

MBARI MARS Cable Project (PLN050542)
Traffic Plan: Shoreside Construction Activities

On-shore construction activities for the MARS cable project will include horizontal directional drilling (HDD), installation of a fiberglass structure on a concrete pad, trenching for power/communications cables, cable installation, and other tasks associated with these actions. All activities will occur on private property. Most activities will occur on a lot (APN 133-252-001) located at the end of Sandholdt Road in Moss Landing. This location is approximately one mile from Highway 1, and there will be no construction activities on Highway 1. Additionally, there will be no construction on Sandholdt Road itself. Trenching and all HDD activities will occur within the fenced lot mentioned above. Trenching activities will also occur on parcels 133-242-001 and 133-242-008, which are adjacent to the end lot and also enclosed by fencing (see map attached).

Equipment for HDD activities will include the drill itself, as well as a mud system (see attached). A cement truck will be required for installation of the facility foundation and a pad to be used during HDD. Trenching will require a dump truck and a backhoe. Two work trucks will be on site for the electrical services, and one work truck will be on site during installation of the fire protection systems. Smaller equipment may be necessary to support these tasks. Most equipment will be stored on site. Vehicles used by contractors as transportation to and from the site will arrive each morning and depart at the end of each work day. All parking will be located on private property either within the job site parcel or in MBARI's existing parking lots.

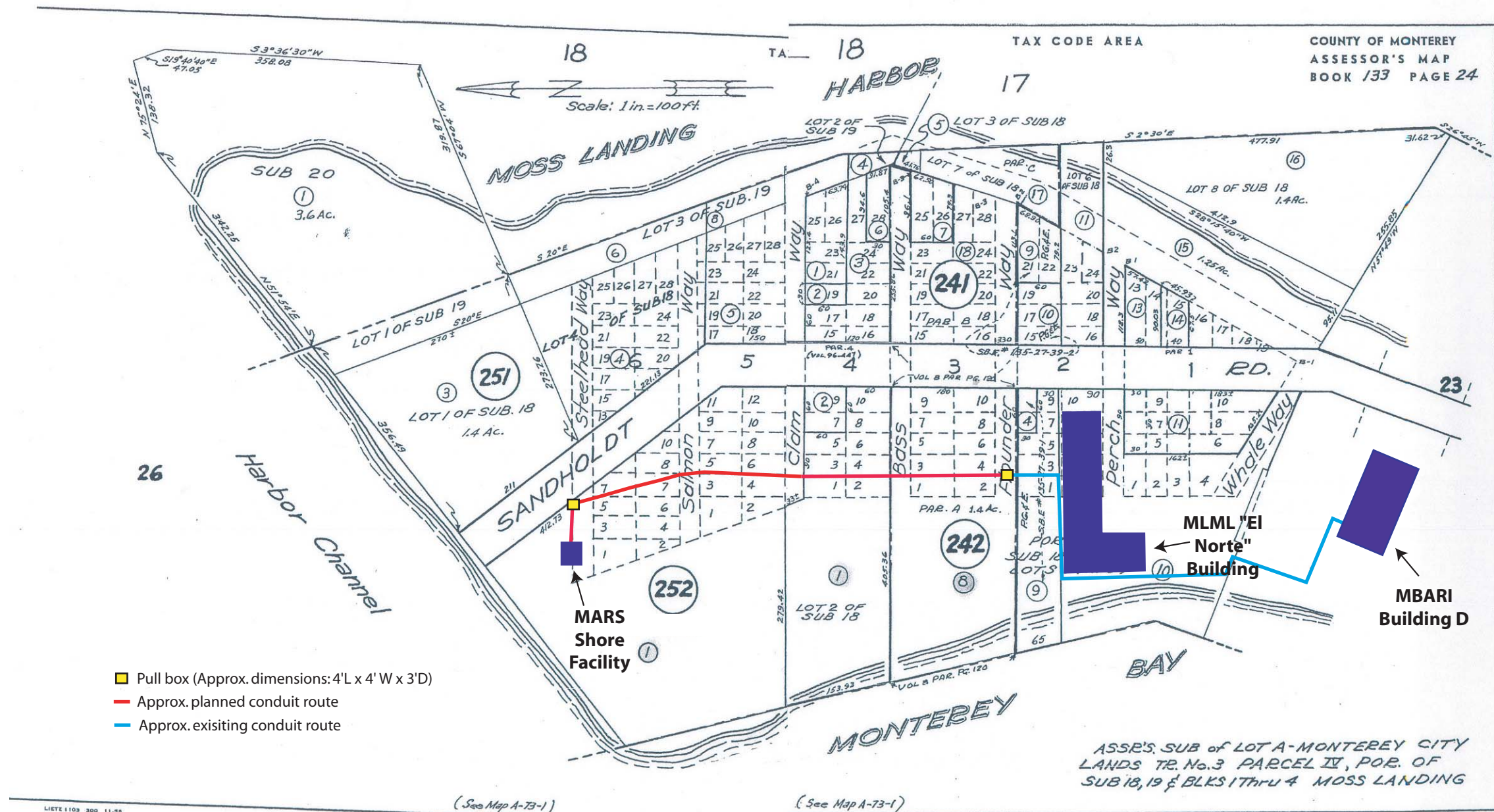
HDD will occur over an approximately 10–14 day period. The electrical work to the shore station is estimated to be completed within a one-month timeframe. This includes one week for trenching, two weeks for installation of the fire protection systems, and one week for additional work (see table below). Most construction is expected to occur between 7:00 am and 7:00 pm. However, MBARI will be requesting an authorization from Monterey County PB & I for HDD operations that may be needed outside this timeframe. Because the end of the island does not experience a flux of traffic related to commuter hours, we do not anticipate any interference with local traffic. Additionally, due to the parcel locations near the end of the island, traffic flow in general should be minimal. We also do not expect problems because all equipment will be used entirely within the fenced areas of the parcels mentioned above.

Nearshore activities, including HDD operations and cable installation, will require approximately 10–12 individual staff including beach teams, divers, and project representatives. Onshore activities including installations of foundations, trenches, modular building, and power and grounding work will require approximately 6–7 individuals, although there will be only 2–3 workers on some days during electrical work.

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Type of Work	Estimated # of Days to Complete	Estimated Hours per Day	Estimated # of Workers
Foundations, trench for power/communications, install ground rod conduit	10	10	6–7
HDD Activities	10–14	10*	10–12
Install modular building	5	10	6–7
Install land termination power and fiber to shore building. Install grounding system, connect to shore building	15	10	2–3
Cable installation	10	24	10–12

* MBARI will be requesting authorization from Monterey County PB & I for operations that may be needed outside this timeframe.



Approximate location of trench for MARS communication cable.

ENVIRONMENTAL CROSSINGS, INC.
RIG NO. 3

AMERICAN AUGERS DD-220 (1995)
EQUIPMENT LIST



American Auger DD-220

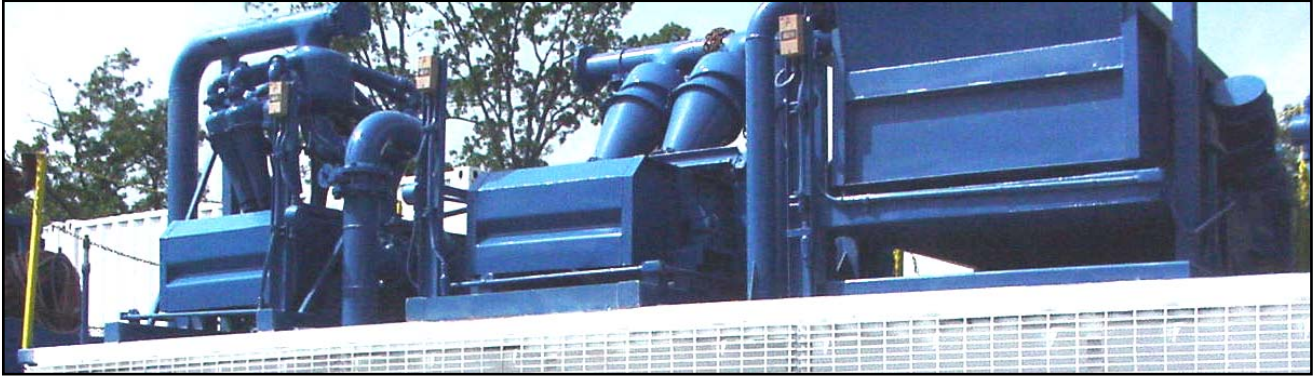
AMERICAN AUGERS DD-220:

RATED TO 215K PUSH AND PULL
RATED TO 30K TWO SPEED ROTARY TORQUE
3406 TURBO CAT POWERED 440 HP
CONTROLS SAVER SUNSTRAND JOYSTICKS
OPEN BREAK OUT TRAVEL VISES
ROTARY BRAKES
HYDRAULIC OIL HEAT EXCHANGER
TRAILER LOW BOY (45 FT) NON PERMIT LOAD
TRIPLE CYLINDER WRENCH CLAMP

ECI MUD SYSTEM:

ECI DESIGN AND BUILT
200 BBL CAPACITY
3408 CAT POWERED
ALLISION TRANSMISSION (5 SPEED)
DE-SANDERS (1000 GPM)
TRAILER MOUNTED (52 FT) NON
PERMIT LOAD
DE-SILTERS (1000 GPM)
5 4" X 5" (50 HP) CHARGE AND
MIXING PUMPS

ELLIS WILLIAMS 446 MUD PUMP
(CAPACITY 450 GPM)
4 LINEAR TWO PANEL SHAKERS
150 GALLON FUEL CAPACITY



Mud System

CONTROL UNIT: WELLS CARGO 22 FT. X 8 FT. OFFICE UNIT
MOUNTED SAVER SUNSTRAND DRILLER CONTROLS
STEER OPERATORS EQUIPMENT

TOOL VAN: FREIGHT TRAILER (45 FT)
AIR COMPRESSOR
MECHANICS SHOP
PARTS HOUSE
3406 CAT POWERED GEN 260 KW

MISCELLANEOUS EQUIPMENT:
2-30 FT MONEL DRILL COLLARS
JETTING ASSEMBLIES
ASSORTED FLY CUTTERS (REAMERS)
ASSORTED BARREL REAMERS
4000 FT S-135 (19.5 LB PER FT) DRILL PIPE
PIPE TRAILERS
4 IN HYD SUB PUMPS
FLAT MUD HOSE (1500 FT) AND CAM LOCK FITTINGS
EXTRA HYD HOSES AND FITTINGS
EXTRA HYD PUMPS AND FITTINGS
EXTRA HYD MOTORS AND FITTINGS
SUBS
PIPE TONGS
HAND TOOLS
MISC SPARE PARTS: PUMP, HYD
(ESTIMATED \$30K SPARES)

**ALL ENVIRONMENTAL CROSSINGS' EQUIPMENT IS MAINTAINED IN
EXCELLENT OPERATION AND COSMETIC CONDITION.**