

Project: Matt Rasmussen - Uintah Open Channel flow Calculations	Project No.: 14-041
By: J. Jensen	Reviewed By:
Date: 10/15/2014	Sheet: 1

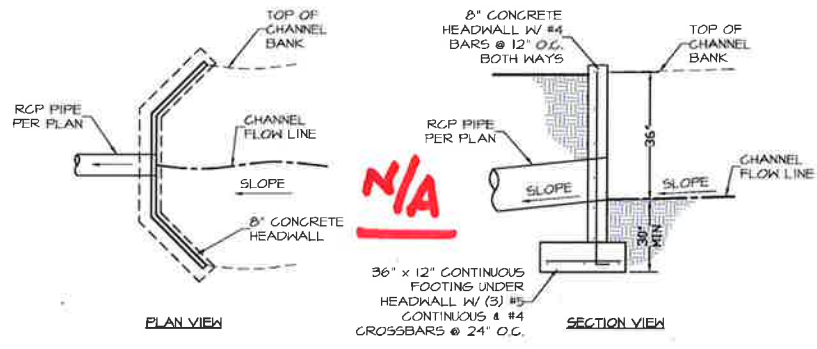
Design Data is based upon report dated September 4<sup>th</sup>, 2014 by HydroPlot. This report states that the 500 year and 100 year flood volumes are Approx. 21 cfs, and 12 cfs

Manning Coefficient = 1.486

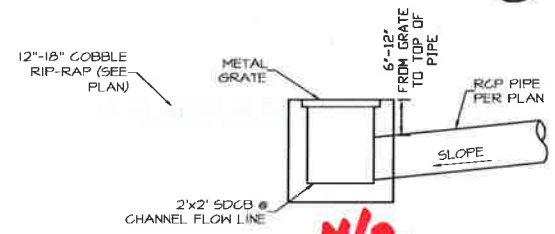
PIPE INFORMATION						
Description	D (in)	SLOPE	A (ft <sup>2</sup> )	F (ft)	n	Q <sub>max</sub> (cfs)
Required pipe size for 500 year storm	18	0.2	1.787	4.712	0.013	46.98
Required pipe size for 100 year storm	15	0.2	1.227	3.927	0.013	28.89

Channel Information						
Description	Top width	SLOPE	A (ft <sup>2</sup> )	P (ft)	n	Q <sub>max</sub> (cfs)
20' new wide x 2' min deep	20	0.02	15	21	0.050	50.38
Channel with 1' fireboard						

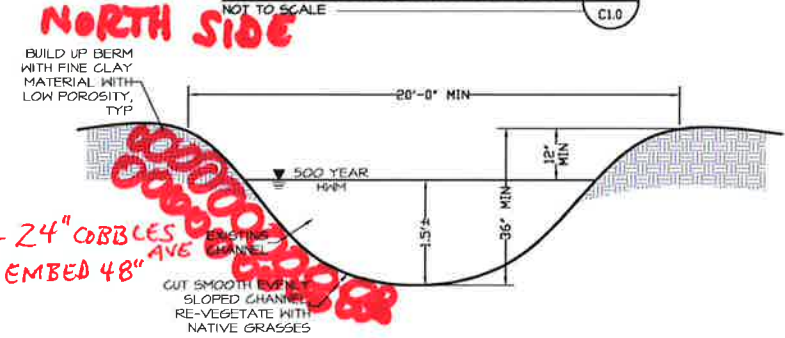
Conclusion: Provide a 3' deep x 20 wide, or wider channel flow is modeled at 2' deep, to allow 1' freeboard



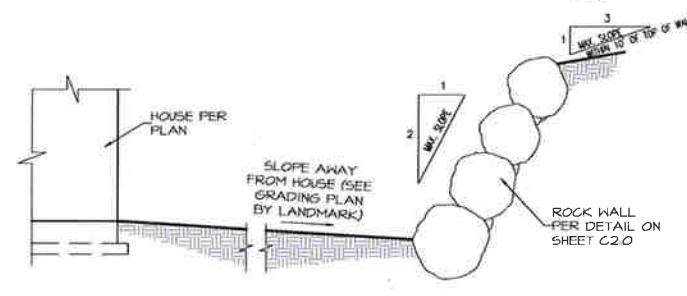
**INLET STRUCTURE DETAIL**  
NOT TO SCALE



**OUTLET STRUCTURE DETAIL**  
NOT TO SCALE



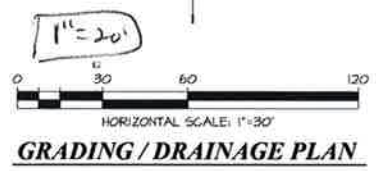
**MODIFIED CHANNEL CROSS SECTION**  
NOT TO SCALE



**CROSS SECTION**  
NOT TO SCALE

**LEGEND**  
NOT ALL ITEMS IN THE LEGEND MAY BE APPLICABLE

---	BOUNDARY LINE
---	CENTERLINE
---	EASEMENT LINE
---	SETBACK LINE
---	NEW IRRIGATION LINE
---	NEW STORM DRAIN
---	NEW SANITARY SEWER
---	NEW SECONDARY WATERLINE
---	NEW CULINARY WATERLINE
---	EX. IRRIGATION LINE
---	EX. OVERHEAD POWER LINE
---	EX. STORM DRAIN
---	EX. SANITARY SEWER
---	EX. SECONDARY WATERLINE
---	EX. TELEPHONE LINE
---	EX. GAS LINE
---	EX. CULINARY WATERLINE
+	SECTION CORNER MONUMENT
+	CONTROL POINT
---	EG CONTOUR MINOR
---	EG CONTOUR MAJOR
---	FG CONTOUR MINOR
---	FG CONTOUR MAJOR
---	NEW ASPHALT
---	EXISTING ASPHALT
---	30" HIGH BACK CURB
---	30" RELEASE GUTTER



**CALL BLUESTAKES**  
1-800-662-4111  
AT LEAST 48 HOURS  
PRIOR TO COMMENCING  
ANY CONSTRUCTION



DATE: 10/15/2014  
PROJECT: RASMUSSEN RESIDENCE  
DRAWN BY: C.D.  
PLOT: 10-29-2014

DRAWING DESCRIPTION:  
WASH GRADING PLAN

177 E. ANTELOPE DR. #B  
LAYTON, UT 84041  
PHONE: (801) 499-5054  
FAX: (801) 499-5065

**SILVERPEAK ENGINEERING**

RASMUSSEN RESIDENCE  
WEBER CANYON  
UINTAH, UTAH

SHEET NUMBER:  
**C1.0**