX	= INTERSECTION
CR	= CURB RETURN
TC	= TOP OF CURB
FL	= FLOW LINE
ER	= EDGE OF ROAD
BOC	= BEGINNING OF CONSTRUCTION
EOC	= END OF CONSTRUCTION
-O-	= UTILITY POLE
	= UTILITY SIGN
	= PROPOSED STREET SIGN
	= GUY WIRE
	= TRANSFORMER
	= NEW SEWER MANHOLE
	= EXISTING SEWER MANHOLE
	= STORM DRAIN
	= SANITARY SEWER SERVICE
—SS—	= SANITARY SEWER
	= WATER SERVICE
—W—	= WATER LINE
—SD—	= STORM DRAIN
—OU—	= OVERHEAD ELECTRIC



SITE MAP
SCALE: 1"=100'



VICINITY MAP
NOT TO SCALE

DRAWING INDEX

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SPOKANE COUNTY ENGINEERS OFFICE
OFFICIAL PUBLIC DOCUMENT ORIGINAL
CONSTRUCTION PLANS
PROJECT #: B-2040
DATE ACCEPTED: 07-22-16
ACCEPTANCE EXPIRES: 07-22-18
PROJECT LANE MILES PUBLIC: 1.31
PROJECT LANE MILES PRIVATE: 1.14
CONSTRUCTION DOCUMENTATION AND CERTIFIED RECORD DRAWINGS, "AS-BUILTS" ARE REQUIRED PRIOR TO COUNTY ACCEPTANCE AND ESTABLISHMENT OF THE ROADS AND DRAINAGE FACILITIES FOR MAINTENANCE.
PERMIT REQUIRED! (509) 477-3600
NOTIFY PERMIT ENGINEER 2 BUSINESS DAYS PRIOR TO CONSTRUCTION

* Pedestrian Pathway to be completed @ Ph. 2; See Sht. 7 for Plan + paving Section.

SHEET 1 OF 9

TEMPORARY BENCH MARK (TBM)

TBM-1 60D NAIL ON SOUTH SIDE OF MELVILLE ROAD APPROXIMATELY 205' SOUTH EAST OF INTERSECTION OF MELVILLE ROAD AND WEST TERRACE DRIVE
ELEV = 2457.86

TBM-2 NORTH EDGE OF MANHOLE RIM INTX OF FLOYD DRIVE AND WEST TERRACE DRIVE
ELEV = 2473.60

HORIZONTAL/VERTICAL CONTROL POINTS

Point	Northing	Easting	Elevation	Description
34	8861.268	10068.691	2452.85	60D Nail
35	8436.648	8735.502	2457.86	60D Nail
36	9077.883	8878.866	2489.20	Rebar

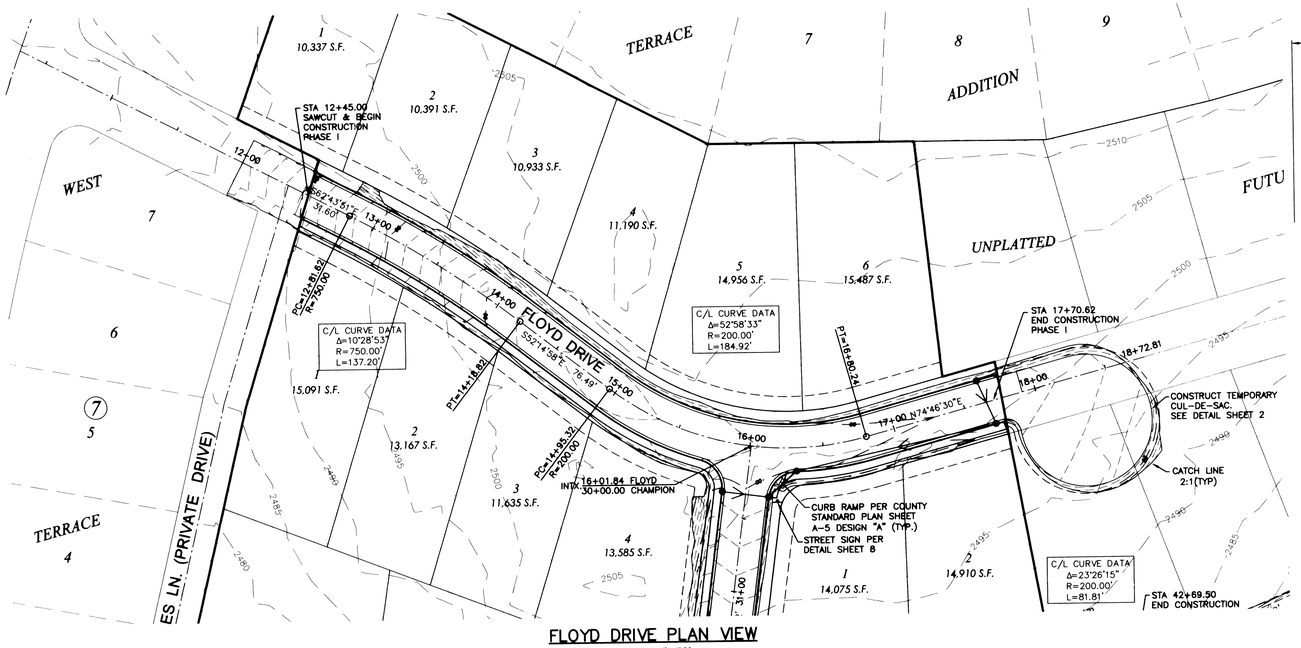
ENGINEER'S CERTIFICATE
THE DESIGN IMPROVEMENTS SHOWN IN THIS SET OF PLANS AND CALCULATIONS CONFORM TO THE APPLICABLE EDITIONS OF THE SPOKANE COUNTY ROAD STANDARDS AND THE SPOKANE REGIONAL STORMWATER MANUAL.

GREGORY S. MILLER
STATE OF WASHINGTON
37450
PROFESSIONAL ENGINEER
07/22/16

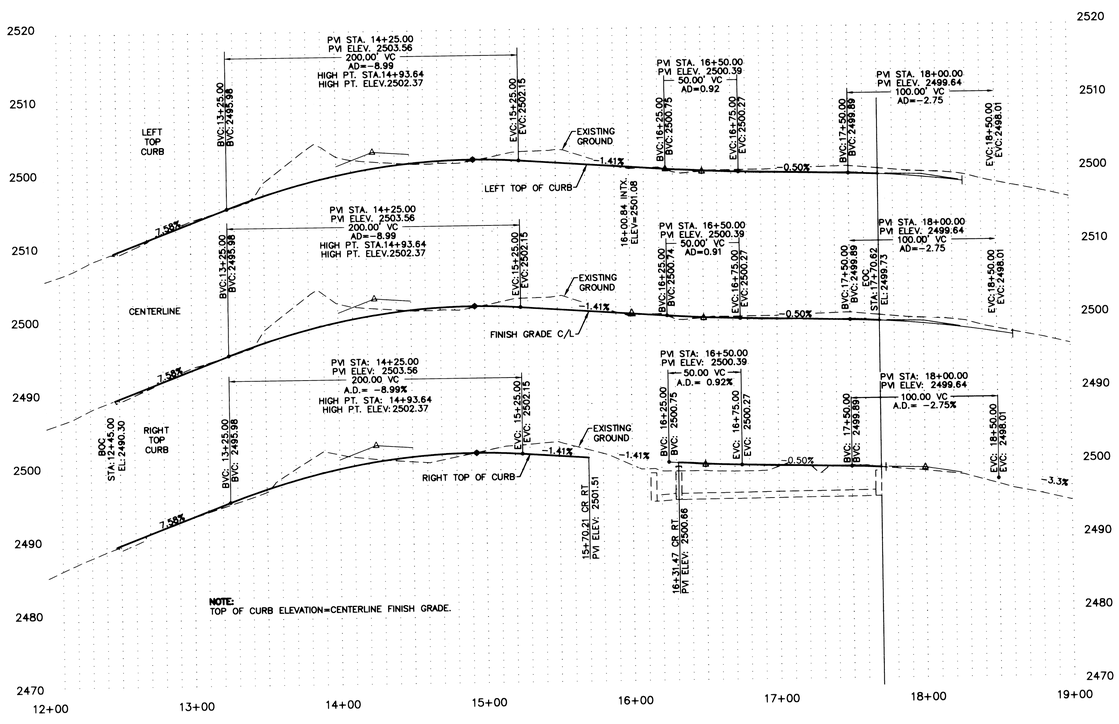
CALL BEFORE YOU DIG: 811

Adams & Clark, Inc.
1720 W. Fourth Ave.
Spokane, WA 99201-5302
(509) 747-4600 F(509) 747-8913
www.adamsandclark.com
Project No. 2014-01-084

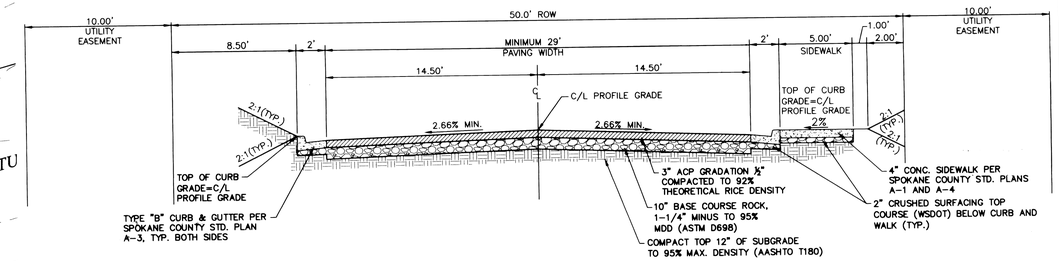
ROAD.DWG JDH 07-27-2016 8:16 AM



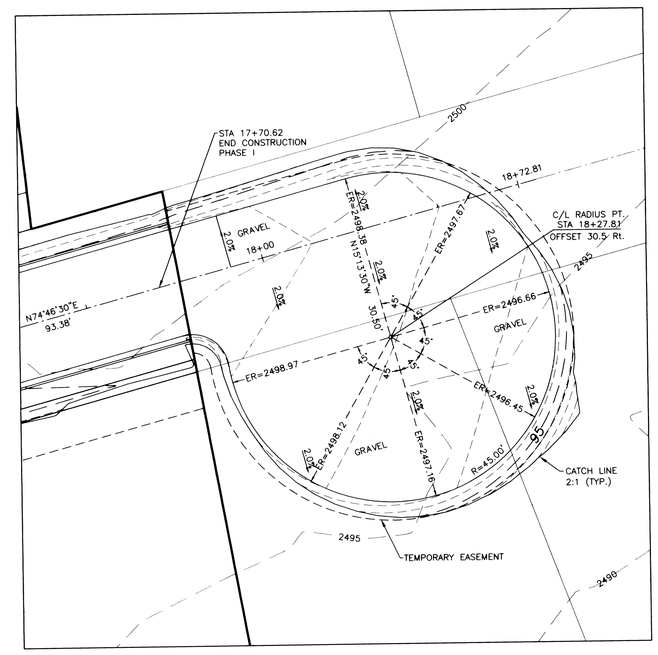
FLOYD DRIVE PLAN VIEW
SCALE: 1"=50'



FLOYD DRIVE STA 12+75 TO 18+50
SCALE: 1"=50' HORZ.
1"=10' VERT.



TYPICAL ROAD SECTION
1"=10'



TEMORARY GRAVEL CUL-DE-SAC DETAIL
1"=20'

0 25 50 100
SCALE: 1" = 50'

LEGEND

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- CR = CURB RETURN
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SPOKANE COUNTY ENGINEERS OFFICE
OFFICIAL PUBLIC DOCUMENT ORIGINAL
CONSTRUCTION PLANS
PROJECT #: 2-1040
DATE ACCEPTED: 07-11-16
ACCEPTANCE EXPIRES: 07-11-18
PROJECT LANE MILES PUBLIC: .20
PROJECT LANE MILES PRIVATE: 0
CONSTRUCTION DOCUMENTATION AND CERTIFIED RECORD DRAWINGS, "AS-BUILTS" ARE REQUIRED PRIOR TO COUNTY ACCEPTANCE AND ESTABLISHMENT OF THE ROADS AND DRAINAGE FACILITIES FOR MAINTENANCE.
PERMIT REQUIRED! (509) 477-3600
NOTIFY PERMIT ENGINEER 2 BUSINESS DAYS PRIOR TO CONSTRUCTION

GREGORY S. MILLER STATE OF WASHINGTON 37450 PROFESSIONAL ENGINEER
Gregory S. Miller 8/22/16

SHEET 2 OF 9

CALL BEFORE YOU DIG: 811

BY	REVISIONS	DATE	PROJ.	FROM	AS BUILT	TO	ACCEPT

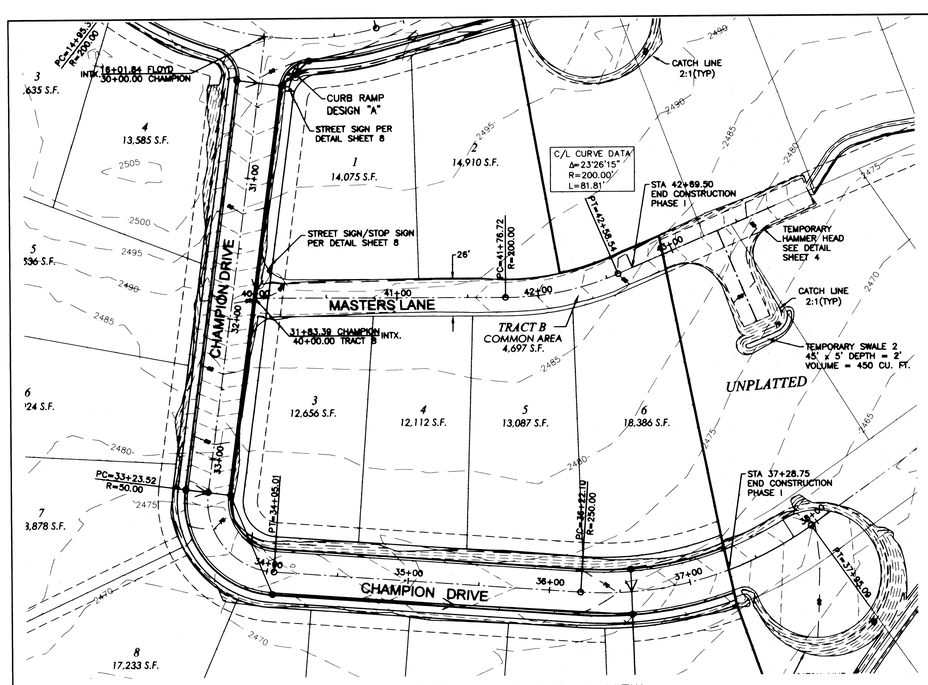
BENCH MARK DATUM	SCALE		DATE	STAFF
BM: NAVD88	HORIZONTAL	50'	8/12/15	DRAWN JDH
ELEVATION: 2457.86'	VERTICAL	10'	8/12/15	CHECKED GM
LOCATION: T.B.M. #1				APPROVED

ADAMS & CLARK, Inc.
www.adamsandclark.com
1720 W. Fourth Ave.
Spokane, WA 99201
(509) 747-4600 F(509) 747-8913

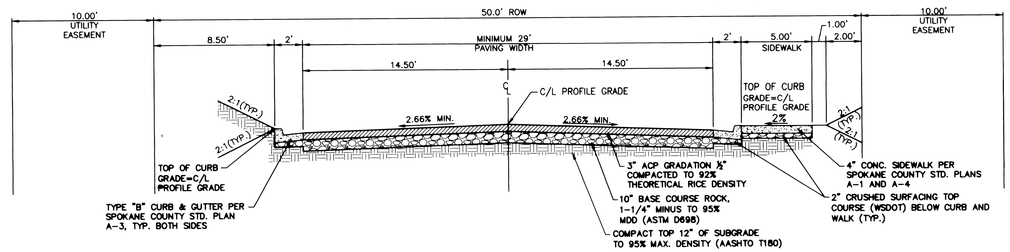
FLOYD DRIVE
STA 12+45.00 TO 17+70.62
PLAN AND PROFILE
WEST TERRACE FIFTH ADDITION PHASE I

TYPE OF IMPROVEMENT: STREET

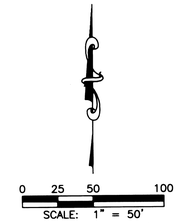
PROJECT NUMBER	PLAN NUMBER
2014-01-084	

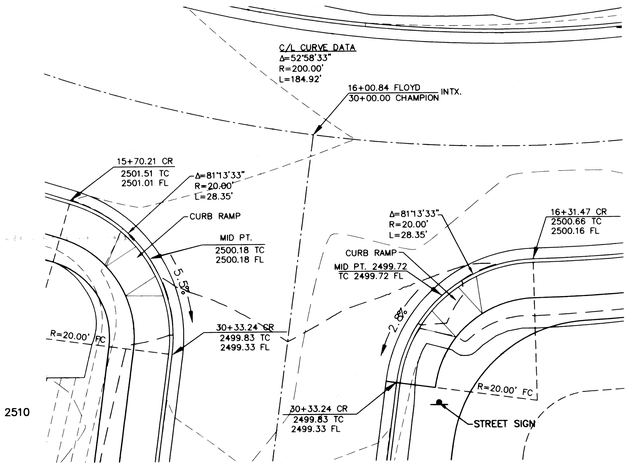


CHAMPION DRIVE PLAN VIEW
SCALE: 1"=50'



TYPICAL ROAD SECTION 1"=10'





FLOYD DR./CHAMPION DR.
1"=10'

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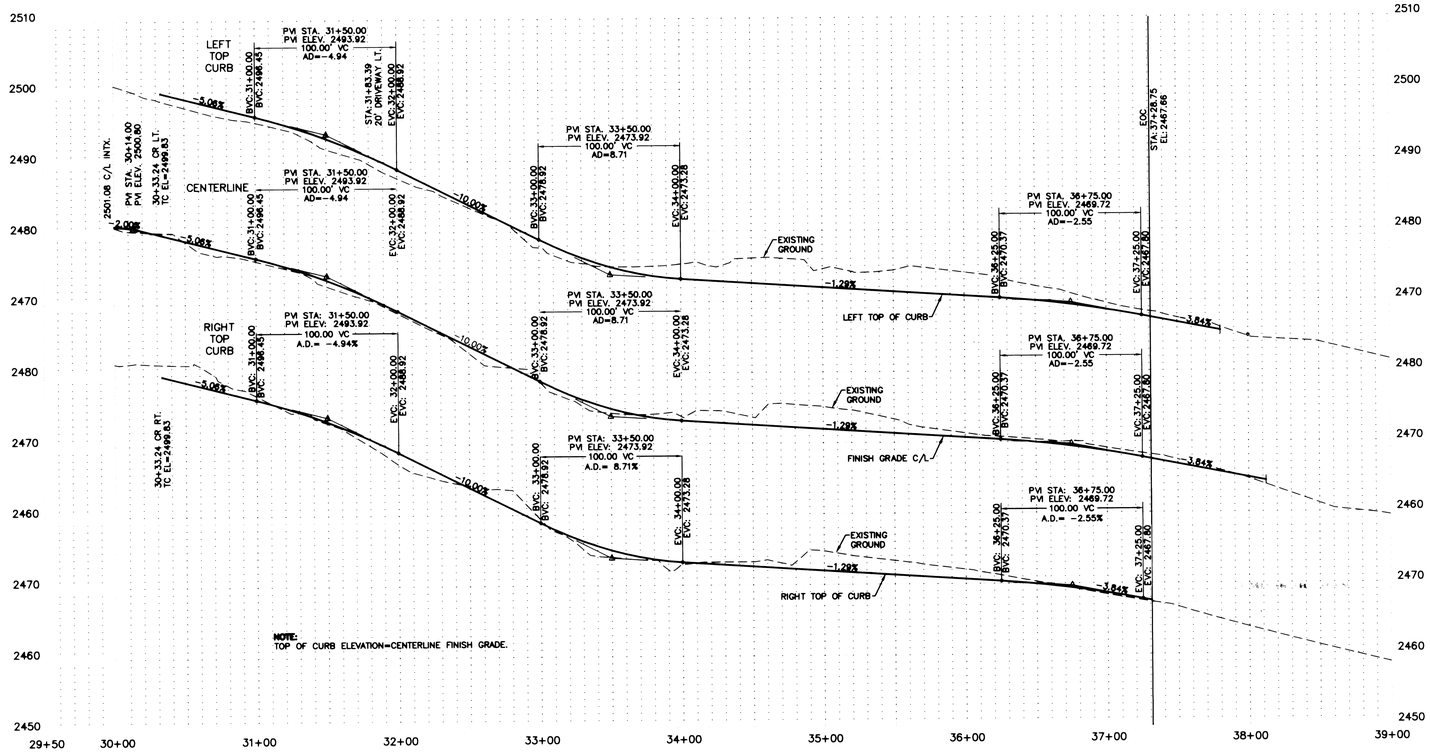
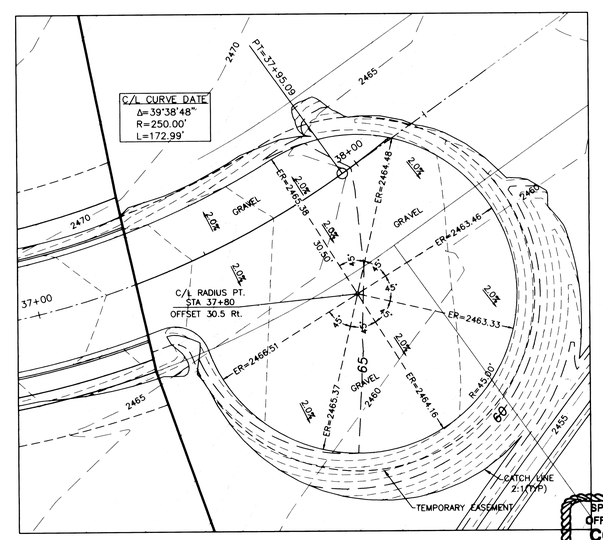


NOTE:
TOP OF CURB ELEVATION=CENTERLINE FINISH GRADE.

CHAMPION DRIVE STA 30+16.86 TO 37+46.20
SCALE: 1"=50' HORZ.
1"=10' VERT.



TEMORARY GRAVEL CUL-DE-SAC DETAIL
1"=20'

GREGORY S. MILLER STATE OF WASHINGTON 37450 PROFESSIONAL ENGINEER
4/22/16

SPOKANE COUNTY ENGINEERS OFFICE
OFFICIAL PUBLIC DOCUMENT ORIGINAL
CONSTRUCTION PLANS
PROJECT #: P-20040
DATE ACCEPTED: 07-24-16
ACCEPTANCE EXPIRES: 01-24-18
PROJECT LANE MILES PUBLIC: 0.31
PROJECT LANE MILES PRIVATE: 0.05
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SHEET 3 OF 9

CALL BEFORE YOU DIG: 811

BY	REVISIONS	DATE	PROJ.	FROM	AS BUILT	TO	ACCEPT

BENCH MARK DATUM	SCALE	DATE	STAFF
BM: NAVD88	HORIZONTAL 50'	8/12/15	DRAWN JDH
ELEVATION: 2457.86'	VERTICAL 10'	8/12/15	CHECKED GM
LOCATION: T.B.M. #1			APPROVED

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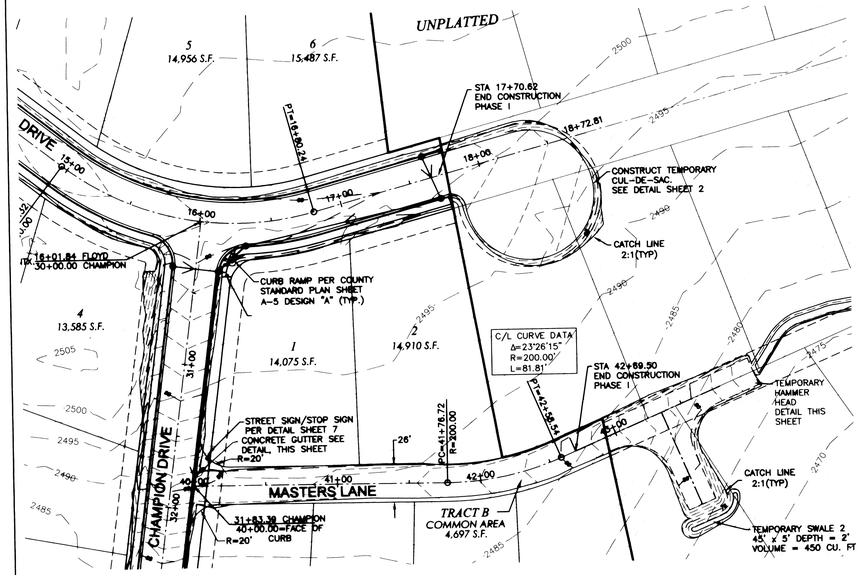
Spokane, WA 99201
(509) 747-4600 F(509) 747-8913

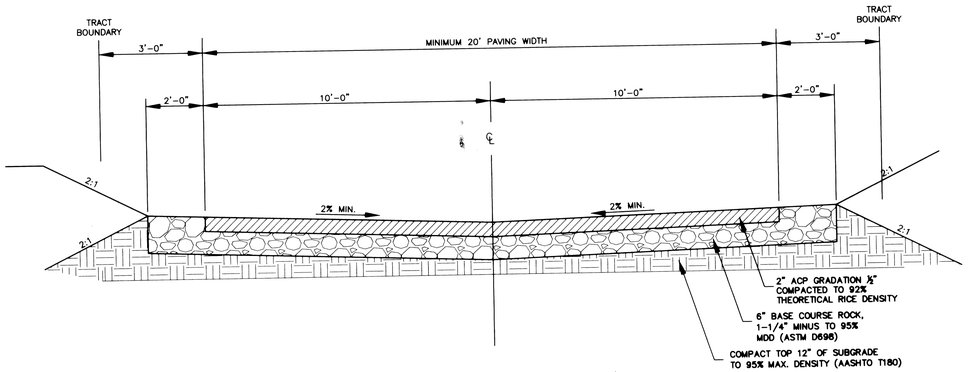
CHAMPION DRIVE
STA 30+00.00 TO 38+12.19
PLAN AND PROFILE
WEST TERRACE FIFTH ADDITION PHASE I

TYPE OF IMPROVEMENT: STREET	
PROJECT NUMBER	PLAN NUMBER
2014-01-084	



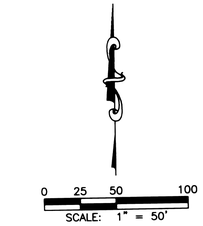
TRACT B PRIVATE DRIVE PLAN VIEW

SCALE: 1"=50' HORZ.



TYPICAL PRIVATE DRIVE SECTION

1"=5'



LEGEND

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- SS = SANITARY SEWER
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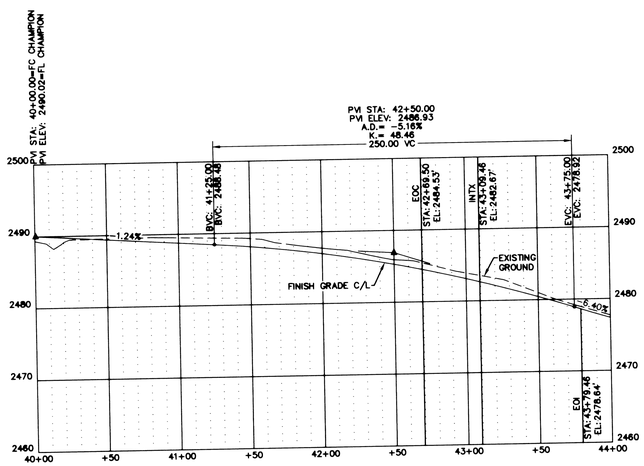
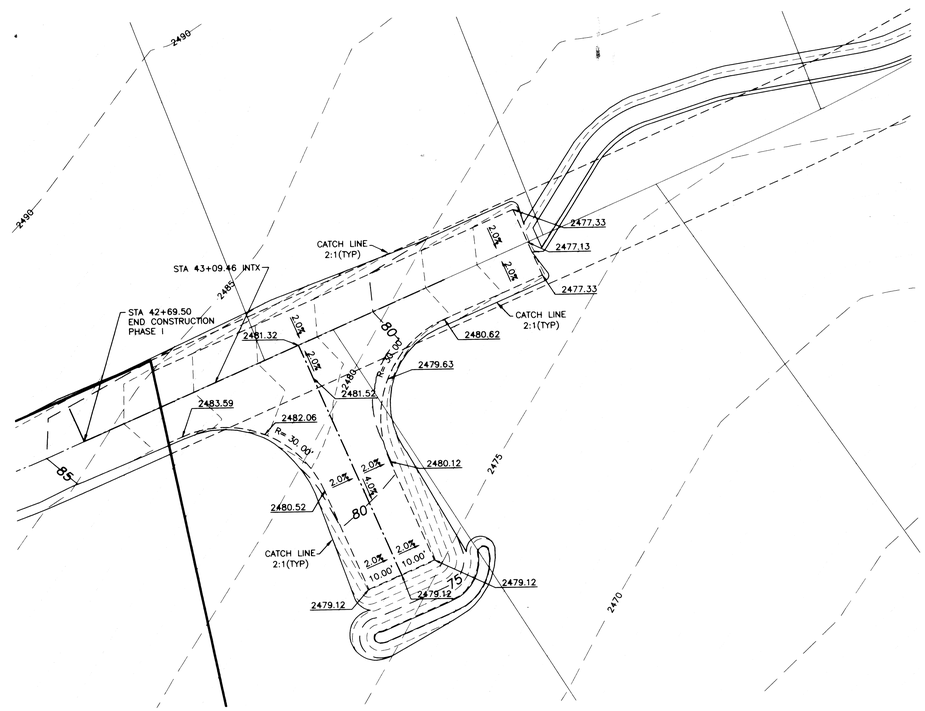
- OU = OVERHEAD ELECTRIC



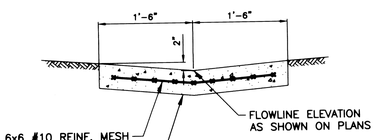
TRACT B STA 40+00.05 TO 44+62.50

SCALE: 1"=50' HORZ.
1"=10' VERT.



TYPICAL TEMPORARY HAMMER HEAD

1"=20'



CONCRETE GUTTER DETAIL

N.T.S.

SPOKANE COUNTY ENGINEERS OFFICE
OFFICIAL PUBLIC DOCUMENT ORIGINAL
CONSTRUCTION PLANS
PROJECT #: E-1248
DATE ACCEPTED: 01-22-16
ACCEPTANCE EXPIRES: 01-22-18
PROJECT LANE MILES PUBLIC: 0
PROJECT LANE MILES PRIVATE: .14
CONSTRUCTION DOCUMENTATION AND CERTIFIED RECORD DRAWINGS, "AS-BUILTS" ARE REQUIRED PRIOR TO COUNTY ACCEPTANCE AND ESTABLISHMENT OF THE ROADS AND DRAINAGE FACILITIES FOR MAINTENANCE.
PERMIT REQUIRED! (509) 477-3600
NOTIFY PERMIT ENGINEER 2 BUSINESS DAYS PRIOR TO CONSTRUCTION

GREGORY S. MILLER
STATE OF WASHINGTON
37450
PROFESSIONAL ENGINEER
Gregory S. Miller 1/22/16

SHEET 4 OF 9

CALL BEFORE YOU DIG: 811

BY	REVISIONS	DATE	PROJ.	FROM	AS BUILT	TO	ACCEPT

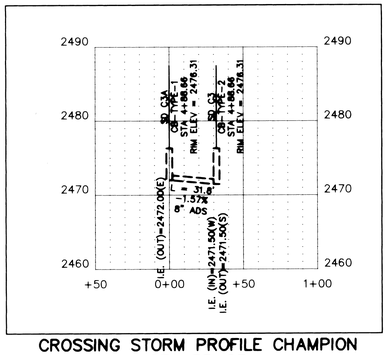
BENCH MARK DATUM	SCALE	DATE	STAFF
BM: NAVD88	HORIZONTAL 50'	3/12/15	DRAWN JDH
ELEVATION: 2457.86'	VERTICAL 10'	3/12/15	CHECKED GM
LOCATION: T.B.M. #1			APPROVED

ADAMS & CLARK, Inc.
www.adamsandclark.com
1720 W. Fourth Ave.
Spokane, WA 99201
(509) 747-4800 F(509) 747-8913

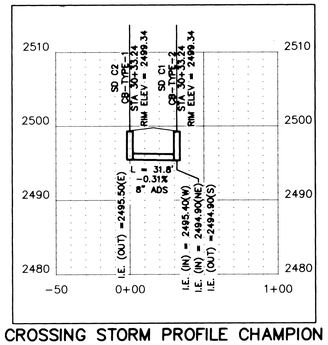
TRACT "B" PRIVATE DRIVEWAY

STA 40+00 TO 43+79
PLAN AND PROFILE
WEST TERRACE FIFTH ADDITION PHASE I

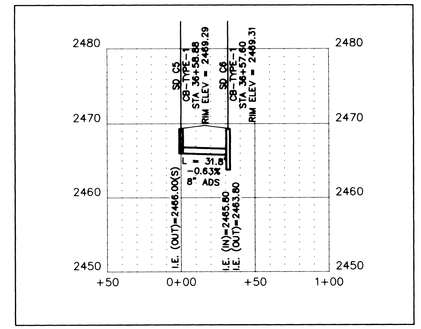
TYPE OF IMPROVEMENT: STREET	
PROJECT NUMBER	PLAN NUMBER
2014-01-084	



CROSSING STORM PROFILE CHAMPION
STA 33+23
SCALE: 1"=50' HORZ.
1"=10' VERT.



CROSSING STORM PROFILE CHAMPION
STA: 30+33
SCALE: 1"=50' HORZ.
1"=10' VERT.



CROSSING STORM PROFILE CHAMPION
STA 36+58
SCALE: 1"=50' HORZ.
1"=10' VERT.

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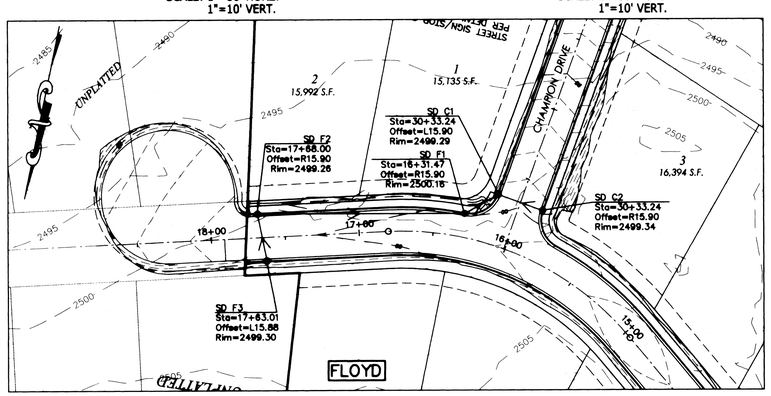

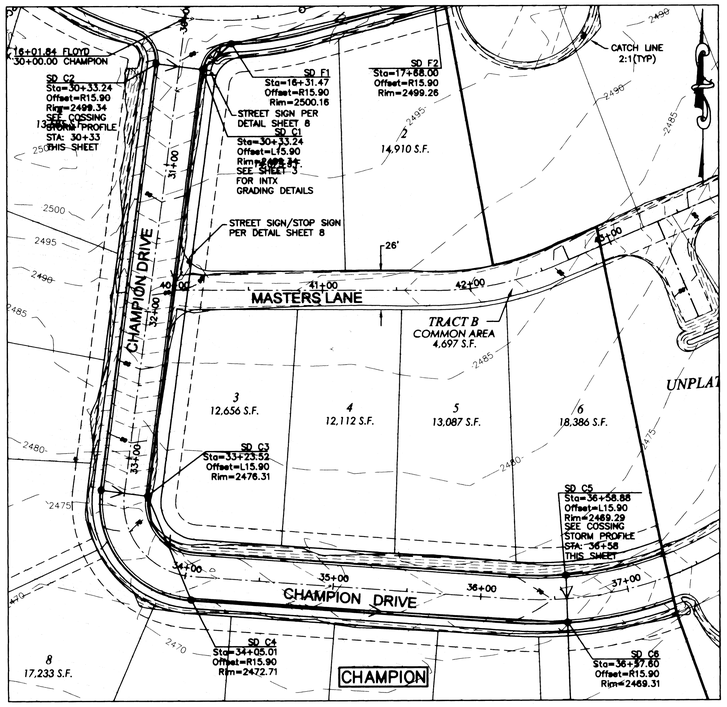

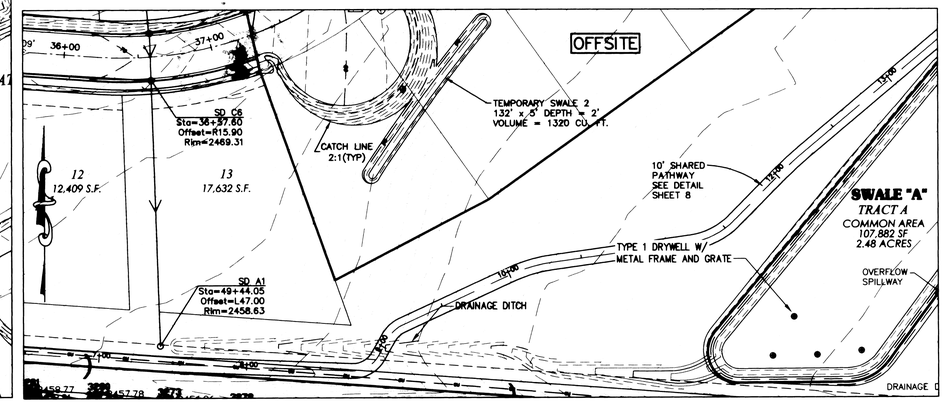

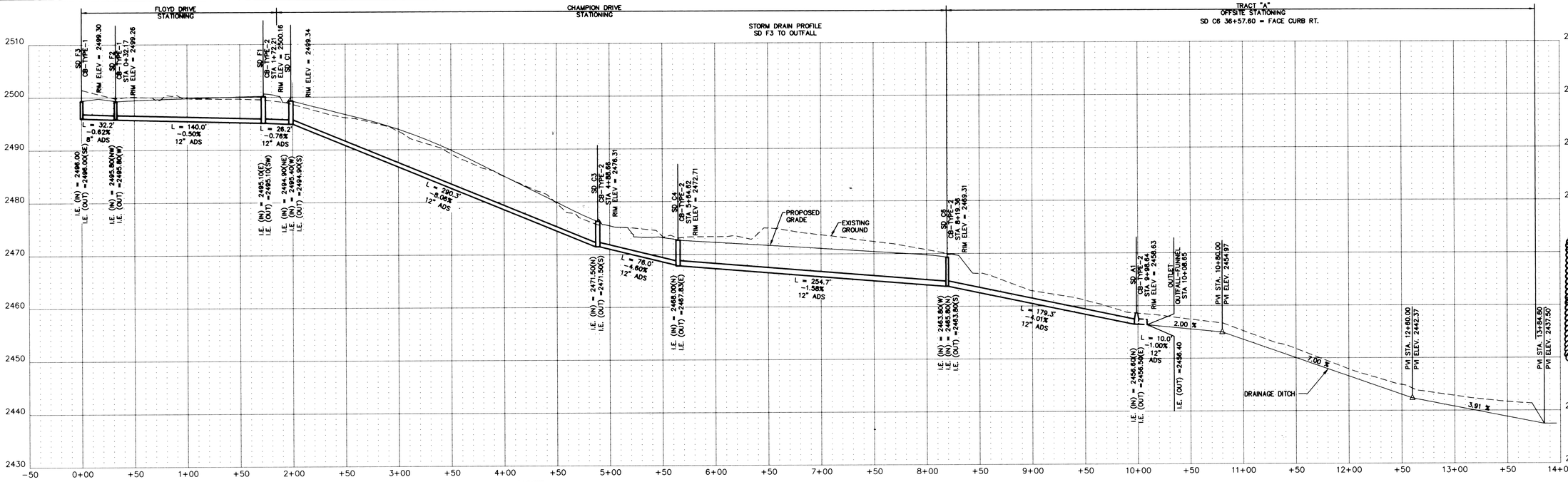

SPOKANE COUNTY ENGINEERS OFFICE
OFFICIAL PUBLIC DOCUMENT ORIGINAL
CONSTRUCTION PLANS
PROJECT #: 2-1040
DATE ACCEPTED: 07-27-16
ACCEPTANCE EXPIRES: 07-27-18
☑ PROJECT LANE MILES PUBLIC: 0
PROJECT LANE MILES PRIVATE: 0
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NOTIFY PERMIT ENGINEER 2 BUSINESS DAYS PRIOR TO CONSTRUCTION

GREGORY S. MILLER
STATE OF WASHINGTON
37450
PROFESSIONAL ENGINEER
8/22/16

NOTE

ALL STORMWATER PIPE SHALL BE ADS N-12 PE DRAIN PIPE (OR APPROVED EQUAL)

0 25 50 100
SCALE: 1" = 50'

SHEET 5 OF 9

CALL BEFORE YOU DIG: 811

BY	REVISIONS	DATE	PROJ.	FROM	AS BUILT	TO	ACCEPT

BENCH MARK DATUM	SCALE	DATE	STAFF
BM: NAVD88	HORIZONTAL 50'	8/12/15	DRAWN JDH
ELEVATION: 2457.86'	VERTICAL 10'	8/12/15	CHECKED GM
LOCATION: T.B.M. #1			APPROVED

ADAMS & CLARK, Inc.
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Spokane, WA 99201
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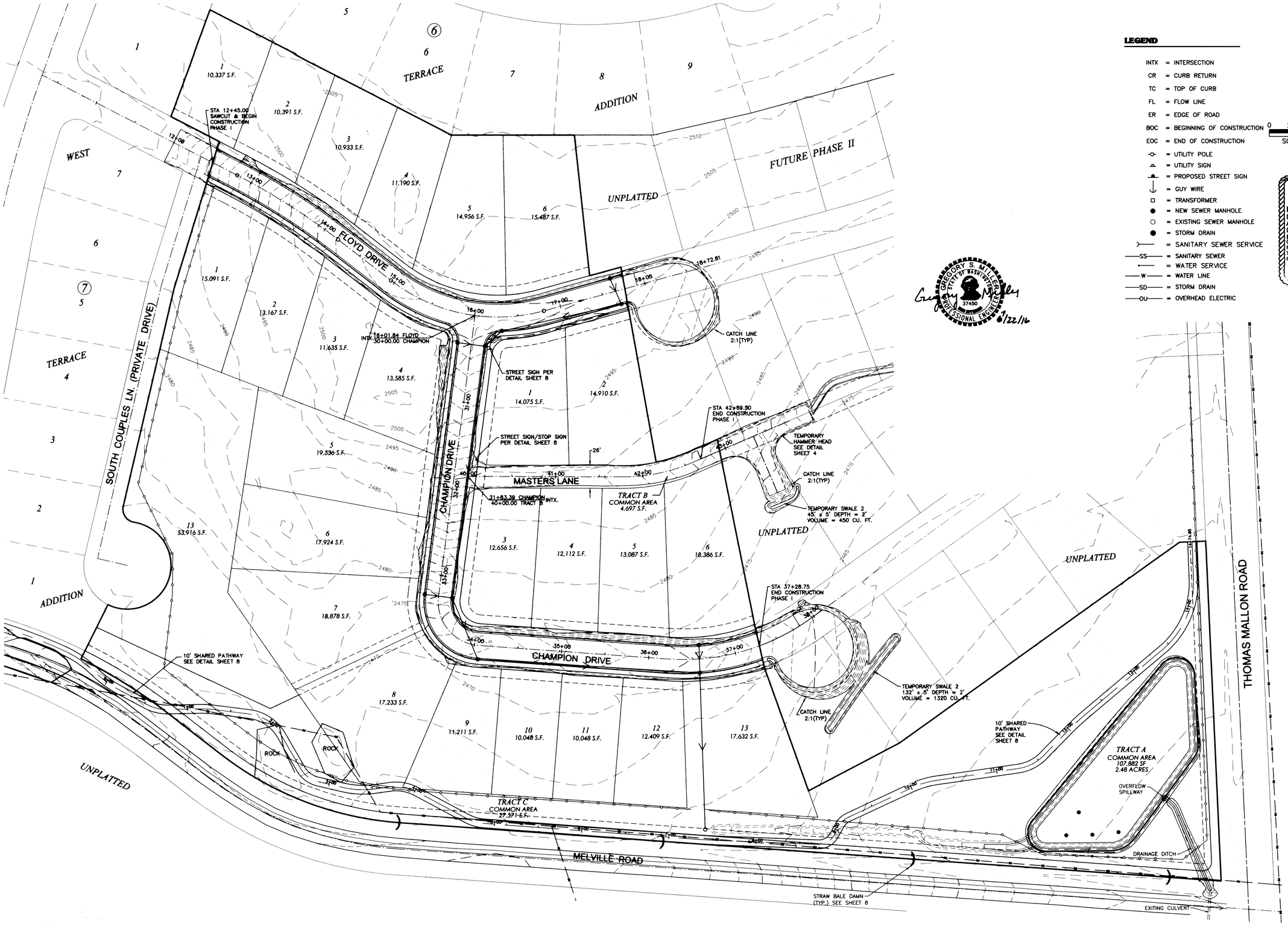
STORM DRAIN PLAN
SD F3 TO OUTFALL
GRADING & DRAINAGE
WEST TERRACE FIFTH ADDITION PHASE I

TYPE OF IMPROVEMENT: STORM

PROJECT NUMBER	PLAN NUMBER
2014-01-084	



LEGEND

INTX	= INTERSECTION
CR	= CURB RETURN
TC	= TOP OF CURB
FL	= FLOW LINE
ER	= EDGE OF ROAD
BOC	= BEGINNING OF CONSTRUCTION
EOC	= END OF CONSTRUCTION
	= UTILITY POLE
	= UTILITY SIGN
	= PROPOSED STREET SIGN
	= GUY WIRE
	= TRANSFORMER
	= NEW SEWER MANHOLE
	= EXISTING SEWER MANHOLE
	= STORM DRAIN
	= SANITARY SEWER SERVICE
—SS—	= SANITARY SEWER
	= WATER SERVICE
—W—	= WATER LINE
—SD—	= STORM DRAIN
—OU—	= OVERHEAD ELECTRIC

0 25 50 100
SCALE: 1" = 50'

GREGORY S. MILLER STATE OF WASHINGTON 37450 PROFESSIONAL ENGINEER
8/22/16

SPOKANE COUNTY ENGINEERS OFFICE
OFFICIAL PUBLIC DOCUMENT ORIGINAL
CONSTRUCTION PLANS
PROJECT #: P-2040
DATE ACCEPTED: 01-27-16
ACCEPTANCE EXPIRES: 01-27-18
PROJECT LANE MILES PUBLIC: 0
PROJECT LANE MILES PRIVATE: 0
CONSTRUCTION DOCUMENTATION AND CERTIFIED RECORD DRAWINGS, "AS-BUILTS" ARE REQUIRED PRIOR TO COUNTY ACCEPTANCE AND ESTABLISHMENT OF THE ROADS AND DRAINAGE FACILITIES FOR MAINTENANCE.
PERMIT REQUIRED! (509) 477-3600
NOTIFY PERMIT ENGINEER 2 BUSINESS DAYS PRIOR TO CONSTRUCTION

SHEET 6 OF 9

CALL BEFORE YOU DIG: 811

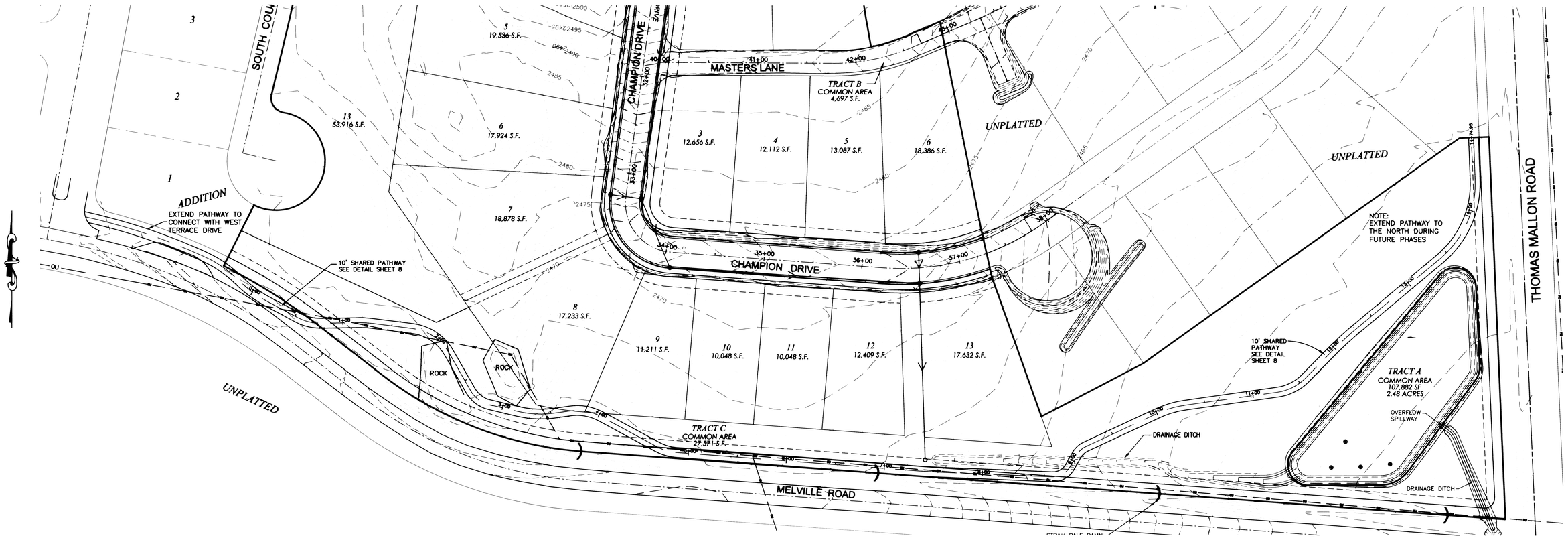
BY	REVISIONS	DATE	PROJ.	FROM	AS BUILT	TO	ACCEPT

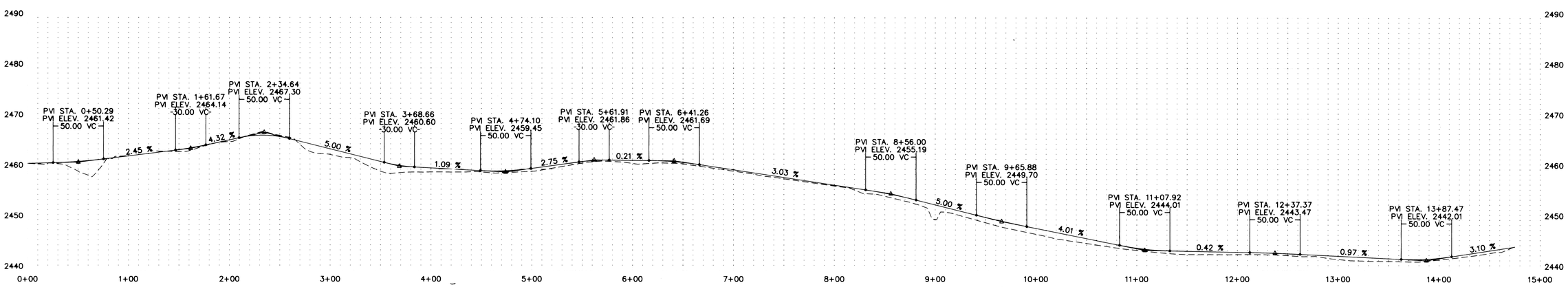
BENCH MARK DATUM	SCALE	DATE	STAFF
BM: NAVD88	HORIZONTAL 50'	8/12/15	DRAWN JDH
ELEVATION: 2457.86'	VERTICAL 10'	8/12/15	CHECKED GM
LOCATION: T.B.M. #1			APPROVED

ADAMS & CLARK, Inc.
www.adamsandclark.com
1720 W. Fourth Ave.
Spokane, WA 99201
(509) 747-4800 F(509) 747-8913

GRADING & DRAINAGE PLAN
STA 46+30 TO 51+19.35
GRADING & DRAINAGE
WEST TERRACE FIFTH ADDITION PHASE I

TYPE OF IMPROVEMENT: GRADING	
PROJECT NUMBER	PLAN NUMBER
2014-01-084	





0 25 50 100
SCALE: 1" = 50'

SPOKANE COUNTY ENGINEERS OFFICE
OFFICIAL PUBLIC DOCUMENT ORIGINAL
CONSTRUCTION PLANS
PROJECT #: P-2040
DATE ACCEPTED: 07-28-16
ACCEPTANCE EXPIRES: 07-28-18
PROJECT LANE MILES PUBLIC: .28
PROJECT LANE MILES PRIVATE: 0
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GREGORY S. MILLER
STATE OF WASHINGTON
37450
PROFESSIONAL ENGINEER
8/22/16

SHEET 7 OF 9

CALL BEFORE YOU DIG: 811

BY	REVISIONS	DATE	PROJ.	FROM	AS BUILT	TO	ACCEPT

BENCH MARK DATUM	SCALE	DATE	STAFF
BM: NAVD88	HORIZONTAL 50'	8/12/15	DRAWN JDH
ELEVATION: 2457.86'	VERTICAL 10'	8/12/15	CHECKED GM
LOCATION: T.B.M. #1			APPROVED

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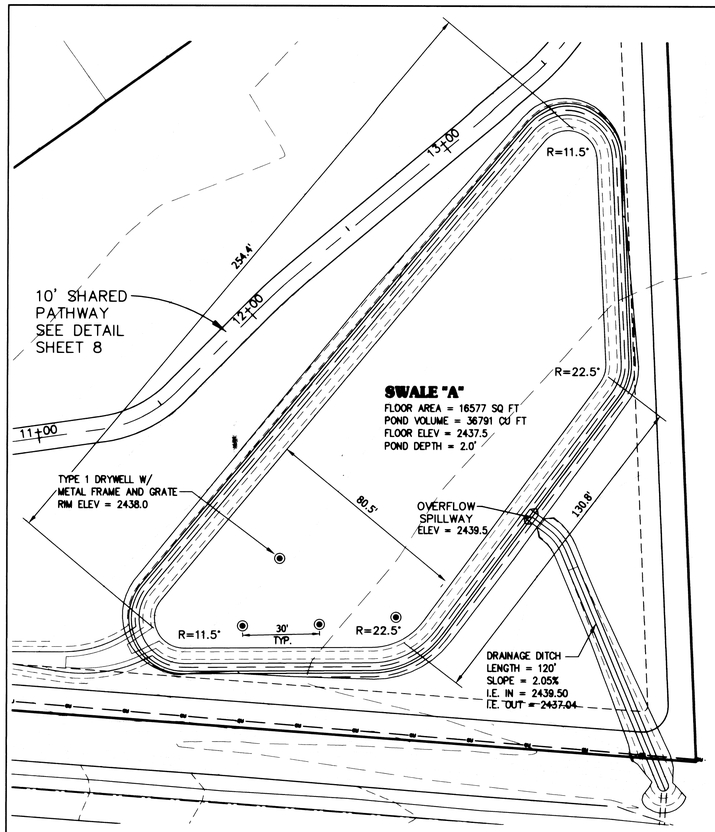
SHARED PEDESTRIAN PATH

ROAD AND DRAINAGE
WEST TERRACE FIFTH ADDITION PHASE I

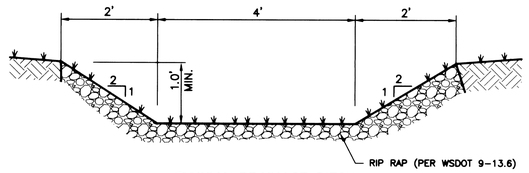
TYPE OF IMPROVEMENT: PATH

PROJECT NUMBER	PLAN NUMBER
2014-01-084	



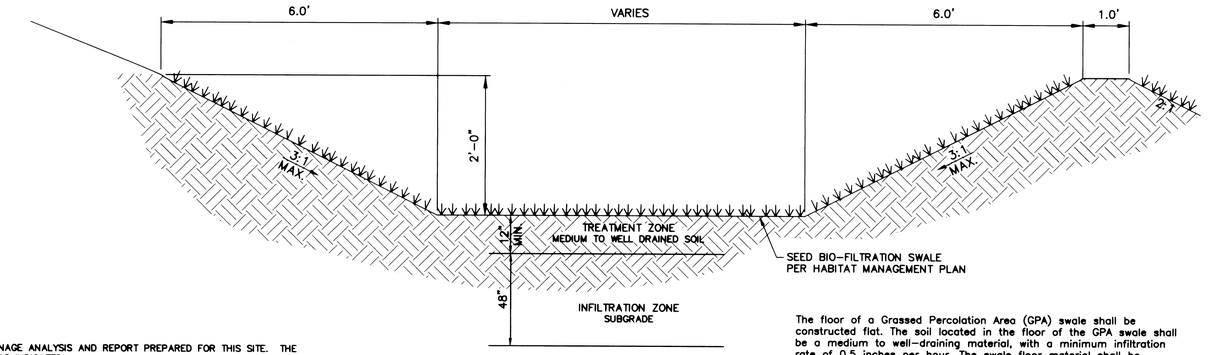
DRAINAGE SWALE

SCALE: 1"=20'



TYPICAL DRAINAGE DITCH

SCALE: NTS



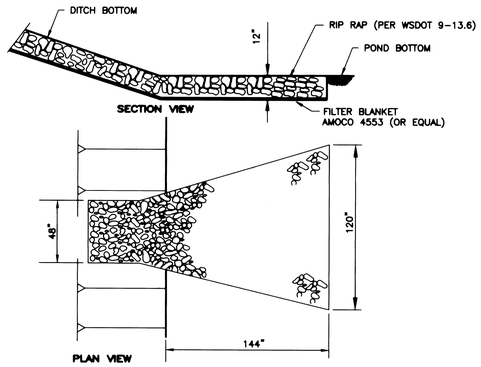
BIO-INFILTRATION SWALE DETAIL

SCALE: NTS

The floor of a Grassed Percolation Area (GPA) swale shall be constructed flat. 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 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. Seed swale with dryland grass mix per Appendix "E", Spokane Regional Stormwater Manual or similar.

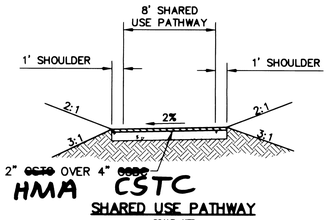
GENERAL SWALE CONSTRUCTION NOTES

1. THE INFILTRATION BASINS (SWALES) INDICATED ON THESE PLANS ARE AN INTEGRAL PART OF THE STORMWATER DRAINAGE ANALYSIS AND REPORT PREPARED FOR THIS SITE. THE CONTRACTOR SHALL TAKE GREAT CARE IN ACCURATELY ESTABLISHING THE SWALE BOTTOM AREAS AND ELEVATIONS AS INDICATED.
2. IT IS IMPERATIVE FOR THE PROPER FUNCTION OF THE INFILTRATION BASINS THAT THE TOPSOILS AND SUBGRADE BELOW THE SWALES BE AS UNCOMPACTED AS POSSIBLE (TO A MINIMUM DEPTH OF 60 INCHES). THE TOPSOILS SHOULD BE LOOSE AND FRIABLE.
3. THE INDICATED SWALE AREAS ARE TO BE STAKED AS EARLY AS POSSIBLE AND PROTECTED DURING CONSTRUCTION.
4. THE SWALE AREAS SHALL NOT BE USED AS CONSTRUCTION STAGING AREAS, I.E., PARKING OF EQUIPMENT, STORAGE AREA FOR MATERIALS, OR WASHOUT AREA FOR PAINTERS, SHEET ROCKERS, CONCRETE TRUCK WASHOUT, ETC.
5. IF SOD IS SELECTED AS BID ALTERNATE FOR THE SWALE BOTTOMS, THE SOD SELECTION IS TO BE OF A SIMILAR VARIETY TO THE SEED SPECIFICATION, AND SHALL BE KNOWN TO HAVE A LOW FRACTION OF FINE SILTS AND CLAYS AT ITS FIELD OF ORIGIN.
6. SIDE SLOPES ON INFILTRATION BASINS ARE TO BE 2:1 MAXIMUM UNLESS OTHERWISE INDICATED ON PLAN.
7. WATER DIRECTED TO THE INFILTRATION BASINS SHOULD INFILTRATE WITHIN 72 HOURS FOR PROPERLY PROTECTED AND INSTALLED GRASSY SWALES. IF STANDING WATER IS OBSERVED IN THE SWALES BEYOND THIS TIME PERIOD DURING CONSTRUCTION, THE CONTRACTOR WILL BE REQUIRED TO DETERMINE THE PROBLEM AND REMEDY TO THE SATISFACTION OF THE OWNER AT THE CONTRACTOR'S EXPENSE.
8. SEDIMENT SHALL BE CONTROLLED AND PREVENTED FROM ENTERING AREAS DESIGNATED AS INFILTRATION BASINS DURING CONSTRUCTION.
9. DURING CONSTRUCTION OF THE INFILTRATION BASIN, USE THE SMALLEST/LIGHTEST EQUIPMENT PRACTICAL TO MINIMIZE COMPACTION.
10. IF TOPSOIL IS IMPORTED IN THE CONSTRUCTION OF THE SWALE, SELECT A SOIL WHICH IS OF SIMILAR TEXTURE AND POROSITY TO THE EXISTING SOIL (USE STOCKPILED TOPSOIL WHENEVER POSSIBLE) TO REDUCE THE EFFECTS OF SOIL LAYERING.
11. EVENLY ROTOTILL IMPORTED TOPSOIL (OR AMENDED TOPSOIL PER THE PROJECT SPECIFICATIONS) INTO THE EXISTING SOILS TO A DEPTH OF 4 TO 6 INCHES.
12. PLANT AND IRRIGATE INFILTRATION BASIN AS SOON AFTER EXCAVATION AS POSSIBLE TO STABILIZE AND REDUCE EROSION.



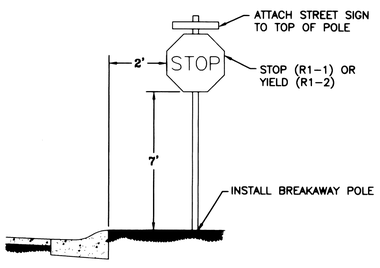
DRAINAGE DITCH OUTFALL

SCALE: NTS



SHARED USE PATHWAY

SCALE: NTS



TYPICAL STREET SIGN DETAIL

N.T.S.

SPOKANE COUNTY ENGINEERS OFFICE
OFFICIAL PUBLIC DOCUMENT ORIGINAL
CONSTRUCTION PLANS
PROJECT #: P-2040
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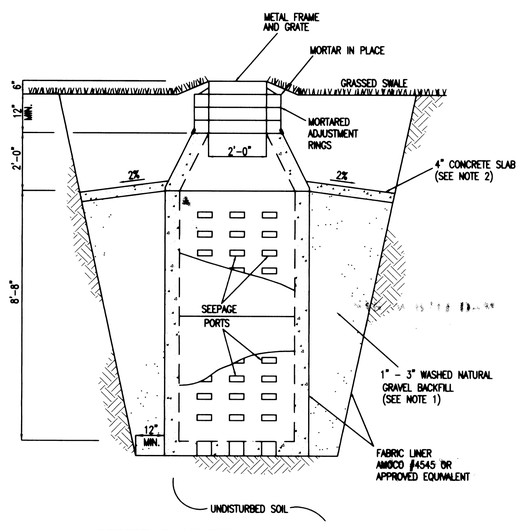
GREGORY S. MILLER — STATE OF WASHINGTON — 37450 — PROFESSIONAL ENGINEER
7/22/16

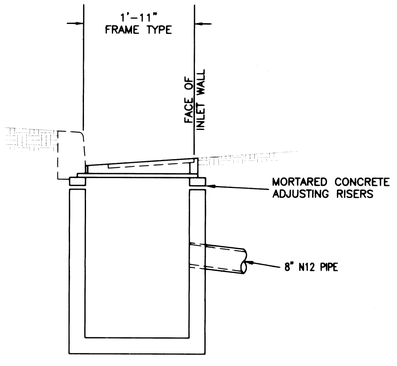


GENERAL NOTES:

1. GRAVEL BACKFILL QUANTITY FOR DRYWELL TYPE "B" - 40 CUBIC YARDS MINIMUM / 56 TONS
2. CONCRETE SLAB SHALL BE CLASS 3000 CONCRETE
3. ADJUSTMENT BLOCKS SHALL BE CEMENT CONCRETE
4. PRECAST RISERS MAY BE USED IN COMBINATION WITH OR IN LIEU OF ADJUSTING BLOCKS

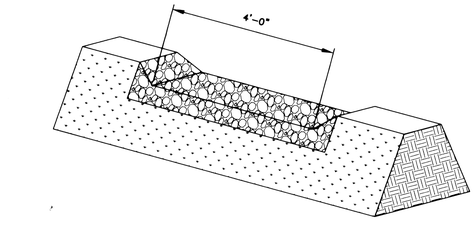
DRYWELL - TYPE "B"

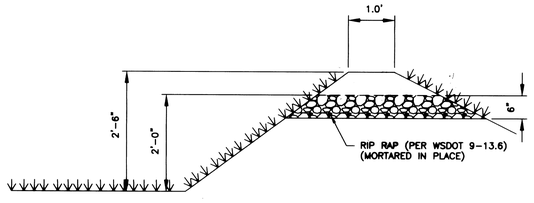
SCALE: NTS



CATCH BASIN & INLET TYPE 1

SCALE: NTS





OVERFLOW SPILLWAY

SCALE: NTS

SHEET 8 OF 9

CALL BEFORE YOU DIG: 811

BY	REVISIONS	DATE	PROJ.	FROM	AS BUILT	TO	ACCEPT

BENCH MARK DATUM	SCALE		DATE	STAFF
BM: NAVD88	HORIZONTAL	50'	8/12/15	DRAWN JDH
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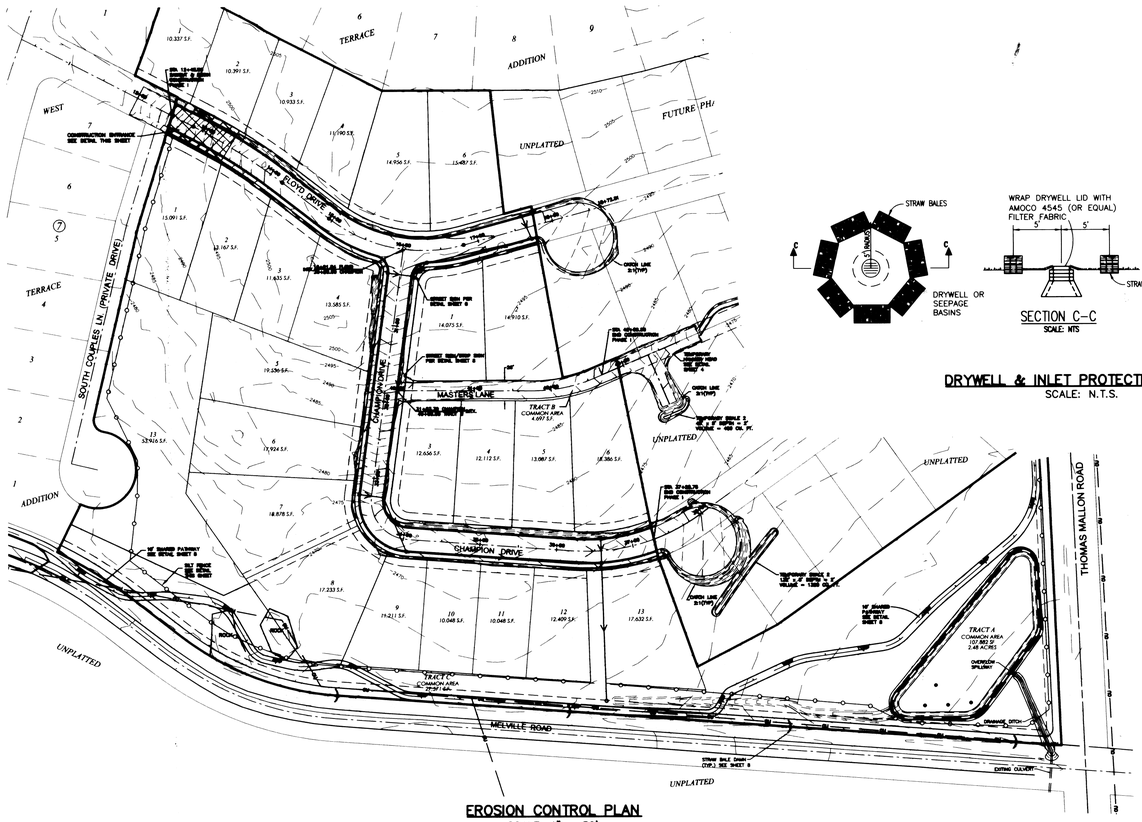
DETAILS

GRADING & DRAINAGE
WEST TERRACE FIFTH ADDITION PHASE I

TYPE OF IMPROVEMENT: DETAILS

PROJECT NUMBER	PLAN NUMBER
2014-01-084	



EROSION CONTROL PLAN

SCALE: 1" = 50'

SECTION C-C

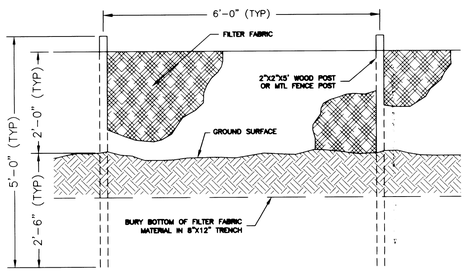
SCALE: NTS

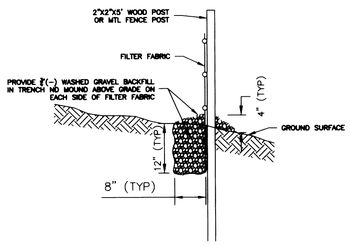
EROSION CONTROL NOTES

1. WRAP ALL STRUCTURE LIDS PER SECTION C-C (THIS SHEET).
2. WRAP DRYWELLS WITH STRAW BALES PER DETAIL (THIS SHEET) THIS SHOULD BE IN PLACE IMMEDIATELY AFTER CONSTRUCTION OF DRYWELL SHALES.
3. CONSTRUCTION TRAFFIC SHALL BE RESPONSIBLE FOR THE REMOVAL OF MUD AND DEBRIS PRIOR TO ACCESSING PUBLIC STREETS.

DRYWELL & INLET PROTECTION DETAIL

SCALE: N.T.S.





SILT FENCE

SCALE: NTS

DEFINITION:
A TEMPORARY SEDIMENT BARRIER CONSISTING OF A FILTER FABRIC STRETCHED ACROSS AND ATTACHED TO SUPPORTING POSTS AND ENTRENCHED. THE FILTER FENCE IS CONSTRUCTED OF STAKES AND SYNTHETIC FILTER FABRIC WITH A RIGID WIRE FENCE BACKING WHERE NECESSARY FOR SUPPORT.

PURPOSE:
1. TO INTERCEPT AND DETAIN SMALL AMOUNTS OF SEDIMENT UNDER SHEET FLOW CONDITIONS FROM DISTURBED AREAS DURING CONSTRUCTION OPERATIONS IN ORDER TO PREVENT SEDIMENT FROM LEAVING THE SITE.
2. TO DECREASE THE VELOCITY OF SHEET FLOWS.

THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID USE OF JOINTS. WHEN JOINTS AR NECESSARY, FILTER CLOTH SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6 INCH OVERLAP, AND BOTH ENDS SECURELY FASTENED TO THE POST.

POSTS SHALL BE SPACED A MAXIMUM OF 6 FEET APART AND DRIVEN SECURELY INTO THE GROUND A MINIMUM OF 30 INCHES (WHERE PHYSICALLY POSSIBLE).

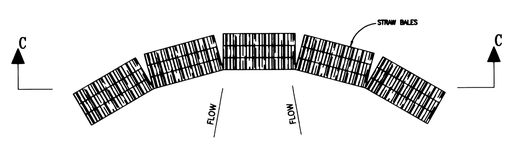
A TRENCH SHALL BE EXCAVATED APPROXIMATELY 8 INCHES WIDE AND 12 INCHES DEEP ALONG THE LINE OF POST AND UP SLOPE FROM THE BARRIER. THE TRENCH SHALL BE CONSTRUCTED TO FOLLOW THE CONTOUR.

WHEN SLIT FILM FILTER FABRIC IS USED, WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UP SLOPE SIDE OF THE POSTS USING HEAVY-DUTY WIRE STAPLES AT LEAST 1 INCH LONG, TIE WIRES OR HOG RIGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 4 INCHES AND SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE.

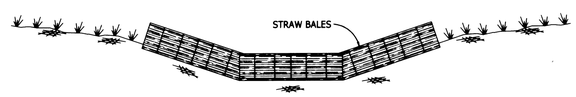
SLIT FILM FILTER FABRIC SHALL BE WIRED TO THE FENCE, AND 20 INCHES OF THE FABRIC SHALL EXTEND INTO THE TRENCH. THE FABRIC SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE. FILTER FABRIC SHALL NOT BE STAPLED TO EXISTING TREES. OTHER TYPES OF FABRIC MAY BE STAPLED TO THE FENCE.

WHEN EXTRA-STRENGTH OR MONOFILAMENT FABRIC AND CLOSER POST SPACING ARE USED, THE WIRE MESH SUPPORT FENCE MAY BE ELIMINATED. IN SUCH A CASE, THE FILTER FABRIC IS STAPLED OR WIRED DIRECTLY TO THE POST. EXTRA CARE SHOULD BE USED WHEN JOINING OR OVERLAPPING THESE STIFFER FABRICS. APPARENT OPENING SIZE OF FILTER FABRIC SHALL BE 70.

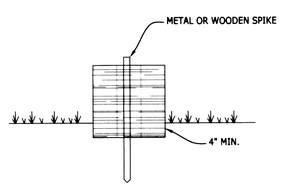
MAINTENANCE:
- INSPECT IMMEDIATELY AFTER EACH RAINFALL, AND AT LEAST DAILY DURING PROLONGED RAINFALL. REPAIR AS NECESSARY.
- SEDIMENT MUST BE REMOVED WHEN IT REACHES APPROXIMATELY ONE THIRD THE HEIGHT OF THE FENCE, ESPECIALLY IF HEAVY RAINS ARE EXPECTED.



STRAW BALE DAM



SECTION C-C



1. BALES SHALL BE LAID ON THEIR SIDE WITH 4" EMBEDMENT DEPTH.
2. BALES SHALL BE FIT TIGHTLY ON EACH END.
3. BALES TO BE SECURED BY 2 STAKES, EITHER WOOD OR METAL.

EROSION AND SEDIMENTATION CONTROL NOTES

1. THE FOLLOWING CONSTRUCTION SEQUENCE SHALL BE FOLLOWED IN ORDER TO BEST MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENTATION CONTROL PROBLEMS:

   a. CLEAR AND GRUB SUFFICIENTLY FOR INSTALLATION OF TEMPORARY ESC BMP'S;

   b. INSTALL TEMPORARY ESC BMPS, CONSTRUCTING SEDIMENT TRAPPING BMPS AS ONE OF THE FIRST STEPS PRIOR TO GRADING;

   c. CLEAR, GRUB AND ROUGH GRADE FOR ROADS, TEMPORARY ACCESS POINTS AND UTILITY LOCATIONS;

   d. STABILIZE ROADWAY APPROACHES AND TEMPORARY ACCESS POINTS WITH THE APPROPRIATE CONSTRUCTION ENTRY BMP;

   e. CLEAR, GRUB AND GRADE INDIVIDUAL LOTS OR GROUPS OF LOTS;

   f. TEMPORARILY STABILIZE, THROUGH RE-VEGETATION OR OTHER APPROPRIATE BMPS, LOTS OR GROUPS OF LOTS IN SITUATIONS WHERE SUBSTANTIAL CUT OR FILL SLOPES ARE A RESULT OF THE SITE GRADING;

   g. CONSTRUCT ROADS, BUILDINGS, PERMANENT STORMWATER FACILITIES (I.E. INLETS, PONDS, UIC FACILITIES, ETC.);

   h. PROTECT ALL PERMANENT STORMWATER FACILITIES UTILIZING THE APPROPRIATE BMPS;

   i. INSTALL PERMANENT ESC CONTROLS, WHEN APPLICABLE; AND

   j. REMOVE TEMPORARY ESC CONTROLS WHEN:

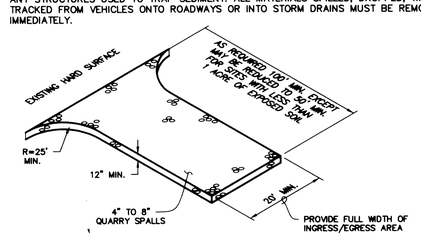
2. PERMANENT ESC CONTROLS, WHEN APPLICABLE, HAVE BEEN COMPLETELY INSTALLED;
3. ALL LAND-DISTURBING ACTIVITIES THAT HAVE THE POTENTIAL TO CAUSE EROSION OR SEDIMENTATION PROBLEMS HAVE CEASED; AND,
4. VEGETATION HAD BEEN ESTABLISHED IN THE AREAS NOTED AS REQUIRING VEGETATION ON THE ACCEPTED ESC PLAN ON FILE WITH THE LOCAL JURISDICTION.
5. INSPECT ALL ROADWAYS, AT THE END OF EACH DAY, ADJACENT TO THE CONSTRUCTION ACCESS ROUTE. IF IT IS EVIDENT THAT SEDIMENT HAS BEEN TRACKED OFF SITE AND/OR BEYOND THE ROADWAY APPROACH, CLEANING IS REQUIRED.
6. IF SEDIMENT REMOVAL IS NECESSARY PRIOR TO STREET WASHING, IT SHALL BE REMOVED BY SHOVELING OR PICKUP SWEEPING AND TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL AREA.
7. IF STREET WASHING IS REQUIRED TO CLEAN SEDIMENT TRACKED OFF SITE, ONCE SEDIMENT HAS BEEN REMOVED, STREET WASH WASTEWATER SHALL BE CONTROLLED BY PUMPING BACK ON-SITE OR OTHERWISE PREVENTED FROM DISCHARGING INTO SYSTEMS TRIBUTARY TO WATERS OF THE STATE.
8. RESTORE CONSTRUCTION ACCESS ROUTE EQUAL TO OR BETTER THAN THE PRE-CONSTRUCTION CONDITION.
9. RETAIN THE DUFF LAYER, NATIVE TOPSOIL, AND NATURAL VEGETATION IN AN UNDISTURBED STATE TO THE MAXIMUM EXTENT PRACTICAL.
10. INSPECT SEDIMENT CONTROL BMPS WEEKLY AT A MINIMUM, DAILY DURING A STORM EVENT, AND AFTER ANY DISCHARGE FROM THE SITE (STORMWATER OR NON-STORMWATER). THE INSPECTION FREQUENCY MAY BE REDUCED TO ONCE A MONTH IF THE SITE IS STABILIZED AND INACTIVE.
11. CONTROL FUGITIVE DUST FROM CONSTRUCTION ACTIVITY IN ACCORDANCE WITH THE STATE AND/OR LOCAL AIR QUALITY CONTROL AUTHORITIES WITH JURISDICTION OVER THE PROJECT AREA.
12. STABILIZE EXPOSED UNWORKED SOILS (INCLUDING STOCKPILES), WHETHER AT FINAL GRADE OR NOT, WITHIN 10 DAYS DURING THE REGIONAL DRY SEASON (JULY 1 THROUGH SEPTEMBER 30) AND WITHIN 5 DAYS DURING THE REGIONAL WET SEASON (OCTOBER 1 THROUGH JUNE 30). SOILS MUST BE STABILIZED AT THE END OF A SHIFT BEFORE A HOLIDAY WEEKEND IF NEEDED BASED ON THE WEATHER FORECAST. THIS TIME LIMIT MAY ONLY BE ADJUSTED BY A LOCAL JURISDICTION WITH A "QUALIFIED LOCAL PROGRAM," IF IT CAN BE DEMONSTRATED THAT THE RECENT PRECIPITATION JUSTIFIES A DIFFERENT STANDARD AND MEETS THE REQUIREMENTS SET FORTH IN THE CONSTRUCTION STORMWATER GENERAL PERMIT.
13. PROTECT INLETS, DRYWELLS, CATCH BASINS AND OTHER STORMWATER MANAGEMENT FACILITIES FROM SEDIMENT, WHETHER OR NOT FACILITIES ARE OPERABLE.
14. KEEP ROADS ADJACENT TO INLETS CLEAN.
15. INSPECT INLETS WEEKLY AT A MINIMUM AND DAILY DURING STORM EVENTS.
16. CONSTRUCT STORMWATER CONTROL FACILITIES (DETENTION/RETENTION STORAGE POND OR SWALES) BEFORE GRADING BEGINS. THESE FACILITIES SHALL BE OPERATIONAL BEFORE THE CONSTRUCTION OF IMPERVIOUS SITE IMPROVEMENTS.
17. STOCKPILE MATERIALS (SUCH AS TOPSOIL) ON SITE, KEEPING OFF OF ROADWAY AND SIDEWALKS.
18. COVER, CONTAIN AND PROTECT ALL CHEMICALS, LIQUID PRODUCTS, PETROLEUM PRODUCT, AND NON-INERT WASTES PRESENT ON SITE FROM VANDALISM (SEE CHAPTER 173-304 WAC FOR THE DEFINITION OF INERT WASTE), USE SECONDARY CONTAINMENT FOR ON-SITE FUELING TANKS.
19. CONDUCT MAINTENANCE AND REPAIR OF HEAVY EQUIPMENT AND VEHICLES INVOLVING OIL CHANGES, HYDRAULIC SYSTEM REPAIRS, SOLVENT AND DE-GREASING OPERATIONS, FUEL TANK DRAIN DOWN AND REMOVAL, AND OTHER ACTIVITIES THAT MAY RESULT IN DISCHARGE OR SPILLAGE OF POLLUTANTS TO THE GROUND OR INTO STORMWATER RUNOFF USING SPILL PREVENTION MEASURES, SUCH AS DRIP PANS. CLEAN ALL CONTAMINATED SURFACES IMMEDIATELY FOLLOWING ANY DISCHARGE OR SPILL INCIDENT. IF RAINING OVER EQUIPMENT OR VEHICLE, PERFORM EMERGENCY REPAIRS ON SITE USING TEMPORARY PLASTIC BENEATH THE VEHICLE.
20. CONDUCT APPLICATION OF AGRICULTURAL CHEMICALS, INCLUDING FERTILIZERS AND PESTICIDES, IN SUCH A MANNER, AND AT APPLICATION RATES, THAT INHIBITS THE LOSS OF CHEMICALS INTO STORMWATER RUNOFF FACILITIES. AMEND MANUFACTURER'S RECOMMENDED APPLICATION RATES AND PROCEDURES TO MEET THIS REQUIREMENT, IF NECESSARY.
21. INSPECT ON A REGULAR BASIS (AT A MINIMUM WEEKLY, AND DAILY DURING/AFTER A RUNOFF PRODUCING STORM EVENT) AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL BMPS TO ENSURE SUCCESSFUL PERFORMANCE OF THE BMPS. NOTE THAT INLET PROTECTION DEVICES SHALL BE CLEANED OR REMOVED AND REPLACE BEFORE SIX INCHES OF SEDIMENT CAN ACCUMULATE.
22. REMOVE TEMPORARY ESC BMPS WITHIN 30 DAYS AFTER THE TEMPORARY BMPS ARE NO LONGER NEEDED. PERMANENTLY STABILIZE AREAS THAT ARE DISTURBED DURING THE REMOVAL PROCESS.

DEFINITION: A TEMPORARY STONE-STABILIZED PAD LOCATED AT POINTS OF VEHICULAR INGRESS AND EGRESS ON A CONSTRUCTION SITE.

PURPOSE: TO REDUCE THE AMOUNT OF MUD, DIRT, ROCKS, ETC. TRANSPORTED ONTO PUBLIC ROADS BY MOTOR VEHICLES OR RUNOFF BY CONSTRUCTING A STABILIZED PAD OF ROCK SPALLS AT ENTRANCES TO CONSTRUCTION SITES AND WASHING OF TIRES DURING EGRESS.

CONDITIONS WHERE PRACTICE APPLIES: WHENEVER TRAFFIC WILL BE LEAVING A CONSTRUCTION SITE AND MOVING DIRECTLY ONTO A PUBLIC ROAD OR OTHER PAVED AREAS.

MAINTENANCE: THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OF FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 2-INCH STONE, AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEANOUT OF ANY STRUCTURES USED TO TRAP SEDIMENT. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.



ROCK CONSTRUCTION ENTRY

SCALE: NTS

SPOKANE COUNTY ENGINEERS OFFICE
OFFICIAL PUBLIC DOCUMENT ORIGINAL
CONSTRUCTION PLANS
PROJECT #: P-2040
DATE ACCEPTED: 02-27-16
ACCEPTANCE EXPIRES: 02-27-18
PROJECT LANE MILES PUBLIC: 0
PROJECT LANE MILES PRIVATE: 4
CONSTRUCTION DOCUMENTATION AND CERTIFIED RECORD DRAWINGS, "AS-BUILTS" ARE REQUIRED PRIOR TO COUNTY ACCEPTANCE AND ESTABLISHMENT OF THE ROADS AND DRAINAGE FACILITIES FOR MAINTENANCE.
PERMIT REQUIRED! (509) 477-3600
NOTIFY PERMIT ENGINEER 2 BUSINESS DAYS PRIOR TO CONSTRUCTION

GREGORY S. MILLER
STATE OF WASHINGTON
37450
PROFESSIONAL ENGINEER
Gregory S. Miller 8/22/16

SHEET 9 OF 9

CALL BEFORE YOU DIG: 811

BY	REVISIONS	DATE	PROJ.	FROM	AS BUILT	TO	ACCEPT

BENCH MARK DATUM	SCALE		DATE	STAFF
BM: NAVD88	HORIZONTAL	50'	8/12/15	DRAWN JDH
ELEVATION: 2457.86'	VERTICAL	10'	8/12/15	CHECKED GM
LOCATION: T.B.M. #1				APPROVED

ADAMS & CLARK, Inc.
www.adamsandclark.com
1720 W. Fourth Ave.
Spokane, WA 99201
(509) 747-4600 F(509) 747-8913

DETAILS
Temporary Erosion and Sediment Control
WEST TERRACE FIFTH ADDITION PHASE I

TYPE OF IMPROVEMENT: TESC	
PROJECT NUMBER	PLAN NUMBER
2014-01-084	