

SECTION 02140 - DEWATERING

PART 1 - GENERAL

SUMMARY

Dewatering consists of performing work necessary to lower and control groundwater levels and hydrostatic pressures to permit excavation and construction to be performed in near-dry conditions.

Control of surface and subsurface water, ice and snow are part of dewatering requirements.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

DEWATERING

Provide an adequate system to lower and control groundwater in order to permit excavation, construction of structures, and placement of fill materials under dry conditions. Install sufficient dewatering equipment to pre-drain water-bearing strata above and below bottom of structure foundations, drains, sewers, and other excavations. The excavations shall be kept dry until exterior walls and their supports have been completed and until the structures have been backfilled. Drainage ditches shall not be placed within the area to be occupied by any structure except where permitted by ENGINEER. When such ditches are placed beneath the structures, they shall be backfilled with Class C concrete.

Reduce hydrostatic head in water-bearing strata below structure foundations, drains, sewers and other excavations to extent that water level and piezometric water levels in construction areas are below prevailing excavation surface.

Prior to excavation below groundwater level, place system into operation to lower water levels as required and then operate it continuously 24 hours a day, 7 days a week until drains, sewers and structures have been constructed, including placement of fill materials, and until dewatering is no longer required.

Dispose of water removed from excavations in a manner to avoid endangering public health, property, and portions of Work under construction or completed. Dispose of water in a manner to avoid inconvenience to others engaged in work about site. Provide sumps, sedimentation tanks, and other flow control devices as required by governing authorities. Effluent water from dewatering methods shall be sediment free or be discharged through an ENGINEER-approved sediment entrapment basin.

Provide standby equipment on site, installed and available, for immediate operation if required to maintain dewatering on a continuous basis in event any part of system becomes inadequate or fails. If dewatering requirements are not satisfied due to inadequacy or failure of dewatering system, perform work as may be required to restore damaged structures and foundation soils at no additional expense.

END OF SECTION 02140