

**SCHEDULE**

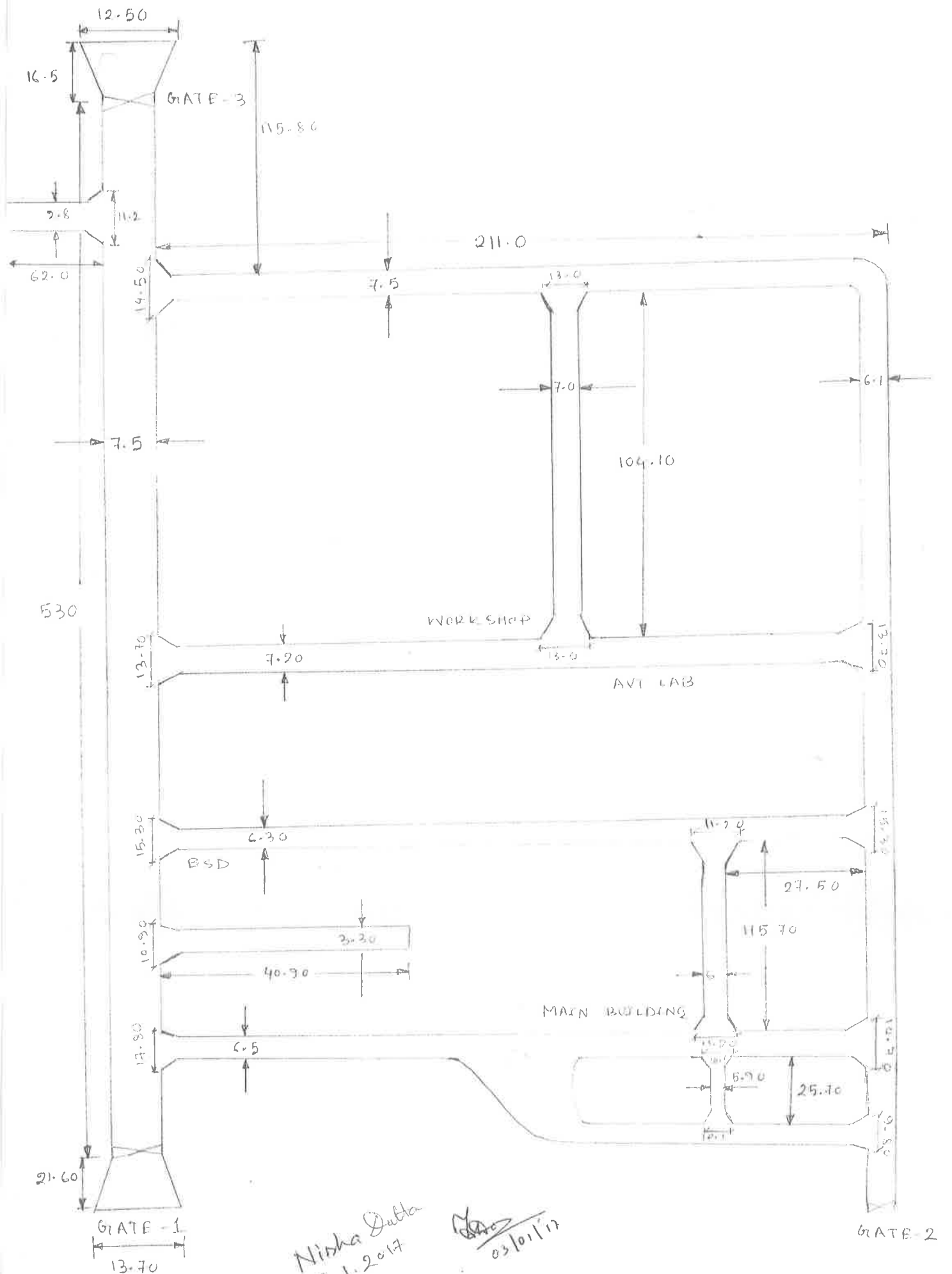
Name of the work -"Bituminous carpeting over existing worn-out road of Institute premises at CSIR-CMERI, Durgapur."					
Item No.	Description	Unit	Quantity	Rate (Rs)	Amount (Rs)
1	Cleaning of road by wire brushes, spade and air blower to complete removal of sand, silt, clay, grasses, crushed stones from road surfaces and chiseling in smooth plain portion as per direction of Engg-in charge.	Sqm	16800.00		
2	Dismantling RCC work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material in a long distance within the campus lead as per direction of Engineer-in-charge.	Cum	1.00		
3	Demolishing cement concrete, Concrete paver tiles manually / by mechanical means including stacking of serviceable materials and disposal of unserviceable materials as per direction of EIC in nominal concrete 1:3:6 or richer mix	Cum	10.00		
4	Demolishing brick work manually/ by mechanical means including stacking-In cement mortar of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge	Cum	4.00		
5	Half brickwork masonry with bricks of class designation 75 in F.P.S. (non modular) bricks of class designation 7.5 in foundations and plinth in CM 1:4 (1 Cement : 4 Coarse Sand).	Sqm	50.00		
6	Centering & shuttering including strutting, propping etc & removal of form for : Foundations, footings, road work, plinth beam bases of columns, etc. for mass concrete.	Sqm	25.00		
7	Reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete. Cold twisted bars.	Kg	200.00		
8	15mm cement plaster on rough side of mix 1:4 (1cement: 4coarse sand) on new or old wall per instruction of EIC.	Sqm	80.00		
9	Providing & laying in position cement concrete of specified grade excluding the cost of centering & shuttering, upto plinth level in 1:2:4 (1 cement :2 coarse sand zone III :4 graded stone aggregate 20 mm, nominal size) making the surface completely smooth or checkered as per Instruction of EIC.	Cum	10.00		
10	Providing and applying tack coat on bituminous surface @ 0.50 Kg per sqm using hot straight run bitumen of grade VG 10, including heating the bitumen, spraying the bitumen with mechanically operated spray unit fitted on bitumen boiler, cleaning and preparing the existing road surface as per specifications.	Sqm	33600.00		
11	Providing and laying 40/50 mm compacted thickness with bitumen of grade VG-30@ 5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of aggregate) prepared in batch type hot mix plant of 100-120 TPH capacity, bituminous concrete using stone aggregate of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site by tippers, laying with paver finisher equipped with electronic sensor to the required grade, level and alignment and rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction and density as per specification, compaction and as per direction of Engineer-in Charge.	Cum	672.00		

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Item No.	Description	Unit	Quantity	Rate (Rs)	Amount (Rs)
12	Providing and laying <b>50mm compacted thickness</b> bitumen penetration macadam with hard stone aggregate of quality, size and grading as specified by Engg-in charge, with bitumen of suitable penetration grade, including required key aggregate as specified, spreading coarse aggregate with the help of self propelled/tipper tail mounted aggregate spreader and applying bitumen by a pressure distributor and then spreading key aggregate with the help of <b>aggregate spreader complete, including consolidation with road roller</b> of minimum 8 to 10tonne capacity & <b>vibratory roller</b> to achieve specified values of compaction and surface accuracy using coarse aggregate of size 50 to 10mm graded @0.60 Cum per 10 Sqm key aggregate of size 12.5mm graded @0.15cum per 10sqm. With paving asphalt grade VG-10 @50kg/10sqm.	Sqm	350.00		
13	Providing and laying <b>semi dense Bituminous concrete</b> of <b>25mm compacted thickness</b> with bitumen of grade VG-30 @5% (percentage by weight of total mix) and lime filler @2% (percentage by weight of aggregate) prepared in Batch type Hot mix Plant of 100-120TPH capacity using stone aggregates of specified grading, premixed with bituminous stone aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site by tippers, laying with paver finisher equipped with electronic sensor to the required grade, level and alignment and rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction and density as per specification, complete and as per direction of Engineer-in-Charge.	Sqm	16800.00		
14	<b>Painting runway/taxi track/apron marking</b> with adequate nos of coats to give uniform finish with road marking paint of superior make as approved by the Engineer-in-charge, i/c cleaning the surface of all dirt, scales, oil, grease and other foreign material etc. and lining out complete. <b>New work (Two or more coats)</b>	Sqm	350.00		
15	<b>Earth work</b> in excavation by mechanical means (Hydraulic excavator)/ manual means in foundation trenches or drains (not exceeding 1.5m in width or 10 sqm on plan) including dressing of sides & rammaning of bottoms, lift upto 1.5m, including getting out the excavated soil & disposal of surplus excavated soil as directed, within a lead of 50m in <b>all kinds of soil</b> .	Cum	12.00		
16	<b>Filling available excavated earth(excluding rock)</b> in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, cosolidating each deposited layer by ramming and watering, lead upto 50m and lift upto 1.5m.	Cum	3.00		
Rupees in Words:				<b>Total</b>	

# BITUMINOUS ROAD NETWORK OF CSIR - CMERI, DURGAPUR



ALL DIMENSIONS ARE IN METERS


**CSIR-CENTRAL MECHANICAL ENGINEERING RESEARCH INSTITUTE**  
**(COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH)**  
**M.G.AVENUE, DURGAPUR- 713209, INDIA**

Name of the work: "Bituminous carpeting over existing worn-out road of Institute premises at CSIR-CMERI, Durgapur."

**LIST OF APPROVED MAKES FOR CIVIL WORK**

1. The Contractor shall obtain approval from the Engineer-In-Charge before placing order for any specific material or engaging any of the specialized agencies.
2. Wherever applicable. The Engineer-In-Charge may approve any material equivalent to that specified in the tender subject to proof being offered by the Contractor for equivalence to his satisfaction.
3. Unless otherwise specified, in the tender document all the materials which are ISI Marked shall be used in the work and if the ISI marked materials are not available, materials conforming to IS shall be used, and for the materials which are neither ISI marked not conform to IS, the manufacturer's Specification shall be followed.

S. No.	Description	Approved Makes
1	CEMENT	ACC, LAFARGE, ULTRATECH,
2	COARSE SAND	CONFORMING TO ZONE -III
3	Bitumen VG -10 and VG -30	IOCL, BPCL, HPCL
4	Road Marking Paint conforming IS: 164	DULUX, BERGER, ASIAN

  
06/11/17      06/01/17