

CONSTRUCTION OF KAPDISAR DAM NANI SINCHAI YOJANA

SPECIFICATION INDEX

It. No.	Description of Item	Applicable Separate Road Specification attached reference
1	Clearing and grubbing of road length including up rooting wild vegetation, grass, bush shrubs, saplings and trees of girth up to 300 mm removal of stumps, of such trees cut earlier and disposal of and unserviceable material stacking of serviceable material ,Clause-2 C1.1 (area of light density) by mechanical means in area of light jungle	As per separte sheet attached.
2	Box cutting the road surface to proper slope and camber for making a base for road work including removing the excavated stuff and depositing on the road side slope as directed upto all lead and lift.	As per separte sheet attached.
3	Earth work for embankment with selected soil C.B.R. not less then 6.0 includiing breaking clouds, dressing, with all lead amd lift (excl. watering and consolidation) from borrow area with all lead & lift	As per separte sheet attached.
4	Rolling & watering and consolidation of earthwork using vibratory road roller 8-10 ton capacity (A)Earth work (layer not exceeding 200mm thickness)	As per separte sheet attached.
5	Construction of granular sub base by providing well graded crushed stone material(M.C.Metal 53 to 9.5 mm size 50%, M.C. metal 9.5 to 2.36 mm 20% and stone dust below 2.36mm size 30%)spreading in uniform layes with motor grader on prepared surface, mixing by mix in place method with rotoator at O.M.C.and compacting with three wheeler roller 8T to 10 T to achieve the desired density complete as per technical specification Close graded Granular sub-base Material as per clause 401 for grading -I well graded sub base material.(150mm thick compacted thickness)	As per separte sheet attached.
6	Providing and laying W.B.M. of M.c. meta of size 45 mm to 90 mm size including 0.27Cu.M.Stone screening & 0.08 Cu.M. stone dust as filler including spreading, watering & consolidation by vibratory roller 80KN to 100KN static weight. 100 mm thick compacted	As per separte sheet attached.
7	Providing and laying W.B.M. of M.C. metal of size 45 mm to 63 mm size including 0.12Cu.M. Stone screening & 0.08 Cu.M. stone dust as filler including spreading, watering & consolidation by vibratory roller 80KN to 100KN static weight. 75 mm 1thick compacted each layer.	As per separte sheet attached.
8	Providing and laying bituminous grout 37.5mm compacted thick using B.T. stone aggregates as per required gradation with the asphalt VG-30 grade for tack coat 2.5 Kg/10 Smt on B.T. surface and 4.0 Kg/10 Smt on W.B.M. surface and asphalt VG-30 grade for mixing @ 1.99% i.e. 19.90 kg./ MT by weight of mix including heating and mixing in drum mix plant transporting the mix, spreading the same by pavers finisher and consolidation as per MORTH specification including cost of all materials fuels, labors, tools and plant etc. using contractors own drum mix plant etc. completed as directed.	As per separte sheet attached.

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9	Providing and laying 37.50 mm thick compacted B.M. using stone chips 0.66 Cum/1 M. ton mix as per gradation with Asphalt VG-30 for tack coat @ 2.50 kg./10 Smt. on B.T. surface and asphalt grade VG-30 for mixing @ 34 kg/M.Ton (i.e. 3.40% of mix) including heating the and aggregate by continuous batching drum mix plant, transporting and mixed material and spreading the same by paver finisher and consolidation by vibratory roller of 80 KN to 100 Kn static weight including the cost of labour oil, lubricants etc. using contractors own machineries and plant.	As per seperate sheet attached.
10	Providing and laying bituminous seal coat with stone chips 6 to 10 mm size 0.18 Cmt/10 smt. i.e. using 0.66 cmt aggregate per M.T mix using asphalt VG-30 @ of 4.50% of mix including heating the asphalt and aggregate by continuous batching drum mix plant and paver finisher and consolidating by vibratory roller including providing equipment, tools, plant, firewood, oil, kerosene, labour charges etc. using the contractors own machinery and plant.	As per seperate sheet attached.
11	Providing and laying cement concrete 1:4:8 (1 cement : 4 coarse sand : 8 machine crushed stone aggregates 40 mm nominal size) and curing complete in foundation and plinth.	As per seperate sheet attached.
12	Proving and laying cement concrete grade M-20 (1-Cement : 1.5 sand : 3 coarse aggregate 20mm nominal size) for C.C. road and curing etc. complete including cost of formwork, finishing the cement concrete road by Trimix process inclusive of labour charges for trimix vaccume dewatering process on cement concrete road by using vaccume dewatering pump, surface floater, including chanelling and making grooves & rough finish to surface, providing expansion joint, construction joint including filling the joint with asphalt filler as per direction by engineer in charge and as per specification.	As per seperate sheet attached.
13	Providing I.S.I. mark T.M.T. bar Fe-500D reinforcement for R.C.C. work including bending, binding and placing in position complete upto two floor level.	As per seperate sheet attached.
14	Providing and fixing ordinary kilometer stone of precast C.C. 1:2:4 including necessary reinforcement as per I.R.C. type design in C.C. 1:4:8 including painting,lettering etc. complete (For O.D. road V.R.)	As per seperate sheet attached.
15	Providing and fixing Hectometer stone as per I.R.C. type design including painting, lettering etc.complete (i) Fixing in earth.	As per seperate sheet attached.
16	Providing fixing indicator stone of approved stone as per I.R.C. type design in c.c.1:4:8 including white washing etc. complete. (ii) Fixing in C.C.1:5:10	As per seperate sheet attached.

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17	<p>Facility Informatory Sign :-Providing and fixing sign boards with logo of scheme made out of 2mm aluminium sheet / 4mm ACP (Aluminum composite Panel); size 80 x 60 cms. rectangular as per design of IRC-67-2012Pre treated with phospheting process & acid etching; coated with one coat of epoxy primer and two coats of best quality epoxy paint ; reflectorised with High Intensity Prismatic Grade retro reflectivesheeting of Type-4 as per ASTM D-4956 and latest M.O.S.T.Specifications; 3.6mtr long stand post of Iron Angle 75 x 75 x 6mm / 65NB Circular MS Pipe as required and frame fabricated from suitable size iron angle of 35 x 35 x 3mm; painted with bestquality epoxy coatings in black and white bends. The details of symbol for each board shall be as per the instruction of engineer in charge. The fixing at site shall be in 1:2:4 CC blockof size 45 x 45 x 60 Cms. for each leg including excavation, curing etc.complete under the supervision of engineer in charge A warranty for 7 years for the Retro reflective sheetinrom origina manufacturer & a certified copy of 3 year outdoor exposure test report from third party test lab for the product offered shall be submitted by contractor.</p> <p>(B) Class-B Type-4 Retro Reflective sheeting</p>	As per seperate sheet attached.
18	<p>Cautionary Warning Sign :-Providing and fixing sign boards made out of 2mm aluminium sheet / 4mm ACP (Aluminum composite Panel);size 90 x 90 x 90 cms, equilateral triangle as per design of IRC-67-2012Pre treated with phospheting process & acid etching; coated with one coat of epoxy primer and two coats of best quality epoxy paint seffectorised with Micro Prismatic Grade retro reflectivesheeting of Type-11 as per ASTM D-4956 and latest M.O.S.T.Specifications; 3.6mtr long stand post of 75 x 75 x 6mm /65NB Circular MS Pipe as required and frame fabricated from suitable size iron angle of 35 x 35 x 3mm;painted with bestquality epoxy coatings in black and white bends. The details of symbol foreach board shall be as per theinstruction of engineer in charge, The fixing at site shall be in 1:2:4 CC blockof size 45x45 x 60 Cms. for each leg. including excavation, curing etc.complete under the supervision of engineer in charge, A warranty for 10 years for the Retro reflective sheeting from original manufacturer rom original manufacturer & a certified copy of 3 year outdoor exposure test report from third party test lab for the product offered shall be submitted by contractor.(B) Class-B Type-4 Retro Reflective sheeting</p>	As per seperate sheet attached.

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19	<p>Give Way sign : Providing and fixing sign boards made out of 2mm aluminium sheet / 4mm ACP (Aluminium composite Panel) size 90x90x90 cms. equilateral triangle as per design of IRC 6.96i2. pre treated with phosphating process & acid etched with one coat of epoxy primer and two coats of best quality epoxy paint; reflectorised with High Intensity Prismatic grade retro reflective sheeting of Type-4 as per ASTM D-4956 as per latest M.O.S.T. Specifications; 3.6mtr long stand post of Iron Angle 75x75x6mm/65NB Circular MS Pipe as required and frame fabricated from suitable size iron angle of 35x35x3mm; painted with best quality epoxy coatings in black and white bends. The details of symbol for each board shall be as per the instruction of engineer in charge. The fixing at site shall be in 1:2:4 CC block of size 45 x 45 x 60 Cms. for each leg including excavation, curing let complete under the supervision of engineer in charge. A warranty for 7 years for the Retro reflective sheeting from original factory of 3 year outdoor exposure test report from third party test lab for the product offered shall be submitted by contractor. (B) Class-B Type-4 Retro Reflect</p>	As per separate sheet attached.
20	<p>Direction sign (Junction board) :- Providing and fixing sign boards made out of 2mm aluminium sheet size 244 x 122 cms. rectangle as per the design of IRC-67-1977 pre treated with phosphating process & acid etching; coated with one coat of epoxy primer and two coats of best quality epoxy paint, reflectorised with retro reflective sheeting as per latest M.O.S.T. specifications; Letters and numerals should be as per IRC-30-1968, 3.1m long (2 nos) stand post and frame fabricated from suitable size iron angle of 50 x 50 x 5mm, 75 x 75 x 6mm as required painted with best quality epoxy coatings in black and white bends. The details of symbol or inscription / numerals for each board shall be as per the instruction of engineer in charge. The fixing at site shall be in 1:2:4 CC block of size 45 x 45 x 60 cms. for each leg including excavation curing etc. complete under the supervision of engineer in charge. (A) Engineer Grade (VR)</p>	As per separate sheet attached.
21	<p>STOP SIGN :- Providing and fixing sign boards made out of 2mm aluminium sheet size 90 x 90 cms. rectangle as per the design of IRC-67-1977 pretreated with phosphating process & acid etching, coated with one coat of epoxy primer and two coats of best quality epoxy paint reflectorised with retro reflective sheeting as per latest M.O.S.T. specifications; 3.1m long stand post and frame fabricated from suitable size iron angle of 35 x 35 x 3mm, 75 x 75 x 6mm as required; painted with best quality epoxy coatings in black and white bends. The details of symbol for each board shall be as per the instruction of engineer in charge. The fixing at site shall be in 1:2:4 CC block of size 45 x 45 x 60 cms. for each leg including excavation curing etc. complete under the supervision of Engineer in charge. (A) Engineer grade (VR).</p>	As per separate sheet attached.

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22	Village name/ Bump Ahead sign :- Providing and fixing sign board made out of 2 mm alluminium sheet size 90 x 60 cms rectangle as per the design of IRC-67-1977 pre treated with phospheting process and acid etching coated with one coat of epoxy primer and two coats of best quality epoxy paint reflectorised with retro reflective sheeting as per latest M.O.R.T.H. specifications. Letters and numerals should be as per IRC-30-1968, 310m long (2 Nos.) stand post and frame fabricated from suitable size iron angle of 50 x 50 x 5 mm painted with best quality epoxy coating in black and white bends. The details of symbol or inscription / numerals for each board shall be as per the instruction of engineer in charge. The fixing at site shall be in 1:2:4 C.C. block of size 45 x 45 x 60 cms for each leg including excavation, curing etc. complete under the supervision of Engineer-in-charge (A) Engineer grade (VR).	As per seperate sheet attached.

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