Design Drafting Competition

2019-2020 Design Problem and Project Description

USS Cod Submarine Memorial
a National Historic Landmark on Cleveland’s North Coast Harbor
1201 N. Marginal Road
Cleveland, Ohio

Project Description:

Have you ever seen a 312-foot long submarine in person before? Have you ever imagined performing your daily school or work duties inside the narrow spaces of a submarine? You can get a better idea by visiting the permanently moored USS Cod Submarine Memorial in Cleveland, Ohio along the North Coast Harbor. Upon arriving to the USS Cod, you will notice that it does not have a proper visitor center. So get your sea legs and your design creativity kicked into high gear.

We want you to create a visitor center that will provide flex space to accommodate groups and details and amenities for all ages. The design should consider use by large groups of school children (K-12) or clusters of adults from bus tours, singles and local families, visitors from abroad, current and former military members. The submarine itself houses most of the exhibits. However, the Visitors Center and the submarine should be extensions of one another to tell the story and honor its engineering marvel and the people that were a part of submarine history.

Visitors to the USS Cod should be able to enjoy the Memorial site during operating hours of 10:00 a.m. to 5:00 p.m., any day of the week, in good and bad weather. Entrants should consider the Cleveland North Harbor weather when designing the exterior spaces. All spaces must be lockable after hours. The visitor center will require a main entrance/exit and a secondary entrance/exit to route patrons to the submarine tour/outdoor area. All parts of the Visitor Center must comply with ADA accessibility requirements. The actual submarine is not fully accessible by nature of its engineering.

Aesthetics and the treatment of materials should acknowledge the other recent buildings along North Marginal Road and Burke Airport. I.M. Pei’s Rock and Roll Hall of Fame is a modern neighbor in steel and glass. A rough-hewn timber structure like those in the MetroParks, would be out of place on North Coast Harbor and the lakefront airport.

When designing, think about the site, views of the harbor, placement with regards to entering and viewing the submarine, and honoring this engineering marvel and the United States submariners. You could be the conceptual designer for the actual build!

Background of the USS Cod Submarine:
USS Cod Submarine Memorial, a non-profit organization founded in 1973, operates the USS Cod WW II submarine as a floating memorial to the men and women of the US armed forces. The site was formally a seaplane anchorage and in 1947 became a submarine training facility for the Cleveland
Naval Reserve Training Center. When the Navy decided they no longer needed to train reservists aboard obsolete WWII submarines, Cod was slated for scrapping until this organization petitioned the Navy to take over the submarine and operate it as a memorial. But the Cod's future remains uncertain without proper facilities.

Project Requirements:

- **Size**
  - First Floor – approximately 30’x 60’
  - Second Floor – approximately 30’x 30’
  (do not forget placement of an internal stairwell)
  
  Total Square Feet: 1800’ + 900’ = 2700 sf

- Include the following First Floor components
  - a ticket booth (space for at least two people seated)/entrance lobby/gift shop - 250 sf
  - a presentation/assembly area that can accommodate classroom type activities with whiteboard/large projection/screen and teleconferencing; 1000 sf.; this space can also be versatile and be rented out for small receptions; provide two exits from this space
  - a kitchenette (adjacent to the assembly area) – 90 sf
  - at least one single-user restroom for staff – 65 sf
  - male and female public toilets - 65 sf each
  - IT and Electrical closet – 49 sf
  - Storage closet with mop sink - 65 sf
  - Corridors as needed for circulation/stairwell – as needed

- Include the following Second Floor components
  - Archives – 400 sf
  - Business Office with closet – 150 sf
  - Corridors as needed for circulation/stairwell – as needed

- **Site Considerations**
  - The building should include a structure to hold the US Navy Type 8 periscope on outdoor display in a steel girder tower structure. The ground-level viewing portion of the periscope could be enclosed in a somewhat enclosed area or chamber that we could decorate to look like the inside of a submarine
  
  - A small outdoor patio/picnic area that also serves as a special memorial area
for servicemen; you may also show special landscaping or benches

- Parking – leased lot adjacent to the property.

**Required Items for Submission:**

- **Design Narrative/Concept**
  - Describe your design, including but not limited to: geographical and site considerations, special design features, innovative elements that aid in learning about the submarine, any items that go above and beyond the basic project requirements.
  - 400-500 words, typed and submitted in 8.5x11 format. Include the code number as assigned by your administrator. Do not include your name on this document.
  - Staple multiple sheets together.
  - Spelling and grammar will be taken into account when awarding points.

- **Design Drawing General Requirements (must be included in each drawing)**
  - Title block matching the format provided in the contest guidelines. All information in title block must be complete.
  - Scale of each drawing. Standard scale will be $\frac{1}{4}" = 1\text{-}0"$ unless otherwise noted.
  - Include the entry code number as assigned by your administrator. Do not list your name on the drawings.

- **Required Drawings:**
  - **Sheet A-1 Site Plan**
    - Show the roof layout including pitch and any Mechanical/Electrical/Plumbing/Technology items that will be included.
    - Show landscaping and access to roadways/parking. Indicate walkway to main entry door and location of emergency exit(s), submarine/dock area.
    - Include a North arrow.
  - **Sheet A-2 Floor Plan**
    - Indicate total square footage of space.
    - Show walls, windows, storefront, doors with door swings, and all other openings.
    - Show closets, cabinetry, plumbing fixtures, and appliances.
    - Show layout of spaces and include furniture. This will include major technology equipment (Smartboards/monitors/LCD screens, projectors and screens, server, etc.).
    - Include the name of each room.
    - Include all relevant dimensions and section cut marks.
  - **Sheet A-3 Ceiling/Electrical Plan**
    - Show switches, electrical outlets, data outlets, interior and exterior lighting, and wireless access points.
    - Include and Electrical Symbol Legend.
  - **Sheet A-4 Exterior Elevations**
    - Two (2) elevations are required minimum. The main entry must be included in one of the elevations.
    - Show all exterior features including, but not limited to: doors, windows, roof, roof pitches and overhangs.
    - Include a Material Legend for all materials used and denoted by hatches. Call out and annotate all materials that are not indicated by hatches.
    - Each elevation must be labeled by direction, i.e. North, South, East, or West.
  - **Sheet A-5 Building Section**
    - Show foundation, framing, insulation, floor and roof construction, etc.
    - Sections should include interior elevations.
    - Draw a typical wall section at $\frac{1}{8}"=1\text{-}0"$ scale.
  - **Optional Drawings: Sheets A-6 and A-7**
    - These drawings will be used to add additional points to the overall score.
Possible graphics/drawing types include but are not limited to:
- Exterior Rendering
- Scale Model/Photo
- Additional Exterior Elevations
- Additional Interior Elevations
- Cabinetry elevations and sections
- Door and window elevations, schedules, and details
- Project phasing and schedule and budget with itemized cost breakdown

Resources:

-https://www.tripadvisor.com/Attraction_Review-g50207-d137605-Reviews-USS_Cod_Submarine_Memorial-Cleveland_Ohio.html
- USS Cod Submarine Memorial Official Web
- www.navalsubleague.org
- Wikipedia.org - “Gato-class submarine”
EXISTING SITE PHOTOS

USS COD Submarine Memorial A National Historic Landmark Existing Site Photos

Printed June 9, 2019
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Museum Ship and National Historic Landmark

A group of Cleveland residents formed the Cleveland Coordinating Committee to Save Cod, Inc., with the goal of preserving the ship as a memorial. In January 1976, the U.S. Navy gave guardianship of the submarine to the group. Cod opened for public tours as a floating memorial in May 1976. In 1986, the U.S. Department of the Interior designated Cod a National Historic Landmark. The memorial is open daily between 1 May and 30 September of each year from 10:00 a.m. to 5:00 p.m.

Today, Cod is one of the finest restored submarines on display and is the only U.S. submarine that has not had stairways and doors cut into her pressure hull for public access. Visitors to the ship use the same vertical ladders and hatches that were used by her crew. Cleveland can claim partial credit as Cod's birthplace, since the submarine's five massive diesel engines were built at the General Motors Cleveland Diesel plant on Cleveland's west side. She also has unique attractions such as the 5-inch deck gun that still can be rotated by visitors and mock-fired by Cod's volunteer crew. The Cod's Mark IV Torpedo Data Computer is also fully restored, as well as other various parts on the submarine.

The Cod memorial acquired two General Motors Model 248 engines that had originally been used aboard another World War II submarine, Stingray (SS-186). The two V-16, 1,600 HP diesel engines were originally built in Cleveland, Ohio, the last in 1943, out of the General Motors Cleveland Diesel Plant on the west side. The engines were used for parts for the restoration of Cod's engines. Three out of the four main engines on the Cod are in running and working order, and are fired up on special events through out the year. In 2013 the Cleveland office of PetroLiance helped the Cod get 500 gallons of fresh oil to operate her newly restored engines. "We are proud to help Cod get her engines running again", said PetroLiance regional VP Jim McClellan. It amounts to about a $10,000 donation, said Paul Farace, president of the Cod memorial.

Film production

Cod was used for exterior and interior scenes in the 2016 Smithsonian Channel war documentary Hell Below to depict the USS Tang, U-99 and U-100.

Filming took place aboard the Cod in 2015. The series premiered Sunday 17 July 2016.

AND IMAGINE THIS NEXT ENTRY ON THE COD'S WIKIPEDIA PAGE....

A Design Competition

Cod was highlighted in a design competition for a Visitor's Center drawing national attention. And the winner of the conceptual design was a student from ......
SUPPLEMENTAL SITE SURVEY INFORMATION: THIS IS THE SURVEY LANGUAGE THAT DEMONSTRATES THE LEGAL PROPERTY BOUNDS OF THE USS COD'S LEASE PARCEL. THIS INFORMATION ACCOMPANIES THE SITE SURVEY LINE DRAWING THAT IS ALSO PART OF THE COMPETITION PACKAGE. THE SITE LINE DRAWING IS AVAILABLE AS A .DWG FILE.

**U.S.S. COD LEASE PARCEL “A”**

Situated in the City of Cleveland, County of Cuyahoga and State of Ohio and known as being part of Original Two Acre Lots 186, 187 and 188 being bounded and described as follows:

Beginning at an iron pin found 0.05’ (N) 0.07'(E) of the easterly line of East 9th Street (99 feet wide) at a point distant N 34° 00'00" W, 1241.45 feet as measured along said easterly line of East 9th Street from its intersection with the northerly line of Lakeside Avenue (99 feet wide), said point being also the northwesterly corner of land conveyed to the City of Cleveland by deed dated September 3, 1953 and recorded in Volume 7880, Page 90 of Cuyahoga County Deed Records.

Thence N 55°50'25"E, 539.60 feet along the northerly line of original lease lot 10 to a drill hole found 0.39’ (S) 0.24'(E) of the northwesterly corner of original lease lot 9.

Thence continuing N 55°50'25"E along the northerly line of said original lease lot 9, 126.67 feet to an angle point within.

Thence N 25 06' 48"E, along said northerly line of original lease lot 9, 30.00 feet to a point, said point being the Principal Place of Beginning of the premises herein to be described;

Thence continuing N 25 06' 48"E, along said northerly line of original lease lot 9, a distance of 357.46 feet to a point;

Thence S 51°42' 27"E, a distance of 43.72, to a point;

Thence along the arc of a curve deflecting to the left, and having a radius of 405.00 feet, a central angle of 33°05'49, and a chord of 230.71 feet, which bears S 03°39'01"W; an arc distance of 233.95 feet, to a point;

Thence S 55°01'55"W, a distance of 155.52 feet;

Thence N 62°33'18"W, a distance of 49.46 feet, to the POINT OF BEGINNING, containing 27,663 square feet, 0.6351 Acres of land, be the same more or less, but subject to all legal highways.