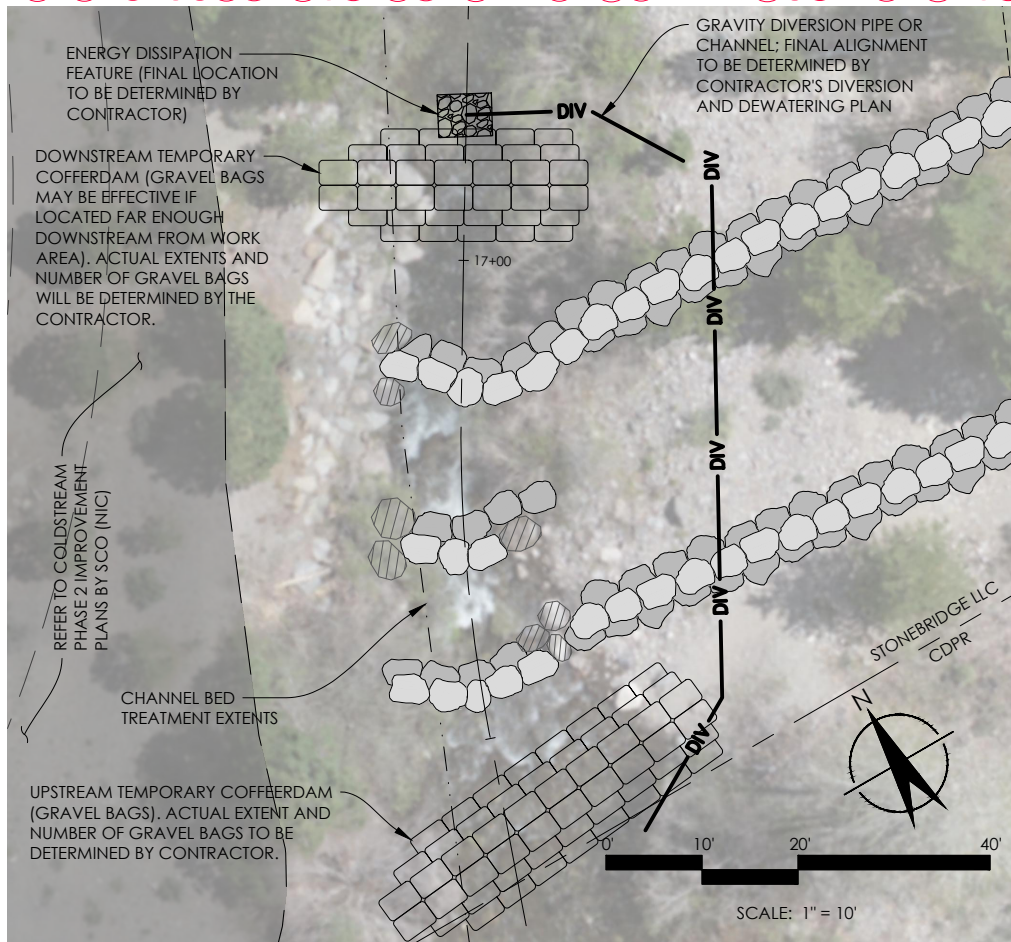
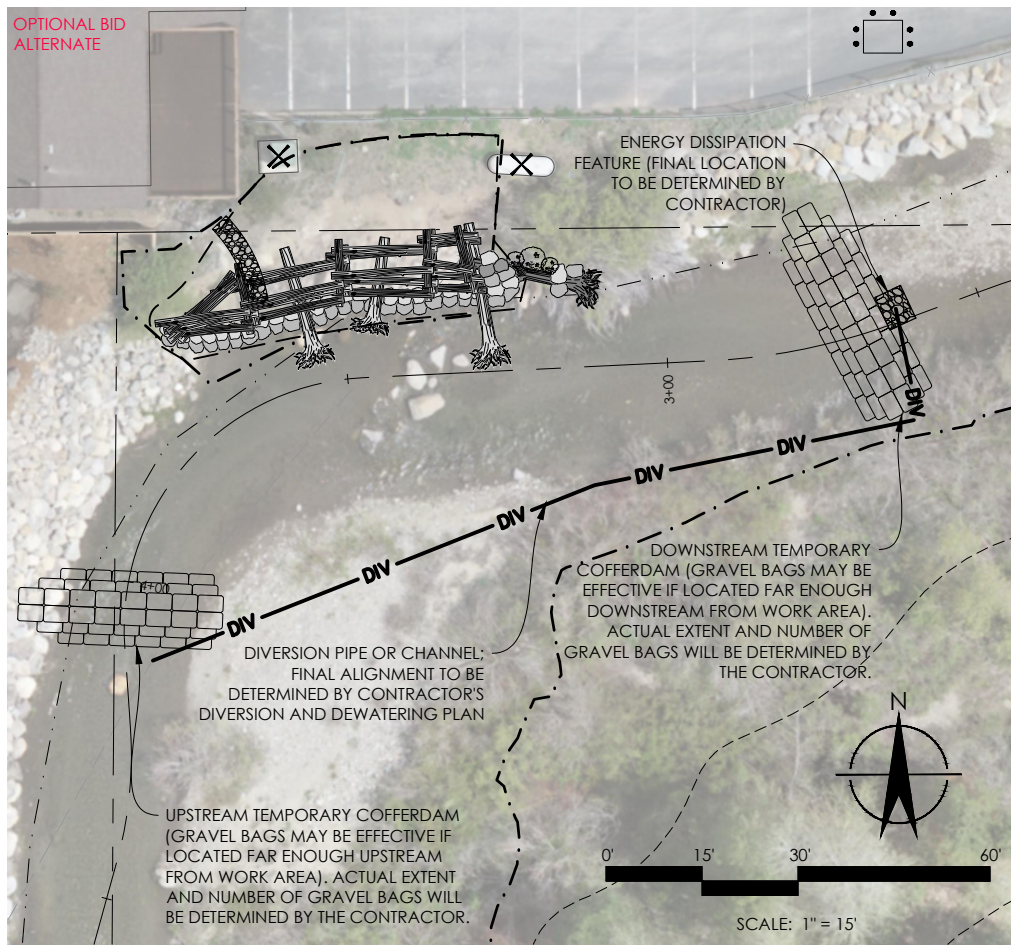


OPTIONAL BID ALTERNATE



TEMPORARY CREEK DIVERSION AND DEWATERING NOTES:

1. GENERAL

- 1.1. THESE DIVERSION AND DEWATERING NOTES HAVE BEEN PREPARED TO HELP THE CONTRACTOR UNDERSTAND THE SCOPE OF THE DIVERSION AND DEWATERING WORK. THE CONTRACTOR SHALL SUBMIT A DIVERSION AND DEWATERING PLAN FOR APPROVAL BY THE ENGINEER'S REPRESENTATIVE NO LATER THAN 10 DAYS BEFORE MOBILIZATION. THE PLAN MAY INCLUDE ALTERNATE DEWATERING AND DIVERSION METHODS IF, IN THE OPINION OF THE CONTRACTOR, THE WORK WOULD BE BETTER COMPLETED BY OTHER MEANS. ANY ALTERNATE PLAN MUST BE APPROVED BY THE ENGINEER'S REPRESENTATIVE. ULTIMATELY, IT IS THE CONTRACTOR'S RESPONSIBILITY TO EXECUTE A DIVERSION AND DEWATERING PLAN THAT REASONABLY PREPARES THE SITE TO COMPLETE THE WORK DEPICTED IN THESE DRAWINGS AND IS CONSISTENT WITH THE 401 WATER QUALITY CERTIFICATION ISSUED BY THE LAHONTAN REGIONAL WATER QUALITY CONTROL BOARD, AS WELL AS OTHER ALL FEDERAL, STATE, AND LOCAL REGULATIONS.
- 1.2. TURBIDITY MONITORING SHALL BE COMPLETED ONCE DAILY FOR THE FULL DURATION THE DIVERSION IS ACTIVE. TURBIDITY MONITORING SHALL BE COMPLETED AT THE UPSTREAM AND DOWNSTREAM ENDS OF THE PROJECT (SAMPLING LOCATIONS TURB-1 AND TURB-2, SEE SHEET 2.0). REFER TO THE 401 WATER QUALITY CERTIFICATION FOR THE PROJECT (WDID 6A291508008) FOR ADDITIONAL TURBIDITY MONITORING REQUIREMENTS, INCLUDING SPECIAL REQUIREMENTS FOR MONITORING DURING INSTALLATION AND DECOMMISSIONING OF THE DIVERSION SYSTEM.
- 1.3. LOCATIONS OF TEMPORARY CREEK DIVERSION PIPE ALIGNMENTS SHOWN HEREIN ARE APPROXIMATE AND SHOULD NOT BE CONSIDERED PRESCRIPTIVE. THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER'S REPRESENTATIVE PRIOR TO MOBILIZATION TO AGREE ON A FINAL CONFIGURATION FOR THE DIVERSION SYSTEMS BASED ON FIELD CONDITIONS.
- 1.4. THE DIVERSION SYSTEM IS NEEDED TO CONSTRUCT THREE BOULDER STEPS ONLY. THE CONTRACTOR SHALL SCHEDULE CONSTRUCTION OF BOULDER STEPS TO MINIMIZE THE AMOUNT OF TIME THE DIVERSION IS IN PLACE AND TO COINCIDE WITH THE LOWEST ANNUAL FLOWS IN COLD CREEK, TYPICALLY BETWEEN AUGUST 15 AND OCTOBER 1.
- 1.5. FLOW RATES IN COLD CREEK BETWEEN AUGUST 15 AND OCTOBER 1 ARE TYPICALLY BETWEEN 0.25 CFS AND 10 CFS, HOWEVER, SHORT-TERM SURGES IN STREAMFLOW ARE POSSIBLE FOLLOWING A PRECIPITATION EVENT. SIZING THE SYSTEM TO DIVERT UP TO 20 CFS WOULD ALLOW MOST SUMMERTIME FLOWS THAT HAVE HISTORICALLY OCCURRED IN THE SYSTEM TO BE SAFELY DIVERTED AROUND THE WORK AREA.
- 1.6. PRIOR TO INSTALLATION OF THE DIVERSION SYSTEM, THE CONTRACTOR SHALL CONTACT THE ENGINEER'S REPRESENTATIVE TO CONFIRM THAT STREAMFLOW LEVELS ARE WITHIN THE ANTICIPATED RANGE.
- 1.7. COFFERDAMS SHALL BE CONSTRUCTED AT THE UPSTREAM AND DOWNSTREAM ENDS OF THE DIVERTED CHANNEL SEGMENT. COFFERDAMS SHALL BE CONSTRUCTED TO MINIMIZE SEEPAGE.
- 1.8. THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND SERVICES AS REQUIRED TO INSTALL, OPERATE, AND REMOVE THE TEMPORARY CREEK DIVERSION SYSTEMS, INCLUDING BACK-UP EQUIPMENT AS NECESSARY FOR REPLACEMENT AND FOR UNANTICIPATED EMERGENCIES.
- 1.9. THE CONTRACTOR SHALL COORDINATE A FISH RESCUE EFFORT, LED BY A QUALIFIED FISHERIES BIOLOGIST AND CONSISTENT WITH THE PROJECT PERMITS, PRIOR TO ANY IN-CHANNEL WORK.

2. MATERIALS

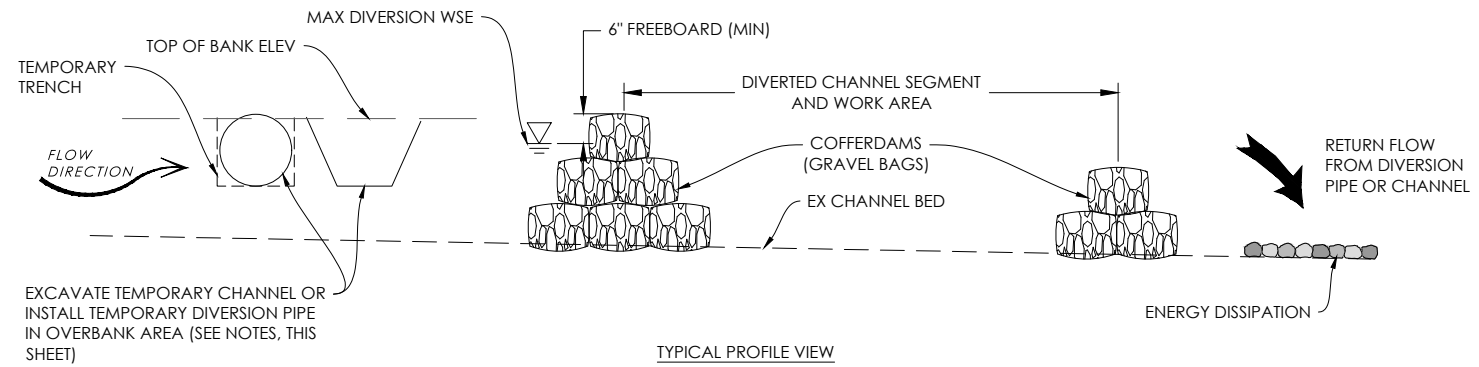
- 2.1. COFFERDAMS:
 - 2.1.1. THE CONTRACTOR SHALL SUBMIT A DRAWING AND/OR PRODUCT SHEET TO THE ENGINEER'S REPRESENTATIVE FOR THE PROPOSED COFFERDAMS.
 - 2.1.2. GRAVEL BAGS ARE RECOMMENDED FOR ALL COFFERDAMS TO MINIMIZE SEEPAGE INTO THE THE WORK AREA.
 - 2.1.3. GRAVEL BAG COFFERDAMS, IF USED, SHALL HAVE FILL MATERIAL THAT IS CLEAN AND FREE FROM CLAY BALLS, ORGANIC MATTER, WEEDS, AND OTHER DELETERIOUS MATERIALS. THE OPENING OF GRAVEL-FILLED BAGS SHALL BE SECURED SUCH THAT GRAVEL DOES NOT ESCAPE. GRAVEL BAG COFFERDAMS SHALL BE WRAPPED IN VISQUEEN OR SIMILAR IMPERVIOUS MATERIAL.
- 2.2. PUMPS: PUMPS ARE ANTICIPATED FOR DEWATERING OF WORK AREAS ONLY. THE PUMPS AND PUMPING APPARATUS SHALL BE OF THE SUBMERSIBLE TYPE WITH SUFFICIENT CAPACITY TO CONTROL SUMP WATER LEVELS AS DESCRIBED HEREIN. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE POWER TO OPERATE THE PUMPING EQUIPMENT, AS NEEDED TO ASSURE THAT DEWATERING IS EFFECTIVE DURING ALL WORK WITHIN THE BANKS OF THE CREEK. THE CONTRACTOR SHALL PROVIDE BACK-UP POWER AND AN ALARM SYSTEM TO ASSURE THAT

POWER INTERRUPTIONS DO NOT LEAD TO DAMAGE TO FINISHED OR IN-PROCESS WORK OR DELAYS IN COMPLETING THE WORK. ALL EQUIPMENT, INCLUDING ANY GENERATORS USED FOR PRIMARY OR BACK-UP POWER SUPPLY, SHALL BE OPERATED IN COMPLIANCE WITH ALL PERTINENT NOISE AND AIR POLLUTION REDUCTION REQUIREMENTS. THE CONTRACTOR'S DIVERSION AND DEWATERING PLAN FOR PUMP SYSTEMS SHALL INCLUDE AN INSPECTION FRAMEWORK TO ASSURE THE SYSTEM OPERATES CONTINUOUSLY, AS WELL AS PROTOCOLS FOR ADDRESSING PUMP FAILURES.

- 2.3. GRAVITY DIVERSIONS: GRAVITY DIVERSIONS MAY BE EITHER A DIVERSION PIPE, A LINED OPEN CHANNEL, OR A COMBINATION THEREOF. TRENCHING FOR THE ENTIRE OR PARTIAL DIVERSION ALIGNMENT MAY BE REQUIRED TO ACHIEVE GRAVITY FLOW.
 - 2.3.1. GRAVITY FLOW DIVERSION PIPE: THE TRENCH AND PIPE SHALL BE INSTALLED AT A CONSTANT SLOPE TO PREVENT DISCONTINUITIES IN FLOW CAPACITY. PROVIDE WATER-TIGHT SEALS AT ALL JOINTS. PROVIDE A WATER-TIGHT BULKHEAD AT THE PIPE ENTRANCE TO DIRECT ALL STREAMFLOW INTO THE PIPE. DIVERSION PIPE AND COUPLINGS SHALL BE A SMOOTH-WALLED PLASTIC PIPE PRODUCT APPROVED BY THE ENGINEER'S REPRESENTATIVE. THE MATERIAL SHALL BE SELECTED FOR FLEXIBILITY AND DURABILITY TO ALLOW FOR THE OCCASIONAL RELOCATION OF THE DIVERSION PIPING DURING CONSTRUCTION ACTIVITIES. THE SIZE OF DIVERSION PIPE SHALL BE DETERMINED BY THE CONTRACTOR BASED ON THE ANTICIPATED FLOW RATES DESCRIBED HEREIN.
 - 2.3.2. LINED GRAVITY FLOW CHANNEL: THE CHANNEL SHALL BE LINED WITH VISQUEEN OR APPROVED EQUIVALENT IMPERMEABLE AND FLEXIBLE MATERIAL. SECURE THE LINING MATERIAL WITHOUT PUNCTURING WITHIN THE CHANNEL SECTION. OVERLAP SEAMS IN THE DOWNSTREAM DIRECTION. THE SIZE OF THE LINED CHANNEL SHALL BE DETERMINED BY THE CONTRACTOR BASED ON THE ANTICIPATED FLOW RATES DESCRIBED HEREIN.
- 2.4. ENERGY DISSIPATION: THE CONTRACTOR SHALL SUBMIT A PLAN FOR AN ENERGY DISSIPATION FEATURE TO BE INSTALLED AT THE OUTLET END THE CREEK DIVERSION. THE ENERGY DISSIPATION FEATURE SHALL BE CAPABLE OF RETURNING FLOW FROM THE DIVERSION TO THE NATURAL CHANNEL WITHOUT CAUSING EROSION.

3. EXECUTION

- 3.1. THE CONTRACTOR SHALL COORDINATE WITH PROJECT BIOLOGISTS PRIOR TO INSTALLING THE CREEK DIVERSION SYSTEM ON DETAILS OF THE FISH RESCUE AND RELOCATION PLAN. NO DEWATERING OF THE DIVERTED STREAM SEGMENT IS ALLOWED PRIOR TO COMPLETING FISH RESCUE AND RELOCATION. AN ACCOUNT OF SPECIES AND QUANTITIES OF AQUATIC ORGANISMS CAPTURED, HANDLED, AND/OR MOVED SHALL BE MAINTAINED TO FULFILL REPORTING REQUIREMENTS FOR CDFW PERMITS.
- 3.2. THE COFFERDAMS SHALL BE CONSTRUCTED IN THE LOCATIONS AND TO THE MINIMUM ELEVATIONS SHOWN ON THE PLANS. PROVIDE WATER TIGHT SEALS IF THE DIVERSION PIPE PENETRATES THE COFFERDAM.
- 3.3. GRADE A SUMP IN THE CHANNEL WITHIN WORK AREAS TO COLLECT INCIDENTAL WATER FOR PUMPING. WATER PUMPED FROM WITHIN EXCAVATION AREAS OR THE PORTION OF THE CHANNEL ENCLOSED BY THE COFFERDAMS SHALL BE DISCHARGED ONTO VEGETATED UPLAND SURFACES OR OTHER FEATURES AS NECESSARY TO MEET TURBIDITY REQUIREMENTS. MONITOR PUMPED WATER TO ENSURE IT DOES NOT CAUSE EROSION.
- 3.4. INSTALL THE DIVERSION PIPE TO AVOID DAMAGE TO EXISTING VEGETATION AND STREAM BANKS.
- 3.5. INSTALLATION AND REMOVAL OF THE DIVERSION SYSTEM SHALL AVOID PROLONGED DROPS IN STREAMFLOW THAT MIGHT IMPEDE FISH PASSAGE OR HABITAT CONDITIONS IN DOWNSTREAM REACHES TO THE EXTENT PRACTICABLE.
- 3.6. INSPECT THE DIVERSION PIPE AND COFFERDAMS DAILY DURING THE CONSTRUCTION PERIOD TO ENSURE THEY ARE EFFECTIVELY CONVEYING STREAMFLOW. PERFORM CORRECTIVE MAINTENANCE AS NEEDED.
- 3.7. INSPECT THE DEWATERED SECTION OF CREEK DAILY FOR STRANDED AQUATIC LIFE. THE CONTRACTOR SHALL MAKE ALL REASONABLE EFFORTS TO CAPTURE AND MOVE STRANDED AQUATIC LIFE TO UPSTREAM/DOWNSTREAM REACHES.
- 3.8. PUMP THE DEWATERED SECTION OF CREEK AND INCIDENTAL GROUNDWATER ENCOUNTERED DURING EXCAVATION AS NEEDED TO FACILITATE COMPLETION OF THE WORK. ALL PUMPED WATER NOT ASSOCIATED WITH THE DIVERSION SYSTEM SHALL BE ROUTED TO A FLAT, STABLE, VEGETATED AREA THAT IS HYDROLOGICALLY DISCONNECTED FROM COLD CREEK. MONITOR DEWATERING EFFLUENT HOURLY TO ENSURE IT IS NOT CAUSING RILLING AND THAT WATER IS EFFECTIVELY INFILTRATING.
- 3.9. WHEN ALL WORK HAS BEEN COMPLETED, REMOVE THE DIVERSION SYSTEM AND RESTORE ANY EXISTING FEATURES THAT WERE ADVERSELY AFFECTED TO PRE-PROJECT CONDITIONS. BACKFILL SUMPS WITH RIVERBED MATERIAL.

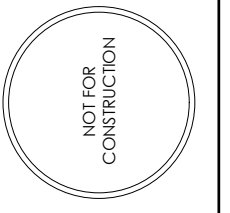


TYPICAL PROFILE VIEW

1 GRAVITY CREEK DIVERSION
SCALE: NTS



DESIGNED BY	DS PK/CB	DATE	9-11-25	PK
DRAWN BY	CB	DATE	9-11-25	PK
CHECKED BY	DS	DATE	9-11-25	PK
IN CHARGE	PK	DATE	9-11-25	PK
SUBMITTALS / REVISIONS		90% DESIGN		



DIVERSION AND DEWATERING
COLD CREEK FLOODPLAIN RESTORATION
TOWN OF TRUCKEE, NEVADA COUNTY, CALIFORNIA

PROJECT NUMBER 220078
SCALE (AT 22' X 34') 1"=10'
SHEET
2.1
4 OF 19

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90% DESIGN - NOT FOR CONSTRUCTION