PROJECT REVIEW COMMENT

PROJECT: **Crestline Circle Dr**
DATE: 11/09/18
REVIEW TYPE: Review Comments
PERMIT REVIEWED: U18-000001; BB# 534-126-661
NC= NO COMMENT
NR=NO RESPONSE
A=ACCEPT COMMENT - WILL BE CORRECTED, ADDED, OR CLARIFIED
E=DESIGNER WILL EVALUATE
D=DISAGREE WITH COMMENT, NO ACTION WILL BE TAKEN

BB# 138-242-758

ROUTED FOR COMMENTS:
REQUEST COMMENTS BY:

ROUTED TO:	**Review Completed:**
PAT SEVERANCE (PS)	
ED GEORGE (EG)	
SHAWN STUBBERS (SS)	
IRIS HEIDORN (IH)	

ITEM NO.	PAGE, SHEET, GENERAL (G)	COMMENT	RESPONSE	EVALUATION	VERIFIED
1	C2	Missing updated City's Checklist			Yes
2		Address the NPC 2003 GEOLOGIC HAZARDS Report for utility (stormwater, road, etc) and lot development.	**GPI to provide report to address geologic hazards**		No
3		Missing street lights location & description			Yes
4		Missing franchise utility location and ten (10) feet easement outside of public right-of-way.			Yes
5		Installation of sidewalk on one side and discussion of FILO option for other required frontage improvements.			Yes
6		Missing signage and pavement markings.			Yes
7		Site plan to show construction of gravel turnaround at the end of asphalt.		Fire Dept requested loop connnection to be completed with twenty(20) foot wide gravel surface; work with Linda Steputat.	Yes
8	C3	Revise Grading Note #7 to read, "Unless otherwise noted, Street cross sections shall conform to City of Lewiston Standard Drawing #3-1.	**Replaced City Standard 3-4 with D-1 on sheet C11**	Variance accepted but City Standard D-1 to be place in Plan Set.	Yes
9		City approved video inspection & reporting of all stormwater and wastewater mains prior to paving.			Yes
10	C5	Remove temporary water service at main at 622 Crestline and install permanent service per plans.			Yes
11	C7	Installation of fire hydrants (not flushing hydrants) required.	**Corrected note on C5**	See C5 - Missed change in Profile note.	Yes

12	C9	Provide access to maintain stormwater pond.	**Open ditch and pond will be private system, added notes for slope stability and developer maintenance on sheet C9**	New pond location but still lacking easements, access, outlet design, pond construction verification and geo-tech evaluation.	No
13	C9	How will 1/2" diameter orifice opening stay clear from debris?			N/A
14	C11 - C14	Update City Standard Drawings #1-3; #1-8 and #6-1; updated Drawings can be found on City's website under Public Works/Engineering/Construction Standard Drawings			Yes
15	Stormwater System	Lots have to provide individual stormwater mitigation. Overflow can be convey to public system.			Yes
16	Stormwater System	Missing riprap/ channel design calculations			N/A
17		Air/ Vacum Release on high side of water main.	**Added after valve at end of existing water main**		
18		What is use of the storm line in Lot 5?	**Overflow for 3 lots in block 15, 8" pipe is existing, to be maintained by developer**		
19		Have Plan Set been submitted to DEQ?	**Yes**		
20	C5	Waterline Crossing #2 requires waterpipe class pipe. Water service to be locate near main for Lot 5	**Changed storm drain crossing pipe from ADS N-12 to PVC C900. Oriented Lot 5 water service perpendicular to waterline**		
21		Pre Construction meeting with Engineer, Developer and Contractor required			
22		Variances from standards or approved design require written approval prior to construction by the City Engineer			
23		A right-of-way permit shall be obtained through the Public Works Department prior to any work beginning within Public right-of-way. A certified traffic control supervisor is required to submit a plan for any vehicular or pedestrian traffic modifications.			
24		Site distances for abutting properties driveways and intersections shall be maintained.			

25		Erosion and dust control measures must be used during construction to reduce or eliminate blowing dust, excessive runoff and soil erosion across property lines and into streets and right-of-way, and to eliminate tracking soil and mud onto streets from construction equipment and vehicles. The developer is responsible for street cleanup at the end of each shift.			
26		All construction not specifically mentioned or shown shall conform to City Ordinances and Standards			

IMPROVEMENT PLANS

CRESTLINE CIRCLE DRIVE
LEWISTON, IDAHO 83501

AGENCY TELEPHONE NUMBERS

CITY OF LEWISTON BUILDING INSPECTION CONTACT: KATIE HOLLINGSHEAD OR DAWN ORTIZ	(208) 746-1318 EX 7263 DAWN EX 7203 KATIE
CITY OF LEWISTON WATER & L.O.S.D. CONTACT: BRYAN LACY	(208) 746-1316
CITY OF LEWISTON PUBLIC WORKS DEPT. CONTACT: SHAWN STUBBERS	(208) 746-1316
AVISTA UTILITIES CONTACT: NATE VON LINDERN	(509) 590-8742
CENTURY LINK CONTACT: BRAD McNEW	(208) 736-8760
CABLE ONE CONTACT: DAN SMITH	(208) 746-3336 EX 3 DAN
UNDERGROUND UTILITY LOCATE (CALL 48 HOURS BEFORE YOU DIG)	1-800-342-1585 or call 811

DEVELOPER:
JOE & FRANCES MCCANN FAMILY LIMITED PARTNERSHIP
202 26TH AVENUE
LEWISTON, ID 83501

CONTACT:
PAT McCANN (208) 791-6573

RIGHT OF WAY PERMIT QUANTITIES

PAVED AREA IN ROW	± 17,285	S.F.
APPROACH WIDTH @ ROW	± 0	L.F.
TRENCH LENGTH	± 993	L.F.
STREET CUT LENGTH/WIDTH	± 36	L.F.
CURB & GUTTER LENGTH	± 987	L.F.
SIDEWALK LENGTH	± 297	L.F.
MAIN LINE LENGTH	± 993	L.F.

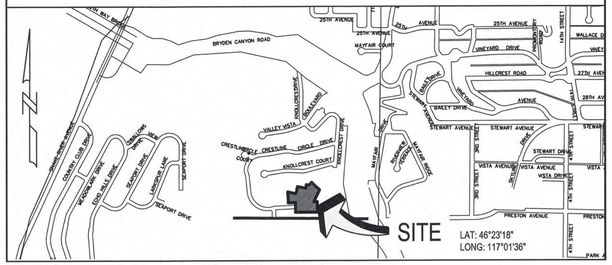
UTILITY PERMIT QUANTITIES

BASE FEE	1	EA
CATCH BASIN	4	EA
MANHOLE	2	EA
DOMESTIC WATER LINE	± 528	L.F.
WASTE WATER LINE	± 88	L.F.
STORM DRAIN LINE	± 377	L.F.

LEGEND

(XXX)	EXISTING CONTOUR	XXX	PROPOSED CONTOUR
SS	EXISTING SANITARY SEWER	SS	PROPOSED SANITARY SEWER
W	EXISTING DOMESTIC WATER	W	PROPOSED DOMESTIC WATER
SD	EXISTING STORM DRAIN	SD	PROPOSED STORM DRAIN
O/P	EXISTING OVERHEAD POWER	P,G,T,C	PROPOSED UNDERGROUND UTILITIES
GAS	EXISTING GAS LINE	GAS	PROPOSED GAS LINE
	EXISTING A.C.		PROPOSED A.C.
	EXISTING CONCRETE		PROPOSED CONCRETE
	EXISTING GRAVEL		PROPOSED GRAVEL
	EXISTING SEWER MANHOLE		PROPOSED SEWER MANHOLE
	EXISTING STORM DRAIN MANHOLE		PROPOSED STORM DRAIN MANHOLE
	EXISTING CATCH BASIN		PROPOSED CATCH BASIN
	EXISTING GATE VALVE		PROPOSED GATE VALVE
	EXISTING WATER METER		PROPOSED WATER METER
	EXISTING FIRE HYDRANT		PROPOSED FIRE HYDRANT
	EXISTING EDGE OF ASPHALT		PROPOSED EDGE OF ASPHALT/SIDEWALK/CURB/GUTTER
	EXISTING RIGHT-OF-WAY		NEW RIGHT-OF-WAY DEDICATION
	EXISTING CENTER LINE		PROPOSED CENTER LINE OF STREET
	EXISTING FENCE		PROPOSED MONUMENT
	EXISTING SECTION LINE		
	EXISTING MONUMENT		
	EXISTING SECTION CORNER		
	EXISTING PROPERTY CORNER		

VICINITY MAP



SHEET INDEX

No.	DATE	BY	DESCRIPTION
1	08/22/18	MSR	CITY COMMENTS 08/16/18

COVER SHEET
CRESTLINE CIRCLE DRIVE
VALLEY VISTA PUD
LEWISTON, ID. 83501

KELTIC ENGINEERING, INC.
315 Adams Lane ◊ Lewiston, Idaho 83501 ◊ (208) 743-2135 ◊ (208) 743-2136 fax
Development ♣ Planning ♣ Design ♣ Construction Management

PROFESSIONAL ENGINEER REGISTERED 6064 11/09/18 STATE OF IDAHO ERIC HASENOEHRL

DRAWN BY: MSR	CHECKED BY: EFH
DESIGNED BY: EFH	
DATE: 07/13/18	
LAST REV.: 08/22/18	
PROJECT NO. 17-0089	
SHEET NO. C1 OF C14	

CONSTRUCTION NOTES

SPECIAL INSPECTIONS

NOTE: The City of Lewiston reserves the right for 3rd party verification, inspection, and/or testing prior to infrastructure acceptance. Payment for the services of 3rd party will be the responsibility of the City of Lewiston unless items verified, inspected, and/or tested indicate non-conformance, will be the responsibility of developer/ contractor.

ITEM	MATERIAL	TEST / STANDARD	ACCEPTANCE	TEST FREQUENCY	INSPECTOR/CO.
1. ALL UTILITY TRENCHES & STRUCTURES					
TRENCH SUBGRADE	Native (6" to 8" Lifts Max.)	Moisture Density Relationship of Soils (AASHTO T 180) In-Place Density and Moisture Content (AASHTO 310 Method B)	90% Max. Dry Density	One in-place density test every lift per 100 linear feet. If project is less than 100 linear feet, one in-place density test per day OR per lift [whichever test frequency is more restrictive].	GPI
PIPE BEDDING	3/4" minus Crushed Aggregate (6" to 8" Max. Lift) (Current ITD Spec 703.04) OR 5/8" minus Crushed Aggregate (6" to 8" Max. Lift) (Current WDOT/M41-10 Spec 9-03.9)	Moisture Density Relationship of Soils (AASHTO T 180) In-Place Density and Moisture Content (AASHTO 310 Method B)	95% Max. Dry Density	One in-place density test every lift per 100 linear feet. If project is less than 100 linear feet, one in-place density test per day OR per lift [whichever test frequency is more restrictive].	GPI
1st FOOT [12"] OF FILL OVER PIPE	3/4" minus Crushed Aggregate (6" to 8" Max. Lift) (Current ITD Spec 703.04) OR 5/8" minus Crushed Aggregate (6" to 8" Max. Lift) (Current WDOT/M41-10 Spec 9-03.9)	Moisture Density Relationship of Soils (AASHTO T 180) In-Place Density and Moisture Content (AASHTO 310 Method B)	95% Max. Dry Density	One in-place density test every lift per 100 linear feet. If project is less than 100 linear feet, one in-place density test per day OR per lift [whichever test frequency is more restrictive].	GPI
TRENCH BACKFILL UNDER PROPOSED ROAD & SIDEWALK	3/4" minus Crushed Aggregate (6" to 8" Max. Lift) (Current ITD Spec 703.04) OR 5/8" minus Crushed Aggregate (6" to 8" Max. Lift) (Current WDOT/M41-10 Spec 9-03.9)	Moisture Density Relationship of Soils (AASHTO T 180) In-Place Density and Moisture Content (AASHTO 310 Method B)	95% Max. Dry Density	One in-place density test every lift per 100 linear feet. If project is less than 100 linear feet, one in-place density test per day OR per lift [whichever test frequency is more restrictive].	GPI
STRUCTURAL FILLS	As Spec'd by Engineer	As Spec'd by Engineer		As Spec'd by Engineer	GPI
2. STORM DRAIN MAINS					
GASKETED PE Storm Sewer Pipe	Polyethylene, ADS N-12 or Equal		Certified & Visual by City		Certified & Visual by City
ALIGNMENT AND GRADE	N/A	Per Manufacturer's Instructions		Per Plan	KELTIC
JOINTS (Deflection/Proper Pipe Embedment)	N/A	Per Manufacturer's Instructions		Each Joint	KELTIC
PRESSURE TEST	N/A	4 PSI for 15 Minutes, 1/2 PSI Drop	If required by City Engineer	Between Access Holes	KELTIC
MANHOLES	Concrete	City Standard		N/A	Certified & Visual by City
VIDEO INSPECTION	N/A		Public Works Policy No 2012-2		CONTRACTOR
3. WATER MAINS					
DUCTILE IRON or PVC WATER MAIN	AWWA C-151, C-900, C-905 (Class as Req'd)		Certified & Visual by City		Certified & Visual by City
ALIGNMENT AND GRADE	N/A	AWWA C-600, AWWA C-605		Per Plan	KELTIC
JOINTS (Deflection/Proper Pipe Embedment)	N/A	AWWA C-600, AWWA C-605		Each Joint	KELTIC
THRUST BLOCKS	Concrete, 2500 PSI Mix	Per Approved Plans/or City Std Dwg # 4-4		Each Joint	Certified & Visual by City
HYDROSTATIC PRESSURE	N/A	2 Hrs, NTE Allowable Leakage Per AWWA C-600, AWWA C-605		150% Working Pressure OR 1½ times the Working Pressure in the Water System	KELTIC
CHLORINATION/BACTERIA	N/A	AWWA C-651		Bacterial Testing: two negative testing samples 24 hours apart	City of Lewiston
4. WASTEWATER MAINS					
PVC WASTEWATER MAIN	PVC, SDR 35	ASTM 3034		N/A	KELTIC
ALIGNMENT AND GRADE	N/A	N/A		Per Plan	KELTIC
JOINTS (Deflection/Proper Pipe Embedment)	N/A	Per Manufacturer's Instructions		Each Joint	KELTIC
MANHOLES	Concrete	Hydrostatic Test		Each Joint	
PRESSURE TEST	N/A	4 PSI for 15 Minutes, 1/2 PSI Drop		Between Access Holes	KELTIC
VIDEO INSPECTION	N/A	No Perforations, Dents or Dimples, No Bellies > 0.02'	Public Works Policy No 2012-2	Between Access Holes	CONTRACTOR
5. CONCRETE CURB, GUTTER & SIDEWALK					
CONCRETE	CLASS 35B - Approved Mix Design Required with Min Cement Content of 560 Lbs/CY, Max Water/ Cement Ratio of .44, a WRA, and an AEA	AASHTO T-22 Compressive Strength of Concrete AASHTO T-23 Making Test Specimens AASHTO T-119 Slump of Hydraulic Cement Concrete AASHTO T-152 Air Content of Freshly Mixed Concrete AASHTO T-309 Temperature of Freshly Mixed Concrete WAQTC TM-2 Sampling Freshly Mixed Concrete	Min. 28 day Compressive Strength = 3000 psi; Water/Cement Ratio shall be 0.5 lb/lb Max. Slump = 5 inches Air Content Percent = 6.5% ± 1.5 Temperature = 50°F - 80°F	1 of Each Test Minimum per Day, or 1 of Each Test per 50 CY	GPI
CRUSHED AGGREGATE BASE COURSE	3/4" minus Crushed Aggregate (4" Max. Lift) (Current ITD Spec 703.04) OR 5/8" minus Crushed Aggregate (4" Max. Lift) (Current WDOT/M41-10 Spec 9-03.9)	Moisture Density Relationship of Soils (AASHTO T 180) In-Place Density and Moisture Content (AASHTO 310 Method B)	95% Max. Dry Density	1 Tests Per 500 LF-Min 2 Tests	GPI
ALIGNMENT AND GRADE	N/A	Visual	+ 0.02' from Design Grade/Alignment	Per 10' Section	City Approval
JOINTS/FLATNESS/STRAIGHTNESS	N/A	Visual	+ 0.02'/10' Segment	Per 10' Section	
FINISH	N/A	Visual	Floated, Uniform, Light Broom Finish	Entire Surface Area	
6. ASPHALTIC CONCRETE PAVING					
SUPERPAVE HOT MIX ASPHALT	ITD 405 Superpave Class SP3 and SP5 (2017 ITD Spec 405 and 703.05) Note: Contractor shall provide a pre-pave meeting to discuss methods and production operations for new roadway construction or projects over 200 tons. The City of Lewiston reserves the right to request a pre-pave meeting for projects with 200 tons or less.	**Class SP2:** **AASHTO T-308, Asphalt Content** **AASHTO T-27 & T-11, Sieve Analysis** **WAQTC TM-8, In-Place Density of Bituminous Mixes** **AASHTO T-209, Theoretical Maximum Density (RICE)** **Class SP3 and SP5:** **AASHTO T-308, Asphalt Content** **AASHTO T-27 & T-11, Sieve Analysis** **AASHTO T-166 Method A, Air Voids, and Voids In Mineral Aggregates (VMA)** **WAQTC TM-8, In-Place Density of Bituminous Mixes with Correlated Nuclear Gauge or,** **AAHSTO T-166, Density of Bituminous Mixes by Cones** **AASHTO T-209, Theoretical Maximum Density (RICE)** **Density Note: When a non-correlated gauge is used to determine in-place density during production, cores will be taken for final density and thickness determination. When a correlated gauge is used for production testing, cores will be taken for thickness determination only. Core quantities and locations to be determined by the City of Lewiston.**	**ITD Section 405.03** **Asphalt Content - CJMF Value +/- 0.3%** **Sieve Analysis - Table 405.03-5** **Air Voids - 4.0 +/- 1.0%** **Voids in Mineral Aggregates, at N design - 703.05 Minimum Value 0.05b** **All Projects Regardless of Tonnage** **In-Place Density - 92-96% of Maximum Theoretical (When acceptance will be from correlated gauge, contractor must submit documentation showing gauge correlation to proposed bituminous mixture used.)**	Project 200 tons or less - Minumum of 1 test (asphalt content, and gradation) per project. A minimum of 2 cores will be taken to determine final thickness and/ or density. Projects 200 tons or more - Minimum of 1 test (asphalt content, gradation, voids, and VMA) per 750 tons or, one per day. A minimum of 5 cores will be taken to determine final thickness and/or density. Random sampling locations determined by the City of Lewiston. The City of Lewiston reserves the right for 3rd party verification, inspections, and/or testing prior to infrastructure acceptance.	GPI
CRUSHED AGGREGATE BASE COURSE	Same test requirement as under 5. Concrete Curb, Gutter & Sidewalk				GPI
7. EROSION & SEDIMENT CONTROLS	Per Approved Plan	Per Plan and Manufacturers' Instructions		1/Wk or After Every Rainfall	CONTRACTOR
8. TRAFFIC CONTROL	Per Approved Plan	Current Adopted MUTCD/ATSSA		Continuous	
9. PRIVATE STORMWATER SYSTEM	Per Approved Plan	City Resolution #80-100	Certified & Visual by City		Certified & Visual by City - Underground infrastructure systems must be approved by City prior to backfill.
10. RECORD DRAWINGS	AutoCAD Elect File, Bond Paper, 22" x 34" Min Size	City Checklist		Before Public Improvements Accepted	
Date Last: Revised December 2017					

NOTES: 1) SPECIAL INSPECTIONS TO BE COORDINATED BY CONTRACTOR AND PERFORMED BY THE COMPANIES LISTED ABOVE. 24 HOURS *OR MORE* NOTICE TO THESE COMPANIES IS REQUIRED PRIOR TO INSPECTION.
2) THE SPECIAL INSPECTIONS DEPICTED HERE ARE INFORMATIONAL. ADDITIONAL SPECIAL OR OTHER INSPECTIONS MAY BE REQUIRED, AND THE FOREGOING LIST IS NOT EXCLUSIVE.

APPLICABLE STANDARD DETAILS

CITY OF LEWISTON STANDARD DRAWINGS

1-1	UTILITY LOCATIONS
1-2	UTILITY PEDESTAL & TRENCH DETAIL
1-3	STREET MONUMENT W/ FRAME & COVER
1-6	BACKFILL CLASS D
1-8	IDENTIFYING TAPE DETAIL
2-5	DETECTABLE WARNING FOR PEDESTRIAN ACCESS
2-6	GENERAL NOTES FOR ALL TYPES OF CURB & GUTTER
2-7	HIGH BACK CURB AND ROLLED CURB & GUTTER
2-8	CONCRETE SIDEWALK
2-11	SIDEWALK RAMP TYPE 1
D-1	LOCAL RESIDENTIAL STREET
4-1	POTABLE & NON-POTABLE WATERLINE SEPARATION
4-2	GATE VALVE BOX W/ ASSEMBLY
4-3	COMBINATION BLOW OFF & SAMPLING TAP
4-4	THRUST BLOCKING DETAIL
4-5	TYPICAL WATER METER OR UTILITY MARKER LOCATION
4-7	STANDARD 1" WATER SERVICE CONNECTION
4-12	FIRE HYDRANT W/ SHUT-OFF VALVE
5-1	WASTEWATER PRIVATE SERVICE CONNECTION
5-2	SERVICE TAP OPTIONS
5-3	WASTEWATER TYPE 1 MANHOLE
5-6	CONCRETE MANHOLE COLLAR
5-7	MANHOLE FRAME & COVER
5-8	MANHOLE CHANNEL DETAILS
6-1	SYSTEM GENERAL NOTES
6-2	STORMWATER TYPE 1 MANHOLE
6-4	MANHOLE CONCRETE COLLAR
6-5	MANHOLE FRAME AND COVER
6-6	GENERAL CATCH BASIN NOTES
6-8	STORMWATER TYPE 1 CATCH BASIN

CONTRACTOR TO OBTAIN A CURRENT CITY OF LEWISTON STANDARDS BOOKLET FROM THE PUBLIC WORKS DEPARTMENT.

No.	DATE	BY	DESCRIPTION
1	08/22/18	MSR	CITY COMMENTS 08/16/18

CONSTRUCTION NOTES #1
CRESTLINE CIRCLE DRIVE
VALLEY VISTA PUD
LEWISTON, ID 83501

KELTIC ENGINEERING, INC.
315 Adams Lane ◊ Lewiston, Idaho 83501 ◊ (208) 743-2135 ◊ (208) 743-2136 fax
Development ⊕ Planning ⊕ Design ⊕ Construction Management

PROFESSIONAL ENGINEER REGISTERED 6064 11/09/18 STATE OF IDAHO ERIC HASENOEHRL

DRAWN BY: MSR	CHECKED BY: EFH
DESIGNED BY: EFH	
DATE: 07/13/18	
LAST REV.: 08/22/18	
PROJECT NO. 17-0089	
SHEET NO. C2 OF C14	

CONSTRUCTION NOTES

ACCESSIBILITY NOTES

ACCESSIBILITY SHALL BE PROVIDED PER UNITED STATES ACCESS BOARD "PROPOSED ACCESSIBILITY GUIDELINES FOR PEDESTRIAN FACILITIES IN THE PUBLIC RIGHT-OF-WAY" JULY 26, 2011.

1) IF THE 5% MAXIMUM COUNTER SLOPE AT THE BOTTOM OF THE RAMP (AT STREET TRANSITION) CANNOT BE ACHIEVED DUE TO EXISTING CONDITIONS, THE RAMP SLOPE SHALL BE ADJUSTED SO THE SUM OF BOTH SLOPES DOESN'T EXCEED 13.3%.
2) WATER PONDING WITHIN THE CURB RAMP LIMITS IS NOT ALLOWED.
3) NO GRADE BREAK IS ALLOWED ALONG THE RAMP SURFACE.
4) THE DETECTABLE/TACTILE WARNING TILE SHALL BE SLIP RESISTANT AND CONSIST OF AN INLINE PATTERN OF RAISED TRUNCATED DOMES.
5) COLOR: THE DETECTABLE/TACTILE WARNING TILE SHALL BE YELLOW CONFORMING TO FEDERAL STANDARDS 595B TABLE IV, COLOR NO. 33538.
6) ANY DEVIATIONS FROM THESE PROVISIONS REQUIRES PRIOR APPROVAL BY THE ENGINEER.

FIRE DEPARTMENT NOTES

1) ALL HYDRANTS SHALL BE THRUST BLOCKED OR RETAINED AND ALL FITTINGS SHALL BE THRUST BLOCKED. THRUST BLOCKS SHALL CONFORM TO THE CITY OF LEWISTON STANDARD DWG 4-4.
2) FIRE HYDRANTS SHALL CONFORM TO AWWA C502 AND SHALL BE WATEROUS PACER OR MEULLER CENTURIAN. HYDRANTS SHALL BE SO CONSTRUCTED THAT THE DIRECTION OF PUMPER CONNECTION MAY BE ROTATED TO FACE THE ROADWAY. A SIX (6) INCH MECHANICAL JOINT CONNECTION WITH LUGS AND SHACKLE RODS IS TO BE USED. A GATE VALVE SHALL BE INSTALLED AT EACH HYDRANT AS SHOWN ON CITY OF LEWISTON STANDARD DWG 4-12.
3) ALL HYDRANTS USED FOR THIS PROJECT SHALL BE PROVIDED WITH A 5 INCH INTEGRAL HYDRANT STORZ NOZZLE. ALL NOZZLES SHALL BE PROVIDED WITH THE STORZ BLIND CAP WITH SUCTION SEAL AND AIRCRAFT CABLE.
4) HYDRANTS SHALL BE SPACED AT A MAXIMUM OF 500' IN RESIDENTIAL AREAS. ALL HYDRANTS SHALL HAVE VALVES ON THE HYDRANT BRANCH LINE. HYDRANTS SHALL HAVE TWO, 2 ½" PORTS AND ONE, 4 ½" STEAMER PORT.
5) ALL NEW FIRE HYDRANTS SHALL MEET THE FOLLOWING REQUIREMENTS:
   - NEW HYDRANT WILL BE WATEROUS PACER WITH 5" INTEGRAL HARRINGTON STORZ NOZZLE
   - 6" MINIMUM SUPPLY FOR FIRE HYDRANT
   - IF COMBUSTIBLE BUILDING MATERIALS ARE USED (INCLUDING FRAMING) THE WATER SUPPLY (INCLUDING MAINS AND HYDRANTS) SHALL BE DESIGNED, INSTALLED, TESTED AND APPROVED BY THE FIRE DEPARTMENT PRIOR TO STOCKPILING COMBUSTIBLE BUILDING MATERIALS.
   - WATER SUPPLY SYSTEMS FOR PHASED CONSTRUCTION SHALL PROVIDE REQUIRED FIRE FLOWS AT ALL PHASES
   - ALL EXISTING FIRE HYDRANTS WITHIN THE PROJECT SHALL BE PROVIDED WITH A 5" HARRINGTON HIHS STORZ ADAPTERS WITH THE APPROVED ATTACHED SEAL CAP AND AIRCRAFT CABLE
   - ALL NEW AND EXISTING HYDRANTS SHALL BE INSTALLED AND/OR MODIFIED SO THE 5" PORT IS FACING TOWARD THE FIRE DEPARTMENT VEHICULAR ACCESS ROUTE
6) FENCES, PLANTS, TREES AND/OR SHRUBS SHALL NOT BE PLACED OR KEPT NEAR FIRE HYDRANTS, FIRE DEPARTMENT INLET CONNECTIONS OR FIRE PROTECTION SYSTEM CONTROL VALVES IN A MANNER THAT WOULD PREVENT SUCH EQUIPMENT FROM BEING IMMEDIATELY DISCERNIBLE BY THE FIRE DEPARTMENT. IFC 508.5.4.
7) ALL SITE INSPECTIONS REQUIRE A MINIMUM 24 HOURS NOTICE. ALL FIRE DEPARTMENT INSPECTIONS ARE TO BE REQUESTED THROUGH THE FIRE DEPARTMENT 208-743-3554. PLEASE BE SPECIFIC AS TO TYPE OF INSPECTION REQUESTED.

GENERAL NOTES

1) THE CONTRACTOR SHALL PAY FOR ALL NECESSARY PERMITS AND FEES.
2) THE CONTRACTOR SHALL INVESTIGATE ON SITE AND VERIFY ALL CONDITIONS AND DIMENSIONS OF THE PROJECT AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCY IN THE CONTRACT DOCUMENTS REQUIRING MODIFICATION PRIOR TO PROCEEDING.
3) THE CONTRACTOR SHALL TAKE ALL NECESSARY PREVENTATIVE MEASURES TO PROTECT THE EXISTING IMPROVEMENTS. ANY DAMAGE SHALL BE REPLACED AT NO COST TO THE OWNER.
4) THE CONTRACTOR SHALL COORDINATE THE WORK SCHEDULE SO AS TO HAVE A MINIMUM IMPACT ON THE EXISTING TRAFFIC. CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL PER IDAHO TRANSPORTATION DEPARTMENT STANDARD SPECIFICATIONS, *AND ANY APPLICABLE CITY STANDARDS OR REQUIREMENTS.*
5) *ALL SURVEY MARKERS RELATED IN ANY WAY TO THE PROJECT, AND ALL* OWNER'S PROPERTY CORNERS SHALL BE PROTECTED AT ALL TIMES, AND THE CONTRACTOR SHALL RETAIN THE SERVICES OF A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF IDAHO TO REFERENCE ALL CORNERS. UPON COMPLETION OF THE PROJECT, ALL EXISTING CORNERS DAMAGED BY CONSTRUCTION OR OTHER ACTIVITY SHALL BE REPLACED BY A PROFESSIONAL LAND SURVEYOR.
6) ALL WORK SHALL CONFORM TO STATE AND LOCAL CODES AND CONFORM TO THE CITY OF LEWISTON STANDARD DRAWINGS AND THE IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION (ISPWC), CURRENT EDITION. SPECIAL INSPECTIONS BY OWNER, NOT CONTRACTOR.
7) SITE DISTANCES FOR ABUTTING PROPERTIES, DRIVEWAYS, AND INTERSECTIONS MUST BE MAINTAINED.
8) IMPROVEMENTS CONSTRUCTED ON RIGHT-OF-WAY REQUIRE A STREET CUT PERMIT OBTAINED AT THE CONSTRUCTION MANAGEMENT SECTION OF THE PUBLIC WORKS DEPARTMENT.
9) ALL CONSTRUCTION NOT SPECIFICALLY MENTIONED OR SHOWN SHALL CONFORM TO CITY ORDINANCES AND STANDARDS.
10) SANITARY DISPOSAL TO BE PER CITY OF LEWISTON STANDARDS.
11) SPECIAL INSPECTION IS REQUIRED FOR SOIL COMPACTION, BASE MATERIAL, CONCRETE, CURB & GUTTER, SIDEWALK, ASPHALTIC CONCRETE PAVING, WASTEWATER MAINS, WATER MAINS, AND STORM DRAIN MAINS IN RIGHT-OF-WAY; *AND AS OTHERWISE REQUIRED BY THE CITY OF LEWISTON.*
12) UPON COMPLETION, CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS, COMPLETE WITH ELEVATIONS, TO THE ENGINEER OF RECORD TO BE APPROVED.
13) STREET NAME SIGNS ARE TO BE PAID FOR BY THE DEVELOPER AND INSTALLED BY THE CONTRACTOR.
14) CITY TO PARTICIPATE ON PRE-CONSTRUCTION AND OTHER VARIOUS CONSTRUCTION MEETINGS AS NEEDED.
15) *WHEREVER THE PLANS OR OTHER CONTRACT DOCUMENTS CALL FOR CITY APPROVAL, THE SAME SHALL BE DEEMED TO ALSO REQUIRE ENGINEER'S APPROVAL; CONTRACTOR SHALL CONFIRM CITY'S APPROVAL WITH ENGINEER PRIOR TO PROCEEDING.*
16) *CONFLICTS IN PLANS OR SPECIFICATIONS, OR REFERENCE STANDARDS SHALL BE RESOLVED BY THE ENGINEER, WHO SHALL HAVE THE RIGHT TO IMPOSE THE MORE DIFFICULT AND EXPENSIVE INTERPRETATION.*

GRADING NOTES

1) ALL TOPSOIL SHALL BE STRIPPED AND STOCKPILED BEFORE EXCAVATION.
2) ALL EXPOSED CUT/FILL SLOPES SHALL BE SEEDED TO PREVENT EROSION.
3) ALL ASPHALTIC CEMENT PAVING REMOVAL SHALL BE SAW CUT AND WHEN REPLACED, TACKED TO EXISTING PAVEMENT.
4) ALL CURB AND GUTTER SHALL BE HIGH BACK CURB AND GUTTER AS DEPICTED ON THE PLANS AND SHALL CONFORM TO CITY OF LEWISTON STANDARD DRAWINGS 2-6 AND 2-7.
5) SIDEWALKS SHALL CONFORM TO CITY OF LEWISTON STANDARD DRAWINGS 2-8, WITH CROSS SLOPE = 1.5% MAX.
6) EROSION AND DUST CONTROL MEASURES MUST BE USED DURING CONSTRUCTION TO REDUCE OR ELIMINATE BLOWING DUST, EXCESSIVE RUNOFF, AND SOIL EROSION ACROSS PROPERTY LINES AND INTO STREETS AND RIGHT-OF-WAY, AND TO ELIMINATE TRACKING SOIL AND MUD ONTO STREETS FROM CONSTRUCTION EQUIPMENT AND VEHICLES.
7) UNLESS OTHERWISE NOTED, STREET CROSS SECTIONS SHALL CONFORM TO CITY OF LEWISTON STANDARD DRAWING D-1.
8) ALL ROADWAY FILL SHALL BE AS A MINIMUM, CLEAN, UNIFORMLY GRADED, COMPACTED TO 95% OF THE MAX. DRY DENSITY DETERMINED BY MODIFIED PROCTOR, ASTM 1557. COMPACTION LAYERS SHALL BE 8" DEEP.
9) *ALL CUT-SLOPES SHALL BE CAREFULLY GRADED, DRESSED AND SCALED TO THE SATISFACTION OF THE ENGINEER AND THE CITY, SO AS TO MITIGATE FUTURE RAVELING.*

ASPHALT PAVEMENT/AGGREGATE NOTES

1) ALL ASPHALT PAVEMENT AND AGGREGATE SHALL CONFORM TO THE IDAHO TRANSPORTATION DEPARTMENT'S STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (SSFHC), CURRENT EDITION.
2) ASPHALTIC CONCRETE SHALL BE SUPERPAVE HMA, SP2, PG 64-28, CONFORMING TO SECTION 405 AND 703.05 OF ITD SSFHC, CURRENT EDITION.
3) CONTRACTOR TO SUBMIT A JOB MIX FORMULA (JMF) TO KELTIC ENGINEERING, INC FOR REVIEW AND APPROVAL A MINIMUM OF 7 WORKING DAYS PRIOR TO PAVING OPERATIONS. *THE MINIMUM 7 WORKING DAYS MUST NOT INCLUDE WEEKENDS OR HOLIDAYS. IF REVIEW AND APPROVAL IS REQUIRED BY THE CITY, A LONGER TIME MAY BE REQUIRED.*
4) ASPHALT ACCEPTANCE TEST STRIP NOT REQUIRED. ACCEPTANCE FOR PAVEMENT DENSITY WILL BE BASED ON THE DENSITY OF CORES TAKEN FROM THE FINISHED PAVEMENT.
5) ¾ " CRUSHED AGGREGATE BASE CONFORMING TO ITD SSFHC SECTION 703.04 AGGREGATE FOR UNTREATED BASE, TREATED BASE AND ROAD MIX - TABLE 703.04-1, ¾ IN B OR IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION (ISPWC), 2015, SECTION 802 - CRUSHED AGGREGATES, TABLE 1, ¾ IN. (TYPE 1).
6) PAVING OPERATIONS SHALL NOT BEGIN UNTIL THE CITY OF LEWISTON HAS APPROVED VIDEO INSPECTION AND REPORTING OF ALL STORMWATER AND WASTEWATER MAINS.

WATER NOTES

1) ALL WATER SYSTEMS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH IDAPA AND ALL STATE CODES FOR PUBLIC DRINKING WATER SYSTEMS MUST BE FOLLOWED COUPLED WITH THE CITY OF LEWISTON STANDARDS.
2) AN APPROVED BACKFLOW PREVENTION ASSEMBLY IS REQUIRED ON THE SUPPLY WATER LINE WHEN FILLING THE NEW WATER MAIN DURING DISINFECTION AND FLUSHING. THE BACKFLOW PREVENTION ASSEMBLY AND SUPPLY PIPING MUST BE REMOVED DURING HYDROSTATIC PRESSURE TESTING.
3) GATE VALVES SHALL CONFORM TO AWWA C 515-99 RESILIENT SEATED GATE VALVES FOR WATER AND SEWAGE SYSTEMS AND SHALL BE IRON BODY BRONZE-MOUNTED, DOUBLE DISC WITH BRONZE WEDGING AND 0-RING STUFFING BOX.
4) THE CONTRACTOR SHALL PROVIDE 4 FT MIN. COVER ON ALL WATER LINES AND PROVIDE 18" MINIMUM VERTICAL CLEARANCE BETWEEN POTABLE WATER LINE AND NON-POTABLE WATER LINE CROSSINGS. FOR ALL CROSSINGS LESS THAN 18" OF VERTICAL CLEARANCE, NON-POTABLE AND POTABLE LINES MUST BE A HORIZONTAL DISTANCE OF TEN FEET APART ON BOTH SIDES OF THE CROSSING, WITH NO JOINTS, AS SHOWN ON CITY OF LEWISTON STANDARD DETAIL 4-1.
5) THE CONTRACTOR IS RESPONSIBLE FOR FLUSHING AND PRESSURE TESTING THE NEW WATER MAIN. THESE TESTS MUST BE COMPLETED AND APPROVED BEFORE DISINFECTION PROCEDURES MAY BEGIN.
6) PROPOSED WATER LINES SHALL BE HYDROSTATICALLY TESTED AS PER AWWA C600-93. TESTS SHALL BE 1 1/2 TIMES THE HIGHEST WORKING PRESSURE, WITH A MINIMUM OF 150 PSI. PRESSURE SHALL BE HELD FOR 2 HOURS WITH NO DROP IN PRESSURE. ENGINEER OF RECORD SHALL WITNESS TEST. THE CITY OF LEWISTON WATER DIVISION, TO MAINTAIN THE INTEGRITY OF THE SYSTEM, SHALL OBSERVE THE FINAL TIE-IN.
7) THE CONTRACTOR SHALL PROVIDE LOCATE WIRE AND BURY TAPE IN PVC WATER MAIN TRENCH PER CITY OF LEWISTON STANDARD DWG 1-8. IF COMBUSTIBLE BUILDING MATERIALS ARE USED (INCLUDING FRAMING) THE WATER SUPPLY (INCLUDING MAINS AND HYDRANTS) SHALL BE DESIGNED, INSTALLED, TESTED AND APPROVED BY THE FIRE DEPARTMENT PRIOR TO STOCKPILING COMBUSTIBLE BUILDING MATERIALS.
8) WATER LINE CONNECTIONS TO MAINS AND LATERALS SHALL BE LEFT UNCOVERED UNTIL AFTER THE CITY ENGINEER AND THE ENGINEER ON RECORD HAVE INSPECTED AND APPROVED THE WORK. AFTER APPROVAL OF CONNECTION, THE TRENCH SHALL BE BACKFILLED AS SPECIFIED.
9) WATER MAINS SHALL BE INSTALLED BY CONTRACTORS WITH EXPERIENCE INSTALLING PUBLIC WATER MAINS AND APPROVED BY THE CITY OF LEWISTON.
10) ALL PIPING AND FITTING MATERIAL SHALL BE NEW UNLESS OTHERWISE APPROVED BY THE CITY OF LEWISTON WATER DIVISION AND THE IDAHO DEPARTMENT OF ENVIRONMENTAL QUALITY.
11) WATER MAINS SHALL BE LAID ONLY IN DEDICATED STREETS ACCEPTED BY THE CITY OF LEWISTON.
12) WATER MAIN SHALL BE PVC C-900 PIPE CONFORMING TO AWWA C900-16.
13) WATER LINE FITTINGS SHALL BE CAST IRON OR DUCTILE IRON CONFORMING TO AWWA STANDARD C153.
14) DISINFECTION OF WATER PIPES SHALL BE IN ACCORDANCE WITH AWWA C-651-92. ISOLATE NEW PIPE FROM EXISTING SYSTEM TO PREVENT POTENTIAL CROSS-CONNECTION. THE CITY OF LEWISTON WATER DIVISION SHALL PERFORM THE CHLORINATION AND BACTERIAL TESTING. ENGINEER OF RECORD SHALL WITNESS TEST.
15) THE NUMBER OF WATER SAMPLES TAKEN WILL DEPEND UPON THE LENGTH AND NUMBER OF BRANCHES OF THE NEW MAIN BUT A MINIMUM OF TWO SAMPLES MUST BE TAKEN. THESE SAMPLES SHALL BE TAKEN FROM EACH END OF THE NEW WATER MAIN. TWO CONSECUTIVE SAMPLES AT LEAST TWENTY-FOUR HOURS APART MUST BE REPORTED AND DISPLAY NEGATIVE BACTERIOLOGICAL RESULTS. RESULTS FROM BACTERIOLOGICAL TESTING WILL BE AVAILABLE APPROXIMATELY 26 HOURS AFTER THE LAST SAMPLE IS TAKEN. THE CONTRACTOR SHALL PAY FOR ALL FEES ASSOCIATED WITH THE CHLORINATION AND BACTERIAL TESTING.

STORM DRAINAGE NOTES

1) STORM DRAIN MAINS SHALL BE INSTALLED BY CONTRACTORS W/ EXPERIENCE INSTALLING PUBLIC STORM DRAIN MAINS AND APPROVED BY THE CITY OF LEWISTON.
2) ALL EXISTING LIVE STORM DRAINS SHALL BE KEPT IN SERVICE AT ALL TIMES. PROVISIONS SHALL BE MADE FOR DISPOSAL OF STORM FLOW IF ANY EXISTING STORM DRAINS ARE DAMAGED. DAMAGE TO EXISTING STORM DRAINS SHALL BE REPAIRED BY THE CONTRACTOR, AT NO EXPENSE TO THE CITY, TO A CONDITION EQUAL TO OR BETTER THAN CONDITIONS PRIOR TO THE DAMAGE.
3) STORM DRAIN MAIN SHALL BE LAID ONLY IN DEDICATED STREETS OR IN EASEMENTS WHICH HAVE BEEN GRANTED AND ACCEPTED BY THE CITY OF LEWISTON.
4) STORM DRAIN PIPES SHALL BE ADS N-12 WT COLLECTION PIPE NOMINAL SIZES 4-36 INCH DIAMETER AND SHALL MEET OR EXCEED ALL THE REQUIREMENTS OF AASHTO M 252 OR AASHTO M 294, CURRENT EDITION.
5) THE NOMINAL SIZE FOR THE PIPE AND FITTINGS IS BASED ON THE NOMINAL INSIDE DIAMETER OF THE PIPE. CORRUGATED FITTINGS MAY BE EITHER MOLDED OR FABRICATED BY THE MANUFACTURER. FITTINGS SUPPLIED BY MANUFACTURERS OTHER THAN THE SUPPLIER OF THE PIPE SHALL NOT BE PERMITTED WITHOUT THE APPROVAL OF THE PROJECT ENGINEER.
6) STORM DRAIN LINE CONNECTIONS TO TRUNKS, MAINS, LATERALS, OR SIDE STORM DRAINS SHALL BE LEFT UNCOVERED UNTIL AFTER THE CITY ENGINEER HAS INSPECTED AND APPROVED THE WORK. AFTER APPROVAL OF CONNECTION, THE TRENCH SHALL BE BACKFILLED AS SPECIFIED.
7) FINAL ADJUSTMENT AND GROUTING OF THE STORM DRAIN MANHOLE RINGS SHALL BE DONE BY THE PAVING CONTRACTOR.
8) INSTALLATION SHALL BE IN ACCORDANCE WITH ASTM RECOMMENDED PRACTICE D 2321, OR AS SHOWN ON THE PROJECT PLANS.
9) ALL STORM DRAIN LINES SHALL BE INSPECTED BY THE USE OF A TELEVISION CAMERA BEFORE FINAL ACCEPTANCE. 1

WASTEWATER NOTES

1) SEWER MAINS SHALL BE INSTALLED BY CONTRACTORS W/ EXPERIENCE INSTALLING PUBLIC SEWER MAINS AND APPROVED BY THE CITY OF LEWISTON.
2) ALL EXISTING LIVE SEWERS SHALL BE KEPT IN SERVICE AT ALL TIMES. PROVISIONS SHALL BE MADE FOR DISPOSAL OF SEWAGE FLOW IF ANY EXISTING SEWERS ARE DAMAGED. DAMAGE TO EXISTING SEWERS SHALL BE REPAIRED BY THE CONTRACTOR, AT NO EXPENSE TO THE CITY, *OR TO THE OWNER;* TO A CONDITION EQUAL TO OR BETTER THAN CONDITIONS PRIOR TO THE DAMAGE.
3) SEWER MAIN SHALL BE LAID ONLY IN DEDICATED STREETS ACCEPTED BY THE CITY OF LEWISTON.
4) GRAVITY SEWER PIPES SHALL BE P.V.C. POLYVINYL CHLORIDE PIPE AND SHALL CONFORM TO THE REQUIREMENTS OF ASTM D 3034 SDR 35 OR ASTM F 789. JOINTS FOR P.V.C. PIPE SHALL CONFORM TO ASTM D 3212 USING RESTRAINED GASKETS CONFORMING TO ASTM F477. FITTINGS FOR P.V.C. PIPE SHALL BE INJECTION MOLDED TEES OR FACTORY SOLVENT CEMENTED SADDLE TEES.
5) PRESSURE SEWER PIPE SHALL BE HDPE DR 11 (MINIMUM) CONFORMING TO THE REQUIREMENTS OF ASTM D3035 OR ASTM F714. JOINTS SHALL BE FULLY WELDED.
6) SEWER LINE CONNECTIONS TO TRUNKS, MAINS, LATERALS, OR SIDE SEWERS SHALL BE LEFT UNCOVERED UNTIL AFTER THE CITY ENGINEER HAS INSPECTED AND APPROVED THE WORK. AFTER APPROVAL OF CONNECTION, THE TRENCH SHALL BE BACKFILLED AS SPECIFIED.
7) ALL WORK INVOLVED IN CLEANING AND TESTING SEWER LINES BETWEEN MANHOLES OR RODDING INLETS AS REQUIRED HEREIN SHALL BE COMPLETED WITHIN FIFTEEN DAYS AFTER BACKFILLING OF SEWER LINES AND STRUCTURES. ANY FURTHER DELAY WILL REQUIRE THE WRITTEN CONSENT OF THE ENGINEER OF RECORD.
8) ALL SANITARY SEWER LINES SHALL BE INSPECTED BY THE USE OF A TELEVISION CAMERA BEFORE FINAL ACCEPTANCE.
9) SEWER LINES SHALL BE AIR TESTED WITH A PRESSURE 4 PSI GREATER THAN AVERAGE GROUND WATER PRESSURE THAT MAY SUBMERGE THE PIPE. ALLOW A TWO MINUTE STABILIZATION TIME. AIR LOSS SHALL NOT EXCEED A TOTAL RATE OF 2 CFM OR 0.0030 CFM PER SQUARE FOOT OF INTERNAL PIPE SURFACE, WHICHEVER IS GREATER. ENGINEER OF RECORD SHALL WITNESS THE TEST.
10) SANITARY SEWER STUBS SHALL HAVE THEIR TERMINATIONS PERMANENTLY MARKED WITH A 5' STEEL FENCE POST, FOR EASE OF FUTURE LOCATION.
11) SEWER MANHOLES SHALL BE CONSTRUCTED IN CONFORMANCE WITH CITY OF LEWISTON STANDARD DWG 5-3. USE NON-SHRINK GROUT OR GASKETED MANHOLE COUPLERS FOR MANHOLE-PIPE CONNECTIONS.
12) 'TIE-INS' TO EXISTING MANHOLES SHALL INCLUDE THE CONSTRUCTION OF NEAT, NEW, WATERTIGHT INVERTS, AS APPROVED BY THE CITY ENGINEER.
13) FINAL ADJUSTMENT AND GROUTING OF THE SANITARY SEWER AND STORM DRAIN MANHOLE RINGS SHALL BE DONE BY THE PAVING CONTRACTOR WHEN MANHOLE IS LOCATED IN A PAVED AREA. THE CONTRACTOR INSTALLING THE MAIN SHALL PROVIDE FINAL ADJUSTMENT AND GROUTING OF MANHOLE RINGS UNLESS IN PAVING.

No.	DATE	BY	DESCRIPTION
1	08/22/18	MSR	CITY COMMENTS 08/16/18

CONSTRUCTION NOTES #2

CRESTLINE CIRCLE DRIVE

VALLEY VISTA PUD

LEWISTON, ID 83501

KELTIC ENGINEERING, INC.

315 Adams Lane ◊ Lewiston, Idaho 83501 ◊ (208) 743-2135 ◊ (208) 743-2136 fax

Development ⊕ Planning ⊕ Design ⊕ Construction Management

PROFESSIONAL ENGINEER REGISTERED 6064 4/09/19 STATE OF IDAHO ERIC HASENOEHRL

DRAWN BY:	CHECKED BY:
MSR	EFH

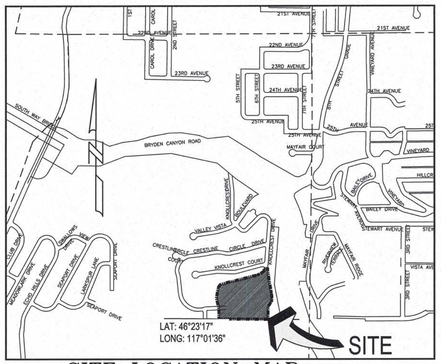
DESIGNED BY: EFH

DATE: 07/13/18

LAST REV.: 08/22/18

PROJECT NO. 17-0089

SHEET NO. C3 OF C14



SITE LOCATION MAP

Not to Scale

AREA SUMMARY (IN ACRES)	
SITE AREA	9.6 AC ±
DISTURBED AREA	3.3 AC ±
IMPERVIOUS AREA	0 AC ±
PERVIOUS AREA	9.6 AC ±
TOTAL IMPERVIOUS AREA AT COMPLETION	0.4 AC ±
PERVIOUS / SEEDED AREA AT COMPLETION	2.9 AC ±

STORMWATER OUTFLOW
RUNOFF THROUGH EXISTING DRAINAGEWAYS TO THE SNAKE RIVER
SNAKE RIVER - 1.00 MILE WEST

LEGEND

- LIMITS OF CLEARING AND GRADING
- DISTURBED AREA
- PRE-DEVELOPED STORM WATER FLOW DIRECTION
- POST-DEVELOPED STORM WATER FLOW DIRECTION
- DRAINAGE DITCH
- XXX — PROPOSED FINISHED GRADE
- SILT FENCE

EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES

From Stormwater Catalog of Stormwater BMPS for Idaho Cities and Counties

BMP 1	TIMING OF CONSTRUCTION
BMP 2	STAGING AREAS
BMP 3	PRESERVATION OF EXISTING VEGETATION
BMP 4	CLEARING LIMITS
BMP 5	STABILIZATION OF CONSTRUCTION ENTRANCE/EXIT
BMP 6	EROSION PREVENTION ON TEMPORARY ROADS
BMP 7	DUST CONTROL
BMP 8	COVER FOR MATERIALS AND EQUIPMENT
BMP 9	STOCKPILE MANAGEMENT
BMP 10	SPILL PREVENTION AND CONTROL
BMP 11	VEHICLE/EQUIPMENT WASHING AND MAINTENANCE
BMP 12	WASTE MANAGEMENT
BMP 13	CONCRETE WASTE MANAGEMENT
BMP 14	SANITARY / SEPTIC WASTE MANAGEMENT
BMP 15	MULCHING
BMP 16	HYDROMULCHING
BMP 18	MATTING
BMP 20	TOPSOILING
BMP 21	SEEDING
BMP 22	SODDING
BMP 30	RIPRAP SLOPE AND OUTLET PROTECTION
BMP 31	INLET PROTECTION
BMP 32	CHECK DAMS
BMP 36	SILT FENCE
BMP 37	VEGETATIVE BUFFER STRIP
BMP 38	SEDIMENTATION TRAP
BMP 40	TEMPORARY SWALE

BMP MAINTENANCE NOTES

ALL MEASURES STATED ON THIS EROSION AND SEDIMENT CONTROL PLAN AND IN THE STORM WATER POLLUTION PREVENTION EXPLANATION, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT, AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

1. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING, OR DETERIORATION.
2. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED, AND RESEEDED AS NEEDED.
3. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-THIRD THE HEIGHT OF THE SILT FENCE.
4. THE CONSTRUCTION EXITS SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION EXITS AS CONDITIONS DEMAND.
5. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AS CONDITIONS DEMAND.
6. OUTLET STRUCTURES SHALL BE MAINTAINED IN OPERATIONAL CONDITIONS AT ALL TIMES.
7. PRIOR TO LEAVING THE SITE, ALL VEHICLES SHALL BE CLEANED OF DEBRIS. ANY DEBRIS AND / OR SEDIMENT REACHING THE PUBLIC STREET SHALL BE CLEANED IMMEDIATELY BY A METHOD OTHER THAN FLUSHING.

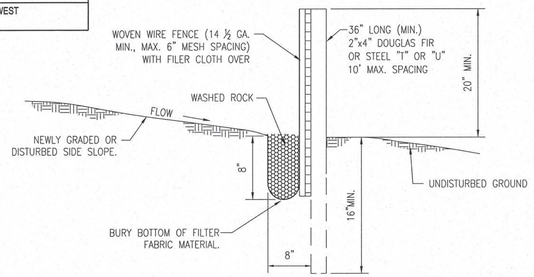
BMP 1–SEQUENCE OF WORK

NOTE: UPON IMPLEMENTATION AND INSTALLATION OF THE FOLLOWING AREAS: TRAILER, PARKING, LAY DOWN, PORTABLE SANITARY UNIT, CONCRETE WASHOUT, FUEL AND MATERIAL STORAGE CONTAINERS, SOLID WASTE CONTAINERS, ETC., IMMEDIATELY DENOTE THEM ON THE SITE MAPS AND NOTE ANY CHANGES IN LOCATION AS THEY OCCUR THROUGHOUT THE CONSTRUCTION PROCESS.

1. INSTALL STABILIZED CONSTRUCTION ENTRANCE AND SWPPP INFORMATION SIGN.
2. INSTALL EROSION AND SEDIMENT CONTROLS (CLEAR ONLY THOSE AREAS NECESSARY TO INSTALL SILT FENCE).
3. BEGIN CLEARING AND GRUBBING AND DEMOLITION THE SITE (STOCKPILE ALL TOPSOIL FOR LATER USE).
4. BEGIN GRADING OF SITE.
5. TEMPORARY STABILIZATION OF AREAS NOT WORKING ON.
6. INSTALL UTILITIES, SANITARY SEWER, STORM DRAIN, WATER, JOINT UTILITIES.
7. INSTALL CURB AND GUTTER
8. ROCK ROADWAY
9. FINAL PAVING OF ROAD
10. COMPLETE GRADING AND INSTALLATION OF PERMANENT STABILIZATION OVER ALL AREAS.
11. REMOVE ALL REMAINING TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES. STABILIZE ANY AREAS DISTURBED BY THE REMOVAL OF BMP'S.

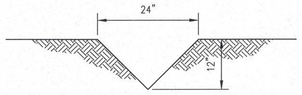
EROSION CONTROL NOTES

1. IF THE PROJECT DISTURBS OVER ONE (1) ACRE OF LAND A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AND NOTICE OF INTENT (NOI) ARE REQUIRED, ACCORDING TO THE EPA'S CONSTRUCTION GENERAL PERMIT, AND SHALL BE RETAINED EITHER ON SITE OR WITHIN REASONABLE ACCESS FROM THE SITE. ADDITIONALLY, IF A SITE DISCHARGES WATER DIRECTLY TO SURFACE WATERS OF THE UNITED STATES A SWPPP AND NOI ARE REQUIRED. *DELAYS AND DISRUPTIONS RELATING IN WHOLE OR IN PART TO SATISFYING EROSION CONTROL STANDARDS, STATUTES, AND REGULATIONS, OR TO PROCURING ANY NECESSARY PERMITS OR APPROVALS, SHALL NOT BE A BASIS FOR ADJUSTMENT OF CONTRACT TIME OR PRICE. ALL EROSION CONTROL WORK SHALL BE INCIDENTAL TO OTHER BID ITEMS.*
2. APPROVAL OF THE EROSION CONTROL ELEMENT DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT SITE OR DRAINAGE DESIGN.
3. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORM WATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN AND THE STATE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT (NPDES PERMIT) AND BECOME FAMILIAR WITH THEIR CONTENTS.
4. BMP INSPECTIONS SHALL BE PERFORMED BY QUALIFIED PERSONNEL. QUALIFIED PERSONNEL MEANS A PERSON WHO POSSES THE SKILLS TO ASSESS CONDITIONS AT THE CONSTRUCTION SITE THAT COULD IMPACT STORMWATER QUALITY AND TO ASSESS THE EFFECTIVENESS OF ANY SEDIMENT AND EROSION CONTROL MEASURES SELECTED TO CONTROL THE QUALITY OF STORMWATER DISCHARGES FROM THE CONSTRUCTION ACTIVITY.
5. INSPECTIONS SHALL INCLUDE ALL AREAS OF THE SITE DISTURBED BY CONSTRUCTION ACTIVITY AND AREAS USED FOR THE STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION. THE INSPECTOR SHALL LOOK FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE STORMWATER CONVEYANCE SYSTEM. SEDIMENTATION AND EROSION CONTROL MEASURES MUST BE OBSERVED TO ENSURE PROPER OPERATION.
6. THE TEMPORARY EROSION AND SEDIMENT CONTROL PLAN SHALL BE MODIFIED TO MATCH THE ACTUAL LOCATIONS OF BMPS AT THE SITE. MODIFICATIONS TO THE PLAN CAN ALSO BE MADE IN THE EVENT THAT THE CONTRACTOR OR INSPECTOR DETERMINES THAT ANY BMP IS INEFFECTIVE, OR THAT A DIFFERENT BMP IS MORE EFFECTIVE.
7. IMPLEMENTATION, CONSTRUCTION, MAINTENANCE, REPLACEMENT AND UPGRADING OF ALL EROSION CONTROL MEASURES IS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED AND ALL VEGETATION / LANDSCAPING IS ESTABLISHED.
8. THE EROSION CONTROL FACILITIES ON THIS PLAN MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES TO ENSURE THAT SEDIMENT-LADEN WATER DOES NOT ENTER THE DRAINAGE SYSTEM OR VIOLATE APPLICABLE WATER STANDARDS.
9. ALL EROSION CONTROL FACILITIES SHALL BE INSPECTED DAILY BY THE CONTRACTOR AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING.
10. SUFFICIENT OIL AND GREASE ABSORBING MATERIALS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.
11. ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) SHALL BE DETAINED AND PROPERLY TREATED OR DISPOSED.
12. DURING PERIODS OF ACTIVE CONSTRUCTION BMP INSPECTIONS SHALL BE PERFORMED ONCE EVERY SEVEN DAYS AND WITHIN 24 HOURS OF ANY SIGNIFICANT STORM EVENT (1/2 INCH OR GREATER).
13. DURING PERIODS OF INACTIVITY BMP INSPECTIONS SHALL BE PERFORMED ONCE MONTHLY AND WITHIN 48 HOURS OF ANY SIGNIFICANT STORM EVENT (1/2 INCH OR GREATER).
14. FILTER FABRIC SHALL BE PLACED UNDER THE GRATES OF NEWLY INSTALLED CATCH BASINS UNTIL PAVING OPERATIONS ARE COMPLETE. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT LADEN WATER INTO THE DOWNSTREAM SYSTEM.
15. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND SHALL BE MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES MUST BE TAKEN BY THE CONTRACTOR, IF NECESSARY, TO ENSURE THAT ALL EXISTING PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
16. SEED, MULCH, AND FERTILIZE ALL DISTURBED GROUND NOT RECEIVING HARD SURFACE AT THE EARLIEST POSSIBLE TIME. USE SEED MIXES AND RATES AS PER LANDSCAPE DESIGNER.
17. EROSION AND DUST CONTROL MEASURES MUST BE USED DURING CONSTRUCTION TO REDUCE OR ELIMINATE BLOWING DUST, EXCESSIVE RUNOFF, AND SOIL EROSION ACROSS PROPERTY LINES AND INTO STREETS AND RIGHT-OF-WAY, AND TO ELIMINATE TRACKING SOIL AND MUD ONTO STREETS FROM CONSTRUCTION EQUIPMENT AND VEHICLES. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.
18. ALL ENTRANCES NOT PROTECTED WITH A CONSTRUCTION ENTRANCE FEATURE SHALL BE BLOCKED.
19. MATERIAL TRACKED ONTO THE ROADWAY CANNOT BE WASHED INTO THE STORM SYSTEM.
20. STREETS SHALL BE SWEPT PRIOR TO A STORM EVENT OR AT THE REQUEST OF THE ENGINEER OR THE CITY.
21. ALL DENUDED AREAS THAT WILL BE INACTIVE FOR 10 DAYS DURING DRY SEASON (JULY 1 - SEPTEMBER 30) AND 5 DAYS DURING WET SEASON (OCTOBER 1 - JUNE 30) OR MORE, MUST BE STABILIZED TEMPORARILY WITH THE USE OF FAST-GERMINATING ANNUAL GRASS / GRAIN VARIETIES, STRAW / HAY MULCH, WOOD CELLULOSE FIBERS, TACKIFIERS, NETTING OR BLANKETS AS SHOWN ON SITE MAP.
22. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE PERMANENTLY STABILIZED AS SHOWN ON THE PLANS. THESE AREAS SHALL BE SEEDED, SODDED, AND / OR VEGETATED NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS. REFER TO THE GRADING PLAN AND / OR LANDSCAPE PLAN.
23. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.
24. CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING SEDIMENT IN THE DETENTION POND AND ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM DRAINAGE SYSTEMS IN CONJUNCTION WITH STABILIZATION OF THE SITE.
25. ON-SITE & OFF-SITE SOIL STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BEST MANAGEMENT PRACTICES. STOCKPILE AND AREA LOCATIONS SHALL BE NOTED ON THE SITE MAP AND PERMITTED IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS.
26. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.
27. DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION CONTROL MEASURES (SILT FENCES, ETC.) TO PREVENT EROSION AND POLLUTANT DISCHARGE.
28. INSPECTIONS SHALL INCLUDE ALL AREAS OF THE SITE DISTURBED BY CONSTRUCTION ACTIVITY AND AREAS USED FOR THE STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION. THE INSPECTOR SHALL LOOK FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE STORMWATER CONVEYANCE SYSTEM. SEDIMENTATION AND EROSION CONTROL MEASURES MUST BE OBSERVED TO ENSURE PROPER OPERATION.
29. GENERAL CONTRACTOR IS TO DESIGNATE / IDENTIFY AREAS ON THE SITE MAPS, INSIDE OF THE LIMITS OF DISTURBANCE, FOR WASTE DISPOSAL AND DELIVERY AND MATERIALS STORAGE.
30. REFER TO THE SWPPP FOR REPORTABLE SPILL QUANTITIES OF PETROLEUM PRODUCTS AND / OR HAZARDOUS WASTES.
31. THE CONTRACTOR MUST COMPLY WITH A SITE SWEEPING PLAN WITH A MINIMUM SWEEPING FREQUENCY OF ONCE PER WEEK IN DRY WEATHER CONDITIONS AND ONCE PER DAY WHEN RAINFALL OCCURS.
32. SEDIMENT OR OTHER POLLUTION-LADEN STORM WATER TO BE CONTAINED AND NOT ALLOWED TO DISCHARGE TO A STORM DRAIN.



SILT FENCE

NTS

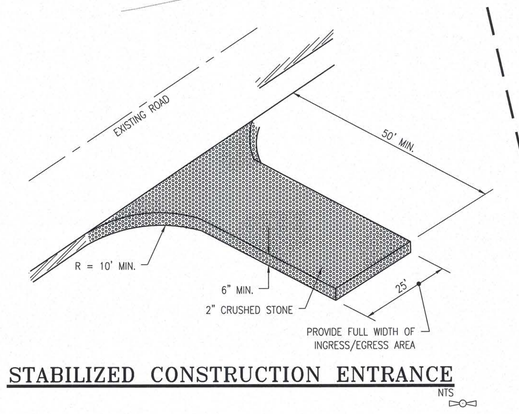


V-DITCH

BMP 40 NTS

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

CALL 2 BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES



STABILIZED CONSTRUCTION ENTRANCE

NTS

EROSION CONTROL PLAN

50 0 50 100

Scale: 1" = 50'

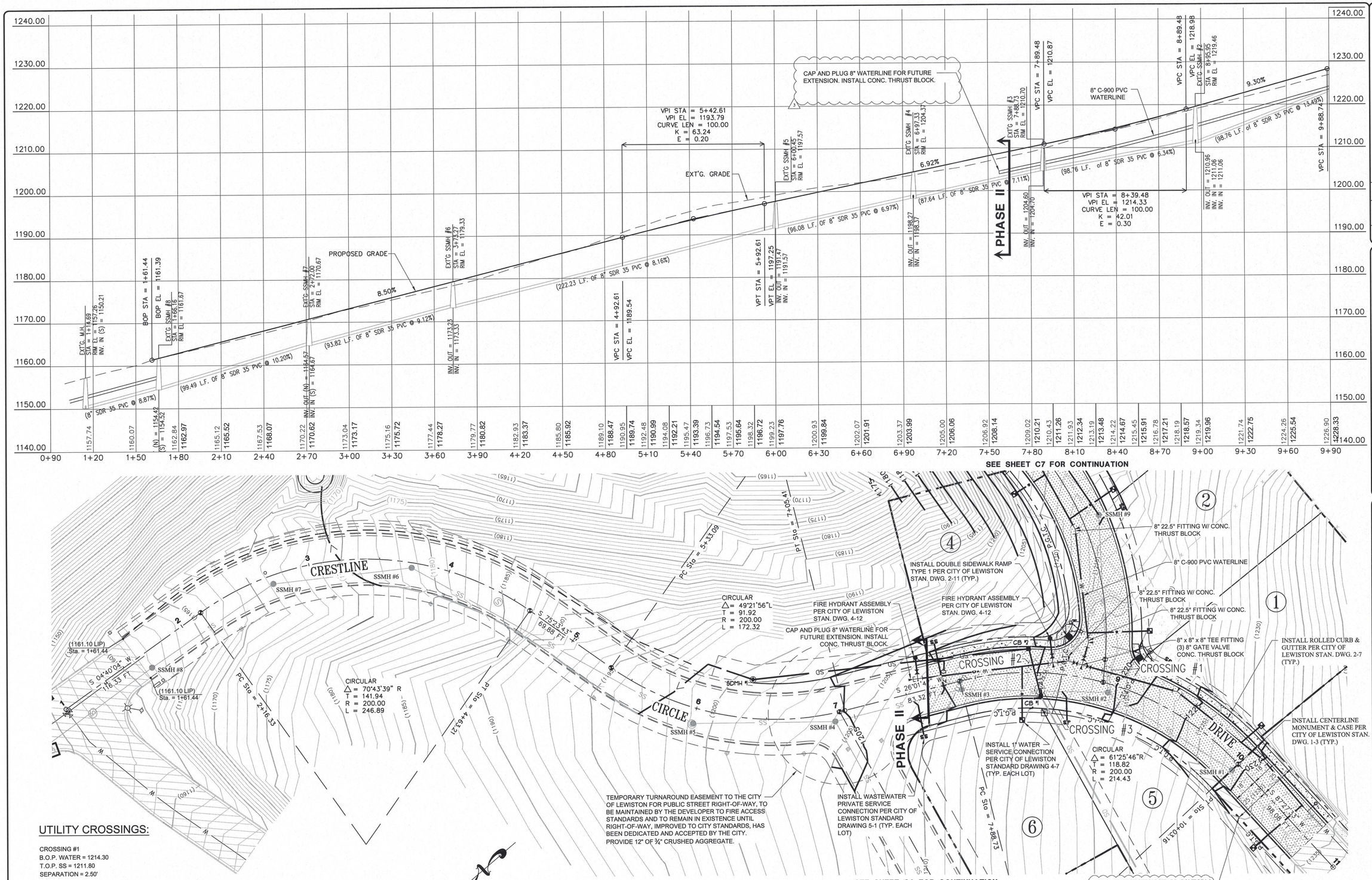
No.	DATE	BY	DESCRIPTION
1	08/22/18	MSR	CITY COMMENTS 08/16/18
2	09/14/18	MSR	REVISED STORMWATER - ADDED DETENTION POND
3	11/08/18	MSR	CITY COMMENTS

EROSION CONTROL PLAN
CRESTLINE CIRCLE DRIVE
VALLEY VISTA PUD
LEWISTON, ID. 83501

KELTIC ENGINEERING, INC.
315 Adams Lane ◊ Lewiston, Idaho 83501 ◊ (208) 743-2135 ◊ (208) 743-2136 fax
Development ⊕ Planning ⊕ Design ⊕ Construction Management

PROFESSIONAL ENGINEER REGISTERED 6064 STATE OF IDAHO ERIC HASENOEHRL 11/09/18

DRAWN BY: MSR	CHECKED BY: EFH
DESIGNED BY:	EFH
DATE:	07/13/18
LAST REV.:	11/08/18
PROJECT NO.	17-0089
SHEET NO.	C4 OF C14



UTILITY CROSSINGS:

CROSSING #1
B.O.P. WATER = 1214.30
T.O.P. SS = 1211.80
SEPARATION = 2.50'

CROSSING #2
T.O.P. WATER = 1210.74
B.O.P. S/D = 1211.36
SEPARATION = 0.62'

CROSSING #3
T.O.P. SS = 1208.58
B.O.P. S/D = 1211.72
SEPARATION = 3.14'

CRESTLINE CIRCLE DRIVE STA. 1+00 TO 9+60

30 0 30 60
Scale: 1" = 30'

WATER & SEWER LATERAL NOTE:

WATER AND SEWER LATERALS TO EACH LOT SHALL BE LOCATED 5' MIN. FROM PROPERTY LINE.

No.	DATE	BY	DESCRIPTION
2	08/22/18	MSR	CITY COMMENTS 08/16/18
1	11/08/18	MSR	CITY COMMENTS

CRESTLINE CIRCLE DRIVE PLAN & PROFILE

CRESTLINE CIRCLE DRIVE

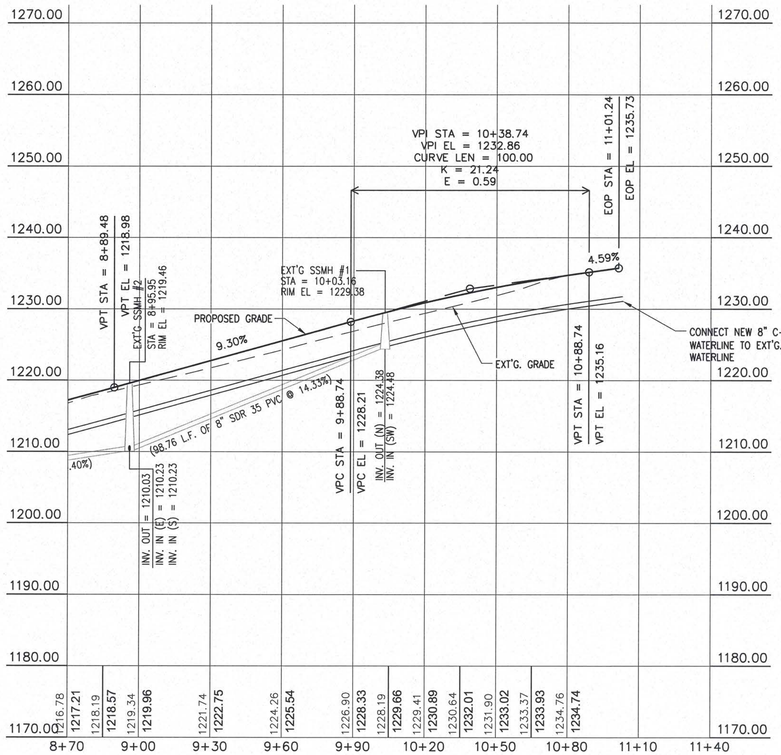
VALLEY VISTA PUD

LEWISTON, ID. 83501

KELTIC ENGINEERING, INC.
315 Adams Lane ◊ Lewiston, Idaho 83501 ◊ (208) 743-2135 ◊ (208) 743-2136 fax
Development ⊕ Planning ⊕ Design ⊕ Construction Management

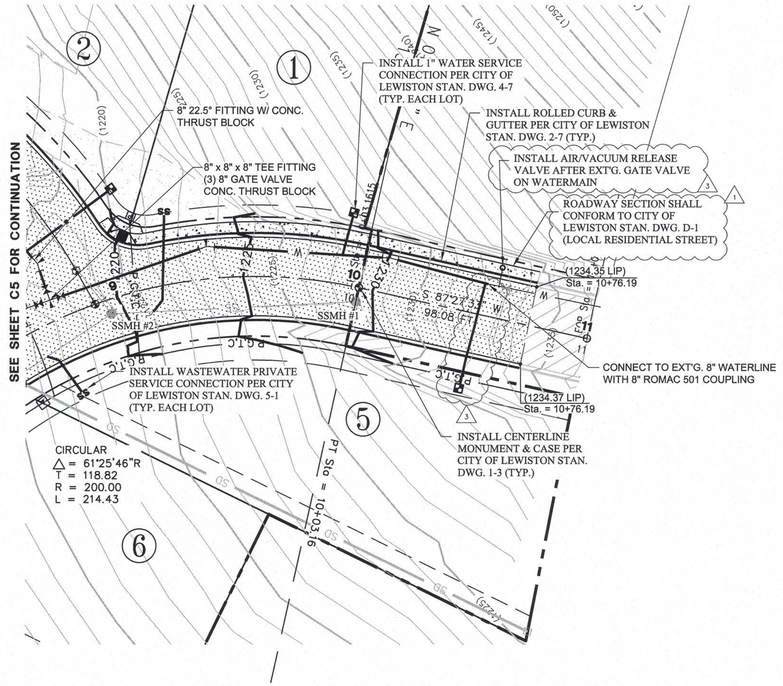
PROFESSIONAL ENGINEER REGISTERED 6064 11/09/18 STATE OF IDAHO ERIC HASENOEHRL

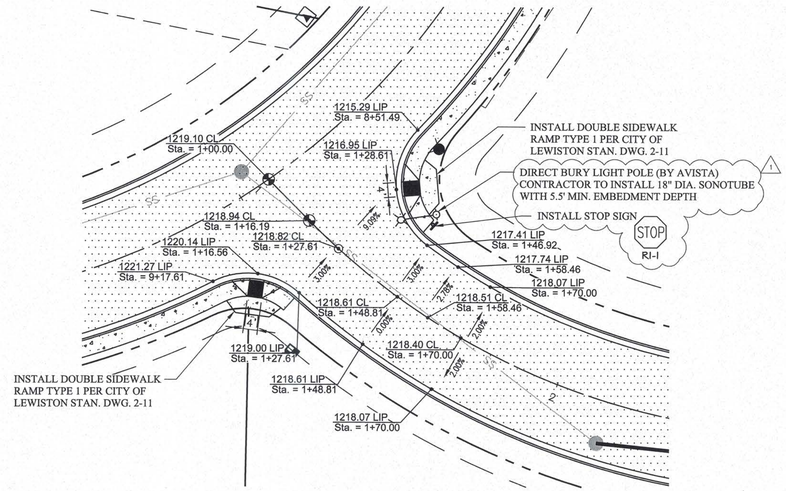
DRAWN BY: MSR	CHECKED BY: EFH
DESIGNED BY: EFH	
DATE: 07/13/18	
LAST REV.: 11/08/18	
PROJECT NO. 17-0089	
SHEET NO. C5 OF C14	



CRESTLINE CIRCLE DRIVE STA. 8+70 TO 11+01.24

Scale: 1" = 30'





CRESTLINE CIRCLE DRIVE – EASTWAY COURT

Scale: 1" = 20'

No.	DATE	BY	DESCRIPTION
1	08/22/18	MSR	CITY COMMENTS 08/16/18
2	11/08/18	TML	CITY COMMENTS

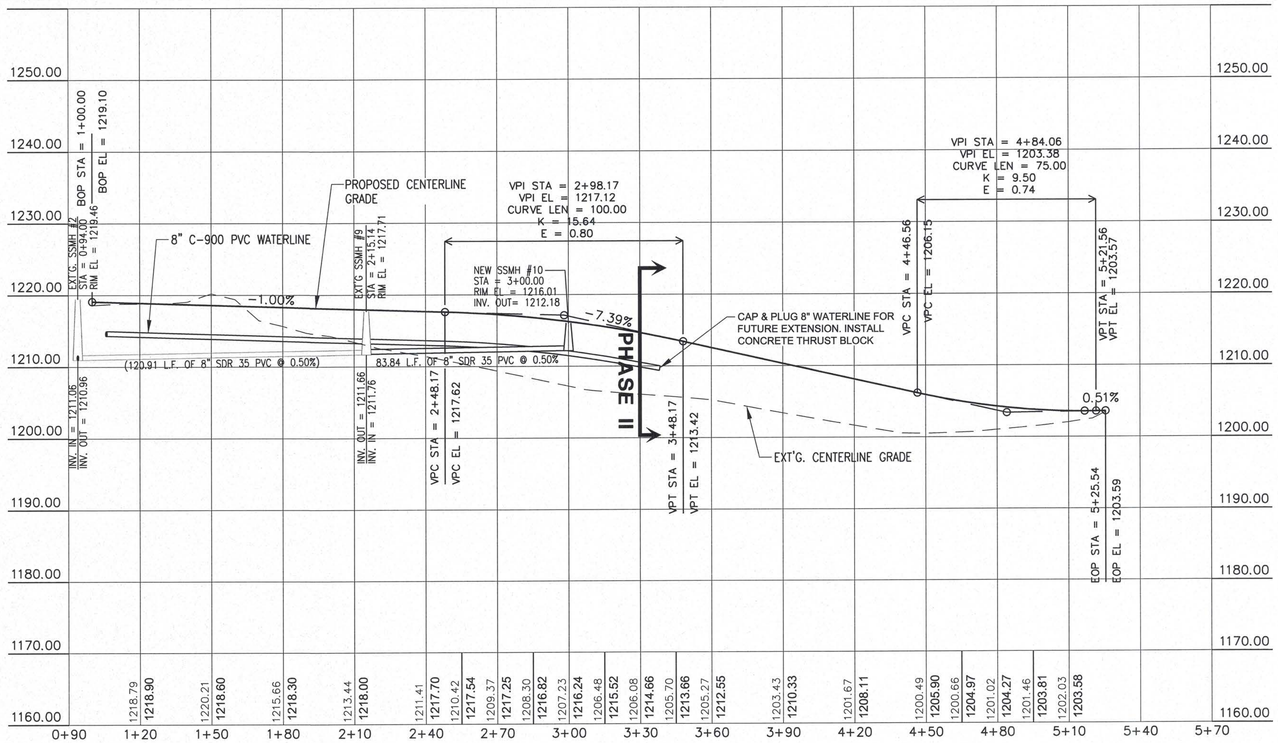
CRESTLINE CIRCLE DRIVE INTERSECTIONS

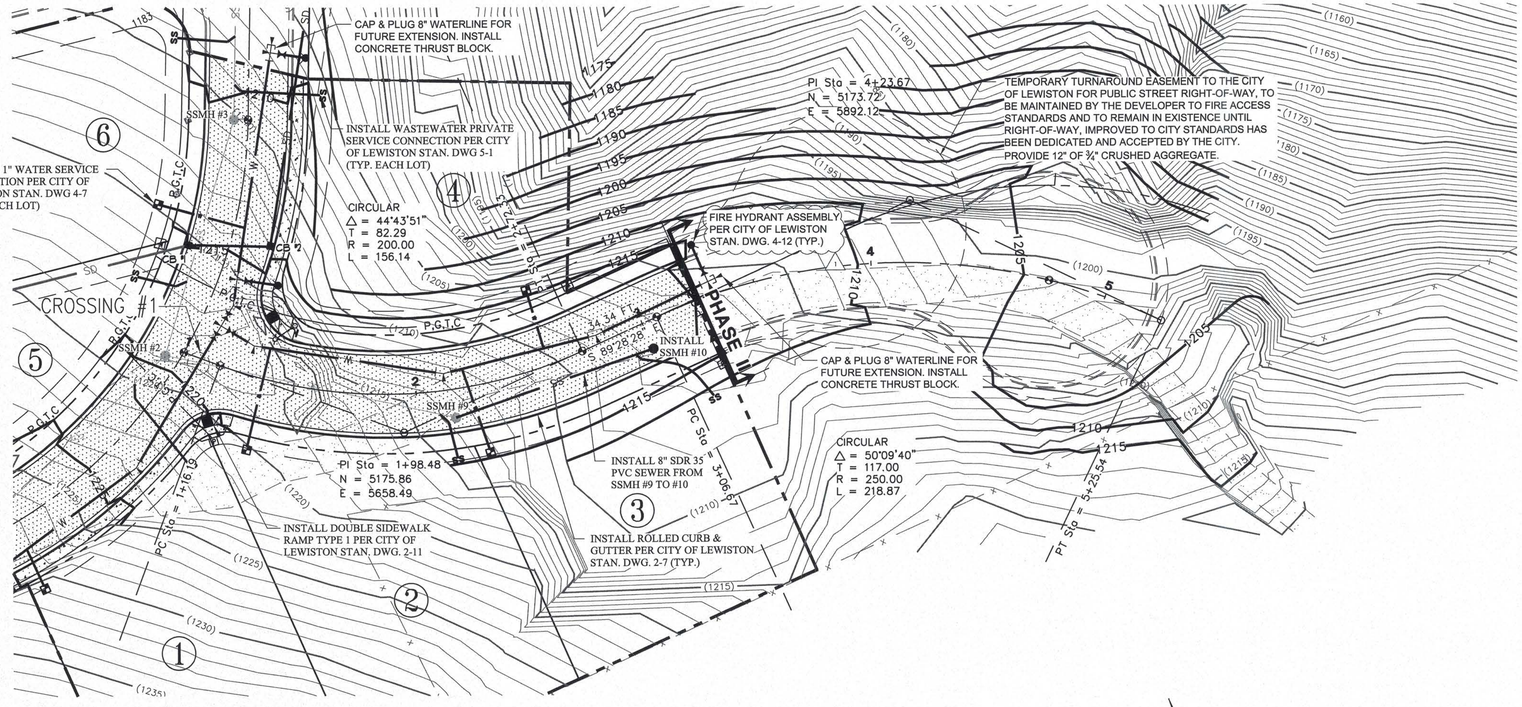
CRESTLINE CIRCLE DRIVE
VALLEY VISTA PUD
LEWISTON, ID. 83501

KELTIC ENGINEERING, INC.
315 Adams Lane ◊ Lewiston, Idaho 83501 ◊ (208) 743-2135 ◊ (208) 743-2136 fax
Development ✠ Planning ✠ Design ✠ Construction Management

PROFESSIONAL ENGINEER REGISTERED 6064 11/07/18 STATE OF IDAHO ERIC HASENOEHRL

DRAWN BY:	CHECKED BY:
MSR	EFH
DESIGNED BY:	EFH
DATE:	07/13/18
LAST REV.:	11/08/18
PROJECT NO.	17-0089
SHEET NO.	C6 OF C14





UTILITY CROSSING:

CROSSING #1
B.O.P. WATER = 1214.30
T.O.P. SS = 1211.80
SEPARATION = 2.50'

WATER & SEWER LATERAL NOTE:

WATER AND SEWER LATERALS TO EACH LOT SHALL BE LOCATED 5' MIN. FROM PROPERTY LINE. WHERE TRANSFORMERS OR UTILITY BOXES AREA SHOWN, LATERALS SHALL BE LOCATED 10' MIN. FROM PROPERTY LINE.

EASTWAY COURT STA. 1+00 TO 5+25.54

30 0 30 60
Scale: 1" = 30'

No.	DATE	BY	DESCRIPTION
1	08/22/18	MSR	CITY COMMENTS 08/16/18

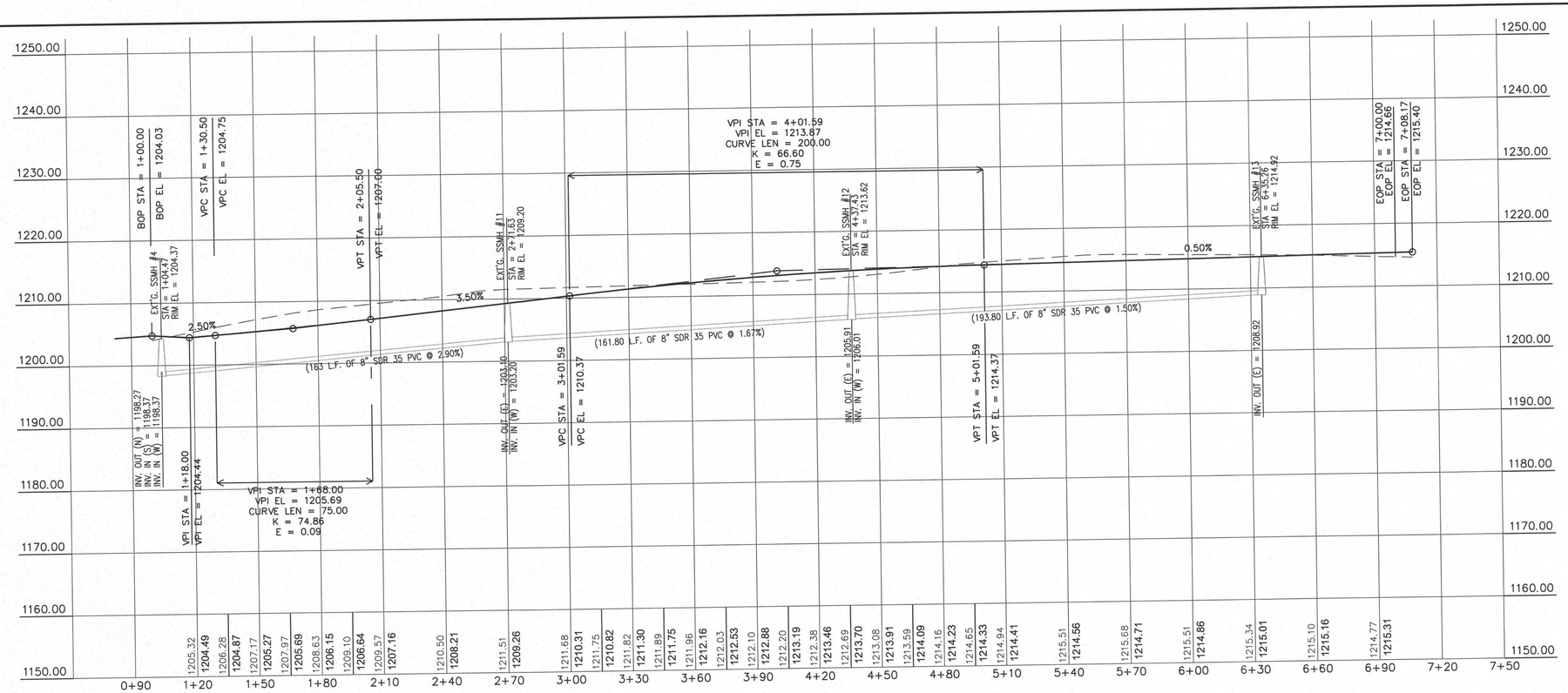
EASTWAY COURT PLAN & PROFILE

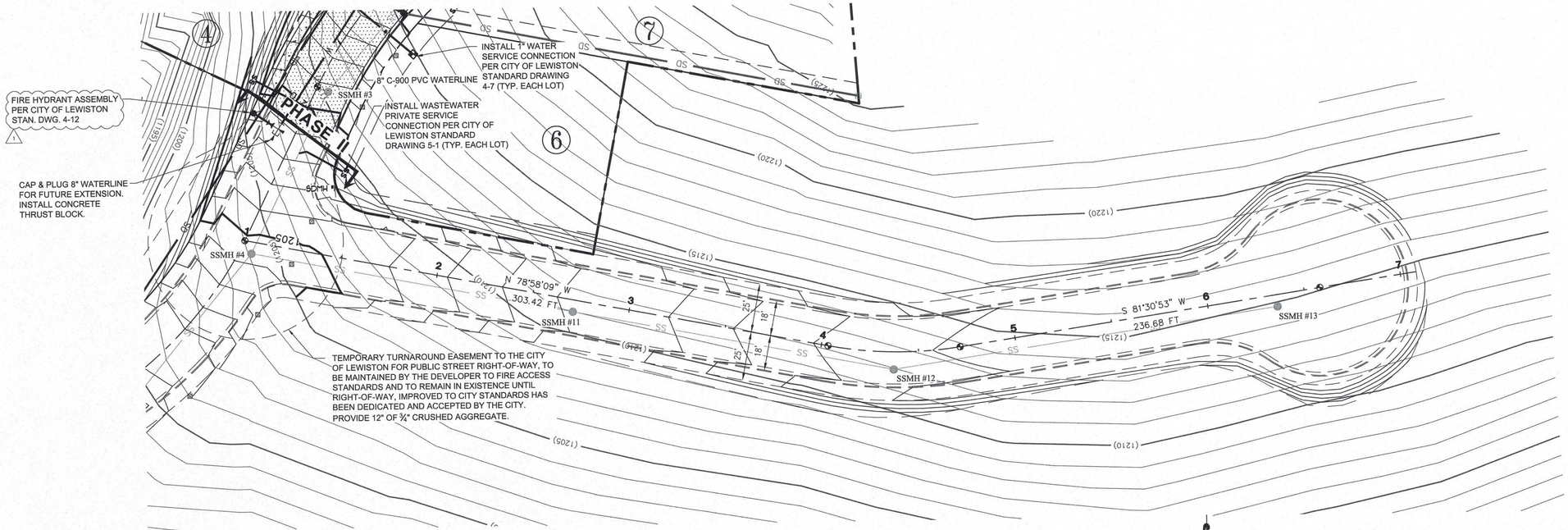
CRESTLINE CIRCLE DRIVE
VALLEY VISTA PUD
LEWISTON, ID. 83501

KELTIC ENGINEERING, INC.
315 Adams Lane ◊ Lewiston, Idaho 83501 ◊ (208) 743-2135 ◊ (208) 743-2136 fax
Development ⊕ Planning ⊕ Design ⊕ Construction Management

PROFESSIONAL ENGINEER REGISTERED 6064 11/07/18 STATE OF IDAHO ERIC HASENOEHRL

DRAWN BY: MSR	CHECKED BY: EFH
DESIGNED BY: EFH	
DATE: 07/13/18	
LAST REV.: 11/08/18	
PROJECT NO. 17-0089	
SHEET NO. C7 OF C14	





WESTWAY COURT STA. 1+00 TO 7+08.17

30 0 30 60

Scale: 1" = 30'

No.	DATE	BY	DESCRIPTION
1	08/22/18	MSR	CITY COMMENTS 08/16/18

WESTWAY COURT PLAN & PROFILE

CRESTLINE CIRCLE DRIVE

VALLEY VISTA PUD

LEWISTON, IDAHO 83501

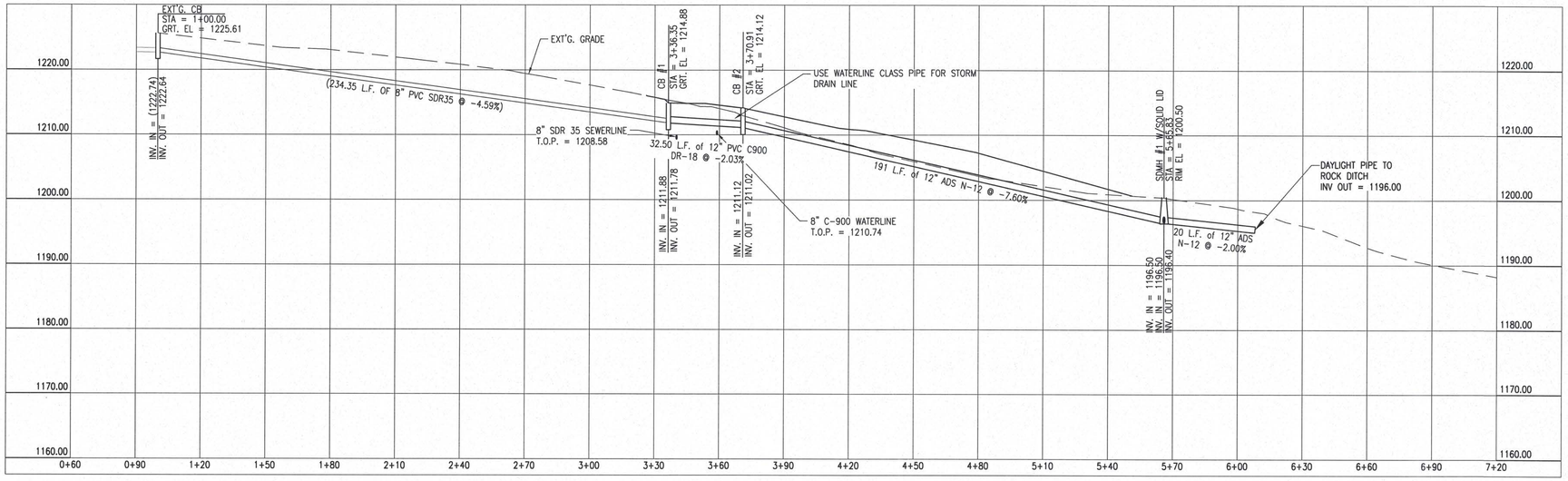
KELTIC ENGINEERING, INC.

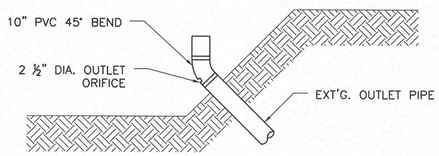
315 Adams Lane ◊ Lewiston, Idaho 83501 ◊ (208) 743-2135 ◊ (208) 743-2136 fax

Development ⊕ Planning ⊕ Design ⊕ Construction Management

PROFESSIONAL ENGINEER REGISTERED 6064 11/09/18 STATE OF IDAHO ERIC HASENOEHRL

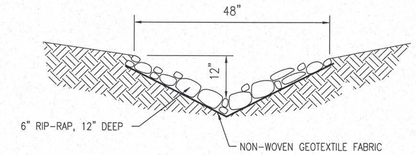
DRAWN BY: MSR	CHECKED BY: EFH
DESIGNED BY: EFH	
DATE: 07/13/18	
LAST REV.: 11/08/18	
PROJECT NO. 17-0089	
SHEET NO. C8 OF C14	





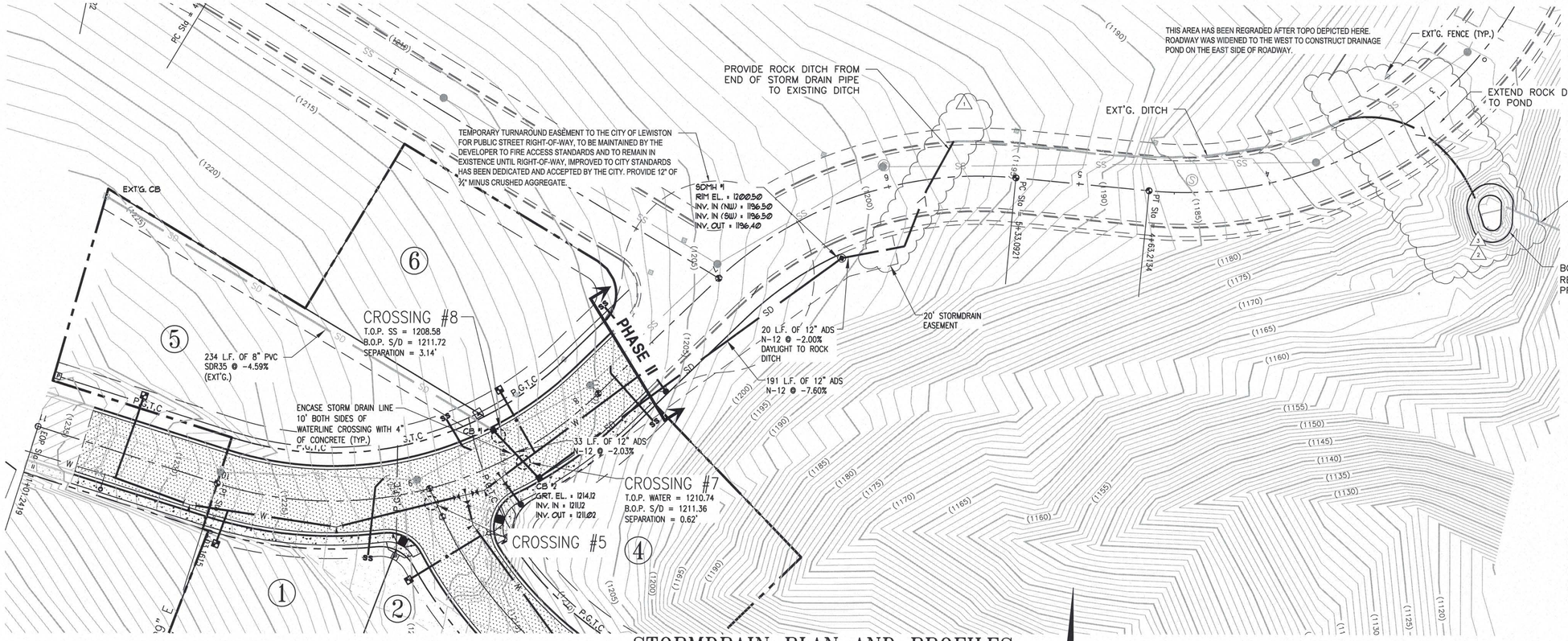
POND OUTLET DETAIL

NOT TO SCALE



ROCK DITCH

NOT TO SCALE



STORMDRAIN PLAN AND PROFILES
EXT'G. CB TO AREA DRAIN TYPE III

30 0 30 60

Scale: 1" = 30'

STORMWATER NOTES:

EACH LOT SHALL PROVIDE INDIVIDUAL STORMWATER MITIGATION. THE OVERFLOW FROM EACH LOT SHALL BE CONVEYED TO THE PUBLIC STORM DRAIN SYSTEM. 1

THE DETENTION POND AND ROCK DITCH SHALL FUNCTION AS A TEMPORARY STORMWATER SYSTEM UNTIL FURTHER DEVELOPMENT. THE TEMPORARY STORMWATER SYSTEM SHALL BE MAINTAINED BY THE DEVELOPER. 3

THE SOILS AND SLOPES IN AND AROUND THE EXISTING DETENTION POND ARE STABLE. THE EXISTING POND WILL BE ABLE TO DETAIN AND RELEASE THE STORMWATER RUNOFF WITHOUT CAUSING ANY SLOPE FAILURES OR DOWNSTREAM EROSION ISSUES. 3

No.	DATE	BY	DESCRIPTION
1	08/22/18	MSR	CITY COMMENTS 08/16/18
2	09/14/18	MSR	REVISED STORMWATER - ADDED DETENTION POND
3	11/08/18	MSR	CITY COMMENTS

STORMDRAIN PLAN & PROFILES

CRESTLINE CIRCLE DRIVE

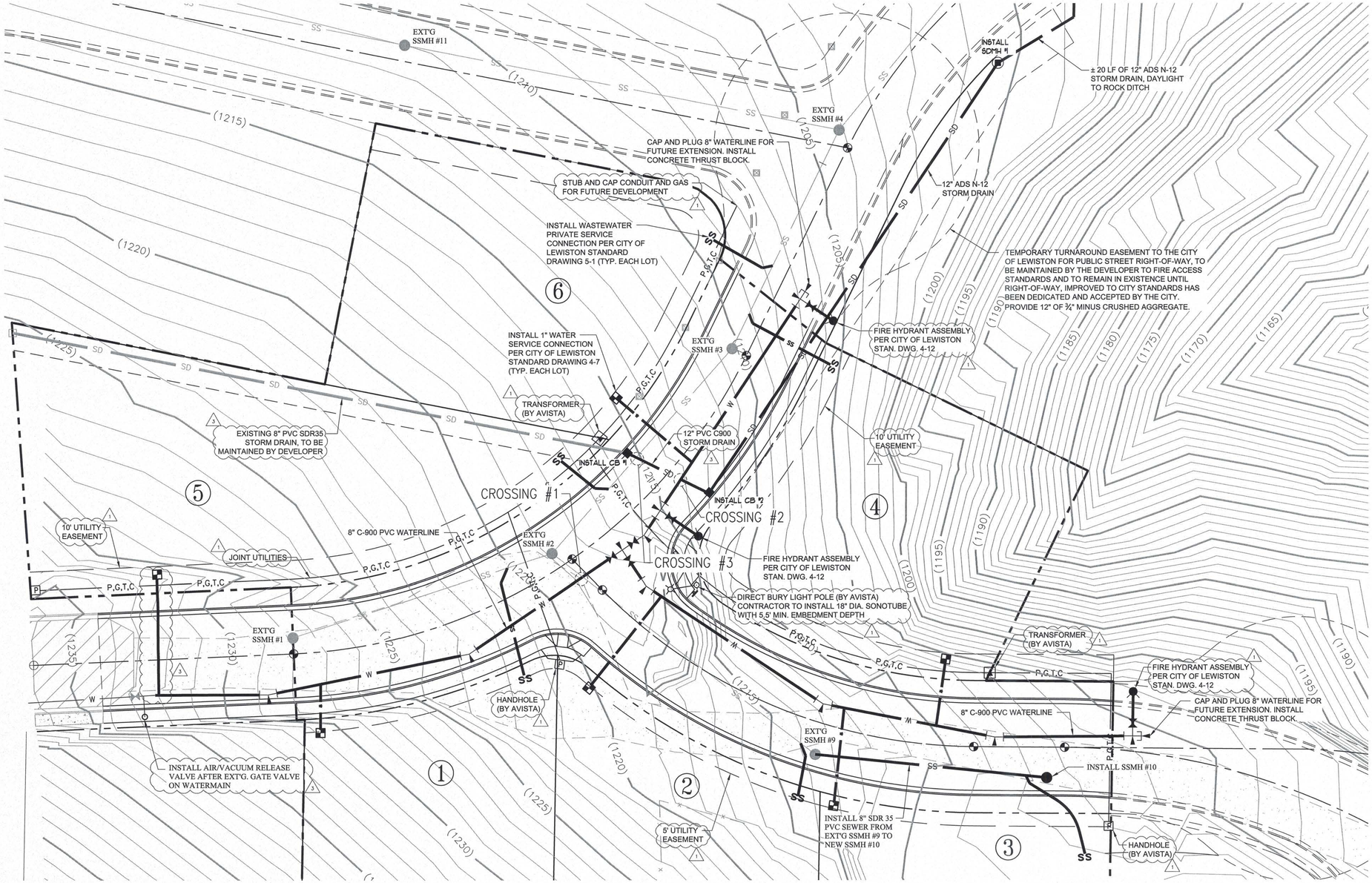
VALLEY VISTA PUD

LEWISTON, IDAHO 83501

KELTIC ENGINEERING, INC.
315 Adams Lane ◊ Lewiston, Idaho 83501 ◊ (208) 743-2135 ◊ (208) 743-2136 fax
Development ⊕ Planning ⊕ Design ⊕ Construction Management

PROFESSIONAL ENGINEER
REGISTERED
6064
11/09/18
STATE OF IDAHO
ERIC HASENOEHRL

DRAWN BY: MSR	CHECKED BY: EFH
DESIGNED BY:	EFH
DATE:	07/13/18
LAST REV.:	11/08/18
PROJECT NO.	17-0089
SHEET NO.	C9 OF C14



Know what's below. Call before you dig.

CALL 2 BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES

OVERALL UTILITIES

20 0 20 40

Scale: 1" = 20'

UTILITY CROSSINGS:

CROSSING #1
B.O.P. WATER = 1214.30
T.O.P. SS = 1211.80
SEPARATION = 2.50'

CROSSING #2
T.O.P. WATER = 1210.74
B.O.P. S/D = 1211.36
SEPARATION = 0.62'

CROSSING #3
T.O.P. SS = 1208.58
B.O.P. S/D = 1211.72
SEPARATION = 3.14'

WATER & SEWER LATERAL NOTE:

1 WATER AND SEWER LATERALS TO EACH LOT SHALL BE LOCATED 5' MIN. FROM PROPERTY LINE. WHERE TRANSFORMERS OR UTILITY BOXES ARE SHOWN, LATERALS SHALL BE LOCATED 10' MIN. FROM PROPERTY LINE.

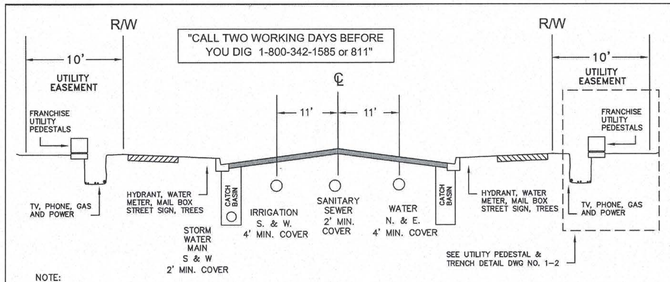
No.	DATE	BY	DESCRIPTION
2	08/22/18	MSP	CITY COMMENTS 08/16/18
1	11/08/18	TML	CITY COMMENTS

OVERALL UTILITIES
CRESTLINE CIRCLE DRIVE
VALLEY VISTA PUD
LEWISTON, ID. 83501

KELTIC ENGINEERING, INC.
141 9th Street ◊ Suite 2 ◊ Lewiston, Idaho 83501 ◊ (208) 743-2135 ◊ (208) 743-2136 fax
Development ⊕ Planning ⊕ Design ⊕ Construction Management

PROFESSIONAL ENGINEER REGISTERED 6064 11/07/18 STATE OF IDAHO ERIC HASENOEHRL

DRAWN BY: TML	CHECKED BY: EFH
DESIGNED BY: EFH	
DATE: 07/13/18	
LAST REV.: 11/08/18	
PROJECT NO. 17-0089	
SHEET NO. C10 OF C14	



NOTE:

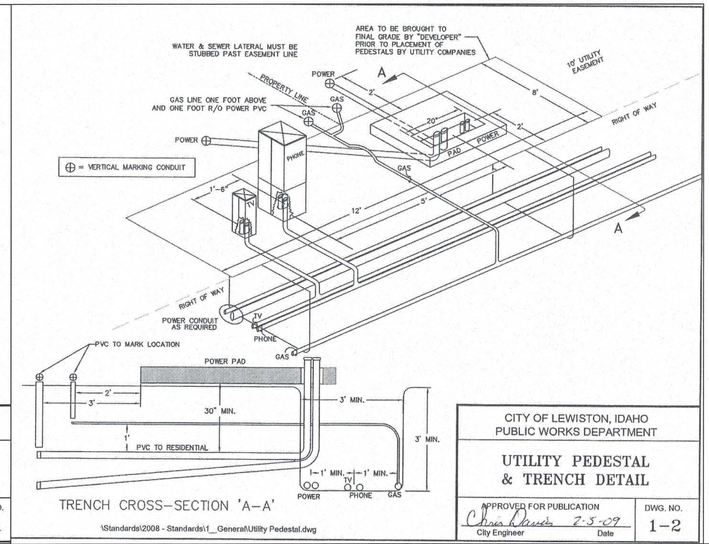
1. LOCATIONS OF EXISTING UTILITIES MUST BE FIELD LOCATED WITH THEIR RESPECTIVE OWNERS BEFORE DIGGING OR MAKING NEW CONNECTIONS.
2. SANITARY SEWER CAN VARY 4' FROM CENTERLINE AROUND CURVES, HOWEVER DEQ MINIMUM SEPARATION DISTANCES MUST BE MET.
3. WATER AND SEWER LATERALS SHALL BE STUBBED OUT TO FAR SIDE OF THE UTILITY EASEMENT AND CLEARLY MARKED AS PER CITY STANDARD.
4. STREET LIGHTING SHALL BE AT EACH INTERSECTION AND MID-BLOCK WITH A MAXIMUM SPACING OF 350' BETWEEN LIGHT POLES.
5. UTILITY POLES, FIRE HYDRANTS, LIGHT POLES, AND STREET SIGNS SHALL BE LOCATED WITH 1.5' MINIMUM CLEARANCE FROM BACK OF CURB TO CLOSEST FACE OF UTILITY AND SHALL NOT BE PLACED INTO SIDEWALK UNLESS APPROVED BY CITY ENGINEER AND DRAWING NO. 1-2.
6. TRAFFIC CONTROL DEVICES AND THEIR LOCATION SHALL CONFORM TO LATEST ADOPTED EDITION OF MUTCD.
7. ALL UTILITY FRAME AND LIDS TO BE LOCATED OUTSIDE OF WHEEL PATHS AREAS. THE TOP OF THE UTILITIES WILL HAVE A TOLERANCE OF +0 TO -1/4".
8. TREE SPECIES AND PLACEMENT WITHIN RIGHT-OF-WAY MUST HAVE WRITTEN APPROVAL OF CITY FORESTER AND CITY ENGINEER.
9. ANY DEVIATION FROM THESE STANDARD SHALL HAVE WRITTEN CONSENT OF THE CITY ENGINEER.

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

UTILITY LOCATIONS

APPROVED FOR PUBLICATION — City Engineer — Date: 3/5/13 — DWG. NO. 1-1

\Standards\2010 - Standards\1__General\Utility Locations.dwg

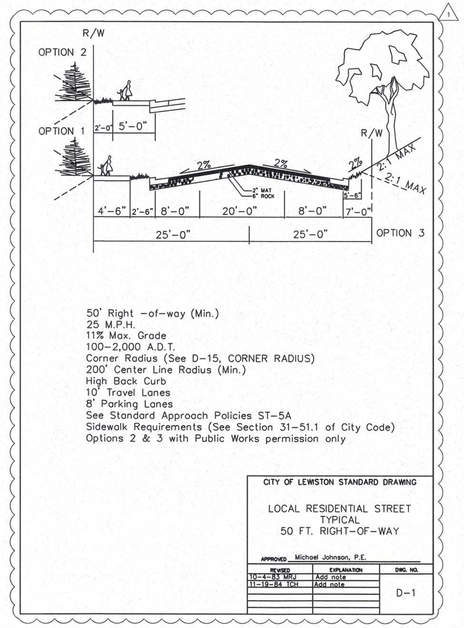


\Standards\2008 - Standards\1__General\Utility Pedestal.dwg

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

UTILITY PEDESTAL & TRENCH DETAIL

APPROVED FOR PUBLICATION — City Engineer — Date: 2-5-09 — DWG. NO. 1-2



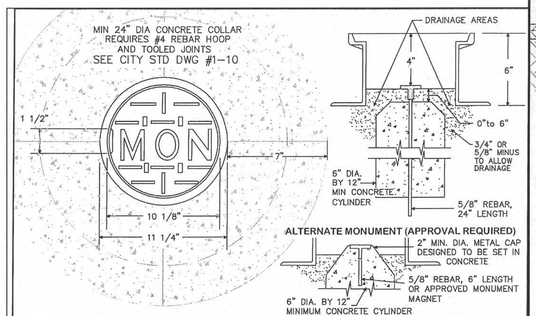
50' Right -of-way (Min.)
25 M.P.H.
11% Max. Grade
100-2,000 A.D.T.
Corner Radius (See D-15, CORNER RADIUS)
200' Center Line Radius (Min.)
High Back Curb
10' Travel Lanes
8' Parking Lanes
See Standard Approach Policies ST-5A
Sidewalk Requirements (See Section 31-51.1 of City Code)
Options 2 & 3 with Public Works permission only

CITY OF LEWSTON STANDARD DRAWING

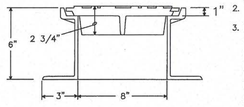
LOCAL RESIDENTIAL STREET
TYPICAL
50 FT. RIGHT-OF-WAY

APPROVED Michael Johnson, P.E.

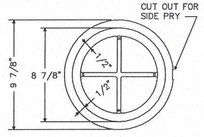
REVISED	EXPLANATION	DWG. NO.
10-4-82 MRJ	Add note	D-1
11-19-84 TCH	Add note	



TOP VIEW- FRAME & COVER



SECTION- FRAME & COVER



BOTTOM VIEW OF COVER

NOTES:

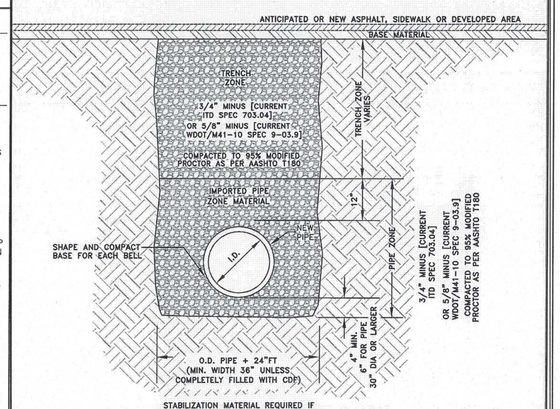
1. MONUMENT CASE SHALL BE D&L FOUNDRY MODEL NO. K-8524 OR APPROVED EQUAL. SEE CITY STD #1-10 FOR CONCRETE COLLAR INSTALLATION AND CASE HEIGHT ADJUSTMENTS.
2. MONUMENT INSTALLATION TO BE COMPLETED BY A LICENSED SURVEYOR.
3. MONUMENT SHALL CONSIST OF A METAL CAP ON A 5/8" DIAMETER BY 24" LONG DEFORMED STEEL BAR SET IN CONCRETE. THE CAP SHALL BE A METAL INSULATED REBAR CAP WITH 2" MINIMUM DIAMETER, BERNTSON ITEM #QSD5200, #RBD5325 OR APPROVED EQUAL. THE CAP SHALL BE STAMPED WITH THE PLS NUMBER AND PUNCHED TO SHOW THE TRUE POINT. A METAL CAP SET IN CONCRETE MAY BE USED WITH WRITTEN APPROVAL FROM THE CITY SURVEYOR.
4. IN NO CIRCUMSTANCE SHALL THE CONCRETE USED TO INSTALL THE CASE OR THE INTERNAL MONUMENT FILL THE BOTTOM OF THE MONUMENT CASE AND PREVENT DRAINAGE OF THE CASE.
5. MONUMENTS SHALL BE SET AT ALL STREET CENTERLINE PC, PT, AND INTERSECTION POINTS. MONUMENTS SHALL BE SET AT THE CENTER POINT OF STANDARD CUL-DE-SACS. ADDITIONAL MONUMENTS SHALL BE SET IN OFFSET CUL-DE-SACS AT THE INTERSECTION OF THE STREET CENTERLINE WITH THE OFFSET CENTERLINE.

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

STREET MONUMENT WITH FRAME & COVER

City Engineer — Date: 12/17/12 — DWG. NO. 1-3

...\Current Stds\1-General Standards\Street Monument.dwg



CLASS 'D' 'NEW STREET CONSTRUCTION' BACKFILL SHALL BE USED IN AREAS WHERE ASPHALT PAVEMENT, CONCRETE CURB, SIDEWALK, DRIVEWAYS & GRAVEL SURFACING IS ANTICIPATED.

NOTES:

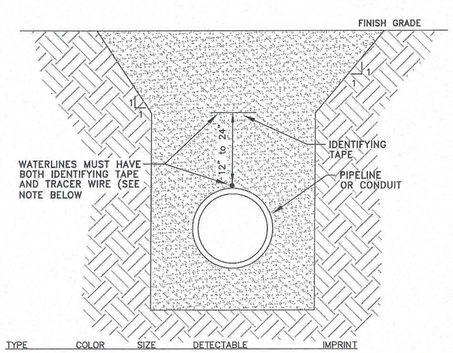
1. CONTRACTOR SHALL COMPLY WITH THE MOST CURRENT OSHA REQUIREMENTS FOR EXCAVATIONS.
2. CLASS 'D' BACKFILL SHALL COMPLY WITH REQUIREMENTS OF THE CITY'S STANDARDS CONSTRUCTION SPECIFICATIONS.
3. TRENCH MATERIAL SHALL BE PLACED IN MAX. OF 6" LIFTS.
4. IN EXISTING RIGHT-OF-WAY TRENCH EXCAVATION SHALL NOT BE MORE THAN 100 FEET AHEAD OF THE PIPE LAYING OPERATION.
5. TRENCHES ARE TO BE BACKFILLED AT THE END OF EACH DAY.
6. ANY ALTERATIONS TO THIS STANDARD MUST HAVE WRITTEN APPROVAL BY CITY ENGINEER.

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

BACKFILL CLASS 'D'

APPROVED FOR PUBLICATION — City Engineer — Date: 3/5/13 — DWG. NO. 1-6

...\Current Stds\1-General\BackFill_ClassD.dwg



TYPE	COLOR	SIZE	DETECTABLE	IMPRINT
WATER	BLUE	3"	NO	CAUTION BURIED WATER LINE BELOW

NO. 12 AWG. COPPER TRACER WIRE INSULATED WITH 30 MIL OF HIGH DENSITY POLYETHYLENE (HDPE) CLASSIFIED AS HIGH MOLECULAR WEIGHT POLYETHYLENE (HMWPE) IN 500 FT REELS. WIRE SHALL BE ATTACHED TO WATERLINE AT INTERVALS NOT TO EXCEED 15 FT SEPARATION.

ALL SPLICES SHALL BE 3M DIRECT BURY SPLICE KIT DBR/Y-6 AND CONTRACTOR SHALL CONDUCT A CONDUCTIVITY TEST ON ALL LOCATING WIRE SPLICES.

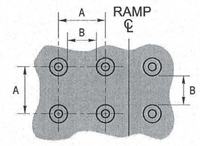
TYPE	COLOR	SIZE	DETECTABLE	IMPRINT
STORM SEWER	GREEN	3"	NO	CAUTION BURIED STORM SEWER LINE BELOW
SANITARY SEWER	GREEN	3"	NO	CAUTION BURIED SEWER LINE BELOW
GAS	YELLOW	3"	NO	CAUTION BURIED GAS LINE BELOW
CABLE	ORANGE	3"	NO	CAUTION BURIED CABLE LINE BELOW
ELECTRICAL	RED	3"	NO	CAUTION BURIED ELECTRIC LINE BELOW

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

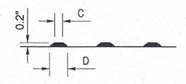
IDENTIFYING TAPE DETAIL

APPROVED FOR PUBLICATION — City Engineer — Date: 2/11/16 — DWG. NO. 1-8

...\Current Stds\1-General\Identifying Tape.dwg



	MIN.	MAX.
A	1.6"	2.4"
B	.65"	1.5"
C	50% -65% OF BASE DIA.	
D	.9"	1.4"



SECTION VIEW

THIS PATTERN AREA SHALL BE YELLOW IN COLOR

Notes:

1. Detectable truncated-dome warning, 2 ft wide, must be provided for the full width of ramps and blended connections to mark the street edge and fully approved by current ADA requirements.
2. At least one corner of the detectable warning panel shall be coincident to the back of curb

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

DETECTABLE WARNING FOR PEDESTRIAN ACCESS

APPROVED FOR PUBLICATION — City Engineer — Date: 9/1/10 — DWG. NO. 2-5

\Standards\2010-Standards\2-Concrete\Detectable Dome.dwg

No.	DATE	BY	DESCRIPTION
1	08/22/18	MSR	CITY COMMENTS 08/16/18

CITY STANDARD DETAILS
CRESTLINE CIRCLE DRIVE
VALLEY VISTA PUD
LEWISTON, ID 83501

KELTIC ENGINEERING, INC.
315 Adams Lane ◊ Lewiston, Idaho 83501 ◊ (208) 743-2135 ◊ (208) 743-2136 fax
Development ⊕ Planning ⊕ Design ⊕ Construction Management

DRAWN BY: MSR	CHECKED BY: EFH
DESIGNED BY: EFH	
DATE: 07/13/18	
LAST REV.: 08/22/18	
PROJECT NO. 17-0089	
SHEET NO. C11 OF C14	

GENERAL NOTES FOR ALL TYPES OF CURB AND GUTTER

1. SECURE A PERMIT FOR CONSTRUCTION, BEFORE BEGINNING CONSTRUCTION IN PUBLIC RIGHT-OF-WAY.
2. GRADE, ALIGNMENT AND CURB TYPE SHALL BE AS APPROVED BY THE CITY ENGINEER.
3. ALIGNMENT AND GRADE STAKED TO LIP OF GUTTER (LIP) SHALL BE ESTABLISHED OR APPROVED BY THE CITY ENGINEER.
4. THE TOLERANCE FOR FINISHED CURB AND GUTTER –
   MAX. VARIATION OF SURFACE FLATNESS: 1/4 INCH IN 10 FEET
   MAX. VARIATION FROM TRUE POSITION (DESIGN GRADE): 1/2 INCH
5. BASE MATERIAL SHALL BE 4" OF 3/4 INCH MINUS [CURRENT ITD SPEC 703.04] OR 5/8 INCH MINUS [CURRENT WDOT/M41-10 SPEC 9-03.9] CRUSHED AGGREGATE BASE MATERIAL COMPACTED TO 95% MAXIMUM DENSITY AS DETERMINED BY MODIFIED PROCTOR AS PER AASHTO T180. ALL FILL OR BACKFILL AREAS SHALL BE PLACED IN 6" TO 8" MAXIMUM LIFTS. IN AREAS OF SMALL PROJECTS, LIMITED HEAVY TRUCK TRAFFIC OR WHERE COMPACTION EQUIPMENT HAS LIMITED ACCESS A REDUCED % COMPACTION MAY BE ALLOWED WITH WRITTEN APPROVAL FROM PUBLIC WORK DIRECTOR.
6. CONCRETE SHALL BE 3,000 PSI MINIMUM AT 28 DAYS, MAXIMUM WATER/CEMENT RATIO SHALL BE 0.5 (LB/LB), 5" MAX. SLUMP, AIR CONTENT (%) 6.5 ±1.5.
7. DUMMY JOINTS AT 10 FOOT INTERVALS AND AT CURB RADII, 3/4" TO 1" DEEP. CONSTRUCTION JOINTS LOCATIONS AS DIRECTED BY CITY ENGINEER. DIFFERENTIAL ELEVATION BETWEEN ADJACENT SECTIONS SHALL NOT EXCEED 1/4".
8. THE CONTRACTOR ARE REQUIRED BY THE PUBLIC WORKS DEPARTMENT TO MARK STUB-OUTS AND VALVES IN THE UNCURED CONCRETE.
9. THE CONTRACTOR OR OWNER SHALL NOTIFY THE PUBLIC WORKS DEPARTMENT FOR INSPECTION AFTER THE FORMS ARE SET AND THE PUBLIC WORKS DEPARTMENT SHALL BE NOTIFIED NO LESS THAN 2 WORKING DAYS BEFORE PLACEMENT OF CONCRETE FOR A FINAL INSPECTION. FAILURE TO NOTIFY THE PUBLIC WORKS DEPARTMENT IS GROUNDS FOR REJECTION OF CURB AND GUTTER.
10. CONCRETE SURFACE TO HAVE A LIGHT BROOM FINISH PARALLEL WITH THE LENGTH OF THE CURB.
11. APPLY UNIFORM COAT OF REZ-SEAL OR APPROVED EQUIVALENT CURING COMPOUND TO EXPOSED CONCRETE IMMEDIATELY AFTER FINISHING..
12. ROLLED CURB AND GUTTER SHALL NOT BE USED:
    A. ON STREETS IN COMMERCIAL AND INDUSTRIAL ZONED AREAS.
    B. ON STREETS WITH LONGITUDINAL (LENGTHWISE) GRADES IN EXCESS OF 6%
    C. ON ANY ARTERIAL OR COLLECTOR
    D. WITHOUT PRIOR APPROVAL OF THE CITY ENGINEER.
    E. WHEN SIDEWALK IS LOCATED AT THE BACK OF CURB.

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

GENERAL NOTES FOR ALL TYPES OF CURB AND GUTTER

APPROVED FOR PUBLICATION	DWG. NO.
City Engineer Date 7/24/13	2-6

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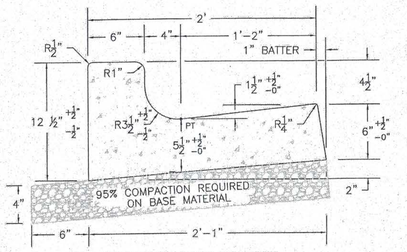
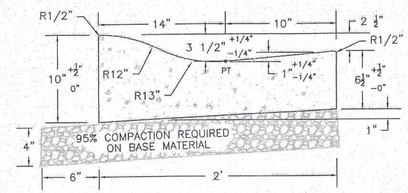


HIGH BACK CURB & GUTTER



ROLLED CURB & GUTTER

ALL TOLERANCES ARE ±1/4" UNLESS OTHERWISE NOTED

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

HIGH BACK CURB & GUTTER
ROLLED CURB & GUTTER

APPROVED FOR PUBLICATION	DWG. NO.
City Engineer Date Z-5-09	2-7

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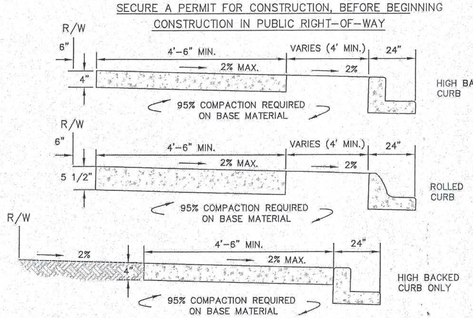
SECURE A PERMIT FOR CONSTRUCTION, BEFORE BEGINNING CONSTRUCTION IN PUBLIC RIGHT-OF-WAY



GENERAL NOTES FOR ALL SIDEWALK:

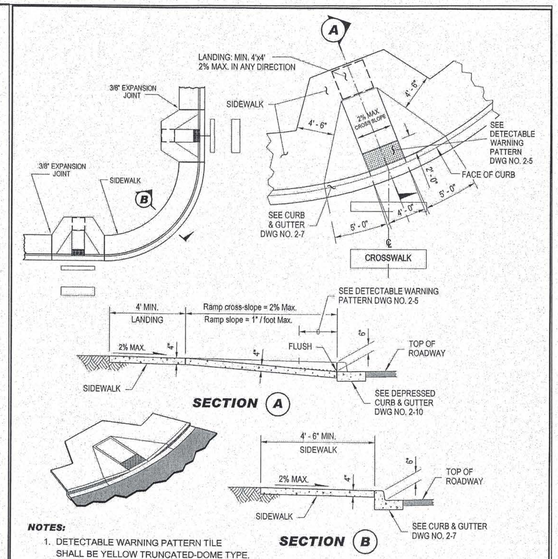
1. LINE AND GRADE STAKED T.S., TOP OF SIDEWALK, B.S., BACK OF SIDEWALK.
2. GRADE AND ALIGNMENT TO BE APPROVED BY THE CITY ENGINEER.
3. THE TOLERANCE FOR FINISHED SIDEWALK –
   MAX. VARIATION OF SURFACE FLATNESS: 1/4 INCH IN 10 FEET
   MAX. VARIATION FROM TRUE POSITION (DESIGN GRADE): 1/2 INCH
   NO PONDING IS ALLOWED ON SIDEWALKS, STEPS OR PEDESTRIAN RAMPS.
4. BASE MATERIAL SHALL BE 4" OF 3/4" MINUS [CURRENT ITD SPEC 703.04] OR 5/8" MINUS [CURRENT WDOT/M41-10 SPEC 9-03.9] CRUSHED AGGREGRATE BASE MATERIAL COMPACTED TO 95% MAXIMUM DENSITY AS DETERMINED BY MODIFIED PROCTOR AS PER AASHTO T180. ALL FILLS OR BACKFILL AREAS SHALL BE PLACED IN 6" MAX. LIFTS.
5. CONTRACTION/DUMMY JOINTS SHALL BE PLACED AT 5' INTERVALS, 3/4" TO 1" DEEP; INSTALL A PERFORMED EXPANSION JOINT FILLER TO THE FULL DEPTH & WIDTH EVERY 100 FEET.
6. CONCRETE SHALL BE 3,000 PSI MIN. AT 28 DAYS, MAX. WATER/CEMENT RATIO SHALL BE RATIO SHALL BE 0.5 (LB.LB), 5" MAX. SLUMP, AIR CONTENT (%) 6.5 ±1.5.
7. THE CONTRACTOR OR OWNER SHALL NOTIFY THE PUBLIC WORKS DEPT. FOR INSPECTION OF BASE MATERIAL AFTER FORMS ARE SET AND THE PUBLIC WORKS DEPT. WILL BE NOTIFIED NO LESS THAN 2 WORKING DAYS BEFORE PLACEMENT OF CONCRETE, FOR FINAL INSPECTION.
8. CONCRETE SURFACE SHALL HAVE LIGHT BROOM FINISH PERPENDICULAR TO LENGTH OF S/W.
9. APPLY UNIFORM COAT OF REZ-SEAL OR APPROVED EQUIVALENT CURING COMPOUND TO EXPOSED CONCRETE IMMEDIATELY AFTER FINISHING.
10. NAME OF CONTRACTOR AND YEAR TO BE STAMPED AT EACH END OF WORK AND AT INTERVALS OF 300 FT.
11. CONCRETE SURFACE SHALL BE FREE OF SURFACE BLEMISHES OR VOIDS GREATER THAN 1/4". JOINTS AND EDGES SHALL BE CLEAN AND FREE OF EXCESS SPALLING OR VOIDS.
12. A 6" STRIP TO BE LOCATED BETWEEN RIGHT-OF-WAY LINE AND SIDEWALK FOR PLACEMENT OF PROPERTY PINS WHEN PLANTING STRIP OR RETENTION SWALES ARE PLACED BEHIND CURB AND GUTTER.

M:\Standards\2008 - Standards\2_Concrete\Concrete Sidewalk.dwg

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

CONCRETE SIDEWALK

APPROVED FOR PUBLICATION	DWG. NO.
City Engineer Date 8/27/15	2-8



NOTES:

1. DETECTABLE WARNING PATTERN TILE SHALL BE YELLOW TRUNCATED-DOME TYPE.
2. RAMP SLOPES SHALL NOT BE STEEPER THAN 12H:1V.
3. A 4' x 4' MIN. CLEAR SPACE WITHIN THE CROSSWALK AREA AND 4' x 4' LANDING AREA AT TOP OF RAMP W/ 2% SLOPE IN ALL DIRECTIONS.
4. PLACEMENT OF DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS WITHIN/ OR FRONT OF RAMP OR LANDING IS PROHIBITED.
5. THIS RAMP SHALL BE USED WITH HIGH BACK AND ROLLED CURB.

\Standards\2010-Standards\2-Concrete\Perp_Type1.dwg

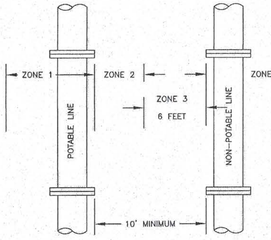
CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

DOUBLE SIDEWALK RAMPS - TYPE 1

APPROVED FOR PUBLICATION	DWG. NO.
City Engineer Date 7/1/10	2-11

No.	DATE	BY	DESCRIPTION
1	08/22/18	MSR	CITY COMMENTS 08/16/18

CITY STANDARD DETAILS
CRESTLINE CIRCLE DRIVE
VALLEY VISTA PUD
LEWISTON, ID 83501



HORIZONTAL REQUIREMENTS:

ZONE 1: MORE THAN 10 FEET APART
NO SPECIAL REQUIREMENTS

ZONE 2: FROM 6 TO 10 FEET APART
A. No special requirements for service lines.
B. Potable and non-potable mains separated by at least 6 feet at outside walls and
   i. Potable mains higher in elevation than the non-potable mains and
   ii. Non-potable mains constructed to with potable water class pipe and pressure tested for water tightness.

ZONE 3: CLOSER THAN 6 FEET APART
NOT ALLOWED

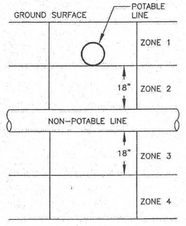
VERTICAL REQUIREMENTS:

ZONE 1: POTABLE LINE 18" OVER NON-POTABLE LINE
Potable water and non-potable mains and service lines must be separated by at least 18 inches and
One full, uncut length of non-potable pipe must be centered on the crossing so that the joints are as far as possible from the crossing.

ZONE 2: POTABLE LINE < 18" OVER NON-POTABLE LINE
One full, uncut length of non-potable pipe must be centered on the crossing so that the joints are as far as possible from the non-potable line and either a or b
a) Non-potable line must be constructed to potable water pipe standards and pressure tested for water tightness for a horizontal distance of ten feet on both sides of the crossing.
b) Non-potable or potable line must be cased in a larger diameter carrier pipe for a horizontal distance of ten feet on both sides of the crossing, with no joints.

ZONE 3: POTABLE WATER < 18" UNDER NON-POTABLE LINE
Same requirements as Zone 2 except the non-potable line must also be supported above the crossing to prevent settling.

ZONE 4: POTABLE WATER 18" UNDER NON-POTABLE LINE
Same requirements as Zone 1 except the non-potable line must also be supported above the crossing to prevent settling.



GENERAL NOTES:

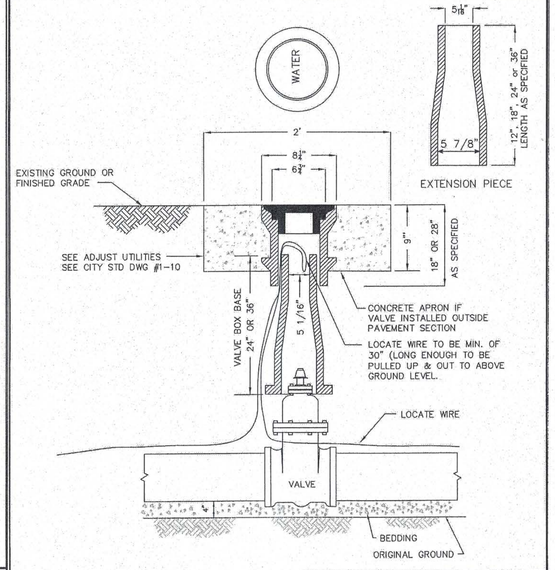
1. Sewage force mains shall have at least ten feet of horizontal separation and eighteen inches of clearance from potable water mains. Zone 2 and 3 placements are prohibited.
2. Separation requirements also apply to potable and non-potable service lines controlled by the system owner and extending the main line to the property line, service meter, or cleanout.

M:\Standards\2010-Standards\4-Water\Potable Nonpotable.dwg

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

POTABLE & NON-POTABLE WATERLINE SEPARATION

APPROVED FOR PUBLICATION	DWG. NO.
City Engineer Date 11-9-09	4-1

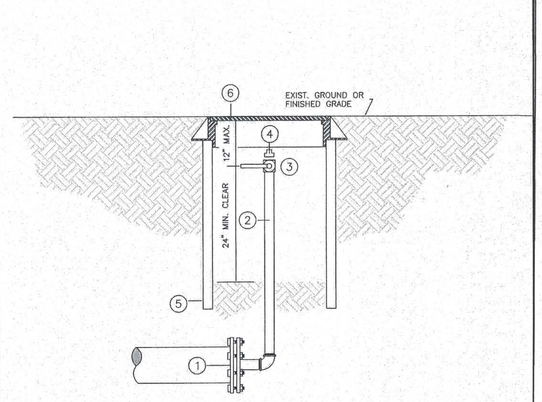


M:\Standards\2010-Standards\4-Water\Cast Iron Valve Box.dwg

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

GATE VALVE BOX WITH ASSEMBLY

APPROVED FOR PUBLICATION	DWG. NO.
City Engineer Date 11-9-09	4-2



REQUIRED COMPONENTS

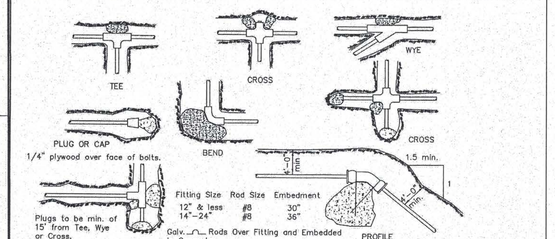
1. CAP OR PLUG ON WATER MAIN
2. 2" GALVANIZED PIPE
3. 2" BALL VALVE
4. 2" THREADED PLUG
5. 24" HDPE PIPE
6. OLYMPIC FOUNDRY MH-23 MANHOLE & COVER
7. THRUST BLOCK OR RESTRAINTS (NOT SHOWN)

M:\Standards\2010-Standards\4-Water\Blowoff Sample.dwg

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

COMBINATION BLOWOFF AND SAMPLING TAP

APPROVED FOR PUBLICATION	DWG. NO.
City Engineer Date 11-9-09	4-3



TEE

Fitting Size	BEARING AREA OF THRUST BLOCKS IN SQ. FT.				
	Tee, Wye, Plub or Cap	90° Bend Plugged Cross; Tee	45° Bend	22 1/2° Bend	11 1/4° Bend
4	1.0	1.4	1.0	---	---
6	2.1	3.0	1.6	1.0	---
8	3.8	5.3	2.9	1.5	1.0
10	5.9	8.4	4.6	2.4	1.2
12	8.5	12.0	6.6	3.4	1.7
14	11.5	16.3	8.9	4.6	2.3
16	15.0	21.3	11.6	6.0	3.0
18	19.0	27.0	14.6	7.6	3.8
20	23.5	33.3	18.1	9.4	4.7
24	34.0	48.0	26.2	13.6	6.8

Fitting Size	VOLUME OF THRUST BLOCK IN CU.YD.			
	90° BEND	45° BEND	22 1/2° BEND	11 1/4° BEND
4	---	---	---	---
6	1.3	---	---	---
8	2.3	1.1	---	---
10	3.7	1.8	---	---
12	5.5	2.8	1.2	---
14	7.6	3.9	1.7	---
16	9.9	5.1	2.3	0.9
18	---	6.3	3.2	1.4
20	---	7.7	4.0	1.8
24	---	11.1	5.7	2.6

NOTE:
Above volumes based on test pressure of 150 p.s.i. & the weight of concrete = 4050 lbs./cu.yd. To compare volumes for different test pressures use the following equation:
VOLUME = (150 p.s.i. test pressure) x (table value).
Thrust blocks for vertical up-bends shall be the same as for horizontal bends.

NOTES:
1. Bearing areas based on test pressure of 150 p.s.i. & soil bearing stress of 2,000 lbs. per sq.ft. To areas for different test pressure & soil bearing stresses, following equation: BEARING AREA = (150 p.s.i. test pressure)x(2000 lbs soil bearing stress)x(table value).
2. Concrete thrust blocking to be placed against undisturbed earth.
3. Keep concrete clear of joint and accessories.
4. The required thrust bearing areas for special connections are shown encircled on the plans; e.g. ⑫ indicates 12 sq. ft. bearing area required.
5. If not shown on plans, required bearing areas at fittings shall be as indicated above, adjusted if necessary, to conform to the test pressure(s) & allowable soil bearing stress(es) stated in the Special Specifications.
6. Bearing areas & special blocking details shown on plans take precedence over bearing areas & blocking details shown on this standard detail.
7. Concrete Compressive Strength shall be 2,500 p.s.i. minimum.
8. Concrete will be allowed 48 hrs. to set if high early yield concrete is used, otherwise, 7 days curing will be required.

M:\Standards\2010-Standards\4-Water\Thrust Blocking.dwg

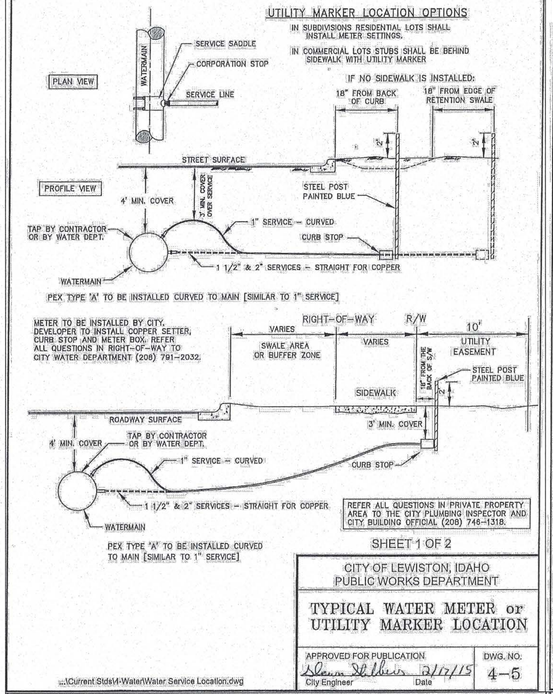
CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

THRUST BLOCKING DETAIL

APPROVED FOR PUBLICATION	DWG. NO.
City Engineer Date 11-9-09	4-4

KELTIC ENGINEERING, INC.
315 Adams Lane ◊ Lewiston, Idaho 83501 ◊ (208) 743-2135 ◊ (208) 743-2136 fax
Development ⊕ Planning ⊕ Design ⊕ Construction Management

DRAWN BY:	MSR
CHECKED BY:	EFH
DESIGNED BY:	EFH
DATE:	07/13/18
LAST REV.:	08/22/18
PROJECT NO.	17-0089
SHEET NO.	C12 OF C14



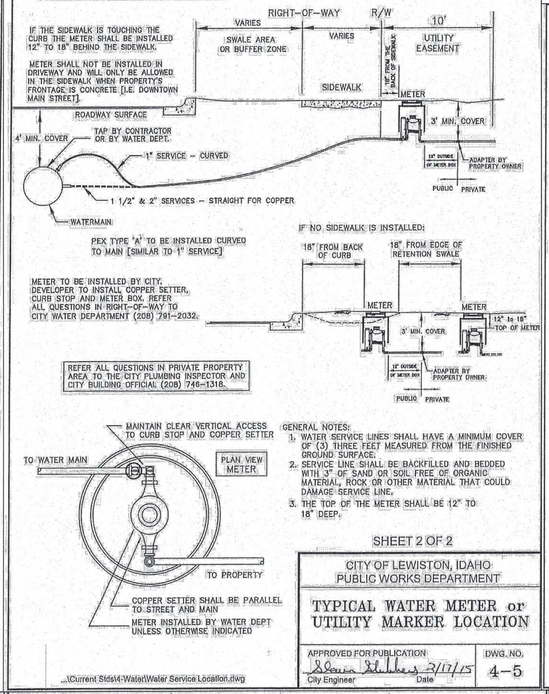
SHEET 1 OF 2

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

TYPICAL WATER METER or UTILITY MARKER LOCATION

APPROVED FOR PUBLICATION — City Engineer — Date 3/17/15 — DWG. NO. 4-5

...\Current Stds\4-Water\Water Service Location.dwg



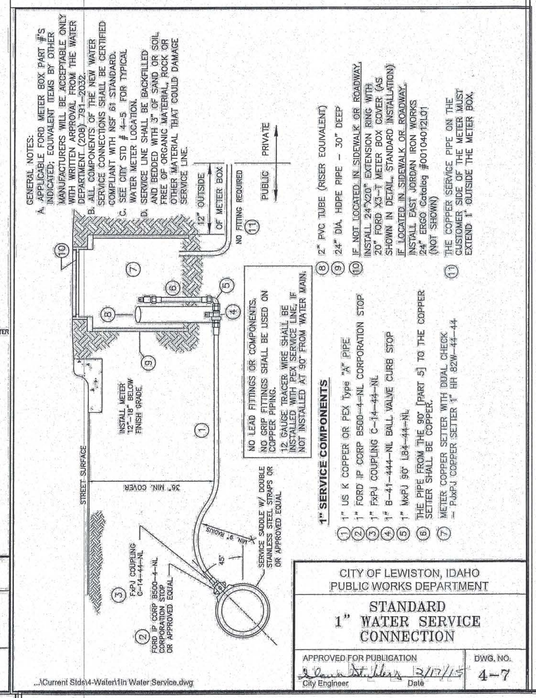
SHEET 2 OF 2

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

TYPICAL WATER METER or UTILITY MARKER LOCATION

APPROVED FOR PUBLICATION — City Engineer — Date 3/17/15 — DWG. NO. 4-5

...\Current Stds\4-Water\Water Service Location.dwg

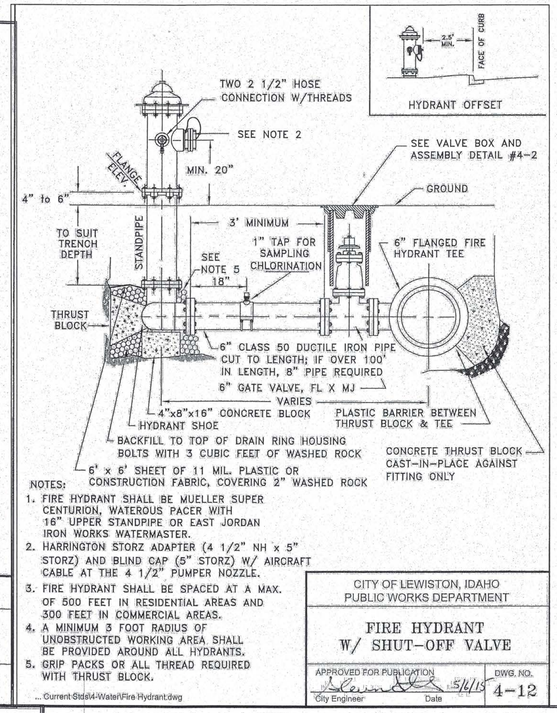


CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

STANDARD 1" WATER SERVICE CONNECTION

APPROVED FOR PUBLICATION — City Engineer — Date 3/17/15 — DWG. NO. 4-7

...\Current Stds\4-Water\1in Water Service.dwg

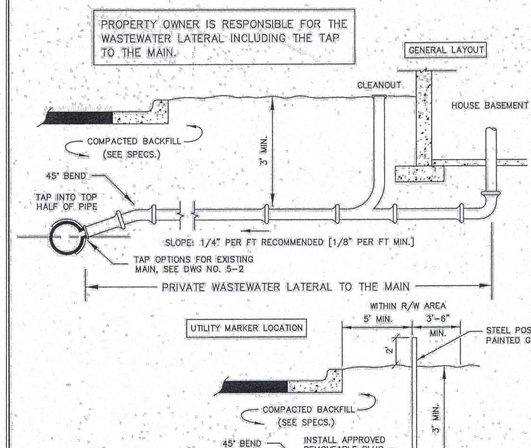


CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

FIRE HYDRANT W/ SHUT-OFF VALVE

APPROVED FOR PUBLICATION — City Engineer — Date 5/4/15 — DWG. NO. 4-12

...Current Stds\4-Water\Fire Hydrant.dwg

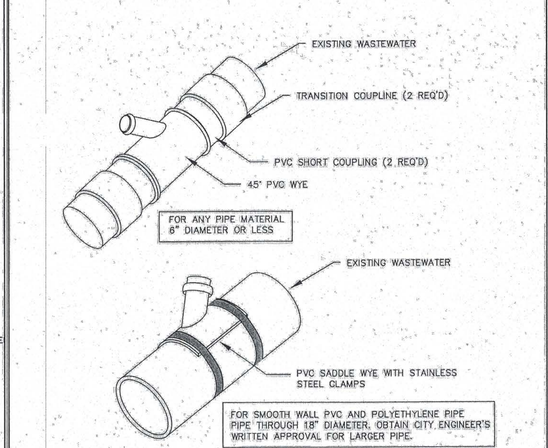


\Standards\2010-Standards\5-SanitarySewer\SS Service Connection.dwg

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

WASTEWATER PRIVATE SERVICE CONNECTION

APPROVED FOR PUBLICATION — City Engineer — Date 12/13/10 — DWG. NO. 5-1

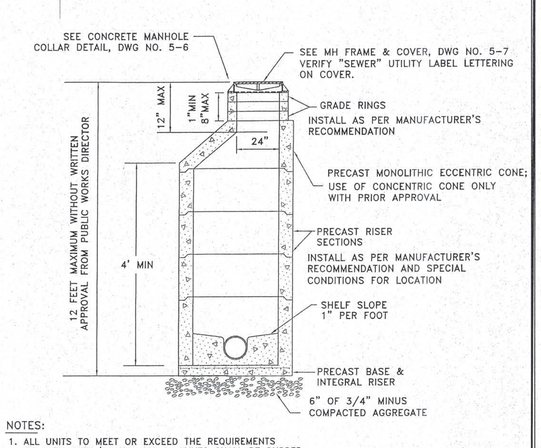


\Standards\2010-Standards\5-SanitarySewer\Wastewater Tap Options.dwg

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

WASTEWATER SERVICE TAP OPTIONS DETAIL

APPROVED FOR PUBLICATION — City Engineer — Date 12/13/10 — DWG. NO. 5-2



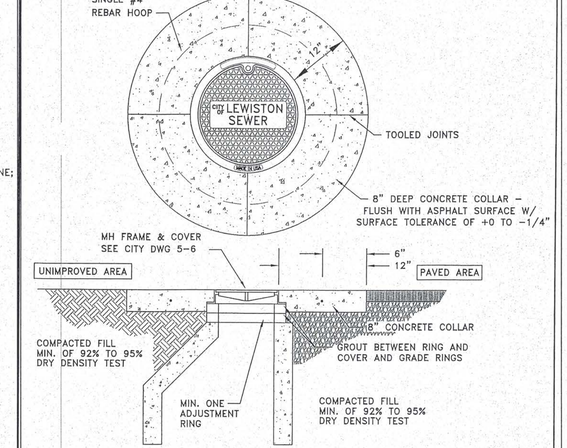
NOTES:
1. ALL UNITS TO MEET OR EXCEED THE REQUIREMENTS OF ASTM C478/AASHTO M199. JOINTS SHALL BE RUBBER GASKET CONFORMING TO ASTM C443 AND SHALL BE GROUTED FROM THE INSIDE. LIFT HOLES SHALL BE GROUTED FROM THE OUTSIDE AND INSIDE OF THE MANHOLE.
2. PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MINIMUM
3. CONNECTION TO MANHOLE SHALL BE MADE USING RESILIENT CONNECTOR CONFORMING TO ASTM C-923 SUCH AS KOR-N-SEAL, A-LOK OR APPROVED EQUAL.
4. RISERS, UNIT SECTIONS AND THE FRAME SHALL NOT BE MORE THAN ONE INCH OUT OF ALIGNMENT WITH THE MANHOLE BASE; PIPES SHALL BE FLUSH WITH INSIDE EDGE OF MANHOLE.
5. PRESSURE TESTING IS REQUIRED FOR ALL INSTALLATIONS.
6. SEE DWG NO 5-6 FOR CONCRETE MANHOLE COLLAR.
7. MAXIMUM SPACING BETWEEN MANHOLES IS 400 FEET.

\Standards Dwgs - City\Current Stds\5-SanitarySewer\SS MH Type 1.dwg

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

WASTEWATER TYPE 1 MANHOLE

APPROVED FOR PUBLICATION — City Engineer — Date 11/21/11 — DWG. NO. 5-3



NOTES:
1. A CIRCULAR-SHAPED CONCRETE COLLAR IS REQUIRED ON ALL INSTALLATIONS; IN BOTH PAVED OR UNIMPROVED AREAS. INSTALL A 8" THICK CONCRETE COLLAR THAT SHALL BE FLUSH WITH THE ASPHALT SURFACE WITH A SURFACE TOLERANCE OF +0 TO -1/4".
2. CONCRETE SHALL BE 3,000 PSI MIN. AT 28 DAYS, WATER/CEMENT RATIO SHALL BE 0.5, 3" MAX. SLUMP AND 3% TO 6% ENTRAINED AIR WITH ONE #4 REBAR HOOP. FIBER-REINFORCED CONCRETE (ADDED PER MANUFACTURER'S RECOMMENDATIONS) MAY BE USED IN LIEU OF #4 REBAR.
3. ALL EDGES WILL BE SEALED WITH CSSI OR APPROVED EQUAL; ALL TOP EDGES WILL BE TACKED AND SAND SEALED.
4. UTILITY FRAMES AND LIDS ARE PREFERRED OUTSIDE OF WHEEL PATH, WHERE POSSIBLE.

SIMILAR TO CITY STD NO. 6-4

...\5-SanitarySewer\SS MH Collar.dwg

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

WASTEWATER CONCRETE MANHOLE COLLAR

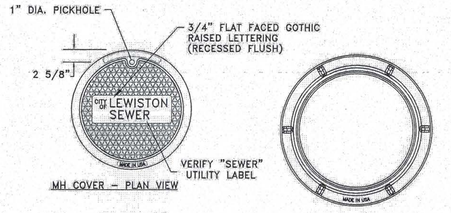
APPROVED FOR PUBLICATION — City Engineer — Date 1/27/15 — DWG. NO. 5-6

No.	DATE	BY	DESCRIPTION
1	08/22/18	MSR	CITY COMMENTS 08/16/18

CITY STANDARD DETAILS
CRESTLINE CIRCLE DRIVE
VALLEY VISTA PUD
LEWISTON, ID 83501

KELTIC ENGINEERING, INC.
315 Adams Lane ◊ Lewiston, Idaho 83501 ◊ (208) 743-2135 ◊ (208) 743-2136 fax
Development ⊕ Planning ⊕ Design ⊕ Construction Management

DRAWN BY: MSR	CHECKED BY: EFH
DESIGNED BY: EFH	
DATE: 07/13/18	
LAST REV.: 08/22/18	
PROJECT NO. 17-0089	
SHEET NO. C13 OF C14	



NOTES:

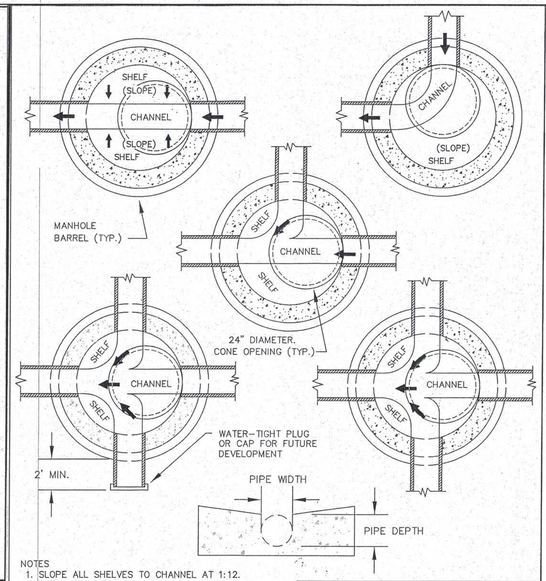
1. MANHOLE FRAME [D&L FOUNDRY A-2003 OR EAST JORDON IRON WORKS #00184811] AND COVER [EJIW #00184849 OR D&L A-2010-01] OR BY OTHER MANUFACTURER WILL BE ACCEPTABLE ONLY WITH WRITTEN APPROVAL FROM PUBLIC WORKS DEPT.; VERIFY "SEWER" UTILITY LABEL LETTERING ON COVER.
2. COVER MATERIAL SPECIFICATION GRAY IRON (ASTM A48 CL35B)
3. IN AREAS OF HIGH STORMWATER INFILTRATION, LIDS SHALL HAVE GASKETED AND BOLTED.

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

WASTEWATER
MANHOLE FRAME
AND COVER

APPROVED FOR PUBLICATION	DWG. NO.
City Engineer Date: 11/1/10	5-7

\Standards\2010-Standards\5-SanitarySewer\MH Frame_Cover.dwg



NOTES

1. SLOPE ALL SHELVES TO CHANNEL AT 1:12.
2. SEE PLAN & PROFILE SHEETS FOR SLOPE OF CHANNEL.
3. FOR PIPES OF DIFFERENT SIZES, THE TOP OF PIPE (CROWN) SHALL BE AT THE SAME ELEVATION.
4. OFFSET CONE 24" DIAMETER OPENING CENTERED OVER UPSTREAM PIPE INVERT.

..\5-SanitarySewer\Channel Detail.dwg

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

WASTEWATER
MANHOLE CHANNEL
DETAIL

APPROVED FOR PUBLICATION	DWG. NO.
City Engineer Date: 9-22-15	5-8

GENERAL NOTES FOR STORMWATER SYSTEMS

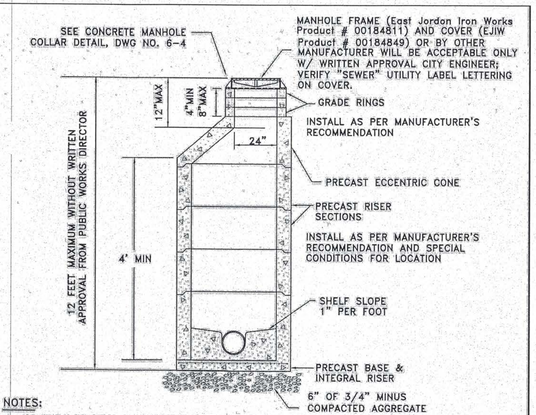
1. ALL WORK SHALL CONFORM TO CURRENT 'IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION' (ISPWC) SPECIFICATIONS AND THE CITY OF LEWISTON STANDARDS AND SPECIFICATIONS. IN THE CASE OF CONFLICT, CITY STANDARDS SHALL PREVAIL. THE 'LEWISTON STORMWATER POLICY AND DESIGN MANUAL' DEFINES THE POLICIES, MINIMUM STANDARDS, REQUIREMENTS, AND PROCEDURES FOR THE DESIGN, CONSTRUCTION, AND MAINTENANCE OF PRIVATE STORMWATER SYSTEMS.
2. ANY REPAIR, MAINTENANCE OR ALTERATION OF A PUBLIC STORM LINE OR DRAINAGE MUST BE APPROVED BY CITY ENGINEER.
3. THE CONTRACTOR MUST SECURE APPROVAL FROM THE CITY ENGINEER PRIOR TO ADDING OR REMOVING FILL BACKFILL OVER PUBLIC STORM DRAIN MAINLINE.
4. THE ENGINEERING INSPECTOR SHALL BE NOTIFIED AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO COMMENCING WORK ON STORM DRAINS.
5. ALL PUBLIC STORM DRAIN LINES SHALL BE VIDEOTAPED AND SUBMITTED TO THE PUBLIC WORKS DEPARTMENT [AS PER PUBLIC WORKS POLICY NO. 2012-2] AND APPROVAL PRIOR TO PAVING. CITY SHALL HAVE FOURTY-EIGHT (48) HOURS FOR REVIEW.
6. ALL MANHOLES AND CATCH BASINS SHALL BE INSPECTED TWICE BY THE ENGINEERING INSPECTOR – ONCE PRIOR TO BACKFILL AND THEN PRIOR TO ACCEPTANCE OF IMPROVEMENTS. CALL PWD MAIN OFFICE (208) 746-1316 FOR INSPECTION SCHEDULING.
7. CLOSED CONDUITS (OR PIPELINES) FOR STORMWATER CONVEYANCE IN THE CITY'S STORMWATER SYSTEM MUST BE A MINIMUM OF 12 INCH DIAMETER. THE PIPE MATERIAL MAY BE PLASTIC, STEEL, REINFORCED CONCRETE OR AN APPROVED MATERIAL.
8. MINIMUM PIPE SLOPE SHALL BE 0.5% AND MINIMUM DESIGN VELOCITY WHEN FLOWING FULL SHALL BE NOT LESS THAN 2 FEET PER SECOND AND MAXIMUM VELOCITY SHOULD NOT BE MORE THAN 8 FEET PER SECOND.
9. JUNCTIONS OF 3 OR MORE PIPES, CHANGES IN ALIGNMENT, SLOPE AND/OR CHANGES IN PIPE DIAMETER SHALL BE MADE ONLY AT CATCH BASINS OR MANHOLES.
10. STEEP SLOPE INSTALLATION SHALL BE INSTALLED AS PER MANUFACTURES PIPE SPECIFICATIONS.
11. MANHOLE SHALL BE INSTALLED AT THE END OF EACH LINE, AT ALL CHANGE IN SIZE OR ALIGNMENT, AT DISTANCE NOT GREATER THAN 400 FEET OR AT CITY ENGINEER'S REQUIRED SPACING. ALL OTHER CHANGES IS SPACING MUST HAVE WRITTEN APPROVAL FROM PUBLIC WORKS DEPARTMENT.
12. LOCATING WIRE SHALL BE INSTALLED WITH ALL PUBLIC STORM PIPE INSTALLATIONS. SEE CITY DWG 1-8, 'IDENTIFYING TAPE DETAIL'.
13. CATCH BASINS AND MANHOLES SHALL BE ACCESSIBLE TO VEHICLES AND EQUIPMENT FOR MAINTENANCE AND BE WITHIN RIGHT-OF-WAY OF A MINIMUM EASEMENT WIDTH OF 20 FEET. PROPOSED ACCESS ROUTE MUST BE APPROVED BY CITY ENGINEER. MAINTENANCE ACCESS ROUTES THAT DO NOT FOLLOW THE STORMLINE MUST HAVE A MINIMUM 12' EASEMENT.

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

STORMWATER SYSTEM
GENERAL NOTES

APPROVED FOR PUBLICATION	DWG. NO.
City Engineer Date: 11/21/16	6-1

\Standards Dwgs - City\Current Stds\6-StormSewer\General_Notes_stm.dwg



NOTES:

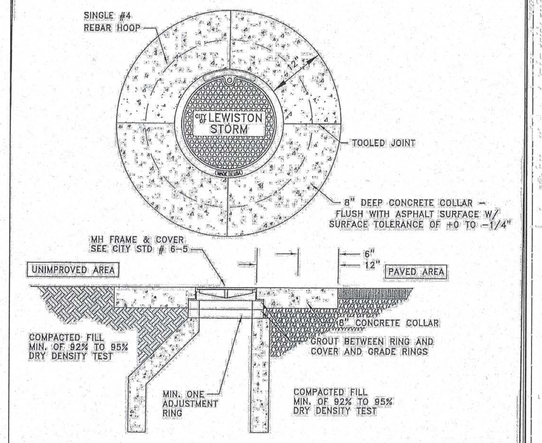
1. ALL UNITS TO MEET OR EXCEED THE REQUIREMENTS OF ASTM C478/AASHTO M199. JOINTS SHALL BE RUBBER GASKET CONFORMING TO ASTM C443 AND SHALL BE GROUTED FROM THE INSIDE. LIFT HOLES BE GROUTED FROM THE OUTSIDE AND INSIDE OF THE MANHOLE.
2. PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MINIMUM
3. CONNECTION TO MANHOLE SHALL BE MADE USING RESILIENT CONNECTOR CONFORMING TO ASTM C-923 SUCH AS KOR-N-SEAL, A-LOK OR APPROVED EQUAL. HAVE A WALL THICKNESS OF 2" MINIMUM
4. USE A MINIMUM OF 1/2" OF NON-SHRINK GROUT BETWEEN RISERS, CONE AND FRAME.
5. RISERS, UNIT SECTIONS AND THE FRAME SHALL NOT BE MORE THAN ONE INCH OUT OF ALIGNMENT WITH THE MANHOLE BASE; PIPES SHALL BE FLUSH WITH INSIDE EDGE OF MANHOLE.
6. SEE DWG NO 6-4 FOR CONCRETE MANHOLE COLLAR.

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

STORMWATER
TYPE 1 MANHOLE

APPROVED FOR PUBLICATION	DWG. NO.
City Engineer Date: 12/13/10	6-2

\Standards\2010-Standards\6-StormSewer\MH Type 1.dwg



NOTES:

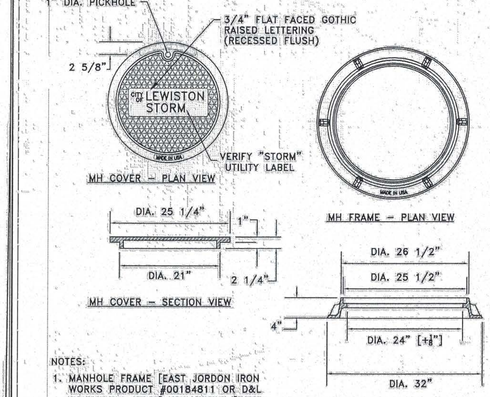
1. A CIRCULAR-SHAPED CONCRETE COLLAR IS REQUIRED ON ALL INSTALLATIONS; IN BOTH PAVED OR UNIMPROVED AREAS. INSTALL A 8" THICK CONCRETE COLLAR THAT SHALL BE FLUSH WITH THE ASPHALT SURFACE WITH A SURFACE TOLERANCE OF +0 TO -1/4".
2. CONCRETE SHALL BE 3,000 PSI MIN. AT 28 DAYS, WATER/CEMENT RATIO SHALL BE 0.5, 3" MAX. SLUMP AND 5% TO 8% ENTRAINED AIR WITH ONE #4 REBAR HOOP. FIBER-REINFORCED CONCRETE (ADDED PER MANFACTURER'S RECOMMENDATIONS) MAY BE USED IN LIEU OF #4 REBAR.
3. ALL EDGES WILL BE SEALED WITH CSS) OR APPROVED EQUAL; ALL TOP EDGES WILL BE TACKED AND SAND SEALED.
4. UTILITY FRAMES AND LIDS ARE PREFERRED OUTSIDE OF WHEEL PATH, WHERE POSSIBLE.

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

CONCRETE
MANHOLE COLLAR

APPROVED FOR PUBLICATION	DWG. NO.
City Engineer Date: 1/22/15	6-4

..\Current Stds\6-StormSewer\MH Collar.dwg



NOTES:

1. MANHOLE FRAME [EAST JORDON IRON WORKS PRODUCT #00184811 OR D&L FOUNDRY A-2003] AND COVER [EJIW #00184849 OR D&L A-2010-01] OR OTHER MANUFACTURER WILL BE ACCEPTABLE ONLY WITH WRITTEN APPROVAL FROM PUBLIC WORKS DEPT.; VERIFY "STORM" UTILITY LABEL LETTERING ON COVER.
2. COVER MATERIAL SPECIFICATION GRAY IRON (ASTM A48 CL35B)

\Standards\2010-Standards\6-StormSewer\MH Frame_Cover.dwg

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

STORMWATER
MANHOLE FRAME
AND COVER

APPROVED FOR PUBLICATION	DWG. NO.
City Engineer Date: 12/13/10	6-5

GENERAL NOTES FOR CATCH BASINS

1. ALL UNITS TO MEET OR EXCEED THE REQUIREMENTS OF ASTM C478/AASHTO M199.
2. ALL CURB INLET STRUCTURES SHALL HAVE A MINIMUM 12" SUMP WITH THREE 1 1/2" DIA. WEEP HOLES IN BASE AND MINIMUM OF 12" OF COMPACTED 5/8" MINUS UNDER BASE; CRUSHED AGGREGATE MATERIAL COMPACTED TO 95% MODIFIED PROCTOR AS PER AASHTO T180
3. A CATCH BASIN SHALL BE INSTALLED UPHILL TO EACH INTERSECTION CORNER RADIUS AND SPACED NO MORE THAN 400 FEET ALONG THE LENGTH OF THE STREET OR AT CITY ENGINEER'S REQUIRED SPACING. ADJUSTMENTS TO SPACING SHALL REQUIRE CALCULATIONS TO VERIFY THE CHANGES HAVE MET CITY SPECIFICATIONS.
4. PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MINIMUM.
5. ALL PIPES SHALL BE FLUSH WITH BASIN WALL AND SHALL BE MORTARED ALL AROUND.
6. USE CITY STD DWG NO. 6-7 FOR CATCH BASIN FRAME AND GRATE.
7. REDUCTION SLAB, RISERS, AND FRAME & GRATE SHALL NOT BE MORE THAN ONE INCH OUT OF VERTICAL ALIGNMENT WITH CATCH BASIN BASE.
8. MAXIMUM DEPTH FROM FINISHED GRADE TO PIPE INVERT IS 5 FEET.
9. USE A MINIMUM OF 1/2" NON-SHRINK GROUT BETWEEN RISERS, BASE, AND FRAME.
10. CURB INLET TO BE PLACED WITHIN A TOLERANCE OF 1/2" HORIZONTAL ALIGNMENT FROM CURB LINE.
11. SET GRATE 1" LOWER THAN PROPOSED FLOWLINE TO ENSURE POSITIVE DRAINAGE INTO CATCH BASIN. CURB FLOWLINE SHALL BE TRANSITION TO 3' ON EACH SIDE OF THE CATCH BASIN TO ADJUST FOR 1" DROP. GUTTER LIP AND TOP OF CURB ARE NOT TO BE DEPRESSED.

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

STORMWATER
GENERAL CATCH BASIN
NOTES

APPROVED FOR PUBLICATION	DWG. NO.
City Engineer Date: 12/13/16	6-6

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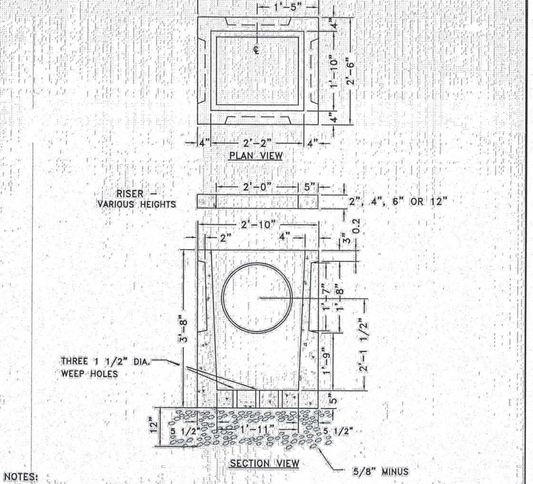

NOTES:

1. TYPICAL CATCH BASIN [WILBERT PRECAST PRODUCT #1827] AND RISERS [WILBERT PRECAST #1830 (FOR 12") OR #1831-2,4,6 (FOR 2", 4" OR 6")] OR BY OTHER MANUFACTURER WILL BE ACCEPTABLE ONLY WITH WRITTEN APPROVAL FROM PUBLIC WORKS DEPT.
2. SEE CITY DWG 6-6 'GENERAL NOTES FOR CATCH BASINS'.

CITY OF LEWISTON, IDAHO
PUBLIC WORKS DEPARTMENT

STORMWATER
TYPE 1 CATCH BASIN

APPROVED FOR PUBLICATION	DWG. NO.
City Engineer Date: 12/13/10	6-8

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No.	DATE	BY	DESCRIPTION
1	08/22/18	MSR	CITY COMMENTS 08/16/18

CITY STANDARD DETAILS
CRESTLINE CIRCLE DRIVE
VALLEY VISTA PUD
LEWISTON, ID 83501

KELTIC ENGINEERING, INC.
315 Adams Lane ◊ Lewiston, Idaho 83501 ◊ (208) 743-2135 ◊ (208) 743-2136 fax
Development ✠ Planning ✠ Design ✠ Construction Management

DRAWN BY: MSR	CHECKED BY: EFH
DESIGNED BY: EFH	
DATE: 07/13/18	
LAST REV.: 08/22/18	
PROJECT NO. 17-0089	
SHEET NO. C14 OF C14	