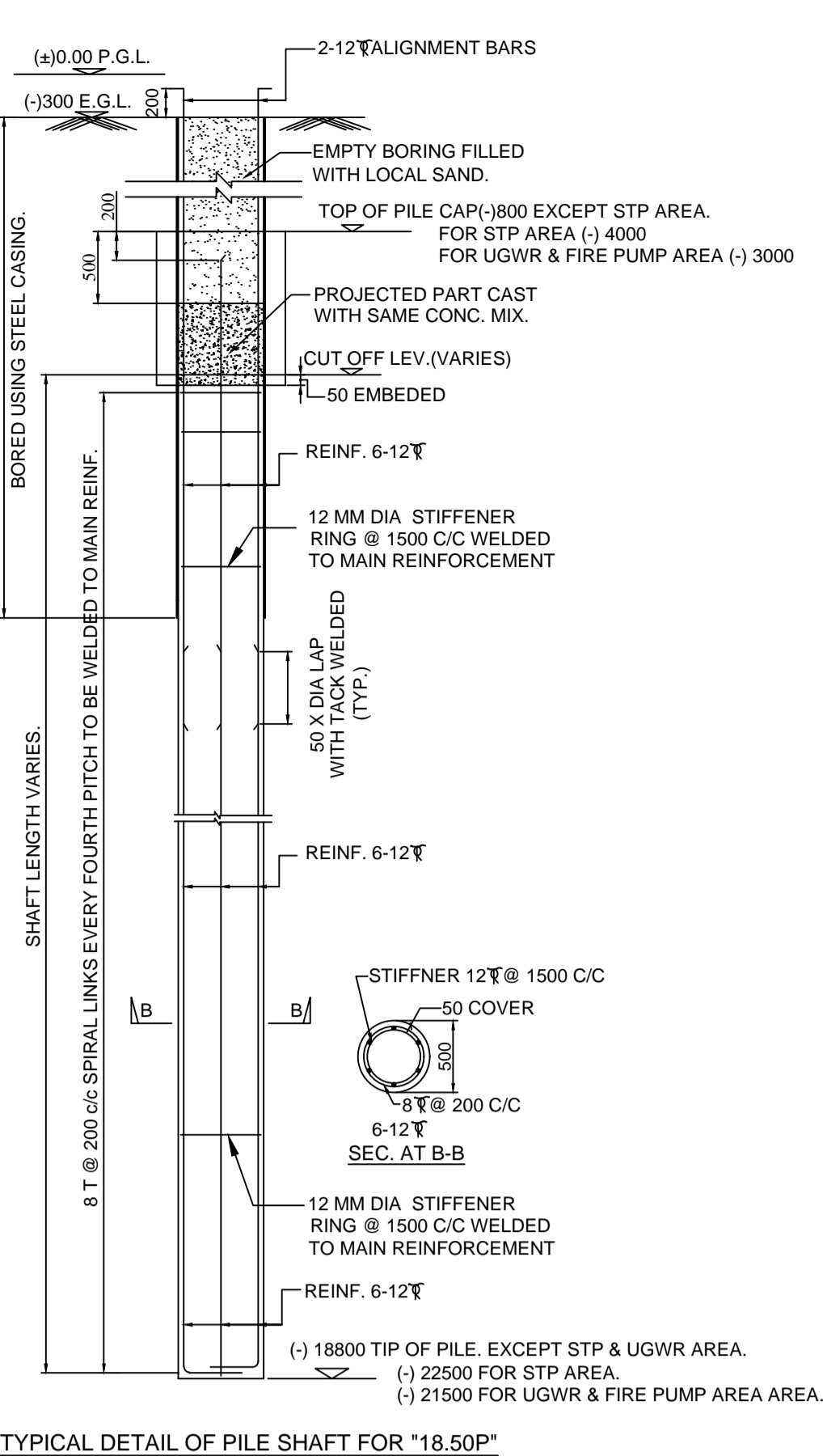
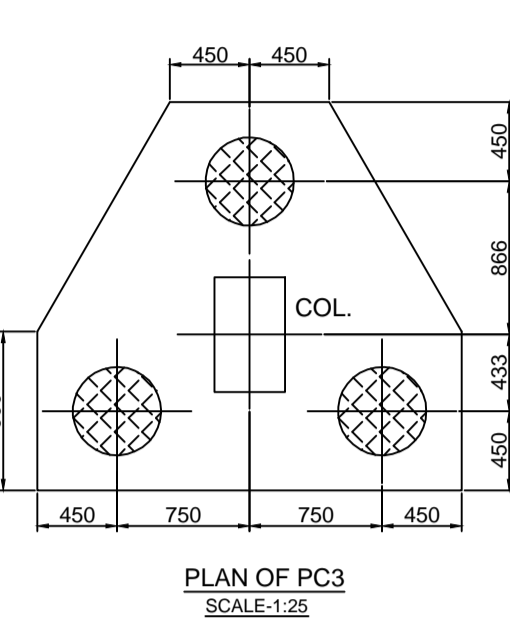
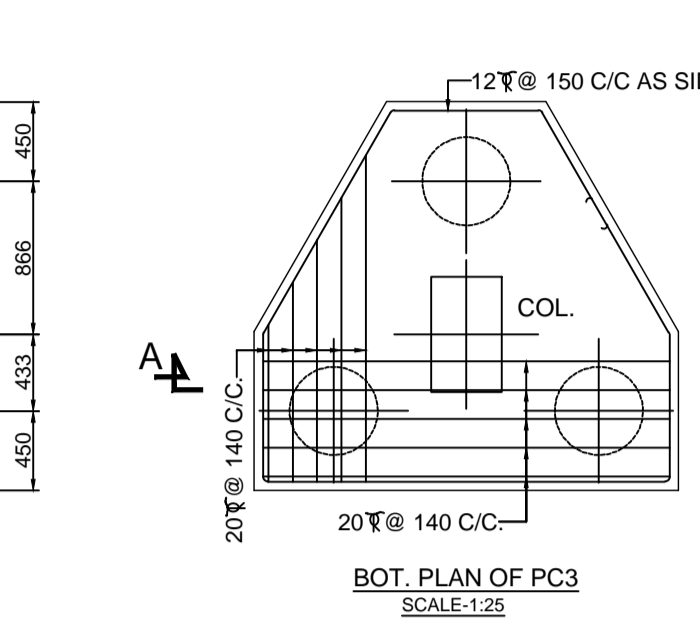
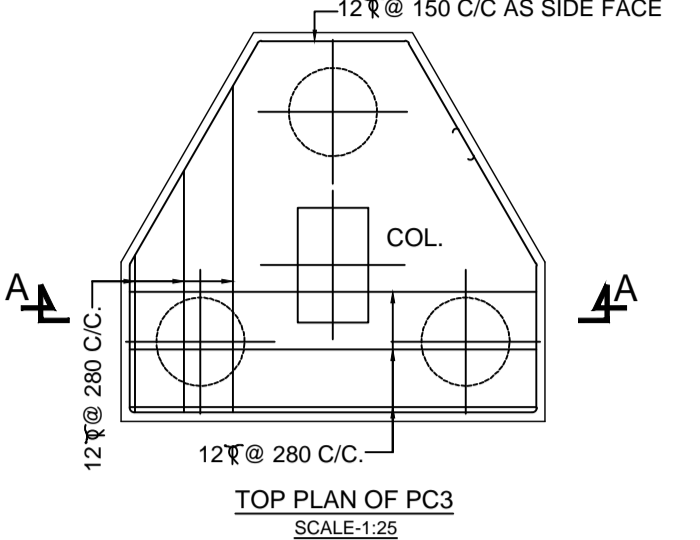
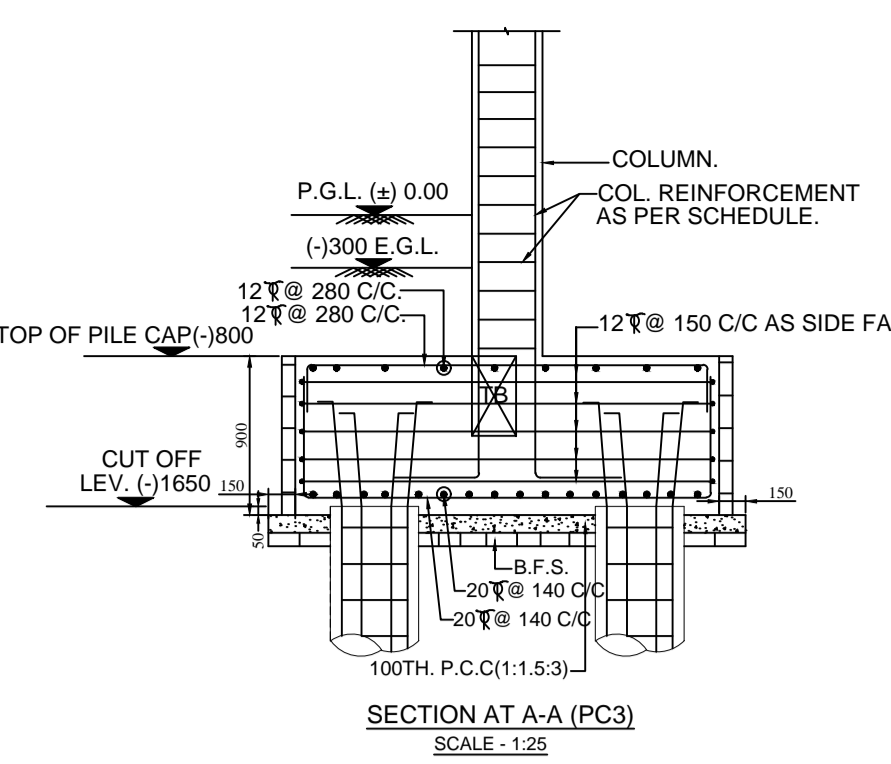
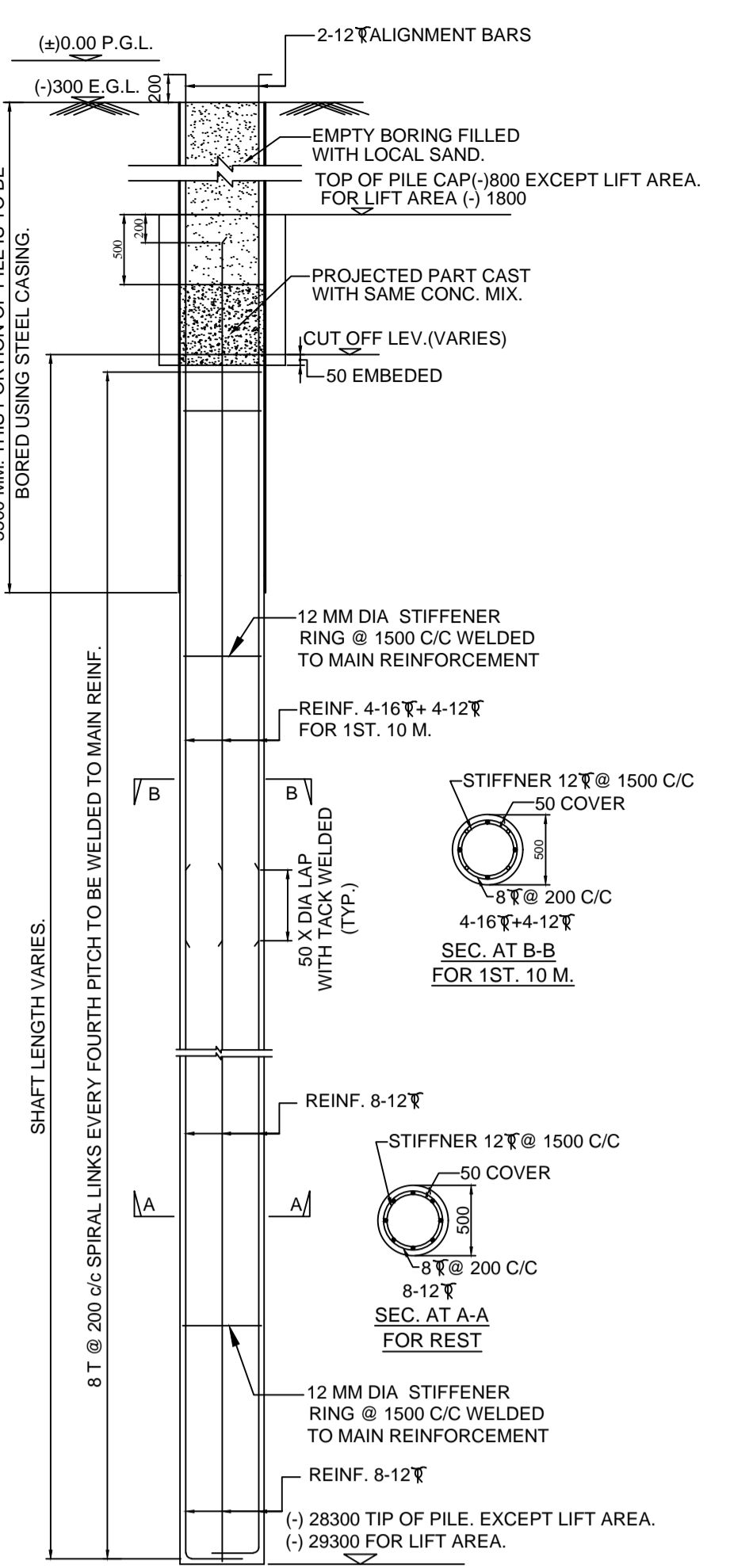


NOTES :-

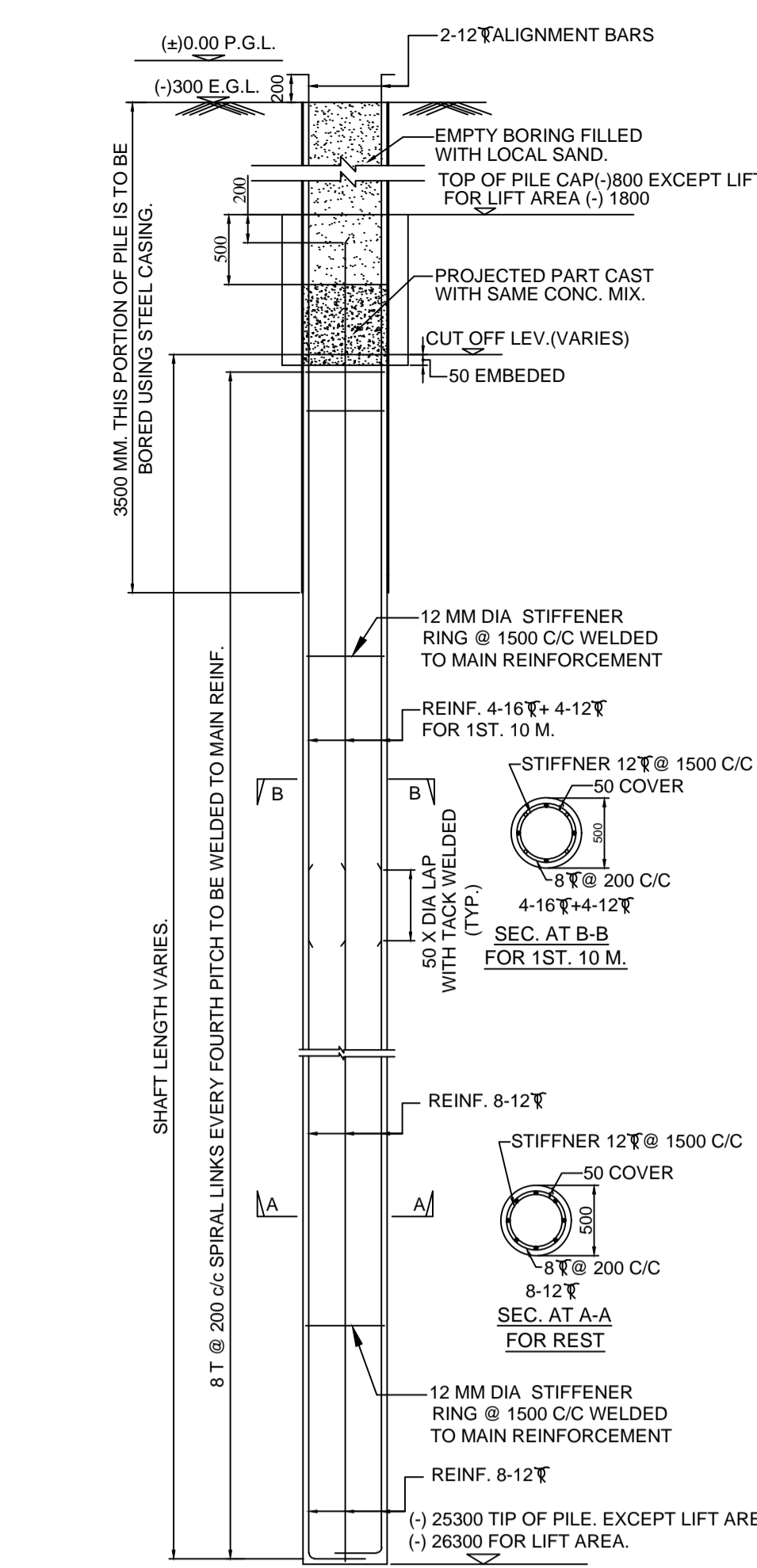
- ALL DIAMETERS ARE IN MILLIMETERS.
- GRADE OF CONC. : ALL DESIGN MIX
  - PILE :- M-25, WITH MINIMUM CEMENT CONTENT @ 400 Kg/CUM OF CONC.
  - PILE CAP :- M-30.
  - COLUMN & LIFT :- AS PER SCHEDULE.
  - REST ALL :- M-30 UP TO 5TH. ROOF M25 5TH. ROOF TO ROOF AND ABOVE
- P.C.C SHALL BE NOMINAL 1:1.5:3 (M20) AS PER IS: 456.
- TOR STEEL REINFORCEMENT SHALL CONFORM TO LATEST IS: 1786 CODES WITH YIELD STRESS 550 MPa.
- CLEAR COVER TO MAIN REINFORCEMENT SHALL BE AS FOLLOWS:
  - PILE : 40 MM ALL SIDES FROM OUTERMOST MAIN BAR.
  - PILE CAP : 50 MM ALL SIDES FROM OUTERMOST MAIN BAR.
  - COLUMN : 40 MM ALL SIDES FROM OUTERMOST MAIN BAR.
  - THE BEAM : 30 MM ALL SIDES FROM OUTERMOST MAIN BAR.
  - FLOOR BEAM : 30 MM ALL SIDES FROM OUTERMOST MAIN BAR.
  - SLAB : 20 MM ALL SIDES FROM OUTERMOST MAIN BAR.
  - WAIST SLAB : 20 MM ALL SIDES FROM OUTERMOST MAIN BAR.
- MINIMUM LAP LENGTH -
  - FOR PILE : 40 Ø WITH 3 SETS LAP WELDING IN BOTH SIDES FOR A LENGTH OF 25MM. FOR REST TO BE PROVIDED AS 'K'Ø Ø DIA OF BAR.
- MAXIMUM LOAD ON EACH PILE :
  - FOR 5000 28 M. TIP PILES - 90 T.
  - FOR 5000 25 M. TIP PILES - 63 T.
  - FOR 5000 18.5 M. TIP PILES - 40 T.
 AS PER THE SOIL INVESTIGATION REPORT PREPARED BY M/S J P GEO CONSULTANTS REP. BY JISHNU PAL.
- POSITIONAL ECCENTRICITY OF ANY PILE MORE THAN 50mm. FOR SINGLE PILE, AND 75 mm. FOR GROUP OF PILES SHALL NOT BE PERMITTED.
- THE PILE HEADS SHALL PROJECT IN TO PILE CAP FOR 50 mm. THE HEADS TO BE NEATLY FORMED TO THE REQUIRED DIA.
- ALL TIES TO BE SPOT WELDED WITH VERTICAL REINFORCEMENT.
- BORING OF PILE :-
  - BORING SHOULD BE DONE WITH DMC METHOD AND BENTONITE SUSPENSION SHOULD BE USED (WITH SP.GR. 1.04 TO 1.2 gm/cm<sup>3</sup> DURING DRILLING AS IS 2911 (PART-I/ SEC 2) CL A.3.1 IF DMC METHOD APPLIED.
  - FOR PLACING OF CONCRETE IN PILE BORES, A FUNNEL SHOULD BE USED AND METHOD OF CONCRETING SHOULD BE SUCH THAT THE ENTIRE VOLUME OF THE PILE SHAFT IS FILLED UP WITHOUT THE FORMATION OF VOIDS OR MIXING OF SOIL AND DRILLING FLUID WITHIN CONCRETE.
- VERTICAL LOAD TESTING OF PILE SHOULD CONFIRM IS-2911 (PART-4).
- RCC BORED CAST IN SITU PILE SHOULD CONFIRM IS-2911 (PART-1, SEC-II)
- EXT. TOP & BOTT.
  - FLOOR. BEAM - i) EXT. TOP TO BE PROVIDED AT L/4 FROM SUPPORT.
  - EXT. BOTT. TO BE EXTENDED L/8 FROM SUPPORT.
  - SLAB - i) EXT. TOP TO BE PROVIDED IN ALL SUPPORTS FOR A LENGTH OF L/3 FROM SUPPORT.
- ALL DRAWINGS SHALL BE CORRELATED WITH ARCHITECTURAL DRAWINGS & ANY DISCREPANCY SHALL BE BROUGHT TO NOTICE OF THE ENGINEER BEFORE EXECUTION.
- THIS DRAWING IS TO BE READ ALONGWITH SPECIFICATIONS & ALL REFERENCE DRAWING.
- ALL THE WORKS SHALL BE DONE AS PER RELEVANT IS CODE PERTAINING TO THE WORK.
- CONTRACTOR MUST VERIFY ALL DIMENSION AT SITE BEFORE EXECUTION OF WORK NO. CLAIM WILL BE ENTERTAINED. CONTRACTOR SHALL BE RESPONSIBLE TO PROPER LINE AND LEVEL OF STRUCTURE.
- DESIGN IS BASED ON AS PER IS-456, IS-875, IS-1893, IS-2911, IS-13920 & SP-16.
- STRUCTURAL DESIGN IS DONE FOR 'G+XI' FOR ALL BLOCKS.
- SEISMIC ZONE CONSIDERED FOR DESIGN AS ZONE-III & SMRF.



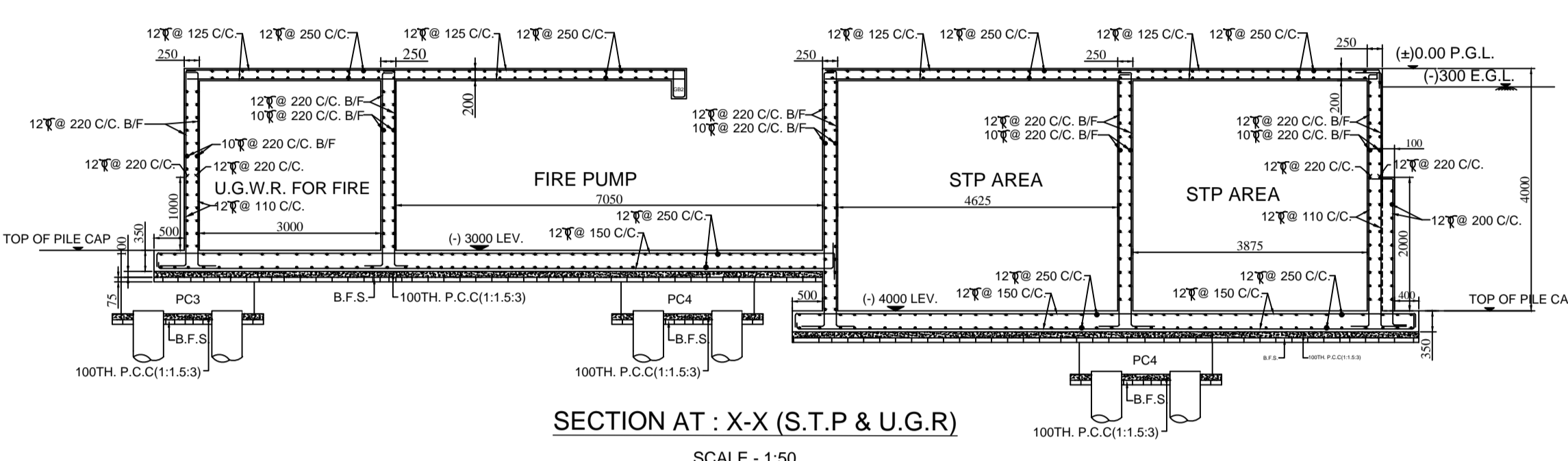
TYPICAL DETAIL OF PILE SHAFT FOR "18500" PILE CAPACITY - 40 T. SCALE: 1:25



TYPICAL DETAIL OF PILE SHAFT FOR "28P" PILE CAPACITY - 90 T. SCALE: 1:25



TYPICAL DETAIL OF PILE SHAFT FOR "25P" PILE CAPACITY - 83 T. SCALE: 1:25



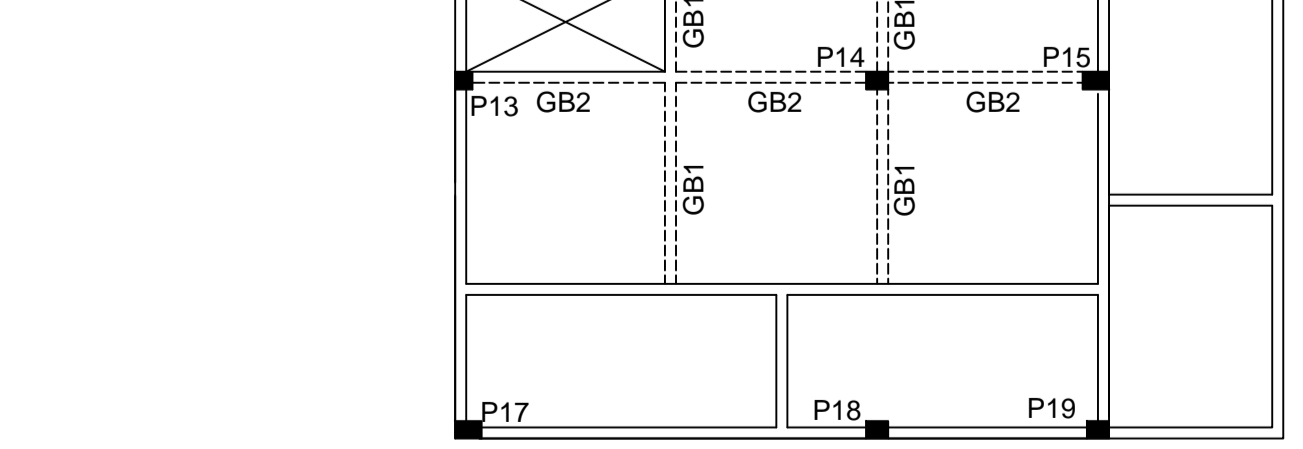
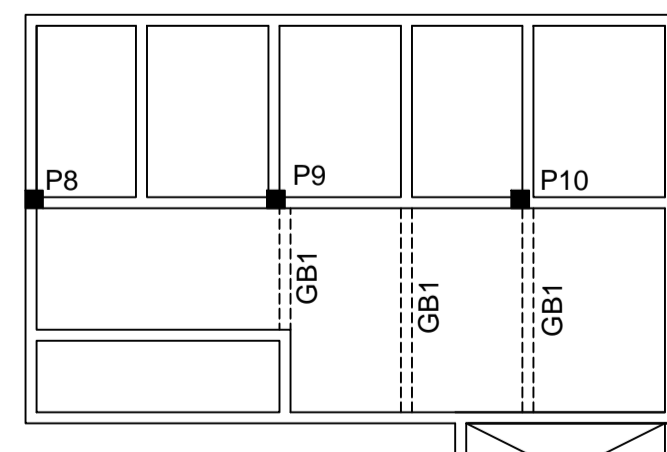
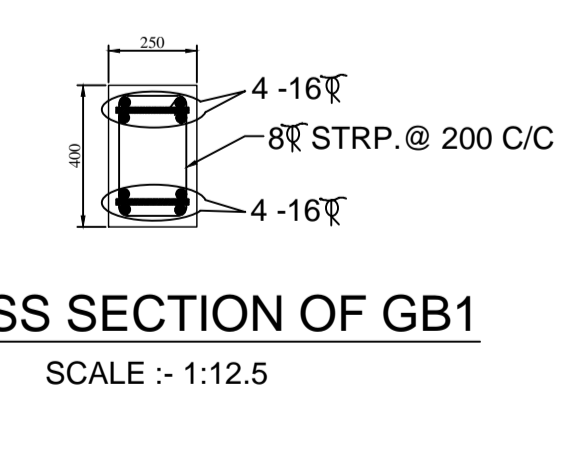
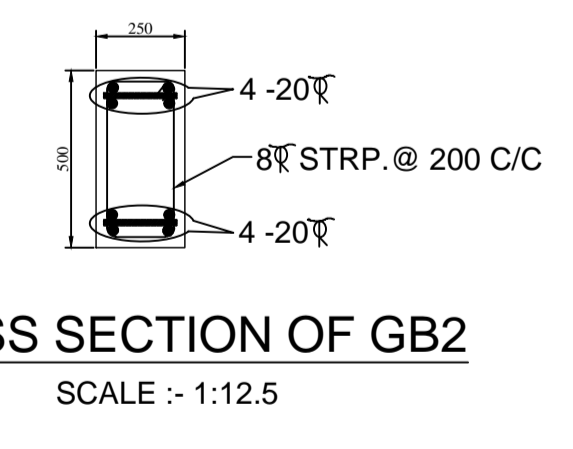
SECTION AT X-X (S.T.P & U.G.R) SCALE: 1:50

PILE CAP MKD.	PILE CAP SIZE: mmxmm	NO. OF PILE	DIA. OF PILE	DEPTH	REINFORCEMENT AT BOT.		REINFORCEMENT AT TOP		SKIN REINFORCE ALONG DEPTH	LINK FOR PILE CAP
					LONGER DIR.	SHORTER DIR.	LONGER DIR.	SHORTER DIR.		
18PC2	2400X900	2	500	800	8-20Ø		5-12Ø		12Ø@ 150 C/C.	10Ø4-L @ 150 C/C.
25PC2	2200X2400	3	500	800	20Ø@ 140 C/C	20Ø@ 140 C/C	12Ø@ 280 C/C	12Ø@ 280 C/C.	12Ø@ 150 C/C.	
28PC2	2400X2400	4	500	800	20Ø@ 120 C/C	20Ø@ 120 C/C	12Ø@ 240 C/C	12Ø@ 240 C/C	12Ø@ 150 C/C.	
18PC3	5400X900	4	500	900	20Ø@ 140 C/C	20Ø@ 140 C/C	12Ø@ 280 C/C	12Ø@ 280 C/C	12Ø@ 150 C/C.	
25PC3	AS PER DRAWING.	9	500	900	20Ø@ 120 C/C	20Ø@ 120 C/C	12Ø@ 240 C/C	12Ø@ 240 C/C	12Ø@ 150 C/C.	



FOUNDATION LAYOUT PLAN. SCALE: 1:100

TOP PLAN OF STP & U.G.W.R AT (±) 0.00 LEV. SCALE: 1:100



CERTIFICATE OF OWNER

1. I ENGAGE ARCHITECT AND E.S.E DURING CONSTRUCTION  
 2. I SHALL FOLLOW THE INSTRUCTIONS OF ARCHITECT AND E.S.E DURING CONSTRUCTION OF THE BUILDING.  
 3. KAMARHATI MUNICIPAL AUTHORITY WILL NOT BE RESPONSIBLE FOR STRUCTURE STABILITY OF BUILDING AND ADJOINING STRUCTURE.  
 4. IF ANY SUBMITTED DOCUMENT IS FOUND TO BE FAKE THE KAMARHATI MUNICIPAL AUTHORITY MAY REVOKE THE SANCTION PLAN.  
 5. THE CONSTRUCTION OF WATER RESERVOIR EXECUTED UNDER THE GUIDENCE OF ARCHITECT & E.S.E

CERTIFICATE OF STRUCTURAL STABILITY

WE HEARBY CERTIFY THAT THE FOUNDATION AND SUPERSTRUCTURE OF THE BUILDING PROPOSED FOR CONSTRUCTION ON PRE- 22 FEEDER ROAD, WARD NO-10, HAVE BEEN SO DESIGNED BY ME/US WILL MAKE SUCH FOUNDATION AND SUPER STRUCTURE SAFE IN ALL. RESPECT INCLUDING THE CONSIDERATION OF BEARING CAPACITY AND SETTLEMENT OF SOIL ETC.

RAJ KUMAR AGARWAL  
 COUNCIL REGISTRATION NO. CA/94/17940  
 SIGNATURE OF LBA  
 (NAME ADDRESS AND EMPANELMENT NO.)  
 RAJ KUMAR AGARWAL, ADDRESS-8B,  
 ROYD STREET, KOL-16  
 COUNCIL NO.-CA/94/17940

Kaushik Sengupta  
 Structural Engineer I  
 LIC. REG. NO.-STRUCT-CLASS(I)-002  
 SIGNATURE OF STRUCTURAL ENGINEER

Rupak Kumar Banerjee  
 Geo Technical Engineer I  
 LIC. REG. NO.-G.T/1/3  
 SIGNATURE OF GEO-TECHNICAL ENGINEER

Heleena Sengupta  
 Structural Reviewer  
 LIC. REG. NO.-STRUCT-REV-002  
 SIGNATURE OF STRUCTURAL REVIEWER

ARCHITECT:-  
  
 RAJ AGRAWAL & ASSOCIATES  
 8B, ROYD STREET, 2ND FLOOR,  
 CALCUTTA - 16  
 PHONE - 2265-3339 / 3293-3925 / 9874175675  
 email : shippaskar@gmail.com

STRUCTURAL CONSULTANT  
 ENGINEERS FORUM  
 60/63/1 H.P. DUTTA LANE (GOLF GARDENS)  
 KOLKATA - 700033  
 PH. NO. - 3566-7944, 9874561607  
 email : engg\_forum2005@yahoo.co.in

PROJECT:-  
 PROPOSED G+XI (28.5 M. HT.) STORED BUILDING AT PREMISES NO-22, FEEDER ROAD, KOLKATA 700017, (ALSO COMMONLY KNOWN AS 28M FEEDER ROAD) HOLDING NO. 201 (FORMERLY HOLDING NO.22), WITHIN WARD NO. 10 OF THE KAMARHATI MUNICIPALITY IN THE DISTRICT OF NORTH 24 PARAGANAS, P.O. PIN CODE: 700 146, 148, 149, 151, 154, 162, 163, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

DESIGN IS BASED ON : AAC BLOCKS FOR MASONARY WALLS.