1. Contractor shall construct temporary crossing during construction to accommodate turbine deliveries. Overflow swale shall be excavated as soon as feasible. A flux treatment shall be applied.

2. Culvert shall be sized to accommodate nuisance flows only. Less frequent rain events will overtop the road.

3. The elevation of permanent overflow swale (x) shall be less than or equal to the top of flow in the culvert (y).

NOTE:

PERMANENT TURBINE ACCESS ROAD CULVERT CROSSING

S-T-R: 13,17,21,25,29,30 - 19N - 17/18E W.M.

ADDRESS:

Grette Associates
ENVIRONMENTAL CONSULTANTS

PROJECT: DESERT CLAIM WIND POWER PROJECT

LATITUDE: 47,1243056 N LAT,
LONGITUDE:-120.6338722 W LONG.

COUNTY OF: KITITAS
STATE: WASHINGTON
APPLICANT: DESERT CLAIM WIND POWER, LLC

SHEET NO. _4_ OF _7_ DATE: 5/29/18
NOTE:
1. CHANNEL SIDE SLOPES MAY REQUIRE MODIFICATION TO CONSTRUCT THE ACCESS ROAD THROUGH THE CHANNEL THAT MEETS TURBINE COMPONENT DELIVERY REQUIREMENTS.
2. THE ACCESS ROAD SHALL CROSS THE CHANNEL AS CLOSE TO 90-DGREES AS POSSIBLE.
3. THE FINISHED ACCESS ROAD SURFACE SHALL BE AT AN ELEVATION THAT ALLOWS WATER TO FLOW THROUGH THE CHANNEL UNIMPEDED AND WITHOUT PONDSING UPSTREAM OF THE ROAD OR ON THE ROAD SURFACE.
4. ARMORED SURFACE TREATMENT OF THE ROAD SURFACE SHALL EXTEND THROUGH THE CHANNEL BOTTOM AND UP THE CHANNEL SIDE SLOPES TO THE OBSERVED TOP OF BANK OF THE CHANNEL.
5. REFER TO DETAIL 101A FOR ARMORED SURFACE TREATMENT OPTIONS.

USACE REF #: NWS-2018 - 564

LOW WATER CROSSING DESIGN DETAILS

PROJECT: DESERT CLAIM WIND POWER PROJECT
LATITUDE: 47.1243056 N LAT.
LONGITUDE: -120.6336722 W LONG.
COUNTY OF: KITITAS
STATE: WASHINGTON
APPLICANT: DESERT CLAIM WIND POWER, LLC

S-T-R: 13,17-21,25,29,30 - 19N - 17/18E W.M.
ADDRESS:

Grette Associates
ENVIRONMENTAL CONSULTANTS

SHEET NO. 5 OF 7 DATE: 5/19/18
CRANE CROSSING DESIGN DETAILS

PURPOSE: DEVELOP A COMMERCIOALLY VABLE WIND ENERGY FACILITY

USACE REF #: NWS-2018 - 564

PROJECT: DESERT CLAIM WIND POWER PROJECT
LATITUDE: 47.1243056 N LAT.
LONGITUDE: -120.6336722 W LONG.
COUNTY OF: KITITAS
STATE: WASHINGTON
APPLICANT: DESERT CLAIM WIND POWER, LLC

CRANE CROSSING DESIGN DETAILS

S-T-R: 13,17-21,25,29,30 - 19N - 17H/18E W.M.
ADDRESS:

Grette Associates
ENVIRONMENTAL CONSULTANTS

WA STATE DNR
NELSON GELIVIEH RANCH
LLC
ROAN, JAMES P ETUX
WADE, JOANNE M &WHITE, JACK

DATE: 5/29/18

NOT TO SCALE

STREAM CROSSING WITH BRIDGE

10'-1 MAX
1' RAMP (45°)

EXISTING SOIL

STREAM CHANNEL
(FLOWING WATER)
(WIDTH VARIES)

TIMBER SUPPORTS

TIMBER MATS

TIMBER MATS

TIMBER MATS

AIR BRIDGE

CRANE PATH

NOT TO SCALE

TYPICAL CRANE TRAVEL PATH
STREAM CROSSING WITH EROSION CONTROL BLANKETS

NOT TO SCALE

PROPOSED TEMPORARY CULVERT

WATERPROOF/DRAINAGE SINGLE TIMBER MAT CRANE CROSSING

PLANT VIEW OF CHANNEL CROSSING

PLANT VIEW

NOT TO SCALE

1. Channel slopes to be matched temporarily during construction to allow for adequate crane crossing and remove to final conditions upon site restoration.
2. A2 disturbed areas shall be restored to existing conditions.
3. Crossings shall have the top-most surface layer a minimum of 2.5 inches below the drainage channel bottom.
4. The top bed of the channel crossing shall conform to the existing ditch cross sectional slopes.
5. Compaction may be added to achieve sufficient bearing capacities as are necessary for anticipated road use.
6. Rock check dams or gravel bag berms may be necessary if flows and drainage areas require.