

with oversize casing pipes.

19. Reuse/dumping of cuttings and slurry.
20. Layout of monitoring points for detection of surface movement.

1.1.4.3 Drawings and Calculations

- A. The Contractor shall submit drawings to the Engineer for approval in advance of commencing the site activity in accordance with Section 01300 of the specification. These shall comprise but not necessarily be limited to:
1. Working drawings showing on plan and section the method of supporting excavations.
 2. The location of all pits/shafts including those indicated as permanent works in the design drawings, having due regard to existing services, minimizing disruption to traffic and pedestrian movements and achieving the required system layouts, as shown on the tender drawings.
 3. Foot print plans showing the working site areas at the thrust and reception pits/shafts, control room, pipe storage area, craneage area, slurry tank, generator etc.
 4. Plan showing proposed traffic and pedestrian diversion proposals around all pits/shafts.
 5. Details of entry and exit pipe seals and seal rings in pits/shafts.
 6. Longitudinal profiles from thrust to reception pits/shafts showing location of pipe joints, location of existing services and surface levels.
 7. Calculations for thrust and reception pits/shafts which shall be designed to resist external soil and water pressure and stresses resulting from the jacking machine.
 8. Calculations justifying allowable deflections at joints to limit damage to the joint from eccentric loading under drive and sealing limits and to ensure a completed pipeline with no visible leaks and within infiltration allowances.
 9. Pipe calculations showing capability of pipe to resist jacking and friction forces in the axial direction and earth, AASHTO HS20 traffic, and surcharge loadings in the vertical direction.