TRANSFER PIPE

NOTE: SEE SHEET C3 FOR TEMPORARY MELAND IMPACTS AND PROCEDURES
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INTRODUCTION

The Mountain Sierra Watershed Management System (MSWMS) is a comprehensive water quality management program designed to protect and improve the water resources of the Sierra Nevada mountain range. The system is focused on addressing the needs of the community, including water supply, flood control, and recreation. The MSWMS is a cooperative effort involving local, state, and federal agencies, as well as private sector partners.

The primary objective of the MSWMS is to develop and implement a comprehensive watershed management plan that addresses the water quality and quantity needs of the Sierra Nevada region. The plan includes a combination of water supply, conservation, and environmental protection measures to ensure the long-term sustainability of the region's water resources.

PROJECT BACKGROUND

The Mountain Sierra Watershed Management System was established in 1998 as a result of the Sierra Nevada Water Quality Act, which mandated the development of a watershed management plan for the region. The plan was developed through a collaborative process involving a wide range of stakeholders, including government agencies, non-governmental organizations, and the public.

PROJECT GOALS

The goals of the Mountain Sierra Watershed Management System are:

1. Protect and improve the water quality of the Sierra Nevada region
2. Ensure the sustainable use of water resources
3. Enhance the ecological health of the region
4. Promote public involvement and participation in watershed management

PROJECT MANAGEMENT

The Mountain Sierra Watershed Management System is managed by a consortium of local, state, and federal agencies, as well as private sector partners. The consortium includes representatives from the California Department of Water Resources, the U.S. Bureau of Reclamation, and the Sierra Nevada Water Quality Council.

PROJECT COSTS

The cost of implementing the Mountain Sierra Watershed Management System is estimated to be approximately $100 million. The funding for the project is provided through a combination of federal, state, and local sources.

PROJECT IMPACTS

The implementation of the Mountain Sierra Watershed Management System is expected to have a significant positive impact on the region's water resources. The project is expected to improve water quality, increase water supply, and enhance the ecological health of the Sierra Nevada region.

PROJECT RESULTS

As of the date of this report, the Mountain Sierra Watershed Management System is under implementation. The project is expected to be completed by 2022.

CONCLUSIONS

The Mountain Sierra Watershed Management System is a comprehensive water quality management program designed to protect and improve the water resources of the Sierra Nevada mountain range. The system is focused on addressing the needs of the community, including water supply, flood control, and recreation. The MSWMS is a cooperative effort involving local, state, and federal agencies, as well as private sector partners.

REFERENCES

Sierra Nevada Water Quality Act
Sierra Nevada Watershed Management Plan
Mountain Sierra Watershed Management System Fact Sheet
Erosion prevention measures and plans:
The contractor shall provide all erosion prevention measures for the project.
Erosion prevention measures include but are not limited to the following:

- The contractor shall implement appropriate construction practices and
  measures to minimize erosion and prevent vegetation damage.
- All areas not to be disturbed shall be designated with plans, stakes, or
  other means necessary to protect these areas before construction begins.
- All drainage systems and/or drainage systems shall have permanent
  or temporary erosion control devices installed within 48 hours after
  construction activity begins in the stream/main or temporary by
  temporarily placing.
- All slope surfaces shall have temporary or permanent erosion
  control devices installed within 48 hours of connecting to a surface water
  or 24 hours after construction activity begins in the stream/main or
  temporary by temporarily placing.

Drainage and Swale Drainage Activities:
The contractor shall provide a drainage plan to all departments and
surface drainage regulations, including but not limited to the following:

- Wherever possible, water from denivating activities shall discharge to a
  temporary or permanent drainage facility.
- If water cannot be discharged to a drainage ditch, it shall be treated
  with the appropriate BMPs, to effectively reduce sediment.
- All discharge points shall be protected from erosion and scour.
- Erosion water shall be discharged over an effective erosion protection
  measure.
- All water from denivating activities shall discharge in a manner that does not
  cause measurable conditions, erosion, or pollution of streams.

Final stabilization:
The contractor is responsible for ensuring final stabilization of the site.
Final stabilization shall be performed at least 4 weeks after the
project is completed. The contractor shall provide an effective
system to protect all areas.

Temporary sediment basins:
The contractor shall install temporary sediment basins as indicated in the plans or as
required by the permitting authority.

Temporary sediment basins shall be constructed and made operational
consistent with the state of the water basin that is disturbed and
contributes to the area.
Temporary sediment basins shall be constructed to prevent short-circuiting
of stream water and prevent displacement of flooding debris.

Temporary sediment basins shall be provided with erosion devices to prevent soil
erosion.
EXISTING ROCKS TO BE REMOVED AND REPLACE WITH CLASS IV RIPRAP TO PROVIDE 20 FT CHANNEL WIDTH

EXISTING ABUTMENT FILL MATERIAL TO BE REMOVED AND REPLACED WITH CLASS IV RIPRAP

EXISTING BRIDGE TO BE REMOVED
NOTES:

1. THIS DRAWING ASSUMES PILING DRIVEN FIRST. THEN ADJUST DIMENSIONS AS REQUIRED FOR IN-PLACE LOCATIONS.

2. CONTRACTOR SHALL ENGAGE A GEOTECHNICAL ENGINEER TO TAKE A SOIL BORING AT THE LOCATION OF THIS PLATFORM FOR INSTRUCTION PURPOSES. CONTACTOR'S BARGE, TO A MINIMUM DEPTH OF 75 FEET BELOW RIVERBED, TO GAIN INFORMATION NECESSARY FOR GEOTECHNICAL ENGINEER TO DESIGN PILE LENGTHS TO CARRY A SERVICE LOAD OF 15 TONS. FOR BIDDING PURPOSES, CONTRACTOR SHALL ASSUME PILE LENGTH OF 50 FEET AFTER FILLING AND CUTOFF, INCLUDING SPLICES AS REQUIRED. (FILLING IS DONE WITH PILE HEAD ABOVE WATER BEFORE CUTOFF.) CONTRACTOR SHALL PROVIDE UNIT COST PER FOOT OF ADDITIONAL PILE LENGTH. CONTRACTOR'S GEOTECHNICAL ENGINEER SHALL USE SOIL INFORMATION THUS GAINED IN THE USE OF PILE DRIVING ANALYSIS PER ASTM D4945 TO CONFIRM DESIGNED LENGTH DURING DRIVING. SEE SPECIFICATION SECTIONS 01 45 29.

LEGEND

PIC UP POINT

PILE VOID (1'-6" DIAM.)

SADDLE, 68" X 152"

1'-0" THICK SLAB AT EACH PILE, TYP.

NOTE: BOTTOM REINF.

IN THICKENED AREAS

#5 @ 12" E.W. WITH CORNER BARS OR TIE TYP.

SEE F/S2 FOR REINF.

12" COP PILE TYP. 2'-0"
OPENING REINFORCEMENT DETAIL

NOT TO SCALE

3'-0"

TYPICAL

ROUND AND RECTANGULAR OPENINGS, WALL AND FLOOR SLABS. DIAGONALS AT RECTANGULAR OPENINGS SHALL BE 6'-0" MINIMUM LENGTH.

NOTES:

2-#5 DIAGONALS EACH FACE
ADDITIONAL REINFORCEMENT
TYPICAL 4 CORNERS
2-#5's EACH FACE
ADDITIONAL REINFORCEMENT
TYPICAL 4 SIDES
3'-0" MIN.

WALL CORNER REINFORCEMENT DETAIL

NOT TO SCALE

2'-0"

LAP LENGTH
(SEE TABLE)

HORIZONTAL DOWELS, MATCH CONTINUOUS REINFORCEMENT.

HORIZONTAL CORNER REINFORCEMENT, MATCH CONTINUOUS REINFORCEMENT.

REINFORCEMENT IS SYMMETRICAL.

SLAB DETAIL

NOT TO SCALE

2'-0"

#5 @ 12" E.W. E.F.

CENTER OF PIPE DOWELS MAY BE DRILLED AND EPOXYED WITH 8" EMBED.

PILE HANGER DETAILS

NOT TO SCALE

2'-0"

E.W. E.F.

CENTER OF PIPE

3'-0" (3) BOLTS EVENLY SPACED. INSTALL AFTER GALV.

SOIL CORRECTION FOR WET WELL DIAGRAM

13'-0"

7'-0"

11'-0"

2'-0"
AFTER CESSATION OF HEATING TO PROVIDE GRADUAL COOL-DOWN. CONCRETE BEING PLACED SHALL BE INSTALLED IN MASONRY SHALL NOT BE INSTALLED WITHIN 1 1/2 INCHES OF ANY HEAD JOINT UNLESS BLOCK ARE TYPE 1 CONFORMING TO ASTM C150. UP TO 25% CEMENT CAN BE REPLACED WITH CLASS "C" FLYASH. AND UP TO 40% WORK. DO NOT APPLY SIGNIFICANT LOAD TO ANCHORS IN COLD WEATHER UNTIL THEIR CAPACITY HAS BEEN CAPACITY BY THE ENGINEER FOR THE PRODUCT SUBSTITUTED. WHERE ADHESIVE ANCHORS ARE CALLED FOR, OTHER SELF-TAPPING THREADS OR ADHESIVE ANCHORS OF THE SAME SIZE AND EMBEDMENT, SUBJECT TO REVIEW OF WHERE EXPANSION ANCHORS ARE CALLED FOR, CONTRACTOR MAY SUBSTITUTE SCREW TYPE ANCHORS WITH ADMIXTURE.

SEWAGE OR CHLORIDE DE-ICER RUNOFF SHALL BE TYPE 316. OTHERWISE, ANCHORS SHALL BE ZINC PLATED, MINIMUM 28 DAYS. CONCRETE SHALL HAVE A MAXIMUM W/C (WATER/ CEMENT + POZZOLAN) RATIO OF 0.45, AND A MAXIMUM PERMANENT ANCHORS EXPOSED TO EARTH, WEATHER, OR CORROSIVE ENVIRONMENTS, INCLUDING ALL ANCHORS IN 3 MASONRY CONSTRUCTION.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF FORM WORK TO COMPLY WITH THE DIMENSIONS FOR EACH TRUCKLOAD AT THE FINAL LOCATION (TEST AFTER PUMP, NOT AT TRUCK). CURE, AND TEST THE SPECIMENS IN ACCORDANCE WITH ASTM C31 AND ASTM C39. AIR AND SLUMP SHALL BE TESTED 24 HOURS.

ACI 318 BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE

REINFORCEMENT: SIZE AND SPACING

CONCRETE

BOLTS INSTALLED IN CONCRETE

ALL CONNECTION SPLICES BETWEEN PILE SECTIONS SHALL BE FULL PENETRATION WELDS, UNLESS NOTED OTHERWISE ON DRAWINGS. THE PILE SHALL BE PREPARED FOR FULL PENETRATION WELDING TO THE END PLATE OR WITH COMMERCIALLY ENCLOSURE. INSPECTING DEGREE...