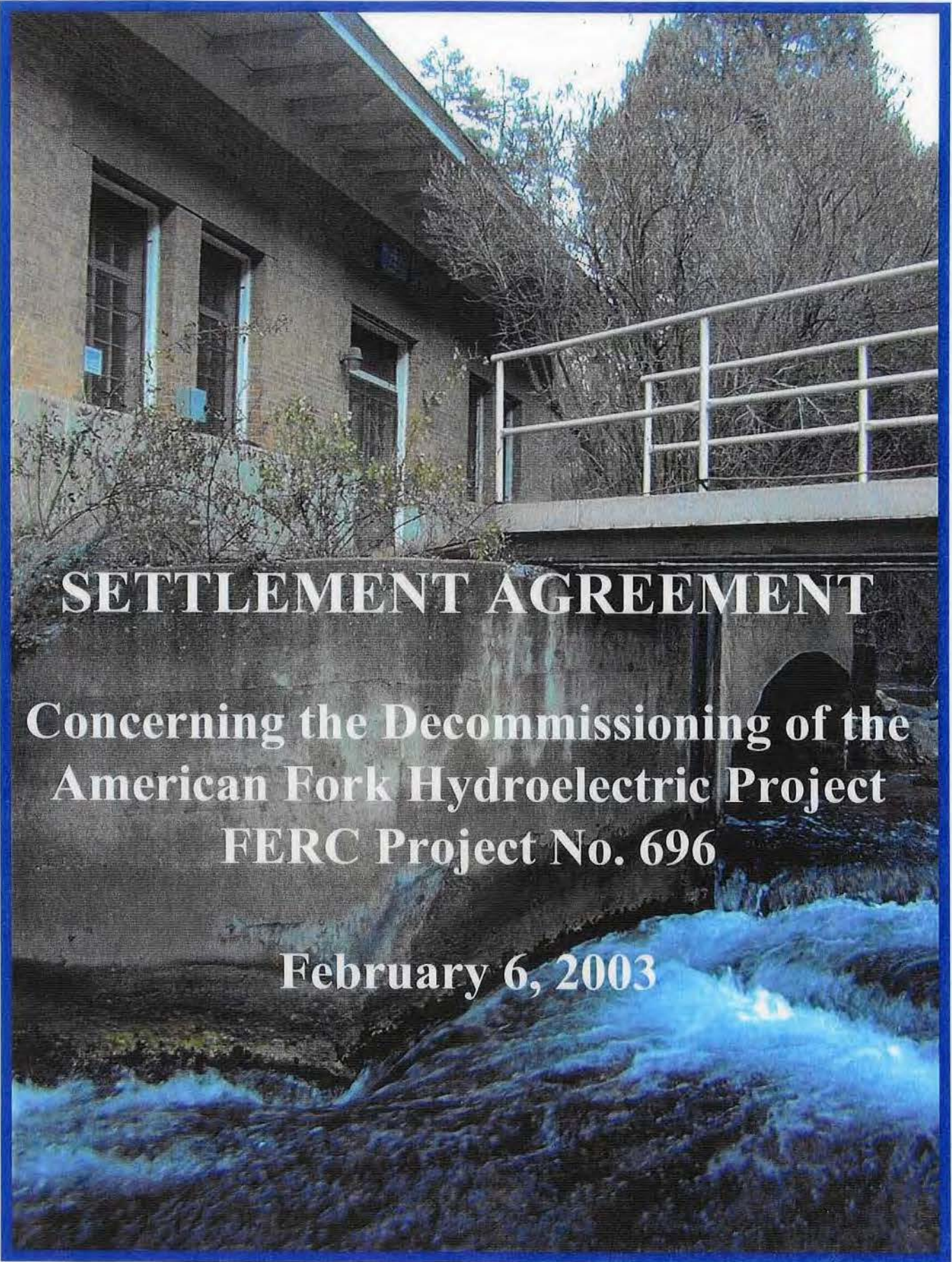


The background of the document is a photograph of a concrete dam or powerhouse structure. On the left, there is a multi-story building with several windows. To the right, a concrete walkway with a metal railing runs along the side of the structure. In the foreground, turbulent water is cascading over a ledge, creating white foam. The entire image is framed by a thick blue border.

SETTLEMENT AGREEMENT

**Concerning the Decommissioning of the
American Fork Hydroelectric Project
FERC Project No. 696**

February 6, 2003

SETTLEMENT AGREEMENT

AMONG
PACIFICORP
UNITED STATES FISH AND WILDLIFE SERVICE
NATIONAL PARK SERVICE
USDA FOREST SERVICE
UTAH DIVISION OF WILDLIFE RESOURCES
UTAH DEPARTMENT OF TRANSPORTATION
UTAH STATE HISTORIC PRESERVATION OFFICE
UTAH COUNCIL OF TROUT UNLIMITED
AMERICAN WHITEWATER

DATED
FEBRUARY 6, 2003

CONCERNING THE DECOMMISSIONING OF
THE AMERICAN FORK HYDROELECTRIC PROJECT
FERC PROJECT NO. 696
UTAH COUNTY, UTAH

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PARTIES TO THE AGREEMENT

This Settlement Agreement (the "Agreement") is made as of the day that the last Party executes the Agreement (the "Effective Date") pursuant to Federal Energy Regulatory Commission ("FERC") Rule 602, 18 C.F.R. § 385.602, by and among PacifiCorp, an Oregon corporation; United States Fish and Wildlife Service ("USFWS"); National Park Service ("NPS"); USDA Forest Service ("USFS"); Utah Division of Wildlife Resources ("UDWR"); Utah Department of Transportation ("UDOT"); Utah State Historic Preservation Office ("SHPO"); Utah Council of Trout Unlimited ("UTU"); and American Whitewater ("AW"), each referred to individually as a "Party" and collectively as the "Parties." The USFWS, NPS, USFS, UDWR, UDOT, and SHPO are also each a "Governmental Party" and are referred to collectively as the "Governmental Parties."

RECITALS

A. PacifiCorp is the licensee for the American Fork Hydroelectric Project (FERC No. 696) (the "Project"). The Project is located on National Forest System lands ("NFS Lands"), which include lands that are part of the National Wilderness Preservation System, and on Timpanogos Cave National Monument lands ("Monument Lands") in Utah County, Utah on American Fork Creek near the City of American Fork. The Project consists of a concrete diversion dam, a water conveyance system, a powerhouse, a tender's house and garage with appurtenances, a turbine generator with a nameplate rating of 1,050 kW, and a 12.5-kV distribution line. The Project currently diverts up to 26 cubic feet per second ("cfs") from the stream for power generation.

B. The American Fork Project initially consisted of two developments designated as the "Lower American Fork Plant," and "Upper American Fork Plant," constructed over a period from 1889 to 1907 by the Utah County Light and Power Company. The Lower American Fork Plant and most associated appurtenances were dismantled as a result of a decision not to replace a failing woodstave flowline prior to expiration of the original license in 1970. In 1975, the Federal Power Commission issued a minor license for 30 years from 1970, the year of expiration of the original license.

C. The American Fork powerhouse is operated as an unmanned station, which utilizes a computer system to monitor water level at the intake structure. The flowline leak detection system is designed to close the intake gate automatically if a leak is detected in the water conveyance system. The powerhouse is visited once daily by an operator and the powerhouse alarms are annunciated to the Hydro Control Center at the Merwin Dispatch Center in Lewis River, Washington via a computer and modem.

D. PacifiCorp has been in the process of relicensing the Project since 1996 by undertaking studies, consulting with state and federal resource agencies, preparing a license application, and responding to Additional Information Requests from FERC. The final license application for the Project was filed with FERC on October 16, 1998. The FERC license for the Project expired on October 31, 2000, and the Project has since operated on annual licenses.

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E. A new FERC license would be expected to include provisions for fish passage at Project diversions, and flowline relocation to the canyon road right-of-way out of the Wilderness Area. PacifiCorp believes the cost of these measures would exceed the capacity of the Project's revenue-producing capability over the life of a new 30-year license.

F. The Parties collaboratively developed the measures that the Parties believed would be necessary to decommission the Project and to protect, mitigate and enhance the natural character of American Fork Creek. The Parties focused on those elements of the Project that would be removed and the associated removal methods, schedule, and work practices that could be employed in the NFS Lands and Monument Lands.

G. In late 2000, PacifiCorp developed a proposal for Project removal and submitted it for comments to agency stakeholders. On March 20, 2001, the USFS and NPS submitted a discussion paper to PacifiCorp providing comments on the company's decommissioning proposal. A review of the discussion paper, including costs and conditions to mitigate effects of decommissioning on resources, was conducted in a meeting with stakeholders on April 24, 2002. Following meetings on May 2 and May 24, a draft Agreement In Principle ("AIP") was prepared and distributed for stakeholder review on June 13. The draft AIP was reviewed with all parties during meetings on July 18 and August 23. Following a site visit on September 10, conditions under which the Project would be removed were agreed upon on November 8, 2002.

NOW, THEREFORE, in consideration of their mutual covenants in this Agreement, the Parties agree as follows:

DEFINITIONS

"401 Certification" is defined in Section 1.1.2.

"Agreement" is defined in the first paragraph of this Agreement, entitled "Parties to the Agreement."

"Alternative Dispute Resolution" or "ADR" refers to the dispute resolution process set forth in Section 5.10, including Sections 5.10.1 through 5.10.3, below.

"American Whitewater" or "AW" is a Missouri corporation and is listed as a Party in the first paragraph of this Agreement, entitled "Parties to the Agreement."

"Clean Water Act" or "CWA" means the federal statute set forth at 33 U.S.C. §§ 1251-1387.

"Consistent" means not conflicting with, adding to, or subtracting from the measures outlined and commitments made in this Agreement.

"Decommission," as used in this Agreement, refers to PacifiCorp's disposition of the Project and associated facilities as outlined in Section 3 and Appendix A of this Agreement.

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“Decommissioning Measures” refers to the measures set forth in Section 3.3 and Appendix A of this Agreement.

“Effective Date” is defined in the first paragraph of this Agreement, entitled “Parties to the Agreement.”

“Endangered Species Act” or “ESA” means the federal statute set forth at 16 U.S.C. §§ 1531-1544.

“Federal Energy Regulatory Commission” or “FERC” is the federal agency responsible for the regulation of hydroelectric power projects that are not federally owned.

“Federal Power Act” or “FPA” means the federal statute set forth at 16 U.S.C. §§ 791a-828c.

“Governmental Party” and “Governmental Parties” are defined in the first paragraph of this Agreement, entitled “Parties to the Agreement.”

“Inconsistent” means conflicting with, adding to or subtracting from the measures outlined and commitments made in this Agreement.

“Interim Measures” refers to the measures set forth in Section 4.1 of this Agreement.

“National Forest System Lands” or “NFS Lands,” refers to federal lands included by law in the National Forest System.

“National Wilderness Preservation System” refers to federally owned areas designated by Congress as ‘wilderness areas’ as set forth at 16 U.S.C. 1131.

“National Park Service” or “NPS” is listed as a Party in the first paragraph of this Agreement, entitled “Parties to the Agreement.”

“National Environmental Policy Act” or “NEPA” means the federal statute set forth at 42 U.S.C. §§ 4321-4370e.

“Notice” is defined in Section 6.8.

“PacifiCorp” is an Oregon corporation and is listed as a Party in the first paragraph of this Agreement, entitled “Parties to the Agreement.”

“Permits” is defined in Section 2.2 of this Agreement.

“Proceeding” is defined in Section 2.2 of this Agreement.

“Project” is defined in Recital A of this Agreement.

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“Timpanogos Cave National Monument” or “Monument,” refers to a federal land reservation included in the National Park System in Utah County, Utah.

“Utah Council of Trout Unlimited” or “UTU” is listed as a Party in the first paragraph of this Agreement, entitled “Parties to the Agreement.”

“Utah Department of Transportation” or “UDOT” is listed as a Party in the first paragraph of this Agreement, entitled “Parties to the Agreement.”

“Utah Division of Water Quality” or “UDWQ” is the state agency responsible for certifying compliance with state water quality standards.

“Utah Division of Wildlife Resources” or “UDWR” is a division of the Utah Department of Natural Resources, and is listed as a Party in the first paragraph of this Agreement, entitled “Parties to the Agreement.”

“Utah State Historic Preservation Office” or “SHPO” is listed as a Party in the first paragraph of this Agreement, entitled “Parties to the Agreement.”

“United States Fish And Wildlife Service” or “USFWS” is listed as a Party in the first paragraph of this Agreement, entitled “Parties to the Agreement.”

“Wilderness Lands” refers to federal lands within the Lone Peak Wilderness Area that were designated by Congress for inclusion in the National Wilderness Preservation System.

SECTION 1: PURPOSE AND EFFECT OF THIS AGREEMENT

1.1 Purpose of Agreement. The Parties have entered into this Agreement to resolve all issues arising out of or related to PacifiCorp's pending application for a new Project license and regarding the voluntary decommissioning of the Project, for the purpose of obtaining a FERC decommissioning order consistent with this Agreement. For this purpose, the Parties agree that the Agreement is fair and reasonable and in the public interest within the meaning of FERC Rule 602 governing offers of settlement. 18 C.F.R. § 385.602(g)(3). The Parties will request that FERC approve, without material modification, the decommissioning measures set forth in Section 3 and the Removal Plan, attached as Appendix A and incorporated herein by reference. The Parties will request that FERC refrain from including in its decommissioning order requirements inconsistent with this Agreement, except as may be necessary to enable FERC to ascertain and monitor PacifiCorp's compliance with the decommissioning measures set forth in Section 3 and Appendix A and its rules and regulations under the Federal Power Act ("FPA") and other federal and state laws. The Parties reserve and retain their rights and authorities in the event that FERC issues an order substantially inconsistent with this Agreement. Each of the Parties agrees that, except as specifically provided below, PacifiCorp's fulfillment of its obligations under this Agreement will satisfy and be consistent with PacifiCorp's existing statutory, regulatory or other obligations as to each Party relating to Project decommissioning and the interim operation of the Project pending such decommissioning. The Parties further agree, subject to Section 1.4 of this Agreement, that any of the Parties' comments, recommendations, terms, conditions, prescriptions or other documents and actions will be consistent with the Agreement. Without limiting the generality of the preceding sentence, the Parties agree that PacifiCorp's performance of its covenants in this Agreement is consistent with and will fulfill all obligations under the following laws, except as specifically provided:

1.1.1 Federal Power Act. Several provisions of the FPA may apply to a FERC order to license the Project. Section 10(a) of the FPA requires the Commission to ensure that any hydroelectric project it licenses be best adapted to a comprehensive plan for developing a waterway for the benefit of interstate and foreign commerce, for improving or utilizing waterpower development, for the adequate protection, mitigation and enhancement of fish and wildlife (including related spawning grounds and habitat), and other beneficial public uses. Section 10(j) of the FPA allows state and federal fish and wildlife agencies to recommend conditions for the adequate and equitable protection of, mitigation of damages to, and enhancement of fish and wildlife. Section 4(e) of the FPA allows federal agencies upon whose land a project is located to prescribe conditions necessary for the adequate protection and utilization of such lands. Section 18 of the FPA allows the Secretaries of the Interior and Commerce to prescribe construction, maintenance, and operation of fishways. The FERC applies a broad public interest standard to decisions to decommission. The Parties do not determine in this Agreement whether FPA sections 10(a), 4(e), 10(j) or 18 recommendations, terms, conditions and prescriptions are appropriate in the proceedings related to FERC's consideration of this Agreement or decommissioning order. The Parties nevertheless agree that this Agreement satisfies each of the FPA provisions listed in this Section and FERC's regulations at 18 C.F.R. Pt. 6, including section 6.2 regarding the condition of lands after project removal. The Parties further warrant that, subject to Section 1.4 of this Agreement, any comments,

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recommendations, terms, conditions or prescriptions submitted to FERC by the Parties will support this Agreement and will not recommend or require measures inconsistent with this Agreement.

1.1.2 Clean Water Act. For purposes of this Agreement, "401 Certification" refers to a certification (or waiver) issued pursuant to the Clean Water Act ("CWA"), 33 U.S.C. § 1341. Based on preliminary discussions with Utah Division of Water Quality ("UDWQ"), the Parties anticipate that the decommissioning measures set forth in Section 3 and Appendix A adequately address state water quality requirements, subject to such review as required by law upon receipt of a request from PacifiCorp for a 401 Certification, including review of public comment, consistent with Section 1.4 of this Agreement. If UDWQ issues a 401 Certification for Project decommissioning which requires measures that are inconsistent with this Agreement, the Parties will address such inconsistency in accordance with Section 5.10 of this Agreement.

1.1.3 Endangered Species Act. As of the Effective Date, there is no species listed as threatened or endangered pursuant to the Endangered Species Act ("ESA") occurring within the area affected by the Project. USFWS therefore anticipates, subject to Section 1.4 of this Agreement and review of any effects determination provided by FERC, that FERC's issuance of a decommissioning order consistent with this Agreement will have no effect on ESA-listed species. As such, no informal or formal consultation will be required pursuant to Section 7 of the ESA, 16 U.S.C. § 1536(a)(2). If a species is listed as threatened or endangered prior to completion of decommissioning as defined in Section 3.4 of this Agreement, the Parties will address such listing in accordance with Section 5.3.6.

1.1.4 National Forest Management Act. In accordance with the National Forest Management Act of 1978, management direction for NFS Lands is established through Land and Resource Management Plans ("Forest Plans") for each National Forest. The management direction established through Forest Plans consists of forest-wide and management-area specific goals, objectives, resource allocations, standards and guidelines, and monitoring requirements. The existing Forest Plan for the Uinta National Forest, which encompasses all NFS Lands within the Project Area was approved in 1984. This Forest Plan is currently being revised. A Draft Revised Forest Plan and accompanying Environmental Impact Statement ("EIS") were released for public review and comment in May 2001. A Final Revised Forest Plan and EIS are expected to be released in the spring of 2003. The 1984 Forest Plan and Draft Revised Forest Plan were reviewed and considered in developing this Agreement. This Agreement is consistent with direction provided for in the 1984 and Draft Revised Forest Plan. The Parties agree that any special use permit that may be required for activities associated with this Agreement will be consistent with this Agreement.

1.1.5 Wilderness Act. Part of the Project lies within the Lone Peak Wilderness Area. This area was included in the National Wilderness Preservation System through the Endangered American Wilderness Act of 1978. Section 4c (16 U.S.C § 1133) of the 1964 Wilderness Act directs that, except as necessary to meet minimum requirements for administration of a wilderness area, there shall be no temporary road, no use of motor vehicles or motorized equipment, no landing of aircraft, and no other form of mechanical transport within any Congressionally designated wilderness area. To carry out this requirement, the Forest Service's

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Regional Forester must approve a Minimum Management Analysis for wilderness areas administered by the Forest Service (including Lone Peak Wilderness Area). The Minimum Management Analysis for the Lone Peak Wilderness Area will be consistent with this Agreement.

1.1.6 Additional Authorities. The Parties agree that this Agreement satisfies any authorities the Parties may have pursuant to the Fish and Wildlife Coordination Act; the National Historic Preservation Act; the Endangered American Wilderness Act of 1978; the Antiquities Act of 1906; the National Park Service Organic Act of 1916; the National Park Service General Authorities Act of 1970 as amended; the Presidential Proclamation No. 1540 (Oct. 14, 1922); the Organic Act; and the Utah Endangered Species Act. The Parties warrant that, subject to Section 1.4 of this Agreement, any actions taken by the Parties pursuant to the authorities listed in this Section will not require measures inconsistent with this Agreement.

1.2 NEPA Analysis. In connection with FERC's decommissioning order, FERC will complete an environmental analysis pursuant to the National Environmental Policy Act ("NEPA"). The Parties request that FERC incorporate the decommissioning measures set forth in Appendix A as the preferred alternative described and evaluated in its analysis.

1.3 Limitations. This Agreement establishes no principle or precedent with regard to any issue addressed in this Agreement or with regard to any Party's participation in any other pending or future licensing or decommissioning proceeding. Further, no Party to this Agreement shall be deemed to have approved, accepted, agreed to, or otherwise consented to any operation, management, valuation or other principle underlying any of the matters covered by this Agreement, except as expressly provided in this Agreement. By entering into this Agreement, no Party shall be deemed to have made any admission or waived any contention of fact or law that it did make or could have made in FERC proceedings related to this Project. This Agreement shall not be offered in evidence or cited as precedent by any Party to this Agreement in any administrative or judicial litigation, arbitration, or other adjudicative proceeding, except in a proceeding to establish the existence of or to enforce or implement this Agreement. This Section 1.3 shall survive any termination of this Agreement.

1.4 Representations Regarding Consistency and Compliance with Statutory Obligations. By entering into this Agreement, the Governmental Parties represent that they believe their statutory and other legal obligations are, or can be, met through implementation of this Agreement. Notwithstanding the preceding sentence, nothing in this Agreement shall limit or shall be construed to limit any Government Party with jurisdiction directly related to the Project from complying with its obligations under applicable laws and regulations or from considering and responding to, as appropriate, public comments received in any environmental review or other governmental regulatory process related to decommissioning of the Project in accordance with this Agreement. This Agreement shall not be interpreted to predetermine the outcome of any environmental or administrative review or appeal process by any Governmental Party.

1.5 Conditions Precedent and Conditions Subsequent. The Parties' respective obligations to perform this Agreement are subject to conditions precedent and conditions subsequent, as more fully set forth in Section 5 below.

SECTION 2: ACTIONS UPON EXECUTION OF THIS AGREEMENT

2.1 FERC Filings. Following the Effective Date, PacifiCorp will file with FERC a fully executed copy of this Agreement and an explanatory statement in accordance with FERC regulations at 18 C.F.R. § 385.602.

2.2 Permits. In accordance with this Agreement, PacifiCorp shall apply for and use reasonable efforts to obtain in a timely manner and in final form all applicable federal, state, regional, and local permits, licenses, authorizations, certifications, determinations, and other governmental approvals for purposes of implementing this Agreement and the decommissioning measures set forth in Section 3 and Appendix A (“Permits”). PacifiCorp will likewise use reasonable efforts to obtain a FERC decommissioning order in a timely manner. The Parties shall cooperate during the permitting, environmental review, and implementation of this Agreement. Except as may be required by Section 10(e) of the FPA, each Party shall bear its own costs of participating in any Proceeding on an application for a Permit or FERC decommissioning order. Except as expressly provided in this Agreement, PacifiCorp shall not be required by this Agreement to implement any action under this Agreement until all applicable Permits required for that action are obtained in a form consistent with this Agreement and any and all applicable, prescribed periods for a petition for administrative or judicial review or appeal or any similar proceeding relating to any Permit (“Proceeding”) have expired without any such Proceeding having been commenced or, in the event any such Proceeding is commenced, until any such Proceeding is terminated on terms and conditions consistent with this Agreement. In the event any Proceeding is commenced, the Parties shall confer to evaluate the effect of such Proceeding on implementation of this Agreement.

2.3 Communications with FERC and Other Government Agencies. Except as required to comply with applicable law, the Parties shall (1) be free to make statements of fact but shall otherwise make comments to FERC that are consistent with this Agreement; (2) make comments and respond to comments or responses to comments filed by them, to the extent any comments or responses are filed, with FERC and UDWQ in the context of FERC’s decommissioning order and the 401 Certification process in a manner consistent with this Agreement; and (3) to the extent they participate in relevant regulatory proceedings, actively support this Agreement and the incorporation of consistent terms into Permits, and any 401 Certification and ESA concurrence document or biological opinion, consistent with Section 1.4 of this Agreement. If any Party advocates after the Effective Date, to FERC or in any other forum, conditions related to Project decommissioning or other measures that are inconsistent with this Agreement, the matter shall be addressed in accordance with Sections 5.2 and 5.3 of this Agreement.

SECTION 3: DECOMMISSIONING MEASURES

3.1 Implementation of Decommissioning Measures. PacifiCorp will continue to operate and conduct measures described in Section 4 of this Agreement through August 31, 2006. At that time, flows in American Fork Creek will no longer be diverted, and the frequency and quantity of flows will no longer be modified, by Project facilities. Subject to any required Permit, PacifiCorp will begin implementing the decommissioning measures set forth in the Removal Plan, attached as Appendix A to this Agreement and incorporated herein by reference, upon September 1, 2006, or upon FERC's issuance of a decommissioning order consistent with this Agreement and expiration of any term for rehearing or judicial review, whichever is later. The Parties will secure the necessary permits and approvals to conduct the decommissioning measures described in this Section 3 prior to the scheduled date for conducting these measures, but in no event will the process for securing permits begin later than January 1, 2006. USFS and/or NPS shall provide guidance regarding designs and ground work; however, PacifiCorp shall assume the lead in directing decommissioning measures on the ground.

3.2 Timing of Implementation. PacifiCorp will complete the decommissioning measures set forth in this Section 3 and Appendix A no later than December 31, 2007. PacifiCorp shall not deviate from this schedule except under extraordinary circumstances. PacifiCorp will notify the Parties in writing explaining the basis for any delay and will provide a revised schedule for completing all decommissioning measures as close to December 31, 2007 as practicable. Any Party's objection to such delay will be addressed in accordance with Section 5.10. PacifiCorp's proposal and the Parties' consideration of an alternative to a decommissioning action as set forth in Section 3.3 shall not constitute an "extraordinary circumstance" warranting a deviation from the decommissioning schedule.

3.3 Decommissioning Measures. The following sections outline the commitments made by PacifiCorp in the Removal Plan (Appendix A). The Removal Plan provides additional detail regarding the measures discussed herein. With the exception of cost estimates provided in the following sections, if a specific provision of the Removal Plan conflicts with this Section 3.3, the specific provision in the Removal Plan shall control. Cost estimates provided in the following sections are not cost caps; PacifiCorp shall implement the following decommissioning actions at their designated implementation time even if costs exceed cost estimates unless, prior to the implementation date designated for a decommissioning action, all Parties agree to an alternative that meets the Parties' objectives at a lower cost. The Parties agree to consider and respond to any such proposed alternatives presented by PacifiCorp at least 60 days prior to the date designated for implementation of a decommissioning action. PacifiCorp may only substitute any such alternative for the requirements below and in the Removal Plan with the written consent of the Parties and subject to any necessary FERC approval.

3.3.1 Diversion Dam. PacifiCorp shall demolish, remove and dispose of the existing concrete diversion dam, Tainter gates, hoists and steel structures, trash racks, control building, embedded foundations and existing electrical/control wiring, conduits, and panels, as described in more detail in subsections (a) through (h) below (see Removal Plan; Appendix A). Materials will be disposed of at an appropriate site off federal lands. This action includes revegetating

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disturbed areas and reconstructing the stream channel. The total cost to PacifiCorp of completing measures described in subsections (a) through (h), below, is estimated to be \$74,000. Pursuant to this measure, PacifiCorp shall perform the following:

- (a) Construct cofferdam and install a temporary bypass structure;
- (b) Remove flash boards, security fence, walkway across top of the dam, structure that houses the flow monitoring equipment, intake gate and mechanisms, trash rack and sluice gate, existing electrical/control wiring, and conduits and panels;
- (c) Seal the intake to the flowline;
- (d) Remove the primary dam structure including imbedded foundations, apron and concrete intake structure. Remove all materials except concrete and rebar fully encapsulated in concrete. Some of the broken concrete between 12 inches and 36 inches may be used as the core of a riprap revetment to protect the highway. Concrete in excess of what can be used on site must be removed and disposed of at an approved site off Federal lands. Any rebar or metal protruding from concrete used or left on site shall be cut off even with the concrete. Concrete used on-site will be covered with 1-2 feet of native rock at least 12 inches in size and covered with 1-3 feet of earth above bankfull height, defined as 36 inches vertical distance above the river bottom. The earth covering the rock will be revegetated using certified noxious weed-free seed mixes approved by the appropriate land management agency (i.e., NPS or USFS). Riprap below bankfull will consist of native rock at least 36 inches in size;
- (e) Retain the roadside cement wall of the intake structure as is. Remove streamside of the intake structure, but retain a portion of the wall to one foot below the final grade. Use or dispose of the concrete and materials as described in subsection (d), above. All pertinent Best Management Practices ("BMPs") will be applied; including stockpiling and later redistributing any topsoil, and use of silt fences or certified weed-free straw bales or other devices to control erosion and entry of fines to the river;
- (f) The cofferdam used to divert the river during this action shall be removed following completion of construction. Material from the cofferdam shall be used on site or disposed of off site as described in subsection (d), above. Construct a floodplain on the side of the reconstructed river channel opposite the highway. Sediment and native rock from the earthen dam may be used to cover riprap on the terraces. The riprap will be covered with soil to a minimum of one foot, and replanted using native seedlings and seeded using a native, certified noxious weed-free seed mix approved by the USFS;
- (g) Reconstruct the stream channel using native materials. The reconstructed channel will follow approximately its current alignment, and the channel gradient will generally be uniform from the top of the existing pool to the bottom of the bypass

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outlet. Thirty yards of native rock, at least 36 inches in diameter, will be hauled in and stockpiled at an appropriate location on site approved by the USFS. The Parties will consult with the USFS to determine if the streambed should be stabilized using native rock. Based on this consultation, native rock will be used or left on site. Sediment may be used for on-site restoration; and

- (h) Lower the earthen dam to maintain stability of the river channel at bankfull, recontouring the site so that it is natural appearing and stable, and use the earth and native rock in rehabilitation of the channel and floodplain. Any concrete in, or underlying the earthen dam will be used or disposed of as described in subsection (d), above. Riprap at least 36 inches in diameter will be used to fill the earthen dam bisected by the bypass channel. The site will be covered with 1-3 feet of native soil and replanted using native seedlings and seeded using a native, certified noxious weed-free seed mix approved by the USFS.

3.3.2 Powerhouse Facility. PacifiCorp shall repair powerhouse structure for conveyance to the U.S. Government, as described in more detail in subsections (a) through (m) below (see Removal Plan; Appendix A). PacifiCorp will repair the powerhouse and remove the spillway, transformer pad, and miscellaneous metals; the tender's house, garage, and shed; and rehabilitate the site; the highway will be protected, the stream channel reconstructed, and the retaining wall protecting the powerhouse modified, as necessary, to prevent undercutting by the river. Power generation equipment and ancillary appurtenances in the powerhouse will be removed or left on site, as agreed to by the USFS and PacifiCorp. The total cost to PacifiCorp of completing measures described in subsections (a) through (m), below, is estimated to be \$212,000.

- (a) Construct check dam and install temporary bypass structure;
- (b) Leave the powerhouse building and foundations in a well-maintained condition, in consultation with and approval by the USFS. This includes repair of deteriorated woodwork, and refinishing exposed woodwork. All maintenance, repair, and/or restoration activities should be in accordance with the Secretary of Interior's standards for rehabilitation;
- (c) Plug with concrete the outlet from the powerhouse at the river;
- (d) Remove transformer pad, misc. metals, tender's house, shed, and the garage at the Upper American Fork Plant. Remove the shed, footbridge accessing the powerhouse, fencing, railing, and any power generation equipment in the powerhouse, unless otherwise agreed to by the USFS and PacifiCorp. Remove the abandoned Lower American Fork Plant flowlines;
- (e) Construct a new footbridge, at a location approved by the USFS, that meets Americans with Disabilities Act ("ADA") accessibility requirements, conforms to established visual quality objectives, and meets applicable safety standards for a footbridge used for public and administrative access;

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- (f) Convey title to the powerhouse to the U.S. Government. The USFS will work with the SHPO, Utah Heritage Foundation, and other interested parties regarding long-term use and maintenance of the powerhouse;
- (g) Remove the old septic system (vault and drain lines) for the tender house, and replace on approximately the location of the existing garage with a USFS approved single unit vault toilet. Develop parking for three vehicles, and construct an aggregate surface trail to the footbridge. Locations of the parking lot, trail, and toilet will be approved by the USDA Forest Service. The parking lot and trail will meet ADA standards. Ingress and egress designs will be approved by UDOT;
- (h) Protect the highway by backfilling concrete against the existing retaining wall or deepening the wall, if necessary. All concrete backfill must be covered with 3 feet of native rock. The riprap must extend 2 feet below the depth of the reconstructed channel, or to bedrock, and be at least 36 inches in size to bankfull, except where the river channel bends at the lower intake. Riprap at the lower intake will be at least 48 inches in size to bankfull, and an interspersed of 36-48 inch riprap will be used to armor the new river channel for a length of 30 feet opposite the lower intake as indicated in the Removal Plan (Appendix A);
- (i) Remove the concrete diversion dam and spillway and roadside retaining wall downstream of the existing footbridge. Modify the powerhouse-side retaining wall, as necessary to prevent undercutting. The purpose of this measure is to ensure a retaining wall protecting the powerhouse and to prevent undercutting by the river;
- (j) Retain and fill the abandoned Lower American Fork diversion intake structure, including a top surface appropriate for the aggregate trail. Adjacent area will be replanted using native seedlings and seeded using a native, certified noxious weed-free seed mix approved by the USFS;
- (k) Reconstruct a new river channel in accordance with the designs included in the Removal Plan (Appendix A). The final gradient of the new river channel will be uniform from the upstream end of the powerhouse to the point where the new river channel rejoins the old river channel. The width of the channel at the bend of the powerhouse will be at least 25 feet. The river channel will be reconstructed with native materials where the diversion dam and spillway are removed;
- (l) Remove the cofferdam. Earth and native rock should be used onsite in channel reconstruction. Concrete in excess of what can be used for riprap to protect the roadway will be disposed of at an approved site off Federal lands. All concrete used on site will be covered with 1-3 feet of native soil and replanted using native seedlings and seeded using a native, certified noxious weed-free seed mix approved by the USFS; and

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- (m) Apply all pertinent Best Management Practices (“BMPs”) including stockpiling and later redistributing topsoil. Construct a floodplain on the hill side of the new channel. Armor the toe of the channel bank using native rock at least 36 inches in size except as indicated in subsection (h), above. Revegetate the streambank using native seedlings, and seed all disturbed areas using native, noxious weed-free seed. All seedlings and seed mixes, and specifications and locations for the reconstructed floodplain must be approved by the USFS prior to implementation.

3.3.3 Flowline and Penstock. PacifiCorp shall remove exposed sections of the existing welded steel pipe and cap exposed pipe ends that are left on site, remove existing air vent piping, revegetate disturbed areas, remove existing miscellaneous pipeline supports, grout fill pipeline under and next to Utah State Route 92 and cap ends, and grout fill pipeline below intake structure and cap ends (see Removal Plan; Appendix A). Work on the flowline within the Lone Peak Wilderness Area will be conducted in a manner consistent with the Minimum Management Analysis as indicated in the Removal Plan (Appendix A). The Minimum Management Analysis will authorize the controlled use of cutting torches, portable welders, generators, air compressors, helicopters, and controlled blasting, if necessary. The NPS will approve such work practices on Monument land. The total cost to PacifiCorp of completing measures described in subsections (a) through (e), below, is estimated to be \$503,394.

- (a) Remove fully and partially exposed sections of the pipeline and cap exposed pipe ends that are left on site. Leave the penstock (cement anchor blocks, 2 short penstock segments between the powerhouse and block, and about 550 feet of penstock above the block) for historical purposes. Cap the ends of unremoved flowline and penstock segments;
- (b) Remove existing air vent piping. Remove to at least 2 inches below ground level. If the entire pipe is not removed, cap the ends of the remaining pieces;
- (c) Remove the cement footers to at least 2 inches below ground level;
- (d) Grout fill pipeline under and next to Utah State Road 92, and below the intake structure, and cap ends; and
- (e) Seed areas of disturbed soil with native, certified noxious weed-free seed mixes approved by the appropriate land management agency (i.e., NPS or USFS).

3.3.4 Power Line. PacifiCorp shall relocate the distribution power line, consisting of 5 power poles and the associated conductors, out of the Lone Peak Wilderness Area (see Removal Plan; Appendix A). The poles will be constructed to raptor-safe standards. Work within the Lone Peak Wilderness Area will be conducted in a manner consistent with the Minimum Management Analysis as indicated in the Removal Plan (Appendix A). The Minimum Management Analysis authorizes the controlled use of cutting torches, portable welders, generators, air compressors, helicopters, and controlled blasting, if necessary. The total cost to PacifiCorp of completing measures described in this Section 3.3.4 is estimated to be \$40,000.

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3.4 Disposition of Water Right. PacifiCorp will use its best efforts to convey its water right associated with the Project to the UDWR for the beneficial uses associated with instream flows, and will cooperate with UDWR in securing an approved change application for said purposes.

SECTION 4: INTERIM MEASURES

4.1 Implementation of Interim Measures. PacifiCorp will implement the actions described in subsections (a) through (e), below, immediately upon FERC's issuance and PacifiCorp's acceptance of a decommissioning order consistent with this Agreement, except as provided in subsection (a).

- (a) No later than March 1, 2003, weather permitting and subject to receipt of Permits, PacifiCorp will install a functional safety valve at the Burnt Flats box culvert. This valve shall be designed to fully and quickly open upon flowline failure. The total cost to PacifiCorp of this measure is estimated to be \$40,000. The Parties will work together to facilitate rapid resumption of operation should flowline failure occur during the interim operations time period.
- (b) Where hazard signs within the Monument are currently lacking, PacifiCorp shall install hazard warning signs. A chain with an attached sign shall be placed across the mouth of the entrances and exits of 3 tunnels located on the NPS lands. The total cost to PacifiCorp of this measure is estimated to be \$5,000.
- (c) PacifiCorp shall document all Project features, prior to their removal, in a manner consistent with the standards at 36 C.F.R. Parts 60 and 63 in consultation with the SHPO, USFS and NPS.
- (d) PacifiCorp shall conduct safety inspections by walking the flowline once every 2 months, weather permitting, and visually inspect the flowline with binoculars from the road twice each month.
- (e) PacifiCorp will continue to maintain a minimum flow in the bypassed reach of American Fork Creek of 4 cfs.

SECTION 5: IMPLEMENTATION OF AGREEMENT

5.1 Parties Bound. The Parties shall be bound by this Agreement until decommissioning is complete in accordance with Section 5.11 of this Agreement, unless this Agreement is sooner terminated as provided in Section 5.13, except that if a Party withdraws as allowed by Section 5.12 of this Agreement, that Party shall not be bound following such withdrawal. Section 1.3 of this Agreement shall survive any such termination or withdrawal.

5.2 Resolution of Disputes Before Decommissioning Order. If, following the Effective Date and prior to FERC issuance of a decommissioning order, (i) any 401 Certification, TMDL, final ESA concurrence or biological opinion, Permit, or other necessary authorization is denied or issued with conditions inconsistent with this Agreement; or (ii) any Party advocates to FERC or in any other forum the imposition of measures inconsistent with this Agreement, or encourages a non-Party to take such action; then this Agreement shall be deemed modified to include such conditions or recommended measures, as finally imposed by FERC or other agency, unless any Party (a) provides notice to the other Parties that it objects to the event within 30 days after the Party has actual knowledge of the occurrence of the event; (b) appeals during the applicable appeal period under the conditioning agency's regulations, if applicable; and (c) initiates the alternative dispute resolution ("ADR") Procedures set forth in Section 5.10 of this Agreement. Any Party may, in addition, initiate the appeal procedures described in Section 5.3.4. If the Parties complete ADR and the relevant appeals, or abandon appeals, and one or more of the above items remains inconsistent with this Agreement, the Party or Parties that objected to an event listed above may, within 60 days after completion of ADR and the relevant appeals, withdraw from this Agreement.

5.3 Resolution of Disputes After Decommissioning Order.

5.3.1 Decommissioning Order Inconsistent with This Agreement. If the decommissioning order, either as initially approved by FERC or following conclusion of any appeals or judicial review, is inconsistent with the measures set forth in this Agreement, this Agreement shall be deemed modified to conform to the inconsistency, unless a Party provides notice to the other Parties that it objects to the inconsistency and initiates ADR Procedures within 30 days after the date of FERC issuance of the decommissioning order or the conclusion of all appeals, as appropriate. The disputing Party or Parties may, in addition, initiate the rehearing procedure described in Section 5.3.4 and such Party's rehearing request shall constitute notice to the other Parties of the dispute. If the decommissioning order, after FERC approval and any appeals or after the Parties abandon further appeals, remains inconsistent with this Agreement, then a Party whose interests are affected by an inconsistency may withdraw from this Agreement.

5.3.2 Reopeners and Modification. After FERC issuance of a decommissioning order consistent with this Agreement, the Parties may not seek to impose measures inconsistent with this Agreement pursuant to standard FERC reopening provisions or other authorities except: (i) as provided pursuant to Sections 1.1.2, 1.1.3 and 5.3.6; or (ii) as required by statutes enacted or amended after the date of FERC's issuance of the decommissioning order. If a Party seeks to

impose inconsistent measures in accordance with (i) or (ii), above, the acting Party shall provide PacifiCorp at least 90 days' notice to consider the Party's position. A Party shall not be required to comply with this 90-day-notice provision if it believes an emergency situation exists, or if required to meet its responsibilities under a statute enacted or amended after the date of FERC's issuance of the decommissioning order. If a Party imposes or otherwise succeeds in modifying the decommissioning order to impose measures inconsistent with this Agreement, any Party or Parties may object and respond in accordance with Section 5.3.3.

5.3.3 Response to Changes in Required Measures. If, after FERC's issuance of a decommissioning order consistent with this Agreement, any Party or non-Party action including FERC or other agency action results in the imposition of measures inconsistent with this Agreement, then any Party may give notice that it believes such action or its results are inconsistent with this Agreement, and may initiate the ADR procedures and, if applicable, may seek rehearing or appeal of such action as provided in Section 5.3.4 below. If, after conclusion of ADR and after completion or abandonment of appeals, the condition complained of remains imposed, or as modified is still inconsistent with this Agreement, any Party may withdraw from this Agreement.

5.3.4 Review of Governmental Actions. To the extent provided by applicable law, any Party may seek administrative rehearing or judicial review of any act or omission by FERC, a Governmental Party, or a governmental agency which is not a Party, which occurs at or subsequent to FERC issuance of a decommissioning order, and which is inconsistent with this Agreement. The ADR procedures do not preclude any Party from timely filing for and pursuing rehearing under 18 C.F.R. § 385.713 or other agency's applicable rules, or judicial review, of the inconsistent action or omission. However, the Parties shall follow ADR procedures to the extent reasonably practicable while any such appeal of an inconsistency is pursued. If a Party has filed for administrative rehearing or judicial review of any inconsistent action and the Parties subsequently agree to modify this Agreement to conform to the inconsistent action, the filing Party or Parties shall withdraw the appeal, or recommend such withdrawal, as appropriate.

5.3.5 PacifiCorp Fails to Perform. If PacifiCorp fails to perform any of the provisions of this Agreement and it is not excused by force majeure, a Party may give PacifiCorp notice and an opportunity to cure within 30 days of such notice. If PacifiCorp fails to cure the problem within that period, or if such failure is not curable within 30 days and PacifiCorp has not commenced a cure within that period and diligently completed such cure, any Party who objects to such failure to perform may give notice to the other Parties and commence ADR procedures. In addition, the aggrieved Party or Parties may petition FERC to enforce such provision, if appropriate, or may pursue the remedies of mandamus or specific performance. If, after any applicable remedies at FERC are exhausted, FERC does not enforce the provision and PacifiCorp fails to perform the provision, any Party may withdraw from this Agreement. The Parties reserve any remedies under applicable law to enforce the measures contained in this Agreement but not enforced by FERC.

5.3.6 New ESA Listing. Should any species which may be affected by the Project or by Project decommissioning be listed as threatened or endangered prior to completion of the decommissioning measures in accordance with Section 5.11, PacifiCorp will consult with FERC

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to determine how to proceed. Should consultation under ESA section 7 be required and result in the imposition of measures which are inconsistent with the terms of this Agreement, the Agreement shall be modified to resolve inconsistencies and to otherwise determine the effect of such inconsistencies in accordance with the ADR procedures.

5.4 Cooperation Among Parties. The Parties shall cooperate in the performance of this Agreement and compliance with a FERC decommissioning order. Among other things, the Parties shall cooperate in implementing the decommissioning and interim measures and conducting all other activities related to the implementation of this Agreement.

5.5 Responsibility for Costs. PacifiCorp shall pay for the cost of actions required of PacifiCorp by this Agreement and FERC's decommissioning order. Except as may be required by Section 10(e) of the FPA, PacifiCorp shall have no obligation to reimburse or otherwise pay any other Party for its assistance, participation, or cooperation in any activities pursuant to this Agreement or the decommissioning order.

5.6 Responsibility for Operation and Decommissioning of Project. By entering into this Agreement, none of the Parties, except for PacifiCorp, have accepted any legal liability or responsibility for operating or decommissioning the Project.

5.7 Availability of Funds. Implementation of this Agreement for a Party that is a federal agency is subject to the requirements of the Anti-Deficiency Act, 31 U.S.C. §§ 1341-1519, and the availability of appropriated funds. Nothing in this Agreement is intended or shall be construed to require the obligation, appropriation, or expenditure of any money from the U.S. Treasury. The Parties acknowledge that the Governmental Parties that are federal agencies shall not be required under this Agreement to expend any federal agency's appropriated funds unless and until an authorized official of each such agency affirmatively acts to commit such expenditures, as evidenced in writing. Implementation of this Agreement by Governmental Parties that are state agencies is subject to the availability of appropriated funds. Nothing in this Agreement is intended or shall be construed to require the obligation, appropriation, or expenditure of any money from the Treasury of the State of Utah. The Parties acknowledge that the Governmental Parties that are state agencies shall not be required under this Agreement to expend any appropriated funds unless and until an authorized official of each such agency affirmatively acts to commit such expenditures, as evidenced in writing.

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5.8 Escalation of Costs. For the purpose described in Section 3.3, all cost estimates specified in dollars shall be deemed to be stated as of the year 2002, and shall be considered escalated as of January 1 of each following year (starting in January 2003) according to the following formula:

$$AD = D \times \frac{(NGDP)}{IGDP}$$

WHERE: AD = Adjusted dollar amount as of January 1 of the year in which the adjustment is made.

D = Dollar amount prior to adjustment.

NGDP = GDP-IPD for the third quarter of the year before the adjustment date.

IGDP = GDP-IPD for the third quarter of the year before the previous adjustment date (or, in the case of the first adjustment, the third quarter of the year before the Effective Date).

“GDP-IPD” is the value published for the Gross Domestic Product Implicit Price Deflator by the U.S. Department of Commerce, Bureau of Economic Analysis in the publication Survey of Current Business, Table 7.1 (being on the basis of 1996 = 100), in the third month following the end of the applicable quarter. If that index ceases to be published, any reasonably equivalent index published by the Bureau of Economic Analysis may be substituted by the Parties. If the base year for GDP-IPD is changed or if publication of the index is discontinued, the Parties shall promptly make adjustments or, if necessary, select an appropriate alternative index to achieve the same economic effect.

5.9 Amendment of Agreement. This Agreement may be amended at any time prior to completion of decommissioning in accordance with Section 5.11, with the unanimous agreement of all Parties. Any amendment of this Agreement shall be in writing and executed by all Parties still in existence, or their successors and assigns, if applicable. As appropriate, the Parties will submit a statement to FERC in support of the amendment.

5.10 Alternative Dispute Resolution.

5.10.1 General. Except to the extent that FERC or other agency with jurisdiction over the Project has a procedure that precludes implementation of Section 5.10.1 through 5.10.3, all disputes among the Parties regarding the obligations of the Parties under this Agreement shall, at the request of any Party, be the subject of nonbinding ADR among the disputing Parties. Each Party shall cooperate in good faith to promptly schedule, attend, and participate in the ADR. The Parties agree to devote such time, resources, and attention to the ADR as are needed to attempt to resolve the dispute at the earliest time possible. Each Party shall implement promptly all final agreements reached, consistent with its applicable statutory and regulatory responsibilities. Nothing in Sections 5.10.1 through 5.10.2 is intended or shall be construed to affect or limit the authority of FERC, the Governmental Parties, or other agency with jurisdiction over the Project to resolve a dispute brought before it in accordance with its own procedure and applicable law, or to alter the statute of limitations or other requirements for administration or judicial review of any action.

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5.10.2 ADR Procedures. A Party claiming a dispute shall give notice of the dispute within 30 days of the Party's actual knowledge of the act, event, or omission that gives rise to the dispute, unless this Agreement provides otherwise. Notification under Section 6.8 of this Agreement, when effective, shall constitute actual knowledge. At a minimum, in any dispute subject to these ADR Procedures, the Parties shall hold two informal meetings within 30 days after notice to attempt to resolve the disputed issue or issues. If, within 15 days after the second meeting or any meeting thereafter, a Party notifies the other Parties that such informal meetings failed to resolve the dispute, the Parties may attempt to resolve the dispute using a neutral mediator. The neutral mediator will be jointly selected within 15 days after such notice. Upon selection, the mediator will mediate the dispute for 60 days. Any of these time periods may be reasonably extended or shortened by agreement of the Parties, or as necessary to conform to the procedure of an agency or court with jurisdiction over the dispute. Unless otherwise agreed among the Parties, each Party shall bear its costs for its own participation in the ADR procedures and share the costs of any neutral mediator. Pending resolution of any dispute under these ADR procedures, and subject to the authority of FERC or other agency with jurisdiction to order otherwise, PacifiCorp may continue operating or decommissioning the Project in accordance with Sections 3 and 4 and Appendix A of this Agreement.

5.10.3 Enforcement of Agreement After ADR. Any Party may seek specific performance of this Agreement by any other Party, in a court of competent jurisdiction after compliance with the ADR procedures and, to the extent allowed by applicable law, may seek to recover its costs and fees associated with bringing such action. No Party shall be liable in damages for any breach of this Agreement, except that a Party may seek monetary penalties under applicable law. Nothing in Sections 5.10.1 through 5.10.3 is intended or shall be construed to affect or limit the jurisdiction of any agency or court as established under applicable law.

5.11 Completion of Decommissioning Measures. Upon completion of the decommissioning and associated PM&E measures set forth in Section 3 of this Agreement and Appendix A, PacifiCorp will notify the Parties that it has completed decommissioning. Upon request, PacifiCorp will provide reasonable supporting documentation and/or site access as may be necessary for the Parties to verify completion of such actions. Should any Party dispute PacifiCorp's completion of actions required by Section 3 and Appendix A, the Party will consult with PacifiCorp and attempt to resolve the dispute, and may initiate the ADR Procedures set forth at Section 5.10. After completion of ADR Procedures, any Party who reasonably believes that decommissioning and/or associated PM&E measures have not been completed in accordance with this Agreement may petition FERC to enforce the Agreement, if appropriate, or may pursue the remedies of mandamus or specific performance, if applicable. If no Party initiates ADR Procedures within 30 days of PacifiCorp's notification of completion pursuant to this Section, PacifiCorp will have no further obligations under this Agreement, and this Agreement will be considered mutually terminated by the Parties. The purpose of this Section is to facilitate mutual termination of this Agreement upon completion of decommissioning; nothing in this Section is intended or will be construed to prevent PacifiCorp from notifying and requesting any necessary approval from FERC that all measures required by the FERC Order have been completed.

5.12 Withdrawal from Agreement.

5.12.1 Withdrawal of a Party from Agreement. A Party may withdraw from this Agreement only as explicitly provided in this Agreement. In addition, when a Party ceases to exist and has no successors or assigns, it will be treated as having withdrawn.

5.12.2 Method of Withdrawal. A Party may exercise its right to withdraw from this Agreement by 60 days' advance notice.

5.12.3 Continuity After Withdrawal. The withdrawal of a Party other than PacifiCorp does not terminate this Agreement for the remaining Parties. However, if any Party withdraws, any other Party may elect to withdraw without further ADR procedures, after providing notice within 60 days of the withdrawal of the other Party. If a Party withdraws from this Agreement, the withdrawing Party shall not be bound by any term contained in this Agreement, except as provided in Section 1.3.

5.13 Termination of Agreement. This Agreement may be terminated by unanimous written agreement of the Parties, by withdrawal of all Parties, or by mutual termination as set forth in Section 5.11 of this Agreement. In addition, the withdrawal of PacifiCorp pursuant to Section 5.12.1 will terminate this Agreement.

5.14 Responsibility for Remaining Structures. Upon completion of decommissioning in accordance with Section 5.11, the Parties agree that PacifiCorp will not be responsible for or bear liability arising from any remaining Project structures. USFS and NPS will assume ownership of, will be fully responsible for any maintenance on, and will bear liability for all remaining structures on USFS-managed and NPS-managed lands, respectively.

SECTION 6: GENERAL PROVISIONS

6.1 No Third-Party Beneficiaries. Without limiting the applicability of rights granted to the public pursuant to applicable law, this Agreement shall not create any right or interest in the public, or any member of the public, as a third-party beneficiary of this Agreement and shall not authorize any non-Party to maintain a suit at law or equity pursuant to this Agreement. The duties, obligations, and responsibilities of the Parties with respect to third parties shall remain as imposed under applicable law.

6.2 Successors and Assigns. This Agreement shall apply to and be binding on the Parties and their successors and approved assigns. Upon completion of a succession or assignment, the initial Party shall no longer be a Party to this Agreement, but shall remain secondarily liable for the performance of the assignee. No change in ownership of the Project or transfer of the Project license by PacifiCorp shall in any way modify or otherwise affect any other Party's interests, rights, responsibilities, or obligations under this Agreement. Unless prohibited by applicable law, PacifiCorp shall provide in any transaction for a change in ownership of the Project or transfer of the Project license that such new owner or owners shall be bound by and shall assume the rights and obligations of this Agreement upon completion of the change of ownership and any requisite FERC approval. A transferring or assigning Party shall provide notice to the other Parties at least 60 days prior to completing such transfer or assignment.

6.3 Failure to Perform Due to Force Majeure. No Party shall be liable to any other Party for breach of this Agreement as a result of a failure to perform or for delay in performance of any provision of this Agreement if such performance is delayed or prevented by force majeure. The term "force majeure" means any cause reasonably beyond the affected Party's control, whether unforeseen, foreseen, foreseeable, or unforeseeable, and without the fault or negligence of the affected Party. Force majeure may include, but is not limited to, natural events, labor or civil disruption, breakdown or failure of Project works, orders of any court or agency having jurisdiction of the Party's actions, delay in FERC's issuance of a decommissioning order, or delay in issuance of any required permit. Increased cost for the performance of any decommissioning measure or interim measure shall not be deemed to constitute force majeure, provided that PacifiCorp will not be obligated to perform measures in excess of the commitments specified in this Agreement. The Party whose performance is affected by force majeure shall notify the other Parties in writing within 7 days after becoming aware of any event that such affected Party contends constitutes force majeure. Such notice will identify the event causing the delay or anticipated delay, estimate the anticipated length of delay, state the measures taken or to be taken to minimize the delay, and estimate the timetable for implementation of delayed measures. The affected Party shall make all reasonable efforts to promptly resume performance of this Agreement and, when able, to resume performance of its obligations and give the other Parties written notice to that effect.

6.4 Governing Law. The terms of this Agreement over which a federal agency has jurisdiction shall be governed, construed, and enforced in accordance with the statutory and regulatory authorities of such agency. This Agreement shall otherwise be governed and construed under the laws of the State of Utah. By executing this Agreement, no federal agency

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is consenting to the jurisdiction of a state court unless such jurisdiction otherwise exists. By executing this Agreement, no state agency or officer is consenting to the jurisdiction of a federal court unless such jurisdiction otherwise exists. All activities undertaken pursuant to this Agreement shall be in compliance with all applicable law.

6.5 Elected Officials Not to Benefit. No member of or delegate to Congress shall be entitled to any share or part of this Agreement or to any benefit that may arise from it.

6.6 No Partnership. Except as otherwise expressly set forth herein, this Agreement does not, and shall not be deemed to, make any Party the agent for or partner of any other Party.

6.7 Reference to Statutes or Regulations. Any reference in this Agreement to any federal or state statute or regulation shall be deemed to be a reference to such statute or regulation or successor statute or regulation in existence as of the date of the action.

6.8 Notice. Any notice required by this Agreement shall be written. It shall be sent by first-class mail or comparable method of distribution to all Parties still in existence, or their successors and assigns if applicable, and shall be filed with FERC. For the purpose of this Agreement, a notice shall be effective 3 working days after the date on which it is mailed or otherwise distributed, not counting federal holidays. For the purpose of notice, the list of authorized representatives of the Parties as of the Effective Date is attached as Appendix B. Each Party is responsible for providing notice to the other Parties of any change in the authorized representatives designated in Appendix B.

6.9 Paragraph Titles for Convenience Only. The titles of the paragraphs in this Agreement are used only for convenience of reference and organization, and shall not be used to modify, explain, or interpret any of the provisions of this Agreement or the intentions of the Parties. Reference to a given section of this Agreement shall be deemed to include all subsections of that section.

6.10 Entire Agreement. This Agreement sets forth the entire agreement and process of the Parties with regard to the water quality, cultural and aesthetic resources, fisheries, wildlife, land management and related measures concerning the decommissioning and interim operation of the Project.

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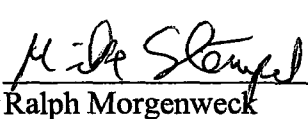
SECTION 7: EXECUTION OF AGREEMENT

7.1 Signatory Authority. Each signatory to this Agreement certifies that he or she is authorized to execute this Agreement and to legally bind the Party he or she represents, and that such Party shall be fully bound by the terms hereof upon such signature without any further act, approval, or authorization by such Party.

7.2 Signing in Counterparts. This Agreement may be executed in any number of counterparts, and each executed counterpart shall have the same force and effect as an original instrument as if all the signatory Parties to all of the counterparts had signed the same instrument. Any signature page of this Agreement may be detached from any counterpart of this Agreement without impairing the legal effect of any signatures, and may be attached to another counterpart of this Agreement identical in form having attached it to one or more signature pages.

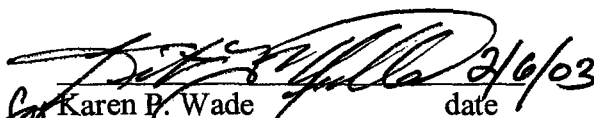
PacifiCorp:

United States Fish and Wildlife Service:

	
William Eaquinto	Ralph Morgenweck
Vice President, Hydro Relicensing	Regional Director
date 2/6/03	date 2/6/03

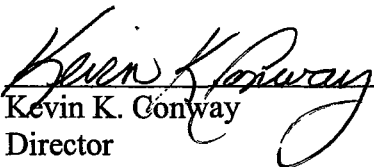
National Park Service:

USDA Forest Service:

	
Karen P. Wade	Jack G. Troyer
Intermountain Regional Director	Regional Forester, Intermountain Region
date 2/6/03	date 2/6/03

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Utah Division of Wildlife Resources:

 2/6/03
Kevin K. Conway date
Director

Utah Department of Transportation:

 2/6/03
Tracy Conti date
Director, Region 3

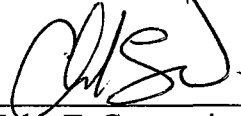
Utah State Historic Preservation Office:

 2/6/03
Wilson G. Martin date
State Historic Preservation Officer

Utah Council of Trout Unlimited:

 2-6-03
Alan Matheson date
Director, Utah Water Project

American Whitewater:

 for 2/6/03
John T. Gangemi date
Conservation Director

Appendix A

REMOVAL PLAN

AMERICAN FORK HYDROELECTRIC PROJECT
(FERC PROJECT NO. 696)

SPECIFICATIONS
FOR
GENERAL CONSTRUCTION

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Section 1A – GENERAL DESCRIPTION AND SCOPE OF THE WORK

1A.1 GENERAL. This section covers the general description, scope of the work, and supplementary requirements for the work included under these specifications.

The work covered by these specifications will be incorporated into the American Fork Project Retirement, which consists primarily of the demolition of the existing intake structure and streambed restoration, removal of exposed pipeline and penstock, removal of portions of partially buried pipeline and the stream enhancements near powerhouse.

The American Fork Project is located on U.S. Forest Service (USFS) and National Park Service Monument (NPS) land in Utah County, Utah on the American Fork Creek near the city of American Fork (figure 1). The project consists of a concrete diversion dam, a water conveyance system, a powerhouse, a turbine generator, and a 12.5-Kv transmission line.

1A.2 WORK INCLUDED UNDER THESE SPECIFICATIONS. The work under these specifications shall include furnishing all equipment and materials fully operated and maintained until Company acceptance; providing all labor, supervision, administration, and management; and supply all construction equipment, materials, permits, and services necessary to perform the American Fork Project Removal, complete in accordance with these specifications, drawings, and other contract documents, except as specifically excluded under 1A.4.

Major components of the work under these specifications are as follows:

A. Diversion Dam

Contractor shall demolish, remove and dispose of the existing concrete diversion dam, Tainter gates, hoists and steel structures, trash racks, and control building, as described in more detail in sections A.1 –A.8 below (see Figures 3-5). Demolition includes embedded foundations and existing electrical/control wiring, conduits, and panels. Materials will be disposed of at an appropriate site off federal lands. Revegetate disturbed areas and reconstruct the stream channel.

1. Construct cofferdam and install a temporary bypass structure.
2. Remove flash boards, security fence, walkway across top of the dam, structure that houses the flow monitoring equipment, intake gate and mechanisms, trash rack and sluice gate, existing electrical/control wiring, and conduits and panels.
3. Seal intake to flowline.
4. Remove the primary dam structure including imbedded foundations, apron and concrete intake structure. Remove all materials except concrete and

rebar fully encapsulated in concrete. Some of the broken concrete between 12 inches and 36 inches may be used as the core of a riprap revetment to protect the highway. Concrete in excess of what can be used on site must be removed and disposed of at an approved site off Federal lands. Any rebar or metal protruding from concrete used or left on site shall be cut off even with the concrete. Concrete used on-site will be covered with 1-2 feet of native rock at least 12 inches in size and covered with 1-3 feet of earth above bankfull height, defined as 36 inches vertical distance above the river bottom. The earth covering the rock will be revegetated using certified noxious weed-free seed mixes approved by the appropriate land management agency (i.e., NPS or USFS). Riprap below bankfull will consist of native rock at least 36 inches in size;

5. Retain the roadside cement wall of the intake structure as is. Remove streamside of the intake structure, but retain a portion of the wall to one foot below the final grade. Use or dispose of the concrete and materials as described in A.4. All pertinent Best Management Practices (BMPs) will be applied; including stockpiling and later redistributing any topsoil, and use of silt fences or certified weed-free straw bales or other devices to control erosion and entry of fines to the river.
6. The cofferdam used to divert the river during construction shall be removed following completion of construction. Material from the cofferdam shall be used on site or disposed of off site as described in A.4 above. Construct a floodplain on the side of the reconstructed river channel opposite the highway. Sediment and native rock from the earthen dam may be used to cover riprap on the terraces. The riprap will be covered with soil to a minimum of one foot, and replanted using native seedlings and seeded using a native, certified noxious weed-free seed mix approved by the USFS.
7. Reconstruct the stream channel using native materials. The reconstructed channel will follow approximately its current alignment, and the channel gradient will generally be uniform from the top of the existing pool to the bottom of the bypass outlet. Thirty yards of native rock, at least 36 inches in diameter, will be hauled in and stockpiled at an appropriate location on site approved by the USFS. The Parties will consult with the USFS to determine if the streambed should be stabilized using native rock. Based on this consultation, native rock will be used or left on site. Sediment may be used for on-site restoration.
8. Lower the earthen dam to maintain stability of the river channel at bankfull, recontouring the site so that it is natural appearing and stable, and use the earth and native rock in rehabilitation of the channel and site. Any concrete in, or underlying the earthen dam will be used or disposed of as described in A.4 above. Riprap at least 36 inches in diameter will be used to fill the berm bisected by the bypass channel. The site will be covered with 1-3 feet of native soil and replanted using native seedlings and seeded using a

native, certified noxious weed-free seed mix approved by the USFS.

B. Powerhouse Facility

Contractor shall repair powerhouse structure for conveyance to the U.S. Government, as described in more detail in sections B.1 – B.12 below (see Figures 6-9). Contractor will repair the powerhouse and remove the spillway, transformer pad, and miscellaneous metals; the tender's house, garage, and shed; and rehabilitate the site; the highway will be protected, the stream channel reconstructed, and the retaining wall protecting the powerhouse modified, as necessary, to prevent undercutting by the river. Power generation equipment and ancillary appurtenances in the powerhouse will be removed or left on site, as agreed to by the USFS and PacifiCorp.

1. Construct check dam and install bypass structure.
2. Leave the powerhouse building and foundations in a well-maintained condition, in consultation with and approval by the USFS. This includes repair of deteriorated woodwork, and refinishing exposed woodwork. All maintenance, repair, and/or restoration activities should be in accordance with the Secretary of Interior's standards for rehabilitation.
3. Plug with concrete the outlet from the powerhouse at the river.
4. Construct a footbridge, at a location approved by the USFS, that meets Americans with Disabilities Act (ADA) accessibility requirements, conforms to established visual quality objectives, and meets applicable safety standards for a footbridge used for public and administrative access (see supplement 1 & 2).
5. Remove transformer pad, misc. metals, tender's house, shed, and the garage at the Upper American Fork Plant. Remove the shed, footbridge accessing the powerhouse, fencing, railing, and any power generation equipment in the powerhouse, unless otherwise agreed to by the USFS. Remove the abandoned Lower American Fork Plant flowlines.
6. Remove the old septic system (vault and drain lines) for the tender house, and replace on approximately the location of the existing garage with a USFS approved single unit vault toilet (see supplement 3). Develop parking for three vehicles, and construct an aggregate surface trail to the footbridge. Locations of the parking lot, trail, and toilet will be approved by the USDA Forest Service. The parking lot and trail will meet ADA standards. Ingress and egress designs will be approved by UDOT.
7. Protect the highway by backfilling concrete against the existing retaining wall or deepening the wall, if necessary. All concrete backfill must be

covered with 3 feet of native rock. The riprap must extend 2 feet below the depth of the reconstructed channel, or to bedrock, and be at least 36 inches in size to bankfull, except where the river channel bends at the lower intake. Riprap at the lower intake will be at least 48 inches in size to bankfull, and an interspersed of 36-48 inch riprap will be used to armor the new river channel for a length of 30 feet opposite the lower intake.

8. Remove the concrete diversion dam and spillway and roadside retaining wall downstream of the existing footbridge. Modify the powerhouse-side retaining wall, as necessary to prevent undercutting. The purpose of this measure is to ensure a retaining wall protecting the powerhouse and to prevent undercutting by the river.
9. Retain and fill the abandoned Lower American Fork diversion intake structure, including a top surface appropriate for the aggregate trail. Adjacent area will be replanted using native seedlings and seeded using a native, certified noxious weed-free seed mix approved by the USFS.
10. Reconstruct a new river channel in accordance with the designs included on Figure 8 and 9. The final gradient of the new river channel will be uniform from the upstream end of the powerhouse to the point where the new river channel rejoins the old river channel. The width of the channel at the bend of the powerhouse will be at least 25 feet. The river channel will be constructed with native materials where the diversion dam and spillway are removed.
11. Remove the cofferdam. Earth and native rock should be used onsite in channel reconstruction. Concrete in excess of what can be used for riprap to protect the roadway will be disposed of at an approved site off Federal lands. All concrete used on site will be covered with 1-3 feet of native soil and replanted using native seedlings and seeded using a native, certified noxious weed-free seed mix approved by the USFS.
12. Apply all pertinent Best Management Practices (BMPs) including stockpiling and later redistributing topsoil. Construct a floodplain on the hillside of the new channel. Armor the toe of the channel bank using native rock at least 36 inches in size except as indicated in B.7. Revegetate the streambank using native seedlings, and seed all disturbed areas using native, noxious weed-free seed. All seedlings and seed mixes, and specifications and locations for the reconstructed floodplain must be approved by the USFS prior to implementation.

C. Flowline and Penstock

Contractor shall remove exposed sections of the existing welded steel pipe and cap exposed pipe ends that are left on site, remove existing air vent piping, revegetate

disturbed areas, remove existing miscellaneous pipeline supports, grout fill pipeline under and next to Utah State Route 92 and cap ends, and grout fill pipeline below intake structure and cap ends (see Figure 2, Attachment A and Exhibit A). Work on the flowline within the Lone Peak Wilderness Area will be conducted in a manner consistent with the Minimum Tool Analysis (see Sec. 1A.8). The Minimum Tool Analysis will authorize the controlled use of cutting torches, portable welders, generators, air compressors, helicopters, and controlled blasting, if necessary. The NPS and USFS will approve such work practices on Monument land and Wilderness land, respectively.

1. Remove fully and partially exposed sections of the pipeline and cap exposed pipe ends that are left on site. Leave the penstock (cement anchor blocks, 2 short penstock segments between the powerhouse and block, and about 550 feet of penstock above the block) for historical purposes. Cap the ends of unremoved flowline and penstock segments.
2. Remove existing air vent piping. Remove to at least 2 inches below ground level. If the entire pipe is not removed, cap the ends of the remaining pieces.
3. Remove the cement footers to at least 2 inches below ground level;
4. Grout fill pipeline under and next to Utah State Road 92, and below the intake structure, and cap ends.
5. Seed areas of disturbed soil with native, certified noxious weed-free seed mixes approved by the appropriate land management agency (i.e., NPS or USFS).

The above explanations and listings are intended to give a general definition of the scope of the work under these specifications, and shall not be construed to be an itemized listing of each element of work required. The Contractor shall be responsible for construction or removal of complete facilities, conforming in all respects to the details and requirements of the specifications, drawings, and other contract documents.

1A.2.2 COMPANY-FURNISHED MATERIALS. The Company will furnish the following materials which shall be installed under this contract:

1A.3 WORK NOT INCLUDED UNDER THESE SPECIFICATIONS. The following items of work will be furnished by the Company:

1A.4 WORK UNDER SEPERATE CONTRACTS. In addition to the work under this contract, the Company will perform additional work concurrently or will interface with the work under this Contract. Work which will interface with work under this Contract includes but is not necessarily limited to, the following:

Removal Plan

- Removal of equipment from the Powerhouse.
- Relocation of the power line running through the Wilderness Area.

The Contractor shall coordinate his actions and cooperate with other contractors and the Company in the best interest of the project.

1A.5 DIMENSIONING. All engineering drawings reflect dimensions taken from existing project drawings. The dimensions have not been field checked.

1A.6 SCHEDULE. The time of completion of the work is of the essence of the contract. This shall include the completion of various activities in accordance with the specified milestone dates given in the Contract Documents.

- 1) In regard to in-water work and demolition of the existing in-water structures: The Agencies have given a time frame from mid-May to mid-October. However, the recommended time frame is from after Labor Day to Mid-October (weekdays only).
- 2) In regard to the pipeline removal by Helicopter: The Agencies have given a time frame that includes the following conditions:
 - After Snow Melt.
 - Before Memorial Day.
 - On Weekdays only.
 Or
 - After Labor Day to Mid-October.
 - On Weekdays only.

1A.7 CONSTRUCTION ACCESS. The methods, means and equipment required to access the construction areas shall be the responsibility of the Contractor and will be integral to the successful completion of the work within the required schedule. The contractor shall thoroughly familiarize itself with the existing site conditions through use of site visits, drawings, records, maps, and available photographs. Contractor shall develop a plan for personnel and equipment access, required construction equipment, crane placement, staging and lay-down areas, concrete delivery system, and the mobilization and demobilization and construction equipment and material.

The Contractor shall be aware that parts of the site are located in the Lone Peak Wilderness, National Forest Lands, Monument Lands, and crosses Utah State Route 92. The Contractor's access and equipment use methods shall conform to requirements of the regulatory agencies governing the project. The construction and operation of all access operations shall be coordinated with the Company.

1A.8 WORK PRACTICES. The Contractor shall perform all work practices within the Wilderness Areas and Timpanagos Cove Monuments Lands conforming to requirements of the regulatory agencies governing the project.

Exceptions to criteria requirements within the Wilderness Areas:

- Helicopters
- Generators (Portable)
- Air-Compressors (Portable)
- Welders (Portable)
- Gas-Cutting
- Blasting of specified tunnels.
 - Contractor shall procure the services of a licensed technical blaster that is acceptable to the Company and USDA-FS.

1A.9 ENVIRONMENTAL CONSIDERATIONS. The Contractor shall perform his work in such a manner so as to minimize the effect of the construction work on the environment and in accordance with the project permit requirements. It shall be the Contractor's responsibility to take appropriate measures to prevent the introduction of soil fines, cement particles, paint, petroleum products, or other deleterious materials into the existing river. All construction equipment that will be working or operating in and around the river shall be thoroughly cleaned prior to entering the construction area to satisfy federal, state, and local regulatory requirements for equipment in a freshwater environment. Work in the waterway shall also be performed in a manner which will minimize turbidity increases in the water, which tend to degrade water quality and damage aquatic life.

Section 1B – DRAWING LIST.

1B.1 GENERAL. This section lists the drawings which have been prepared for the work under these specifications and documents.

1B.2 CONTRACT DRAWINGS. The following listed drawings shall be part of the contract document:

Construction Drawings:

<u>Drawing No.</u>	<u>Title</u>
Figure 1	Vicinity Map and General Location
Figure 2	Pipe Cap Detail
Figure 3	Temporary Cofferdam, Diversion Dam Removal
Figure 4	Intake Modifications Temporary Cofferdam, Diversion Dam and Intake Modifications
Figure 5	Dam Removal and Channel Restoration
Figure 6	Powerhouse Facilities Removal, Existing Conditions, Plan and Section
Figure 7	Powerhouse Facilities Removal, Check Dam and Bypass Pipe, Plan and Section
Figure 8	Powerhouse Facilities Removal, Proposed Final Layout, Plan and Section
Figure 9	Powerhouse Facilities Removal, Proposed Final Layout, Plan and Section

Section 1C – ENGINEERING DATA

1C.1 GENERAL. This section covers engineering data including manufacturer's drawings which the Contractor shall submit for review. Timely submittal of engineering data is essential to the scheduled progress and completion of the project and is the essence of this Contract.

Engineering data covering all materials to be furnished under this Contract shall be submitted. These data shall include drawings and descriptive information in sufficient detail to show the kind, size, arrangement, and operation of component materials; the external connections, anchorage, and supports required; and dimensions needed for installation and correlation with other materials.

The Company will accept engineering data submittals from the Contractor only.

All engineering data shall be identified with the materials represented by use of the nomenclature established by the contract documents.

1C.2 CORRESPONDENCE. Correspondence between the Contractor and the Company shall be as follows:

All submittals shall be made by overnight delivery to:

PacifiCorp
825 N.E. Multnomah, 1500 LCT
Portland, OR 97232

Attention: Mr. Mark Sturtevant

1C.3 REVIEW OF ENGINEERING DATA. The review of engineering data will cover only general conformity of the data to the specifications and documents, external connections, and interfaces with existing dimensions, which affect the project arrangement. The review does not indicate a thorough review of all dimensions, quantities, and details of the materials or item indicated or the accuracy of the information submitted; nor shall be construed as relieving the Contractor from any responsibility for errors or deviations from the requirements of the contract.

All engineering data submitted, after final processing and acceptance by the Company, shall become a part of the Contract documents and the work indicated or described thereby shall be performed in conformity therewith, unless otherwise required in writing by the Company.

1C.4 DRAWING AND ENGINEERING DATA.

1C.4.1 SUBMITTAL. Three prints of each drawing or data submittal shall be submitted to the Company prints shall be black line on white background (preferred) or blue line on white background.

1C.4.2 PROCESSING. A copy of each submittal reviewed will be returned to the Contractor as stipulated herein.

When drawings and data are returned marked EXCEPTIONS NOTED, the changes shall be made as noted thereon; and two corrected copies each shall be submitted to the Company.

When the drawing and data are returned marked RETURNED FOR CORRECTION, the corrections shall be made as noted thereon and two corrected copies each shall be submitted to the Company. Work shall not proceed on materials indicated on drawings or data which have been returned for corrections.

No work shall be performed in connection with the fabrication or manufacture of equipment and materials until the drawings and data have been reviewed by the Company except at the Contractor's own risk and responsibility. Work may proceed on equipment and materials when the drawing and data have been returned marked NO EXCEPTIONS NOTED; and when submittals have been returned marked EXCEPTIONS NOTED, provided the work is performed in accordance with the notations.

Section 1D - CONSTRUCTION SCHEDULE AND PROGRESS REPORTS

1D.1 GENERAL. This section covers the schedule and scheduling requirements for performance and completion of the work included under this Contract. The schedule shall be incorporated into weekly progress reports as specified herein.

1D.2 CONSTRUCTION SCHEDULE. The time of completion is of the essence of the contract. The Contractor shall comply with the dates established in the detailed construction schedule agreed to by the Company and the Contractor.

1D.2.1 MILESTONE DATES. The milestone dates specified by the Company in the Contract Documents are associated only with the major items of work under this Contract.

The listing of activities and dates is not intended to be a complete or detailed listing of all work under this Contract.

It is understood and agreed that the dates specified by the Company in the Contract Documents are the latest feasible completion dates and that earlier dates may be attained as agreed to by the Company and the Contractor.

1D.3 CONTRACTOR'S DETAILED SCHEDULE. Within 90 calendar days after the Company provides Contractor with letter of "Notice to Proceed", the Contractor shall submit a detailed construction schedule. The detailed schedule shall be based upon the dates specified by the Company in the Contract Documents.

The detailed construction schedule shall be in bar graph form acceptable to the Company.

The detailed construction schedule shall contain all activities of the construction plan, including acquisition, fabrication, and installation of equipment and materials. For all equipment and materials fabricated or supplied by the Contractor especially for this project, the schedule shall include the sequence of activities including issuance of purchase orders, preparation of shop drawings, fabrication, and delivery. Each activity shall be identified on the schedule by a descriptive title and shall be assigned an estimated number of working days required and an expected completion date. Periods of multiple shift work and overtime shall be noted.

The Contractor is responsible for determining the sequence and time estimates of the detailed daily construction activities; however, the Company reserves the right to require the Contractor to modify any portion of the schedule the Company determines to be impractical, infeasible, or unreasonable, and as required to coordinate the Contractor's activities with those of other parties and operation of the existing plant, and to assure the completion of the work by the stipulated date.

Schedules returned to the Contractor for revision or correction shall be resubmitted for review within 7 calendar days. Upon acceptance by the Company of the detailed schedule of activities, the Contractor will be responsible for maintaining such schedule.

Once a week the Contractor shall submit with the progress report a complete list of all deviations from the detailed construction schedule to reflect the actual progress of the work, together with his proposed actions to alleviate any delays caused by the deviations.

1D.4 COORDINATION. The Contractor shall coordinate his work with that of other parties and shall cooperate fully with the Company in maintaining orderly progress towards completion of the work as scheduled. The Company's decision regarding priority between the Contractor's work and the work of other parties at the project site shall be final and shall not be cause for extra compensation or extension of time, except where extension of time is granted because of actual and unavoidable delay.

1D.5 PROGRESS REPORTS. The Contractor shall submit one copy of the progress report to the Company once each week in a format approved by the Company. Each topic shall include a brief narrative with use of charts, graphs, etc., as appropriate. The following topics shall be included:

1. Progress of work.
2. Construction schedule.
3. Installed/Removed quantities.
4. Problem areas.
 - a. Potential delays.
 - b. Potential claims.
5. Material testing and results.
6. Work to be performed during the next week.

Section 1E - CONSTRUCTION SEQUENCE AND WATER MANAGEMENT PLAN

1E.1 GENERAL. This section covers the sequence of construction activities and the management of river flows and construction water for the work included under this Contract.

The construction sequence and water management plan shall coordinate the construction work to meet the project's minimum stream flow requirements downstream of the dam, and satisfy regulatory agency requirements stipulated in the construction permits for the project.

1E.2 HISTORICAL RIVER FLOW DATA. The historical river flow data for the months of July, August, September, and October are as follows:

<u>Percent of Time Flow Exceeded</u>	<u>River Flow (cfs)</u>			
	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>
100	13	9	10	12
95	27	16	14	14
90	33	20	17	15
80	43	25	19	18
70	54	28	21	19
60	65	31	22	20
50	77	35	24	21
40	87	37	26	24
30	98	40	29	25
20	119	52	32	26
10	157	63	36	28
5	178	73	45	42

1E.3 CONSTRUCTION SEQUENCE AND WATER MANAGEMENT. The work under these specifications shall incorporate the following water management considerations. The Contractor shall submit a detailed construction sequence and water management plan in accordance with Sections 1C and 1D of these specifications.

1E.3.1 Mobilization. The Contractor shall mobilize his work force and assemble the necessary equipment and materials to start the construction work. A laydown area is provided onsite for the Contractor's use during construction. Contractor submittals shall also be submitted for approval.

1E.3.2 Preparation of Facilities for Water Passage During Construction. The existing project facilities shall be prepared to accommodate the construction of cofferdams and the management of river flow during construction as follows:

Remove diversion dam stoplogs from slots and drain intake.

Clear, grub, and strip area designated for bypass channel construction, and temporary road. Remove cleared and grubbed material from the site.

Excavate bypass channel beginning at the lower end of earth fill on the south side of the American Fork River and working upstream.

Excavate river channel to divert river into bypass channel.

1E.6.3 Cofferdam Installation. Installation of the cofferdams shall include the following activities:

Install upstream cofferdam from between bypass channel and diversion dam across the existing river channel with materials from the excavation of the bypass channel.

1E.3.4 Diversion Dam and Spillway Apron Removal. Below the dewatered cofferdam area, the Contractor shall perform the work included in these specifications with the following general sequences of activities:

Remove diversion dam, spillway apron and south side wing wall.

Place removed materials upstream of intake.

Fill intake with concrete rubble and removed embankment material.

Install existing fuse plug Rip Rap alongside intake and newly deposited concrete materials.

1E.6.5 Cofferdam Removal. The removal of the project cofferdams shall be performed as follows:

Remove upstream cofferdam, distribute along stream banks, contour and create a floodplain, cover with soil and revegetate.

1E.6.7 Demobilization. The Contractor shall demobilize his workforce and remove all construction equipment and materials from the site. The Contractor's laydown area shall be returned to its original condition.

Section 2A - RAZING AND ALTERATIONS

2A.1 GENERAL. This section covers razing, removal, and alteration of existing structures and materials.

Structures designated to be razed or modified shall include, but shall not be limited to, the existing structures and materials described in this section and designated on the drawings.

Equipment and materials shall be removed within the indicated areas. These include but are not limited to the following:

Existing diversion dam.

Existing intake controls building.

Existing intake tainter gate.

Existing intake trashracks (two).

Existing intake hoist structures.

Existing stoplogs and stoplog slots.

Existing walkways, railing, fencing, gates, and miscellaneous metals.

Existing spillway apron.

Designated portions of existing steel pipeline.

Existing House, Septic System, and Transformer Pad.

Existing Old American Fork Flowline.

Materials shall be removed at least flush with or beyond the limits indicated.

Equipment and materials to be turned over to the Company for salvage include the following:

Existing motor actuator

Existing control panels

Existing hoist

Contractor shall notify Company's on-site representative when these materials have been removed and are ready for pick-up by Company crews.

2A.2 CONDITIONS OF STRUCTURES. The drawings indicate the assumed locations of existing construction and equipment, but the Company does not guarantee this data. The full extent and nature of the work shall be determined by a thorough inspection of the site.

2A.3 PROTECTION. Existing utilities shall be disconnected by the Company. Temporary service shall not be provided during construction.

Existing structures, utilities, and equipment that are designated to remain in place shall be protected from damage. All damaged structures and equipment shall be promptly repaired. Special attention shall be directed to the safety and protection of plant operating personnel and construction personnel engaged on the premises.

Razing and alteration activities performed on existing structures shall be performed in accordance with applicable regulations and ordinances. Paint materials on existing surfaces may contain lead, chromate, or other objectionable compounds. The blasting, torching, or cutting of the existing materials may expose workmen and bystanders to hazardous wastes and vapors. When such materials and compounds are located, they shall be handled in accordance with the applicable regulations and ordinances.

The Contractor shall use protection measures to prevent concrete dust and rubble from entering the water.

2A.4 RAZING. Razing methods shall be in accordance with all codes, ordinances, and requirements of the governing authority; shall be acceptable to the Company; and shall ensure the safety of persons, equipment, and existing structures.

Materials and equipment designated to be salvaged for reuse or turned over to the Company for future use shall be removed without damage.

Materials not salvaged for reuse or turned over to the Company shall be disposed of in accordance with the article titled SALVAGE AND RUBBISH.

2A.5 CONCRETE MODIFICATIONS. Concrete removal shall be planned and executed to proceed without delay. Vibration, dust, and rubble shall be kept to a minimum. Sections of concrete designated to be removed shall have the outline of the section scored on the exposed surface with a concrete or masonry saw. Score lines shall be straight and parallel or perpendicular to the major axis of the structure, unless otherwise designated by or acceptable to the Company.

Concrete rubble to be placed into intake area shall have a maximum size of 12 to 24 inches square.

Exposed broken and irregular surfaces of remaining concrete shall be finished to match comparable adjacent exposed concrete surfaces unless indicated otherwise on the drawings.

Razed concrete and other debris shall be removed from the site in accordance with the Removal Plan

article titled SALVAGE AND RUBBISH.

2A.6 MISCELLANEOUS METAL MODIFICATIONS. Razed metal materials shall be reused only if indicated on the drawings or as specified. Materials not designated or specified to be reused shall be disposed of in accordance with the article titled SALVAGE AND RUBBISH.

Welding shall be in accordance with the section titled STRUCTURAL STEEL AND MISCELLANEOUS METALS. No unauthorized welding shall be performed on existing structures. Paint shall be removed from the joint surfaces to be welded.

Cuts shall be neatly made and ground smooth. Weld metal remaining on existing steel after modifications shall be ground flush with the remaining surfaces.

2A.7 SALVAGE AND RUBBISH. Except for materials or equipment designated to be retained, all razed materials, debris, and rubbish shall become the property of the Contractor and be promptly removed from the site and legally disposed of in accordance with all applicable laws, ordinances, rules, and regulations.

2A.8 CLEANUP. At the completion of razing work, the entire razed area shall be cleaned of all construction related debris to the satisfaction of the Company.

Section 2B - DEWATERING

2B.1 GENERAL. This section covers Contractor designed, furnished, installed, maintained, and operated dewatering systems for all cofferdams and excavations required for spillway modifications covered under these specifications.

Should pumping systems be required, selection of pumping capacity for dewatering systems furnished for the upstream cofferdam shall be made by the Contractor.

The Contractor shall notify the Company prior to beginning dewatering of any cofferdam or excavation.

Section 2C - CLEARING, GRUBBING, AND STRIPPING

2C.1 GENERAL. This section covers clearing, grubbing, and stripping for the cofferdam installation and temporary road construction on the north bank.

2C.2 CLEARING AND GRUBBING. Clearing shall include clearing and removing all trees and stumps within the cofferdam and temporary road areas; the cutting and removal of all brush, shrubs, debris, and all vegetation to approximately flush with the ground surface; and the disposal of all cuttings and debris. Mowing will be considered adequate for the cutting of light vegetation.

Grubbing shall include the removal and disposal of all stumps and roots larger than 2 inches in diameter, including matted roots regardless of size. Vegetation up to 2 inches in diameter shall be crushed, shredded, and incorporated with stockpiled topsoil materials.

Grubbing shall extend to a depth of 6 inches below the natural surrounding ground surface.

Equipment utilized in the clearing and grubbing work shall be kept within the limits of the areas.

Section 2D - COFFERDAMS

2D.1 GENERAL. This section covers materials and installation requirements for cofferdams.

The Contractor shall furnish and install complete cofferdam systems in accordance with the alignments and details indicated on the drawings.

The Company will obtain the permits for work to be completed in the water. The Contractor shall perform all work in accordance with all provisions of the permits and these specifications.

Any materials found not to be in compliance with these specifications shall be removed and replaced at the Contractor's expense.

The Contractor shall notify the Owner prior to beginning construction of any of the cofferdams.

Dewatering shall be as specified in Section 2B-DEWATERING.

2D.2 DRAWINGS AND DATA. Installation methods and schedule for cofferdam shall be provided in the Proposal.

The Contractor shall include in his proposal price the cost of cofferdam specified herein and indicated on the drawings. The Contractor may propose as an option, however, alternate cofferdam designs. The acceptance of optional cofferdam systems is at the discretion of the Owner. The design of any proposed cofferdam alternatives will be the responsibility of the Contractor.

2D.3 MATERIALS. Materials for cofferdam systems shall be as follows:

Earthen cofferdams

Rockfill material taken from Company's diversion dam plug.

2D.4 COFFERDAM CONSTRUCTION. Cofferdam systems shall be constructed at the locations indicated on the drawings. Construction shall be in accordance with the lines, grades, cross sections, and details indicated on the drawings.

Earthen cofferdams shall be constructed by placing, spreading, and compacting fill material. Compaction shall be provided by a minimum of 3 passes of earth moving equipment.

2D.5 COFFERDAM REMOVAL. All cofferdams shall be removed by the Contractor after their function is complete. All cofferdam and temporary road construction rockfill material shall be removed following completion. Materials shall be used onsite to create a Removal Plan

floodplain or be disposed of at an approved site off federal lands

All disturbed areas reestablished to their original contour and condition in accordance with
Section 2E - EROSION CONTROL.

Section 2E - EROSION CONTROL

2E.1 GENERAL. This section covers the furnishing of materials and equipment, and the performance of all operations in connection with establishing vegetation as indicated on the drawings or areas disturbed by the construction. All areas disturbed or newly created by the construction activity shall be seeded.

All disturbed areas shall be rough graded at project completion to match existing ground contours.

The Contractor shall not start erosion protection or preparatory work until notified by the Company and until excavation and trenching, backfill, embankments, rough grading, and surfacing are completed in the vicinity of the erosion protection work.

2E.2 MATERIALS. Materials and workmanship shall comply with the USDA-FS selections for seeding.

2E.3 TEMPORARY EROSION CONTROL. During the construction work, the Contractor shall provide silt fences, straw bales, or other devices to control erosion and to prevent fines from entering the river due to surface runoff from disturbed areas.

Section 3A - GROUTING

3A.1 GENERAL. These specifications cover materials, methods, and procedures for grouting. Grout shall be placed at location indicated on drawings

3B.2 MATERIALS. Materials shall be in accordance ATTACHMENT A (Flowable Fill).

ASTM C-618 Class F
AASHTO M-43-88

3A.2 PRELIMINARY REVIEW. The source and quality of concrete materials and the grout proportions proposed for the work shall be submitted to the Company for acceptance before awarding of contract. Complete certified reports covering the materials and proportions shall be prepared by an independent testing laboratory and submitted to the Company.

3A.2 PLACEMENT. A complete description of equipment, materials and methods used to install the grout shall be submitted to the Company for acceptance before awarding of contract.

Section 3B - CAST-IN-PLACE CONCRETE

3B.1 GENERAL. This section covers cast-in-place concrete and includes reinforcing steel, forms, finishing, curing, and other appurtenant work.

3B.2 MATERIALS. Materials shall be in accordance with the following requirements. Acceptable products and manufacturers are listed with the materials below. Products of other manufacturers may be used if acceptable to the Company:

Cement	ASTM C150, Type I or II.
Fine aggregate	Clean natural sand, ASTM C33. Manufactured sand will not be acceptable.
Coarse aggregate	Crushed stone, washed gravel, or other acceptable inert granular material conforming to ASTM C33, class designation 4S.
Water	Potable and free from deleterious substances. Iron shall not exceed 0.25 ppm.
Admixtures	
Plasticizer	ASTM C494, Type A.
Grace	"WRDA 17."
Master Builders	"Pozzolith 300N."
Protex	"Procrete N."
Sika Chemical	"Plastocrete 161."
Cormix	"PSI-N."
Air-entraining agent	ASTM C260.
Grace	"Darex AEA."
Master Builders	"Micro Air."
Protex	"Air Entraining Solution."
Sika Chemical	"AER."
Cormix	"Airtite."

Plasticizing retarder

ASTM C494, Type D.

Grace
Master Builders
Protex
Sika Chemical
Cormix

"Daratard 17."
"Pozzolith 300 R."
"Procrete R."
"Plastocrete 161R."
"PSI-Retarder."

Reinforcing steel

Bars not otherwise
noted

ASTM A615, Grade 60. Yield
strength shall be determined by full size
bar tests.

Bar supports

CRSI Class 3 where in contact with
formed surfaces that will not be exposed.
CRSI Class 1 plastic protected for use in
contact with forms for exposed surfaces.

Form coating

Nox-Crete
L&M
Protex
Richmond

"Nox-Crete Form Coating"
"Debond."
"Pro-Cote."
"Rich Cote."

Polyethylene film

Fed Spec L-P-378D, Type I; 6 mil.

Epoxy bonding compound

Sika Chemical

"Sikadur Hi-Mod."

Membrane curing compound
and floor sealer

Styrene-acrylate or styrene-
butadiene; minimum 18 percent solids,
nonyellowing, unit moisture loss
0.039 g/sq cm maximum.

Cormix
ProSoCo
Procrete
Sonneborn
L&M

"Sealco 800."
"Kure and Seal."
"Cure-N-Seal 30."
"Kure-N-Seal 800."
"Dress & Seal."

Removal Plan

3B.3 PRELIMINARY REVIEW. The source and quality of concrete materials and the concrete proportions proposed for the work shall be submitted to the Company for acceptance before starting the concrete work. Complete certified reports covering the materials and proportions shall be prepared by an independent testing laboratory and submitted to the Company.

3B.4 LIMITING REQUIREMENTS. These requirements shall apply to concrete containing either the specified plasticizer or plasticizing retarder. A plasticizer or plasticizing retarder shall be included in all concrete mixes:

MIX CLASS TABLE

Mix Class	Usage	7 Day Strength (psi)	28 Day Strength (psi)	Coarse Aggregate Size, No.4 Sieve to	Minimum Max Cement Slump (lb/cu yd)	Max Water/Cement Ratio
I	Spillway Lower Wall	3,000	4,000	3/4"	4" 600	0.45

Total volumetric air content of concrete after placement shall be 5 percent with a tolerance of plus or minus 1 percent. Air-entraining admixture may be added to the concrete onsite to meet the tolerance criteria provided the mixing truck turns 50 revolutions after addition of the agent.

3B.5 BATCHING AND MIXING. Batching and mixing shall be performed at an acceptable ready-mix concrete supplier.
Ready-mixed concrete shall conform to ASTM C94, except as otherwise specified.

Truck mixers shall have a revolving drum and shall be equipped with a mixing water tank. The required amount of mixing water for the concrete mix shall be placed in the tank, unless the tank is equipped with a metering device that allows verification of the water amount added to each batch.

A delivery ticket shall be prepared for each load of ready-mixed concrete. A copy of each ticket shall be handed to the Company's site representative by the truck operator at the time of delivery. Tickets shall indicate the mix identification, the number of yards delivered, the quantities of each material in the batch, the outdoor temperature in the shade, the time the cement and water were added, and the numerical sequence of the delivery.

After the addition of water to the cement, truck mixers shall discharge concrete within 1-1/2 hours and before the mixing drum makes 300 revolutions. In hot weather, or under conditions contributing to quick stiffening of the concrete, a time less than 1-1/2 hours may be required by the Company. When a truck mixer is used for the complete mixing of the concrete, the mixing operation shall begin within 30 minutes after the cement has been added to the aggregates.

3B.6 PLACEMENT. The handling, depositing, and compacting of concrete shall conform

to these specifications. Adjustment may be made by the Company for weather or placement conditions.

The Company shall be notified at least 24 hours in advance of the times and locations where concrete is being placed.

Concrete shall not be pumped through aluminum or aluminum alloy pipe.

The space receiving concrete shall be completely clean and cleared of all debris and standing water, and the entire installation shall be acceptable to the Company before concrete is placed.

Surfaces encrusted with dried mortar or concrete from previous placement operations shall be cleaned before placing new concrete.

The surface of hardened concrete, upon which fresh concrete is placed, shall be rough, clean, and damp. Surface mortar shall be removed to expose the aggregate. The hardened surface shall be cleaned of all foreign substances, washed with clean water, and kept saturated during the 24 hour period preceding placement of fresh concrete.

Concrete shall be conveyed to the placement location by methods that prevent separation or loss of the ingredients.

Compaction shall be in accordance with ACI 301. Concrete shall be compacted using mechanical immersion type vibrating equipment.

3B.7.1 Hot Weather Concreting. Hot weather concreting shall be in accordance with the recommendations of ACI 305R. A water reducing retarder shall be added to the concrete mix when the placement temperature of the concrete exceeds 75 F.

At air temperatures of 90 F and above, special procedures shall be used to keep the concrete as cool as possible during placement and curing. The temperature of concrete shall not exceed 90 F when placed.

When the air temperature exceeds 95 F, membrane cured slabs shall be kept wet during the curing period.

3B.7.2 Cold Weather Concreting. Cold weather concreting shall comply with ACI 306.1.

Calcium chloride shall not be used.

3B.8 FINISHING UNFORMED SURFACES. Unformed surfaces shall be finished by screeding and floating.

Float finished and screeded surfaces shall be finished to provide a flat profile within 1/4 inch deviation as measured from a 10 foot straightedge. Trowel finished surfaces shall be finished to form a flat plane.

3B.9 CURING. Concrete shall be protected from loss of moisture for not less than 7 days after the concrete is placed.

3B.9.1 Water Curing. Water saturation of concrete surfaces shall begin immediately after initial set of the concrete. The rate of water application shall be regulated to provide complete surface coverage with a minimum of runoff. The concrete surface shall not be permitted to dry.

3B.9.2 Membrane Curing. Membrane curing compound shall be applied within 30 minutes after final finishing of the surface or as soon as possible after finishing without causing damage to the surface. Membrane curing compound shall be spray applied at a coverage of not more than 300 square feet per gallon. Membrane curing shall not be used on surfaces that will be covered at a later date with mortar, concrete, dampproofing, tile, or any coating.

3B.10 REPAIRING DEFECTIVE CONCRETE. Surface defects in formed concrete shall be repaired to the satisfaction of the Company within 24 hours. Concrete that is porous, honeycombed, or otherwise defective to a depth in excess of 1 inch shall be cut out and removed to sound concrete. Edges shall be square cut to avoid feathering. Cut surfaces shall be coated with epoxy bonding compound before the concrete is placed.

Defective concrete shall be replaced within 48 hours after the forms have been removed.

Concrete repair work shall not interfere with the curing of surrounding concrete. Mortar and concrete used in repair work shall be adequately cured and shall be finished to match adjacent surfaces.

Section 5A - STRUCTURAL STEEL AND MISCELLANEOUS METALS

5A.1 GENERAL. This section covers the materials, fabrication, and erection requirements for structural and miscellaneous metals.

Except as otherwise specifically noted on the drawings, or specified herein, all materials furnished and work performed in connection with miscellaneous metals work shall be in conformity with the AISC "Manual of Steel Construction, Allowable Stress Design, Ninth Edition."

5A.2 MATERIALS. Materials shall be new and undamaged and shall conform to pertinent AISC and ASTM standard specifications and the following requirements:

Welding electrodes

ASTM A36 steel,
ASTM A500 Grade B
steel, ASTM A441
steel, and ASTM A572
Grades 42 and 50
steel

Low-hydrogen types (for SMAW),
AWS D1.1-94 (as specified in
Table 4.1 "Matching filler metal
requirements"). Tensile strength
range of 70,000 psi minimum.

5A.3 CARBON STEEL WELDING. Except as otherwise specified, all welds, welding, and related operations for carbon steel shall be in conformity with the applicable provisions of the AWS Structural Welding Code, AWS D1.1-94 as issued by the American Welding Society.

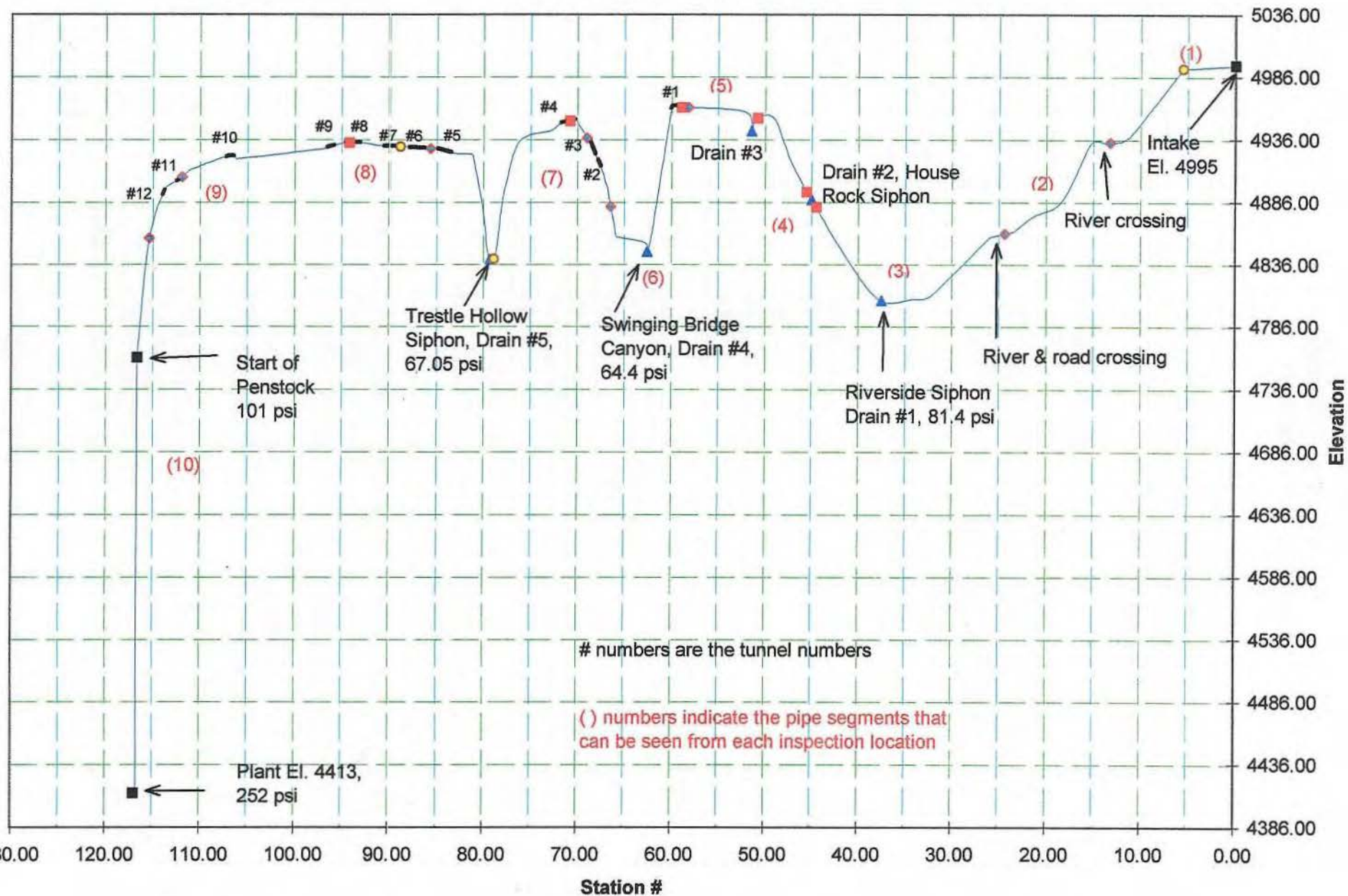
Except as otherwise specified, welding shall be performed using only those joint details and welding procedures which are prequalified in accordance with the referenced AWS code.

Welds that are not dimensioned on the Engineer's drawings shall be sized to develop the full strength of the least strength component involved in the connection.

Components to be welded shall be accurately positioned and shall be rigidly secured during welding.

5A.5 ERECTION. Metal materials shall be erected in accordance with AISC, the Engineer's drawings, the erection drawings, and these specifications.

American Fork Flowline Profile



— Elevation ■ Start/End ▲ Drain Valve ■ Air/Vac ◆ Expansion ● Coupling — Tunnels

EXHIBIT A
American Fork Removal Project
Flowline Retirement Plan

STATIONS (Approx.)	LENGTH (feet)	DESCRIPTION	RETIREMENT PLAN	ITEM
0+00 - 5+00	500	Partially exposed	Grout fill and cap ends	5a
5+00 - 15+00	1000	Partially exposed	Remove and cap ends, remove any remaining wood flowline	5b
22+93 - 25+97	304	Partially exposed and crosses river	Remove and cap ends	5b&5c
26+40 - 30+00	360	Under State Highway 92	Grout fill and cap ends	5a
37+52 - 37+72	20	Near drain #1	Remove and cap ends	5b
37+52	60	Drain #1	Remove pipe, drain valve and cap both ends	5b
45+80 - 46+55	75	Partially exposed east of repair area (W?)	Remove and cap ends	5e
43+80 - 45+80	200	Between expansion joints (W) Repaired area	Remove and cap ends	5d
50+76	75	6" air vent pipe near #3 drain (W)	Remove	5d
51+45	-	#3 valve stem and protector pipe (W)	Remove	5d
51+45	50	Along cribbing section (P)	Remove top section of cribbing, pipe and cap both ends	5e
60+43	10	6" air vent pipe above tunnel #1 (P)	Remove	5e
60+43 - 62+10	167	Partially exposed (P)	Cover area with vegetation	5e
65+82 - 68+00	218	Fully exposed thru Tunnel #2 (P)	Remove pipe and cap ends, remove old wood at entrance	5d
68+00 - 68+50	50	Fully exposed between tunnels #2 and #3 (P)	Remove and cap ends	5d
68+96 - 70+50	154	Fully exposed pipeline between #3 and #4 tunnels (P)	Remove pipe, pipe cables, center support and cap both ends	5d
72+94 - 73+24	30	Partially exposed (P)	Remove and cap ends	5e
74+00 - 74+40	40	Partially Exposed (P)	Remove and cap ends	5d
78+90 - 79+35	46	Fully exposed pipeline crossing Tressel Hollow (P)	Remove and cap ends (leave cribbing in-place)	5d
85+15 - 86+35	120	Fully exposed (W)	Remove and cap ends	5d
88+50 - 89+55	105	Fully exposed (W)	Remove and cap ends (leave rock wall in-place)	5d
94+61	70	Air vent pipe (W)	Remove	5e
94+61 - 95+21	60	Partially exposed (W)	Remove and cap ends	5e
94+65	30	6" air vent pipe (W)	Remove	5d

EXHIBIT A
American Fork Removal Project
Flowline Retirement Plan

111+16 - 112+00	84	Fully exposed (W)	Remove pipe, center support and cap ends	5d
113+95 - 116+17	222	Fully exposed (W)	Remove and cap end	5d

Total 4,050 Amount of Pipe to be removed

(W) - Lone Peak Wilderness Area (USFS)

(P) - Timpanogos Cave National Monument Area (NPS)

Subject:

ATTACHMENT A

Section:

FLOWABLE FILL

605

**605.1
DESCRIPTION**

605.1.1 Specialized concrete designed to fill around small conduit (type A) and large pipe (type B).

605.1.2 Furnish and place Flowable Fill, type A or B as shown.

**605.2
MATERIALS**

ASTM C-618

Class F

AASHTO M-43-88

605.2.2 Proportion Type A mix as follows (2.0 m³ min.):

605.2.2.1 40% coarse aggregate — Use AASHTO #7 aggregate.

605.2.2.2 60% concrete sand

605.2.2.3 95 kg cement

605.2.2.4 28 kg type F Fly Ash

605.2.2.5 Calcium chloride 2% max or an approved accelerator

605.2.2.6 Slump 130 to 170 mm.

605.2.3 Proportion Type B flowable fill as follows (2.0 m³ min.):

605.2.3.1 Type B mix — Use AASHTO #68 aggregate with 0-15% passing the 75 mm sieve, and concrete sand.

605.2.3.2 28 kg cement/m³ (minimum)

605.2.3.3 94 kg type F Fly Ash/m³

605.2.3.4 Accelerator 2% maximum if calcium chloride; other approved accelerators as recommended by manufacturer

**605.3
CONSTRUCTION
REQUIREMENTS**

605.2.3.5 Slump 130 to 250 mm

605.2.3.6 Maximum compressive strength 1725 kPa @ 28 days.

605.2.3.7 Minimum compressive strength 345 kPa @ 28 days.

605.3.1 Components

605.3.1.1 Combine all components except the calcium chloride or approved accelerator as follows: A minimum of 2 m³ from an acceptable batch plant. Add the calcium chloride or an approved accelerator at the job site within 60 minutes after initial batching and mix for 70 revolutions at the recommended RPM.

605.3.1.2 Place and vibrate the flowable fill.

605.3.2 Type

605.3.2.1 Type A flowable fill — Provide a minimum cure time of 3 hours.

605.3.2.2 Type B flowable fill placement: Discharge the fill from a ready mix truck by any reasonable means into the area to be filled. Bring the fill up to the bottom of the asphalt concrete unless otherwise shown.

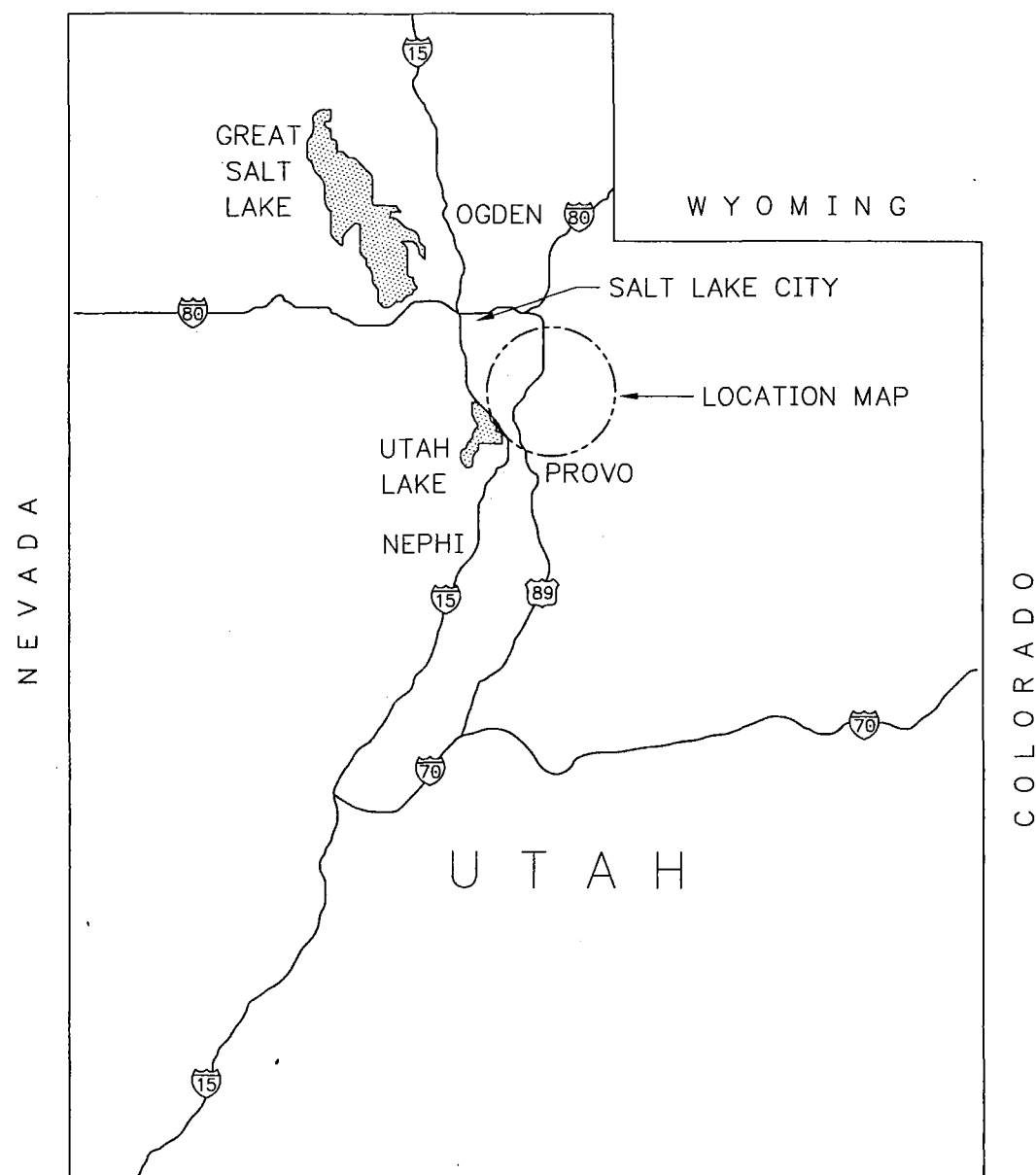
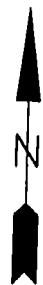
**605.4
METHOD OF
MEASUREMENT**

605.4.1 General

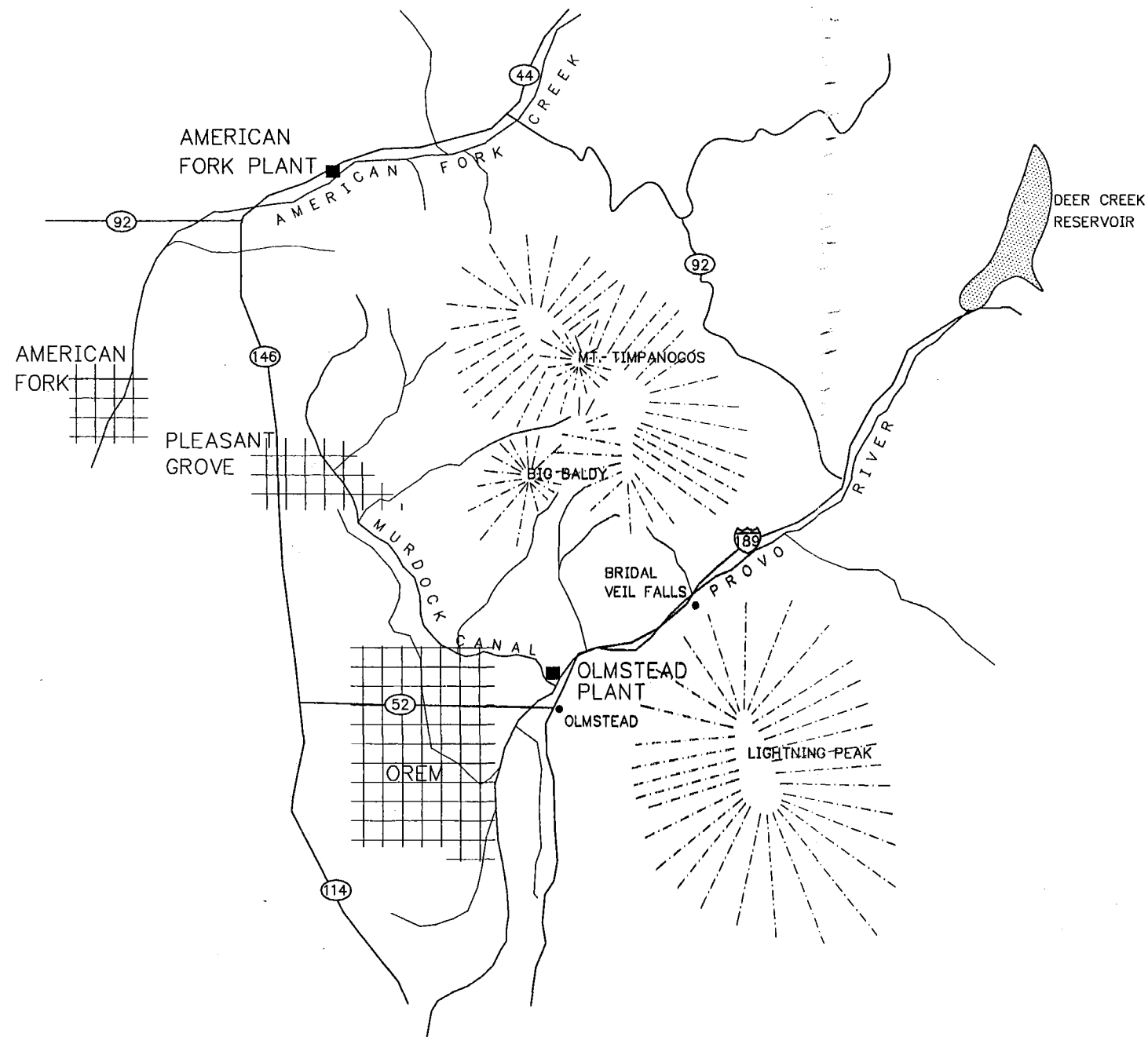
605.4.1.1 Type A flowable fill — will not be measured.

605.4.1.2 Type B flowable fill — by the cubic meter, in place.

605.4.1.3 Type B excavated area: The measurement will be limited to vertical planes 0.6 m wider than the outside pipe diameter.



VICINITY MAP
N.T.S.



GENERAL LOCATION
SCALE 1"=6 MILES

AMERICAN FORK HYDRO PROJECT
VICINITY MAP AND
GENERAL LOCATION



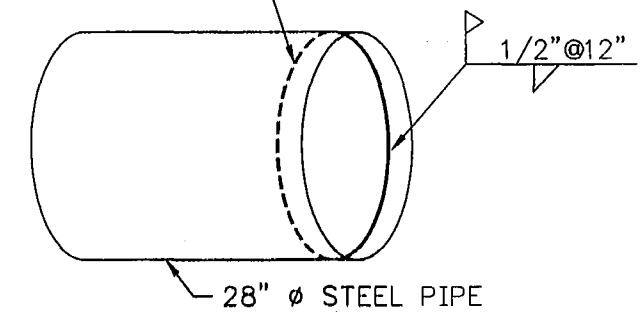
HYDRO

1/13/03	ENG MFC
SCALE: AS NOTED	DR MFC

FIGURE 1

*FULLY BURY END OF CAPPED PIPE

1/4" STEEL PLATE
WELDED IN PIPE



28" ϕ STEEL PIPE

PIPE CAP DETAIL

AMERICAN FORK HYDRO PROJECT
PIPE CAP DETAILS

PACIFICORP

HYDRO

1/13/03

ENG MFC

SCALE: NONE

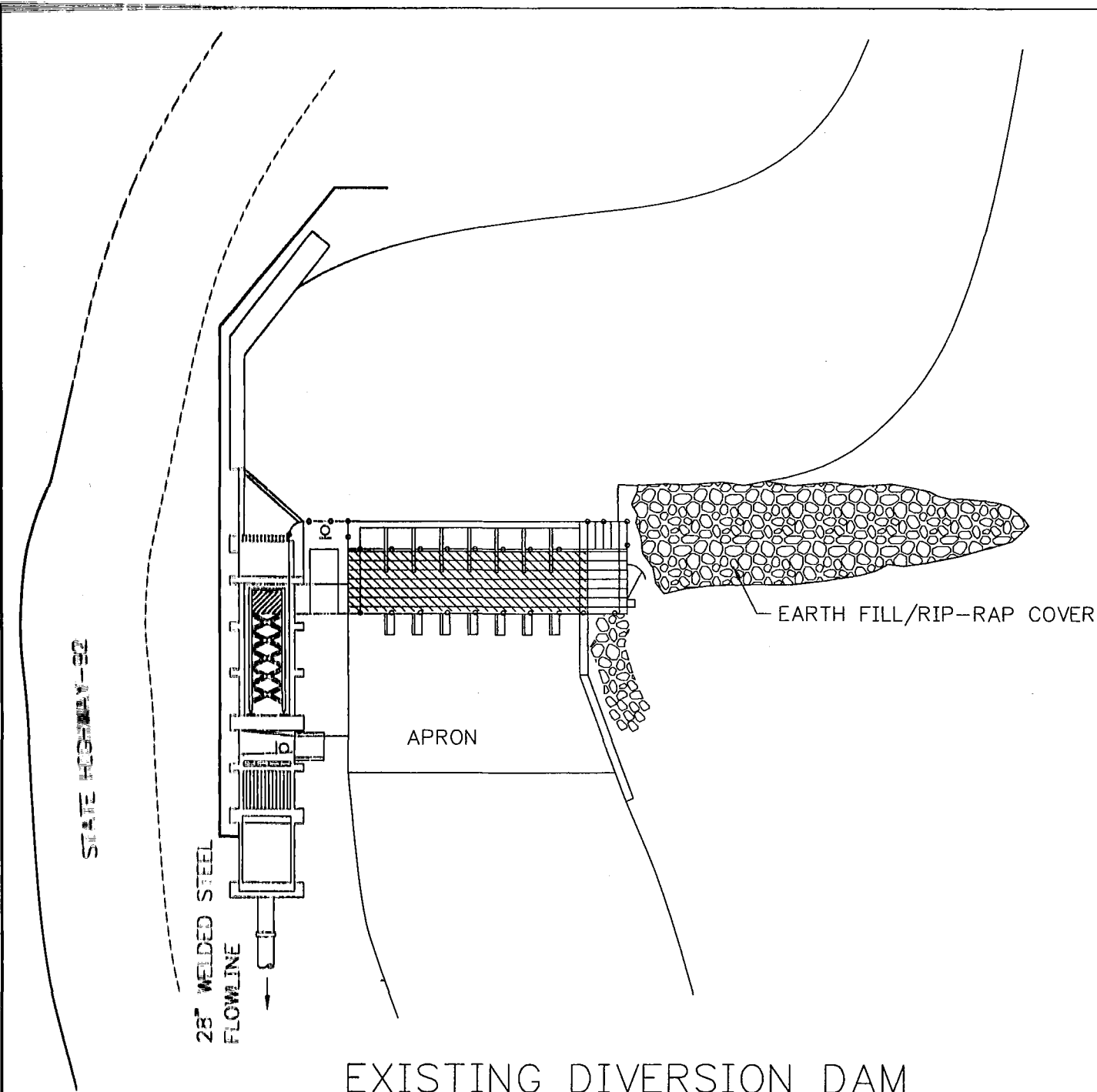
DR MFC

FIGURE 2

ORDER REVISED 02/14/04 M.T.R.

PLOT SCALE: 1 = 1

BAD NO



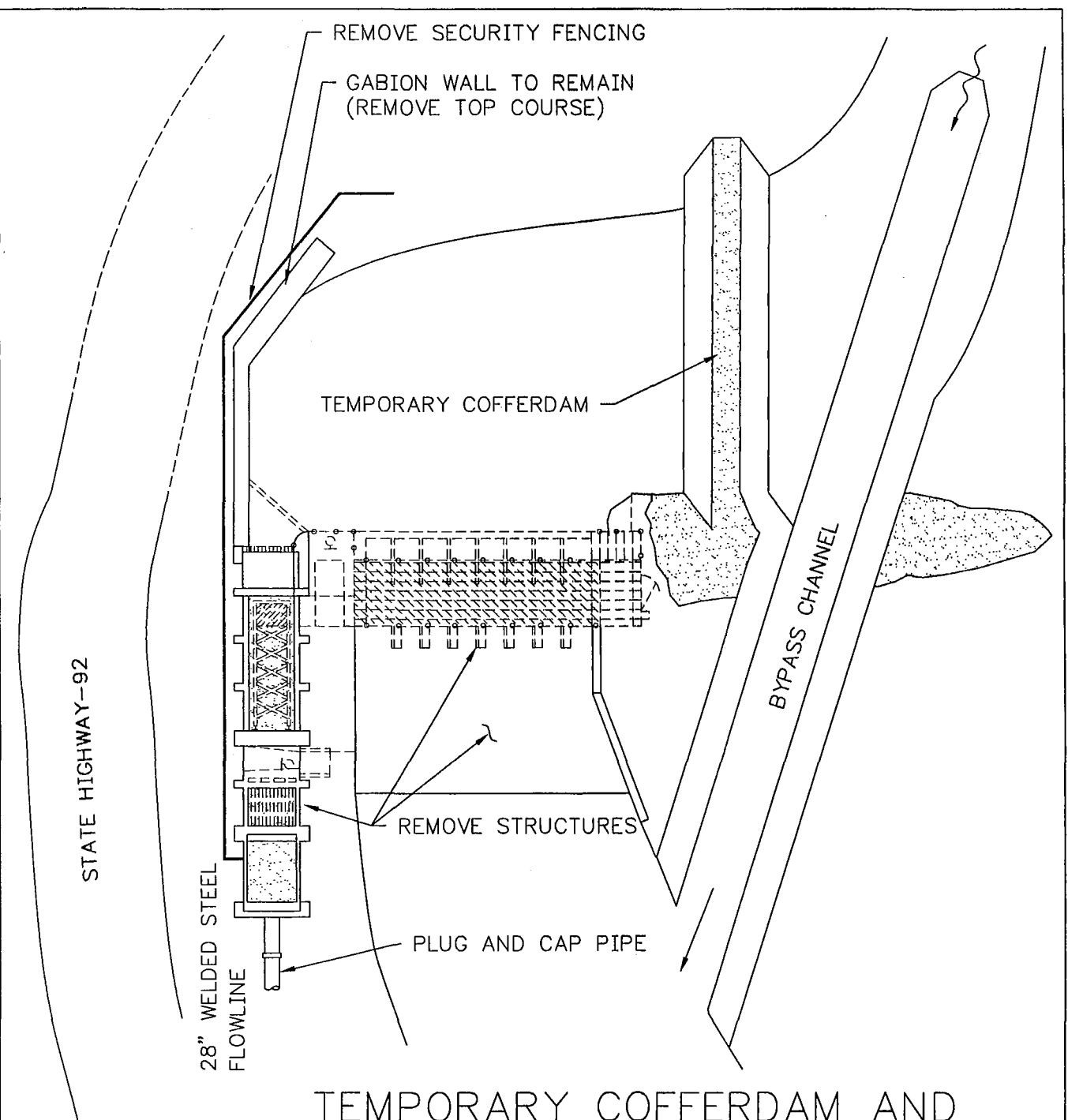
EXISTING DIVERSION DAM AND INTAKE STRUCTURE



DRAWING IS FOR REFERENCE ONLY
ALL DIMENSION SHOULD BE FIELD VERIFIED

CAD No:

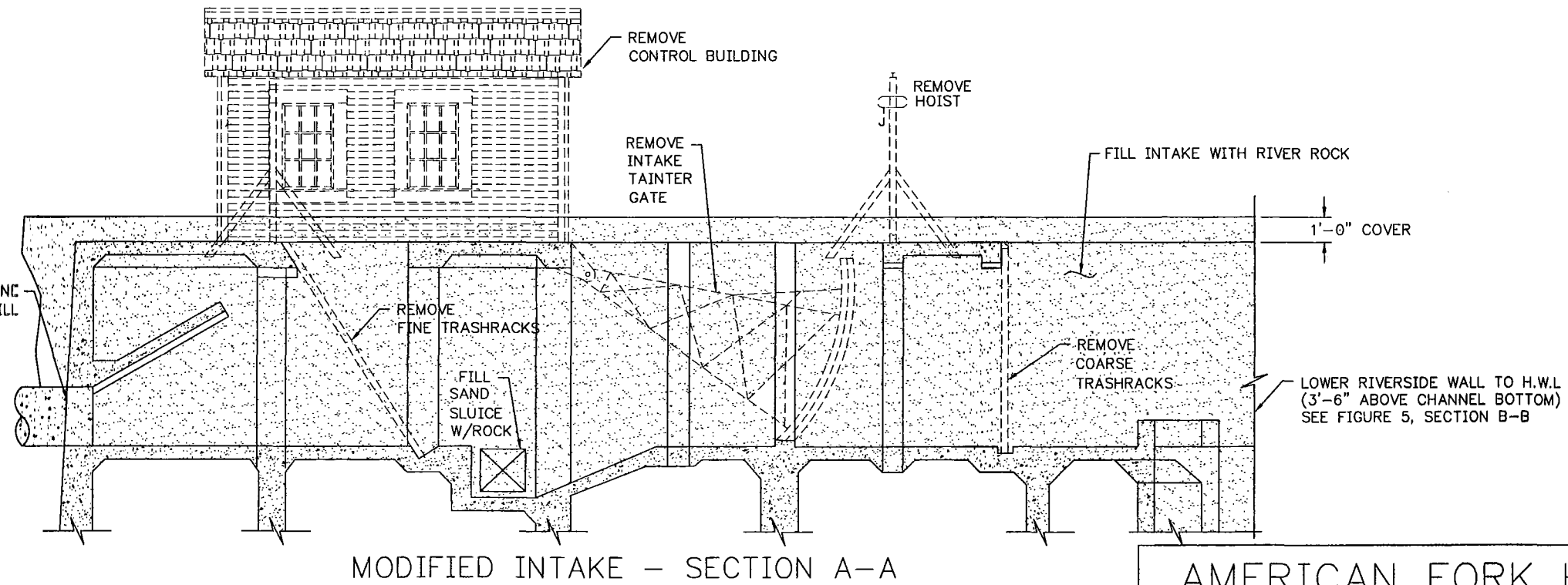
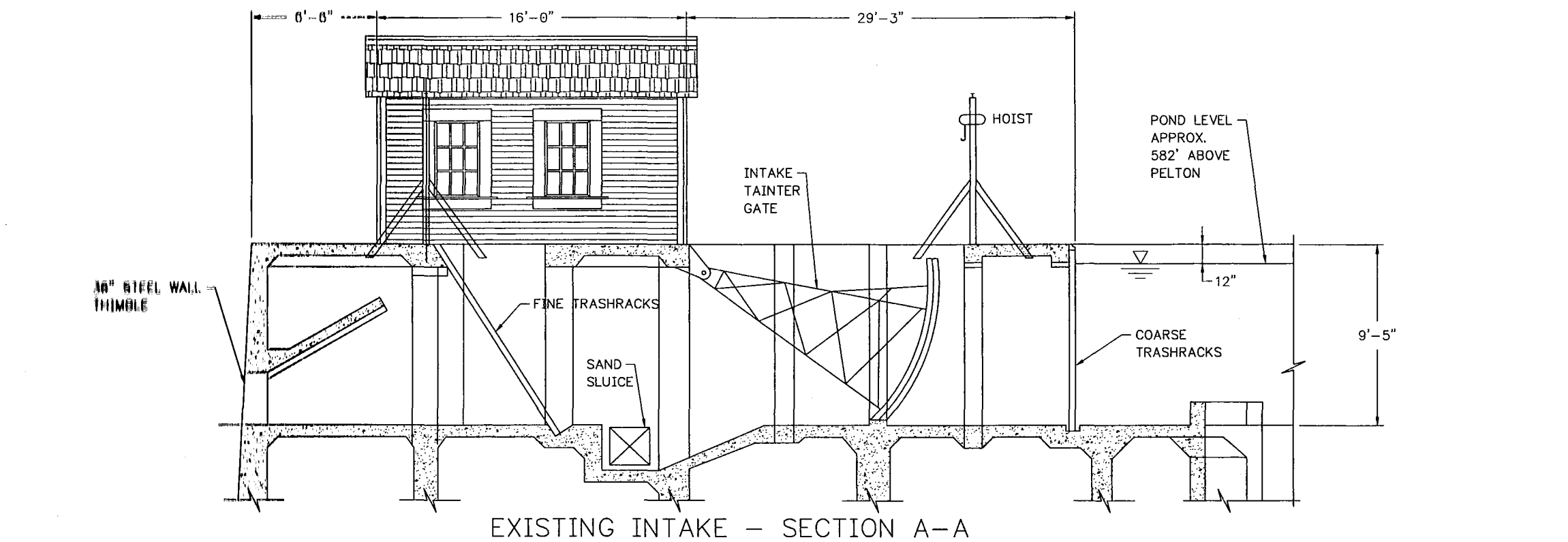
PLOT SCALE: 1 = 1



TEMPORARY COFFERDAM AND DIVERSION DAM REMOVAL

AMERICAN FORK HYDRO PROJECT
TEMPORARY COFFERDAM,
DIVERSION DAM REMOVAL AND
INTAKE MODIFICATIONS

		HYDRO	
1/13/03	ENG	MFC	FIGURE 3
SCALE: NONE	DR	MFC	



NOTE:
DRAWING IS NOT TO SCALE
ALL DIMENSION SHOULD BE FIELD VERIFIED

AMERICAN FORK HYDRO PROJECT REMOVAL PROJECT INTAKE MODIFICATIONS

PACIFICORP

HYDRO

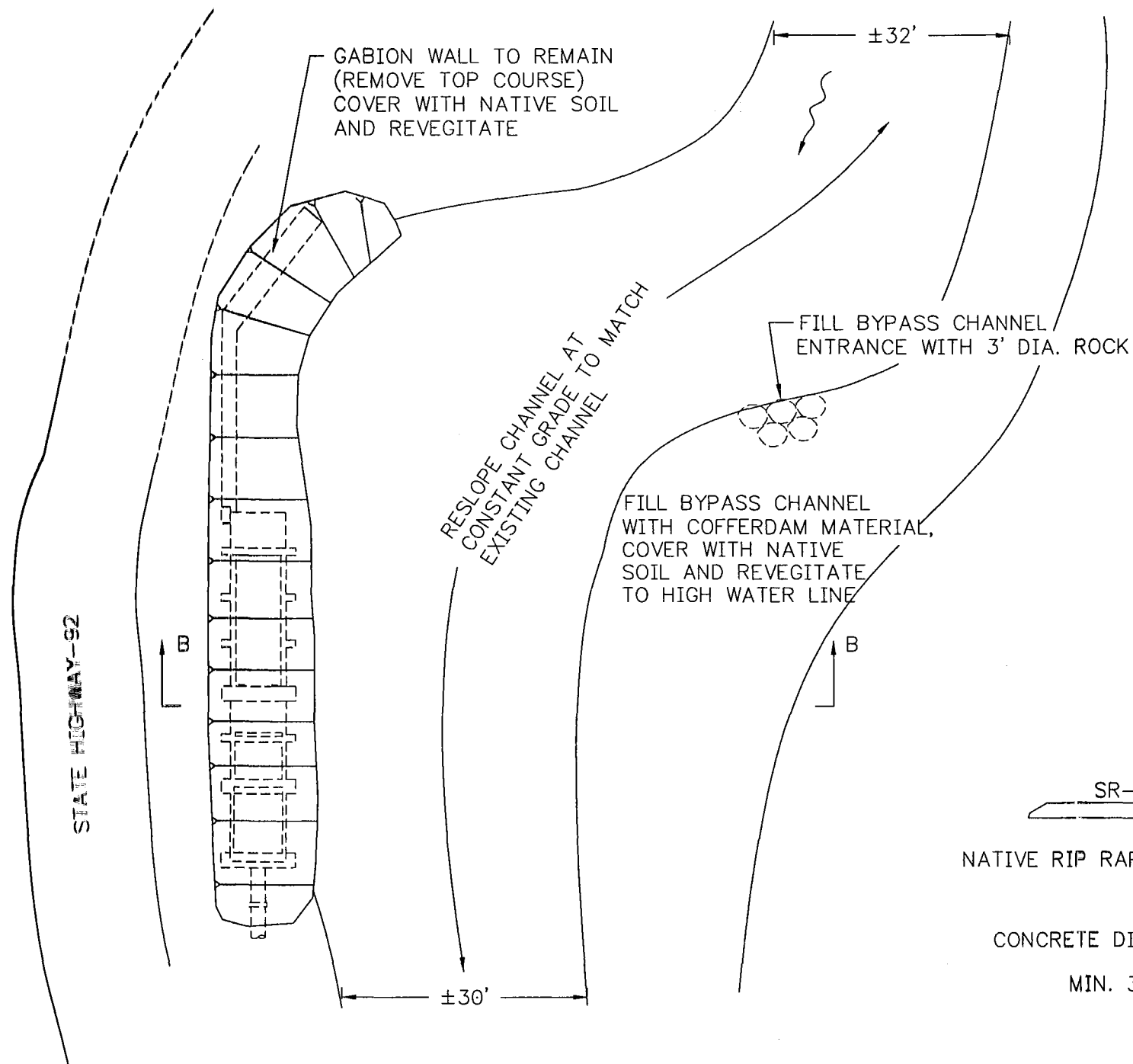
1/13/03	ENG	MFC
SCALE: NONE	DR	MFC

FIGURE 4

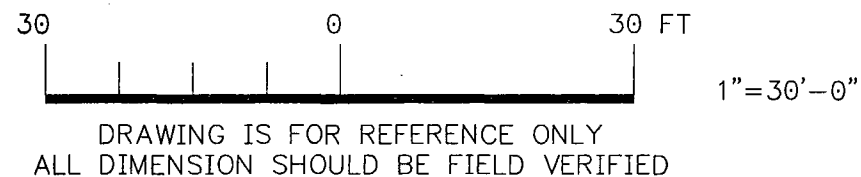
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PLOT SCALE: 1 = 1

BORDER REVISED 02/14/94 M.T.R.

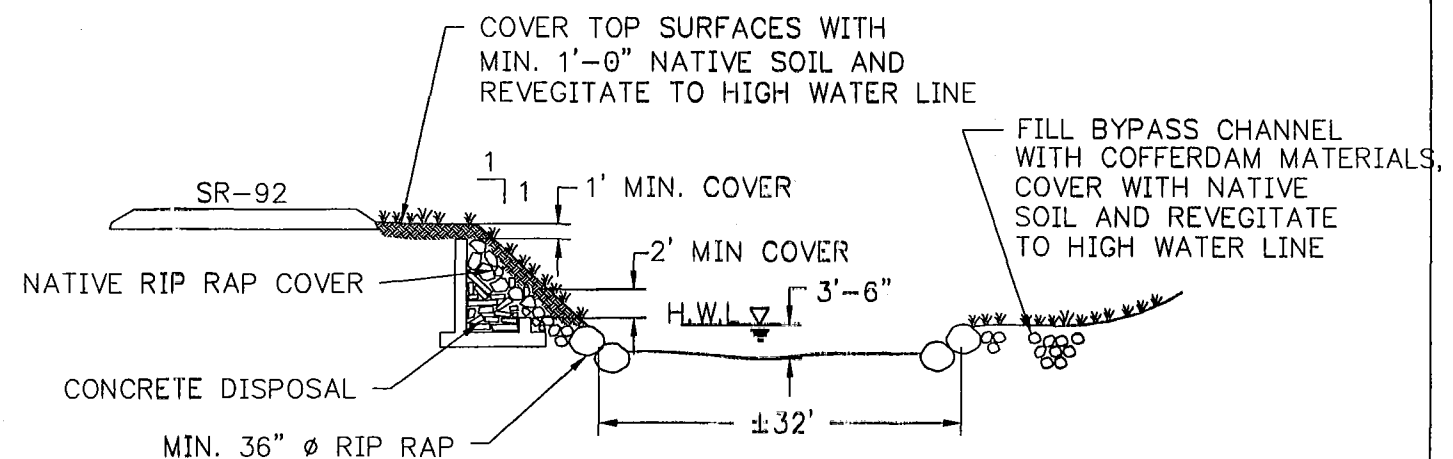


NEW STREAM LAYOUT



NOTES:

1. CONCRETE BETWEEN 12 TO 24 INCHES TO BE USED AS THE CORE OF A RIP RAP EMBANKMENT.
2. EXCESS CONCRETE MUST BE DISPOSED OF AT A APPROVED SITE OFF FEDERAL LANDS.
3. ANY REBAR OR METAL PROTRUDING FROM CONCRETE SHALL BE CUT OFF FLUSH WITH SURFACE.
4. RIP RAP SHALL BE MIN. 36 INCHES DIAMETER TO 3'-6" VERTICAL DISTANCE ABOVE RIVER CHANNEL.
5. SEDIMENT FROM BEHIND DAM MAY BE USED FOR ON SITE RESTORATION.
6. CONTRACTOR SHALL STOCK PILE 30 CUBIC YARDS OF RIP RAP (36" Ø MIN.) AT USFS PARKING LOT NEARBY FOR FUTURE USE.



TYPICAL SECTION B-B

AMERICAN FORK HYDRO PROJECT
DAM REMOVAL AND
CHANNEL RESTORATION



HYDRO

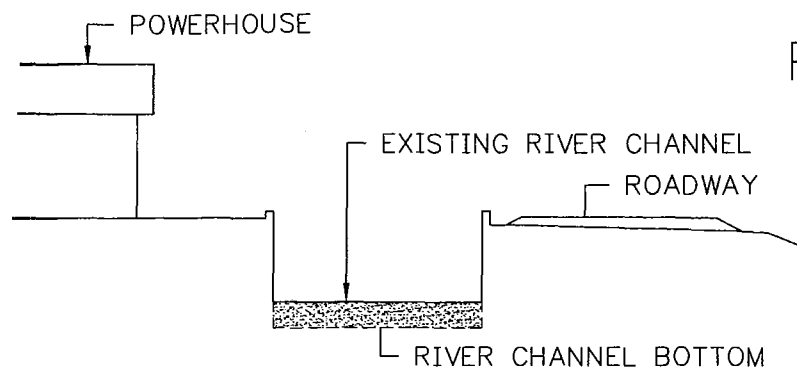
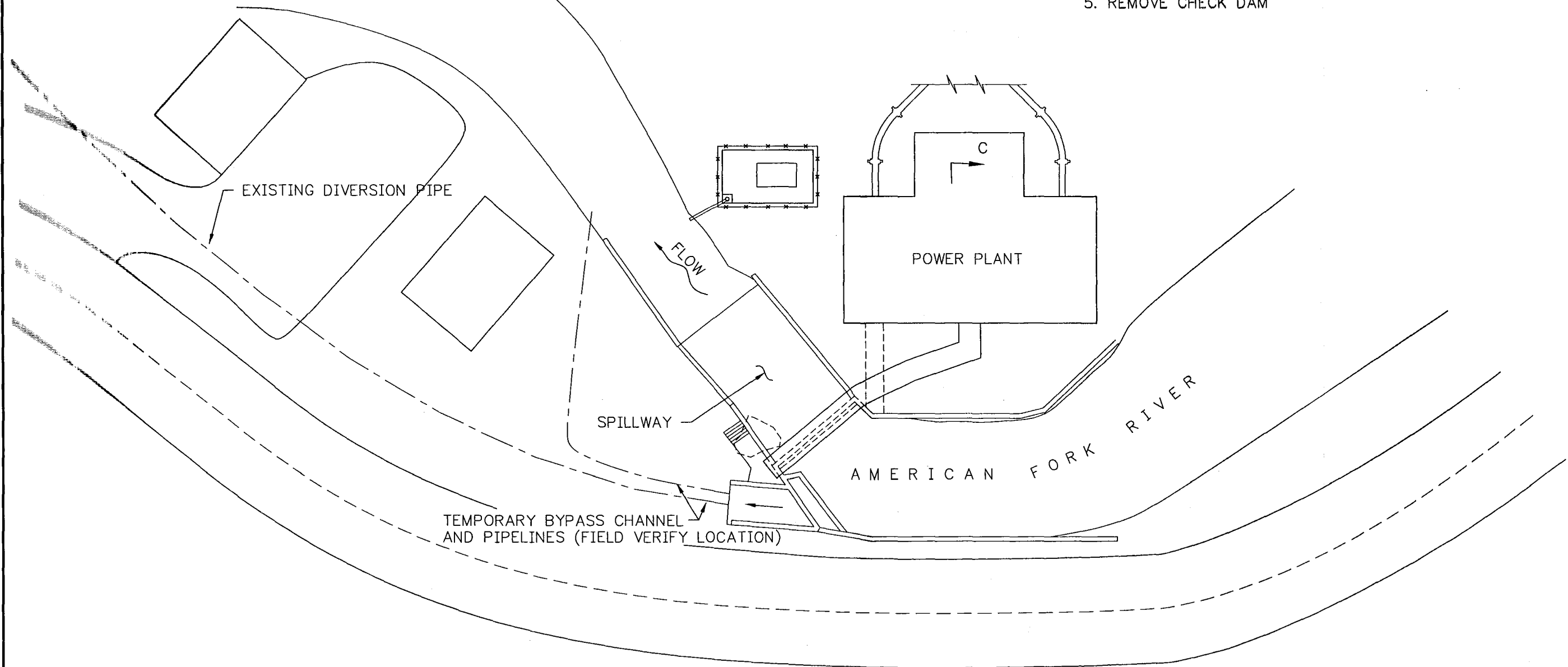
1/13/03 ENG MFC
SCALE: NONE DR MFC

FIGURE 5

CONSTRUCTION SEQUENCE:

1. INSTALL BYPASS PIPE AND DIVERT WATER
2. CONSTRUCT CHECK DAM
3. REMOVE FACILITIES
4. FINISH SLOPES AND EXCAVATE FINAL CHANNEL
5. REMOVE CHECK DAM

30 0 30 FT
1"=30'-0"



SECTION C-C

POWERHOUSE SITE PLAN

SCALE 1"=30'-0"

AMERICAN FORK HYDRO PROJECT
POWERHOUSE FACILITIES REMOVAL
EXISTING CONDITIONS
PLAN AND SECTION



HYDRO

1/13/03	ENG	MFC
SCALE: AS NOTED	DR	MFC

FIGURE 6

BACK TO RIVER

REMOVE GARAGE

EXISTING DIVERSION PIPE
(REMOVE AFTER CONSTRUCTION)

REMOVE HOUSE

REMOVE RETAINING WALL

REMOVE FENCING

REMOVE TRANSFORMER AND PAD

POWERHOUSE
SEE NOTE 1 AND 2

INSTALL CHECK DAM,
REMOVE AND DISTRIBUTE
AFTER CONSTRUCTION

POWER PLANT

AMERICAN FORK RIVER

10-26 CFS

SEE NOTE 3 FOR UNIT DISCHARGE
REMOVE EXISTING FOOT BRIDGE

BYPASS PIPE

TEMPORARY BYPASS CHANNEL
AND PIPELINES (REMOVE AFTER
CHANNEL CONSTRUCTION IS
COMPLETE)

REMOVE CONCRETE SPILLWAY
AND DIVERSION DAM

SR-92

30 0 30 FT
1"=30'-0"

NOTES:

1. REPAIR AND REFURBISH DETERIORATED OR EXPOSED WOODWORK, INCLUDING ANY LEAD PAINT REMOVAL AND REPAINT POWERHOUSE.
2. REMOVE ALL EQUIPMENT UNLESS OTHERWISE SPECIFIED.
3. PLUG UNIT DISCHARGE WITH A REINFORCED CONCRETE WALL.
4. REMOVE ALL FENCING, HAND RAILING, AND CONCRETE WALKWAY.
5. INSTALL A PRECAST TOILET BUILDING AT LOCATION DETERMINED BY PACIFICORP IN CONSULTATION WITH THE USES.
6. INSTALL A FOOT BRIDGE THAT MEETS AMERICANS DISABILITIES REQUIREMENTS AT LOCATION DETERMINED BY PACIFICORP IN CONSULTATION WITH THE USES.
7. REMOVE SEPTIC SYSTEM (VAULT AND DRAIN LINES) AND EXISTING WATER LINES.

POWERHOUSE SITE PLAN

SCALE 1"=30'-0"

AMERICAN FORK HYDRO PROJECT
POWERHOUSE FACILITIES REMOVAL
CHECK DAM AND BYPASS PIPE
PLAN AND SECTION

PACIFICORP

HYDRO

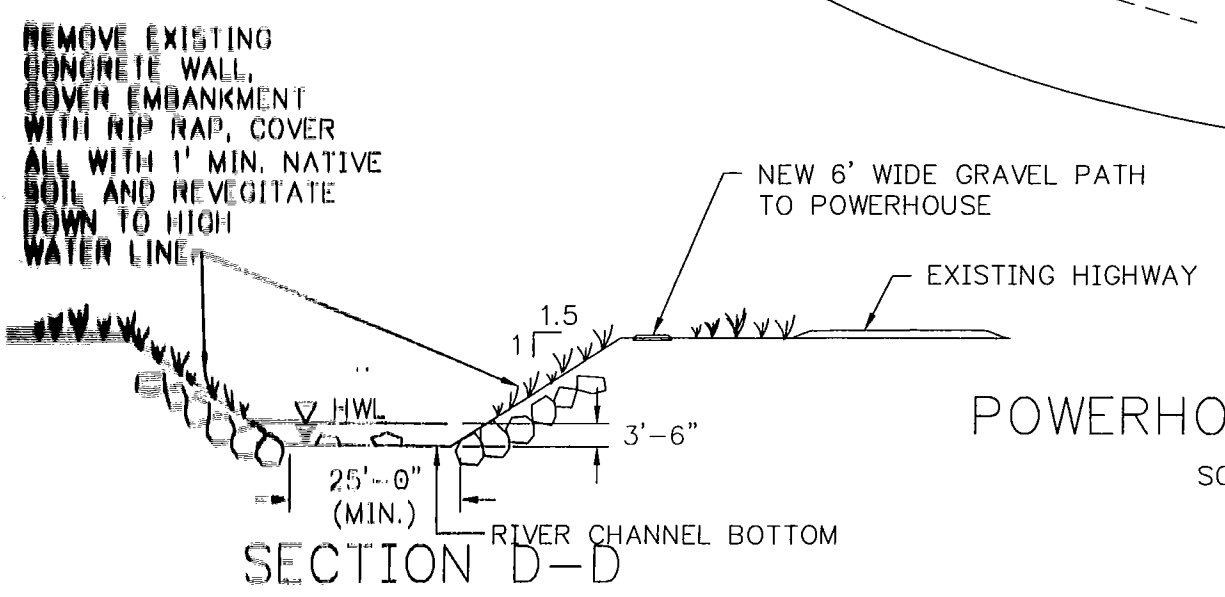
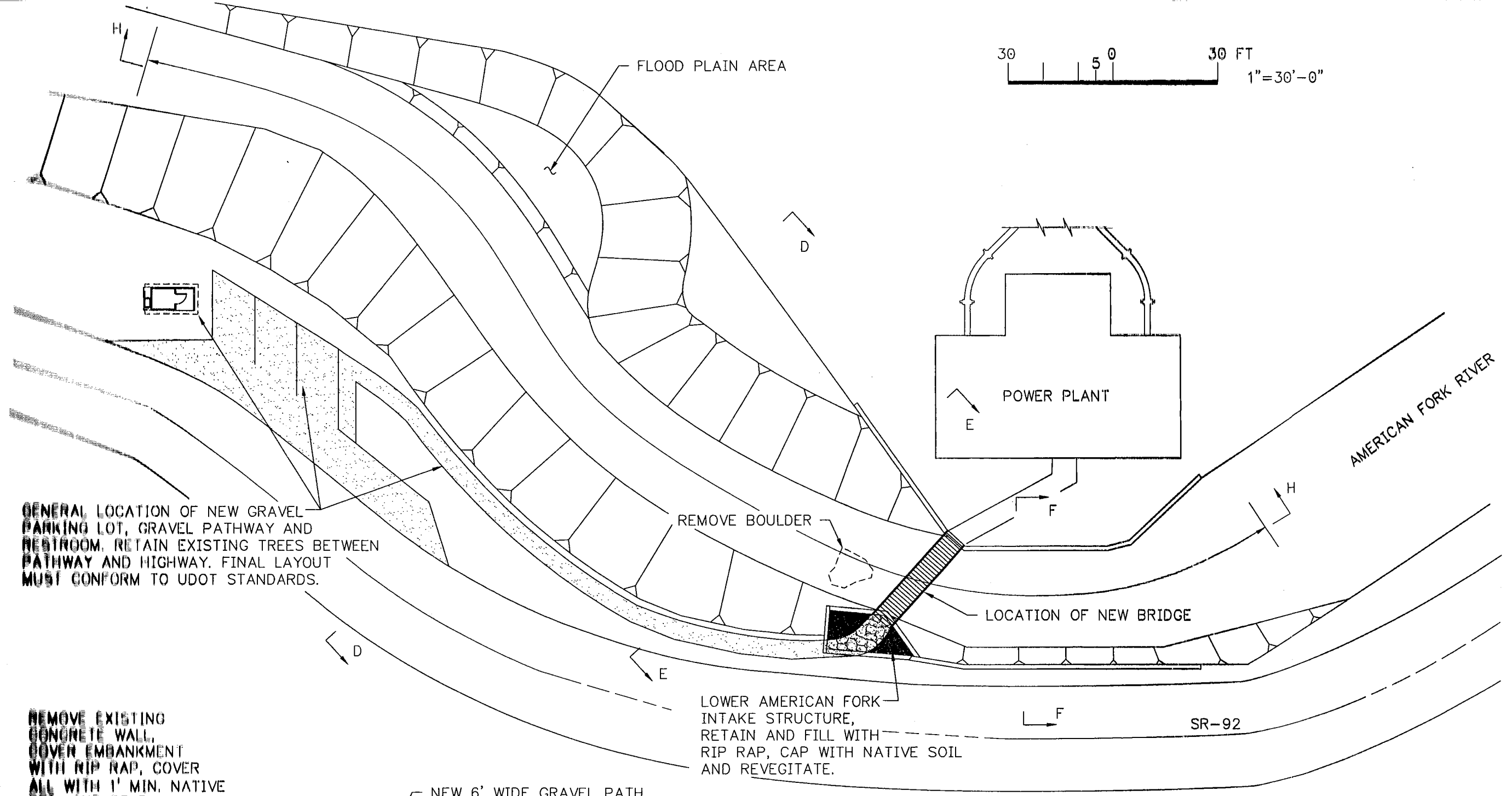
1/13/03

ENG MFC

SCALE: AS NOTED

DR MFC

FIGURE 7

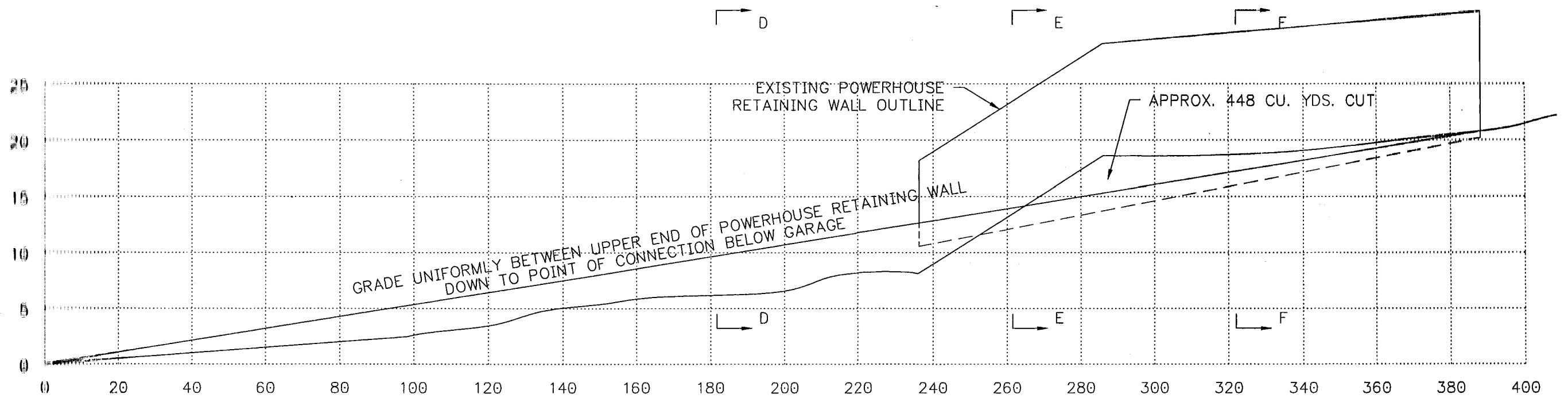


POWERHOUSE SITE PLAN
SCALE 1"=30'-0"

AMERICAN FORK HYDRO PROJECT POWERHOUSE FACILITIES REMOVAL PROPOSED FINAL LAYOUT PLAN AND SECTION		
PACIFICORP		HYDRO
1/13/03	ENG MFC	FIGURE 8
SCALE: AS NOTED	DR MFC	

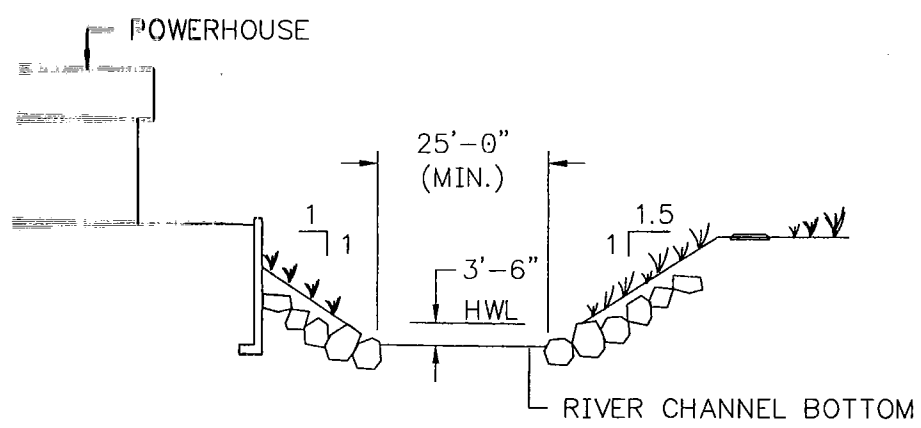
BAD No:

PLOT SCALE: 1 = 1

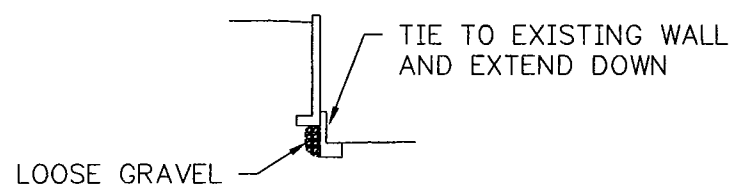


SPILLWAY SECTION H-H

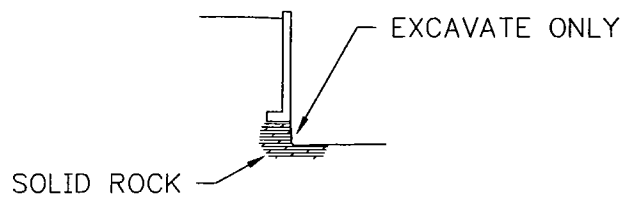
HORIZONTAL SCALE 1"=30'-0"
VERTICAL SCALE 1"=10'-0"



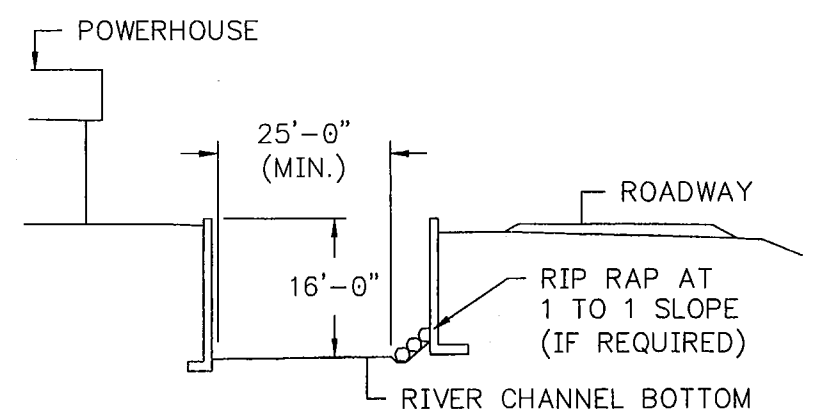
SECTION E-E



OPTION 1



OPTION 2



SECTION F-F



AMERICAN FORK HYDRO PROJECT POWERHOUSE FACILITIES REMOVAL PROPOSED FINAL LAYOUT PLAN AND SECTION		
PACIFICORP		HYDRO
1/13/03	ENG MFC	FIGURE 9
SCALE: AS NOTED	DR MFC	

APPENDIX B
REPRESENTATIVES OF THE PARTIES

PacifiCorp:

William Eaquinto
Vice President, Hydro Relicensing
PacifiCorp
825 N.E. Multnomah
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Phone: (503) 813-5730
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Director, Hydro Resources
PacifiCorp
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United States Fish and Wildlife Service:

Field Office Supervisor, Utah Field Office
U.S. Fish and Wildlife Service
2369 W. Orton Circle, Ste. 50
West Valley City, Utah 84119
Phone: (801) 975-3330
Fax: (801) 975-3331

with copy to:

Regional FERC Coordinator
U.S. Fish and Wildlife Service
P.O. Box 25486
Denver Federal Center
Denver, Colorado 80225
Phone: (303) 236-7400
Fax: (303) 236-0027

National Park Service:

Superintendent
Timpanogos Cave National Monument
RR 3, Box 200
American Fork, Utah 84003
Phone: (801) 756-5239
Fax: (801) 456-5661

with copy to:

Regional Director
Intermountain Region
National Park Service
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Denver, Colorado 80225
Phone: (303) 969-2500
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USDA Forest Service:

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Intermountain Region
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8236 Federal Building
125 South State
Salt Lake City, Utah 84138
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American Fork Hydroelectric Project Settlement Agreement

Utah Division of Wildlife Resources:

Director
Utah Division of Wildlife Resources
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with copy to:

Doug Sakaguchi
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Utah Department of Transportation:

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Director, Region 3
Utah Department of Transportation
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Utah State Historic Preservation Office:

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State Historic Preservation Office
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State Historic Preservation Office
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Utah Council of Trout Unlimited:

Director, Utah Water Project
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American Fork Hydroelectric Project Settlement Agreement

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American Whitewater

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