

SECTION – 0200

DEMOLISHING & DISMANTLING WORKS

1. SCOPE

The work covered by this Section of the Specifications consists of furnishing all plant, labour, equipment, appliances and performing all operations in connection with demolition/ dismantling and removal of existing sheds, jetty structures, asphalt road, pavement, kerbs, medians, foundations, stone pitching, shops, approaches/plate forms, buildings, trees, plants, removal of services with accessories and concrete/ block masonry structures including disposal of demolished/ dismantled and removed material to designated places. Whole work shall be done in accordance with these specifications and as directed by the Engineer.

2. GENERAL REQUIREMENTS

2.1 The work includes demolition, salvage of identified items and materials, and removal of resulting rubbish and debris. Rubbish and debris shall be removed , unless otherwise directed . Materials that cannot be removed daily shall be stored in areas specified by the Engineer. In the interest of conservation, salvage shall be pursued to the maximum extent possible. The usable/salvaged material shall become the property of the Employer.

2.2 All existing structures and utilities obstructing the construction shall be demolished. For further details and extent of demolition work refer to drawings.

3. SUBMITTALS

The procedures proposed for the accomplishment of the work. The procedures shall provide for safe conduct of the work, including procedures and methods to provide necessary supports, lateral bracing and shoring when required, careful removal and disposition of materials specified to be salvaged, protection of property which is to remain undisturbed, coordination with other work in progress, and timely disconnection of utility services. The procedures shall include a detailed description of the methods and equipment to be used for each operation, and the sequence of operations.

4. DUST CONTROL

The amount of dust resulting from demolition shall be controlled to prevent the spread of dust to occupied portions of the construction site and to avoid creation of a nuisance in the surrounding area. Use of water will not be permitted when it could result in, or create, hazardous or objectionable conditions such as ice, flooding and pollution.

5. PROTECTION

5.1 Protection of Personnel

5.1.1 During the demolition work the Contractor shall continuously evaluate the condition of the structure being demolished and take immediate action to protect all personnel working in and around

the demolition site. No area, section, or component of floors, roofs, walls, columns, pilasters, or other structural element will be allowed to be left standing without sufficient bracing, shoring, or lateral support to prevent collapse or failure while workmen remove debris or perform other work in the immediate area.

- 5.1.2 Floors, roofs, walls, columns, pilasters, and other structural components that are designed and constructed to stand without lateral support or shoring, and are determined to be in stable condition, may be allowed to remain standing without additional bracing, shoring, or lateral support until demolished. The Contractor shall ensure that no elements determined to be unstable are left unsupported and shall be responsible for placing and securing bracing, shoring, or lateral supports as may be required as a result of any cutting, removal, or demolition work performed under this contract.

5.2 Protection of Existing Property

Before beginning any demolition work, the Contractor shall survey the site and examine the drawings and specifications to determine the extent of the work. The Contractor shall take necessary precautions to avoid damage to existing items to remain in place, to be reused, or to remain the property of the User; any damaged items shall be repaired or replaced as approved by the Engineer. The Contractor shall coordinate the work of this section with all other work and shall construct and maintain shoring, bracing, and supports as required. The Contractor shall ensure that structural elements are not overloaded and shall be responsible for increasing structural supports or adding new supports as may be required as a result of any cutting, removal, or demolition work performed under this contract.

5.3 Protection From the Weather

The usable and salvageable materials shall be protected from the weather at all times handing over to the Employer.

5.4 Protection of Trees

Trees within the project site which might be damaged during demolition and which are indicated to be left in place shall be protected by a 1.83 m high fence. The fence shall be securely erected a minimum of 1.5 m from the trunk of individual trees or follow the outer perimeter of branches or clumps of trees. Any tree designated to remain that is damaged during the work under this contract shall be replaced in kind or as approved by the Engineer.

6. BURNING

The use of burning at the project site for the disposal of refuse and debris will not be permitted.

Use of Explosives

Use of explosives will not be permitted.

7. PROCEDURES

7.1 The Engineer will define the limits where demolition/ dismantling and removal activity is to be done and shall approve the procedures/ methods to be adopted by the Contractor. The Contractor shall layout the boundaries/ limits for Engineer's checking and approval before commencing dismantling work.

7.2 Whole work shall be performed in an orderly manner and the Contractor shall take all necessary precautions and expedients to prevent damages to the adjacent structures, installed equipment/ machinery, pipes, conduits, any other installation etc. Any damage caused to the structures and installations due to negligence of the Contractor during demolition/ dismantled and removal operations shall be repaired/ replaced by the Contractor at his cost and to the satisfaction of the Engineer.

8. DEMOLITION OF SHEDS, STRUCTURES, ROAD, PAVEMENTS, MASONRY WORKS, BUILDINGS AND PLAIN/ REINFORCED CONCRETE

The Contractor shall demolish sheds, structures, road pavements, masonry / flooring works, stone pitching, buildings and plain/ reinforced concrete works to the line and depth as shown on the Drawings or as directed by the Engineer. Explosives shall not be used to remove the plain and reinforced cement concrete or any other material whatsoever. Mechanically operated breakers, concrete saws, chipping hammers or other approved methods shall be employed for cutting. Care shall be taken that existing services and structures are not damaged. It shall be the responsibility of the Contractor to replace at his cost any services and structures damaged by the Contractor due to his negligence during cutting operations or thereafter until the whole of cut parts/ areas are restored to original condition to the satisfaction of the Engineer.

9. REMOVAL & SHIFTING OF TREES

The trees of specified girths shall be replanted at the designated places as directed by the Engineer, these large trees shall be excavated around the tree, but not less than 200mm, in such a manner that the roots of trees should not be cut or exposed to atmosphere, sufficient native soil should remain adhesive to the roots of tree.

Immediately prior to shipping all plants shall be inspected, dug, prepared and packed with care and skill in accordance with the recognized standard practice for the kinds of plants concerned.

During transportation all plants shall be packed adequately to ensure protection from sun, wind, climatic or seasonal injuries. Tarpaulins and other covers shall be placed over plants when they are transported by trucks for more than 10 km.

Roots system of all plants shall not be permitted to dry out at any time and shall not be exposed to excessive heat or to freezing temperature.

Immediately after digging and prior to packing in moss or other suitable materials, roots shall be dipped in a solution of humectants. All earth-balls shall be firmed and intact and contained in hessian or palm bark. Do not drop balled or bur lapped stock at any time. All balled and hessian covered plants and container growth plants shall at all times be

handled by the ball or by the container and not by the plant stem. The head of each tree shall be carefully tied to prevent fracture of branches.

If soil or the habit of root growth is such that the final roots are not adequately protected, wrap exposed root systems in hessian and prevent from drying.

The moisture of retained soil shall be protected by wrapping up the hessian cloth immediately after it has been uprooted, before transporting to the designated places or at temporary stack yard. The maximum time of stacking of any tree shall not exceed more than 2 days.

The new location of tree shall be excavated up to the depth / height of root mass, so that the no any portion shall remain above the ground level, which was initially rested below ground level.

The Contractor shall arrange all required watering, pesticides, fertilizers etc. for the shifted tree, without any additional cost to employer.

10. TUCKING OF EXISTING ROAD

The existing pavement surface shall be tucked off manually by the means of pickaxes, to make the asphalt surface sufficient rough to make bond with the new asphalt course.

The minimum depth of tucking shall not be less than 50mm and these shall not be less than twenty tucks per square meter. The surface shall be cleaned out after dismantling and dismantled material shall be disposed off at the places as designated by the Engineer.

11. CLEARANCE OF GREEN AREA

The bushes/ plants in existing green area shall be cleared off up to the roots and the surface shall smoothen and cleared from all debris and any organic material before receiving new layer.

12. REMOVAL OF EXISTING SERVICES/ UTILITIES

The Contractor shall mark all the services/ utilities falling within the ROW. After getting approval from the Engineer, the Contractor shall remove all such services/ utilities as per the requirement/ specifications of the relative department whose utilities/ services are being removed/ shifted.

13. DISPOSAL OF MATERIAL

13.1 All debris, materials resulting from demolition/dismantling works shall be disposed off to places designated by the Engineer in the manner of disposition required and directed by the Engineer.

13.2 Unsalvageable Material

Concrete, masonry, and other noncombustible material, shall be disposed off the site.

13.3 All salvaged/ useable materials resulting from demolition and removal shall remain the property of the Employer and shall be stacked at designated places.

13.4 The Contractor shall segregate the useable materials as directed by the Engineer and stack at designated places.

14. CLEAN UP

Debris and rubbish shall be removed from site. Debris shall be removed and transported in a manner that prevents spillage on streets or adjacent areas. Local regulations regarding hauling and disposal shall apply.

All debris materials resulting from demolition / dismantling works shall be disposed off to places designated by the Engineer in the manner of disposition required and directed by the Engineer.

15. MEASUREMENT AND PAYMENT

15.1 General

Except otherwise specified herein or elsewhere in the Contract Documents no measurement and payment will be made for the under mentioned items related to this section. The cost thereof shall be deemed to have been included in the quoted unit rate of the items of the Bill of Quantities under this section.

15.1.1 Safety measures for adjacent infra structure and facilities.

15.1.2 Temporary diversion and safety measures, demarcation / layouts etc.

15.1.3 Loading, unloading, transportation, disposal and stacking of all demolished/ dismantled/ removed/ useable material to the place designated by the Engineer.

15.1.4 Permissions/ approvals, if required, from the relative department and information to the stack holders.

15.1.5 Earth work

15.1.6 hessian cloth, plaster of paris etc

15.1.7 Repair / finishing of adjacent component of dismantled structure.

15.2 Road/ Kerb stone/ Foot Path

15.2.1 Measurement

Measurement of acceptably completed dismantling works of Road/ Kerb stone/ Foot Path will be made on the basis of number of dismantling job of above items as shown in drawing and as directed by the Engineer.

15.2.2 Payment

Payment will be made for acceptable completed dismantling /demolition of Road/ Kerb stone/ Foot Path on the basis of unit

rate per job quoted in the Bill of Quantities & shall constitute full compensation for all the works related to the item.

15.3 Plain/ Reinforced Cement Concrete

15.3.1 Measurement

Measurement of acceptably completed dismantling of plain/ reinforced cement concrete will be made on the basis of number of cubic meter of the concrete dismantled as shown in drawing and as directed by the Engineer.

15.3.2 Payment

Payment will be made for acceptable measured quantity of plain/ reinforced cement concrete on the basis of unit rate per cubic meter quoted in the Bill of Quantities and shall constitute full compensation for all the works related to the item.

15.4 Existing Railway Tracks

15.4.1 Measurement

Measurement for acceptably completed works of cutting, dismantling and removal of existing railway track including steel rails, wooden/ concrete sleepers, stone ballast etc. will be made on the basis of number of running meter of the railway track dismantled as shown in drawing and as directed by the Engineer.

15.4.2 Payment

Payment will be made for acceptable measured quantity of dismantled and removed railway track including steel rails, wooden/ concrete sleepers, stone ballast etc. on the basis of unit rate per running meter quoted in the Bill of Quantities and shall constitute full compensation for all the works related to the item.

15.5 Existing Boundary Wall

15.5.1 Measurement

Measurement for acceptably completed demolition and removal of existing boundary wall will be made on the basis of number of running meter of the boundary wall and its foundation / sub-structures dismantled as shown in drawing and as directed by the Engineer.

15.5.2 Payment

Payment will be made for acceptable measured quantity of demolition and removal of existing boundary wall on the basis of unit rate per running meter quoted in the Bill of Quantities and

shall constitute full compensation for all the works related to the item.

15.6 Existing Container Stoppers

15.6.1 Measurement

Measurement for acceptably completed dismantling and removal of existing container stoppers will be made on the basis of number of the container stoppers dismantled as shown in drawing and as directed by the Engineer.

15.6.2 Payment

Payment will be made for acceptable measured quantity of dismantling and removal of container stoppers on the basis of unit rate per number quoted in the Bill of Quantities and shall constitute full compensation for all the works related to the item.

15.7 Existing Buildings / Structures

15.7.1 Measurement

Demolition of existing buildings/ structures as mentioned in the Bill of Quantities will be made on the basis of job actually dismantled/ demolished, as shown on the Drawings or as directed by the Engineer.

15.7.2 Payment

Payment will be made for acceptable completed dismantling/ demolition of existing building/ structures on the basis of unit rate per job quoted in the Bill of Quantities & shall constitute full compensation for all the works related to the item.

15.8 Existing Asphalt Concrete including Base & Sub-Base (for Bridge)

15.8.1 Measurement

Measurement for acceptably completed dismantling of existing asphalt concrete including base and sub-base course will be made on the basis of actual volume in cubic meter dismantled as shown in drawing and as directed by the Engineer.

15.8.2 Payment

Payment will be made for acceptable measured quantity of existing asphalt concrete including base and sub-base course on the basis of unit rate per cubic meter quoted in the Bill of

Quantities and shall constitute full compensation for all the works related to the item.

15.9 Existing Stone Pitching

15.9.1 Measurement

Measurement for acceptably completed dismantling of existing stone pitching will be made on the basis of actual volume in cubic meter dismantled as shown in drawing and as directed by the Engineer.

15.9.2 Payment

Payment will be made for acceptable measured quantity of existing stone pitching on the basis of unit rate per cubic meter quoted in the Bill of Quantities and shall constitute full compensation for all the works related to the item.

*** End of Section 0200 ***
