

15.0 WORKABILITY:-

- 15.1 THE CONCRETE MIX PROPORTIONS CHOSEN SHALL BE SUCH THAT THE CONCRETE IS OF ADEQUATE WORKABILITY FOR THE PLACING CONDITIONS OF THE CONCRETE AND CAN PROPERLY BE COMPACTED WITH THE MEANS AVAILABLE. SUGGESTED RANGES OF WORKABILITY OF CONCRETE MEASURED IN ACCORDANCE WITH IS-1199 ARE GIVEN BELOW.

S.NO	STRUCTURAL MEMBER	SLUMP
1.	SLAB (INCLUDING CHAJJA), BEAMS (INCLUDING LINTELS), COLUMNS, PEDESTALS AND RETAINING WALLS	25-75
2.	-DO- (HEAVILY REINFORCED SECTIONS)	50-100
3.	IN-SITU PILING AND TRENCH FILL	150-180
4.	TREMIE CONCRETE	AS PER IS-9103

NOTES:- STATUES OF REINFORCEMENT AS LIGHT/HEAVY AND THE FLOW OF CONCRETE AS PER IS-9103 SHALL BE DECIDED BY GE, AS PER SITE REQUIREMENTS.

16.0 CURING:-

- 16.1 EXPOSED SURFACES OF CONCRETE SHALL BE CURVED ADEQUATELY IN ACCORDANCE WITH CLAUSE 13.5.1 OF IS-456.
- 16.2 **MEMBRANCE CURING :-** MEMBRANCE CURING SHALL BE RESORTED TO IN THE WORST CONDITION OF NON-AVAILABILITY OF WATER. APPROVED CURING COMPOUNDS MAY BE USED IN LIEU OF MOIST CURING WITH THE PERMISSION OF THE GARRISON ENGINEER. SUCH COMPOUNDS SHALL BE APPLIED TO ALL EXPOSED SURFACES OF THE CONCRETE AS SOON AS POSSIBLE AFTER THE CONCRETE HAS SET. IMPERMEABLE MEMBRANES SUCH AS POLYTHENE SHEETING COVERING CLOSELY THE CONCRETE SURFACE MAY ALSO BE USED TO PROVIDE EFFECTIVE BARRIER AGAINST EVAPORATION.
- 16.3 **MOIST CURING :-** EXPOSED SURFACES OF CONCRETE SHALL BE KEPT CONTINUOUSLY IN A DAMP OR WET CONDITION BY PONDING OR BY COVERING WITH A LAYER OF CANVAS, HESSIAN OR SIMILAR MATERIALS AND KEPT CONSTANTLY WET FOR AT LEAST 07 DAYS FROM THE DATE OF PACKING CONCRETE. IN CASE OF ORDINARY PORTLAND CEMENT AND AT LEAST 10 DAYS WHERE MINERAL ADMIXTURES OR BLENDED CEMENTS ARE USED. FOR CONCRETE EXPOSED TO HOT AND DRY WEATHER MINERAL ADMIXTURES OR BLENDED CEMENTS ARE USED.
- 16.4 REQUIREMENT OF MEMBRANE CURING OR ANY OTHER SPECIAL CURING, WHEREVER REQUIRED SHALL BE SEPARATELY SPECIFIED IN THE CONTRACT.

17.0 PCC BLOCK MASONRY:-

- 17.1 PCC BLOCK MASONRY SHALL BE WITH SOLID PCC BLOCK OF GRADE C-5, DENSITY 1800 kg/m<sup>3</sup> (MIN) CONFORMING TO IS-2185 PART-1. MIN COMPRESSIVE STRENGTH SHALL BE 5 N/mm<sup>2</sup>
- 17.2 ALL WALLS ARE NON LOAD BEARING WALLS AND THESE SHALL BE CONSTRUCTED ONLY AFTER RCC FRAMED STRUCTURE IS COMPLETED AND THE CONSTRUCTION OF WALLS SHALL BE CARRIED OUT AS PER RELEVANT INDIAN STANDARDS.
- 17.3 MASONARY PANEL WALLS SHALL BE CONSTRUCTED AS SPECIFIED IN CONTACT AGGREGMENT AND ALL AS PER RELEVANT INDIAN STANDARDS UNLESS OTHERWISE MENTIONED IN CONTRACT DRAWINGS. THE MIX OF MORTAR SHALL BE CM(1:6) FOR WALLS 200 MM THICK OR MORE AND CM (1:4) FOR LESS THAN 200 MM THICK WALLS.
- 17.4 THE VERTICAL FACE OF CONCRETE AT THE JUNCTION OF WALL AND MEMBER SHALL BE RAKED TO GIVE A ROUGH SURFACE. CM(1:4) MORTAR AT THIS JUNCTION SHALL BE APPLIED AS THE WORK PROCEEDS SO AS TO DEVELOP PROPER BOND BETWEEN WALL AND RCC MEMBER.
- 17.5 A GAP OF 10MM SHALL BE LEFT BETWEEN THE SOFFIT OF RCC BEAMS/SLAB AND TOP OF PANEL WALL, WHICH SHALL BE FILLED UP WITH MORTAR CM(1:8).
- 17.6 ALL OPENINGS FOR DOORS/WINDOWS OR OTHERWISE IN PANEL WALLS SHALL HAVE LINTELS AS PER TYPICAL DETAILS UNLESS THE STRUCTURAL DRAWINGS PROVIDE FOR RCC LINTEL BEAMS.
- 17.7 WHEREVER VARIATIONS IN HEIGHT OF MASONARY IS LESS THAN ONE BRICK THICKNESS, IT SHALL BE MADE GOOD WITH PCC M-15 (NOMINAL MIX).
- 18.0 **100 MM THICK WALLS/PARTITION WALLS:-**
- 18.1 100MM THICK WALLS SHALL BE RAISED OFF THE SUB FLOOR IN GROUND FLOOR AND OFF THE SLAB IN OTHER CASES.
- 18.2 100 MM THICK WALLS SHALL HAVE TWO # 8MM DIA BARS LAID HORIZONTALLY AT EVERY FOURTH COURSE OF BRICK WORK TO OUTER TO OUTER OF CROSS WALLS.
- 18.3 100 MM THICK WALLS WHEREVER SHOWN ON PLAN SHALL BE PROVIDED WITH THE HORIZONTAL BAND OF SIZE EQUAL TO WIDTH OF WALL X 125 MM DEPTH WITH 2 NOS. # 12MM BARS EACH AT TOP AND BOTTOM AND # 8 MM - 2 LEGGED STIRRUPS AT 100 MM C/C AT 2100 MM ABOVE FFL OR AT DOOR/ LINTEL HEIGHT IN EACH FLOOR. THE BAND REINFORCEMENT SHALL BE SUITABLY ANCHORED IN CROSS WALLS, LINTELS, BEAMS OR COLUMN FOR ITS FULL DEVELOPMENT LENGTH IN TENSION.
- 18.4 100 MM THCK WALLS WITH LENGTH EXCEEDING 03 METERS AND NOT EXCEEDING 06 METERS ON PLAN WITHOUT CROSS WALLS SHALL BE PROVIDED WITH RCC VERTICAL BAND OF SIZE EQUAL TO WALLS WIDTH X 125 MM AT MIDDLE OF LENGTH OF WALL WITH VERTICAL REINFORCEMENT WITH 4 NOS. #12 MM BARS AND # 8 MM LINKS SPACED AT 100 MM C/C. IF THE LENGTH OF 100 MM THICK WALLS EXCEED 06 METERS, THESE BANDS SHALL BE PROVIDED AT SPACING NOT EXCEEDING 03 METERS INTERVALS. NO

FOUNDATION NEEDS TO BE PROVIDED. REINFORCEMENT SHALL BE ANCHORED INTO SLAB/BASE/SUB-BASE AS APPLICABLE FOR ITS FULL DEVELOPMENT LENGTH IN TENSION.

- 18.5 ALL 100 MM THICK WALLS SHALL BE NON- LOADS BEARING WALLS. THE LAST COURSE OF SUCH WALLS SHALL BE BUILT AFTER REMOVAL OF FORM-WORK FROM THE SOFFIT OF SLAB/BASE.
- 18.6 WHEREVER, 100 MM THICK WALLS/PARTITION WALL IS PROVIDED WITHOUT ANY BEAM UNDERNEATH, HIDDEN BEAM SHALL BE PROVIDED AS 300 MM X SLAB THICKNESS WITH MAIN REINFORCEMENT 8 NOS. BARS OF #16 MM(TOP- 4 & BOTTOM -4) AND #8 MM- 2 LEGGED STIRRUPS AT 75MM C/C AND ALL PARTITION WALLS ON GROUND FLOOR SHALL BE RAISED FROM CC SUB-BASE INCSE PLINTH BEAM IN NOT SHOWN.
- 18.7 100 MM THICK WALLS IF PLACED DIRECTLY OVER RCC SLAB, HIDDEN SHALL BE PROVIDED IN THE SLAB.
19. **JOINTS IN BUILDINGS:-**
- 19.1 AS FAR AS POSSIBLE CONCRETING SHALL BE DONE IN ONE OPERATION UPTO THE PRE-DECIDED STAGE, AS PER CLAUSE 13.4 OF IS-456 TO AVOID CONSTRUCTION JOINTS.
- 19.2 IF CONSTRUCTION JOINT IS INESCAPABLE, IT SHALL BE A VERTICAL JOINT IN THE MIDDLE THIRD OF THE SPAN AND PARALLEL TO MAIN REINFORCEMENT. THE CONCRETE SURFACE SHALL BE PREPARED IN ACCORDANCE WITH THE REQUIREMENT OF IS-11817 AND CLAUSE 13.4 OF IS-456 BEFORE PLACING OF FRESH CONCRETE.
- 19.3 CONSTRUCTION JOINTS, IF REQUIRED TO BE PROVIDED IN FLOORS AND ROOFS, SHALL BE LOCATED NEAR THE MIDDLE OF THE SPANS OF SLABS, BEAMS UNLESS SECONDARY BEAM INTERSECTS THE MAIN BEAM AT THE POINT. IN WHICH CASE THE JOINTS IN THE MAIN BEAMS SHALL BE OFFSET A DISTANCE EQUAL TO TWICE THE WIDTH OF THE BEAM. SPECIAL PRECAUTIONS MENTIONED IN CL. 13.4 OF IS-456 SHALL HOWEVER BE TAKEN WHEN PROVIDING CONSTRUCTION JOINTS.
- EXPANSION JOINTS:-**
- 19.4 EXPANSION JOINTS SHALL BE PROVIDED IN ACCORDANCE WITH CLAUSE 27 OF IS-456, UNLESS OTHERWISE SPECIFIED IN STRUCTURAL DRAWINGS/CONTART AGGREGMENT.
- 19.5 DESIGN CONSIDERATIONS OF EXPANSION JOINTS SHALL BE IN ACCORDANCE WITH IS-3414.
- 19.6 WIDTH OF CRUMPLE JOINT WHEREVER INDICATED SHALL BE TAKEN AS 40MM D/S BLGS & 25MM FORS/S BLDGS.
- 19.7 DETAILS FOR CRUMBLE JOINT SHALL BE AS PER IS-3414 TO OBTAIN EFFECTIVE SEAL AGAINST PENETRATION OF WATER.
- 20.0 **DETAILS OF JOINTS IN BUILDINGS :-**
- 20.1 THIS DRAWINGS INCORPORATES THE PROVISIONS OF IS-3413. ALL CRUMPLE JOINTS SHALL BE 25 MM WIDE.
- 20.2 METAL STRAP TO COVER THE CRUMPLE JOINT SHALL BE FIXED AT ONE SIDE WITH SLOTTED HOLE WITH SCREW AND ADJACENT SIDE WITH SUITABLE, ROUND HOLE WITH SCREWS AS SHOWN IN THE TYPICAL SECTION.
- 20.3 THE EXPANSION JOINTS IN WALLS, SLABS AND IN THE BUILDINGS SHALL BE PROVIDED AT THE POSITIONS INDICATED IN VARIOUS STRUCTURAL DRAWINGS.
- 20.4 THE JOINT PROVIDED IN THE BUILDING SHALL BE A COMPLTE BREAK RIGHT FROM GROUND LEVEL TO THE ROOF INCLUDING THE CAPPING OVER PARAPETS.
- 20.5 FOR CHAJJAS, BALCONIES AND PARAETS, A JOINT MUST BE PROVIDED AT 6 TO 12 M INTERVALS. THE EXPANSION JOINT SHALL HOWEVER NOT EXTEND INTO THE PORTION WHERE SUN SHADE IS EMBEDDED INTO MASONRY.
- 20.6 THE BITUMINOUS JOINT FILLER INDICATED SHALL CONFORM TO IS-1838(PART-1) AND IS-1838(ART-II). THE SEALING COMPOUND SPECIFIED AT JOINTS SHALL CONFORM TO IS-1834.
- 20.7 SCREW USED IN SLOTTED HOLE IN EXPANSION JOINTS SHALL NOT PREVENT FREE MOVEMENT OF THE ALUMINIMUM PLATE.
- 21.0 **FOUNDATIONS-STRIP/ISOLATED/COMBINED/RAFT/PILE FOUNDATION:-**
- 21.1 FILLING AROUND FOUNDATION TRENCHES, PLINTH AND UNDER THE FLOORS & HARD STANDINGS AND FILLING OVER AREAS ABOVE NATURAL GROUND LEVEL SHALL BE DONE WITH APPROVED EARTH HAVING NON-SWELLING CHARACTERISTICS AND SHALL BE FREE FROM SALTS, ORAGANIC OR OTHER DELETERIOUS MATTER. FILLING SHALL DONE IN LAYERS OF A THICKNESS NOT MORE THAN 250MM DEPTH AND PROPERLY WATERED & COMPACTED TO 95 PERCENT OF STANDARD PROCTOR'S DENSITY UNDER OPTIMUM MOISTURE CONDITIONS. HIGHLY EXPANSIVE SOILS LIKE BLACK COTTON SOIL SHALL NOT BE USED. IN CASE OF FILLING WITH MORRUM/ SANS/ SHINGLES, THE THICKNESS OF INDIVIDUAL LAYER SHALL NOT EXCEED 150 MM.
- 21.2 ALL RCC ELEMENTS LIKE FOOTINGS/PLINTH BEAMS/ TIE BEAMS/ GRADE BEAMS/ RAFTS/ PILE CAPS ETC., BEARING ON GROUND SHALL BE FOUNDED AN VIRGIN SOIL OR ON SOFT/ HARD ROCK AND IN NO CASE, IT SHALL BE FOUNDED ON HIGHLY EXPANSIVE SOIL OR FILLED-UP SOIL.
- 21.3 FOUNDATION SHALL NOT REST ON HIGHLY EXPANSIVE SOIL LIKE BLACK COTTON SOIL AND IN CASE THE SAME IS ENCOUNTERED BELOW THE DEPTH OF FOUNDATION, MATTER SHALL BE REFERRED TO THE COMPETENT AUTHORITY FOR RE-DESIGN.
- 21.4 THE DEPTH OF THE FOUNDATION SHOWN IN THE DRAWINGS SHALL BE CONSIDERED FROM THE NATURAL GROUND LEVEL(INGL) AT LOCATIONS WHERE CUTTING IS INVLOVED THE DEPTH SHALL BE CONSIDERED FROM THE FIRM GROUND LEVEL AFTER CUTTING.
- 21.5 MINIMUM DEPTH OF FOUNDATION BELOW NGL SHALL BE 1.5 METERS.
- 21.6 UNLESS OTHERWISE SHOWN IN STRUCTURAL DRAWINGS, THE STRUCTURES HAS BEEN DESIGNED WITH AN UN-CHARTED FILLING OF MAX UPTO 01 METER OVER NGL TO ACHIEVE THE MADE-UP GROUND LEVEL(MGL). IN CASE THE MAX DEPTH OF FILLING IS MORE THAN METER AS SHOWN IN THE STRUCTURAL DRAWINGS, IT SHALL BE BROUGHT TO THE NOTICE OF THE COMPETENT AUTHORITY FOR RE-DESIGN.

- 21.7 DIMENSIONS OF FOOTINGS INDICATED IN FOUNDATION PLAN ARE EXCLUSIVE OF OFFSET OF LEAN CONCRETE.

- 21.8 WHEREVER PLINTH BEAMS ARE NOT PROVIDED OR WALL FOOTINGS DETAILS NOT GIVEN, THE WALL FOUNDATION SHALL BE PROVIDED AS PER DETAILS GIVEN IN TYPICAL DRAWINGS.

- 21.9 SAFE BEARING CAPACITY(SBC) AND GROUND WATER TABLE CONSIDERED FOR DESIGN OF FOUNDATIONS IS AS PER SOIL INVESTIGATION REPORT AND HAS BEEN SHOWN IN RELEVANT BUIDING FOUNDATION DRAWINGS. SITE EXECUTIVES SHALL ENSURE THAT THE SOIL STRATA/WATER TABLE AREAS PER SOIL INVESTIGATION REPORT BEFORE EXECUTION OF THE WORK. IN THE EVENT OF ANY VARIATION, THE MATTER SHALL BE BROUGHT TO THE NOTICE OF THE COMPETENT AUTHORITY AND THE FOOTING SHALL BE RE-DESIGNED.

22. **FOUNDATION-PILE FOUNDATIONS:-**

- 22.1 ALL REINFORCEMENT BARS SHALL BE TMT BARS Fe-500D(CRS TYPE) GRADE CONFORMING TO IS-1786-2008. REINFORCEMENT BARS SHALL BE ISI MARKED. CRS STANDS FOR CORROSION RESISTANT STEEL. MINIMUM ELONGATION SHALL BE 18%.
- 22.2 GRADE OF CONCRETE FOR RCC WORK OF PILE CAPS & PILES SHALL BE AS UNDER:-  
a) PILE CAP : M-30 DESIGN MIX  
b) PILE : M-30 DESIGN MIX, WITH 150 TO 180MM SLUMP AND MINIMUM CEMENT CONTENT OF 400kg/m<sup>3</sup>
- 22.3 CLEAR COVER FOR MAIN REINFORCEMENT SHALL BE AS UNDER:-  
a) PILE CAP ( SIDES, BOTTOM & TOP) -75 MM  
b) PILE (SIDES) - 60 MM  
c) PILE BOTTOM - 100 MM
- 22.4 ALL PILES SHALL BE BORED CAST-IN- SITU PILES.
- 22.5 CONSTRUCTION OF ALL PILING WORK SHALL BE CARRIED OUT AS PER CLAUSE 8.1 TO 8.5 OF IS-2911 (PART-1/SEC-2 : 2010(REAFFIRMED 2015)).
- 22.6 CONCRETE OF THE PILES SHALL BE CASTED UPTO 1000MM ABOVE CUT OFF LEVEL OR NGL/MGL WHICHEVER IS HIGHER AS PER CLAUSE 8.4.4 OF IS-2911 (PART-1/SEC-2:2010 REAFFIRMED 2015) TO PERMIT REMOVAL OF ALL LAITANCE WEAK CONCRETE BEFORE CAPPING AND TO ENSURE GOOD CONCRETE AT CUT OFF LEVEL FOR PROPER EMBEDMENT INTO THE PILECAP.
- 22.7 RECORDING OF DETAILS OF CONSTRUCTION OF PILES SHALL BE DONE AS PER CLAUSE 8.6 OF IS-2911(PART-1/SEC-2 : 2010(REAFFIRMED 2015)). DATA RECORDING SHALL ALSO INCLUDE QUANTITY OF CONCRETE POURED IN EACH PILE.
- 22.8 CUT OFF LEVEL OF PILES IS 75MM ABOVE SOFFIT OF PILE CAP AS SHOWN IN DRAWINGS. MAIN REINFORCEMENT (LONGITUDINAL BARS) OF PILES SHALL BE TAKEN TO FULL HEIGHT INSIDE PILE CAP AS SHOWN IN DETAILS IN DRAWINGS.
- 22.9 BEFORE STARTING PILING WORK, ALL THE PILE CAPS AND PILES SHALL BE MARKED ON GROUND AND IF ANY DISCREPANCY IS OBSERVED, THE MATTER SHALL BE REFERRED TO ACCEPTING OFFICER.
- 22.10 INITIAL AND ROUTINE LOAD TESTS ON PILES SHALL BE CARRIED OUT AS ER IS-2911 (ART-4)-2013. FOLLOWING TESTS SHALL BE CARRIED OUT :-  
a) VERTICAL LOAD TEST FOR SAFE LOAD IN COMPRESSION  
b) LATERAL LOAD TEST FOR SAFE LOAD IN LATERAL THRUST.
- 22.11 IN INITIAL TESTS, ILES SHALL BE TESTED TO 2.5 TIMES THE LOAD CAPACITY.
- 22.12 IN ROUTINE TEST, PILE SHALL BE TESTED FOR A LOAD EQUAL TO ONE & HALF TIMES THE SAFE LOAD OR 12 MM TOTA SETTLEMENT WHICHEVER IS EARLIER.
- 22.13 ROUTINE PILE LOAD TESTS SHAL BE CONDUCTED ON WORKING PILES SELECTED BY GE. PILE INTEGRITY TESTS SHALL BE CONDUCTED ON ALL WORKING PILES.
- 22.14 SAFE LOAD CARRYING CAPACITY OF PILE IN COMPRESSION AND LATERAL THRUST SHALL BE VERIFIED BY INITIAL PILE LOAD TESTS BEFORE COMMENCING THE ACTUAL PILING WORK. IF TEST RESUTS OF ACTUAL PILE LOAD TEST INDICATE LESSER VALUE THAN THOSE SPECIFIED IN DRAWINGS. THE MATTER SHALL BE REFERRED TO THE ACCEPTING OFFICER.
- 22.15 DEVELOPMENT LENGTH (Ld) FOR REINFORCEMENT BARS SHALL BE EQUAL TO 46 TIMES THE DIA OF THE BARS IN PILE.
- 22.16 CEMENT FOR RCC OF PILES AND PILE CAPS SHALL BE ~~PORTLAND CEMENT~~ **ORDINARY PORTLAND CEMENT** HAVING COMPRESSIVE STRENGTH OF 43 MPA, CONFIRMING TO IS-456-1983, LATEST EDITION). **28.9-2015**
- 22.17 CONCRETING OF PILES SHALL BE DONE USING TREMIE METHOD AS PER CLAUSE 8.4 OF IS-2911 (PART-1/SEC-2)-2010(REAFFIRMED 2015 WITH MS LINER (IF SHOWN IN DRAWINGS)/ CASING ONLY.
- 22.18 DMC METHOD SHALL BE USED IN BORING OF PILES. DRILLING MUD SHALL BE STABILIZING SIDES OF BOREHOLES. BENTONITE SHALL CONFIRM TO STIPULATION GIVEN IN CLAUSE 7.4, 8.2, 8.3, AND D-1 TO D-3 OF ANNEX 'D' OF IS-2911(PART I/SEC 2)-2010. SPECIFICATIONS GIVEN IN CLAUSE D-3.1 OF ANNEX'D' OF IS CODE ARE APPENDED BELOW:-  
a) THE LIQUID LIMIT OF BENTONITE WHEN TESTED IN ACCORDANCE WITH IS-2720 (PART-V) SHALL BE 400 PERCENT OR MORE.  
b) THE BENTONITE SUSPENSION SHALL BE MADE BY MIXING IT WITH FRESH WATER USING A PUMP FOR CIRCULATION. THE DENSITY OF THE FRESHLY PREPARED BENTONITE SUSPENSION SHALL BE BETWEEN 1.03 TO 1.10 g/ml DEPENDING UPON THE PILE DIMENSIONS AND THE TYPE OF SOIL IN WHICH THE PILE IS TO BE BORED. THE DENSITY OF BENTONITE AFTER CONTAMINATION WITH MATERIAL IN THE BORE HOLE MAY RISE UPTO 1.25 g/ml. THIS SHOULD BE BROUGHT DOWN TO ATLEAST 1.12 g/ml BY FUSHING BEFORE CONCRETING.  
c) THE MARSH VISCOCITY OF BENTONITE SUSPENSION WHEN TESTED BY A MARSH CONE SHALL BE BETWEEN 30 TO 60 STOKE.  
d) THE pH VALUE OF THE BENTONITE SUSPENSION SHALL BE BETWEEN 9 TO 11.5.
- 22.19 PROPER DRAINAGE AROUND THE BUILDING SHALL BE ENSURED SO THAT NO ACCUMULATION OF WATER/ WATER LOGGING TAKEN PLACE.

03-03-23	NOTE No. 22-16 CORRECTED	
DATE	DESCRIPTION	SIGN
REVISIONS		

VETTED BY  
ALL DETAILS HAVE BEEN THOROUGHLY CHECKED AND ARE IN COMPLIANCE TO STANDARDS, CODES, REGULATIONS IN RESPECT OF SAFETY, SOUNDINESS AND ECONOMY.

PROVN OF HANGAR AND ANNEXE  
BUILDING AT  
INS DEGA VISAKHAPATNAM

GENERAL NOTES-2

SHT NO.	S02	<b>HELIOS ENGINEERING CONSULTANTS</b> #38-34-66 FCI COLONY MARRIPALEM VISAKHAPATNAM - 530018
PRO NO.	ST2204	
SCALE.	AS NOTED	
DRN BY.	KSS	
DATE.	28-02-2023	
DESIGNED BY  DV TRINADH RAO		CHECKED BY  S SURYA MS (STRUCTURES)

**CHIEF ENGINEER  
(NAVY)  
VISAKHAPATNAM**

REF.DRG.NO : CEVZ/2022/WD-2120(S) (GN) Sht.No. 264

DESIGNS & DRAWINGS PREPARED UNDER CONSULTANCY FROM M/S HELIOS ENGINEERING CONSULTANTS AND VETTED BY ANDHRA UNIVERSITY

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