TITLE: FC286 Replace Concrete
Contract# N4085-17B-0414
Project# 16M075CN
MACC# 17-0414
MAXIMO# 4658130

ATTACHMENTS: Sketches1, 2.

SCOPE OF WORK: The contractor shall provide all material, labor, equipment, and supervision required to accomplish the following:

General description:
The contractor shall demo and replace concrete (tank traffic driveway) in the vicinity of FC286.
Sketches, measurements, and quantities are provided for reference only. Contractor shall take his own measurements.

Detailed requirements and specifications – The contractor shall:

FC286 Demo: See Sketch 1.

1. See **Special Scheduling and Access** for scheduling and traffic shut down to accomplish work.
2. Have all locates performed prior to starting work.
3. Place barriers and signs to cover all possible points of traffic accessibility.
4. Demo concrete, approximately 2259 square feet, in the vicinity of FC286, identified on Sketch 1&2.
5. Section around the electrical manhole, 10 feet x 10 feet, identified on Sketch 1, shall remain.
6. Saw cut, through all concrete, where existing concrete shall abut new concrete.
7. Caution when cutting concrete around manhole at the sanitary sewer manhole cover.
8. Haul off all demoed concrete from jobsite.

Inspection:

1. Once concrete is removed contact ROICC and project manager, to inspect sanitary sewer pipe to determine if there are any leaks due to the fact that concrete has sank 2 inches. Area, highlighted yellow, shows sunk area.

FC286 Installation: See Sketch 1 and 2 for additional details. Work shall be accomplished per SOW and Sketches1 and 2.

1. Mechanically compact all areas where new concrete shall be poured. See Sketch 1. On the occasion that the ground will not pack, to sufficiently support concrete pad, add and compact approximately 6 inches of ABC rock.
2. Drill horizontal holes approximately (8 inches deep into existing concrete, 24 inches on center) around the entire perimeter of all existing concrete pad. Height of vertical drilled holes shall be 1/3 the depth from the bottom of existing concrete. Epoxy and insert, **#8, EPOXY COATED,** rebar dowels. Rebar shall be inserted approximately 8 inches into existing concrete and shall extend 32 inches into the new poured concrete.
3. Place and wire tie, **EPOXY COATED,** slab bolster uppers (rebar chairs) on ground to support #6 rebar. Slab bolster uppers (rebar chairs) shall be butted together, lengthwise and wire tied together, across the entire width of area where new concrete shall be poured. [Wired together sections of slab bolsters (rebar chairs)], running parallel with each other, shall be spaced no more than 4 ft. apart. Slab bolsters shall be placed to within 3 inches +/- one inch, to the edge of the existing concrete. See Sketch 2 for clarification.
4. Install, #6**, EPOXY COATED,** rebar matting, 12 inches on center, across the entire area where concrete shall be poured. See Sketch 2 for rebar matting. Wire tie, every two feet, # 6 rebar to #8 coated rebar (epoxied into existing concrete). Bend offset in #6 rebar, if required, to tie-wire the #8 dowel rebar and #6 rebar together, so that the #6 rebar lays in slab bolster uppers (rebar chairs).
5. Place and wire-tie, upper level of, **EPOXY COATED,** slab bolsters uppers on top of existing #6 rebar, to support 6X6 W2.9X2.9 10 gage welded wire fabric. Slab bolster uppers (rebar chairs) shall be butted together, lengthwise and wire tied together, across the entire width of area where new concrete shall be poured. [Wired together lengths of slab bolster (rebar chairs)}, running parallel with each other shall be spaced no more than 4 ft. apart. Slab

bolsters shall be placed to within 3 inches +/- one inch, to the edge of the existing concrete. See Sketch 2 for clarification.

6. Install 6 x 6 welded wire the entire length and width of all new poured concrete. Welded wire shall be 6x6 W2.9X2.9 10 gage minimum. Ensure welded wire is pulled approximately 3 inches above #6 rebar, when concrete is being poured.
7. Install expansion joint material, 3/8-1/2 inch, where new poured concrete meets existing concrete. Place expansion joint material approximately 1/2 inch below top of concrete. After concrete has cured 7 days install 1/2 inch depth bead of caulking (silicone polymer compounds). Caulking shall be flush with top edge of concrete.
8. Place approximately 2259 square feet of concrete, 650 flex, 12 inches thick minimum, in the areas at FC286, identified on Sketch 1 and 2. Cut control joints, minimum 2 inches deep, in new poured concrete. Surfaces shall have a broom finish. The only means a contractor shall add water to the surface of the concrete for finishing is with fog spray or wet burlap.

9. Install barricades around all new poured sidewalks, immediately, after concrete has been poured and finished, to keep vehicles and pedestrians off of wet concrete.
    a. Barriers shall consist of: vertical (A framed 2x4s, 12ft. to16 ft. on center), with horizontal 2 x 4 attached to vertical 2x4s. Height shall be approximately 4 ft. high around perimeter to prevent vehicle traffic and pedestrians off of all new concrete. Install 2 inch wide high visibility tape on horizontal 2x4s. See Sketch 2 for details.
10. Mechanically cut relief joints in squares 10 ft. x 10 ft. or less. Relief joints shall be mechanically cut to into the concrete within 24 hours of the concrete being poured. Saw cut relief joints to a minimum depth of 2 inches.

11. Barriers shall remain in place, to keep tanks and vehicles off the new poured concrete for a minimum of 28 days. Contractor shall remove barriers on the 29th day after concrete has been poured.

FC286 Submittals:

1. The contractor is required to submit a schedule detailing when they and/or any subcontractors will be working. The schedule must be approved by the Government before beginning work.

2. **#8 epoxy coated**, steel, rebar dowels: inserted into existing concrete
3. **#6 epoxy coated**, steel, rebar installed on bottom level 12 inches on center, intersected.
4. **Epoxy coated** steel slab bolster uppers (rebar chairs): shall be used on (bottom to support the #6 rebar) and (top level to support welded wire). Steel slab bolsters dimensions are 3 1/2 inch high x 5 ft. long. The single upper horizontal rod of the slab bolster shall be .204 diameter. The two lower horizontal rods of the slab bolster shall be .162 diameter. See Sketch 2.
5. 6X6 W2.9X2.9 10 gage welded wire placed on top layer or slab bolsters.
6. Concrete shall be 650 flex, 4-inch slump. The contractor shall provide a batch ticket to the contracting officer, stating the cement water ratio needed for a 4-inch slump and the amount of water added by the receiver.

GENERAL REQUIREMENTS:

1. The measurements and quantities furnished here are for reference only.
2. Work shall be completed within 60 days after awarded.
3. The contractor is responsible for actual field verification prior to bidding, ordering materials and during every step of construction for existing surfaces, dimensions and conditions.
4. Properly remove, haul, and dispose of all debris on a daily basis.

SPECIAL SCHEDULING AND ACCESS:

1. Contractor shall coordinate with ROICC representative for availability and schedule dates of work.

2. Contact POC Mr. Wolf or Bob Andrews 451-6019 two weeks prior to starting work at FC286. They will coordinate alternate traffic route for tank travel.

SPECIAL CONDITIONS:

1. Contractor shall be responsible for installation of physical barricades and signs, mentioned above, to prevent personnel and vehicles from going on all new poured concrete.