



ART
ANDERSON



2016 Distinguished Project in Fisheries Engineering

Floating Surface Collectors Engineering & Design Services

Art Anderson is the leader in the design of Floating Surface Collectors and similar downstream fish passage facilities. As a firm with experienced professionals in both landside and marine engineering disciplines, Art Anderson is ideally positioned to comprehensively address the unique challenges of designing fish passage structures at hydroelectric projects. We have provided professional naval architecture, marine engineering, waterfront facilities engineering and construction management/support services for several projects such as:

- Swift Reservoir Floating Surface Collector
- Lake Cushman Floating Surface Collector
- Lower Baker Floating Surface Collector
- Upper Baker Floating Surface Collector
- North Fork Clackamas Floating Surface Collector
- Cougar Portable Floating Fish Collector
- Detroit Reservoir Selective Withdrawal Structure

Art Anderson is currently providing the Design Documentation Report (DDR) for the Detroit Reservoir FSS for the Portland District USACE

CAGE CODE:
5A165

DUNS:
079273157

GSA Schedule:
GS-10F-0159U

SEAPORT-e Contract:
N00178-14-D-7178

NAICS:
541330 Engineering
Services
541310 Architectural
541340 Drafting
541350 Building Inspe-
ction

Veteran Owned
Small Business (VOSB)

SBA Small Business

Our Team

Art Andersons' naval architects and marine engineers develop FSC barge design, including platform mechanical, electrical, and structural systems, as well as address intact and damage stability concerns. The firm's waterfront facilities engineers tackle the challenges of anchoring, moorage and operational support structures; working closely with the rest of the team to ensure full operations and accessibility in all reservoir conditions. As the project moves to construction, we are experienced performing analysis and design support tasks, including establishing plans and strategies for on-site fabrication, modular assembly, and installation. Art Andersons' team of professionals can improve your project through well coordinated designs, integrated project delivery and management.

- Naval architects and marine engineers offer strong technical expertise in floating structures and their behavior in the marine environment.
- Civil and structural engineers understand the behavior of fixed structures like piles and mooring systems that keep everything in place.
- Mechanical and electrical engineers, all of whom cross-train in landside and marine systems, ensure utilities are robust and reliable to meet the life cycle demands.
- Construction and project management personnel ensure a smoothly-run project delivered on-time, within budget and meeting or exceeding owner's requirements for quality.
- Architects consider issues of form, function and aesthetics to make an attractive, efficient and well-designed facility.

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Core Capabilities

Civil Engineering

- Design & Inspections
- Marina Design
- Floating Structures
- Moorage Design
- Shoreside Facility Design
- Vehicle Ferry Ramp Design
- ADA Accessible Design
- Site Planning
- Utilities Master Planning
- Site Fire Water Systems
- Wave Dynamics Studies
- Pedestrian Ramp Design
- Fuel Float Design
- Structural Design
- Piling Design
- Shoreline Erosion Control
- Underwater Utilities Systems Design
- Underwater Fuel Systems
- Underwater Concrete Design
- Regulatory Permitting (Local and ACOE)

Marine Engineering

- Electrical System Design
- Structural Design
- Feasibility Studies
- Economic Optimizations and Trade-off Studies
- Overhaul and Conversion Planning
- Construction Cost Estimating
- Wake Studies
- Stability Studies
- Weight Engineering
- Hydraulic Systems Design
- Vessel Mooring

Mechanical Engineering

- 3D Design and Modeling
- Plumbing Layout and Design
- Water Systems
- Code Studies
- Hydraulic Systems Design
- Fueling Systems

- Machinery Design
- Feasibility and Optimization Studies
- HVAC System Design (Custom and Package)

Electrical Engineering

- Power Systems
- System Controls
- Interior and Exterior Lighting Design
- Low Voltage Lighting
- Security and Fire Alarm Systems
- Electrical Load Calculations
- Remote Control Systems
- Power System Protection
- Underwater Power Transmission
- Power Vault Design


Construction Management

- Program and Project Management
- Selection and Supervision of Design Team
- Value Engineering Studies
- Constructibility Review
- Design Consultation
- Communications Management
- Production and Distribution of Bid Documents
- Management of Bid Process
- Monitoring of Program/Project Schedules and Budget
- Records Management
- Pre-construction conferences
- Full Time and Periodic Construction Observation
- Construction Quality Control
- Dock and Pier Inspections
- Submittal Review
- Field Change Preparation
- Change Order Preparation
- RFI Processing
- Punchlist Preparation
- Dispute Resolution

Current Projects

- Detroit Floating Screen Structure
- Cougar Dam Floating Screen Structure
- Natel Energy-Hydro Next Floating Powerhouse
- Lake Hodges Reservoir Oxygenation

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