Solicitation Number:
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US Army Corps
of Engineers ®
New England District

Paint Gate Chamber Equipment

Colebrook River Lake Dam, Colebrook, Connecticut

Construction Solicitation and Specifications

February 2026

February 11, 2026

PAINT GATE CHAMBER EQUIPMENT
Colebrook River Lake Dam
Colebrook, Connecticut
STATEMENT OF WORK
February 11, 2026

A. General Description of the Work

1. Location and Background of Project: Colebrook River Lake is located on the West Branch of the Farmington River in Colebrook, Connecticut, and is a part of a network of flood control dams on tributaries of the Connecticut River. Construction of the dam started in May 1965 and was completed in June 1969.

2. Description of Work: The general description below is given to indicate the approximate scope of this project only. It does not limit the work required under the project drawings and specifications.

The work of this project consists of preparation and painting various mechanical equipment items and related items in the gate chamber at Colebrook River Lake in Colebrook, Connecticut. Items to be prepared and painted are steel and include the bonnets, hydraulic piping, hydraulic cylinders, plumbing associated with the two sump pumps (not the sump pumps), the conduit pressure balancing pipe, the vertical float well pipe, air shafts, and one spiral staircase. The entire spiral staircase shall be painted including the portion outside of the gate chamber. Items not specifically included in the list above shall not be prepared and painted, The existing paint coatings on these items have partially failed, and there are areas of peeling, blistering, and rust.

Data pertaining to the paints used for the original coatings and subsequent coatings is not available, however, the Contractor shall assume that lead-containing paint was used for the original coatings and possibly the subsequent maintenance coatings and that lead concentrations are high (1.0 mg/cm² or 0.5% (5,000 ppm) or greater). Sampling and testing of the existing coatings for lead has not been performed.

Since paint coatings are assumed to be lead-based, the Contractor shall employ the required worker safety precautions. In addition, the work shall be performed entirely within the gate chamber, which is considered a permit-required confined space. The 5-ton winch hoist in the control tower will be available for use by the Contractor for lowering and raising equipment in the tower. The Contractor is responsible for pre- and post-use inspections for this crane if used during the prosecution of the work. The 22-ton crane on the roof of the control tower will not be available for Contractor use.

The Contractor is required to implement worker health and safety measures and environmental protection measures as required by these specifications and by applicable Federal, State of Connecticut, and local laws and regulations, including any applicable permits or licensing. Refer to Paragraph "D. Safety" of this Statement of Work and Section 09 97 02 PREPARATION AND PAINTING OF THE GATE CHAMBER EQUIPMENT for additional requirements.

The preparation work involves cleaning and preparation of all steel surfaces identified above. Solvent cleaning shall be performed to remove grease, dirt, and salt, followed by mechanical removal of large

or loose particles of paint or rust with a hammer or wire brush. Scraping, dry abrasive blasting, water blasting or other surface preparation methods able to remove sound intact paint from steel surfaces shall not be performed. Full containment is not required for this project, however, the Contractor shall collect all cleaning residue and particles resulting from hammering and wire brushing for disposal off-site in accordance with all applicable Federal, State of Connecticut, and local laws and regulations. Paint chips and other residue removed shall not remain on the project site.

The painting work involves the application of an epoxy primer/sealer product to all corroded areas and areas of paint loss. An overcoat product shall then be applied to the epoxy rust penetrating sealer and all other areas of existing intact paint prepared for painting. The overcoat product shall match the color of existing intact paint for ech item.

3. Time of Year Restrictions on the Work: There are no time of year restrictions for the work of this project other than temperature related limitations imposed by the paint products selected for use.

4. Flood Event Preparations: The Contractor shall note that dam operations involving gate closure and retention of flood waters during significant rainfall events may result in high pool levels for periods of time and operation of the dam for flood risk management purposes. It is possible that during these events access to the gate chamber by the Contractor will not be possible. These events may occur at any time during the calendar year. If such an event is imminent, the Contractor will be notified by the Contracting Officer 48 hours prior to a requirement to have all material, equipment, and personnel removed from the gate chamber and to perform additional work as directed by the Contracting Officer to prepare the work areas for flood risk management operations, and resulting in temporary postponement of the work of this project. In such cases, an equitable adjustment may be made to the contract.

5. Photographs: Attached to the specifications are photographs taken at the project site during a site visit during 2025. The photographs are intended to show the approximate conditions existing at the site, focusing on the condition of painted surfaces and the general configuration of tha space. Not all items to be painted are shown, and items shown are not generally shown in their entirety.. The Government does not guarantee that the conditions shown in the photographs will exist at the time of the performance of the work, and the Contractor is advised to make his own investigation of existing conditions.

B. Measurement and Payment

The Contractor must furnish within 30 days after the date of Notice to Proceed, and prior to the submission of its first partial payment estimate, a breakdown of its job pay item which will be reviewed by the Contracting Officer as to propriety of distribution of the total cost to the various accounts. Any unbalanced item as between early and late payment or other discrepancies will be revised by the Contracting Officer to agree with a reasonable cost of the work included in the item. This Contract cost breakdown will then be utilized as the basis for progress payments to the Contractor.

The Payment item for the work of this contract for which contract job payments will be made is listed in the Bidding Schedule and is described below. The job price payment made for this item shall constitute full compensation for furnishing all plant, labor, materials, and equipment, and performing any associated Contractor quality control, environmental protection, meeting safety requirements, tests and reports, and for performing all work required for which separate payment is not otherwise provided.

Submit originals of all field notes and all other records relating to Quantity Surveys, as appropriate. All costs for items of work, which are not specifically mentioned to be included in the job payment item shall be included in the listed job item.

a. Item Number 0001, "All Work".

All costs for labor, equipment, and materials for preparation and painting of gate chamber equipment in accordance with the Statement of Work and Specification Section 09 97 02 PAINTING.

Unit of Measure: Job.

C. General Project Requirements

1. Work Site. The site of the work is at the US Army Corps of Engineers New England District Facility at Colebrook River Lake Dam, in Colebrook, Connecticut. The work site is within the Town of Colebrook, Connecticut. All rules and regulations of the facility covering general safety, security, sanitary requirements, pollution control and traffic regulations shall be observed by the Contractor. Information regarding these requirements may be obtained by contacting the Contracting Officer, who will provide such information or assist in obtaining information from appropriate authorities.

2. Security. The Contractor shall report any vandalism, suspicious activities or devices to the Contracting Officer or local police as soon as possible. The Contracting Officer will notify the Contractor of any heightened security measures and will expect vigilant monitoring of equipment, grounds and security fencing while working. At a heightened security posture, there may be work areas that are restricted. The Contracting Officer will notify the Contractor of these restricted areas, and work may be delayed or restricted or will be performed in these areas under the direct supervision of U.S. Army Corps of Engineers personnel.

At the close of each work day, Government facilities, equipment, and materials shall be secured. The Contractor shall be responsible for maintaining a secure construction site and ensure the area of the scope of this contract is secure at all times during and after work hours.

All project work and conduct of construction activity shall comply with security requirements, regulations, and policies as directed by the Contracting Officer.

No alcoholic beverages or recreational drugs are allowed on the project site. If found in violation the violator shall be requested to leave the premises immediately.

3. Identification of Equipment and Tools. Affix to Contractor- or Subcontractor-owned machinery, motor vehicles, equipment, and tools, clearly legible identification showing the Contractor's or Subcontractor's name, and where space permits, address and telephone number, so as to distinguish them from Government-owned items and can be returned to the rightful owner if inadvertently left on Government property.

4. Contractor's Responsibility. The Contractor shall furnish all plant, labor, equipment and materials and carry out all operations as necessary to accomplish the work of this project as described in this document and on the contract drawings.

5. Commencement, Prosecution and Completion of Work. The Contractor shall employ ample personnel and sufficient equipment to accomplish the work of this project in the least amount of time, within the prosecution period specified in the SPECIAL CONTRACT REQUIREMENTS, Subpart COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK (APR 1984) FAR 52.211-10. Restrictions concerning the prosecution and completion of work are as follows:

a. The Contractor shall attend a Preconstruction Conference prior to the start of on-site construction work (see paragraph entitled "Preconstruction Conference", below).

b. The on-site work is restricted to 0700 (7:00 AM) to 1730 (5:30 PM), Monday through Friday. See Paragraph B.12 "Hours of Operation" for additional information.

6. Superintendence by the Contractor. At all times during the performance of the contract and until the work is completed and accepted, the Contractor shall directly superintend the work or assign and have on the worksite a competent project superintendent who is satisfactory to the Contracting Officer and has the authority to act for the Contractor.

The qualified superintendent, and competent alternate, shall be capable of reading, writing, and conversing fluently in the English language.

The project superintendent must have a minimum of five years' experience in construction with at least two of those years as a superintendent on projects similar in scope, size, and complexity. The individual must be familiar with the requirements of EM 385-1-1 and have experience in the areas of hazard identification and safety compliance. The individual must be capable of interpreting a critical path schedule and construction drawings. The qualification requirements for the alternate superintendent are the same as for the project superintendent. The Contracting Officer may request proof of the superintendent's qualifications at any point in the project if the performance of the superintendent is in question.

The project superintendent is primarily responsible for managing and coordinating day-to-day production and schedule adherence on the project. The superintendent is required to attend quality control meetings.

The project superintendent shall maintain a physical presence at the site at all times and be responsible for all construction and related activities at the site, except as otherwise acceptable to the Contracting Officer. Failure to comply with these requirements shall be deemed as cause for a non-compensatory stoppage and suspension of work until the deficiency is remedied.

The Project Superintendent is subject to removal by the Contracting Officer for non-compliance with requirements specified in the contract and for failure to manage the project to insure timely completion. Furthermore, the Contracting Officer may issue an order stopping all or part of the work until

satisfactory corrective action has been taken. No part of the time lost due to such stop orders is acceptable as the subject of claim for extension of time for excess costs or damages by the Contractor.

The Project Superintendent may also serve as the CQC Manager and Site Safety and Health Office (SSHO) on this project. To serve as CQC Manager, the individual must meet the requirements of Paragraph C.17 below. To serve as SSHO, the individual must meet the requirements of Paragraph D.3 below.

7. Contractor Personnel Conduct. The Contractor personnel's conduct shall not reflect discredit upon the Government. The Contractor shall ensure that personnel present a professional appearance. The Contractor's employees shall observe and comply with all local policies and procedures concerning fire, safety, environmental protection, sanitation, security, and possession of firearms or other lethal or illegal weapons or substance. The Contractor is responsible for ensuring that any Contractor employees providing services under this contract conduct themselves and perform services in a professional, safe, and responsible manner. The Contractor shall remove from the job site any employee for reasons of misconduct or security. The Contractor shall ensure no Contractor employees conduct political related activities or events on Government Property.

8. Traffic Regulation and Control. During construction the Contractor shall provide access as necessary to maintain traffic and to provide vehicle access to all areas of the dam facility. The Contractor shall maintain and protect traffic on all affected roads during the construction period, except as otherwise specifically directed by the Contracting Officer. The traveling public shall be protected from damage to person and property. The Contractor's traffic on roads selected for hauling material to and from the site shall interfere as little as possible with public traffic. The Contractor shall investigate the adequacy of existing roads and the allowable load limit on these roads. The Contractor shall be responsible for the repair of any damage to roads caused by construction operations.

9. Access to the Project Site. Access to the project site is currently available for construction. The Contractor shall be responsible for providing and maintaining access necessary for his equipment and plant to and from the work site.

10. Construction Site Plan. Prior to the start of work, the Contractor shall submit a site plan showing the locations and dimensions of temporary facilities including layouts and details, equipment and material storage areas, access and haul routes, avenues of ingress/egress to fenced areas (e.g., the assigned storage and staging area), details of the fence installation (if used), and the number of trailers to be used. Identify any areas which may have to be graveled to prevent the tracking of mud. Indicate if the use of a supplemental or other staging area is desired. Show locations of safety and construction fences, site trailers, construction entrances, trash dumpsters, temporary sanitary facilities, and worker parking areas. The plan shall also show where temporary utility hook-ups are to be located, if required, and how grounding of equipment and trailers will be achieved, as appropriate. The storage and staging area will be discussed at the Preconstruction Conference. Any items removed from the property shall be recycled to the furthest extent possible.

11. Hours of Operation. On site work hours are as stated in Part C.5.b, above. The Contractor will not be permitted to perform on-site work on Saturdays, Sundays, or legal holidays, unless otherwise authorized by the Contracting Officer. The exclusion of work on Saturdays, Sundays, and legal holidays

has been considered in computing the performance time of this contract. The following legal holidays are observed:

January 1st
Third Monday in January
Third Monday in February
Last Monday of May
June 19th
July 4th
1st Monday of September
2nd Monday of October
11th of November
Fourth Thursday of November
25th of December

When one of the above designated legal holidays falls on a Sunday, the following Monday will be observed as a legal holiday. When a legal holiday falls on a Saturday, the preceding Friday is observed as a holiday.

Work outside the hours of operation requires Contracting Officer approval. The request to work outside the hours of operation shall be made in writing to the Contracting Officer 10 calendar days prior to such work to allow arrangements to be made by the Government. The request application shall include specific dates, hours, location, type of work to be performed, contract number and project title, and names of all individuals who will be working outside the hours of operations. If work is performed during periods of darkness, the different parts of the work shall be lighted in a manner approved by the Contracting Officer.

12. Progress Schedule. The initial project schedule shall be in the form of a chart graphically indicating the sequence proposed to accomplish each work feature or operation pursuant to FAR Clause 52.236-15 "Schedules for Construction Contracts". Show in the schedule the proposed sequence to perform the work and dates contemplated for starting and completing all schedule activities. The chart shall be prepared to show the starting and completion dates of all work features on a linear horizontal time scale beginning with date of Notice to Proceed and indicating calendar days to completion. The scheduling of the entire project is required. Provide a schedule that is a forward planning as well as a project monitoring tool. The Contractor shall indicate on the chart the important work features or operations that are critical to the timely overall completion of the project. Key dates for such important work features and portions of work features are milestone dates and shall be so indicated on the chart. Failure to develop the Project Schedule to an appropriate level of detail will result in its disapproval. The Contracting Officer will consider, as appropriate to the project, and is not limited to, the following characteristics and requirements to determine appropriate level of detail:

a. Activity Durations

b. Design and Permit Activities

c. Procurement Activities

d. Mandatory Tasks

i. Submission, review and acceptance of SD-01 Preconstruction Submittals (individual activity for each).

ii. Submission, review and acceptance of features requiring design completion and submission, review and acceptance of design packages.

iii. Submission of mechanical/electrical/information systems layout drawings.

iv. Long procurement activities

v. Submission and approval of O & M manuals.

vi. Submission and approval of as-built drawings.

vii. Submission and approval of installed equipment lists.

viii. Submission and approval of test data, and reports

ix. Show Government and other agency activities that could impact progress. These activities include, but are not limited to: approvals, acceptance, design reviews, environmental permit approvals by State regulators, inspections, utility tie-in, Government Furnished Equipment (GFE), etc.

This schedule will be the medium through which the timeliness of the Contractor's construction effort is appraised. Anticipated adverse weather delay days shall be included in the schedule.

Submit the Initial Project Schedule for approval within 30 calendar days after notice to proceed is issued. No payment will be made for work items not fully detailed in the Project Schedule.

An Early Completion Schedule is an Initial Project Schedule (IPS) that indicates all scope of the required contract work will be completed before the contractually required completion date.

No IPS indicating an Early Completion will be accepted without being fully resource-loaded (including crew sizes and manhours) and the Government agreeing that the schedule is reasonable and achievable.

The Government is under no obligation to accelerate work items it is responsible for to ensure that the early completion is met nor is it responsible to modify incremental funding (if applicable) for the project to meet the contractor's accelerated work.

An updated schedule showing actual progress shall be submitted monthly and with each pay request. Changes to the base-line schedule shall be outlined in a narrative describing the reason for the change.

13. Weekly Progress Meetings. Conduct a weekly meeting with the Government (or as otherwise mutually agreed to) for the purpose of jointly reviewing the actual progress of the project as compared to the as planned progress, and to review planned activities for the upcoming two weeks. Use the current approved schedule update for the purposes of this meeting and for the production and review of reports. At the weekly progress meeting, address the status of RFIs, RFPs and Submittals.

14. Rate of Progress. Should the Contractor fail to maintain a satisfactory rate of progress in accordance with the Contractor's approved progress schedule, the Contracting Officer may require that additional personnel and equipment be placed on the work and weekend and overtime work be performed, in order that the work be brought up to schedule and maintained, at no additional cost to the Government.

15. Preconstruction Conference. The Contracting Officer will conduct a Preconstruction Conference after receipt of Notice to Proceed by the Contractor and prior to the start of on-site construction activities. The date, time, and place for this conference shall be mutually agreed upon by the Contractor and the Contracting Officer. It is mandatory that the Contractor's project site supervisory personnel assigned to this project attend the conference; no personnel substitutions will be permitted. The purpose of the conference is to review contract requirements and to establish a working relationship between the Contractor's Staff and the U.S. Army Corps of Engineers personnel who will be closely associated with the project. During the conference, the Contracting Officer's Representative will inform the Contractor concerning job safety, project phasing, work hour restrictions, traffic control, quality control, labor relations, and environmental protection. The Preconstruction Conference will be arranged by the Contracting Officer.

16. Material Substitutions. This contract is based on the materials and methods as described in this document. The Contractor shall not substitute materials or methods unless such substitution has been specifically approved in writing by the Contracting Officer.

17. Quality Control. The Contractor shall establish a three phase quality control system (the three phases are described below) to perform sufficient inspection of all items of work, including that of any subcontractors, to ensure conformance to this document with respect to materials, workmanship, construction, finish and functional performance. The system shall cover all construction operations, both onsite and offsite. The site project superintendent will be held responsible for the quality of work on the job and is subject to removal by the Contracting Officer for non-compliance with the quality requirements specified in the contract. The site project superintendent in this context shall be the highest level manager responsible for the overall construction activities at the site, including quality and production. The site project superintendent shall maintain a physical presence at the site at all times, except as otherwise acceptable to the Contracting Officer, and shall be responsible for all construction and construction related activities at the site.

The Quality Control Manager shall be a construction person with a minimum of three years in related work. This Quality Control Manager shall be on the site at all times during construction and shall be employed by the prime Contractor.

The QC Manager may also serve as the Project Superintendent and SSHO. To serve as Project Superintendent, the individual must meet the requirements of Paragraph C.6 above. To serve as SSHO, the individual must meet the requirements of Paragraph D.3 below.

The Contractor shall employ three phase Quality Control as follows:

Preparatory Phase: This phase is performed prior to beginning work after all required plans/documents/materials are approved/accepted, and after copies are at the work site. This phase includes:

a. A review of each paragraph of applicable specifications, reference codes, and standards. Maintain and make available in the field for use by Government personnel until final acceptance of the work.

b. Review of the contract drawings.

c. Check to assure that all materials and/or equipment have been tested, submitted, and approved.

d. Review of provisions that have been made to provide required control inspection and testing.

e. Examination of the work area to assure that all required preliminary work has been completed and is in compliance with the contract.

f. Examination of required materials, equipment, and sample work to assure that they are on hand, conform to approved shop drawings or submitted data, and are properly stored.

g. Review of the appropriate activity hazard analysis to assure safety requirements are met.

h. Discussion of procedures for controlling quality of the work including repetitive deficiencies

i. Discussion of the initial control phase.

j. The Government must be notified at least 24 hours in advance of beginning the preparatory control phase. Include a meeting conducted by the Quality Control Manager and attended by the superintendent. Document the results of the preparatory phase actions on a daily Quality Control Report. Instruct applicable workers as to the acceptable level of workmanship required in order to meet contract specifications.

Initial Phase: This phase is accomplished at the beginning of a definable feature of work. Accomplish the following:

a. Check work to ensure that it is in full compliance with contract requirements.

b. Verify adequacy of controls to ensure full contract compliance. Verify required control inspection and testing.

c. Establish level of workmanship and verify that it meets minimum acceptable workmanship standards.

d. Resolve all differences.

e. Check safety to include compliance with and upgrading of the safety plan and activity hazard analysis. Review the activity analysis with each worker.

f. The Government must be notified at least 24 hours in advance of beginning the initial phase

Follow-up Phase: Perform daily checks to assure control activities, including control testing, are providing continued compliance with contract requirements, until completion of the particular feature of work. Record the checks in the quality control documentation. Conduct final follow-up checks and correct all deficiencies prior to the start of additional features of work which may be affected by the deficient work. Do not build upon nor conceal non-conforming work.

18. Quality Assurance. All items of work not addressed in the contract documents shall be completed in strict accordance with the manufacturers' specifications.

The Government is not obligated to inspect the Contractor's work, or to protect the Contractor from the consequences of its work. Government inspections are a general examination of the Contractor's conduct and workmanship and are solely for the purpose of the Government. Government-designated Quality Assurance Representatives (QARs) do not have the authority to accept work, nor is a Government inspection to be construed as conclusive.

Government agents including QARs and project engineers are not authorized to change the contract without the written approval of the Contracting Officer; this lack of authority extends to all situations in which the action of these agents could be construed as constituting a change.

The quality of workmanship is subject to audit by Government or Government-designated QARs at any time during the contract. The Contractor shall cooperate fully and provide all information necessary for this audit.

The Contractor shall submit all requests for changes in writing to the Contracting Officer. Do not proceed with changes without possession of written authorization of the Contracting Officer.

The Contractor shall not conceal any work unless the Contracting Officer has approved all items of work which are to be concealed. The Contractor shall notify the Contracting Officer of its intention to conceal work at least 24 hours in advance of concealment.

19. Utilities. Water and electricity required in the prosecution of the work shall be furnished by the Contractor at his own expense. The Government will not supply water and electricity.

20. Temporary Electrical Equipment and Connections. The Contractor, at his own expense and in a workmanlike manner satisfactory to the Contracting Officer, shall install and maintain all necessary temporary connections and distribution lines. All required temporary electrical equipment and lines shall be furnished, installed, connected, and maintained by the Contractor according to EM 385-1-1, Section 11.E, NFPA 241 and NFPA 70, Article 305-6(b), "Assured Equipment Grounding Conductor Program". All temporary equipment and lines shall be removed prior to final acceptance of the work. Materials and equipment need not be new, but must be in good repair and serviceable condition. Periodic inspections of systems and devices will be made by the Contractor at intervals not to exceed one week.

21. Location of Underground Facilities. Should excavation of any sort become necessary, obtain necessary digging permits prior to the start of excavation. Verify the elevations of existing piping, utilities, or any type of underground obstruction in locations to be impacted by the work. For excavation work in Connecticut, contact “Dig Safe" (Call Before You Dig (CBYD)) at 811 or CBYD.com. Notification shall not be earlier than 30 days prior, or later than 3 days prior, to the planned excavation.

22. Environmental Protection. The Contractor shall minimize environmental pollution and damage that may occur as the result of construction operations. The environmental resources within the project boundaries and those affected outside the limits of permanent work shall be protected during the entire duration of this contract. Comply with all applicable environmental Federal, State, and local laws and regulations. Any delays resulting from failure to comply with environmental laws and regulations will be the Contractor's responsibility.

a. Environmental Protection Plan: Prior to commencing construction activities or delivery of materials and equipment to the site, the Contractor shall submit an Environmental Protection Plan for review and approval by the Contracting Officer. The purpose of the Environmental Protection Plan is to present a comprehensive overview of known or potential environmental issues which the Contractor must address during construction. Issues of concern shall be defined within the Environmental Protection Plan. The Contractor shall address each topic at a level of detail commensurate with the environmental issue and required construction task(s). The Environmental Protection Plan shall be current and maintained onsite by the Contractor.

b. Erosion and sediment control shall be addressed in the Environmental Protection Plan to identify the type and location of the erosion and sediment controls to be provided, including monitoring and reporting requirements to assure that the control measures are in compliance with Federal, State, and local laws and regulations. The Contractor shall select and maintain the erosion and sediment controls such that water quality standards are not violated as a result of construction activities. The area of bare soil exposed at any one time by construction operations should be kept to a minimum. Construct or install temporary and permanent erosion and sediment control best management practices (BMPs). BMPs may include, but not be limited to, vegetation cover, slope stabilization, silt fences, construction of terraces, interceptor channels, sediment traps, and inlet and outfall protection. Remove any temporary measures after the area has been stabilized.

c. Obtaining and complying with all environmental permits and commitments, required by Federal, State, Regional, and local environmental laws and regulations is the Contractor's responsibility.

d. Fuels and Lubricants: Storage, fueling and lubrication of equipment and motor vehicles shall be conducted in a manner that affords the maximum protection against spill and evaporation. Manage and store fuel, lubricants and oil in accordance with all Federal, State, Regional, and local laws and regulations. Used lubricants and used oil to be discarded shall be stored in marked corrosion-resistant containers and recycled or disposed in accordance with State, and local laws and regulations. Storage of fuel on the project site is not allowed. Fuel shall be brought to the project site each day that work is performed. Storage and usage of lubricants and daily fueling of machinery and equipment shall occur at least 50 feet from any drainage inlets, water bodies (rivers, streams, lakes), and environmentally sensitive areas (wetlands, vernal pools).

23. Waste Management. The Contractor shall provide on-site containers for the collection of demolition debris, waste materials, construction debris, and rubbish. The Contractor shall clean the project site on a daily basis to prevent the accumulation of waste materials and rubbish resulting from construction activities. The Contractor shall transport all solid waste off of the project site and dispose of it in compliance with Federal, State and local requirements for solid waste disposal. Upon completion of the construction work, the project site shall be returned to its pre-work condition.

Government policy is to apply sound environmental principles in the design, construction and use of facilities. As part of the implementation of that policy: (1) practice efficient waste management when sizing, cutting, and installing products and materials and (2) use all reasonable means to divert construction and demolition waste from landfills and incinerators and to facilitate their recycling or reuse.

Submit monthly documentation showing total amount, by weight, of construction debris diverted from landfills as a percentage of all construction debris on the project. The Contractor shall divert a minimum of 60 percent of waste and construction debris from landfill disposal. Include in documentation the total solid waste generated in tons, the total solid waste diverted from landfill in tons, and the total cost of the solid waste generated.

A Waste Management Plan shall be submitted within 15 days after Notice to Proceed and not less than 10 days before the preconstruction meeting. The plan shall demonstrate how the project waste diversion goal shall be met and shall include the following:

a. Name of individuals on the Contractor's staff responsible for waste prevention and management.

b. Actions that will be taken to reduce solid waste generation, including coordination with subcontractors to ensure awareness and participation.

c. Description of the regular meetings to be held to address waste management.

d. Description of the specific approaches to be used in recycling/reuse of the various materials generated, including the areas on site and equipment to be used for processing, sorting, and temporary storage of wastes.

e. Characterization, including estimated types and quantities, of the waste to be generated.

f. Name of landfill and/or incinerator to be used and the estimated costs for use, assuming that there would be no salvage or recycling on the project.

g. Identification of materials that cannot be recycled/reused with an explanation or justification, to be approved by the Contracting Officer.

Revise and resubmit the Waste Management Plan as required by the Contracting Officer. Approval of Contractor's Plan will not relieve the Contractor of responsibility for compliance with applicable environmental regulations or meeting project cumulative waste diversion requirement. Distribute copies of the Waste Management Plan to each subcontractor, the Quality Control Manager, and the Contracting Officer.

24. Information Drawings. Information drawings showing the configuration of the gate chamber are included with this document.

25. Damages. The Contractor shall exercise caution and follow sound construction practices in the conduct of the work to avoid construction-related damage to existing features to remain.

26. Sequence of Work and Work Plan. The work shall be performed in the following general sequence: existing conditions verification, preparation of submittals, material procurement, establish site safety, perform preparation and painting work, and project close out. Coordinate this sequence with the requirements of Paragraph 13, “Progress Schedule”. The Contractor shall submit a written Work Plan describing the methods and equipment required to accomplish the work and provide the required environmental and worker protection. As part of the Work Plan, and as appropriate to the work, submit proposed demolition and removal procedures for approval before work is started. Include in the plan procedures for careful removal and disposition of materials specified to be salvaged, coordination with other work in progress, and a detailed description of methods and equipment to be used for each operation and of the sequence of operations. Coordinate with the Waste Management Plan in accordance with the Statement of Work. Provide procedures for safe conduct of the work in accordance with EM 385-1-1. The Work Plan must be approved by Contracting Officer prior to work beginning.

27. Contractor's Receipt of Supplies. The Contractor shall be responsible for all arrangements for the receipt of materials and supplies at the job site. Government personnel are not permitted to receive or sign for items delivered to the site.

28. Storage Area. A storage and staging area is available for use by the Contractor for work, storage of equipment, materials and trailers during the life of this contract. The storage area is in the general vicinity of the work area within the limits of the Colebrook River Lake Dam facility. Storage and staging and will be discussed at the Preconstruction Conference. The Contractor shall confine his

storage area to the limits as designated or approved by the Contracting Officer and shall be responsible for the security of the area. Upon completion of the contract, the Contractor shall remove all equipment and materials, except as otherwise specified, and restore the site to its original condition as approved by the Contracting Officer at no additional cost to the Government.

Trailers, equipment, or materials must not be open to public view with the exception of those items which are in support of ongoing work on any given day. Do not stockpile materials outside the storage area in preparation for the next day's work. Park mobile equipment, such as tractors, wheeled lifting equipment, cranes, trucks, and like equipment within the storage area at the end of each work day.

The Contractor may construct a temporary six-foot high galvanized chain link fence around trailers and materials at the storage/staging area if desired. Galvanized chain-link fence shall have a minimum height of six feet. The fence posts shall be placed in concrete or metal bases on the ground. Fence posts shall not be driven. Except for equipment and materials which are in support of ongoing work on any given day or unless such equipment or materials are assigned a separate and distinct storage area by the Contracting Officer away from the vicinity of the construction site but within the project site boundaries, equipment and materials shall be stored and placed inside the temporary chain-link fencing, if used.

Trailers, if utilized by the Contractor for administrative or material storage purposes, shall present a clean and neat exterior appearance and shall be in a state of good repair. Trailers which, in the opinion of the Contracting Officer, require exterior painting or maintenance will not be allowed on the project site.

The temporary six-foot high chain link fence, if used, shall be kept in a state of good repair and proper alignment. Should the Contractor elect to traverse, with construction equipment or other vehicles, grassed or unpaved areas which are not established roadways, such areas shall be covered with a layer of gravel as necessary to prevent rutting and the tracking of mud onto paved or established roadways; gravel gradation shall be at the Contractor's discretion. Grass located within the boundaries of the construction site shall be mowed for the duration of the project. Grass and vegetation along fences, buildings, under trailers, and in areas not accessible to mowers shall be edged or trimmed neatly.

29. Restoration of Storage Area and Other Areas. Upon completion of the project remove barricades, temporary utilities, sanitation facilities, construction vehicles, materials and equipment, temporary chain-link fencing if used, and any other temporary equipment, materials, or products from within and around the work areas and temporary storage areas. Clean and repair damage caused by installation or removal of temporary materials, equipment, or utilities. Areas used by the Contractor for the storage of equipment or material, or other use, shall be restored to the original or better condition, including pavement repair, or topsoil and seeding as necessary.

30. Contractor Use of Premises. Work shall be restricted to the areas of the work within the gate chamber, access routes to the work site, and to storage areas assigned to this Contractor. Access to the project site is currently available for construction traffic. The Contractor shall be responsible for providing and maintaining access necessary for his equipment and plant to and from the work site.

31. Protection and Security of Property and Personnel: Protection to Contractor personnel or their equipment cannot be provided by the Government at the worksite nor at the travel routes to/from the worksite.

The Contractor shall protect all workmen, civilian and Government personnel and the general public from injury. The Contractor shall coordinate and schedule all work with the Contracting Officer.

The Contractor shall conduct all work so as to cause the least interference possible with the normal activities of Colebrook River Lake Dam facility and the surrounding areas.

32. Subcontractors and Personnel Contacts. Furnish a list of contact personnel of the Contractor and subcontractors including addresses and telephone numbers. As changes occur and additional information becomes available, correct and change the information contained in previous lists.

33. Work Limits. Work shall be restricted to the immediate area of the painting work in the gate chamber, in addition to storage areas assigned to this Contractor. Travel through any other parts of the installation or into any buildings by Contractor personnel will not be permitted unless under escort by a Government employee.

34. Damaged Property. Work shall proceed in a manner which will minimize disturbance or risk of damage to surrounding structures, interior finishes, personal belongings, equipment, or infrastructure. The Contractor shall repair such items damaged by the Contractor in the course of carrying out the work at no additional cost to the Government. All repairs shall match adjacent similar existing items in all aspects. All replacements will be in kind.

35. Emergency Contacts. The Contractor shall have competent personnel trained and capable of dealing with minor personnel injuries. Contractor personnel shall immediately notify their supervisor of any accident requiring emergency medical treatment. The Contractor shall, in turn, notify the COR as required by EM 385-1-1.

Emergency medical treatment and services for Contractor personnel is the responsibility of the Contractor.

The Contractor shall prepare and submit a list of emergency contacts to be used in the event of an emergency. The list shall include the contact names, addresses, and telephone numbers. As changes occur and additional information becomes available correct and change the information contained in previous lists.

36. Cleaning Up. The Contractor shall at all times keep the premises free from accumulation of waste materials or rubbish caused by work under this contract. At the end of each workday and upon the completion of all work, the Contractor shall leave interior and exterior property in the condition in which it was found just prior to start of work.

37. No Smoking Policy. Smoking is prohibited within and outside of all buildings of the Colebrook River Lake Dam facility, except in designated smoking areas. Discarding tobacco materials other than

into designated tobacco receptacles is considered littering and is subject to fines. The Contracting Officer will identify designated smoking areas.

38. Snow Removal. The Contractor shall be responsible for snow removal in their work areas and assigned exterior storage area(s).

39. Sanitary Facilities. In accordance with EM 385-1-1, provide, maintain, and make available to all workers provisions for sanitation. Maintain these provisions at all times without nuisance. Upon completion of the work, all sanitary provisions and facilities shall be removed from the premises by the Contractor, leaving the premises clean and free from nuisance.

In accordance with EM 385-1-1, provide, maintain, and make available to all workers an adequate supply of potable water for both drinking and personal cleansing. During hot weather, provide cool drinking water.

In accordance with EM 385-1-1, provide, maintain, and make available to all workers adequate minimum field-type portable toilets. Portable toilets shall be properly secluded from public observation in such a manner as required or approved by the Contracting Officer. Periodically empty wastes into a municipal, district, or station sanitary sewage system, or remove waste to a commercial facility. Include provisions for pest control and elimination of odors. Any penalties and/or fines associated with improper discharge of wastewater shall be the responsibility of the Contractor. Government toilet facilities will not be provided.

40. Sustainability. In accordance with the provisions of the various technical specifications, and as otherwise appropriate to the work, all reasonable efforts shall be made to use recycled, recovered and biobased materials in the execution of this work. Deliverables shall be printed double-sided on paper that contains post-consumer fiber content. To the extent feasible, materials with recycled content per EPA-Designated Recovered Materials Requirements as described at https://www.epa.gov/smm/comprehensive-procurement-guidelines-construction-products shall be used. Also the Contractor shall meet the USDA-Designated Biopreferred Program requirements at https://biopreferred.gov/BioPreferred/faces/pages/ProductCategories.xhtml as feasible.

41. Cooperation with Others. During the life of this contract, other Contractors may be performing operations in the general area where work under this contract is being performed. The Contractor shall cooperate with others in all respects wherever necessary for the better prosecution of the work. As far as practicable, all persons working in the vicinity shall have equal rights to the use of all transportation facilities and grounds within the limitations specified in the CONTRACT CLAUSES. The obligation of the Contractor under this contract shall include jointly planning and scheduling the work, on a cooperative basis, with other Contractors in order to minimize delays and interferences. The Contractor shall so arrange his operations as to not interfere with other work in progress. In case of dispute or disagreement regarding use of transportation and storage facilities and rights of access, the decision of the Contracting Officer shall govern.

42. Preparation of Record Drawings: The preparation of record drawings by the Contractor for this project is not required.

D. Safety

1. Accident Prevention Plan: The Contractor shall prepare an Accident Prevention Plan (APP) specific to the activities being performed. It shall include an Activity Hazard Analysis (AHA) as described in 2 below. All work shall be conducted in accordance with the APP, the U.S. Army Corps of Engineers Safety and Health requirements Manual (EM 385-1-1, most recent edition), and all applicable Federal, State, and local safety and health requirements. A copy of EM 385-1-1 can be accessed electronically at Headquarters USACE website under publications using the following link:

https://www.publications.usace.army.mil/Portals/76/EM%20385-1-1%20_EFFECTIVE%2015%20March%202024.pdf

The APP shall detail how safety and health will be managed during the project. The APP shall address the requirements of applicable Federal, State, and local safety and health laws, rules, and regulations. The Contractor shall comply with Federal Acquisition Regulation Clause No. 52.236-13 for Accident Prevention, which is added by reference. Special attention shall focus on the requirements of EM 385-1-1, specifically Chapter 2. The APP shall be developed by a Competent Person using mandatory ENG Form 6293. The Contractor shall be responsible for documenting the Competent Person's credentials. Work shall not proceed until the APP has been reviewed by the Government Designated Authority (GDA) and deemed acceptable for use on the project.

The APP shall interface with the Contractor's overall safety and health program. Any portions of the Contractor's overall safety and health program referenced in the APP shall be included in the applicable APP element and made site-specific. The Government considers the Prime Contractor to be the "controlling authority" for safety and health of the subcontractors. Contractors are responsible for informing their subcontractors of the safety provisions under the terms of the contract, the penalties for noncompliance, and inspecting subcontractor operations to ensure that accident prevention responsibilities are being carried out.

The Contractor shall provide on-going evaluations of the APP throughout the life of the project. Changes to the accepted APP must be made with the knowledge and concurrence of the GDA. For projects that exceed 12 months in duration, the APP shall be reviewed annually with a signed copy submitted to the GDA.

2. APP Appendices:

a. Site Safety and Health Plan. A Site Safety and Health Plan (SSHP) shall be prepared when site work falls under the purview of OSHA 1910.120 Standard. The SSHP shall cover the 14 elements identified in EM 385-1-1, Chapter 36. SSHP elements adequately covered elsewhere in the APP need not be duplicated again in the SSHP.

b. Activity Hazard Analysis. An Activity Hazard Analysis (AHA) shall be submitted for each major phase of work. A major phase of work is defined as an operation involving a type of work presenting hazards not experienced in previous operations or where a new subcontractor or work

crew is to perform the work. The AHA shall be developed in accordance with EM 385-1-1, Chapter 2, Section 2-6. Work shall not proceed on a phase of work until the AHA has been accepted by the GDA. A preparatory meeting shall be conducted by the contractor to discuss the AHA contents with all engaged in the activity. The preparatory meeting shall be conducted by the prime contractor and shall include all subcontractors and Government on-site representatives. The AHA shall be continuously reviewed and revised to address changing site conditions or operations as appropriate.

c. Confined Space Plan. A Confined Space Plan (CSP) shall be prepared when work in a confined space is required. The CSP shall address the following: Roles and Responsibilities for Personnel Involved in Entry; Confined Space Evaluation; Signage requirements; Confined Space Entry Form; Alternative Entry Methods, if applicable; Hazard Identification and Mitigation; Ventilation and Air monitoring; Rescue and Emergency Procedures; Employee Training Requirements. CSP attachments shall include personnel training records, Confined Space Entry Form, and AHA. All Confined Space entries shall be conducted in accordance with EM 385-1-1 Chapter 34.

d. Fall Prevention Plan. The Contractor's Fall Competent Person shall develop and submit a site-specific Fall Prevention Plan outlining the methods, procedures, and systems to be implemented to eliminate or control new or existing fall hazards. Written Fall Protection Procedures and Rescue Plan shall adhere to EM 385-1-1, Chapter 21 and ANSI Z359.2. These requirements are applicable to all contractor personnel when employees are working at heights or are exposed to fall hazards and/or using fall protection equipment. Workers exposed to fall hazards shall be protected from falling to a lower level by the use of standard guardrails, work platforms, scaffolding systems, lifting systems, temporary floors, safety nets, engineered fall protection systems, personal fall arrest systems, or the equivalent, where a fall hazard exists.

e. Lead Compliance Plan. A site-specific Lead Compliance Plan shall be prepared by a Qualified Person and describe the procedures to be followed to protect employees from lead hazards while performing lead hazard control activities. The plan must include at a minimum the procedures set forth in EM 385-1-1, Chapter 6, Section 6-7c. The plan must be submitted for acceptance by the GDA prior to starting any lead related work.

f. Lift Plan. A written Lift Plan shall be prepared for every lift in accordance with EM 385-1-1, Chapter 16, Section 16-7. The Lift Plan shall be developed, reviewed, and accepted by all personnel involved in the lift. The Lift Plan shall be maintained on the LHE for current lift(s) being made. At a minimum, the following shall be addressed:

(1) Personnel: Roles, responsibilities, qualification, public persons, or other trade personnel access or affected by lift.

(2) Area Preparation: Load handling location and path of travel, blocking/cribbing, overhead lines, ground stability.

(3) Load Handling Equipment (LHE) Considerations: Capacity, configuration, obstructions, inspection, ground support conditions

(4) Load parameters: Weight, center of gravity, radii, and configuration.

(5) Rigging: Type, inspection, need for softeners.

(6) Environmental Considerations: Wind, storms, precipitation, power lines in area of travel or load swing, counterweight swing area barricaded.

3. Site Safety and Health Officer (SSHO): The Contractor shall designate one individual as the SSHO who shall have the qualifications detailed in EM 385-1-1, Chapter 2, Section 2-3b:

Level Two SSHO: A designated employee with Level Two SSHO responsibility that meets and follows the requirements of EM 385-1-1. Level Two SSHOs cannot be assigned to projects that have a residual Risk Assessment Code (RAC) of high or extremely high.

The SSHO may have other duties in addition to SSHO, including Project Superintendent and CQC Manager. To serve Project Superintendent, the individual must meet the requirements of Paragraph C.6 above. To serve as CQC Manager the individual must meet the requirements of Paragraph C.17 above.

4. Safety Reporting:

a. Safety Briefing and Equipment Inspection Documentation.

The Contractor shall conduct a safety meeting at the project site on the first day of work, whenever a new activity or phase of work begins, or at least weekly during the progress of work. All safety meetings shall be documented. A copy of a suggested weekly safety meeting form will be provided by the Contracting Officer's Representative. Records of the safety briefings shall be submitted to the GDA weekly.

The Contractor shall submit to the GDA a current written safety inspection for all heavy equipment proposed for use on this contract. The Contractor, upon award of the contract, will be required to make available for suitability and safety compliance inspection all equipment proposed for use to perform the work of this contract. Equipment shall be made available for inspection by the GDA five working days prior to the start of work. Any additional equipment added during the prosecution of the work shall also be made available for inspection prior to its use on the project. Equipment not accepted by the GDA should be repaired or replaced by the Contractor.

b. Incident Reporting.

All work-related incidents, to include injuries, illnesses, near misses, and property related accidents (excluding on the road- vehicle accidents), shall be immediately reported to the GDA and documented appropriately. All incidents shall be investigated to identify all root causes and recommended hazard control measures.

ENG Form 3394 shall be completed for all OSHA recordable injuries or illnesses and property damage accidents, for which property damage exceeds $5,000.00 and submitted to the GDA within

seven (7) business days. A Lessons Learned Document shall also be submitted separately within seven (7) business days of the incident.

c. Exposure Hour Reporting.

The Contractor shall complete the attached "USACE Contractor Monthly Summary Record of Injuries/Illness and Work Hour Exposure" (for prime and its subcontractors) and forward the completed form to the GDA no later than close of business on the 5th calendar day of the following month. The method of transmission by the prime contractor to the GDA shall be electronically.

E. General and Administrative Submittals Required

1. Items for Submission. The Contractor shall submit the items identified below for approval to the Contracting Officer. Government acceptance, as defined in EM 385-1-1, is required for safety related submittals (identified below with an "S" after the submittal name). The Contractor shall submit an electronic PDF copy and five paper copies of each submittal item (unless otherwise indicated) using a completed ENG FORM 4025 cover sheet (a blank copy of this form is attached at the end of these specifications). The Contractor will be informed at the Preconstruction Conference to send all submittals to either the project Resident Office or to the project Area Engineer Office, or other office, as applicable.

2. Preconstruction Submittals. The following submittals shall be made by the Contractor and review action completed by the Contracting Officer prior to the commencement of work at the site.

Construction Site Plan: Prior to the start of work, the Contractor shall submit a site plan showing the locations and dimensions of temporary facilities.

Initial Progress Schedule: In accordance with the contract clauses, the Contractor shall, within 30 calendar days after receipt of Notice to Proceed (NTP), or as otherwise determined by the Contracting Officer, submit for approval a practicable Initial Project Schedule. When changes are authorized that result in contract time extensions, the Contractor shall submit a revised project schedule for approval by the Contracting Officer.

Environmental Protection Plan: The Contractor shall submit an Environmental Protection Plan for review and approval by the Contracting Officer.

Waste Management Plan: The Contractor shall submit a Waste Management Plan for review and approval by the Contracting Officer.

Work Plan: The Contractor shall submit a written Work Plan describing the methods and equipment required to accomplish the work and provide the required environmental and worker protection.

Emergency Contact List.

Accident Prevention Plan (AAPP) (S): The Contractor shall prepare an Accident Prevention Plan (APP) specific to the activities being performed. It shall include an Activity Hazard Analysis (AHA) for each major phase of work, and all appropriate appendices as per Paragraph D.2 of this document.

Site Safety and Health Plan (S): Prepare as specified in Paragraph D.2.a.

SSHO Qualifications (S): Documentation of SSHO qualifications shall be submitted for approval.

Records of Safety Briefings (S).

3. Other Submittals: The following submittals shall be made by the Contractor to allow sufficient time for review action to be taken by the Contracting Officer and to comply with the approved Project Schedule, as appropriate.

Request to Work Outside Hours of Operations: The Contractor shall submit a written request, subject to approval by the Contracting Officer, when work is to be performed outside the normal hours of operations as described in this document.

Periodic Schedule Updates: An updated schedule showing actual progress shall be submitted monthly or with each pay request.

Monthly Waste Diversion Documentation: The Contractor shall submit monthly waste diversion documentation verifying the attainment of waste diversion requirements.

Incident Reports (S), if required

USACE Contractor Monthly Record of Injuries/Illness and Work Hour Exposure (S).

4. Approved Submittals. The Contracting Officer's approval of submittals shall not be construed as a complete check, but will indicate only that the general method of construction, materials, detailing and other information are satisfactory. Approval will not relieve the Contractor of the responsibility for any error which may exist, as the Contractor under the Quality Control requirements of this contract is responsible for the satisfactory construction of all work. The Government reserves 21 calendar days for review and approval action on all submittals from the time of receipt of the submittal by the Government. After submittals have been approved by the Contracting Officer, no resubmittal for the purpose of substituting materials or equipment will be considered unless accompanied by an explanation of why a substitution is necessary.

5. Disapproved Submittals. The Contractor shall make all corrections required by the Contracting Officer and promptly furnish a corrected submittal in the form and number of copies specified for the initial submittal. If the Contractor considers any correction indicated on the submittals to constitute a change to the contract, a notice shall be given promptly to the Contracting Officer.

F. Technical Submittals Required

Submittals addressing the technical requirements of this project are described in the technical specification and shown on the Technical Submittal Register attached.

G. Technical Requirements

Technical requirements describing the work of this project are described in the technical specification attached.

H. Delivery, Handling and Storage

As appropriate, materials shall be delivered to the project site in the manufacturer's original packaging with the brand and item identification reference clearly marked. Components shall be stored in a dry location that is adequately ventilated, free from dust, water, or other contaminants, and which is easily accessible for inspection and handling.

I. Material Warranties

The Contractor shall note that a Warranty of Construction is required for this project for a period of 1 year from the date of final acceptance of the work, in accordance with the Contract Clauses. In addition, manufacturer's standard performance guarantees or warranties that extend beyond a 1-year period shall be provided to the Government, as appropriate.

J. Coordination

Liaison with the U.S. Army Corps of Engineers, New England District, by the Contractor shall be maintained for the duration of the project by communication with the Contracting Officer's Representative assigned to this project. All Contractor project related questions, comments, clarifications, etc. shall be directed to the Contracting Officer's Representative for action.

K. References

<u>AMERICAN SOCIETY OF SAFETY PROFESSIONALS (ASSP)</u>

ANSI/ASSP Z359.2 (2023), Fall Protection Program Requirements

<u>NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)</u>

NFPA 241 (2022), Standard for Safeguarding Construction, Alteration, and Demolition Operations

NFPA 70 (2023), National Electrical Code

<u>U.S. ARMY CORPS OF ENGINEERS (USACE)</u>

EM 385-1-1 (2024), Safety and Occupational Health (SOH) Requirements

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

29 CFR 1926.62, Safety and Health Regulations for Construction, Lead

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SOURCES FOR REFERENCE PUBLICATIONS

PART 1 GENERAL

1.1 REFERENCES

Various publications are referenced in other sections of the specifications to establish requirements for the work. These references are identified in each section by document number, date and title. The document number used in the citation is the number assigned by the standards producing organization (e.g., ASTM B564 Standard Specification for Nickel Alloy Forgings). However, when the standards producing organization has not assigned a number to a document, an identifying number has been assigned for reference purposes.

1.2 ORDERING INFORMATION

The addresses of the standards publishing organizations whose documents are referenced in other sections of these specifications are listed below, and if the source of the publications is different from the address of the sponsoring organization, that information is also provided.

INTERNATIONAL SAFETY EQUIPMENT ASSOCIATION (ISEA)
1101 Wilson Blvd, Suite 1425
Arlington, VA 22209-1762
Ph: 703-525-1695
Fax: 703-528-2148
Internet: https://safetyequipment.org/

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)
1 Batterymarch Park
Quincy, MA 02169-7471
Ph: 800-344-3555
Fax: 800-593-6372
Internet: https://www.nfpa.org

SOCIETY FOR PROTECTIVE COATINGS (SSPC)
800 Trumbull Drive
Pittsburgh, PA 15205
Ph: 877-281-7772 or 412-281-2331
Fax: 412-444-3591
E-mail: customerservice@sspc.org
Internet: http://www.sspc.org

U.S. ARMY CORPS OF ENGINEERS (USACE)
CRD-C DOCUMENTS available on Internet: https://www.wbdg.org/army
THE CAD/BIM TECHNOLOGY CENTER FOR FACILITIES, INFRASTRUCTURE, AND ENVIRONMENT (USACE)on Internet:
https://cadbimcenter.erdc.dren.mil/
Order Other Documents from:
Official Publications of the Headquarters, USACE
E-mail: hqpublications@usace.army.mil

Internet: http://www.publications.usace.army.mil/
or
https://www.hnc.usace.army.mil/Missions/Engineering-Directorate/TECHINFO/

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)
8601 Adelphi Road
College Park, MD 20740-6001
Ph: 866-272-6272
Internet: https://www.archives.gov/
Order documents from:
Superintendent of Documents
U.S. Government Publishing Office (GPO)
732 N. Capitol Street, NW
Washington, DC 20401
Ph: 202-512-1800 or 866-512-1800
Bookstore: 202-512-0132
Internet: https://www.gpo.gov/

PART 2 PRODUCTS

Not used

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Not used

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SECTION 09 97 02

PAINTING

PART 1 GENERAL

1.1 SUMMARY

This section covers the requirements for preparation and painting various mechanical equipment items and related items in the gate chamber at Colebrook River Lake in Colebrook, Connecticut. Items to be prepared and painted are steel and include the bonnets, hydraulic piping, hydraulic cylinders, plumbing associated with the two sump pumps (not the sump pumps), the conduit pressure balancing pipe, the vertical float well pipe, air shafts, and one spiral staircase. The entire spiral staircase shall be painted including the portion outside of the gate chamber. Items not specifically included in the list above shall not be prepared and painted, The existing paint coatings on these items have partially failed, and there are areas of peeling, blistering, and rust.

Data pertaining to the paints used for the original coatings and subsequent coatings is not available, however, the Contractor shall assume that lead-containing paint was used for the original coatings and possibly for subsequent maintenance coatings and that lead concentrations are high (1.0 mg/cm^2 or 0.5% (5,000 ppm) or greater). Sampling and testing of the existing coatings for lead has not been performed.

Since paint coatings are assumed to be lead-based, the Contractor shall employ the required worker safety precautions. In addition, the work shall be performed entirely within the gate chamber, which is considered a permit-required confined space. The dam tower crane is not available for use by the Contractor.

The Contractor is required to implement worker health and safety measures and environmental protection measures as required by these specifications and by applicable Federal, State of Connecticut, and local laws and regulations, including any applicable permits or licensing. Refer to Paragraph "D. Safety" of the Statement of Work and this technical specification section.

The preparation work involves cleaning and preparation of all steel surfaces identified above. Solvent cleaning shall be performed to remove grease, dirt, and salt, followed by mechanical removal of large or loose particles of paint or rust with a hammer or wire brush. Scraping, dry abrasive blasting, water blasting or other surface preparation methods able to remove sound intact paint from steel surfaces shall not be performed. Full containment is not required for this project, however, the Contractor shall collect all cleaning residue and particles resulting from hammering and wire brushing for disposal off-site in accordance with all applicable Federal, State of Connecticut, and local laws and regulations. Paint chips and other residue removed shall not remain on the project site.

The painting work involves the application of an epoxy primer/sealer product to all corroded areas and areas of paint loss. An overcoat

product shall then be applied to the epoxy rust penetrating sealer and all other areas of existing intact paint prepared for painting. The overcoat product shall match the color of existing intact paint for each item.

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

INTERNATIONAL SAFETY EQUIPMENT ASSOCIATION (ISEA)

ANSI/ISEA Z87.1	(2020) Occupational and Educational Personal Eye and Face Protection Devices
ANSI/ISEA Z358.1	(2014; R 2020) American National Standard for Emergency Eyewash and Shower Equipment

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 70	(2026) National Electrical Code

SOCIETY FOR PROTECTIVE COATINGS (SSPC)

SSPC SP 1	(2015) Solvent Cleaning

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1	(2024) Safety and Occupational Health (SOH) Requirements

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

29 CFR 1910	Occupational Safety and Health Standards
29 CFR 1910.20	Access to Employee Exposure and Medical Records
29 CFR 1910.94	Ventilation
29 CFR 1910.134	Respiratory Protection
29 CFR 1910.146	Permit-required Confined Spaces
29 CFR 1926.62	Lead
40 CFR 261	Identification and Listing of Hazardous Waste
40 CFR 262	Standards Applicable to Generators of Hazardous Waste
40 CFR 262.22	Number of Copies
40 CFR 263	Standards Applicable to Transporters of Hazardous Waste
49 CFR 171	General Information, Regulations, and Definitions

1.3 SAFETY, HEALTH, AND ENVIRONMENTAL REQUIREMENTS

Perform work in accordance with all applicable health, safety, and environmental requirements as well as EM 385-1-1. Submit matters of interpretation of these requirements to the Contracting Officer for resolution before starting work. If no clarifications are sought, then the submittal is not necessary. Where the regulations conflict, the most stringent requirements shall apply. This paragraph supplements the health, safety, and environmental requirements of EM 385-1-1.

1.3.1 Safety

Submit an Accident Prevention Plan in accordance with the requirements of the Statement of Work and EM 385-1-1.

1.3.1.1 Workers

Protect workers by utilizing MSHA/NIOSH-approved half-face or full-face air purifying respirators equipped with high-efficiency particulate air (HEPA) filters, eye protection meeting or exceeding ANSI/ISEA Z87.1 and hearing protectors (ear plugs and/or ear muffs) providing a noise reduction rating of at least 20 dBA or as needed to provide adequate protection. Personal protective equipment shall be provided where required by 29 CFR 1910.146 and in accordance with 29 CFR 1910, Subpart I.

1.3.1.2 Cleaning

When cleaning with solvents, provide appropriate safety measures as required by the manufacturer's Safety Data Sheet or where the concentration of solvent vapors exceeds 10 percent of the Lower Explosive Limit (LEL). Ventilation shall be in accordance with 29 CFR 1910.94, paragraph (c)(5).

1.3.1.3 Paint Mixing

Provide local exhaust ventilation in the area where coatings are mixed. This ventilation system must be capable of providing at least 100 linear fpm of capture velocity in the mixing zone. Avoid exposure of skin and eyes by wearing appropriate chemically resistant gloves, safety goggles, and face shields meeting the requirements of ANSI/ISEA Z87.1. Provide a personal eyewash unit within close proximity to the mixing operation in accordance with ANSI/ISEA Z358.1, paragraph (9). All powered mixing equipment must be either pneumatic or double insulated (intrinsically safe), in order to guard against fire or explosion. Individuals who have a history of, or develop a sensitivity to epoxy or polyurethane resin systems, must not conduct work tasks or otherwise be exposed to such chemicals.

1.3.1.4 Confined Spaces

When using solvent-based paint in confined spaces, prepare a Confined Spaces Plan. Provide ventilation to exchange air in the space at a minimum rate of 5,000 cubic feet per minute per spray gun in operation. It may be necessary to install both a mechanical supply and exhaust ventilation system to effect adequate air changes within the confined space. Locate and affix all air-moving devices to an opening of the confined space in a manner assuring that the airflow is not restricted or short circuited and is supplied in the proper direction. A suitable means

of egress must be maintained at all times. Continue ventilation after completion of painting and through the drying phase of the operation. If the ventilation system fails or the concentration of volatiles exceeds 10 percent of the LEL (except in the zone immediately adjacent to the spray nozzle), stop painting and evacuate spaces until adequate ventilation is provided. Provide an audible alarm that signals system failure as an integral part of the ventilation system. Check the effectiveness of the ventilation by using ventilation smoke tubes and making frequent oxygen and combustible gas readings during painting operations. Exhaust ducts must discharge clear of the working areas and away from possible sources of ignition. Submit detailed written standard operating procedures for confined spaces in accordance with 29 CFR 1910.146 and EM 385-1-1, Section 6H, Section 34. The procedures must include:

a. Certificates of calibration for all testing and monitoring equipment. The certificates of calibration must include: type of equipment, model number, date of calibration, firm conducting calibration, and signature of individual certifying calibration.

b. Methods of inspection of personal protective equipment prior to use.

c. Engineering controls and other work practices designed to reduce airborne hazardous chemical exposures to a minimum.

d. Specification of the design and installation of ventilation systems which provide adequate oxygen content and provide for the dilution of paint solvent vapor, lead, and other toxic particulates within the confined space. Procedures must also include plans to evaluate the adequacy of air flow patterns.

1.3.1.5 Paint Spraying

Submit a comprehensive written Respiratory Protection Plan in accordance with 29 CFR 1910.134, 29 CFR 1926.62, and EM 385-1-1. During all painting operations, painters shall use approved SCBA or SAR (air line) respirators, unless valid air sampling has demonstrated contaminant levels to be consistently within concentrations that are compatible with air-purifying respirator Assigned Protection Factor (APF). Persons with facial hair that may interfere with the seal or valve function of a half or full facepiece style respirator may wear a hood or helmet respirator provided the APF is sufficient for the exposure. Air-purifying chemical cartridge/canister half- or full-facepiece respirators that have a particulate prefilter and are suitable for the specific type(s) of gas/vapor and particulate contaminant(s) may be used for nonconfined space painting, mixing, and cleaning (using solvents). These respirators may be used provided the measured or anticipated concentration of the contaminant(s) in the breathing zone of the exposed worker does not exceed the APF for the respirator and the gas/vapor has good warning properties or the respirator assembly is equipped with a NIOSH-approved end of service life indicator for the gas(es)/vapor anticipated or encountered. Where paint contains toxic elements that may become airborne during painting in nonconfined spaces, air-purifying half- and full-facepiece respirators or powered air-purifying respirators equipped with appropriate gas vapor cartridges, in combination with a high-efficiency filter, or an appropriate canister incorporating a high-efficiency filter, shall be used.

1.3.1.6 Explosion Proof Equipment

Electrical wiring, lights, and other equipment located in the painting

area shall be of the explosion proof type designed for operation in Class I, Division 1, Group D, hazardous locations as required by the NFPA 70. Electrical wiring, motors, and other equipment, outside of but within 20 feet of any painting area, shall not spark and shall conform to the provisions for Class I, Division 2, Group D, hazardous locations. Electric motors used to drive exhaust fans shall not be placed inside spraying areas or ducts. Fan blades and portable air ducts shall be constructed of nonferrous materials. Properly maintain and ground motors and associated control equipment. Electrically bond and ground the metallic parts of all air-moving devices, spray guns, connecting tubing, and duct work.

1.3.1.7 Further Precautions

a. Workers must wear nonsparking safety shoes.

b. Place and ground solvent drums, taken into the painting area, on nonferrous surfaces. Maintain metallic bonding between containers and drums when materials are being transferred.

c. Inspect insulation on all power and lighting cables to ensure that the insulation is in excellent working condition and is free of all cracks and worn spots. Cables shall be further inspected to ensure that no connections are within 50 feet of the operation, that lines are not overloaded, and that they are suspended with sufficient slack to prevent undue stress or chafing.

1.3.1.8 Ignition Sources

Ignition sources, to include lighted cigarettes, cigars, pipes, matches, or cigarette lighters shall be prohibited in area of solvent cleaning, paint storage, paint mixing, or paint application.

1.3.2 Health

Prepare and submit a Worker Protection Plan addressing all necessary aspects of worker protection. The plan must include air monitoring program, implementation schedule, work practice program, administrative controls, any necessary medical screening requirements, multi-Contractor site arrangements, and job site inspections.

1.3.2.1 Air Monitoring

Perform air sampling and testing as needed (typically two days) to assure that workers are not exposed to organic or inorganic contaminants above permissible exposure limits at the start of surface preparation tasks as well as paint mixing and application. Provide the Contracting Officer with a copy of Air Monitoring Test Reports from the laboratory, including records of air monitoring and tests performed. Submit reports as soon as information is available, and not to exceed five working days of the sampling date. Provide results from direct-reading instrumentation on the same day the samples are collected. Air monitoring shall utilize NIOSH 2033-154, Factory Mutual, or Underwriters Laboratories approved equipment, equipment calibration procedures, sampling and analytical methods for the sampling to be performed based on the work tasks and anticipated toxic contaminants to be generated. Analytical laboratories accredited by the American Industrial Hygiene Association (AIHA) shall be used for the analysis of any collected air samples.

1.3.2.2 Medical Status

Prior to the start of work submit a Medical Status Report that includes a Physician's statement indicating Contractor employees have had a baseline medical evaluation and have been deemed fit for work with or around paint systems, thinners, or paint containing lead. The Medical Status Report shall also address those employees who will be required to wear respiratory protective equipment and/or may be exposed to high noise levels (work in a noise environment with a time weighted average greater than or equal to 90 dBA). If Contractor employees participate in periodic medical evaluations, detail at what frequency. All Contractor employees who wear full-facepiece respirators shall not wear contact lenses.

Lead-containing paint exists on all items to be prepared and painted by the work of this project and may be disturbed and/or removed during the preparation work. Therefore, for lead-based paint, the medical requirements of 29 CFR 1926.62 shall be included.

Maintain medical records as required by 29 CFR 1910.20.

1.3.2.3 Change in Medical Status

Any employee whose medical status has changed negatively due to work related chemical and/or physical agent exposure while working with or around paint systems or other chemicals shall be evaluated by a physician and obtain a physician's statement as described in Subpart "Medical Status" prior to allowing the employee to return to those work tasks. Submit a Change in Medical Status Report that includes the physician's re-evaluation of the employee and identifies negative changes in the employee's medical status.

1.3.3 Environmental Protection

In addition to the requirements of the Statement of Work, prepare an Environmental Protection Plan incorporating the details of the Waste Disposal Plan.

1.3.3.1 Waste Classification, Handling, and Disposal

In addition to the requirements of the Waste Management Plan requirements of the Statement of Work, prepare and submit a Waste Disposal Plan in accordance with the requirements of 40 CFR 261 and 40 CFR 262 including classification and handling. The Contractor is responsible for assuring the proper disposal of all hazardous and nonhazardous waste generated during the project. Lead-containing paint shall be disposed of as a hazardous waste. Place hazardous waste in properly labeled, closed containers shielded adequately to prevent dispersion of the waste by wind or water. Store nonhazardous waste in closed containers separate from hazardous waste storage areas. All hazardous waste shall be transported by a licensed transporter in accordance with 40 CFR 263 and 49 CFR 171, Subchapter C. Transport all nonhazardous waste in accordance with local regulations regarding waste transportation. In addition to the number of copies required by 40 CFR 262.22, supply one copy of each Waste Manifest to the Contracting Officer prior to transportation.

1.4 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When

used, a designation following the "G" designation identifies the office that will review the submittal for the Government. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Safety, Health, and Environmental Requirements; G, RO

Confined Spaces Plan; G, DO

Respiratory Protection Plan; G, RO

Worker Protection Plan; G, RO

Environmental Protection Plan; G, RO

Waste Disposal Plan; G, RO

SD-03 Product Data

Manufacturer's Product Data Sheets; G, DO

Submit manufacturer's product data sheets for the epoxy primer/sealer and overcoat product to be used.

SD-06 Test Reports

Inspection Reports; G, RO

Medical Status Report; G, RO

Change in Medical Status Report; G, RO

Air Monitoring Test Reports; G, RO

SD-07 Certificates

Certified EHS Professional; G, RO

Waste Manifest

1.5 QUALIFICATIONS

Qualifications and experience shall comply with the following.

1.5.1 Certified Environmental, Health, and Safety Professionals

Provide a certificate for each Certified EHS Professional; submit qualifications and experience of qualified and competent persons employed to provide preconstruction and onsite environmental, safety, and health services. Obtain acceptance of this submission prior to the submission of other required environmental, safety, and health submittal items. Utilize a qualified and competent person as defined in Section 01 of EM 385-1-1 to develop the required safety and health submittal and to provide onsite safety and health services during the contract period. The person shall be a Certified Industrial Hygienist (CIH) with a minimum of 3 years of demonstrated experience in similar related work. The CIH may utilize other qualified and competent persons, as defined in EM 385-1-1, to conduct on-site safety and health activities as long as these persons have

a minimum of 2 years of demonstrated experience in similar related work and work under the direct supervision of the CIH.

1.6 DELIVERY, STORAGE, AND HANDLING

Process and package paints to ensure that within a period of one year from date of manufacture, they will not gel, liver, or thicken deleteriously, or form gas in the closed container. Paints, unless otherwise specified or permitted, shall be packaged in standard containers not larger than 5 gallons, with removable friction or lug-type covers. Each container of paint or separately packaged component thereof shall be labeled to indicate the purchaser's order number, date of manufacture, manufacturer's batch number, quantity, color, component identification and designated name, and formula or specification number of the paint together with special labeling instructions, when specified. Paint shall be delivered to the job in unbroken containers. Paints that can be harmed by exposure to cold weather shall be stored in ventilated, heated shelters. All paints shall be stored under cover from the elements and in locations free from sparks and flames.

1.7 AMBIENT CONDITIONS

Paint shall be applied only to surfaces that are above the dew point temperature and that are completely free of moisture as determined by sight and touch. Paint shall not be applied to surfaces upon which there is detectable frost or ice. Except as otherwise specified, the temperature of the surfaces to be painted and of air in contact therewith shall be not less than 45 degrees F during paint application nor shall paint be applied if the surfaces can be expected to drop to 32 degrees F or lower before the film has dried to a reasonably firm condition. During periods of inclement weather, painting may be continued by enclosing the surfaces and applying artificial heat, provided the minimum temperatures and surface dryness requirements prescribed previously are maintained. Paint shall not be applied to surfaces heated by direct sunlight or other sources to temperatures that will cause detrimental blistering, pinholing, or porosity of the film.

PART 2 PRODUCTS

2.1 COATING PRODUCTS

The coating products to be applied ahall be an epoxy primer/sealer designed to be applied over marginally prepared steel, with an overcoat of a compatible product from the same manufacturer.

2.1.1 Epoxy Primer/Sealer

The epoxy primer/sealer shall be a two-part, rust-inhibitive, pigmented, gloss, ultra high solids, penetrating epoxy primer sealer designed for use over poorly prepared steel and aged coatings. The product shall have excellent wetting properties, be highly flexible, have good chemical and solvent resistance, have the ability to pentrate tight rusted steel, and shall be capable of accepting a variety of overcoats (including acrylic, alkyd, epoxy, and polyurethane products) without the use of an intermediate coat, and shall provide firm anchorage for the overcoat. The product shall be capable of encapsulating the edges of existing coatings thereby reducing undercutting and peeling of the existing coatings.

The epoxy primer/sealer shall have the following additional properties:

Volatile Organic Compounds (VOC's) content: less than 85 g/L as supplied.

Abilty to cure from 40 to 120 degrees F and up to 85% relative humidity.

Dry heat resistance up to 175 degrees F.

Capable of application by brush or roller.

Maximum time for application of overcoat shall be at least 7 days.

2.1.2 Overcoat Product

The epoxy/primer sealer and existing intact paint shall receive an overcoat product as recommended by the epoxy primer/sealer manufacturer, and as suitable for the application. Manufacturer recommendations for the application of the overcoat shall be followed. Both the epoxy primer/sealer and overcoat shall be compatible products from the same manufacturer. The overcoat product shall be suitable for application over the epoxy/primer sealer and existing intact paint.

2.1.3 Manufacturer's Product Data Sheets

The Contractor shall submit Manufacturer's Product Data Sheets for approval for the products (epoxy primer/sealer and overcoat product) to be used on this project.

PART 3 EXECUTION

3.1 GENERAL

The maintenance painting to be performed for this contract involves the cleaning and preparation of all areas of steel items identified for preparation and painting. This includes cleaning and preparation of areas of corrosion and areas of paint loss, as well as cleaning and preparation of intact paint areas. Application of an epoxy primer/sealer product to all corroded areas and areas of paint loss shall then be performed. An overcoat product, as specified in PART 2, shall then be applied to the epoxy rust penetrating sealer and all other areas of existing intact paint. Abrasive blasting or other preparation methods capable of removing intact coatings is not permitted on this project.

3.2 CLEANING AND PREPARATION OF SURFACES TO BE PAINTED

Cleaning and preparation of corroded areas and areas of paint loss, and intact paint areas, shall include solvent cleaning to remove grease, dirt, and salt, and mechanical removal of large or loose particles of paint or rust with a hammer or wire brush. Scraping, dry abrasive blasting, water blasting or other surface preparation methods capable of removing sound intact paint from steel surfaces shall not be performed. Full containment is not required for this project, however, the Contractor shall collect all cleaning residue and particles resulting from hammering and wire brushing for disposal off-site in accordance with all applicable Federal, State, and local laws and regulations.

3.2.1 Cleaning

Clean surfaces to be painted before applying paint or surface treatments. Remove all deposits of grease or oil, both new and existing, in accordance with SSPC SP 1, prior to mechanical cleaning. Ensure all grease or oil has been removed from the area to be painted prior to initiation of application. Solvent cleaning shall be accomplished with mineral spirits or other low toxicity solvents having a flash point above 100 degrees F. Use clean cloths and clean fluids to avoid leaving a thin film of greasy residue on the surfaces being cleaned. Protect items not to be prepared or coated from damage by the surface preparation methods. Cleaning and painting shall be so programmed that dust or other contaminants from the cleaning process do not fall on wet, newly painted surfaces, and surfaces not intended to be painted shall be suitably protected from the effects of cleaning and painting operations. Surfaces cleaned shall be allowed to fully dry prior to the application of coatings.

3.2.2 Preparation

Preparation of corroded areas and areas of paint loss after cleaning shall be accomplished using hand and/or power tools including hammers and wire brushes. The goal is to remove large and loose particles of paint and rust only, with most corrosion remaining intact. Preparation methods that result in the removal of all corrosion and the remaining intact paint and cause the exposure of bare steel, such as scraping, blasting, or aggressive use of power tools, are not permitted.

3.3 COATING APPLICATION

The coatings shall be applied in accordance with the manufacturer's instructions and the requirements of this specification. The final color of the overcoat in all areas shall match the color of the existing paint system on the item.

3.3.1 General

Application of the initial or subsequent coatings shall not commence until the Contracting Officer has verified that atmospheric conditions and the surfaces to be coated are satisfactory. Each coat shall be applied in a manner that will produce an even, continuous film of uniform thickness. Edges, corners, crevices, seams, joints, welds, rivets, corrosion pits, and other surface irregularities shall receive special attention to ensure that they receive an adequate application of coating.

3.3.2 Mixing

Paints shall be thoroughly mixed and kept at a uniform composition and consistency during application. The paint may not be thinned. Paint that has been stored at low temperature shall be brought up to at least 70 degrees F before being mixed, and its temperature in the working container shall not fall below 60 degrees F during the application. Paint that has deteriorated in any manner to a degree that it cannot be restored to essentially its original condition by customary field-mixing methods shall not be used and shall be removed from the project site. Paint that is more than 1 year old shall not be used.

3.3.3 Time Between Surface Preparation and Coating

Surfaces that have been cleaned and/or otherwise prepared for coating

shall be coated as soon as practicable after such preparation has been completed but, in any event, prior to any deterioration of the prepared surface.

3.3.4 Method of Paint Application

Unless otherwise specified, paint shall be applied by brush or roller in accordance with the manufacturer's recommendations. Special attention shall be directed toward ensuring adequate coverage of edges, corners, crevices, pits, rivets, bolts, welds, and similar surface irregularities, and ensuring paint is properly applied at the interface of areas of corrosion and remaining paint. Other methods of application shall be subject to the specific approval of the Contracting Officer.

3.3.5 Coverage

The coatings shall be applied at a rate and dry film mil thickness, and in the number of coats, consistent with the manufacturer's written instructions.

3.3.6 Progress of Painting Work

Where painting on any type of surface has commenced, the complete painting operation on that portion of the work shall be completed as soon as practicable, without prolonged delays. Sufficient time shall elapse between successive coats to permit them to dry properly for recoating, and this period shall be modified as necessary to suit adverse weather conditions. Paint shall be considered dry for recoating when it feels firm and does not deform or feel sticky under moderate pressure of the finger.

3.3.7 Protection of Painted Surfaces

Where shelter and/or heat are provided for painted surfaces during inclement weather, such protective measures shall be maintained until the paint film has dried and discontinuance of the measures is authorized. Items that have been painted shall not be handled, worked on, or otherwise disturbed until the paint coat is fully dry and hard.

3.3.8 Protection of Noncoated Items and Cleanup

Walls, equipment, fixtures and all other items in the vicinity of the surfaces being coated shall be maintained free from damage by paint or painting activities. Paint spillage and painting activity damage shall be promptly repaired.

3.4 INSPECTION

Inspect and document all work phases and operations on a daily basis. Submit daily Inspection Reports. As a minimum the daily report shall contain the following:

a. Inspections performed, including the area of the structure involved and the results of the inspection.

b. Surface preparation operations performed, including the area of the structure involved, the mode of preparation, the kinds of solvent or tools employed, and whether contract requirements were met.

c. Thinning operations performed, including thinners used, batch numbers, and thinner/paint volume ratios.

d. Application operations performed, including the area of the structure involved, mode of application employed, ambient temperature, substrate temperature, dew point, relative humidity, type of paint with batch numbers, elapsed time between surface preparation and application, elapsed time for recoat, condition of underlying coat,and number of coats applied.

-- End of Section --

TECHNICAL SUBMITTAL REGISTER AND SUBMITTAL FORM 4025

SUBMITTAL REGISTER

CONTRACT NO.

TITLE AND LOCATION
Paint Gate Chamber Equipment, Colebrook River Lake, Colebrook, CT

CONTRACTOR

ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH #	CLASSIFICATION	GOVT OR A/E REVWR	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION			APPROVING AUTHORITY				MAILED TO CONTR/ DATE RCD FRM APPR AUTH	REMARKS
							SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	ACTION CODE	DATE OF ACTION	DATE FWD TO APPR AUTH/ DATE RCD FROM CONTR	DATE FWD TO OTHER REVIEWER	DATE RCD FROM OTH REVIEWER	ACTION CODE	DATE OF ACTION		
(a)	(b)	(c)	(d)	(e)	(f)		(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
		09 97 02	SD-01 Preconstruction Submittals															
			Safety, Health, and	1.3	G	RO												
			Environmental Requirements															
			Confined Spaces Plan	1.3.1.4	G	DO												
			Respiratory Protection Plan	1.3.1.5	G	RO												
			Worker Protection Plan	1.3.2	G	RO												
			Environmental Protection Plan	1.3.3	G	RO												
			Waste Disposal Plan	1.3.3.1	G	RO												
			SD-03 Product Data															
			Manufacturer's Product Data	2.1.3	G	DO												
			Sheets															
			SD-06 Test Reports															
			Inspection Reports	3.4	G	RO												
			Medical Status Report	1.3.2.2	G	RO												
			Change in Medical Status Report	1.3.2.3	G	RO												
			Air Monitoring Test Reports	1.3.2.1	G	RO												
			SD-07 Certificates															
			Certified EHS Professional	1.5.1	G	RO												
			Waste Manifest	1.3.3.1														

U.S. Army Corps of Engineers (USACE)

TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR MANUFACTURER'S CERTIFICATES OF COMPLIANCE

For use of this form, see ER 415-1-10; the proponent agency is CECW-CE.

DATE	TRANSMITTAL NO.

SECTION I - REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS (*This section will be initiated by the contractor*)

TO:	FROM:	CONTRACT NO.	CHECK ONE: ☐ THIS IS A NEW TRANSMITTAL ☐ THIS IS A RESUBMITTAL OF TRANSMITTAL _____

SPECIFICATION SEC. NO. (*Cover only one section with each transmittal*)	PROJECT TITLE AND LOCATION	THIS TRANSMITTAL IS FOR: (*Check one*) ☐ FIO ☐ GA ☐ DA ☐ CR ☐ DA/CR ☐ DA/GA

ITEM NO. (*See Note 3*) a.	DESCRIPTION OF SUBMITTAL ITEM (*Type size, model number/etc.*) b.	SUBMITTAL TYPE CODE (*See Note 8*) c.	NO. OF COPIES d.	CONTRACT DOCUMENT REFERENCE SPEC. PARA. NO. e.	CONTRACT DOCUMENT REFERENCE DRAWING SHEET NO. f.	CONTRACTOR REVIEW CODE g.	VARIATION Enter "Y" if requesting a variation (*See Note 6*) h.	USACE ACTION CODE (*Note 9*) i.

REMARKS

I certify that the above submitted items had been reviewed in detail and are correct and in strict conformance with the contract drawings and specifications except as otherwise stated.

NAME OF CONTRACTOR	SIGNATURE OF CONTRACTOR

SECTION II - APPROVAL ACTION

ENCLOSURES RETURNED (*List by item No.*)	NAME AND TITLE OF APPROVING AUTHORITY	SIGNATURE OF APPROVING AUTHORITY	DATE

INSTRUCTIONS

1. Section I will be initiated by the Contractor in the required number of copies.

2. Each Transmittal shall be numbered consecutively. The Transmittal Number typically includes two parts separated by a dash (-). The first part is the specification section number. The second part is a sequential number for the submittals under that spec section. If the Transmittal is a resubmittal, then add a decimal point to the end of the original Transmittal Number and begin numbering the resubmittal packages sequentially after the decimal.

3. The "Item No." for each entry on this form will be the same "Item No." as indicated on ENG FORM 4288-R.

4. Submittals requiring expeditious handling will be submitted on a separate ENG Form 4025-R.

5. Items transmitted on each transmittal form will be from the same specification section. Do not combine submittal information from different specification sections in a single transmittal.

6. If the data submitted are intentionally in variance with the contract requirements, indicate a variation in column h, and enter a statement in the Remarks block describing he detailed reason for the variation.

7. ENG Form 4025-R is self-transmitting - a letter of transmittal is not required.

8. When submittal items are transmitted, indicate the "Submittal Type" (*SD-01 through SD-11*) in column c of Section I.
   Submittal types are the following:
   SD-01 - Preconstruction SD-02 - Shop Drawings SD-03 - Product Data SD-04 - Samples SD-05 - Design Data SD-06 - Test Reports
   SD-07 - Certificates SD-08 - Manufacturer's Instructions SD-09 - Manufacturer's Field Reports SD-10 - O&M Data SD-11 - Closeout

9. For each submittal item, the Contractor will assign Submittal Action Codes in column g of Section I. The U.S. Army Corps of Engineers approving authority will assign Submittal Action Codes in column i of Section I. The Submittal Action Codes are:

   A -- Approved as submitted.
   B -- Approved, except as noted on drawings. Resubmission not required.
   C -- Approved, except as noted on drawings. Refer to attached comments. Resubmission required.
   D -- Will be returned by separate correspondence.
   E -- Disapproved. Refer to attached comments.
   F -- Receipt acknowledged.
   X -- Receipt acknowledged, does not comply with contract requirements, as noted.
   G -- Other action required *(Specify)*
   K -- Government concurs with intermediate design. (*For D-B contracts*)
   R -- Design submittal is acceptable for release for construction. (*For D-B contracts*)

10. Approval of items does not relieve the contractor from complying with all the requirements of the contract.

SITE PHOTOGRAPHS

Photo 1: From stairs, view of upper gate chamber.

Photo 2: From above looking into lower gate chamber.

Photo 3: Stairs from lower gate chamber.

Photo 4: Corrosion and paint loss at gate chamber floor level.:

Photo 5: Float well pipe

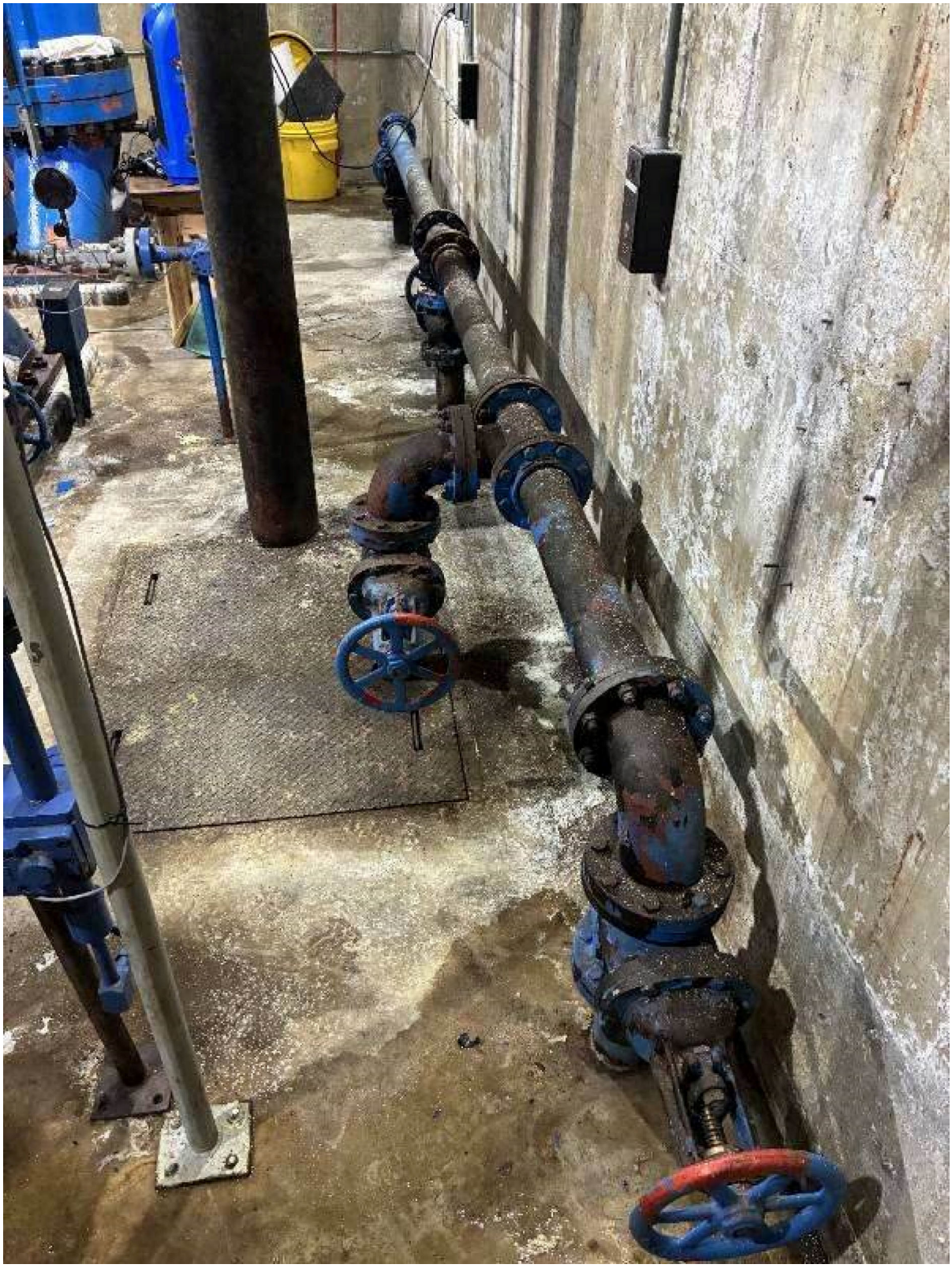


Photo 6: Pressure relief valves and pipe

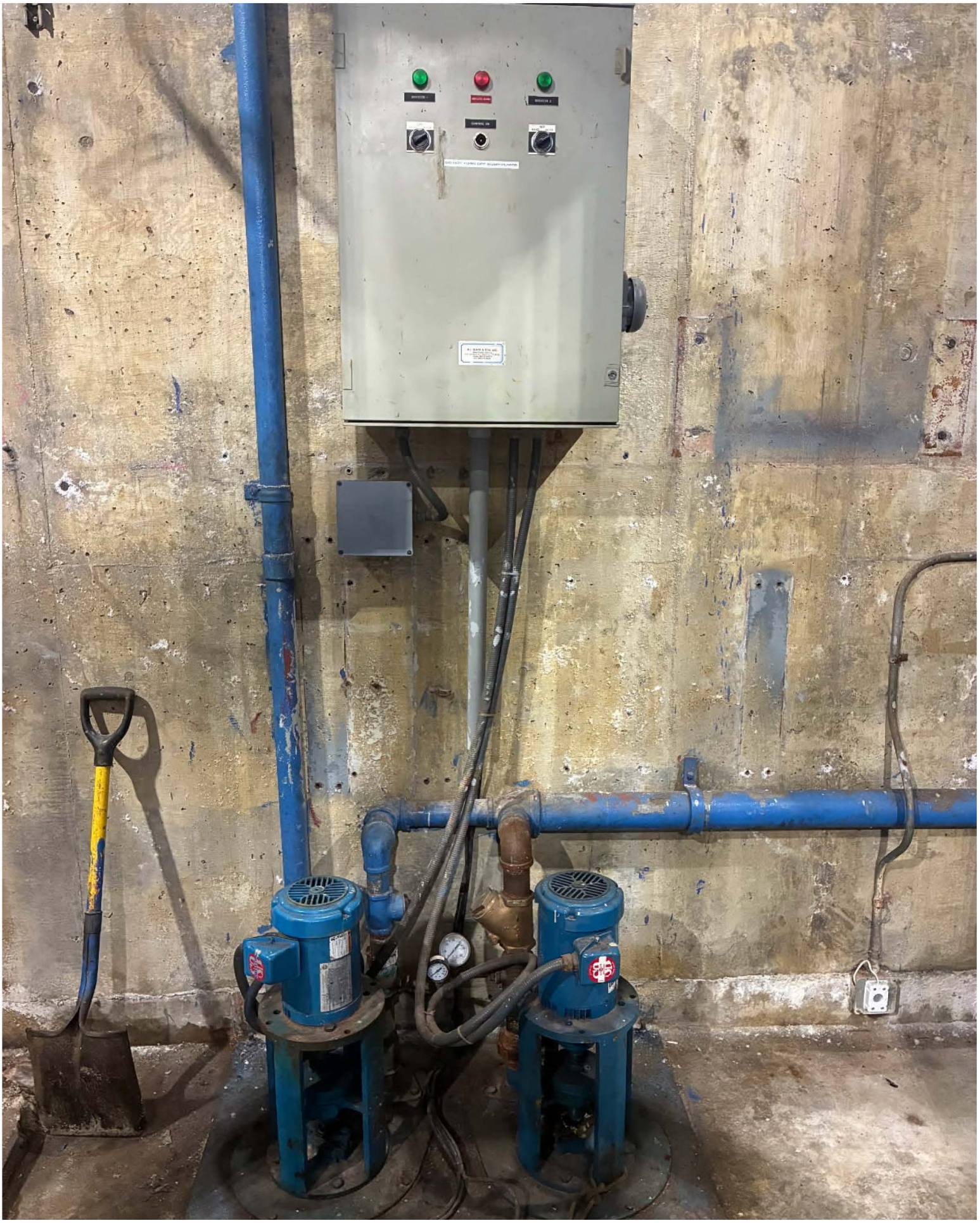


Photo 7: Sump Pumps

ENG FORM 3394 (AUG 2021) MISHAP NOTIFICATION AND INVESTIGATION

Print Form | Save As | E-mail

U.S. Army Corps of Engineers (USACE)

MISHAP NOTIFICATION AND INVESTIGATION

For use of this form, see instructions in the attachments and USACE ER 385-1-99; the proponent agency is CESO.

Requirement Control Symbol

RCS-CESO-21-0001

DATA REQUIRED BY THE PRIVACY ACT OF 1974

Authority 10 U.S.C. 7013, Secretary of the Army; 5 U.S.C. 7902, Safety Programs; Public Law 91-596, Occupational Safety and Health Act of 1970; DoD Instruction 6055.1, DoD Safety and Occupational Health Program; Army Regulations 385-10, Army Safety Program; DoD Instruction 6055 .07, Mishap Notification, Investigation, Reporting, and Record Keeping; and E.O. 9397 (SSN), as amended.

Principal Purpose Information collected is to provide the USACE leaders, soldiers, families and civilians in injury, illness, and loss data to effectively manage its safety and occupational health program.

Routine Uses In addition to those disclosures generally permitted under 5 U.S.C. 552a(b) of the Privacy Act of 1974, these records or information contained therein may specifically be disclosed outside the DoD as a routine use pursuant to 5 U.S.C. 552a(b) as follows: To the Department of Labor, the Federal Aviation Agency, the National Transportation Safety Board, and to Federal, State, and local agencies and applicable civilian organizations, such as the National Safety Council, for use in a combined effort of accident prevention. In some cases, data must also be disclosed to an employee's representative under the provisions of 29 CFR 1960.29. Records will be made available consistent with applicable laws and regulations. Information will be withheld from the public only if authorized by 5 U.S.C. Section 552 (Freedom of Information Act (FOIA), 5 U.S.C. 552a (Privacy Act)), or other statutory or regulatory authority.

Disclosure Failure to provide all the required information on the report may result in the rejection of report submission.

1. WHO IS REPORTING MISHAP

a. Name: | b. Phone number:

c. Email address: | d. Signature:

e. Report type:
- ☐ 1. Near Miss Report. *(No injury/illness, or property damage. Complete all fields with underlined text.)* — Date:
- ☐ 2. Initial Accident Report. (*For accident notification within 24 hrs, Complete all fields with underlined text.*) — Date:
- ☐ 3. Final Accident Report. *(For reporting findings from accident investigation, complete full form.)* — Date:

f. Mishap Type. *(Check all that apply)*

☐ Fatality | ☐ Injury/Illness | ☐ Property Damage | ☐ Near Miss

g. Were any of the following items associated with the mishap ? ☐ Yes ☐ No *(If yes, check all that apply)*

☐ Electrical and/or Hazardous Energy | ☐ Working at Heights | ☐ Diving | ☐ Load Handling Equipment or Rigging | ☐ Occupational Health Exposure

2. WHO WAS INVOLVED IN THIS MISHAP?

a. Name:

b. Personnel Classification: | c. Time employee began work:

d. Gender: | e. Date of birth (for Government personnel only): | f. Age:

g. Date hired: | h. Primary language:

i. Is individual a supervisor? ☐ Yes ☐ No | j. Duty status at time of mishap: | k. Years experience in job:

l. What was individual doing when mishap occurred? (*Select activity from the drop downs below.*)

1. General activities: | 2. Vehicle/Equipment/Vessel:

3. Sports/Recreation: | 4. Other not listed:

m. Did individual utilize all OSHA/EM 385-1-1 required Personal Protective Equipment (PPE) for activity? ☐ Yes ☐ No ☐ N/A

If no, identify missing PPE:

n. Was a Personal Flotation Device used? ☐ Yes ☐ No ☐ N/A | o. Was a seat belt used? ☐ Yes ☐ No ☐ N/A

Print Form | Save As | E-mail

p. **Government personnel only:**

1. Job series: | 2. Rank: | 3. Grade:

4. Center/Division/Lab: | 5. District:

q. **Contractor personnel only:**

1. Employer/Contractor name:

2. Individual's occupation/trade: | Other not listed:

r. If mishap occurred on a contractor site, provide the following:

1. Prime Contractor name:

2. Contract number: | 3. Contract type: | 4. Funding type:

3. WHAT TYPE OF INJURY/ILLNESS OCCURRED?

a. Severity of injury/illness? | b. Type of Injury/Illness:

c. Identify body part(s) affected by injury/illness:

Primary body part affected: | Secondary body part affected:

d. Identify cause and source of injury/illness:

Cause of injury/illness: | Source of injury/illness:

e. Was employee treated by a physician or health care professional provider? ☐ Yes ☐ No

If yes, provide name of physician or health care professional provider?

f. Was treatment given away from work site? ☐ Yes ☐ No | g. Was employee treated in an emergency room ? ☐ Yes ☐ No ☐ N/A

h. If treatment was given away from the work-site, where was it given? (For Government Personnel Only)

Treatment facility name:

Address:

City: State: Zip: Country:

i. Was employee hospitalized as an in-patient? ☐ Yes ☐ No | If yes, how many nights? | Was OSHA notified? ☐ Yes ☐ No

Note: OSHA requires reporting all work-related fatalities within 8 hours and in-patient hospitalizations, amputations and loss of an eye within 24 hours to OSHA.

j. Estimated days away from work: | k. Estimated days of restricted/transferred duty:

4. WHAT HAPPENED?

a. What was the primary activity occurring at the time of the mishap?

Other, not listed:

b. What happened? Provide a detailed description of the mishap. (Do not include any personally identifiable information (name, etc.).)

Note: Provide supporting photos, charts, diagrams, etc. with this report.

c. What other organizations or agencies have been notified about this mishap?

Print Form | Save As | E-mail

5. WHAT TYPE OF PROPERTY/MATERIAL WAS INVOLVED?

a. List all property/material involved in the mishap. (Include damaged and undamaged property.)

	Item A	*Item B*	*Item C*
i. Type of item:			
Other not listed:			
ii. Name of item(s):			
iii. Collision type:			
Other not listed:			
iv. Ownership of item:			
v. Dollar cost of damage:			

6. WHEN DID THE MISHAP OCCUR?

a. Date the mishap occurred:	b. Time mishap occurred:
c. What day did mishap occur on?	d. What period of day did mishap occur?

7. WHERE DID THE MISHAP OCCUR?

a. Did the mishap occur on a military Base/Post? ☐ Yes ☐ No

b. USACE Office/Program/Project name:

c. Select the location type most closely associated with the mishap:

d. Identify exact location where mishap occurred:

Address:

City: State: Zip: Country:

e. Latitude:	f. Longitude:

8. WHY DID THE MISHAP OCCUR? (*Recommend completing this section for Near Misses.*)

A. Performance Causal Factors

1. Did a problem with performance contribute to this mishap occurring? ☐ Yes ☐ No

If yes, select the error that contributed most to the mishap:

2. Describe action(s) taken, anticipated or recommended to eliminate cause(s):

B. Support Causal Factors

1. Did a problem with resources contribute to this mishap occurring? ☐ Yes ☐ No

If yes, select the error that contributed most to the mishap:

2. Describe action(s) taken, anticipated or recommended to eliminate cause(s):

C. Standards/Policy/Planning Causal Factors

1. Did an organizational standard/policy/or plan contribute to this mishap occurring? ☐ Yes ☐ No

If yes, select the error that contributed most to the mishap:

2. Was a written Activity Hazard Analysis (AHA) or equivalent completed and accepted by Government Designated Authority (GDA) for task(s) being performed at time of mishap? (If yes, attach a copy to this report) ☐ Yes ☐ No

If yes, was the AHA available and used by worker? ☐ Yes ☐ No

3. Was a written work plan (critical lift plan, fall protection plan, etc.) required, completed and accepted by the GDA for task(s) being performed at time of mishap? ☐ Yes ☐ No

If yes, was the plan available and used by worker? ☐ Yes ☐ No

Print Form | Save As | E-mail

4. Describe action(s) taken, anticipated or recommended to eliminate cause(s):

D. Training Causal Factors

1. Did a problem with training contribute to this mishap occurring? ☐ Yes ☐ No

If yes, select the error that contributed most to the mishap:

2. Was individual trained to perform the activity/task? ☐ Yes ☐ No

If yes, select type of training: ☐ Classroom ☐ Certification/License ☐ On the job

☐ Other, describe:

What was date of most recent training?

3. Describe action(s) taken, anticipated or recommended to eliminate cause(s):

E. Leader/Supervisor Causal Factors

1. Did any leader/supervisory mistake/task error contribute to this mishap occurring? ☐ Yes ☐ No

If yes, select the error that contributed most to the mishap:

2. Did the safety climate/culture contribute to the mishap? ☐ Yes ☐ No

3. Did challenges with teamwork contribute to the mishap? ☐ Yes ☐ No

4. Describe action(s) taken, anticipated or recommended to eliminate cause(s):

F. Individual Causal Factors

1. Did any individual mistakes/task errors contribute to this mishap occurring? ☐ Yes ☐ No

If yes, select the error that contributed most to the mishap:

2. Describe action(s) taken, anticipated or recommended to eliminate cause(s):

G. Physical Environment Causal Factors

1. Did any physical environment contribute to this mishap occurring? ☐ Yes ☐ No

If yes, select the error that contributed most to the mishap:

2. Describe action(s) taken, anticipated or recommended to eliminate cause(s):

H. Material Causal Factors

1. Did any material failure contribute to this mishap occurring? ☐ Yes ☐ No

If yes, select the error that contributed most to the mishap:

2. Which failure is most closely associated with the material failure/malfunction?

3. Describe action(s) taken, anticipated or recommended to eliminate cause(s):

I. Environmental Causal Factors

1. Did any environmental condition contribute to this mishap occurring? ☐ Yes ☐ No

If yes, select the factor that contributed most to the mishap:

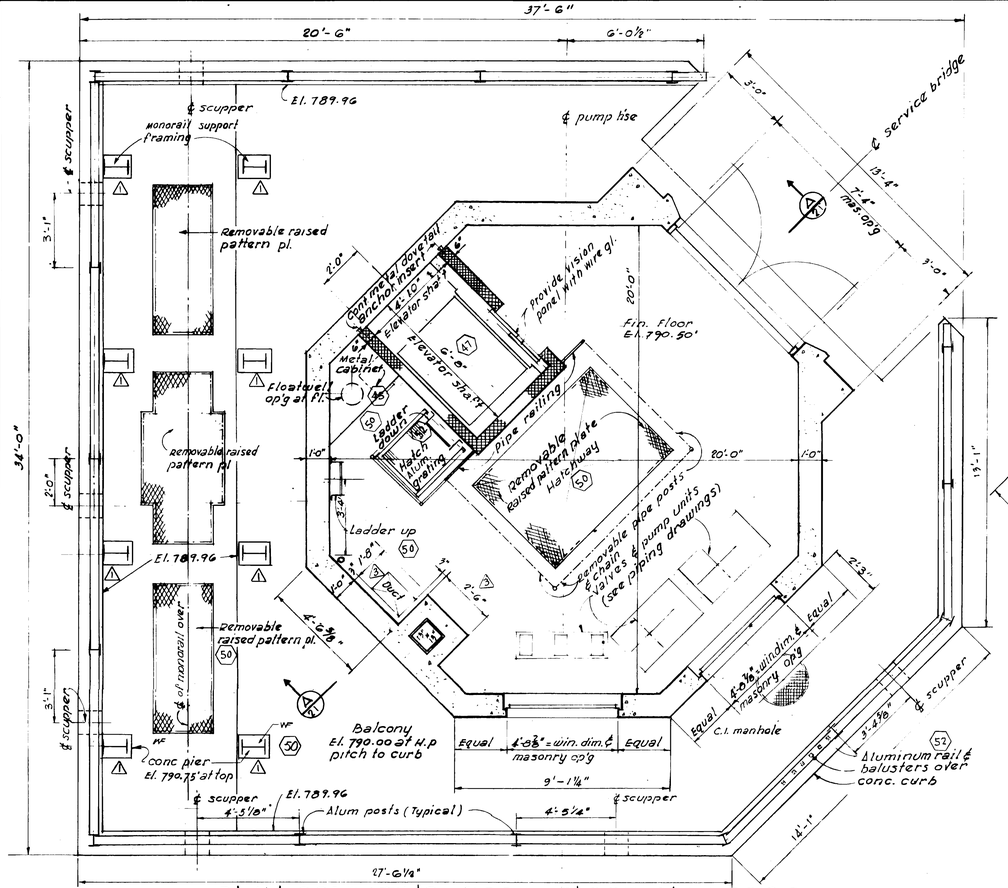
2. Describe action(s) taken, anticipated or recommended to eliminate cause(s):

Print Form | Save As | E-mail

J. Facility/Building Design
1. Did the design of the facility/building contribute to the mishap? ☐ Yes ☐ No
If yes, describe:
2. Describe action(s) taken, anticipated or recommended to eliminate hazard:
K. Existing Hazard
1. Did a hazard(s) contribute to the mishap? ☐ Yes ☐ No
If yes, describe the hazard(s):
2. Describe action(s) taken, anticipated or recommended to eliminate hazard(s):
9. Corrective Action plan
a. Have all corrective action(s) to prevent mishap recurrence been completed? ☐ Yes ☐ No
b. Who is responsible for the corrective action plan?
c. What date will/have all corrective action(s) be/been completed by:
d. Additional information:
10. Additional Information

INFORMATION DRAWINGS

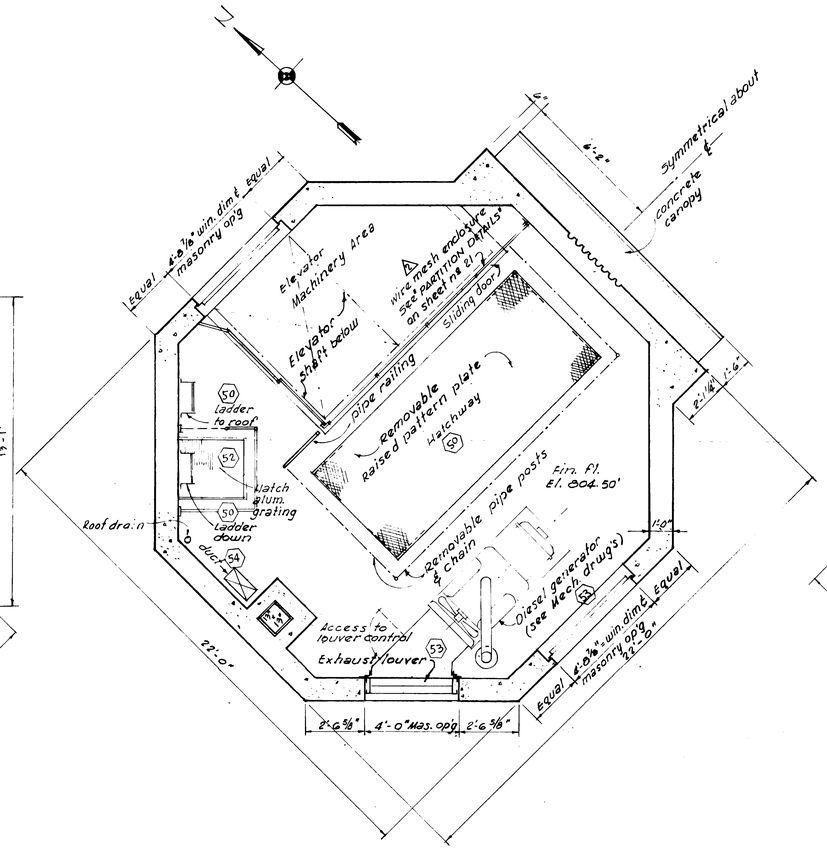
CORPS OF ENGINEERS — U. S. ARMY



PLAN-OPERATING ROOM FLOOR-ELEV. 790.5

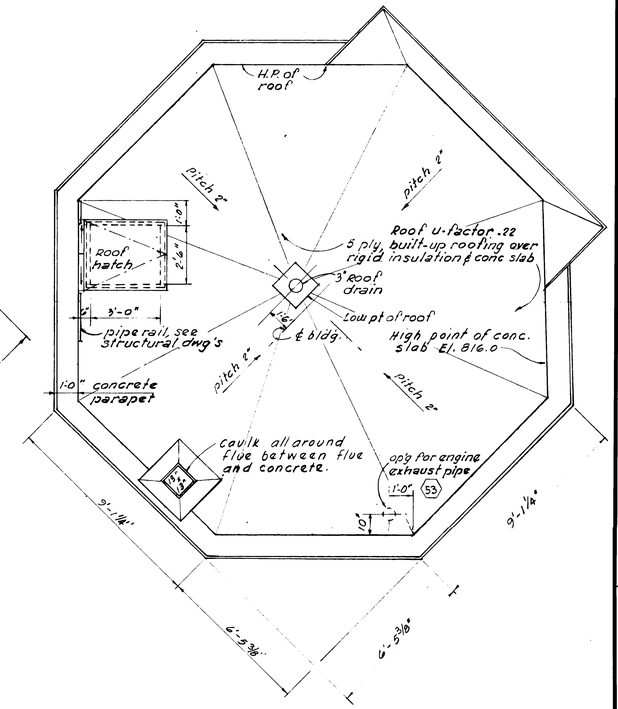
SCALE: 3/8" = 1'-0"

Note.
All scuppers to be 12" long, 3" high. for post location & details see structural drawings.



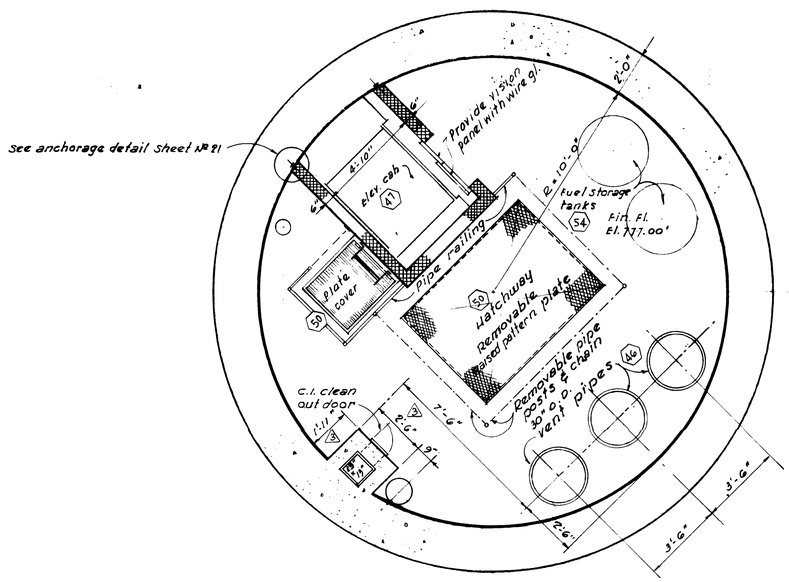
PLAN-EQUIPMENT ROOM FLOOR-ELEV. 804.5

SCALE: 3/8" = 1'-0"



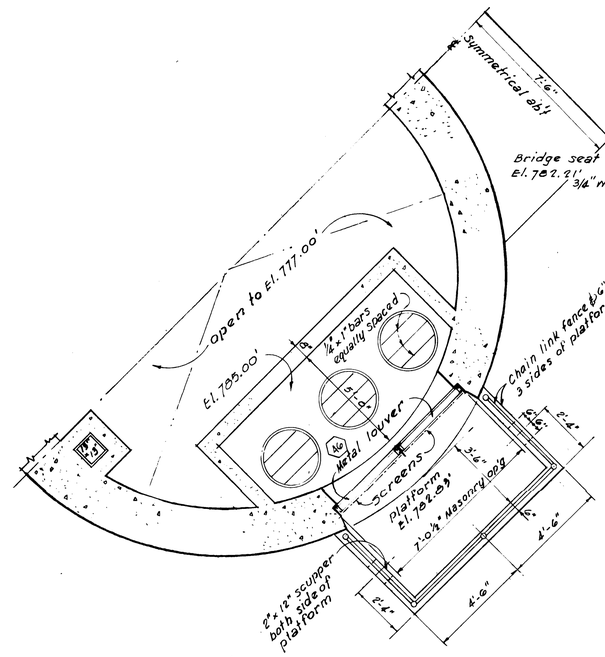
ROOF PLAN-ELEV. 816.0

SCALE: 3/8" = 1'-0"



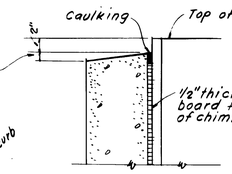
PLAN-HEATER ROOM FL. - ELEV. 777.0

SCALE: 3/8" = 1'-0"



PLAN-AIR VENT LOUVER PLATFORM

SCALE: 3/8" = 1'-0"



SECT. THRU. CHIMNEY AT ROOF

SCALE: 1 1/2" = 1'-0"

NOTES:
All items on this sheet shall be paid under item No. 44 except as noted on plan and below.
Concrete will be paid under item No. 33 and No. 34
Reinforcing will be paid under item No. 41
Cement will be paid under item No. 40

Record Drawing
Contract No. 13016 SV ENG 65-212

GRAPHIC SCALE

3/8" = 1'-0"

1 1/2" = 1'-0"

REVISION	DATE	DESCRIPTION	BY
	12-22-71	Final field corrections	
2	9-28-66	Chimney dim. revised. Detail & bar scale added.	
1	9-15-66	Wire mesh enclosure added railg deleted	
1	5-11-65	Monorail supports and framing revised. (Am. No. 3)	

U.S. ARMY ENGINEER DIVISION, NEW ENGLAND
CORPS OF ENGINEERS
WALTHAM, MASS.

DES. BY W.C. | DR. BY W.C. | CK. BY

SUBMITTED: CHIEF, ARCH. SECTION

REVIEWED: PROJECT ENGINEER

APPROVED: CHIEF, DESIGN BRANCH

APPROVED: CHIEF, ENGINEERING DIVISION

CONNECTICUT RIVER FLOOD CONTROL
COLEBROOK RIVER DAM
OUTLET WORKS – INTAKE TOWER
ARCHITECTURAL
PLANS
WEST BRANCH-FARMINGTON RIVER — CONN. & MASS.

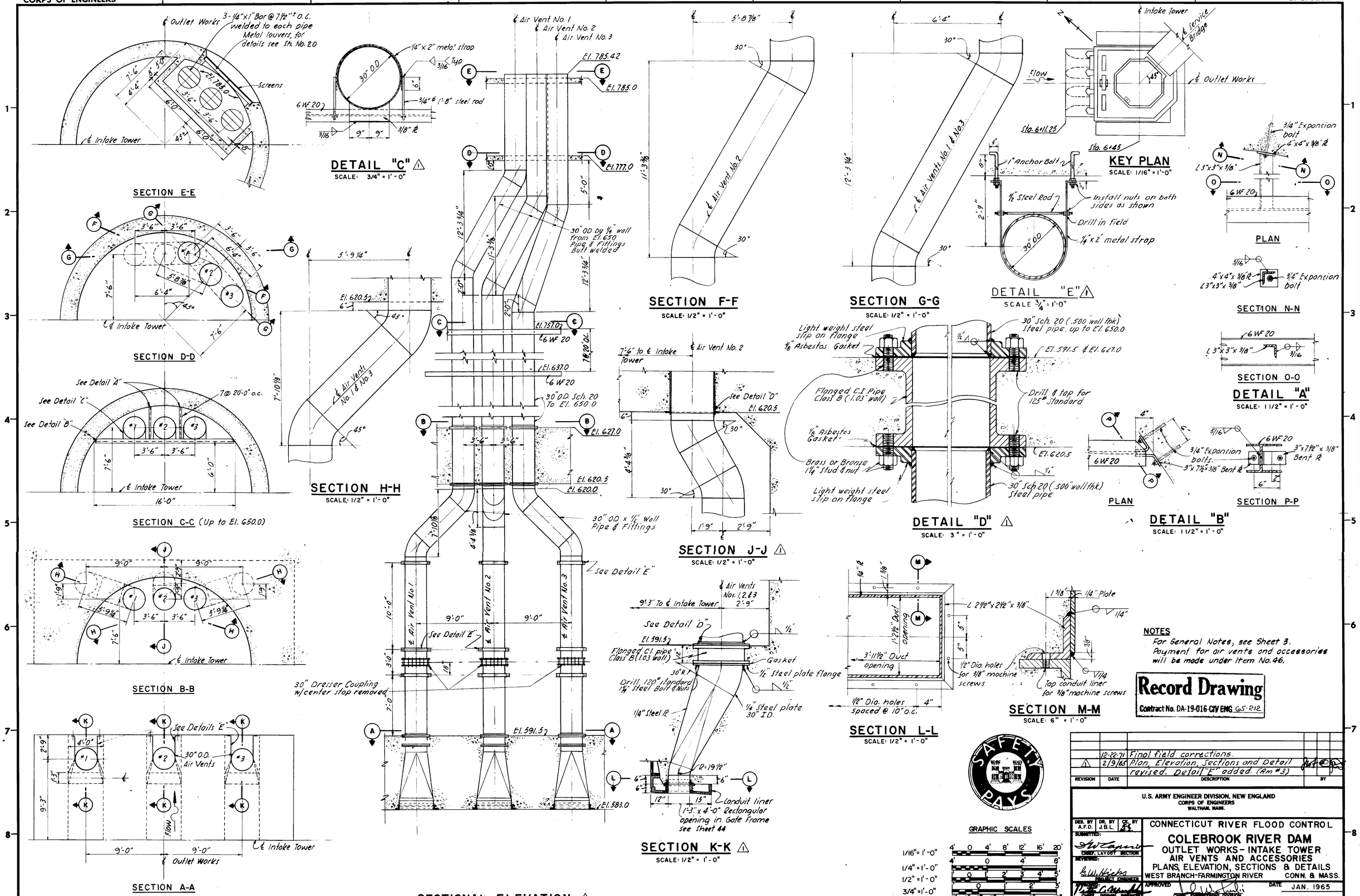
DATE JAN. 1965

SCALE: 3/8" = 1'-0" | SPEC. NO. CIV. ENG. 19-016-65-25

DRAWING NUMBER CON-16

SHEET 19

CORPS OF ENGINEERS — U. S. ARMY



NOTES

For General Notes, see Sheet 3.
Payment for air vents and accessories will be made under Item No. 46.

Record Drawing
Contract No. DA-19-016-CIV ENG 65-212

REVISION	DATE	DESCRIPTION	BY
	12-20-71	Final field corrections.	
1	2/9/65	Plan, Elevation, Sections and Detail revised. Detail "E" added. (Am #3)	

U.S. ARMY ENGINEER DIVISION, NEW ENGLAND
CORPS OF ENGINEERS
WALTHAM, MASS.

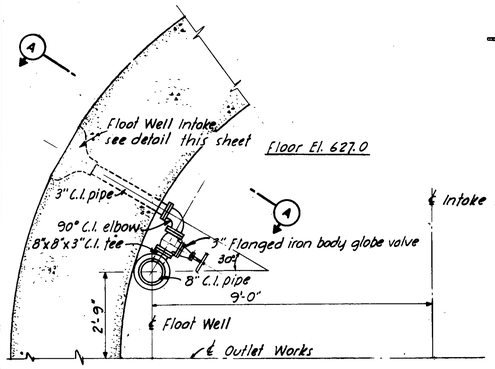
DES. BY A.F.D. — DR. BY J.B.L. — CK. BY

SUBMITTED: CHIEF, LAYOUT SECTION
REVIEWED: PROJECT ENGINEER
APPROVED: CHIEF, DESIGN BRANCH
APPROVED: CHIEF, ENGINEERING DIVISION

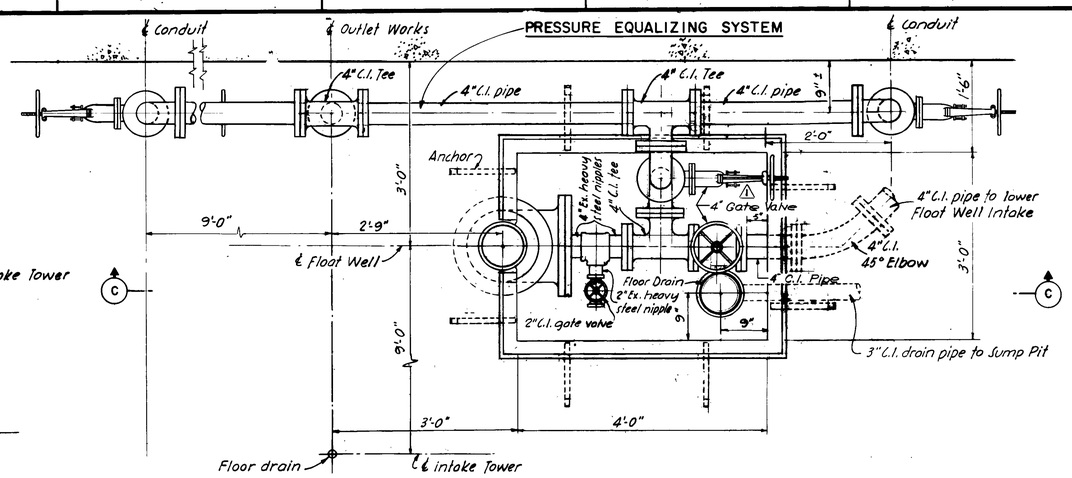
CONNECTICUT RIVER FLOOD CONTROL
COLEBROOK RIVER DAM
OUTLET WORKS - INTAKE TOWER
AIR VENTS AND ACCESSORIES
PLANS, ELEVATION, SECTIONS & DETAILS
WEST BRANCH-FARMINGTON RIVER — CONN. & MASS.

DATE JAN. 1965
SCALE: AS SHOWN — SPEC. NO. CIV. ENG. 19-016-65-25
DRAWING NUMBER CON - 16
SHEET 22

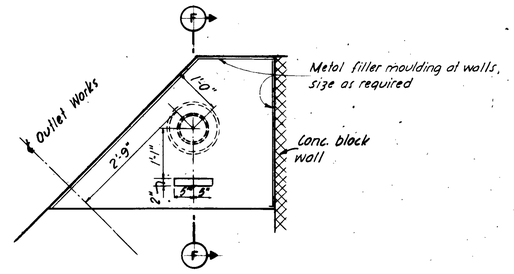
CORPS OF ENGINEERS — U. S. ARMY



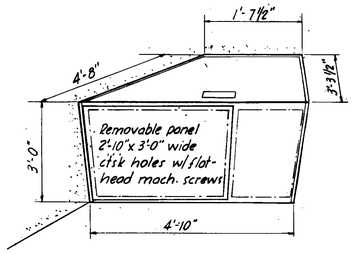
PLAN



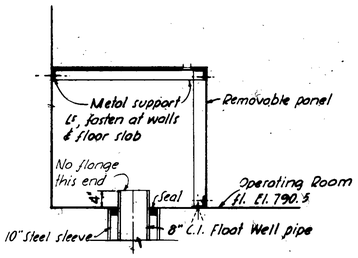
PLAN (COVER REMOVED)



PLAN



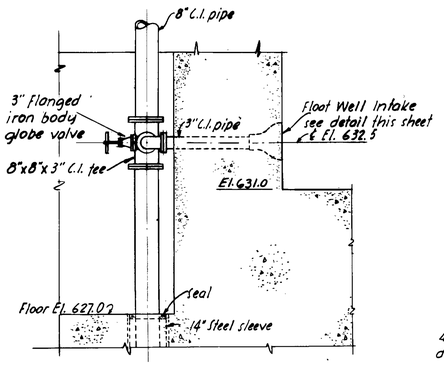
ELEVATION



SECTION F-F

METAL FLOAT WELL CABINET DETAILS

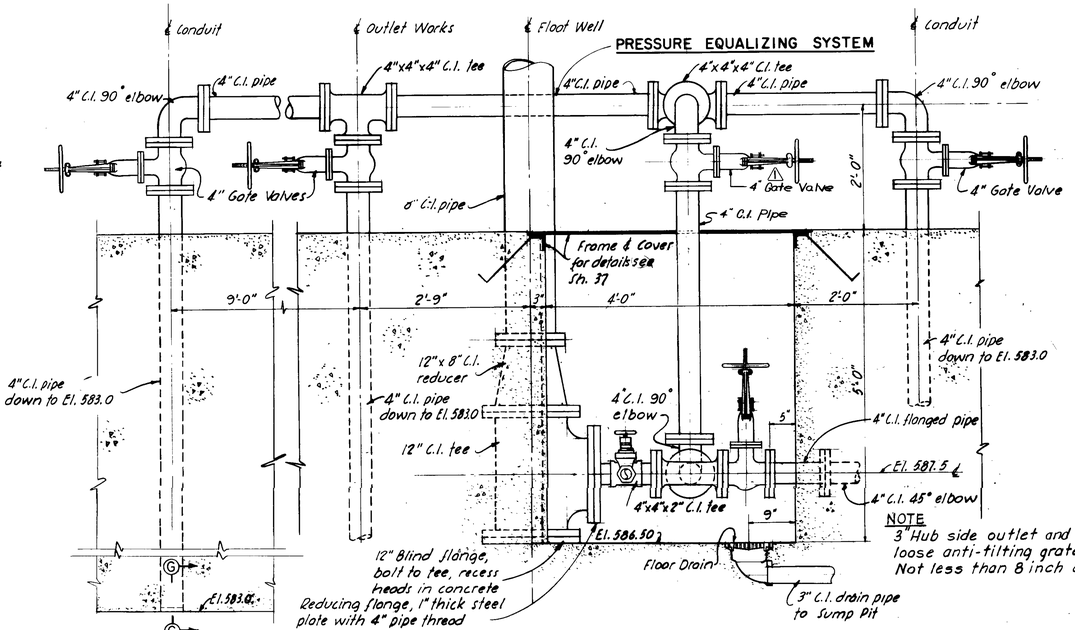
NOT TO SCALE



SECTION A-A

UPPER INTAKE DETAILS

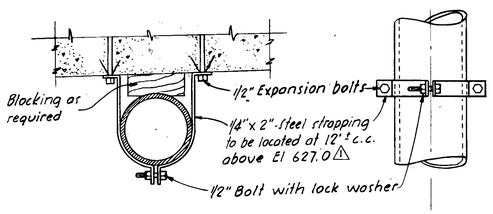
SCALE: 1/2" = 1'-0"



SECTION C-C

CLEANOUT CHAMBER DETAILS

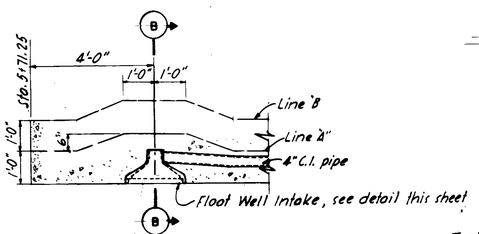
SCALE: 1" = 1'-0"



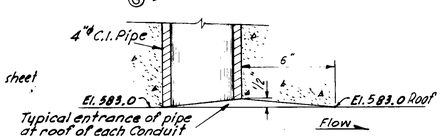
PLAN ELEVATION

INTERMEDIATE FLOAT WELL SUPPORTS

SCALE: 1 1/2" = 1'-0"

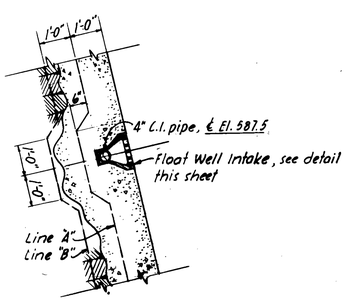


PLAN



SECTION G-G

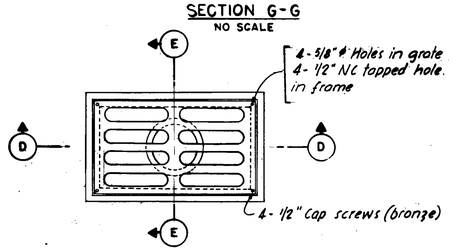
NO SCALE



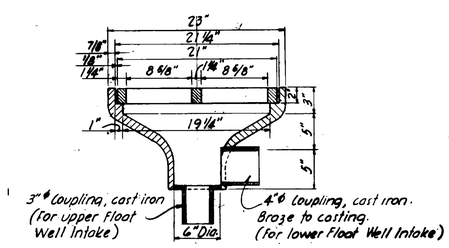
SECTION B-B

LOWER INTAKE DETAILS

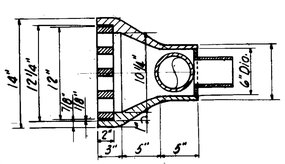
SCALE: 1/2" = 1'-0"



PLAN - FRAME AND GRATE



SECTION D-D



SECTION E-E

FLOAT WELL INTAKE DETAILS

SCALE: 1 1/2" = 1'-0"

GRAPHIC SCALES

1/2" = 1'-0" 1' 0 1' 2' 3' 4' 5'

1" = 1'-0" 1' 0 1' 2'

1 1/2" = 1'-0" 12' 9' 6' 3' 0' 6' 12'

NOTES

1. Float Well and accessories including Cleanout Chamber frame and cover and Pressure Equalizing System will be paid for under Item No. 45.
2. Provide 14" steel sleeve at Heater Room floor.

Record Drawing

Contract No. DA-19-016-CIV ENG 65-212

REVISION	DATE	DESCRIPTION	BY
	12-22-71	Final field corrections	
1	5-11-65	Steel strapping changed, gate valve added. (Am. #3)	

U.S. ARMY ENGINEER DIVISION, NEW ENGLAND
CORPS OF ENGINEERS
WALTHAM, MASS.

DES. BY A.F.D. | DR. BY J.B.L. | CK. BY

SUBMITTED: Chief, Layout Section

REVIEWED: G.W. Hicks, Project Engineer

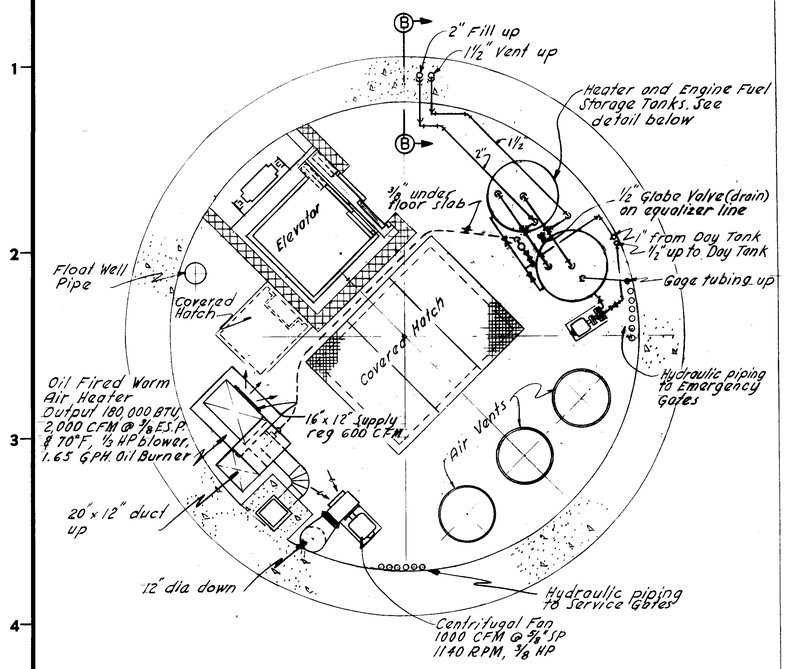
APPROVED: Chief, Design Branch

CONNECTICUT RIVER FLOOD CONTROL
COLEBROOK RIVER DAM
OUTLET WORKS - INTAKE TOWER
FLOAT WELL AND ACCESSORIES
PLANS AND DETAILS
WEST BRANCH FARMINGTON RIVER — CONN. & MASS.

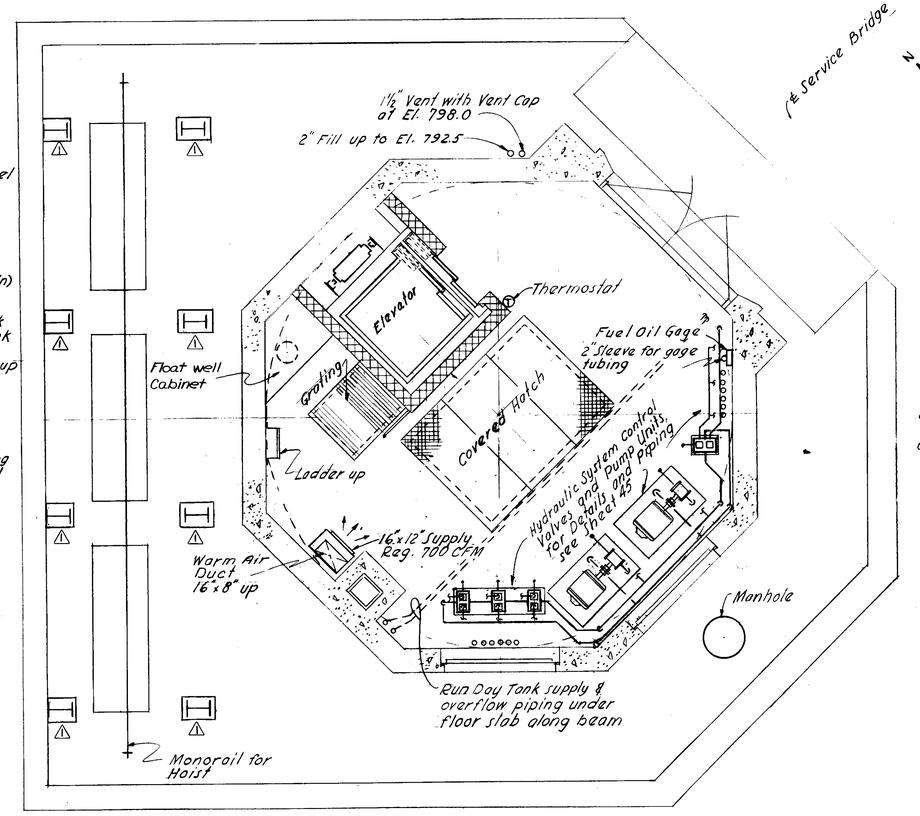
DATE: JAN. 1965

DRAWING NUMBER: CON-16

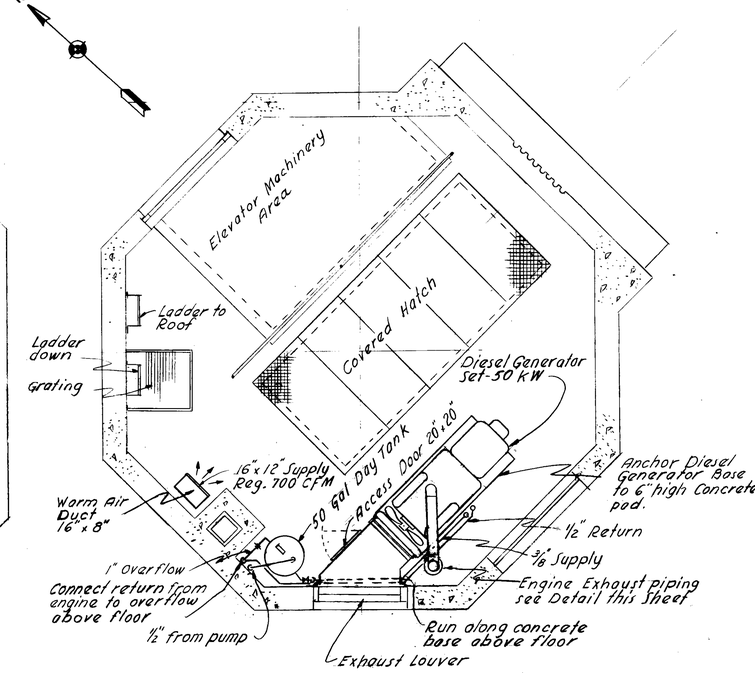
CORPS OF ENGINEERS — U. S. ARMY



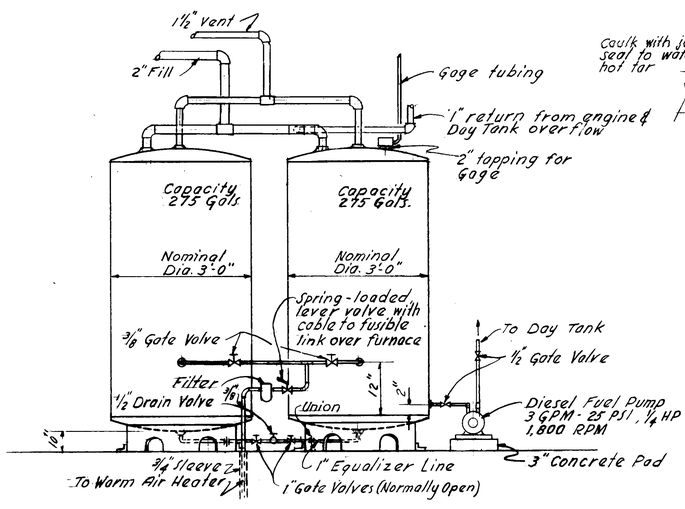
PLAN — HEATING ROOM
FLOOR EL. 777.00
SCALE ⅜" = 1'-0"



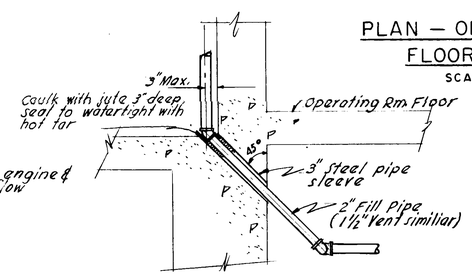
PLAN — OPERATING ROOM
FLOOR EL. 790.50
SCALE ⅜" = 1'-0"



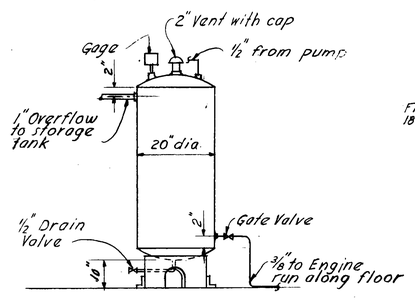
PLAN — EQUIPMENT ROOM
FLOOR EL. 804.50
SCALE ⅜" = 1'-0"



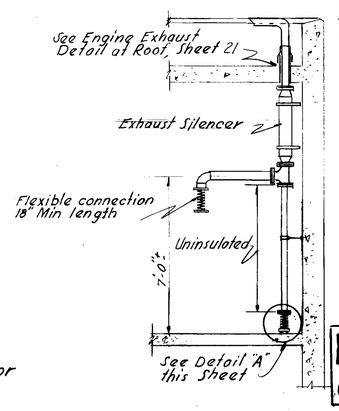
DIESEL & HEATER FUEL STORAGE TANKS
SCALE ¾" = 1'-0"



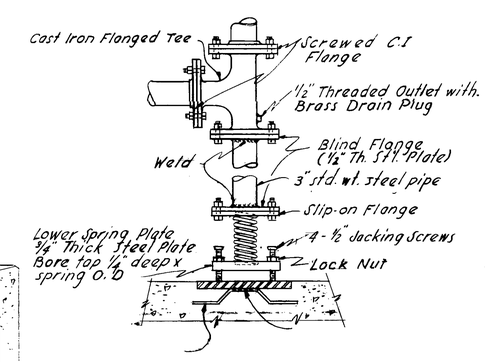
SECTION B-B
SCALE ¾" = 1'-0"



50 GAL. DAY TANK - DIESEL FUEL
SCALE ¾" = 1'-0"



DETAIL OF ENGINE EXHAUST PIPING
SCALE ⅜" = 1'-0"



DETAIL "A"
NOT TO SCALE

PAYMENT ITEM NUMBERS

All work materials and equipment in connection with the following will be paid for under Item Numbers indicated.

Elevator	#47
Exterior Monorail Hoist	#48
Diesel-Electric Generating Set	#53
Heating & Ventilating System for Intake Tower	#54
Hydraulic Gates & Assessories	#55
Interior Monorail Hoist	#57
Sump Pump Complete	#65

SAFETY PAYS

Record Drawing
Contract No. DA-19-016-CIV ENG 65-212

GRAPHIC SCALES
3/8" = 1'-0": 4' 0 4'
3/4" = 1'-0": 1' 0 1' 2' 3'

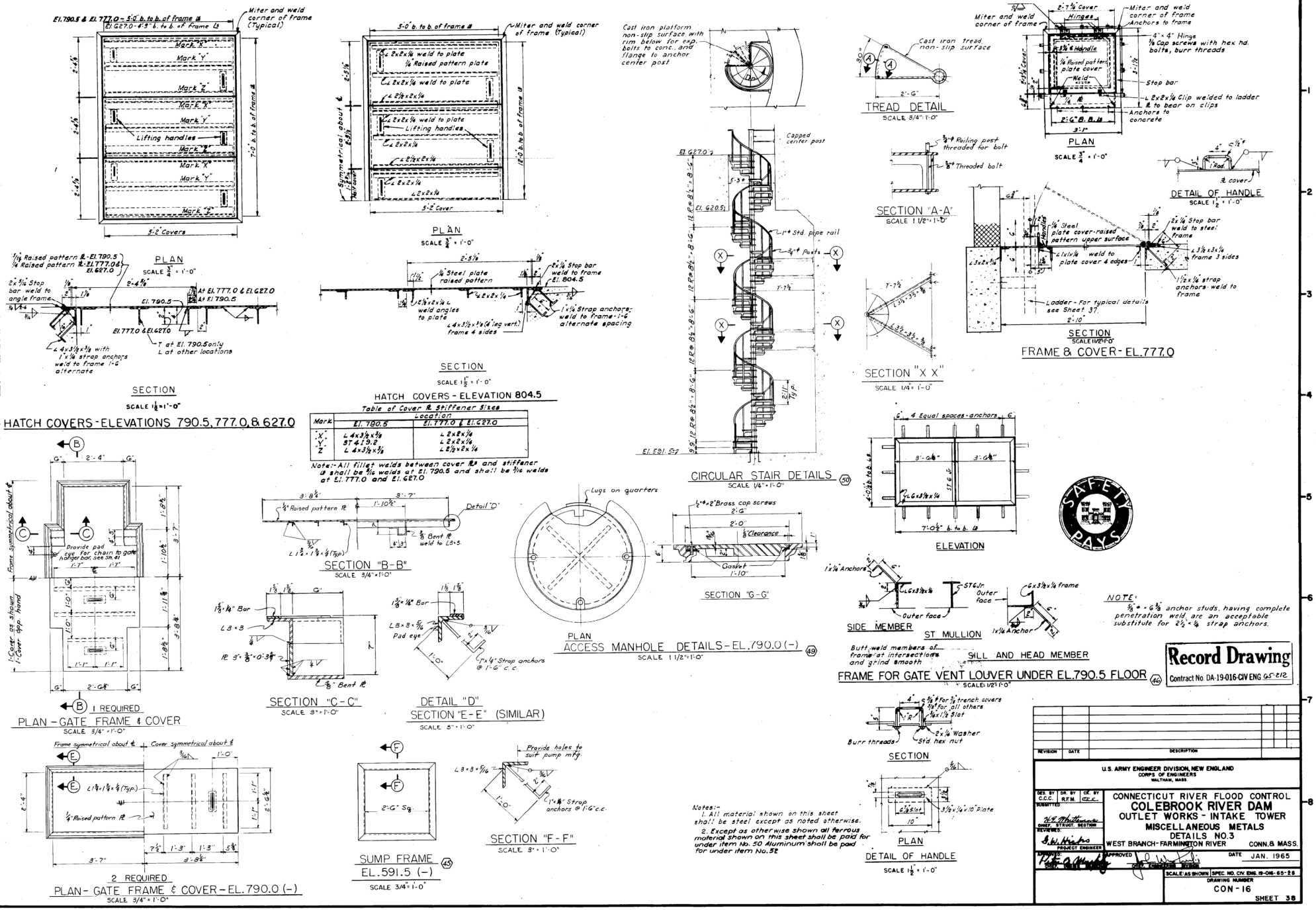
REVISION	DATE	DESCRIPTION	BY
1	5-11-65	Monorail supports and framing revised. (Am. #3.)	

U.S. ARMY ENGINEER DIVISION, NEW ENGLAND
CORPS OF ENGINEERS
WALTHAM, MASS.

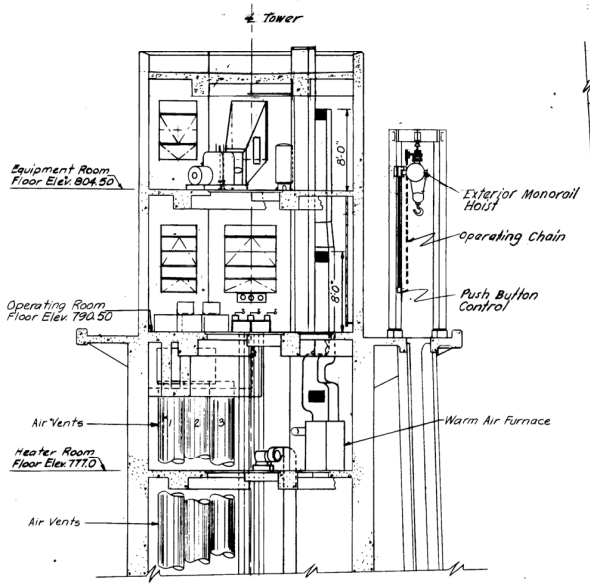
DES. BY J.W.F. | DR. BY J.P.V. | CK. BY JGS
SUBMITTED: CHIEF, MECH. SECTION
REVIEWED: PROJECT ENGINEER
PROJECT: CHIEF, DESIGN BRANCH
APPROVED: CHIEF, ENGINEERING DIVISION
DATE JAN. 1965

CONNECTICUT RIVER FLOOD CONTROL
COLEBROOK RIVER DAM
OUTLET WORKS - INTAKE TOWER
MECHANICAL-ARRANGEMENT OF EQUIPMENT
PLANS AND DETAILS
WEST BRANCH FARMINGTON RIVER CONN. & MASS.

SCALE: AS SHOWN SPEC. NO. CIV. ENG.
DRAWING NUMBER CON-16
SHEET

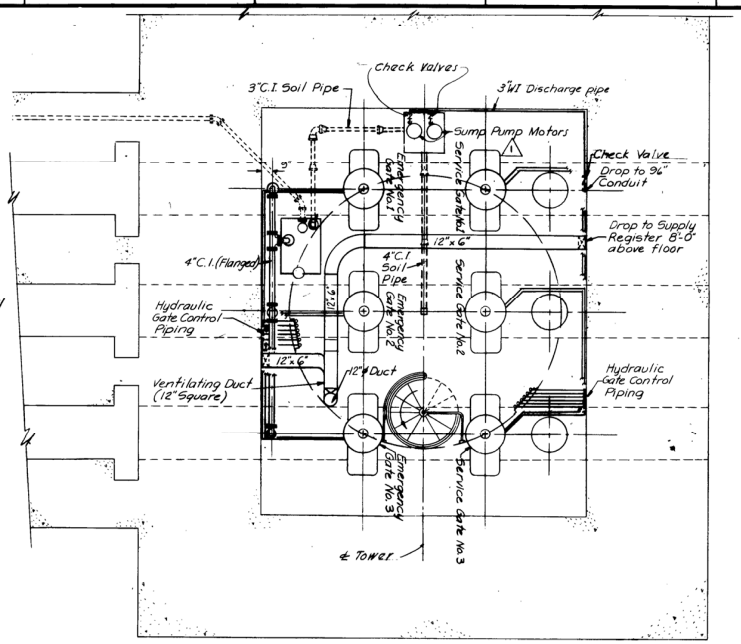

PLAN
SECTION
HATCH COVERS - ELEVATIONS 790.5, 777.0, & 627.0
PLAN
SECTION
HATCH COVERS - ELEVATION 804.5
Table of Cover & Stiffener Sizes
Note:- All fillet welds between cover & and stiffener shall be 5/16 welds at El. 790.5 and shall be 3/16 welds at El. 777.0 and El. 627.0
SECTION "B-B"
SECTION "C-C"
DETAIL "D"
SECTION "E-E" (SIMILAR)
PLAN - GATE FRAME & COVER
1 REQUIRED
PLAN - GATE FRAME & COVER - EL. 790.0 (-)
2 REQUIRED
SUMP FRAME
EL. 591.5 (-)
SECTION "F-F"
PLAN
ACCESS MANHOLE DETAILS - EL. 790.0 (-)
SECTION "G-G"
CIRCULAR STAIR DETAILS
TREAD DETAIL
SECTION "A-A"
SECTION "X X"
PLAN
SECTION
FRAME & COVER - EL. 777.0
DETAIL OF HANDLE
ELEVATION
SIDE MEMBER
ST MULLION
SILL AND HEAD MEMBER
FRAME FOR GATE VENT LOUVER UNDER EL. 790.5 FLOOR
SECTION
PLAN
DETAIL OF HANDLE
Notes:-
1. All material shown on this sheet shall be steel except as noted otherwise.
2. Except as otherwise shown all ferrous material shown on this sheet shall be paid for under item No. 50 Aluminum shall be paid for under item No. 52
NOTE: 5/8" ø x 6 5/8" anchor studs, having complete penetration weld are an acceptable substitute for 2 1/2" x 1/4" strap anchors.
Record Drawing
Contract No. DA-19-016-CIV ENG 65-212
U.S. ARMY ENGINEER DIVISION, NEW ENGLAND
CORPS OF ENGINEERS
WALTHAM, MASS.
CONNECTICUT RIVER FLOOD CONTROL
COLEBROOK RIVER DAM
OUTLET WORKS - INTAKE TOWER
MISCELLANEOUS METALS
DETAILS NO. 3
WEST BRANCH - FARMINGTON RIVER
CONN. & MASS.
DATE JAN. 1965
SCALE: AS SHOWN
SPEC. NO. CIV. ENG. 19-016-65-28
DRAWING NUMBER
CON-16
SHEET 38

CORPS OF ENGINEERS - U. S. ARMY



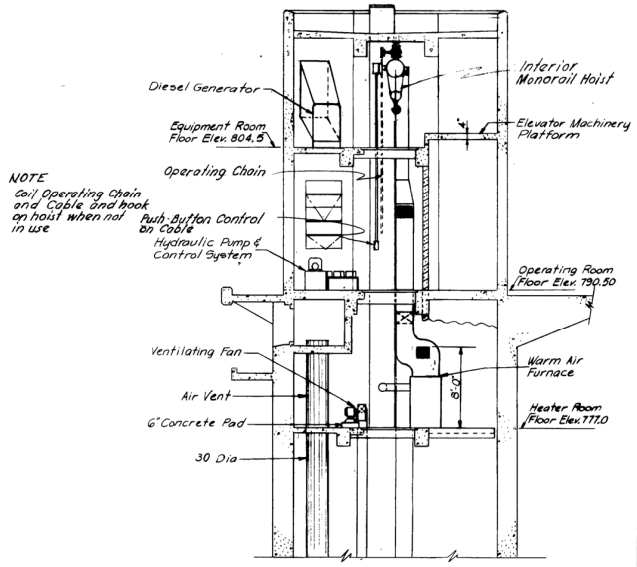
SECTION A-A

SCALE 3/16"=1'-0"



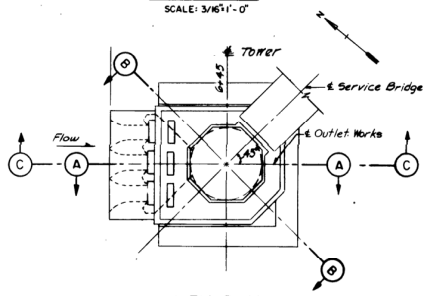
SECTIONAL PLAN - GATE CHAMBER

SCALE 1/4"=1'-0"

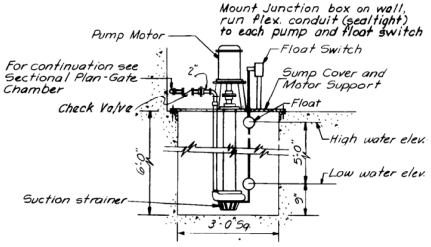


SECTION B-B

SCALE: 3/16"=1'-0"



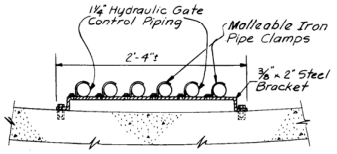
KEY PLAN



DUPLEX SUMP PUMP AT ELEV. 591.5 △1

NOT TO SCALE

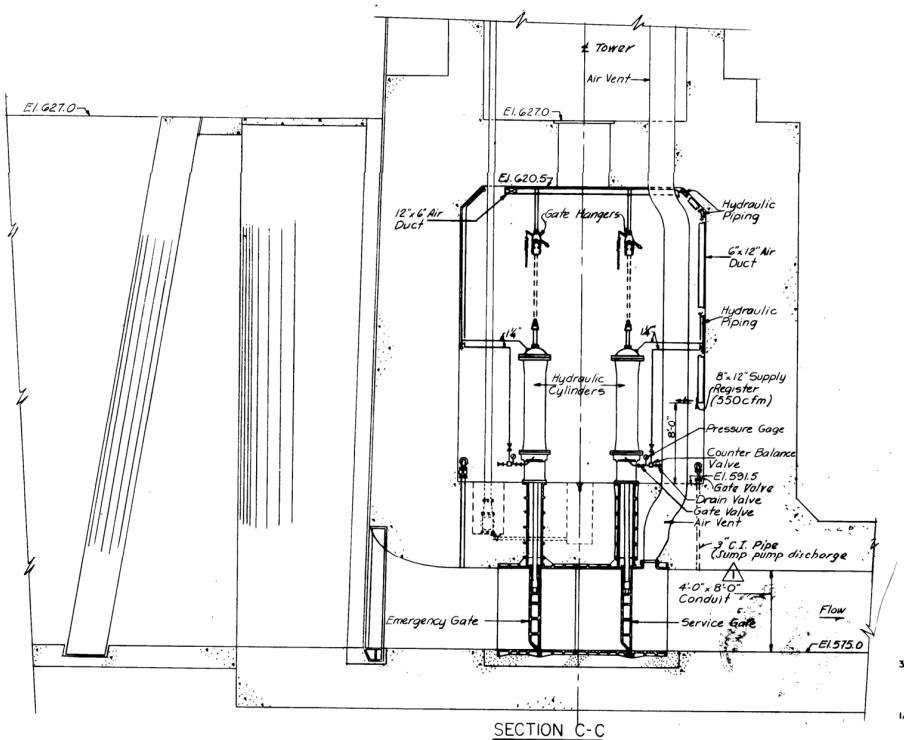
Each Pump capacity 25 g.p.m. @ 60 Ft.Hd, 1½ HP, 1750 r.p.m.



TYPICAL HYDRAULIC PIPING SUPPORTS FOR VERTICAL LINES

NOT TO SCALE

Locate on not more than 10'-0" centers



SECTION C-C

SCALE 3/16"=1'-0"

Record Drawing

Contract No. DA-19-016-CIV ENG 65-212

NOTE:

For Payment Item Numbers see Sheet 42

GRAPHIC SCALES

3/16"=1'-0" 8' 4' 0 4' 8'

1/4"=1'-0" 4' 0 4' 8'

REVISION	DATE	DESCRIPTION	BY
	12-22-71	Final field corrections	
△1	2-9-65	Sump Pump changed to Duplex, Capacity and discharge piping revised. (Am. #3)	

U.S. ARMY ENGINEER DIVISION, NEW ENGLAND
CORPS OF ENGINEERS
WALTHAM, MASS.

A.W.F. | R.P.C. | C.E. W 5'5

CONNECTICUT RIVER FLOOD CONTROL
COLEBROOK RIVER DAM
OUTLET WORKS - INTAKE TOWER

SECTIONS AND DETAILS

WEST BRANCH-FARMINGTON RIVER CONN. & MASS.

DATE JAN. 1965

SCALE AS SHOWN | SPEC. NO. CIV. ENG. | DRAWING NUMBER CON-16 | SHEET