

TILLMAN CREEK FLOW IMPROVEMENT

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DRAWING LIST:

- 1 PROJECT LOCATION & DRAWING LIST
- 2 SITE PREPARATION & WATER CONTROL
- 3 FINAL PROJECT SITE PLAN
- 4 PROFILE & SECTIONS
- 5 FLOW RATING CURVE & BID FORM

PROJECT LOCATION FOR TILLMAN CREEK FLOW IMPROVEMENT IS JUST SOUTH OF THE IRON HORSE TRAIL (IRON HORSE STATE PARK) ABOUT ONE MILE WEST OF SOUTH CLE ELUM. SW ¼ SECTION 33, T20N, R15E, KITTITAS COUNTY. MAP SCALE: 1" = 1,000', MAP SOURCE: DeLORME TopoQuad.



PROJECT LOCATION IS ABOUT 1 MILE WEST OF SOUTH CLE ELUM, WASHINGTON, ALONG THE IRON HORSE TRAIL.

RECEIVED
 AUG 2 2018
 July 30
 Kittitas County CDE

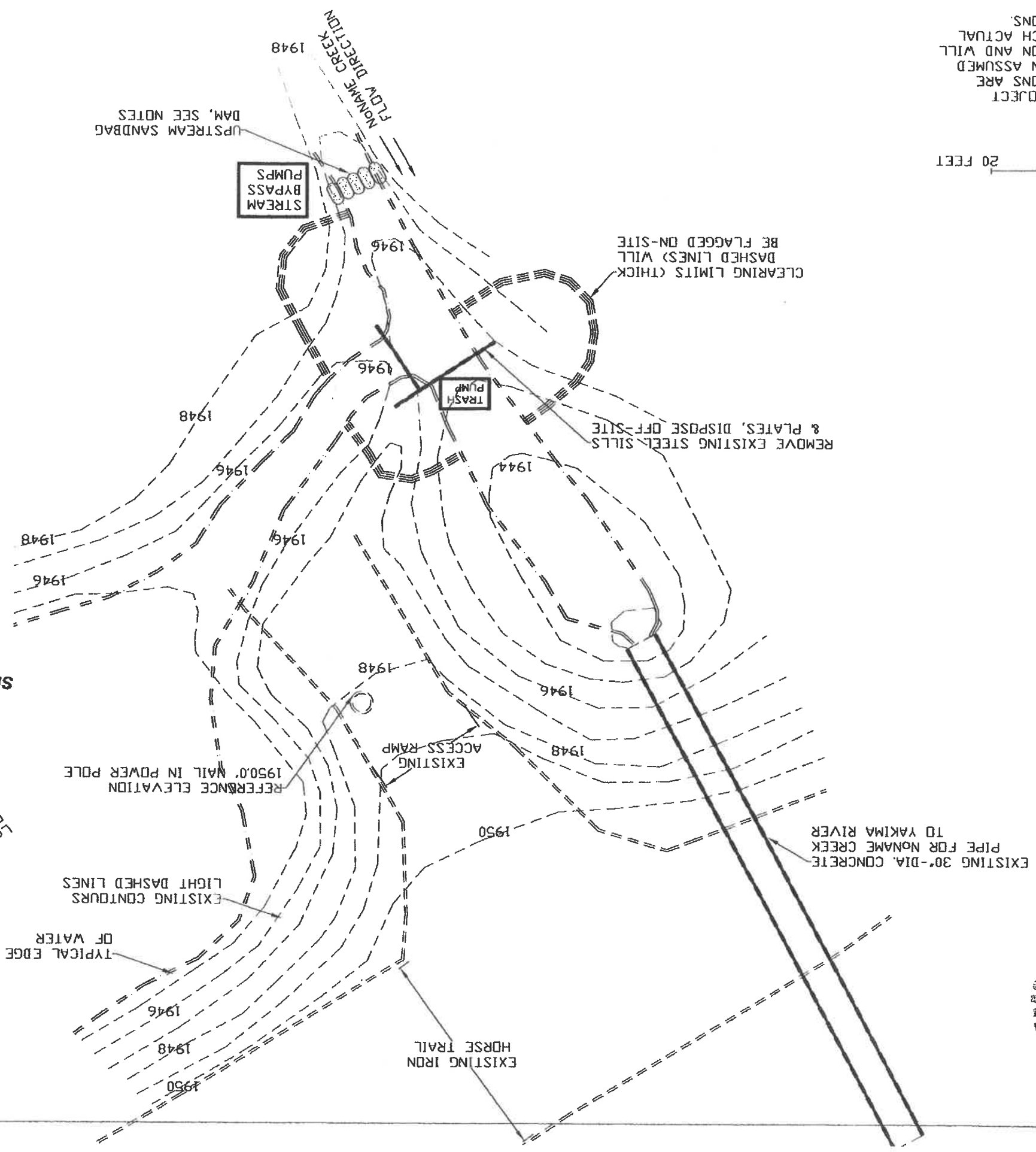


DECEMBER 2017

TILLMAN CREEK FLOW IMPROVEMENT
 KITTITAS CONSERVATION TRUST
 PROJECT LOCATION & DRAWING LIST
 DRAWING 1

NOTE: PROJECT ELEVATIONS ARE BASED ON ASSUMED ELEVATION AND WILL NOT MATCH ACTUAL ELEVATIONS
 NORTH (APPROX.)

SCALE: 1" = 10'
 0 5 10 20 FEET



REMOVE EXISTING STEEL SILLS & PLATES, DISPOSE OFF-SITE
 BE FLAGGED ON-SITE
 CLEARING LIMITS (THICK DASHED LINES) WILL BE FLAGGED ON-SITE

1. Kittitas Conservation Trust (KCT) has an agreement with Washington State Parks for site access thru a locked gate, to Iron Horse Trail from South Cle Elum. Gate access and rules to be coordinated between Contractor, KCT, and State Park personnel.
2. KCT will identify native plants to be salvaged, then re-planted on-site after the project. Depending on plant size, KCT may remove these plants before other work begins, or the Contractor may assist with removal of relatively large plants (if any selected for salvage). These plants will be set aside in pots for the construction duration (estimated to be 2 to 3 days), then will be re-planted by KCT (small plants) and/or Contractor (large plants).
3. Contractor to complete clearing prior to other work, and after plant salvage by KCT. All plants within thick dashed lines (will be flagged on-site) to be entirely removed, including brush and smaller plants. All clearing debris to be disposed along existing Iron Horse Trail, within 100' of project location at an upland spot selected by State Park personnel to be outside view from trail. Pile debris and mash down.
4. Engineer will set stakes for ends of rock sills, plus offset stakes to retain these locations during excavation. Engineer will identify reference elevation on-site.
5. Contractor to provide and install sandbag dam at location shown, with two 2'-diameter submersible electric pumps (with generator) to bypass water around excavations. Discharge from pumps shall be down Lariviere Creek. Discharges with 50'-long hoses will be far enough downstream that backwater into work areas will not occur.
6. KCT will coordinate with WDFW to immediately search de-watered stream reaches for any stranded fish, after bypass of flow by Contractor. Observed fish (if any) will be collected with a small dipnet and 5-gallon bucket, then quickly released downstream.
7. Contractor to excavate from NE side of project (at end Access Ramp), with surplus excavated materials hauled to disposal site along Iron Horse Trail, within 200' of project site. Upland disposal site to be identified by State Park personnel; 7 cubic yards (+/-) soils will be graded to match existing ground contours, then KCT will spread seeds. About 3 cubic yards of native soils to be side-cast on-site for transition slopes from rock sills to existing ground.
8. Contractor to operate a 2'-dia, trashpump to pump muddy water from excavations, to prevent overflow into creeks. Discharge water to flat ground within 100' of project, for infiltration into ground.
9. All disturbed soils above water edges will be seeded by KCT immediately after construction, then Contractor to spread straw mulch (certified weed-free).

Site Access, Preparation, Water Control & Re-Vegetation Notes:

TYPICAL EDGE OF WATER

LARIVIERE CREEK FLOW DIRECTION TO TILLMAN CREEK

TILLMAN CREEK FLOW IMPROVEMENT KITTITAS CONSERVATION TRUST
 SITE PREPARATION & WATER CONTROL
 DRAWING 2

DECEMBER 2017

EXISTING 30"-DIA. CONCRETE PIPE FOR NoNAME CREEK TO YAKIMA RIVER

EXISTING IRON HORSE TRAIL

TYPICAL EDGE OF WATER

LoRIVIERE CREEK FLOW DIRECTION TO TILLMAN CREEK

REFERENCE ELEVATION 1950.0' NAIL IN POWER POLE

EXISTING ACCESS RAMP

TYPICAL EDGE OF WATER

EXISTING CONTOURS LIGHT DASHED LINES

NoNAME CREEK SECTION AT ROCK SILL (DWG. 4)

NoNAME CREEK PROFILE AT ROCK SILL (DWG. 4)

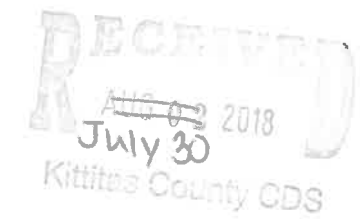
LoRIVIERE CREEK SECTION AT ROCK SILL (DWG. 4)

NoNAME CREEK FLOW DIRECTION

0 5 10 20 FEET
SCALE: 1" = 10'

NORTH (APPROX.)

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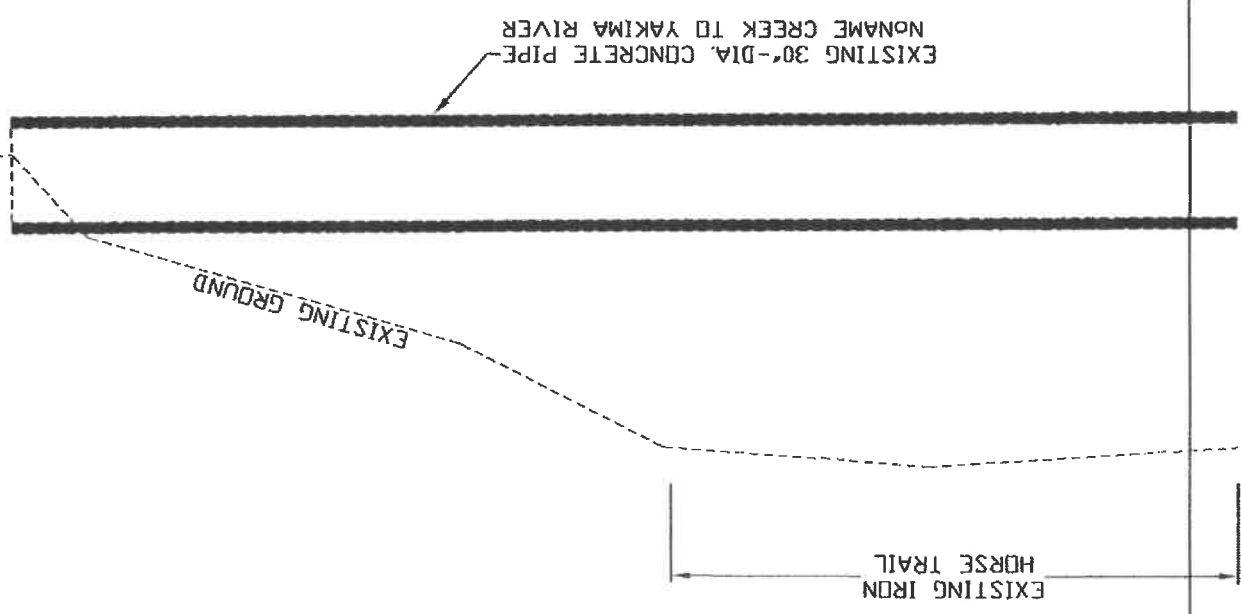
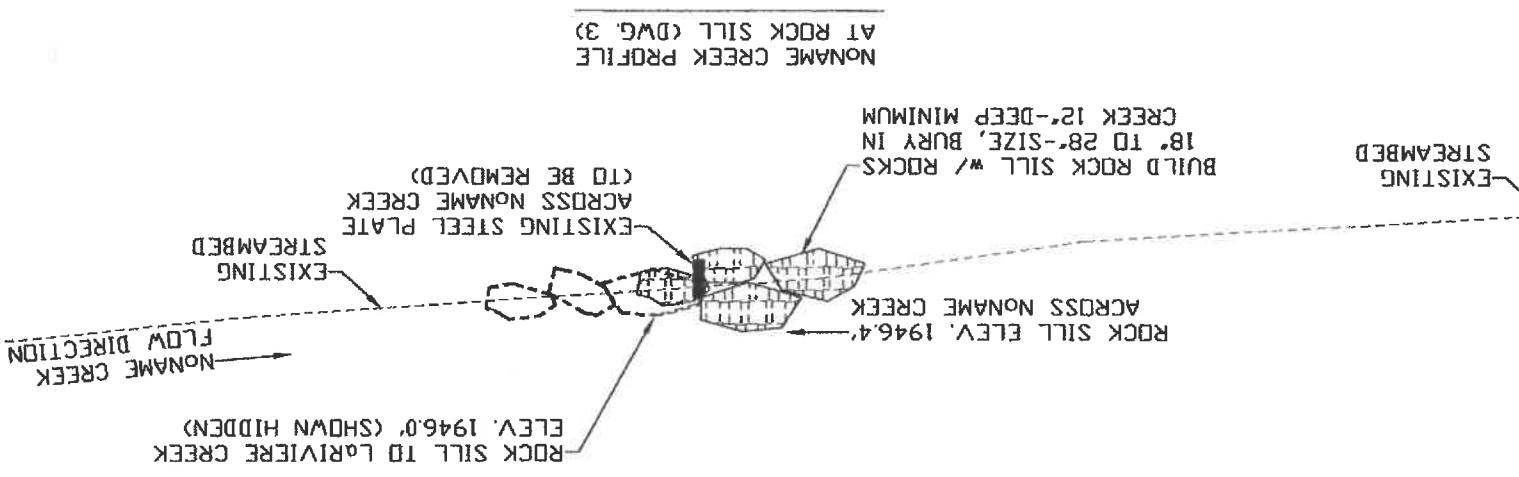
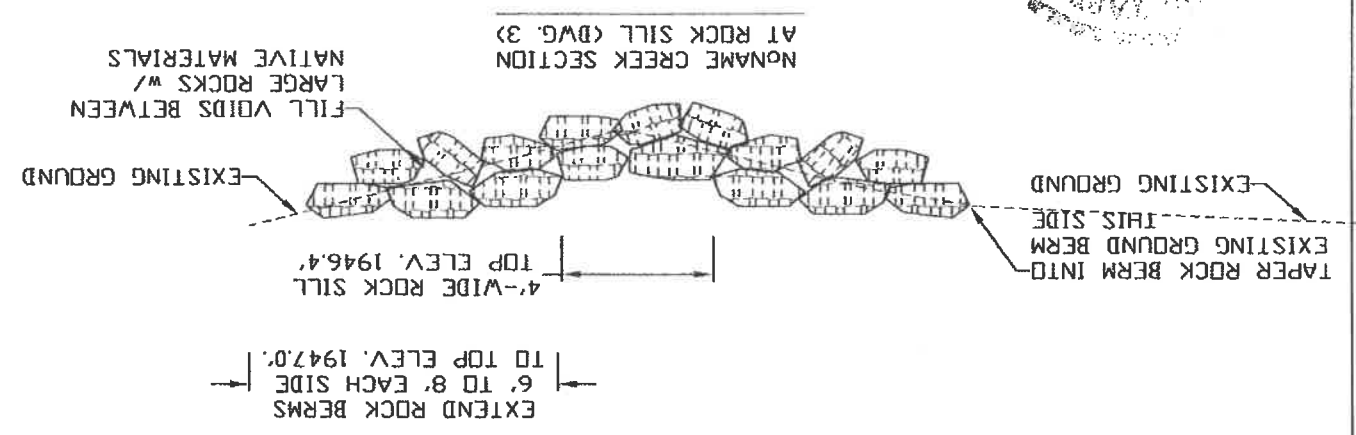
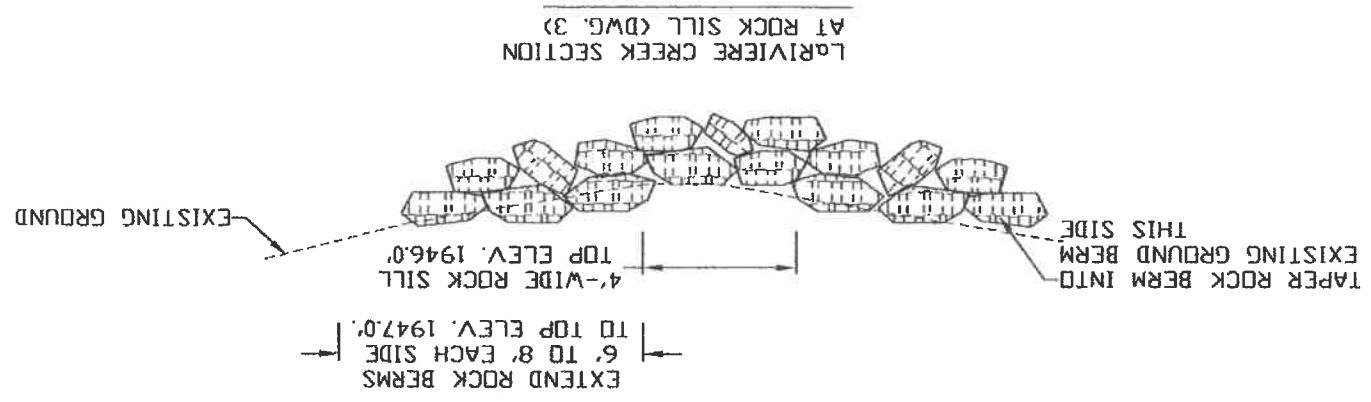
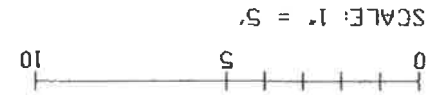
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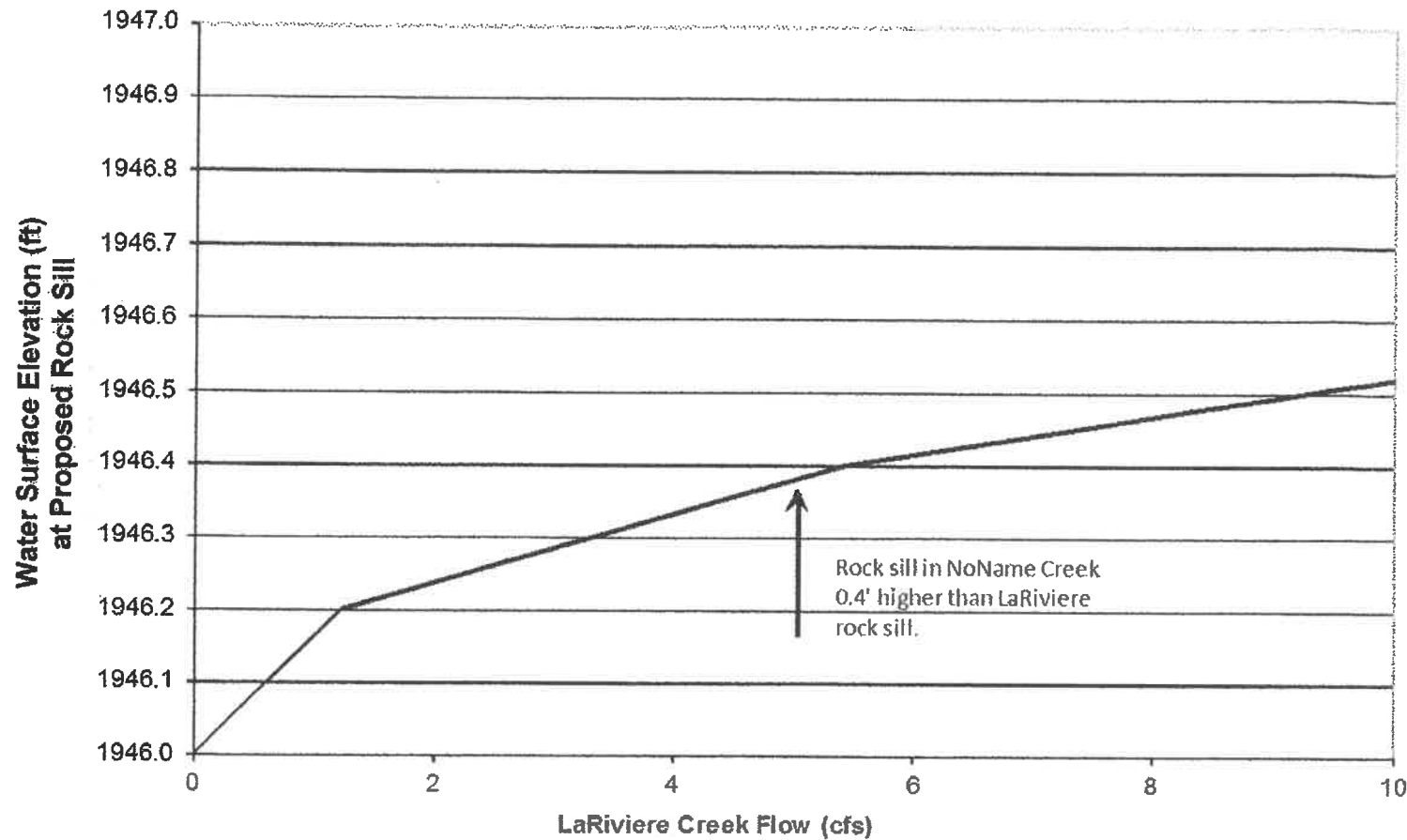
FINAL PROJECT SITE PLAN
DRAWING 3



TILLMAN CREEK FLOW IMPROVEMENT
KITITAS CONSERVATION TRUST
DRAWING 4
PROFILE & SECTIONS

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Rating curve for LaRiviere Creek at proposed rock sill (top elevation 1946.0'). Rock sill elevations for NoName and LaRiviere Creek would direct all flows less than or equal to 5 cfs (+/-) towards Tillman Creek. For flows greater than 5 cfs, most water would flow towards Tillman Creek, and some water would also flow down NoName Creek, under the Iron Horse Trail, to the Yakima River.

Tillman Creek Flow Improvement Bid Form

Contractor:

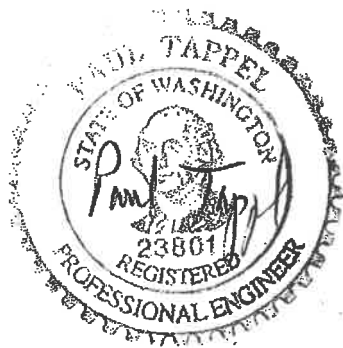
Engineer's Estimate

12/7/2017

Spec.	Item	Qty	Unit	Unit Cost	Total Cost
1-09	Mobilization	1	LS	\$1,200	\$1,200
2-01	Clearing and Grubbing (on-site disposal)	1	LS	400	400
2-09	Excavation (10 CY, side-cast as needed)	1	LS	1,200	1,200
2-09	Backfill w/ Native Soils (3 CY voids & edges)	1	LS	800	800
2-09	Haul & Dispose Excess Soils (7 CY on-site)	1	LS	400	400
2-15	Water Bypass & Control	1	LS	1,200	1,200
2-20	Remove & Dispose Steel Sills (off-site)	1	LS	400	400
8-40	Straw Mulch	2	BALE	50	100
9-13	Large Rocks (18" to 28"-size)	15	TN	120	1,800
Construction Subtotal (without sales tax):					\$7,500
Washington State Sales Tax (@ 8.0%):					\$600
Total Construction Cost (rounded):					\$8,000

CY = cubic yard
EA = each
LB = pound

LS = lump sum
TN = ton



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AUG 02 2018
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TILLMAN CREEK FLOW IMPROVEMENT
KITITAS CONSERVATION TRUST

FLOW RATING CURVE & BID FORM
DRAWING 5

