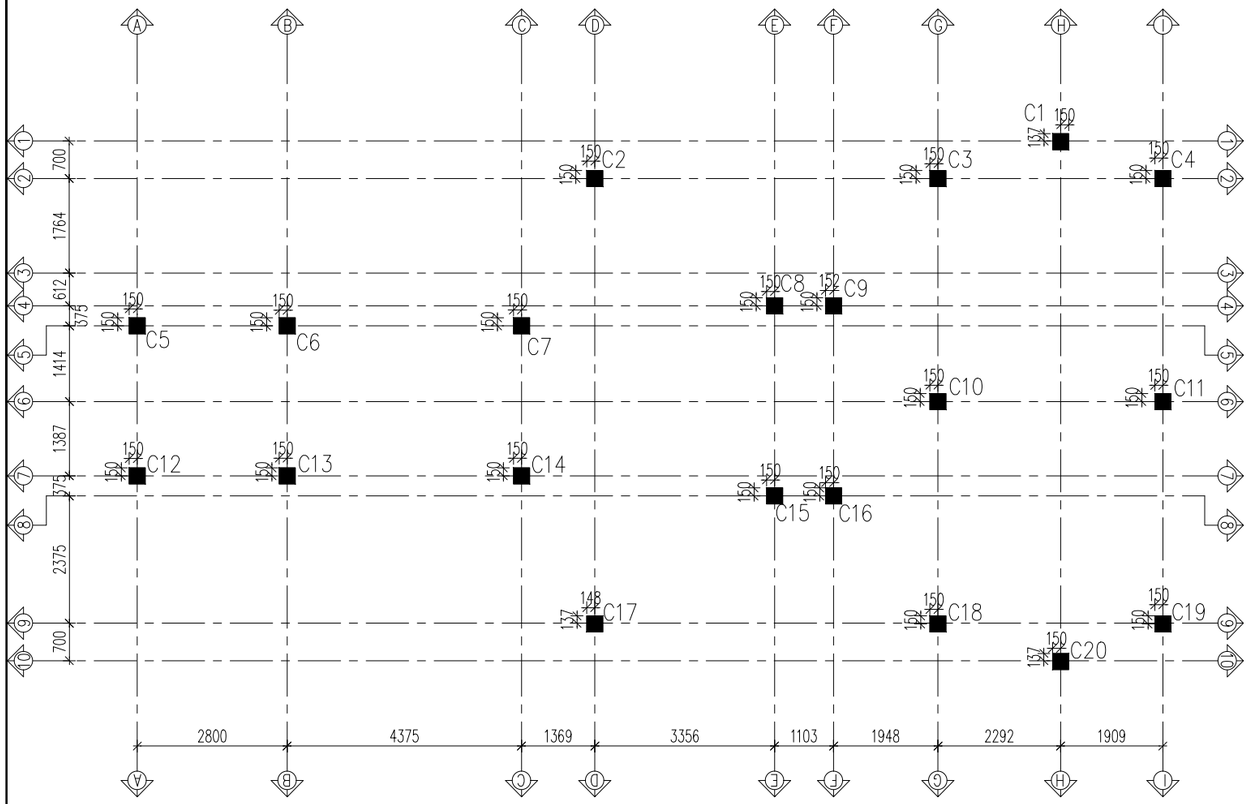
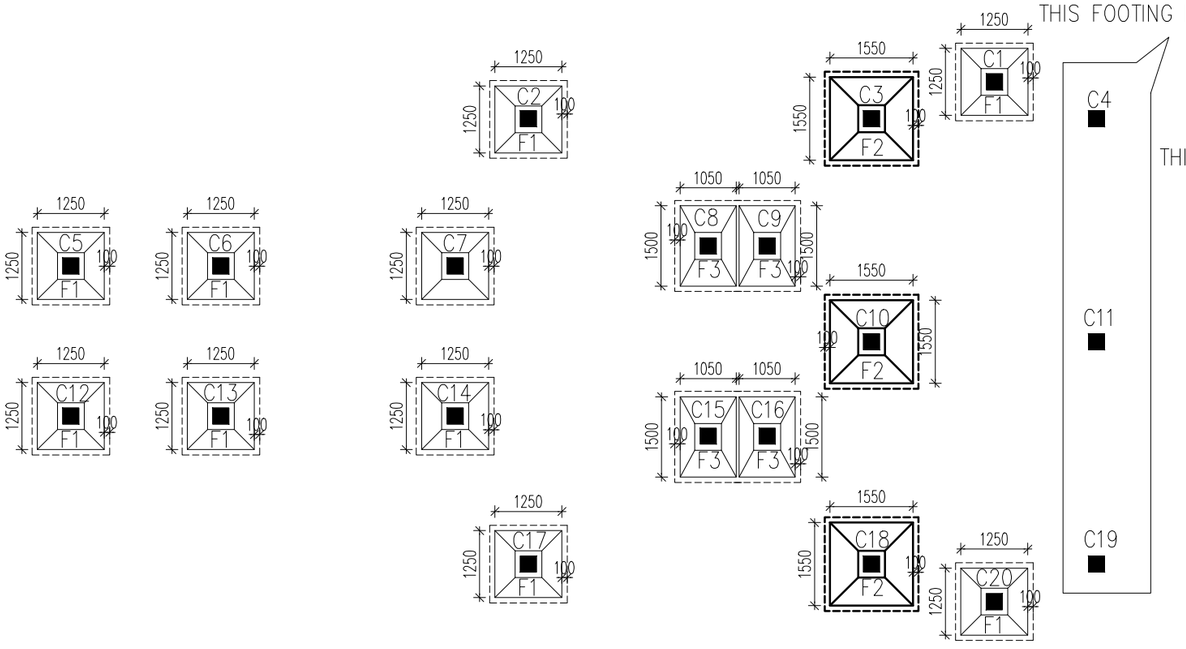
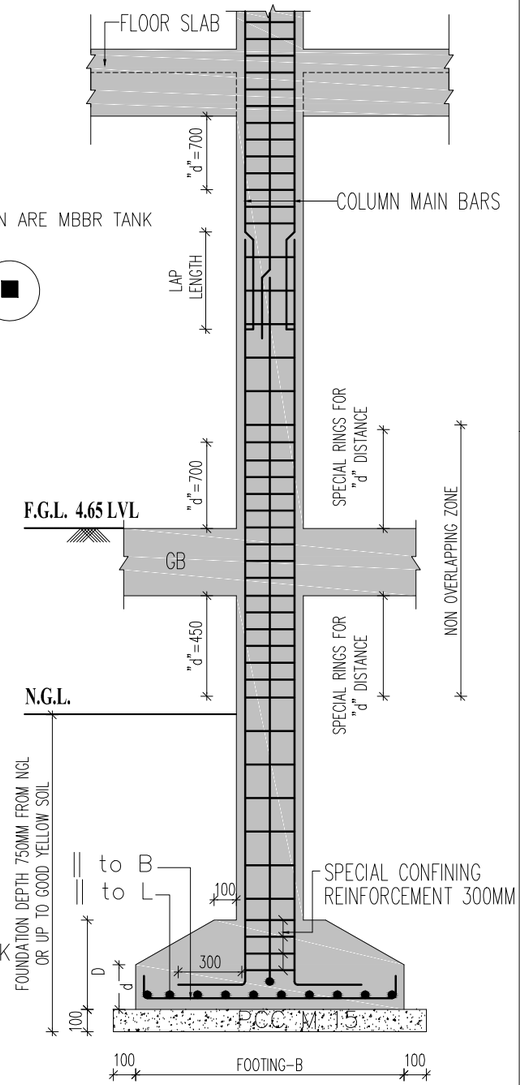


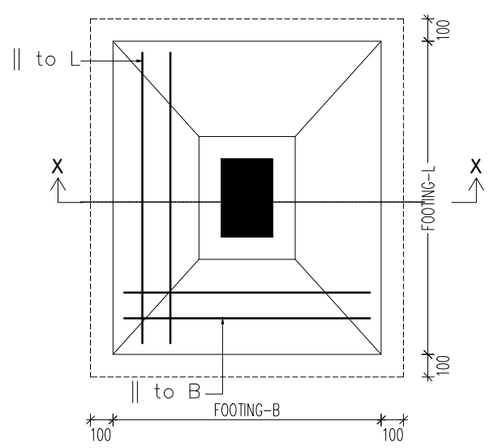
CENTER LINE LAYOUT



FOOTING LAYOUT



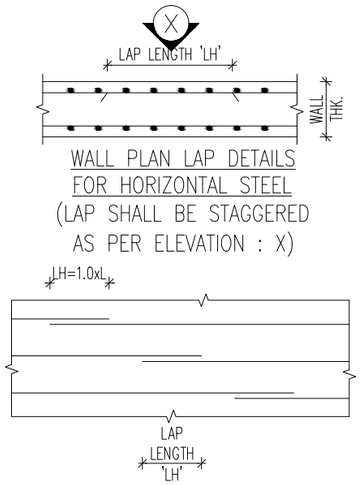
SECTION X-X



FOOTING PLAN

01.GENERAL NOTES

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
2. FIGURED DIMENSIONS SHALL BE FOLLOWED AND DO NOT SCALE THE DRAWING.
3. CONTRACTOR TO CHECK ALL DIMENSIONS BEFORE COMMENCEMENT OF WORK.
4. ALL STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS. ANY DISCREPANCY IN THE DRAWING(S) SHALL BE BROUGHT TO OUR NOTICE BEFORE COMMENCING THE WORK.
5. CLEAR COVER TO REINFORCEMENT SHALL BE USE,
   A. 50MMIN FOOTING,
   B. 40MM IN COLUMN,
   C. 25MM IN BEAM
   D. 20MM IN SLAB.
6. ALL RCC WORK SHALL BE WITH M:30 GRADE CONCRETE FOR WATER RETAINING STRUCTURE & M:25 CONCRETE FOR NON WATER RETAINING STRUCTURE CONFORMING TO IS 456, IS-13920, IS-1893 CODE.& ALL PCC WORK SHALL BE WITH PCC M:15 GRADE CONCRETE.
7. REINFORCEMENT FE500 GRADE FOR BUILDING PART & FUSION BONDED EPOXY COATED REINFORCEMENT HAVING NOT LESS THAN 175 TO 300 MICRON FOR STRUCTURE IN CONTACT WITH SEWAGE CONFORMING TO IS 1786-LATEST REVISION. GRADE AS PER IS:1786 LATEST REVISION & HOWEVER STEEL GRADE AND TYPE SHALL BE VERIFIED WITH TENDER SPECIFICATION
8. LAYOUT OF COLUMNS SHALL BE AS PER ARCHITECTURAL DRAWING.
9. THE BUILDING IS DESIGN TO WITHSTAND THE EARTHQUAKE EFFECT OF SEISMIC ZONE III
10. SAFE BEARING CAPACITY OF SOIL(SBC) TAKEN AS PER SOIL INVESTIGATION REPORT 20 T/M² AT 750MM DEPTH & FOUNDATION SHOULD REST ON IN-SITU SOIL AND IT SHOULD NOT REST ON FILLING MATERIAL I.E. MADE UP SOIL & WATER TABLE NOT ENCOUNTERED AS PER SOIL REPORT IF DURING EXCAVATION WATER TABLE ENCOUNTERED BROUGHT TO THE NOTICE OF CONSULTANT
11. COVER TO REINFORCEMENT IN RCC SHALL BE AS PER IS:456(PAGE NO. 46) - MILD CONDITION.
12. ALL CONCRETE SHALL BE MACHINE MIXED AND MACHINE VIBRATED.
13. BACK FILLING SHALL BE DONE IN WELL COMPACTED AND WELL WATER LAYER NOT EXCEEDING 300MM IN DEPTH.
14. ALL WORK SHALL BE DONE WITH UNDER SUPERVISION OF EXPERIENCED CIVIL ENGG.



WALL PLAN LAP DETAILS
FOR HORIZONTAL STEEL
(LAP SHALL BE STAGGERED AS PER ELEVATION : X)

ELEVATION : X
LAP LENGTH LH : 1.0xL FOR HORIZONTAL STEEL

REV	DATE	REVISION	DRW.	CHK	APPD.
R0	18.10.2021	FOR APPROVAL	TS	NRM	

CLIENT :-
THE EXECUTIVE ENGINEER, PUBLIC HEALTH WORKS DIVISION, G.W.S.S.B

PROJECT CONSULTANT :-

CONTRACTOR :-

PROJECT :-
65 MLD SEWERAGE TREATMENT PLANT

TITLE:-
STRUCTURAL DEAIL PTU

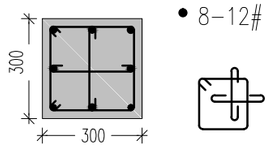
DESIGNED:- NRM
DRAWN:- TS

DRAWING NO.:-
ANR/2021/12/SD/DWG/1.2.3.4

SHEET. 1 OF 4

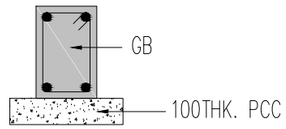
DATE:- 17.10.2021

SCHEDULE OF REINFORCEMENT FOR COLUMNS

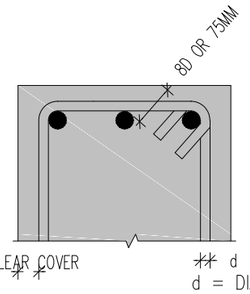
ARRANGEMENT OF REINFORCEMENT FOUNDATION TO TERRACE	
STIRRUPS SETS	1 RING+2LINK
CONFINEMENT ZONE	8# @ 3" C/C
REST	8# @ 6" C/C
COLUMN MARKS	C1 TO C20

SCHEDULE OF REINFORCEMENT FOR FOOTINGS

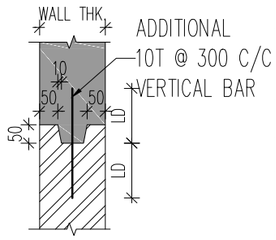
FOOTING NO.	COLUMN MARK	FOOTING SIZE	DEPTH		FOOTING REINFORCEMENT		LAYER OF REINFORCEMENT
			d	D	ll TO S.S. OF COL.	ll TO L.S. OF COL.	
F1	C1,C2,C5,C6,C7,C12, C13,C14,C17,C20	1250 X 1250	175	450	10#@165C/C	10#@165C/C	BOTTOM
F2	C3,C10,C18	1550 X 1550	200	550	10#@150C/C	10#@150C/C	BOTTOM
F3	C8,C9,C15,C16	1050 X 1500	200	550	10#@150C/C	10#@150C/C	BOTTOM



TYPICAL GROUND BEAM DETAILS



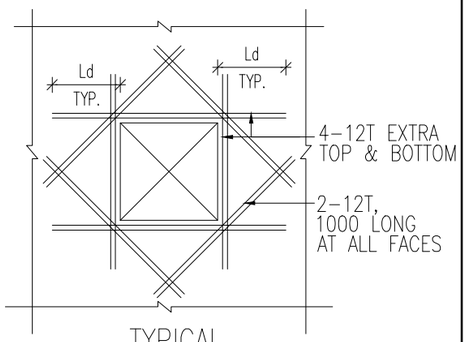
TYPICAL HOOP DETAIL IN BEAM



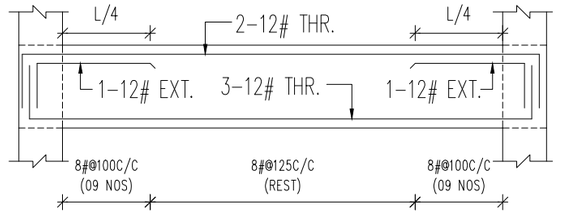
TYPICAL CONSTRUCTION JOINT IN VERTICAL WALL

COLUMN TERMINATION SCHEDULE

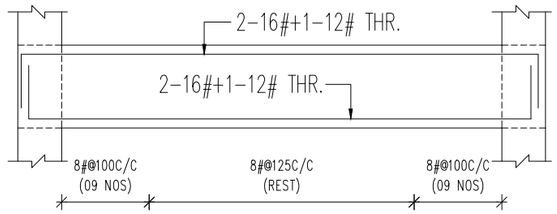
COLUMN MARK	FROM LVL.	TO(TERMINATION) LVL.
C1,C20	FOUNDATION	+8.38
C2,C17	FOUNDATION	+10.76
C3,C4,C10,C11,C18,C19	FOUNDATION	+10.38
C5,C12	FOUNDATION	+8.76
C6,C13	FOUNDATION	+9.06
C7,C14,C8,C9,C15,C16	FOUNDATION	+9.01



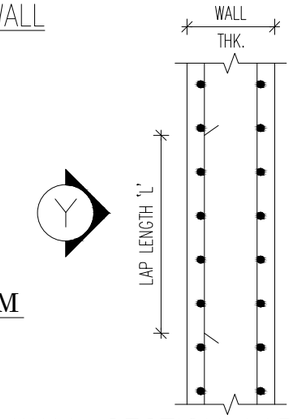
TYPICAL CUTOUT DETAIL



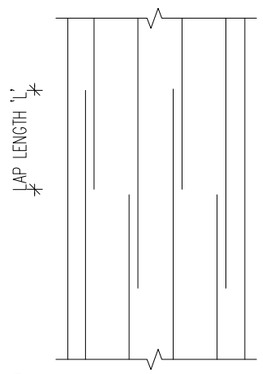
TYP. SECTION OF GROUND BEAM GB(230 X 350)



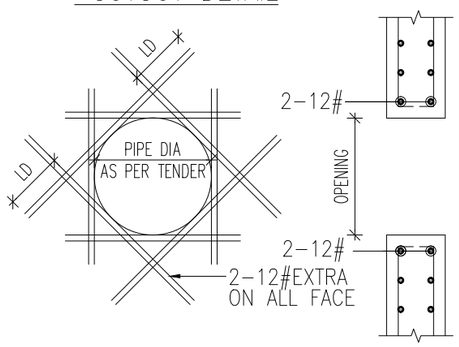
TYP. SECTION OF INLET BOTTOM BEAM
ALL BEAM ARE 230X500
UNLESS MENTIONED OTHERWISE



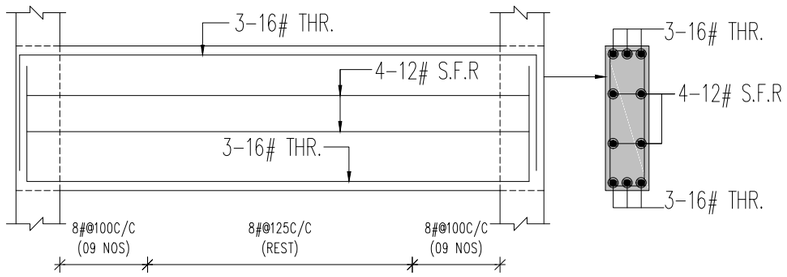
WALL SECTION LAP DETAILS FOR VERTICAL STEEL
(LAP SHALL BE STAGGERED AS PER ELEVATION : Y)



ELEVATION : Y



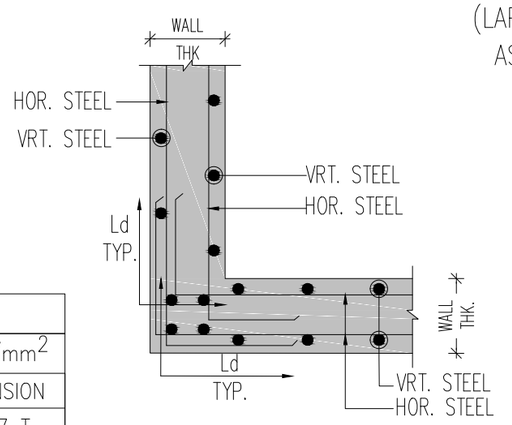
TYPICAL DETAIL OF OPENING FOR PIPE & VENT



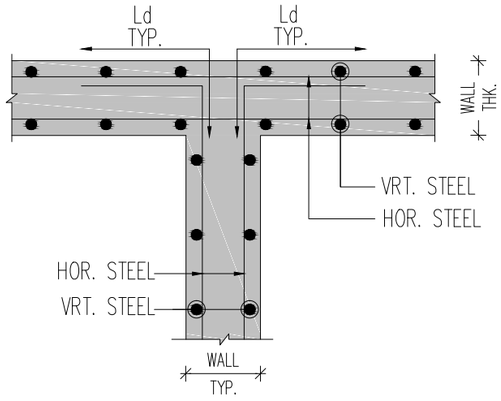
TYP. SECTION OF INLET BOTTOM BEAM
ALL BEAM ARE 230X830 OR 230X910
UNLESS MENTIONED OTHERWISE

SCHEDULE OF LAP LENGTH

Fy = 415 N/mm²		Fy = 500 N/mm²	
CONC.GRADE	TENSION	CONC.GRADE	TENSION
M:20	48 T	M:20	57 T
M:25	40 T	M:25	49 T
M:30	38 T	M:30	45 T



TYPICAL L–JUNCTION (IN PLAN)



T–JUNCTION (IN PLAN)

REV	DATE	REVISION	DRW.	CHK	APPD.
R0	18.10.2021	FOR APPROVAL	TS	NRM	

CLIENT :–
THE EXECUTIVE ENGINEER, PUBLIC HEALTH WORKS DIVISION, G.W.S.S.B

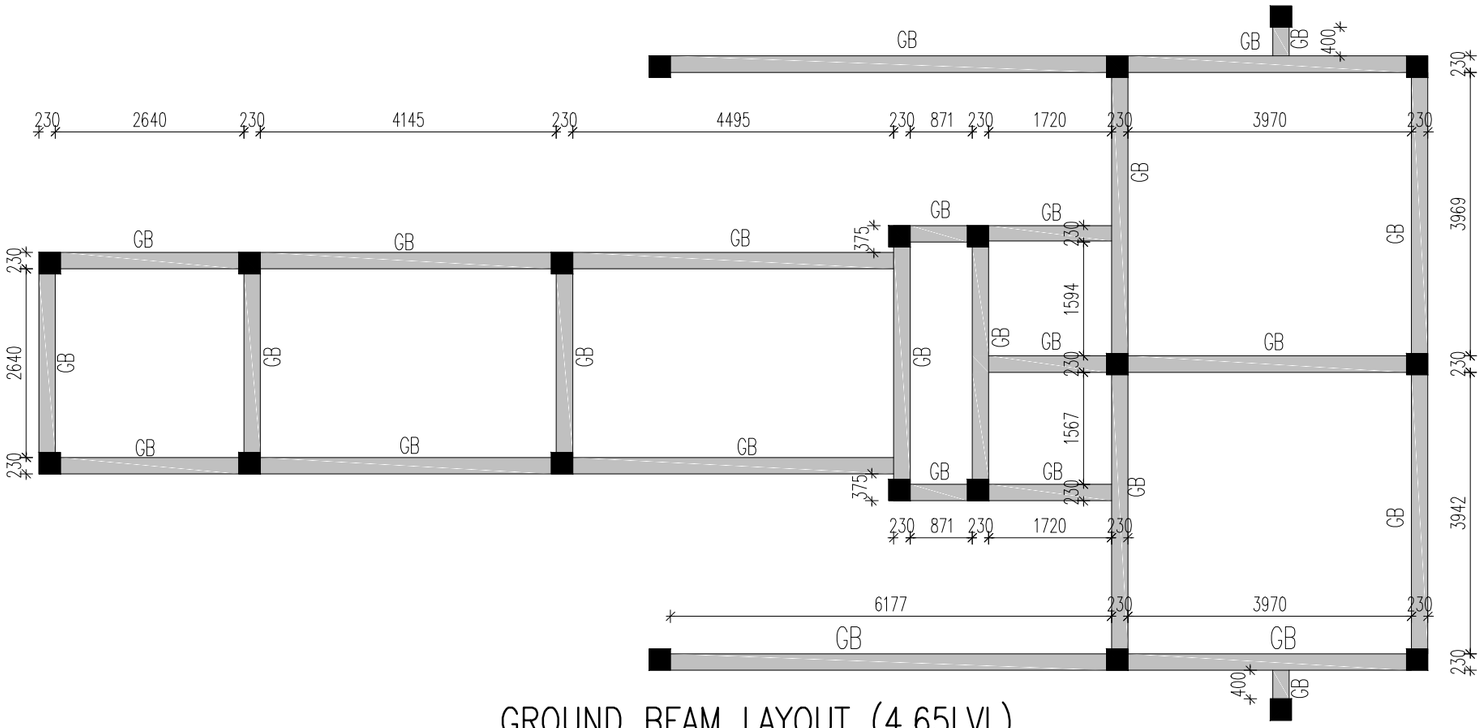
PROJECT CONSULTANT :–

CONTRACTOR :–

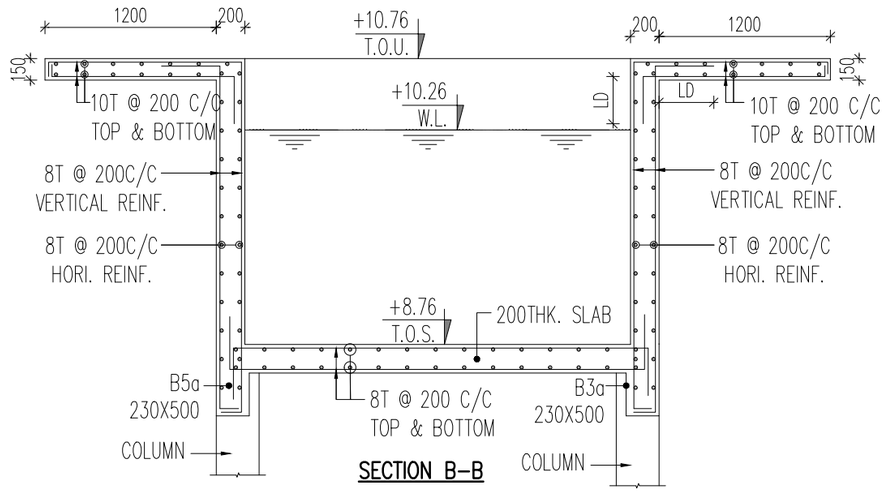
PROJECT :–
65 MLD SEWERAGE TREATMENT PLANT

TITLE:–
STRUCTURAL DEAIL PTU

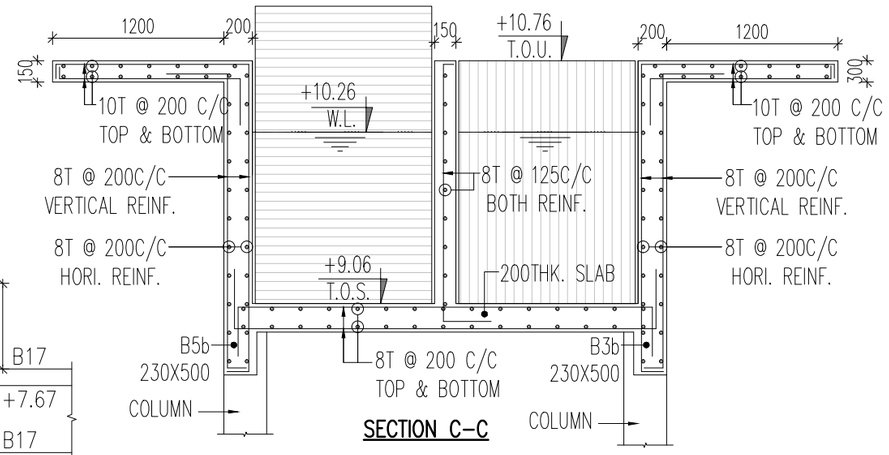
DESIGNED:– NRM
DRAWN:– TS
DRAWING NO.:–
ANR/2021/12/SD/DWG/1.2.3.4
SHEET. 2 OF 4
DATE:– 17.10.2021



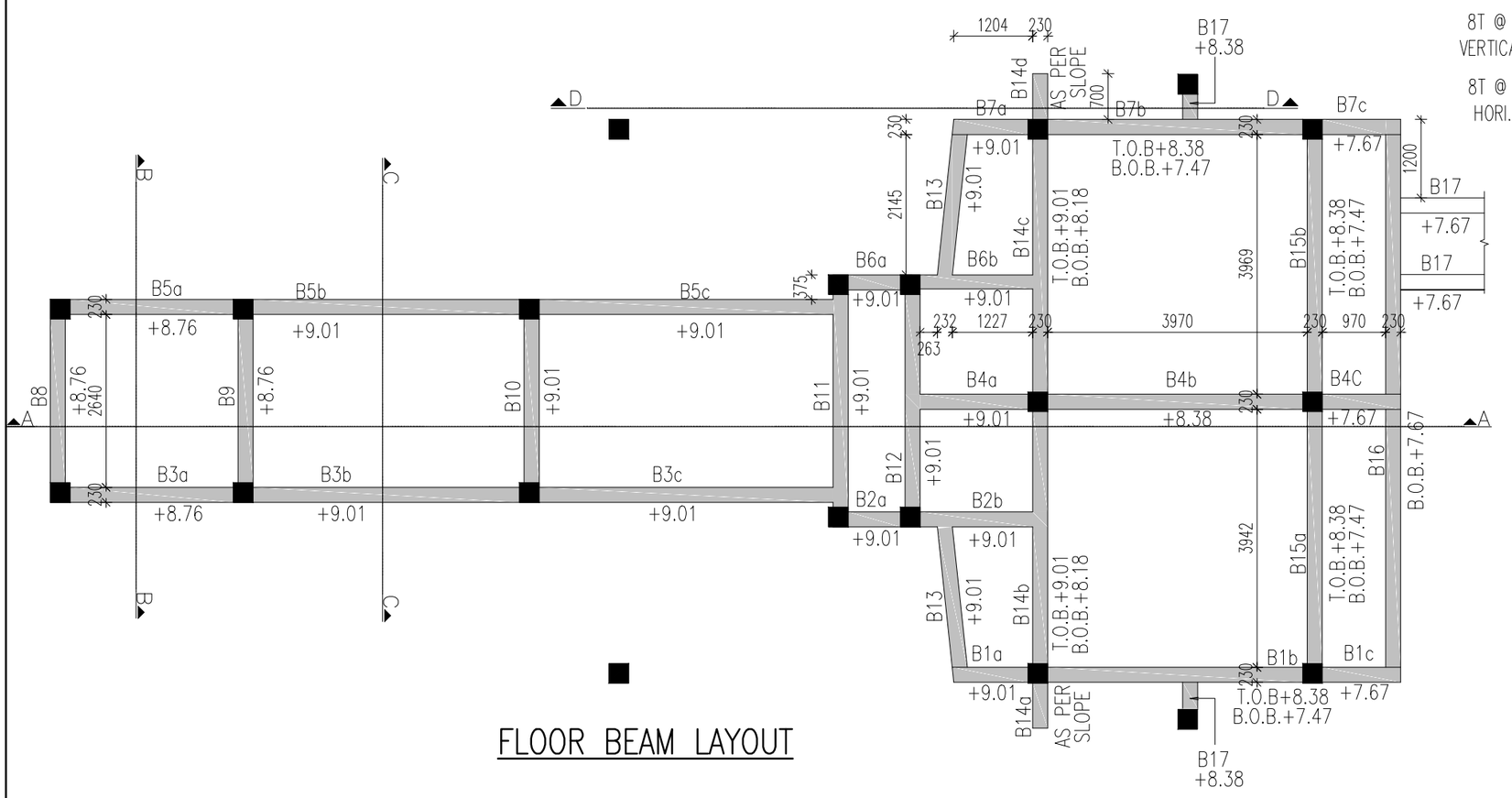
GROUND BEAM LAYOUT (4.65LVL)



SECTION B–B



SECTION C–C



FLOOR BEAM LAYOUT

REV	DATE	REVISION	DRW.	CHK	APPD.
R0	18.10.2021	FOR APPROVAL	TS	NRM	

CLIENT :–
THE EXECUTIVE ENGINEER, PUBLIC HEALTH WORKS DIVISION, G.W.S.S.B

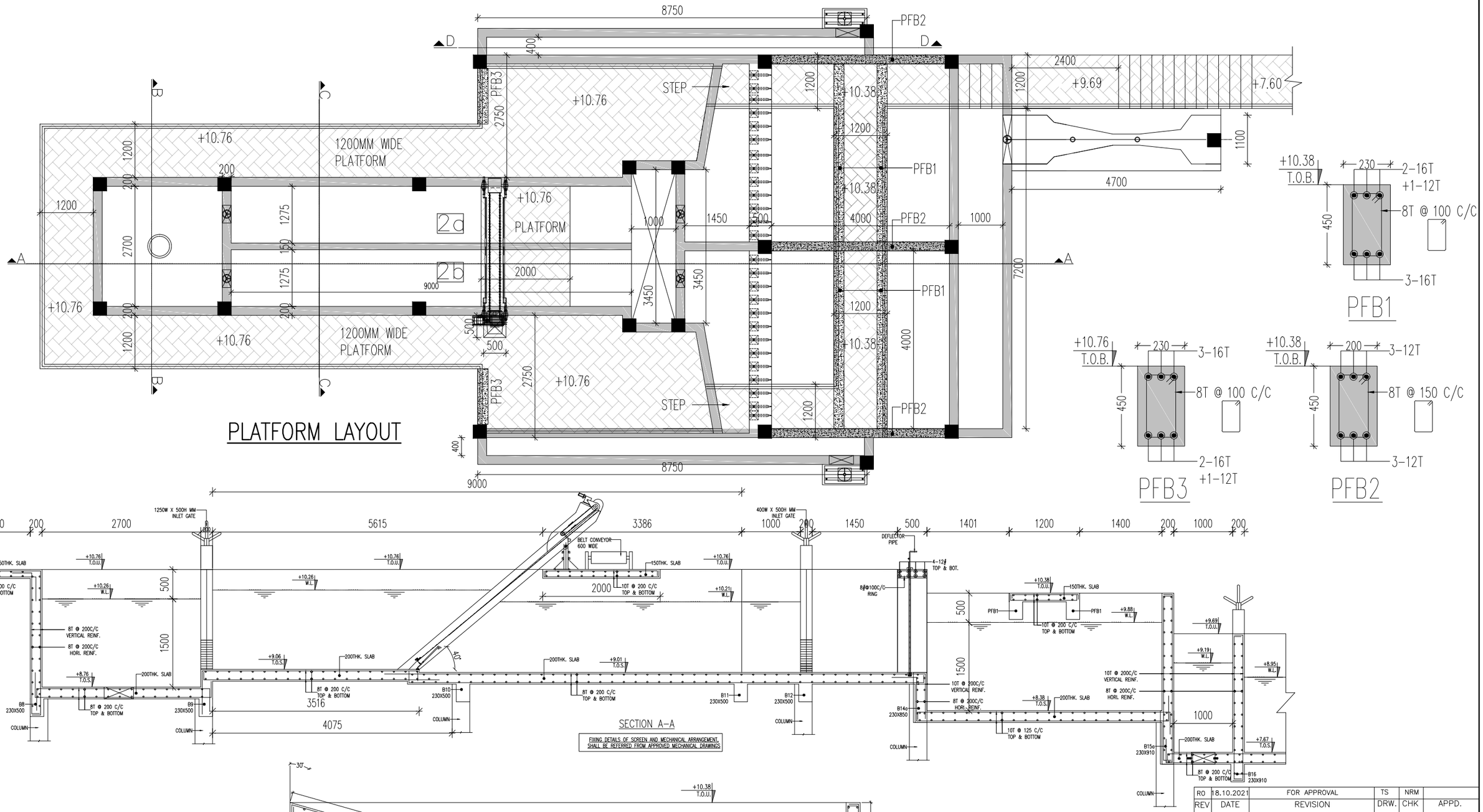
PROJECT CONSULTANT :–

CONTRACTOR :–

PROJECT :–
65 MLD SEWERAGE TREATMENT PLANT

TITLE:–
STRUCTURAL DEAIL PTU

DESIGNED:– NRM
DRAWN:– TS
DRAWING NO.:–
ANR/2021/12/SD/DWG/1.2.3.4
SHEET. 3 OF 4
DATE:– 17.10.2021



REV	DATE	REVISION	DRW.	CHK	APPD.
R0	18.10.2021	FOR APPROVAL	TS	NRM	

CLIENT :–
THE EXECUTIVE ENGINEER, PUBLIC HEALTH WORKS DIVISION, G.W.S.S.B

PROJECT CONSULTANT :–

CONTRACTOR :–

PROJECT :–
65 MLD SEWERAGE TREATMENT PLANT

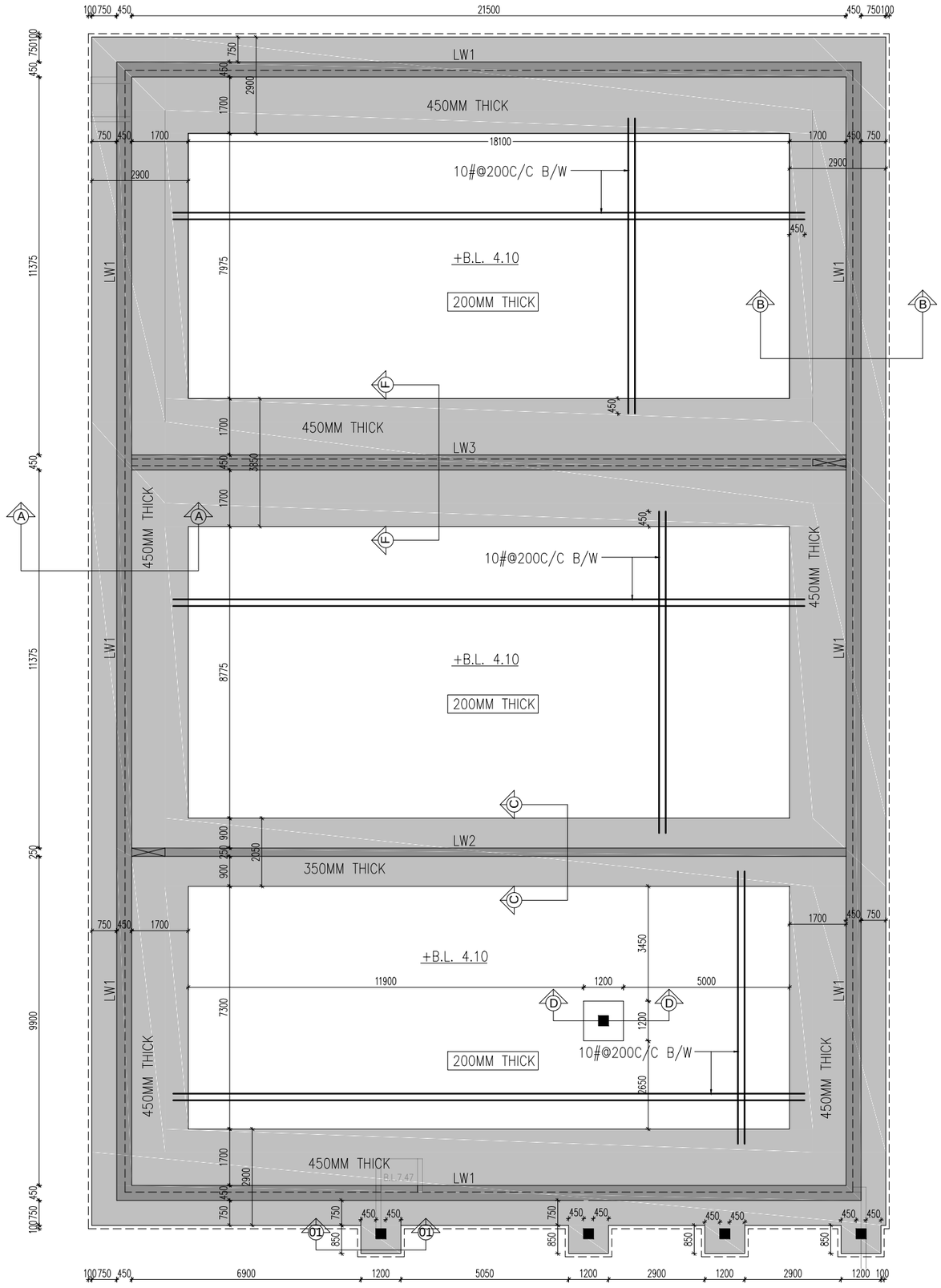
TITLE:–
STRUCTURAL DEAIL PTU

DESIGNED:– NRM
DRAWN:– TS

DRAWING NO.:–
ANR/2021/12/SD/DWG/1.2.3.4

SHEET. 4 OF 4

DATE:– 17.10.2021



FOUNDATION PLAN

01.GENERAL NOTES

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
2. FIGURED DIMENSIONS SHALL BE FOLLOWED AND DO NOT SCALE THE DRAWING.
3. CONTRACTOR TO CHECK ALL DIMENSIONS BEFORE COMMENCEMENT OF WORK.
4. ALL STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS. ANY DISCREPANCY IN THE DRAWING(S) SHALL BE BROUGHT TO OUR NOTICE BEFORE COMMENCING THE WORK.
5. CLEAR COVER TO REINFORCEMENT SHALL BE USE,
   A. 50MMIN FOOTING
   B. 40MM IN COLUMN
   C. 25MM IN BEAM
   D. 20MM IN SLAB
   E. 45MM IN WAL
   F. 50MM IN RAFT
6. ALL RCC WORK SHALL BE WITH M:30 GRADE CONCRETE FOR WATER RETAINING STRUCTURE & M:25 CONCRETE FOR NON WATER RETAINING STRUCTURE CONFORMING TO IS 456, IS-13920, IS-1893 CODE.& ALL PCC WORK SHALL BE WITH PCC M:15 GRADE CONCRETE.
7. REINFORCEMENT FE500 GRADE FOR BUILDING PART & FUSION BONDED EPOXY COATED REINFORCEMENT HAVING NOT LESS THAN 175 TO 300 MICRON FOR STRUCTURE IN CONTACT WITH SEWAGE CONFORMING TO IS 1786-LATEST REVISION. GRADE AS PER IS:1786 LATEST REVISION & HOWEVER STEEL GRADE AND TYPE SHALL BE VERIFIED WITH TENDER SPECIFICATION
8. LAYOUT OF COLUMNS SHALL BE AS PER ARCHITECTURAL DRAWING.
9. THE BUILDING IS DESIGN TO WITHSTAND THE EARTHQUAKE EFFECT OF SEISMIC ZONE III
10. SAFE BEARING CAPACITY OF SOIL(SBC) TAKEN AS PER SOIL INVESTIGATION REPORT 20 T/M^2 AT 750MM DEPTH & FOUNDATION SHOULD REST ON IN-SITU SOIL AND IT SHOULD NOT REST ON FILLING MATERIAL I.E. MADE UP SOIL & WATER TABLE NOT ENCOUNTERED AS PER SOIL REPORT IF DURING EXCAVATION WATER TABLE ENCOUNTERED BROUGHT TO THE NOTICE OF CONSULTANT
11. COVER TO REINFORCEMENT IN RCC SHALL BE AS PER IS:456(PAGE NO. 46) - MILD CONDITION.
12. ALL CONCRETE SHALL BE MACHINE MIXED AND MACHINE VIBRATED.
13. BACK FILLING SHALL BE DONE IN WELL COMPACTED AND WELL WATER LAYER NOT EXCEEDING 300MM IN DEPTH.
14. ALL WORK SHALL BE DONE WITH UNDER SUPERVISION OF EXPERIENCED CIVIL ENGG.

REV	DATE	REVISION	DRW.	CHK	APPD.
R0	01.01.2022	FOR APPROVAL	TS	NRM	

CLIENT :-
THE EXECUTIVE ENGINEER, PUBLIC HEALTH WORKS DIVISION, G.W.S.S.B

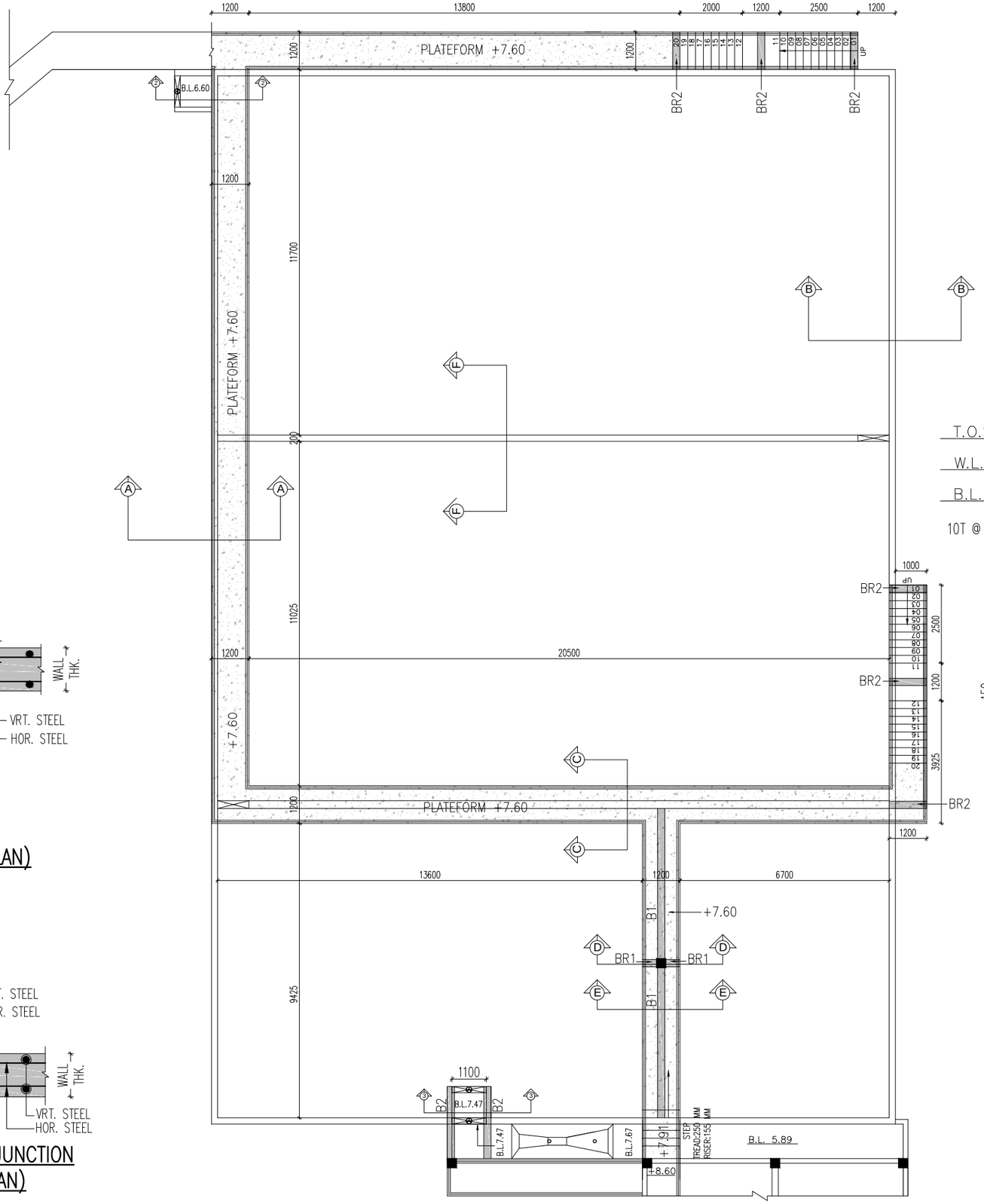
PROJECT CONSULTANT :-

CONTRACTOR :-

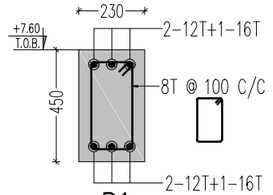
PROJECT :-
65 MLD SEWERAGE TREATMENT PLANT

TITLE:-
STRUCTURAL DETAIL OF MBBR

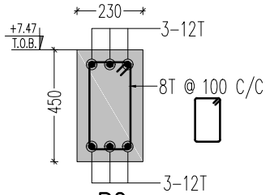
DESIGNED:- NRM
DRAWN:- HM
DRAWING NO.:- ANR/2021/12/SD/DWG/5.6
SHEET. 1 OF 3
DATE:- 25.12.2021



PLATEFORM LAYOUT



B1



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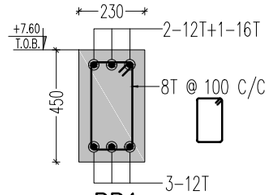

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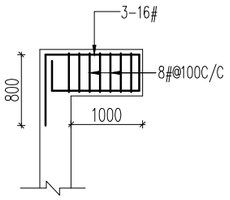
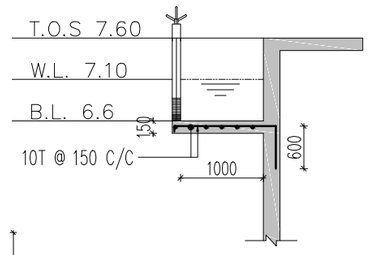
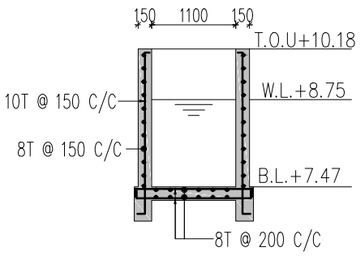


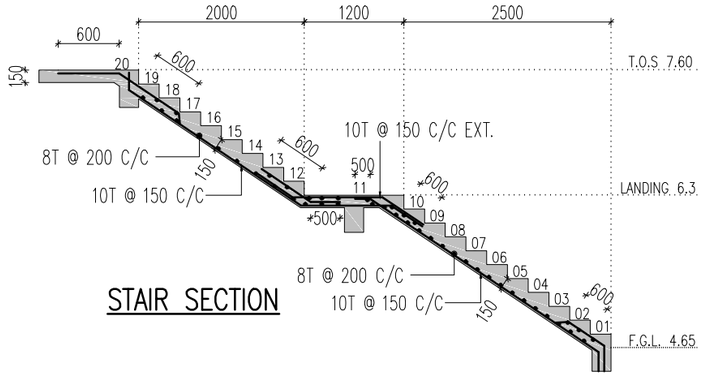
BR2(230X450)



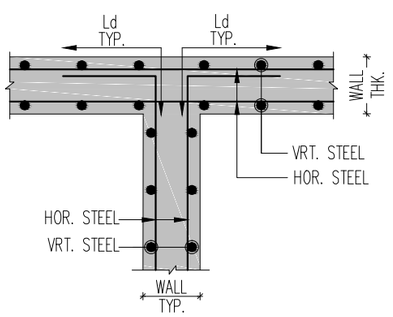
SECTION 2-2



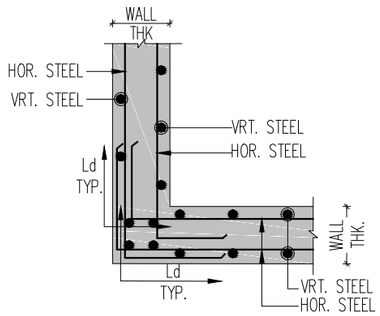
SECTION 3-3



STAIR SECTION



T-JUNCTION (IN PLAN)



TYPICAL L-JUNCTION (IN PLAN)

R0	01.01.2022	FOR APPROVAL	TS	NRM	
REV	DATE	REVISION	DRW.	CHK	APPD.

CLIENT :-
THE EXECUTIVE ENGINEER, PUBLIC HEALTH WORKS DIVISION, G.W.S.S.B

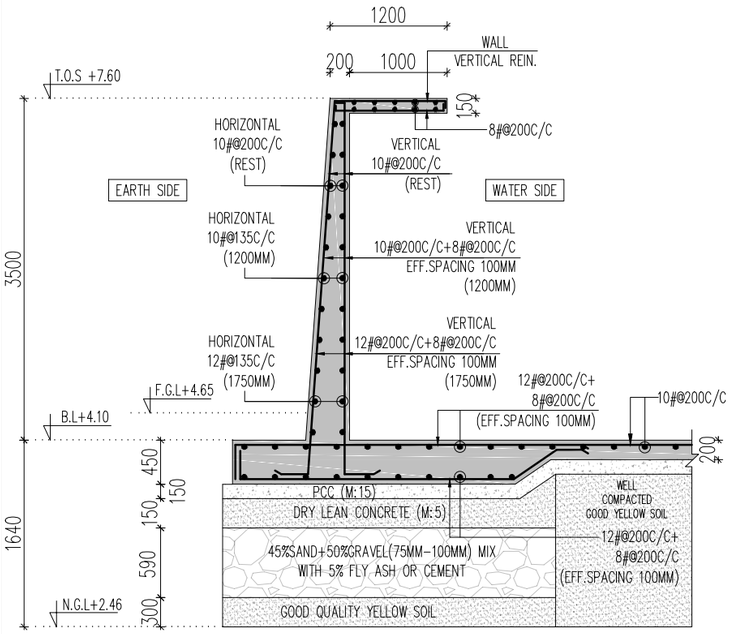
PROJECT CONSULTANT :-

CONTRACTOR :-
I

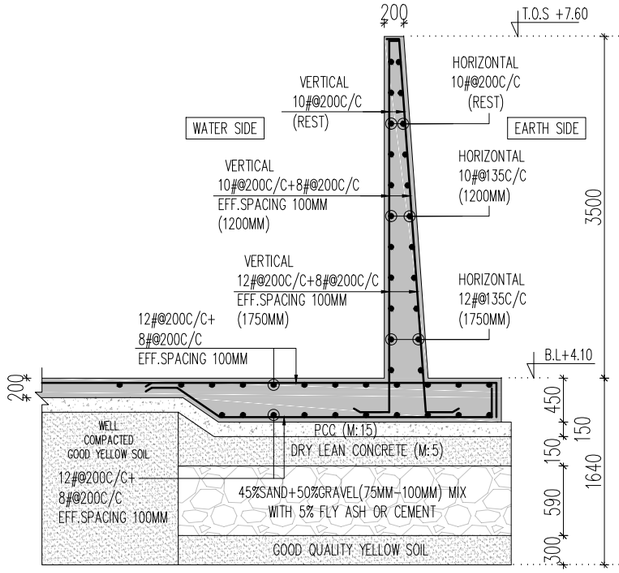
PROJECT :-
65 MLD SEWERAGE TREATMENT PLANT

TITLE:-
STRUCTURAL DETAIL OF MBBR

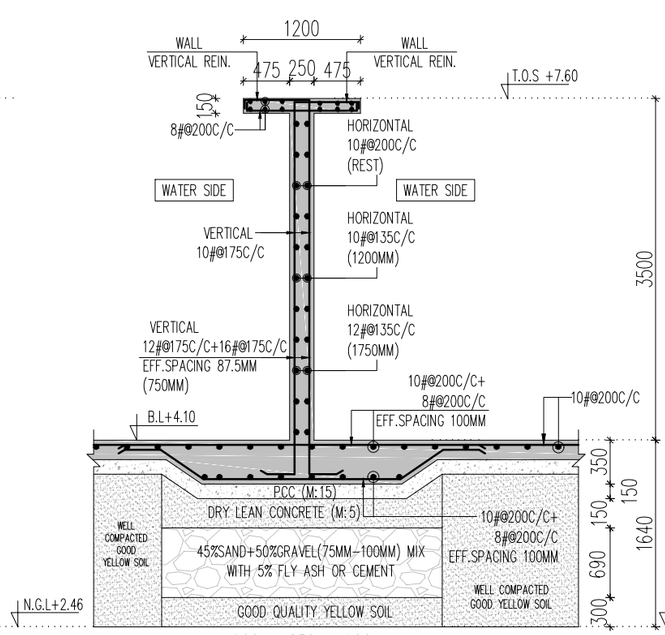
DESIGNED:- NRM
DRAWN:- HM
DRAWING NO.:- ANR/2021/12/SD/DWG/5.6
SHEET. 2 OF 3
DATE:- 25.12.2021



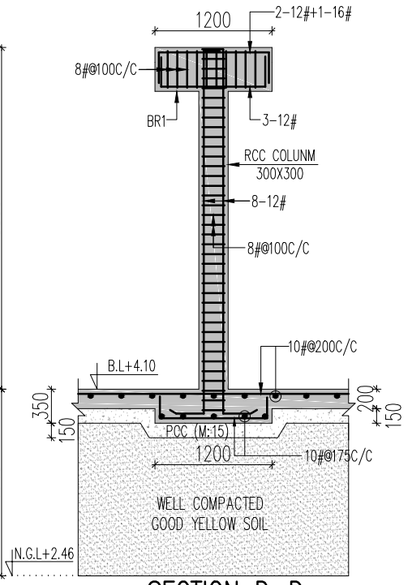
SECTION A-A (LW1)



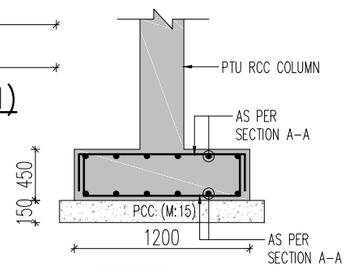
SECTION B-B (LW1)



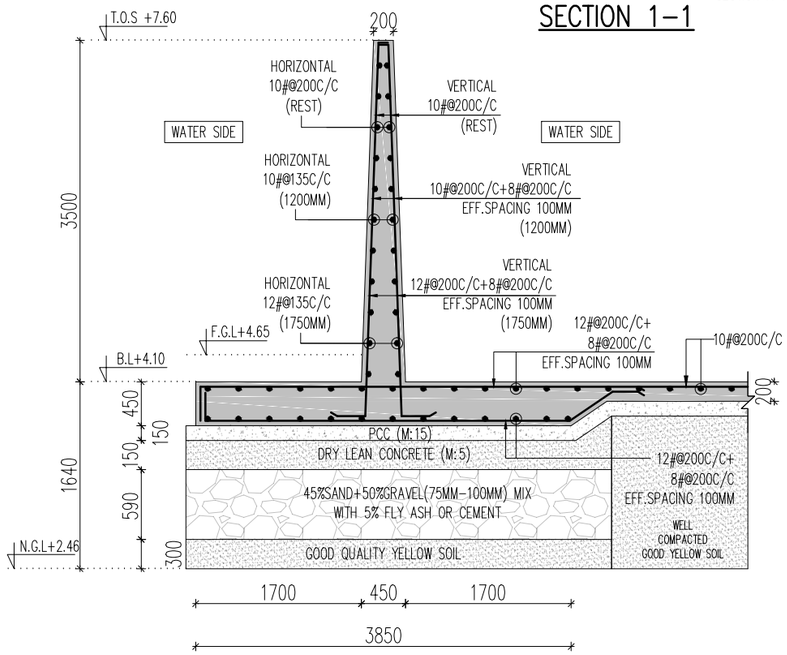
SECTION C-C (LW2)



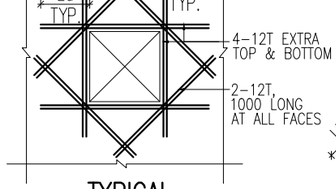
SECTION D-D



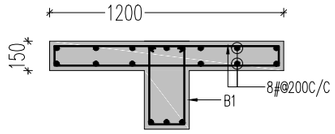
SECTION 1-1



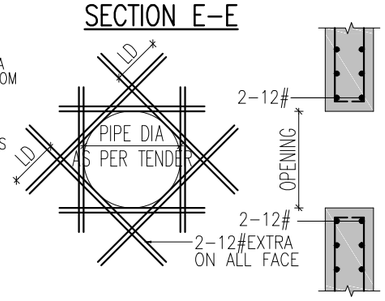
SECTION F-F (LW2)



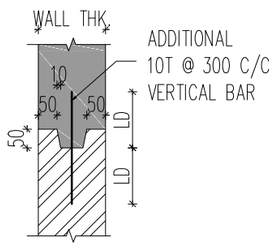
TYPICAL
CUTOUT DETAIL



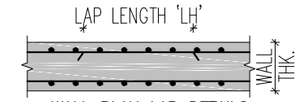
SECTION E-E



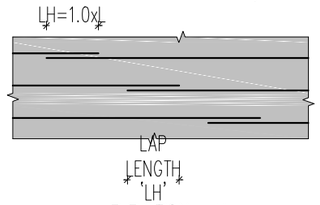
TYPICAL DETAIL OF OPENING
FOR PIPE & VENT



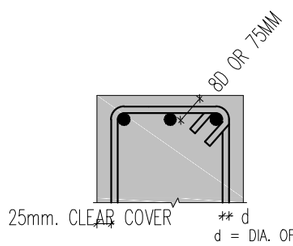
TYPICAL
CONSTRUCTION JOINT
IN VERTICAL WALL



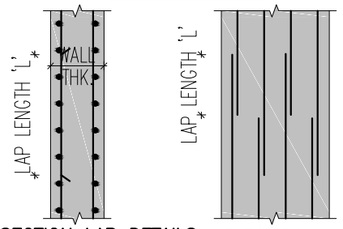
WALL PLAN LAP DETAILS
FOR HORIZONTAL STEEL
(LAP SHALL BE STAGGERED
AS PER ELEVATION : X)



ELEVATION : X
LAP LENGTH LH : 1.0xL FOR
HORIZONTAL STEEL



TYPICAL HOOP DETAIL IN BEAM



WALL SECTION LAP DETAILS
FOR VERTICAL STEEL
(LAP SHALL BE STAGGERED
AS PER ELEVATION : Y)

ELEVATION : Y

SCHEDULE OF LAP LENGTH

Fy = 415 N/mm²		Fy = 500 N/mm²	
CONC.GRADE	TENSION	CONC.GRADE	TENSION
M:20	48 T	M:20	57 T
M:25	40 T	M:25	49 T
M:30	38 T	M:30	45 T

REV	DATE	REVISION	DRW.	CHK	APPD.
R0	01.01.2022	FOR APPROVAL	TS	NRM	

CLIENT :-
THE EXECUTIVE ENGINEER, PUBLIC HEALTH WORKS DIVISION, G.W.S.S.B

PROJECT CONSULTANT :-

CONTRACTOR :-

PROJECT :-
65 MLD SEWERAGE TREATMENT PLANT

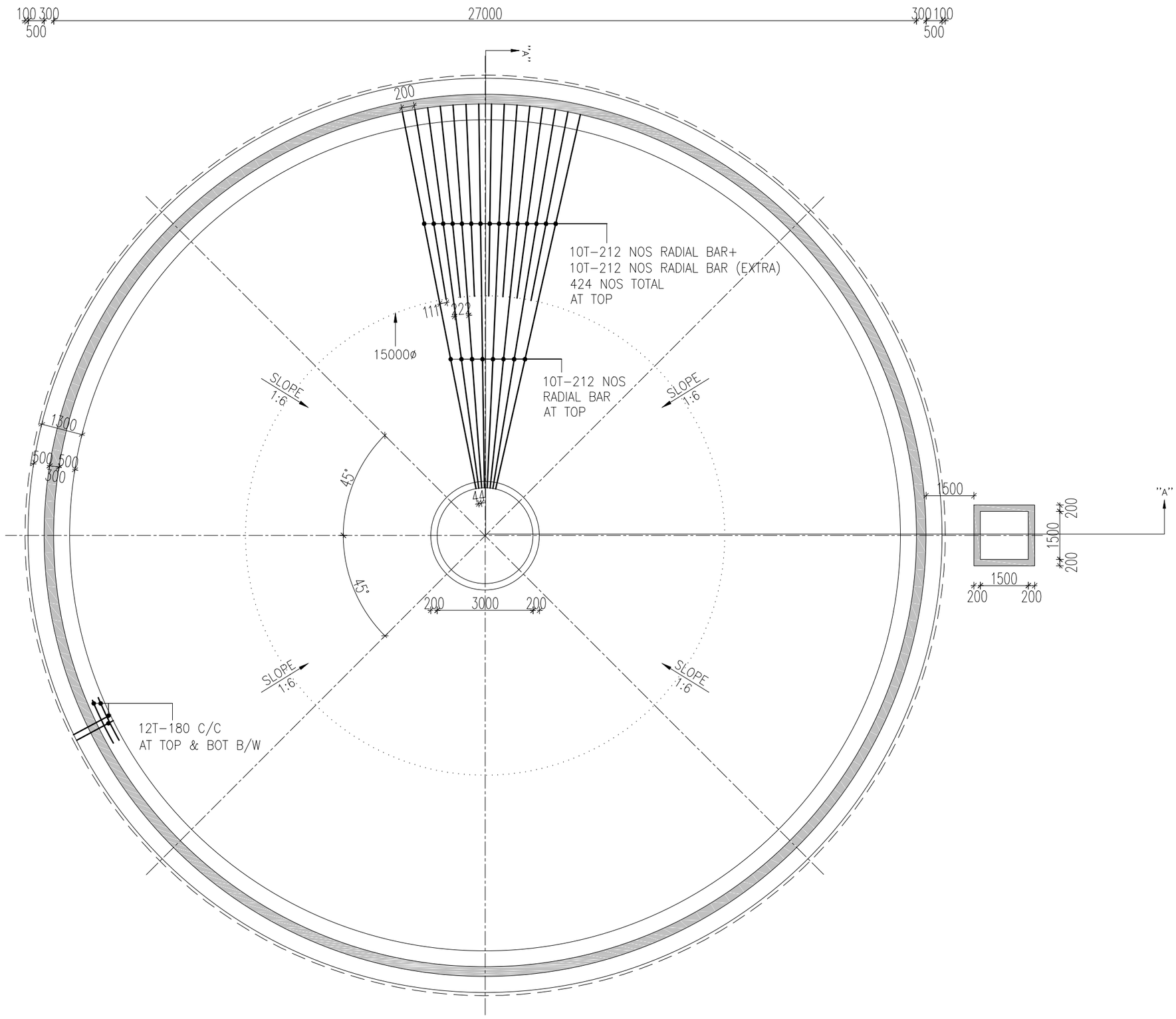
TITLE:-
STRUCTURAL DETAIL OF MBBR

DESIGNED:- NRM
DRAWN:- HM

DRAWING NO.:-
ANR/2021/12/SD/DWG/5.6

SHEET. 3 OF 3

DATE:- 25.12.2021



FOUNDATION PLAN

01.GENERAL NOTES

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
2. FIGURED DIMENSIONS SHALL BE FOLLOWED AND DO NOT SCALE THE DRAWING.
3. CONTRACTOR TO CHECK ALL DIMENSIONS BEFORE COMMENCEMENT OF WORK.
4. ALL STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS. ANY DISCREPANCY IN THE DRAWING(S) SHALL BE BROUGHT TO OUR NOTICE BEFORE COMMENCING THE WORK.
5. CLEAR COVER TO REINFORCEMENT SHALL BE USE,
   A. 50MMIN FOOTING,
   B. 40MM IN COLUMN,
   C. 25MM IN BEAM
   D. 20MM IN SLAB.
   E. 45MM IN WALL
   F. 50MM IN RAFT
6. ALL RCC WORK SHALL BE WITH M:30 GRADE CONCRETE FOR WATER RETAINING STRUCTURE & M:25 CONCRETE FOR NON WATER RETAINING STRUCTURE CONFORMING TO IS 456, IS-13920, IS-1893 CODE.& ALL PCC WORK SHALL BE WITH PCC M:15 GRADE CONCRETE.
7. REINFORCEMENT FE500 GRADE FOR BUILDING PART & FUSION BONDED EPOXY COATED REINFORCEMENT HAVING NOT LESS THAN 175 TO 300 MICRON FOR STRUCTURE IN CONTACT WITH SEWAGE CONFORMING TO IS 1786-LATEST REVISION. GRADE AS PER IS:1786 LATEST REVISION & HOWEVER STEEL GRADE AND TYPE SHALL BE VERIFIED WITH TENDER SPECIFICATION
8. LAYOUT OF COLUMNS SHALL BE AS PER ARCHITECTURAL DRAWING.
9. THE BUILDING IS DESIGN TO WITHSTAND THE EARTHQUAKE EFFECT OF SEISMIC ZONE III
10. SAFE BEARING CAPACITY OF SOIL(SBC) TAKEN AS PER SOIL INVESTIGATION REPORT 20 T/M² AT 600MM DEPTH & FOUNDATION SHOULD REST ON IN-SITU SOIL AND IT SHOULD NOT REST ON FILLING MATERIAL I.E. MADE UP SOIL & WATER TABLE NOT ENCOUNTERED AS PER SOIL REPORT IF DURING EXCAVATION WATER TABLE ENCOUNTERED BROUGHT TO THE NOTICE OF CONSULTANT
11. COVER TO REINFORCEMENT IN RCC SHALL BE AS PER IS:456(PAGE NO. 46) - MILD CONDITION.
12. ALL CONCRETE SHALL BE MACHINE MIXED AND MACHINE VIBRATED.
13. BACK FILLING SHALL BE DONE IN WELL COMPACTED AND WELL WATER LAYER NOT EXCEEDING 300MM IN DEPTH.
14. ALL WORK SHALL BE DONE WITH UNDER SUPERVISION OF EXPERIENCED CIVIL ENGG.

SCHEDULE OF LAP LENGTH

Fy = 415 N/mm²		Fy = 500 N/mm²	
CONC.GRADE	TENSION	CONC.GRADE	TENSION
M:20	48 T	M:20	57 T
M:25	40 T	M:25	49 T
M:30	38 T	M:30	45 T

REV	DATE	REVISION	DRW.	CHK	APPD.
R0	08.02.2022	FOR APPROVAL	TS	NRM	

CLIENT :-
THE EXECUTIVE ENGINEER, PUBLIC HEALTH WORKS DIVISION, G.W.S.S.B

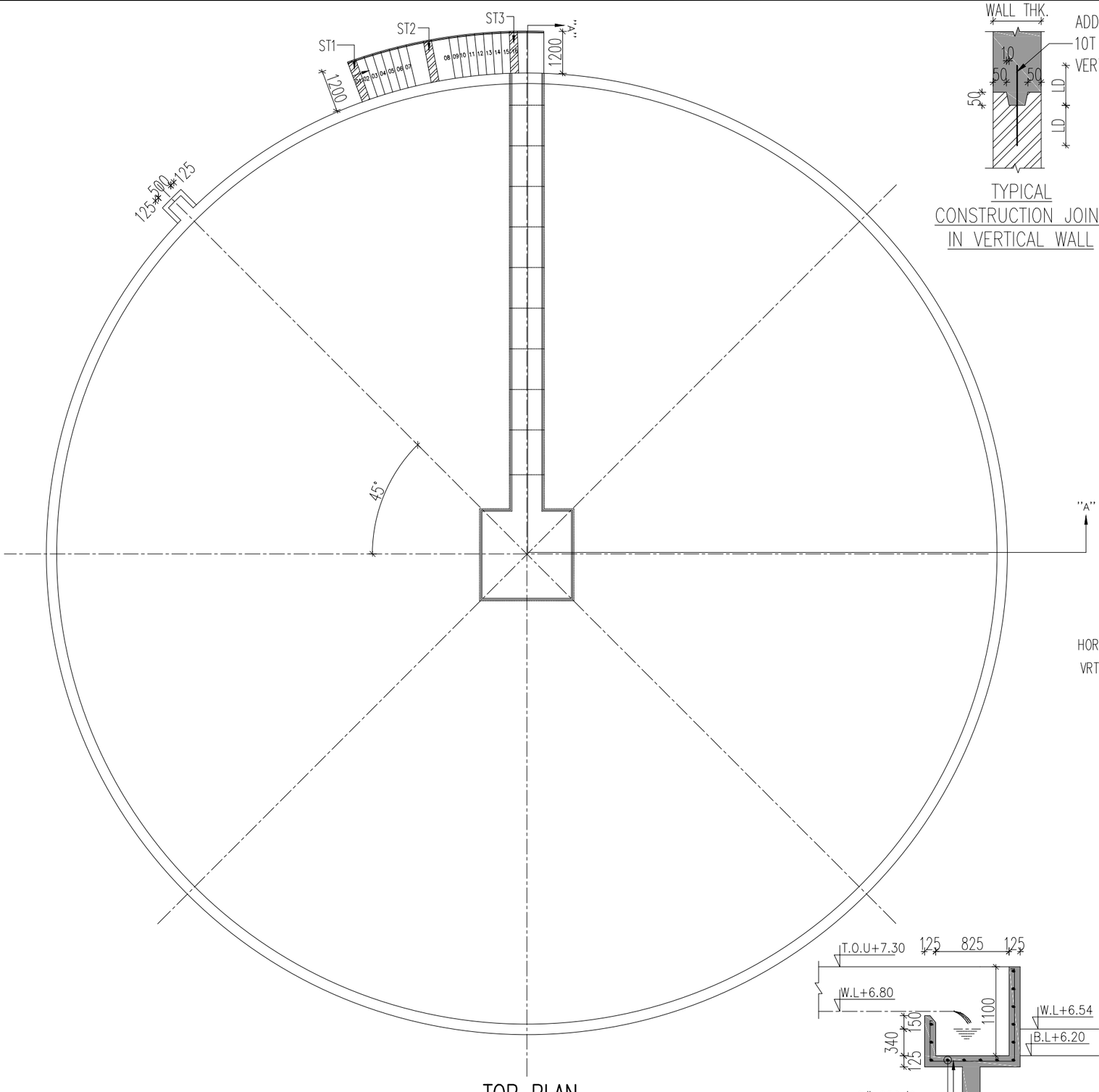
PROJECT CONSULTANT :-

CONTRACTOR :-

PROJECT :-
65 MLD SEWERAGE TREATMENT PLANT

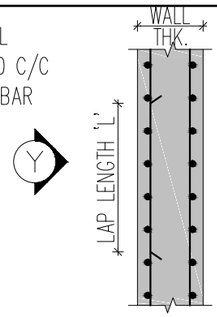
TITLE:-
ST DETAIL OF SECONDARY CLASIFER

DESIGNED:- NRM
DRAWN:- TS
DRAWING NO.:- ANR/2021/12/SD/DWG/07
SHEET. 1 OF 3
DATE:- 06.02.2022

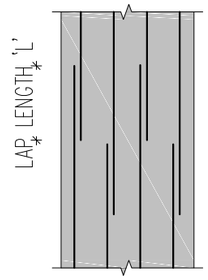


TOP PLAN

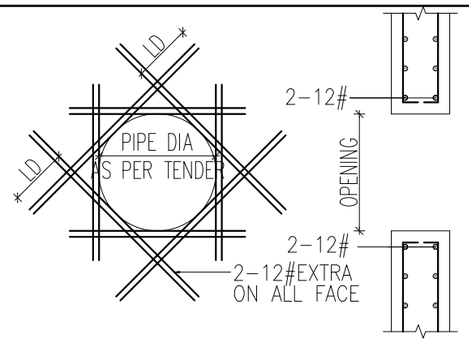
TYPICAL CONSTRUCTION JOINT IN VERTICAL WALL



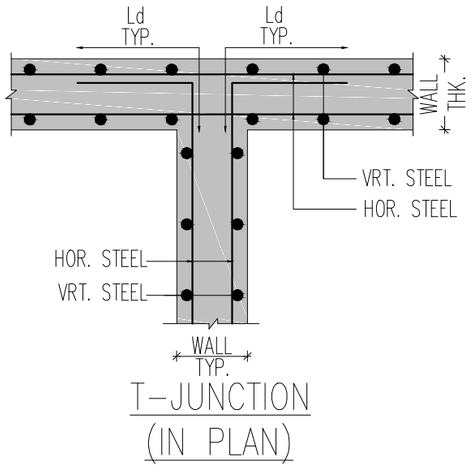
WALL SECTION LAP DETAILS FOR VERTICAL STEEL
(LAP SHALL BE STAGGERED AS PER ELEVATION : Y)



ELEVATION : Y



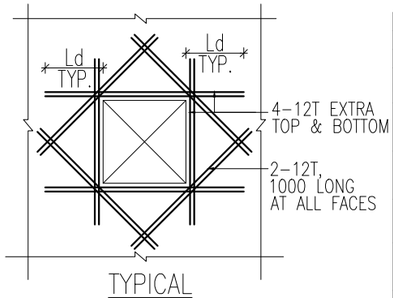
TYPICAL DETAIL OF OPENING FOR PIPE & VENT



T-JUNCTION (IN PLAN)

TYPICAL L-JUNCTION (IN PLAN)

LAUNDER DETAIL SECTION



TYPICAL CUTOUT DETAIL

SCHEDULE OF LAP LENGTH

Fy = 415 N/mm^2		Fy = 500 N/mm^2	
CONC.GRADE	TENSION	CONC.GRADE	TENSION
M:20	48 T	M:20	57 T
M:25	40 T	M:25	49 T
M:30	38 T	M:30	45 T

REV	DATE	REVISION	DRW.	CHK	APPD.
R0	08.02.2022	FOR APPROVAL	TS	NRM	

CLIENT :-
THE EXECUTIVE ENGINEER, PUBLIC HEALTH WORKS DIVISION, G.W.S.S.B

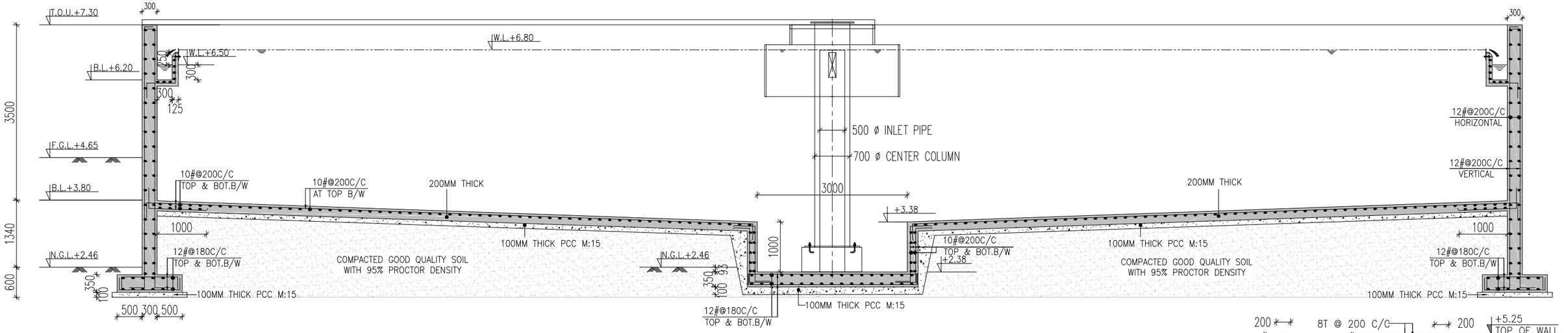
PROJECT CONSULTANT :-

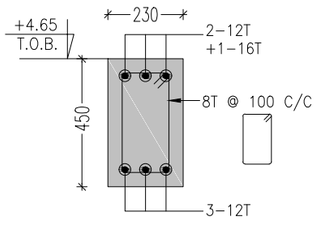
CONTRACTOR :-

PROJECT :-
6.50 MLD SEWERAGE TREATMENT PLANT

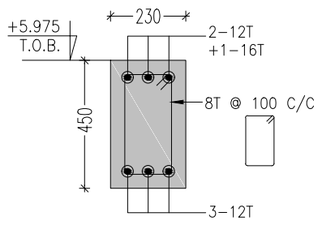
TITLE:-
ST DETAIL OF SECONDARY CLASIFER

DESIGNED:- NRM
DRAWN:- TS
DRAWING NO.:- ANR/2021/12/SD/DWG/07
SHEET. 2 OF 3
DATE:- 06.02.2022

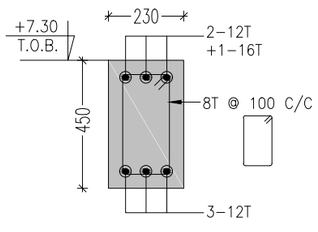




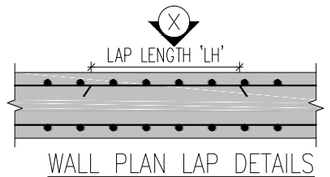
ST1



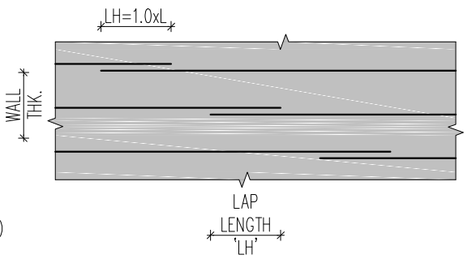
ST2



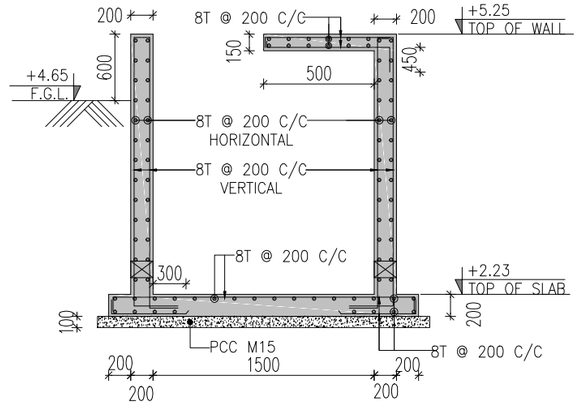
ST3



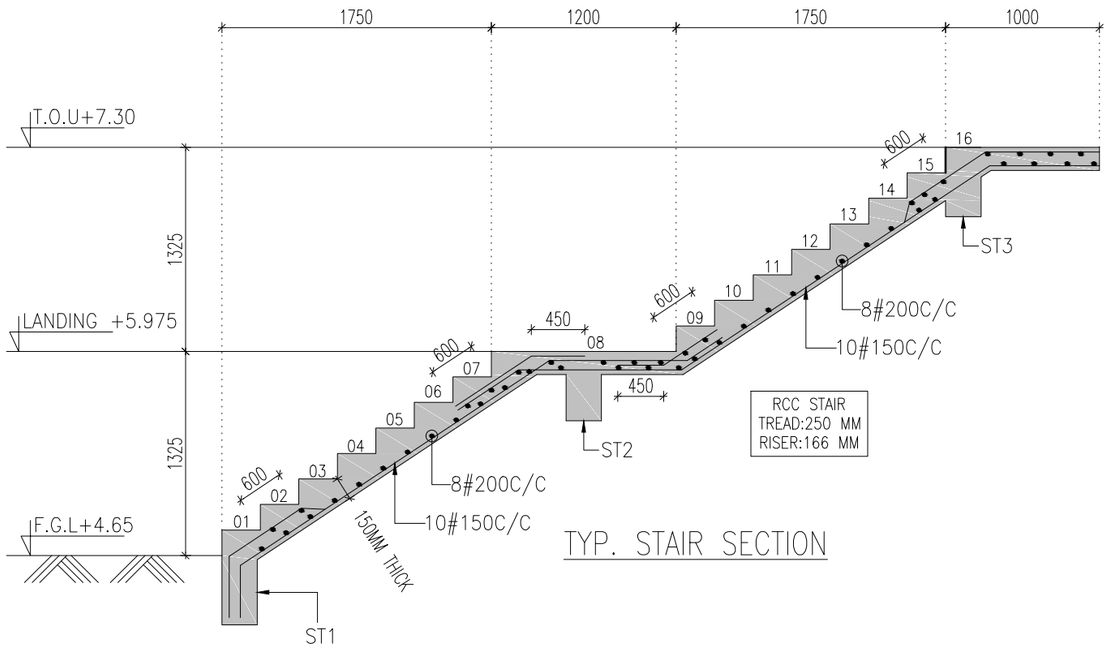
WALL PLAN LAP DETAILS
FOR HORIZONTAL STEEL
(LAP SHALL BE STAGGERED
AS PER ELEVATION : X)



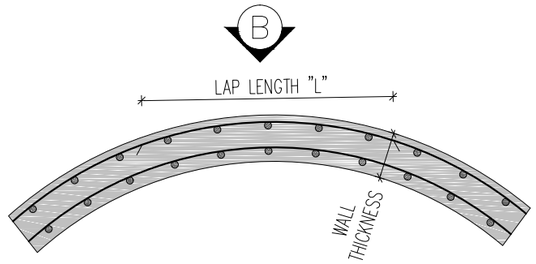
ELEVATION : X
LAP LENGTH LH : 1.0xL FOR
HORIZONTAL STEEL



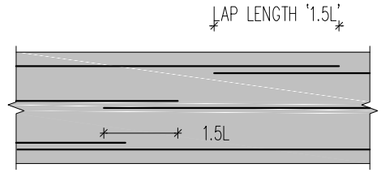
SECTION FOR CHAMBER



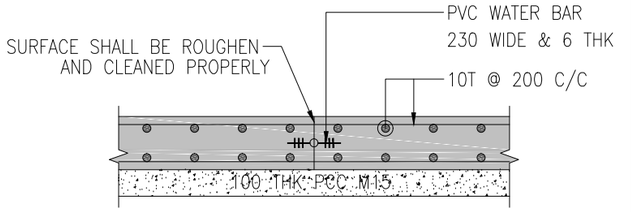
TYP. STAIR SECTION



WALL PLAN
LAP DETAIL FOR HORIZONTAL STEEL
(LAP SHALL BE STAGGERED
AS PER ELEVATION : B)



ELEVATION : B



TYPICAL CONSTRUCTION JOINT
FOR BOTTOM SLAB

REV	DATE	REVISION	DRW.	CHK	APPD.
R0	08.02.2022	FOR APPROVAL	TS	NRM	

CLIENT :-
THE EXECUTIVE ENGINEER, PUBLIC HEALTH WORKS DIVISION, G.W.S.S.B

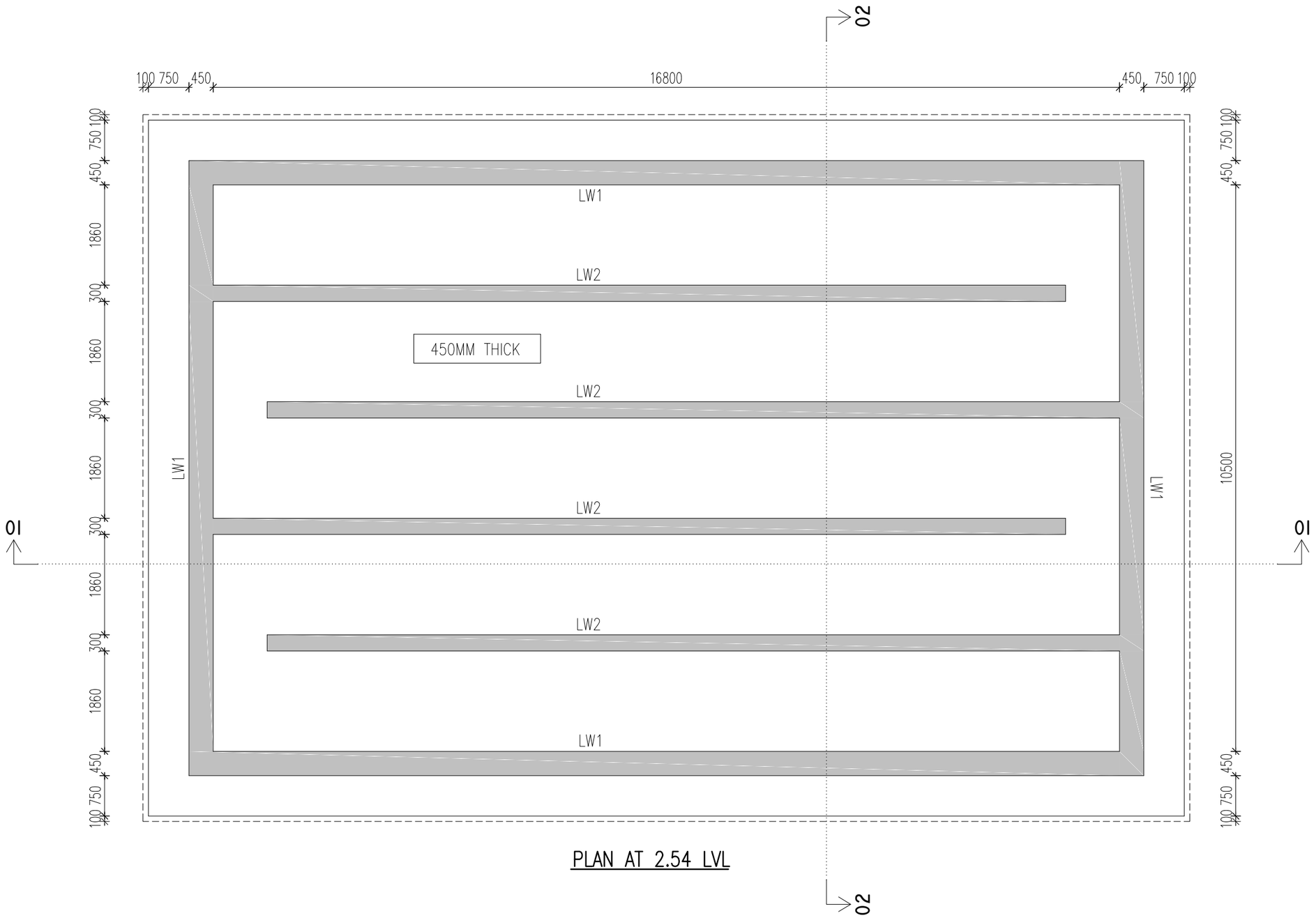
PROJECT CONSULTANT :-

CONTRACTOR :-

PROJECT :-
6.50 MLD SEWERAGE TREATMENT PLANT

TITLE:-
ST DETAIL OF SECONDARY CLASIFER

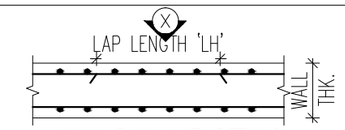
DESIGNED:- NRM
DRAWN:- TS
DRAWING NO.:-
ANR/2021/12/SD/DWG/07
SHEET. 3 OF 3
DATE:- 06.02.2022



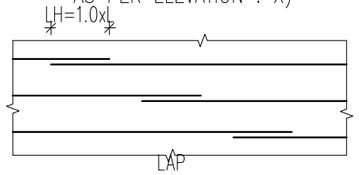
PLAN AT 2.54 LVL

01.GENERAL NOTES

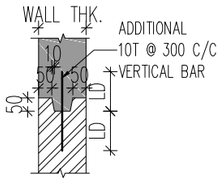
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
2. FIGURED DIMENSIONS SHALL BE FOLLOWED AND DO NOT SCALE THE DRAWING.
3. CONTRACTOR TO CHECK ALL DIMENSIONS BEFORE COMMENCEMENT OF WORK.
4. ALL STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS. ANY DISCREPANCY IN THE DRAWING(S) SHALL BE BROUGHT TO OUR NOTICE BEFORE COMMENCING THE WORK.
5. CLEAR COVER TO REINFORCEMENT SHALL BE USE,
   A. 50MMIN FOOTING,
   B. 40MM IN COLUMN,
   C. 25MM IN BEAM
   D. 20MM IN SLAB.
   E. 45MM IN WALL
   F. 50MM IN RAFT
6. ALL RCC WORK SHALL BE WITH M:30 GRADE CONCRETE FOR WATER RETAINING STRUCTURE & M:25 CONCRETE FOR NON WATER RETAINING STRUCTURE CONFORMING TO IS 456, IS-13920, IS-1893 CODE.& ALL PCC WORK SHALL BE WITH PCC M:15 GRADE CONCRETE.
7. REINFORCEMENT FE500 GRADE FOR BUILDING PART & FUSION BONDED EPOXY COATED REINFORCEMENT HAVING NOT LESS THAN 175 TO 300 MICRON FOR STRUCTURE IN CONTACT WITH SEWAGE CONFORMING TO IS 1786-LATEST REVISION. GRADE AS PER IS:1786 LATEST REVISION & HOWEVER STEEL GRADE AND TYPE SHALL BE VERIFIED WITH TENDER SPECIFICATION
8. LAYOUT OF COLUMNS SHALL BE AS PER ARCHITECTURAL DRAWING.
9. THE BUILDING IS DESIGN TO WITHSTAND THE EARTHQUAKE EFFECT OF SEISMIC ZONE III
10. SAFE BEARING CAPACITY OF SOIL(SBC) TAKEN AS PER SOIL INVESTIGATION REPORT 20 T/M² AT 600MM DEPTH & FOUNDATION SHOULD REST ON IN-SITU SOIL AND IT SHOULD NOT REST ON FILLING MATERIAL I.E. MADE UP SOIL & WATER TABLE NOT ENCOUNTERED AS PER SOIL REPORT IF DURING EXCAVATION WATER TABLE ENCOUNTERED BROUGHT TO THE NOTICE OF CONSULTANT
11. COVER TO REINFORCEMENT IN RCC SHALL BE AS PER IS:456(PAGE NO. 46) - MILD CONDITION.
12. ALL CONCRETE SHALL BE MACHINE MIXED AND MACHINE VIBRATED.
13. BACK FILLING SHALL BE DONE IN WELL COMPACTED AND WELL WATER LAYER NOT EXCEEDING 300MM IN DEPTH.
14. ALL WORK SHALL BE DONE WITH UNDER SUPERVISION OF EXPERIENCED CIVIL ENGG.



WALL PLAN LAP DETAILS FOR HORIZONTAL STEEL (LAP SHALL BE STAGGERED AS PER ELEVATION : X)



ELEVATION : X
LAP LENGTH LH : 1.0xL FOR HORIZONTAL STEEL



TYPICAL CONSTRUCTION JOINT IN VERTICAL WALL

REV	DATE	REVISION	DRW.	CHK	APPD.
R2	08.02.2022	FOR APPROVAL	TS	NRM	
R1	29.01.2022	FOR APPROVAL	TS	NRM	
R0	08.01.2022	FOR APPROVAL	TS	NRM	

CLIENT :-
THE EXECUTIVE ENGINEER, PUBLIC HEALTH WORKS DIVISION, G.W.S.S.B

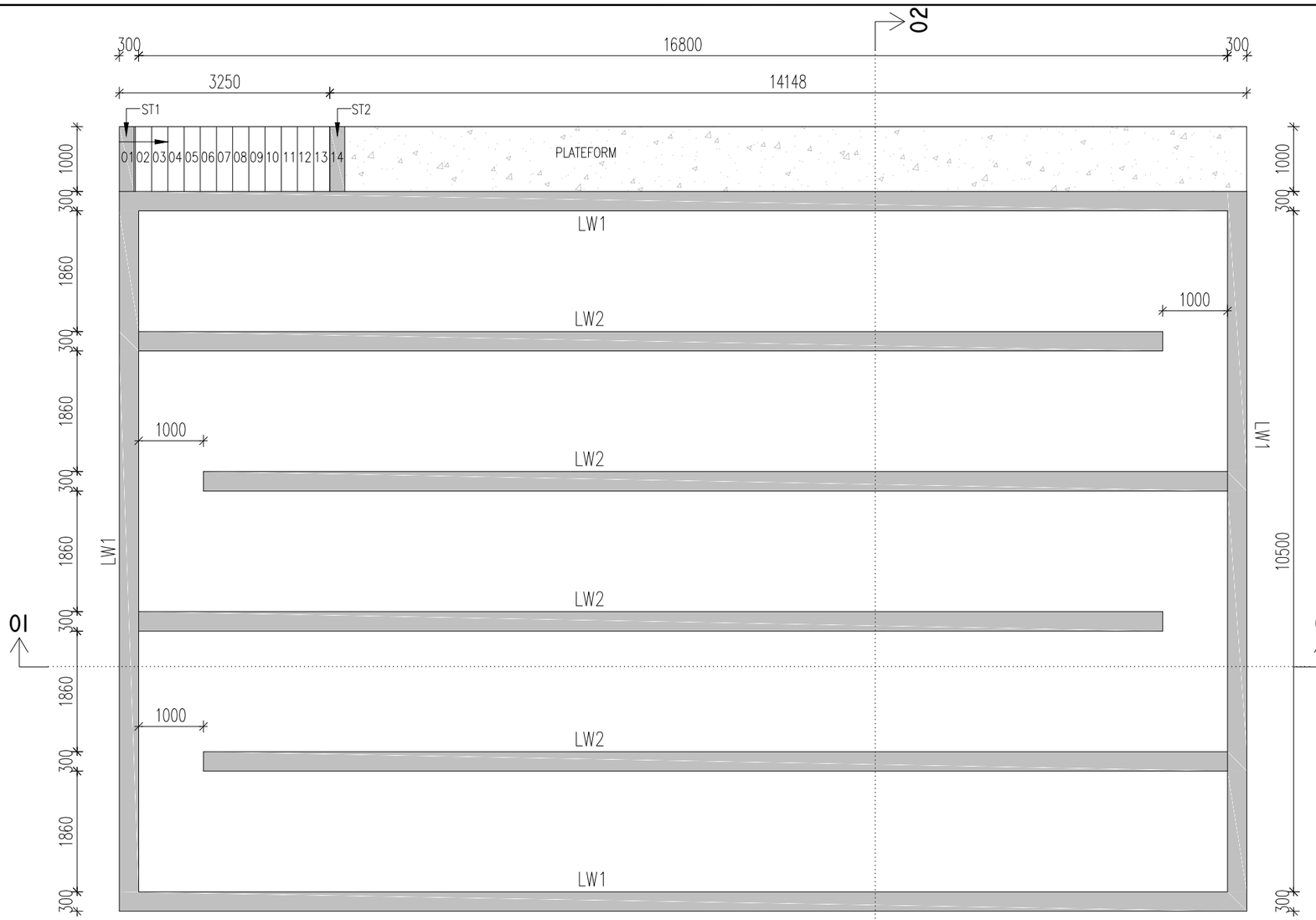
PROJECT CONSULTANT :-

CONTRACTOR :-

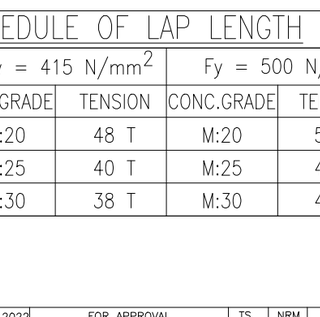
PROJECT :-
6.50 MLD SEWERAGE TREATMENT PLANT

TITLE:-
STRUCTURAL DETAIL CCT

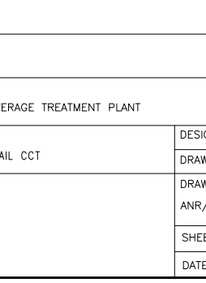
DESIGNED:- NRM
DRAWN:- TS
DRAWING NO.:-
ANR/2021/12/SD/DWG/08
SHEET. 1 OF 3
DATE:- 07.01.2022



PLAN AT 7.04 LVL

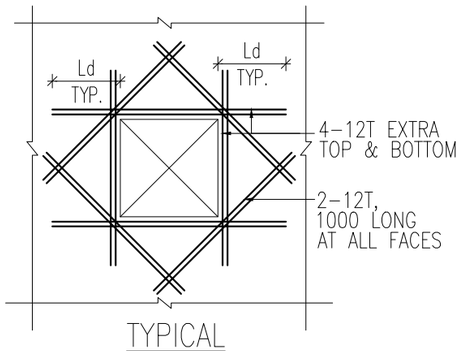


WALL SECTION LAP DETAILS
FOR VERTICAL STEEL
(LAP SHALL BE STAGGERED
AS PER ELEVATION : Y)

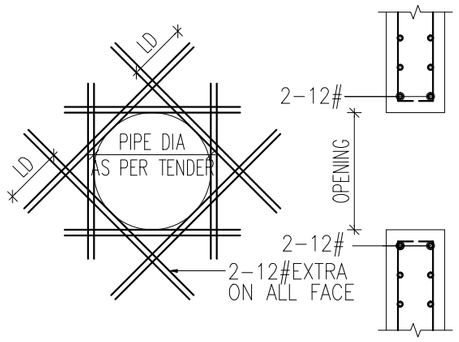


ELEVATION : Y

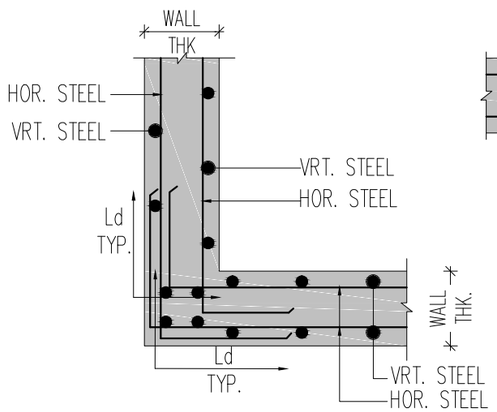
SCHEDULE OF LAP LENGTH			
Fy = 415 N/mm^2		Fy = 500 N/mm^2	
CONC.GRADE	TENSION	CONC.GRADE	TENSION
M:20	48 T	M:20	57 T
M:25	40 T	M:25	49 T
M:30	38 T	M:30	45 T



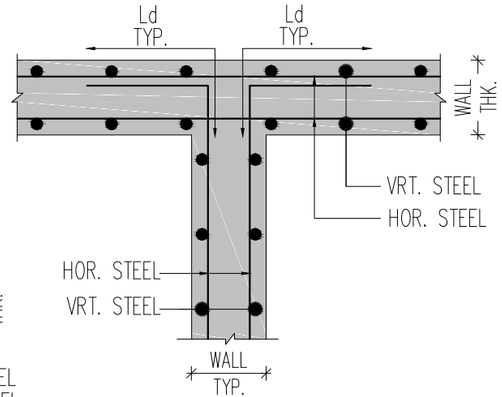
TYPICAL
CUTOUT DETAIL



TYPICAL DETAIL OF OPENING
FOR PIPE & VENT



TYPICAL L-JUNCTION
(IN PLAN)



T-JUNCTION
(IN PLAN)

REV	DATE	REVISION	DRW.	CHK	APPD.
R2	08.02.2022	FOR APPROVAL	TS	NRM	
R1	29.01.2022	FOR APPROVAL	TS	NRM	
R0	08.01.2022	FOR APPROVAL	TS	NRM	

CLIENT :-
THE EXECUTIVE ENGINEER, PUBLIC HEALTH WORKS DIVISION, G.W.S.S.B

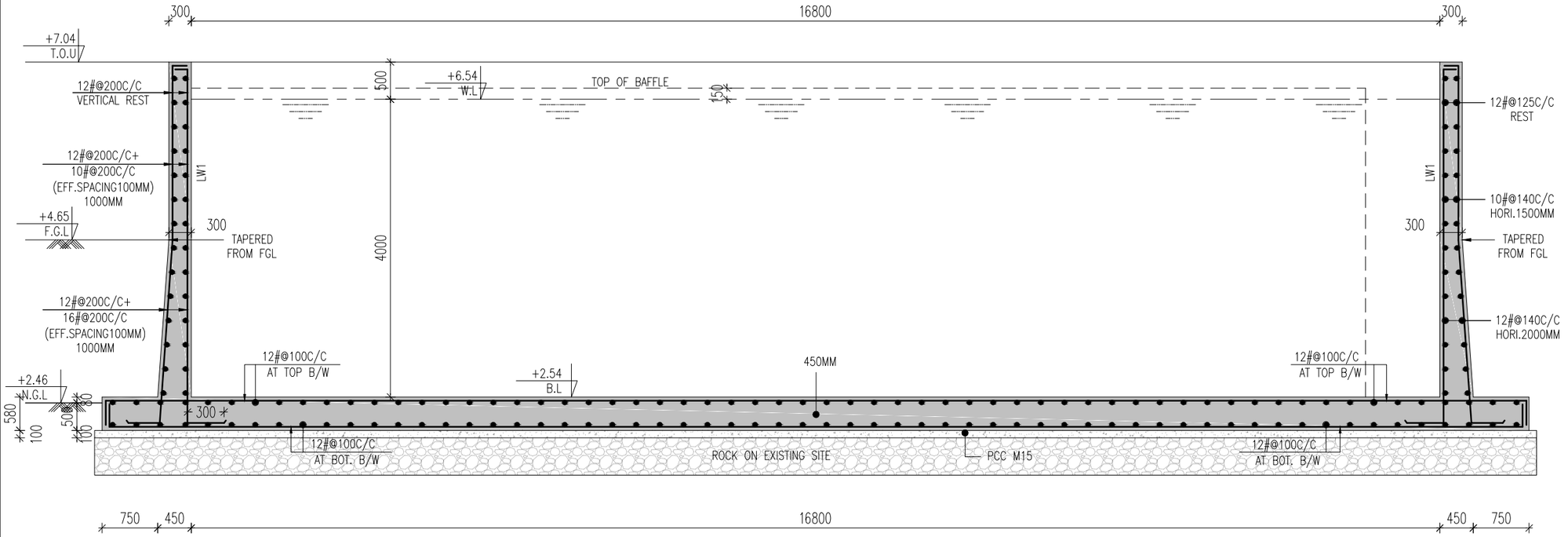
PROJECT CONSULTANT :-

CONTRACTOR :-

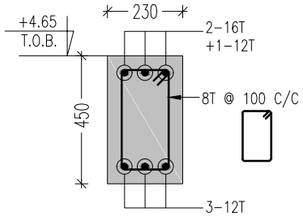
PROJECT :-
6.50 MLD SEWERAGE TREATMENT PLANT

TITLE:-
STRUCTURAL DETAIL CCT

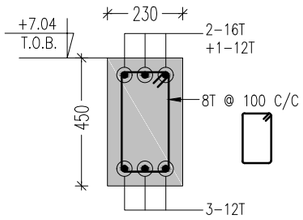
DESIGNED:- NRM
DRAWN:- TS
DRAWING NO.:-
ANR/2021/12/SD/DWG/08
SHEET. 2 OF 3
DATE:- 07.01.2022



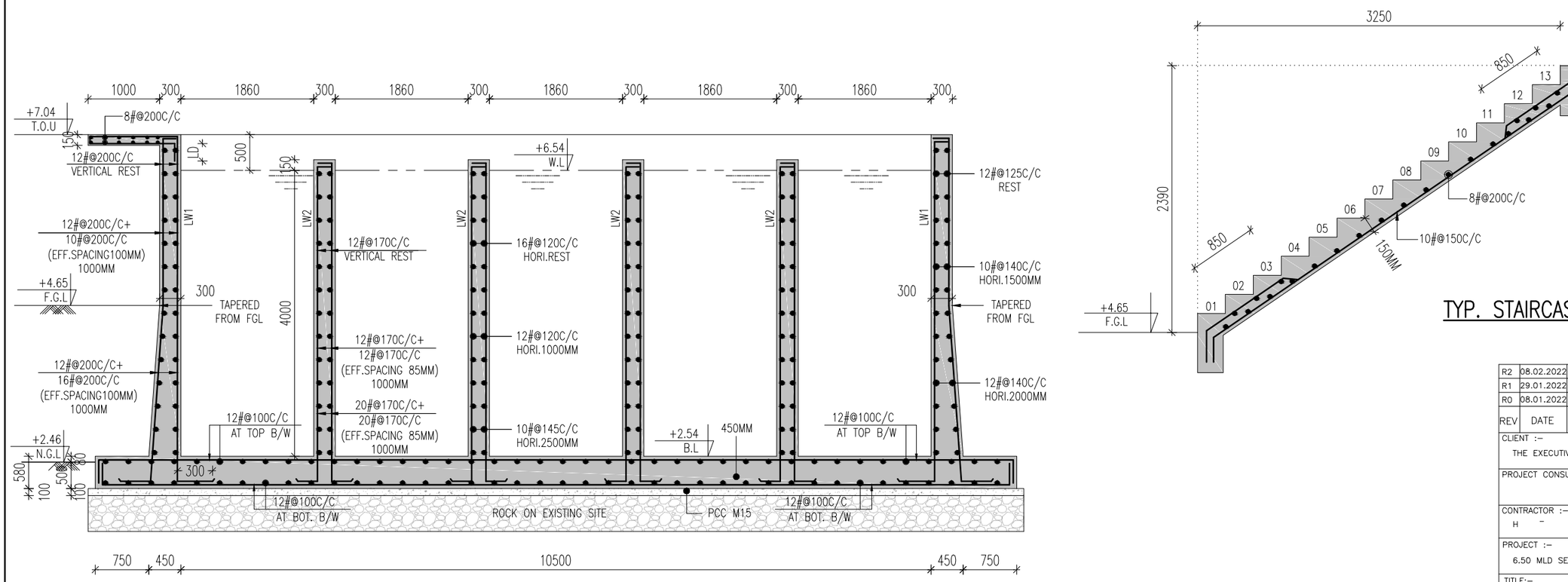
SECTION 1–1



ST1



ST2



SECTION 2–2

TYP. STAIRCASE SECTION

REV	DATE	REVISION	DRW.	CHK	APPD.
R2	08.02.2022	FOR APPROVAL	TS	NRM	
R1	29.01.2022	FOR APPROVAL	TS	NRM	
R0	08.01.2022	FOR APPROVAL	TS	NRM	

CLIENT :–
THE EXECUTIVE ENGINEER, PUBLIC HEALTH WORKS DIVISION, G.W.S.S.B

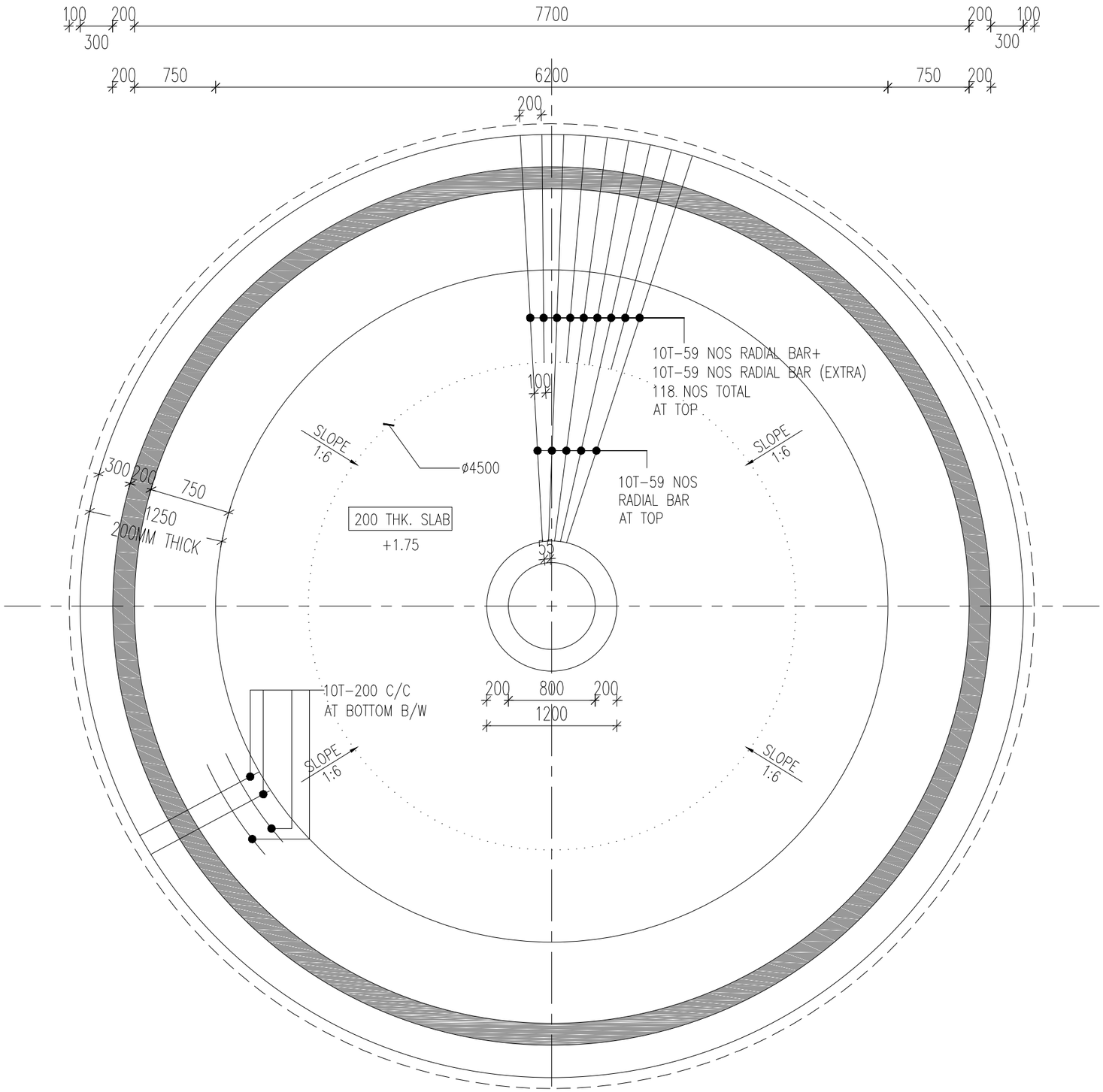
PROJECT CONSULTANT :–

CONTRACTOR :–
H – – –

PROJECT :–
6.50 MLD SEWERAGE TREATMENT PLANT

TITLE:–
STRUCTURAL DETAIL CCT

DESIGNED:– NRM
DRAWN:– TS
DRAWING NO.:–
ANR/2021/12/SD/DWG/08
SHEET. 3 OF 3
DATE:– 07.01.2022



FOUNDATION PLAN

01.GENERAL NOTES

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
2. FIGURED DIMENSIONS SHALL BE FOLLOWED AND DO NOT SCALE THE DRAWING.
3. CONTRACTOR TO CHECK ALL DIMENSIONS BEFORE COMMENCEMENT OF WORK.
4. ALL STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS. ANY DISCREPANCY IN THE DRAWING(S) SHALL BE BROUGHT TO OUR NOTICE BEFORE COMMENCING THE WORK.
5. CLEAR COVER TO REINFORCEMENT SHALL BE USE,
   A. 50MMIN FOOTING,
   B. 40MM IN COLUMN,
   C. 25MM IN BEAM
   D. 20MM IN SLAB.
   E. 45MM IN WALL
   F. 50MM IN RAFT
6. ALL RCC WORK SHALL BE WITH M:30 GRADE CONCRETE FOR WATER RETAINING STRUCTURE & M:25 CONCRETE FOR NON WATER RETAINING STRUCTURE CONFORMING TO IS 456, IS-13920, IS-1893 CODE.& ALL PCC WORK SHALL BE WITH PCC M:15 GRADE CONCRETE.
7. REINFORCEMENT FE500 GRADE FOR BUILDING PART & FUSION BONDED EPOXY COATED REINFORCEMENT HAVING NOT LESS THAN 175 TO 300 MICRON FOR STRUCTURE IN CONTACT WITH SEWAGE CONFORMING TO IS 1786-LATEST REVISION. GRADE AS PER IS:1786 LATEST REVISION & HOWEVER STEEL GRADE AND TYPE SHALL BE VERIFIED WITH TENDER SPECIFICATION
8. LAYOUT OF COLUMNS SHALL BE AS PER ARCHITECTURAL DRAWING.
9. THE BUILDING IS DESIGN TO WITHSTAND THE EARTHQUAKE EFFECT OF SEISMIC ZONE III
10. SAFE BEARING CAPACITY OF SOIL(SBC) TAKEN AS PER SOIL INVESTIGATION REPORT 20 T/M² AT 1000MM DEPTH & FOUNDATION SHOULD REST ON IN-SITU SOIL AND IT SHOULD NOT REST ON FILLING MATERIAL I.E. MADE UP SOIL & WATER TABLE NOT ENCOUNTERED AS PER SOIL REPORT IF DURING EXCAVATION WATER TABLE ENCOUNTERED BROUGHT TO THE NOTICE OF CONSULTANT
11. COVER TO REINFORCEMENT IN RCC SHALL BE AS PER IS:456(PAGE NO. 46) - MILD CONDITION.
12. ALL CONCRETE SHALL BE MACHINE MIXED AND MACHINE VIBRATED.
13. BACK FILLING SHALL BE DONE IN WELL COMPACTED AND WELL WATER LAYER NOT EXCEEDING 300MM IN DEPTH.
14. ALL WORK SHALL BE DONE WITH UNDER SUPERVISION OF EXPERIENCED CIVIL ENGG.

SCHEDULE OF LAP LENGTH

Fy = 415 N/mm²		Fy = 500 N/mm²	
CONC.GRADE	TENSION	CONC.GRADE	TENSION
M:20	48 T	M:20	57 T
M:25	40 T	M:25	49 T
M:30	38 T	M:30	45 T

REV	DATE	REVISION	DRW.	CHK	APPD.
R0	12.01.2022	FOR APPROVAL	TS	NRM	

CLIENT :-
THE EXECUTIVE ENGINEER, PUBLIC HEALTH WORKS DIVISION, G.W.S.S.B

PROJECT CONSULTANT :-

CONTRACTOR :-
)

PROJECT :-
6.50 MLD SEWERAGE TREATMENT PLANT

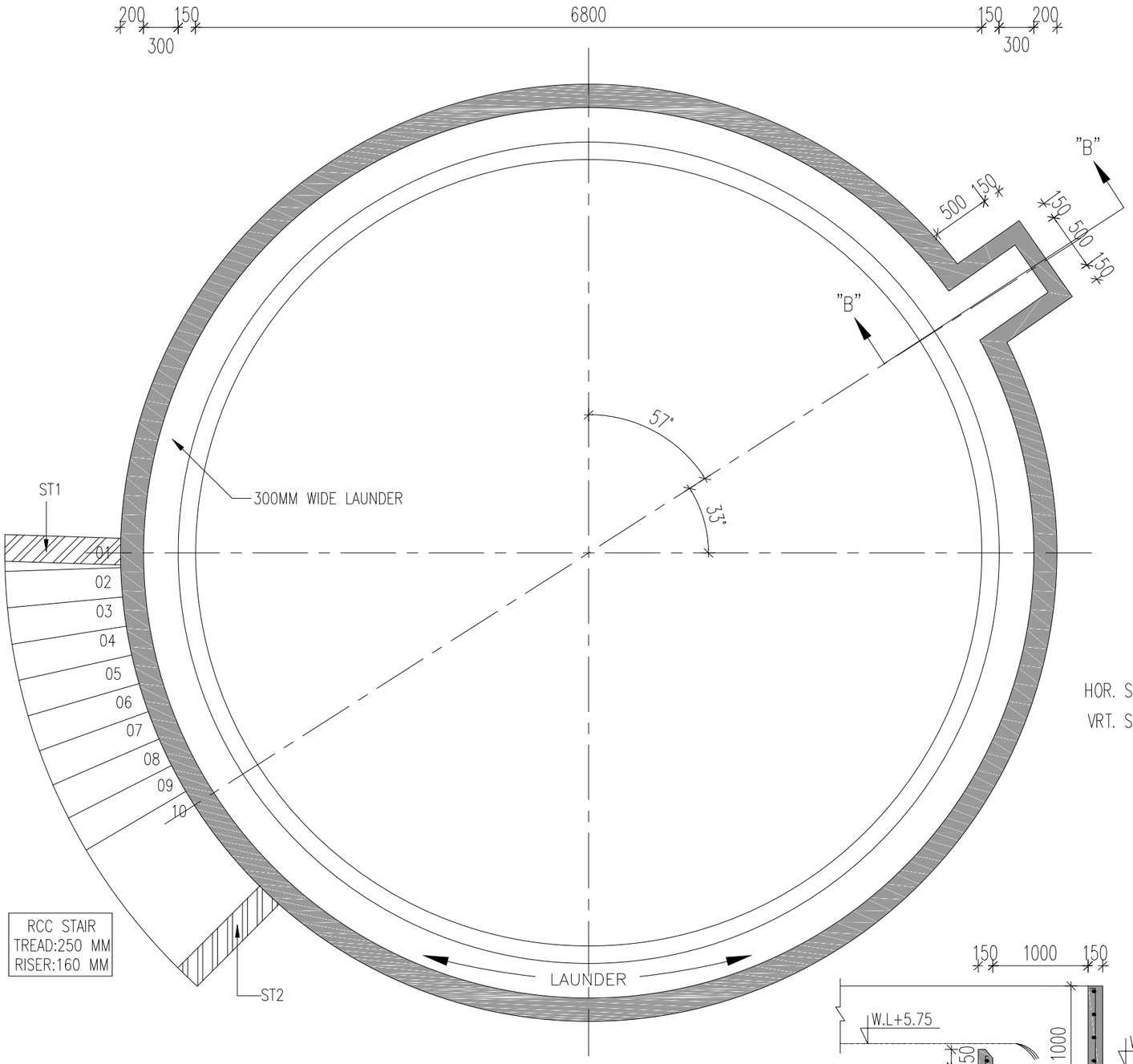
TITLE:-
ST OF SLUDGE THICKENER

DESIGNED:- NRM
DRAWN:- TS

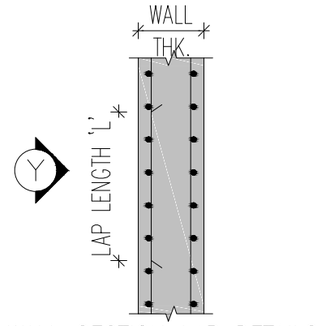
DRAWING NO.:-
ANR/2021/12/SD/DWG/09

SHEET. 1 OF 3

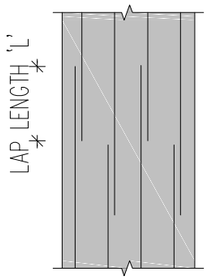
DATE:- 14.09.2021



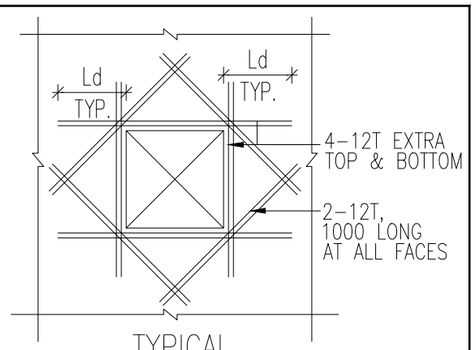
TOP PLAN



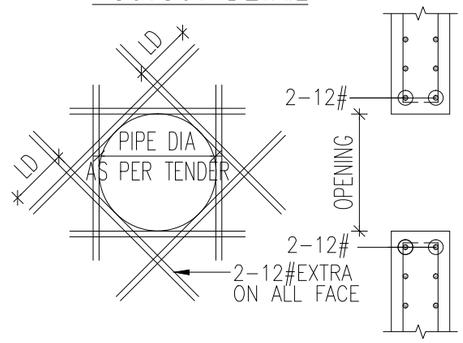
WALL SECTION LAP DETAILS
FOR VERTICAL STEEL
(LAP SHALL BE STAGGERED
AS PER ELEVATION : Y)



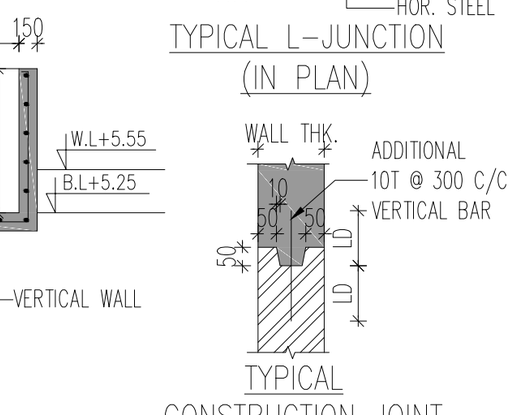
ELEVATION : Y



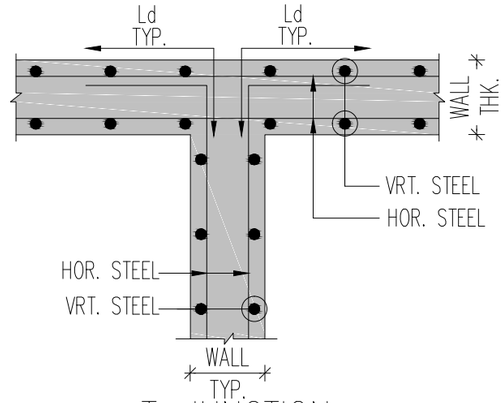
TYPICAL
CUTOUT DETAIL



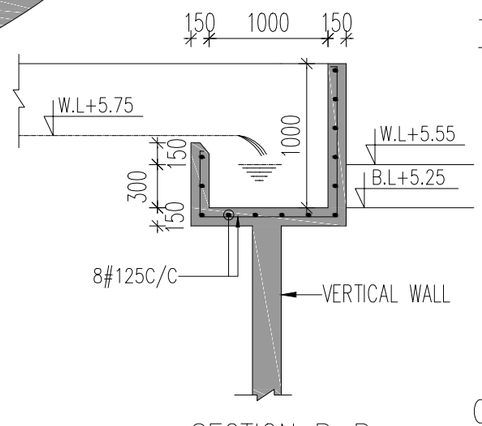
TYPICAL DETAIL OF OPENING
FOR PIPE & VENT



TYPICAL L-JUNCTION
(IN PLAN)



T-JUNCTION
(IN PLAN)



SECTION B-B

TYPICAL
CONSTRUCTION JOINT
IN VERTICAL WALL

REV	DATE	REVISION	DRW.	CHK	APPD.
R0	12.01.2022	FOR APPROVAL	TS	NRM	

CLIENT :-
THE EXECUTIVE ENGINEER, PUBLIC HEALTH WORKS DIVISION, G.W.S.S.B

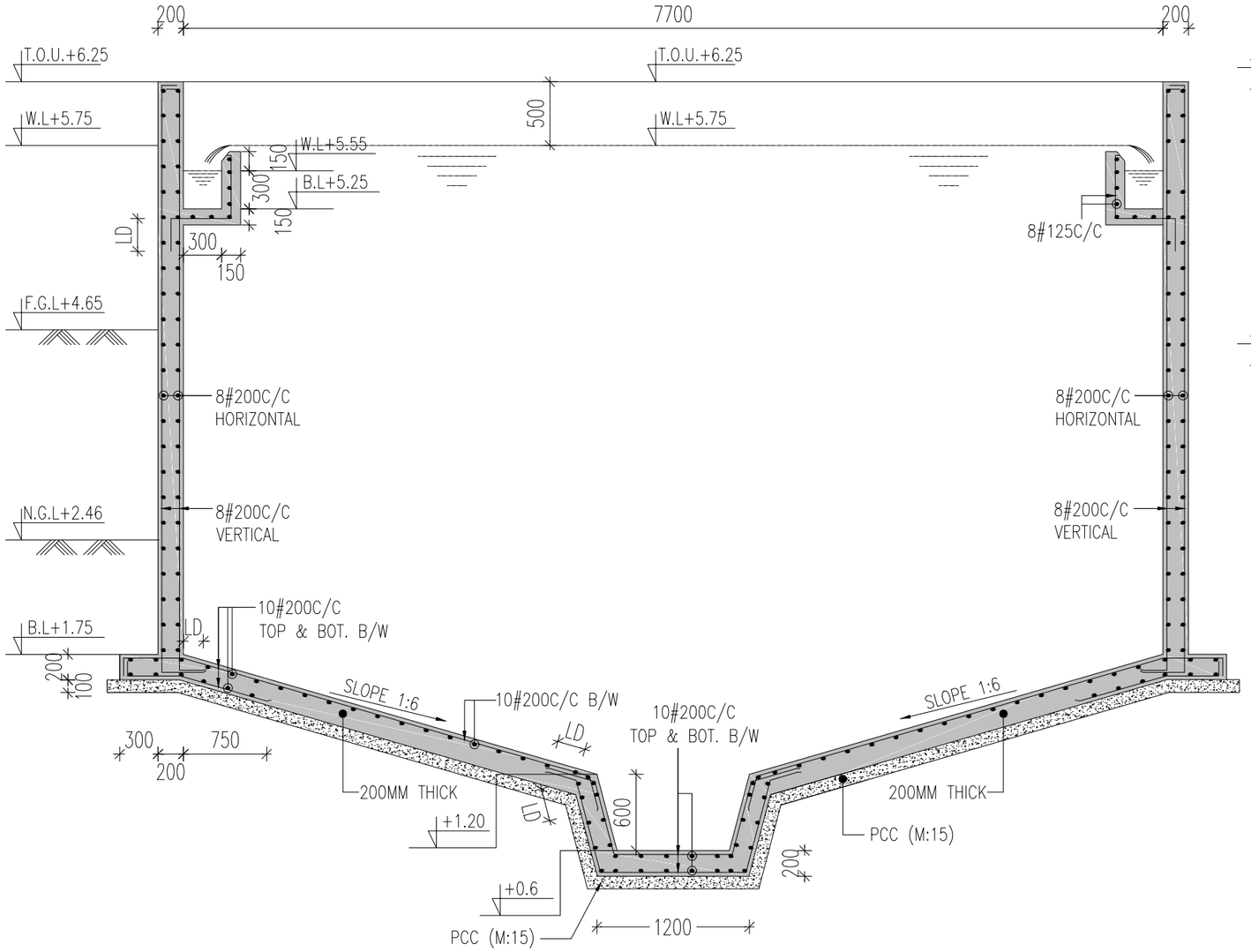
PROJECT CONSULTANT :-

CONTRACTOR :-

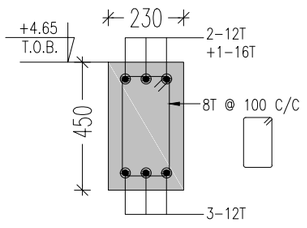
PROJECT :-
6.50 MLD SEWERAGE TREATMENT PLANT

TITLE:-
ST OF SLUDGE THICKENER

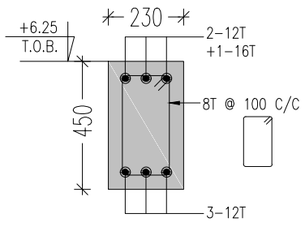
DESIGNED:- NRM
DRAWN:- TS
DRAWING NO.:-
ANR/2021/12/SD/DWG/09
SHEET. 2 OF 3
DATE:- 14.09.2021



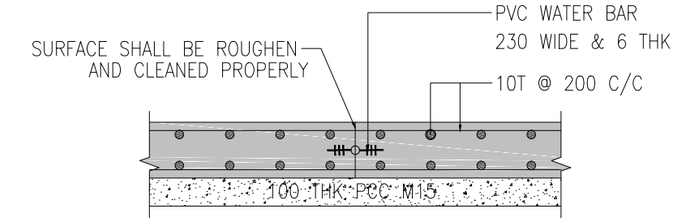
SECTION A–A



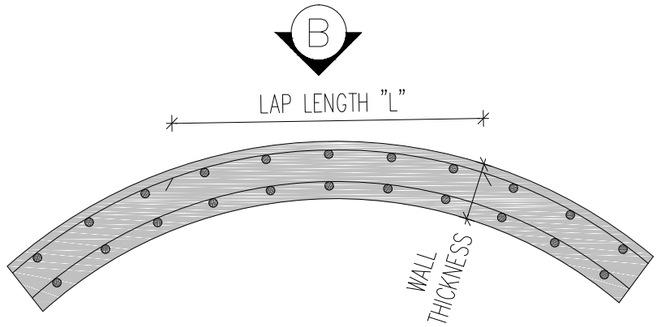
ST1



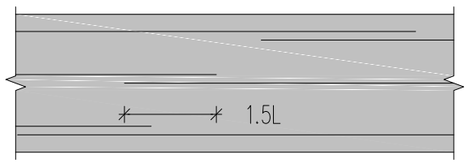
ST2



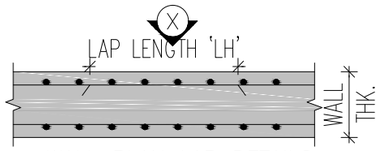
TYPICAL CONSTRUCTION JOINT
FOR BOTTOM SLAB



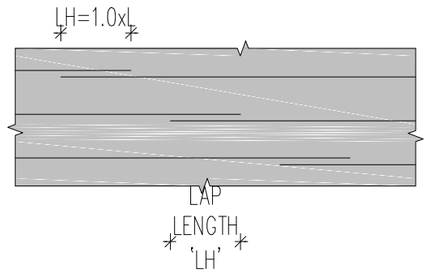
WALL PLAN
LAP DETAIL FOR HORIZONTAL STEEL
(LAP SHALL BE STAGGERED
AS PER ELEVATION : B)



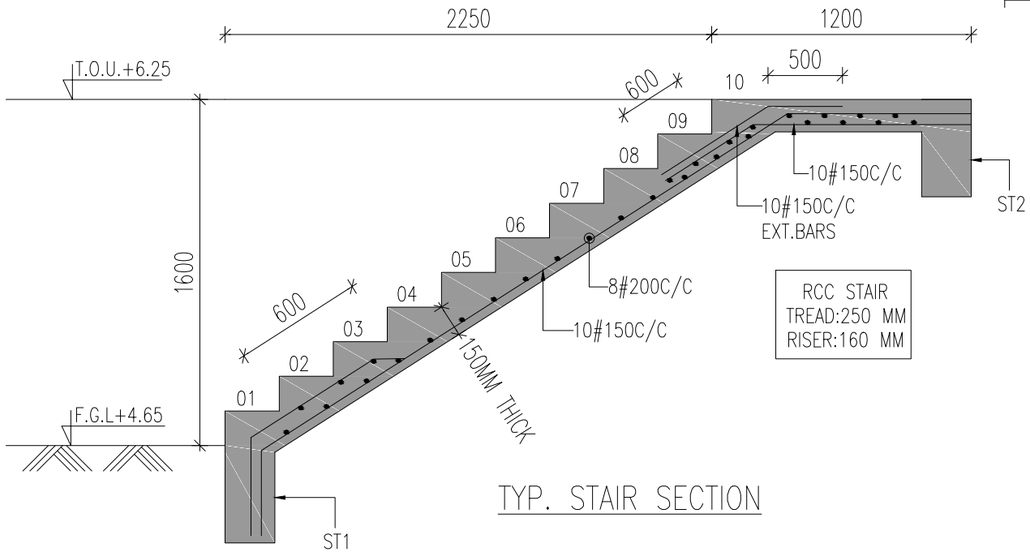
ELEVATION : B



WALL PLAN LAP DETAILS
FOR HORIZONTAL STEEL
(LAP SHALL BE STAGGERED
AS PER ELEVATION : X)



ELEVATION : X
LAP LENGTH LH : 1.0xL FOR
HORIZONTAL STEEL



TYP. STAIR SECTION

RCC STAIR
TREAD:250 MM
RISER:160 MM

REV	DATE	REVISION	DRW.	CHK	APPD.
R0	12.01.2022	FOR APPROVAL	TS	NRM	

CLIENT :–
THE EXECUTIVE ENGINEER, PUBLIC HEALTH WORKS DIVISION, G.W.S.S.B

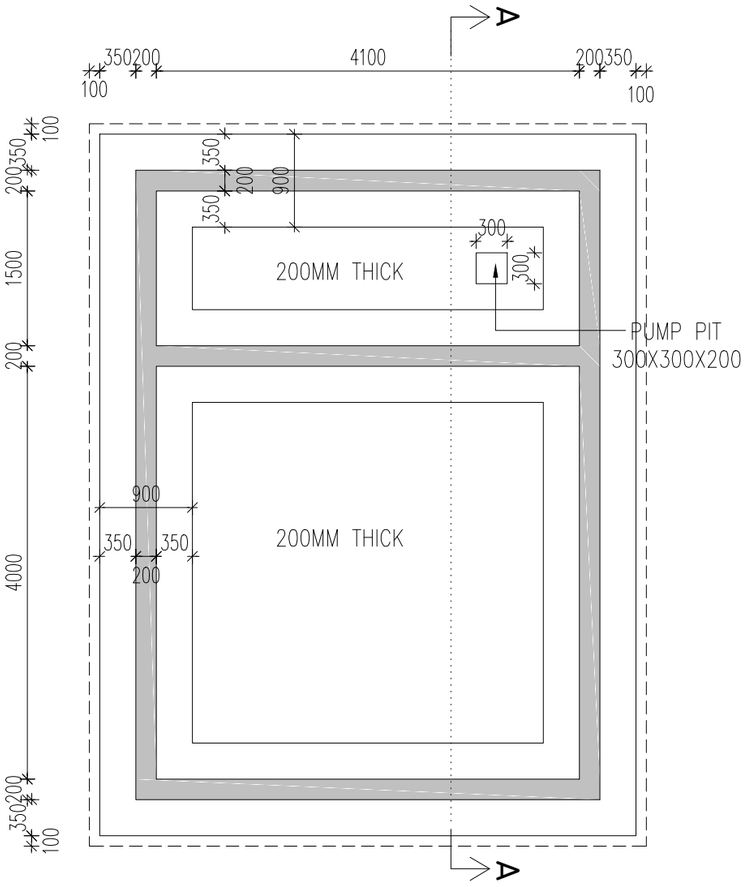
PROJECT CONSULTANT :–

CONTRACTOR :–

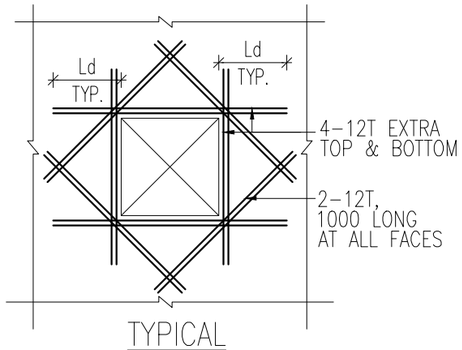
PROJECT :–
6.50 MLD SEWERAGE TREATMENT PLANT

TITLE:–
ST OF SLUDGE THICKENER

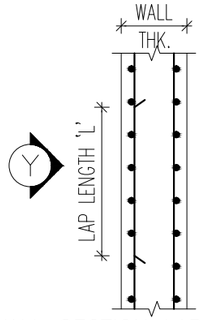
DESIGNED:– NRM
DRAWN:– TS
DRAWING NO.:–
ANR/2021/12/SD/DWG/09
SHEET. 3 OF 3
DATE:– 14.09.2021



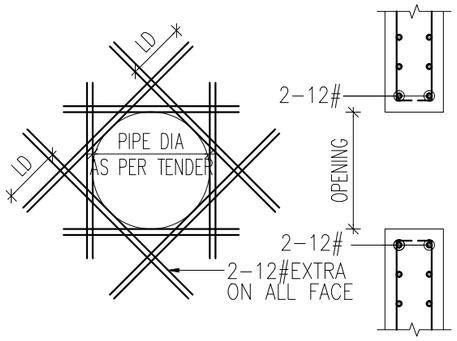
PLAN AT 3.75 LVL



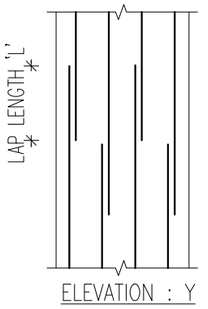
TYPICAL
CUTOUT DETAIL

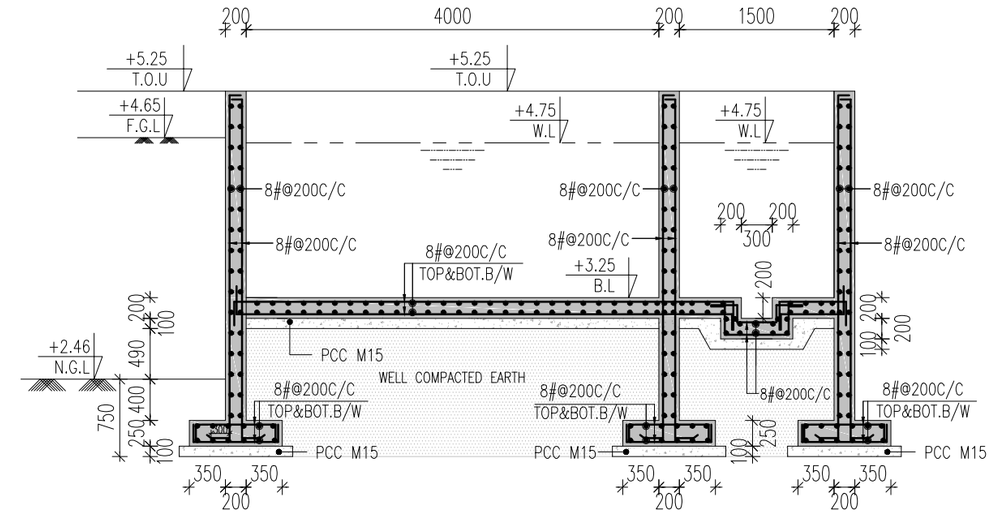


WALL SECTION LAP DETAILS
FOR VERTICAL STEEL
(LAP SHALL BE STAGGERED
AS PER ELEVATION : Y)

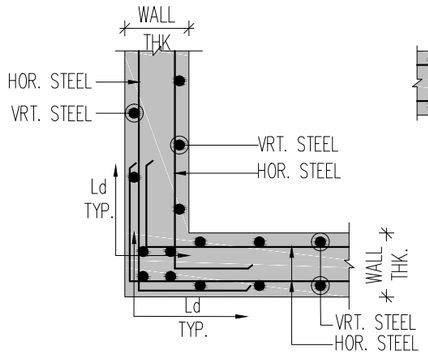


TYPICAL DETAIL OF OPENING
FOR PIPE & VENT

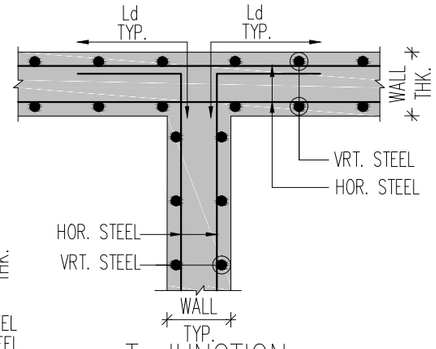




SECTION A-A



TYPICAL L-JUNCTION
(IN PLAN)



T-JUNCTION
(IN PLAN)

01.GENERAL NOTES

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
2. FIGURED DIMENSIONS SHALL BE FOLLOWED AND DO NOT SCALE THE DRAWING.
3. CONTRACTOR TO CHECK ALL DIMENSIONS BEFORE COMMENCEMENT OF WORK.
4. ALL STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS. ANY DISCREPANCY IN THE DRAWING(S) SHALL BE BROUGHT TO OUR NOTICE BEFORE COMMENCING THE WORK.
5. CLEAR COVER TO REINFORCEMENT SHALL BE USE,
   A. 50MMIN FOOTING,
   B. 40MM IN COLUMN,
   C. 25MM IN BEAM
   D. 20MM IN SLAB.
   E. 45MM IN WALL
   F. 50MM IN RAFT
6. ALL RCC WORK SHALL BE WITH M:30 GRADE CONCRETE FOR WATER RETAINING STRUCTURE & M:25 CONCRETE FOR NON WATER RETAINING STRUCTURE CONFORMING TO IS 456, IS-13920, IS-1893 CODE.& ALL PCC WORK SHALL BE WITH PCC M:15 GRADE CONCRETE.
7. REINFORCEMENT FE500 GRADE FOR BUILDING PART & FUSION BONDED EPOXY COATED REINFORCEMENT HAVING NOT LESS THAN 175 TO 300 MICRON FOR STRUCTURE IN CONTACT WITH SEWAGE CONFORMING TO IS 1786-LATEST REVISION. GRADE AS PER IS:1786 LATEST REVISION & HOWEVER STEEL GRADE AND TYPE SHALL BE VERIFIED WITH TENDER SPECIFICATION
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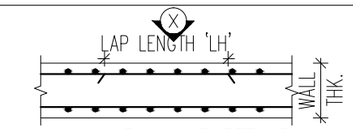
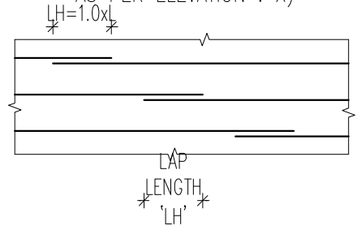
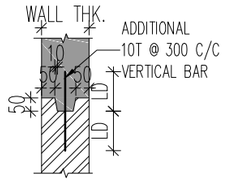
9. THE BUILDING IS DESIGN TO WITHSTAND THE EARTHQUAKE EFFECT OF SEISMIC ZONE III
10. SAFE BEARING CAPACITY OF SOIL(SBC) TAKEN AS PER SOIL INVESTIGATION REPORT 20 T/M² AT 750MM DEPTH & FOUNDATION SHOULD REST ON IN-SITU SOIL AND IT SHOULD NOT REST ON FILLING MATERIAL I.E. MADE UP SOIL & WATER TABLE NOT ENCOUNTERED AS PER SOIL REPORT IF DURING EXCAVATION WATER TABLE ENCOUNTERED BROUGHT TO THE NOTICE OF CONSULTANT
11. COVER TO REINFORCEMENT IN RCC SHALL BE AS PER IS:456(PAGE NO. 46) - MILD CONDITION.
12. ALL CONCRETE SHALL BE MACHINE MIXED AND MACHINE VIBRATED.
13. BACK FILLING SHALL BE DONE IN WELL COMPACTED AND WELL WATER LAYER NOT EXCEEDING 300MM IN DEPTH.
14. ALL WORK SHALL BE DONE WITH UNDER SUPERVISION OF EXPERIENCED CIVIL ENGG.



WALL PLAN LAP DETAILS
FOR HORIZONTAL STEEL
(LAP SHALL BE STAGGERED
AS PER ELEVATION : X)



ELEVATION : X
LAP LENGTH LH : 1.0xL FOR
HORIZONTAL STEEL



TYPICAL
CONSTRUCTION JOINT
IN VERTICAL WALL

REV	DATE	REVISION	DRW.	CHK	APPD.
R1	29.01.2022	FOR APPROVAL	TS	NRM	
R0	09.01.2022	FOR APPROVAL	TS	NRM	

CLIENT :-
THE EXECUTIVE ENGINEER, PUBLIC HEALTH WORKS DIVISION, G.W.S.S.B

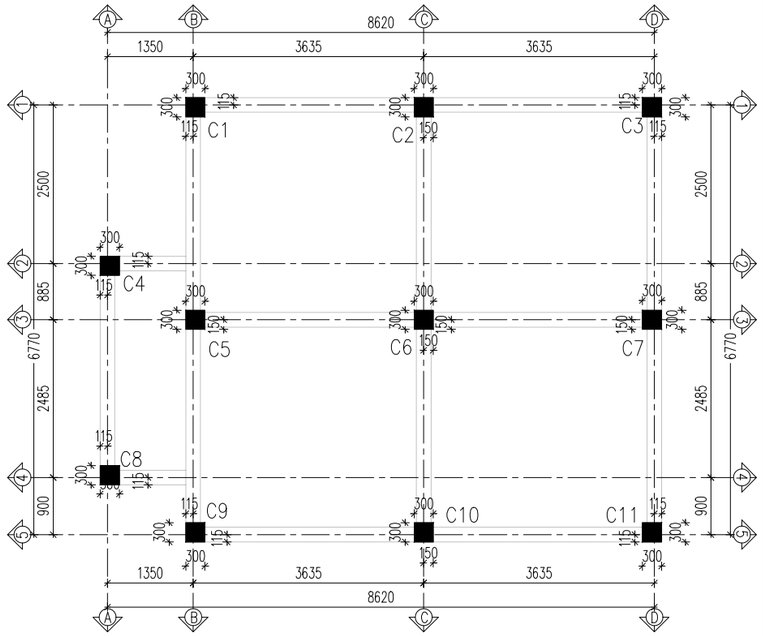
PROJECT CONSULTANT :-

CONTRACTOR :-

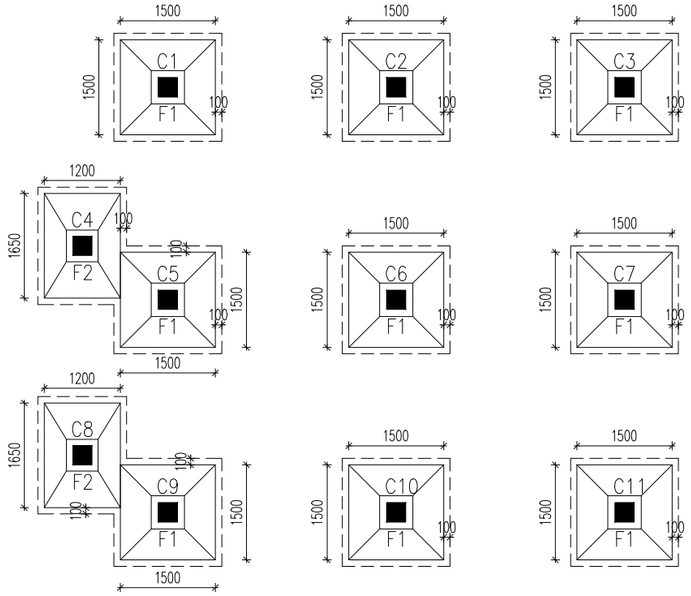
PROJECT :-
6.50 MLD SEWERAGE TREATMENT PLANT

TITLE:-
STRUCTURAL DETAIL SLUDGE SUMP

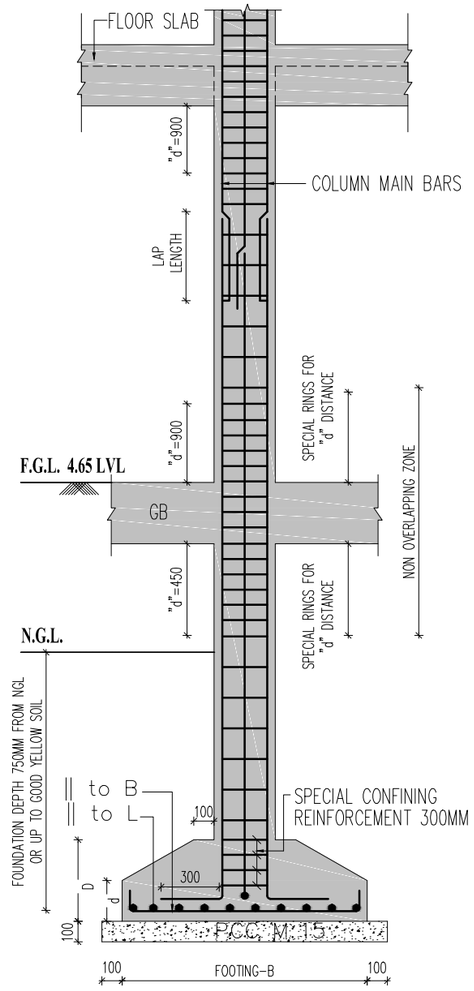
DESIGNED:- NRM
DRAWN:- TS
DRAWING NO.:-
ANR/2021/12/SD/DWG/10.11
SHEET. 1 OF 1
DATE:- 07.01.2022



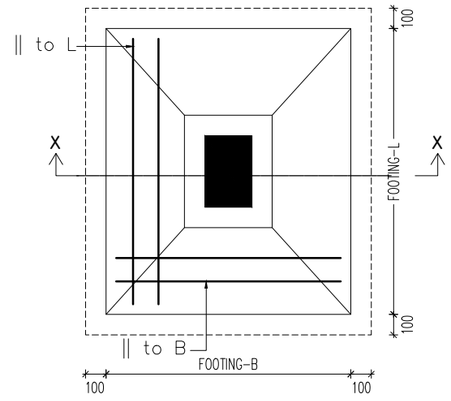
CENTERLINE PLAN



FOUNDATION PLAN



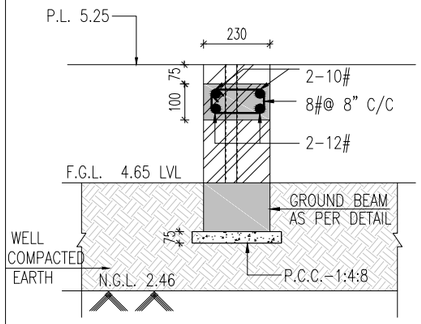
SECTION X-X



FOOTING PLAN

01.GENERAL NOTES

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
2. FIGURED DIMENSIONS SHALL BE FOLLOWED AND DO NOT SCALE THE DRAWING.
3. CONTRACTOR TO CHECK ALL DIMENSIONS BEFORE COMMENCEMENT OF WORK.
4. ALL STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS. ANY DISCREPANCY IN THE DRAWING(S) SHALL BE BROUGHT TO OUR NOTICE BEFORE COMMENCING THE WORK.
5. CLEAR COVER TO REINFORCEMENT SHALL BE USE,
   A. 50MMIN FOOTING,
   B. 40MM IN COLUMN,
   C. 25MM IN BEAM
   D. 20MM IN SLAB.
6. ALL RCC WORK SHALL BE WITH M:25 GRADE CONCRETE CONFORMING TO IS 456, IS-13920, IS-1893 CODE.& ALL PCC WORK SHALL BE WITH PCC M:15 GRADE CONCRETE.
7. ALL REINFORCEMENT SHALL BE OF FE500 GRADE AS PER IS:1786 LATEST REVISION.
8. LAYOUT OF COLUMNS SHALL BE AS PER ARCHITECTURAL DRAWING.
9. THE BUILDING IS DESIGN TO WITHSTAND THE EARTHQUAKE EFFECT OF SEISMIC ZONE III
10. SAFE BEARING CAPACITY OF SOIL(SBC) TAKEN AS PER SOIL INVESTIGATION REPORT 20 T/M² AT 0.75M DEPTH & FOUNDATION SHOULD REST ON IN-SITU SOIL AND IT SHOULD NOT REST ON FILLING MATERIAL i.e. MADE UP SOIL & WATER TABLE NOT ENCOUNTERED AS PER SOIL REPORT IF DURING EXCAVATION WATER TABLE ENCOUNTERED BROUGHT TO THE NOTICE OF CONSULTANT
11. COVER TO REINFORCEMENT IN RCC SHALL BE AS PER IS:456(PAGE NO. 46) - MILD CONDITION.
12. ALL CONCRETE SHALL BE MACHINE MIXED AND MACHINE VIBRATED.
13. BACK FILLING SHALL BE DONE IN WELL COMPACTED AND WELL WATER LAYER NOT EXCEEDING 300MM IN DEPTH.
14. ALL WORK SHALL BE DONE WITH UNDER SUPERVISION OF EXPERIENCED CIVIL ENGG.



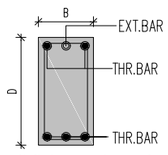
FOR G.L TO P.L WALL

SCHEDULE OF REINFORCEMENT FOR COLUMNS

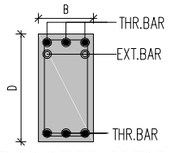
ARRANGEMENT OF REINFORCEMENT FOUNDATION TO TERRACE	• 4-16#+ ○ 4-12#	• 4-20#+ ○ 4-16#	• 8-12#	• 8-20#
STIRRUPS SETS	1 RING+2LINK	1 RING+2LINK	1 RING+2LINK	1 RING+2LINK
CONFINEMENT ZONE	8# @ 3" C/C	8# @ 3" C/C	8# @ 3" C/C	8# @ 3" C/C
REST	8# @ 6" C/C	8# @ 6" C/C	8# @ 6" C/C	8# @ 6" C/C
COLUMN MARKS	C1,C3,C9,C11	C2,C5,C7,C10	C4,C8	C6

SCHEDULE OF REINFORCEMENT FOR FOOTINGS

FOOTING NO.	COLUMN MARK	FOOTING SIZE	DEPTH		FOOTING REINFORCEMENT		LAYER OF REINFORCEMENT
			d	D	|| TO S.S. OF COL.	|| TO L.S. OF COL.	
F1	C1 TO C3 C5 TO C7 C9 TO C11	1500 X 1500	200	500	10#@175C/C	10#@175C/C	BOTTOM
F2	C4 & C8	1200 X 1650	200	500	10#@175C/C	10#@175C/C	BOTTOM



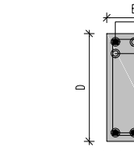
TYP.C/S OF BEAM FOR 3 NO. TOP BAR ARRAGEMENT



TYP.C/S OF BEAM FOR 5 NO. TOP BAR ARRAGEMENT

SLAB REINFORCEMENT SCHEDULE :-

SLAB	TYPE	THICKNESS IN INCH	MAIN SHORT STEEL	DISTRIBUTION STEEL	MAIN EXTRA STEEL	DISTRIBUTION EXTRA STEEL
S1	TWO WAY	125	10#@175C/C	10#@175C/C	10#@350C/C	10#@350C/C
S2	ONE WAY	125	10#@175C/C	8#@200C/C	10#@350C/C	**********



TYP.C/S OF BEAM FOR 4 NO. TOP BAR ARRAGEMENT

REV	DATE	REVISION	DRW.	CHK	APPD.
RO	25.12.2021	FOR APPROVAL	TS	NRM	

CLIENT :-
THE EXECUTIVE ENGINEER, PUBLIC HEALTH WORKS DIVISION, G.W.S.S.B

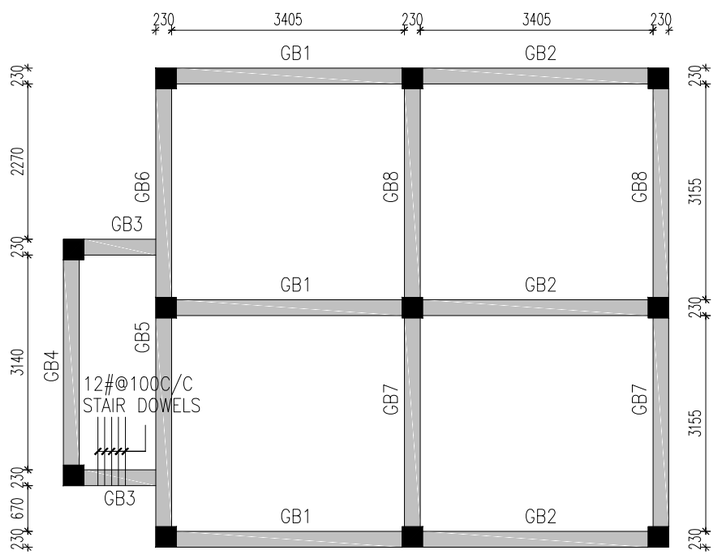
PROJECT CONSULTANT :-

CONTRACTOR :-

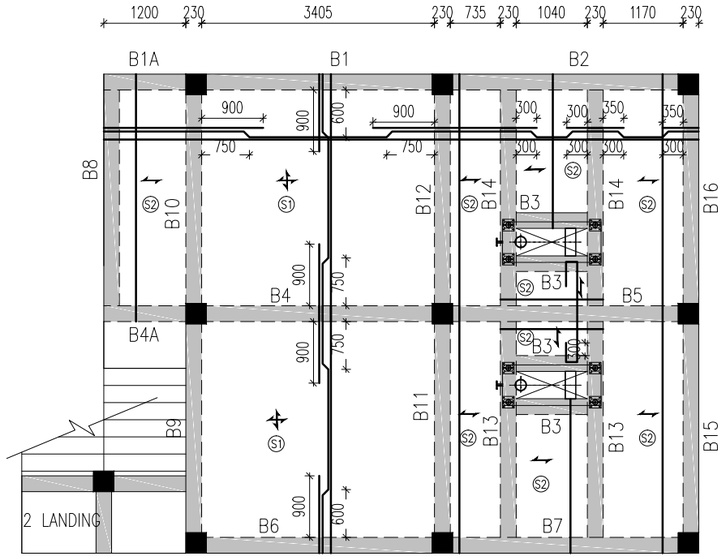
PROJECT :-
6.50 MLD SEWERAGE TREATMENT PLANT

TITLE:- STRUCTURAL DETAIL OF DEWATERING BUILDING & MECHANICAL DEWATERING SYSTEM

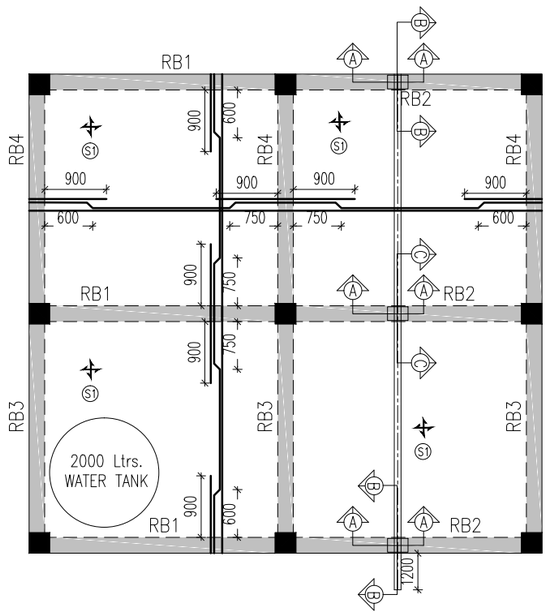
DESIGNED:- NRM
DRAWN:- TS
DRAWING NO.:- ANR/2021/12/SD/DWG/0014
SHEET. 1 OF 3
DATE:- 25.10.2021



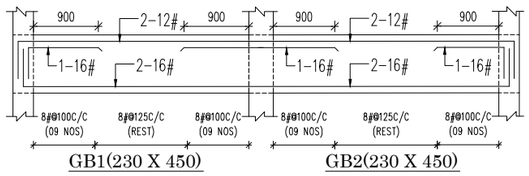
GROUND BEAM AT 4.65



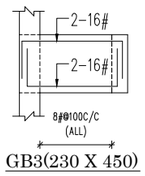
BEAM AT 10.75



BEAM AT 16.25



GB1(230 X 450) GB2(230 X 450)



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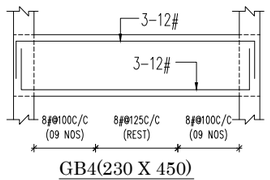

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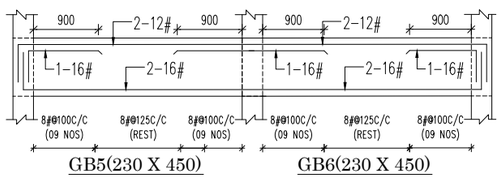
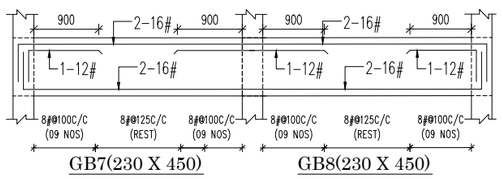
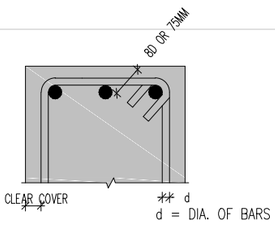


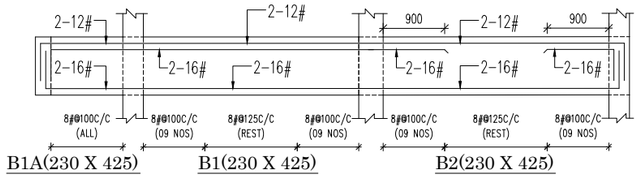
GB5(230 X 450) GB6(230 X 450)



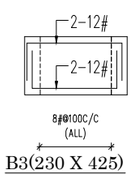
GB7(230 X 450) GB8(230 X 450)



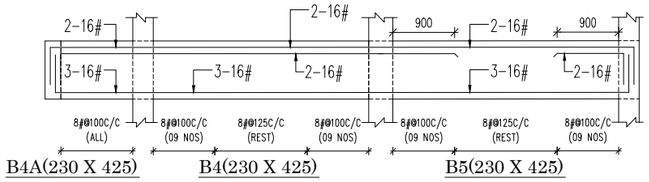
TYPICAL HOOP DETAIL IN BEAM



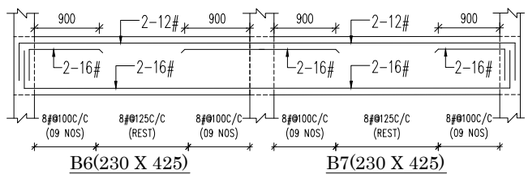
B1A(230 X 425) B1(230 X 425) B2(230 X 425)



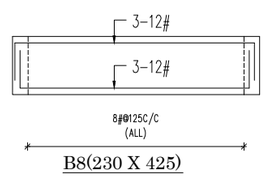
B3(230 X 425)



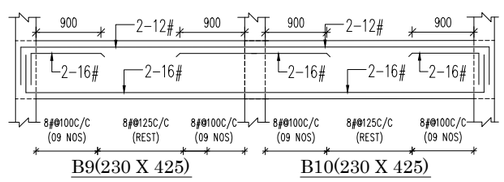
B4A(230 X 425) B4(230 X 425) B5(230 X 425)



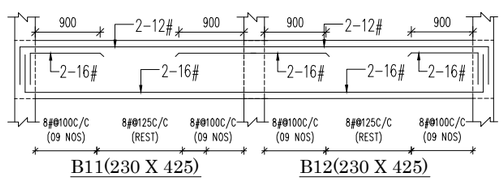
B6(230 X 425) B7(230 X 425)



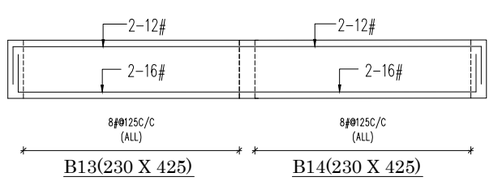
B8(230 X 425)



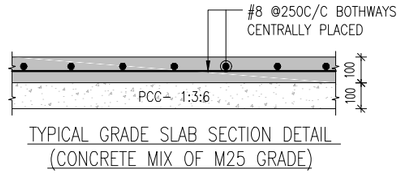
B9(230 X 425) B10(230 X 425)



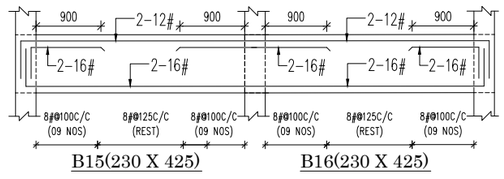
B11(230 X 425) B12(230 X 425)



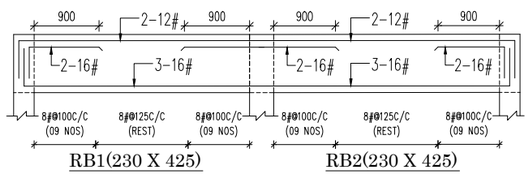
B13(230 X 425) B14(230 X 425)



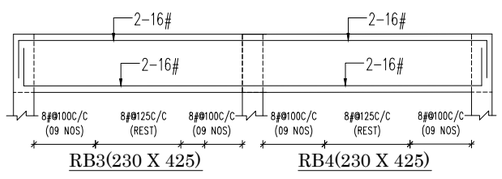
TYPICAL GRADE SLAB SECTION DETAIL
(CONCRETE MIX OF M25 GRADE)



B15(230 X 425) B16(230 X 425)



RB1(230 X 425) RB2(230 X 425)



RB3(230 X 425) RB4(230 X 425)

REV	DATE	REVISION	DRW.	CHK	APPD.
R0	25.12.2021	FOR APPROVAL	TS	NRM	

CLIENT :–
THE EXECUTIVE ENGINEER, PUBLIC HEALTH WORKS DIVISION, G.W.S.S.B

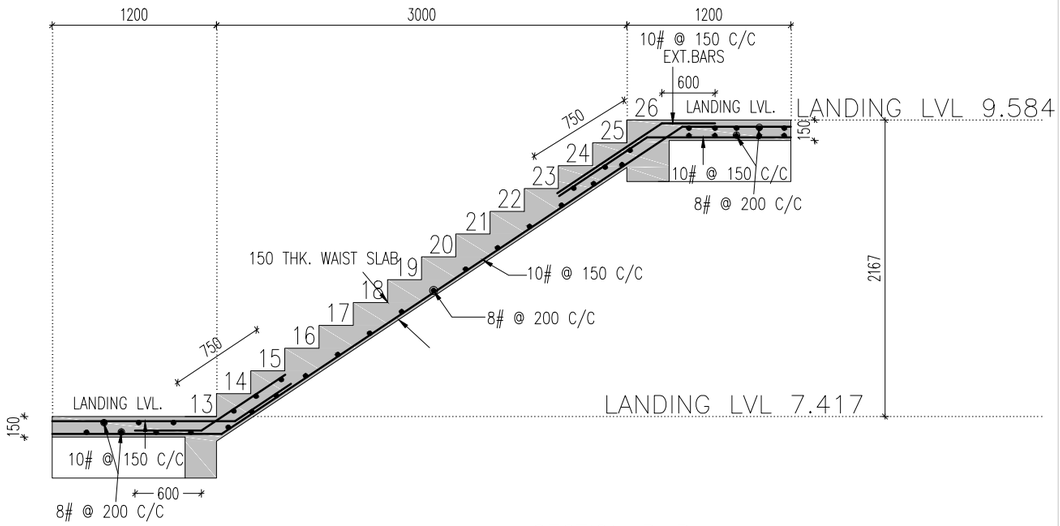
PROJECT CONSULTANT :–

CONTRACTOR :–

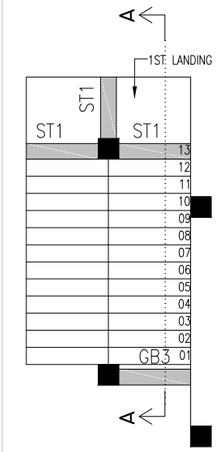
PROJECT :–
6.50 MLD SEWERAGE TREATMENT PLANT

TITLE:– STRUCTURAL DETAIL OF DEWATERING BUILDING & MECHANICAL DEWATERING SYSTEM

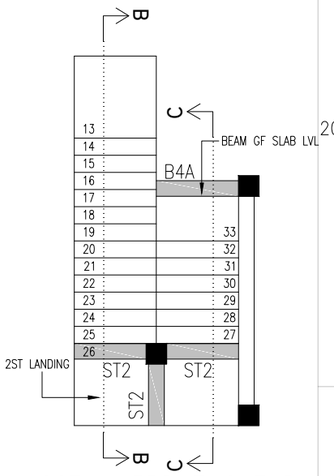
DESIGNED:– NRM
DRAWN:– TS
DRAWING NO.:–
ANR/2021/12/SD/DWG/0014
SHEET. 2 OF 3
DATE:– 25.10.2021



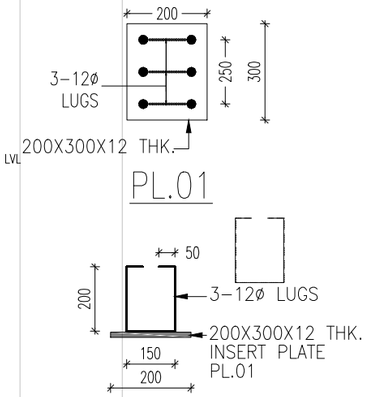
SECTION B–B

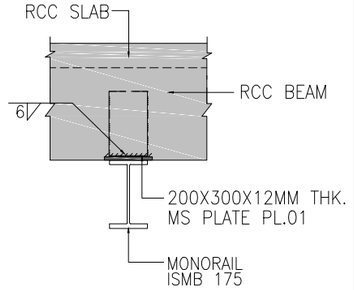


1ST FLIGHT PLAN

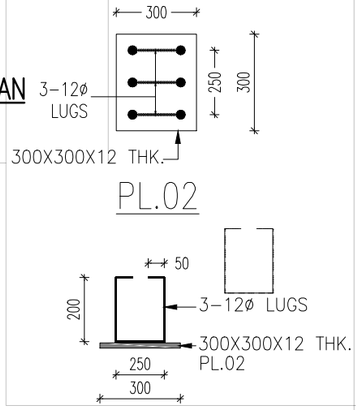


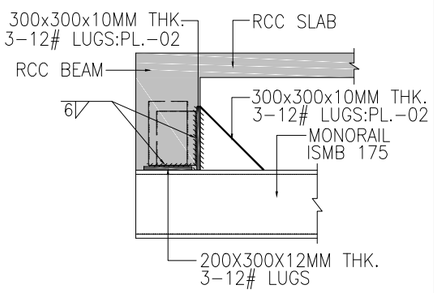
2ST & 3RD FLIGHT PLAN



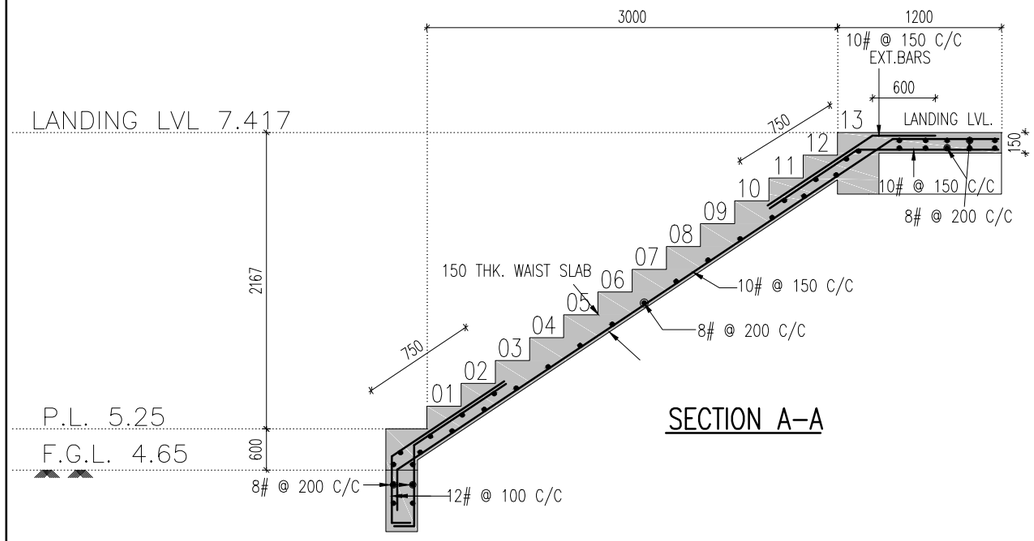


SECTION A–A

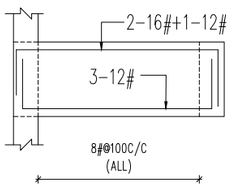




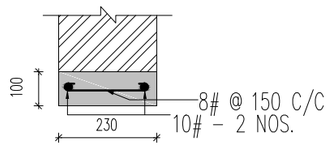
SECTION B–B



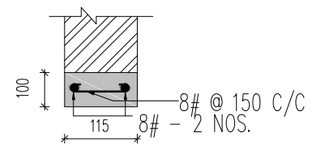
SECTION A–A



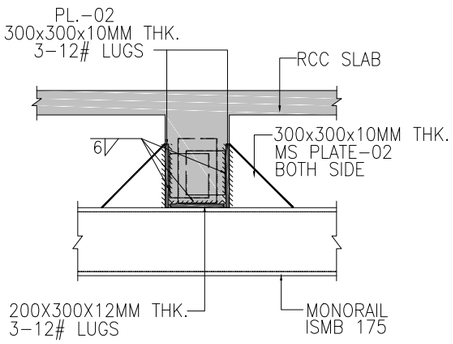
ST1&ST2(230 X 450)



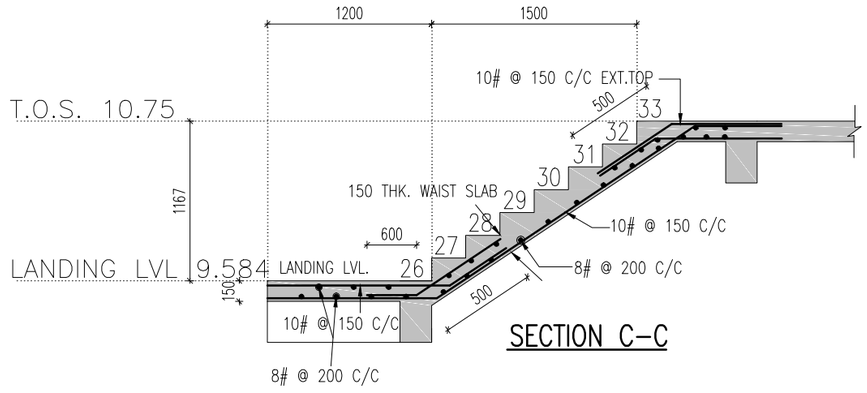
THOROUGH OUT 230 THK. WALL
LINTEL BEND DETAILS



THOROUGH OUT 115 THK. WALL
LINTEL BEND DETAILS



SECTION C–C



SECTION C–C

R0	25.12.2021	FOR APPROVAL	TS	NRM	
REV	DATE	REVISION	DRW.	CHK	APPD.

CLIENT :–
THE EXECUTIVE ENGINEER, PUBLIC HEALTH WORKS DIVISION, G.W.S.S.B

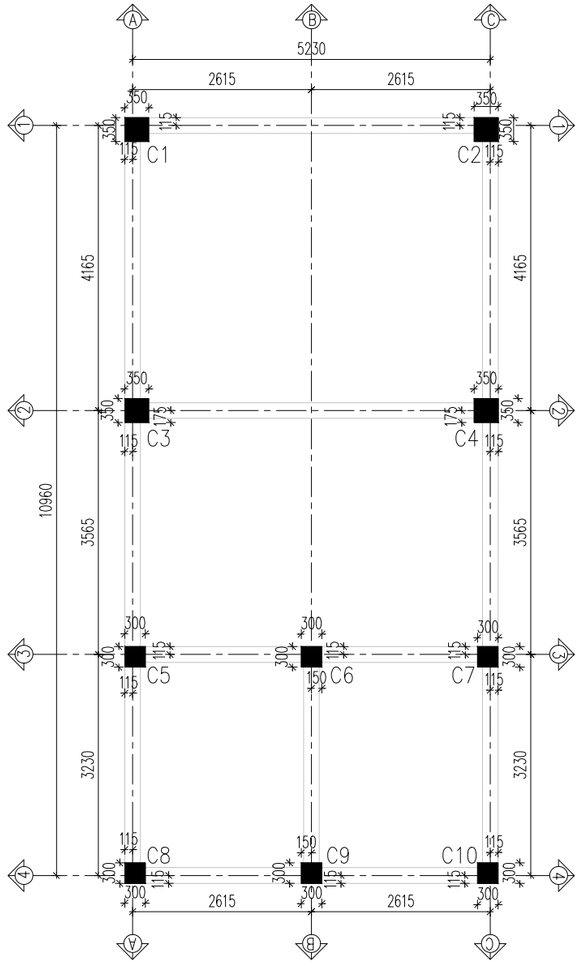
PROJECT CONSULTANT :–

C NTRACTOR :–

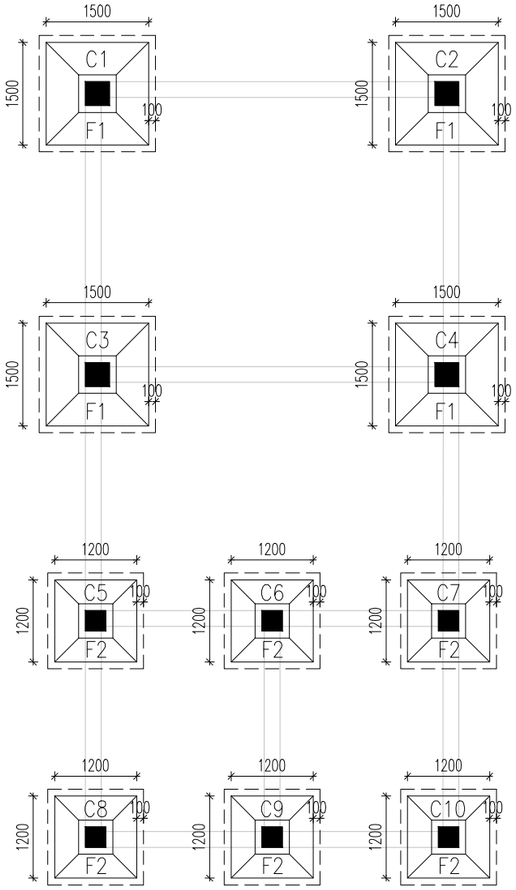
PROJECT :–
6.50 MLD SEWERAGE TREATMENT PLANT

TITLE:– STRUCTURAL DETAIL OF DEWATERING BUILDING & MECHANICAL DEWATERING SYSTEM

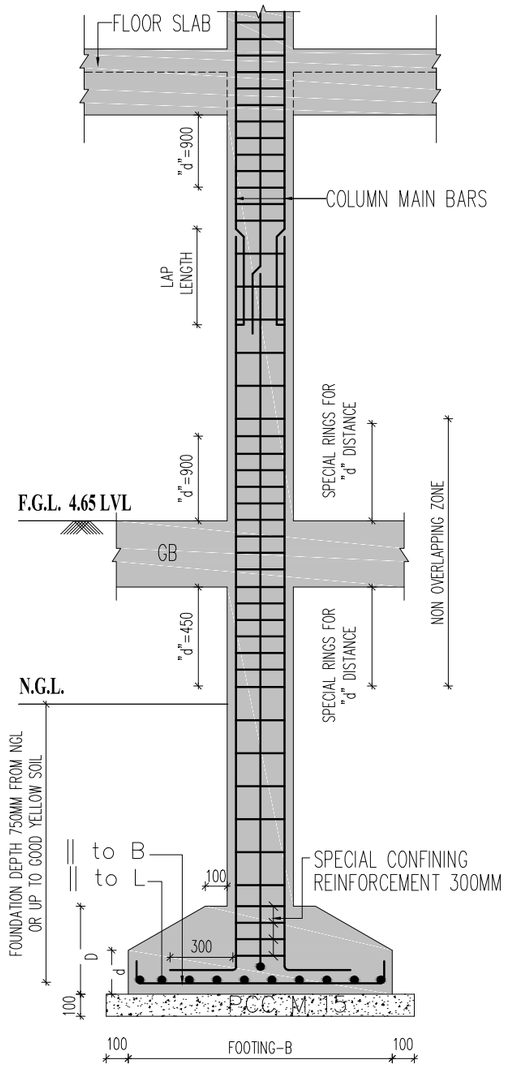
DESIGNED:– NRM
DRAWN:– TS
DRAWING NO.:–
ANR/2021/12/SD/DWG/0014
SHEET. 3 OF 3
DATE:– 25.10.2021



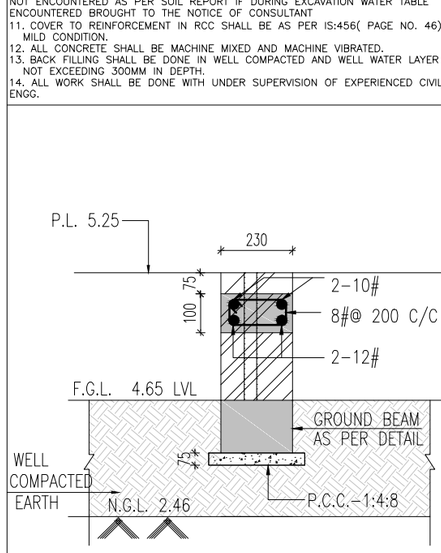
CENTERLINE PLAN



FOUNDATION PLAN



SECTION X-X

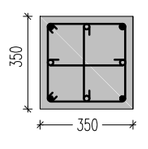
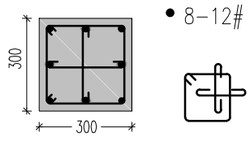


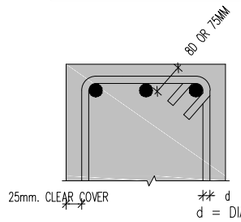
FOR G.L TO P.L WALL

01.GENERAL NOTES

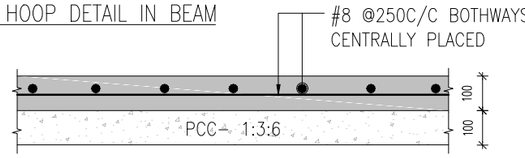
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
2. FIGURED DIMENSIONS SHALL BE FOLLOWED AND DO NOT SCALE THE DRAWING.
3. CONTRACTOR TO CHECK ALL DIMENSIONS BEFORE COMMENCEMENT OF WORK.
4. ALL STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS. ANY DISCREPANCY IN THE DRAWING(S) SHALL BE BROUGHT TO OUR NOTICE BEFORE COMMENCING THE WORK.
5. CLEAR COVER TO REINFORCEMENT SHALL BE USE,
   A. 50MMIN FOOTING,
   B. 40MM IN COLUMN,
   C. 25MM IN BEAM
   D. 20MM IN SLAB.
6. ALL RCC WORK SHALL BE WITH M:25 GRADE CONCRETE CONFORMING TO IS 456, IS-13920, IS-1893 CODE.& ALL PCC WORK SHALL BE WITH PCC M:15 GRADE CONCRETE.
7. ALL REINFORCEMENT SHALL BE OF FE500 GRADE AS PER IS:1786 LATEST REVISION.
8. LAYOUT OF COLUMNS SHALL BE AS PER ARCHITECTURAL DRAWING.
9. THE BUILDING IS DESIGN TO WITHSTAND THE EARTHQUAKE EFFECT OF SEISMIC ZONE III
10. SAFE BEARING CAPACITY OF SOIL(SBC) TAKEN AS PER SOIL INVESTIGATION REPORT 20 T/M² AT 0.75M DEPTH & FOUNDATION SHOULD REST ON IN-SITU SOIL AND IT SHOULD NOT REST ON FILLING MATERIAL i.e. MADE UP SOIL & WATER TABLE NOT ENCOUNTERED AS PER SOIL REPORT IF DURING EXCAVATION WATER TABLE ENCOUNTERED BROUGHT TO THE NOTICE OF CONSULTANT
11. COVER TO REINFORCEMENT IN RCC SHALL BE AS PER IS:456(PAGE NO. 46) - MILD CONDITION.
12. ALL CONCRETE SHALL BE MACHINE MIXED AND MACHINE VIBRATED.
13. BACK FILLING SHALL BE DONE IN WELL COMPACTED AND WELL WATER LAYER NOT EXCEEDING 300MM IN DEPTH.
14. ALL WORK SHALL BE DONE WITH UNDER SUPERVISION OF EXPERIENCED CIVIL ENGG.

SCHEDULE OF REINFORCEMENT FOR COLUMNS

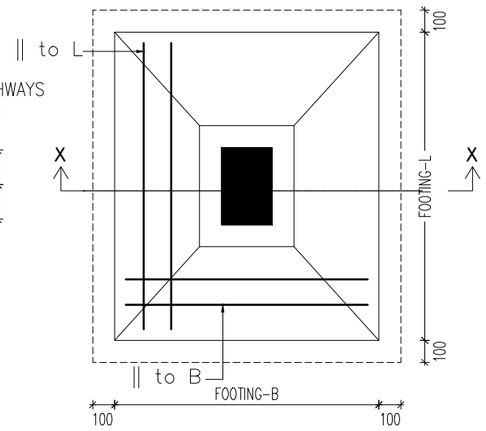
ARRANGEMENT OF REINFORCEMENT FOUNDATION TO TERRACE		
STIRRUPS SETS	1 RING+2LINK	1 RING+2LINK
CONFINEMENT ZONE	8# @ 75 C/C	8# @ 75 C/C
REST	8# @ 150 C/C	8# @ 150 C/C
COLUMN MARKS	C1 TO C4	C5 TO C10



TYPICAL HOOP DETAIL IN BEAM



TYPICAL GRADE SLAB SECTION DETAIL (CONCRETE MIX OF M25 GRADE)



FOOTING PLAN

SCHEDULE OF REINFORCEMENT FOR FOOTINGS

FOOTING NO.	COLUMN MARK	FOOTING SIZE	DEPTH		FOOTING REINFORCEMENT		LAYER OF REINFORCEMENT
			d	D	II TO S.S. OF COL.	II TO L.S. OF COL.	
F1	C1 TO C4	1500 X 1500	200	500	10#@150C/C	10#@150C/C	BOTTOM
F1	C5 TO C10	1200 X 1200	175	400	10#@175C/C	10#@175C/C	BOTTOM

REV	DATE	REVISION	DRW.	CHK	APPD.
RO	29.10.2021	FOR APPROVAL	TS	NRM	

CLIENT :-
THE EXECUTIVE ENGINEER, PUBLIC HEALTH WORKS DIVISION, G.W.S.S.B

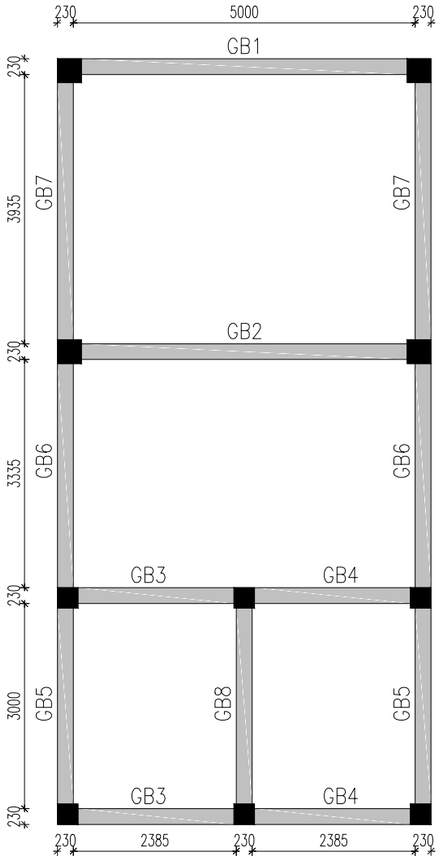
PROJECT CONSULTANT :-

CONTRACTOR :-

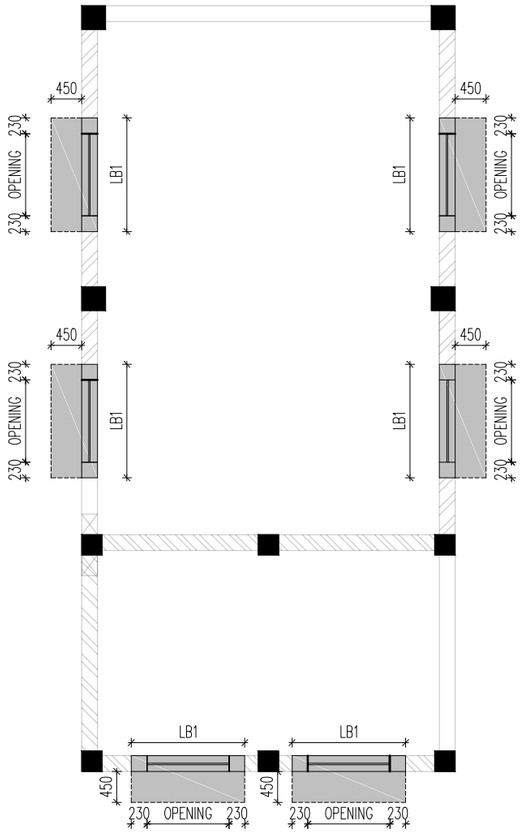
PROJECT :-
6.50 MLD SEWERAGE TREATMENT PLANT

TITLE:-
STRUCTURAL DETAIL OF CHLORINE BUILDING & TONNER ROOM

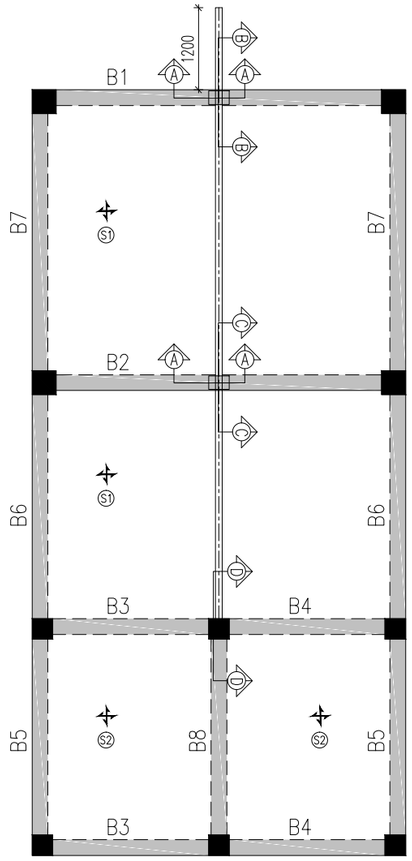
DESIGNED:- NRM
DRAWN:- TS
DRAWING NO.:- ANR/2021/12/SD/DWG/0014
SHEET. 1 OF 3
DATE:- 25.10.2021



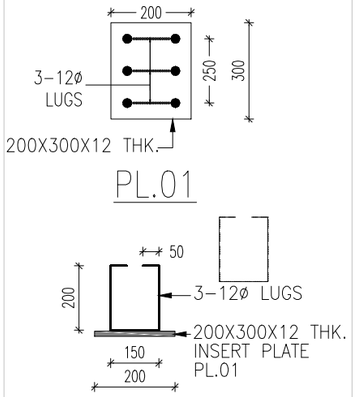
GROUND BEAM AT 4.65 LVL

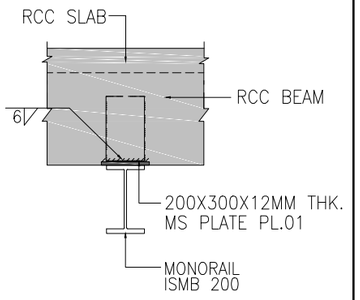


LINTEL LAYOUT AT 7.35 LVL

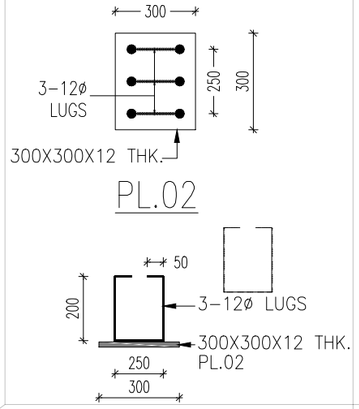


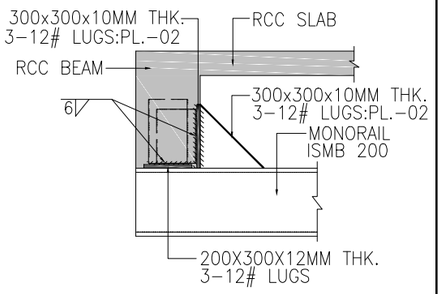
TERRACE BEAM AT 10.25 LVL





SECTION A-A





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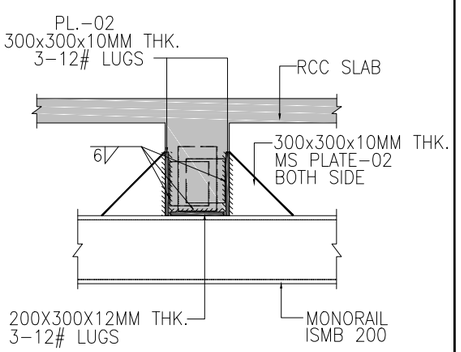
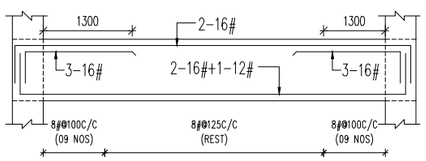
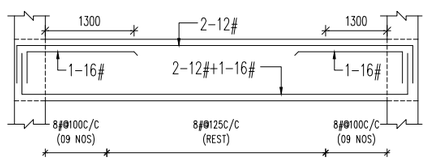


SECTION C-C



GB1(230 X 450)



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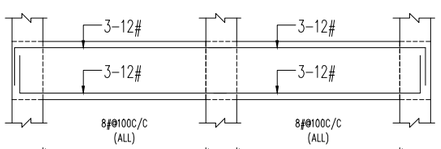
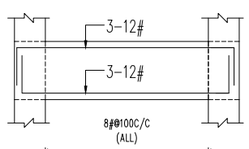


GB3(230 X 450)

GB4(230 X 450)



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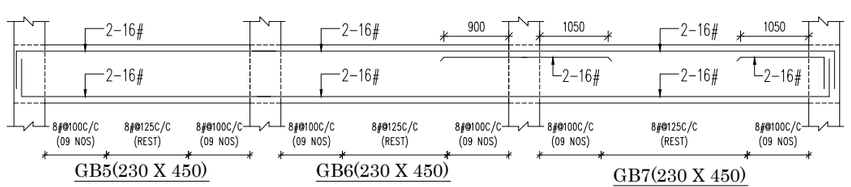
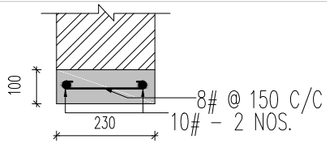
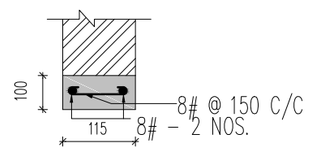


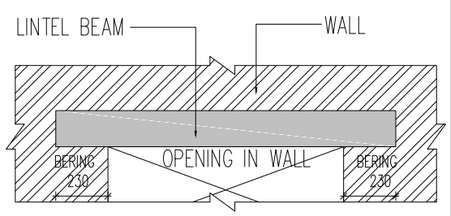
GB5(230 X 450) GB6(230 X 450) GB7(230 X 450)



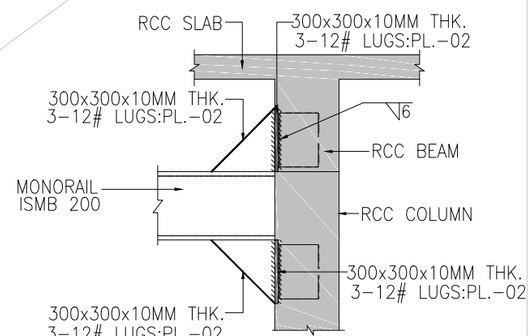
THOROUGH OUT 230 THK. WALL
LINTEL BEND DETAILS



THOROUGH OUT 115 THK. WALL
LINTEL BEND DETAILS



TYP. OPENING DETAIL



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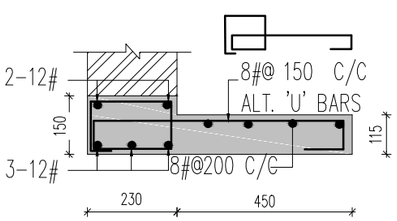


LB1

REV	DATE	REVISION	DRW.	CHK	APPD.
RO	29.10.2021	FOR APPROVAL	TS	NRM	

CLIENT :-
THE EXECUTIVE ENGINEER, PUBLIC HEALTH WORKS DIVISION, G.W.S.S.B

PROJECT CONSULTANT :-

CONTRACTOR :-

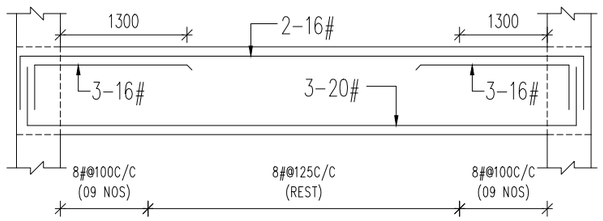
PROJECT :-
6.50 MLD SEWERAGE TREATMENT PLANT

TITLE:-
STRUCTURAL DETAIL OF
CHLORINE BUILDING & TONNER ROOM

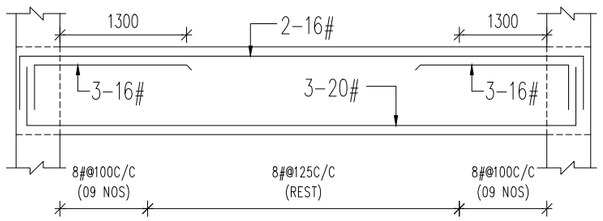
DESIGNED:- NRM
DRAWN:- TS
DRAWING NO.:-
ANR/2021/12/SD/DWG/0014
SHEET. 2 OF 3
DATE:- 25.10.2021

SLAB REINFORCEMENT SCHEDULE :–

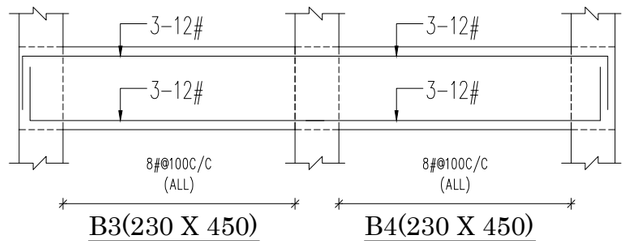
SLAB	TYPE	THICKNESS IN INCH	MAIN SHORT STEEL	DISTRIBUTION STEEL	MAIN EXTRA STEEL	DISTRIBUTION EXTRA STEEL
S1	ONE WAY	150	10#@150C/C	10#@150C/C	10#@300C/C	10#@300C/C
S2	ONE WAY	125	8#@150C/C	8#@150C/C	8#@300C/C	8#@300C/C



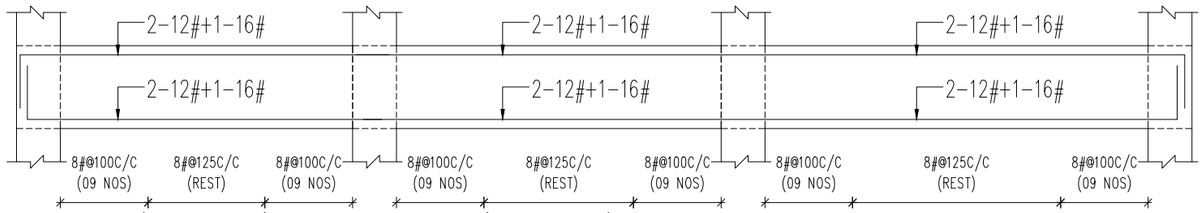
B1(230 X 450)



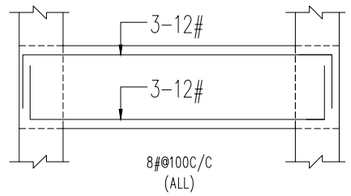
B2(230 X 450)



B3(230 X 450) B4(230 X 450)



B5(230 X 450) B6(230 X 450) B7(230 X 450)



B8(230 X 450)

REV	DATE	REVISION	DRW.	CHK	APPD.
R0	29.10.2021	FOR APPROVAL	TS	NRM	

CLIENT :–
THE EXECUTIVE ENGINEER, PUBLIC HEALTH WORKS DIVISION, G.W.S.S.B

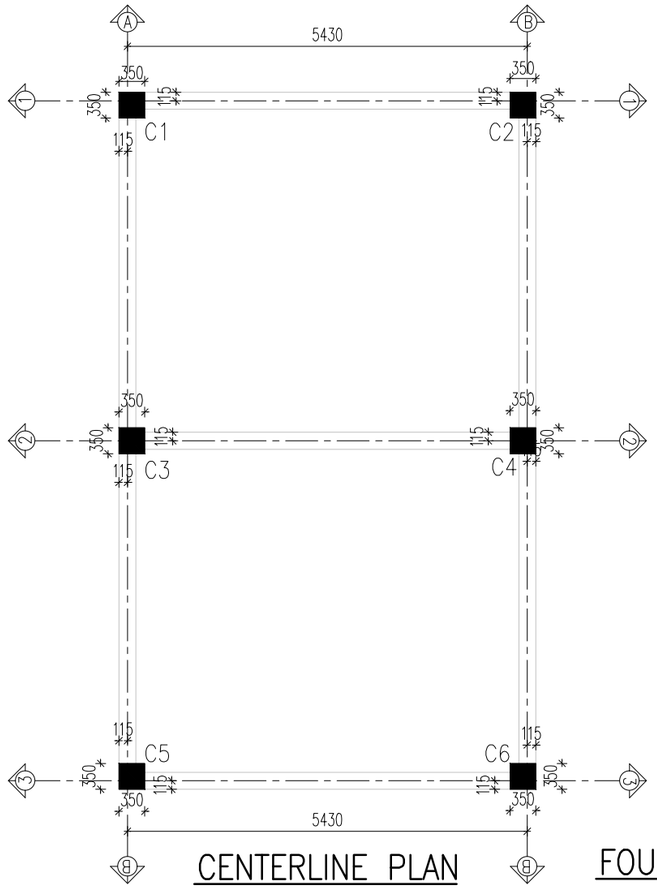
PROJECT CONSULTANT :–

CONTRACTOR :–

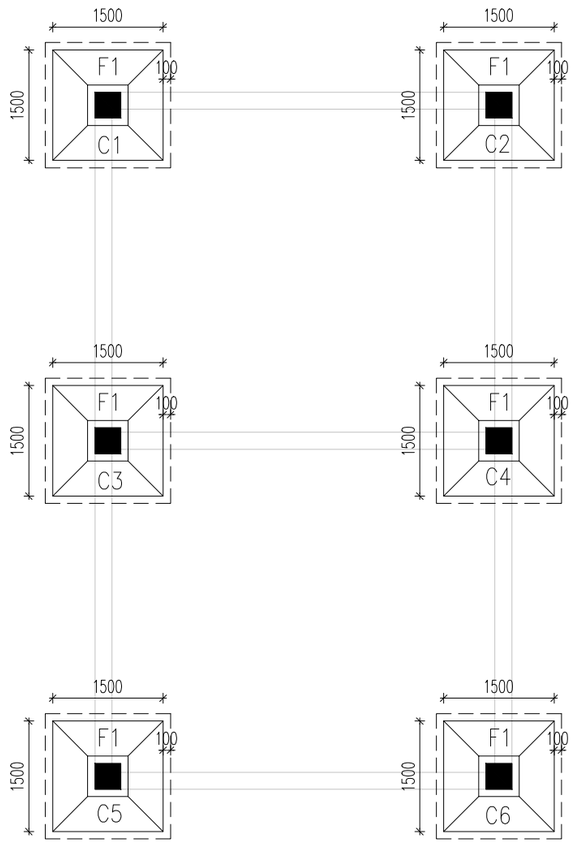
PROJECT :–
6.50 MLD SEWERAGE TREATMENT PLANT

TITLE:–
STRUCTURAL DETAIL OF CHLORINE BUILDING & TONNER ROOM

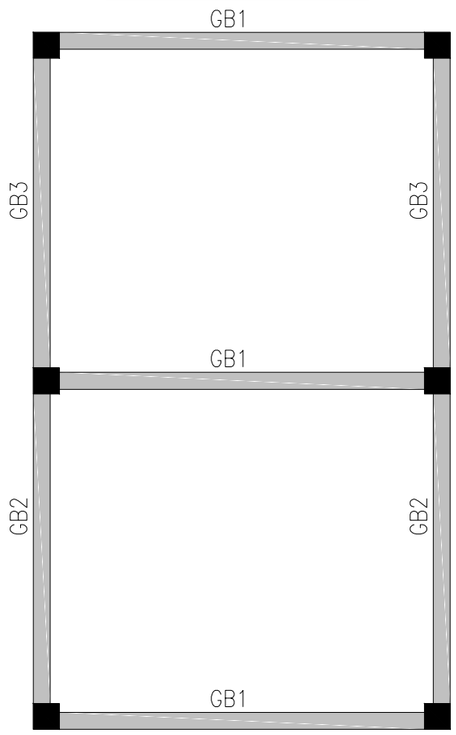
DESIGNED:– NRM
DRAWN:– TS
DRAWING NO.:–
ANR/2021/12/SD/DWG/0014
SHEET. 3 OF 3
DATE:– 25.10.2021



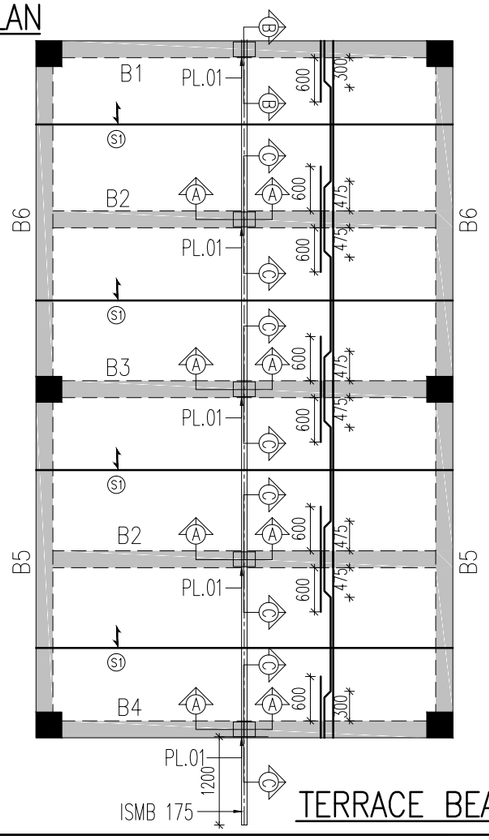
CENTERLINE PLAN



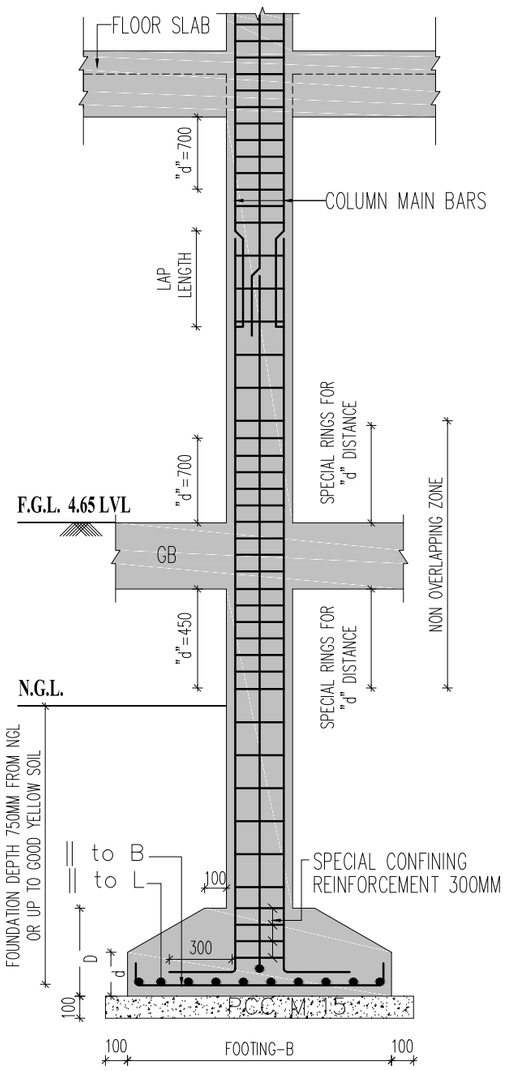
FOUNDATION PLAN



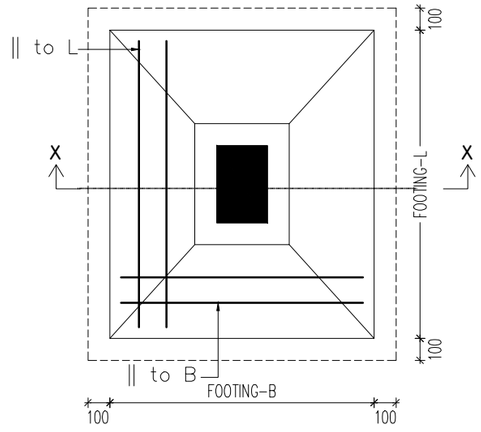
GROUND BEAM AT 4.65 LVL



TERRACE BEAM AT 10.25 LVL



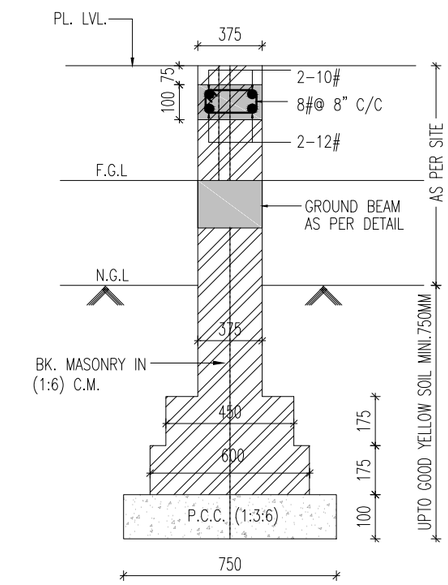
SECTION X-X



FOOTING PLAN

01.GENERAL NOTES

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
2. FIGURED DIMENSIONS SHALL BE FOLLOWED AND DO NOT SCALE THE DRAWING.
3. CONTRACTOR TO CHECK ALL DIMENSIONS BEFORE COMMENCEMENT OF WORK.
4. ALL STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS. ANY DISCREPANCY IN THE DRAWING(S) SHALL BE BROUGHT TO OUR NOTICE BEFORE COMMENCING THE WORK.
5. CLEAR COVER TO REINFORCEMENT SHALL BE USE,
   A. 50MMIN FOOTING,
   B. 40MM IN COLUMN,
   C. 25MM IN BEAM
   D. 20MM IN SLAB.
6. ALL RCC WORK SHALL BE WITH M:25 GRADE CONCRETE CONFORMING TO IS 456, IS-13920, IS-1893 CODE.& ALL PCC WORK SHALL BE WITH PCC M:15 GRADE CONCRETE.
7. ALL REINFORCEMENT SHALL BE OF FE500 GRADE AS PER IS:1786 LATEST REVISION.
8. LAYOUT OF COLUMNS SHALL BE AS PER ARCHITECTURAL DRAWING.
9. THE BUILDING IS DESIGN TO WITHSTAND THE EARTHQUAKE EFFECT OF SEISMIC ZONE III
10. SAFE BEARING CAPACITY OF SOIL(SBC) TAKEN AS PER SOIL INVESTIGATION REPORT 20 T/M² AT 0.75M DEPTH & FOUNDATION SHOULD REST ON IN-SITU SOIL AND IT SHOULD NOT REST ON FILLING MATERIAL i.e. MADE UP SOIL & WATER TABLE NOT ENCOUNTERED AS PER SOIL REPORT IF DURING EXCAVATION WATER TABLE ENCOUNTERED BROUGHT TO THE NOTICE OF CONSULTANT
11. COVER TO REINFORCEMENT IN RCC SHALL BE AS PER IS:456(PAGE NO. 46) - MILD CONDITION.
12. ALL CONCRETE SHALL BE MACHINE MIXED AND MACHINE VIBRATED.
13. BACK FILLING SHALL BE DONE IN WELL COMPACTED AND WELL WATER LAYER NOT EXCEEDING 300MM IN DEPTH.
14. ALL WORK SHALL BE DONE WITH UNDER SUPERVISION OF EXPERIENCED CIVIL ENGG.



FOR G.L TO P.L
LOAD BEARING WALL

REV	DATE	REVISION	DRW.	CHK	APPD.
R0	18.10.2021	FOR APPROVAL	TS	NRM	

CLIENT :-
THE EXECUTIVE ENGINEER, PUBLIC HEALTH WORKS DIVISION, G.W.S.S.B

PROJECT CONSULTANT :-

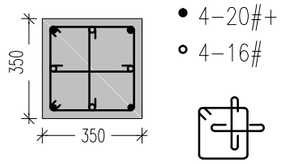
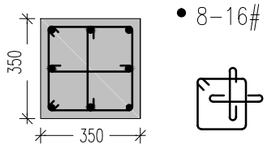
CONTRACTOR :-

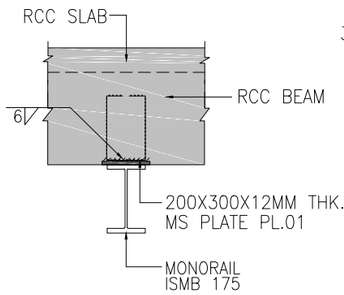
PROJECT :-
6.50 MLD SEWERAGE TREATMENT PLANT

TITLE:-
STRUCTURAL DEAIL OF SECURITY CABIN (3.00X4.00)

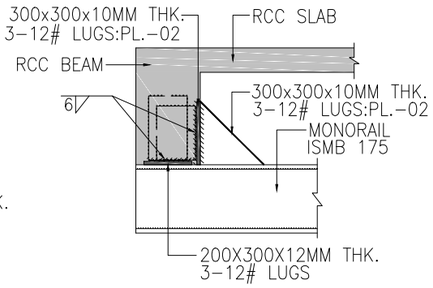
DESIGNED:- NRM
DRAWN:- TS
DRAWING NO.:- ANR/2021/12/SD/DWG/0022
SHEET. 1 OF 2
DATE:- 17.10.2021

SCHEDULE OF REINFORCEMENT FOR COLUMNS

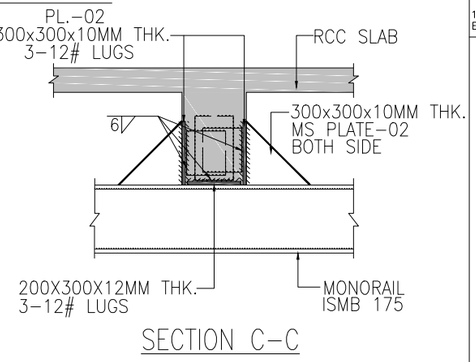
ARRANGEMENT OF REINFORCEMENT FOUNDATION TO TERRACE		
STIRRUPS SETS	1 RING+2LINK	1 RING+2LINK
CONFINEMENT ZONE	8# @ 3" C/C	8# @ 3" C/C
REST	8# @ 6" C/C	8# @ 6" C/C
COLUMN MARKS	C1,C2,C5,C6	C3,C4



SECTION A-A



SECTION B-B



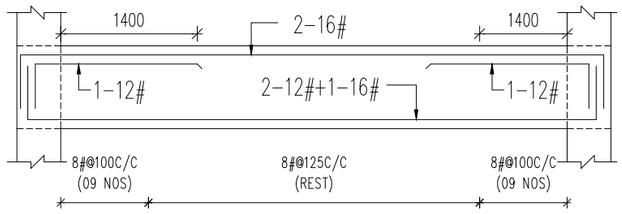
SECTION C-C

SCHEDULE OF REINFORCEMENT FOR FOOTINGS

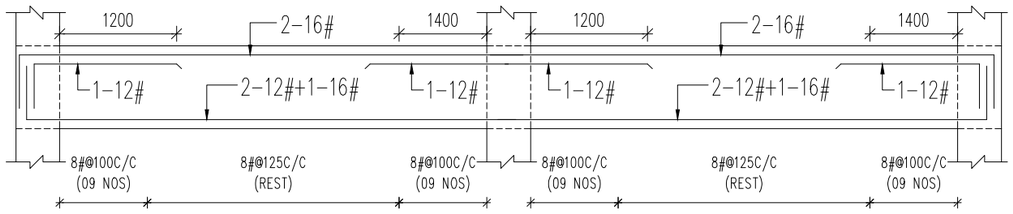
FOOTING NO.	COLUMN MARK	FOOTING SIZE	DEPTH		FOOTING REINFORCEMENT		LAYER OF REINFORCEMENT
			d	D	II TO S.S. OF COL.	II TO L.S. OF COL.	
F1	C1 TO C6	1500 X 1500	200	500	10#@150C/C	10#@150C/C	BOTTOM

SLAB REINFORCEMENT SCHEDULE :-

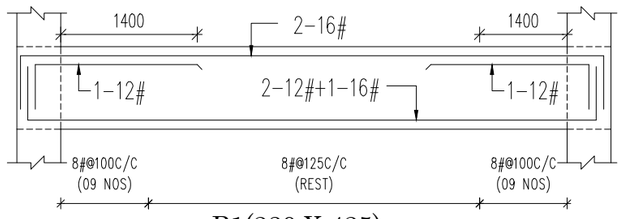
SLAB	TYPE	THICKNESS IN INCH	MAIN SHORT STEEL	DISTRIBUTION STEEL	MAIN EXTRA STEEL	DISTRIBUTION EXTRA STEEL
S1	ONE WAY	125	8#@150C/C	8#@200C/C	8#@300C/C	******



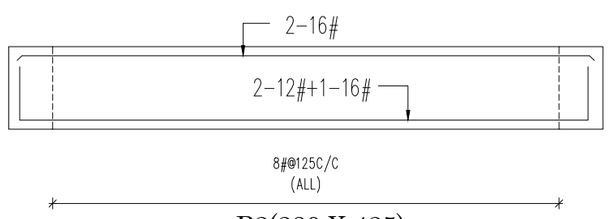
GB1(230 X 450)



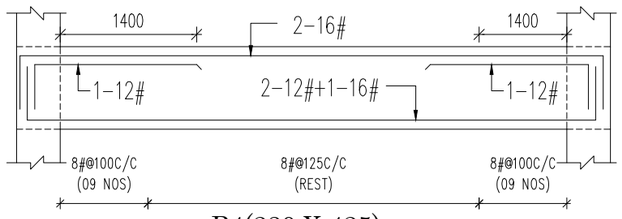
GB2(230 X 450) GB3(230 X 450)



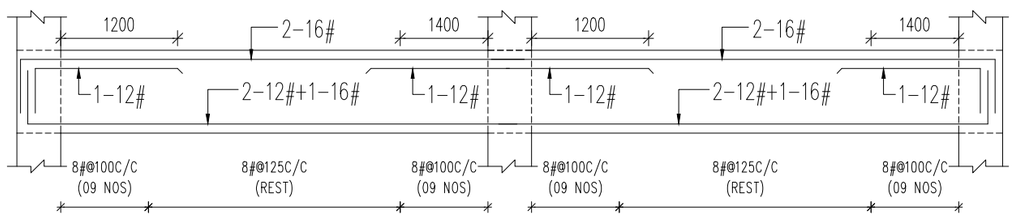
B1(230 X 425)



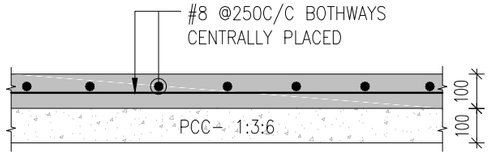
B2(230 X 425)



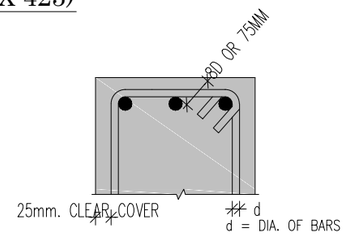
B4(230 X 425)



B5(230 X 425) B6(230 X 425)



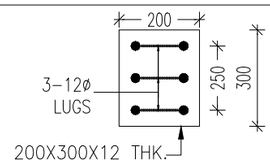
TYPICAL GRADE SLAB SECTION DETAIL
(CONCRETE MIX OF M20 GRADE)



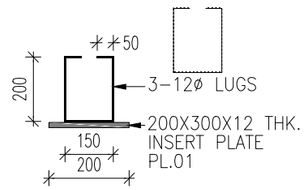
TYPICAL HOOP DETAIL IN BEAM

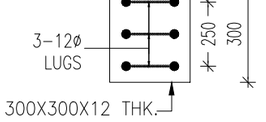
01.GENERAL NOTES

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
2. FIGURED DIMENSIONS SHALL BE FOLLOWED AND DO NOT SCALE THE DRAWING.
3. CONTRACTOR TO CHECK ALL DIMENSIONS BEFORE COMMENCEMENT OF WORK.
4. ALL STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS. ANY DISCREPANCY IN THE DRAWING(S) SHALL BE BROUGHT TO OUR NOTICE BEFORE COMMENCING THE WORK.
5. CLEAR COVER TO REINFORCEMENT SHALL BE USE,
   A. 50MMIN FOOTING,
   B. 40MM IN COLUMN,
   C. 25MM IN BEAM
   D. 20MM IN SLAB.
6. ALL RCC WORK SHALL BE WITH M:25 GRADE CONCRETE CONFORMING TO IS 456, IS-13920, IS-1893 CODE.& ALL PCC WORK SHALL BE WITH PCC M:15 GRADE CONCRETE.
7. ALL REINFORCEMENT SHALL BE OF FE500 GRADE AS PER IS:1786 LATEST REVISION.
8. LAYOUT OF COLUMNS SHALL BE AS PER ARCHITECTURAL DRAWING.
9. THE BUILDING IS DESIGN TO WITHSTAND THE EARTHQUAKE EFFECT OF SEISMIC ZONE III
10. SAFE BEARING CAPACITY OF SOIL(SBC) TAKEN AS PER SOIL INVESTIGATION REPORT 20 T/M² AT 0.75M DEPTH & FOUNDATION SHOULD REST ON IN-SITU SOIL AND IT SHOULD NOT REST ON FILLING MATERIAL i.e. MADE UP SOIL & WATER TABLE NOT ENCOUNTERED AS PER SOIL REPORT IF DURING EXCAVATION WATER TABLE ENCOUNTERED BROUGHT TO THE NOTICE OF CONSULTANT
11. COVER TO REINFORCEMENT IN RCC SHALL BE AS PER IS:456(PAGE NO. 46) - MILD CONDITION.
12. ALL CONCRETE SHALL BE MACHINE MIXED AND MACHINE VIBRATED.
13. BACK FILLING SHALL BE DONE IN WELL COMPACTED AND WELL WATER LAYER NOT EXCEEDING 300MM IN DEPTH.
14. ALL WORK SHALL BE DONE WITH UNDER SUPERVISION OF EXPERIENCED CIVIL ENGG.

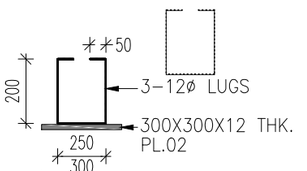


PL.01





PL.02



REV	DATE	REVISION	DRW.	CHK	APPD.
R0	18.10.2021	FOR APPROVAL	TS	NRM	

CLIENT :-
THE EXECUTIVE ENGINEER, PUBLIC HEALTH WORKS DIVISION, G.W.S.S.B

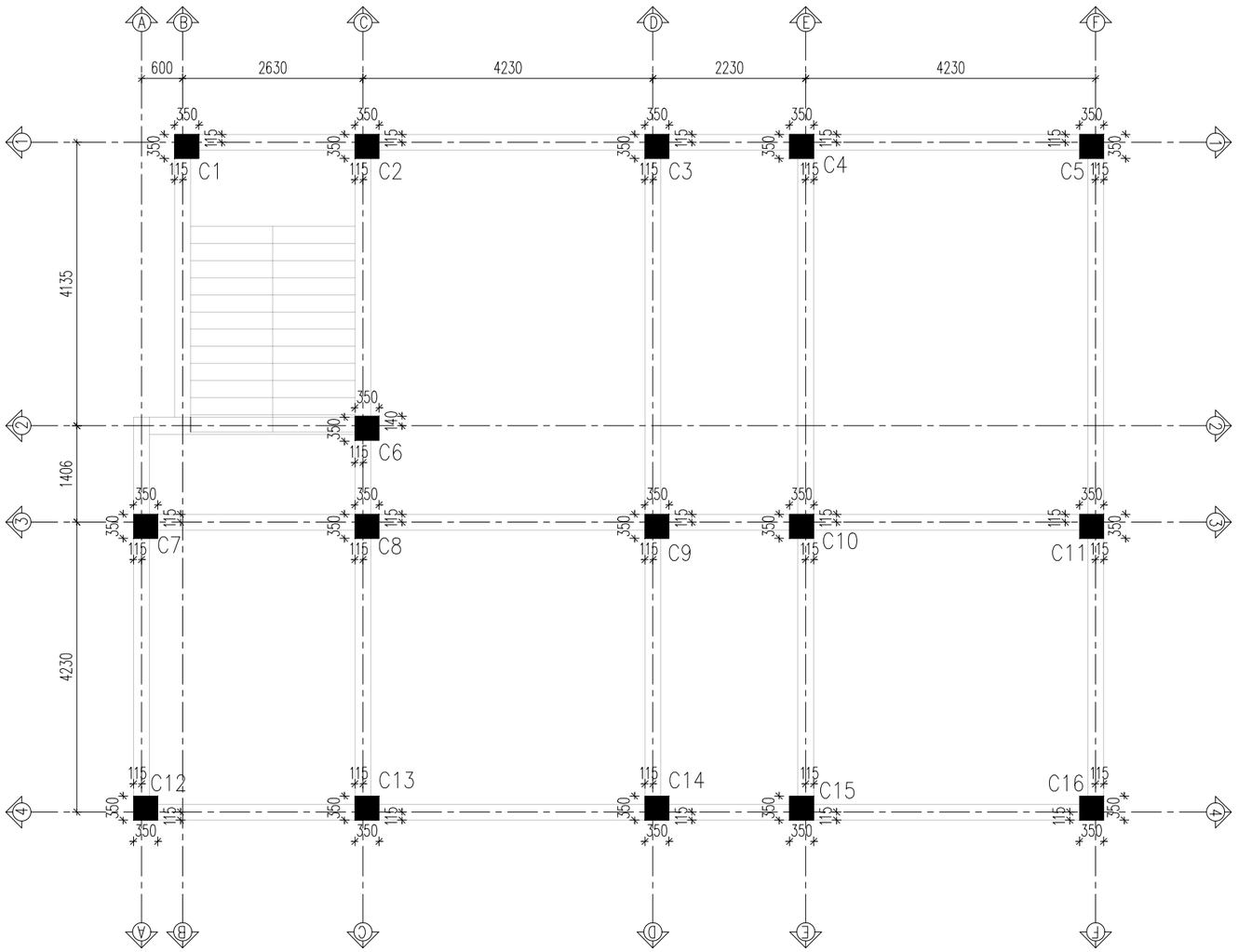
PROJECT CONSULTANT :-

CONTRACTOR :-

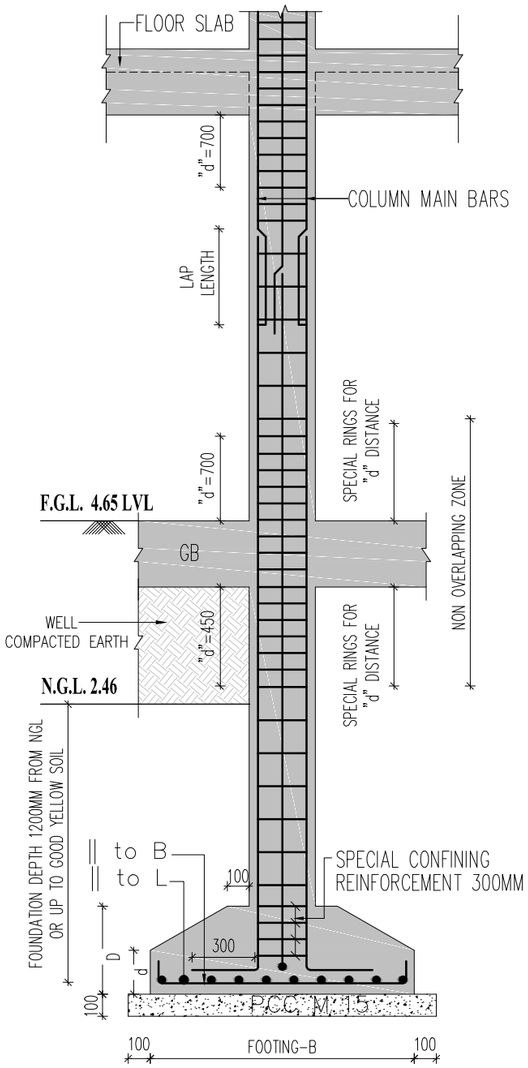
PROJECT :-
6.50 MLD SEWERAGE TREATMENT PLANT

TITLE:-
STRUCTURAL DEAIL OF SECURITY CABIN (3.00X4.00)

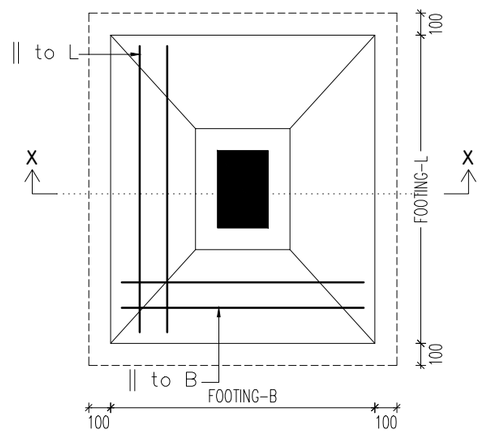
DESIGNED:- NRM
DRAWN:- TS
DRAWING NO.:- ANR/2021/12/SD/DWG/0022
SHEET. 2 OF 2
DATE:- 17.10.2021



CENTERLINE LAYOUT



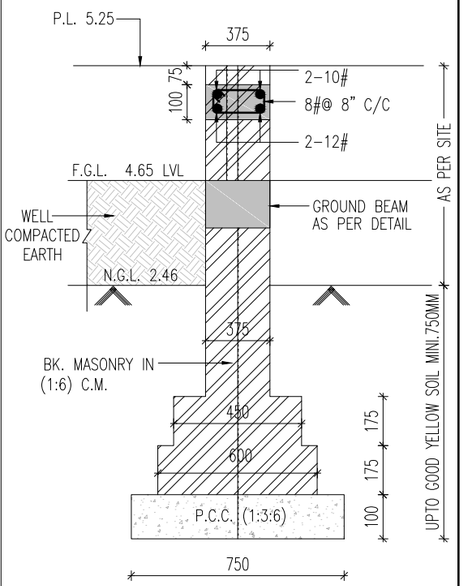
SECTION X-X



FOOTING PLAN

01.GENERAL NOTES

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
2. FIGURED DIMENSIONS SHALL BE FOLLOWED AND DO NOT SCALE THE DRAWING.
3. CONTRACTOR TO CHECK ALL DIMENSIONS BEFORE COMMENCEMENT OF WORK.
4. ALL STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS. ANY DISCREPANCY IN THE DRAWING(S) SHALL BE BROUGHT TO OUR NOTICE BEFORE COMMENCING THE WORK.
5. CLEAR COVER TO REINFORCEMENT SHALL BE USE,
   A. 50MM IN FOOTING,
   B. 40MM IN COLUMN,
   C. 25MM IN BEAM
   D. 20MM IN SLAB.
6. ALL RCC WORK SHALL BE WITH M:25 GRADE CONCRETE CONFORMING TO IS 456, IS-13920, IS-1893 CODE.& ALL PCC WORK SHALL BE WITH PCC M:15 GRADE CONCRETE.
7. ALL REINFORCEMENT SHALL BE OF FE500 GRADE AS PER IS:1786 LATEST REVISION.
8. LAYOUT OF COLUMNS SHALL BE AS PER ARCHITECTURAL DRAWING.
9. THE BUILDING IS DESIGN TO WITHSTAND THE EARTHQUAKE EFFECT OF SEISMIC ZONE III
10. SAFE BEARING CAPACITY OF SOIL(SBC) TAKEN AS PER SOIL INVESTIGATION REPORT 20 T/M² AT 1.2M DEPTH & FOUNDATION SHOULD REST ON IN-SITU SOIL AND IT SHOULD NOT REST ON FILLING MATERIAL i.e. MADE UP SOIL & WATER TABLE NOT ENCOUNTERED AS PER SOIL REPORT IF DURING EXCAVATION WATER TABLE ENCOUNTERED BROUGHT TO THE NOTICE OF CONSULTANT
11. COVER TO REINFORCEMENT IN RCC SHALL BE AS PER IS:456(PAGE NO. 46) - MILD CONDITION.
12. ALL CONCRETE SHALL BE MACHINE MIXED AND MACHINE VIBRATED.
13. BACK FILLING SHALL BE DONE IN WELL COMPACTED AND WELL WATER LAYER NOT EXCEEDING 300MM IN DEPTH.
14. ALL WORK SHALL BE DONE WITH UNDER SUPERVISION OF EXPERIENCED CIVIL ENGG.



FOR G.L TO P.L
LOAD BEARING WALL

REV	DATE	REVISION	DRW.	CHK	APPD.
RO	29.11.2021	FOR APPROVAL	TS	NRM	

CLIENT :-
THE EXECUTIVE ENGINEER, PUBLIC HEALTH WORKS DIVISION, G.W.S.S.B

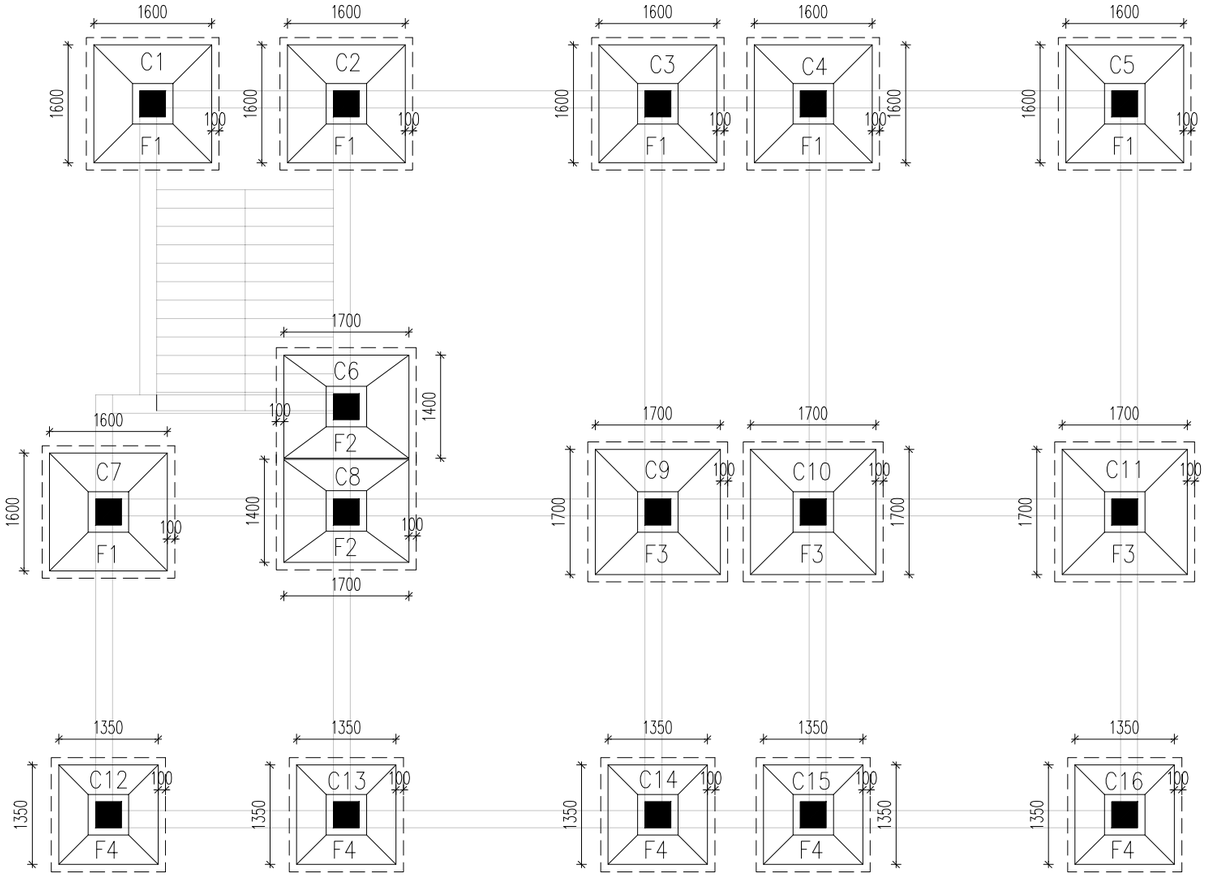
PROJECT CONSULTANT :-

CONTRACTOR :-

PROJECT :-
6.50 MLD SEWERAGE TREATMENT PLANT

TITLE:-
STRUCTURAL DEAIL OF ADMIN BUILDING

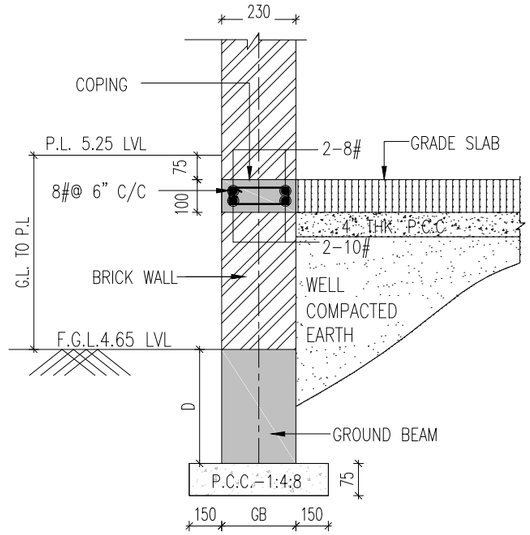
DESIGNED:- NRM
DRAWN:- TS
DRAWING NO.:-
ANR/2021/12/SD/DWG/17.18
SHEET. 1 OF 8
DATE:- 28.11.2021



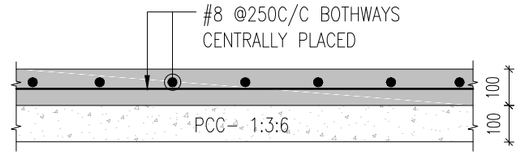
FOUNDATION LAYOUT

SCHEDULE OF REINFORCEMENT FOR FOOTINGS

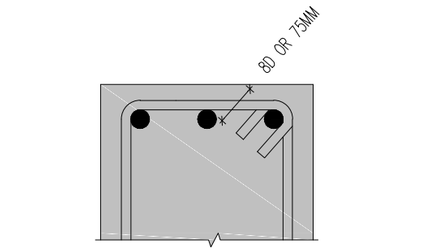
FOOTING NO.	COLUMN MARK	FOOTING SIZE	DEPTH		FOOTING REINFORCEMENT		LAYER OF REINFORCEMENT
			d	D	‖ TO S.S. OF COL.	‖ TO L.S. OF COL.	
F1	C1,C2,C3,C4,C5,C7	1600 X 1600	200	550	10#@150C/C	10#@150C/C	BOTTOM
F2	C6,C8	1700 X 1400	200	600	10#@150C/C	10#@150C/C	BOTTOM
F3	C9,C10,C11	1700 X 1700	200	600	10#@150C/C	10#@150C/C	BOTTOM
F3	C12 TO C16	1350 X 1350	200	450	10#@175C/C	10#@175C/C	BOTTOM



TYPICAL G.B & COPING SECTION

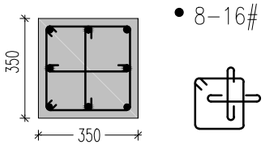
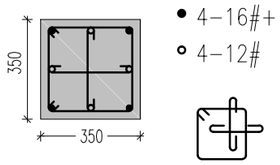
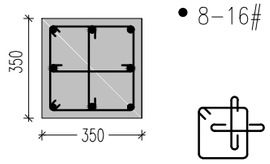


TYPICAL GRADE SLAB SECTION DETAIL
(CONCRETE MIX OF M25 GRADE)



TYPICAL HOOP DETAIL IN BEAM

SCHEDULE OF REINFORCEMENT FOR COLUMNS

ARRANGEMENT OF REINFORCEMENT FOUNDATION TO TERRACE			
STIRRUPS SETS	1 RING+2LINK	1 RING+2LINK	1 RING+2LINK
CONFINEMENT ZONE	8# @ 3" C/C	8# @ 3" C/C	8# @ 3" C/C
REST	8# @ 6" C/C	8# @ 6" C/C	8# @ 6" C/C
COLUMN MARKS	C1,C2,C3,C4,C5	C6,C7,C8,C12,C13	C9,C10,C11,C14,C15,C16

REV	DATE	REVISION	DRW.	CHK	APPD.
R0	29.11.2021	FOR APPROVAL	TS	NRM	

CLIENT :-
THE EXECUTIVE ENGINEER, PUBLIC HEALTH WORKS DIVISION, G.W.S.S.B

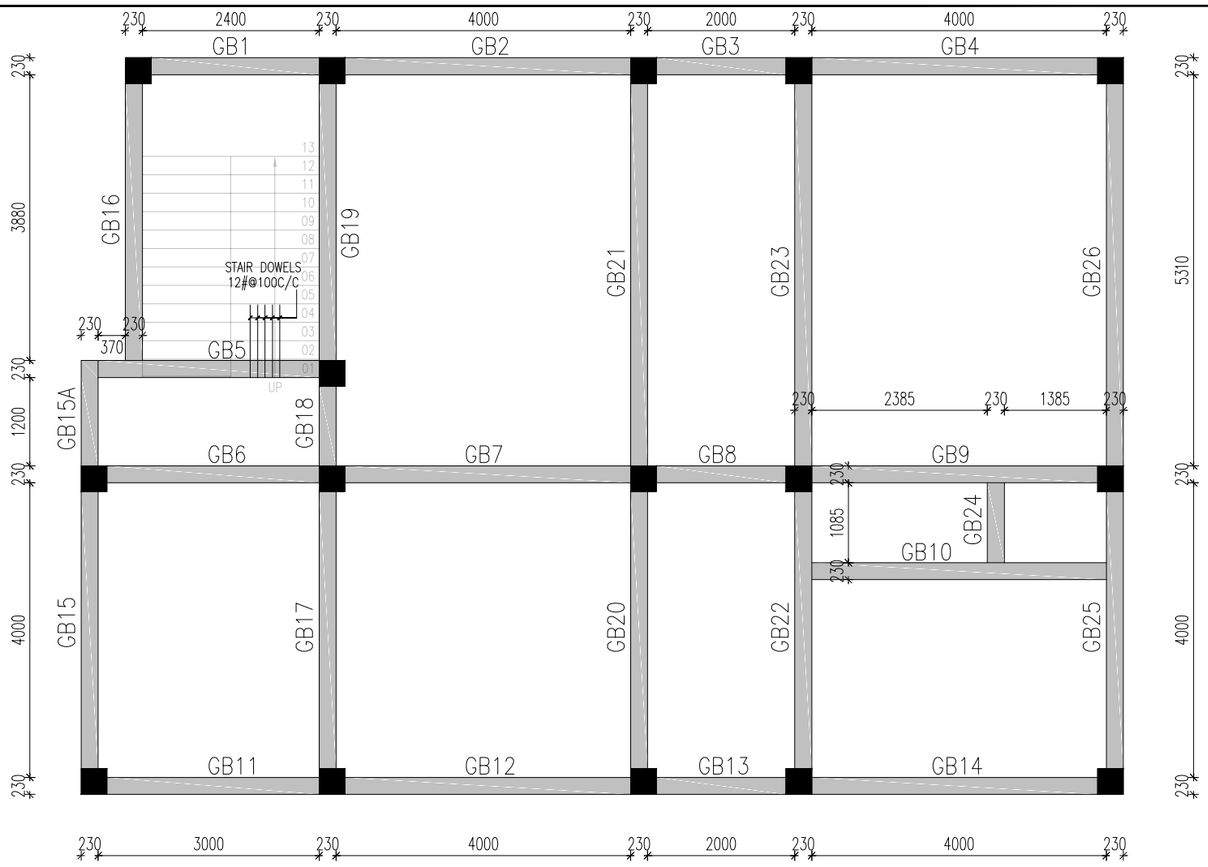
PROJECT CONSULTANT :-

CONTRACTOR :-

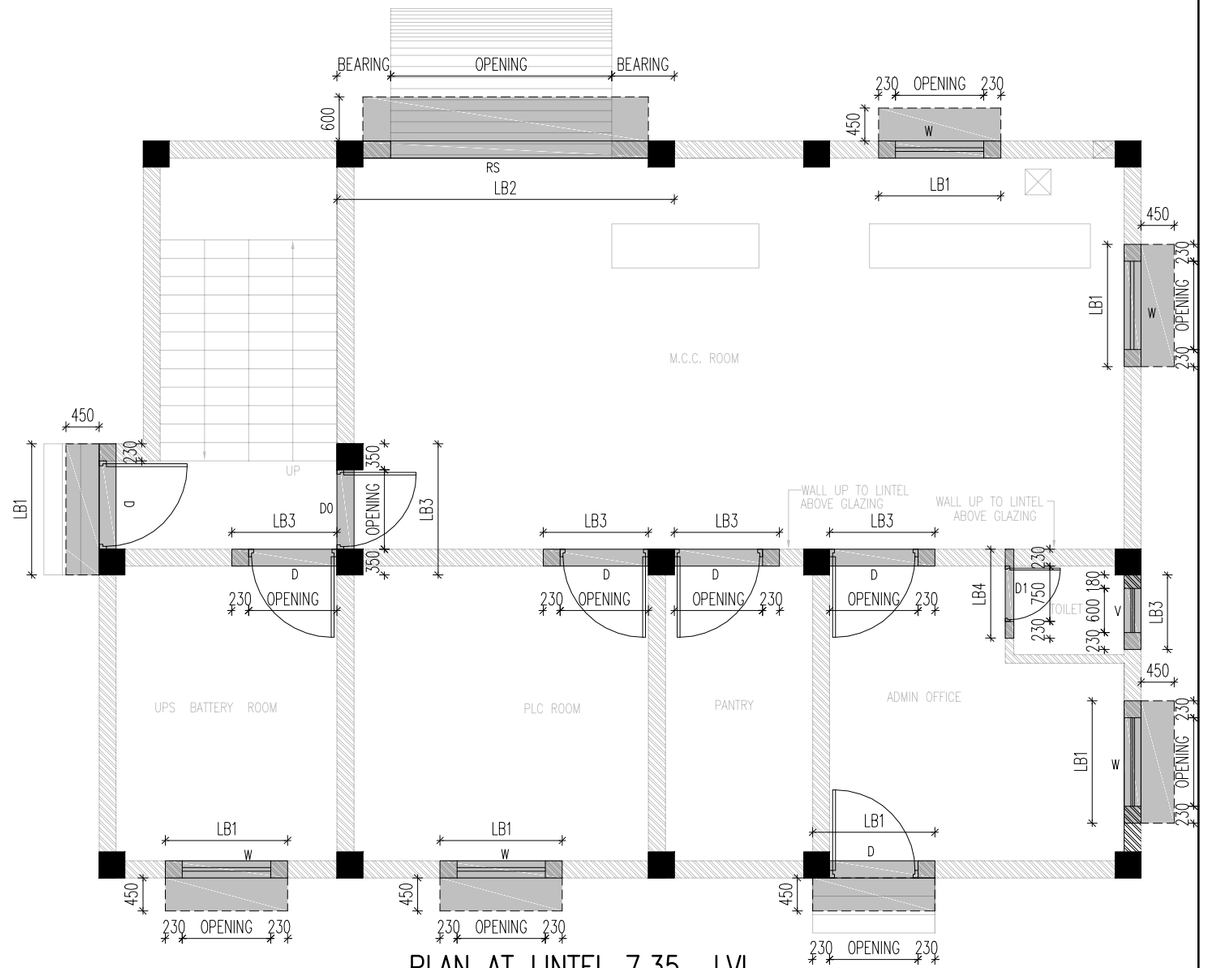
PROJECT :-
6.50 MLD SEWERAGE TREATMENT PLANT

TITLE:-
STRUCTURAL DEAIL OF ADMIN BUILDING

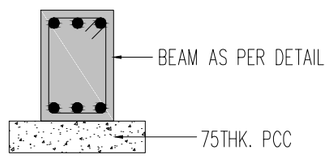
DESIGNED:- NRM
DRAWN:- TS
DRAWING NO.:- ANR/2021/12/SD/DWG/17.18
SHEET. 2 OF 8
DATE:- 28.11.2021



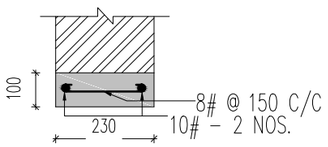
GROUND BEAM AT 4.65 LVL



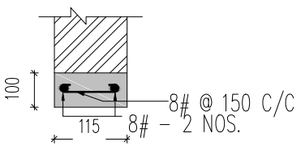
PLAN AT LINTEL 7.35 LVL



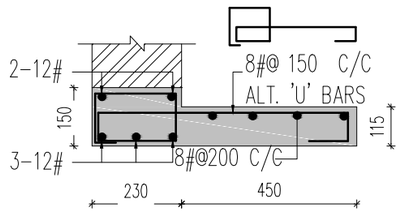
TYPICAL C/S GROUND BEAM DETAILS



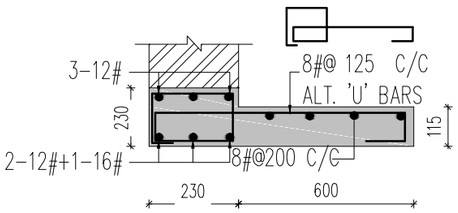
THOROUGH OUT 230 THK. WALL LINTEL BEND DETAILS



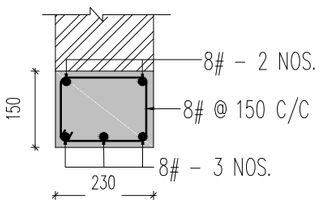
THOROUGH OUT 115 THK. WALL LINTEL BEND DETAILS



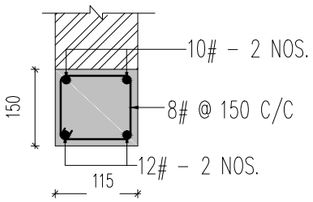
LB1



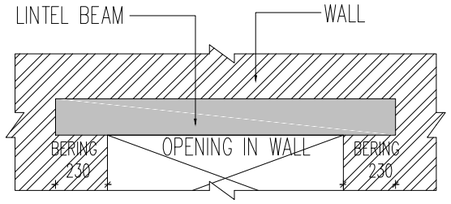
LB2



LB3



LB4



TYP. OPENING DETAIL

REV	DATE	REVISION	DRW.	CHK	APPD.
RO	29.11.2021	FOR APPROVAL	TS	NRM	

CLIENT :-
THE EXECUTIVE ENGINEER, PUBLIC HEALTH WORKS DIVISION, G.W.S.S.B

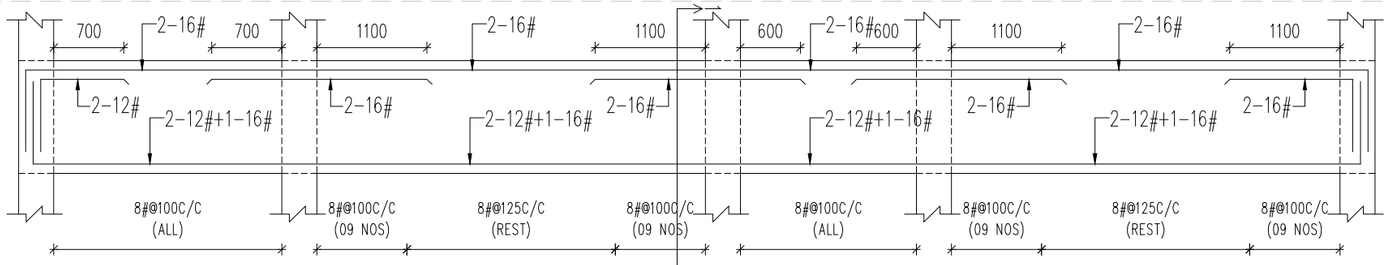
PROJECT CONSULTANT :-

CONTRACTOR :-

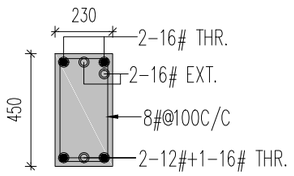
PROJECT :-
6.50 MLD SEWERAGE TREATMENT PLANT

TITLE:-
STRUCTURAL DEAIL OF ADMIN BUILDING

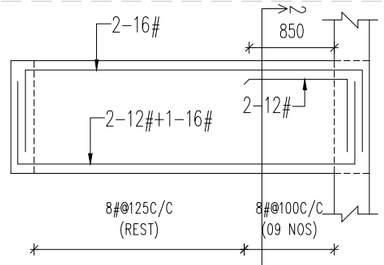
DESIGNED:- NRM
DRAWN:- TS
DRAWING NO.:- ANR/2021/12/SD/DWG/17.18
SHEET. 3 OF 8
DATE:- 28.11.2021



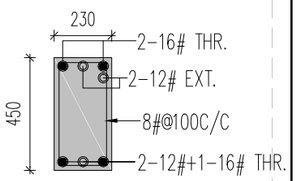
GB1(230 X 450) GB2(230 X 450) GB3(230 X 450) GB4(230 X 450)



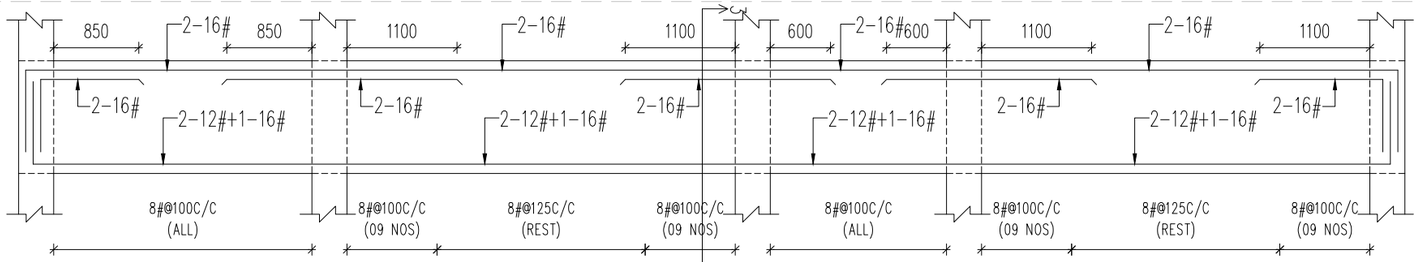
SECTION 1-1



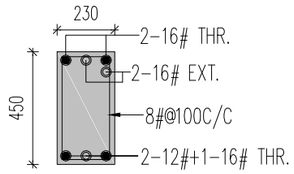
GB5(230 X 450)



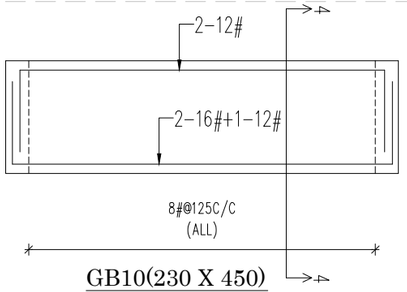
SECTION 1-1



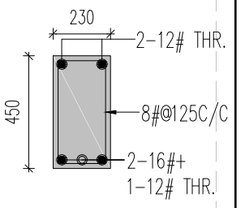
GB6,GB11(230 X 450) GB7,GB12(230 X 450) GB8,GB13(230 X 450) GB9,GB14(230 X 450)



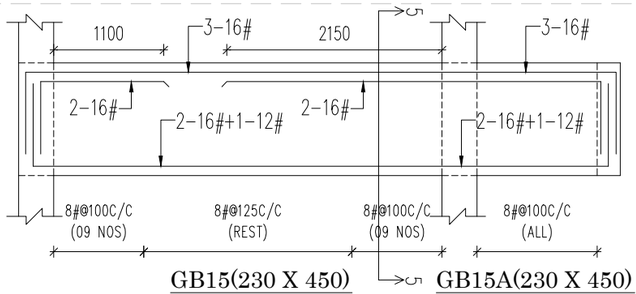
SECTION 3-3



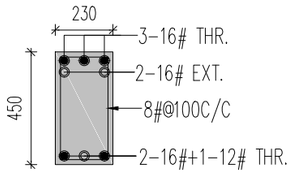
GB10(230 X 450)



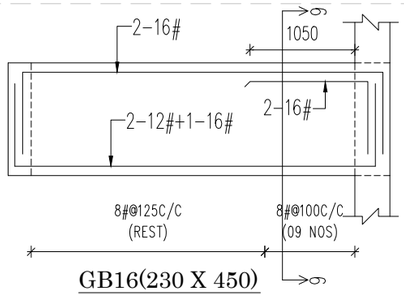
SECTION 4-4



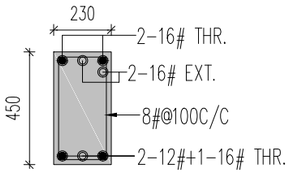
GB15(230 X 450) GB15A(230 X 450)



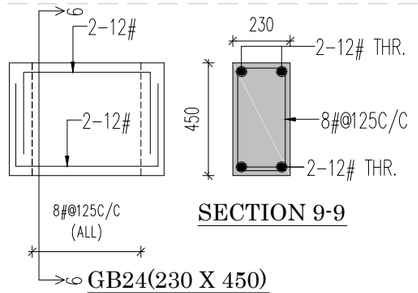
SECTION 5-5



GB16(230 X 450)

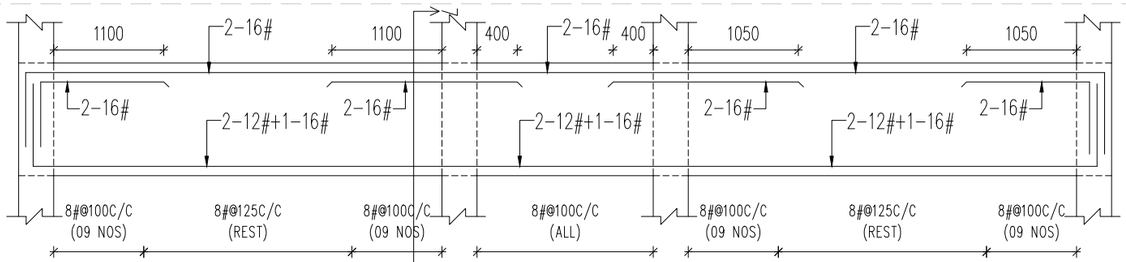


SECTION 6-6

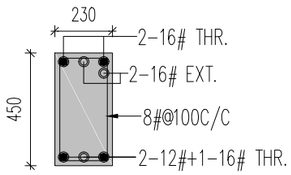


GB24(230 X 450)

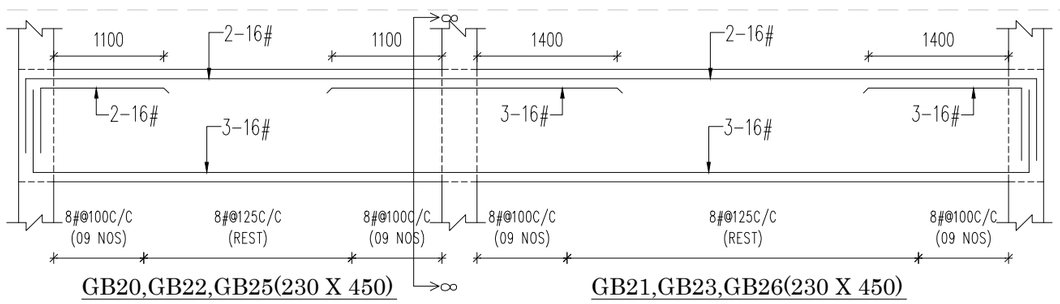
SECTION 9-9



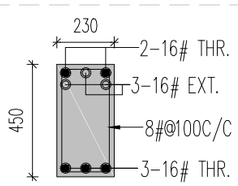
GB17(230 X 450) GB18(230 X 450) GB19(230 X 450)



SECTION 7-7



GB20,GB22,GB25(230 X 450) GB21,GB23,GB26(230 X 450)



SECTION 8-8

REV	DATE	REVISION	DRW.	CHK	APPD.
RO	29.11.2021	FOR APPROVAL	TS	NRM	

CLIENT :–
THE EXECUTIVE ENGINEER, PUBLIC HEALTH WORKS DIVISION, G.W.S.S.B

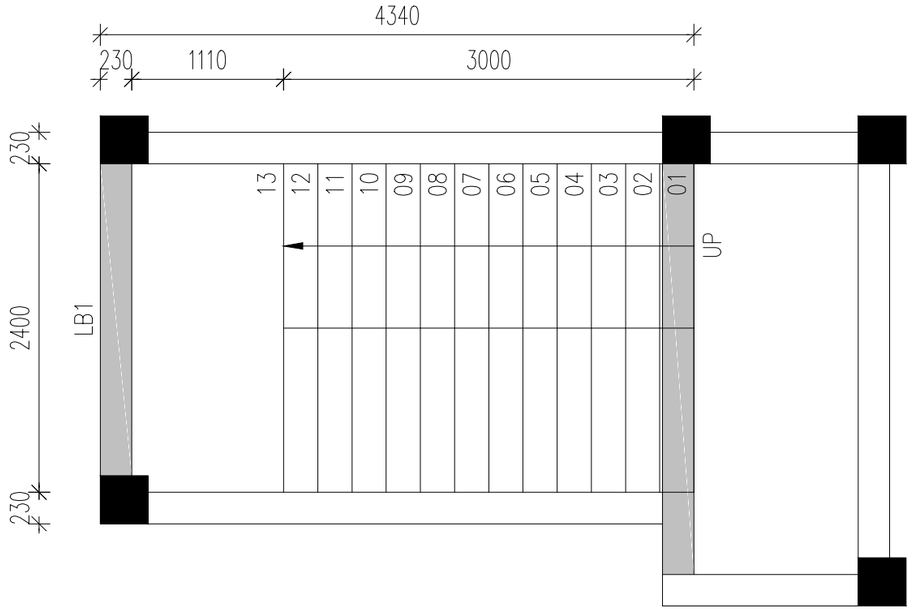
PROJECT CONSULTANT :–

CONTRACTOR :–

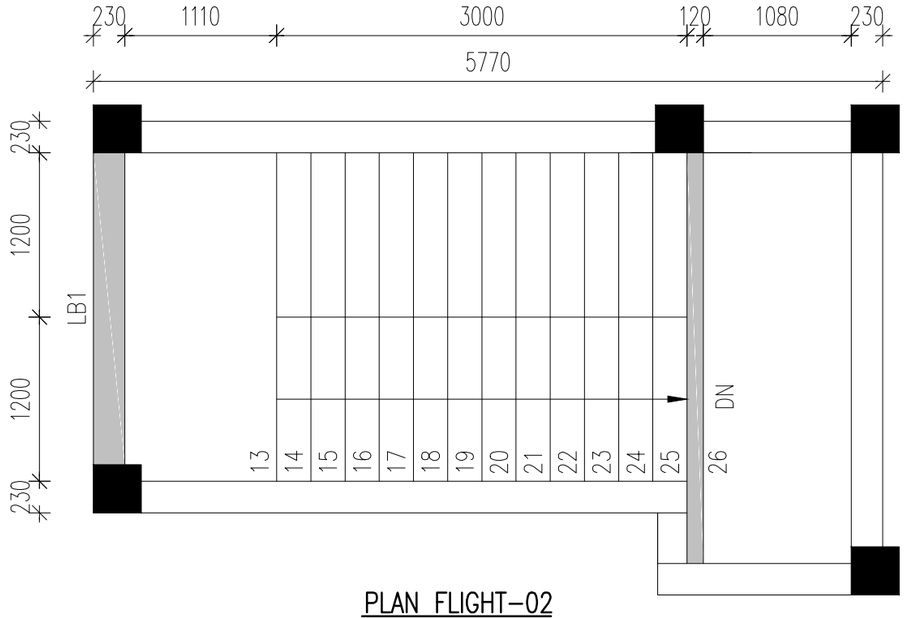
PROJECT :–
6.50 MLD SEWERAGE TREATMENT PLANT

TITLE:–
STRUCTURAL DEAIL OF ADMIN BUILDING

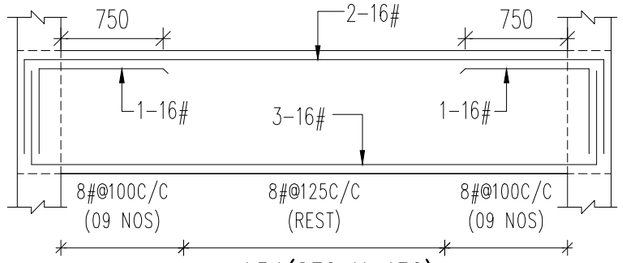
DESIGNED:– NRM
DRAWN:– TS
DRAWING NO.:–
ANR/2021/12/SD/DWG/17.18
SHEET. 4 OF 8
DATE:– 28.11.2021



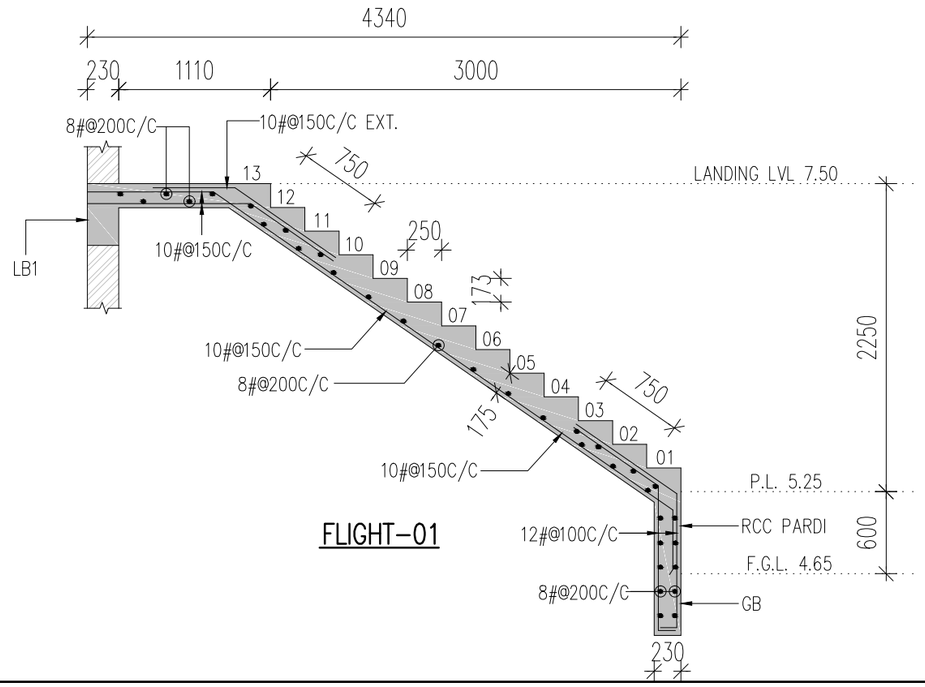
PLAN FLIGHT–01



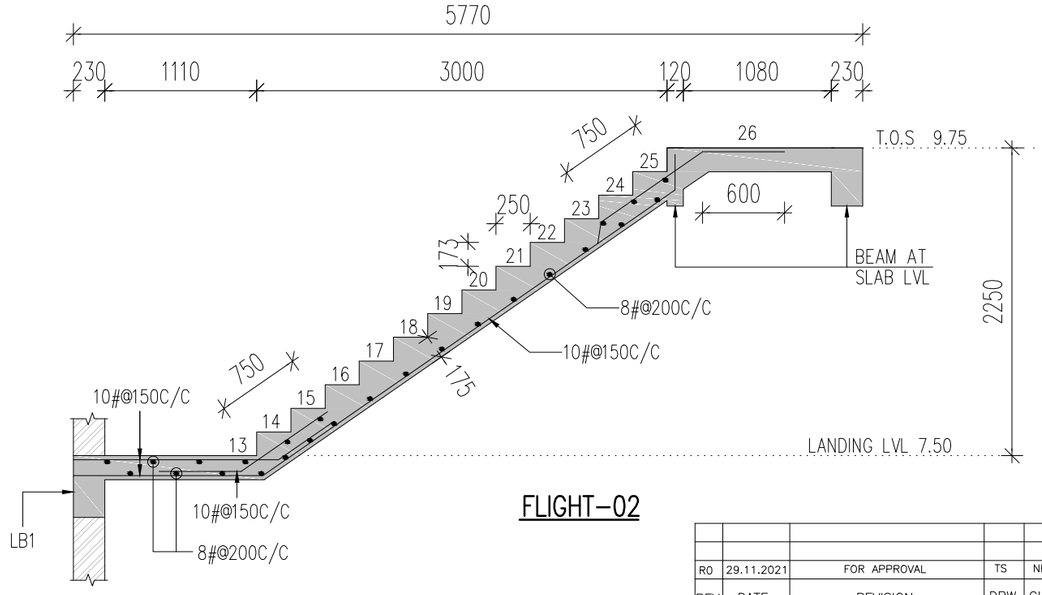
PLAN FLIGHT–02



LB1(230 X 450)
AT LANDING LVL



FLIGHT–01



FLIGHT–02

REV	DATE	REVISION	DRW.	CHK	APPD.
R0	29.11.2021	FOR APPROVAL	TS	NRM	

CLIENT :–
THE EXECUTIVE ENGINEER, PUBLIC HEALTH WORKS DIVISION, G.W.S.S.B

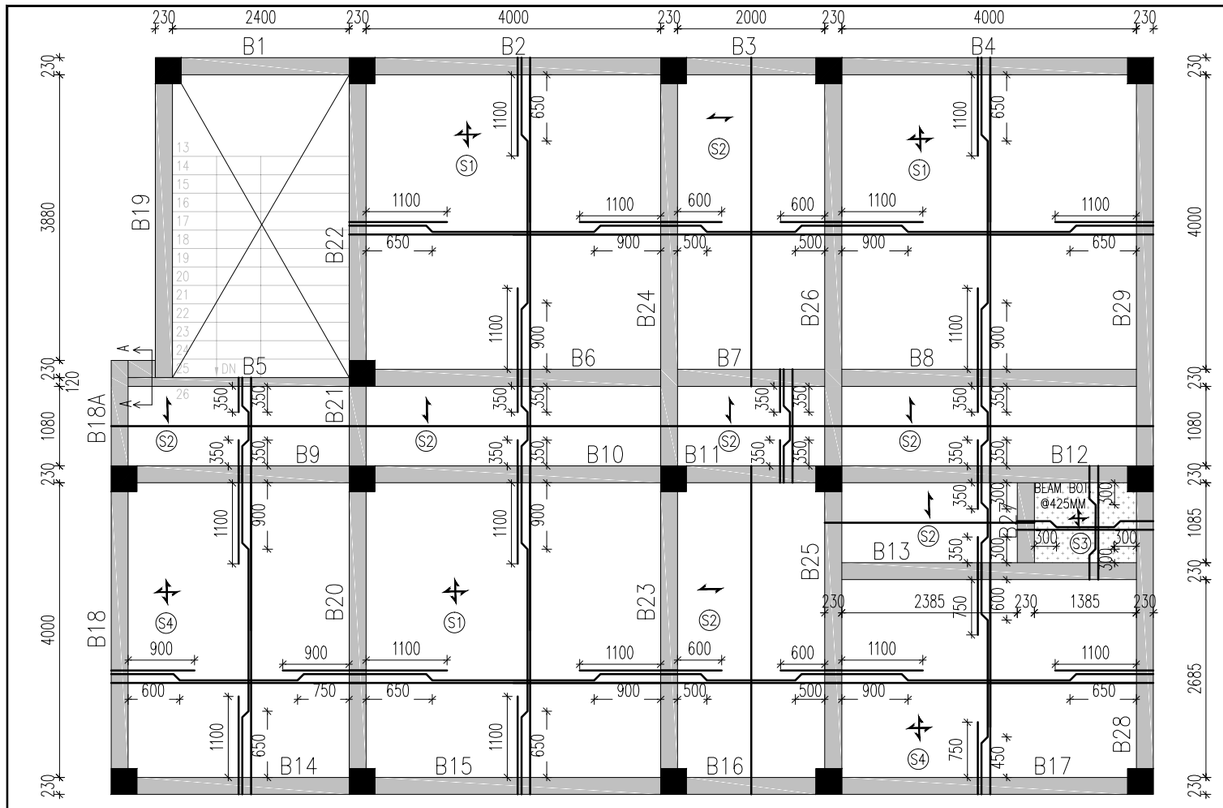
PROJECT CONSULTANT :–

CONTRACTOR :–

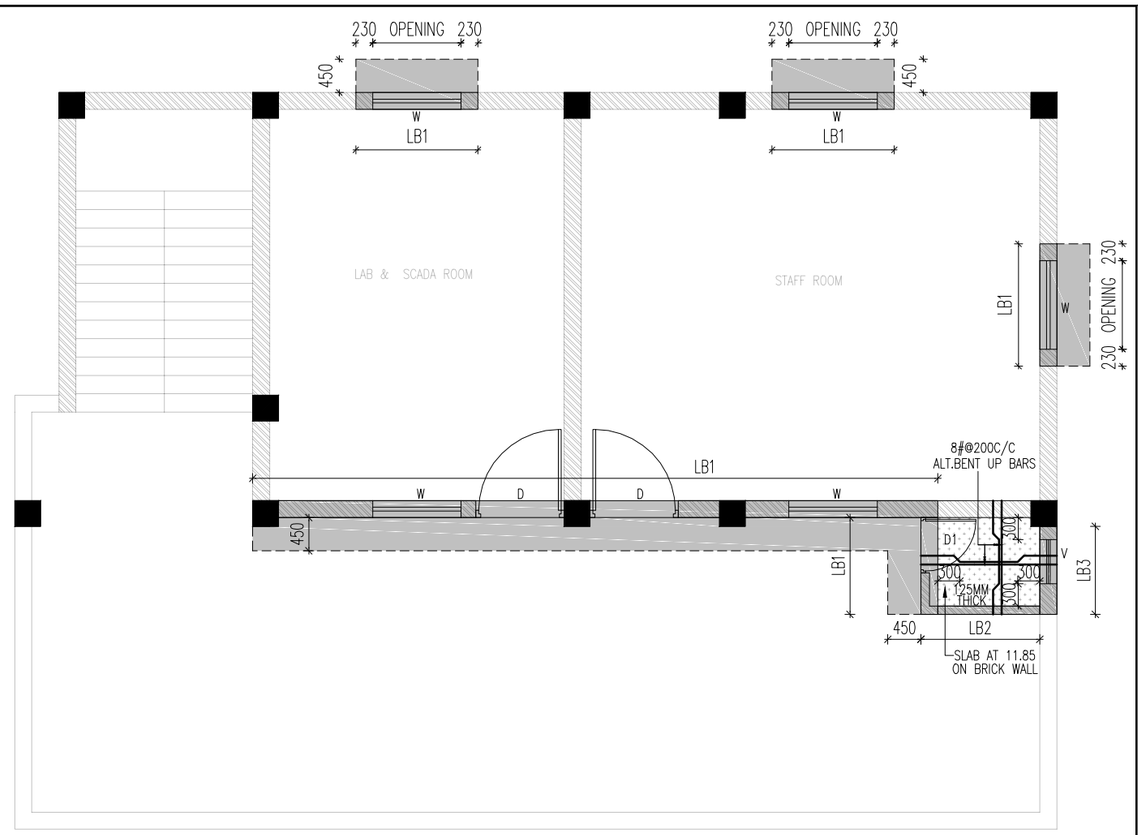
PROJECT :–
6.50 MLD SEWERAGE TREATMENT PLANT

TITLE:–
STRUCTURAL DEAIL OF ADMIN BUILDING

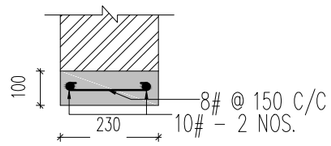
DESIGNED:– NRM
DRAWN:– TS
DRAWING NO.:–
ANR/2021/12/SD/DWG/17.18
SHEET. 5 OF 8
DATE:– 28.11.2021



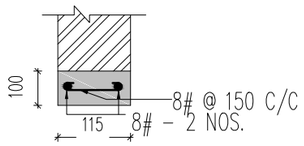
GROUND FLOOR SLAB AT 9.75 LVL



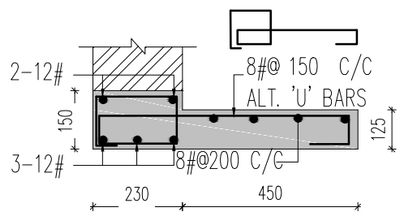
PLAN AT 11.85 LVL



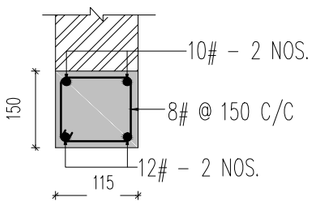
THOROUGH OUT 230 THK. WALL LINTEL BEND DETAILS



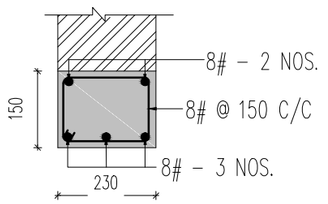
THOROUGH OUT 115 THK. WALL LINTEL BEND DETAILS



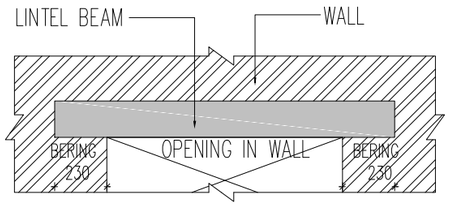
LB1



LB2



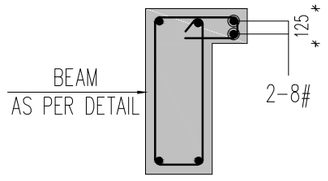
LB3



TYP. OPENING DETAIL

SLAB REINFORCEMENT SCHEDULE :-

SLAB	TYPE	THICKNESS IN MM	MAIN SHORT STEEL	DISTRIBUTION STEEL	MAIN EXTRA STEEL	DISTRIBUTION EXTRA STEEL
S1	TWO WAY	150	10#@175C/C	10#@175C/C	10#@350C/C	10#@350C/C
S2	ONE WAY	125	10#@175C/C	8#@200C/C	10#@350C/C	******
S3	TWO WAY	125	8#@200C/C	8#@200C/C	******	******
S4	TWO WAY	125	10#@175C/C	10#@175C/C	10#@350C/C	10#@350C/C



SECTION A-A

REV	DATE	REVISION	DRW.	CHK	APPD.
R0	29.11.2021	FOR APPROVAL	TS	NRM	

CLIENT :-
THE EXECUTIVE ENGINEER, PUBLIC HEALTH WORKS DIVISION, G.W.S.S.B

PROJECT CONSULTANT :-

CONTRACTOR :-

PROJECT :-
6.50 MLD SEWERAGE TREATMENT PLANT

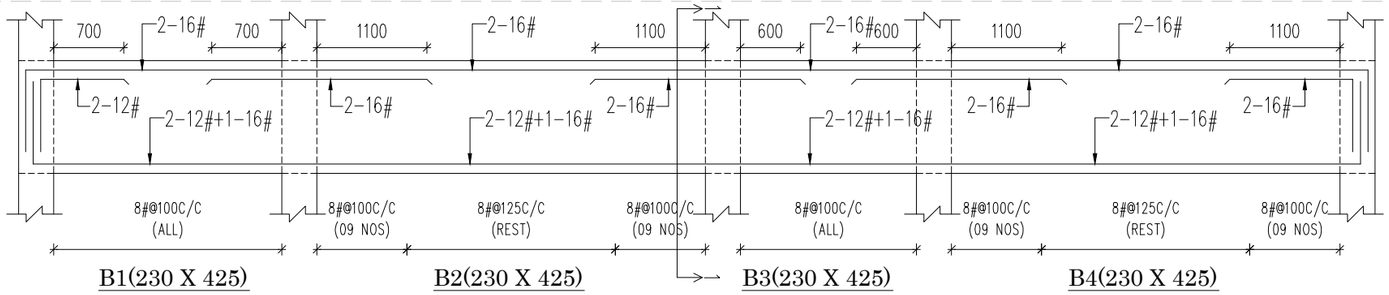
TITLE:-
STRUCTURAL DEAIL OF ADMIN BUILDING

DESIGNED:- NRM
DRAWN:- TS

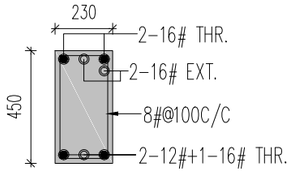
DRAWING NO.:-
ANR/2021/12/SD/DWG/17.18

SHEET. 6 OF 8

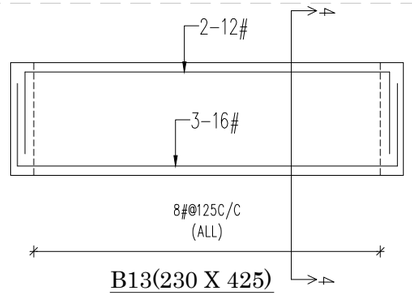
DATE:- 28.11.2021



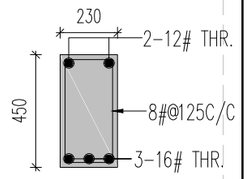
B1(230 X 425) B2(230 X 425) B3(230 X 425) B4(230 X 425)



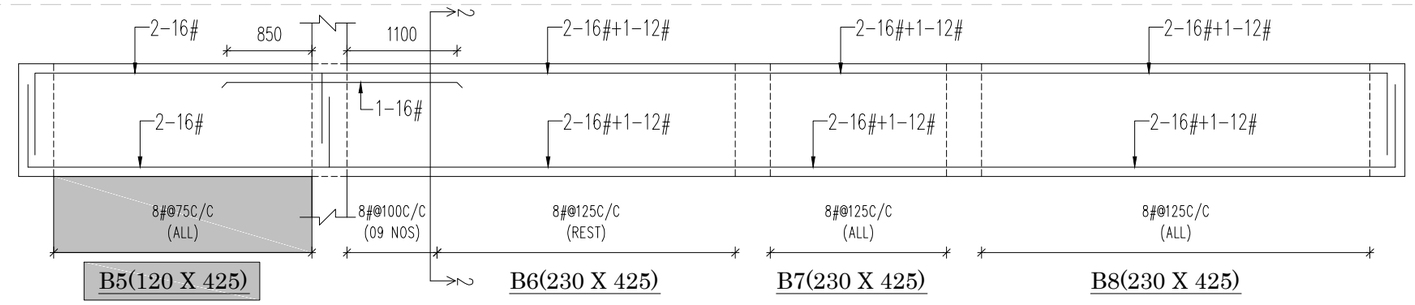
SECTION 1-1



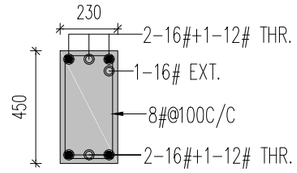
B13(230 X 425)



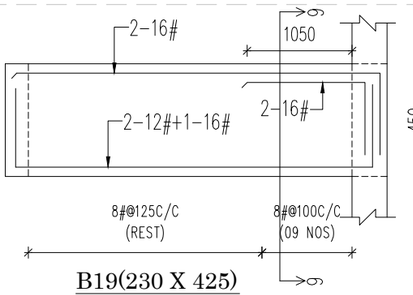
SECTION 4-4



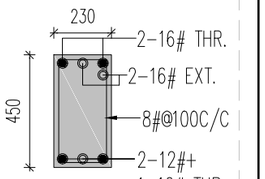
B5(120 X 425) B6(230 X 425) B7(230 X 425) B8(230 X 425)



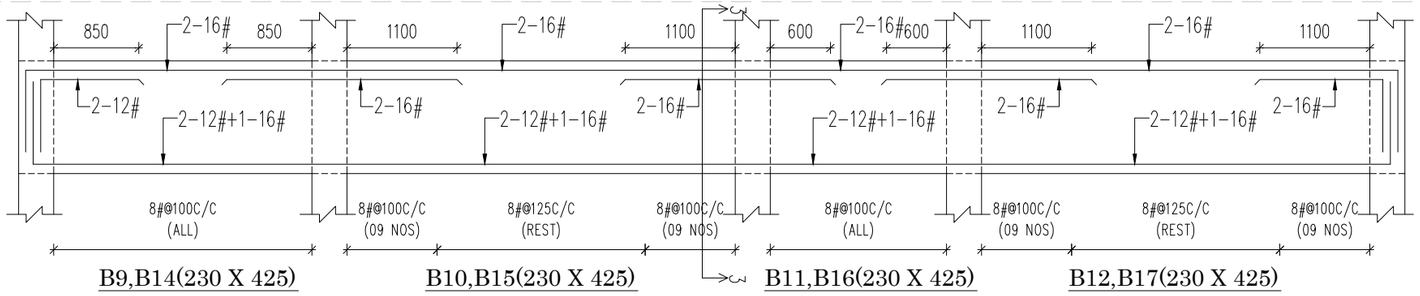
SECTION 2-2



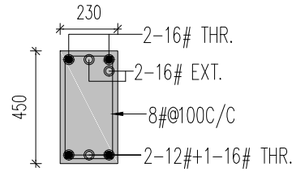
B19(230 X 425)



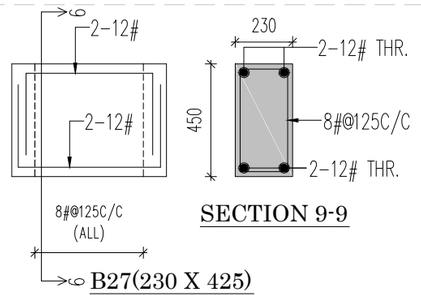
SECTION 6-6



B9,B14(230 X 425) B10,B15(230 X 425) B11,B16(230 X 425) B12,B17(230 X 425)

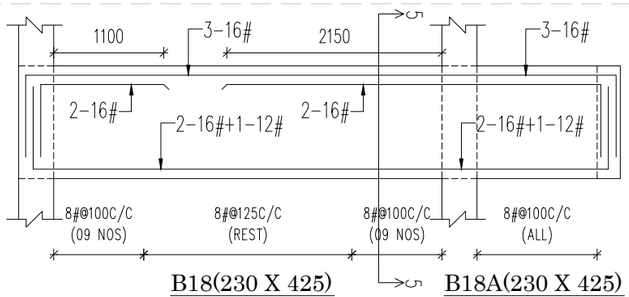


SECTION 3-3

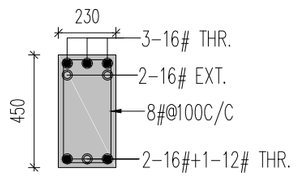


SECTION 9-9

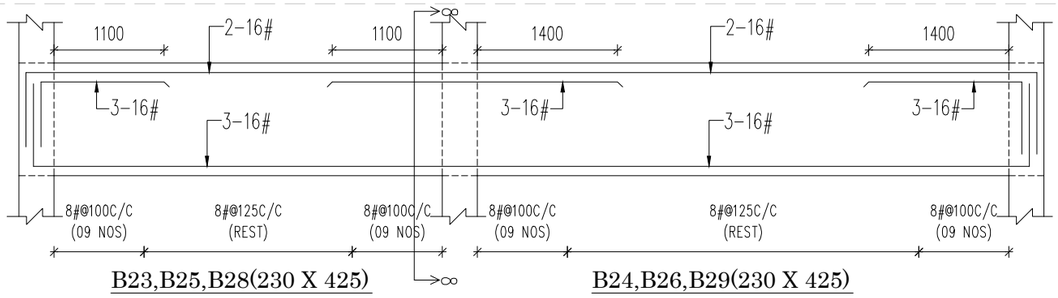
B27(230 X 425)



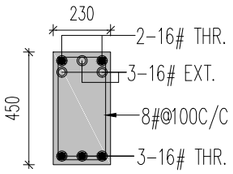
B18(230 X 425) B18A(230 X 425)



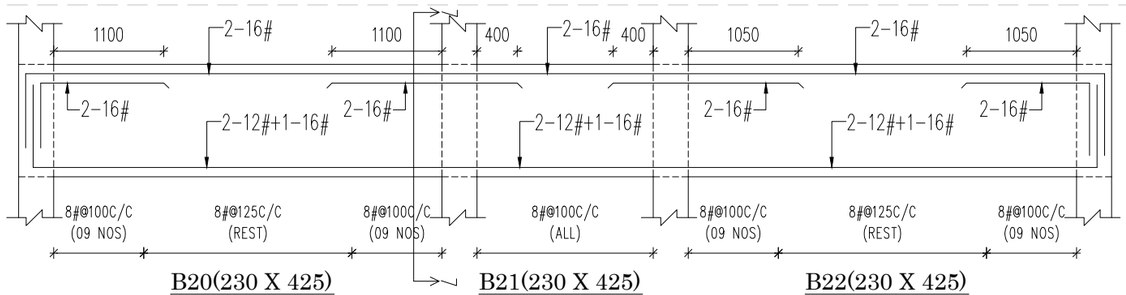
SECTION 5-5



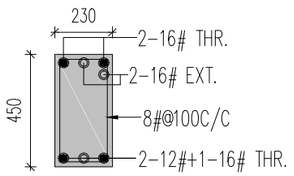
B23,B25,B28(230 X 425) B24,B26,B29(230 X 425)



SECTION 8-8



B20(230 X 425) B21(230 X 425) B22(230 X 425)



SECTION 7-7

RO	29.11.2021	FOR APPROVAL	TS	NRM	
REV	DATE	REVISION	DRW.	CHK	APPD.

CLIENT :–
THE EXECUTIVE ENGINEER, PUBLIC HEALTH WORKS DIVISION, G.W.S.S.B

PROJECT CONSULTANT :–

CONTRACTOR :–

PROJECT :–
6.50 MLD SEWERAGE TREATMENT PLANT

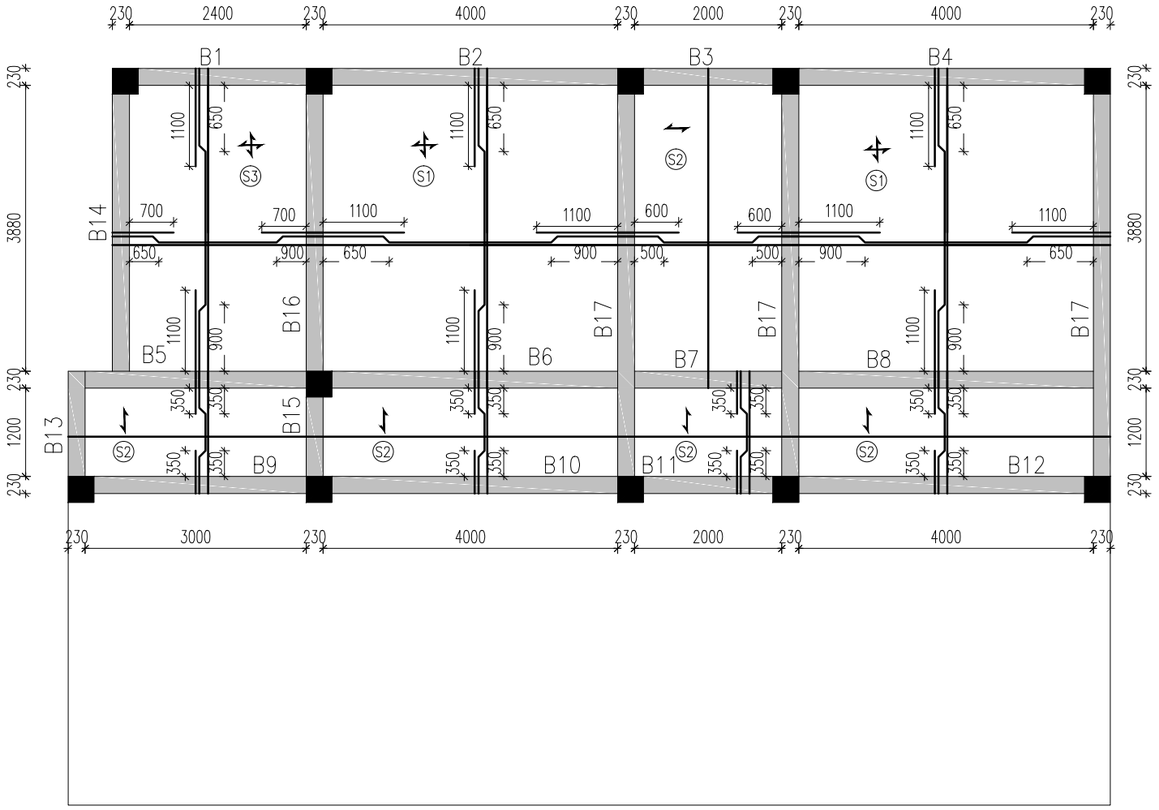
TITLE:–
STRUCTURAL DEAIL OF ADMIN BUILDING

DESIGNED:– NRM
DRAWN:– TS

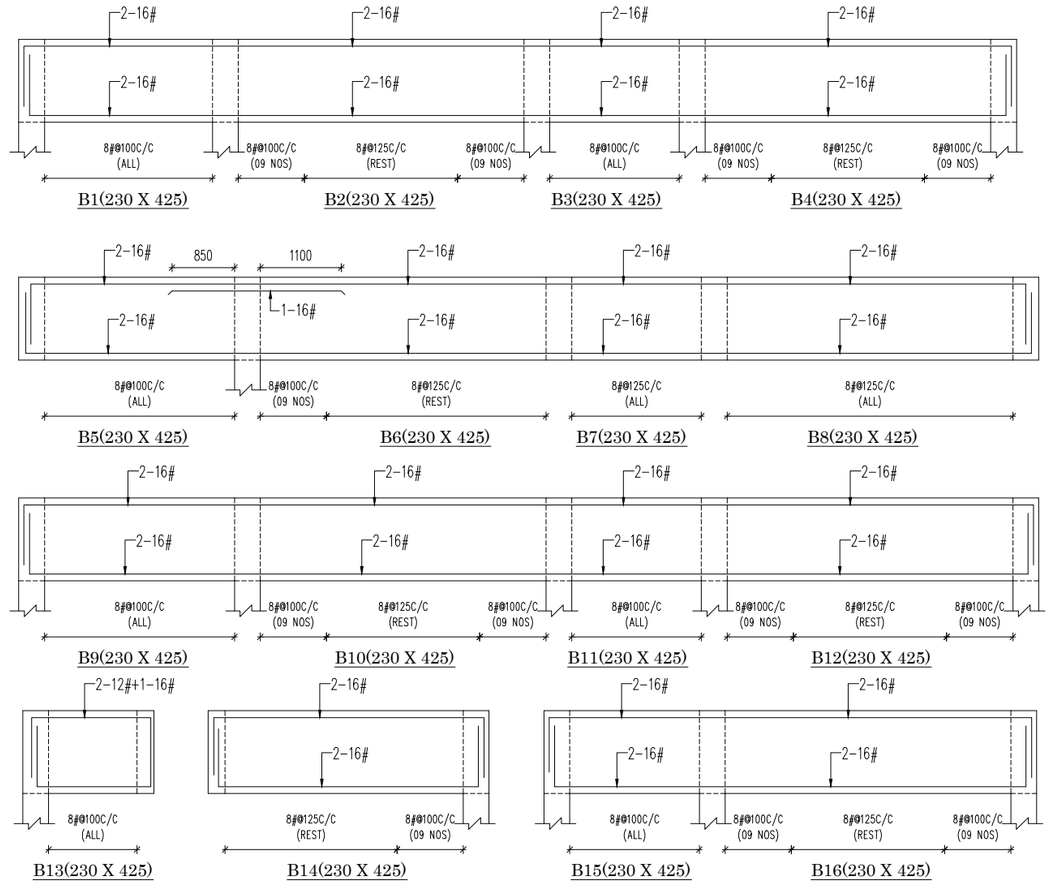
DRAWING NO.:–
ANR/2021/12/SD/DWG/17.18

SHEET. 7 OF 8

DATE:– 28.11.2021

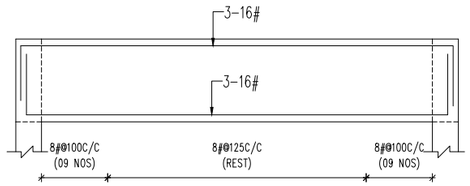


TERRACE SLAB AT 13.25 LVL



SLAB REINFORCEMENT SCHEDULE :–

SLAB	TYPE	THICKNESS IN MM	MAIN SHORT STEEL	DISTRIBUTION STEEL	MAIN EXTRA STEEL	DISTRIBUTION EXTRA STEEL
S1	TWO WAY	150	10#@175C/C	10#@175C/C	10#@350C/C	10#@350C/C
S2	ONE WAY	125	10#@175C/C	8#@200C/C	10#@350C/C	******
S3	TWO WAY	125	10#@175C/C	10#@175C/C	10#@350C/C	10#@350C/C



B17(230 X 425)

REV	DATE	REVISION	DRW.	CHK	APPD.
RO	29.11.2021	FOR APPROVAL	TS	NRM	

CLIENT :–
THE EXECUTIVE ENGINEER, PUBLIC HEALTH WORKS DIVISION, G.W.S.S.B

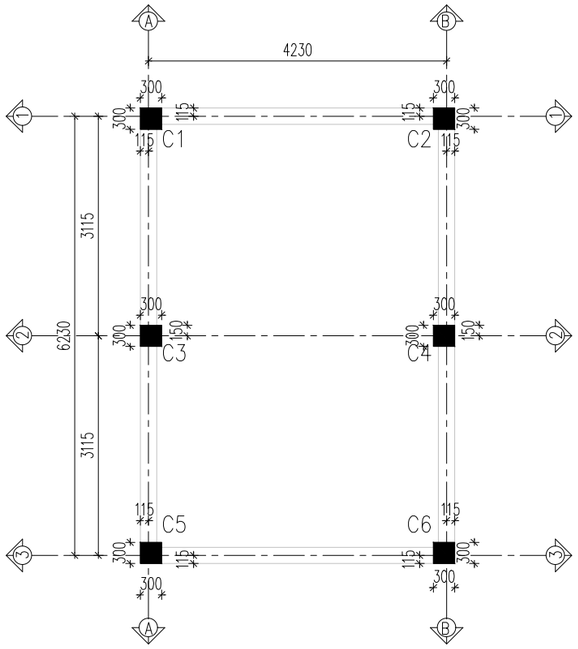
PROJECT CONSULTANT :–

CONTRACTOR :–

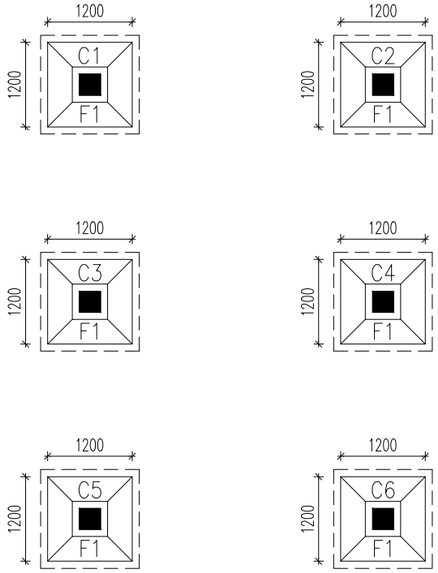
PROJECT :–
6.50 MLD SEWERAGE TREATMENT PLANT

TITLE:–
STRUCTURAL DEAIL OF ADMIN BUILDING

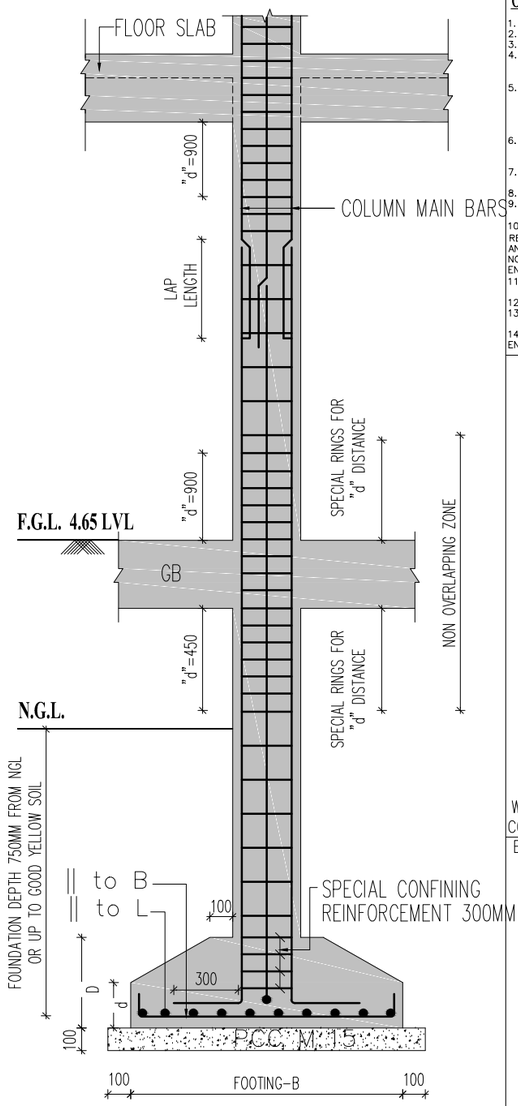
DESIGNED:– NRM
DRAWN:– TS
DRAWING NO.:–
ANR/2021/12/SD/DWG/17.18
SHEET. 8 OF 8
DATE:– 28.11.2021



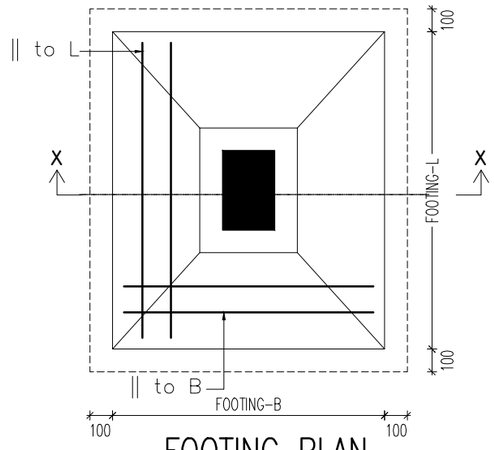
CENTERLINE PLAN



FOUNDATION PLAN



SECTION X-X



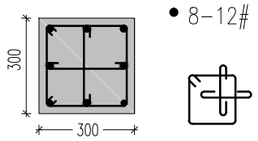
FOOTING PLAN

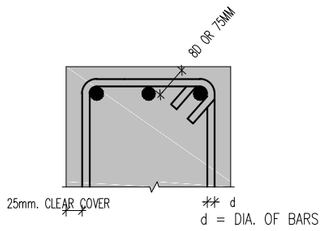
FOR G.L TO P.L WALL

01.GENERAL NOTES

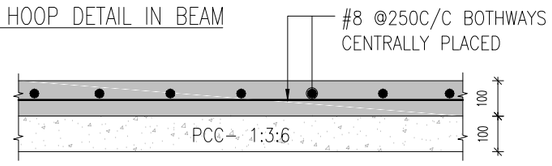
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
2. FIGURED DIMENSIONS SHALL BE FOLLOWED AND DO NOT SCALE THE DRAWING.
3. CONTRACTOR TO CHECK ALL DIMENSIONS BEFORE COMMENCEMENT OF WORK.
4. ALL STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS. ANY DISCREPANCY IN THE DRAWING(S) SHALL BE BROUGHT TO OUR NOTICE BEFORE COMMENCING THE WORK.
5. CLEAR COVER TO REINFORCEMENT SHALL BE USE,
   A. 50MMIN FOOTING,
   B. 40MM IN COLUMN,
   C. 25MM IN BEAM
   D. 20MM IN SLAB.
6. ALL RCC WORK SHALL BE WITH M:25 GRADE CONCRETE CONFORMING TO IS 456, IS-13920, IS-1893 CODE.& ALL PCC WORK SHALL BE WITH PCC M:15 GRADE CONCRETE.
7. ALL REINFORCEMENT SHALL BE OF FE500 GRADE AS PER IS:1786 LATEST REVISION.
8. LAYOUT OF COLUMNS SHALL BE AS PER ARCHITECTURAL DRAWING.
9. THE BUILDING IS DESIGN TO WITHSTAND THE EARTHQUAKE EFFECT OF SEISMIC ZONE III
10. SAFE BEARING CAPACITY OF SOIL(SBC) TAKEN AS PER SOIL INVESTIGATION REPORT 20 T/M² AT 0.75M DEPTH & FOUNDATION SHOULD REST ON IN-SITU SOIL AND IT SHOULD NOT REST ON FILLING MATERIAL i.e. MADE UP SOIL & WATER TABLE NOT ENCOUNTERED AS PER SOIL REPORT IF DURING EXCAVATION WATER TABLE ENCOUNTERED BROUGHT TO THE NOTICE OF CONSULTANT
11. COVER TO REINFORCEMENT IN RCC SHALL BE AS PER IS:456(PAGE NO. 46) – MILD CONDITION.
12. ALL CONCRETE SHALL BE MACHINE MIXED AND MACHINE VIBRATED.
13. BACK FILLING SHALL BE DONE IN WELL COMPACTED AND WELL WATER LAYER NOT EXCEEDING 300MM IN DEPTH.
14. ALL WORK SHALL BE DONE WITH UNDER SUPERVISION OF EXPERIENCED CIVIL ENGG.

SCHEDULE OF REINFORCEMENT FOR COLUMNS

ARRANGEMENT OF REINFORCEMENT FOUNDATION TO TERRACE	
STIRRUPS SETS	1 RING+2LINK
CONFINEMENT ZONE	8# @ 3" C/C
REST	8# @ 6" C/C
COLUMN MARKS	C1 TO C6



TYPICAL HOOP DETAIL IN BEAM



TYPICAL GRADE SLAB SECTION DETAIL (CONCRETE MIX OF M25 GRADE)

SCHEDULE OF REINFORCEMENT FOR FOOTINGS

FOOTING NO.	COLUMN MARK	FOOTING SIZE	DEPTH		FOOTING REINFORCEMENT		LAYER OF REINFORCEMENT
			d	D	|| TO S.S. OF COL.	|| TO L.S. OF COL.	
F1	C1 & C6	1200 X 1200	175	400	10#@175C/C	10#@175C/C	BOTTOM

RO	09.02.2022	FOR APPROVAL	HM	NRM	
REV	DATE	REVISION	DRW.	CHK	APPD.

CLIENT :-
THE EXECUTIVE ENGINEER, PUBLIC HEALTH WORKS DIVISION, G.W.S.S.B

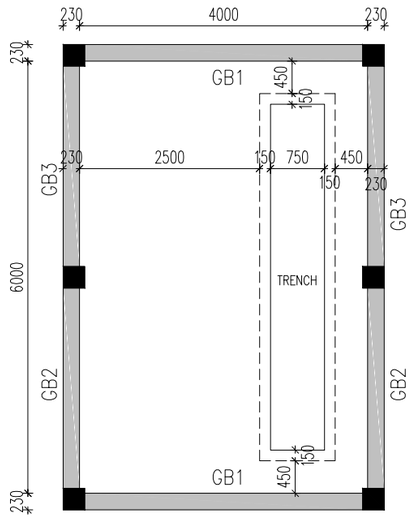
PROJECT CONSULTANT :-

CONTRACTOR :-

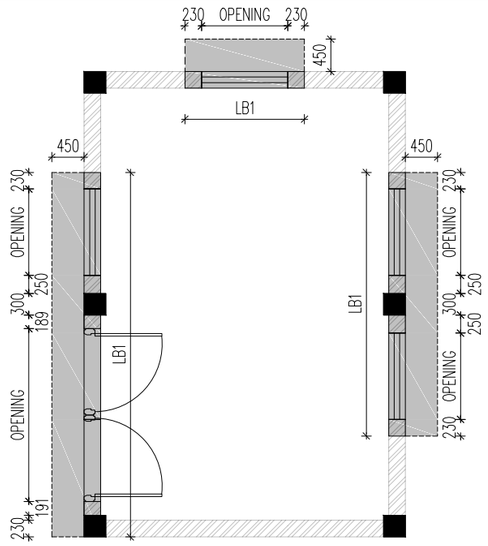
PROJECT :-
6.50 MLD SEWERAGE TREATMENT PLANT

TITLE:- STRUCTURAL DETAIL OF HT SWITCH GEAR ROOM (4.00X6.00)

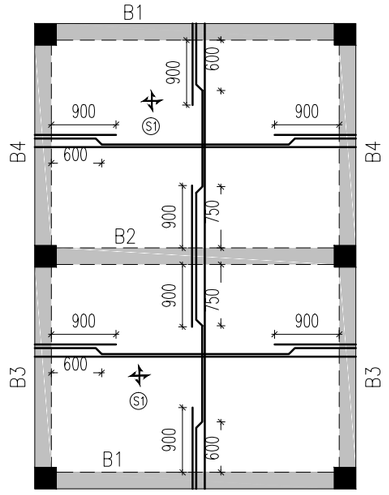
DESIGNED:- NRM
DRAWN:- TS
DRAWING NO.:- ANR/2021/12/SD/DWG/0019
SHEET. 1 OF 2
DATE:- 25.10.2021



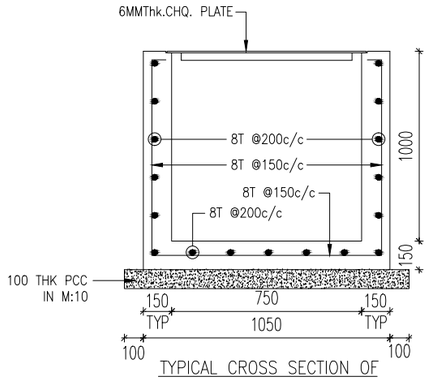
GROUND BEAM PLAN
(4.65LVL)



LINTEL LAYOUT
(7.35LVL)



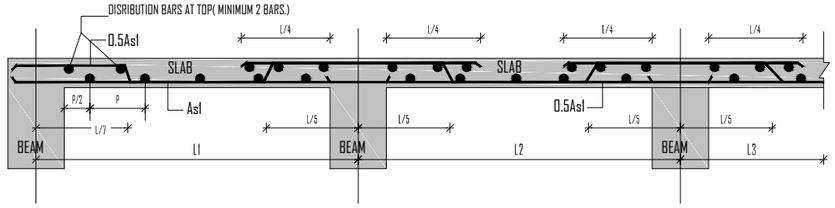
TERRACE SLAB LVL
(9.75LVL)



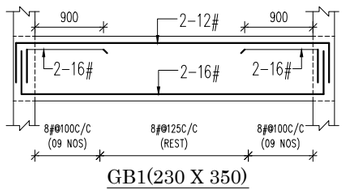
TYPICAL CROSS SECTION OF
CABLE TRENCH

SLAB REINFORCEMENT SCHEDULE :-

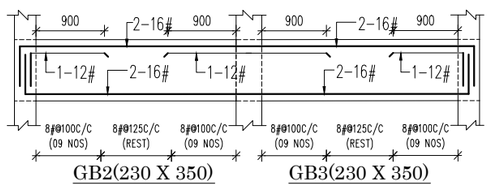
SLAB	TYPE	THICKNESS IN INCH	MAIN SHORT STEEL	DISTRIBUTION STEEL	MAIN EXTRA STEEL	DISTRIBUTION EXTRA STEEL
S1	TWO WAY	125	8#@150C/C	8#@150C/C	8#@300C/C	8#@300C/C



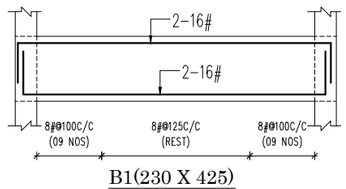
TYPICAL REINFORCEMENT DETAILING FOR SLABS



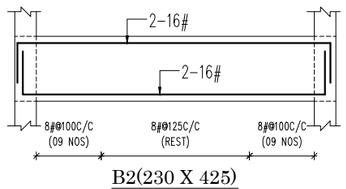
GB1(230 X 350)



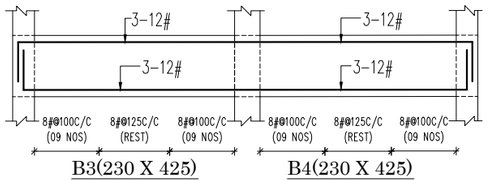
GB2(230 X 350) GB3(230 X 350)



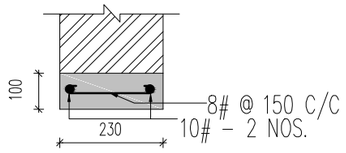
B1(230 X 425)



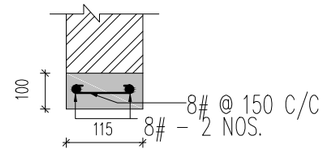
B2(230 X 425)



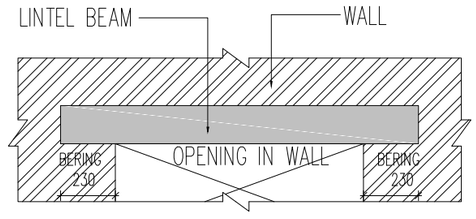
B3(230 X 425) B4(230 X 425)



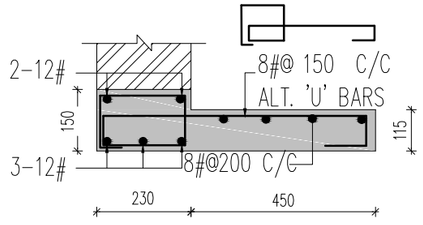
THOROUGH OUT 230 THK. WALL
LINTEL BEND DETAILS



THOROUGH OUT 115 THK. WALL
LINTEL BEND DETAILS



TYP. OPENING DETAIL



LB1

REV	DATE	REVISION	DRW.	CHK	APPD.
R0	09.02.2022	FOR APPROVAL	TS	NRM	

CLIENT :-
THE EXECUTIVE ENGINEER, PUBLIC HEALTH WORKS DIVISION, G.W.S.S.B

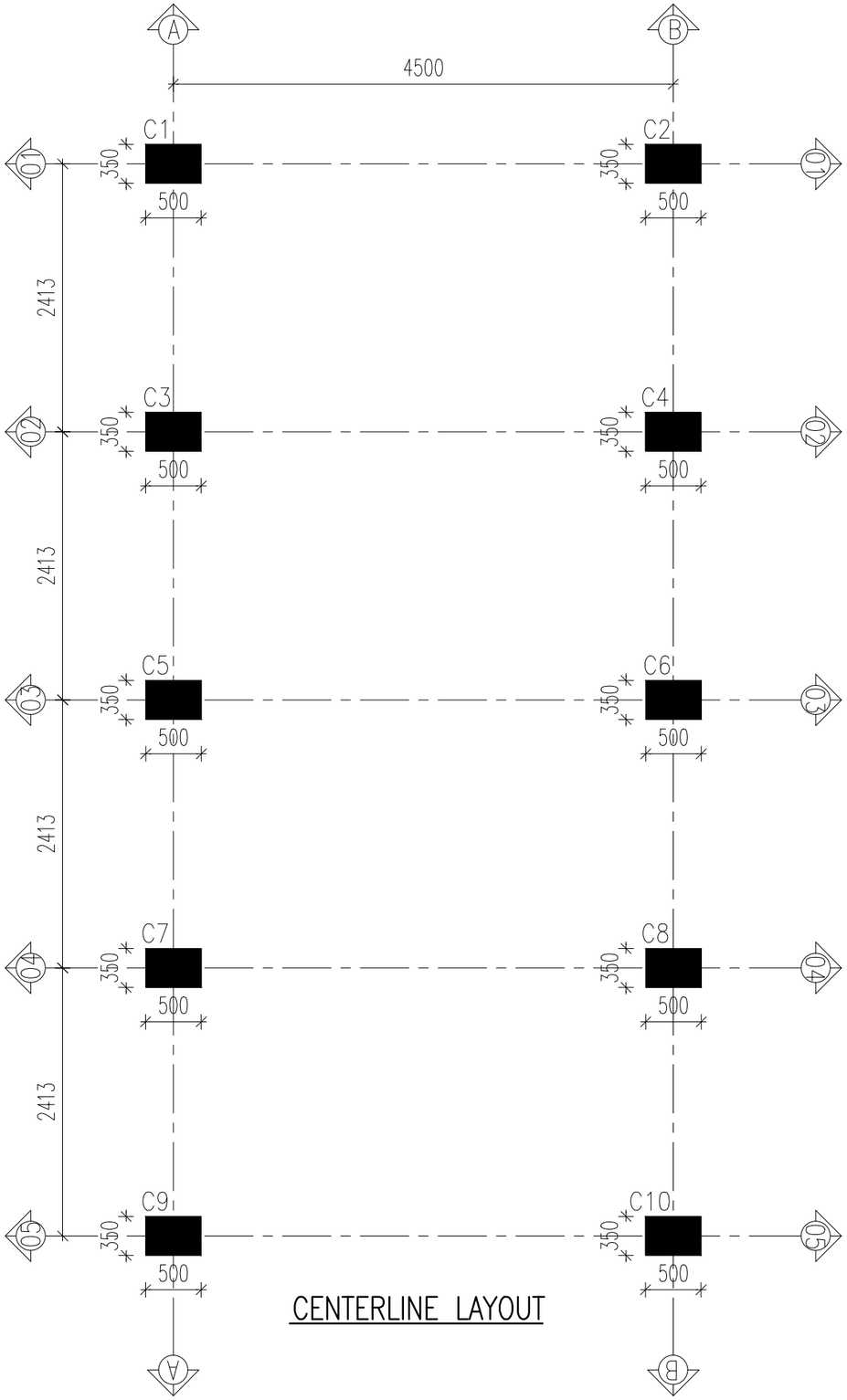
PROJECT CONSULTANT :-

CONTRACTOR :-

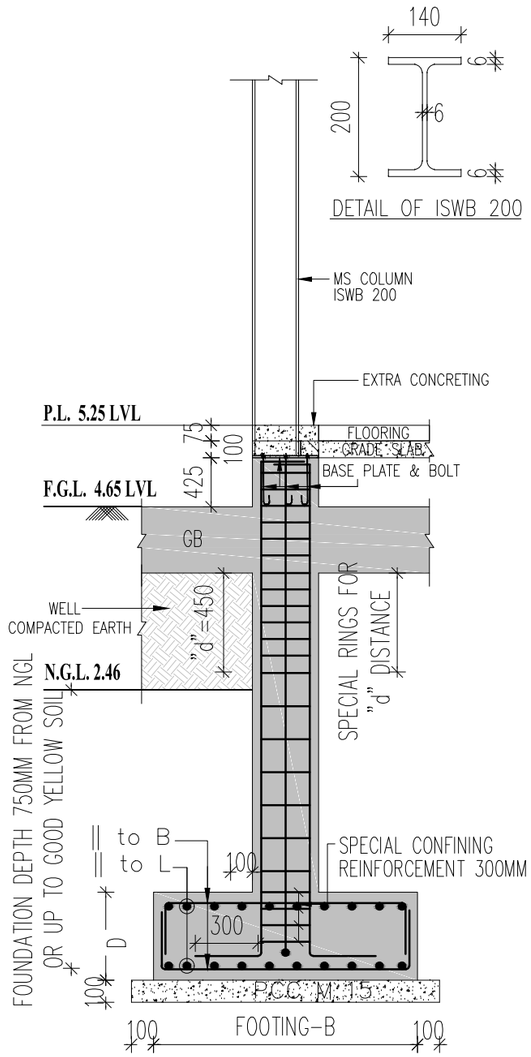
PROJECT :-
6.50 MLD SEWERAGE TREATMENT PLANT

TITLE:- STRUCTURAL DETAIL OF HT SWITCH GEAR ROOM (4.00X6.00)

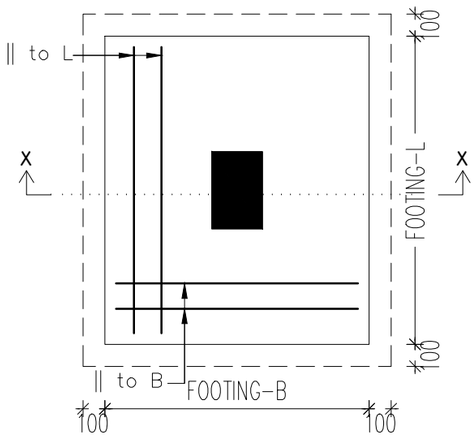
DESIGNED:- NRM
DRAWN:- TS
DRAWING NO.:- ANR/2021/12/SD/DWG/0019
SHEET. 2 OF 2
DATE:- 25.10.2021



CENTERLINE LAYOUT



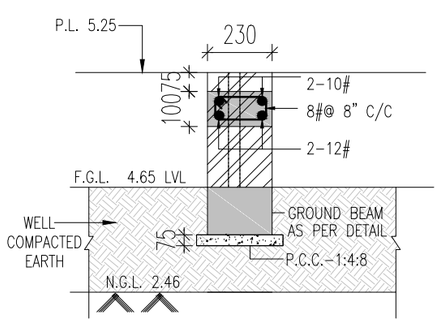
SECTION X-X



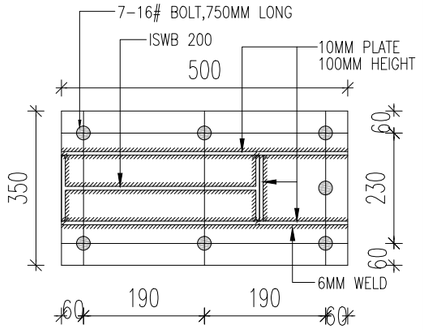
FOOTING PLAN

01.GENERAL NOTES

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
2. FIGURED DIMENSIONS SHALL BE FOLLOWED AND DO NOT SCALE THE DRAWING.
3. CONTRACTOR TO CHECK ALL DIMENSIONS BEFORE COMMENCEMENT OF WORK.
4. ALL STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS. ANY DISCREPANCY IN THE DRAWING(S) SHALL BE BROUGHT TO OUR NOTICE BEFORE COMMENCING THE WORK.
5. CLEAR COVER TO REINFORCEMENT SHALL BE USE,
   A. 50MMIN FOOTING,
   B. 40MM IN COLUMN,
   C. 25MM IN BEAM
   D. 20MM IN SLAB.
6. ALL RCC WORK SHALL BE WITH M:25 GRADE CONCRETE CONFORMING TO IS 456, IS-13920, IS-1893 CODE.& ALL PCC WORK SHALL BE WITH PCC M:15 GRADE CONCRETE.
7. ALL REINFORCEMENT SHALL BE OF FE500 GRADE AS PER IS:1786 LATEST REVISION.
8. LAYOUT OF COLUMNS SHALL BE AS PER ARCHITECTURAL DRAWING.
9. THE BUILDING IS DESIGN TO WITHSTAND THE EARTHQUAKE EFFECT OF SEISMIC ZONE III
10. SAFE BEARING CAPACITY OF SOIL(SBC) TAKEN AS PER SOIL INVESTIGATION REPORT 20 T/M² AT 750MM DEPTH & FOUNDATION SHOULD REST ON IN-SITU SOIL AND IT SHOULD NOT REST ON FILLING MATERIAL i.e. MADE UP SOIL & WATER TABLE NOT ENCOUNTERED AS PER SOIL REPORT IF DURING EXCAVATION WATER TABLE ENCOUNTERED BROUGHT TO THE NOTICE OF CONSULTANT
11. COVER TO REINFORCEMENT IN RCC SHALL BE AS PER IS:456(PAGE NO. 46) – MILD CONDITION.
12. ALL CONCRETE SHALL BE MACHINE MIXED AND MACHINE VIBRATED.
13. BACK FILLING SHALL BE DONE IN WELL COMPACTED AND WELL WATER LAYER NOT EXCEEDING 300MM IN DEPTH.
14. ALL WORK SHALL BE DONE WITH UNDER SUPERVISION OF EXPERIENCED CIVIL ENGG.



FOR G.L TO P.L WALL



BASE PLATE DETAIL

REV	DATE	REVISION	DRW.	CHK	APPD.
R0	11.01.2022	FOR APPROVAL	TS	NRM	

CLIENT :-
THE EXECUTIVE ENGINEER, PUBLIC HEALTH WORKS DIVISION, G.W.S.S.B

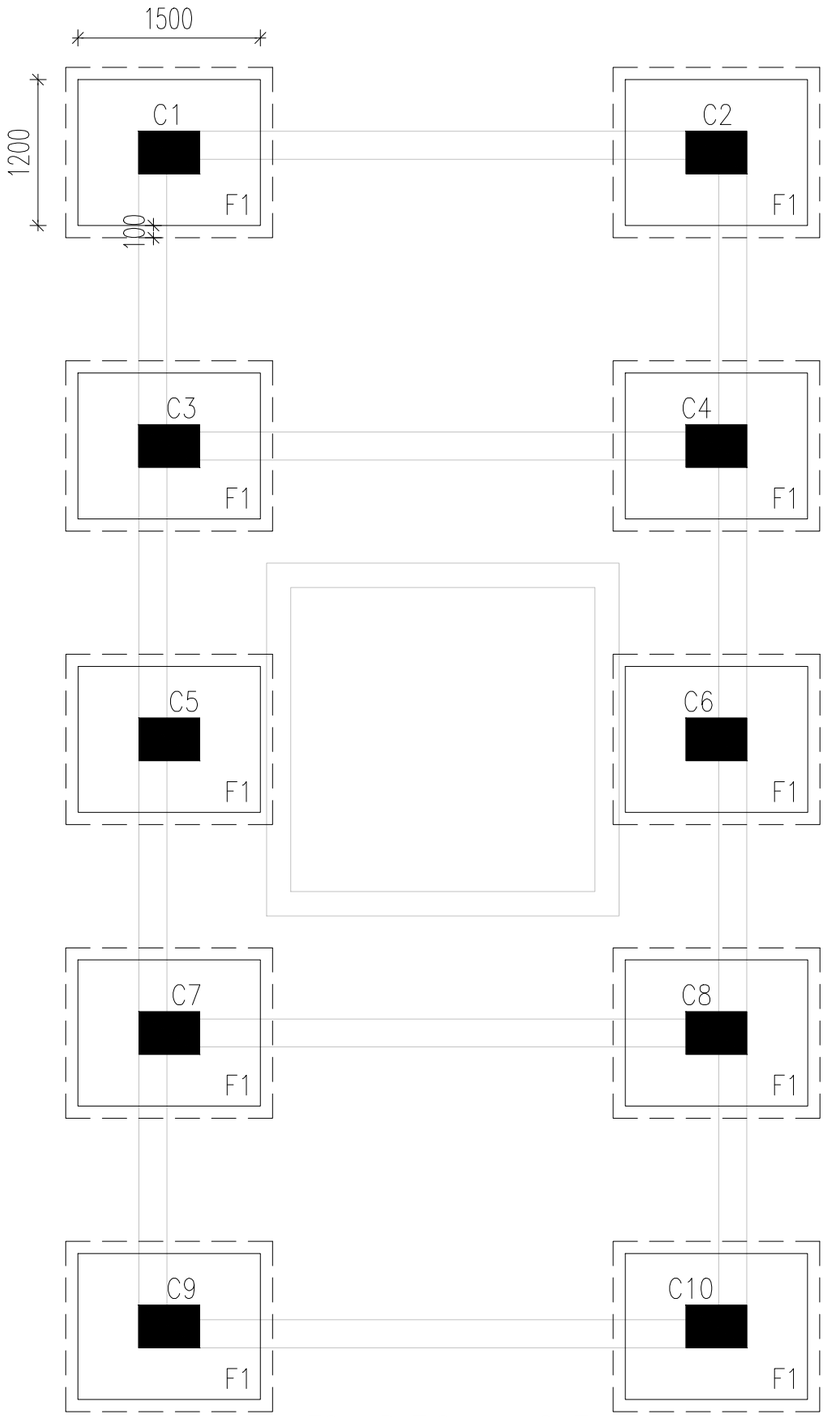
PROJECT CONSULTANT :-

CONTRACTOR :-

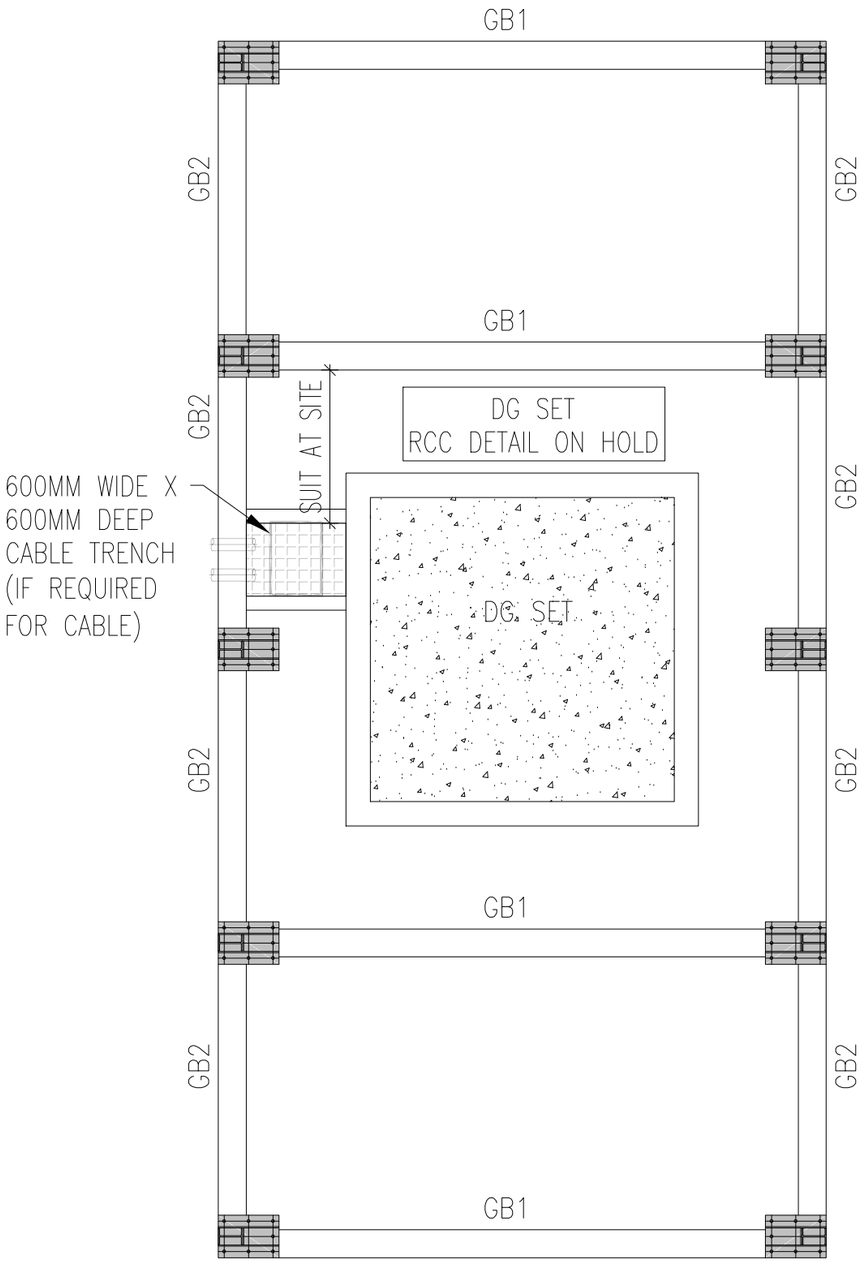
PROJECT :-
6.50 MLD SEWERAGE TREATMENT PLANT

TITLE:-
STRUCTURAL DEAIL OF DG SHED WITH PLATFORM

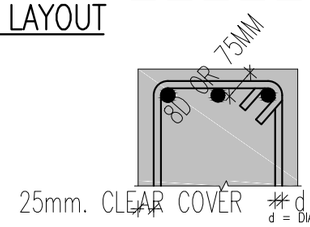
DESIGNED:- NRM
DRAWN:- TS
DRAWING NO.:-
ANR/2021/12/SD/DWG/20
SHEET. 1 OF 3
DATE:- 11.01.2022



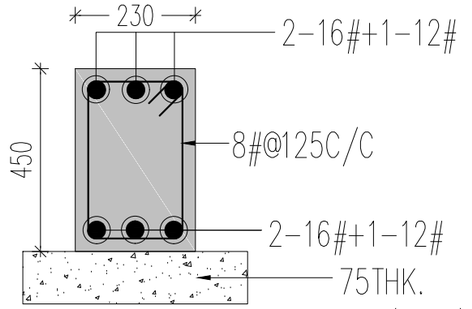
FOUNDATION LAYOUT



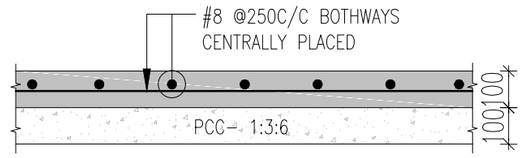
GROUND BEAM LAYOUT



TYPICAL HOOP DETAIL IN BEAM

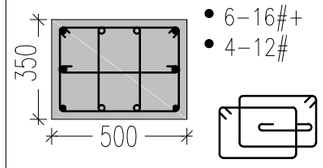


TYP. GROUND BEAM DETAIL



TYPICAL GRADE SLAB SECTION DETAIL
(CONCRETE MIX OF M25 GRADE)

SCHEDULE OF REINFORCEMENT FOR COLUMNS

ARRANGEMENT OF REINFORCEMENT FOUNDATION TO TERRACE	• 6-16#+ • 4-12# 
STIRRUPS SETS	2 RING+1LINK
CONFINEMENT ZONE	8# @ 3" C/C
REST	8# @ 6" C/C
COLUMN MARKS	C1 TO C10

SCHEDULE OF REINFORCEMENT FOR FOOTINGS

FOOTING NO.	COLUMN MARK	FOOTING SIZE	DEPTH	FOOTING REINFORCEMENT	
			D	II TO S.S. OF COL.	II TO L.S. OF COL.
F1	C1 TO C10	1500 X 1200	350	10#@200C/C TOP & BOT. B/W	

REV	DATE	REVISION	DRW.	CHK	APPD.
R0	11.01.2022	FOR APPROVAL	TS	NRM	

CLIENT :-
THE EXECUTIVE ENGINEER, PUBLIC HEALTH WORKS DIVISION, G.W.S.S.B

PROJECT CONSULTANT :-

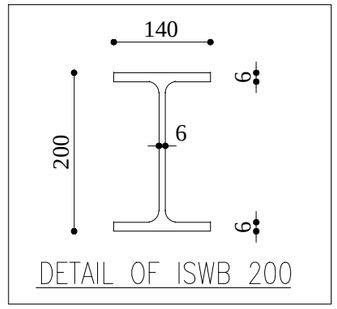
CONTRACTOR :-

PROJECT :-
6.50 MLD SEWERAGE TREATMENT PLANT

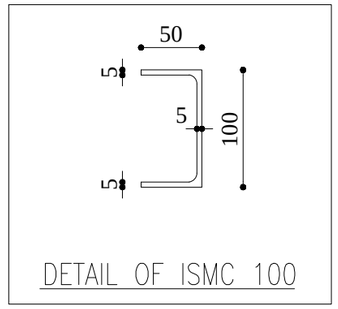
TITLE:-
STRUCTURAL DEAIL OF DG SHED WITH PLATFORM

DESIGNED:- NRM
DRAWN:- TS
DRAWING NO.:-
ANR/2021/12/SD/DWG/20
SHEET. 2 OF 3
DATE:- 11.01.2022

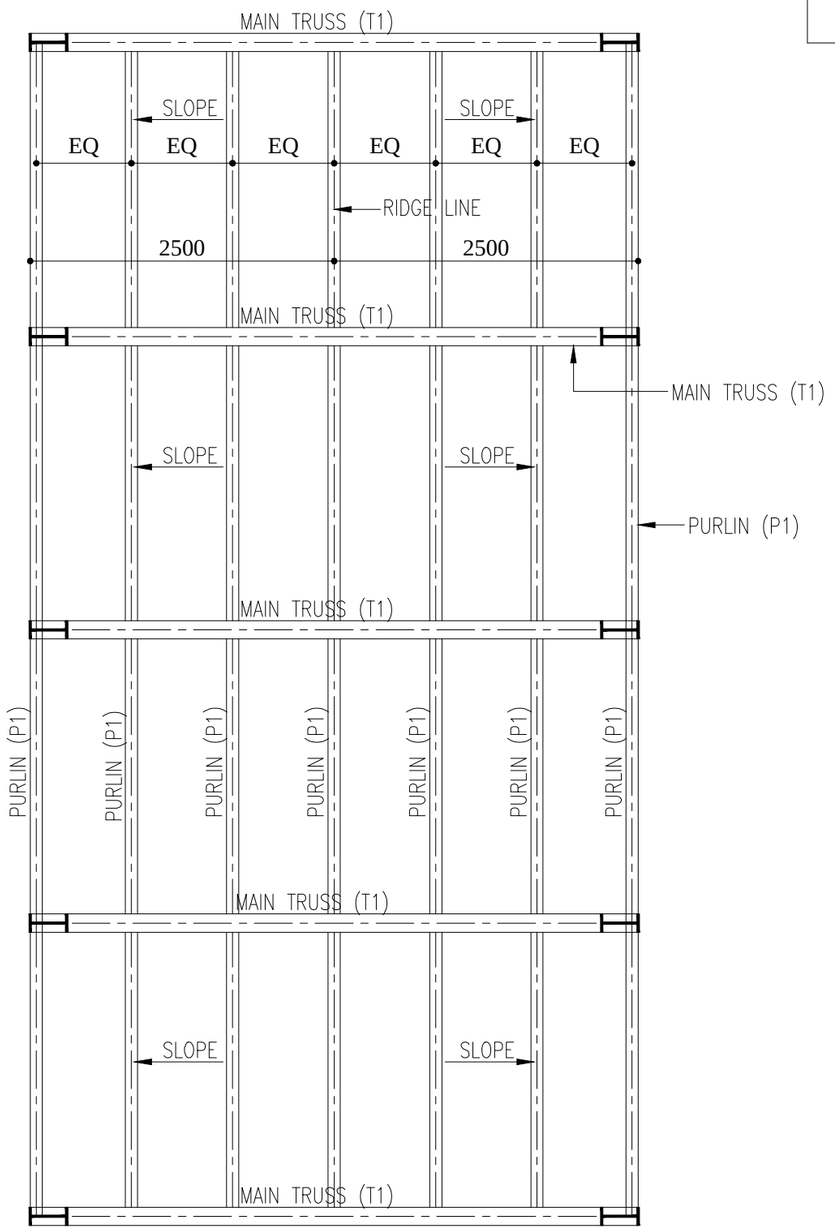
MEMBER	SIZE
MAIN TRUSS (T1)	ISWB 200
PURLIN (P1)	ISMC 100



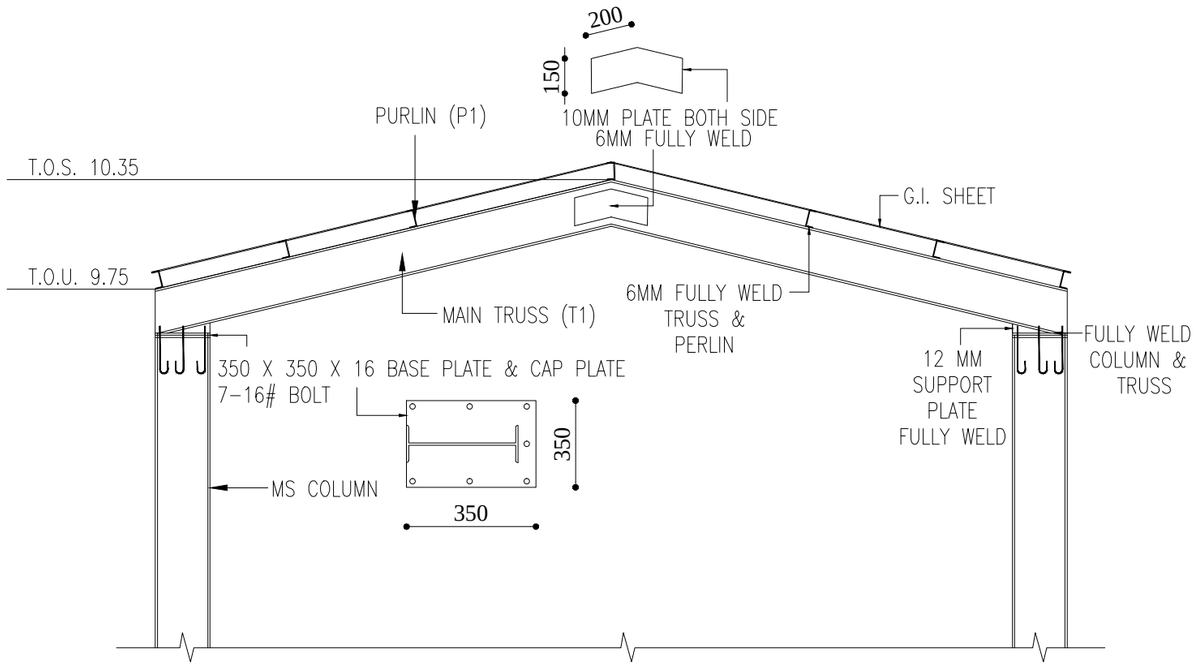
DETAIL OF ISWB 200



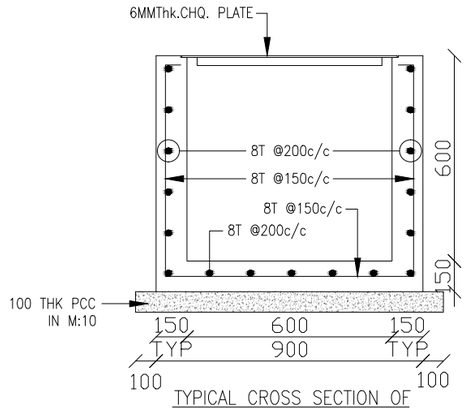
DETAIL OF ISMC 100



PLAN AT 10.35 LVL



SECTION FOR SHED



TYPICAL CROSS SECTION OF
CABLE TRENCH

R0	11.01.2022	FOR APPROVAL	TS	NRM	
REV	DATE	REVISION	DRW.	CHK	APPD.

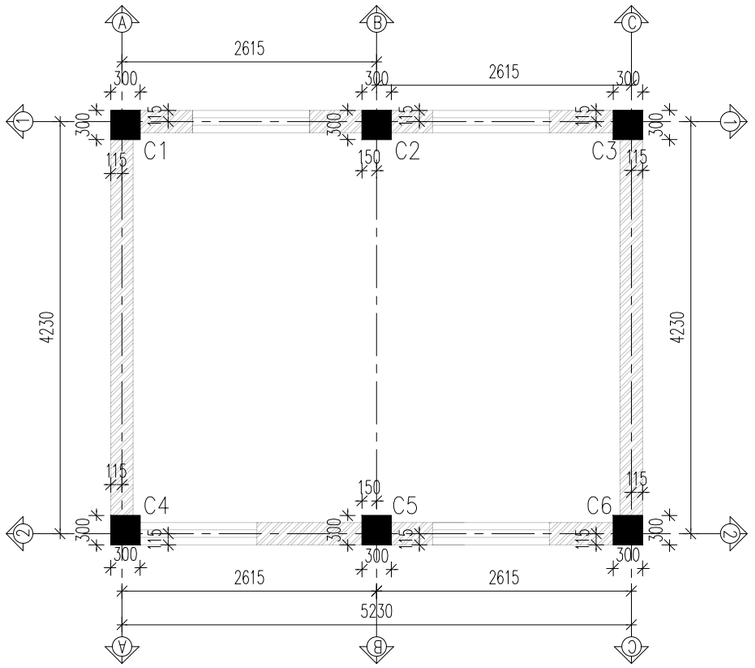
CLIENT :–
THE EXECUTIVE ENGINEER, PUBLIC HEALTH WORKS DIVISION, G.W.S.S.B

PROJECT CONSULTANT :–

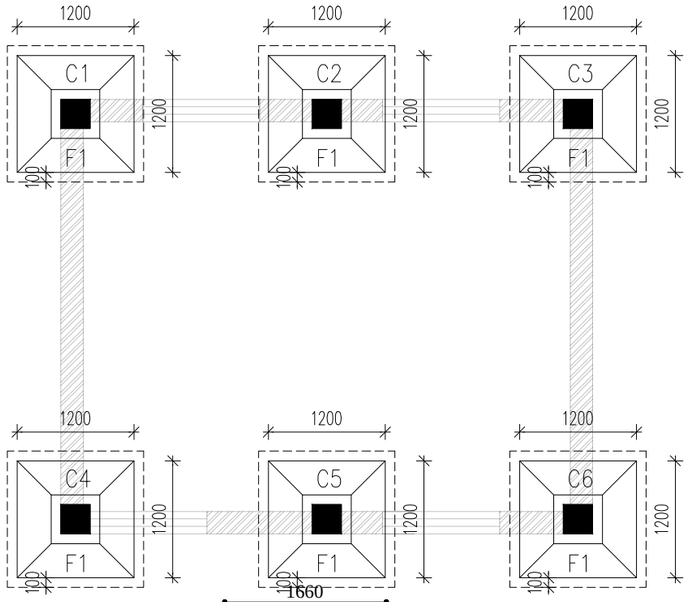
CONTRACTOR :–

PROJECT :–
6.50 MLD SEWERAGE TREATMENT PLANT

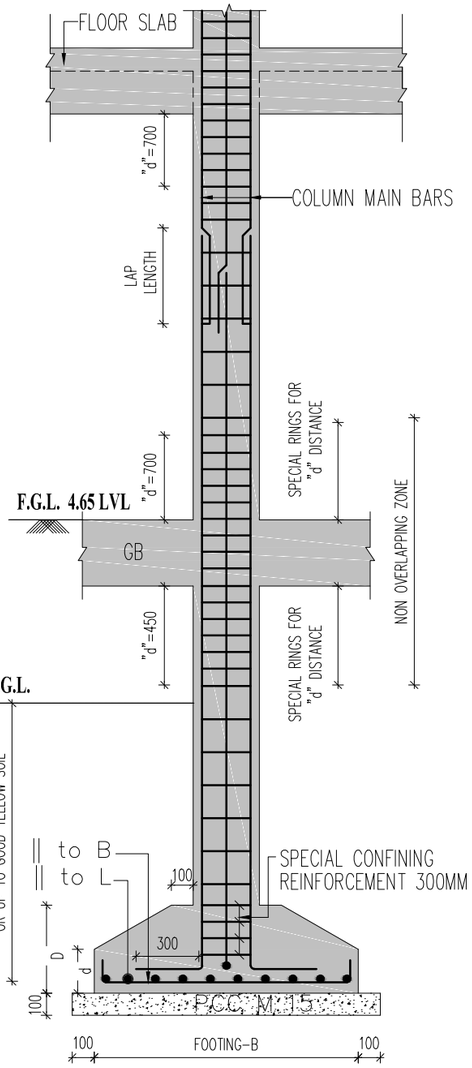
TITLE:– STRUCTURAL DEAIL OF DG SHED WITH PLATFORM	DESIGNED:– NRM
	DRAWN:– TS
	DRAWING NO.:– ANR/2021/12/SD/DWG/20
	SHEET. 3 OF 3
	DATE:– 11.01.2022



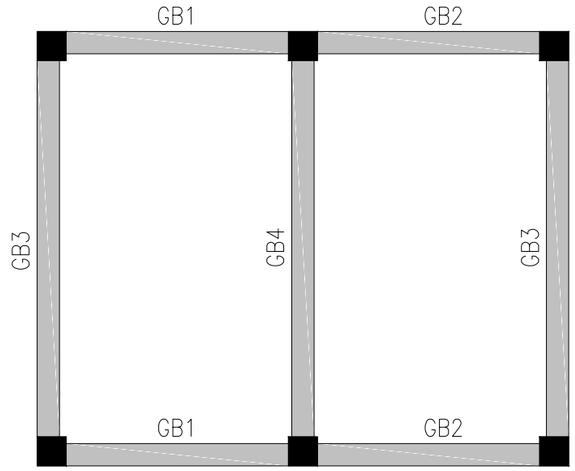
CENTERLINE PLAN



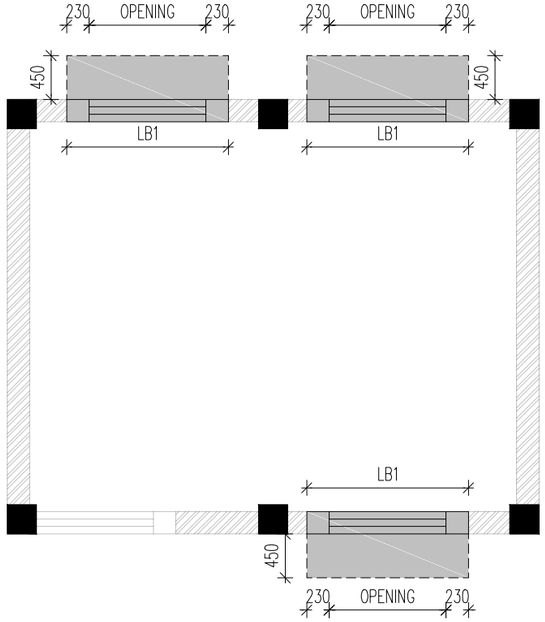
FOUNDATION PLAN



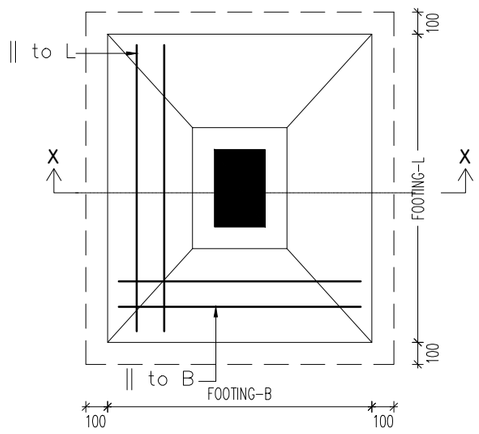
SECTION X-X



GROUND BEAM AT 4.65 LVL



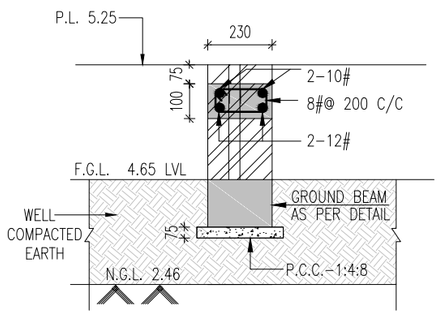
LINTEL LVL (7.35) LAYOUT



FOOTING PLAN

01.GENERAL NOTES

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
2. FIGURED DIMENSIONS SHALL BE FOLLOWED AND DO NOT SCALE THE DRAWING.
3. CONTRACTOR TO CHECK ALL DIMENSIONS BEFORE COMMENCEMENT OF WORK.
4. ALL STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS. ANY DISCREPANCY IN THE DRAWING(S) SHALL BE BROUGHT TO OUR NOTICE BEFORE COMMENCING THE WORK.
5. CLEAR COVER TO REINFORCEMENT SHALL BE USE,
   A. 50MMIN FOOTING,
   B. 40MM IN COLUMN,
   C. 25MM IN BEAM
   D. 20MM IN SLAB.
6. ALL RCC WORK SHALL BE WITH M:25 GRADE CONCRETE CONFORMING TO IS 456, IS-13920, IS-1893 CODE.& ALL PCC WORK SHALL BE WITH PCC M:15 GRADE CONCRETE.
7. ALL REINFORCEMENT SHALL BE OF FE500 GRADE AS PER IS:1786 LATEST REVISION.
8. LAYOUT OF COLUMNS SHALL BE AS PER ARCHITECTURAL DRAWING.
9. THE BUILDING IS DESIGN TO WITHSTAND THE EARTHQUAKE EFFECT OF SEISMIC ZONE III
10. SAFE BEARING CAPACITY OF SOIL(SBC) TAKEN AS PER SOIL INVESTIGATION REPORT 20 T/M² AT 0.75M DEPTH & FOUNDATION SHOULD REST ON IN-SITU SOIL AND IT SHOULD NOT REST ON FILLING MATERIAL i.e. MADE UP SOIL & WATER TABLE NOT ENCOUNTERED AS PER SOIL REPORT IF DURING EXCAVATION WATER TABLE ENCOUNTERED BROUGHT TO THE NOTICE OF CONSULTANT
11. COVER TO REINFORCEMENT IN RCC SHALL BE AS PER IS:456(PAGE NO. 46) - MILD CONDITION.
12. ALL CONCRETE SHALL BE MACHINE MIXED AND MACHINE VIBRATED.
13. BACK FILLING SHALL BE DONE IN WELL COMPACTED AND WELL WATER LAYER NOT EXCEEDING 300MM IN DEPTH.
14. ALL WORK SHALL BE DONE WITH UNDER SUPERVISION OF EXPERIENCED CIVIL ENGG.



FOR G.L TO P.L WALL

REV	DATE	REVISION	DRW.	CHK	APPD.
RO	24.12.2021	FOR APPROVAL	TS	NRM	

CLIENT :-
THE EXECUTIVE ENGINEER, PUBLIC HEALTH WORKS DIVISION, G.W.S.S.B

PROJECT CONSULTANT :-

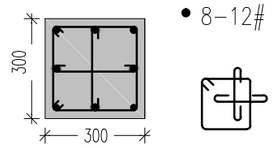
CONTRACTOR :-

PROJECT :-
6.50 MLD SEWERAGE TREATMENT PLANT

TITLE:-
STRUCTURAL DEAIL OF MAINTANCE CUM STORAGE (5.00X4.00)

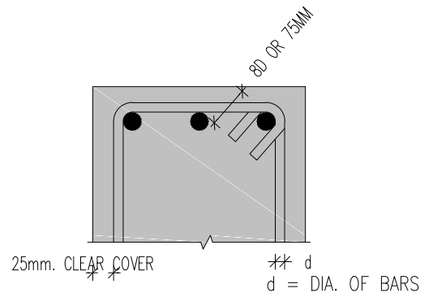
DESIGNED:- NRM
DRAWN:- TS
DRAWING NO.:- ANR/2021/12/SD/DWG/0021
SHEET. 1 OF 2
DATE:- 25.10.2021

SCHEDULE OF REINFORCEMENT FOR COLUMNS

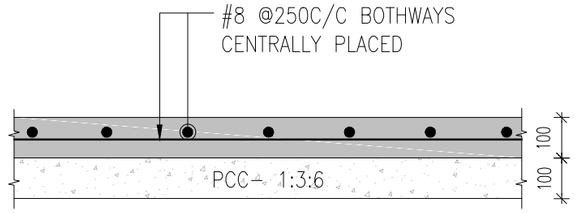
ARRANGEMENT OF REINFORCEMENT FOUNDATION TO TERRACE	
STIRRUPS SETS	1 RING+2LINK
CONFINEMENT ZONE	8# @ 75 C/C
REST	8# @ 150 C/C
COLUMN MARK	C1 TO C6

SCHEDULE OF REINFORCEMENT FOR FOOTINGS

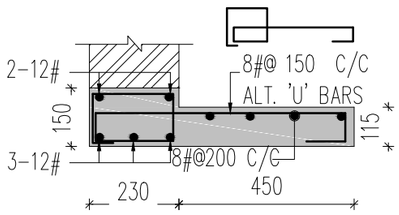
FOOTING NO.	COLUMN MARK	FOOTING SIZE	DEPTH		FOOTING REINFORCEMENT		LAYER OF REINFORCEMENT
			d	D	II TO S.S. OF COL.	II TO L.S. OF COL.	
F1	C1 TO C6	1200 X 1200	175	375	10#@175C/C	10#@175C/C	BOTTOM



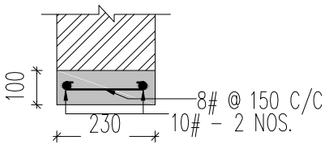
TYPICAL HOOP DETAIL IN BEAM



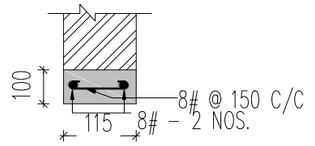
TYPICAL GRADE SLAB SECTION DETAIL
(CONCRETE MIX OF M25 GRADE)



LB1



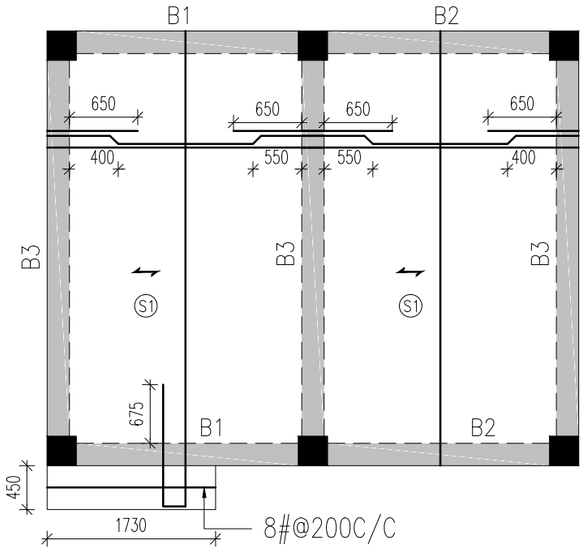
THOROUGH OUT 230 THK. WALL
LINTEL BEND DETAILS



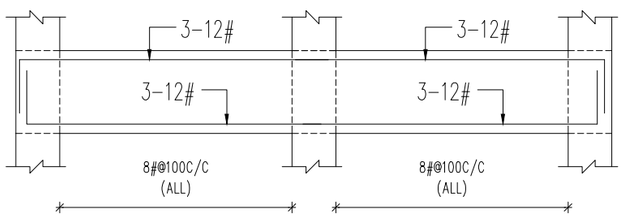
THOROUGH OUT 115 THK. WALL
LINTEL BEND DETAILS

SLAB REINFORCEMENT SCHEDULE :–

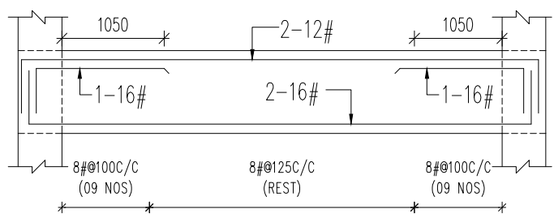
SLAB	TYPE	THICKNESS IN INCH	MAIN SHORT STEEL	DISTRIBUTION STEEL	MAIN EXTRA STEEL	DISTRIBUTION EXTRA STEEL
S1	ONE WAY	125	8#@150C/C	8#@200C/C	8#@300C/C	********



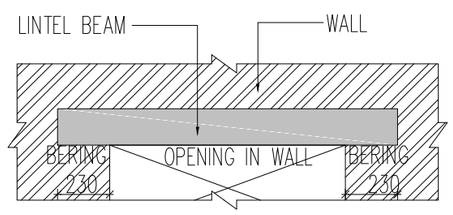
TERRACE SLAB AT 8.75 LVL



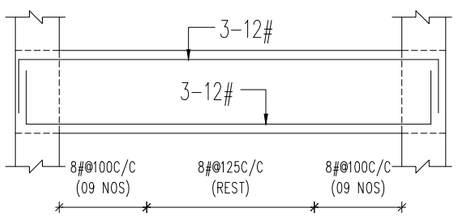
GB1(230 X 350) GB2(230 X 350)



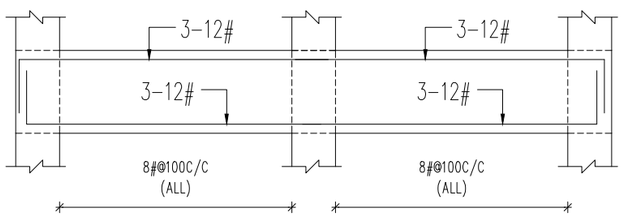
GB2(230 X 350)



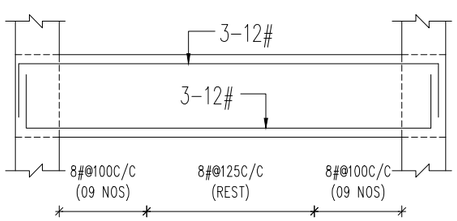
TYP. OPENING DETAIL



GB4(230 X 350)



B1(230 X 425) B2(230 X 425)



B3(230 X 425)

RO	24.12.2021	FOR APPROVAL	TS	NRM	
REV	DATE	REVISION	DRW.	CHK	APPD.

CLIENT :–
THE EXECUTIVE ENGINEER, PUBLIC HEALTH WORKS DIVISION, G.W.S.S.B

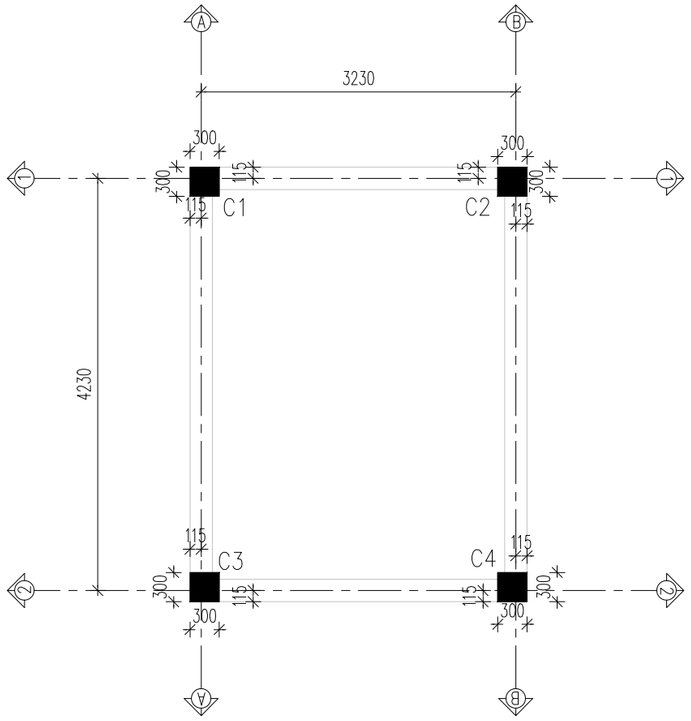
PROJECT CONSULTANT :–

CONTRACTOR :–

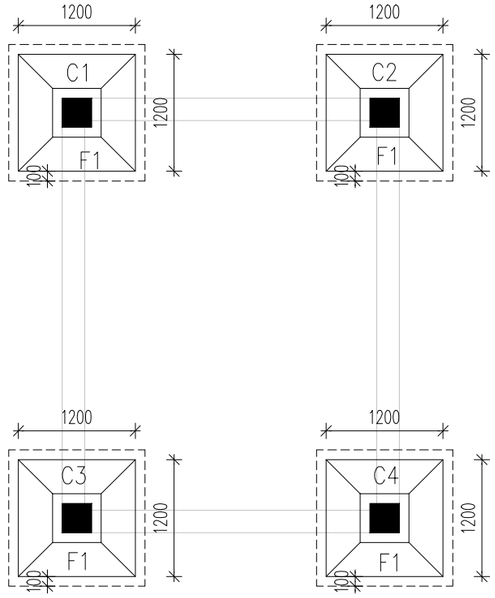
PROJECT :–
6.50 MLD SEWERAGE TREATMENT PLANT

TITLE:–
STRUCTURAL DEAIL OF
MAINTANCE CUM STORAGE (5.00X4.00)

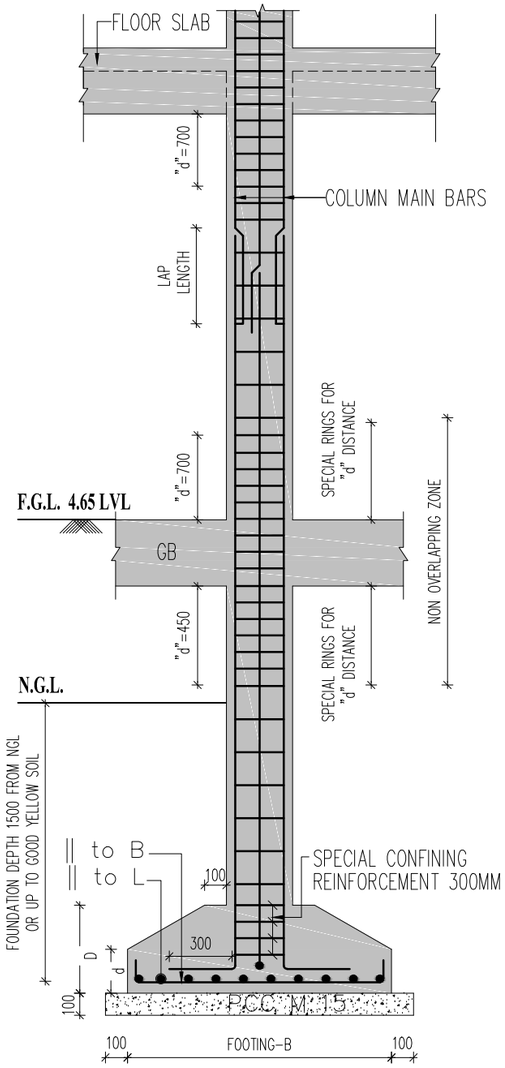
DESIGNED:– NRM
DRAWN:– TS
DRAWING NO.:–
ANR/2021/12/SD/DWG/0021
SHEET. 2 OF 2
DATE:– 25.10.2021



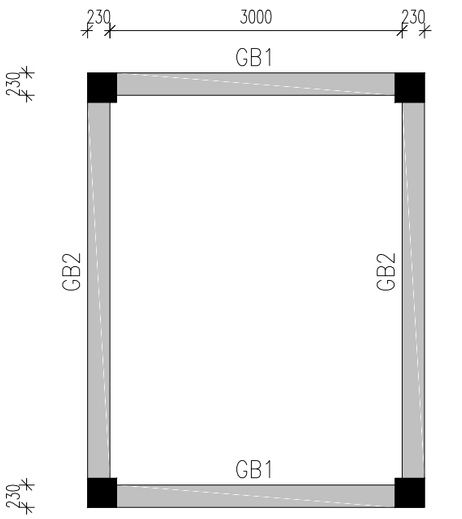
CENTERLINE PLAN



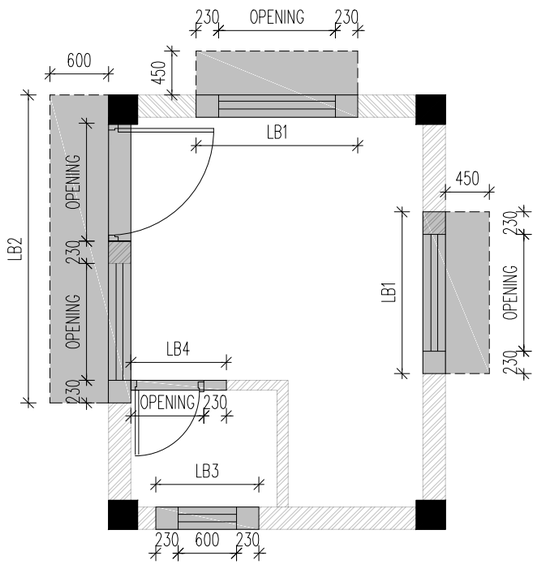
FOUNDATION PLAN



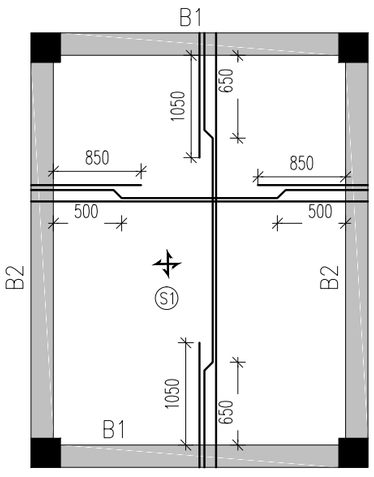
SECTION X-X



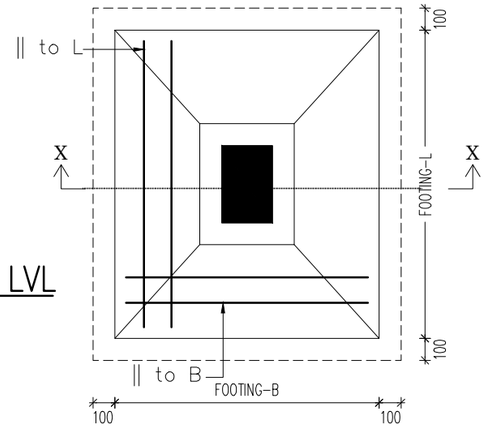
GROUND BEAM AT 4.65 LVL



LINTEL LVL (7.35) LAYOUT



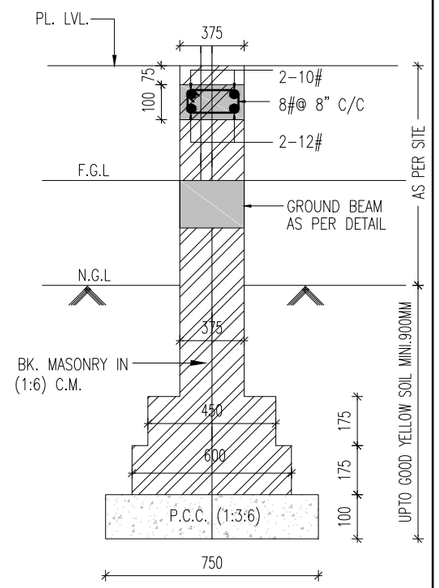
TERRACE SLAB AT 8.75 LVL



FOOTING PLAN

01.GENERAL NOTES

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
2. FIGURED DIMENSIONS SHALL BE FOLLOWED AND DO NOT SCALE THE DRAWING.
3. CONTRACTOR TO CHECK ALL DIMENSIONS BEFORE COMMENCEMENT OF WORK.
4. ALL STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS. ANY DISCREPANCY IN THE DRAWING(S) SHALL BE BROUGHT TO OUR NOTICE BEFORE COMMENCING THE WORK.
5. CLEAR COVER TO REINFORCEMENT SHALL BE USE,
   A. 50MMIN FOOTING,
   B. 40MM IN COLUMN,
   C. 25MM IN BEAM
   D. 20MM IN SLAB.
6. ALL RCC WORK SHALL BE WITH M:25 GRADE CONCRETE CONFORMING TO IS 456, IS-13920, IS-1893 CODE.& ALL PCC WORK SHALL BE WITH PCC M:15 GRADE CONCRETE.
7. ALL REINFORCEMENT SHALL BE OF FE500 GRADE AS PER IS:1786 LATEST REVISION.
8. LAYOUT OF COLUMNS SHALL BE AS PER ARCHITECTURAL DRAWING.
9. THE BUILDING IS DESIGN TO WITHSTAND THE EARTHQUAKE EFFECT OF SEISMIC ZONE III
10. SAFE BEARING CAPACITY OF SOIL(SBC) TAKEN AS PER SOIL INVESTIGATION REPORT 20 T/M² AT 1.5M DEPTH & FOUNDATION SHOULD REST ON IN-SITU SOIL AND IT SHOULD NOT REST ON FILLING MATERIAL i.e. MADE UP SOIL & WATER TABLE NOT ENCOUNTERED AS PER SOIL REPORT IF DURING EXCAVATION WATER TABLE ENCOUNTERED BROUGHT TO THE NOTICE OF CONSULTANT
11. COVER TO REINFORCEMENT IN RCC SHALL BE AS PER IS:456(PAGE NO. 46) - MILD CONDITION.
12. ALL CONCRETE SHALL BE MACHINE MIXED AND MACHINE VIBRATED.
13. BACK FILLING SHALL BE DONE IN WELL COMPACTED AND WELL WATER LAYER NOT EXCEEDING 300MM IN DEPTH.
14. ALL WORK SHALL BE DONE WITH UNDER SUPERVISION OF EXPERIENCED CIVIL ENGG.



FOR G.L TO P.L
LOAD BEARING WALL

REV	DATE	REVISION	DRW.	CHK	APPD.
R0	18.10.2021	FOR APPROVAL	TS	NRM	

CLIENT :-
THE EXECUTIVE ENGINEER, PUBLIC HEALTH WORKS DIVISION, G.W.S.S.B

PROJECT CONSULTANT :-

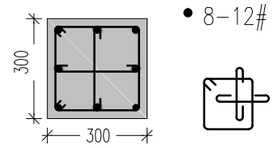
CONTRACTOR :-

PROJECT :-
6.50 MLD SEWERAGE TREATMENT PLANT

TITLE:-
STRUCTURAL DEAIL OF SECURITY CABIN (3.00X4.00)

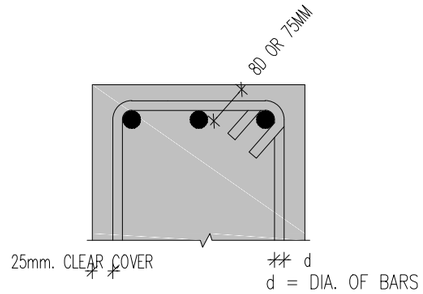
DESIGNED:- NRM
DRAWN:- TS
DRAWING NO.:- ANR/2021/12/SD/DWG/0022
SHEET. 1 OF 2
DATE:- 17.10.2021

SCHEDULE OF REINFORCEMENT FOR COLUMNS

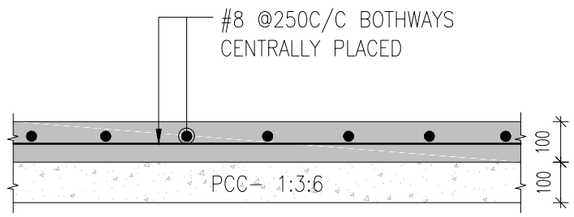
ARRANGEMENT OF REINFORCEMENT FOUNDATION TO TERRACE	
STIRRUPS SETS	1 RING+2LINK
CONFINEMENT ZONE	8# @ 3" C/C
REST	8# @ 6" C/C

SCHEDULE OF REINFORCEMENT FOR FOOTINGS

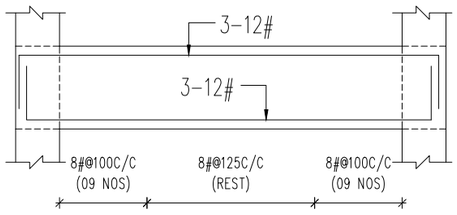
FOOTING NO.	COLUMN MARK	FOOTING SIZE	DEPTH		FOOTING REINFORCEMENT		LAYER OF REINFORCEMENT
			d	D	II TO S.S. OF COL.	II TO L.S. OF COL.	
F1	C1 TO C4	1200 X 1200	175	375	10#@175C/C	10#@175C/C	BOTTOM



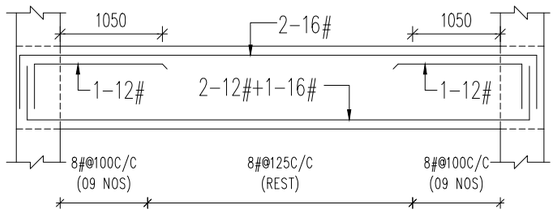
TYPICAL HOOP DETAIL IN BEAM



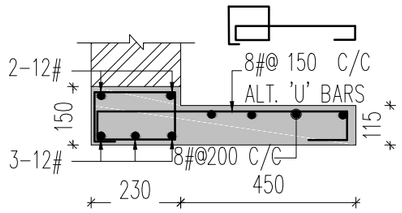
TYPICAL GRADE SLAB SECTION DETAIL
(CONCRETE MIX OF M20 GRADE)



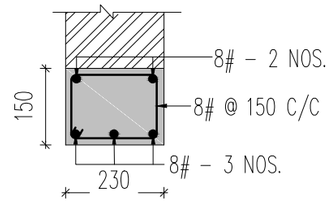
GB1(230 X 350)



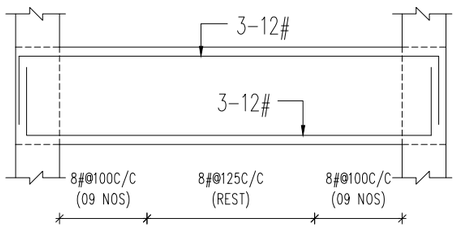
GB2(230 X 350)



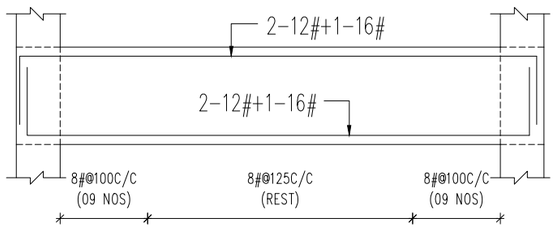
LB1



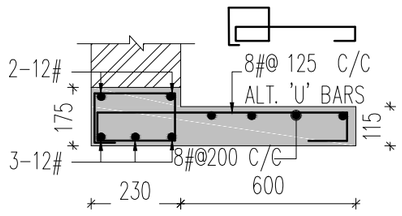
LB3



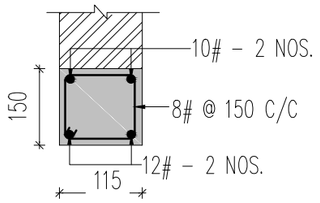
B1(230 X 425)



B2(230 X 425)



LB2



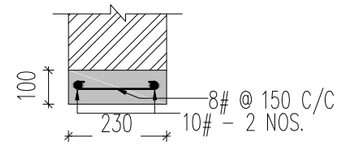
LB4

SLAB REINFORCEMENT SCHEDULE :-

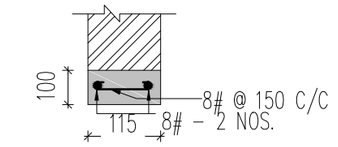
SLAB	TYPE	THICKNESS IN INCH	MAIN SHORT STEEL	DISTRIBUTION STEEL	MAIN EXTRA STEEL	DISTRIBUTION EXTRA STEEL
S1	TWO WAY	125	8#@150C/C	8#@150C/C	8#@300C/C	8#@300C/C

01.GENERAL NOTES

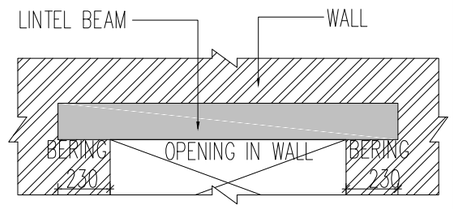
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
2. FIGURED DIMENSIONS SHALL BE FOLLOWED AND DO NOT SCALE THE DRAWING.
3. CONTRACTOR TO CHECK ALL DIMENSIONS BEFORE COMMENCEMENT OF WORK.
4. ALL STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS. ANY DISCREPANCY IN THE DRAWING(S) SHALL BE BROUGHT TO OUR NOTICE BEFORE COMMENCING THE WORK.
5. CLEAR COVER TO REINFORCEMENT SHALL BE USE,
   A. 50MMIN FOOTING,
   B. 40MM IN COLUMN,
   C. 25MM IN BEAM
   D. 20MM IN SLAB.
6. ALL RCC WORK SHALL BE WITH M:25 GRADE CONCRETE CONFORMING TO IS 456, IS-13920, IS-1893 CODE.& ALL PCC WORK SHALL BE WITH PCC M:15 GRADE CONCRETE.
7. ALL REINFORCEMENT SHALL BE OF FE500 GRADE AS PER IS:1786 LATEST REVISION.
8. LAYOUT OF COLUMNS SHALL BE AS PER ARCHITECTURAL DRAWING.
9. THE BUILDING IS DESIGN TO WITHSTAND THE EARTHQUAKE EFFECT OF SEISMIC ZONE III
10. SAFE BEARING CAPACITY OF SOIL(SBC) TAKEN AS PER SOIL INVESTIGATION REPORT 20 T/M² AT 1.5M DEPTH & FOUNDATION SHOULD REST ON IN-SITU SOIL AND IT SHOULD NOT REST ON FILLING MATERIAL i.e. MADE UP SOIL & WATER TABLE NOT ENCOUNTERED AS PER SOIL REPORT IF DURING EXCAVATION WATER TABLE ENCOUNTERED BROUGHT TO THE NOTICE OF CONSULTANT
11. COVER TO REINFORCEMENT IN RCC SHALL BE AS PER IS:456(PAGE NO. 46) - MILD CONDITION.
12. ALL CONCRETE SHALL BE MACHINE MIXED AND MACHINE VIBRATED.
13. BACK FILLING SHALL BE DONE IN WELL COMPACTED AND WELL WATER LAYER NOT EXCEEDING 300MM IN DEPTH.
14. ALL WORK SHALL BE DONE WITH UNDER SUPERVISION OF EXPERIENCED CIVIL ENGG.



THOROUGH OUT 230 THK. WALL
LINTEL BEND DETAILS



THOROUGH OUT 115 THK. WALL
LINTEL BEND DETAILS



TYP. OPENING DETAIL

REV	DATE	REVISION	DRW.	CHK	APPD.
R0	18.10.2021	FOR APPROVAL	TS	NRM	

CLIENT :-
THE EXECUTIVE ENGINEER, PUBLIC HEALTH WORKS DIVISION, G.W.S.S.B

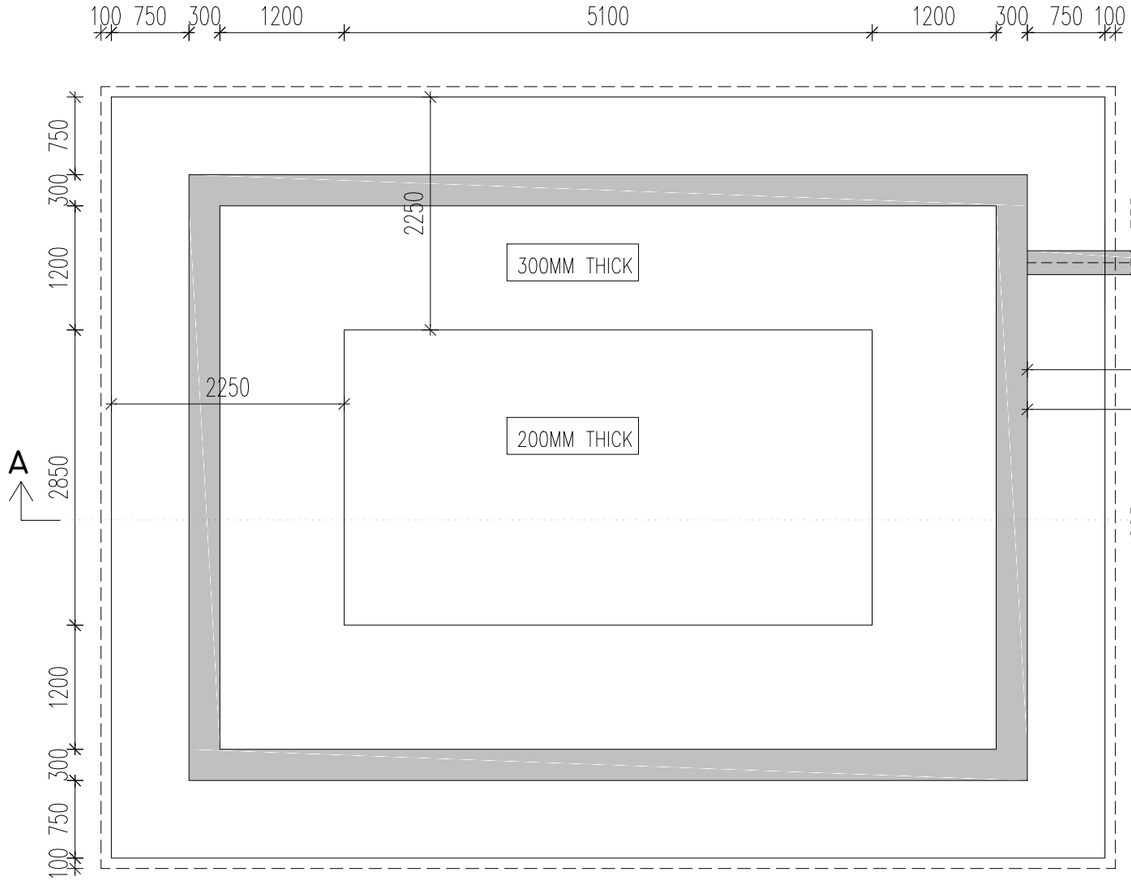
PROJECT CONSULTANT :-

CONTRACTOR :-

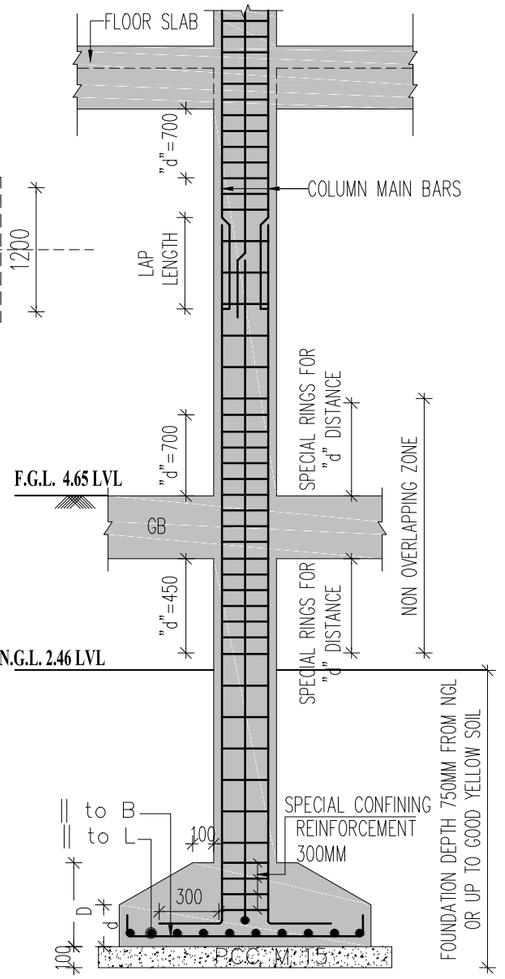
PROJECT :-
6.50 MLD SEWERAGE TREATMENT PLANT

TITLE:-
STRUCTURAL DEAIL OF SECURITY CABIN (3.00X4.00)

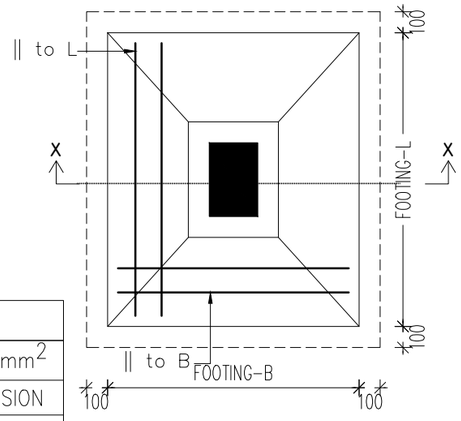
DESIGNED:- NRM
DRAWN:- TS
DRAWING NO.:- ANR/2021/12/SD/DWG/0022
SHEET. 2 OF 2
DATE:- 17.10.2021



PLAN AT 3.10 LVL



SECTION X-X

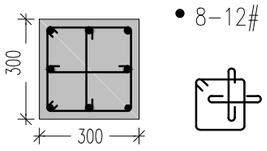


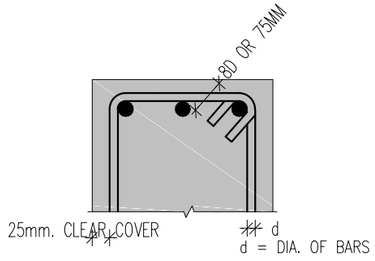
FOOTING PLAN

SCHEDULE OF REINFORCEMENT FOR FOOTINGS

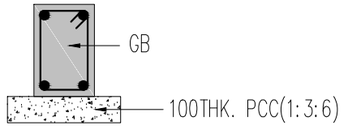
FOOTING NO.	COLUMN MARK	FOOTING SIZE	DEPTH		FOOTING REINFORCEMENT		LAYER OF REINFORCEMENT
			d	D	|| TO S.S. OF COL.	|| TO L.S. OF COL.	
F1	C1	1200 X 1200	175	350	10#@175C/C	10#@175C/C	BOTTOM

SCHEDULE OF REINFORCEMENT FOR COLUMNS

ARRANGEMENT OF REINFORCEMENT FOUNDATION TO TERRACE	
STIRRUPS SETS	1 RING+2LINK
CONFINEMENT ZONE	8# @ 3" C/C
REST	8# @ 6" C/C
COLUMN MARKS	C1



TYPICAL HOOP DETAIL IN BEAM



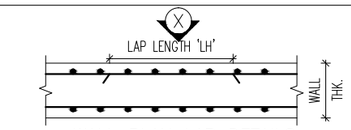
TYPICAL GROUND BEAM DETAILS

SCHEDULE OF LAP LENGTH

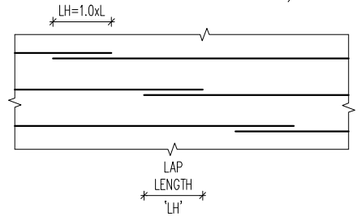
Fy = 415 N/mm^2		Fy = 500 N/mm^2	
CONC.GRADE	TENSION	CONC.GRADE	TENSION
M:20	48 T	M:20	57 T
M:25	40 T	M:25	49 T
M:30	38 T	M:30	45 T

01.GENERAL NOTES

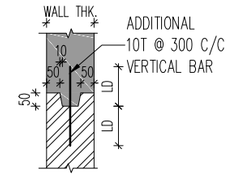
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
2. FIGURED DIMENSIONS SHALL BE FOLLOWED AND DO NOT SCALE THE DRAWING.
3. CONTRACTOR TO CHECK ALL DIMENSIONS BEFORE COMMENCEMENT OF WORK.
4. ALL STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS. ANY DISCREPANCY IN THE DRAWING(S) SHALL BE BROUGHT TO OUR NOTICE BEFORE COMMENCING THE WORK.
5. CLEAR COVER TO REINFORCEMENT SHALL BE USE,
   A. 50MMIN FOOTING,
   B. 40MM IN COLUMN,
   C. 25MM IN BEAM
   D. 20MM IN SLAB.
   E. 45MM IN WALL
   F. 50MM IN RAFT
6. ALL RCC WORK SHALL BE WITH M:30 GRADE CONCRETE FOR WATER RETAINING STRUCTURE & M:25 CONCRETE FOR NON WATER RETAINING STRUCTURE CONFORMING TO IS 456, IS-13920, IS-1893 CODE.& ALL PCC WORK SHALL BE WITH PCC M:15 GRADE CONCRETE.
7. REINFORCEMENT FE500 GRADE FOR BUILDING PART & FUSION BONDED EPOXY COATED REINFORCEMENT HAVING NOT LESS THAN 175 TO 300 MICRON FOR STRUCTURE IN CONTACT WITH SEWAGE CONFORMING TO IS 1786-LATEST REVISION. GRADE AS PER IS:1786 LATEST REVISION & HOWEVER STEEL GRADE AND TYPE SHALL BE VERIFIED WITH TENDER SPECIFICATION
8. LAYOUT OF COLUMNS SHALL BE AS PER ARCHITECTURAL DRAWING.
9. THE BUILDING IS DESIGN TO WITHSTAND THE EARTHQUAKE EFFECT OF SEISMIC ZONE III
10. SAFE BEARING CAPACITY OF SOIL(SBC) TAKEN AS PER SOIL INVESTIGATION REPORT 20 T/M² AT 750MM DEPTH & FOUNDATION SHOULD REST ON IN-SITU SOIL AND IT SHOULD NOT REST ON FILLING MATERIAL I.E. MADE UP SOIL & WATER TABLE NOT ENCOUNTERED AS PER SOIL REPORT IF DURING EXCAVATION WATER TABLE ENCOUNTERED BROUGHT TO THE NOTICE OF CONSULTANT
11. COVER TO REINFORCEMENT IN RCC SHALL BE AS PER IS:456(PAGE NO. 46) - MILD CONDITION.
12. ALL CONCRETE SHALL BE MACHINE MIXED AND MACHINE VIBRATED.
13. BACK FILLING SHALL BE DONE IN WELL COMPACTED AND WELL WATER LAYER NOT EXCEEDING 300MM IN DEPTH.
14. ALL WORK SHALL BE DONE WITH UNDER SUPERVISION OF EXPERIENCED CIVIL ENGG.



WALL PLAN LAP DETAILS FOR HORIZONTAL STEEL (LAP SHALL BE STAGGERED AS PER ELEVATION : X)



ELEVATION : X
LAP LENGTH LH : 1.0xL FOR HORIZONTAL STEEL



TYPICAL CONSTRUCTION JOINT IN VERTICAL WALL

REV	DATE	REVISION	DRW.	CHK	APPD.
R1	29.01.2022	FOR APPROVAL	TS	NRM	
R0	09.01.2022	FOR APPROVAL	TS	NRM	

CLIENT :-
THE EXECUTIVE ENGINEER, PUBLIC HEALTH WORKS DIVISION, G.W.S.S.B

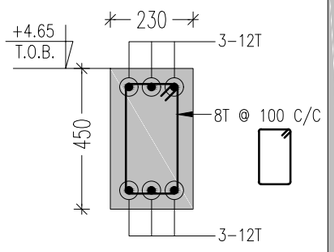
PROJECT CONSULTANT :-

CONTRACTOR :-

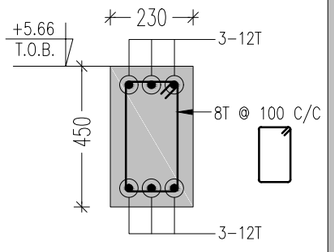
PROJECT :-
6.50 MLD SEWERAGE TREATMENT PLANT

TITLE:-
STRUCTURAL DETAIL CCT

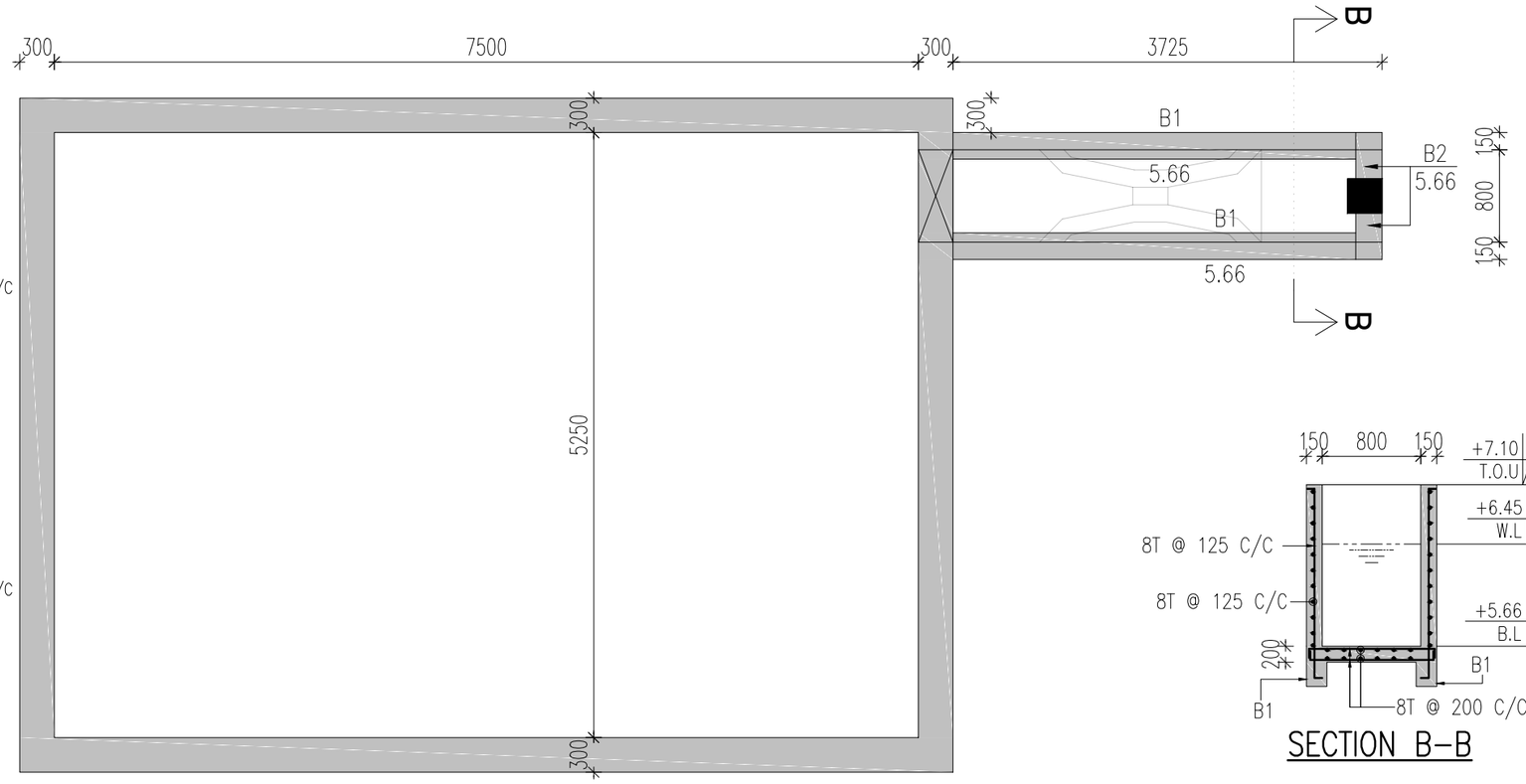
DESIGNED:- NRM
DRAWN:- TS
DRAWING NO.:-
ANR/2021/12/SD/DWG/25
SHEET. 1 OF 2
DATE:- 07.01.2022



GB1

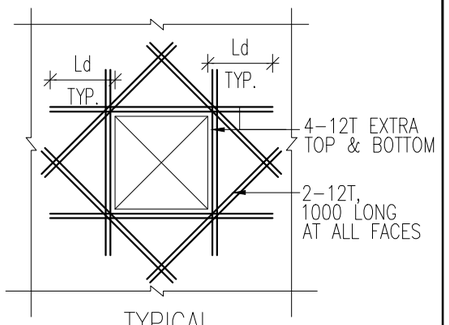


B1 & B2

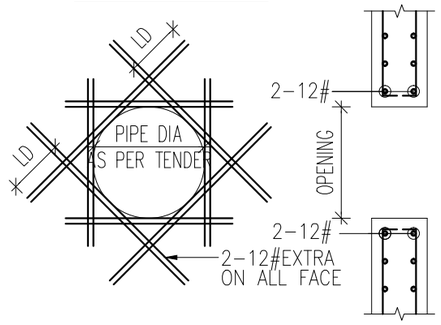


PLAN AT TOP LVL

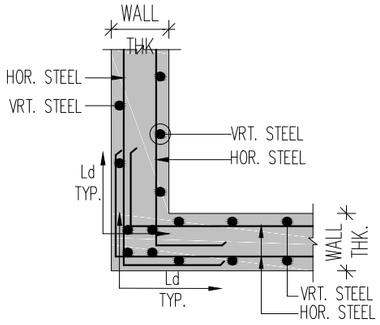
SECTION B-B



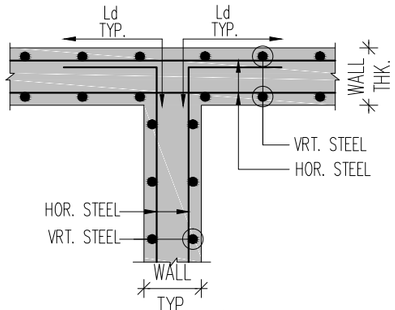
TYPICAL
CUTOUT DETAIL



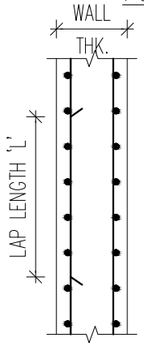
TYPICAL DETAIL OF OPENING
FOR PIPE & VENT



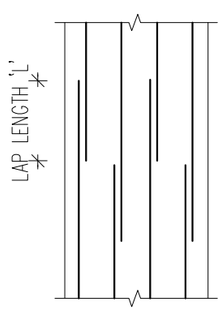
TYPICAL L-JUNCTION
(IN PLAN)



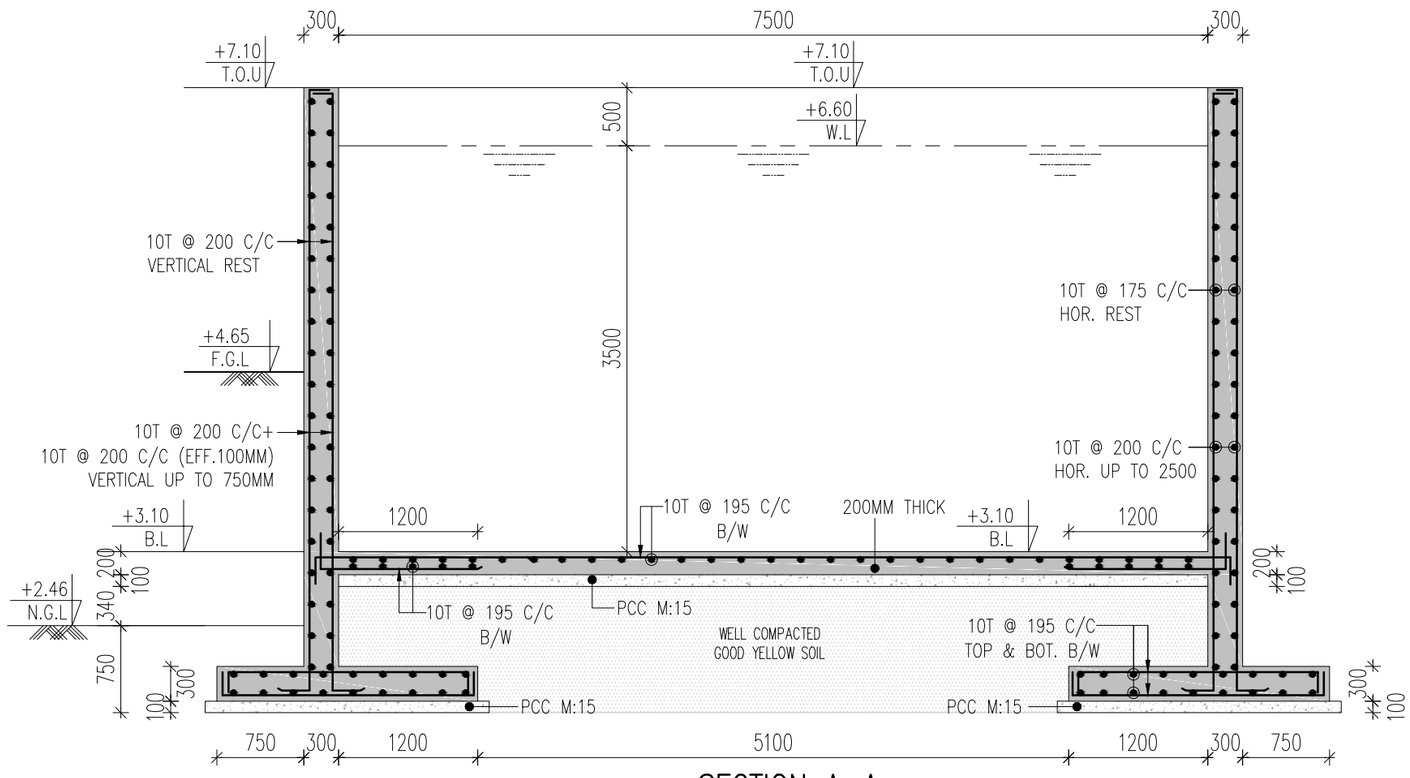
T-JUNCTION (IN PLAN)



WALL SECTION LAP DETAILS
FOR VERTICAL STEEL
(LAP SHALL BE STAGGERED
AS PER ELEVATION : Y)



ELEVATION : Y



SECTION A-A

R1	29.01.2022	FOR APPROVAL	TS	NRM	
R0	09.01.2022	FOR APPROVAL	TS	NRM	
REV	DATE	REVISION	DRW.	CHK	APPD.

CLIENT :-
THE EXECUTIVE ENGINEER, PUBLIC HEALTH WORKS DIVISION, G.W.S.S.B

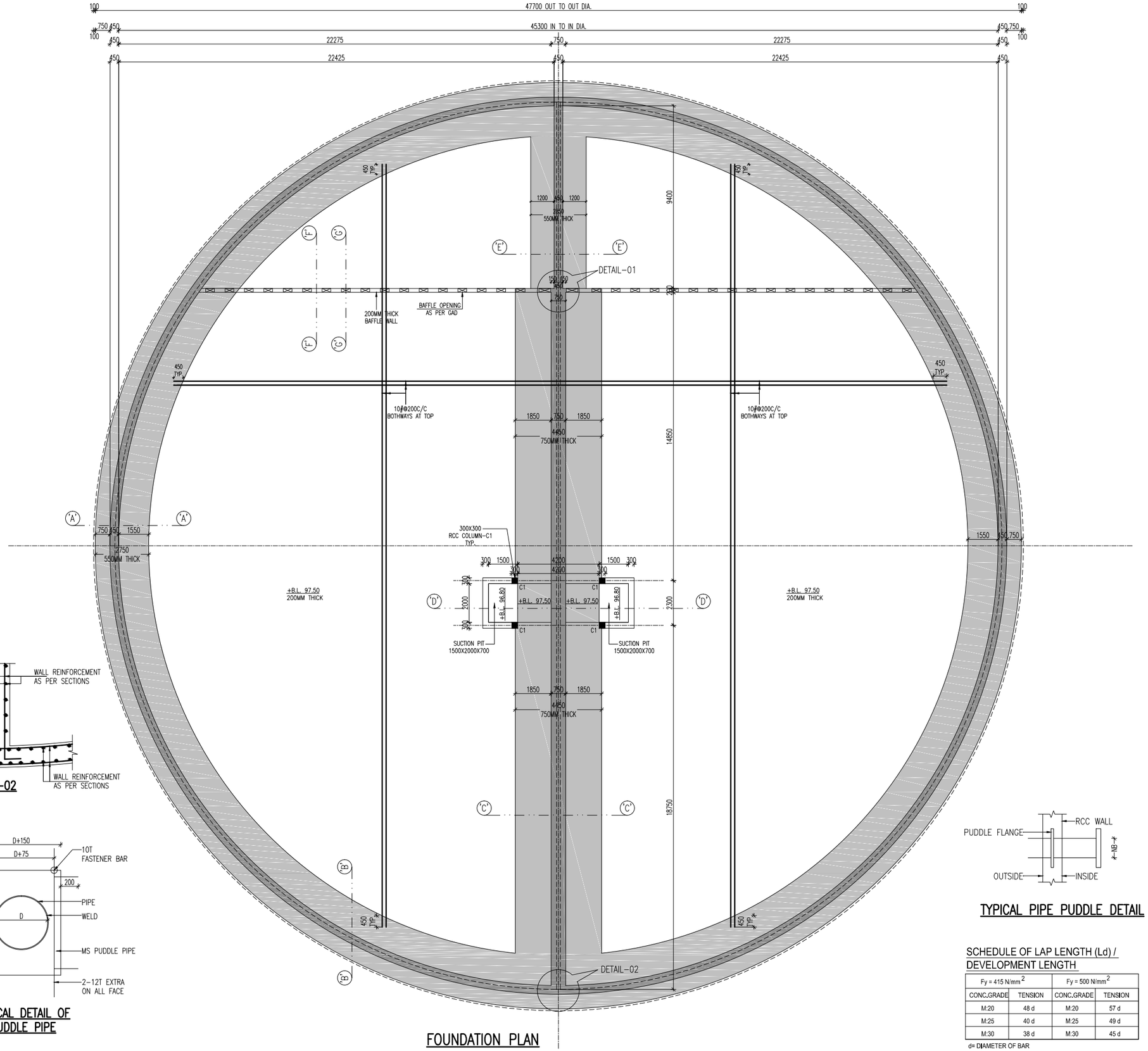
PROJECT CONSULTANT :-

CONTRACTOR :-

PROJECT :-
6.50 MLD SEWERAGE TREATMENT PLANT

TITLE:-
STRUCTURAL DETAIL CCT

DESIGNED:- NRM
DRAWN:- TS
DRAWING NO.:-
ANR/2021/12/SD/DWG/25
SHEET. 2 OF 2
DATE:- 07.01.2022



FOUNDATION PLAN

DETAIL-02

TYPICAL DETAIL OF PUDDLE PIPE

TYPICAL PIPE PUDDLE DETAIL

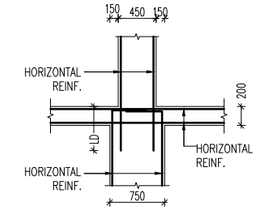
SCHEDULE OF LAP LENGTH (Ld) / DEVELOPMENT LENGTH

Fy = 415 N/mm^2		Fy = 500 N/mm^2	
CONC.GRADE	TENSION	CONC.GRADE	TENSION
M:20	48 d	M:20	57 d
M:25	40 d	M:25	49 d
M:30	38 d	M:30	45 d

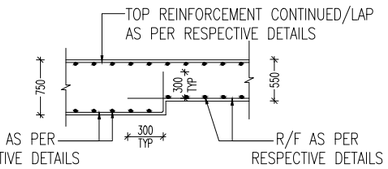
d= DIAMETER OF BAR

01.GENERAL NOTES

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
2. FIGURED DIMENSIONS SHALL BE FOLLOWED AND DO NOT SCALE THE DRAWING.
3. CONTRACTOR TO CHECK ALL DIMENSIONS BEFORE COMMENCEMENT OF WORK.
4. ALL STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS. ANY DISCREPANCY IN THE DRAWING(S) SHALL BE BROUGHT TO OUR NOTICE BEFORE COMMENCING THE WORK.
5. CLEAR COVER TO REINFORCEMENT SHALL BE USE,
   A. 50MMIN FOOTING
   B. 40MM IN COLUMN
   C. 25MM IN BEAM
   D. 20MM IN SLAB
   E. 45MM IN WAL
   F. 50MM IN RAFT
6. ALL RCC WORK SHALL BE WITH M:30 GRADE CONCRETE FOR WATER RETAINING STRUCTURE & M:25 CONCRETE FOR NON WATER RETAINING STRUCTURE CONFORMING TO IS 456, IS-13920, IS-1893 CODE.& ALL PCC WORK SHALL BE WITH PCC M:15 GRADE CONCRETE.
7. REINFORCEMENT FE500 GRADE FOR BUILDING PART & FUSION BONDED EPOXY COATED REINFORCEMENT HAVING NOT LESS THAN 175 TO 300 MICRON FOR STRUCTURE IN CONTACT WITH SEWAGE CONFORMING TO IS 1786-LATEST REVISION. GRADE AS PER IS:1786 LATEST REVISION & HOWEVER STEEL GRADE AND TYPE SHALL BE VERIFIED WITH TENDER SPECIFICATION
8. LAYOUT OF COLUMNS SHALL BE AS PER ARCHITECTURAL DRAWING.
9. THE BUILDING IS DESIGN TO WITHSTAND THE EARTHQUAKE EFFECT OF SEISMIC ZONE III
10. SAFE BEARING CAPACITY OF SOIL(SBC) TAKEN AS PER SOIL INVESTIGATION REPORT 18 T/M^2 AT 1500MM DEPTH & FOUNDATION SHOULD REST ON IN-SITU SOIL AND IT SHOULD NOT REST ON FILLING MATERIAL I.E. MADE UP SOIL & WATER TABLE NOT ENCOUNTERED AS PER SOIL REPORT IF DURING EXCAVATION WATER TABLE ENCOUNTERED BROUGHT TO THE NOTICE OF CONSULTANT
11. COVER TO REINFORCEMENT IN RCC SHALL BE AS PER IS:456(PAGE NO. 46) – MILD CONDITION.
12. ALL CONCRETE SHALL BE MACHINE MIXED AND MACHINE VIBRATED.
13. BACK FILLING SHALL BE DONE IN WELL COMPACTED AND WELL WATER LAYER NOT EXCEEDING 300MM IN DEPTH.
14. ALL WORK SHALL BE DONE WITH UNDER SUPERVISION OF EXPERIENCED CIVIL ENGG.

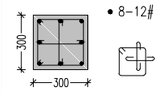


DETAIL-01



TYPICAL DETAIL FOR DEPTH VARIATION AT WALL FOOTING

SCHEDULE OF REINFORCEMENT FOR COLUMNS

ARRANGEMENT OF REINFORCEMENT FOUNDATION TO TERRACE	
STIRRUPS SETS	1 RING+2LINK
CONFINEMENT ZONE	8# @ 3" C/C
REST	8# @ 6" C/C
COLUMN MARKS	C1

REV	DATE	REVISION	DRW.	CHK	APPD.
R1	28.03.2022	FOR APPROVAL	TS	NRM	
R0	21.03.2022	FOR APPROVAL	TS	NRM	

CLIENT :–
THE EXECUTIVE ENGINEER, PUBLIC HEALTH WORKS DIVISION, G.W.S.S.B

PROJECT CONSULTANT :–

CONTRACTOR :–

PROJECT :–
14.0 MLD STP BASED ON SBR TECHNOLOGY, ANKLESHWAR, GUJARAT.

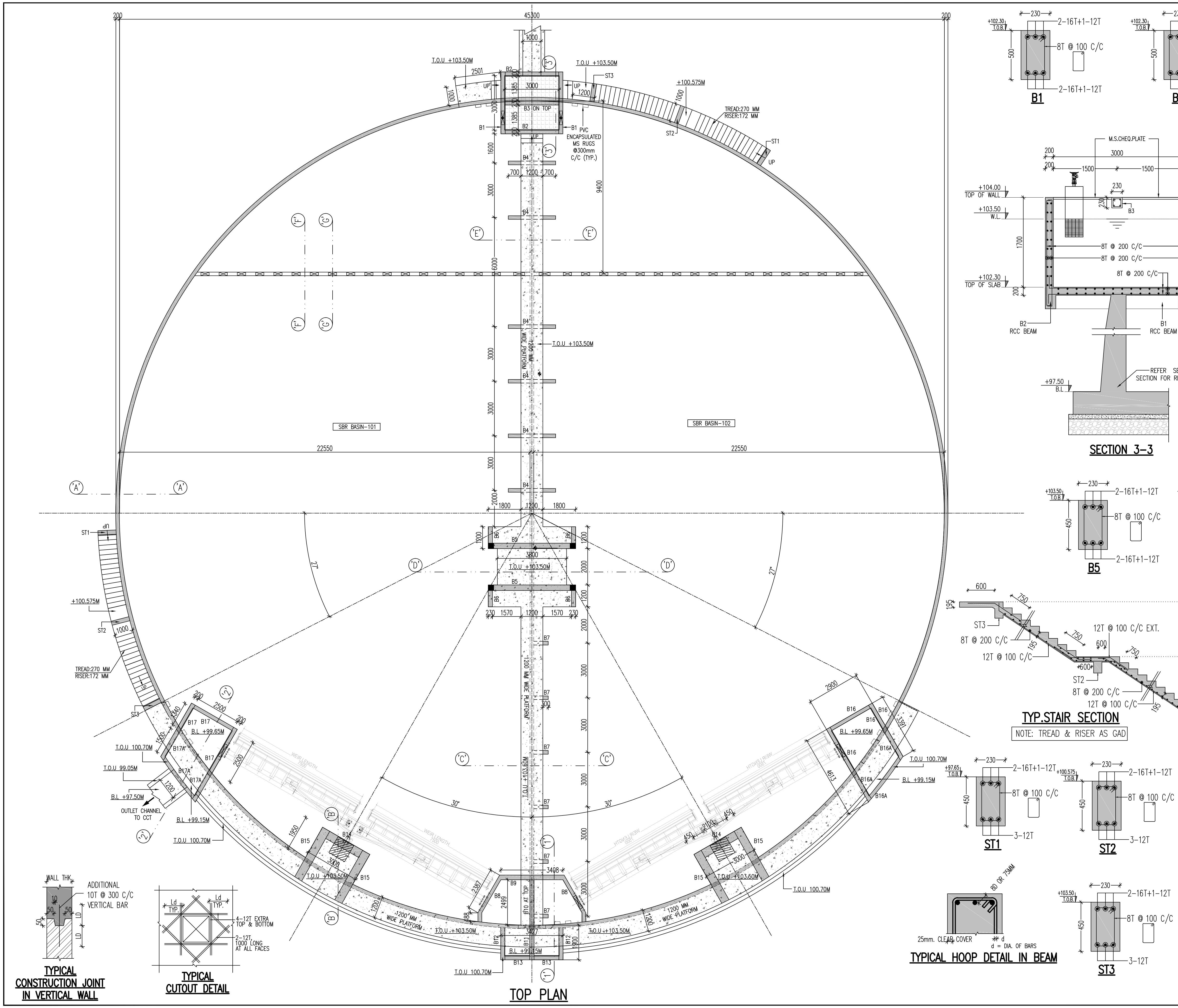
TITLE:–
STRUCTURAL DETAIL FOR SBR BASIN

DESIGNED:– NRM
DRAWN:– HM

DRAWING NO.:–
ANR/2021/12/SD/DWG/5.6

SHEET. 1 OF 4

DATE:– 17.03.2022



R1	28.03.2022	FOR APPROVAL	TS	NRM	
R0	21.03.2022	FOR APPROVAL	TS	NRM	
REV	DATE	REVISION	DRW.	CHK	APPD.

CLIENT :–
THE EXECUTIVE ENGINEER, PUBLIC HEALTH WORKS DIVISION, G.W.S.S.B

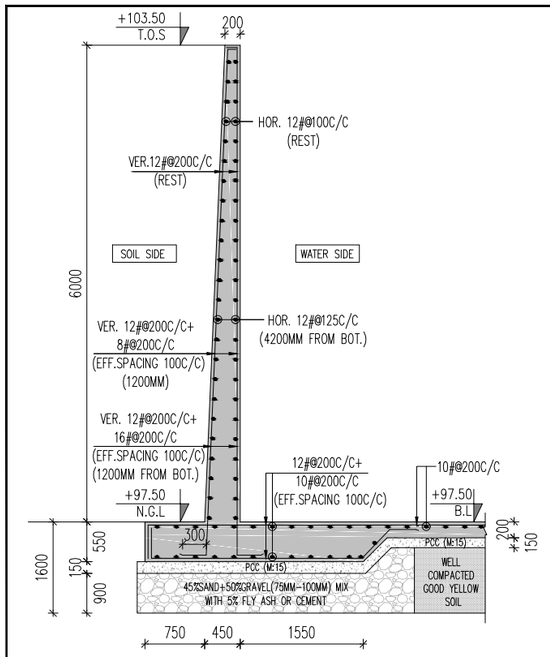
PROJECT CONSULTANT :–

CONTRACTOR :–

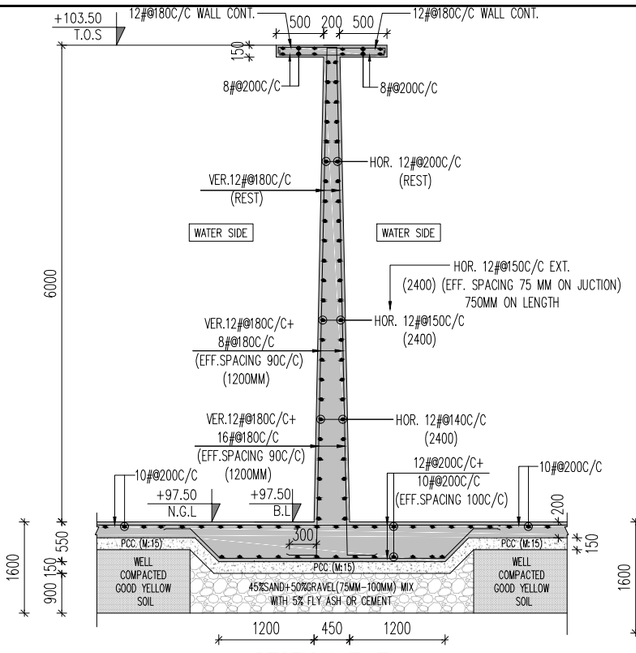
PROJECT :–
14.0 MLD STP BASED ON SBR TECHNOLOGY, ANKLESHWAR, GUJARAT.

TITLE:– STRUCTURAL DETAIL FOR SBR BASIN

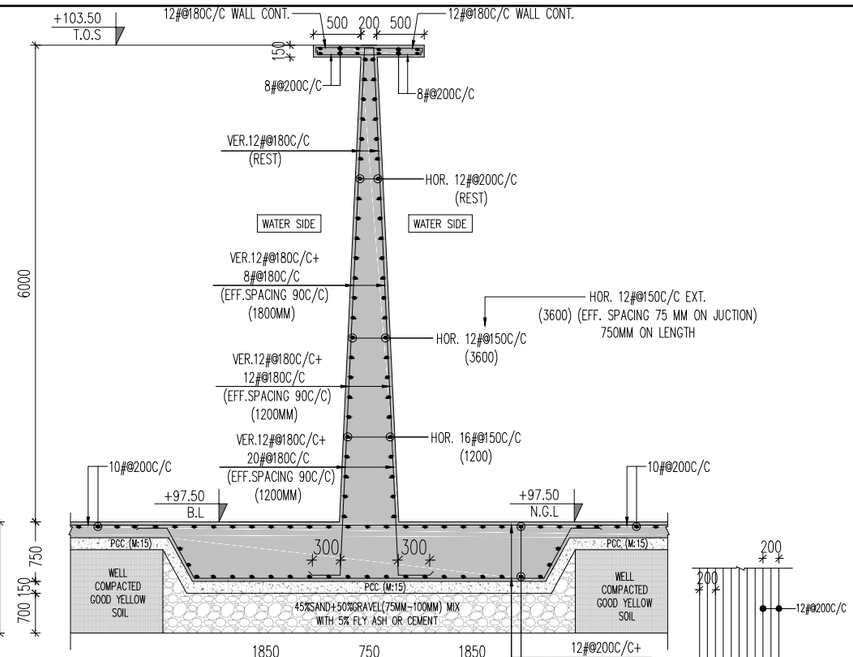
DESIGNED:– NRM
DRAWN:– HM
DRAWING NO.:– ANR/2021/12/SD/DWG/5.6
SHEET. 2 OF 4
DATE:– 17.03.2022



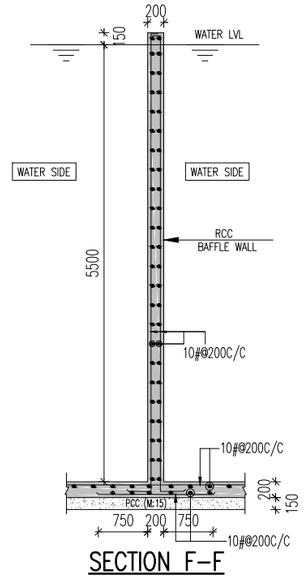
SECTION A-A
(WITHOUT PLATEFORM CIRCLUAR WALL)



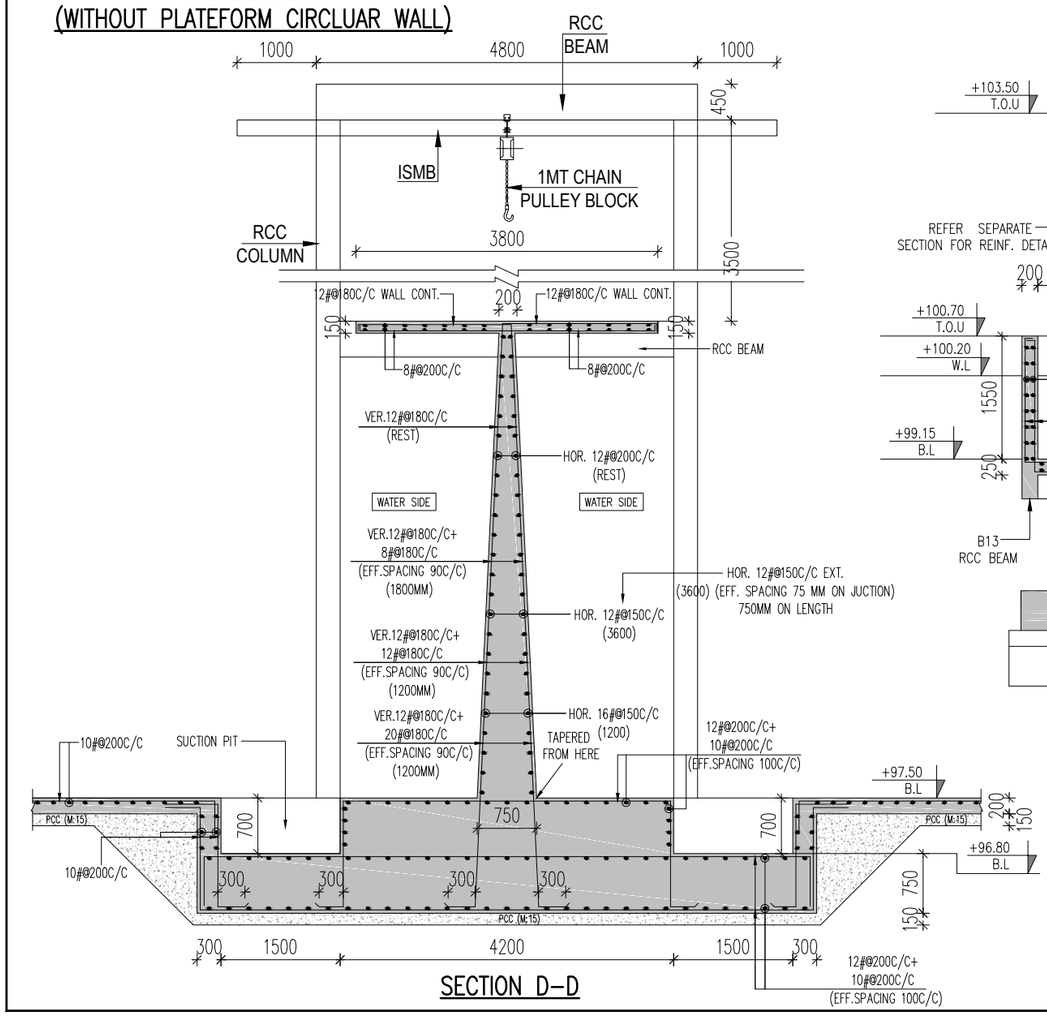
SECTION E-E



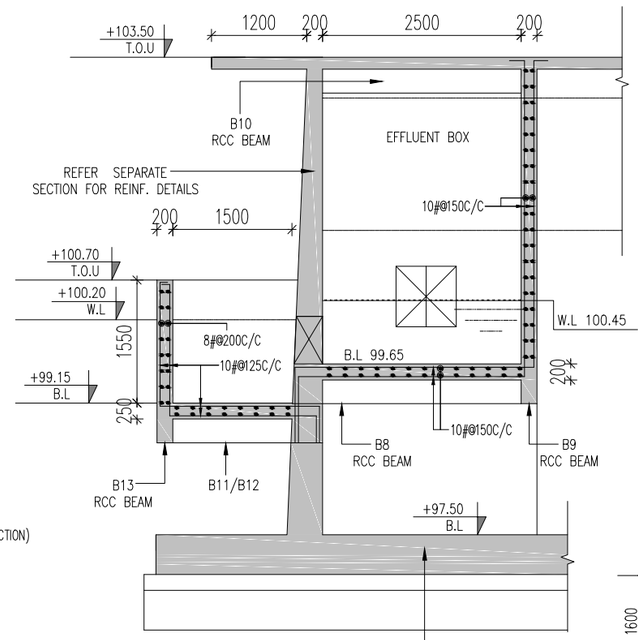
SECTION C-C



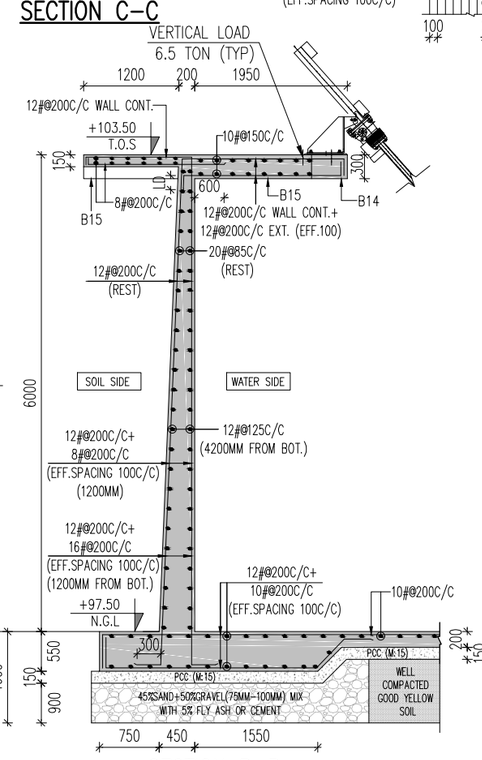
SECTION F-F



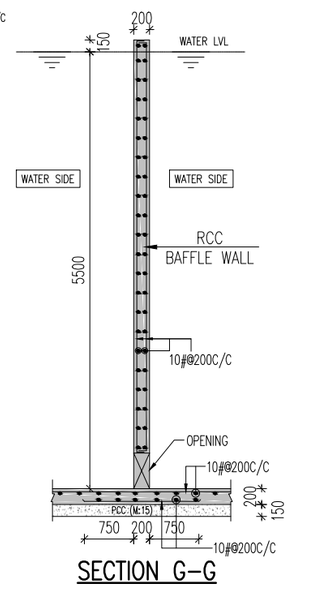
SECTION D-D



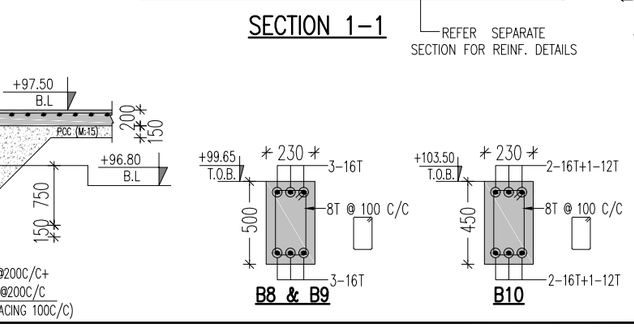
SECTION 1-1



SECTION B-B
(PLATEFORM CIRCLUAR WALL)



SECTION G-G



REV	DATE	REVISION	DRW.	CHK	APPD.
R1	28.03.2022	FOR APPROVAL	TS	NRM	
R0	21.03.2022	FOR APPROVAL	TS	NRM	

CLIENT :-
THE EXECUTIVE ENGINEER, PUBLIC HEALTH WORKS DIVISION, G.W.S.S.B

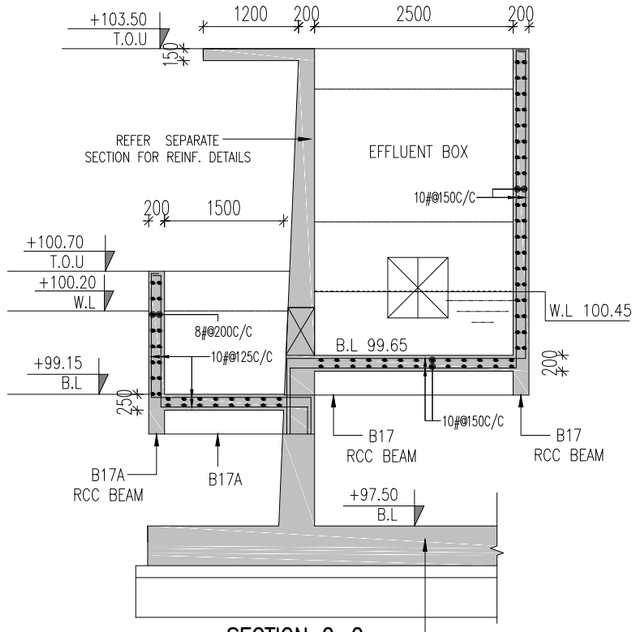
PROJECT CONSULTANT :-

CONTRACTOR :-

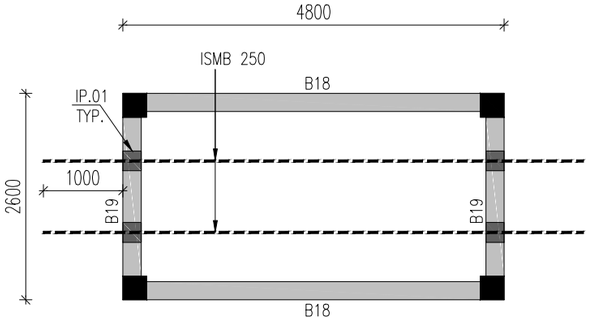
PROJECT :-
14.0 MLD STP BASED ON SBR TECHNOLOGY, ANKLESHWAR, GUJARAT.

TITLE:-
STRUCTURAL DETAIL FOR SBR BASIN

DESIGNED:- NRM
DRAWN:- HM
DRAWING NO.:-
ANR/2021/12/SD/DWG/5.6
SHEET. 3 OF 4
DATE:- 17.03.2022

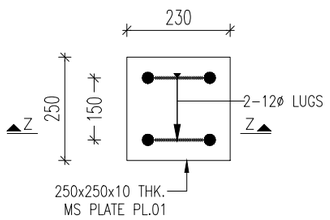


SECTION 2-2

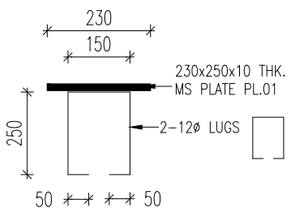


GANTRY TOP PLAN (107.45M)

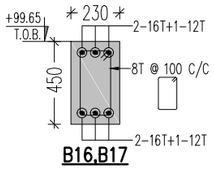
(NOTE:- DETAILS TO BE VERIFIED WITH APPROVED VENDOR DRAWINGS)



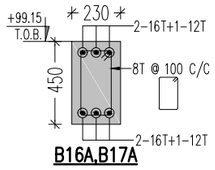
TYPICAL DETAIL OF
INSERT PLATE IP.01



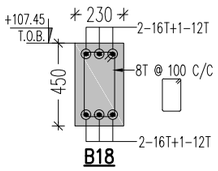
SECTION Z-Z



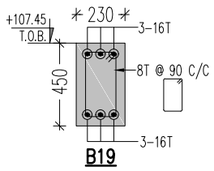
B16,B17



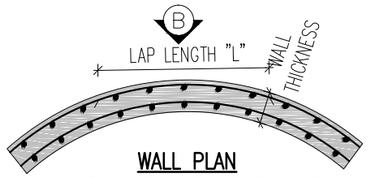
B16A,B17A



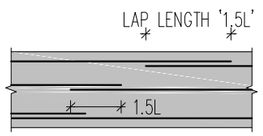
B18



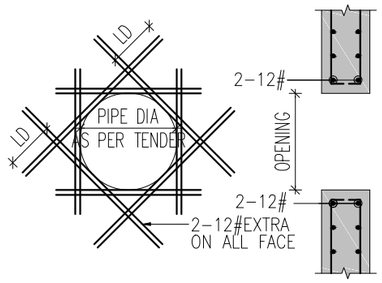
B19



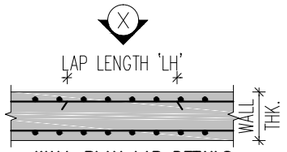
WALL PLAN
LAP DETAIL FOR HORIZONTAL STEEL
(LAP SHALL BE STAGGERED
AS PER ELEVATION : B)



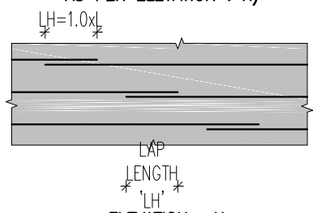
ELEVATION : B



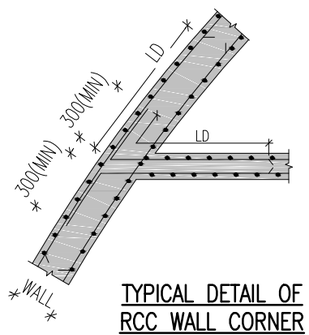
TYPICAL DETAIL OF OPENING
FOR PIPE & VENT



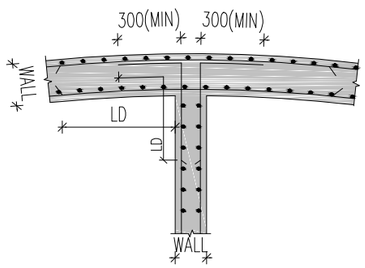
WALL PLAN LAP DETAILS
FOR HORIZONTAL STEEL
(LAP SHALL BE STAGGERED
AS PER ELEVATION : X)



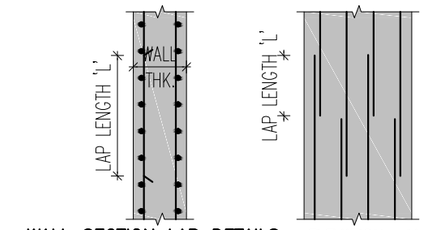
ELEVATION : X
LAP LENGTH LH : 1.0xL FOR
HORIZONTAL STEEL



TYPICAL DETAIL OF
RCC WALL CORNER

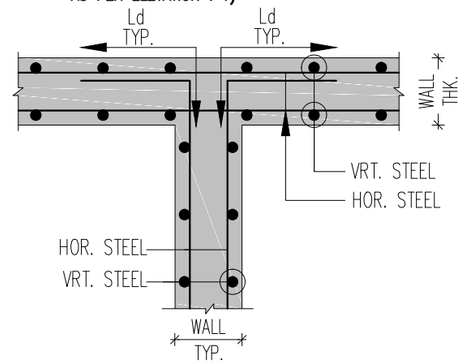


TYPICAL DETAIL OF
RCC WALL CORNER

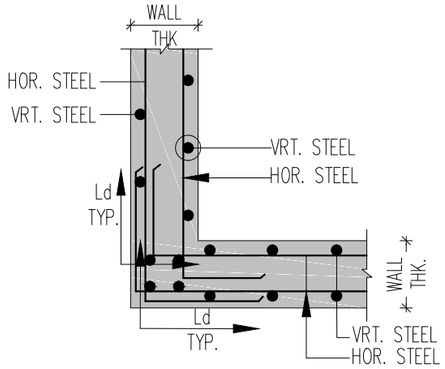


WALL SECTION LAP DETAILS
FOR VERTICAL STEEL
(LAP SHALL BE STAGGERED
AS PER ELEVATION : Y)

ELEVATION : Y



T-JUNCTION (IN PLAN)



TYPICAL L-JUNCTION
(IN PLAN)

REV	DATE	REVISION	DRW.	CHK	APPD.
R1	28.03.2022	FOR APPROVAL	TS	NRM	
R0	21.03.2022	FOR APPROVAL	TS	NRM	

CLIENT :-
THE EXECUTIVE ENGINEER, PUBLIC HEALTH WORKS DIVISION, G.W.S.S.B

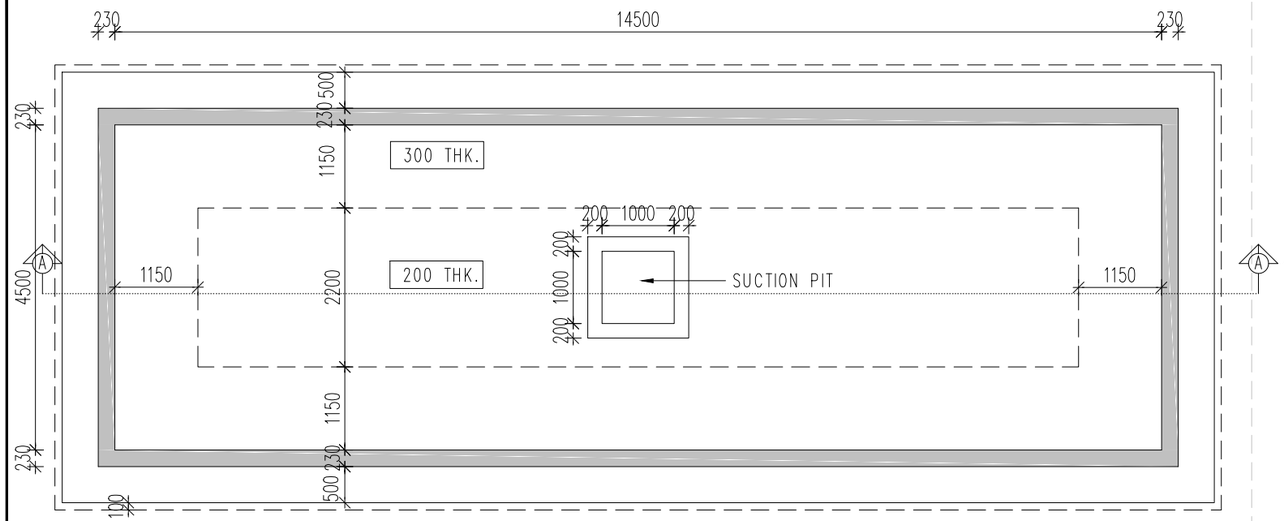
PROJECT CONSULTANT :-

CONTRACTOR :-

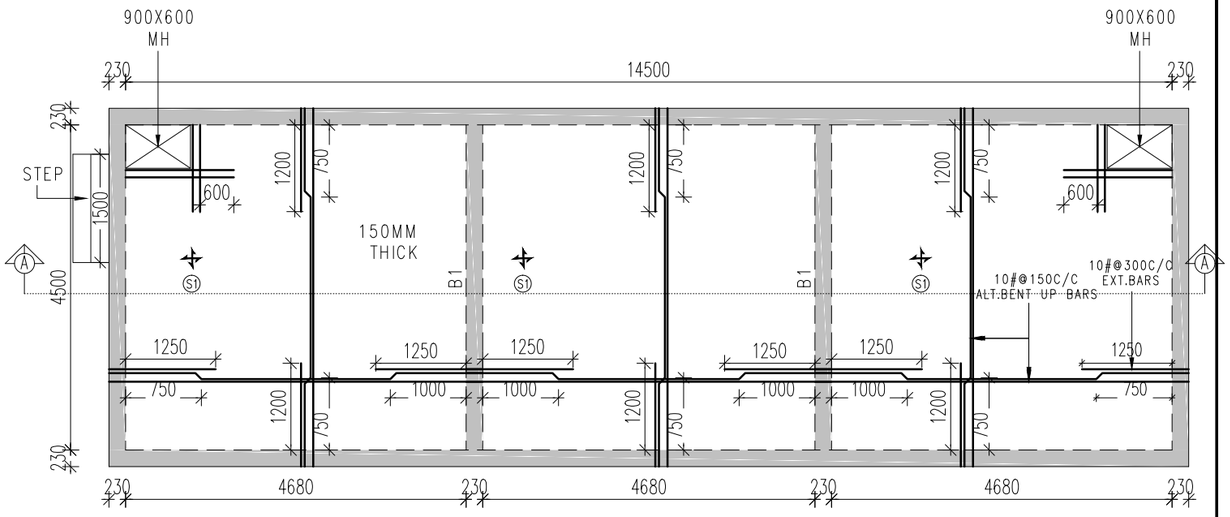
PROJECT :-
14.0 MLD STP BASED ON SBR TECHNOLOGY, ANKLESHWAR, GUJARAT.

TITLE:-
STRUCTURAL DETAIL FOR SBR BASIN

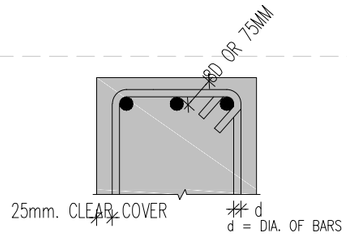
DESIGNED:- NRM
DRAWN:- HM
DRAWING NO.:-
ANR/2021/12/SD/DWG/5.6
SHEET. 4 OF 4
DATE:- 17.03.2022



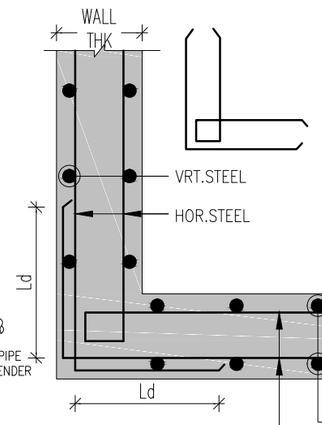
SUMP BOTTOM PLAN



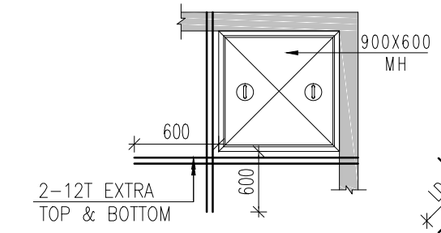
SUMP TOP PLAN



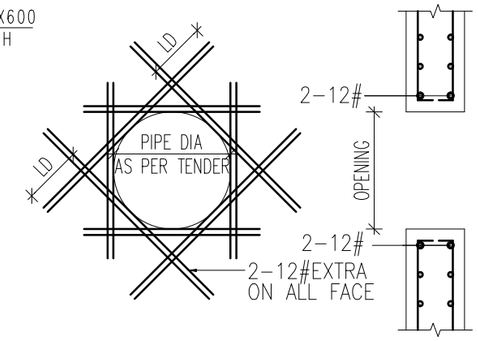
TYPICAL HOOP DETAIL IN BEAM



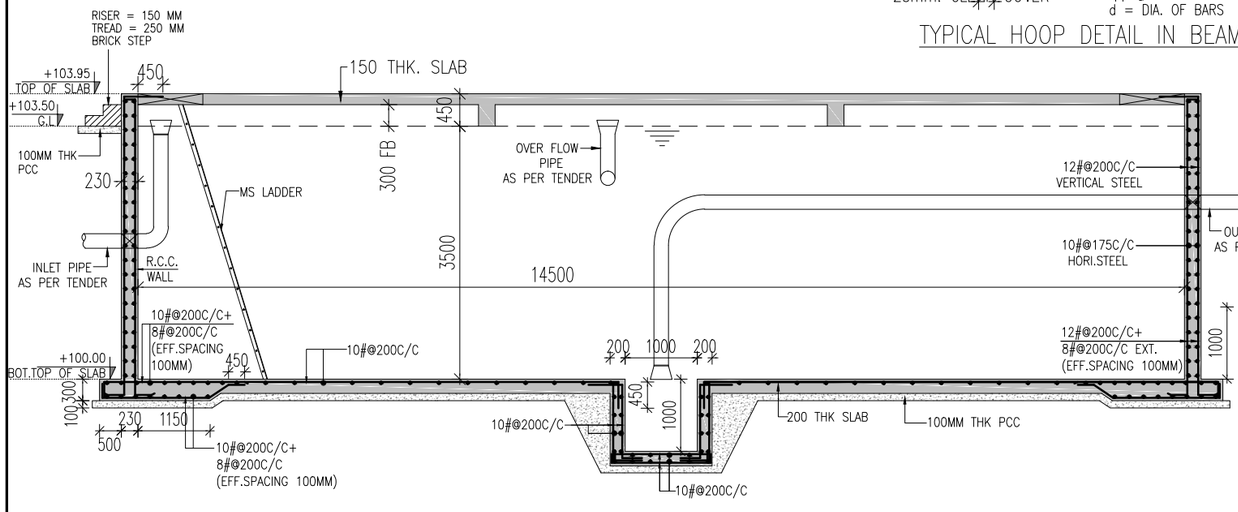
DETAIL–A
TYPICAL CORNER DETAIL



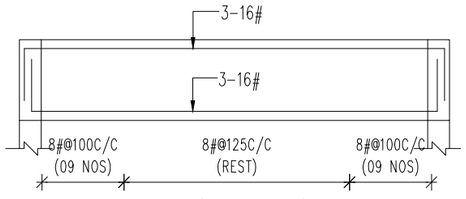
TYP. MANHOLE
CUTOUT DETAIL
(AT CORNER)



TYPICAL DETAIL OF
OPENING
FOR PIPE & VENT



SECTION A–A



B1(230 X 450)

SCHEDULE OF LAP LENGTH

Fy = 415 N/mm²		Fy = 500 N/mm²	
CONC.GRADE	TENSION	CONC.GRADE	TENSION
M:20	48 T	M:20	57 T
M:25	40 T	M:25	49 T
M:30	38 T	M:30	45 T

NOTES

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
2. FIGURED DIMENSIONS SHALL BE FOLLOWED AND DO NOT SCALE THE DRAWING.
3. CONTRACTOR TO CHECK ALL DIMENSIONS BEFORE COMMENCEMENT OF WORK.
4. ALL STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS. ANY DISCREPANCY IN THE DRAWING(S) SHALL BE BROUGHT TO OUR NOTICE BEFORE COMMENCING THE WORK.
5. CLEAR COVER TO REINFORCEMENT SHALL BE USE 50MMIN FOOTING , 40MM IN COLUMN, 25MM IN BEAM AND 20MM IN SLAB & 45MM IN WALL
6. ALL RCC WORK SHALL BE WITH **M:30GRADE** CONCRETE CONFORMING TO IS 456-2000, IS-13920, IS-1893 LATEST CODE.& ALL PCC WORK SHALL BE WITH PCC **M:15 GRADE** CONCRETE.
7. ALL REINFORCEMENT SHALL BE OF **FE500** GRADE AS PER IS:1786 LATEST REVISION.
8. LAYOUT OF COLUMNS SHALL BE AS PER ARCHITECTURAL DRAWING.
9. THE BUILDING IS DESIGN TO WITHSTAND THE EARTHQUAKE EFFECT OF **SEISMIC ZONE III**
10. SAFE BEARING CAPACITY OF SOIL(SBC) TAKEN AS PER SOIL INVESTIGATION REPORT **- 20 T/M² AT 3.95M DEPTH**.
11. COVER TO REINFORCEMENT IN RCC SHALL BE AS PER IS:456-2000 (PAGE NO. 46) - MILD CONDITION .

R E V I S I O N S

NO.	DESCRIPTION	DATE	PRINT
1	GOOD FOR CONSTRUCTION	01.12.2021	R0

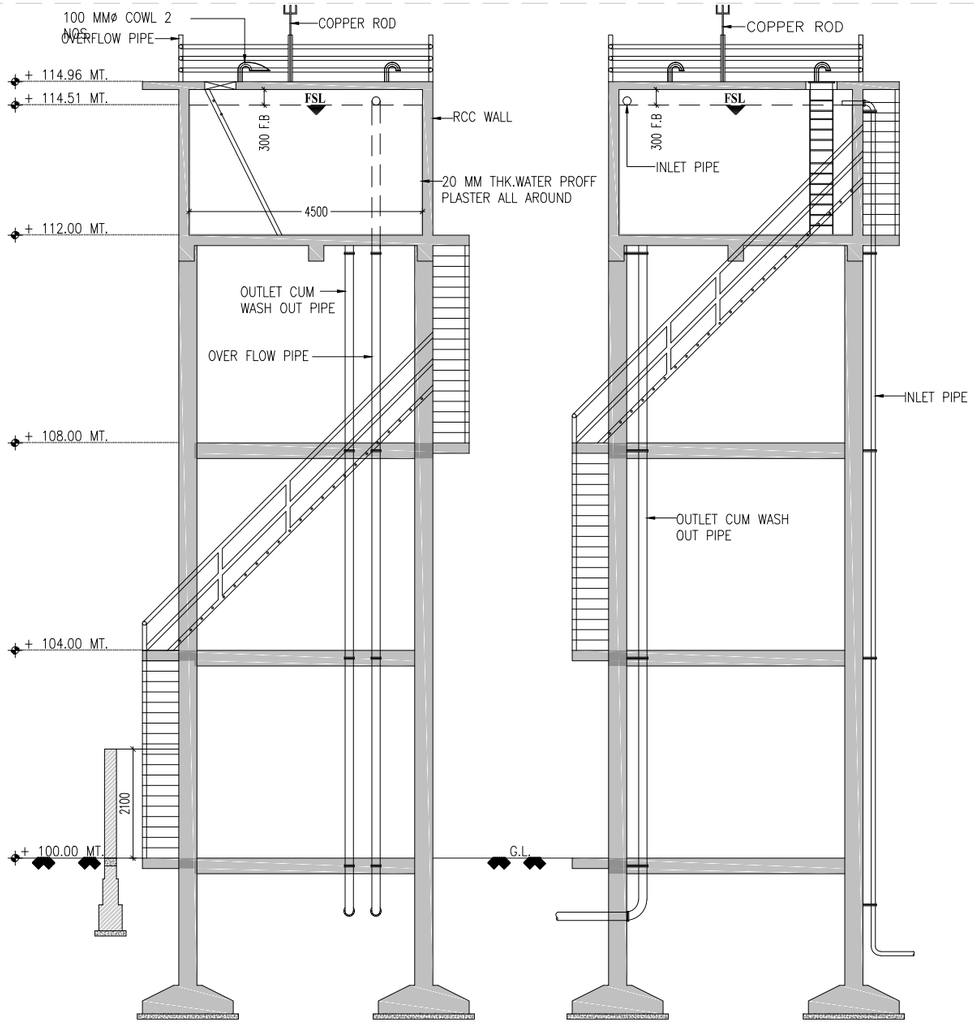
NAME OF WORK:
CONSTRUCTION OF UNDERGROUND SUMP 2 LAKH LTR.CAPACITY FOR DISPOSAL OF SEWERAGE WATER FROM STP TO ADJACENT OF ALAMPUR CAMPUS BY PIPE LINE AT BSF CAMPUS GANDHINAGAR,FTR HQ BSF GUJARAT

TITLE: STRUCTURAL DETAILS OF UNDER GROUND SUMP (2.00 LAC LITER CAPACITY)

STAMP:

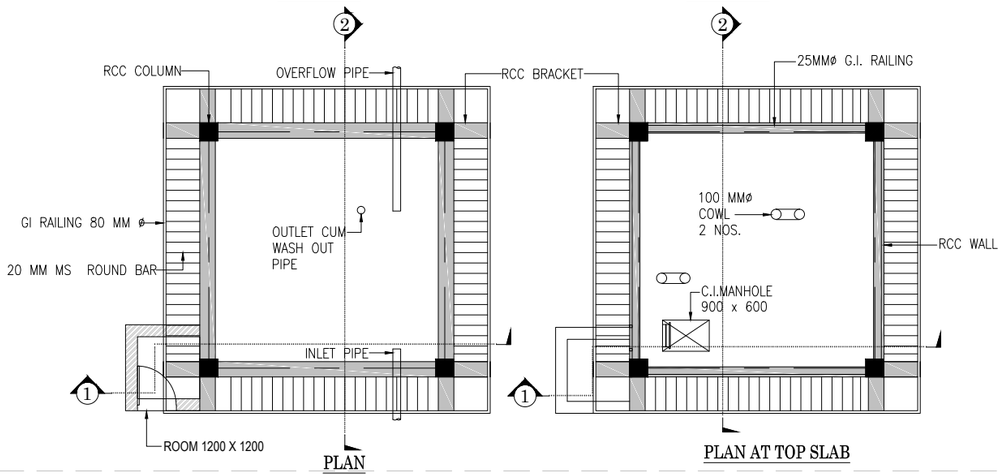
CONTRACTOR:

STRUCTURAL CONSULTANT:-



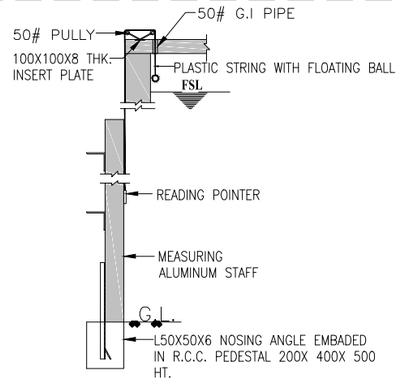
SECTION-1

SECTION-2

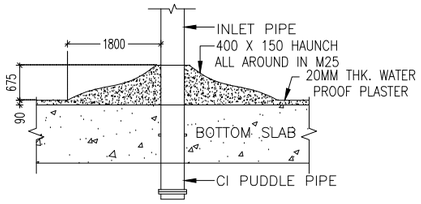


PLAN

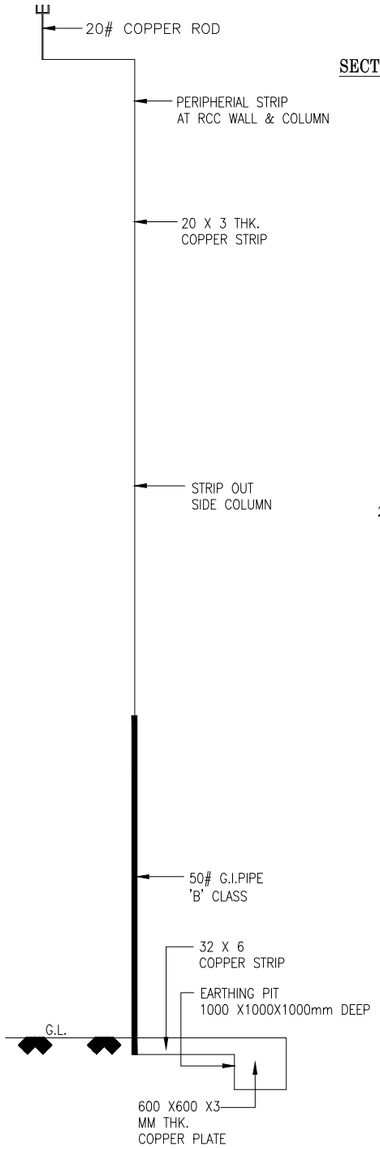
PLAN AT TOP SLAB



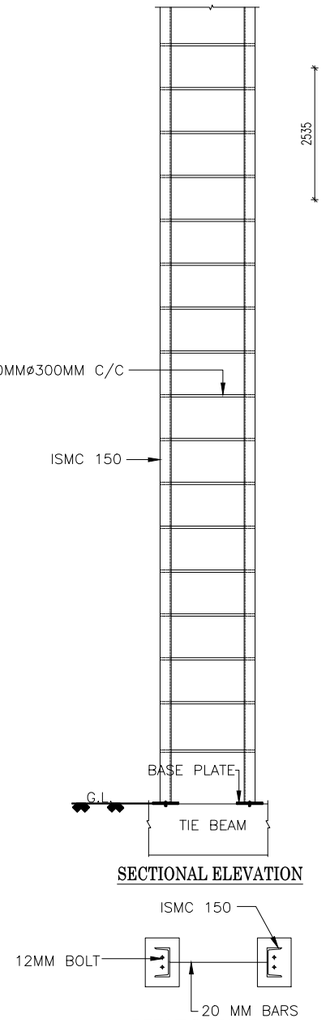
SECTION OF WATER LEVEL INDICATOR



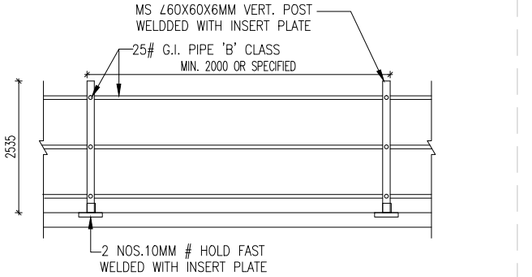
TYPICAL DETAIL FOR INLET PIPE



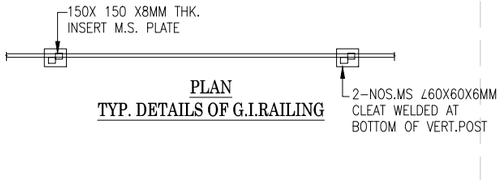
LIGHTNING ARRESTOR



SECTIONAL ELEVATION



ELEVATION



PLAN

TYP. DETAILS OF G.I.RAILING

DETAILS OF LADDER

NOTES :-
01 : ALL DIMENSIONS ARE IN MM AND LEVELS IN METER.
02 : 20 MM THICK WATERPROOF PLASTER SHALL BE PROVIDED INSIDE THE CONTAINER AS PER GWSSB S.O.R.
03 : DRAWING SHOULD NOT BE MEASURED FOR EXECUTION.
04 : INLET,OUTLET,OVER FLOW PIPE LINES SHALL BE PROVIDED AS PER APPROVED HYDRAULIC DESIGN AT SUITABLE LOCATION.
05 : MASONRY VALVE CHAMBERS SHALL BE PROVIDED AS PER TENDER.
06 : M.S. LADDER SHALL BE AS PER DRAWING.
07 : COWL TYPE VENTILATOR SHALL BE PROVIDED AS PER TENDER.
08 : POTABLE WATER SHALL BE USED FOR MIXING THE CONCRETE.
09 : LIGHTNING ARRESTER (CONDUCTOR) SHALL BE PROVIDED AS PER IS 2309.
10 : SLOPE OF EXCAVATION SHALL BE AS PER THE SOIL STRATA MET WITH AT SITE IF NECESSARY THE SHORING AND STRUTTING SHALL BE DONE.

R E V I S I O N S

NO.	DESCRIPTION	DATE	PRINT
1	GOOD FOR CONSTRUCTION	19.12.2020	R0

PROJECT :-1 LAC AT 12M HEIGHT

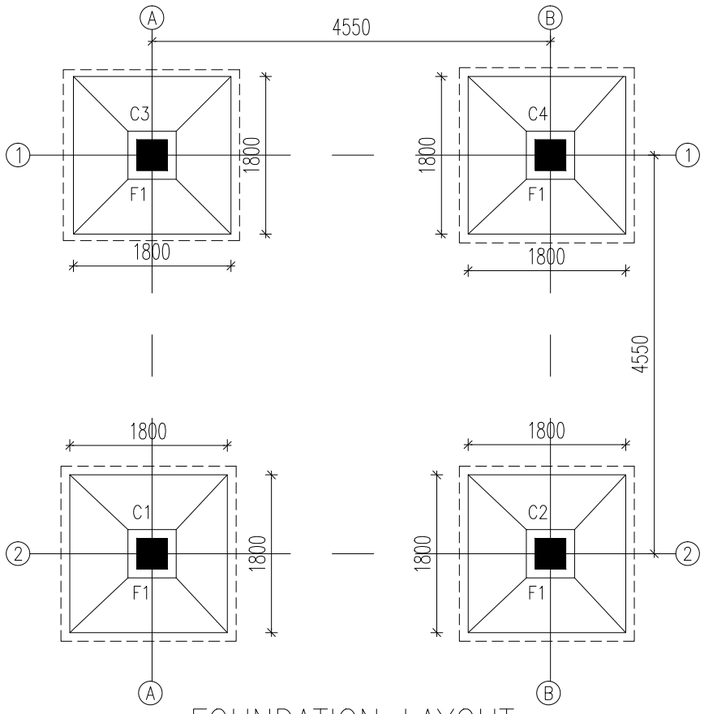
CIENT :-******

TITLE :- GAD OF WATERTANK

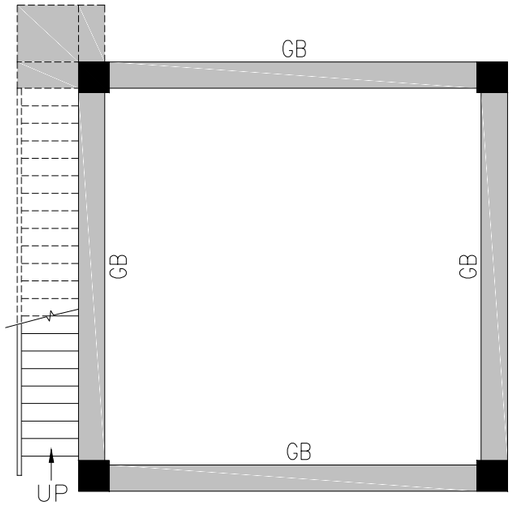
NAME OF AGENCY :- *******

DRAWING NO :- ST:01/01

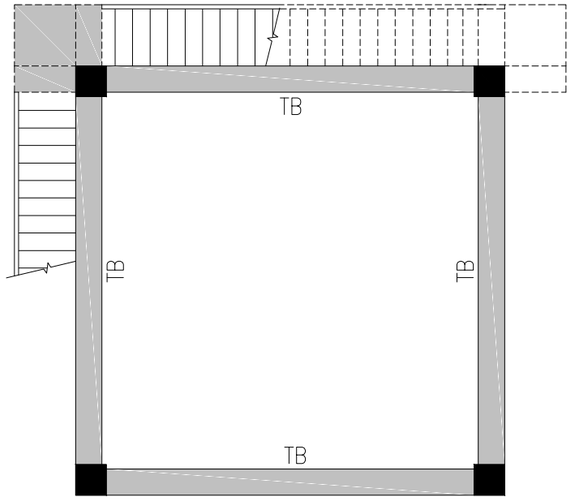
STRUCTURAL CONSULTANT:-



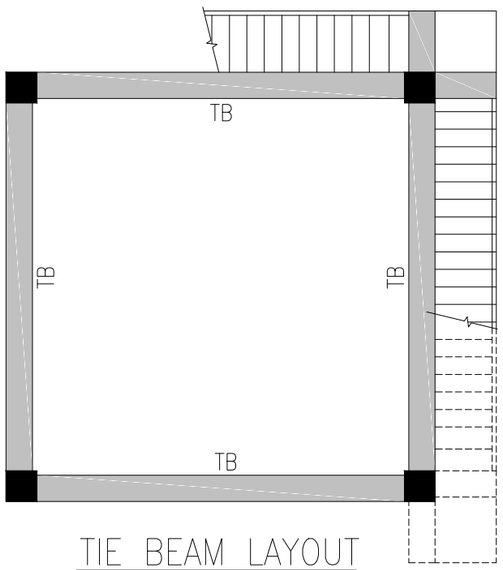
FOUNDATION LAYOUT



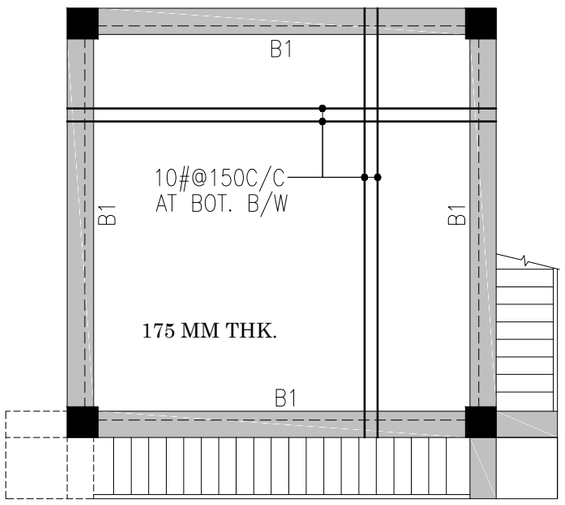
GROUND BEAM LAYOUT
AT [100.00MT]



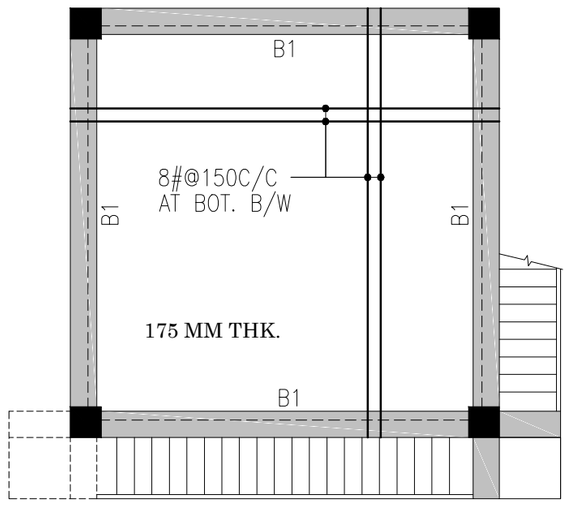
TIE BEAM LAYOUT
AT [104.00MT]



TIE BEAM LAYOUT
AT [108.00MT]



BOTTOM SLAB LAYOUT(BOT.STEEL)



BOTTOM SLAB LAYOUT(TOP.STEEL)

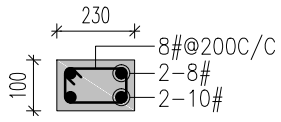
1. NOTES
2. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
3. CONCRETE MIX M:30 WITH MAXIMUM FREE WATER CEMENT RATIO OF 0.45 FOR WATER RETAINING STRUCTURE MAXIMUM CEMENT CONTENT 410kg/m3 AND PCC WORK SHALL BE M:15 GRADE CONCRETE WITH MINIMUM THICKNESS OF 100 mm.
4. CONCRETE MIX M:25 WITH MAXIMUM FREE WATER CEMENT RATIO OF 0.45 FOR NON WATER RETAINING STRUCTURE MINIMUM CEMENT CONTENT 380kg/m3.
5. ALL CONCRETE SHALL BE MACHINE MIXED AND MACHINE VIBRATED.
6. T - INDICATE TMT HYSD FE 500, COMFORMING TO I.S 1786-LATEST REVISION, HOWEVER STEEL GRADE AND TYPE SHALL BE VERIFIED WITH TENDER SPECIFICATION .
7. CLEAR COVER TO REINFORCEMENT SHALL BE USE 50mm IN FOOTING, 40mm IN COLUMN, 25mm IN BEAM AND 20mm IN SLAB.
8. FOUNDATION SHOULD REST ON IN-SITU SOIL AND IT SHOULD NOT REST ON FILLING MATERIAL i.e. MADE UP SOIL.
9. BACK FILLING SHALL BE DONE IN WELL COMPACTED AND WELL WATER LAYER NOT EXCEEDING 300mm IN DEPTH.
10. SAFE BEARING CAPACITY OF SOIL(SBC) TAKEN AS PER SOIL INVESTIGATION REPORT - **** T/M² AT 1.95M DEPTH.
11. THE BUILDING IS DESIGN TO WITHSTAND THE EARTHQUAKE EFFECT OF **SEISMIC ZONE III.**

REVISIONS			
1	GOOD FOR CONSTRUCTION	19.12.2020	R0
NO.	DESCRIPTION	DATE	PRINT

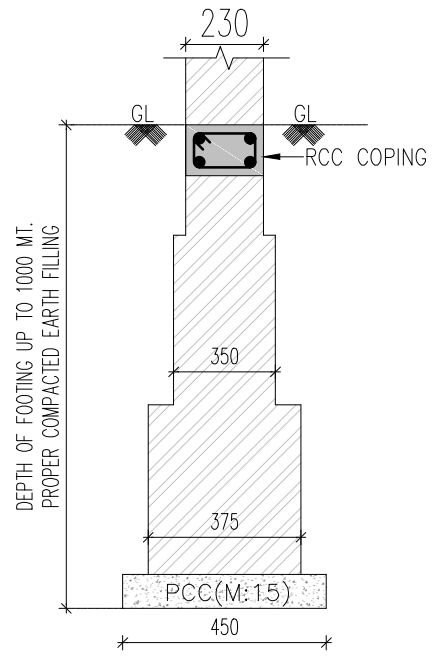
PROJECT :1 LAC AT 12M HEIGHT	CIENT : ******	DRAWING NO : ST:01/01	STRUCTURAL CONSULTANT:-
TITLE: GAD OF WATERTANK	NAME OF AGENCY: *******		

SCHEDULE OF REINFORCEMENT FOR FOOTINGS

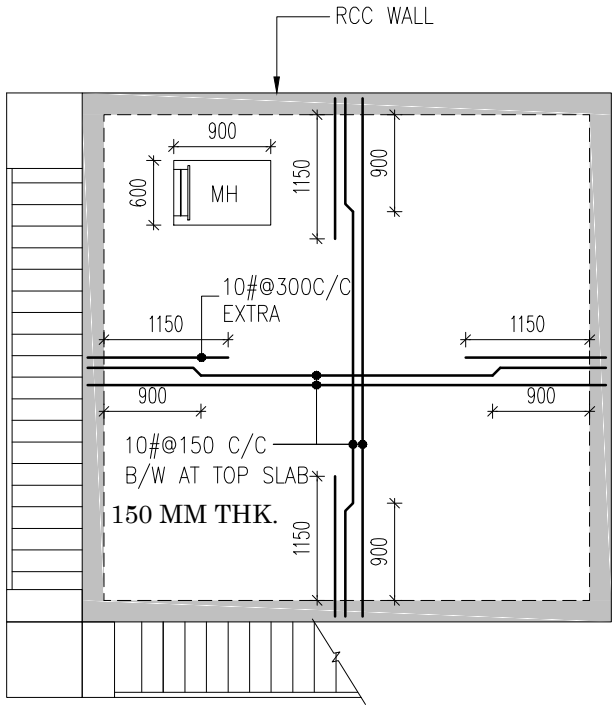
FOOTING NO.	COLUMN MARK	FOOTING SIZE	DEPTH		FOOTING REINFORCEMENT	
			d	D	II TO S.S. OF COL.	II TO L.S. OF COL.
F1	C1,C2,C3,C4	1800 X 1800	200	550	10#@150C/C	10#@150C/C



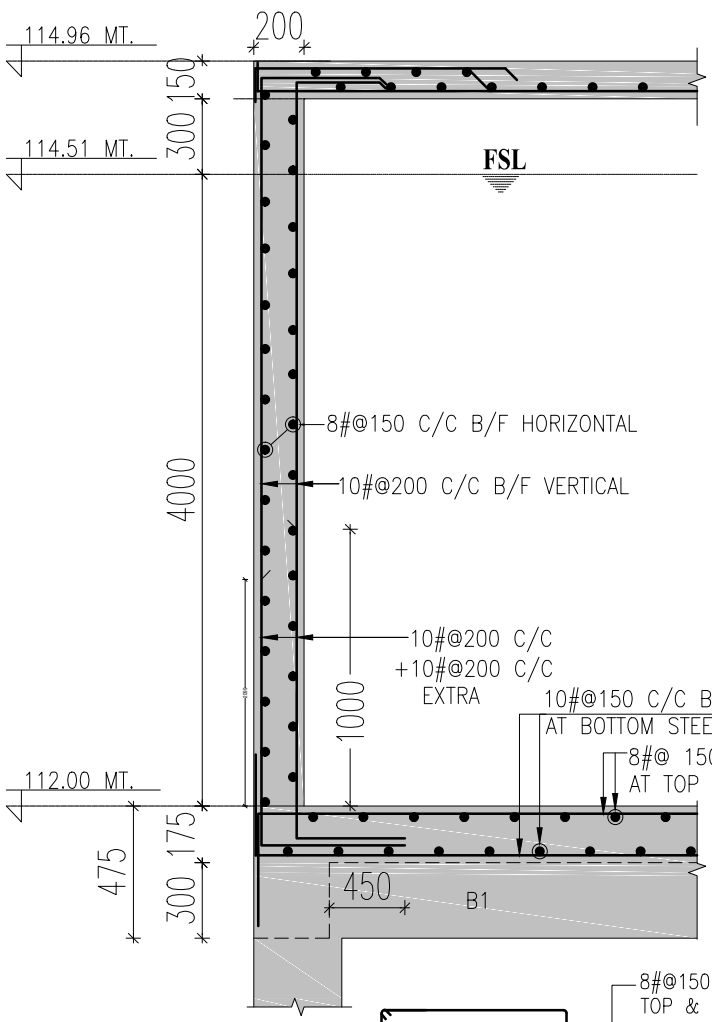
RCC COPING

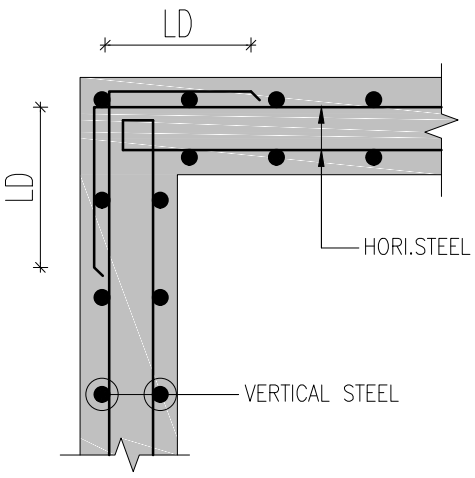


BRICK MASONRY WALL FOOTING

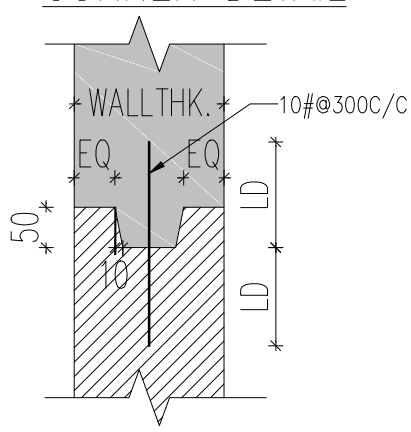


RCC WALL TOP SLAB LAYOUT

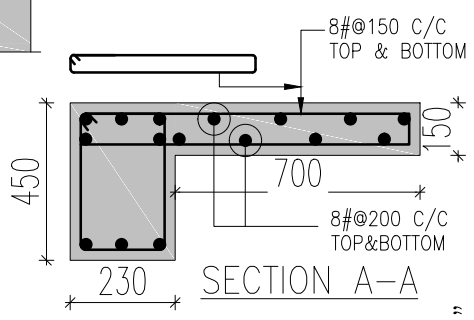




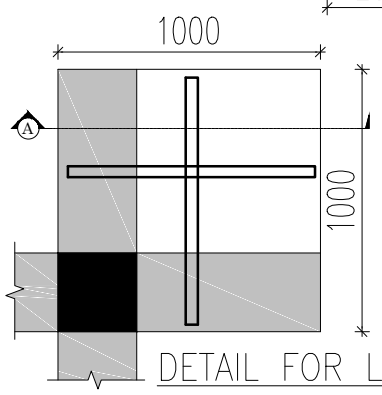
TYP.RCC WALL CORNER DETAIL



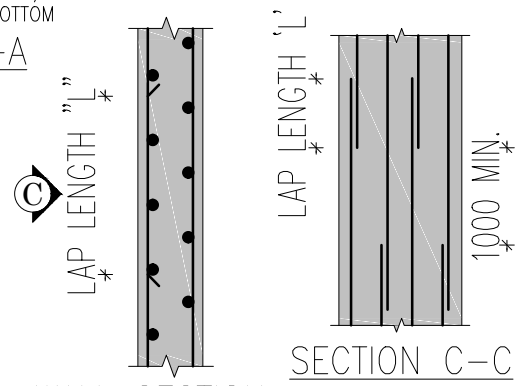
TYP.CONSTRUCTION JOINT VERTICAL WALL



SECTION A-A

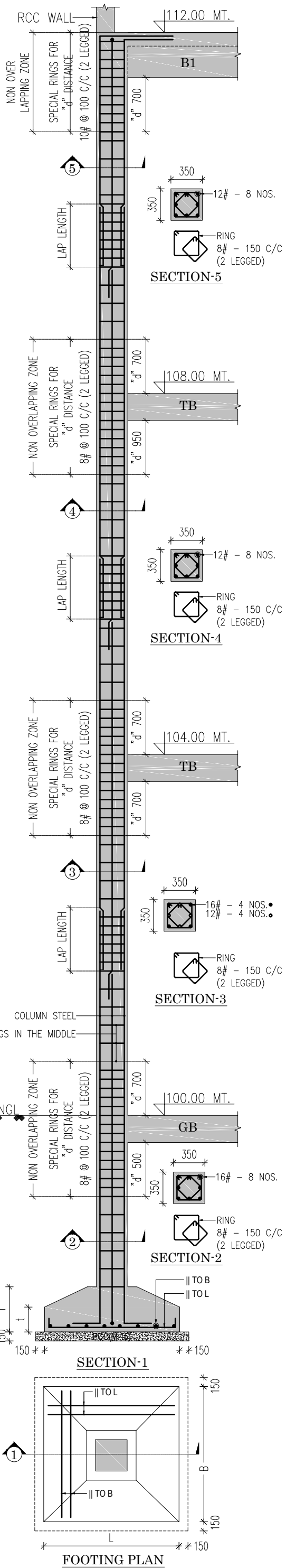


DETAIL FOR LANDING



WALL SECTION LAP DETAILS FOR STEEL

SECTION C-C



STRUCTURAL CONSULTANT:-

DRAWING NO :- ST:01/01

CLIENT :- ******

NAME OF AGENCY:- *******

PROJECT :-1 LAC AT 12M HEIGHT

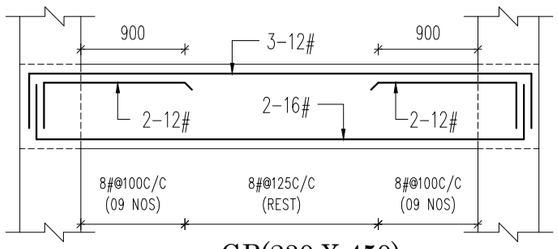
TITLE:- GAD OF WATERTANK

NO.	DESCRIPTION	DATE	PRINT
1	GOOD FOR CONSTRUCTION	19.12.2020	R0

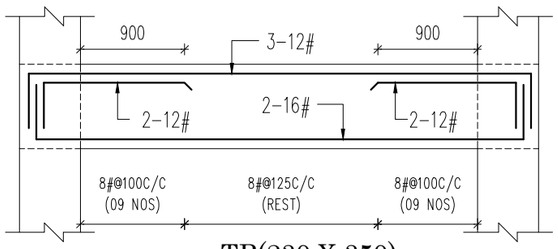
REVISIONS

NOTES

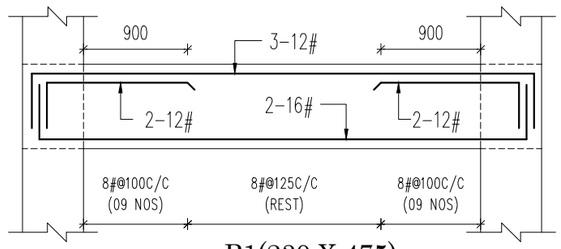
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
2. FIGURED DIMENSIONS SHALL BE FOLLOWED AND DO NOT SCALE THE DRAWING.
3. CONTRACTOR TO CHECK ALL DIMENSIONS BEFORE COMMENCEMENT OF WORK.
4. ALL STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS. ANY DISCREPANCY IN THE DRAWING(S) SHALL BE BROUGHT TO OUR NOTICE BEFORE COMMENCING THE WORK.
5. CLEAR COVER TO REINFORCEMENT SHALL BE USE 50mmIN FOOTING, 40mm IN COLUMN, 25mm IN BEAM AND 20mm IN SLAB.
6. ALL RCC WORK SHALL BE WITH **M:25 GRADE** CONCRETE CONFORMING TO IS 456-2000, IS-13920, IS-1893 - 2002 CODE.& ALL PCC WORK SHALL BE WITH PCC **M:15 GRADE** CONCRETE.
7. ALL REINFORCEMENT SHALL BE OF **Fe500** GRADE AS PER IS:1786:2008.
8. LAYOUT OF COLUMNS SHALL BE AS PER ARCHITECTURAL DRAWING.
9. THE BUILDING IS DESIGN TO WITHSTAND THE EARTHQUAKE EFFECT OF **SEISMIC ZONE III**
10. SAFE BEARING CAPACITY OF SOIL(SBC) TAKEN AS PER SOIL INVESTIGATION REPORT - ****** T/M² AT 1.95M DEPTH.**
11. COVER TO REINFORCEMENT IN RCC SHALL BE AS PER IS:456-2000 (PAGE NO. 46) - MODERATE CONDITION .



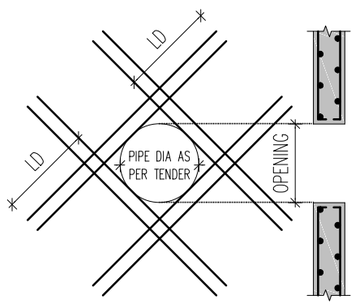
GB(230 X 450)



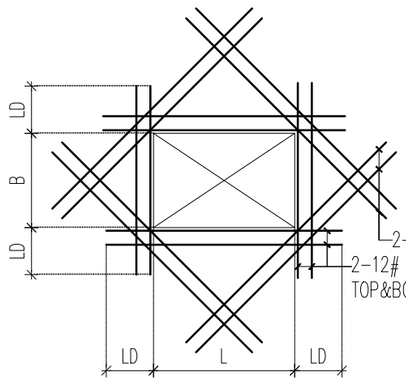
TB(230 X 350)



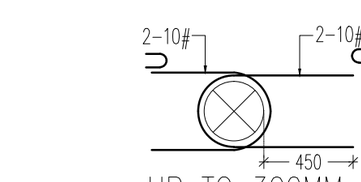
B1(230 X 475)



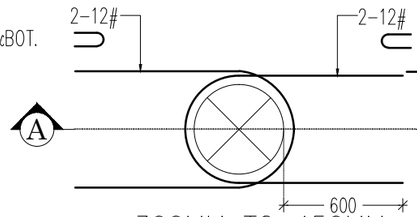
DETAIL OF OPENING



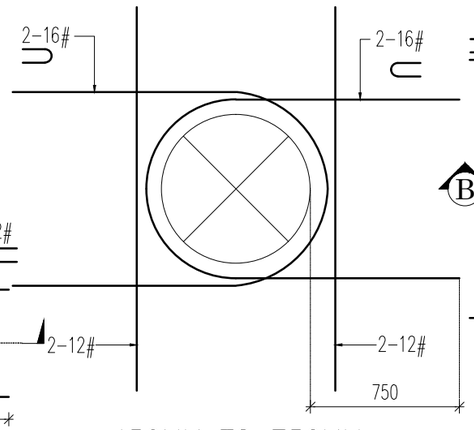
EXTRA REIN.AROUND
OPENING OF MANHOLE



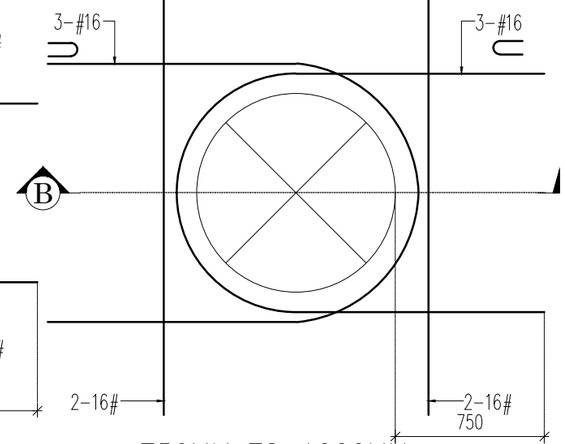
UP TO 300MM



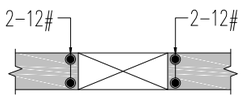
300MM TO 450MM



450MM TO 750MM

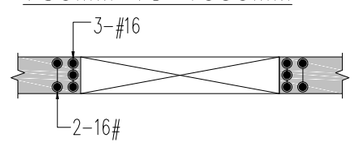


750MM TO 1000MM



SECTION-A

TYP.DETAIL FOR EXTRA
STEEL BAT AT CUTOUT



SECTION-B

SCHEDULE OF DEVELOPMENT LENGTH

Fy = 415 N/mm^2		Fy = 500 N/mm^2	
CONC.GRADE	TENSION	CONC.GRADE	TENSION
M: 20	48 T	M: 20	57 T
M: 25	40 T	M: 25	49 T
M: 30	38 T	M: 30	45 T

T=DIAMETER OF THE BAR

NOTES
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
2. FIGURED DIMENSIONS SHALL BE FOLLOWED AND DO NOT SCALE THE DRAWING.
3. CONTRACTOR TO CHECK ALL DIMENSIONS BEFORE COMMENCEMENT OF WORK.
4. ALL STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS. ANY DISCREPANCY IN THE DRAWING(S) SHALL BE BROUGHT TO OUR NOTICE BEFORE COMMENCING THE WORK.
5. CLEAR COVER TO REINFORCEMENT SHALL BE USE 50mmIN FOOTING, 40mm IN COLUMN, 25mm IN BEAM AND 20mm IN SLAB.
6. ALL RCC WORK SHALL BE WITH **M:25 GRADE** CONCRETE CONFORMING TO IS 456-2000, IS-13920, IS-1893 - 2002 CODE.& ALL PCC WORK SHALL BE WITH PCC **M:15 GRADE** CONCRETE.
7. ALL REINFORCEMENT SHALL BE OF **Fe500** GRADE AS PER IS:1786:2008.
8. LAYOUT OF COLUMNS SHALL BE AS PER ARCHITECTURAL DRAWING.
9. THE BUILDING IS DESIGN TO WITHSTAND THE EARTHQUAKE EFFECT OF **SEISMIC ZONE III**
10. SAFE BEARING CAPACITY OF SOIL(SBC) TAKEN AS PER SOIL INVESTIGATION REPORT **- **** T/M² AT 1.95M DEPTH**.
11. COVER TO REINFORCEMENT IN RCC SHALL BE AS PER IS:456-2000 (PAGE NO. 46) - MODERATE CONDITION .

REVISIONS			
1	GOOD FOR CONSTRUCTION	19.12.2020	R0
NO.	DESCRIPTION	DATE	PRINT

PROJECT :-1 LAC AT 12M HEIGHT

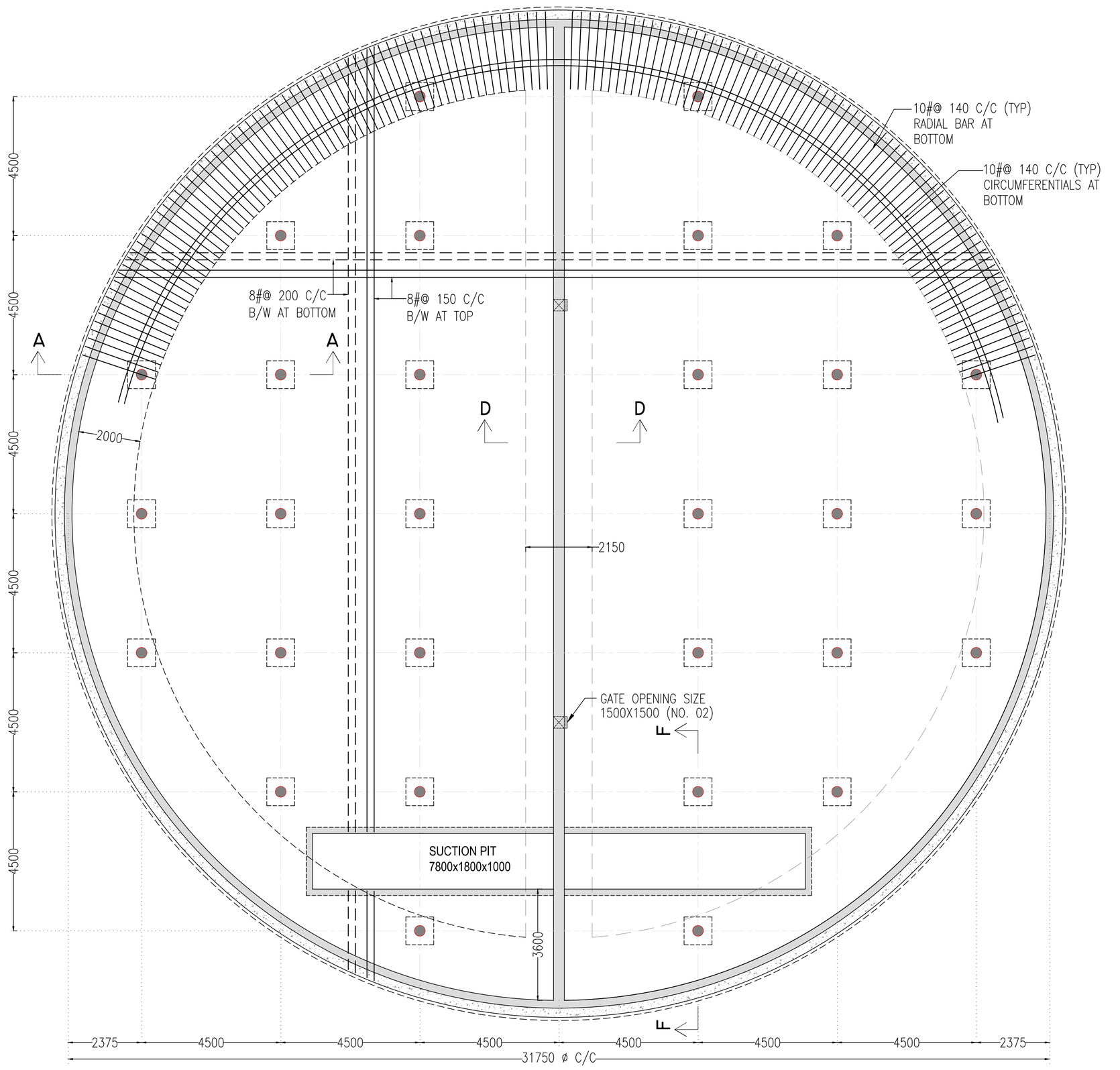
CIENT :-******

TITLE:- GAD OF WATERTANK

NAME OF AGENCY:- *******

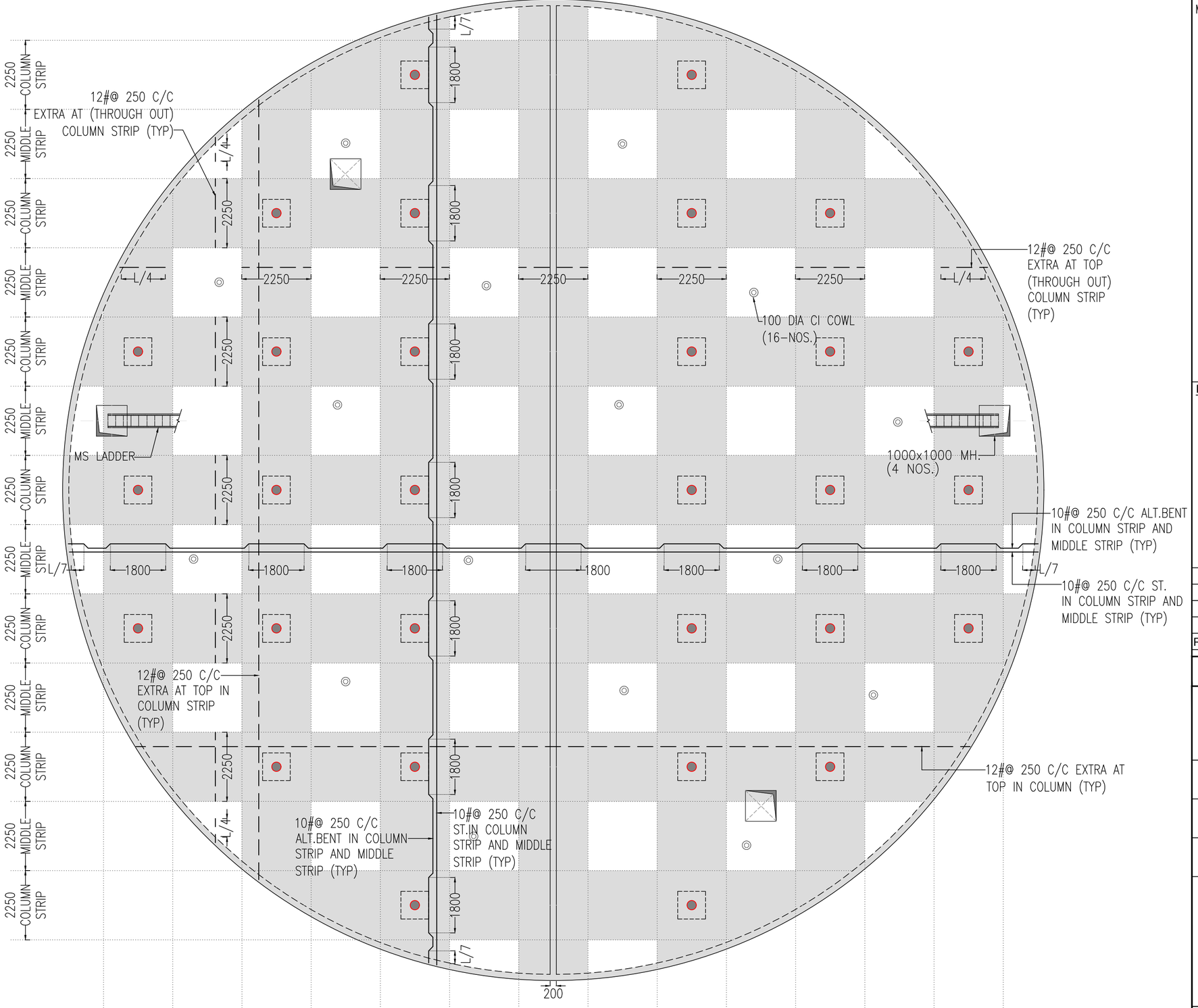
DRAWING NO :- ST:01/01

STRUCTURAL CONSULTANT:-



BASE SLAB TOP AND BOTTOM REINFORCMENT DETAILS

(SCALE 1:150)



PLAN AT TOP SLAB LEVEL

THICK :- 150 MM

(SCALE 1:150)

GENERAL NOTES :

01.ALL DIMENSIONS ARE IN MM AND LEVELS ARE IN MT.UNLESS OTHERWISE SPECIFIED.
02. FIGURED DIMENSIONS SHALL BE FOLLOWED AND DO NOT SCALE THE DRAWING.
03. ALL STRUCTURAL DRAWING SHALL BE READ IN CONSTRUCTION WITH GAD
DRAWING ANY DISCREPANCY IN THE DRAWING SHALL BE BROUGHT TO OUR
NOTICE BEFORE COMMENCING THE WORK.
04. ALL CONCRETE MIX SHALL BE M:30 IF NOT SPECIFIED.
05. ALL REINFORCEMENT SHALL BE OF Fe415 GRADE.
06. EXCAVATION SIDE SHALL BE KEPT VERTICAL ADEQUATE MEASURE OF
SHORING & STRUTTING BY MEANS OF CHANNEL,GIRDER,WALL,PLATES ETC.
07. AFTER COMPLETION OF WORK,EXTRA CARE SHOULD BE TAKEN TO PREVENT
WATER PERCOLATION BELOW FOOTING/FOUNDATION. BY PLINTH COVERAGE.
08. BEFORE STARTING ANY WORK READ SOIL REPORT & ITS CONCLUSION &
RECOMMENDATION.
09. READ THIS DRAWING WITH ALL RELEVANT STRUCTURE AND G.A.DRAWING.
10. SPACER PIN/BAR # 20 @ 600 C/C TO BE PROVIDE TO KEEP CLEAR GAP OF
25 MM BETWEEN TWO VERTICAL/HORIZONTAL LAYERS OF REINFORCEMENT.
11. CLEAR COVER TO MAIN REINFORCEMENT SHALL BE AS FOLLOWS.
A. 60 MM FOR FOUNDATION/FOOTING.
B. 40 MM IN COLUMN.
C. 45 MM FOR WATER RETAINING ELEMENTS.
D. 45 MM SLABS IN BOTTOM SURFACE.
E. 25 MM BEAM AND SLAB.
12. ALL PLAIN CEMENT CONCRETE (PCC) SHALL BE M:15 GRADE.
13. CUT–OUT FOR PIPE SHALL BE PROVIDED AS/GAD AND STRUCTURAL DETAIL.
14. AS PER GWSSB REFERENCE LETTER WE HAVE CONSIDERED SBC OF 22 T/M²
AT 3.00 MT. BELOW GL.
15. THIS DESIGNED FOR SEISMIC ZONE III.
16. LAP LENGTH OF THE BARS SHALL BE 50 TIMES DIA OF BAR.
17. HORIZONTAL LAP LENGTH FOR ONLY CONTAINER SHALL BE 2 TIME
OF DEVELOPMENT LENGTH.
18. DESIGN MIX.CONCRETE SHALL BE USED AS IS:10262.
19. ALL RCC WORK SHOULD BE CARRIED OUT AS PER STRUCTUREL DETAIL.
20. FOR DESIGN OF THIS STRUCTURE IS IS–456–2000,IS–13920–1993,
IS–1893–2002.GSDMA GUIDE LINE IS CONSIDERED.
21.BOTTOM SLAB AND SIDE WALL TO BE CAST MONOLITHIC CONSTRUCTION JOINT
HEIGHT TO 150 MM BASE SLAB.
22.ALL INLET AND OUTLET OVER FLOWS PIPES MANHOLES FRAMES ETC. TO BE
LEFT IN POSITION BEFORE CONCRETING.
23.SPACE BETWEEN SLEEVE AND PIPE THROUGH THE WALL, TO BE GROUTED WITH
RELEVANT WATER PROOFING AS PER STRUCTURAL REQUIREMENT.
24.THE CENTERING FOR STRUCTURAL MEMBERS SHALL NOT BE REMOVED BEFORE
CONCRETE SHALL ARCHIVED A CUBE CRUSHING STRENGTH AT 7 DAY AGE OF
LEAST 68% OF ITS FINAL CUBE CRUSHING STRENGTH IN NORMAL CARES
WHERE OPC IS USED FORMS MAY GENERALLY BE REMOVED AFTER FOLLOWING
PERIOD,SLAB/DOME : SPANNING UP TO 4.5 M – 7 DAYS SPANNING UP TO 6
M – 21 DAYS BEAM SOFFIT: WITH PROPS LEFT UNDER 7 DAYS WALL/COLUMN
24 HRS VERTICAL SIDE OF BEAMS : 48 HRS.
25.ALL BACKFILLING SHALL BE DONE WITH 95 % MODIFIED PROCTOR DENSITY
AND UNIFORMLY ALL AROUND.

IMPORTANT NOTES :–

* IN THIS DESIGN, GROUND WATER TABLE IS NOT CONSIDERED. IF GWT IS MET,
STOP THE WPL ORK AND CONSULT THE DESIGNER FOR REDESIGN.

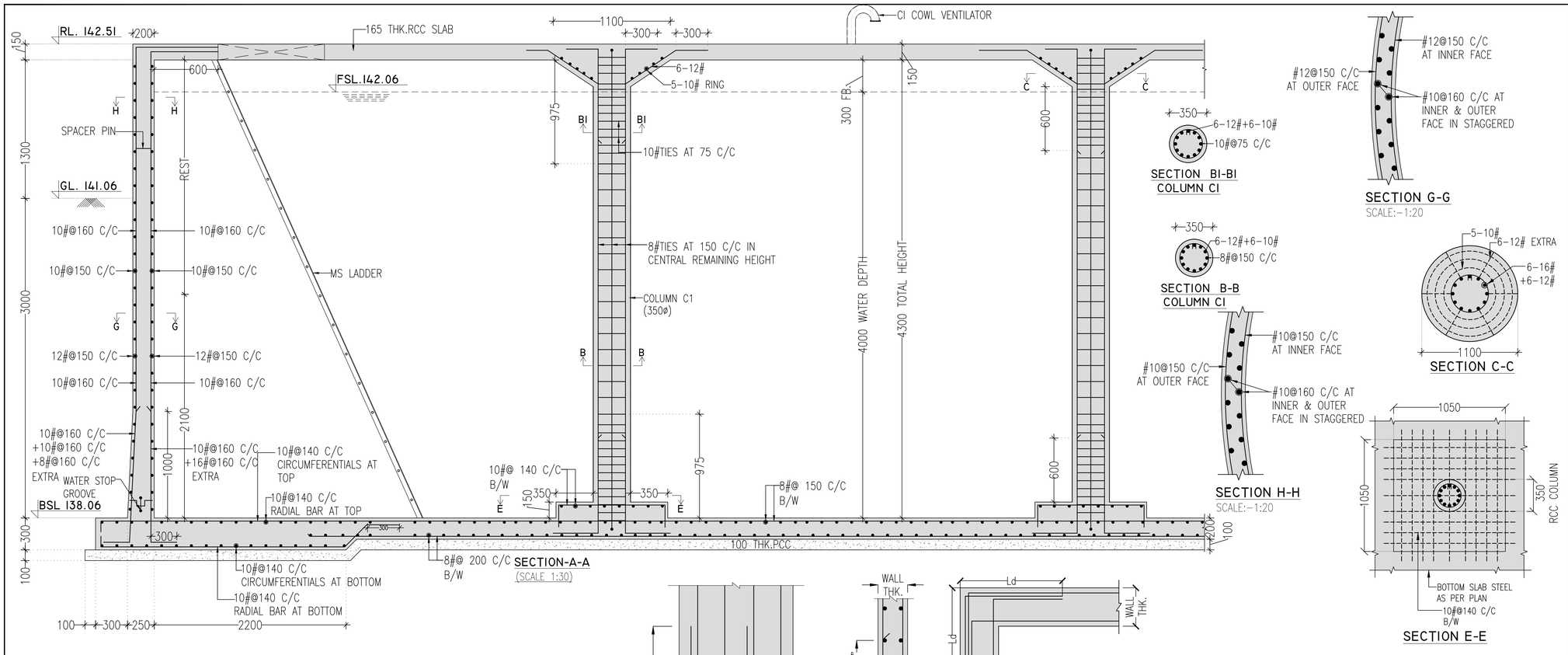
DESIGN BY :-	APPROVED BY :-

REV.	DATE	DESCRIPTION	ISSUED	SIGN.
R0	16-12-15	FIRST SUBMISSION	A	

P = PRELIMINARY A = APPROVAL C = CONSTRUCTION

PROJECT:	WATER SUPPLY PROJECT FOR VILLAGE OF BAYAD, DHANSURA & MALPUR TALUKA BASED ON VATRAK DAM - UNDER SK-2 GROUP PART I-B. (GABAT) PACKEGE - 1
CLIENT :	GUJARAT WATER SUPPLY & SAWERAGE BOARD,GANDHINAGR.
PMC	
NAME OF AGENCY :	M/S R. D.
TITLE :	PLAN AT BOTTOM LVL., TOP LVL. (CAP. 30.00 LAC LITER) SATHAMBA HEAD WORK

DRAWN BY : *	PROJ. NO. : 1050 - C	DRG.NO. ST- 20
DESIGNED BY : *	DATE : ST - 21	SHEET.NO. 01/01
CHECKED BY : *	SCALE : N.T.S	



SECTION BI-BI
COLUMN CI

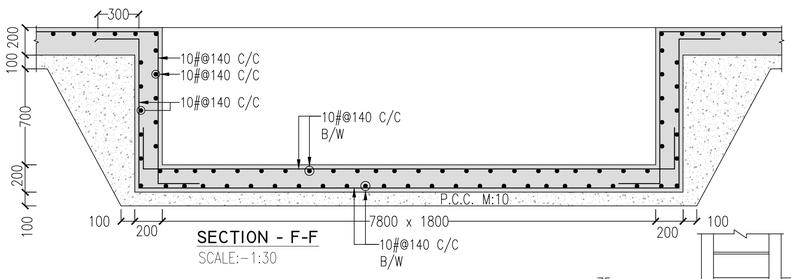
SECTION B-B
COLUMN CI

SECTION H-H
SCALE:-1:20

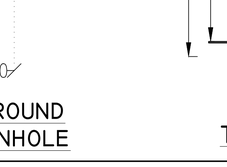
SECTION G-G
SCALE:-1:20

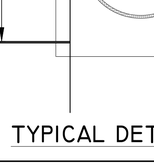
SECTION C-C

SECTION E-E

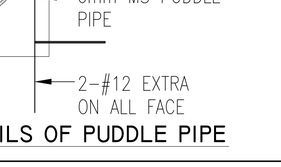


SECTION - F-F
SCALE:-1:30

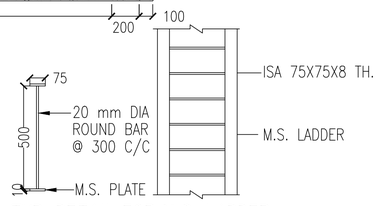




WALL SECTION
LAP DETAILS FOR STEEL
(LAP SHALL BE STAGGERED AS PER
ELEVATION-X)

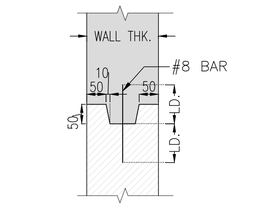


TYPICAL CORNER
REINFORCEMENT DETAILS
OF WALL

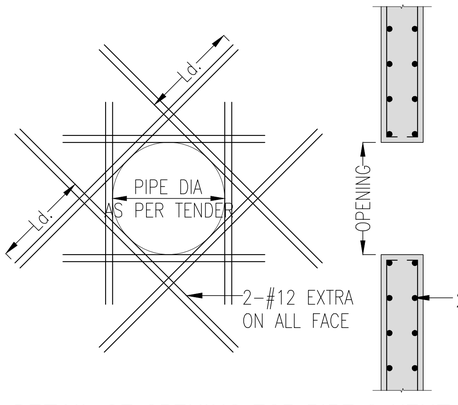


TYP. DETAIL FOR M.S. LADDER

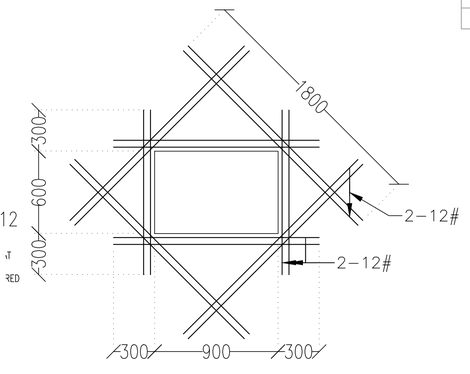
LAP LENGTH SCHEDULE	
DIA FOR BAR	LAP LENGTH "L" IN MM
8#	384mm
10#	480mm
12#	576mm
16#	768mm
20#	960mm



TYPICAL CONSTRUCTION JOINT
IN VERTICAL WALL

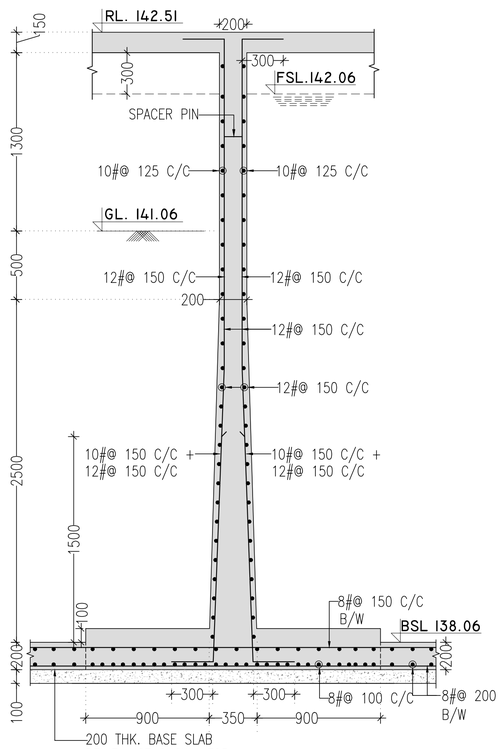


DETAIL OF OPENING FOR PIPE & VENT



EXTRA REIN. AROUND
OPENING OF MANHOLE

TYPICAL DETAILS OF PUDDLE PIPE



SECTION-D-D
PARTITION WALL DETAIL
(SCALE 1:30)

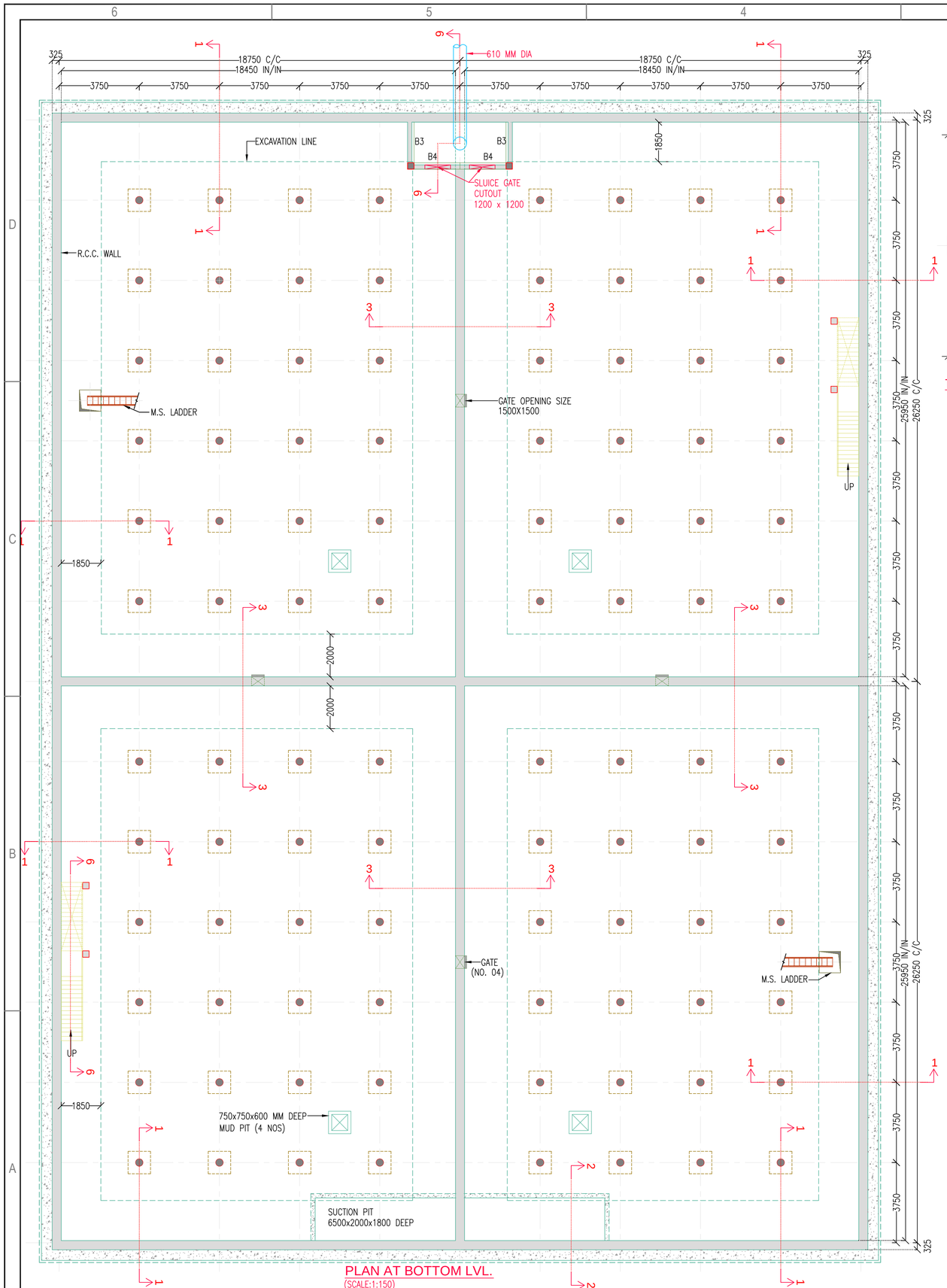
DESIGN BY :-	APPROVED BY :-

REV.	DATE	DESCRIPTION	ISSUED	SIGN.
R0	16-12-15	FIRST SUBMISSION	A	

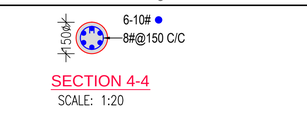
P = PRELIMINARY A = APPROVAL C = CONSTRUCTION

PROJECT:	WATER SUPPLY PROJECT FOR VILLAGE OF BAYAD, DHANSURA & MALPUR TALUKA BASED ON VATRAK DAM - UNDER SK-2 GROUP PART I-B. (GABAT) PACKEGE - 1
CLIENT :	GUJARAT WATER SUPPLY & SAWERAGE BOARD,GANDHINAGR.
PMC	.
NAME OF AGENCY :	M/S

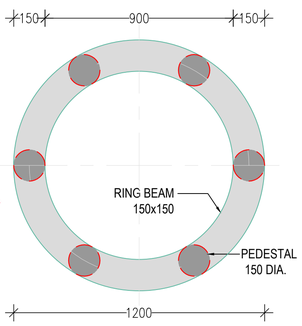
TITLE :	SECTION TYPICAL DETAILS (CAP. 30.00 LAC LITER) SATHAMBA HEAD WORK	
DRAWN BY : *	PROJ. NO. : 1050 - C	DRG.NO. ST- 20
DESIGNED BY : *	DATE : ST - 21	
CHECKED BY : *	SCALE : N.T.S	SHEET.NO. 01/01



PLAN AT BOTTOM LVL.
(SCALE:1:150)



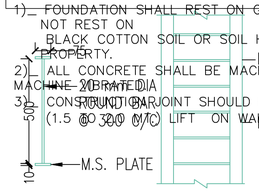
SECTION 4-4
SCALE: 1:20



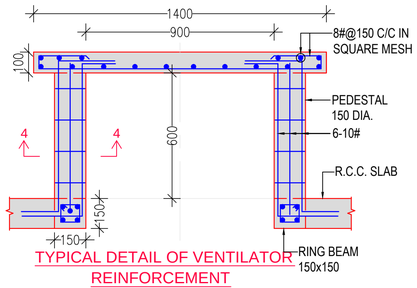
TYPICAL DETAIL OF VENTILATOR PEDESTAL ARRANGEMENT
SCALE: 1:20

IMPORTANT NOTES :
* AS PER SOIL INVESTIGATION REPORT NO GROUND WATER TABLE IS FOUND AT DEPTH OF FOUNDATION AT TIME OF INVESTIGATION. HENCE STRUCTURE IS NOT DESIGNED FOR UPLIFT PRESSURE, HOWEVER IF DURING EXECUTION THE GWT IS OBSERVED THEN WORK BE STOPPED & BROUGHT TO THE NOTICE OF CONSULTING ENGINEER.
* GROUND WATER TABLE IS AVAILABLE CONTINUOUS DEWATERING SHALL BE DONE TO KEEP FOUNDATION TRENCH IN DRAWING CONDITION TILT IT ACHIEVES ITS FULL STRENGTH.

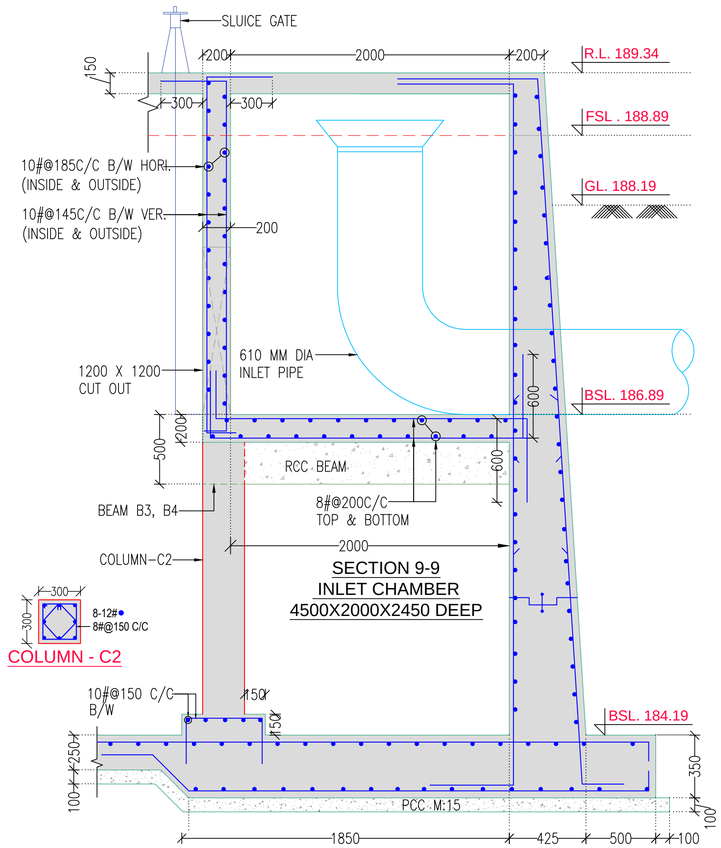
1) FOUNDATION SHALL REST ON GOOD SOIL, IT SHOULD NOT REST ON BLACK COTTON SOIL OR SOIL HAVING EXPANSIVE PROPERTY.
2) ALL CONCRETE SHALL BE MACHINE MIXED AND MACHINE VIBRATED.
3) CONSTRUCTION JOINT SHOULD BE PROVIDED AT EVERY (1.5 @ 300 M/C) LIFT ON WALL.



TYP. DETAIL FOR M.S. LADDER



TYPICAL DETAIL OF VENTILATOR REINFORCEMENT
SCALE: 1:20



R5	10-12-15	AFTER OBSERVATION	A	
R4	09-12-15	AFTER OBSERVATION	A	
R3	07-12-15	AFTER OBSERVATION	A	
R2	26-11-15	AFTER OBSERVATION	A	
R1	24-11-15	AFTER OBSERVATION	A	
R0	29-10-15	FIRST SUBMISSION	A	
REV.	DATE	DESCRIPTION	ISSUED	SIGNATURE

DESIGN BY :-

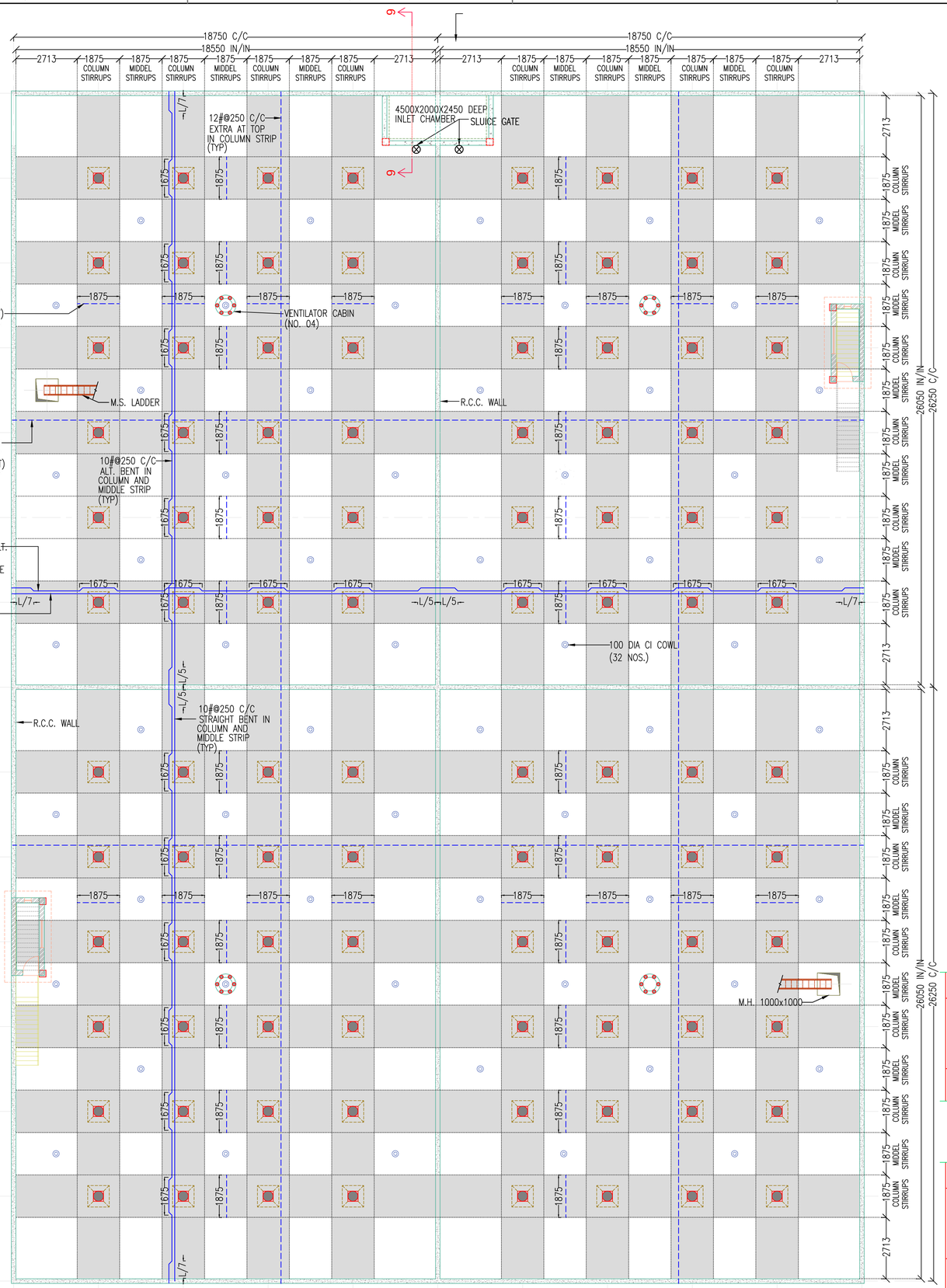
APPROVED BY :-

P = PRELIMINARY A = APPROVAL C = CONSTRUCTION

PROJECT:	WATER SUPPLY PROJECT FOR VILLAGES OF, DHANSURA & MODASA TALUKA BASED ON MAZUM DAM-UNDER SK-2 GROUP, PART - II B, SHINAWADA GROUP, DIST. SABARKANTHA
CLIENT :	GUJARAT WATER SUPPLY AND SEWERAGE BOARD, GANDHINAGAR
PMC :	.
NAME OF AGENCY :	9

TITLE : STRUCTURE PLAN AT BOTTOM LVL. (CAP. 80.00 LAC LITER)

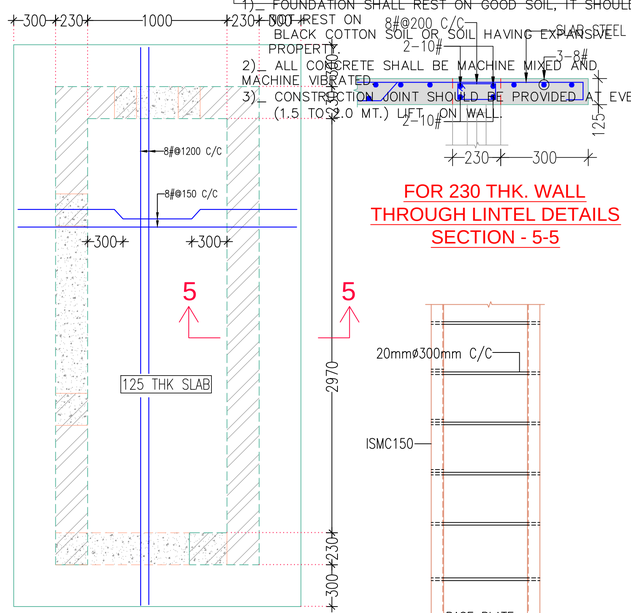
DRAWN BY :	PROJ. NO. : 1050_B	DRG.NO.	ST - 12
DESIGNED BY :	DATE : 20-10-15	SHEET NO.	01/04
CHECKED BY :	SCALE : NTS		



PLAN AT TOP LVL.SLAB 150 THK.
(SCALE:1:150)

IMPORTANT NOTES :
* AS PER SOIL INVESTIGATION REPORT NO GROUND WATER TABLE IS FOUND AT DEPTH OF FOUNDATION AT TIME OF INVESTIGATION. HENCE STRUCTURE IS NOT DESIGNED FOR UPLIFT PRESSURE, HOWEVER IF DURING EXECUTION THE GWT IS OBSERVED THEN WORK BE STOPPED & BROUGHT TO THE NOTICE OF CONSULTING ENGINEER.
* GROUND WATER TABLE IS AVAILABLE CONTINUOUS DEWATERING SHALL BE DONE TO KEEP FOUNDATION TRENCH IN DRAWING CONDITION TILT IT ACHIEVES ITS FULL STRENGTH.

1)_ FOUNDATION SHALL REST ON GOOD SOIL, IT SHOULD NOT REST ON BLACK COTTON SOIL OR SOIL HAVING EXPANSIVE PROPERTY.
2)_ ALL CONCRETE SHALL BE MACHINE MIXED AND MACHINE VIBRATED.
3)_ CONSTRUCTION JOINT SHOULD BE PROVIDED AT EVERY (1.5 TO 2.0 MT.) LIFT ON WALL.

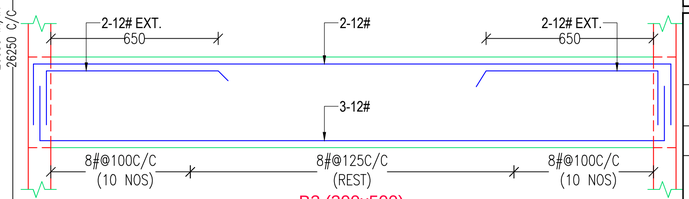


PLAN AT STAIR CABIN
SCALE:-1:30

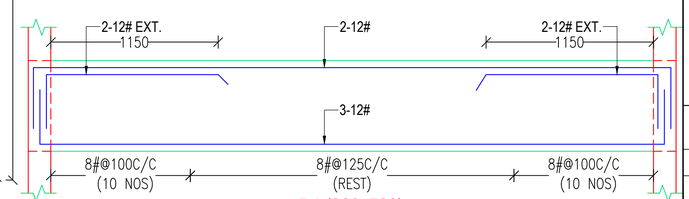
FOR 230 THK. WALL THROUGH LINTEL DETAILS SECTION - 5-5

SECTIONAL ELEVATION

DETAILS OF LADDER



B3 (300x500)



B4 (300x500)

DESIGN BY :-

APPROVED BY :-

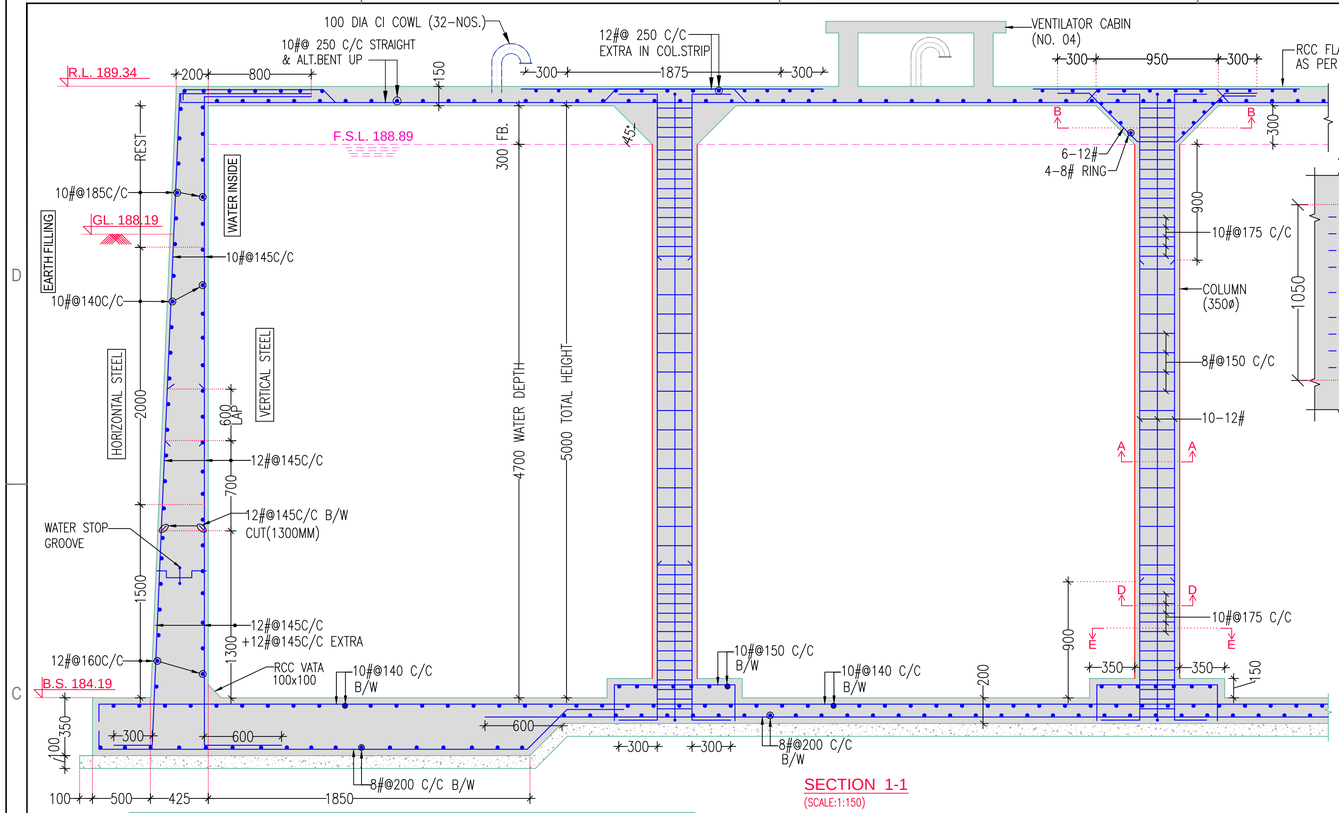
REV.	DATE	DESCRIPTION	ISSUED	SIGNATURE
R5	10-12-15	AFTER OBSERVATION	A	
R4	09-12-15	AFTER OBSERVATION	A	
R3	07-12-15	AFTER OBSERVATION	A	
R2	26-11-15	AFTER OBSERVATION	A	
R1	24-11-15	AFTER OBSERVATION	A	
R0	29-10-15	FIRST SUBMISSION	A	

P = PRELIMINARY A = APPROVAL C = CONSTRUCTION

PROJECT:	WATER SUPPLY PROJECT FOR VILLAGES OF, DHANSURA & MODASA TALUKA BASED ON MAZUM DAM-UNDER SK-2 GROUP, PART - II B, SHINAWADA GROUP, DIST. SABARKANTHA
CLIENT :	GUJARAT WATER SUPPLY AND SEWERAGE BOARD, GANDHINAGAR
PMC :	.
NAME OF AGENCY :	

TITLE : STRUCTURE PLAN AT TOP LVL. (CAP. 80.00 LAC LITER)

DRAWN BY :	PROJ. NO. : 1050_B		DRG.NO. ST - 12
DESIGNED BY :	DATE : 20-10-15		SHEET NO. 02/04
CHECKED BY :	SCALE : NTS		



IMPORTANT NOTES :

* AS PER SOIL INVESTIGATION REPORT NO GROUND WATER TABLE IS FOUND AT DEPTH OF FOUNDATION AT TIME OF INVESTIGATION. HENCE STRUCTURE IS NOT DESIGNED FOR UPLIFT PRESSURE, HOWEVER IF DURING EXECUTION THE GWT IS OBSERVED THEN WORK BE STOPPED & BROUGHT TO THE NOTICE OF CONSULTING ENGINEER.
* GROUND WATER TABLE IS AVAILABLE CONTINUOUS DEWATERING SHALL BE DONE TO KEEP FOUNDATION TRENCH IN DRAWING CONDITION TILT IT ACHIEVES ITS FULL STRENGTH.

1)_ ~~FOUNDATION SHALL REST ON GOOD SOIL, IT SHOULD~~ NOT REST ON BLACK COTTON SOIL OR SOIL HAVING EXPANSIVE PROPERTY.
2)_ ALL CONCRETE SHALL BE MACHINE MIXED AND MACHINE VIBRATED.
3)_ CONSTRUCTION JOINT SHOULD BE PROVIDED AT EVERY (1.5 TO 2.0 MTS) LIFT ON WALL.

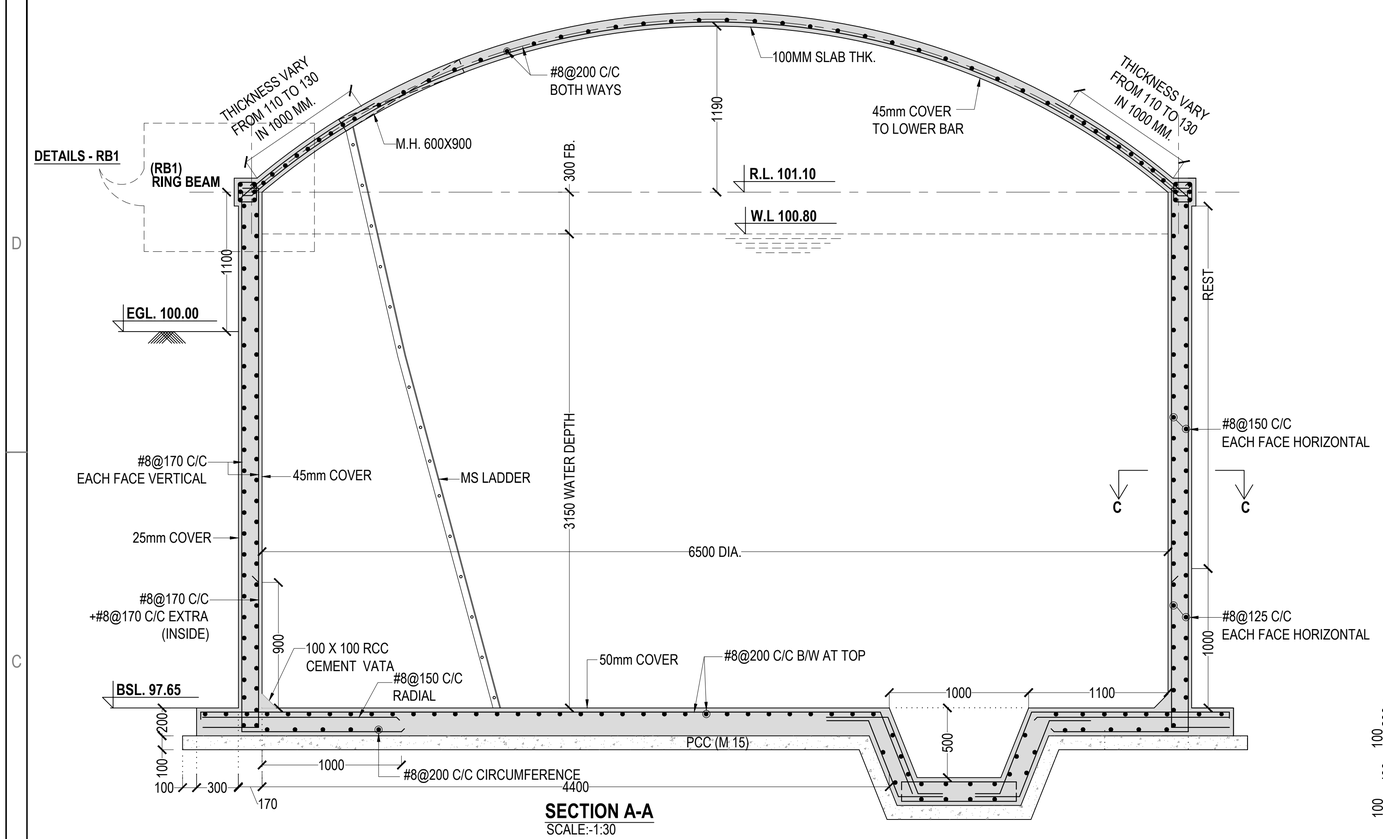
DESIGN BY :- | APPROVED BY :-

REV.	DATE	DESCRIPTION	ISSUED	SIGNATURE
R5	10-12-15	AFTER OBSERVATION	A	
R4	09-12-15	AFTER OBSERVATION	A	
R3	07-12-15	AFTER OBSERVATION	A	
R2	26-11-15	AFTER OBSERVATION	A	
R1	24-11-15	AFTER OBSERVATION	A	
R0	29-10-15	FIRST SUBMISSION	A	

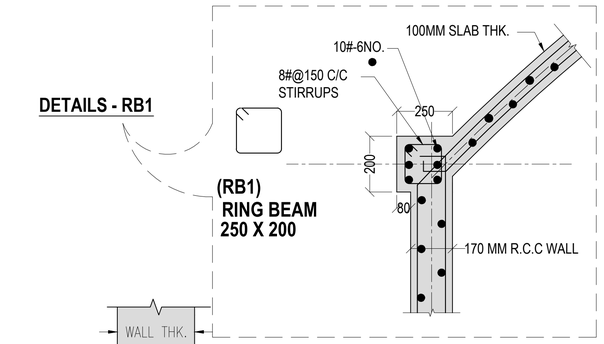
P = PRELIMINARY A = APPROVAL C = CONSTRUCTION

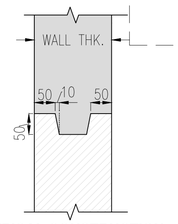
PROJECT:	WATER SUPPLY PROJECT FOR VILLAGES OF, DHANSURA & MODASA TALUKA BASED ON MAZUM DAM-UNDER SK-2 GROUP, PART - II B, SHINAWADA GROUP, DIST. SABARKANTHA
CLIENT :	GUJARAT WATER SUPPLY AND SEWERAGE BOARD, GANDHINAGAR
PMC :	
NAME OF AGENCY :	
TITLE :	STRUCTURE PLAN AT TOP LVL. (CAP. 80.00 LAC LITER)

DRAWN BY :	PROJ. NO. : 1050_B	DRG.NO.	ST - 12
DESIGNED BY :	DATE : 20-10-15	SHEET NO.	03/04
CHECKED BY :	SCALE : NTS		

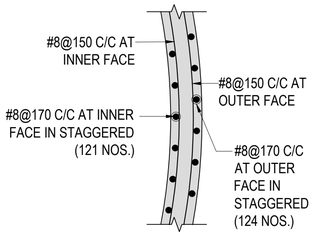


SECTION A-A
SCALE:-1:30

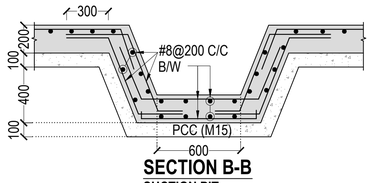




TYPICAL CONSTRUCTION JOINT IN VERTICAL WALL



SECTION C-C
SCALE:-1:20



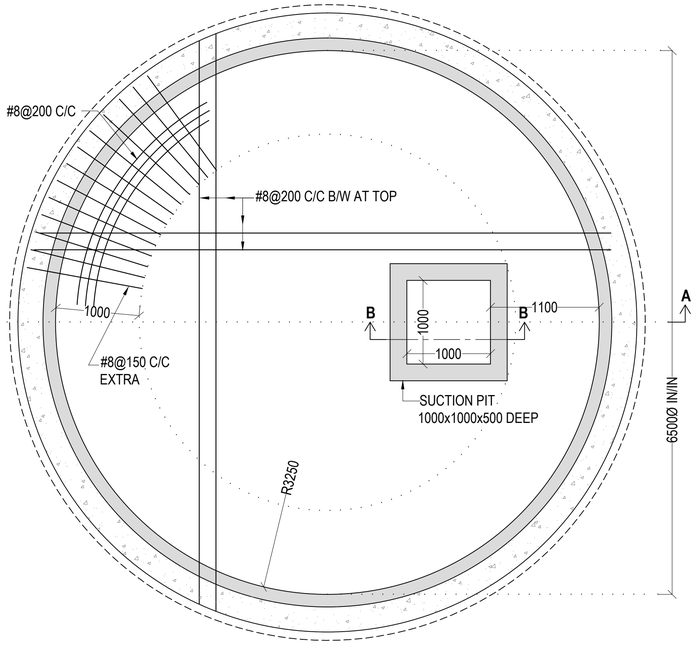
SECTION B-B
SUCTION PIT
1000X1000X500
SCALE:-1:30

GENERAL NOTES :

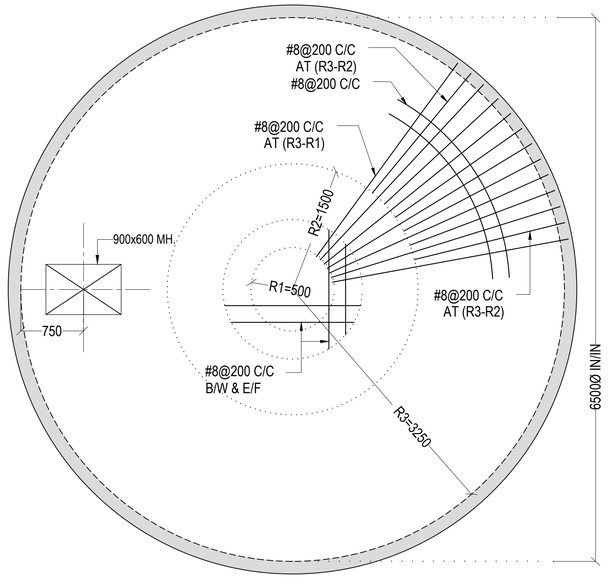
01. ALL DIMENSIONS ARE IN MM AND LEVELS ARE IN MT.UNLESS OTHERWISE SPECIFIED.
02. FIGURED DIMENSIONS SHALL BE FOLLOWED AND DO NOT SCALE THE DRAWING.
03. ALL STRUCTURAL DRAWING SHALL BE READ IN CONSTRUCTION WITH GAD DRAWING ANY DISCREPANCY IN THE DRAWING SHALL BE BROUGHT TO OUR NOTICE BEFORE COMMENCING THE WORK.
04. CONCRETE MIX SHALL BE M:30 FOR WATER RETAINING STRUCTURE.
05. ALL REINFORCEMENT SHALL BE OF Fe415 GRADE.
06. EXCAVATION SIDE SHALL BE KEPT VERTICAL ADEQUATE MEASURE OF SHORING & STRUTTING BY MEANS OF CHANNEL,GIRDER,WALL,PLATES ETC.
07. AFTER COMPLETION OF WORK,EXTRA CARE SHOULD BE TAKEN TO PREVENT WATER PERCOLATION BELOW FOOTING/FOUNDATION. BY PLINTH COVERAGE.
08. BEFORE STARTING ANY WORK READ SOIL REPORT & ITS CONCLUSION & RECOMMENDATION.
09. READ THIS DRAWING WITH ALL RELEVANT STRUCTURE AND G.A.DRAWING.
10. SPACER PIN/BAR # 25 @ 600 C/C TO BE PROVIDE TO KEEP CLEAR GAP OF 25 MM BETWEEN TWO VERTICAL/HORIZONTAL LAYERS OF REINFORCEMENT.
11. CLEAR COVER TO MAIN REINFORCEMENT SHALL BE AS FOLLOWS.
    A. 50 MM FOR FOUNDATION/FOOTING.
    B. 40 MM IN COLUMN.
    C. 45 MM FOR WATER RETAINING ELEMENTS.
    D. 45 MM SLABS IN BOTTOM SURFACE.
    E. 25 MM BEAM AND SLAB.
12. ALL PLAIN CEMENT CONCRETE (PCC) SHALL BE M:15 GRADE.
13. CUT-OUT FOR PIPE SHALL BE PROVIDED AS/GAD AND STRUCTUREL DETAIL.
14. AS PER SOIL INVESTIGATION REPORT SBC IS CONSIDERED **23 T/M²** AT 3.00 MT.BELOW G.L.
15. THIS DESIGNED FOR SEISMIC **ZONE IV**.
16. LAP LENGTH OF THE BARS SHALL BE 50 TIMES DIA OF BAR.
17. DESIGN MIX.CONCRETE SHALL BE USED AS IS:10262.
18. ALL RCC WORK SHOULD BE CARRIED OUT AS PER STRUCTUREL DETAIL.
19. FOR DESIGN OF THIS STRUCTURE IS IS-456-2000,IS-13920-1993, IS-1893-2002.GSDMA GUIDE LINE IS CONSIDERED.

IMPORTANT NOTES :

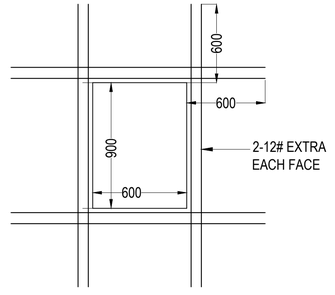
* AS PER SOIL INVESTIGATION REPORT, NO GROUND WATER TABLE FOUND IF IF DURING EXECUTION WATER TABLE FOUND STOP THE WORK AND CONSULT THE STRUCTURAL DESIGNER FOR REDESIGN.
* SIDE SHOULD BE RETAINED DURING EXECUTION OF WORK & IF WATER TABLE MET AT FOOTING LEVEL, DEWATERING ARRANGEMENT SHOULD BE MADE DURING EXECUTION OF WORK.



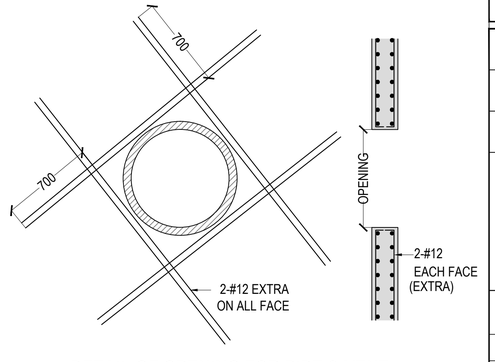
BOTTOM PLAN
SLAB 200mm. THK.
SCALE:-1:50



TOP PLAN
SLAB 100mm. THK.
SCALE:-1:50



DETAIL OF MAN HOLE
SCALE:-1:20



DETAIL OF OPENING FOR PIPE & VENT
SCALE:-1:30

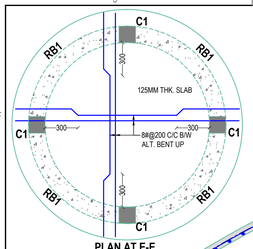
DESIGN BY :-	APPROVED BY :-

REV.	DATE	DESCRIPTION	ISSUED
R0	09-03-16	FIRST SUBMISSION	A

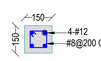
P = PRELIMINARY A = APPROVAL C = CONSTRUCTION

PROJECT:	PROPOSED UGS AT ANDARNA VILLAGE, TA : MORBI DIST : MORBI.
CLIENT :	GRAMYA SWACHCHATA SAMITI, ANDARNA
NAME OF AGENCY :	M/S
DESIGN CONSULTANT :	
TITLE :	STRUCTURAL DETAILS OF UGS AT ANDARNA VILLAGE (CAPACITY 1.00 LAC, LITER)

DRAWN BY :	PROJ. NO. : 1010_Y4	SHEET NO.	01/01
DESIGNED BY :	DRG. NO. : ST-01		
SCALE :	DATE : 07-03-16		

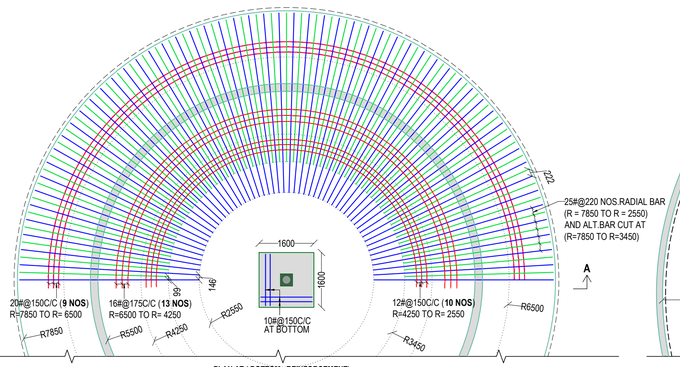


PLAN AT E-E

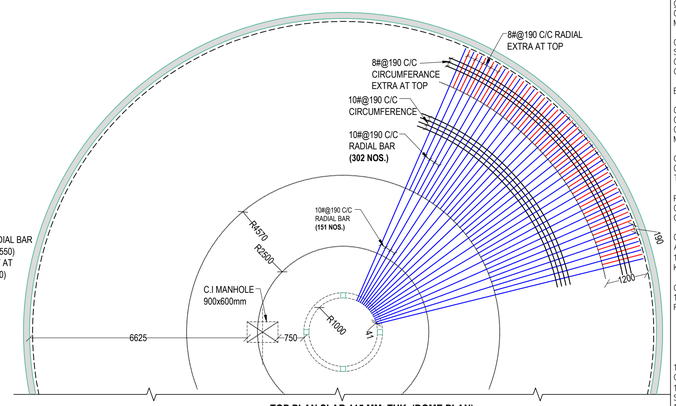


SECTION F-F
TOP OF ROOF COL.C-1

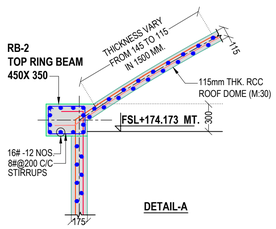
(RB-1) DETAILS



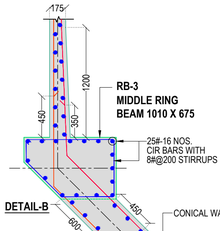
PLAN AT (BOTTOM REINFORCEMENT)



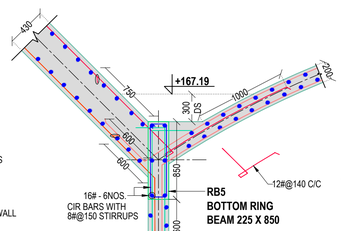
TOP PLAN SLAB 115 MM. THK. (DOME PLAN)

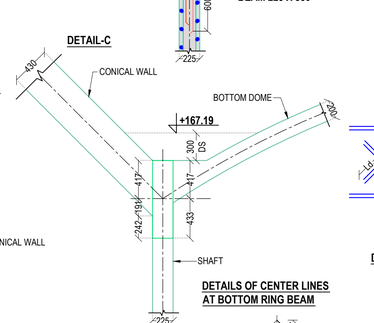


DETAIL-A

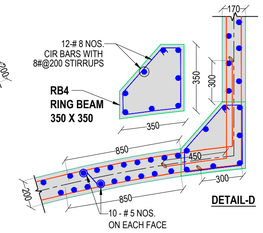


DETAIL-B

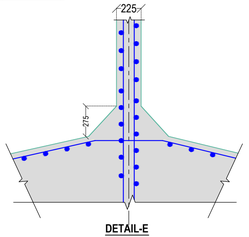




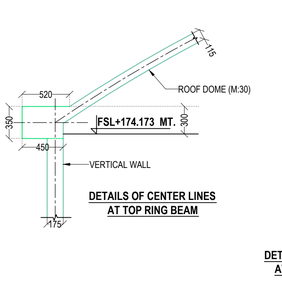
DETAIL-C



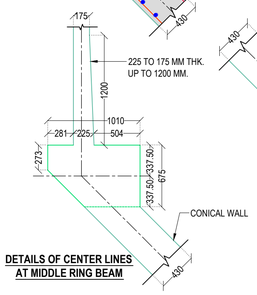
DETAIL-D



DETAIL-E

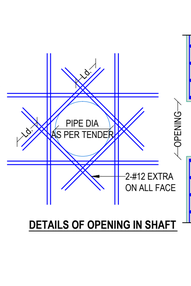


DETAILS OF CENTER LINES
AT TOP RING BEAM

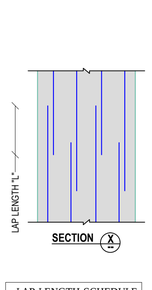


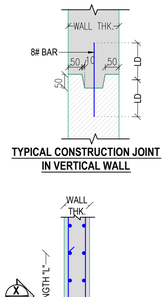
DETAILS OF CENTER LINES
AT MIDDLE RING BEAM

DETAILS OF CENTER LINES
AT BOTTOM RING BEAM



DETAILS OF OPENING IN SHAFT

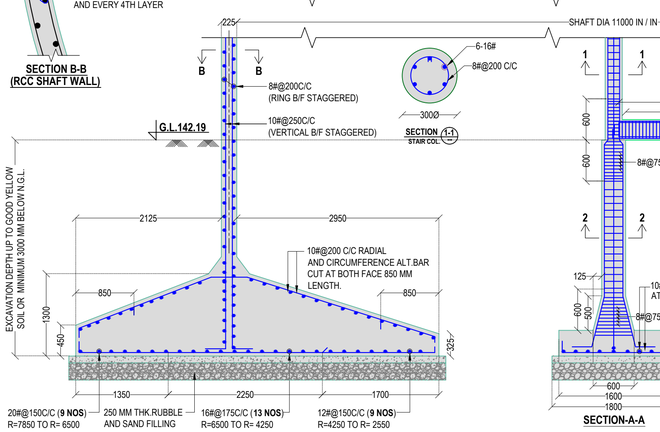


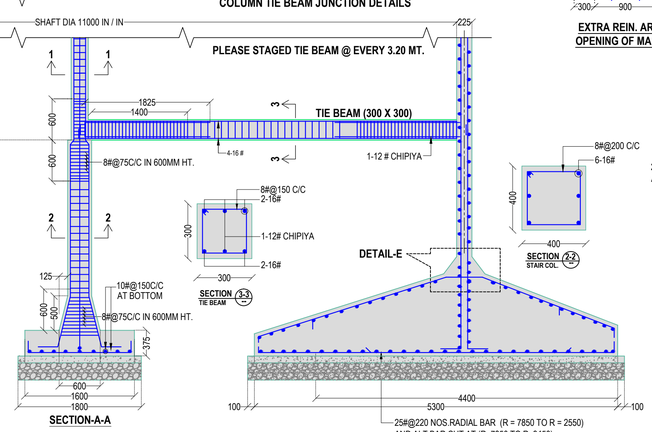


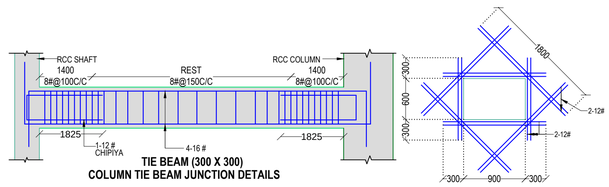
TYPICAL CONSTRUCTION JOINT
IN VERTICAL WALL

WALL SECTION
LAP DETAILS FOR STEEL
(LAP SHALL BE STAGGERED AS PER ELEVATION-A)

SECTION B-B
(RCC SHAFT WALL)

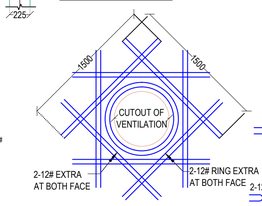




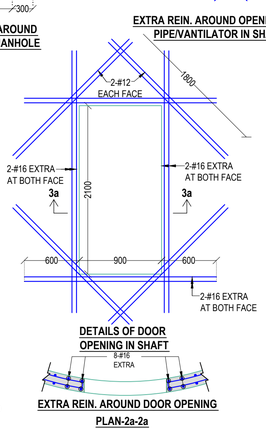


TIE BEAM (300 X 300)
COLUMN TIE BEAM JUNCTION DETAILS

EXTRA REIN. AROUND
OPENING OF MANHOLE

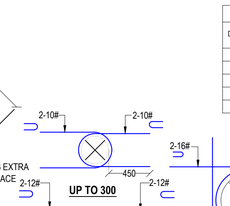


EXTRA REIN. AROUND OPENING FOR
PIPE/VANTILATOR IN SHAFT

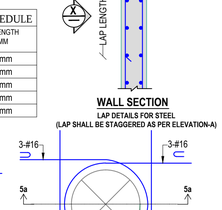


DETAILS OF DOOR
OPENING IN SHAFT

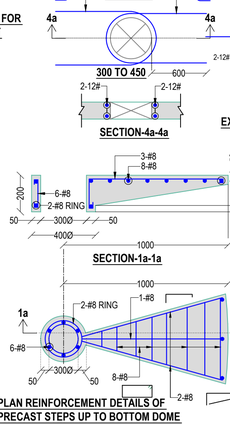
EXTRA REIN. AROUND DOOR OPENING
PLAN-2a-2a



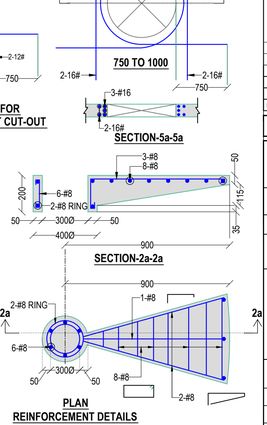
TYPICAL DETAILS FOR
EXTRA STEEL BAR AT CUT-OUT



SECTION-5a-5a



SECTION-1a-1a



SECTION-2a-2a

PLAN REINFORCEMENT DETAILS OF
PRECAST STEPS UP TO BOTTOM DOME

PLAN
REINFORCEMENT DETAILS
OF TYPICAL PRECAST STEP

LAP LENGTH SCHEDULE

DIA FOR BAR	LAP LENGTH "L" IN MM
8#	310mm
10#	380mm
12#	610mm
16#	640mm
20#	760mm

GENERAL NOTES :

01.ALL DIMENSIONS ARE IN MM AND LEVELS ARE IN MT.UNLESS OTHERWISE SPECIFIED.
02. FIGURED DIMENSIONS SHALL BE FOLLOWED AND DO NOT SCALE THE DRAWING.
03. ALL STRUCTURAL DRAWING SHALL BE READ IN CONSTRUCTION WITH GAD DRAWING ANY DISCREPANCY IN THE DRAWING SHALL BE BROUGHT TO OUR NOTICE BEFORE COMMENCING THE WORK.
04. ALL CONCRETE MIX SHALL BE M:30 IF NOT SPECIFIED.
05. ALL REINFORCEMENT SHALL BE OF Fe415 GRADE.
06. EXCAVATION SIDE SHALL BE KEPT VERTICAL ADEQUATE MEASURE OF SHORING & STRUTTING BY MEANS OF CHANNEL,GIRDER,WALL,PLATES ETC.
07. AFTER COMPLETION OF WORK,EXTRA CARE SHOULD BE TAKEN TO PREVENT WATER PERCOLATION BELOW FOOTING/FOUNDATION. BY PLINTH COVERAGE.
08. BEFORE STARTING ANY WORK READ SOIL REPORT & ITS CONCLUSION & RECOMMENDATION.
09. READ THIS DRAWING WITH ALL RELEVANT STRUCTURE AND G.A.DRAWING.
10. SPACER PIN/BAR # 20 @ 600 C/C TO BE PROVIDE TO KEEP CLEAR GAP OF 25 MM BETWEEN TWO VERTICAL,/HORIZONTAL LAYERS OF REINFORCEMENT.
11. CLEAR COVER TO MAIN REINFORCEMENT SHALL BE AS FOLLOWS.
A. 60 MM FOR FOUNDATION/FOOTING.
B. 40 MM IN COLUMN.
C. 45 MM FOR WATER RETAINING ELEMENTS.
D. 45 MM SLABS IN BOTTOM SURFACE.
E. 25 MM BEAM AND SLAB.
12. ALL PLAIN CEMENT CONCRETE (PCC) SHALL BE 1:3:6 GRADE.
13. CUT-OUT FOR PIPE SHALL BE PROVIDED AS/GAD AND STRUCTUREL DETAIL.
14. AS PER SOIL INVESTIGATION REPORT SBC IS CONSIDERED 25 T/M² AT 3.00 MT. BELOW GL.
15. THIS DESIGNED FOR SEISMIC ZONE III.
16. LAP LENGTH OF THE BARS SHALL BE 50 TIMES DIA OF BAR.
17. HORIZONTAL LAP LENGTH FOR ONLY CONTAINER SHALL BE 2 TIME OF DEVELOPMENT LENGTH.
18. DESIGN MIX CONCRETE SHALL BE USED AS IS:10262.
19. ALL RCC WORK SHOULD BE CARRIED OUT AS PER STRUCTUREL DETAIL.
20. FOR DESIGN OF THIS STRUCTURE IS IS-456-2000,IS-13920-1993, IS-1893-2002.GSDMA GUIDE LINE IS CONSIDERED.
21.BOTTOM SLAB AND SIDE WALL TO BE CAST MONOLITHIC CONSTRUCTION JOINT HEIGHT TO 150 MM BASE SLAB.
22.ALL INLET AND OUTLET OVER FLOWS PIPES MANHOLES FRAMES ETC. TO BE LEFT IN POSITION BEFORE CONCRETING.
23.SPACE BETWEEN SLEEVE AND PIPE THROUGH THE WALL, TO BE GROUTED WITH RELEVANT WATER PROOFING AS PER STRUCTURAL REQUIREMENT.
24.THE CENTERING FOR STRUCTURAL MEMBERS SHALL NOT BE REMOVED BEFORE CONCRETE SHALL ARCHIVED A CUBE CRUSHING STRENGTH AT 7 DAY AGE OF LEAST 68% OF ITS FINAL CUBE CRUSHING STRENGTH IN NORMAL CARES WHERE OPC IS USED FORMS MAY GENERALLY BE REMOVED AFTER FOLLOWING PERIOD,SLAB/DOME : SPANNING UP TO 4.5 M – 7 DAYS SPANNING UP TO 6 M – 21 DAYS BEAM SOFFIT: WITH PROPS LEFT UNDER 7 DAYS WALL/COLUMN 24 HRS VERTICAL SIDE OF BEAMS : 48 HRS.
25.ALL BACKFILLING SHALL BE DONE WITH 95 % MODIFIED PROCTOR DENSITY AND UNIFORMLY ALL AROUND.

IMPORTANT NOTES :

* AS PER SOIL INVESTIGATION REPORT NO GROUND WATER TABLE IS FOUND AT DEPTH OF FOUNDATION AT TIME OF INVESTIGATION. HENCE STRUCTURE IS NOT DESIGNED FOR UPLIFT PRESSURE, HOWEVER IF DURING EXECUTION THE GWT IS OBSERVED THEN WORK BE STOPPED & BROUGHT TO THE NOTICE OF CONSULTING ENGINEER.
* GROUND WATER TABLE IS AVAILABLE CONTINUOUS DEWATERING SHALL BE DONE TO KEEP FOUNDATION TRENCH IN DRAWING CONDITION TILT IT ACHIEVES ITS FULL STRENGTH.

DESIGN BY :- | APPROVED BY :-

REV.	DATE	DESCRIPTION	ISSUED	SIGNATURE
R4	16-10-15	AFTER APPROVAL	C	
R3	18-09-15	AFTER APPROVAL	C	
R2	08-09-15	AFTER OBSERVATION	A	
R1	02-09-15	AFTER OBSERVATION	A	
R0	03-08-15	FIRST SUBMISSION	P	

P = PRELIMINARY A = APPROVAL C = CONSTRUCTION

PROJECT: WATER SUPPLY PROJECT FOR VILLAGES OF: DHANSURA & MODASA TALUKA BASED ON MAZUM DAM-UNDER SK-2 GROUP, PART - II B, SHINAWADA GROUP, DIST. SABARKANTHA

CLIENT : GUJARAT WATER SUPPLY AND SEWERAGE BOARD, GANDHINAGAR

RS LIMITED.

NAME OF AGENCY :

TITLE : STRUCTURAL DETAILS AT DUGARWADA VILLAGE (CAPACITY 15.00 LAC. LITER,25.00 MT.HIGHT)

DRAWN BY :	PROJ. NO. : 1050_B	DRG.NO.	ST - 03
DESIGNED BY :	DATE : 01-08-15	SHEET NO.	01/01
CHECKED BY :	SCALE : NTS		