## PROPOSED DESIGN OF GGES JASSIAN DISTRICT ATTOCK





PLANNERS CONSULTANTS ENGINEERS (PCE)
97-K Industrial Estate, Hayatabad Peshawar Pakistan
Ph: 0092-91-5816017, 5891661-4, Fax: 5891845
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CLIENT:















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### PLANNE

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(5 (176)	OC (BCE)

dustrial Estate, Hayatabad Peshawar Pakistan	RS CONSULTANTS ENGINEERS (PCE)

TS ENGINEERS (PCE)	

DISTRICT ATTOCK	SCHOOL NAME
	Date of Re

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Approved By	Checked By	Designed By		1 Icpaica Dy
		MARWAT KHAN ORAKZAI (B.Arch.D.C.E.T.Karachi) (M.Arch.UET. Lahore)	ARCHITECT	KHAN HAIDER
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	ARCHITECT  By MARWAT	Зу
(B.Arch.D.C.E.T Karachi) (M.Arch.UET. Lahore)	CHITECT MARWAT KHAN ORAKZAI	FARID KHAN KHAN HAIDER
LIST OF DRAWINGS	-	PROJECT: PREPARATION OF DESIGN, DRAWINGS & BOQs

SCALE

DRG.NO.

39	38	37	36	35	34	33	32	31	30	29		28	27	26	25	24	23	22	SR.NO
LOAD CALCULATION	MAIN DISTRIBUTION BOARD	EARTHING DETAIL PLAN	SECTION	FIRST FLOOR DIMENSION PLAN	FIRST FLOOR PLAN	GROUND FLOOR DIMENSION PLAN	GROUND FLOOR PLAN	LEGEND	APPROVED MANUFACTURE LIST	GENERAL NOTES	ELECTRICAL DRAWINGS	BEAM DETAIL	COLUMN DETAIL	COLUMN DETAIL	FIRST FLOOR SLAB TOP REINFORCEMENT PLAN	FIRST FLOOR SLAB BOTTOM REINFORCEMENT PLAN	FIRST FLOOR BEAM PLAN	FIRST FLOOR COLUMN LAYOUT PLAN	DESCRIPTION
E-11	E-10	E-09	E-08	E-07	E-06	E-05	E-04	E-03	E-02	E-01		S-16	S-15	S-14	S-13	S-12	S-11	S-10	DRG. NO.

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VERANDAH RAILING DETAIL

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SECTION AT A-A

5

REAR ELEVATION

4

FRONT ELEVATION

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FIRST FLOOR PLAN

2

GROUND FLOOR PLAN

A-02

SITE PLAN

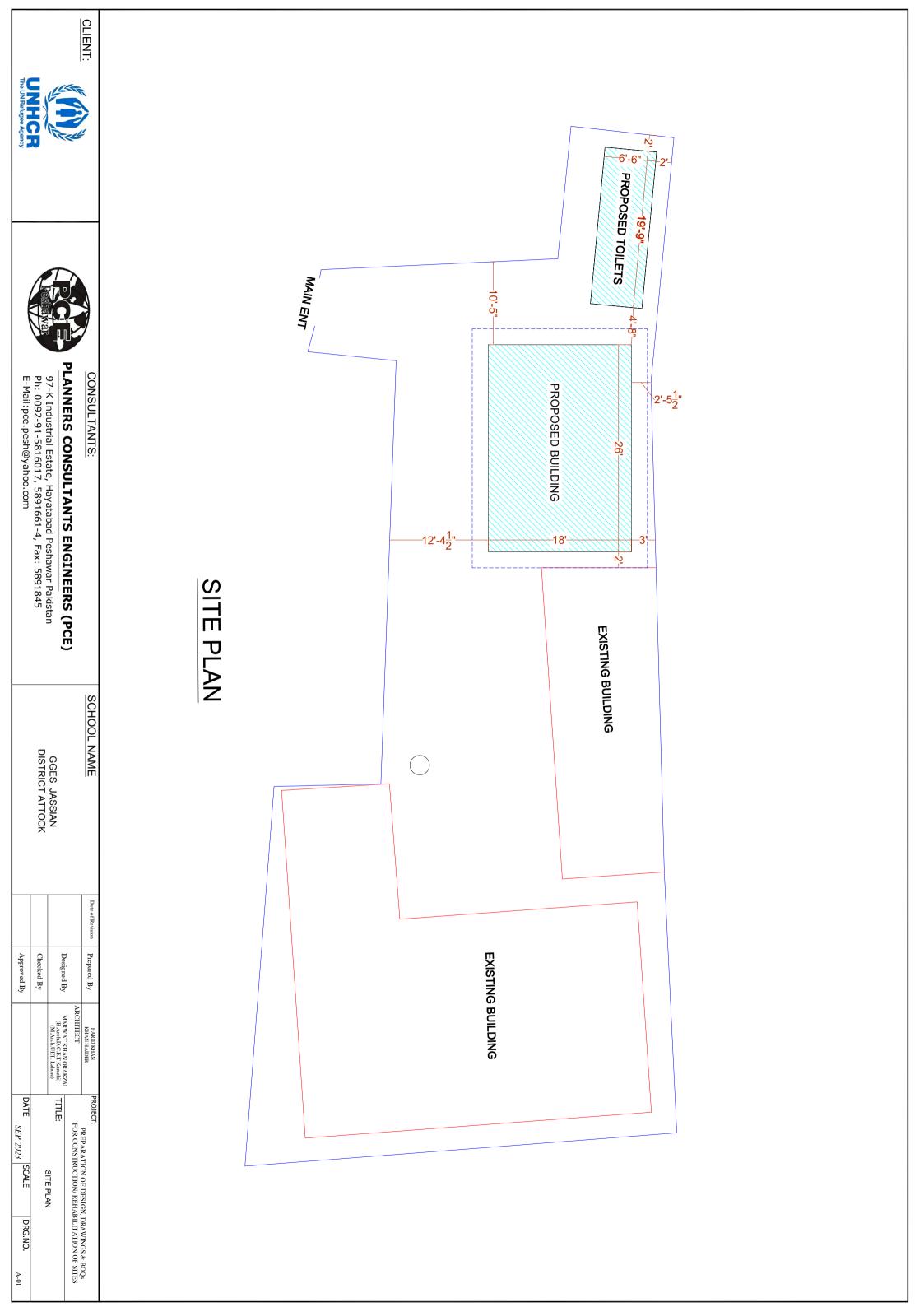
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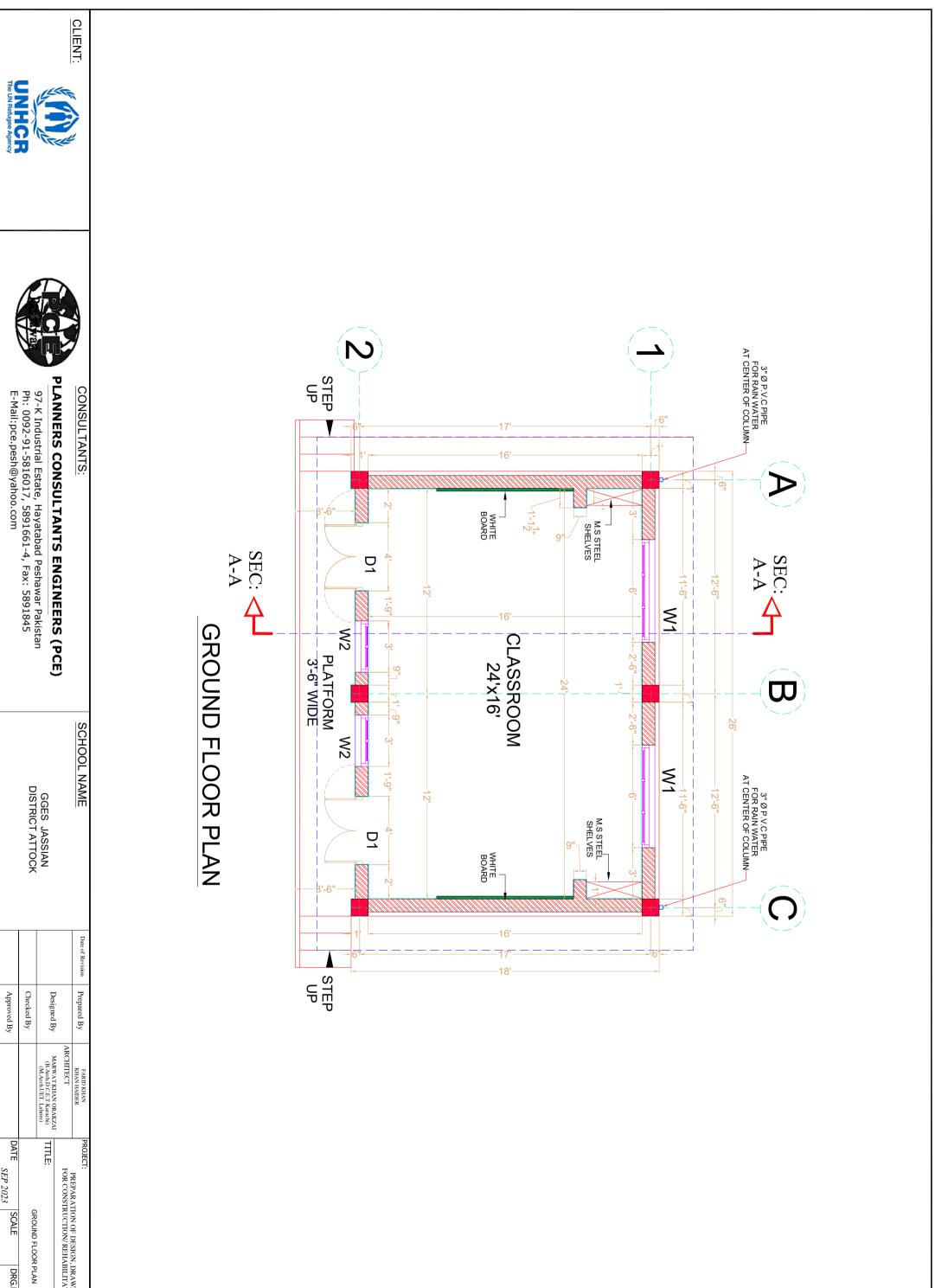
ARCHITECTURAL DRAWINGS

LIST OF DRAWINGS

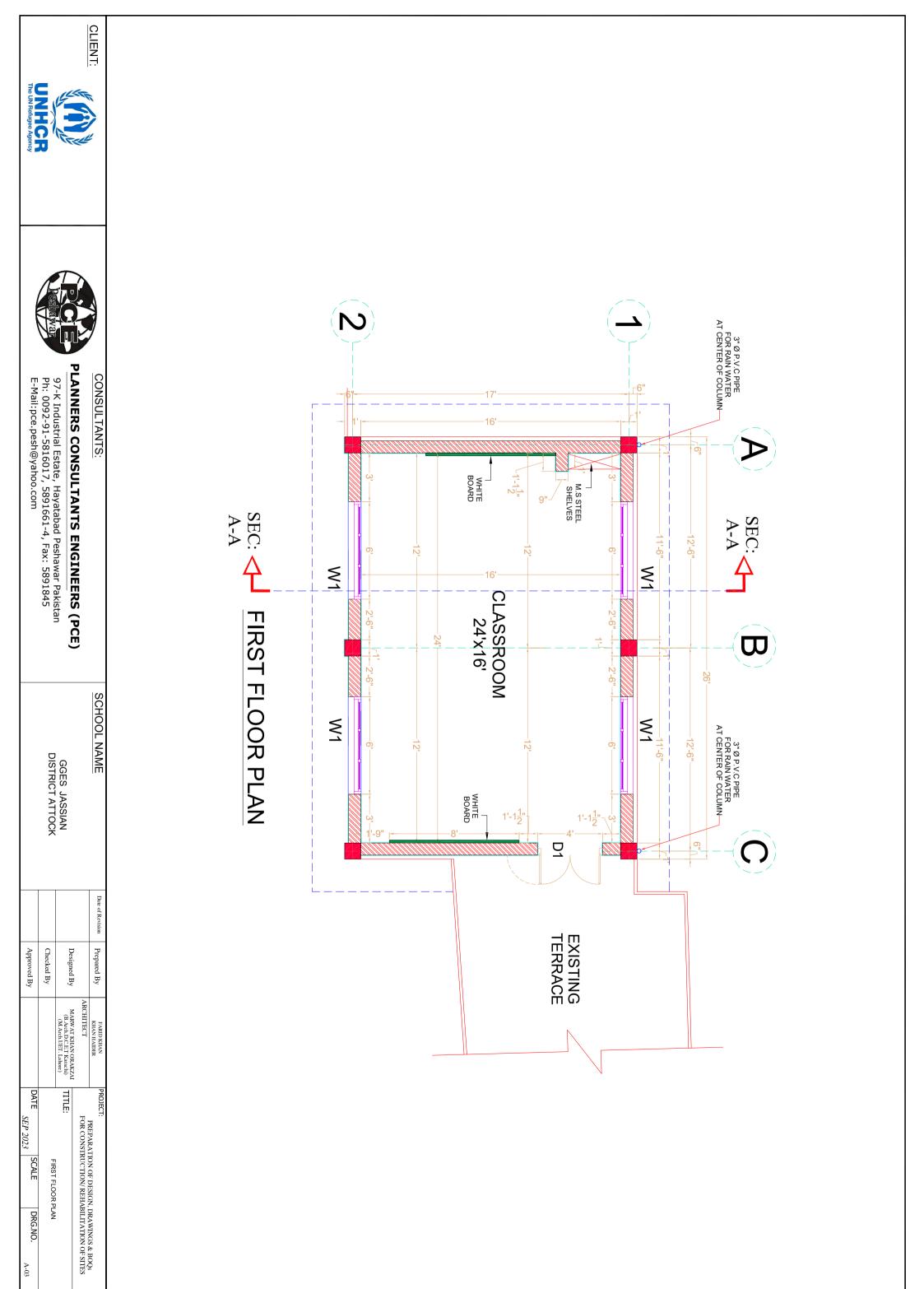
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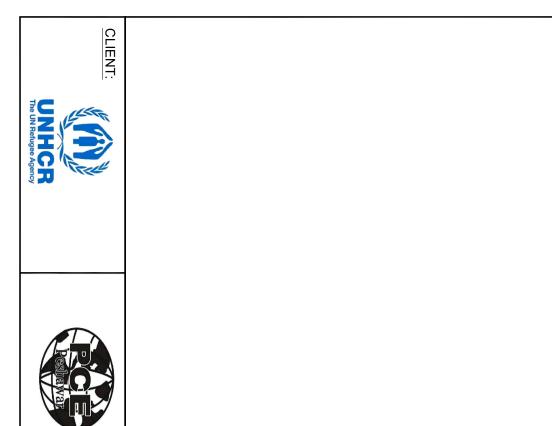
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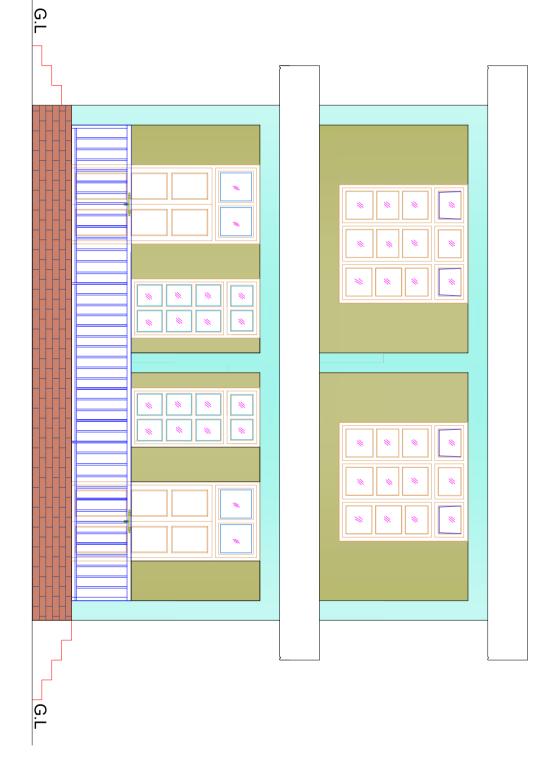




PREPARATION OF DESIGN, DRAWINGS & BOQS FOR CONSTRUCTION/ REHABILITATION OF SITES DRG.NO.

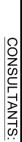






### FRONT ELEVATION

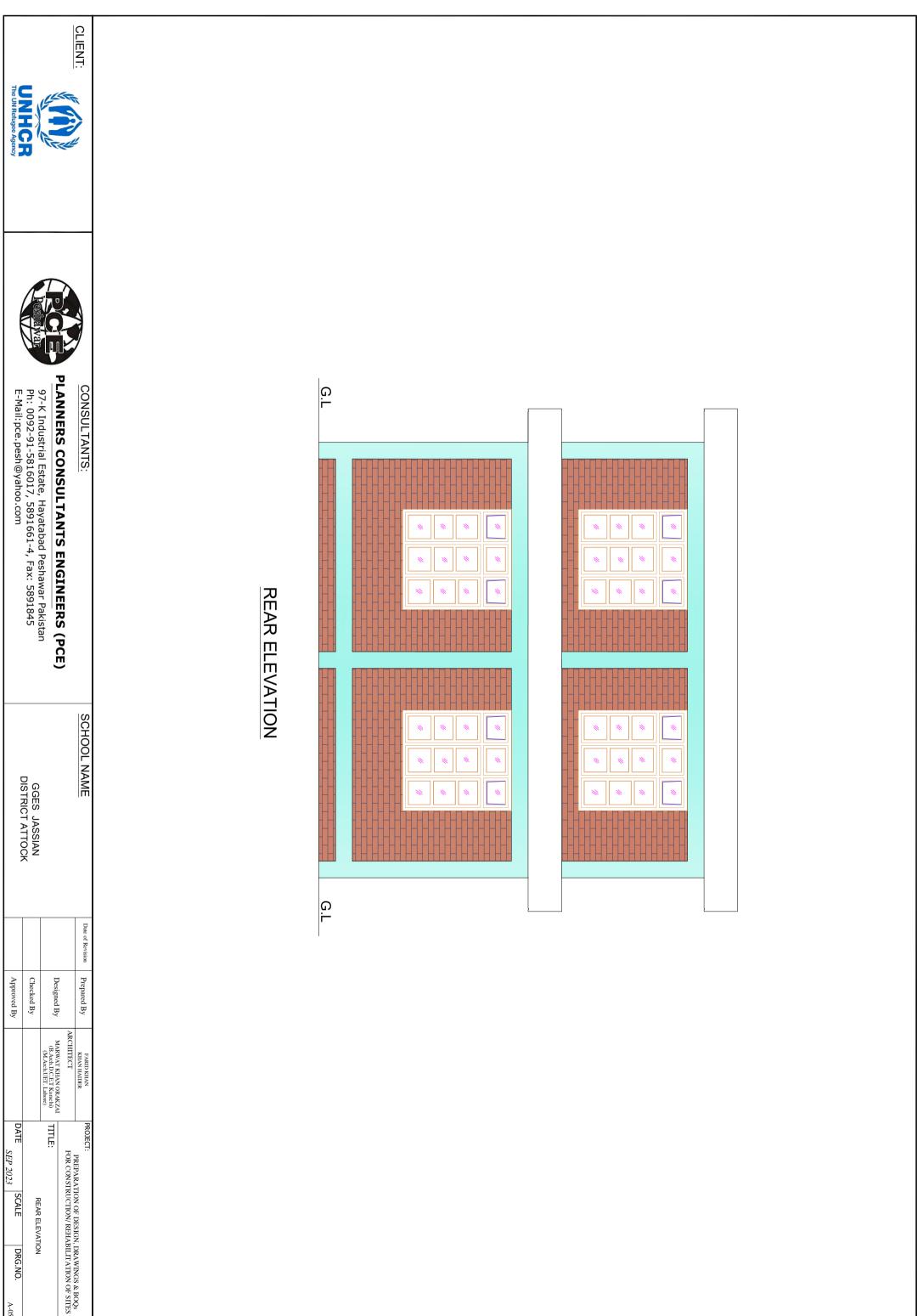




### PLANNERS CONSULTANTS ENGINEERS (PCE)

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	GGES JASSIAN DISTRICT ATTOCK			SCHOOL NAME
				Date of Revision
Approved By	Checked By	Designed by		Prepared By
		(B.Arch.D.C.E.T Karachi) (M.Arch.UET. Lahore)	ARCHITECT	FARID KHAN KHAN HAIDER
DATE SEP 2023 SCALE	TRON- ELEVATION	TITLE:	FOR CONSTRUCTION/ REHABILITATION OF SITE	PROJECT:  PREPAR ATTON OF DESIGN DRAWINGS & ROO
DRG.NO. A-04	Z		ILITATION OF SITES	RAWINGS & ROOS













CONSULTANTS:

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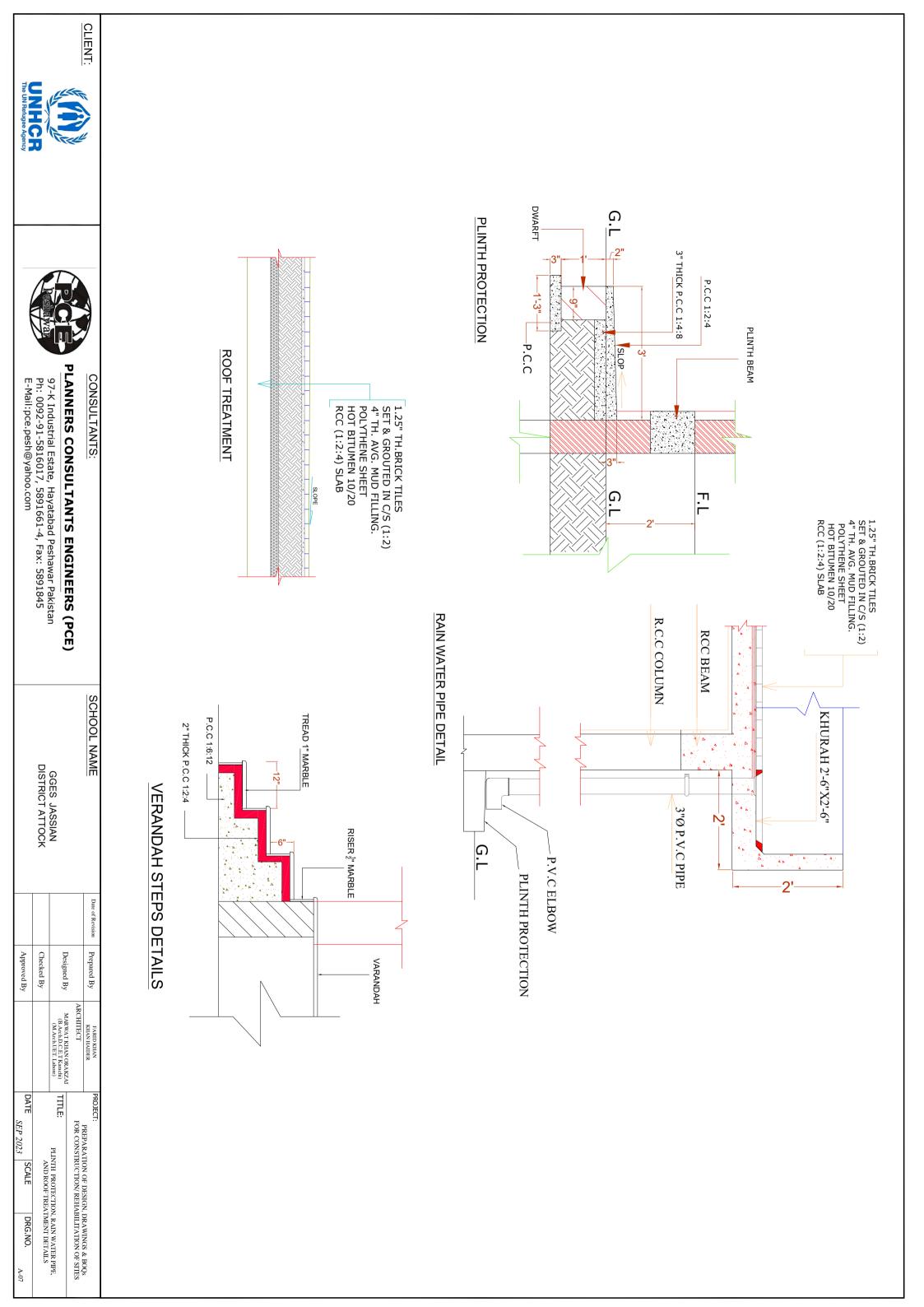
Date of Revision Prepared By Designed By

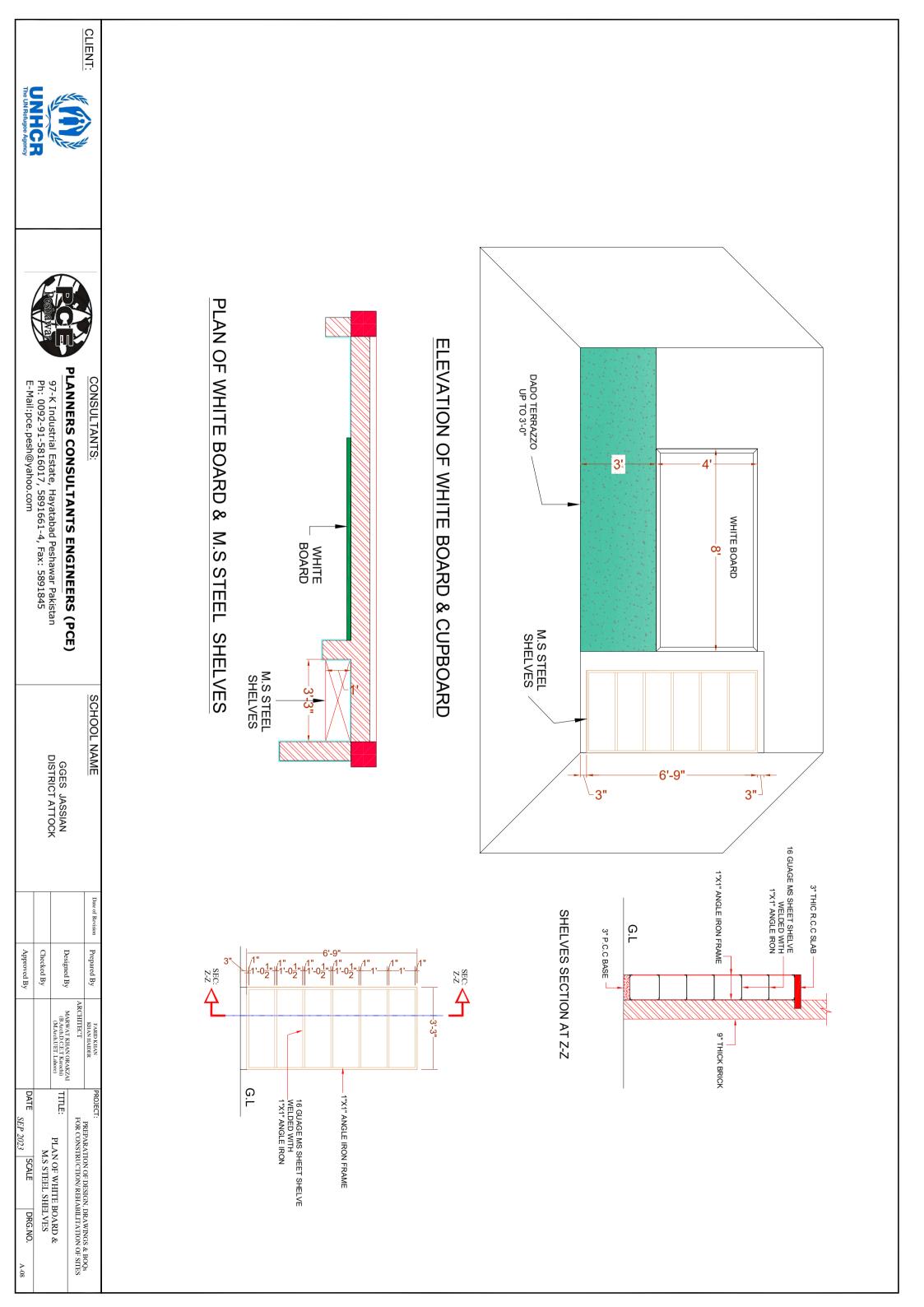
Checked By Approved By

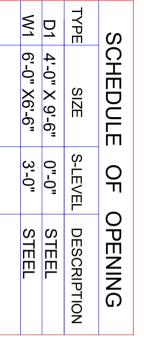
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			(B.Arch.D.C.E.T Karachi) (M.Arch.UET. Lahore)	ARCHITECT	FARID KHAN KHAN HAIDER
	DATE SEP 2023	SECTION AT A-A	TITLE:	FOR CONSTRUCTION/ REHABILITATION OF SITES	PREPARATION OF DESIGN DRAWINGS & BOOS
	DRG.NO. A-06	Ä	•	BILITATION OF SITES	DRAWINGS & BOOS

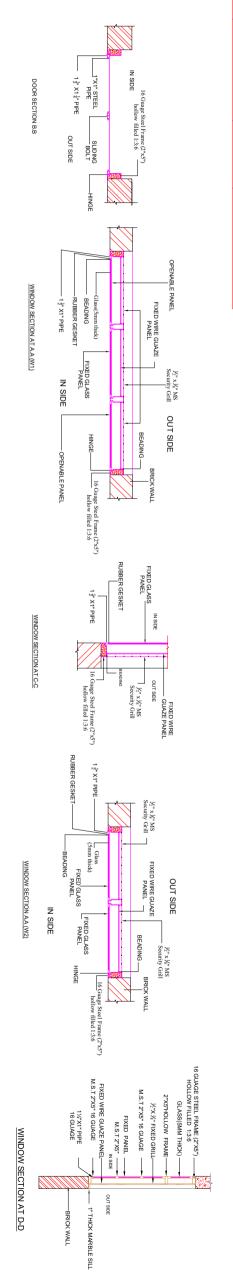
			25 -	-6"			<sub>_</sub> 6"	
	<b>2'</b>	10'-6"-	/	1	—10'-6" <del></del>	-	4'-6"	-
	G.L	PLATFORM 3'-6" WIDE	½" DRIP COURSE			½" DRIP COURSE		
MARBLE TOPPING  3"PCC 1:3:6  4" SAND FILLING COMPACTED EARTH  SECTION AT A-A	G.L	WHITE BOARD  WHITE BOARD  F.F.L	M.S STEEL  SHELVES  "½" DRIP COURSE  THROUGHOUT  SLAB PROJECTION	F.F.L	WHITE BOARD  WHITE BOARD	M.S.STEEL  M.S.STEEL	1'-6"	1.25" TH.BRICK TILES SET & GROUTED IN C/S (1:2)  4" TH. AVG. MUD FILLING. POLYTHENE SHEET HOT BITUMEN 10/20 RCC (1:2:4) SLAB  PARAPET WALL

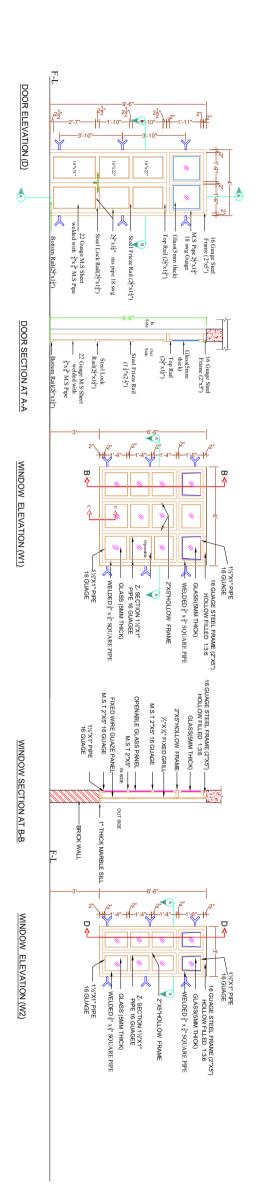
-25'-6"







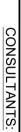






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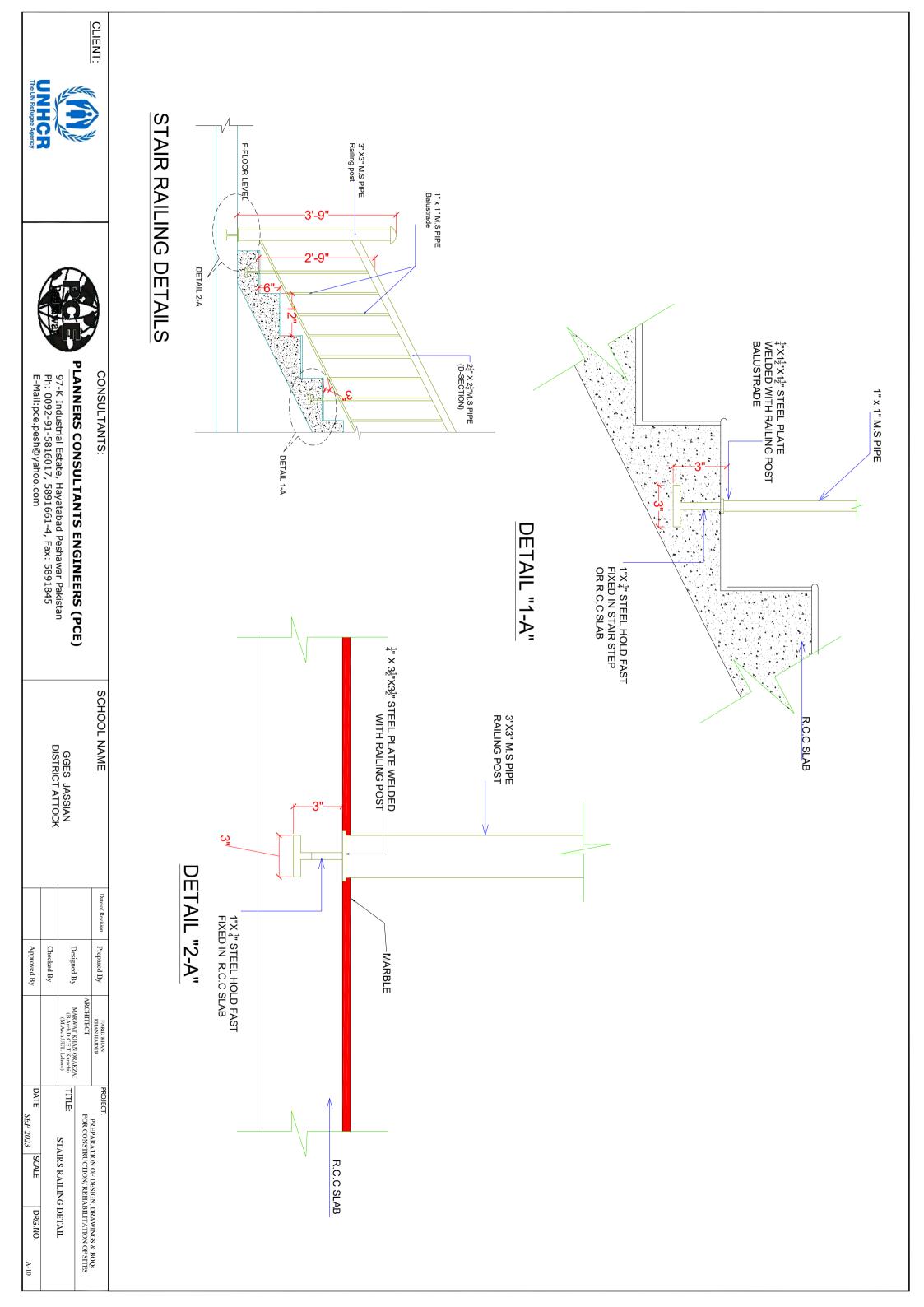
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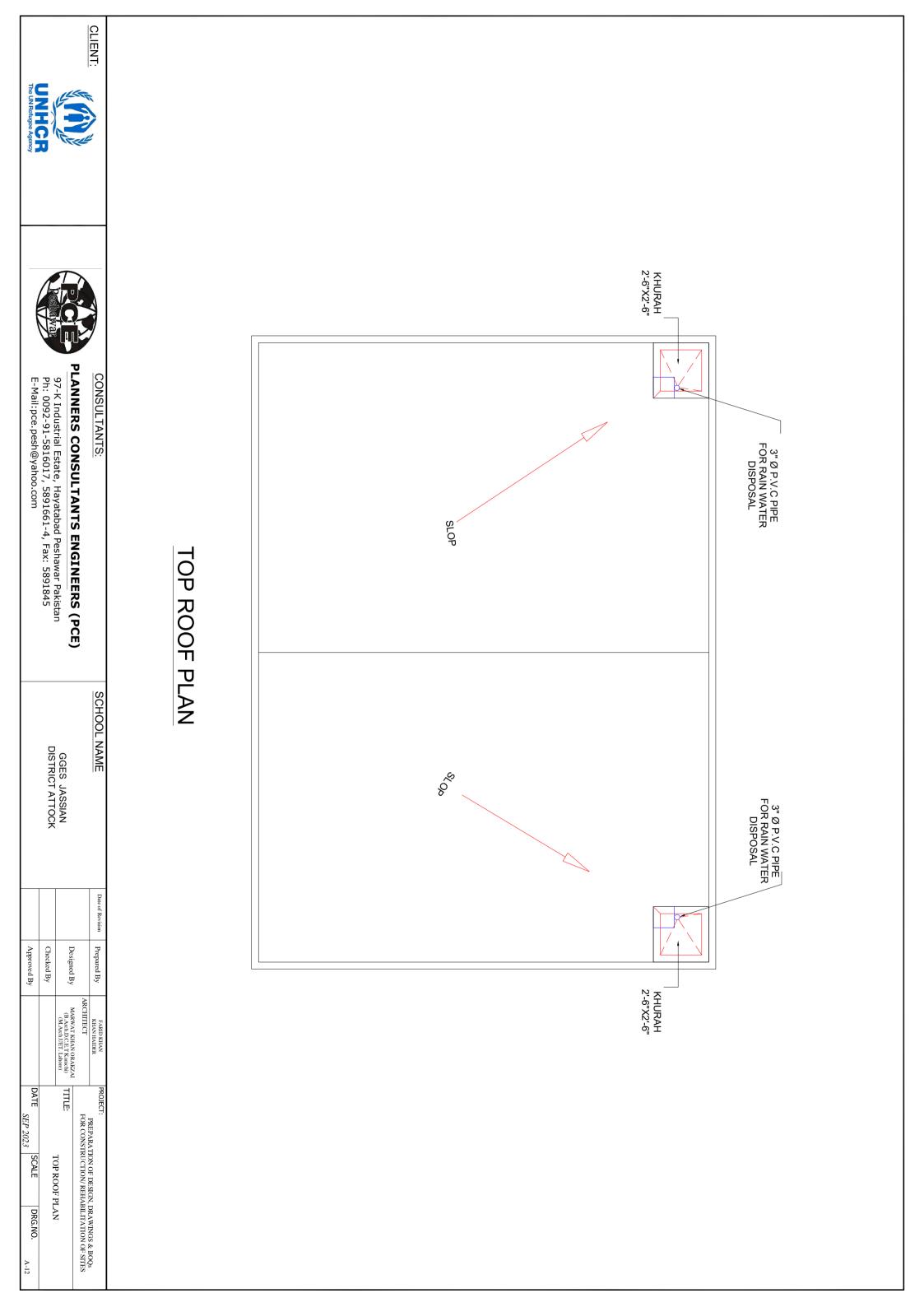
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							Date of Kevision
Approved By		Checked By	Designed by	Dadwad D.		1 Ichaica 19	Prenared Ry
			(B.Arch.D.C.E.T Karachi) (M.Arch.UET. Lahore)	MARWAT KHAN ORAKZAI	ARCHITECT	KHAN HAIDER	NIVITA CITATA
SEP 2023 SCALE DRG.NO. A-09	CCVIE	DOOR, WINDOW DETAILS	ппе:		FOR CONSTRUCTION/ REHABILITATION OF SITES	PREPARATION OF DESIGN DRAWINGS & ROOS	



#### SEC R.R 🔺 SEC R.R ½" X 2½"X2½" STEEL PLATE WELDED WITH RAILING POST $1"X\frac{1}{4}"$ STEEL HOLD FAST FIXED IN R.C.C SLAB **VERANDAH RAILING DETAIL -R-2** 2" X 2" M.S PIPE 1" X 1" M.S PIPE VERANDAH RAILING DETAIL **DETAIL R-2** MARBLE PLANNERS CONSULTANTS ENGINEERS (PCE) CONSULTANTS: 97-K Industrial Estate, Hayatabad Peshawar Pakistan Ph: 0092-91-5816017, 5891661-4, Fax: 5891845 E-Mail:pce.pesh@yahoo.com R.C.C SLAB 2"X2" M.S PIPE 2½"X2½" M.S PIPE (D- SECTION) SEC R.R 🔺 SEC R.R 2½"X2½" M.S PIPE (D- SECTION) SCHOOL NAME GGES JASSIAN DISTRICT ATTOCK F.F.LEVEL 4"X4" MS PLAT WELDED WITH RAILING 4"X4" MS PLAT WELDED WITH RAILING $\frac{1}{2}$ " Ø 2"LONG RAWAL BOLT $\frac{1}{2}$ " Ø 2"LONG RAWAL BOLT Checked By Prepared By Approved By Designed By SECTION R.R FARID KHAN KHAN HAIDER ARCHITECT R.C.C BEAM MARWAT KHAN ORAKZAI (B.Arch.D.C.E.T Karachi) (M.Arch.UET. Lahore) R.C.C COLUMN 2½"X2½" M.S PIPE (D- SECTION) 2" X 2" M.S PIPE TITLE R.C.C SLAB SEP 2023 PREPARATION OF DESIGN, DRAWINGS & BOQS FOR CONSTRUCTION/ REHABILITATION OF SITES VERANDAH RAILING DETAIL DRG.NO.

CLIENT:



# STRUCTURE DRAWINGS GGES JASSIAN DISTRICT ATTOCK

#### **GENERAL**

- READ ALL DRAWINGS IN CONJUNCTION WITH ARCHITECTURAL, GEOTECHNICAL, PLUMBING, MECHANICAL, ELECTRICAL & ANY OTHER RELEVANT DRAWINGS.

  NOTES GIVEN IN THIS DRAWING ARE APPLICABLE TO ALL DRAWINGS UNLESS MENTIONED OTHERWISE. NOTES WRITTEN ON A DRAWING, SHALL BE APPLICABLE TO THAT PARTICULAR DRAWING ONLY UNLESS OTHERWISE CROSS-REFERRED. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE SPECIFICATIONS OF THE

REQUIREMENTS.

- CONTRACT DOCUMENTS. IN ABSENCE OF ANY SPECIFICATIONS , ALL MATERIALS & WORKMANSHIP SHALL CONFORM TO RELEVANT ACI/BRITISH CODES AND SHALL BE SUBJECTED TO APPROVAL OF THE ENGINEER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF THE STRUCTURES DURING CONSTRUCTION. HE SHALL ALSO VERIFY ALL DIMENSIONS AND LEVELS BEFORE EXECUTION OF WORK. ANY DISCREPANCY, ERROR OR OMISSION, IF FOUND, SHALL BE BROUGHT TO THE NOTICE OF THE ENGINEER FOR CORRECTION AND APPROVAL.
  THE CONTRACTOR SHALL CO-ORDINATE WITH VARIOUS SERVICES DRAWINGS FOR SIZES &
  LOCATION OF ALL STRUCTURAL MEMBERS, FLOORS, WALLS, OPENINGS, FLOOR FINISHES,

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE EXECUTION OF DEWATERING SYSTEM WHERE SO REQUIRED DURING CONSTRUCTION.

  ALL DIMENSIONS & LEVELS ARE IN FEET & INCHES.

  DO NOT SCALE THE DRAWINGS. DIMENSIONS, GIVEN ON THE DRAWING, SHALL GOVERN.

  ALL FABRICATION, PAINTING, ERECTION AND QUALITY CONTROL IS TO BE DONE IN ACCORDANCE WITH THE LATEST APPLICABLE ACI/BRITISH SPECIFICATIONS.
- 1. BACKFILLING AROUND FOUNDATIONS AND WALLS SHALL BE WELL COMPACTED LAYERS NOT EXCEEDING 6 INCHES IN THICKNESS.
  IT IS STRONGLY RECOMMENDED TO RECONFIRM THE SITE PLAN BEFORE START OF EXECUTION AT SITE.THE SITE SHOULD BE EXAMINED FOR CLEARANCE WITH RESPECT TO LOCAL/SEISMIC HAZARDS.
- 12
- THE CONTRACTOR SHALL INFORM THE ENGINEER ABOUT ANTICIPATED CONSTRUCTION LOADS IN THE STRUCTURE AND OBTAIN ENGINEER'S APPROVAL THEREOF BEFORE COMMENCING THE WORK.
- 13. THE CONTRACTOR SHALL VERIFY LAYOUT, CONFIGURATION, ALL DIMENSIONS AND LEVELS PERTAINING TO EXISTING WORKS BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL ADOPT ADEQUATE AND APPROPRIATE MEASURES SO AS NOT TO DAMAGE THE EXISTING WORKS.

  THE CONTRACTOR SHALL EXERCISE UTMOST CARE AND PRECAUTION DURING THE WORKS, AGAINST ANY MISHAPS OR ACCIDENTS, FOR WHICH THE CONTRACTOR SHALL BE WHOLLY AND SOLELY RESPONSIBLE. THE CONTRACTOR SHALL INDEMNIFY THE OWNER AGAINST ANY
- 4. OWN COST AND TIME. ACCIDENTS AND ANY LOSSES THEREFROM AND SHALL REPAIR AND RECTIFY THEM AT HIS
- 15. SOLUTIONS TO ANY PROBLEMS ENCOUNTERED, SHALL BE GOT APPROVED FROM THE ENGINEER PRIOR TO IMPLEMENTATION. UNAPPROVED DEPARTURES/DEVIATIONS MAY LEAD TO REJECTION/REPLACEMENT OF THE ENTIRE WORK AT THE CONTRACTOR'S COST. THE CONTRACTOR SHALL PREPARE AND SUBMIT SHOP DRAWINGS AND BAR BENDING SCHEDULES. THE ENGINEER'S APPROVAL SHALL NOT RELIEVE THE APPROVAL BEFORE ANY DEPARTURES/DEVIATIONS DESIRED FROM THE DESIGN OR SPECIFICATIONS, OR
- 16. PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE ACCURACY OF SHOP DRAWINGS AND BAR BENDING SCHEDULES FOR ENGINEER'S APPROVAL AND OBTAIN HIS CONTRACTOR FROM HIS RESPONSIBILITY.
- The allowable bearing capacity of soil should be 1tsf.

STRUCTURAL ELEMENT

COVER (INCHES)

1½"

Ŋ

11/2

3/4"

#### 2 SHORING AND BRACING

- SHORE & BRACE ALL PARTS OF THE STRUCTURE DURING CONSTRUCTION, TO THE EXTENT NECESSARY TO ENSURE COMPLETE SAFETY, STRENGTH & SERVICEABILITY OF ALL STRUCTURAL ELEMENTS UNDER ALL CONDITIONS OF LOADS WHICH MAY OCCUR DURING CONSTRUCTION. SUCH SHORING & BRACING IS THE CONTRACTOR'S SOLE RESPONSIBILITY AND IS NOT SHOWN ON STRUCTURAL DRAWINGS OR SPECIFIED IN THE PROJECT.

  THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY AND STABILITY OF THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY AND STABILITY OF THE
- SLOPES AND SHALL PROVIDE SHORING AND BRACING DURING EXCAVATION AND CONSTRUCTION, WHEREVER AND WHENEVER REQUIRED.
  SEQUENCE OF REMOVAL OF FORMWORK SHALL BE APPROVED BY THE ENGINEER.
  AT LEAST ONE LOWER FLOOR SHALL REMAIN PROPPED UNTILL THE UPPER FLOOR IS CAST

WALLS

COLUMNS

### REINFORCED CONCRETE

### REINFORCING ST

31 ALL REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING STRUCTURAL DESIGN IS BASED ON THE BUILDING CODE REQUIREMENTS FOR REINFORCED ASTM-A615 GRADE 60 HAVING A MINIMUM YIELD STRENGTH OF CONCRETE OF AMERICAN CONCRETE INSTITUTE (ACI 318).

ALL STRUCTURAL DESIGN IS BASED ON THE BUILDING CODE REQUIREMENTS FOR REINFORCED 60,000 PSI. FOR STIRRUPS, TIES AND #3 BARS USE ASTM A615, ALL STRUCTURAL CONCRETE SHALL CONFORM TO AMERICAN CONCRETE INSTITUTE (ACI)GRADE 60 HAVING MINIMUM YIELD STRENGTH OF 60,000 PSI.

CONCRETE MIX TO BE DESIGNED ON THE BASIS OF ACI 211 OR EQUIVALENT. TRIAL

2. THE ACTUAL YIELD STRENGTH BASED ON MILL TESTS DOES N
STRENGTH RESULTS TO BE SUBMITTED BY THE CONTRACTOR FOR REVIEW AND APPROVAIXCEED THE SPECIFIED STRENGTH BY MORE THAN 18,000 PSI
BEFORE CONCRETING.

(RETESTS SHALL NOT EXCEED THIS VALUE BY MORE THAN AN NO CONCRETING.

(RETESTS SHALL NOT EXCEED ON OCCURETING OR 3. THE RATIO OF THE ACTUAL ULT THIS VALUE BY MORE THAN AN TIMATE TENSILE STRENGTH TO THE BASED ON MILL TESTS DOES NOT

APPROVED BY STRUCTURE ENGINEER CONCRETE SHALL BE TESTED IN ACCORDANCE WITH ASTM STANDARDS C31, C39, C178CTUAL TENSILE YIELD STRENGTH IS NOT LESS THAN 1.25 ADDITIONAL 3000 PSI)

& AS WRITTEN IN SPECIFICATIONS AND THE MINIMUM CYLINDER CRUSHING STRENGTH OF CLEAR COVER TO REINFORCEMENT SHALL BE: (inches)
CONCRETE AT 28 DAYS SHALL BE AS FOLLOWS. TESTING OF CLASS D & E CONCRETE SHALL
BE PERFORMED IF SO SHAHEED CHAWK EXACT, NEAR ALFALAH FURNITURE LOWER

L-GREATER CLEAR SPAN, db-DIAMETER OF BAR, d-EFFECT
DIRECTED BY THE ENGINEER.

L-GREATER CLEAR SPAN, db-DIAMETER OF BAR,d-EFFECTIVE DEPTH

FACE OF THE SUPPORTING MEN MBER.

THE FIRST HOOP SHALL BE LOCATED NOT MORE THAN 2" FROM THE

WHERE:

#### MIN. CYLINDER CRUSHING STRENGTH AT 28 DAYS (psi). 2400 3000 4000 1200

 $\mathsf{m}\,\mathsf{D}\,\mathsf{C}\,\mathsf{B}\,\mathsf{A}$ 

CLASS OF CONCRETE FOR DIFFERENT COMPONENTS OF THE STRUCTURE SHALL BE AS FOLLOWS UNLESS NOTED OTHER WISE:

י טברטייט טועברטט ועט בט טוויבוי יייוטרי		
COMPONENT	CONCRETE CLASS	E CLASS
COLUMNS		CLASS 'A'
SLABS, BEAMS, FOUNDATION		
RCC WALLS	:	CLASS 'B'
PCC STEPS		CLASS 'D'
LEAN / BLINDING CONCRETE		CLASS 'E'

- ORDINARY PORTLAND CEMENT SHALL BE USED FOR ALL CONCRETE WORKS.
- AN INTEGRAL WATER PROOFING AGENT SHALL BE USED IN CONCRETE THAT IS CONSTANTLY OR INTERMITTENTLY IN CONTACT WITH WATER AS PER MANUFACTURER'S RECOMMENDATIONS (GENCON GENPRUF RMC OR PENETRON ADMIX OR EQUIVALENT). ALL DETAILING SHALL BE DONE AS PER ACI STANDARDS ACI-315, ACI-318 & ACI-350R.

#### CONCRETE CO LINTELS ARE EXTENDED AT 9 (INCHES) FROM BOTH SIDES OF OPENING. PROVIDE 135° HOOK IN ADJACENT STIRRUPS ON ALTERNATE SIDES. ONSTRUCTION

CONSTRUCTION.

ALL REINFORCING STEEL SHALL BE ACCURATELY LOCATED IN THE FORMS AND HELD FIRMLY IN PLACE BEFORE & DURING THE PLACEMENT OF CONCRETE, BY MEANS OF W AND SUPPORTS ADEQUATE TO PREVENT DISPLACEMENT DURING THE COURSE OF

OF WIRE

- ALL STRUCTURAL SURFACES, AGAINST WHICH EARTH IS TO BE FILLED, SHALL BE COATED WITH TWO COATS OF HOT BITUMEN OF 10/20 GRADE AT THE RATE OF 0.2 lbs/ft
- 5 OF PLINTH BEAM/DPC PROVIDE POLYTHENE FOR EXTERIOR WALLS. SHEET OVER TWO COATS OF HOT BITUMEN AT TOP
- HVAC, PLUMBING, STR ENSURE THAT ALL EN BEFORE CASTING OF LOCATED AND FIRMLY ANY STRUCTURAL MEMBER, THE CONTRACTOR SHALL 1BEDDED ITEMS FOR ELECTRICAL, MECHANICAL SECURED IN PLACE. JCTURAL STEEL AND OTHER WORKS ARE PROPERLY
- DURING CONSTRUCTION, STACKING OF CONSTRUCTION MATERIALS BLOCKS, etc. SHOULD BE AVOIDED ON SLAB PANELS.

#### ၂ **BRICK WORK**

- ALL BRICK WORK SHALL ALL BRICK SHALL BE SOU DIMENSIONAL VARIATION ALL CONFORM TO SPECIFICATIONS GIVEN IN THE CONTRACT DOCUMENT.
  SOUND, HARD, WELL BURNT AND OF UNIFORM SIZE, COLOUR AND TEXTURE.
  TION IN SIZES SHALL NOT EXCEED 1/8". BRICKS SHOULD BE IN ACCORDANCE
- WITH SPECIFICATIONS AND SHOULD CONFIRM TO ASTM C62.
  ALL BRICK WORK SHALL BE ERECTED PLUMB AND TRUE TO LINE AND LEVEL. THE MAXIMUM
  VARIATION IN ANY STOREY HEIGHT OR ANY LENGTH OF WALL SHALL BE 1/8" IN 10'-0".
  MORTAR USED IN MASONRY CONSTRUCTION SHALL HAVE AN ULTIMATE COMPRESSIVE STRENGTH OF
  NOT LESS THAN 12 MPa (1800Psi) AND SHALL CONFORM TO ASTM C270.
- COMPRESSIVE STRENGTH OF BRICK MASONRY AVERAGE OF 5 UNITS AT 28 DAYS SHALL NOT BE LESS THAN AS SPECIFIED IN SPECIFICATION AND SHALL CONFORM TO RELEVANT ASTM STANDARD. ALL DESIGN, DETAILING, MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH RELEVANT ACI, ASTM, AND UBC CODES AND STANDARDS.

  BRICK SHALL BE LAID "FROG" UPWARD WITH MORTAR JOINT AND IN ENGLISH FLEMISH BOND OR AS
- SHAHEED CHAWK EXACT, BRICKS SHOULD BE SOAK VERTICAL JOINTS SHOULI OG" UPWARD WITH MORTAR JOINT AND IN ENGLISH FLEMISH BOND OR AS NEAR ALFALAH FURNITURE LOWER DIRECTED BY THE ENGINEER. ED WITH WATER PROPERLY BEFORE USE.

- ALL MASONRY WALLS SHALL BE ANCHORED TO STRUCTURAL FRAME WORK AS INDICATED ON THE

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CONSULTANTS

**PLANNERS CONSULTANTS ENGINEERS (PCE)** 

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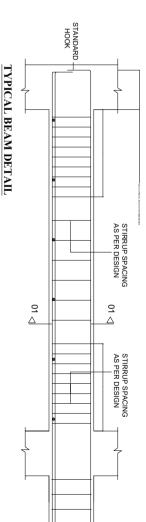
Prepared By Approved By Checked By Designed B TRUCTURE ENGINEER Engr. HUMZA AHMAD TITLE ROJECT SEP 2023 PREPARATION OF DESIGN, DRAWINGS & BOQS FOR CONSTRUCTION/REHABILITATION OF SITES SCALE GENERAL NOTES DRG.NO.

S-01

### 7. CONSTRUCTION JOINTS

- JOINTS, NOT SHOWN ON THE DRAWING, SHALL BE SO MADE AND LOCATED AS TO LEAST IMPAIR THE STRENGTH OF THE STRUCTURE AND SHALL NEED PRIOR APPROVAL OF THE ENGINEER. THEY SHALL BE LOCATED NEAR THE MIDDLE OF THE SPANS OF SLAB & BEAMS. JOINTS IN WALLS & COLUMNS SHALL BE AT THE UNDER-SIDE OF FLOORS, SLABS OR BEAMS AND AT THE TOP OF FOOTINGS OR FLOOR SLABS.
- 5 JOINTS SHALL BE PERPENDICULAR TO MAIN REINFORCEMENT. ALL
- ယ REINFORCING STEEL SHALL BE CONTINUED ACROSS THE JOINTS.
  JOINTS IN BASE SLAB & WALLS AND ROOF SLAB, IN ADDITION TO THOSE
  SHOWN ON THE DRAWINGS SHALL BE BORNE BY THE CONTRACTOR. BEAMS & BRACKETS SHALL BE PLACED AT THE SAME TIME AS SLABS.





SEISMIC HOOK DETAILS

BEAM

STANDARD HOOK

DEVELOPMENT LENGHT WITH STANDARD HOOK

DEVELOPMENT LENGTH IN TENSIONACI 21.5.4.1)

1	3/4"	1/2"	3/8"		BAR DIA	
40	30	24	18	STRAIGHT BARS	DEVELOP! fc' = 4,00	
10	14.5	9.5	7.5	WITH STANDARD HOOK	DEVELOPMENT LENGTH (INCHES) fc' = 4,000 psi fy = 60,000 psi	- 1

SPLICE LENGTH	
(ACI 21.3.2.4, Class B Splice)	

					×		
	1	3/4"	1/2"	3/8"		DIA	BAR
d	87	30	20	15	TENSION		MINIMUM SPI fc' = 3,000
ō	18	15	9	•	COMPRESSION	-	MINIMUM SPLICE LAP LENGTH (INCHES) $fc' = 3,000 \text{ psi}$ $fy = 40,000 \text{ psi}$

LAP SPLICE IF REQUIRED THE MAXIMUM STIRRUPS SPACING IS 4 INCH

LAP SPLICE IF REQUIRED
THE MAXIMUM STIRRUPS
SPACING IS 4 INCH

DEVELOPMENT LENGTH IN TENSION (ACI 21.5.4.1)

-	3/4"	5/8"	1/2"		BAR
55	34	30	22	STRAIGHT BARS	DEVELOP! fc' = 3,00
22"	17"	14"	11"	WITH STANDARD HOOK	DEVELOPMENT LENGTH (INCHES) fc' = $3,000 \text{ psi}$ fy = $60,000 \text{ psi}$

#### SPLICE LENGTH (ACI 21.3.2.4, Class B Splice)

						_
1"	3/4"	5/8"	1/2"		BAR	OF LICE
-	•	•	25	SLAB	MINIMUM SPI fc' = 3,000	OF LICE LENGIN
70	55	44	35	BEAM / COLUMN	MINIMUM SPLICE LAP LENGTH (INCHES) fc' = 3,000 psi fy = 60,000 psi	

	6db or 3 inch  6db or 3 inch  1" DIA SPACER BAR  SECTION 01
	DETAILA
	DETAIL B
TYPICAL COLUMN DETAIL	B

CLIENT:

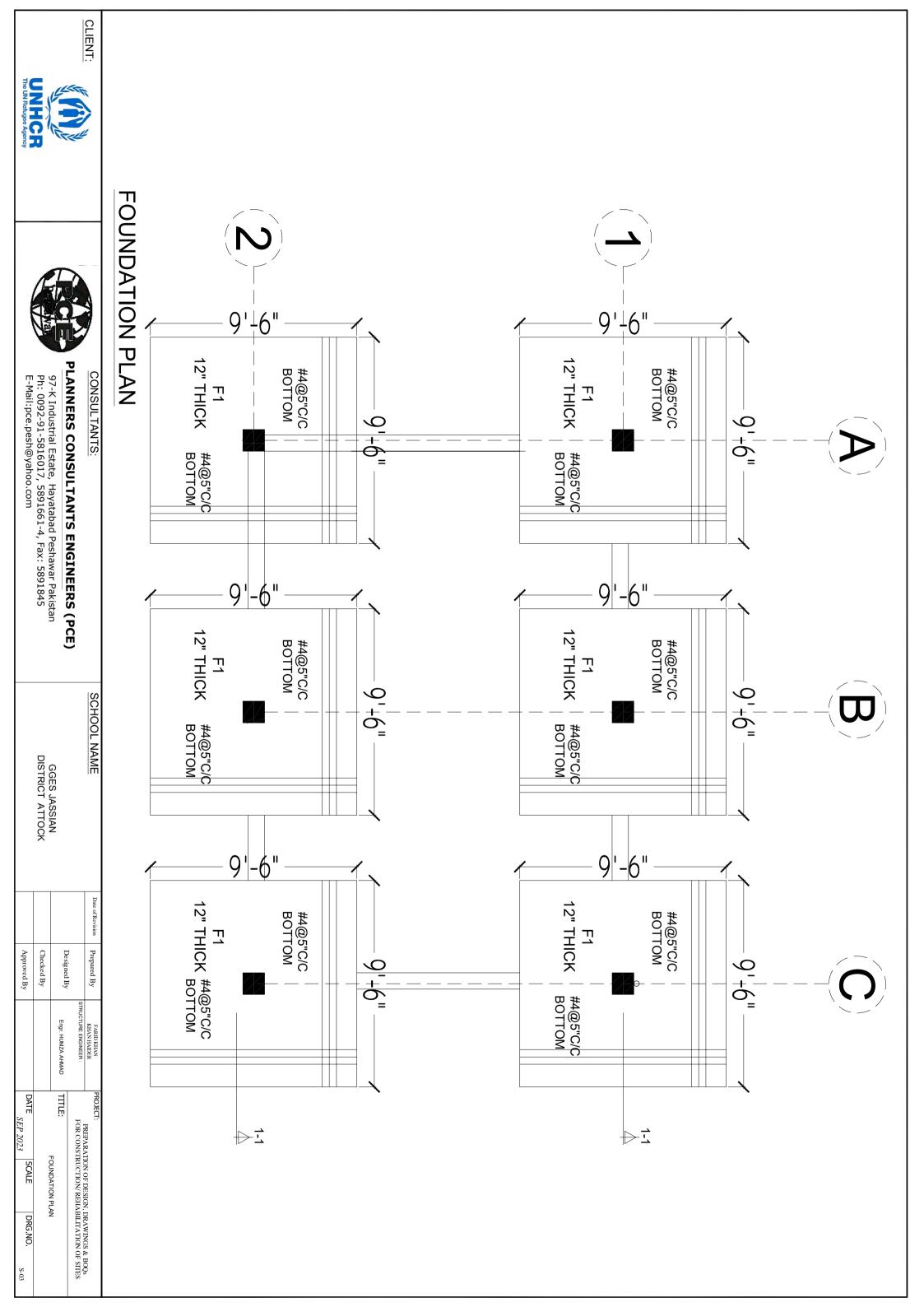


CONSULTANTS:

### **PLANNERS CONSULTANTS ENGINEERS (PCE)**

97-K Industrial Estate, Hayatabad Peshawar Pakistan Ph: 0092-91-5816017, 5891661-4, Fax: 5891845 E-Mail:pce.pesh@yahoo.com

	DISTRICT ATTOCK	GGES JASSIAN		SCHOOL NAME
				Date of Revision
Approved By	Checked By	Designed By		Prepared By
		Engr. HUMZA AHMAD	STRUCTURE ENGINEER:	FARID KHAN KHAN HAIDER
DATE SEP 2023		TITLE:	FOR CONSTRUCTIO	PROJECT:  PREPARATION OF
SCALE		GENERAL NOTES	RUCTION/ REHA	TION OF DESIGN
DRG.NO. S-02		,,	ON/REHABILITATION OF SITES	DRAWINGS & ROOS







CONSULTANTS:

### PLANNERS CONSULTANTS ENGINEERS (PCE)

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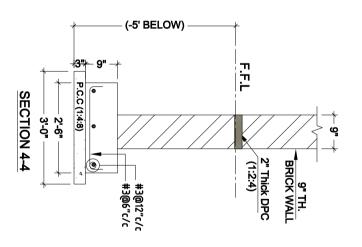


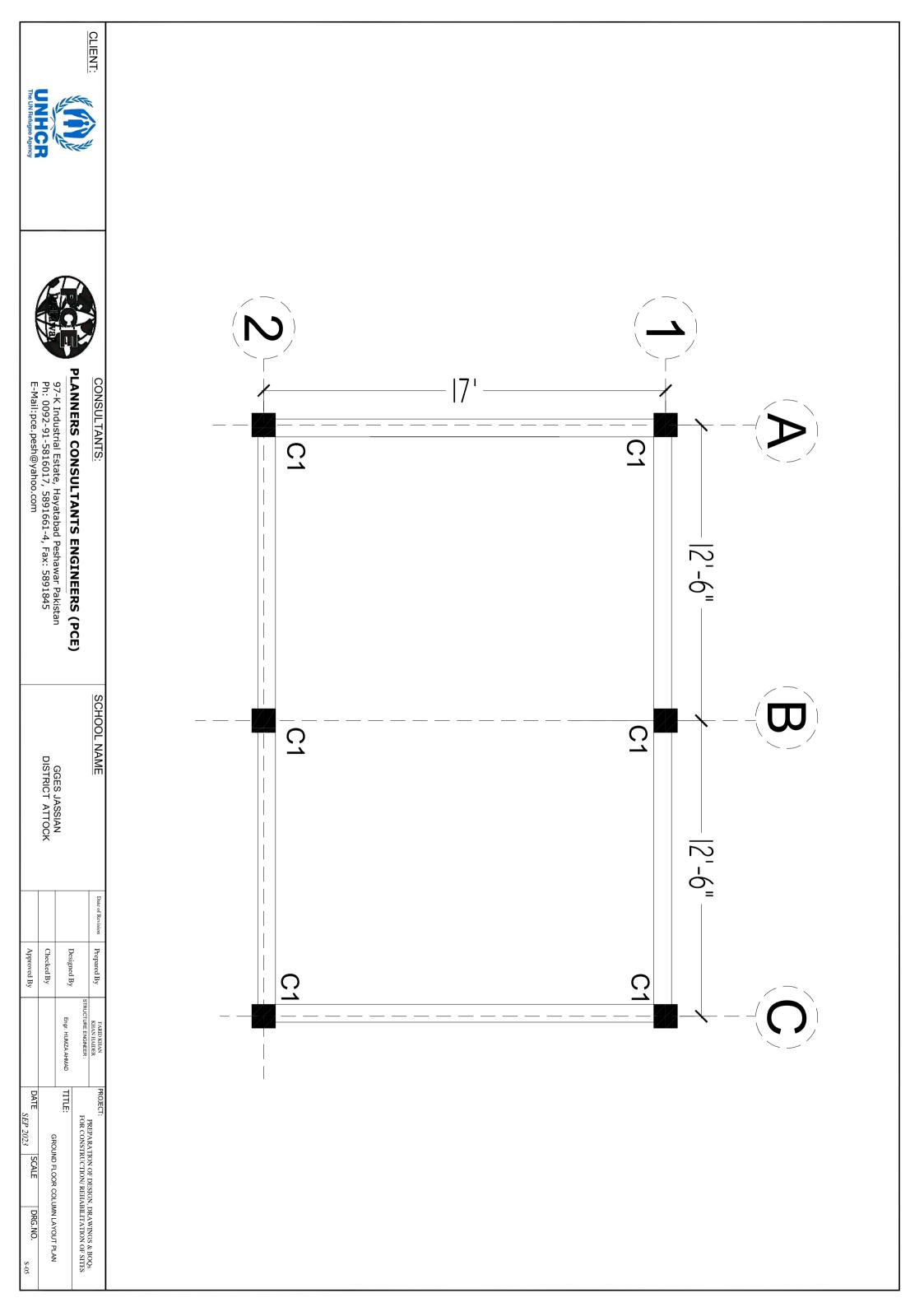
GGES JASSIAN DISTRICT ATTOCK

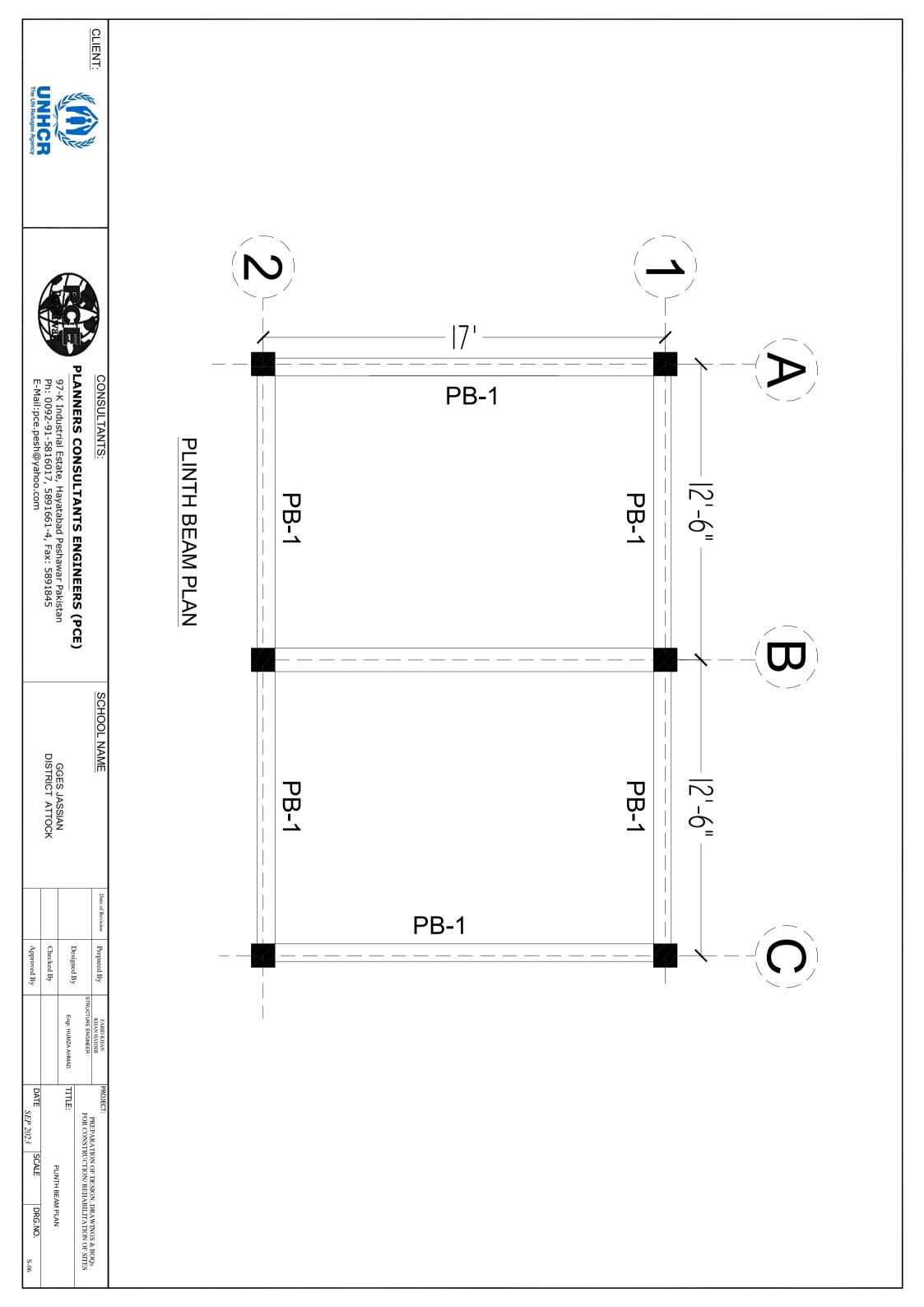
				Date of Revision
Approved By	Checked By	Designed by	J	Prepared By
		Engr. HUMZA AHMAD	STRUCTURE ENGINEER:	FARID KHAN KHAN HAIDER
DATE $SEP 2023$ SCALE		TITLE: FOLINDATION SECTION DETAIL	FOR CONSTRUCTION/ REHABILITATION OF SITES	PROJECT:  PREPARATION OF DESIGN DRAWINGS & BOOS
DRG.NO. S-04		ON DETAII	HABILITATION OF SITES	AN DRAWINGS & BOOS

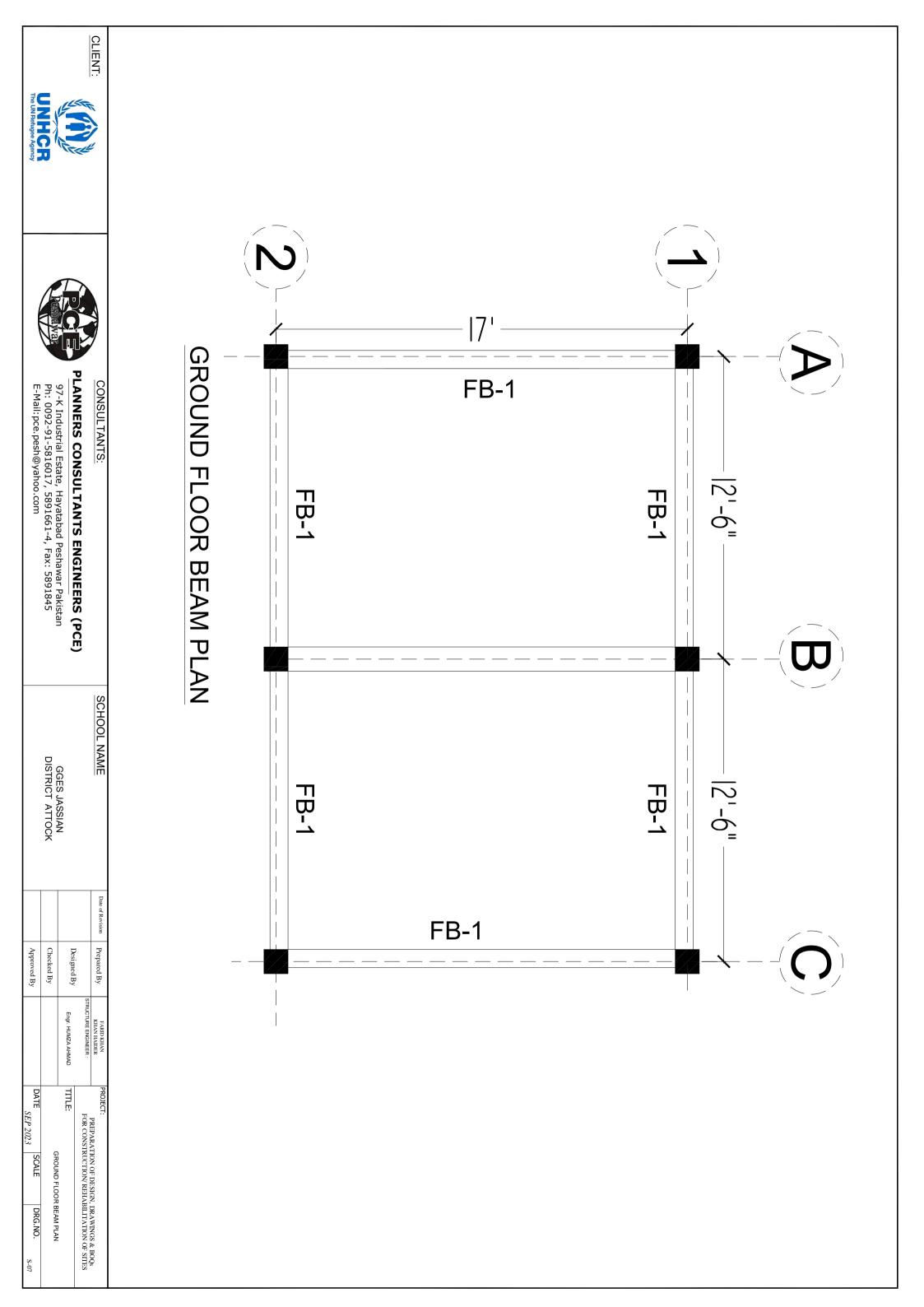
SECTION 1-1	(-5 BELOW #4 #4 #4 #4 #4 #4 #4 #4 #4 #4 #4 #4 #4	F.F.L	
9'-6"X9'-6" 10'-0"X10'-0"	#4@5"c/c	PLINTH BEAM	COLUMN

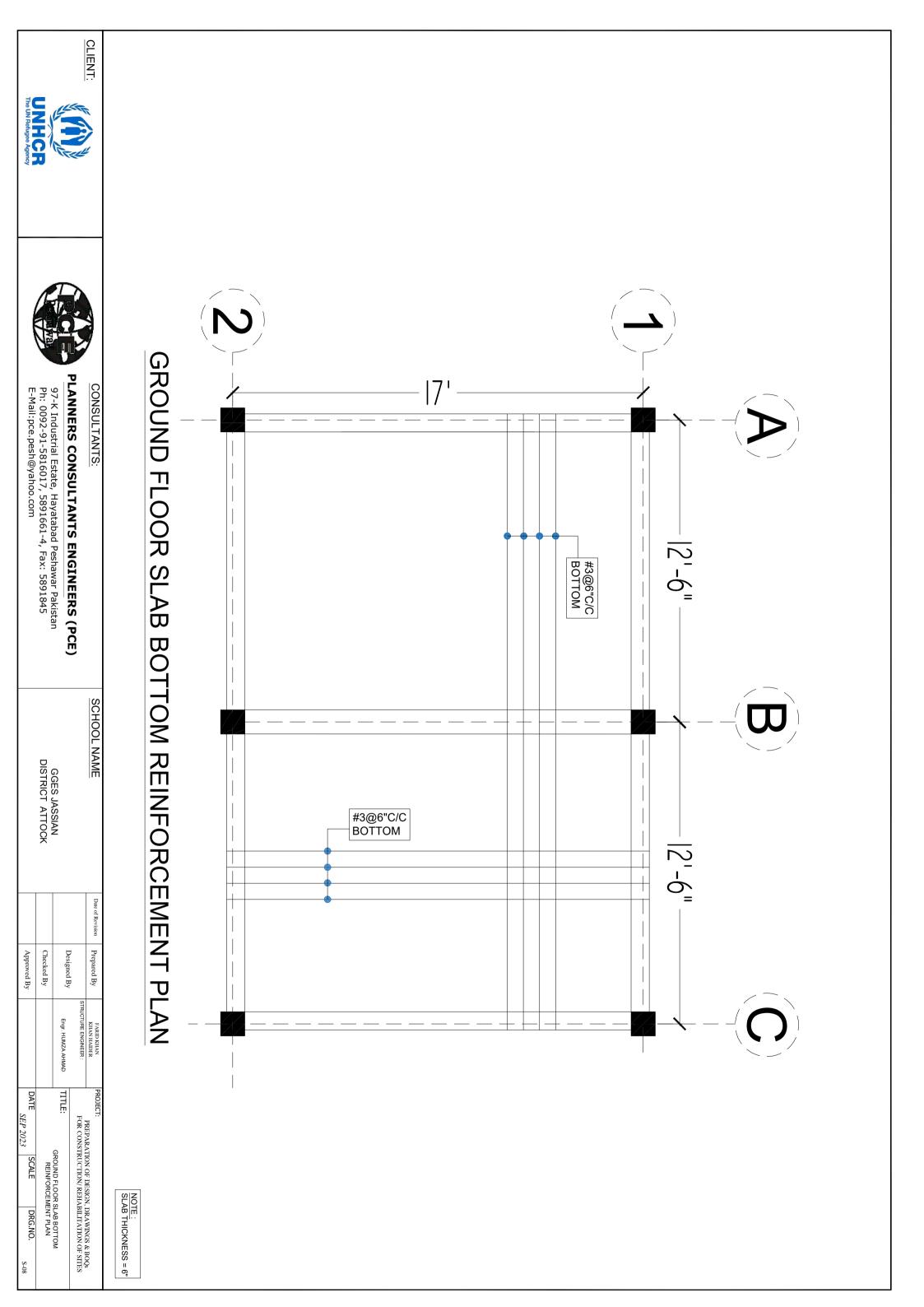
-(-5' BELOW)

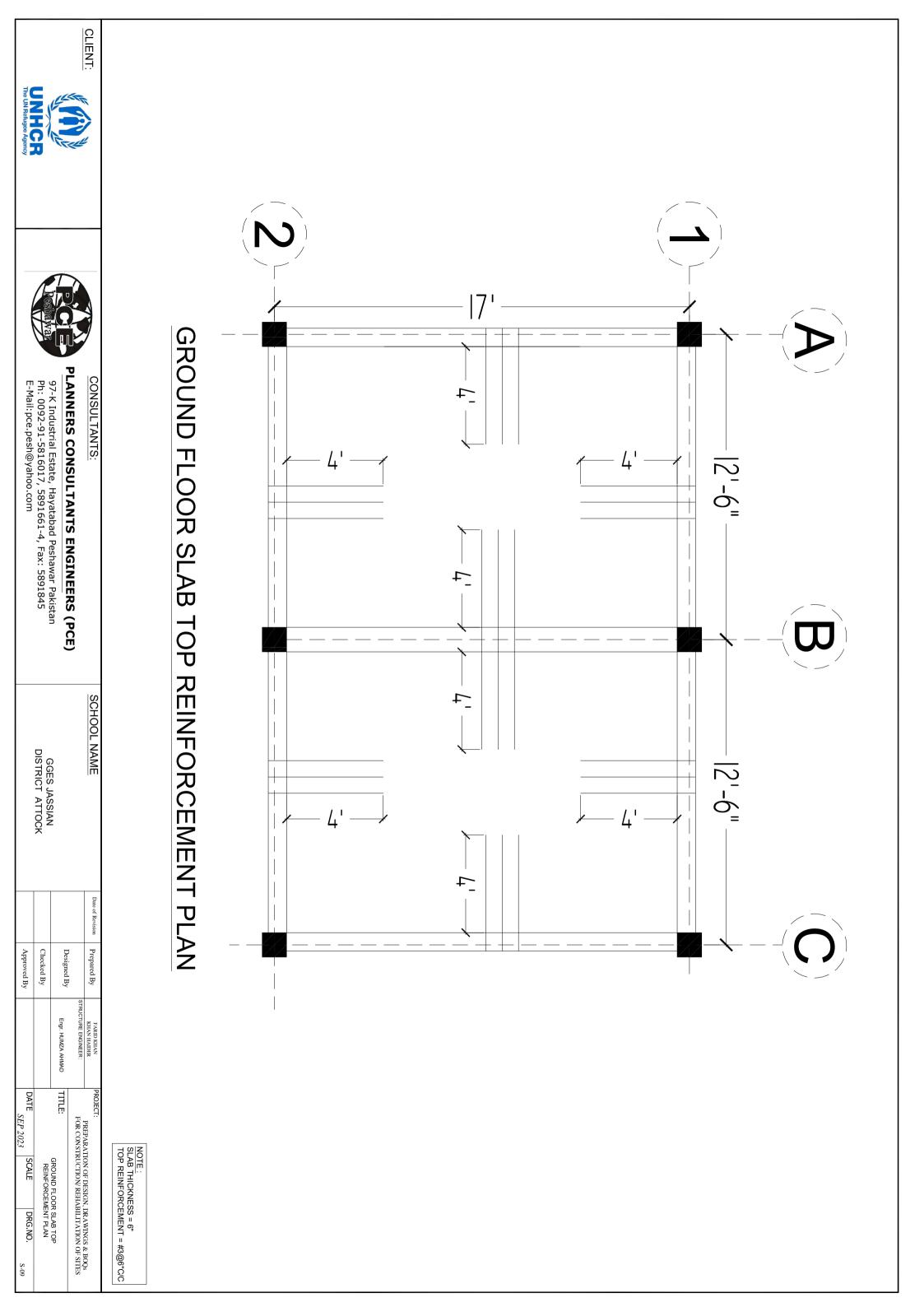


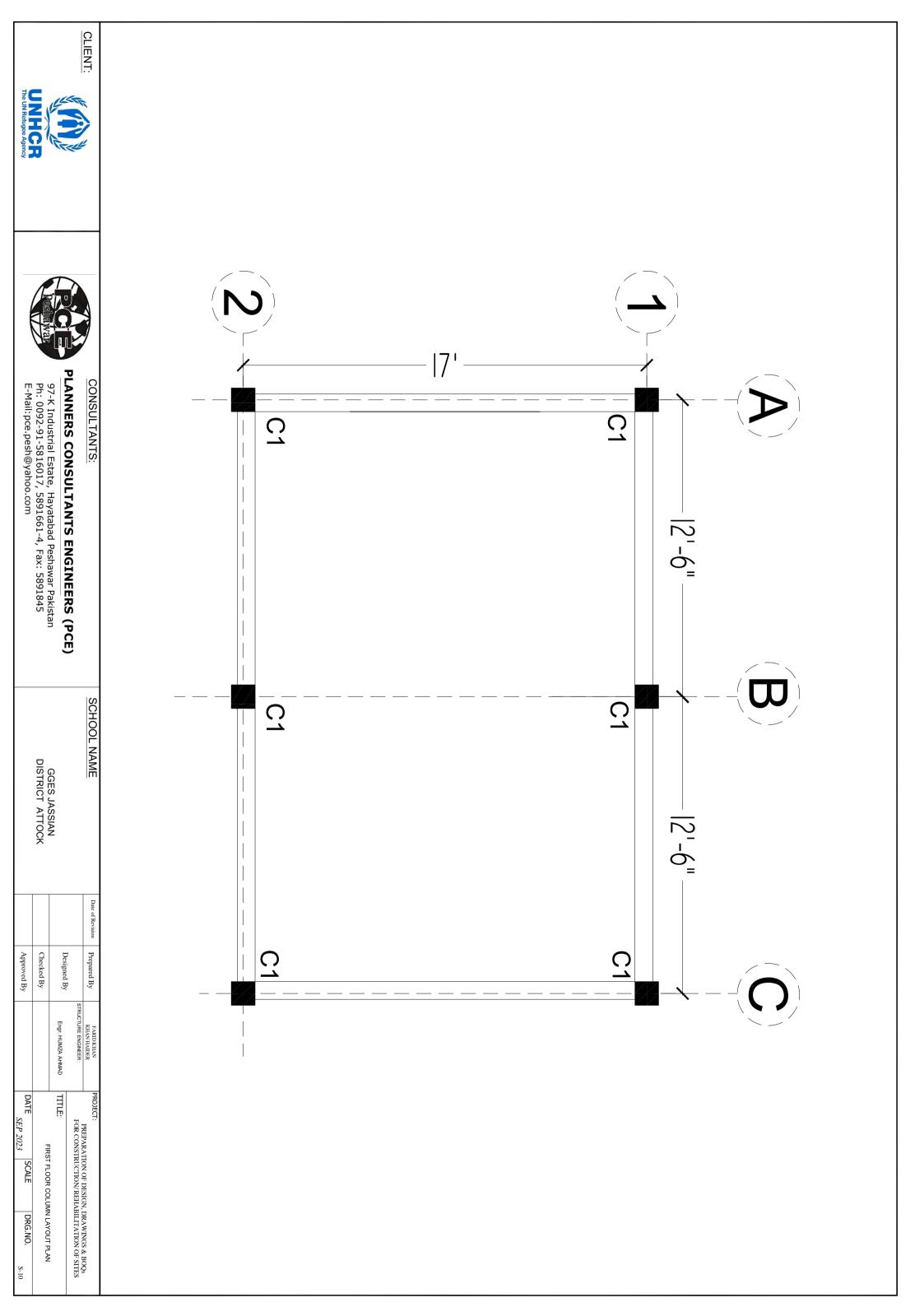


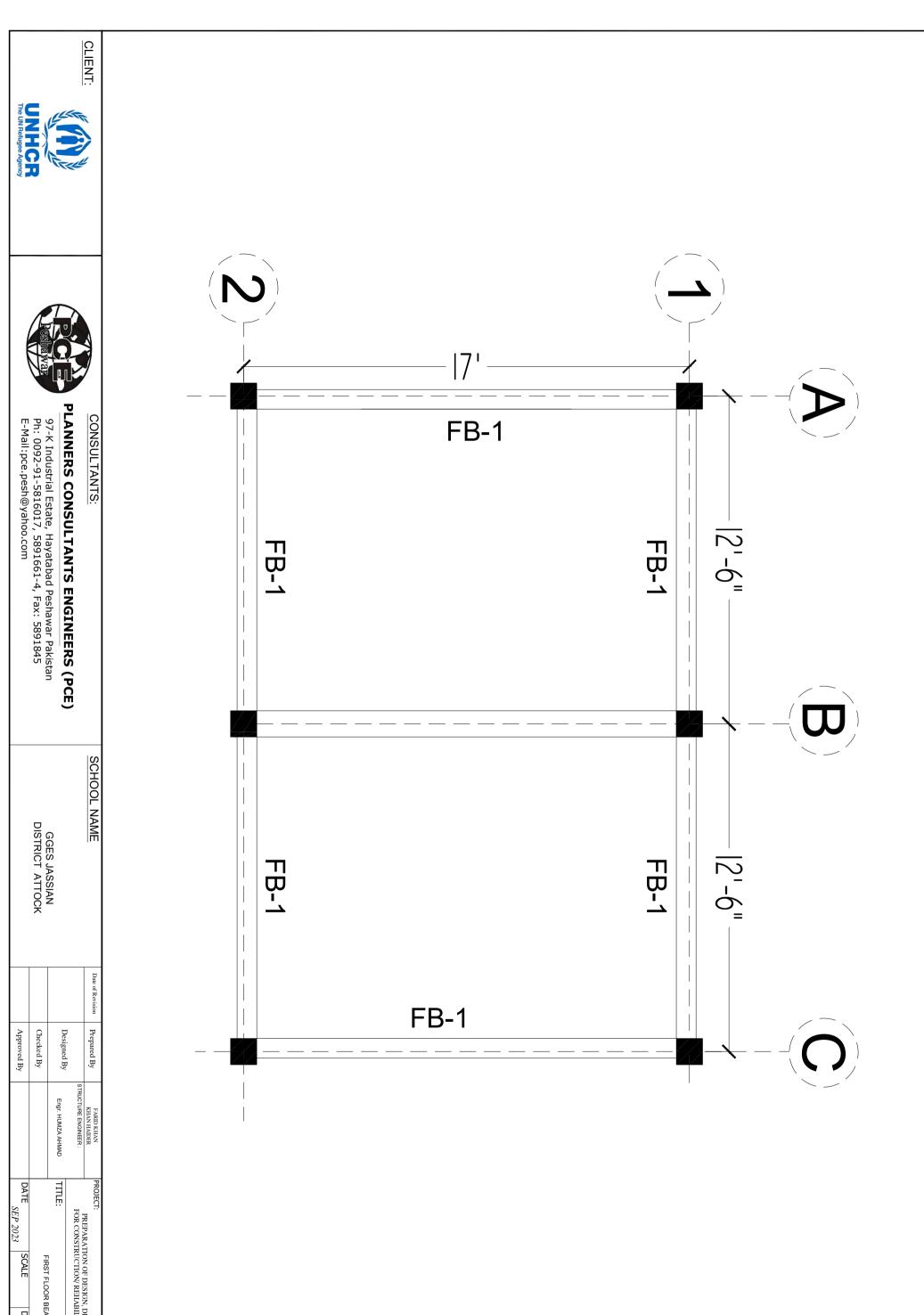




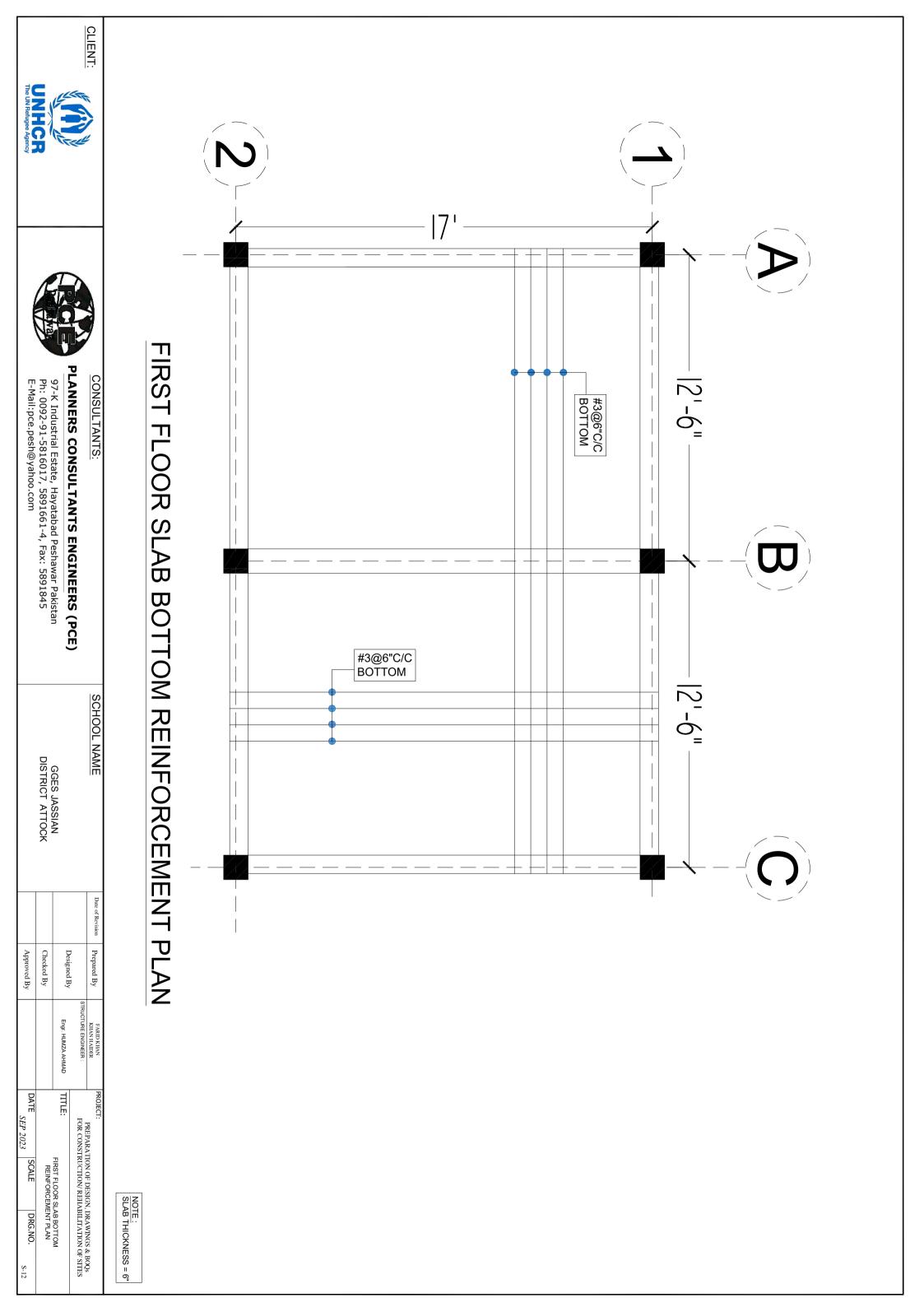


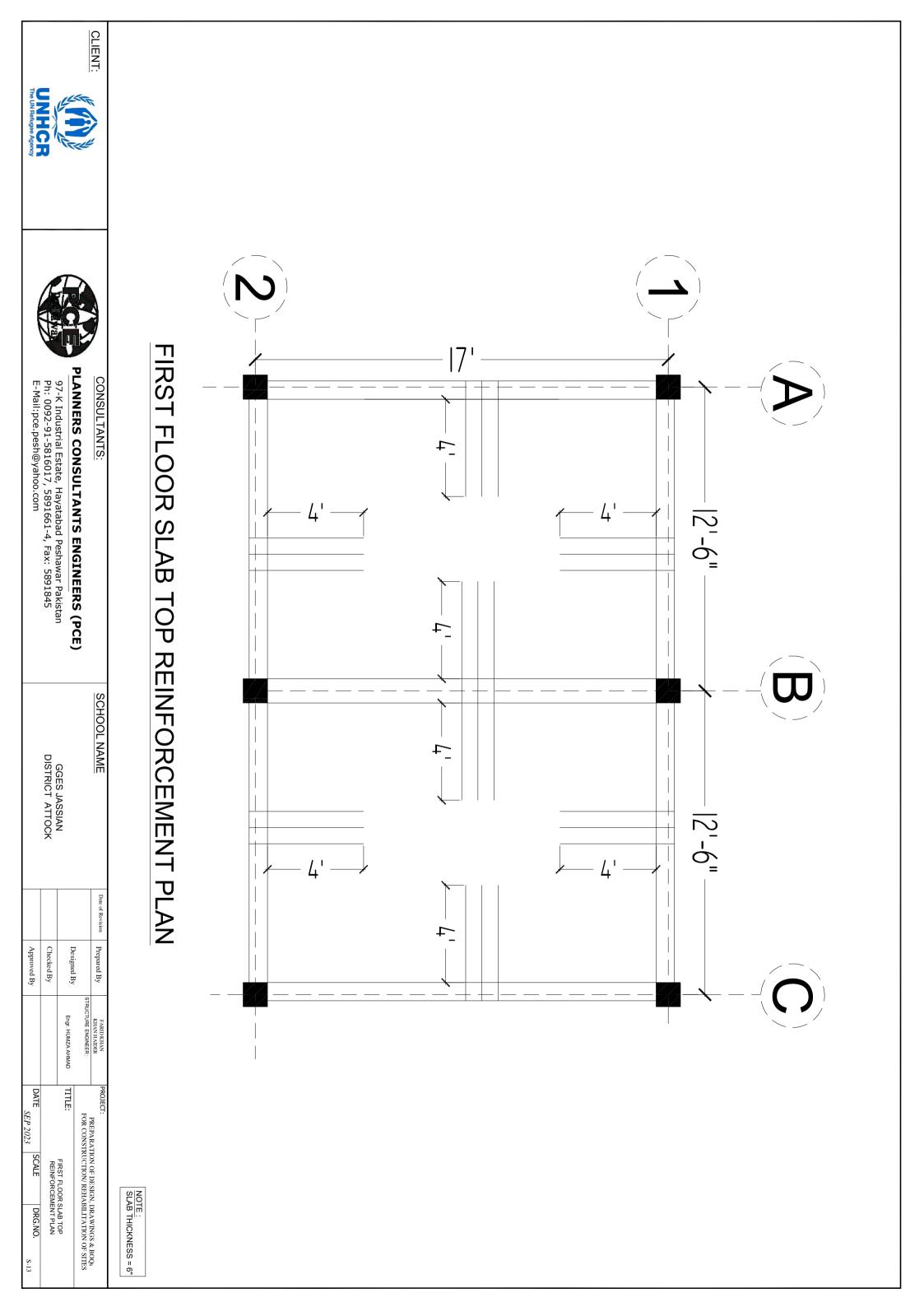






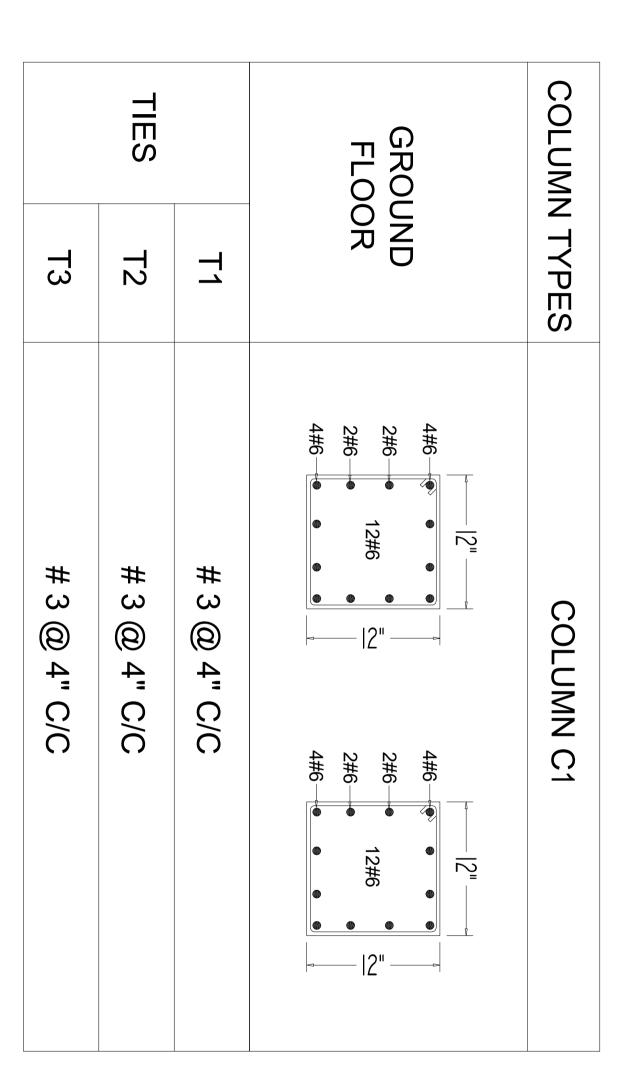
PREPARATION OF DESIGN, DRAWINGS & BOQS FOR CONSTRUCTION/ REHABILITATION OF SITES FIRST FLOOR BEAM PLAN DRG.NO.











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SCHOOL NAME

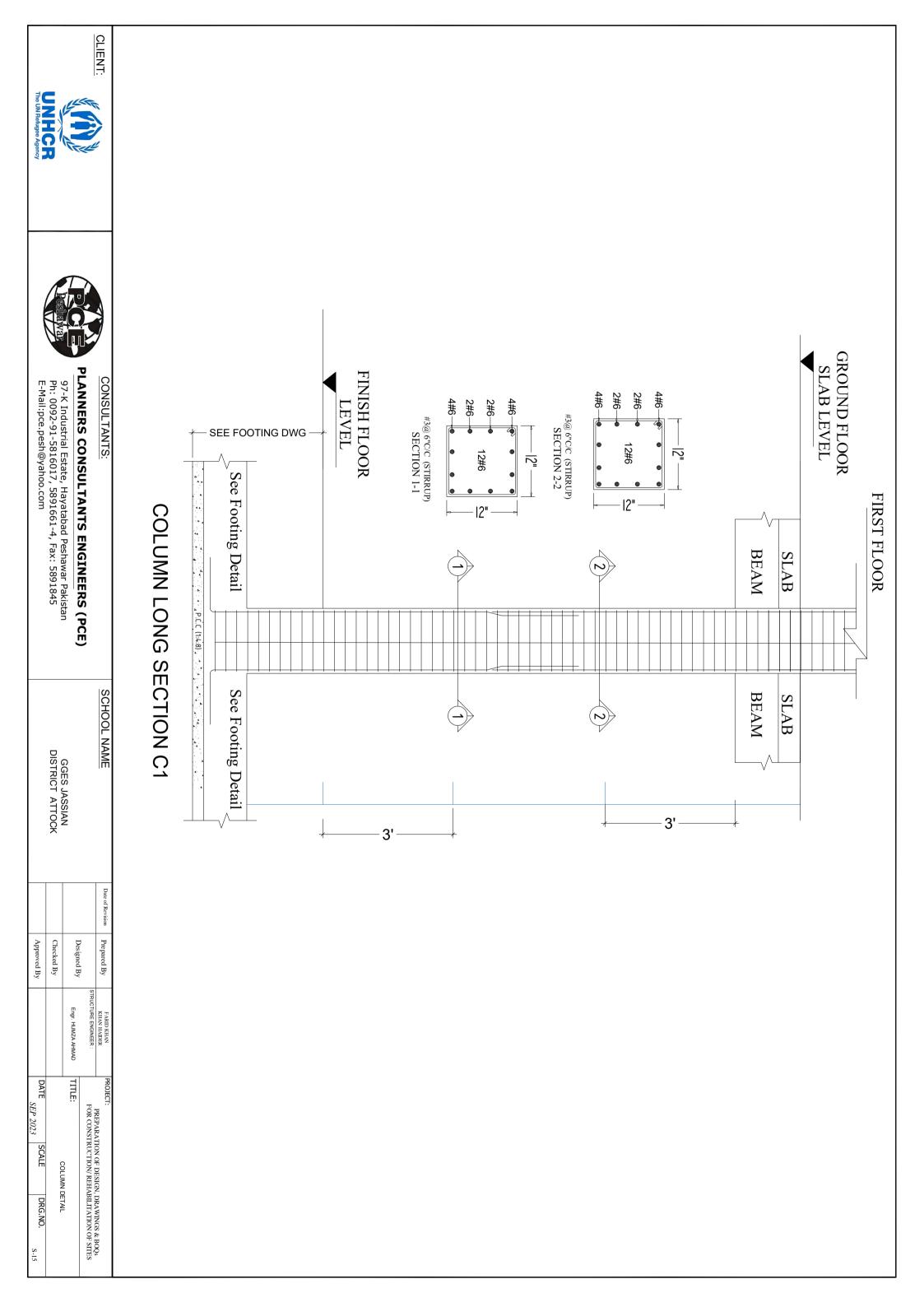
Prepared By

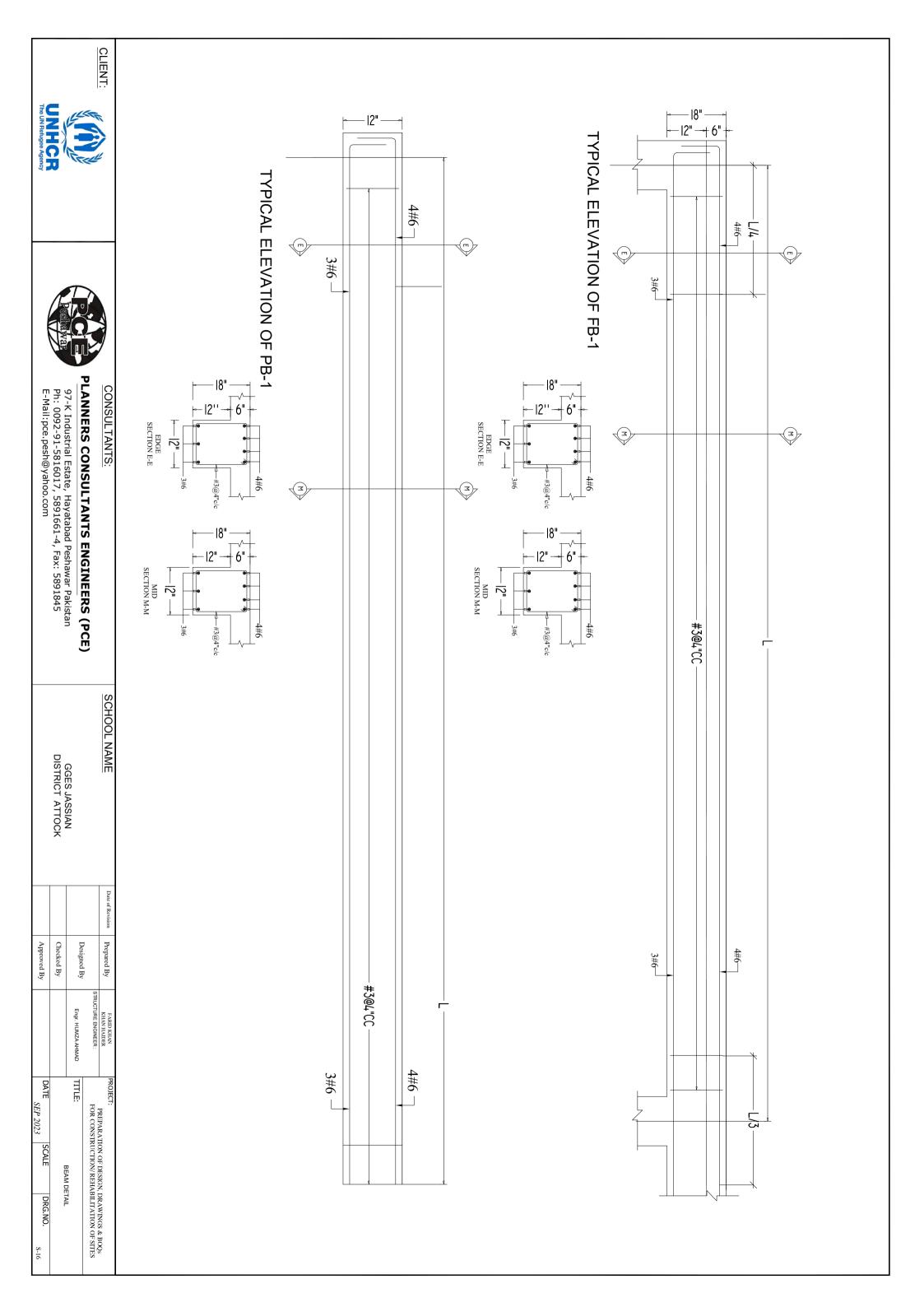
PREPARATION OF DESIGN, DRAWINGS & BOQS FOR CONSTRUCTION/ REHABILITATION OF SITES

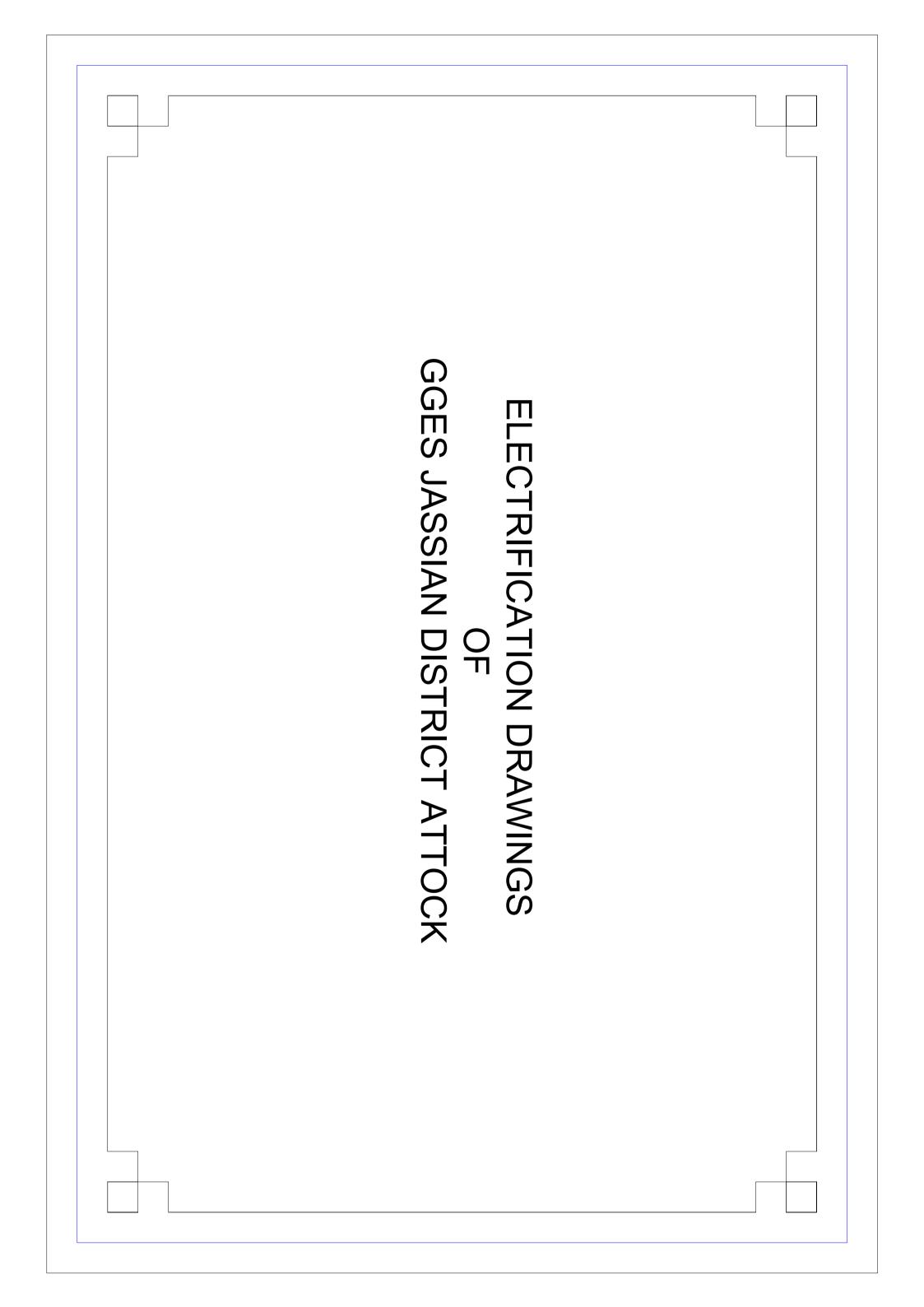
GGES JASSIAN DISTRICT ATTOCK

Approved By Engr. HUMZA AHMAD

SCALE COLUMN DETAIL

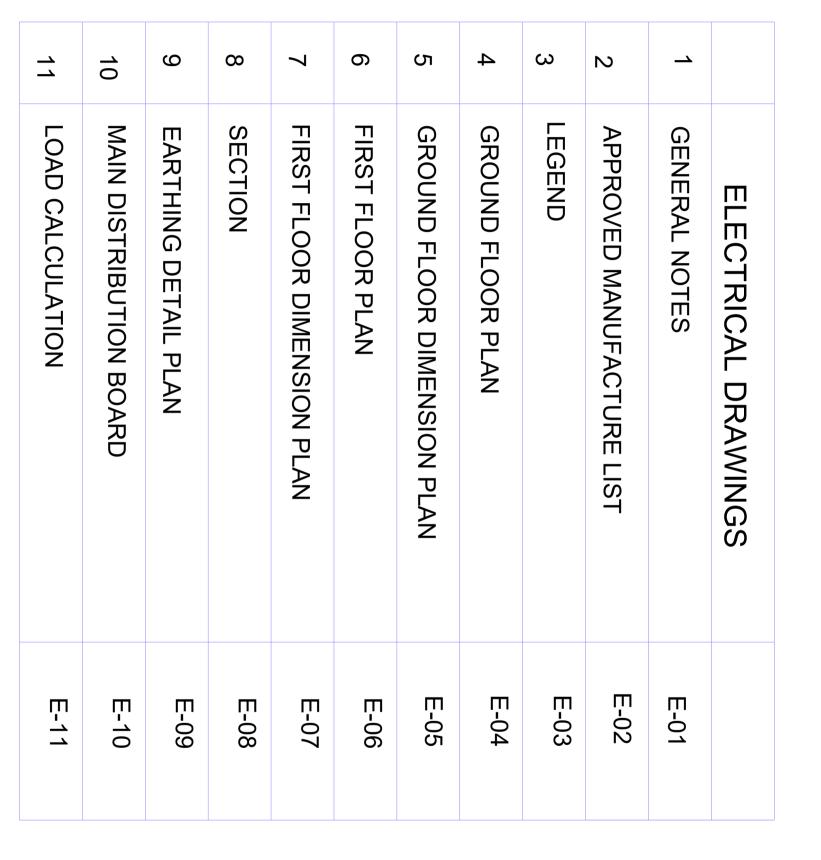












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JLTANTS:

### PLANNERS CONSULTANTS ENGINEERS (PCE)

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ATTOCK	GGES JASSIAN DISTRICT	

SCHOOL NAME

					Date of Revision
Approved By	Checked By	Designed by		ттератей Бу	Dranamad Ry
		Engr. HAMMAD AHMAD	ELECTRICAL ENGINEER:	KHAN HAIDER	LAKID VIDAN
DATE $SEP 2023$ SCALE DRG.NO.	LIST OF DIVAMINAS		FOR CONSTRUCTION/ REHABILITATION OF SITE	PREPARATION OF DESIGN DRAWINGS & ROOS	FROSECT
	DATE SEP 2023 SCALE	DATE SEP 2023 SCALE DRG.NO.	TITLE: LIST OF DRAWINGS  DATE SEP 2023 SCALE DRG.NO.	ELECTRICAL ENGINEER:  FOR CONSTRUCTION/REHABILITATION OF SI  TITLE:  LIST OF DRAWINGS  DATE  SEP 2023  SCALE   DRG.NO.	Approved By    Approved By   Checked By   Approved By   Ap

#### **ELECTRICAL SYSTEMS**

FOLLOWING NOTES SHELL IN GENERAL APPLY TO ALL ELECTRICAL DRAWINGS THE INSTRUCTIONS IN THESE NOTES SHALL BE FOLLOWED UNLESS STATED OTHERWISE.

- . THESE NOTES SHALL BE APPLICABLE TO THE ENTIRE ELECTRICAL WORKS THE SITE CONDITIONS NECESSITATY ALTERATION OR DEVIATION OF THE DIRECTIONS OF THE ENGINEER SHALL BE **OBSERVED AS FINAL INSTRUCTIONS.**
- 2. DIMENSIONS / MLASURLMENTS IS GIVEN IN LAYOUT AND DETAILED DRAWINGS ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE TO CALCULATE THE ACTUAL DIMENSIONS ACCORDING TO STRUCTURAL AND ARCHITECTURAL DRAWINGS.
- 3. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS WITH ALL RELEVANT DETAILS TO THE ENGINEER FOR APPROVAL ACCORDING TO THE GENERAL CONDITION OF CONTRACT WELL IN TIME BEFORE COMMENCEMENT OF THAT WORK.
- 4.PROPER CO-ORDINATION OF ELECTRICAL WORKS WITH OTHER SERVICES SHALL BE CARRIED OUT AT SITE

5.ALL NON CURRENT CARRYING PARTS I.e OUTER CASINGS OF EQUIPMENT SUCH AS H.T & IT PANELS DISTRIBUTION BOARDS. CABLE TRAYS, AUXILIARY CONSTRUCTION FOR EQUIPMENT ETC.

SHALL BE CONNECTED TO THE GROUND-EARTHING SYSTEM AT REQUIRED NUMBER OF POINTS WITH SPECIFIED SIZES OF CONDUCTORS.WATER PIPES ALONG ELECTRICAL LINE SHALL BE BONDED TO THE EARTHING SYSTEM WITH TO 10MMsq SINGLE CORE COPPER CONDUCTOR PVC CABLE.

- 6.ELECTRICAL POINTS FOR EQUIPMENT SHALL BE INSTALLED IN CO-ORDINATION WITH THE RELEVANT DRAWINGS OF OTHER SERVICES SUCH AS COMMUNICATION SYSTEMS, HVAC, PLUMBING ETC. THE LOCATION ON ELECTRICAL DRAWINGS IS ONLY
- ARRANGMENT OF ELECTRICAL EQUIPMENTS ON ELECTRICAL DRAWINGS ARE TENTATIVE EXACT ARRANGMENT OF EQUIPMENT SHALL BE VADE IN VIEW OF ITS PHYSICAL DIMENTIONS AND EASY OF MAINTENANCE.
- 8.LOAD ON ALL PHASES SHELL BE MAXIMUM BALANCED AT THE TIME OF COMMISSIONING STAGE.IT IS RESPNSIBILITY OF CONTRACTOR.
- 9. CONDUIT RUN UNDER FLOOR SHALL HAVE A MINIMUM COVER OF TWO INCHES FROM TOP TO CONDUIT TO FINISH FLOOR LEVEL
- 10.ALL WIRING SHOULD BE CARRYOUT ACCORDING TO THE PHASES RED, YELLOW, BLUE CABLE COLOUR ARE AS PER PHASE DISTRIBUTION IN BUILDING.
- 11.RUN GREEN OR WHITE SINGLE CORE PVC INSULATED COPPER CONDUCTOR CABLE OF SPECIFIED SIZE AS PROTECTIVE EARTH CONDUCTOR (LCC) ALL ALONG LIGHT AND POWER WIRING WHEREVER THE SIZE IS NOT SPECIFIED THE FOLLOWING ORILERIA SHELL BE OBSERVED TO DETERMINE MINIMUM CROSS SECTIONAL AREA OF EARTH CONTINUITY CONDUCTOR (ECC)IN RELATION TO THE AREA OFFICE PHASE CONDUCTORS RUN SEPARATE ECC FOR EACH CIRCUIT.

  -ECC 2 PHASE CONDUCTOR OF SAVE SIZE FOR UPTO AND INCLUDING 16 MMSQ CABLES -FOR CABLES OF 50 MM SQ AND ABOVE SIZES IS HALF SIZE OF PHASE CONDUCTOR -MINIMUM SIZE ECC IS 70MM SQ.
- 12.ALL WIRING FOR CONTROLS SHELL BE CARRIED OUT WITH 1 CORE FLEXIBLE PVC CABLES OF SPECIFIED VOLTAGE GRADE AND SIZES.
- 13.THE MAXIMUM CAPACITY OF PVC CONDUITS FOR SIMAL TONCOUS DRAWING OF PVC INSULATED CABLES SHALL BE DETERMINED AS PIN BS 4607.THE FOLLOWING TABLE SHALL BE USED TO DETERMINE THE MAXIMUM NUMBER OF CABLES

10 MM sq	6 MM sq	4 MM sq	2.5 MM sq	1.5 MM sq	NEW STANDER SIZE MM sqr	NUMBER OF CABLE IN (CONDUIT)
ω	5	7	10	13	25 MM (1")	
2	3	4	ō	8	20 MM ( <sup>3</sup> / <sub>4</sub> ")	SIZE OF CABLE
<u> </u>	2	ယ	4	5	15 MM ( $\frac{3}{8}$ ")	Ш

14.NORMAL & EMERGENCY CIRCUITS SHALL BE RUN IN SEPARATE CONDUITS.

15.THE WIRING SHELL BE CONTINUOUS LOOPING-IN TYPE AND SHELL BE ALLOWED. NO JOINT IN WIRES

16.THE WIRING SYSTEM SHELL BE CARRIED OUT ONLY AFTER THE CONDUIT SYSTEM IS COMPLETELY INSTALLED AND ALL OUTLET BOXES.ETC.ARE FIXED IN POSITION.

17. MOUNTING HEIGHTS OF ELECTRICAL FITTINGS WHEN MEASU (ECC) TO THE BOTTOM OF FITTINGS SHELL BE AS UNDER UNL OR INSTRUCTED JRED FROM FINISHED FLOOR LEVEL





CONSULTANTS:

PLANNERS CONSULTANTS ENGINEERS (PCE)

E-Mail:pce.pesh@yahoo.com 97-K Industrial Estate, Hayatabad Peshawar Pakistan Ph: 0092-91-5816017, 5891661-4, Fax: 5891845

SCHOOL NAME

GGES JASSIAN DISTRICT ATTOCK

Prepared By Checked By Designed By FARID KHAN KHAN HAIDER RICAL ENGINEER: Engr. HAMMAD AHMAD TITLE: PREPARATION OF DESIGN, DRAWINGS & BOQS FOR CONSTRUCTION/ REHABILITATION OF SITES

Approved By DATE SEP 2023 SCALE GENERAL NOTES DRG.NO.

### APPROVED MANUFACTURE LIST

9	08	07	06	05	04	03	02	01	S NO.
MINIATURE CIRCUIT BREAKER	MOULDED CASE CIRCUIT BREAKER	LT SWITCHGEAR	SWITCHES	PVC CONDUIT	CEILING FAN	LIGHT FIXTURES	POWER CABLE	WIRING CABLE	ITEM OR ACCESSORIES
SCHNEIDER, CHINT, LS, ABB	SCHNEIDER, CHINT, LS, ABB	SCHNEIDER, ABB, PEL,ELECTRECH	PPL	POLO,BETA,POPULAR, GM, ADAMJEE	PAK, GFC, ROYAL, LAHORE FAN	PHILIPS,PIERLITE,CLIPSAL, OSAKA, FAST LIGHT	PAKISTAN,NEW AGE,FAST, GM, COPPERGAT CABLE	PAKISTAN,NEW AGE,FAST, GM, COPPERGAT CABLE	BRAND





CONSULTANTS:

SCHOOL NAME

GGES JASSIAN DISTRICT ATTOCK

Approved By Prepared By Checked By Designed By FARID KHAN KHAN HAIDER ELECTRICAL ENGINEER: Engr. HAMMAD AHMAD TITLE: DATE SEP 2023 SCALE PREPARATION OF DESIGN, DRAWINGS & BOQS FOR CONSTRUCTION/ REHABILITATION OF SITES APPROVED MANUFACTURE LIST DRG.NO.

E-02





		•-			**	SYMBOL
EXHAUST FAN POINT	DISTRIBUTION UNIT	SWITCH BOARD	56" SWEEP CEILING FAN	TMS 136	SURFACE MOUNTED DOWN LIGHT WITH 17 WATT ENERGY SAVER	DESCRIPTION
	60" FROM FFL	56" FROM FFL	SLAB MOUNTED	SLAB MOUNTED	CEILING MOUNTED	INSTALLATION HEIGHT

PLANNERS CONSULTANTS ENGINEERS (PCE) 97-K Industrial Estate, Hayatabad Peshawar Pakistan Ph: 0092-91-5816017, 5891661-4, Fax: 5891845 E-Mail:pce.pesh@yahoo.com

CONSULTANTS:

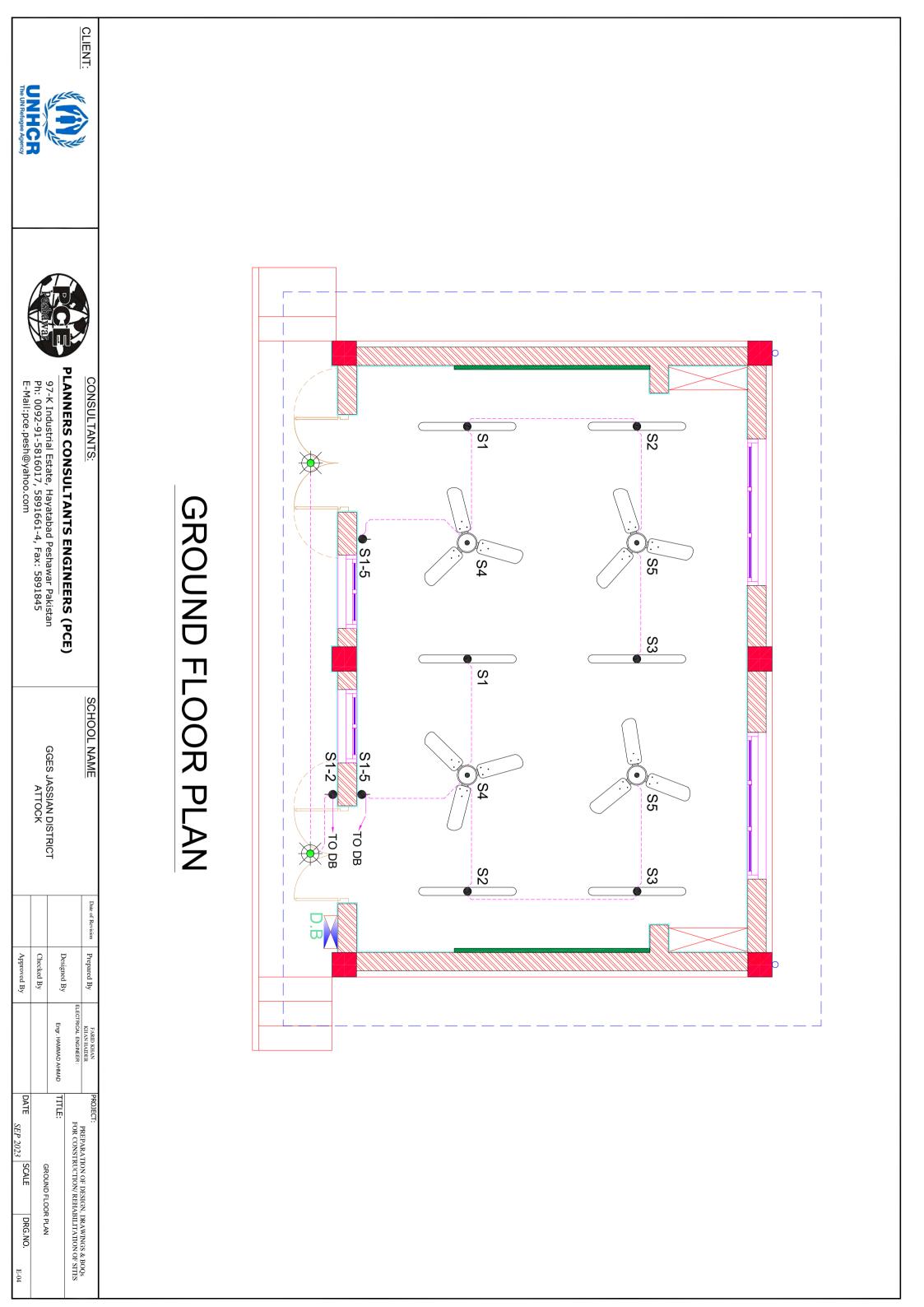
SCHOOL NAME

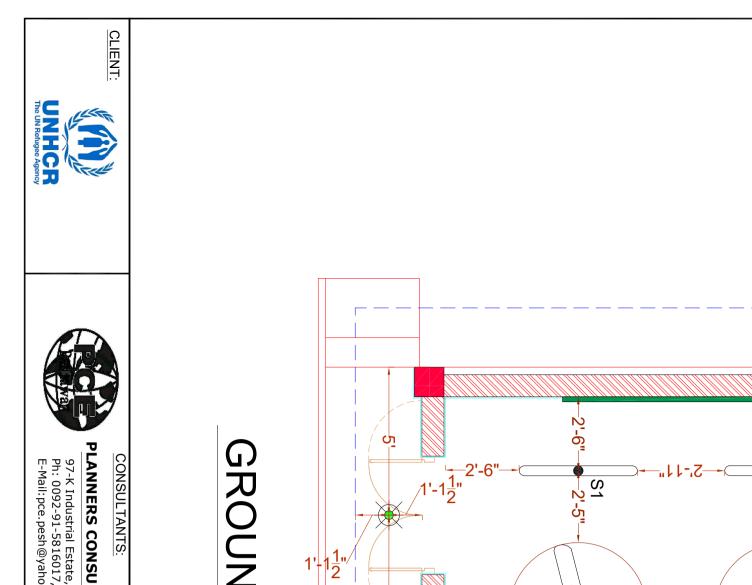
GGES JASSIAN DISTRICT ATTOCK

Checked By Prepared By Approved By Designed By Engr. HAMMAD AHMAD TITLE: DATE

PREPARATION OF DESIGN, DRAWINGS & BOQS FOR CONSTRUCTION/ REHABILITATION OF SITES

SEP 2023 DRG.NO. E-03





-15'-11<mark>1</mark>"

S1-2

1'-12"

<del>ე</del>"<u>ე-'ე</u> ი

-2'-6"

S2 2'-5"

•

2'-5"

•

**-2'-6"** 

S5

2'-2"

S5

S3

-2'-3<u>1</u>'

-2'-3<u>1</u>"

•

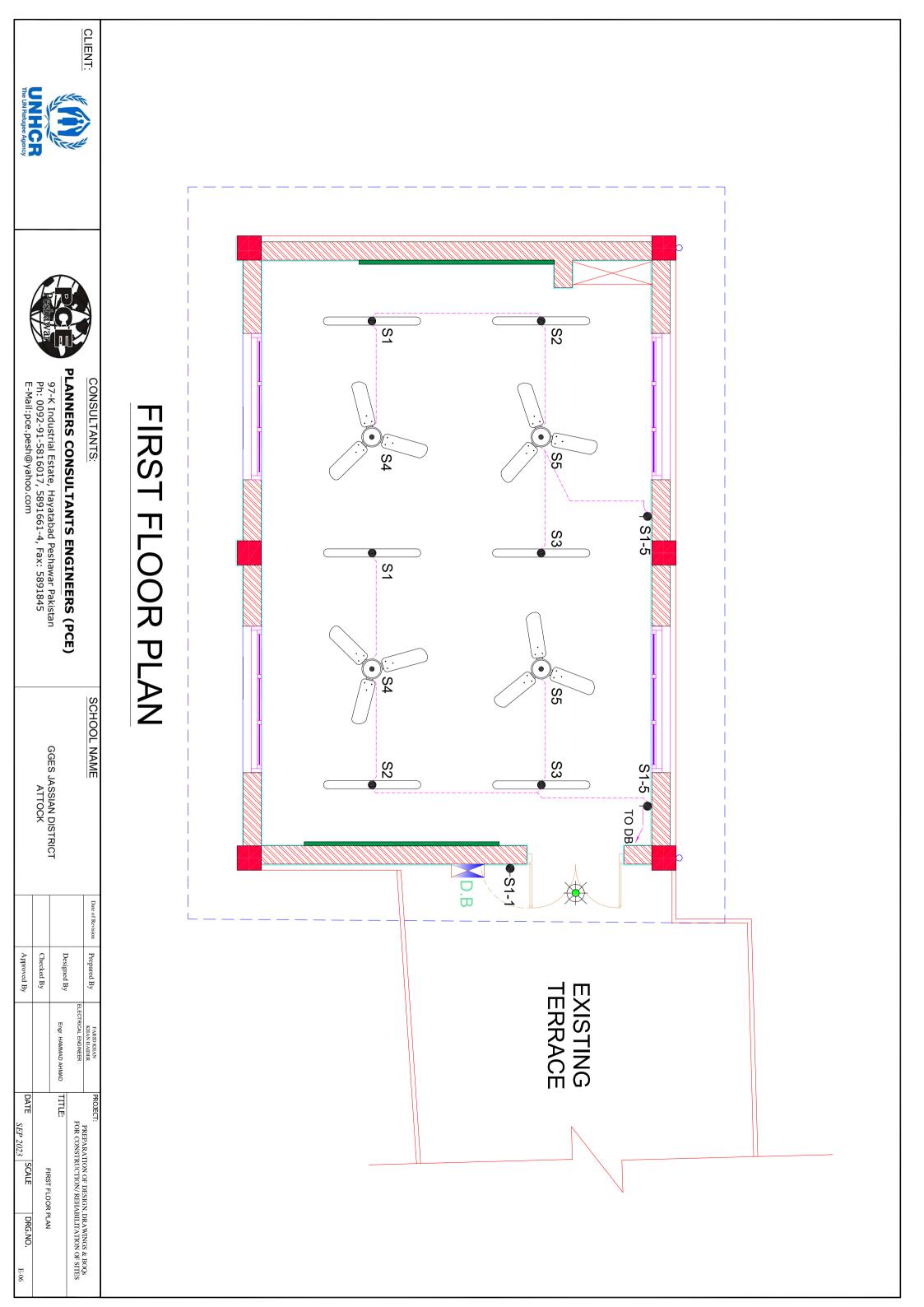
S<sub>4</sub>

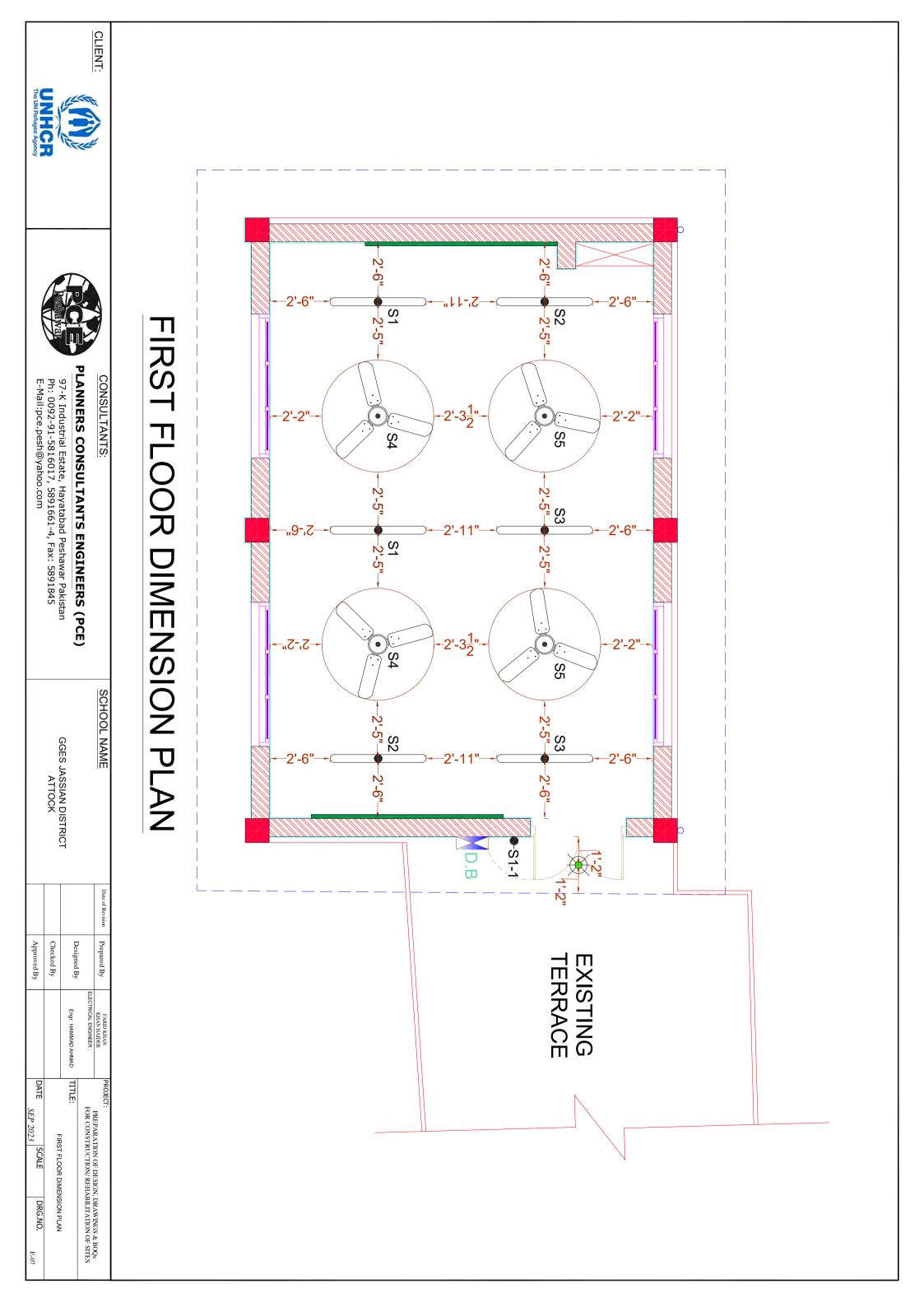
S1 -2'-5"

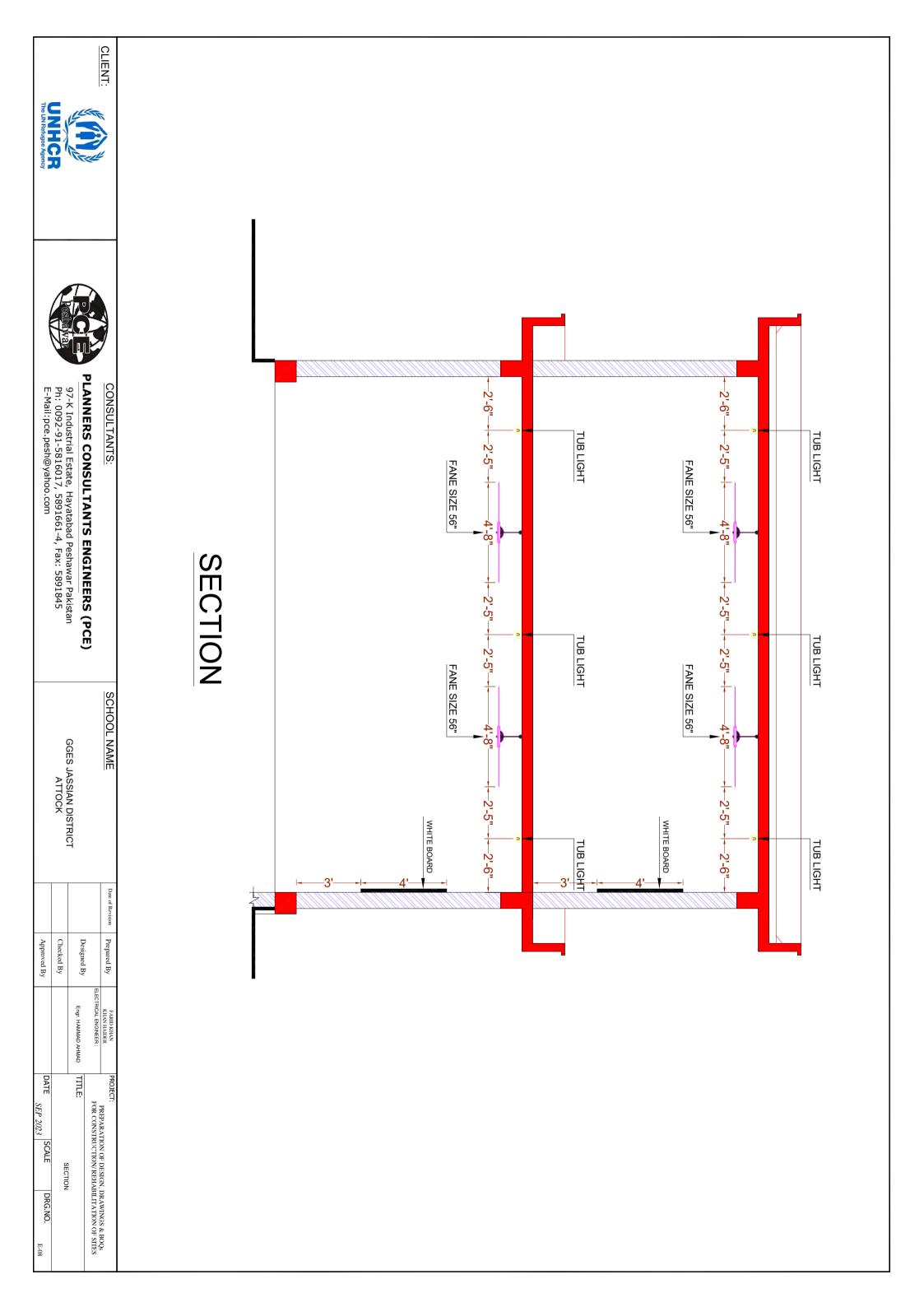
**2**2

# GROUND FLOOR DIMENSION PLAN









SCHOOL NAME GGES JASSIAN DISTRICT ATTOCK Date of Revision Prepared By Checked By Approved By Designed By Engr. HAMMAD AHMAD DATE SEP 2023 SCALE PREPARATION OF DESIGN, DRAWINGS & BOQS FOR CONSTRUCTION/ REHABILITATION OF SITES EARTHING DETAIL PLAN DRG.NO.

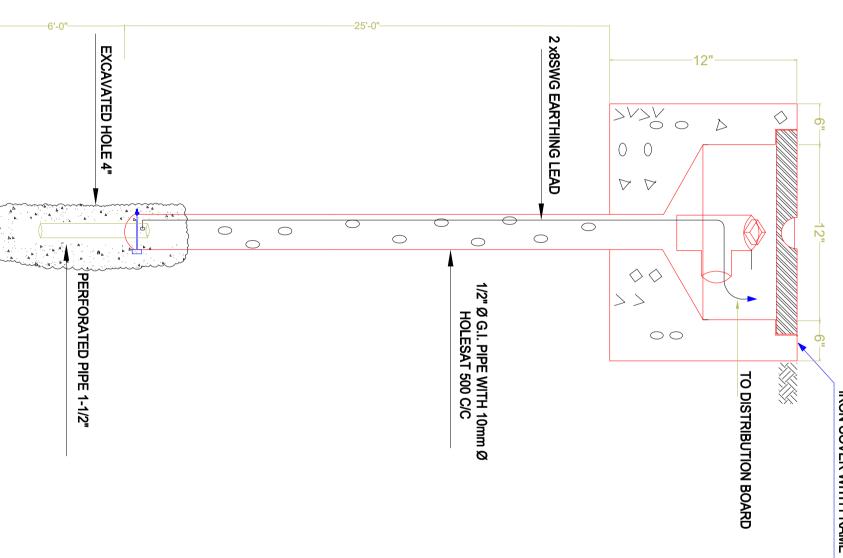
PLANNERS CONSULTANTS ENGINEERS (PCE) 97-K Industrial Estate, Hayatabad Peshawar Pakistan Ph: 0092-91-5816017, 5891661-4, Fax: 5891845 E-Mail:pce.pesh@yahoo.com



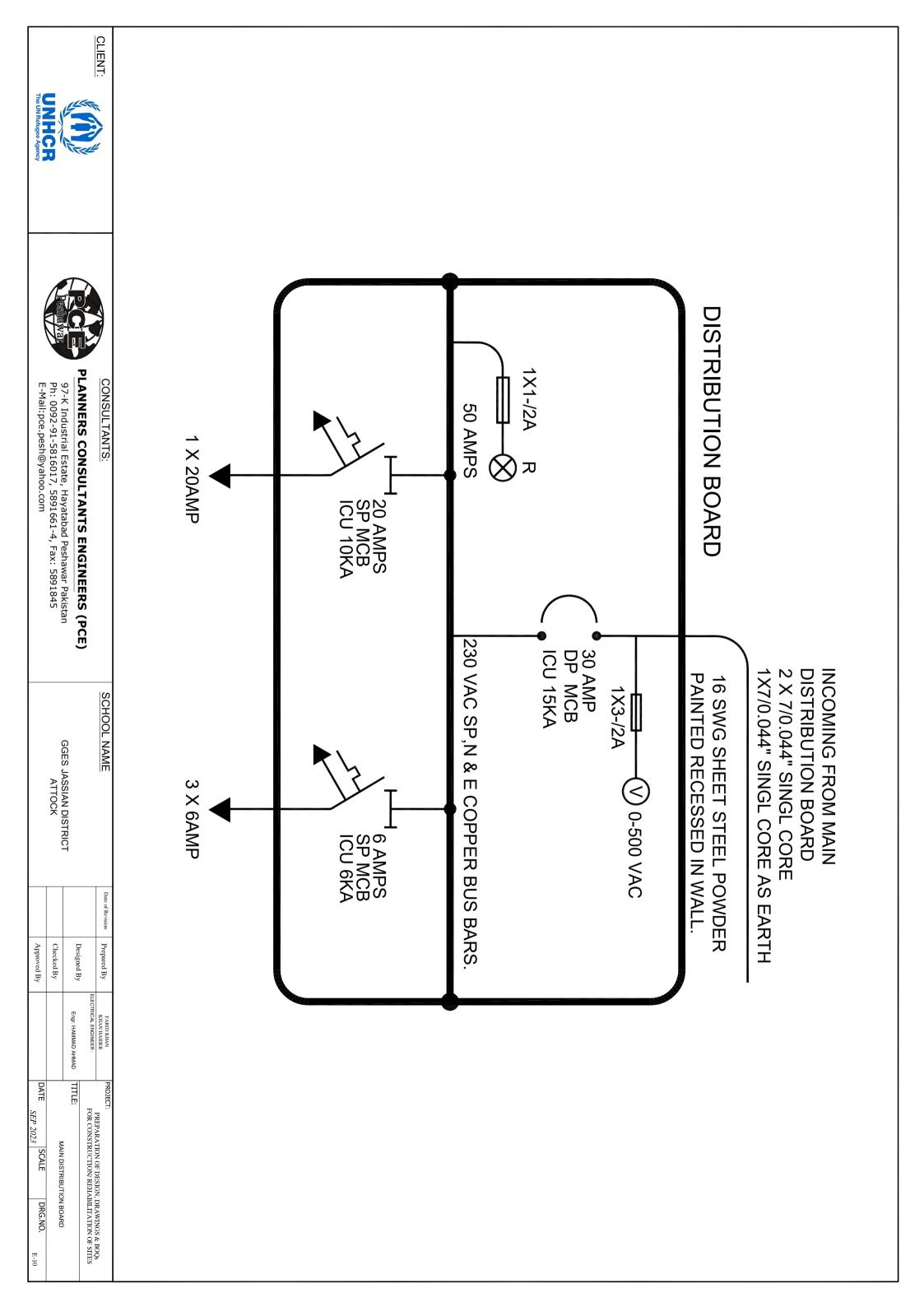
CONSULTANTS:







12"X12" MEDIUM DUTY CAST IRON COVER WITH FRAME



# LOAD CALCULATION

PEAK DEMAND LOAD (W)  25% FITURE LOAD PROVISION (W)	768
25% FUTURE LOAD PROVISION (W)	960
TOTAL LOAD (W)	1067
CABLE SIZE (MM sq)	1.5





CONSULTANTS:

## PLANNERS CONSULTANTS ENGINEERS (PCE)

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SCHOO
LNAME

GGES JASSIAN DISTRICT ATTOCK

гтератей Бу	KHAN HAIDER ELECTRICAL ENGINEER:	PREPARATION OF DESIGN, DRAWINGS & BOQS FOR CONSTRUCTION/ REHABILITATION OF SITES	DRAWINGS & BOQs BILITATION OF SITES
Designed By			
Designed By	Engr. HAMMAD AHMAD	TITLE:	
		LOAD CALCULATION	ATION
Checked By			
Approved By		DATE SCALE	DRG.NO.
(a moroider)		SEP 2023	E-11

# PROPOSED DESIGN OF REHAB WORKS AT GGES JASSIAN DISTRICT ATTOCK





## PLANNERS CONSULTANTS ENGINEERS (PCE)

97-K Industrial Estate, Hayatabad Peshawar Pakistan Ph: 0092-91-5816017, 5891661-4, Fax: 5891845 E-Mail:pce.pesh@yahoo.com

### LIST OF DRAWINGS

3 SECTION AT B-B 4 SECTION AT C-C 5 SCHEDULE OF OPENING 6 VENTILATOR PROJECTION 7 P.C.C FLOORING 8 GENERAL NOTES 9 GENERAL NOTES	STRUCTURAL DRAWINGS			10 FOUNDATION PLAN	11 SECTION AT 1-1	12 GROUND FLOOR LINTEL BEAM PLAN		
A-03 A-04 A-05 A-07 S-02		S-01	S-02	S-03	S-04		MENT PLAN	MENT PLAN

		25	24	23	22	21		20	19		18	17	16	SR.NO		
		GROUND FLOOR DIMENSION PLAN	GROUND FLOOR PLAN	LEGEND	APPROVED MANUFACTURE LIST	GENERAL NOTES	ELECTRICAL DRAWINGS	GROUND FLOOR WATER SUPPLY PLAN	LEGEND	WATER SUPPLY DRAWINGS	SEPTIC TANK PLAN	GROUND FLOOR PLUMBING PLAN	GENERAL NOTES	DESCRIPTION	PLUMBING DRAWINGS	
		E-05	E-04	E-03	E-02	E-01		WS-02	WS-01		P-03	P-02	P-01	DRG. NO.		





CONSULTANTS:

PLANNERS CONSULTANTS ENGINEERS (PCE) 97-K Industrial Estate, Hayatabad Peshawar Pakistan Ph: 0092-91-5816017, 5891661-4, Fax: 5891845 E-Mail:pce.pesh@yahoo.com

REHAB WORKS OF GGES JASSIAN DISTRICT ATTOCK

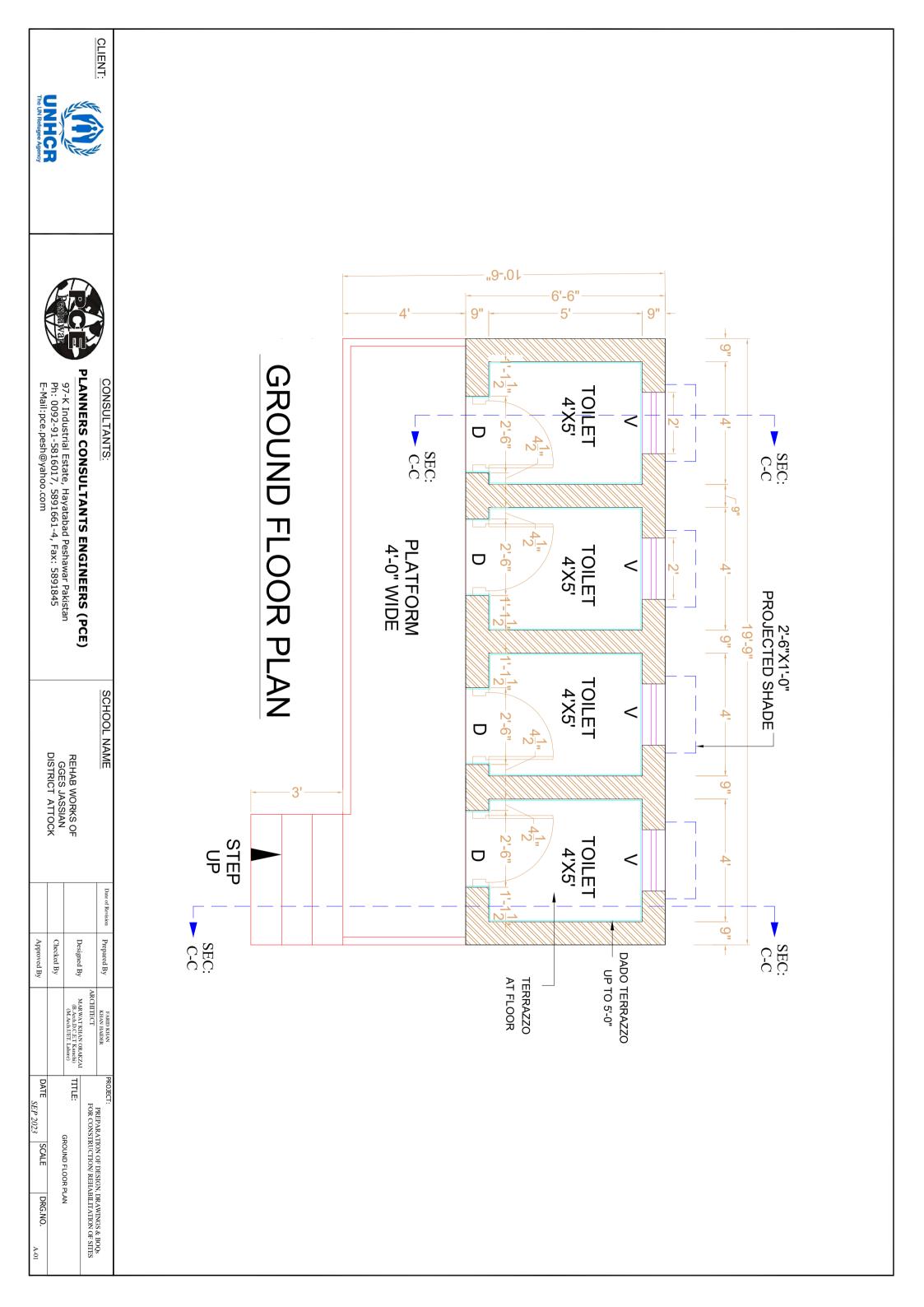
SCHOOL NAME

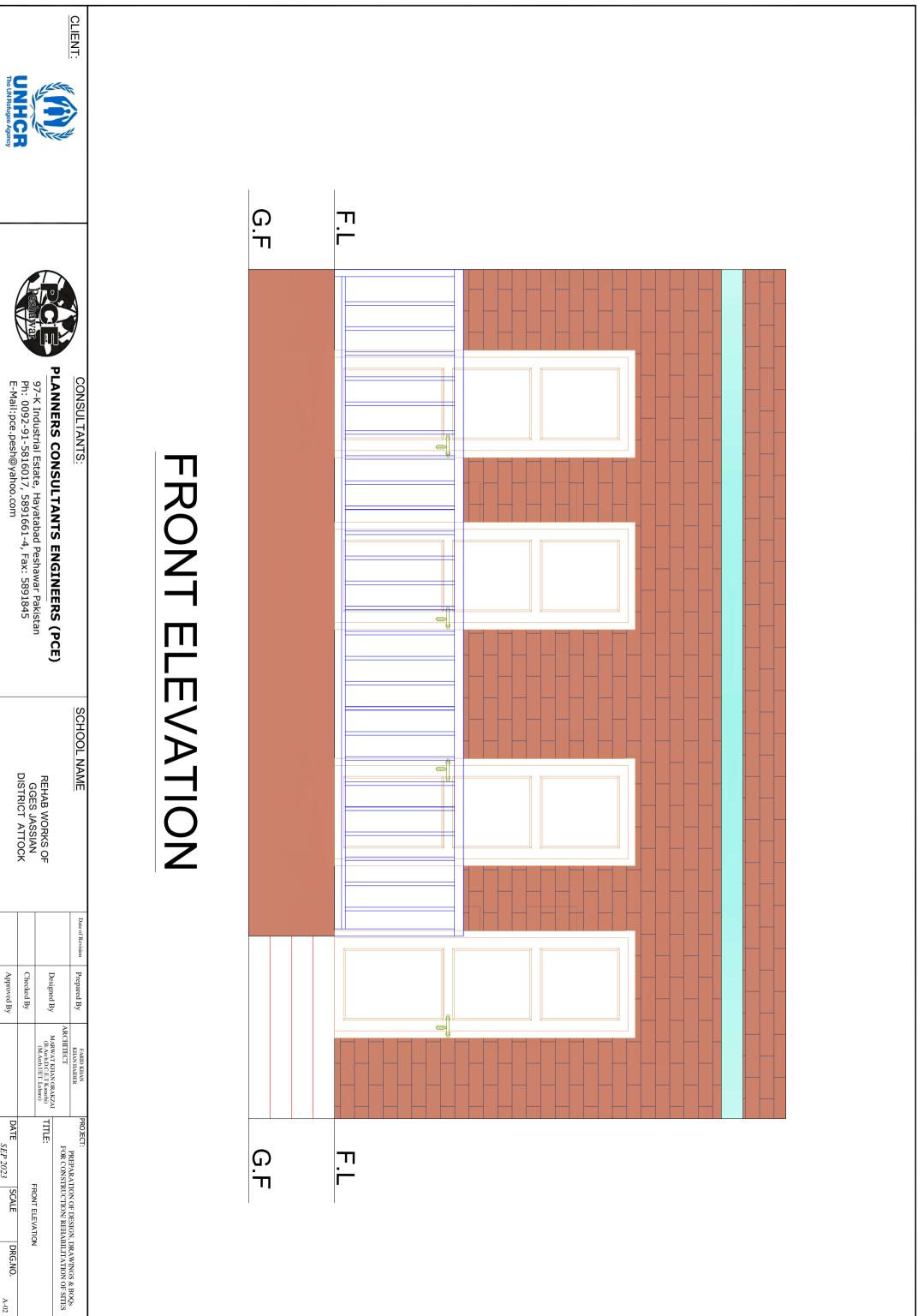
Prepared By Approved By Checked By Designed By

TITLE: LIST OF DRAWINGS

PREPARATION OF DESIGN, DRAWINGS & BOQS FOR CONSTRUCTION/ REHABILITATION OF SITES

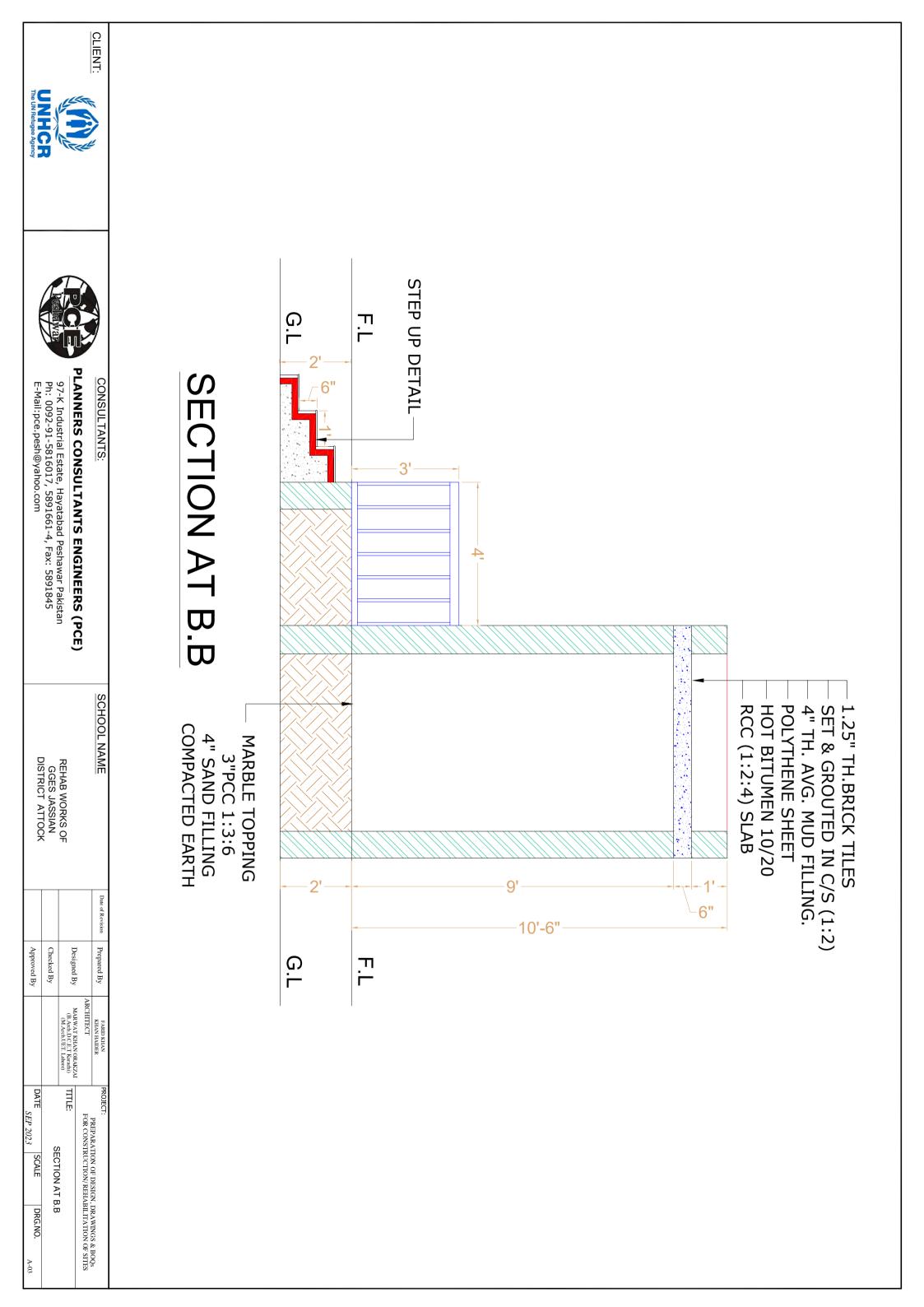
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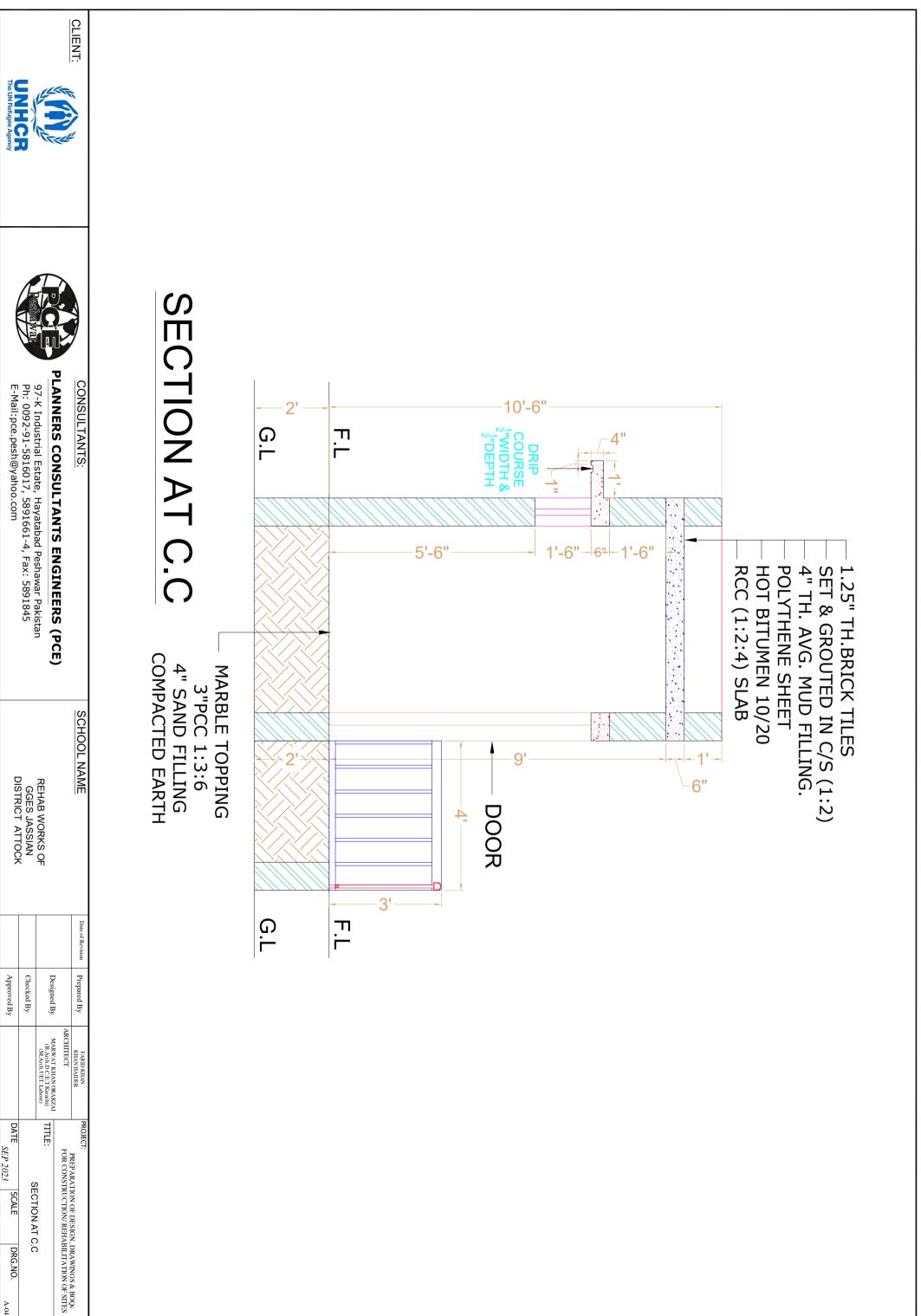




Approved By

SEP 2023









#### TYPE SCHEDULE 2'-0" X1'-6" 2'-6" X 7'-0" SIZE S-LEVEL 5'-6" 0"-0" OPENIN DESCRIPTION STEEL STEE

CONSULTANTS:

**PLANNERS CONSULTANTS ENGINEERS (PCE)** 

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REHAB WORKS OF GGES JASSIAN DISTRICT ATTOCK

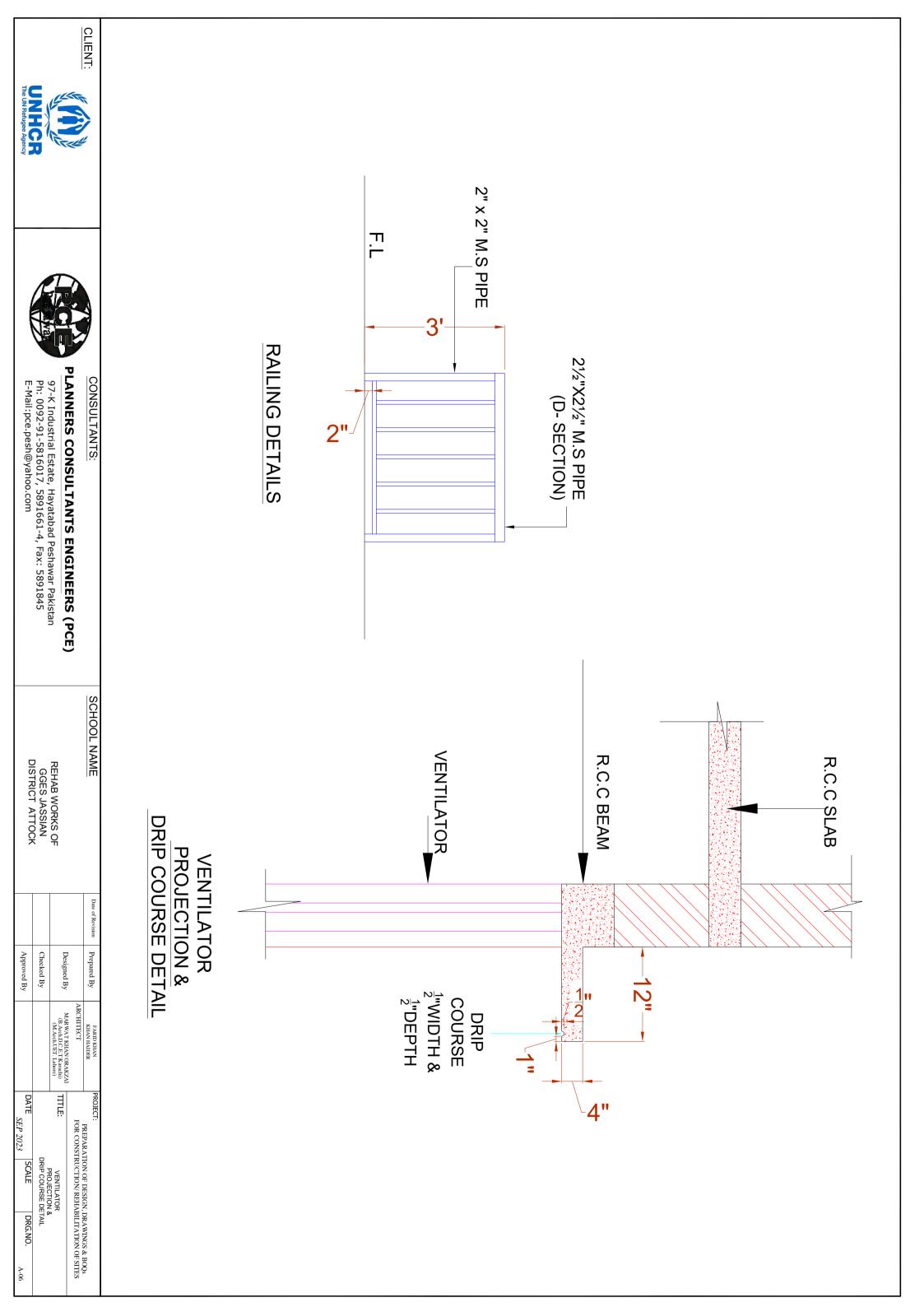
SCHOOL NAME

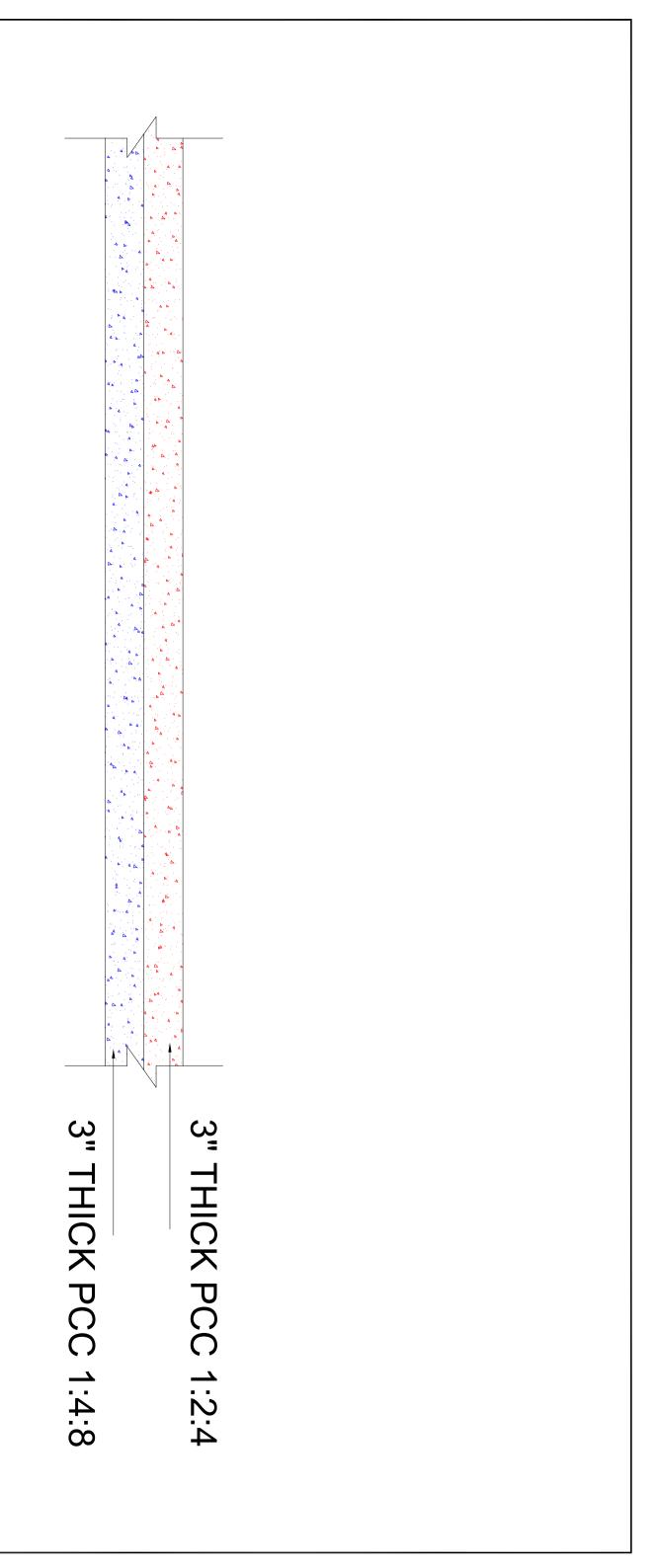
Approved By Checked By Designed By KHAN HAIDER
ARCHITECT

Prepared By

MARWAT KHAN ORAKZAI (B.Arch.D.C.E.T Karachi) (M.Arch.UET. Lahore) TITLE: DATE PREPARATION OF DESIGN, DRAWINGS & BOQS FOR CONSTRUCTION/ REHABILITATION OF SITES SCALE

DRG.NO. A-05





P.C.C FLOORING 400.SFT



CLIENT:



CONSULTANTS:

**PLANNERS CONSULTANTS ENGINEERS (PCE)** 

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SCHOOL NAME

REHAB WORKS OF GGES JASSIAN DISTRICT ATTOCK

Prepared By Checked By Approved By Designed By FARID KHAN KHAN HAIDER ARCHITECT MARWAT KHAN ORAKZAI (B.Arch.D.C.E.T Karachi) (M.Arch.UET. Lahore) TITLE: DATE

PREPARATION OF DESIGN, DRAWINGS & BOQS FOR CONSTRUCTION/ REHABILITATION OF SITES DRG.NO.

# STRUCTURE DRAWINGS OF REHAB WORKS AT GGES JASSIAN DISTRICT ATTOCK

### 1. GENERAL

- READ ALL DRAWINGS IN CONJUNCTION WITH ARCHITECTURAL, GEOTECHNICAL, PLUMBING, MECHANICAL, ELECTRICAL & ANY OTHER RELEVANT DRAWINGS.

  NOTES GIVEN IN THIS DRAWING ARE APPLICABLE TO ALL DRAWINGS UNLESS MENTIONED OTHERWISE. NOTES WRITTEN ON A DRAWING, SHALL BE APPLICABLE TO THAT PARTICULAR DRAWING ONLY UNLESS OTHERWISE CROSS-REFERRED.

ယ 5

- ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE SPECIFICATIONS OF THE CONTRACT DOCUMENTS. IN ABSENCE OF ANY SPECIFICATIONS, ALL MATERIALS & WORKMANSHIP SHALL CONFORM TO RELEVANT ACI/BRITISH CODES AND SHALL BE SUBJECTED TO APPROVAL OF THE ENGINEER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF THE STRUCTURES DURING CONSTRUCTION. HE SHALL ALSO VERIFY ALL DIMENSIONS AND LEVELS BEFORE EXECUTION OF WORK. ANY DISCREPANCY, ERROR OR OMISSION, IF FOUND, SHALL BE BROUGHT TO THE NOTICE OF THE ENGINEER FOR CORRECTION AND APPROVAL.

  THE CONTRACTOR SHALL CO-ORDINATE WITH VARIOUS SERVICES DRAWINGS FOR SIZES & LOCATION OF ALL STRUCTURAL MEMBERS, FLOORS, WALLS, OPENINGS, FLOOR FINISHES,
- PIPES ETC
- 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE EXECUTION OF DEWATERING SYSTEM WHERE SO REQUIRED DURING CONSTRUCTION.

  ALL DIMENSIONS & LEVELS ARE IN FEET & INCHES.

  DO NOT SCALE THE DRAWINGS. DIMENSIONS, GIVEN ON THE DRAWING, SHALL GOVERN.

  ALL FABRICATION, PAINTING, ERECTION AND QUALITY CONTROL IS TO BE DONE IN ACCORDANCE WITH THE LATEST APPLICABLE ACI/BRITISH SPECIFICATIONS.
- 9.8.7
- 10
- <u>-1</u> BACKFILLING AROUND FOUNDATIONS AND WALLS SHALL BE WELL COMPACTED LAYERS NOT EXCEEDING 6 INCHES IN THICKNESS.
  IT IS STRONGLY RECOMMENDED TO RECONFIRM THE SITE PLAN BEFORE START OF EXECUTION AT SITE. THE SITE SHOULD BE EXAMINED FOR CLEARANCE WITH RESPECT TO LOCAL/SEISMIC HAZARDS.
- 12
- 3 THE CONTRACTOR SHALL INFORM THE ENGINEER ABOUT ANTICIPATED CONSTRUCTION LOADS IN THE STRUCTURE AND OBTAIN ENGINEER'S APPROVAL THEREOF BEFORE COMMENCING THE WORK.

  THE CONTRACTOR SHALL VERIFY LAYOUT, CONFIGURATION, ALL DIMENSIONS AND LEVELS PERTAINING TO EXISTING WORKS BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL ADOPT ADEQUATE AND APPROPRIATE MEASURES SO AS NOT TO DAMAGE THE EXISTING WORKS.
- 14. THE CONTRACTOR SHALL EXERCISE UTMOST CARE AND PRECAUTION DURING THE WORKS, AGAINST ANY MISHAPS OR ACCIDENTS, FOR WHICH THE CONTRACTOR SHALL BE WHOLLY AND SOLELY RESPONSIBLE. THE CONTRACTOR SHALL INDEMNIFY THE OWNER AGAINST ANY ACCIDENTS AND ANY LOSSES THEREFROM AND SHALL REPAIR AND RECTIFY THEM AT HIS
- 15. OWN COST AND TIME.

  ANY DEPARTURES/DEVIATIONS DESIRED FROM THE DESIGN OR SPECIFICATIONS, OR SOLUTIONS TO ANY PROBLEMS ENCOUNTERED, SHALL BE GOT APPROVED FROM THE
- 17. 16. ENGINEER PRIOR TO IMPLEMENTATION. UNAPPROVED DEPARTURES/DEVIATIONS MAY LEAD TO REJECTION/REPLACEMENT OF THE ENTIRE WORK AT THE CONTRACTOR'S COST. THE CONTRACTOR SHALL PREPARE AND SUBMIT SHOP DRAWINGS AND BAR BENDING SCHEDULES. THE ENGINEER'S APPROVAL SHALL NOT RELIEVE THE APPROVAL BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE ACCURACY OF SHOP DRAWINGS AND BAR BENDING SCHEDULES FOR ENGINEER'S APPROVAL AND OBTAIN HIS CONTRACTOR FROM HIS RESPONSIBILITY.
- The allowable bearing capacity of soil should be 1tsf.

STRUCTURAL ELEMENT

COVER (INCHES)

Ŋ

**FOOTINGS** 

### N SHORING AND BRACING

- SHORE & BRACE ALL PARTS OF THE STRUCTURE DURING CONSTRUCTION, TO THE EXTENT NECESSARY TO ENSURE COMPLETE SAFETY, STRENGTH & SERVICEABILITY OF ALL STRUCTURAL ELEMENTS UNDER ALL CONDITIONS OF LOADS WHICH MAY OCCUR DURING CONSTRUCTION. SUCH SHORING & BRACING IS THE CONTRACTOR'S SOLE RESPONSIBILITY AND IS NOT SHOWN ON STRUCTURAL DRAWINGS OR SPECIFIED IN THE PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY AND STABILITY OF THE SLOPES AND SHALL PROVIDE SHORING AND BRACING DURING EXCAVATION AND CONSTRUCTION, WHEREVER AND WHENEVER REQUIRED.

  SEQUENCE OF REMOVAL OF FORMWORK SHALL BE APPROVED BY THE ENGINEER. AT LEAST ONE LOWER FLOOR SHALL REMAIN PROPPED UNTILL THE UPPER FLOOR IS CAST

WALLS

SLABS

3/4"

3/4"

11/2"

COLUMNS

### ω REINFORCED CONCRETE

### REINFORCING STEEL

- 1. ALL REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING STRUCTURAL DESIGN IS BASED ON THE BUILDING CODE REQUIREMENTS FOR REINFORCED ASTM-A615 GRADE 60 HAVING A MINIMUM YIELD STRENGTH OF CONCRETE OF AMERICAN CONCRETE INSTITUTE (ACI 318).

  ALL STRUCTURAL DESIGN IS BASED ON THE BUILDING CODE REQUIREMENTS FOR REINFORCING STEAL BASTM A615, ALL STRUCTURAL CONCRETE SHALL CONFORM TO AMERICAN CONCRETE INSTITUTE (ACI)GRADE 60 HAVING MINIMUM YIELD STRENGTH OF 60,000 PSI.
- REQUIREMENTS
- (RETESTS SHALL NOT EXCEED THIS VALUE BY MORE THAN NO CONCRETING SHALL BE CARRIED OUT UNTIL PERMISSION IS GIVEN IN WRITING OR 3. THE RATIO OF THE ACTUAL ULTIMATE TENSILE STRENGTH APPROVED BY STRUCTURE ENGINEER.

  ALL CONCRETE SHALL BE TESTED IN CACCORDANCE WITH ASTM STANDARDS C31, C39, C176CTUAL TENSILE YIELD STRENGTH IS NOT LESS THAN 1.25

  ALS WARTTEN IN SPECIFICATIONS AND THE MINIMIM CYLINDER CRUSHING STRENGTH OF CONCRETE MIX TO BE DESIGNED ON THE BASIS OF ACI 211 OR EQUIVALENT. TRIAL

  2. THE ACTUAL YIELD STRENGTH BASED ON MILL TESTS DOES N
  STRENGTH RESULTS TO BE SUBMITTED BY THE CONTRACTOR FOR REVIEW AND APPROVÆXCEED THE SPECIFIED STRENGTH BY MORE THAN 18,000 PSI 2. THE ACTUAL YIELD STRENGTH BASED ON MILL TESTS DOES NOT THIS VALUE BY MORE THAN AN IMATE TENSILE STRENGTH TO THE
- & AS WRITTEN IN SPECIFICATIONS AND THE MINIMUM CYLINDER CRUSHING STRENGTH QF CLEAR COVER TO REINFORCEN CONCRETE AT 28 DAYS SHALL BE AS FOLLOWS. TESTING OF CLASS D & E CONCRETE SHALL L-GREATER CLEAR SPAN, db-DIAN BE PERFORMED IF SO SHAHEED CHAWK EXACT, NEAR ALFALAH FURNITURE LOWER L-GREATER CLEAR SPAN, db-DIAN L-GREATER CLEAR SPAN, db-DIAMETER OF BAR,d-EFFECTIVE DEPTH MENT SHALL BE: (inches)

DIRECTED BY THE ENGINEER.

THE FIRST HOOP SHALL BE LOCATED NOT MORE THAN 2" FROM THE

WHERE:

FACE OF THE SUPPORTING MEMBER.

m D C & A	CLASS
4000 3000 2400 1200 800	MIN. CYLINDER CRUSHING STRENGTH AT 28 DAYS (psi).

CLASS OF CONCRETE FOR DIFFERENT COMPONENTS OF THE STRUCTURE SHALL BE AS FOLLOWS UNLESS NOTED OTHER WISE:

6.

COMPONENT CONCRETE CLASS	CLASS
COLUMNS	CLASS 'A'
SLABS, BEAMS,FOUNDATION	
RCC WALLS	CLASS 'B'
PCC STEPS	CLASS 'D'
LEAN / BLINDING CONCRETE	. CLASS 'E'

ORDINARY PORTLAND CEMENT SHALL BE USED FOR ALL CONCRETE WORKS.
AN INTEGRAL WATER PROOFING AGENT SHALL BE USED IN CONCRETE THAT IS
CONSTANTLY OR INTERMITTENTLY IN CONTACT WITH WATER AS PER MANUFACTURER'S
RECOMMENDATIONS (GENCON GENPRUF RMC OR PENETRON ADMIX OR EQUIVALENT).
ALL DETAILING SHALL BE DONE AS PER ACI STANDARDS ACI-315, ACI-318 & ACI-350R.

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9

### CONCRETE CONSTRUCTION

PROVIDE 135° HOOK IN ADJACENT STIRRUPS ON ALTERNATE SIDES.

9 (INCHES) FROM BOTH SIDES OF OPENING

9 8

CONSTRUCTION.
LINTELS ARE EXTENDED AT

ALL REINFORCING STEEL SHALL BE ACCURATELY LOCATED IN THE FORMS AND HELD FIRMLY IN PLACE BEFORE & DURING THE PLACEMENT OF CONCRETE, BY MEANS OF W

OF WIRE

AND SUPPORTS ADEQUATE TO PREVENT DISPLACEMENT DURING THE COURSE OF

- ALL STRUCTURAL SURFACES, AGAINST WHICH EARTH IS TO BE FILLED THE RATE OF 0.2 lbs/ft. SHALL BE COATED WITH TWO COATS OF HOT BITUMEN OF 10/20 GRADE AT
- PROVIDE POLYTHENE OF PLINTH BEAM/DPC OR EXTERIOR WALLS. SHEET OVER TWO COATS OF HOT BITUMEN AT TOP
- BEFORE CASTING OF ANY STRUCTURAL MEMBER, THE CONTRACTOR SHALL ENSURE THAT ALL EMBEDDED ITEMS FOR ELECTRICAL, MECHANICAL, HVAC, PLUMBING, STRUCTURAL STEEL AND OTHER WORKS ARE PROPERLY LOCATED AND FIRMLY SECURED IN PLACE.

  DURING CONSTRUCTION, STACKING OF CONSTRUCTION MATERIALS, BLOCKS, etc. SHOULD BE AVOIDED ON SLAB PANELS.

#### <u>ი</u> **BRICK WORK**

- ALL BRICK WORK SHALL CONFORM TO SPECIFICATIONS GIVEN IN THE CONTRACT DOCUMENT.
  ALL BRICK SHALL BE SOUND, HARD, WELL BURNT AND OF UNIFORM SIZE, COLOUR AND TEXTURE.
  DIMENSIONAL VARIATION IN SIZES SHALL NOT EXCEED 1/18". BRICKS SHOULD BE IN ACCORDANCE
  WITH SPECIFICATIONS AND SHOULD CONFIRM TO ASTM C62.
  ALL BRICK WORK SHALL BE ERECTED PLUMB AND TRUE TO LINE AND LEVEL. THE MAXIMUM
  VARIATION IN ANY STOREY HEIGHT OR ANY LENGTH OF WALL SHALL BE 1/8" IN 10-0".
  MORTAR USED IN MASONRY CONSTRUCTION SHALL HAVE AN ULTIMATE COMPRESSIVE STRENGTH OF
  NOT LESS THAN 12 MPa (1800Psi) AND SHALL CONFORM TO ASTM C270.
  COMPRESSIVE STRENGTH OF BRICK MASONRY AVERAGE OF 5 UNITS AT 28 DAYS SHALL NOT BE LESS
  THAN AS SPECIFIED IN SPECIFICATION AND SHALL CONFORM TO RELEVANT ASTM STANDARD.
  ALL DESIGN, DETAILING, MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH RELEVANT
  ACI, ASTM, AND UBC CODES AND STANDARDS.
  - ω

- BRICK SHALL BE LAID "FROG" UPWARD WITH MORTAR JOINT AND IN ENGLISH FLEMISH BOND OR AS SHAHEED CHAWK EXACT, NEAR ALFALAH FURNITURE LOWER DIRECTED BY THE ENGINEER. BRICKS SHOULD BE SOAKED WITH WATER PROPERLY BEFORE USE.
  VERTICAL JOINTS SHOULD BE STAGGERED.

- ILL BE ANCHORED TO STRUCTURAL FRAME WORK AS INDICATED ON THE

## PLANNERS CONSULTANTS ENGINEERS (PCE)

CONSULTANTS:

97-K Industrial Estate, Hayatabad Peshawar Pakistan Ph: 0092-91-5816017, 5891661-4, Fax: 5891845

SCHOOL NAME

DISTRICT ATTOCK REHAB WORKS AT GGES JASSIAN

				of Revision
Approved By	Checked By	Designed by	Dailean Br	Prepared By
		Engr. HUMZA AHMAD	STRUCTURE ENGINEER:	FARID KHAN KHAN HAIDER
DATE SEP 2023		TITLE:	FOR CONSTI	PROJECT:
SCALE		GENERAL NOTES	FOR CONSTRUCTION/REHABILITATION OF SITES	PREPARATION OF DESIGN DRAWINGS & ROOS
DRG.NO.		<b>,</b>	BILITATION OF S	DR AWINGS & BO
S-01			SITES	Š





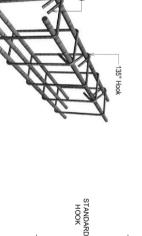


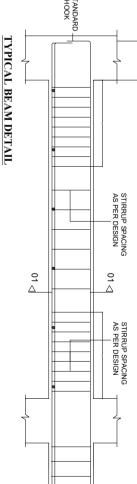
CLIENT:

### **CONSTRUCTION JOINTS**

- PRIOR APPROVAL OF THE ENGINEER. THEY SHALL BE LOCATED NEAR THE MIDDLE OF THE SPANS OF SLAB & BEAMS. JOINTS IN WALLS & COLUMNS SHALL BE AT THE UNDER-SIDE OF FLOORS, SLABS OR BEAMS AND AT THE JOINTS, NOT SHOWN ON THE DRAWING, SHALL BE SO MADE AND LOCATED AS TO LEAST IMPAIR THE STRENGTH OF THE STRUCTURE AND SHALL NEED
- 5
- ယ TOP OF FOOTINGS OR FLOOR SLABS.
  JOINTS SHALL BE PERPENDICULAR TO MAIN REINFORCEMENT. ALL
  REINFORCING STEEL SHALL BE CONTINUED ACROSS THE JOINTS.
  JOINTS IN BASE SLAB & WALLS AND ROOF SLAB, IN ADDITION TO THOSE
  SHOWN ON THE DRAWINGS SHALL BE BORNE BY THE CONTRACTOR. BEAMS & BRACKETS SHALL BE PLACED AT THE SAME TIME AS SLABS.







SEISMIC HOOK DETAILS

BEAM

STANDARD HOOK

DEVELOPMENT LENGHT
WITH STANDARD HOOK

DEVELOPMENT LENGTH IN TENSIONACI 21.5.4.1)

<u>-</u>	3/4"	1/2"	3/8"		BAR
48	30	24	18	STRAIGHT BARS	DEVELOPI fc' = 4,00
19	14.5	9.5	7.5	WITH STANDARD HOOK	DEVELOPMENT LENGTH (INCHES) fc' = 4,000 psi fy = 60,000 psi

GTH	
(ACI 21.3	
(ACI 21.3.2.4, Class B Splice	
B Splice	

18	48	1	
15	30	3/4"	
9	20	1/2"	
	ō	Q	
•	15	3/8"	
COMPRESSION	IENOION		
	TENCION	5	$\sim$
		DΙΑ	
fc' = 3,000 psi fy = 40,000 psi	fc' = 3,00	BAR	
MINIMUM SPLICE LAP LENGTH (INCHES)	MINIMUM SP		

LAP SPLICE IF REQUIRED THE MAXIMUM STIRRUPS SPACING IS 4 INCH

SPLICE LENG

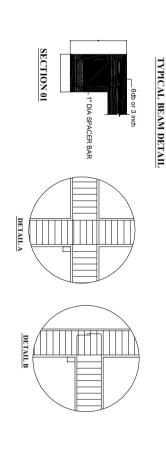
<b>-</b>	3/4"	1/2"	3/8"	5	BAR
48	30	20	15	TENSION	MINIMUM SPI fc' = 3,00
18	15	9	-	COMPRESSION	MINIMUM SPLICE LAP LENGTH (INCHES) fc' = 3,000 psi fy = 40,000 psi

DEVELOPMENT LENGTH IN TENSION (ACI 21.5.4.1)

1	3/4"	5/8"	1/2"		BAR
55	34	30	22	STRAIGHT BARS	DEVELOP! fc' = 3,00
22"	17"	14"	11"	WITH STANDARD HOOK	DEVELOPMENT LENGTH (INCHES) fc' = 3,000 psi fy = $60,000$ psi

### SPLICE LENGTH (ACI 21.3.2.4, Class B Splice)

				×	)	
<b>-</b>	3/4"	5/8"	1/2"		BAR	OFLICE
1	ı	•	25	SLAB	MINIMUM SP fc' = 3,000	OFFICE FENGIO
70	55	44	35	BEAM / COLUMN	MINIMUM SPLICE LAP LENGTH (INCHES) fc' = 3,000 psi fy = 60,000 psi	( =



TYPICAL COLUMN DETAIL

- BEAM





CLIENT:

CONSULTANTS:

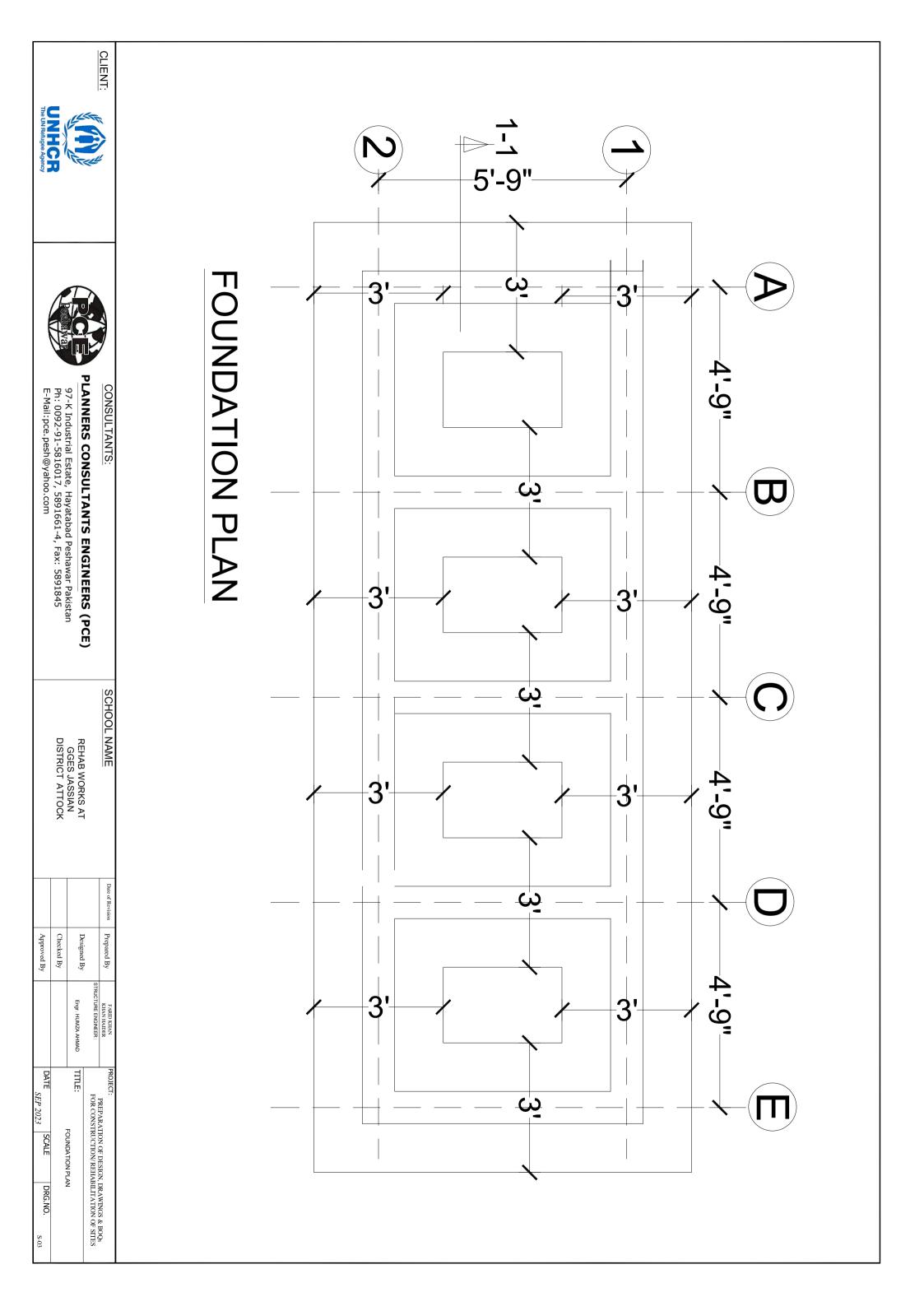
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Approved By	Checked By	Designed by	D	Prepared By	;
		Engr. HUMZA AHMAD	STRUCTURE ENGINEER:	KHAN HAIDER	FARIDKHAN
DATE SEP 2023 SCALE		TITLE: GENERAL NOTES	FOR CONSTRUCTION/ REHABILITATION OF SITES	PREPARATION OF DESIGN DRAWINGS & ROOS	
DRG.NO. S-02		,,	BILITATION OF SITES	DR AWINGS & ROOS	

















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SCHOOL NAME

REHAB WORKS AT GGES JASSIAN DISTRICT ATTOCK

Approved By	Checked By	Designed By		r rebuten 29
		Engr. HUMZA AHMAD	STRUCTURE ENGINEER:	KHAN HAIDER
DATE SEP 2023 SCALE		TITLE:	FOR CONSTRUCTION/ REHABILITATION OF SITES	PREPARATION OF DESIGN DRAWINGS & ROOS
DRG.NO. S-04	-	_	BILITATION OF SITES	DRAWINGS & BOOS

S-04

SEC.
SEC IO
EC IIO
I I

(-5' BELOW )

#4@8"c/c -#4@12"c/c

F.F.L

2" Thick DPC

**BRICK WALL** 

9" TH.

(1:2:4)

**- 1'-2"** -

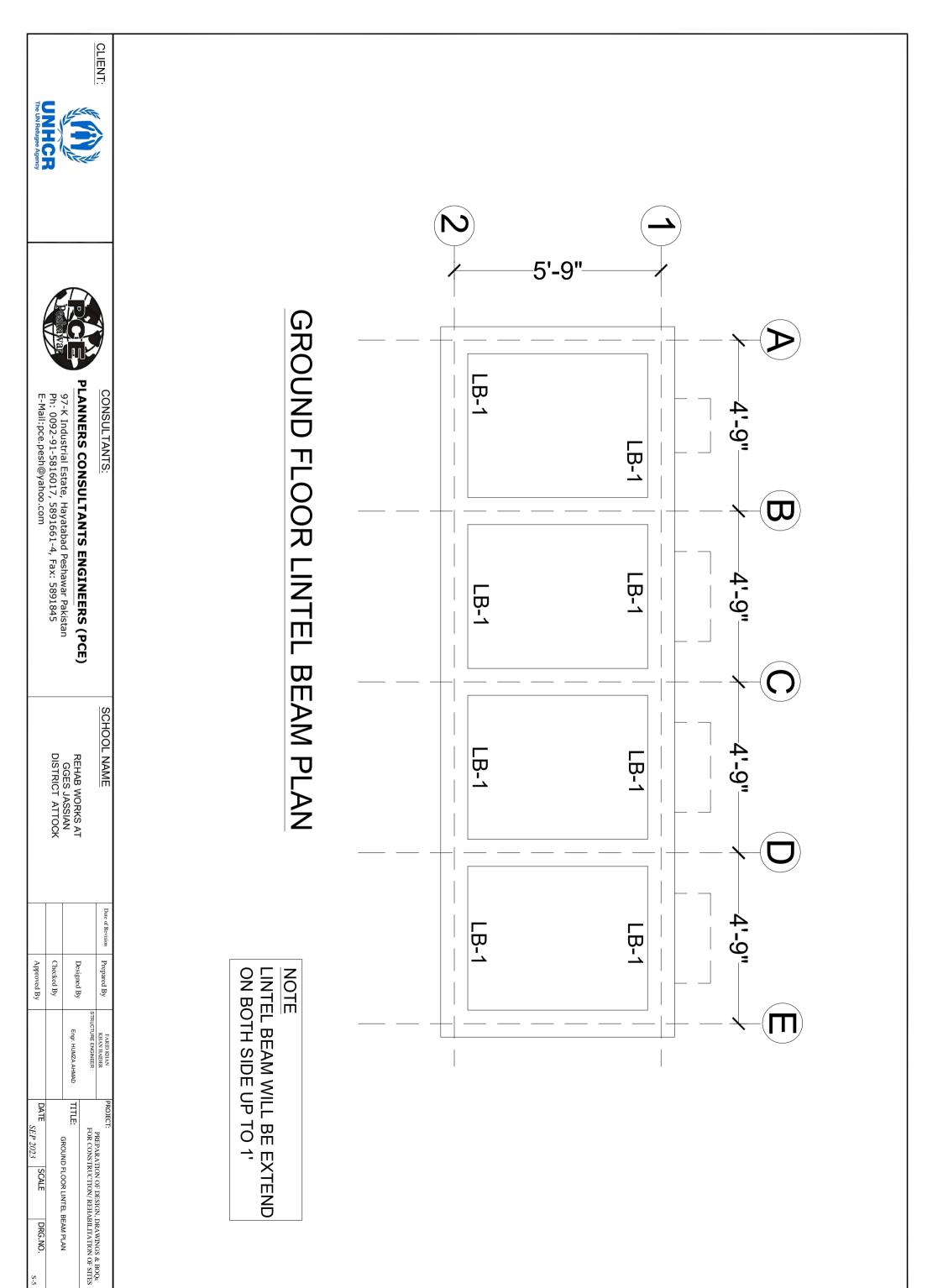
<del>√</del> 5"-

P.C.C

(1:4:8)

3<mark>-0</mark>

2'-6"











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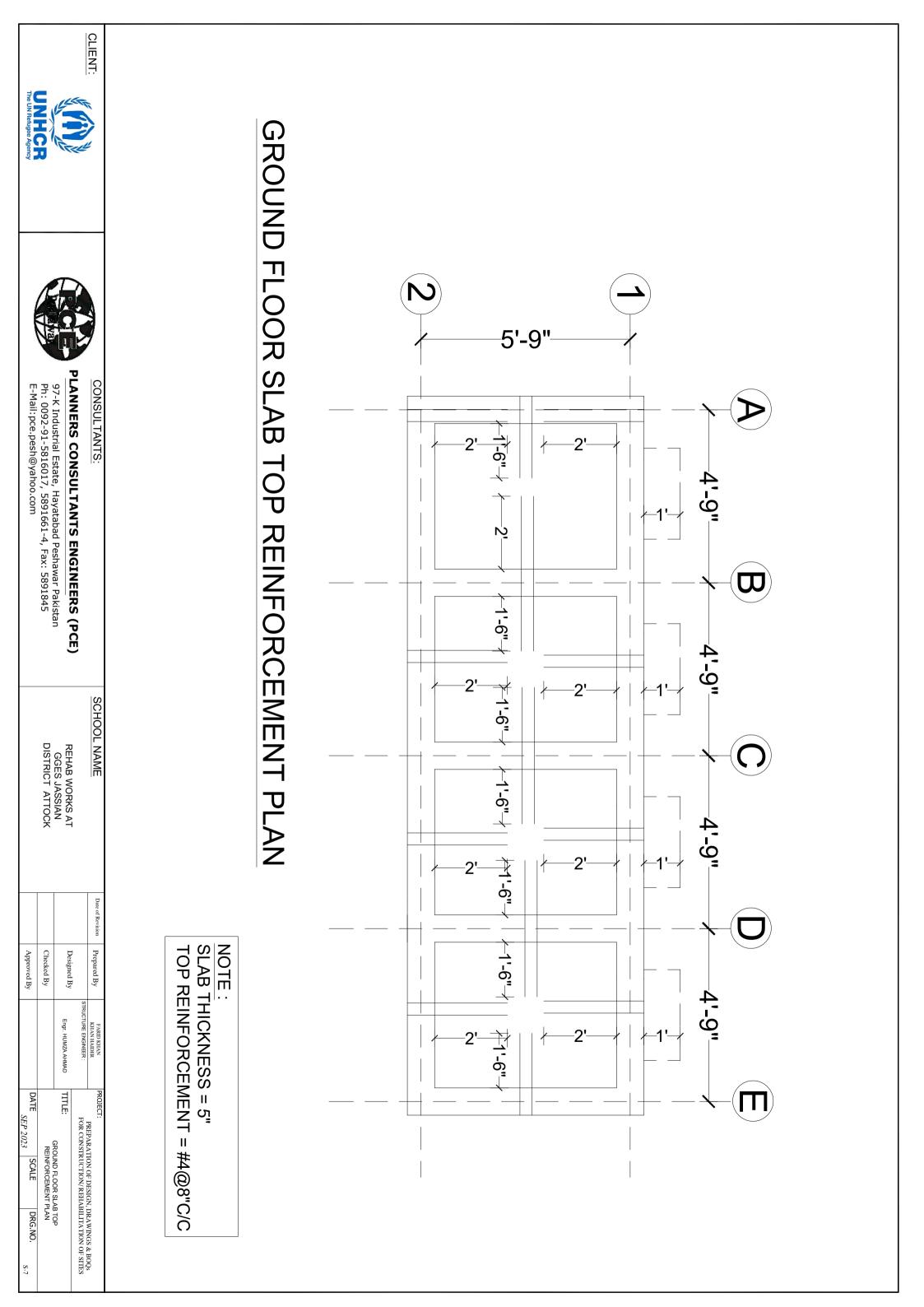
REHAB WORKS AT GGES JASSIAN DISTRICT ATTOCK

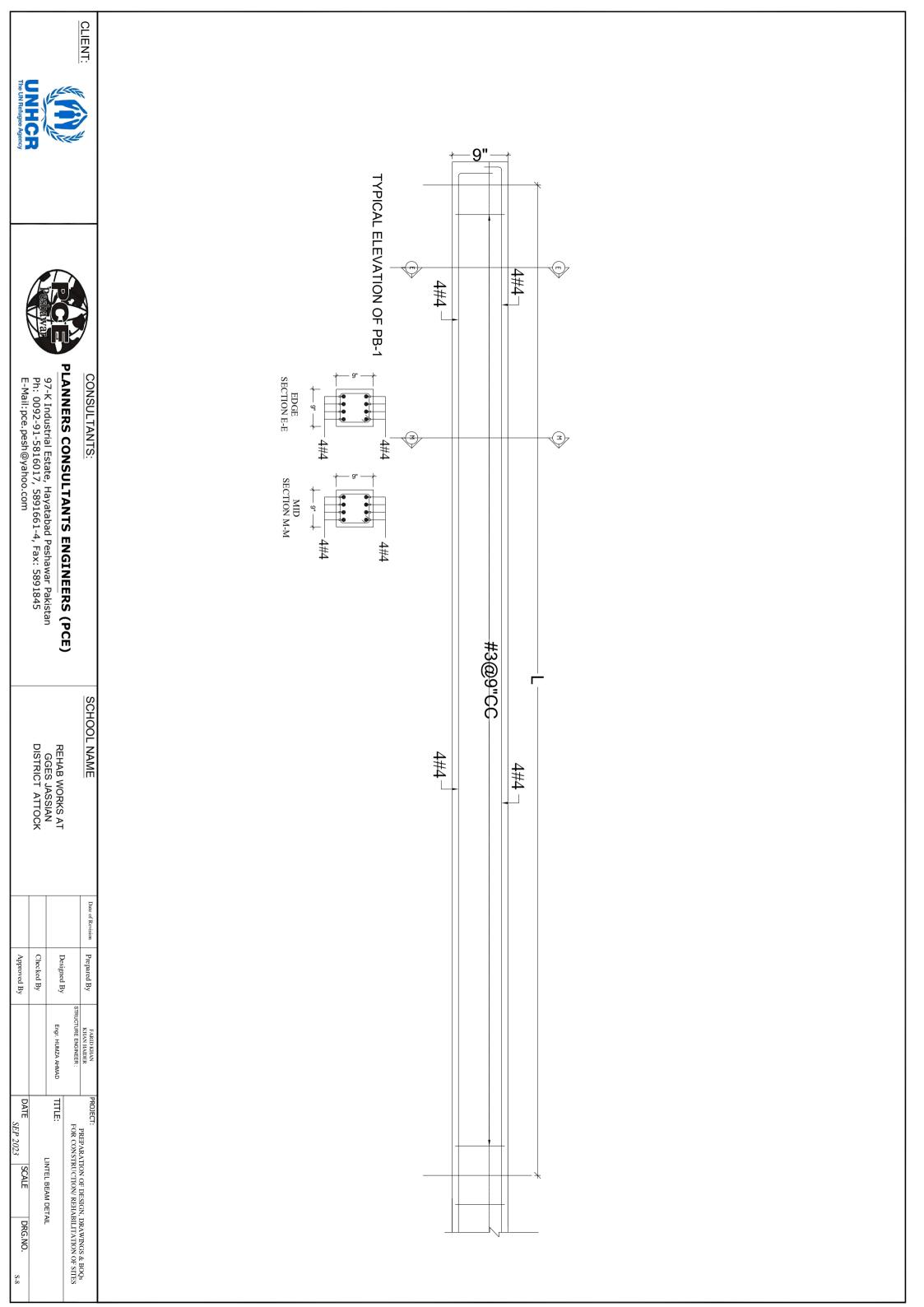
Prepared By Approved By Checked By Designed By Engr. HUMZA AHMAD TITLE: PREPARATION OF DESIGN, DRAWINGS & BOQS FOR CONSTRUCTION/ REHABILITATION OF SITES GROUND FLOOR SLAB BOTTOM REINFORCEMENT PLAN

NOTE: SLAB THICKNESS = 5"

GROUND FLOOR SLAB BOTTOM REINFORCEMENT PLAN	5'-9" #3@8"C/C BOTTOM	A 4'-9" B 4'-9" C
REINFORCEMENT PLAN	BOLLOW	4'-9" 4'-9" ————————————————————————————————————

D'\C'\C #3@8"C\C







SOLATING VALVES SHALL BE PROVIDED TO SEPARATE THE INDIVIDUAL TOILETS, GATE VALVES SHALL BE PROVIDED ALL UNDER GROUND SEWAGE PIPES SHALL HAVE A MINIMUM SLOPE OF 1% TO/ FROM WATER HEATERS

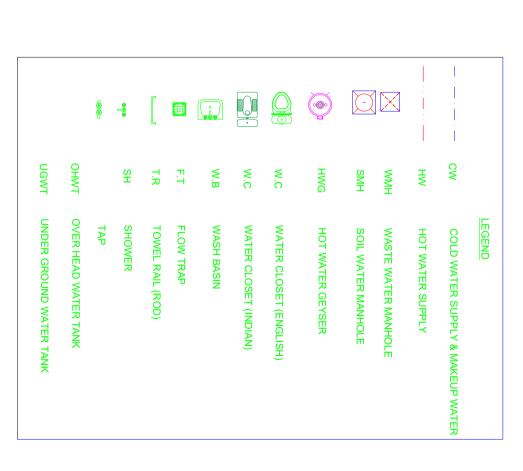
PROVIDE ISOLATING VALVE ON ALL MAIN AND BRANCH LINES FOR MAINTENANCE. EXACT LOCATION OF WATER PIPE WORK SHALL BE DETERMINED ON SITE

IN PLUMBING WATER SUPPLY SYSTEM THE PIPE DIAMETER INDICATED ARE NET FLOW  $\,$  AREAS (i.e. INTERNAL DIAMETERS) AND THE CONTRACTOR

CONTRACTOR TO PROVIDE OVERFLOW, TEST PIPE, WARNING LEVEL AND DRAIN CONNECTION. SHALL USE ADEQUATE PIPES SIZE, SPECIALLY WHEN USING PLASTIC PIPES TO ACCOUNT FOR PIPE WALL THICKNESS

PPR PIPE INTERNAL CLEAR DIA. ALL HOT WATER PIPES SHALL BE INSULATED ALL EXPOSED COLD AND HOT WATER PIPING SHALL BE PPR. FOR COLD WATER SUPPLY PPR PN-20 PIPES SHALL BE USED ALL SUI GAS PIPE SHALL BE G.I PIPE BEST QUALITY ALL HOT WATER PIPES SHALL BE PPR PN-20.

	L E G E N D FOR PLUMBING
_	MAIN HOLE
2	2" Ø u.P.V.C VENT PIPE ABOVE







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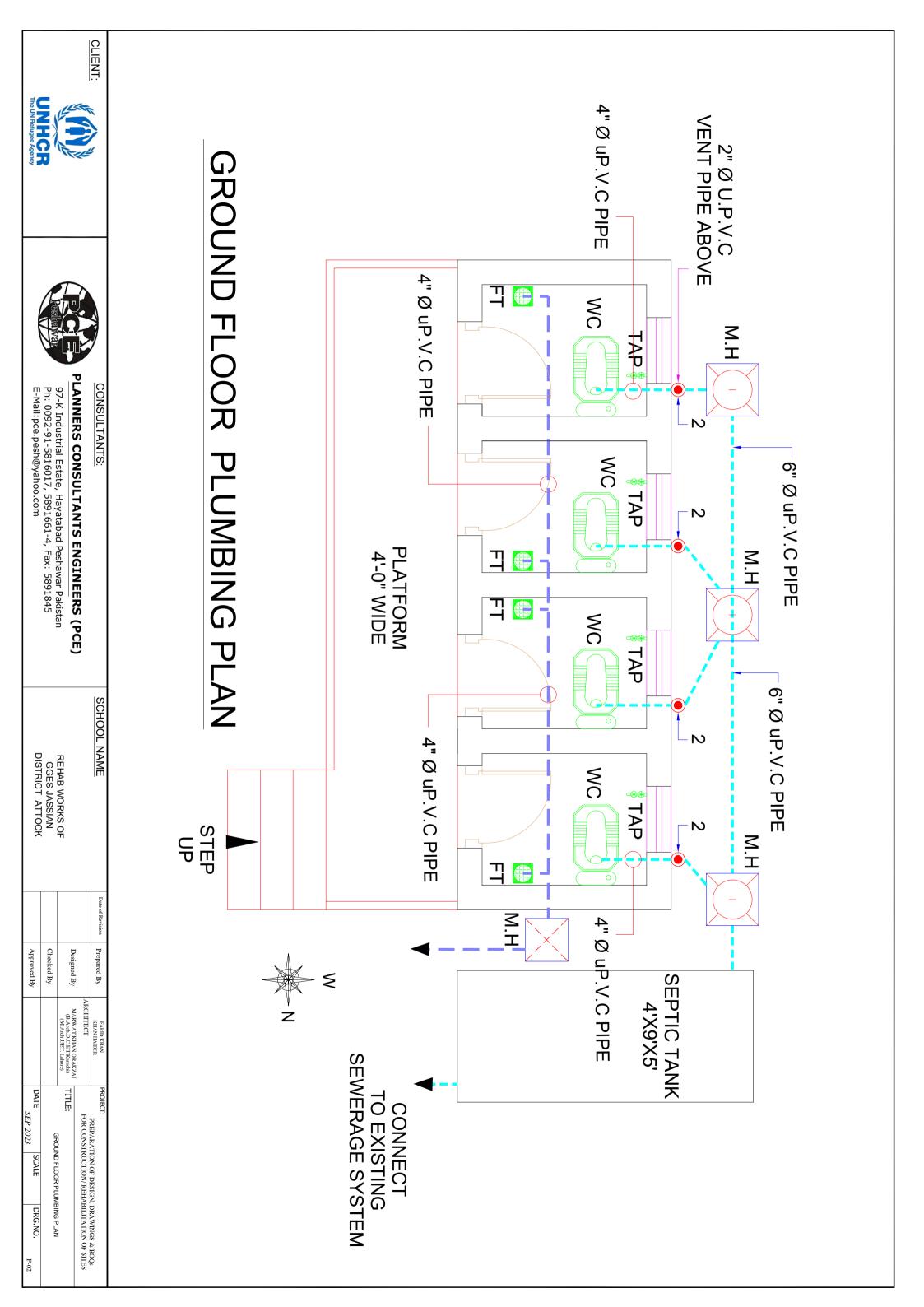
REHAB WORKS OF GGES JASSIAN DISTRICT ATTOCK

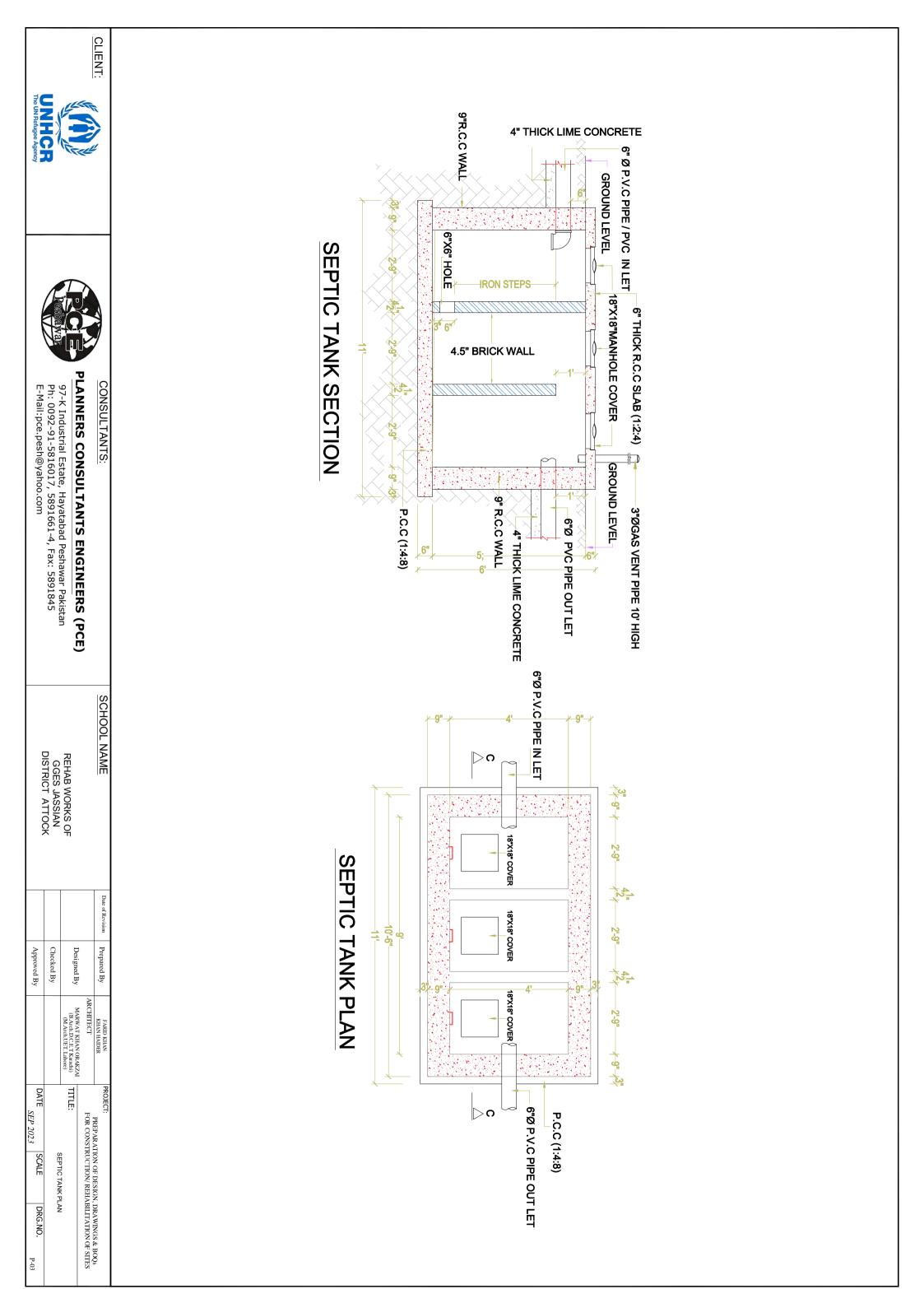
SCHOOL NAME

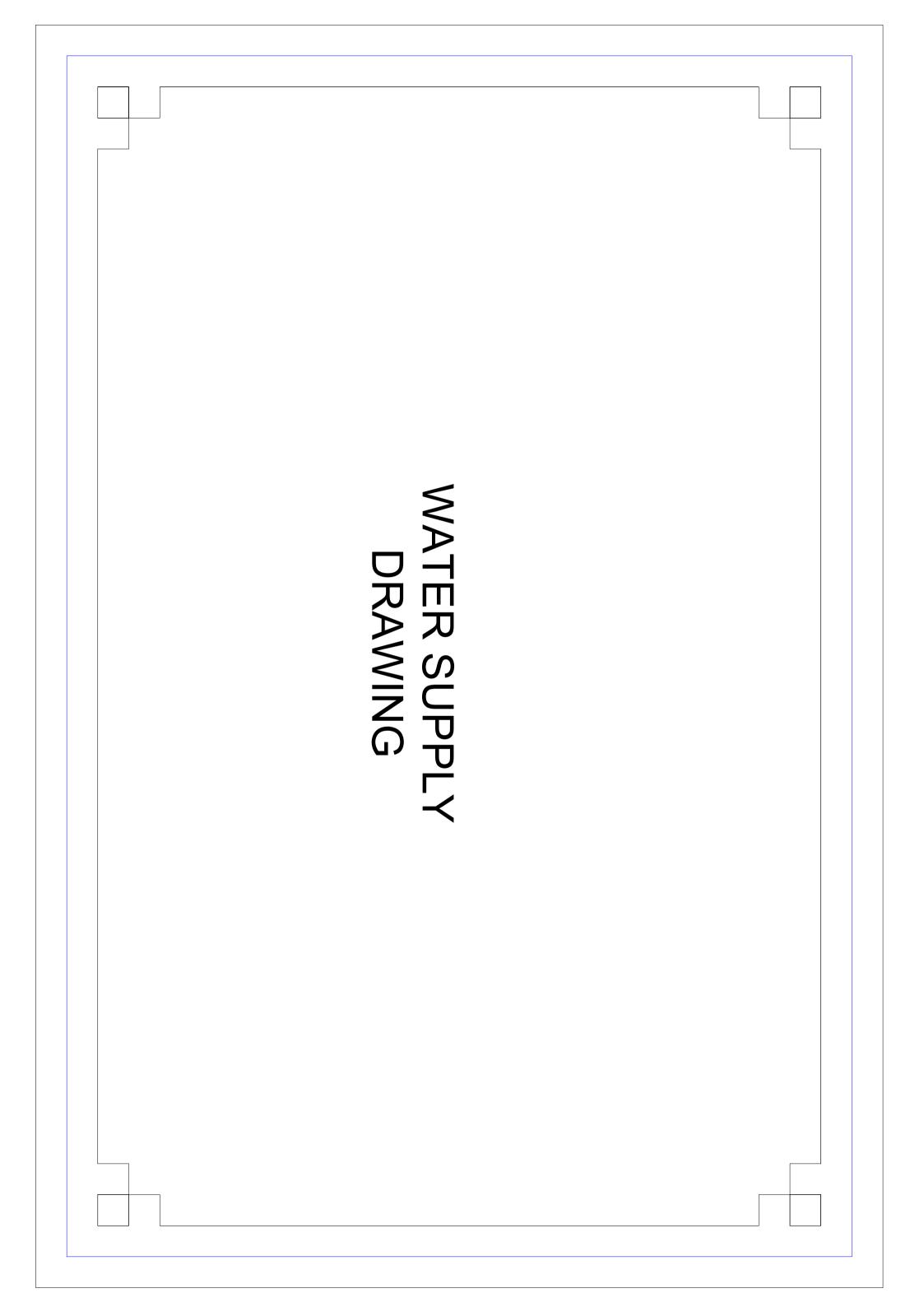
Prepared B Checked By Approved Designed By MARWAT KHAN ORAKZAI
(B.Arch.D.C.E.T Karachi)
(M.Arch.UET. Lahore) FARID KHAN KHAN HAIDER TITLE:

PREPARATION OF DESIGN, DRAWINGS & BOQS FOR CONSTRUCTION/ REHABILITATION OF SITES SCALE GENERAL NOTES DRG.NO.

P-01

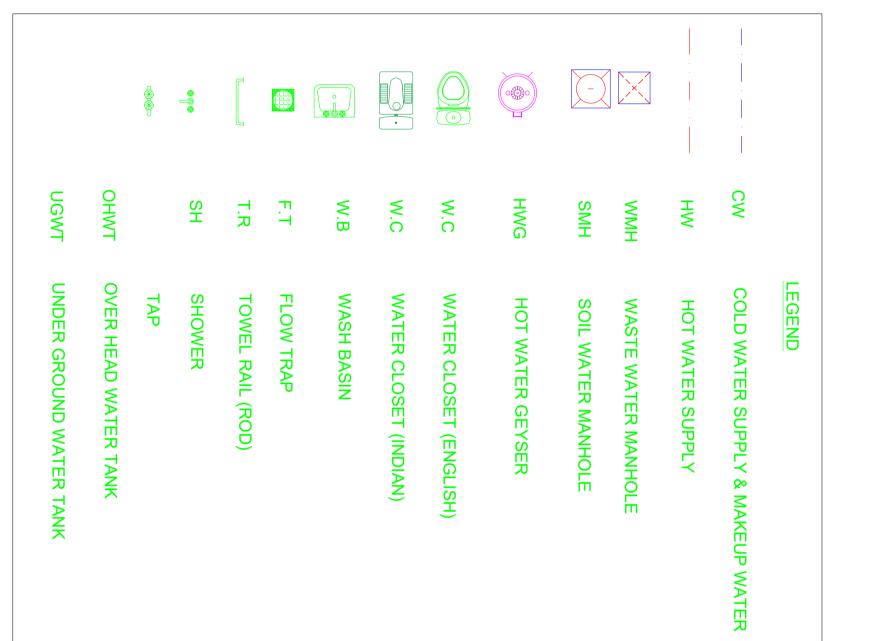












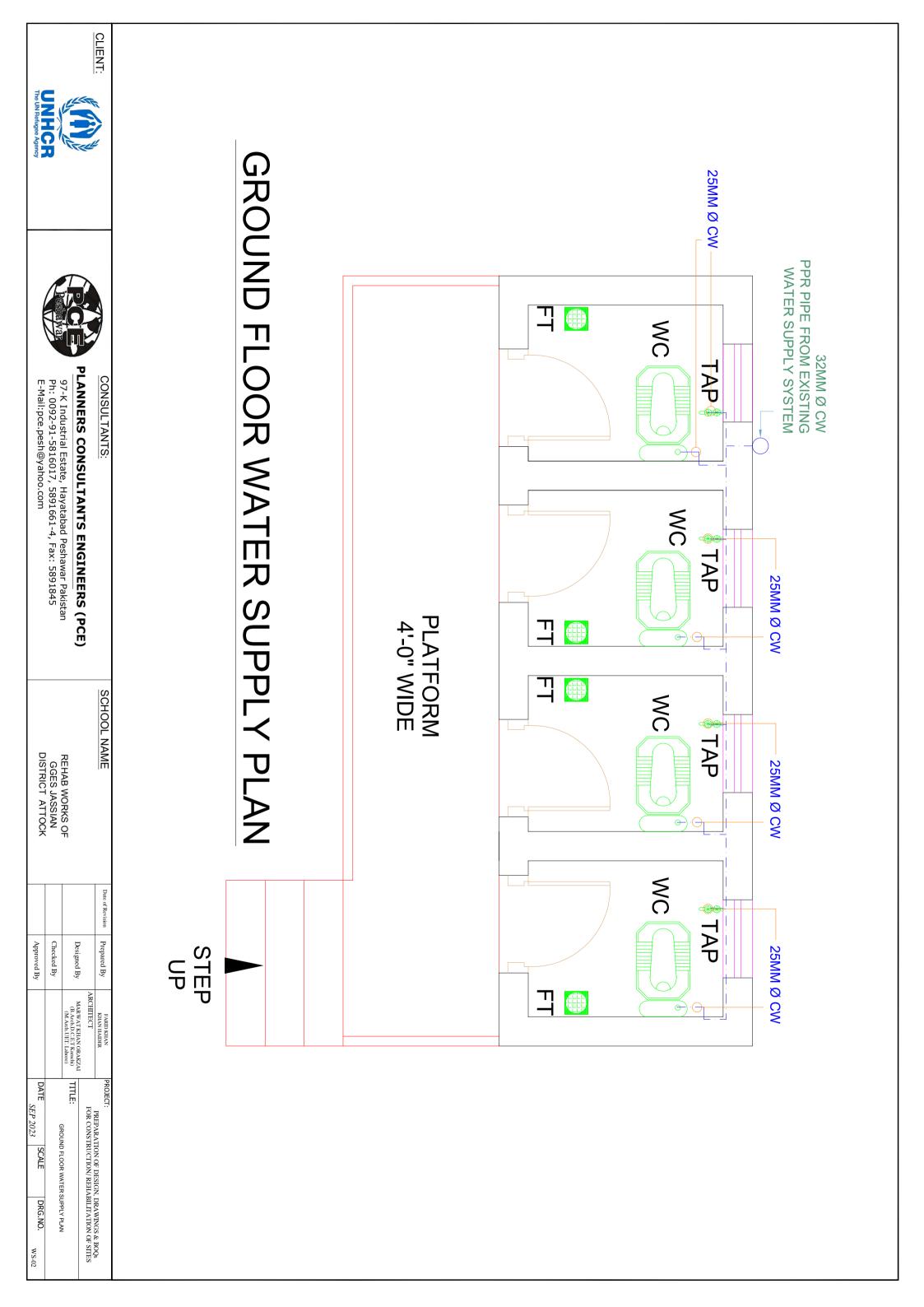
PLANNERS CONSULTANTS ENGINEERS (PCE)	CONSULTANTS:
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REHAB WORKS OF GGES JASSIAN DISTRICT ATTOCK

Prepared By Approved By Checked By Designed By FARID KHAN
KHAN HAIDER
ARCHITECT
MARWAIT KHAN ORAKZAI
(BAych,D.CET Karachi)
(MArch,UET: Lahore) TITLE: SEP 2023 PREPARATION OF DESIGN, DRAWINGS & BOQS FOR CONSTRUCTION/ REHABILITATION OF SITES DRG.NO.

WS-01



# **ELECTRIFICATION DRAWINGS** REHAB WORKS AT GGES JASSIAN DISTRICT ATTOCK 유



#### ယ 5 N LEGEND APPROVED MANUFACTURE LIST **GENERAL NOTES GROUND FLOOR DIMENSION PLAN GROUND FLOOR PLAN ELECTRICAL DRAWINGS** E-02 E-05 E-04 E-03 E-01



CONSULTANTS:

SCHOOL NAME

REHAB WORKS OF GGES JASSIAN DISTRICT ATTOCK

Approved By Designed By Prepared By Checked By Engr. HAMMAD AHMAD SEP 2023 PREPARATION OF DESIGN, DRAWINGS & BOQS FOR CONSTRUCTION/ REHABILITATION OF SITES LIST OF DRAWINGS

DRG.NO.

### **ELECTRICAL SYSTEMS**

FOLLOWING NOTES SHELL IN GENERAL APPLY TO ALL ELECTRICAL DRAWINGS. THE INSTRUCTIONS IN THESE NOTES SHALL BE FOLLOWED UNLESS STATED OTHERWISE.

- 1. THESE NOTES SHALL BE APPLICABLE TO THE ENTIRE ELECTRICAL WORKS THE SITE CONDITIONS NECESSITATY ALTERATION OR DEVIATION OF THE DIRECTIONS OF THE ENGINEER SHALL BE OBSERVED AS FINAL INSTRUCTIONS.
- DIMENSIONS / MLASURLMENTS IS GIVEN IN LAYOUT AND DETAILED DRAWINGS ARE APPROXIMATE THE CONTRACTOR SHALL BE RESPONSIBLE TO CALCULATE THE ACTUAL DIMENSIONS ACCORDING TO STRUCTURAL AND ARCHITECTURAL DRAWINGS.
- THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS WITH ALL RELEVANT DETAILS TO THE ENGINEER COMMENCEMENT OF THAT WORK. FOR APPROVAL ACCORDING TO THE GENERAL CONDITION OF CONTRACT WELL IN TIME BEFORE
- 4.PROPER CO-ORDINATION OF ELECTRICAL WORKS WITH OTHER SERVICES SHALL BE CARRIED OUT AT SITE.
- 5.ALL NON CURRENT CARRYING PARTS I.e OUTER CASINGS OF EQUIPMENT SUCH AS H.T & IT PANELS DISTRIBUTION BOARDS. CABLE TRAYS, AUXILIARY CONSTRUCTION FOR EQUIPMENT ETC.
  SHALL BE CONNECTED TO THE GROUND-EARTHING SYSTEM AT REQUIRED

SINGLE CORE COPPER CONDUCTOR PVC CABLE NUMBER OF POINTS WITH SPECIFIED SIZES OF CONDUCTORS.WATER PIPES ALONG ELECTRICAL LINE SHALL BE BONDED TO THE EARTHING SYSTEM WITH TO 10 MM sq

- 6.ELECTRICAL POINTS FOR EQUIPMENT SHALL BE INSTALLED IN CO-ORDINATION WITH THE RELEVANT DRAWINGS OF OTHER SERVICES.SUCH AS COMMUNICATION SYSTEMS,HVAC,PLUMBING ETC.THE LOCATION ON ELECTRICAL DRAWINGS IS ONLY
- ARRANGMENT OF ELECTRICAL EQUIPMENTS ON ELECTRICAL DRAWINGS ARE TENTATIVE EXACT ARRANGMENT OF EQUIPMENT SHALL BE VADE IN VIEW OF ITS PHYSICAL DIMENTIONS AND EASY OF MAINTENANCE.
- 8.LOAD ON ALL PHASES SHELL BE MAXIMUM BALANCED AT THE TIME OF COMMISSIONING STAGE.IT IS RESPNSIBILITY OF CONTRACTOR.
- CONDUIT RUN UNDER FLOOR SHALL HAVE A MINIMUM COVER OF TWO INCHES FROM TOP TO CONDUIT TO FINISH FLOOR LEVEL.
- 10.ALL WIRING SHOULD BE CARRYOUT ACCORDING TO THE PHASES RED, YELLOW, BLUE CABLE COLOUR ARE AS PER PHASE DISTRIBUTION IN BUILDING.
- 11.RUN GREEN OR WHITE SINGLE CORE PVC INSULATED COPPER
  CONDUCTOR CABLE OF SPECIFIED SIZE AS PROTECTIVE EARTH CONDUCTOR (LCC)
  ALL ALONG LIGHT AND POWER WIRING WHEREVER THE SIZE IS NOT SPECIFIED THE
  FOLLOWING ORILERIA SHELL BE OBSERVED TO DETERMINE MINIMUM CROSS
  SECTIONAL AREA OF EARTH CONTINUITY CONDUCTOR (ECC) IN RELATION TO THE -ECC 2 PHASE CONDUCTOR OF SAVE SIZE FOR UPTO AND INCLUDING16 MMSQ CABLES -FOR CABLES OF 50 MM SQ AND ABOVE SIZES IS HALF SIZE OF PHASE CONDUCTOR AREA OFFICE PHASE CONDUCTORS RUN SEPARATE ECC FOR EACH CIRCUIT MINIMUM SIZE ECC IS 70MM SQ.
- 12.ALL WIRING FOR CONTROLS SHELL BE CARRIED OUT WITH 1 CORE FLEXIBLE PVC CABLES OF SPECIFIED VOLTAGE GRADE AND SIZES.
- 13.THE MAXIMUM CAPACITY OF PVC CONDUITS FOR SIMAL TONCOUS DRAWING OF PVC INSULATED CABLES SHALL BE DETERMINED AS PIN BS 4607.THE FOLLOWING TABLE SHALL BE USED TO DETERMINE THE MAXIMUM NUMBER OF CABLES

NUMBER OF CABLE IN (CONDUIT)		SIZE OF CABLE	m
NEW STANDER SIZE MM sqr	25 MM (1")	20 MM ( <sup>3</sup> / <sub>4</sub> ")	15 MM (ਵੁੰ")
1.5 MM sq	13	8	5
2.5 MM sq	10	6	4
4 MM sq	7	4	3
6 MM sq	5	3	2
10 MM sq	ω	2	<u> </u>

- 14.NORMAL & EMERGENCY CIRCUITS SHALL BE RUN IN SEPARATE CONDUITS.
- 15.THE WIRING SHELL BE CONTINUOUS LOOPING-IN TYPE AND NO JOINT IN WIRES SHELL BE ALLOWED.
- 16.THE WIRING SYSTEM SHELL BE CARRIED OUT ONLY A SYSTEM IS COMPLETELY INSTALLED AND ALL OUTLET FTER THE CONDUIT I BOXES.ETC.ARE FIXED IN POSITION.
- 17.MOUNTING HEIGHTS OF ELECTRICAL FITTINGS WHEN MEASURED FROM FINISHED FLOOR LEVEL (ECC) TO THE BOTTOM OF FITTINGS SHELL BE AS UNDER UNLESS OTHER WISE SHOWN OR INSTRUCTED
- > DIMMER CONTROL UNIT
  > LIGHT CONTROL SWITCH (ONE WAY/TWO WAY)
  > 5 AMP SOCKET OUTLETS IN GENERAL AREAS ٧ 16 AMP TP 5PIN INDUSTRIAL SOCKET OUTLETS IN LABS
  CEILING FAN **DISTRIBUTION BOARD** ON/OFF PUSH BUTTON STATION CONTROL PANEL **EXHAUST FAN** 20 AMP SOCKET OUTLETS IN GENERAL AREAS 16 AMP SOCKET OUTLETS IN KITCHEN (ABOVE COUNT 15 AMP SOCKET OUTLETS IN GENERAL AREAS SWITCH BOAD 48 INCHES
  48 INCHES
  48 INCHES
  48 INCHES
  48 INCHES
  12 INCHES
  12 INCHES
  12 INCHES
  12 INCHES
  12 INCHES
  11 INCHES
  11 INCHES ON SLAB 90 INCHES 48 INCHES REF TO ARCH DRAWING



CLIENT:



E-Mail:pce.pesh@yahoo.com

PLANNERS CONSULTANTS ENGINEERS (PCE)

**GGES JASSIAN DISTRICT** REHAB WORKS OF

SCHOOL NAME

Prepared By Approved By Checked By Designed By Engr. HAMMAD AHMAD FARID KHAN KHAN HAIDER RICAL ENGINEER: DATE TITLE

PREPARATION OF DESIGN, DRAWINGS & BOQS FOR CONSTRUCTION/ REHABILITATION OF SITES

# APPROVED MANUFACTURE LIST

SCHNEIDER, CHINT, LS, ABB	MINIATURE CIRCUIT BREAKER	9
SCHNEIDER, CHINT, LS, ABB	MOULDED CASE CIRCUIT BREAKER	08
SCHNEIDER, ABB, PEL,ELECTRECH	LT SWITCHGEAR	07
PPL	SWITCHES	06
POLO,BETA,POPULAR, GM, ADAMJEE	PVC CONDUIT	05
PAK, GFC, ROYAL, LAHORE FAN	CEILING FAN	04
PHILIPS,PIERLITE,CLIPSAL, OSAKA, FAST	LIGHT FIXTURES	03
PAKISTAN,NEW AGE,FAST, GM, COPPERGAT	POWER CABLE	02
PAKISTAN,NEW AGE,FAST, GM, COPPERGAT	WIRING CABLE	01
BRAND	ITEM OR ACCESSORIES	S NO.





CONSULTANTS:

SCHOOL NAME

Approved

REHAB WORKS OF GGES JASSIAN DISTRICT ATTOCK

•	С			iic of revision Pi
A paracial Di	Checked By	Designed By		Prepared By
		Engr. HAMMAD AHMAD	ELECTRICAL ENGINEER:	KHAN HAIDER
DATE	75	TITLE:	FOR CON	PREDAR
SCALE	APPROVED MANUFACTURE LIST		STRUCTION/ REHA	ATION OF DESIGN
DRG.NO.	ACTORECIST		FOR CONSTRUCTION/REHABILITATION OF SITES	PREPARATION OF DESIGN DRAWINGS & ROOS

SYMBOL	SURFACE MOUNTED DOWN LIGHT WITH	
	SURFACE MOUNTED DOWN LIGHT WITH 17 WATT ENERGY SAVER	CEILING MOUNTED
	TMS 136	SLAB MOUNTED
	56" SWEEP CEILING FAN	SLAB MOUNTED
	SWITCH BOARD	56" FROM FFL
	DISTRIBUTION UNIT	60" FROM FFL
	EXHAUST FAN POINT	





SCHOOL NAME

Approved By Checked By Prepared By Designed By FARID KHAN KHAN HAIDER TRICAL ENGINEER: Engr. HAMMAD AHMAD TITLE: DATE SEP 2023 SCALE PREPARATION OF DESIGN, DRAWINGS & BOQS FOR CONSTRUCTION/ REHABILITATION OF SITES DRG.NO.

E-03







## PLANNERS CONSULTANTS ENGINEERS (PCE)

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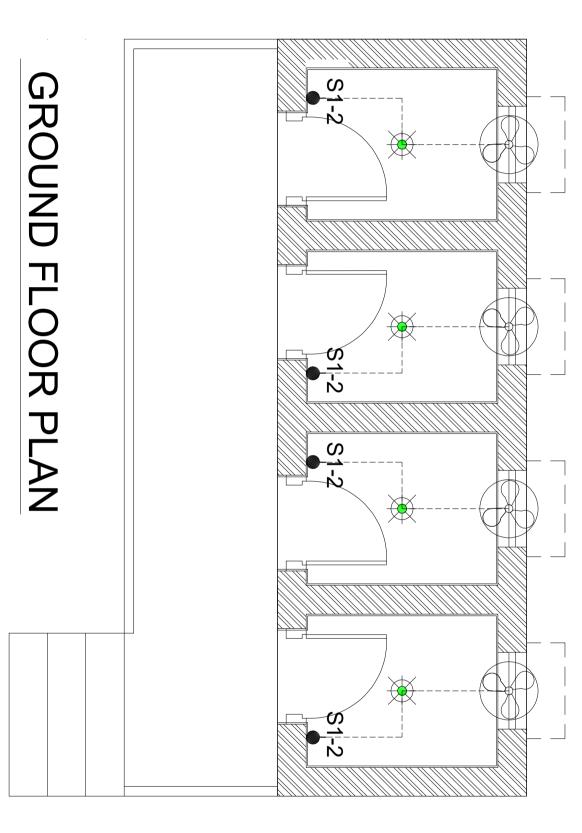
SCHOOL NAME

Designed By Approved By Checked By

Prepared By Engr. HAMMAD AHMAD TITLE:

REHAB WORKS OF GGES JASSIAN DISTRICT ATTOCK

SEP 2023 PREPARATION OF DESIGN, DRAWINGS & BOQS FOR CONSTRUCTION/ REHABILITATION OF SITES GROUND FLOOR PLAN DRG.NO.













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SCHOOL NAME

REHAB WORKS OF GGES JASSIAN DISTRICT ATTOCK

Approved By Prepared By Checked By Designed By FARID KHAN
KHAN HAIDER
ELECTRICAL ENGINEER:
Engr. HAMMAD AHMAD

TITLE: DATE SEP 2023

PREPARATION OF DESIGN, DRAWINGS & BOQS FOR CONSTRUCTION/ REHABILITATION OF SITES GROUND FLOOR DIMENSION PLAN SCALE DRG.NO.

E-05

GROUND FLOOR DIMENSION PLAN ...9-'S 7 ..9-.Z