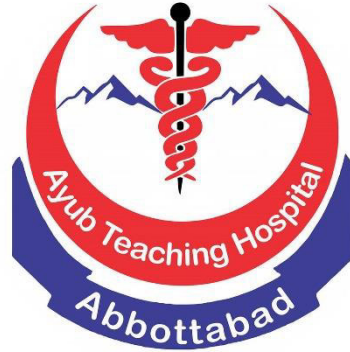


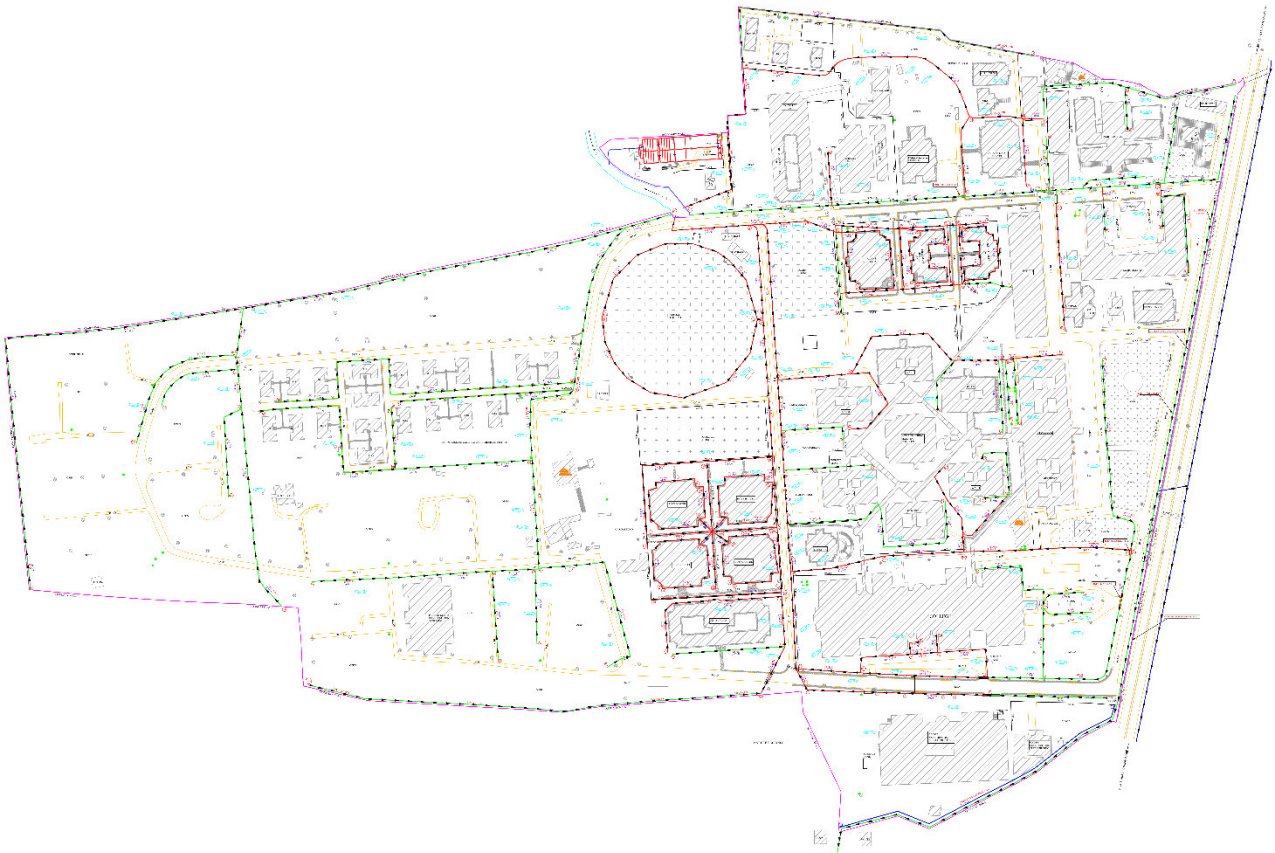
AYUB MEDICAL TEACHING INSTITUTE (HOSPITAL) ABBOTTABAD



BOQ's & TENDER DRAWINGS

For:

CONSTRUCTION OF STORM WATER DISPOSAL / DRAINAGE SYSTEM IN AMTI ABBOTTABAD



BILL OF QUANTITY

NAME OF PROJECT : CONSTRUCTION OF STORM WATER DISPOSAL / DRAINAGE SYSTEM IN AMTI-ABBOTTABAD

DRAINAGE SYSTEM

GENERAL ABSTRACT OF BID COST

S.No	Descriptions	BOQ Cost Rs.	Remarks
1	Schedule Item (MRS-2022-bi)	148,143,015.502	
2	Non-Schedule Item	0.000	
GRAND TOTAL COST		148,143,015.502	

Add : _____ % Above/Below (in Words)

Add : _____ % Above/Below (in Figure)

Total Bid Amount in Words: _____

Sign & Seal of the Bidder: _____



NAME OF PROJECT : CONSTRUCTION OF STORM WATER DISPOSAL / DRAINAGE SYSTEM IN AMTI-ABBOTTABAD						
Construction OF Drain						
S.No	MRS 2022 Bi Item No.	Description of Items	Units	Quantity	Item Rate (Rs)	Total Amount (Rs)
SCHEDULE ITEMS						
1	03-09-b	Earth excavation in open cut upto 1.5m depth for drains etc & disposal : in Hard Soil	m3	16,396.20	359.63	5,896,565.41
2	06-05-f	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:2:4)	m3	3,560.83	12,745.86	45,385,840.66
3	06-07-a-03	RCC in roof slab, beam, column & other structural members, insitu or precast. (1:2:4)	m3	435.14	14,653.95	6,376,519.80
4	06-08-c	Supply & fabricate M.S. reinforcement for cement concrete (Hot rolled deformed bars Grade 40)	Tonne	8.99	291,590.41	2,621,106.20
5	04-19-c	Dismantling : Plain Cement Concrete 1:2:4	m3	1,061.80	3,869.08	4,108,189.14
6	03-04-a	Bed clearance and dressing slopes of drains including removing of weeds and roots etc. Excavated material undressed within 15m	m3	4,014.50	196.97	790,736.07
7	10-49-c	Providing and Fixing Precast Concrete 7000 psi TUFF Tiles 60mm thick over bed of 2" thick sand	m2	446.10	1,014.02	452,354.32
8	06-05-i	Plain Cement Concrete including placing, compacting, finishing & curing (Ratio 1:4:8)	m3	932.13	9,237.44	8,610,494.95
9	06-07-a-02	RCC in roof slab, beam, column & other structural members, insitu or precast. (1:1.5:3)	m3	339.75	16,727.10	5,683,032.23
10	06-08-b	Supply & fabricate M.S. reinforcement for cement concrete (Hot rolled deformed bars Grade 60)	Tonne	145.33	303,740.41	44,142,593.79
11	03-25-b	Excavation in foundation of building, bridges etc complete : in ordinary soil	m3	866.36	312.82	271,014.74
12	03-18-a	Filling, watering and ramming earth under floor with surplus earth from foundation, etc	m3	606.45	105.24	63,822.80
13	07-30	Supplying and filling sand under floor or plugging in wells	m3	404.87	1,571.12	636,099.35
14	03-24	Dressing of earthwork (done by machinery or otherwise & left undressed) to designed section	m2	27.87	14.47	403.28
15	03-67-d	Structural Backfill using Granular Material brought from outside	m3	56.63	1,249.28	70,746.73
16	10-47-c	Providing and Fixing marble strip 1.5 inch wide 3/8 inch thick for dividing the floor into panels	m	121.95	100.75	12,286.46
17	10-41-b-02	Mosaic dado or skirting complete as per specs Using white cement : 1/2" thick including grinding and polishing	m2	195.17	1,494.67	291,714.74
18	03-19-a x 17 + 03-20-a+bx2	Transportation of earth all types for every 15 m extra lead or part thereof beyond 255 m and upto 1500 m.	m3	1,679.30	428.77	720,033.25
19	06-46-b	Erecting & removing formwork to concrete in any shape / position (Vertical)	m2	2,015.75	710.56	1,432,311.32

S.No	MRS 2022 Bi Item No.	Description of Items	Units	Quantity	Item Rate (Rs)	Total Amount (Rs)
20	03-31	Extra for slush or daldal including dewatering	m3	312.57	307.98	96,265.31
21	04-44	Dismantling & removing road pavement etc including screening & stacking of by-products upto 50m.	m2	183.92	1,406.07	258,610.02
22	03-68-b	Common Backfill	m3	27.59	238.53	6,580.80
23	16-04-a	Granular Sub Base Course using Pit Run Gravel	m3	774.30	1,704.76	1,319,995.67
24	11-07-b	Cement plaster 1:2, upto 20' height 1/2" thick	m2	1,976.39	476.72	942,184.64
25	16-05-b	Water Bound Macadam Base Course	m3	27.59	3,257.94	89,883.31
26	07-04-a-05	1st class brick work in foundation and plinth in Cement, sand mortar 1:6	m3	736.85	12,982.95	9,566,486.71
27	03-20-a	Transportation of earth all types beyond 250 m and upto 500 m.	m3	3,548.50	249.73	886,166.91
28	03-20-b	Transportation of earth all types for every 100m extra lead beyond 500m upto 1.5 km.	m3	3,548.50	38.69	137,291.47
29	03-07-b	Earth fill in lawns including dressing & compaction with suitable earth borrowed.	m3	1,679.30	330.85	555,596.41
30	03-31	Extra for slush or daldal including dewatering	m3	1,868.90	307.98	575,583.82
31	24-01-c	Mobilization of equipment for drilling of small bore upto 8" dia	Job	6.00	12,083.17	72,499.02
32	24-02-a-04	Drilling of Bore holes for tube well in all types of soil and soft rock except hard rock from ground level upto 328 ft depth (0m to 100m), including sinking, collection of 100 % corings and withdrawing of pipe, complete as per specifications.: Dia of Bore 6" (150 mm) i/d	m	132.06	2,244.82	296,450.93
33	24-12-a-01	Providing and installing PVC blind pipe BSS Class "B" in Tube Well Bore Hole including Sockets and Solvents and jointing with strainer etc. complete : 6" Nominal Pipe Size (NPS) (150	m	132.06	1,739.54	229,723.65
34	24-50-c-02	Supply and installation of Submersible Flat Cable made of 99.9% copper, coated with double PVC as per BSS Standards, 3x16 mm ²	Meter	150.06	1,155.90	173,454.35
35	15-02-a-06	Supply and Erection PVC pipe for wiring purpose complete On surface including clamps etc: 2" i/d	m	180.06	192.29	34,623.74
36	15-05-e	Supply and Erection single core PVC insulated copper conductor 250/440 V grade cable : 7/0.044"	m	180.06	268.10	48,274.09
37	15-10-c	Supply and Erection Sahl wood board, 1.75" deep : 7"x4"	Each	6.00	130.41	782.46
38	15-11-a-01	Supply and Erection of iron/aluminium clad, 500V main switch Double pole : 15/20 Amp.	Each	6.00	679.95	4,079.70
39	24-76-d	Providing and Fixing of Submersible pump with motor for pressure pump 2 HP	Each	6.00	46,812.45	280,874.70
40	03-10-d	Earth excavation in open cut 1.5m - 3m depth for drains etc & disposal : in Gravel & shingle	m3	247.32	441.04	109,078.01
41	24-64	Supply and Fixing of Man Hole cover made of Angle iron frame 2'x2' size.	Each	6.00	2,295.45	13,772.70

S.No	MRS 2022 Bi Item No.	Description of Items	Units	Quantity	Item Rate (Rs)	Total Amount (Rs)
42	14-28-d	Providing and fixing gun metal peet / gate valve (screwed) 50 mm & 63 mm (2") dia of approved quality.	Each	6.00	7,277.52	43,665.12
43	14-35-e	Providing, laying cutting, jointing, testing PPRC pipeline in walls/trenches with pipes (confirming to DIN 8077/8078, PN 20 of approved quality & fittings conforming to DIN 16962,PN25 of the same manufacturer) for cold/hot water supply systems including specials complete in all respect as per specifications: 2" i/d	m	188.40	746.28	140,599.64
44	24-36-c	Supplying and Fixing MS cap of 3/8" thick sheet : 6" i/d	Each	6.00	1,245.32	7,471.92
45	25-32	Providing and fixing grating in opening including fixing at site with flat iron 2" x 3/8" and 3/4"round bars at 4" center to center.	m2	35.00	10,637.43	372,310.05
		Total			Rs.	143,828,170.4
		Say			Rs.	143,828,170.4
		in Million			Rs.	143.828
		COST FACTOR 3%			Rs.	4,314,845.1
		TOTAL COST Rs. (A)			Rs.	148,143,015.5
		GRAND TOTAL AMOUNT (A+B+C)			Rs.	148,143,015.5
		IN MILLION			Rs.	148.143



DETAIL DRAWINGS



CONSULTANTS / DESIGNERS:



EAST ASIAN CONSULTANTS
PESHAWAR
Architects, Engineers, Town Planners & Surveyors
OFFICE: Flat No. 27-30, 3rd Floor Spinzar Plaza
University Road, Peshawar
Mobile : 0300 - 5701978, Phone : 091-5860118
E-mail : eaconsultants1@gmail.com

SR. No.	LIST OF DRAWINGS
1	SURVEY PLAN
2	DRAINAGE NETWORK MASTER PLAN
3	DRAINAGE TYPICAL SECTIONS
4	CULVERT TYPICAL SECTIONS
5	R.WALL TYPICAL SECTION



CONSULTANTS / DESIGNERS:



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 University Road, Peshawar
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 E-mail : eaconsultants@gmail.com

SURVEY PLAN



CONSULTANTS / DESIGNERS:



EAST ASIAN CONSULTANTS

PESHAWAR

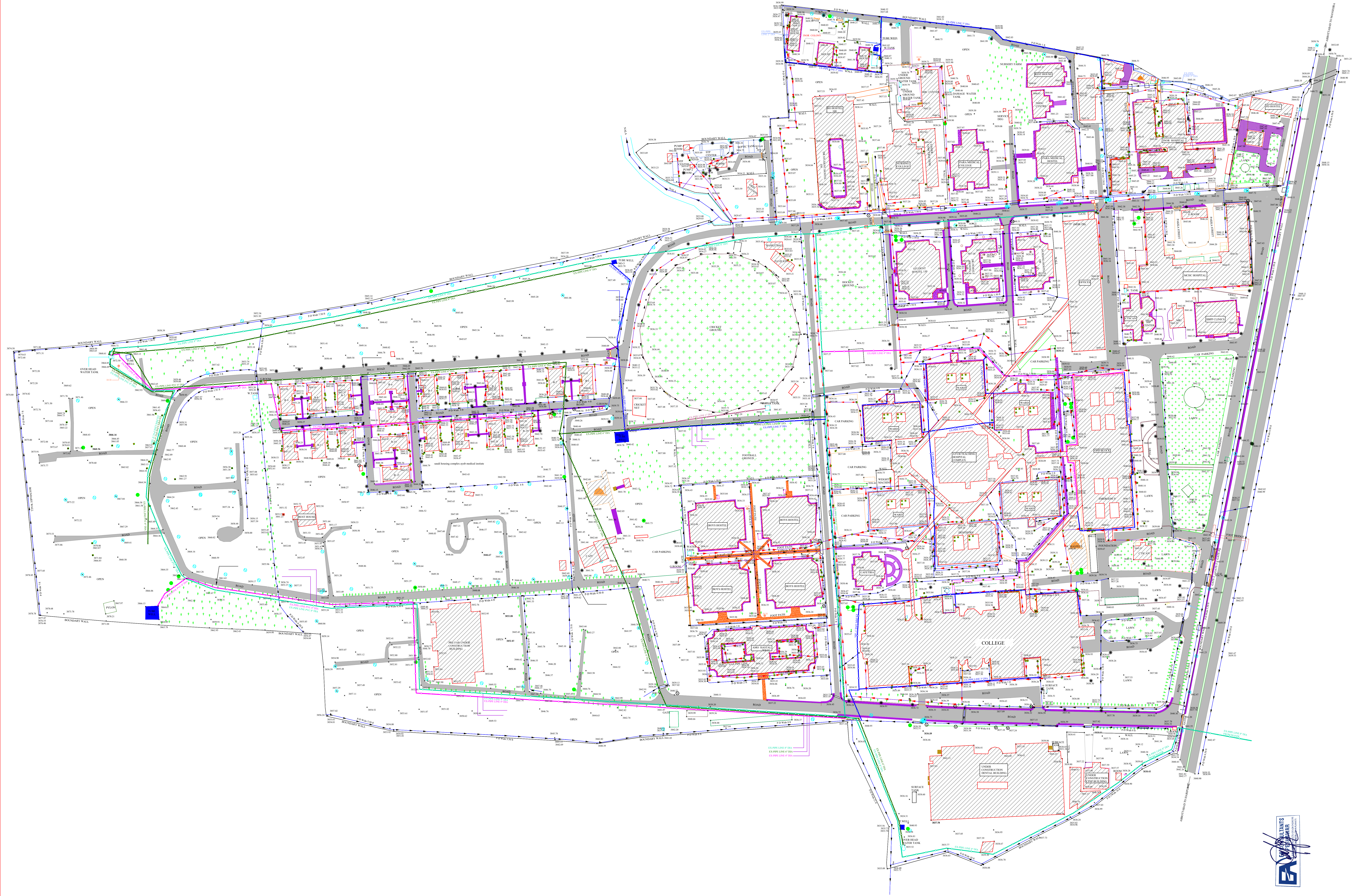
Architects, Engineers, Town Planners & Surveyors

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University Road, Peshawar

Mobile : 0300 - 5701978, Phone : 091-5860118

E-mail : eaconsultants1@gmail.com



Ayub Medical Teaching Institute
Abbottabad

PROJECT:-

DETAIL DESIGN & CONSTRUCTION SUPERVISION FOR STORM WATER
DISPOSAL / DRAINAGE SYSTEM IN AMTI ABBOTABAD



EAST ASIAN CONSULTANTS
Architects, Engineers, Town Planners & Surveyors
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University Road, Peshawar
Mobile : 0300 - 5701978, Phone : 091-5860118
E-mail : eacconsultants@gmail.com

EXISTING FEATURES

BUILDING		SEWERAGE LINE		MASJID		PIPE LINE Ø1"		PIPE LINE Ø8"	
ROAD		SHED		ELECTRIC POLE		PIPE LINE Ø1.5"		TUBE WELL	
FOOT PATH		GRAIL		TRANSFERMER		PIPE LINE Ø2"		WATER TANK	
PAKKA STREET		PYLON		TELEPHONE POLE		PIPE LINE Ø3"		BOR	
WALL		MAIN HOLE		LIGHT POLE		PIPE LINE Ø4"		WELL	
		CULVERT		TREE		PIPE LINE Ø6"		BM / TRAVERSE POINT	

TITLE:-

TOPOGRAPHIC SURVEY PLAN OF AYUB MEDICAL TEACHING
INSTITUTE ABBOTABAD (KPK)

DRAWN BY	SHAH FAISAL	SCALE:-	NORTH
SURVEYED BY	FATAH ULLAH	1 Inch : 75 Feet	
APPROVED BY		TOTAL BOUNDARY WALL AREA	
DATE	April 2023	(5738512.54 square ft.)	
		(21078.09 marla)	
		(1053 Kanal 18 marla)	

DRAINAGE NETWORK MASTER PLAN



CONSULTANTS / DESIGNERS:



EAST ASIAN CONSULTANTS

PESHAWAR

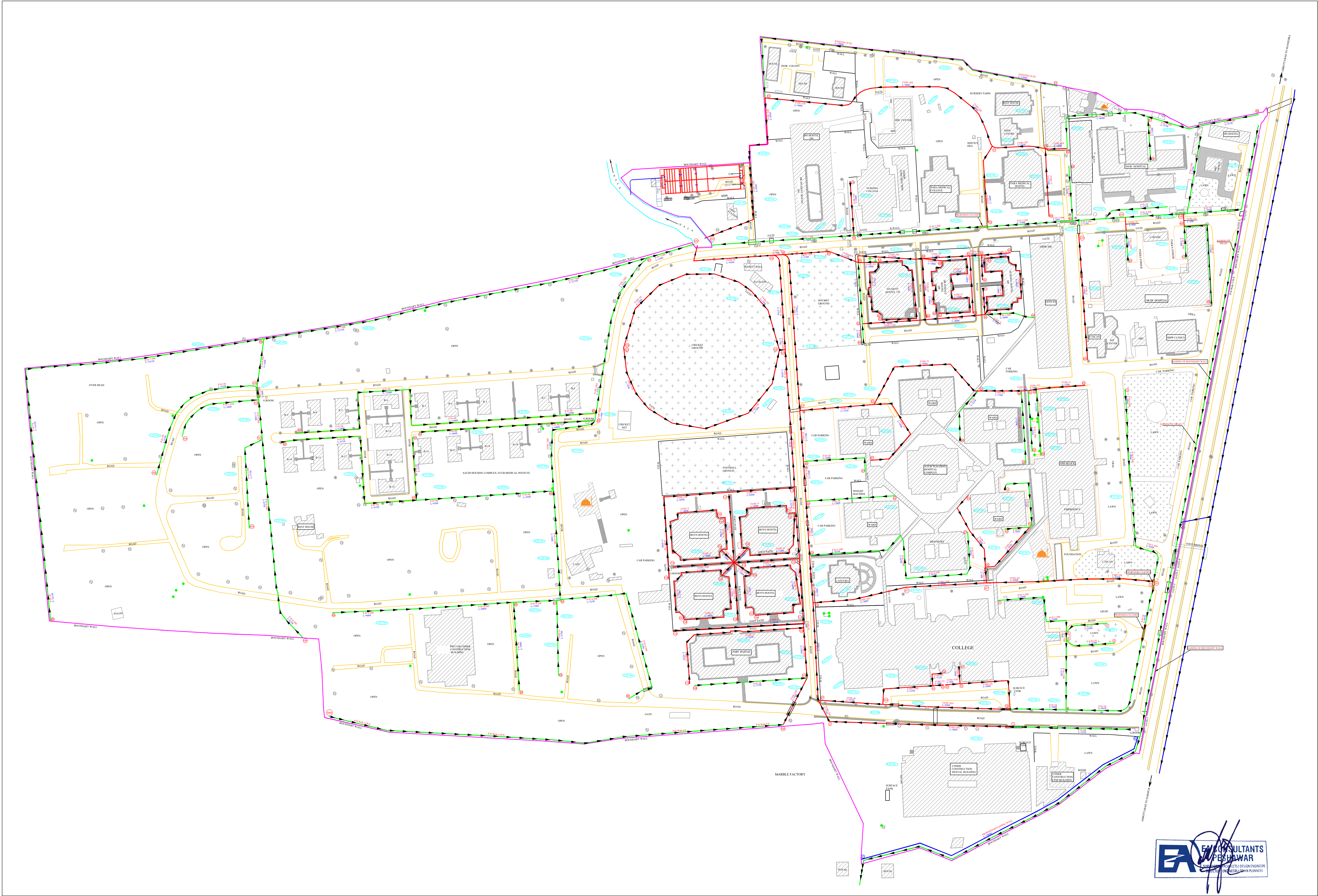
Architects, Engineers, Town Planners & Surveyors

OFFICE: Flat No. 27-30, 3rd Floor Spinzar Plaza

University Road, Peshawar

Mobile : 0300 - 5701978, Phone : 091-5860118

E-mail : eaconsultants1@gmail.com



SHEETS INDEX

01

KEY PLAN

NORTH

EXISTING FEATURES

BUILDING	
ROAD	
BOUNDARY WALL	
FOOT PATH	
PAKKA STREET	
WALL	
P-DRAIN	
PYLON	
CULVERT	
MASJID	
ELECTRIC POLE	
TRANSFERMER	
TELEPHONE POLE	
LIGHT POLE	
TREE	

NOTES

1. NOTES ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED.

LEGENDS

EXISTING DRAIN	
PROPOSED DRAIN	
DRAIN TYPE - B	
DRAIN TYPE - D	
DRAIN TYPE - G	
DRAIN TYPE - IV	
DRAIN TYPE - V	
DRAIN TYPE - VI	
DRAIN TYPE - VII	
DRAIN TYPE - VIII	
DRAIN TYPE - IX	
DRAIN TYPE - X	
DRAIN TYPE - XII	
DRAIN TYPE - XIII	
DRAIN TYPE - XIV	
DRAIN TYPE - XVI	
CULVERT	
NODE NUMBER	
AREA IN HECTOR	

SURVEYED BY	FATAH ULLAH
DRAWN BY	SHAH FAISAL
DESIGN BY	TARIQ KHAN
Scale :	1"=100' Feet
DATE	2024

Title:-

DESIGN PLAN OF DRAINAGE SYSTEM IN AYUB MEDICAL TEACHING HOSPITAL ABBOTTABAD(KPK)

Project

DETAIL DESIGN & CONSTRUCTION SUPERVISION FOR STORM WATER DISPOSAL / DRAINAGE SYSTEM IN AMTI ABBOTTABAD

Client

Ayub Medical Teaching Institute Abbottabad

Firm Name and Address:-

EAST ASIAN CONSULTANTS
ENGINEERS & ARCHITECTS
PVT. LTD.
OFFICE: Plot No. 27-30, Block D 3rd Floor Sagar Plaza
University Road, Abbottabad
Mobile : 0300 - 2707376, Phone : 031-5660118
E-mail : eastasianconsultants@gmail.com

DRAINAGE TYPICAL SECTIONS



CONSULTANTS / DESIGNERS:



EAST ASIAN CONSULTANTS

PESHAWAR

Architects, Engineers, Town Planners & Surveyors

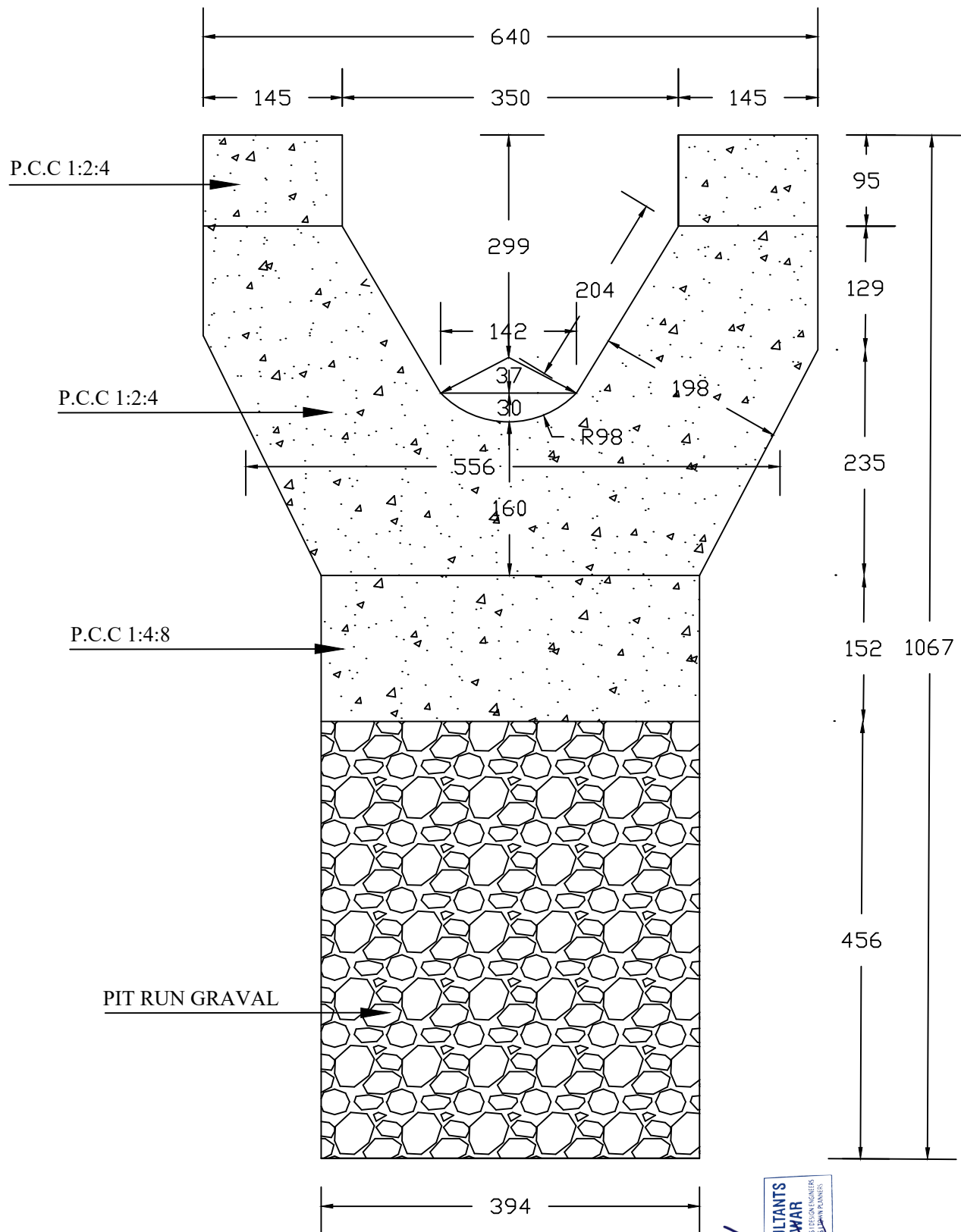
OFFICE: Flat No. 27-30, 3rd Floor Spinzar Plaza

University Road, Peshawar

Mobile : 0300 - 5701978, Phone : 091-5860118

E-mail : eaconsultants1@gmail.com

TYPE IV



NOTE:

1. THE DRAIN MUST BE FULLY EMBEDDED IN THE GROUND ON OUTER SIDE.
2. ALL THE DIMENSIONS ARE IN MM.
3. AREA OF FLOW = 0.071 m²
R = 0.098 M
DEPTH OF FLOW = 0.299 M



Project :

DETAIL DESIGN & CONSTRUCTION
SUPERVISION FOR STORM WATER
DISPOSAL / DRAINAGE SYSTEM IN AMTI
ABBOTABAD

CONSULTANTS



Design By:

Tariq Hussain

Drawing By :

Faisal Afridi

Date : July, 2023

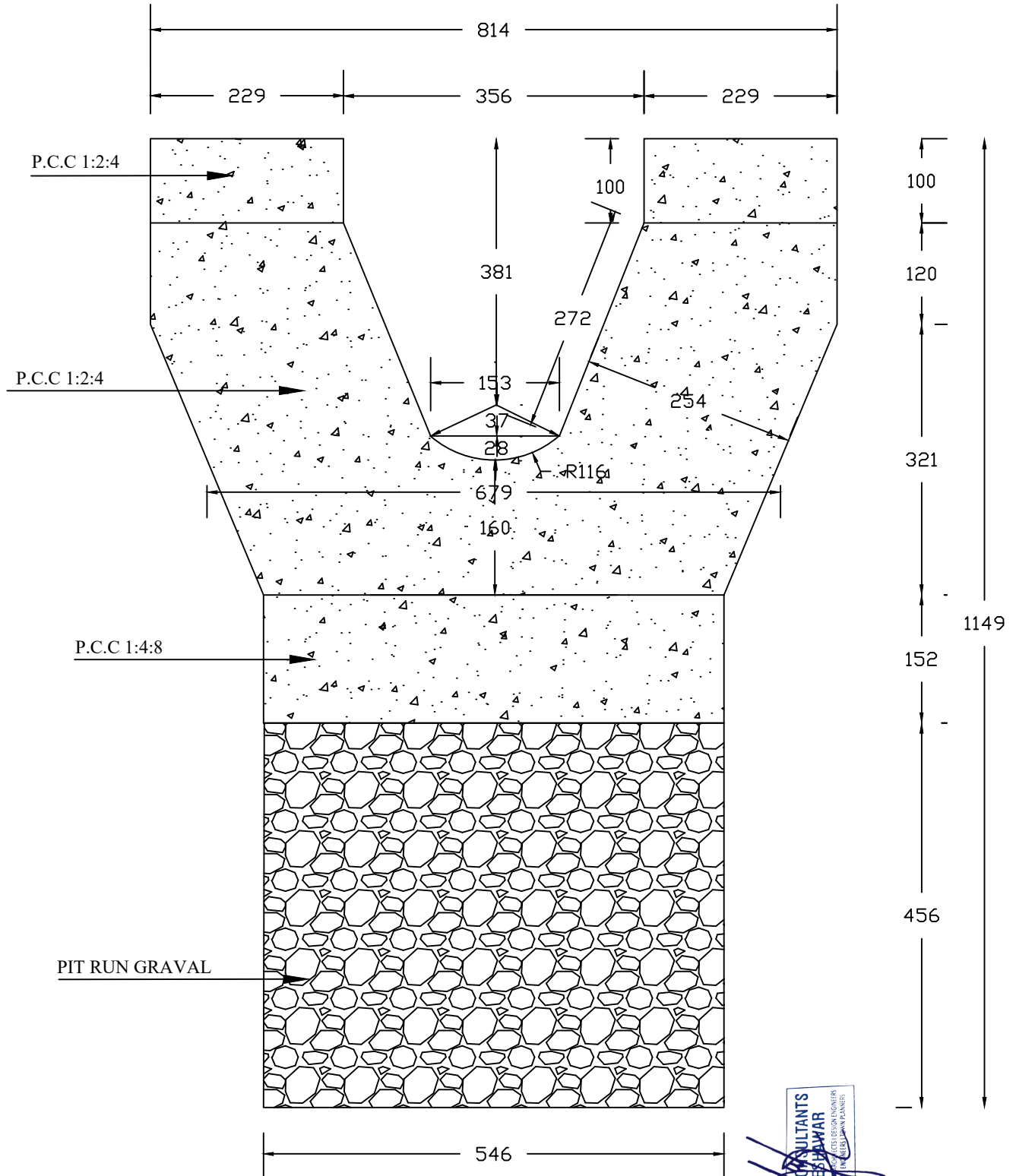
Title:

DRAIN TYPICAL SECTION

Client :

Ayub Medical Teaching Institute
Abbottabad

TYPE V



NOTE:

1. THE DRAIN MUST BE FULLY EMBEDDED IN THE GROUND ON OUTER SIDE.
2. ALL THE DIMENSIONS ARE IN MM.
3. AREA OF FLOW = 0.101 m²
R = 0.116 M
DEPTH OF FLOW = 0.381 M



Project :

DETAIL DESIGN & CONSTRUCTION
SUPERVISION FOR STORM WATER
DISPOSAL / DRAINAGE SYSTEM IN AMTI
ABBOTABAD

CONSULTANTS



EAST ASIAN CONSULTANTS
Architects, Engineers, Town Planners & Surveyors
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University Road, Islamabad
Phone: 3580-3580/3580, Fax: 3580-3580/3580
Email: eastasian@eastasian.com

Design By:

Tariq Hussain

Drawing By:

Faisal Afridi

Date:

July, 2023

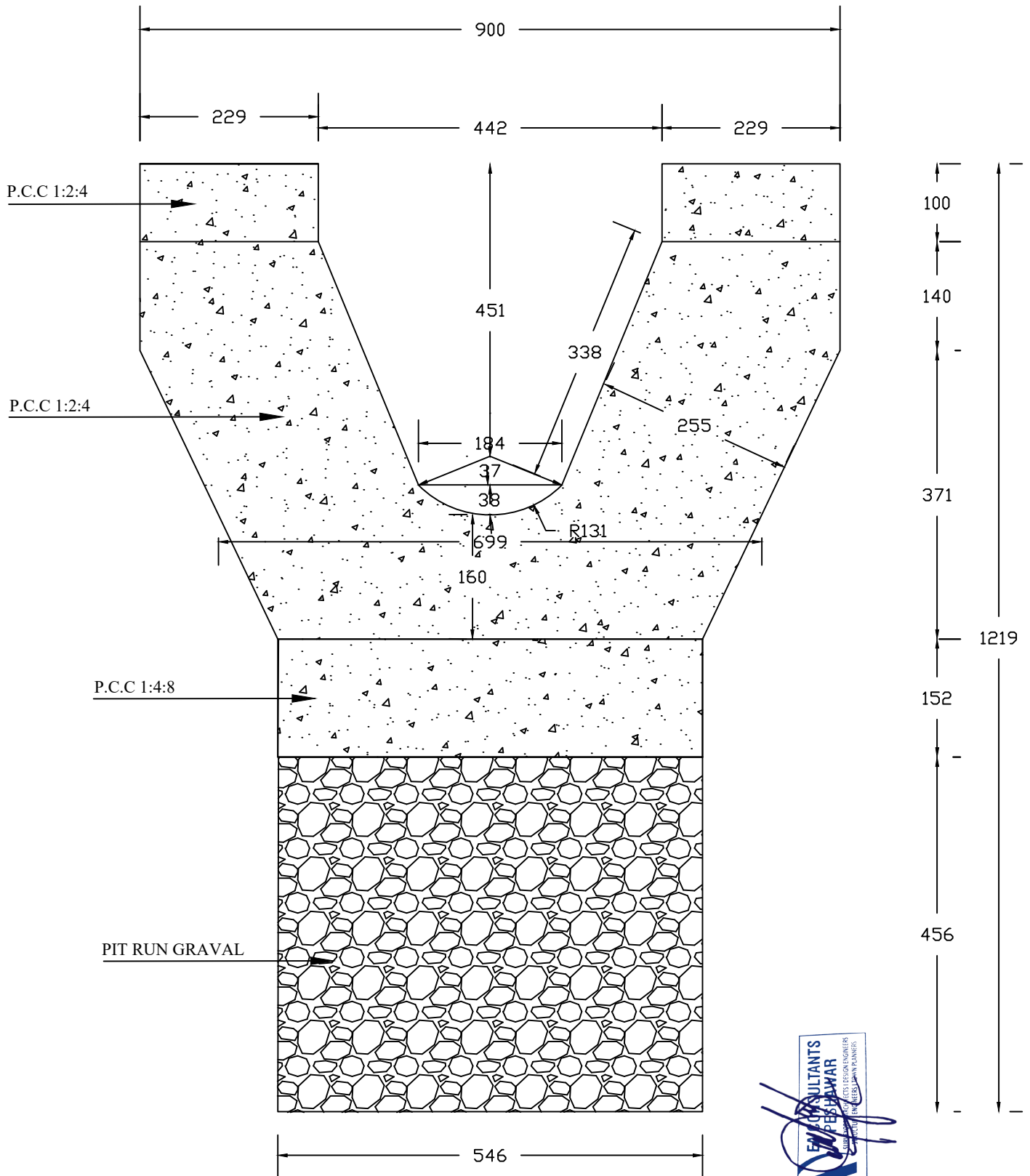
Title:

DRAIN TYPICAL
SECTION

Client :

Ayub Medical Teaching Institute
Abbottabad

TYPE VI



NOTE:

1. THE DRAIN MUST BE FULLY EMBEDDED IN THE GROUND ON OUTER SIDE.
2. ALL THE DIMENSIONS ARE IN MM.
3. AREA OF FLOW = 0.137 m²
R = 0.131 M
DEPTH OF FLOW = 0.451 M



Project :

DETAIL DESIGN & CONSTRUCTION
SUPERVISION FOR STORM WATER
DISPOSAL / DRAINAGE SYSTEM IN AMTI
ABBOTABAD

CONSULTANTS



Design By: Tariq Hussain

Drawing By: Faisal Afridi

Date: July, 2023

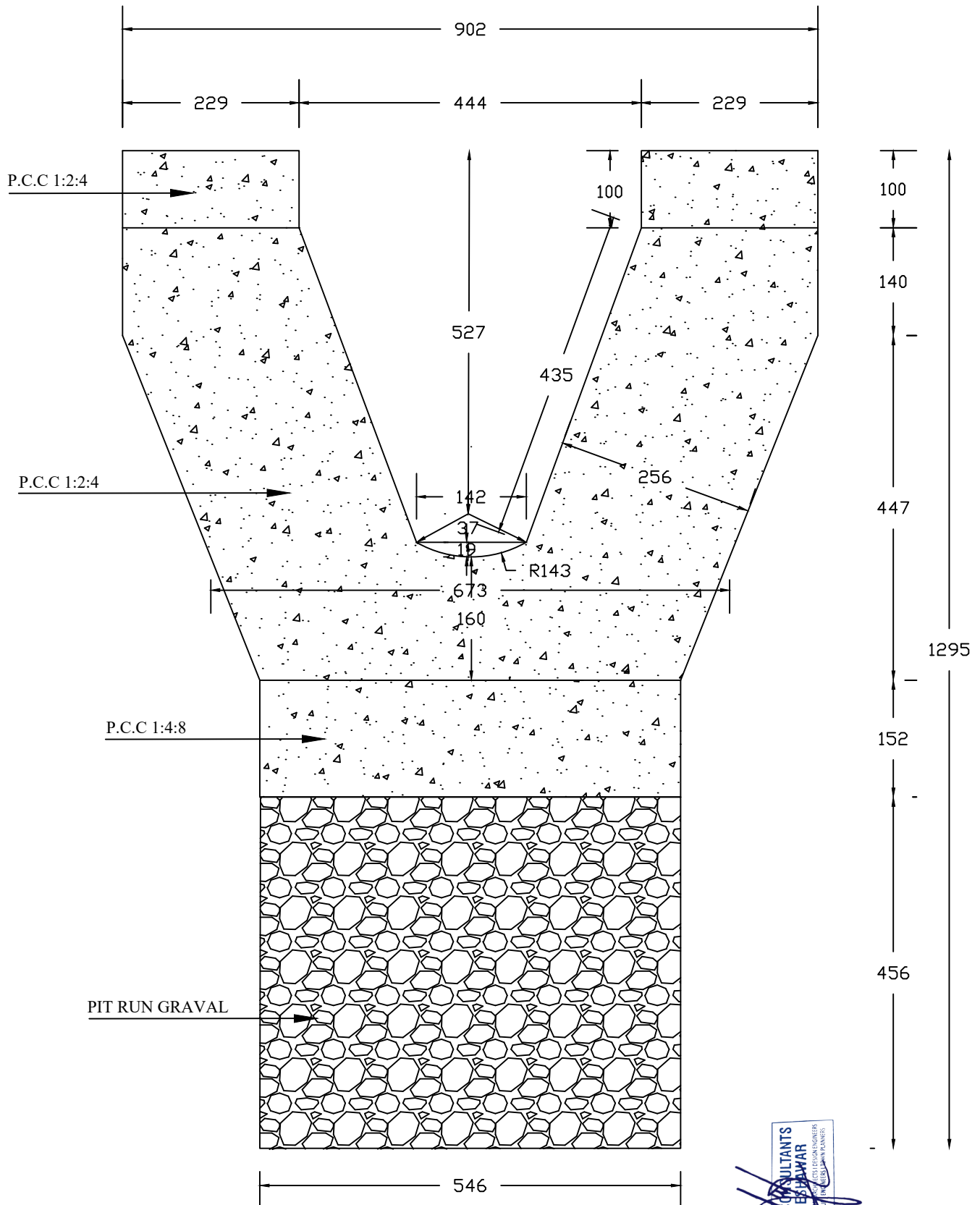
Title:

DRAIN TYPICAL
SECTION

Client :

Ayub Medical Teaching Institute
Abbottabad

TYPE VII



NOTE:

1. THE DRAIN MUST BE FULLY EMBEDDED IN THE GROUND ON OUTER SIDE.
2. ALL THE DIMENSIONS ARE IN MM.
3. AREA OF FLOW = 0.174 m²
R = 0.143 M
DEPTH OF FLOW = 0.527 M

Project :

DETAIL DESIGN & CONSTRUCTION
SUPERVISION FOR STORM WATER
DISPOSAL / DRAINAGE SYSTEM IN AMTI
ABBOTABAD

CONSULTANTS



Design By:

Tariq Hussain

Drawing By :

Date :

July, 2023

Title:

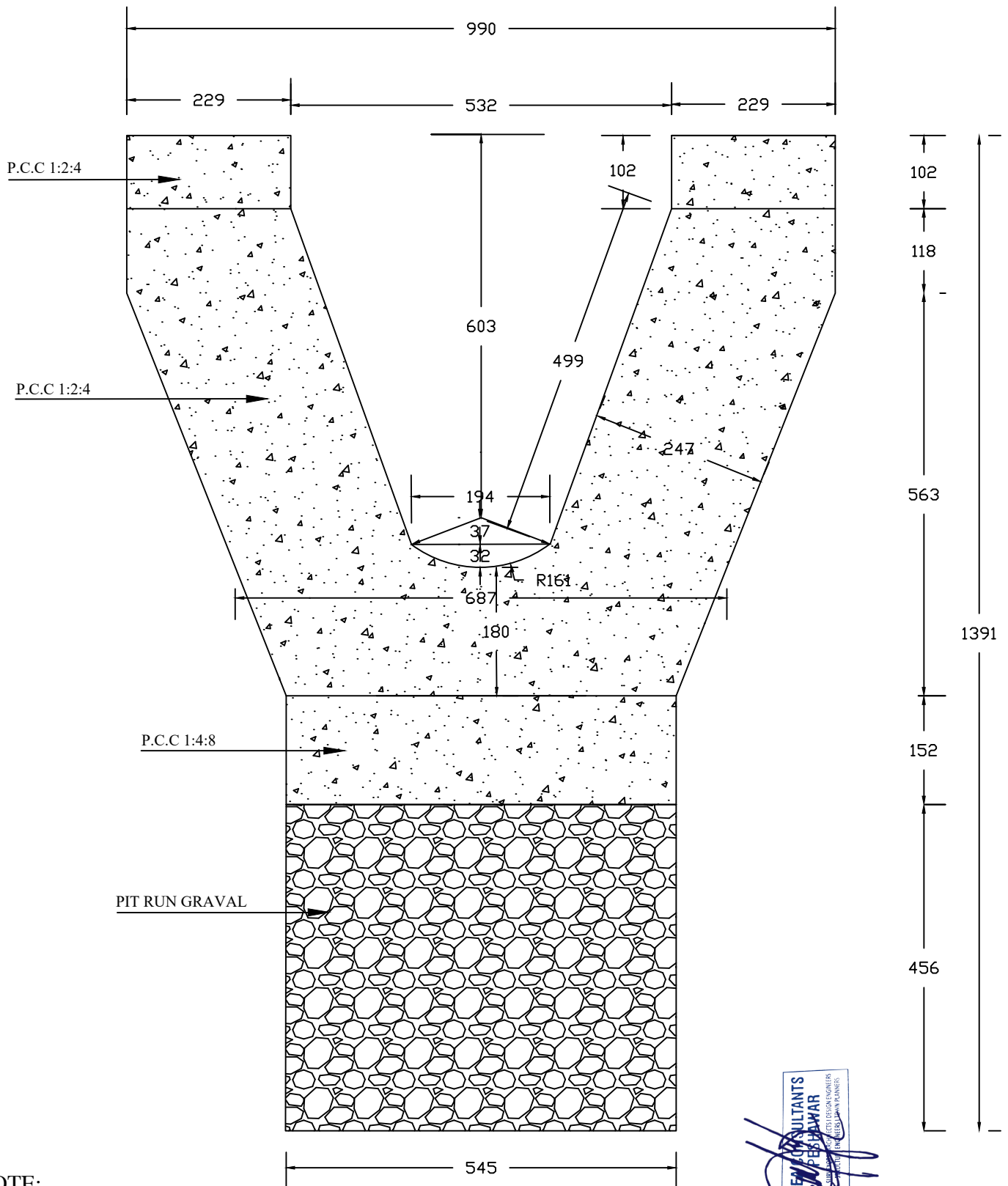
DRAIN TYPICAL SECTION

Client :

Ayub Medical Teaching Institute
Abbottabad



TYPE VIII



NOTE:

1. THE DRAIN MUST BE FULLY EMBEDDED IN THE GROUND ON OUTER SIDE.
2. ALL THE DIMENSIONS ARE IN MM.
3. AREA OF FLOW = 0.220 m²
R = 0.160 M
DEPTH OF FLOW = 0.603 M



Project :

DETAIL DESIGN & CONSTRUCTION
SUPERVISION FOR STORM WATER
DISPOSAL / DRAINAGE SYSTEM IN AMTI
ABBOTABAD

CONSULTANTS



Design By: Tariq Hussain

Drawing By: Faisal Afridi

Date: July, 2023

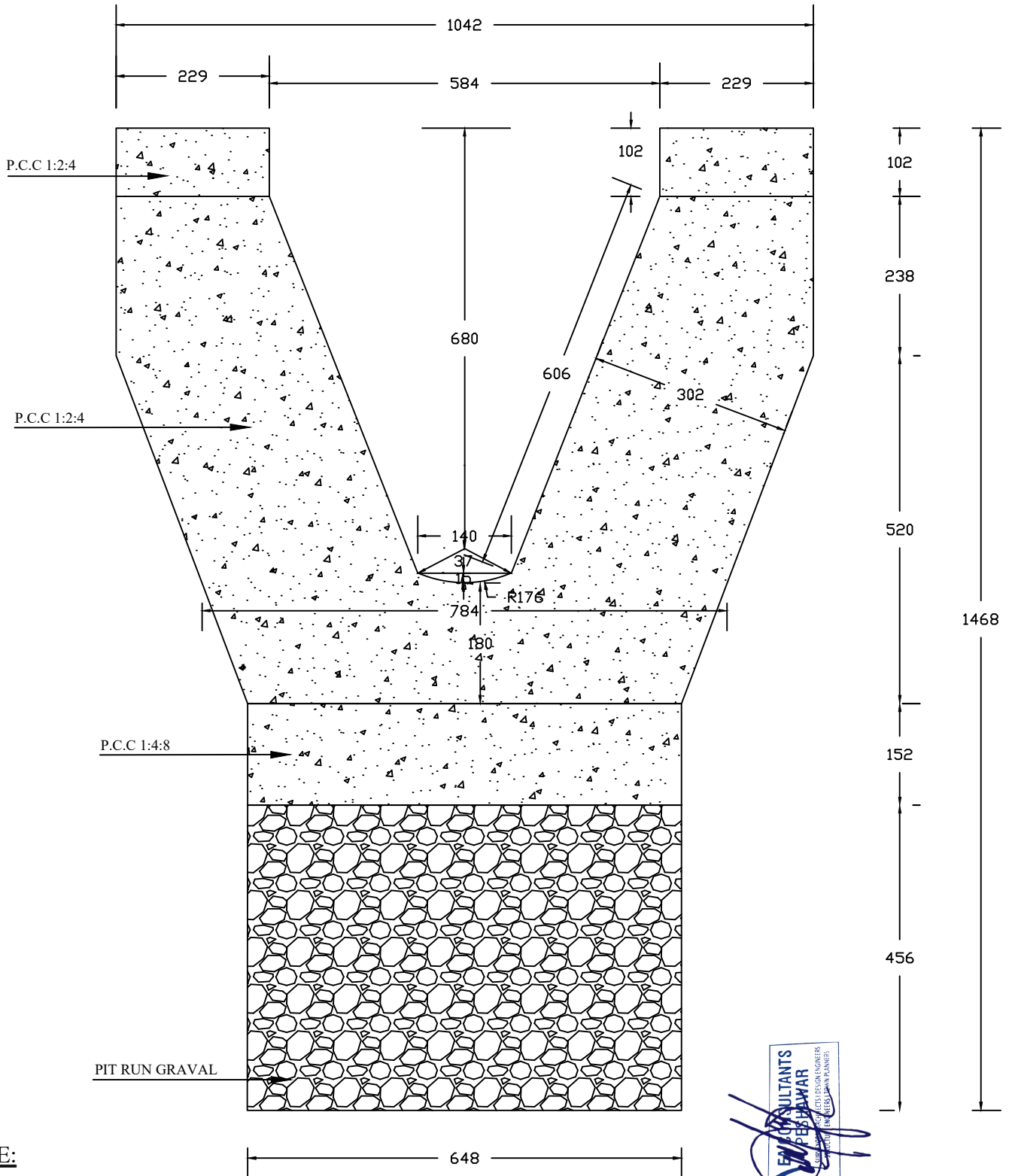
Title:

DRAIN TYPICAL
SECTION

Client :

Ayub Medical Teaching Institute
Abbottabad

TYPE IX



NOTE:

1. THE DRAIN MUST BE FULLY EMBEDDED IN THE GROUND ON OUTER SIDE.
2. ALL THE DIMENSIONS ARE IN MM.
3. AREA OF FLOW = 0.270 m²
R = 0.177 M
DEPTH OF FLOW = 0.680 M



Project :

DETAIL DESIGN & CONSTRUCTION
SUPERVISION FOR STORM WATER
DISPOSAL / DRAINAGE SYSTEM IN AMTI
ABBOTABAD

CONSULTANTS



Design By: Tariq Hussain

Drawing By : Faisal Afridi

Date: July, 2023

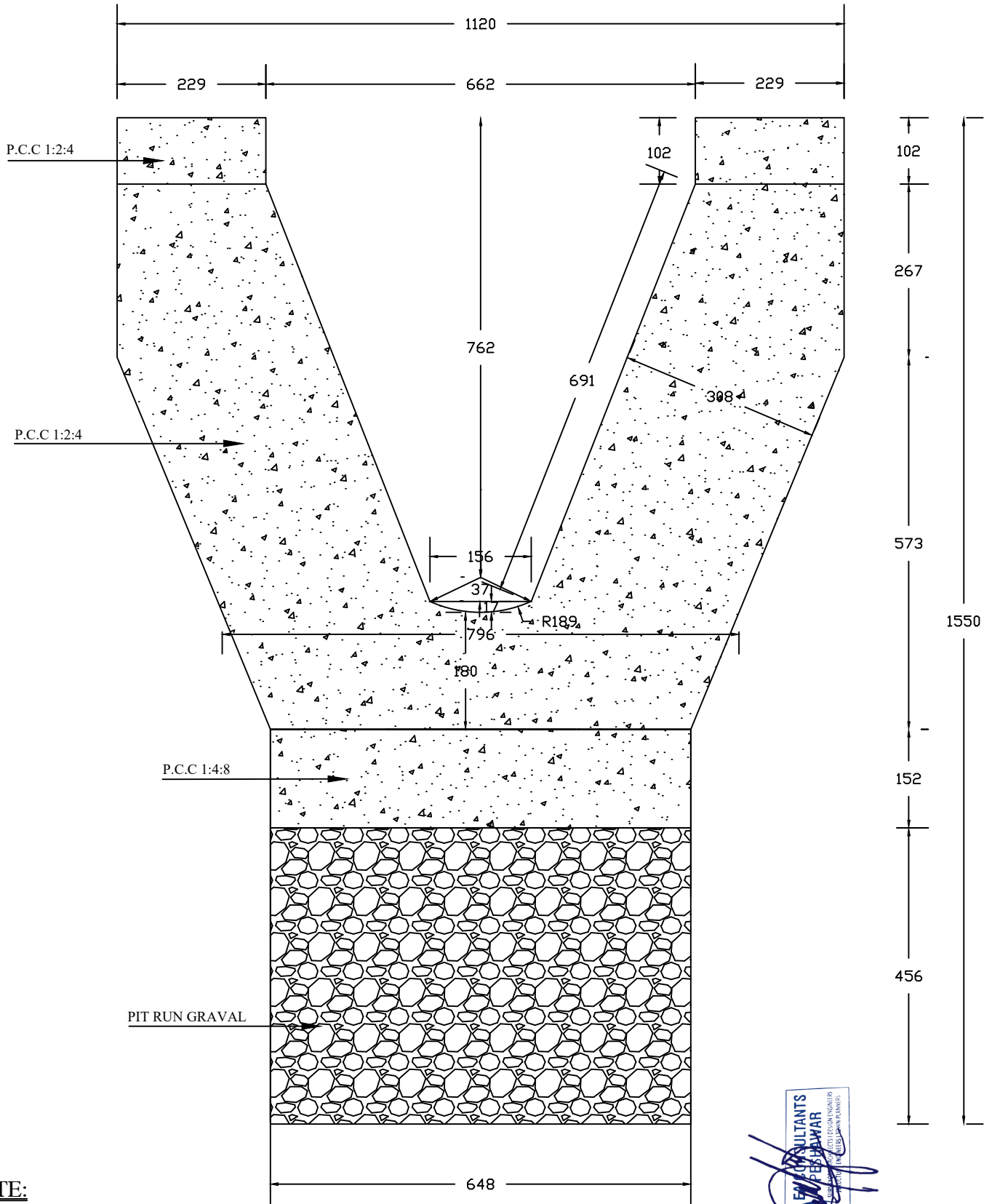
Title:

DRAIN TYPICAL
SECTION

Client :

Ayub Medical Teaching Institute
Abbottabad

TYPE X



NOTE:

1. THE DRAIN MUST BE FULLY EMBEDDED IN THE GROUND ON OUTER SIDE.
2. ALL THE DIMENSIONS ARE IN MM.
3. AREA OF FLOW = 0.320 m²
R = 0.189 M
DEPTH OF FLOW = 0.762 M



Project :

DETAIL DESIGN & CONSTRUCTION
SUPERVISION FOR STORM WATER
DISPOSAL / DRAINAGE SYSTEM IN AMTI
ABBOTABAD

CONSULTANTS



Design By:

Tariq Hussain

Drawing By :

Faisal Afridi

Date :

July, 2023

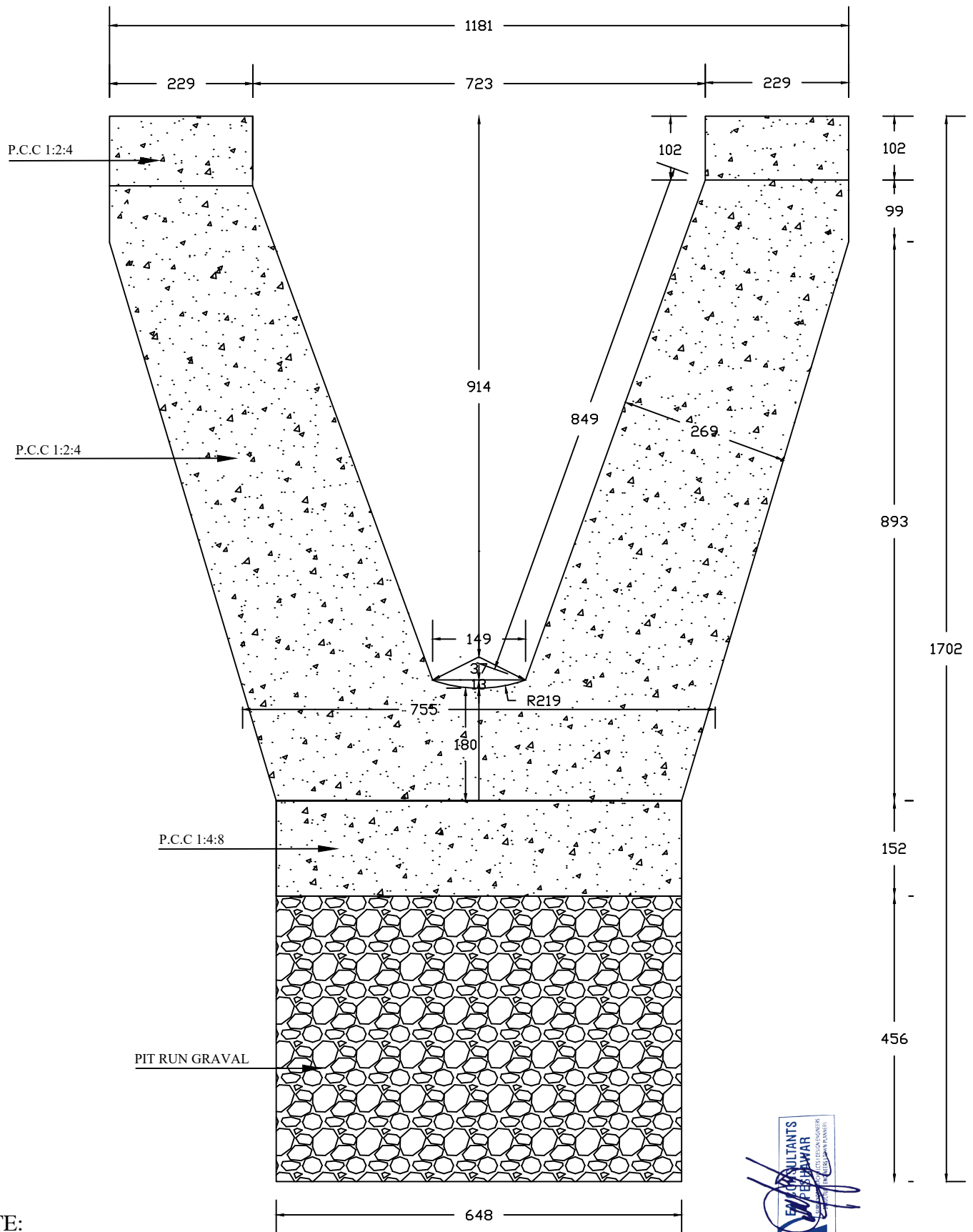
Title:

DRAIN TYPICAL
SECTION

Client :

Ayub Medical Teaching Institute
Abbottabad

TYPE XII



NOTE:

1. THE DRAIN MUST BE FULLY EMBEDDED IN THE GROUND ON OUTER SIDE.
2. ALL THE DIMENSIONS ARE IN MM.
3. AREA OF FLOW = 0.442 m²
R = 0.219 M
DEPTH OF FLOW = 0.914 M

Project :

DETAIL DESIGN & CONSTRUCTION
SUPERVISION FOR STORM WATER
DISPOSAL / DRAINAGE SYSTEM IN AMTI
ABBOTABAD

CONSULTANTS



Design By:

Tariq Hussain

Drawing By :

Faisal Afridi

Date : July, 2023

Title:

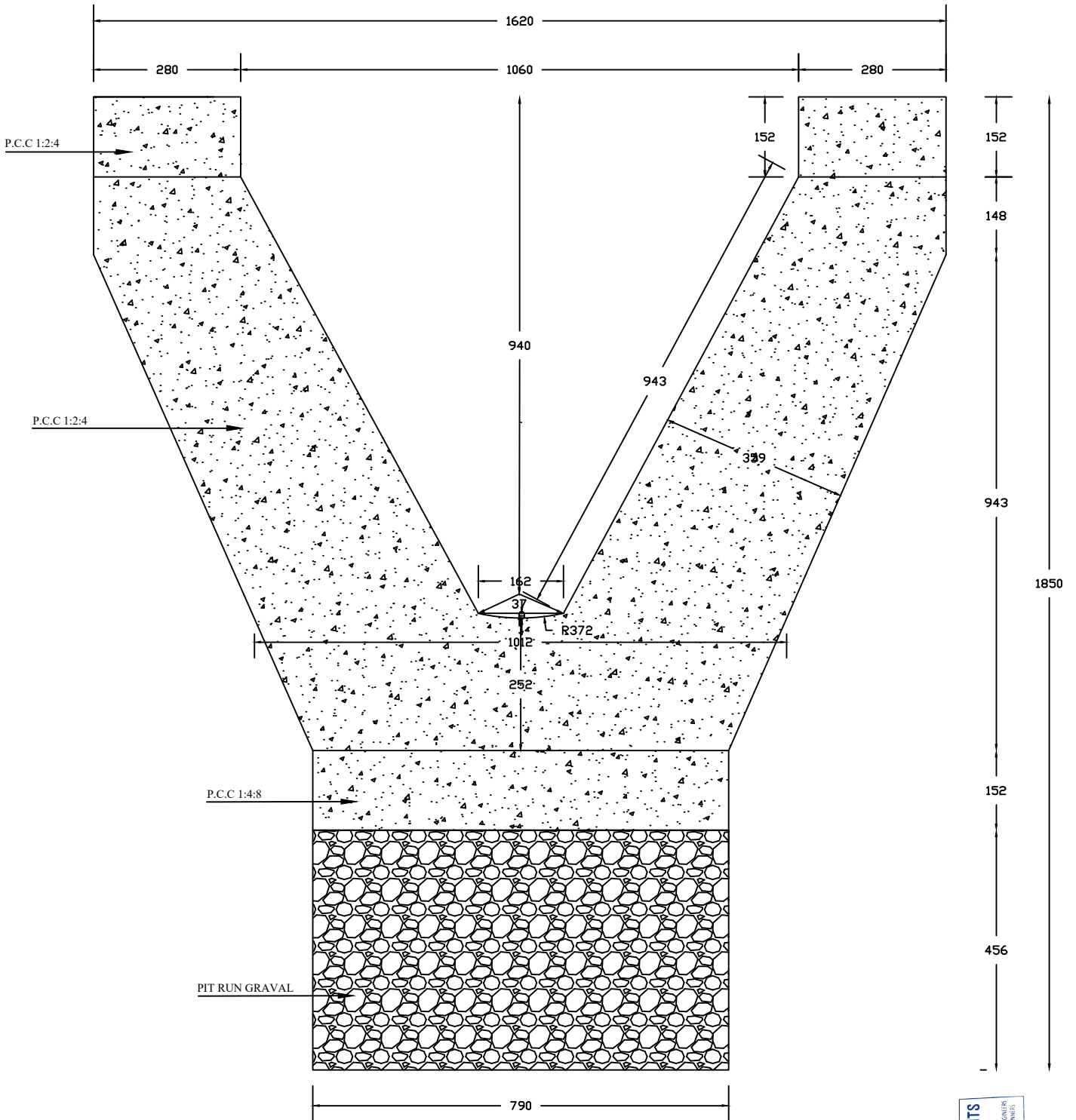
DRAIN TYPICAL SECTION

Client :	
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Ayub Medical Teaching Institute
Abbottabad



TYPE XIV



NOTE:

1. THE DRAIN MUST BE FULLY EMBEDDED IN THE GROUND ON OUTER SIDE.
2. ALL THE DIMENSIONS ARE IN MM.
3. AREA OF FLOW = 0.580 m²
R = 0.347 M
DEPTH OF FLOW = 0.920 M



Project :

DETAIL DESIGN & CONSTRUCTION
SUPERVISION FOR STORM WATER
DISPOSAL / DRAINAGE SYSTEM IN AMTI
ABBOTABAD

CONSULTANTS



Design By:

Tariq Hussain

Drawing By :

Date : July, 2023

Title:

DRAIN TYPICAL SECTION

Client :

Ayub Medical Teaching Institute
Abbottabad

Technical drawing of a V-shaped drainage structure cross-section. The structure has a top width of 1350 and a bottom width of 713. The left and right slopes are 38.6 and 81.4 respectively. The bottom width is 167. The structure is composed of P.C.C 1:2:4 concrete and PIT RUN GRAVAL. Dimensions include 280, 790, 280, 152, 148, 920, 872, 1780, 152, 456, 180, 897, 167, 37, R347, 1350, 713, 280, 790, 280, 152, 148, 920, 872, 1780, 152, 456, 180, 897, 167, 37, R347.

1. THE DRAIN MUST BE FULLY EMBEDDED IN THE GROUND ON OUTER SIDE.
2. ALL THE DIMENSIONS ARE IN MM.
3. AREA OF FLOW = 0.750 m²
R = 0.372 M
DEPTH OF FLOW = 0.940 M

DETAIL DESIGN & CONSTRUCTION
SUPERVISION FOR STORM WATER
DISPOSAL / DRAINAGE SYSTEM IN AMTI
ABBOTABAD

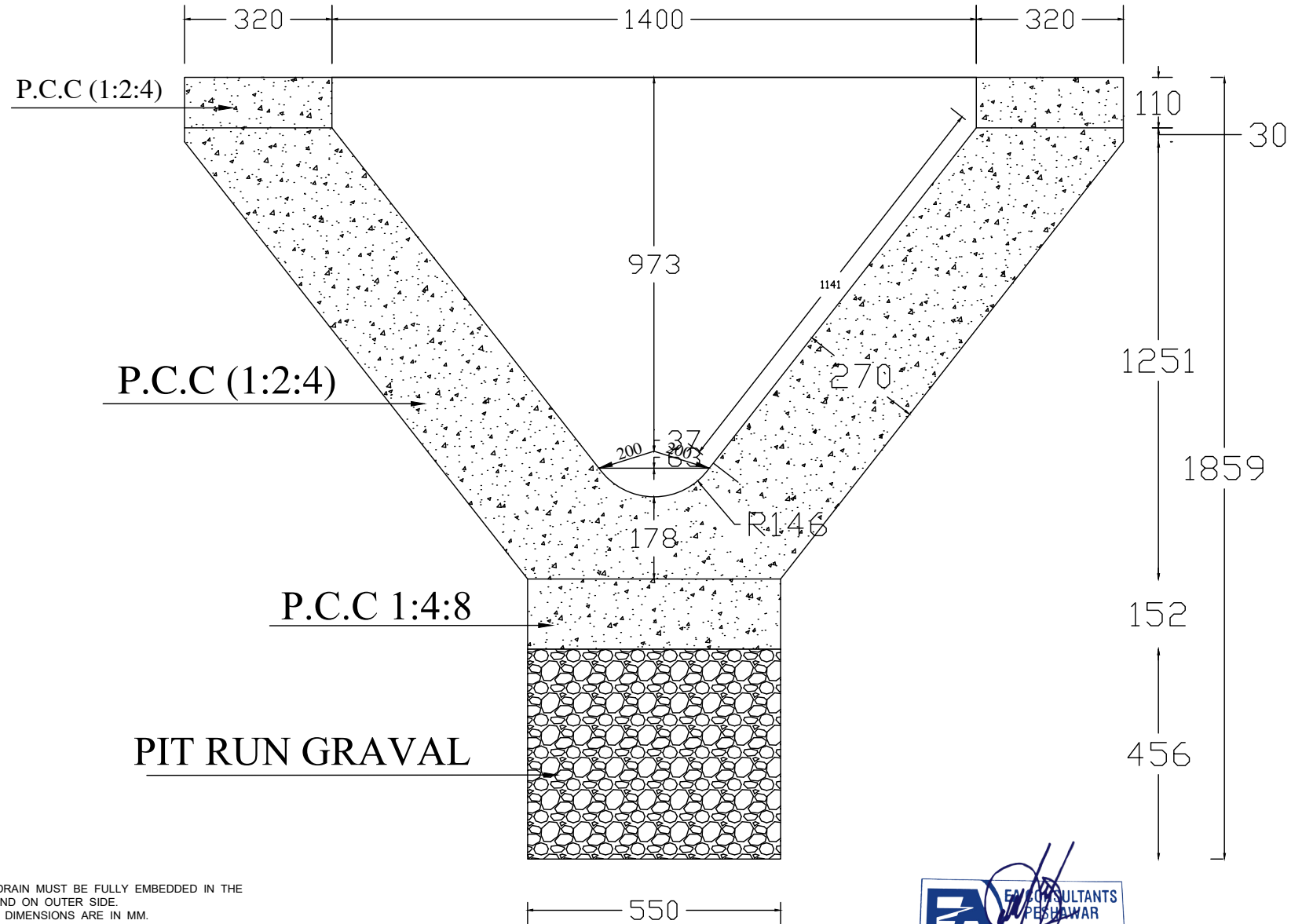
EAST ASIAN CONSULTANTS
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University Road, Peshawar
Mobile : 0300 - 5702978, Phone : 091-5860318

DRAIN TYPICAL SECTION

Ayub Medical Teaching Institute
Abbottabad



TYPE-B



NOTE:

1. THE DRAIN MUST BE FULLY EMBEDDED IN THE GROUND ON OUTER SIDE.
2. ALL THE DIMENSIONS ARE IN MM.
3. AREA OF FLOW = 0.84 m²
R = 0.477 M
DEPTH OF FLOW = 0.973 M



Project :

DETAIL DESIGN & CONSTRUCTION
SUPERVISION FOR STORM WATER
DISPOSAL / DRAINAGE SYSTEM IN AMTI
ABBOTABAD

CONSULTANTS



Design By:

Tariq Hussain

Drawing By :

Faisal Afridi

Date :

July, 2023

Title:

DRAIN TYPICAL
SECTION

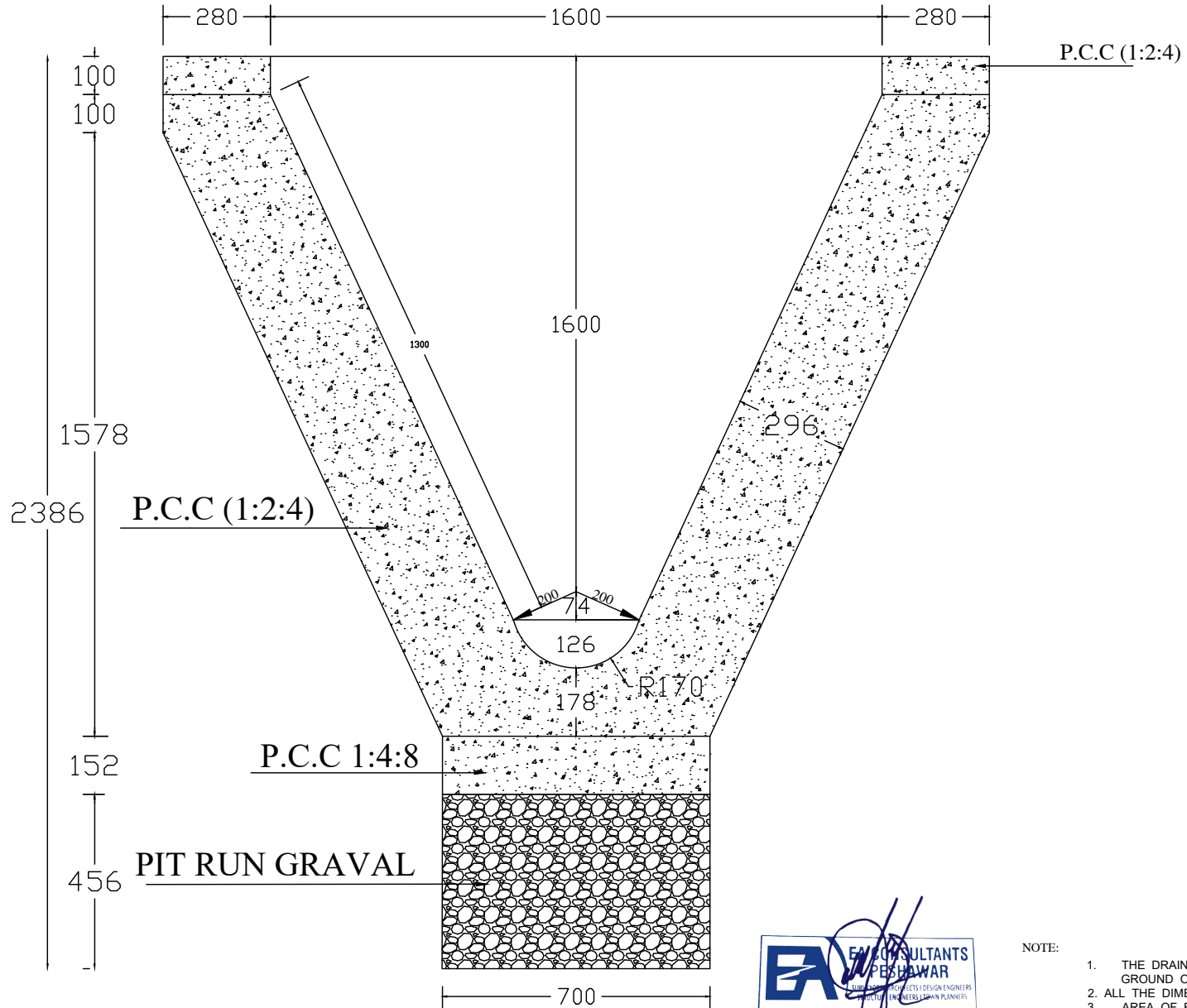
NOTE:

1. THE DRAIN MUST BE FULLY EMBEDDED IN THE GROUND ON OUTER SIDE.
2. ALL THE DIMENSIONS ARE IN MM.
3. AREA OF FLOW = 0.84 m²
R = 0.477 M
DEPTH OF FLOW = 0.973 M

Client :

Ayub Medical Teaching Institute
Abbottabad

TYPE-D



NOTE:

1. THE DRAIN MUST BE FULLY EMBEDDED IN THE GROUND ON OUTER SIDE.
2. ALL THE DIMENSIONS ARE IN MM.
3. AREA OF FLOW = 1.552 m²
R = 0.421 M
DEPTH OF FLOW = 1.60 M

Project :

DETAIL DESIGN & CONSTRUCTION
SUPERVISION FOR STORM WATER
DISPOSAL / DRAINAGE SYSTEM IN AMTI
ABBOTABAD

CONSULTANTS



Design By:

Tariq Hussain

Drawing By :

Date : July, 2023

Title:

Drawing By :

Date : July, 2023

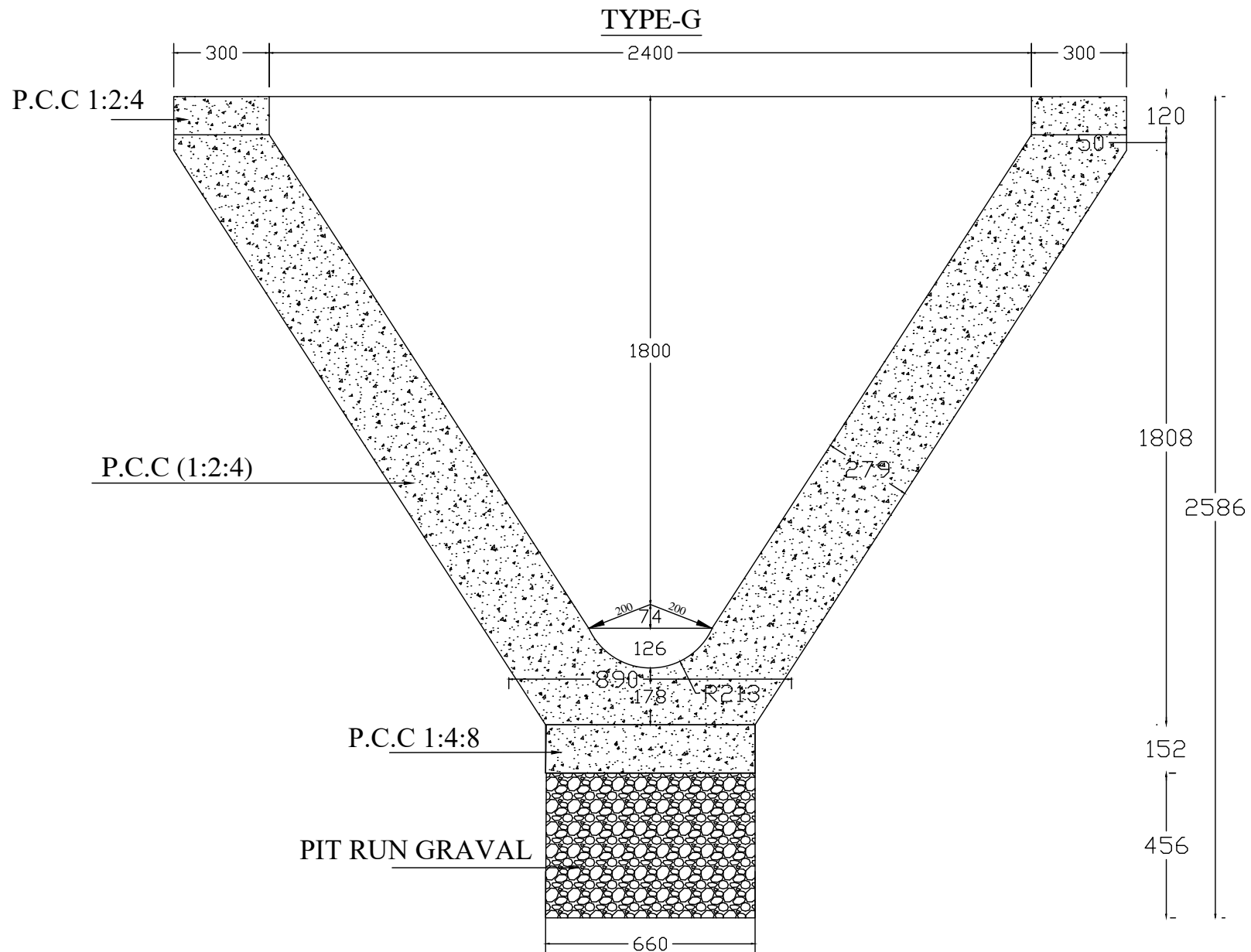
DRAIN TYPICAL
SECTION

NOTE:

1. THE DRAIN MUST BE FULLY EMBEDDED IN THE GROUND ON OUTER SIDE.
2. ALL THE DIMENSIONS ARE IN MM.
3. AREA OF FLOW = 1.552 m²
R = 0.421 M
DEPTH OF FLOW = 1.60 M

Client :

Ayub Medical Teaching Institute
Abbottabad



Project :

DETAIL DESIGN & CONSTRUCTION
SUPERVISION FOR STORM WATER
DISPOSAL / DRAINAGE SYSTEM IN AMTI
ABBOTABAD

CONSULTANTS



Drawing By: **Faisal Afridi**

Check By: **Tariq Hussain**

Date: **July, 2023**

Title:

**DRAIN TYPICAL
SECTION**



Client :

**Ayub Medical Teaching Institute
Abbottabad**

CULVERT TYPICAL SECTIONS



CONSULTANTS / DESIGNERS:



EAST ASIAN CONSULTANTS

PESHAWAR

Architects, Engineers, Town Planners & Surveyors

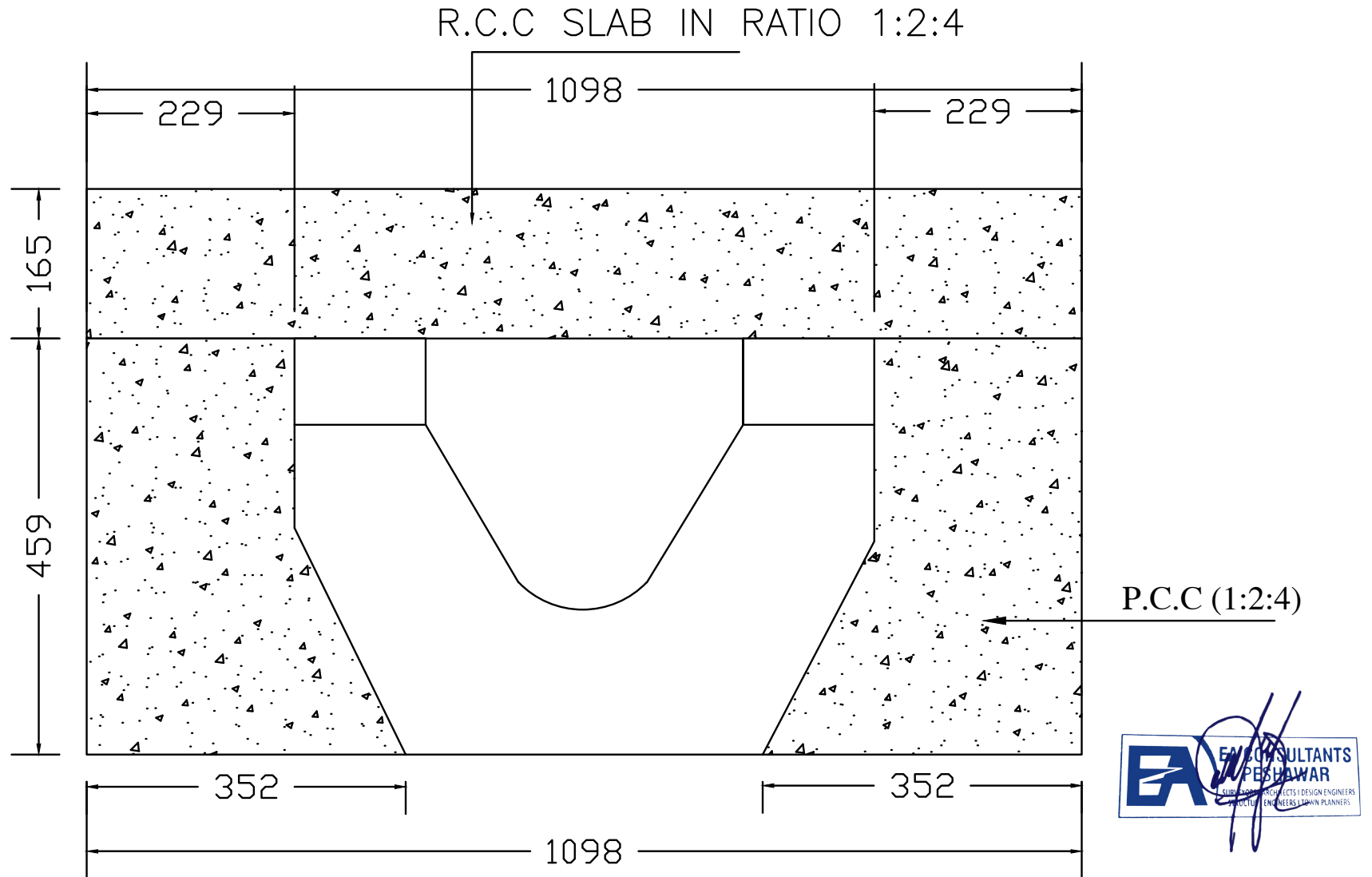
OFFICE: Flat No. 27-30, 3rd Floor Spinzar Plaza

University Road, Peshawar

Mobile : 0300 - 5701978, Phone : 091-5860118

E-mail : eaconsultants1@gmail.com

TYPE IV



Project :

DETAIL DESIGN & CONSTRUCTION
SUPERVISION FOR STROM WATER
DISPOSAL / DRAINAGE SYSTEM IN AMTI
ABBOTABAD

CONSULTANTS



Design By:

Tariq Hussain

Drawing By :

Faisal Afridi

Date :

July, 2023

Title:

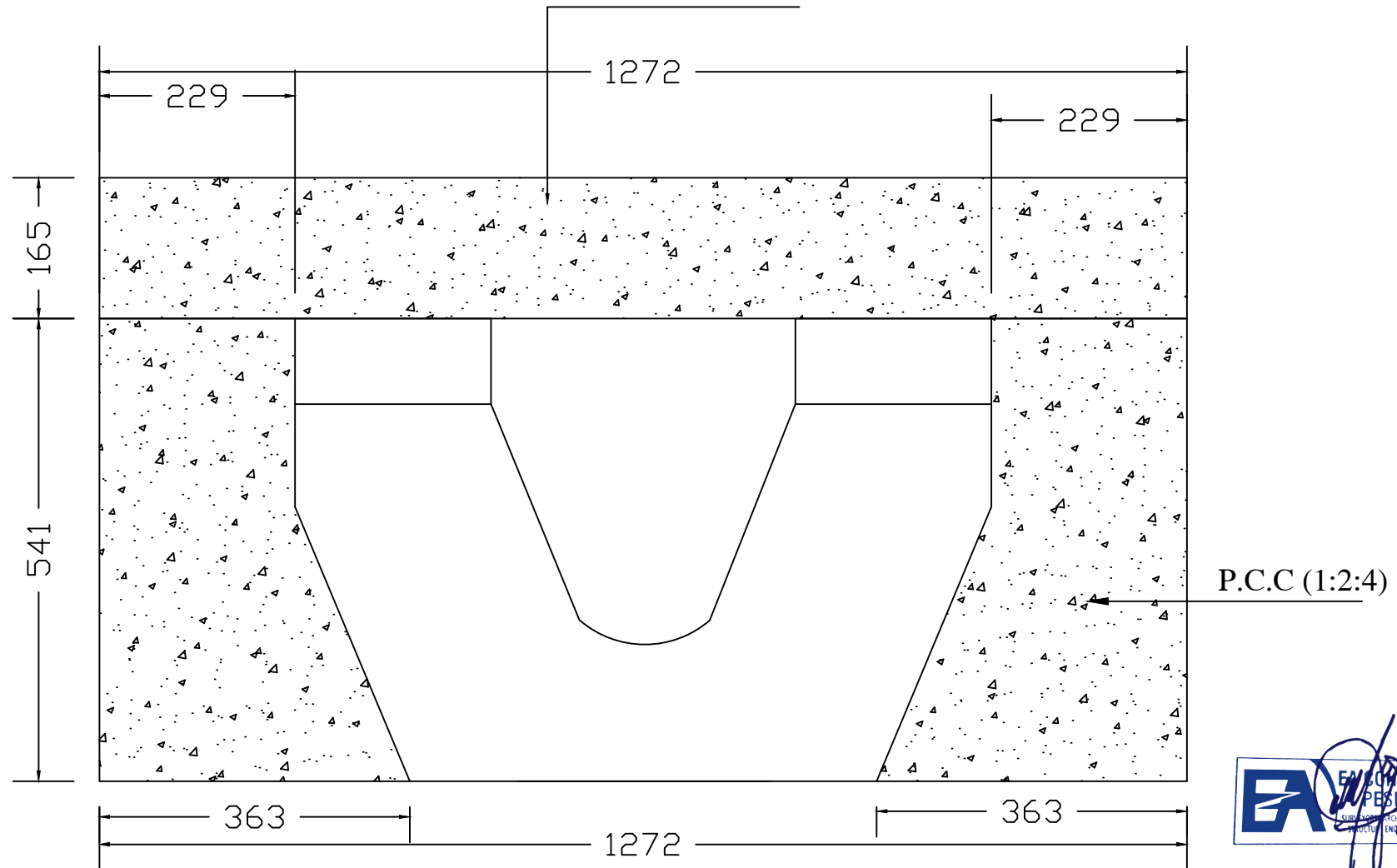
STANDARD TYPE R.C.C
CULVERT FOR OPEN DRAIN &
X-SECTION OF STREET
PAVEMENT

Client :

Ayub Medical Teaching Institute
Abbottabad

TYPE V

R.C.C SLAB IN RATIO 1:2:4



Project :

DETAIL DESIGN & CONSTRUCTION
SUPERVISION FOR STORM WATER
DISPOSAL / DRAINAGE SYSTEM IN AMTI
ABBOTABAD

CONSULTANTS



Design By:

Tariq Hussain

Drawing By :

Faisal Afridi

Date :

July, 2023

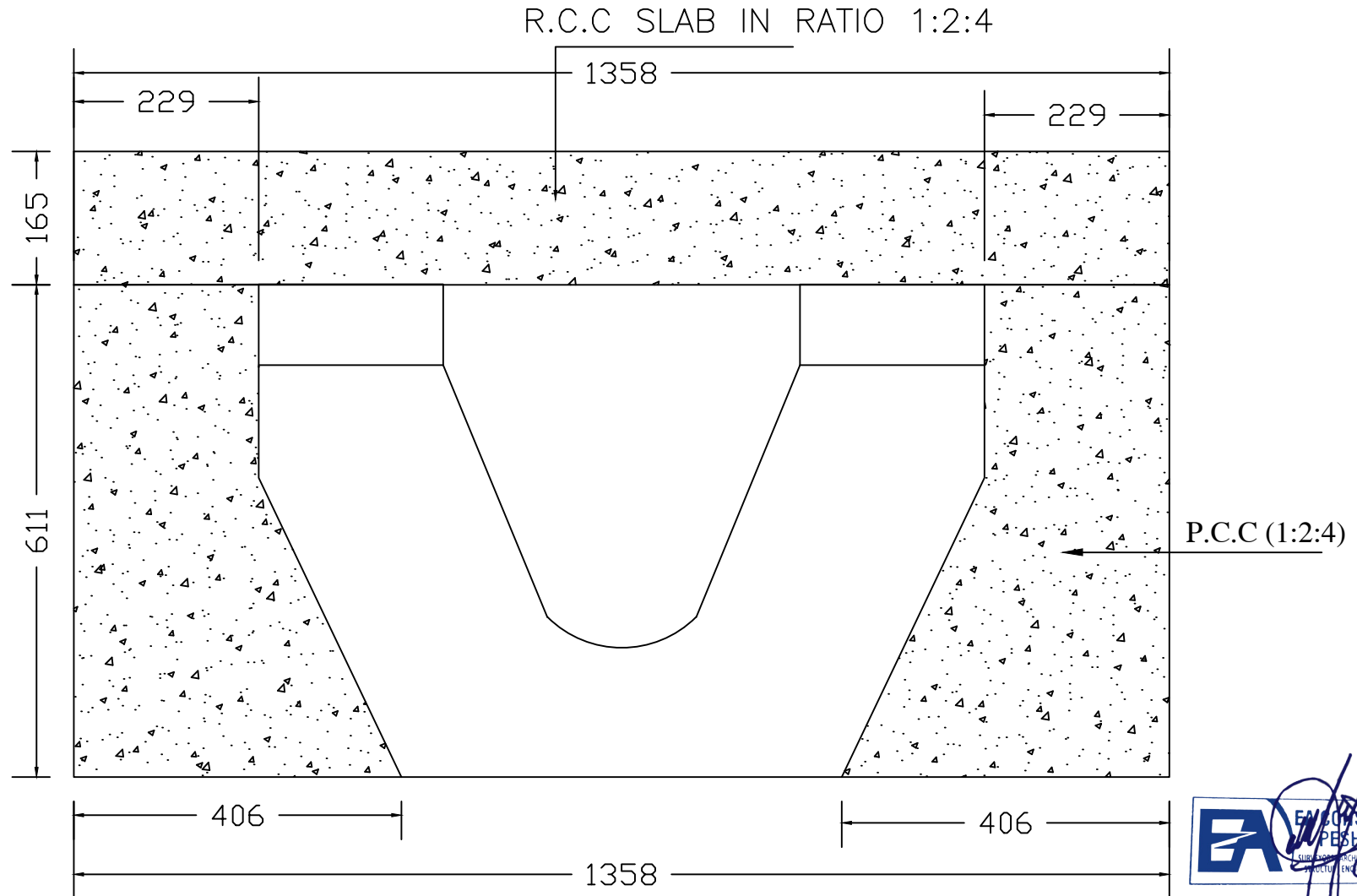
Title:

STANDARD TYPE R.C.C
CULVERT FOR OPEN DRAIN &
X-SECTION OF STREET
PAVEMENT

Client :

Ayub Medical Teaching Institute
Abbottabad

TYPE VI



Project :

DETAIL DESIGN & CONSTRUCTION
SUPERVISION FOR STROM WATER
DISPOSAL / DRAINAGE SYSTEM IN AMTI
ABBOTABAD

CONSULTANTS



Design By:

Tariq Hussain

Drawing By :

Faisal Afridi

Date :

July, 2023

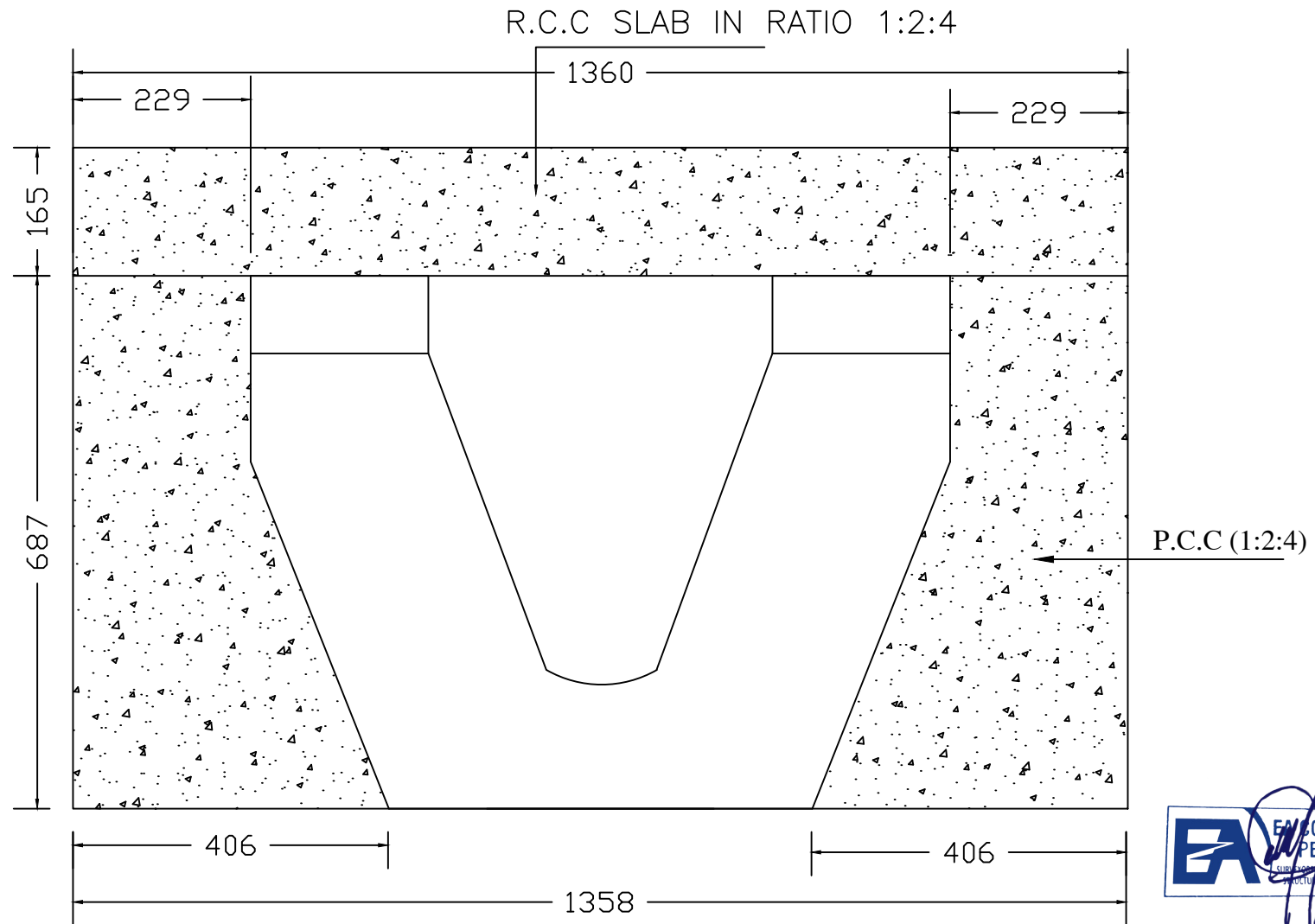
Title:

STANDARD TYPE R.C.C
CULVERT FOR OPEN DRAIN &
X-SECTION OF STREET
PAVEMENT

Client :

Ayub Medical Teaching Institute
Abbottabad

TYPE VII



Project :

DETAIL DESIGN & CONSTRUCTION
SUPERVISION FOR STORM WATER
DISPOSAL / DRAINAGE SYSTEM IN AMTI
ABBOTABAD

CONSULTANTS



Design By:

Tariq Hussain

Drawing By :

Faisal Afridi

Date :

July, 2023

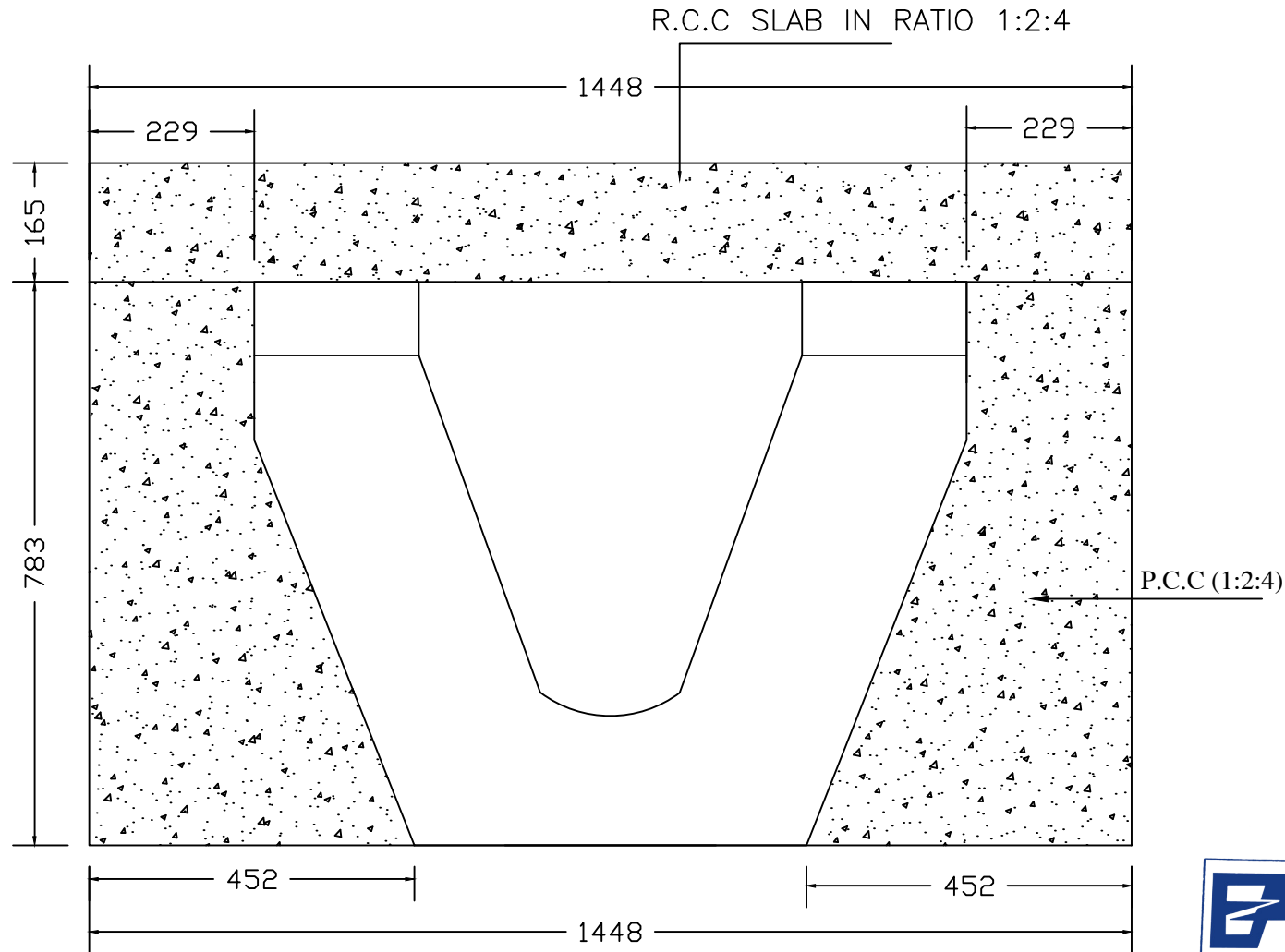
Title:

STANDARD TYPE R.C.C
CULVERT FOR OPEN DRAIN &
X-SECTION OF STREET
PAVEMENT

Client :

Ayub Medical Teaching Institute
Abbottabad

TYPE VIII



Project :

DETAIL DESIGN & CONSTRUCTION
SUPERVISION FOR STORM WATER
DISPOSAL / DRAINAGE SYSTEM IN AMTI
ABBOTABAD

CONSULTANTS



Design By:

Tariq Hussain

Drawing By :

Faisal Afridi

Date :

July, 2023

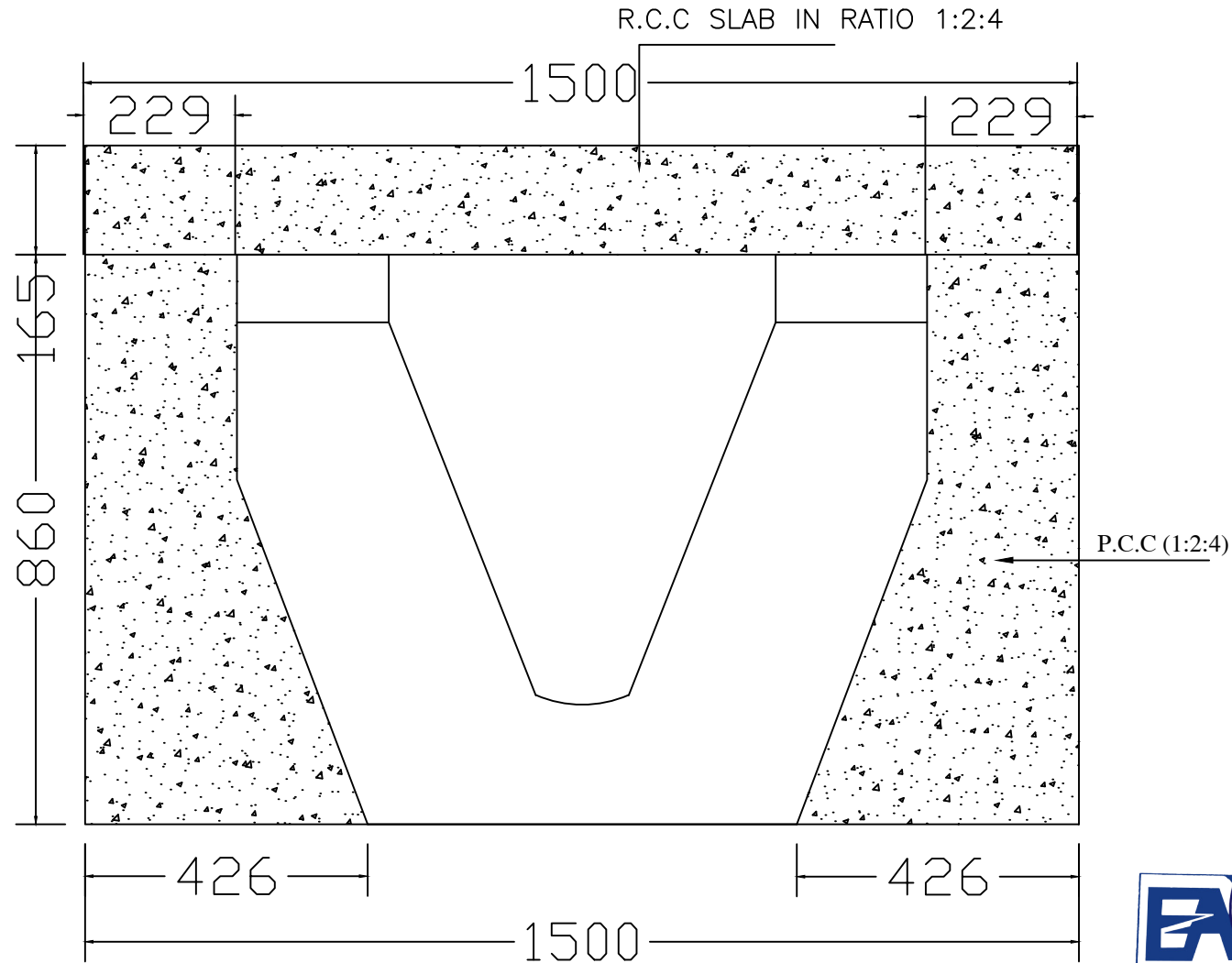
Title:

STANDARD TYPE R.C.C
CULVERT FOR OPEN DRAIN &
X-SECTION OF STREET
PAVEMENT

Client :

Ayub Medical Teaching Institute
Abbottabad

TYPE IX



Project :

DETAIL DESIGN & CONSTRUCTION
SUPERVISION FOR STROM WATER
DISPOSAL / DRAINAGE SYSTEM IN AMTI
ABBOTABAD

CONSULTANTS



Design By:

Tariq Hussain

Drawing By :

Faisal Afridi

Date :

July, 2023

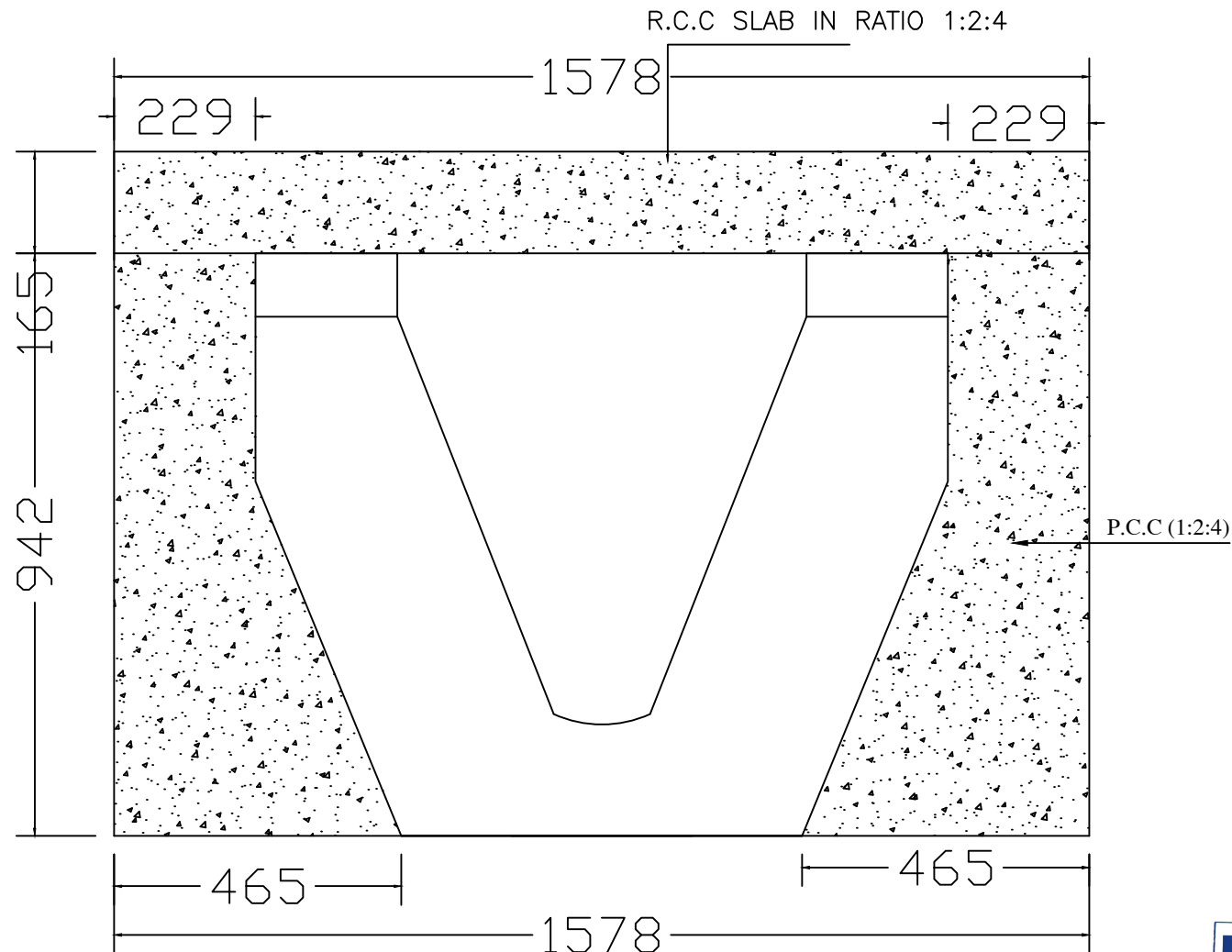
Title:

STANDARD TYPE R.C.C
CULVERT FOR OPEN DRAIN &
X-SECTION OF STREET
PAVEMENT

Client :

Ayub Medical Teaching Institute
Abbottabad

TYPE X



Project :

DETAIL DESIGN & CONSTRUCTION
SUPERVISION FOR STORM WATER
DISPOSAL / DRAINAGE SYSTEM IN AMTI
ABBOTABAD

CONSULTANTS



Design By:

Tariq Hussain

Drawing By :

Faisal Afridi

Date :

July, 2023

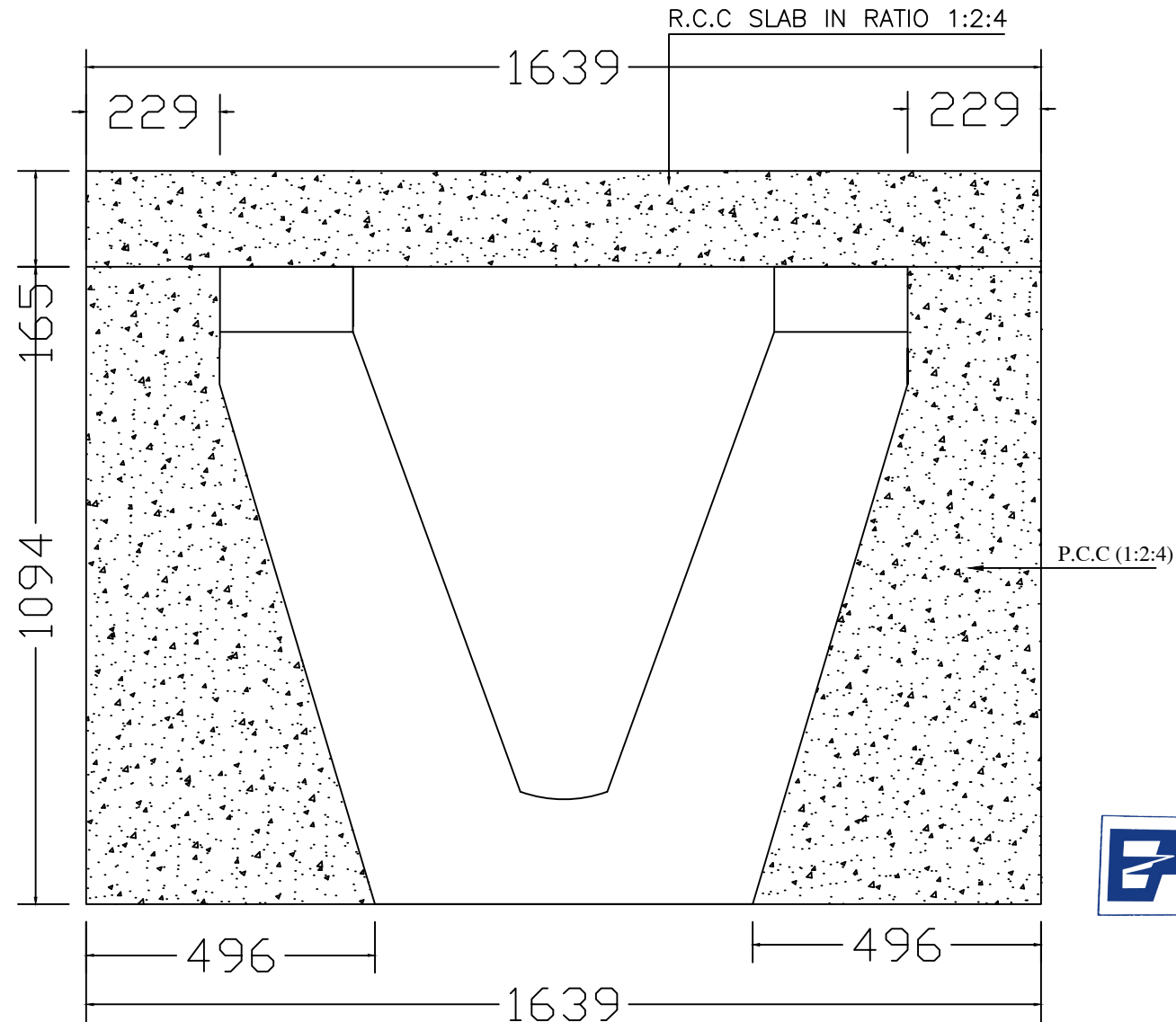
Title:

STANDARD TYPE R.C.C
CULVERT FOR OPEN DRAIN &
X-SECTION OF STREET
PAVEMENT

Client :

Ayub Medical Teaching Institute
Abbottabad

TYPE XII



Project :

DETAIL DESIGN & CONSTRUCTION
SUPERVISION FOR STORM WATER
DISPOSAL / DRAINAGE SYSTEM IN AMTI
ABBOTABAD

CONSULTANTS



Design By:

Tariq Hussain

Drawing By :

Faisal Afridi

Date :

July, 2023

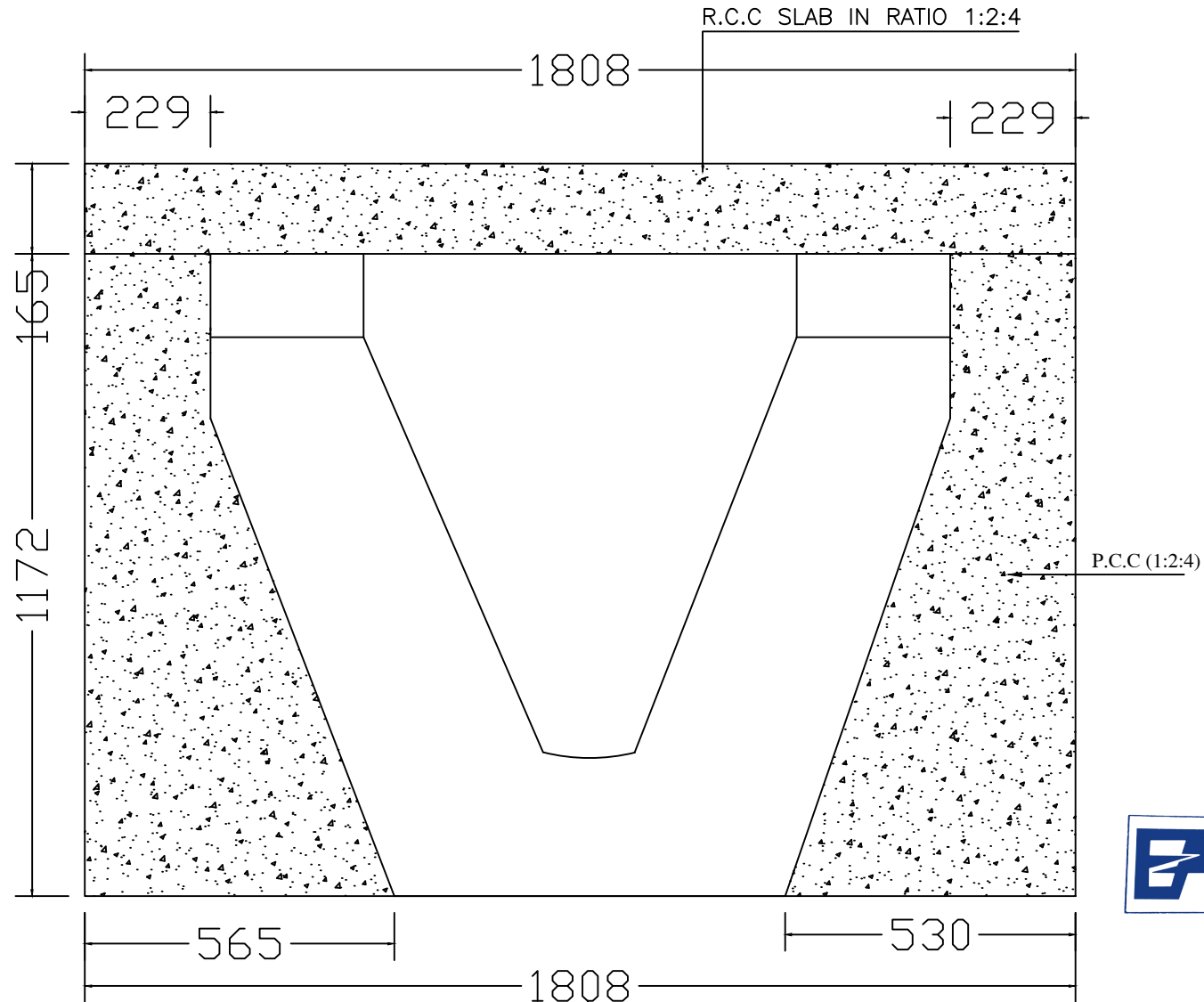
Title:

STANDARD TYPE R.C.C
CULVERT FOR OPEN DRAIN &
X-SECTION OF STREET
PAVEMENT

Client :

Ayub Medical Teaching Institute
Abbottabad

TYPE XIII



Project :

DETAIL DESIGN & CONSTRUCTION
SUPERVISION FOR STROM WATER
DISPOSAL / DRAINAGE SYSTEM IN AMTI
ABBOTABAD

CONSULTANTS



Design By:

Tariq Hussain

Drawing By :

Faisal Afridi

Date :

July, 2023

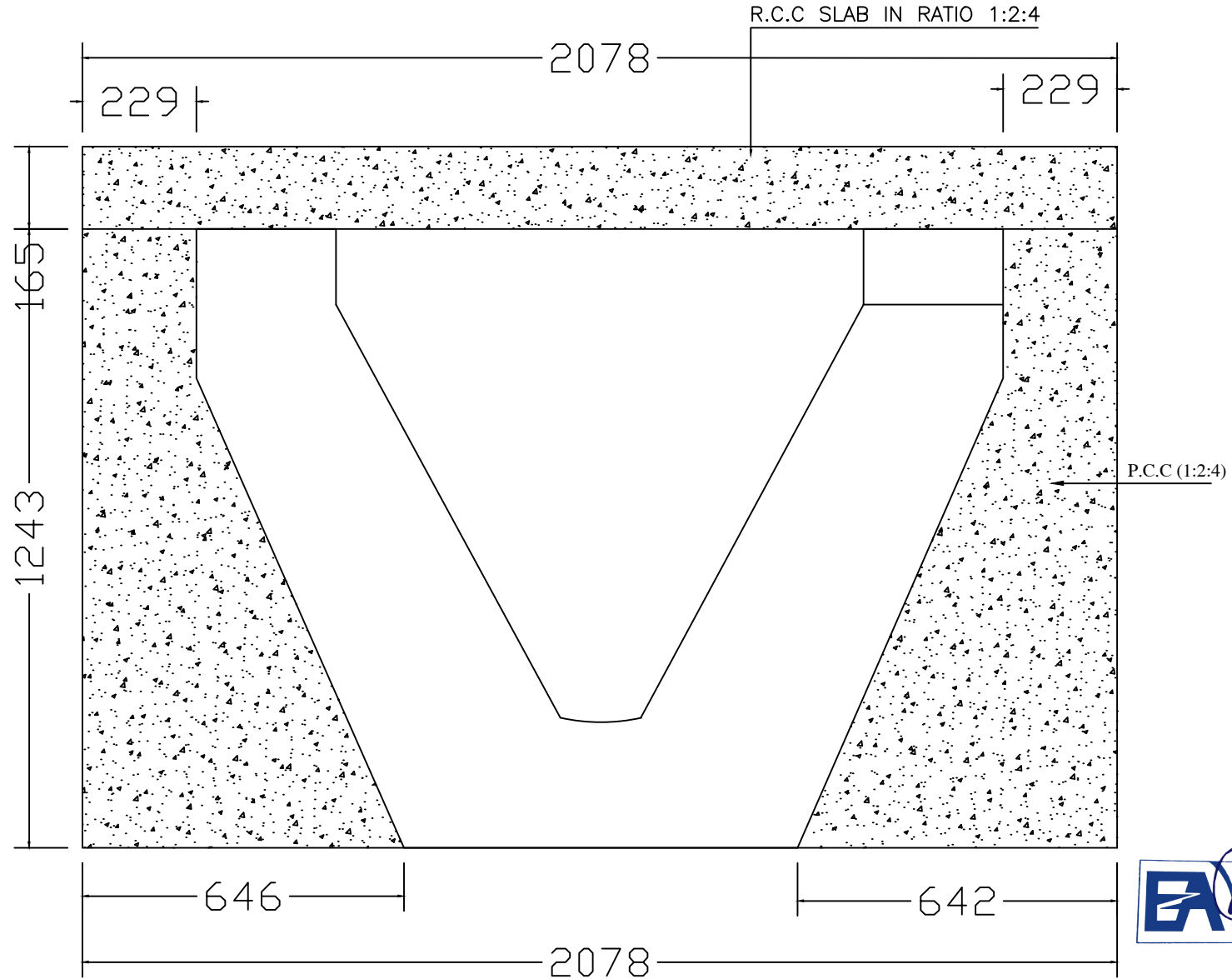
Title:

STANDARD TYPE R.C.C
CULVERT FOR OPEN DRAIN &
X-SECTION OF STREET
PAVEMENT

Client :

Ayub Medical Teaching Institute
Abbottabad

TYPE XIV



Project :

DETAIL DESIGN & CONSTRUCTION
SUPERVISION FOR STORM WATER
DISPOSAL / DRAINAGE SYSTEM IN AMTI
ABBOTABAD

CONSULTANTS



EAST ASIAN CONSULTANTS
PESHAWAR
Architects, Engineers, Town Planners & Surveyors
OFFICE: Plot No. 27-28, 3rd Floor, Spinner Plaza
University Road, Peshawar
Mobile : 0300 - 9705978, Phone : 091-5860318
E-mail : eastconsultants@gmail.com

Design By:

Tariq Hussain

Drawing By :

Faisal Afridi

Date :

July, 2023

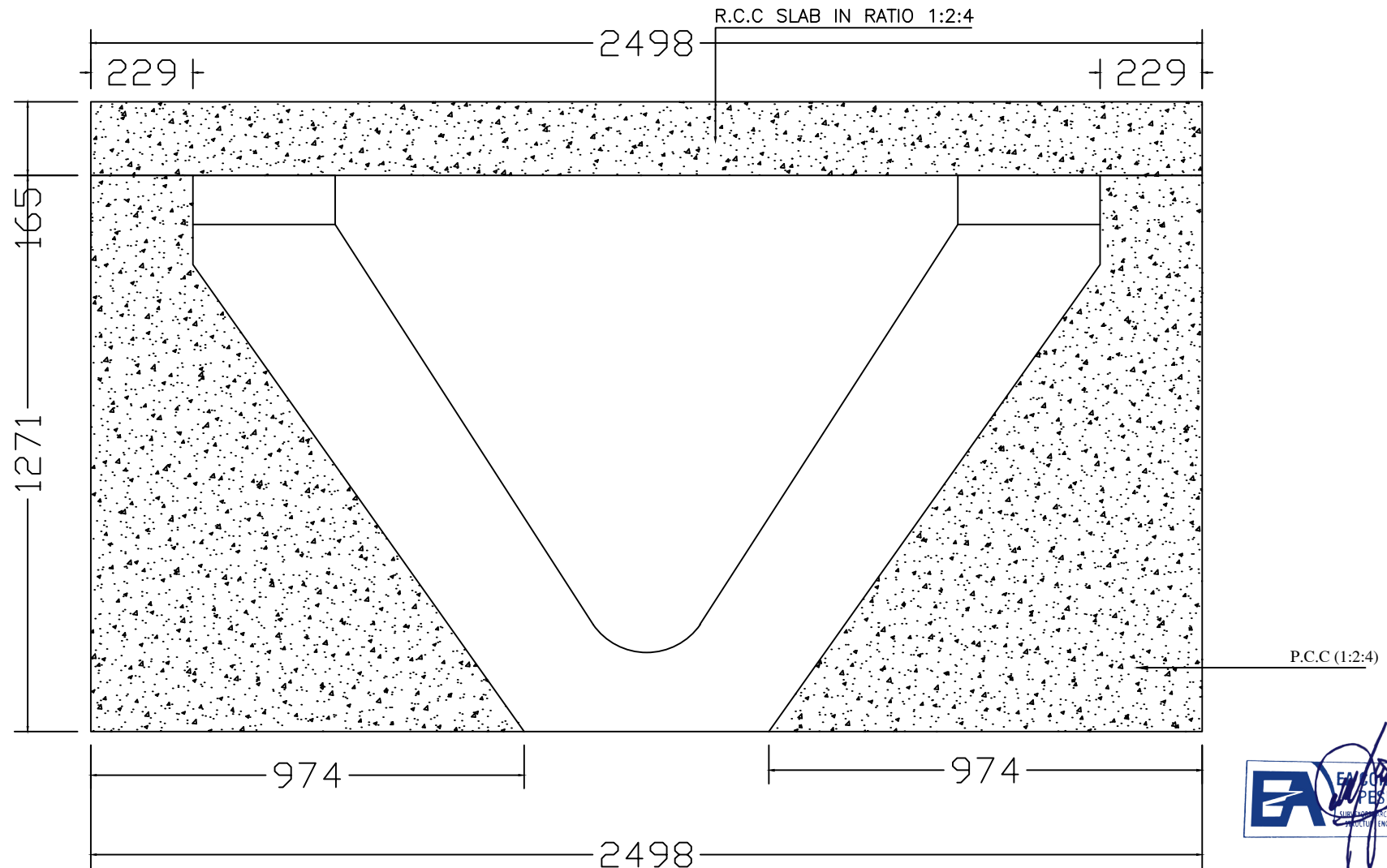
Title:

STANDARD TYPE R.C.C
CULVERT FOR OPEN DRAIN &
X-SECTION OF STREET
PAVEMENT

Client :

Ayub Medical Teaching Institute
Abbottabad

TYPE-B



Project :

DETAIL DESIGN & CONSTRUCTION
SUPERVISION FOR STORM WATER
DISPOSAL / DRAINAGE SYSTEM IN AMTI
ABBOTABAD

CONSULTANTS



Design By:

Tariq Hussain

Drawing By :

Faisal Afridi

Date :

July, 2023

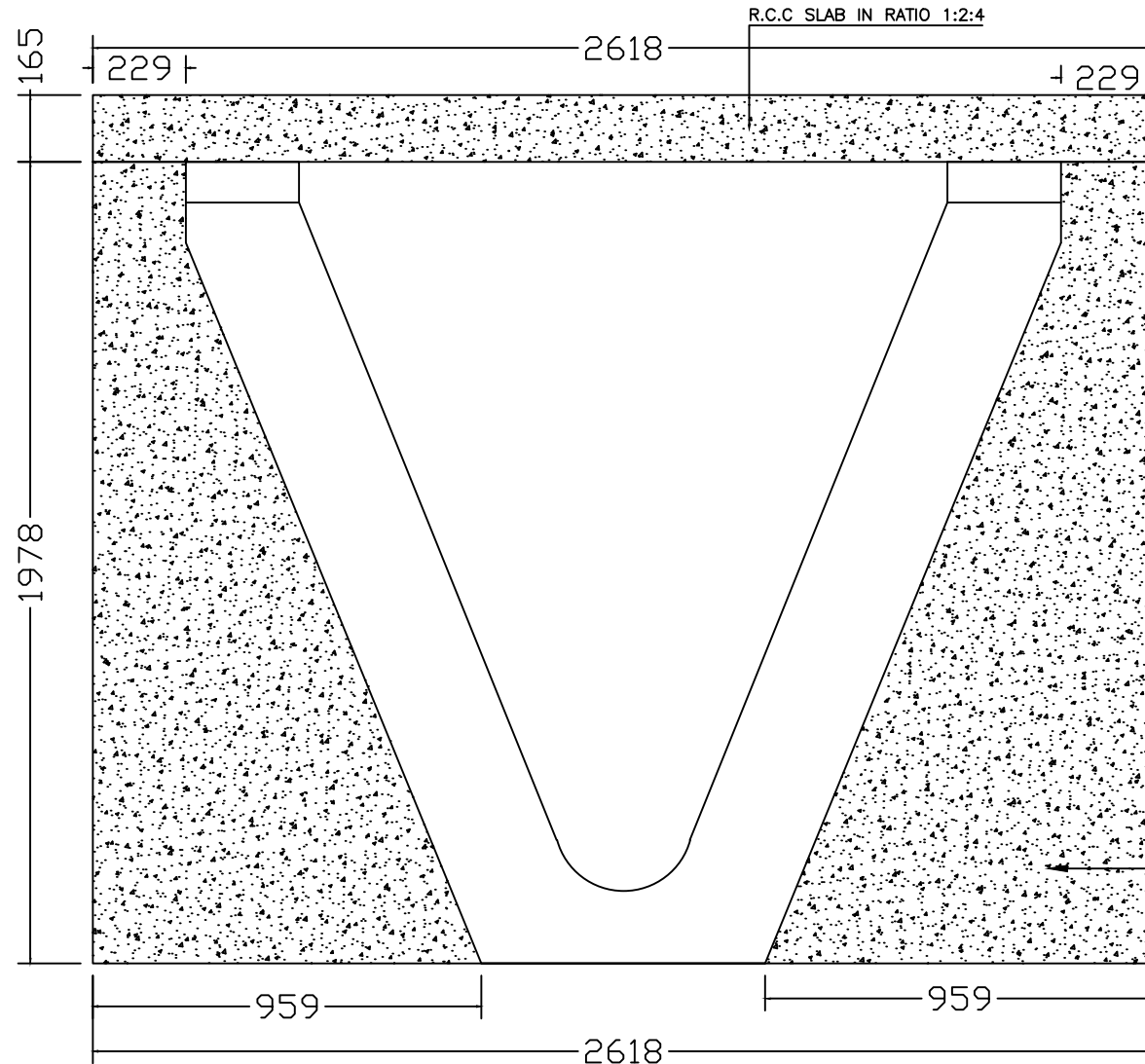
Title:

STANDARD TYPE R.C.C
CULVERT FOR OPEN DRAIN &
X-SECTION OF STREET
PAVEMENT

Client :

Ayub Medical Teaching Institute
Abbottabad

TYPE-D



Project :

DETAIL DESIGN & CONSTRUCTION
SUPERVISION FOR STORM WATER
DISPOSAL / DRAINAGE SYSTEM IN AMTI
ABBOTABAD

CONSULTANTS



Design By:

Tariq Hussain

Drawing By :

Faisal Afridi

Date :

July, 2023

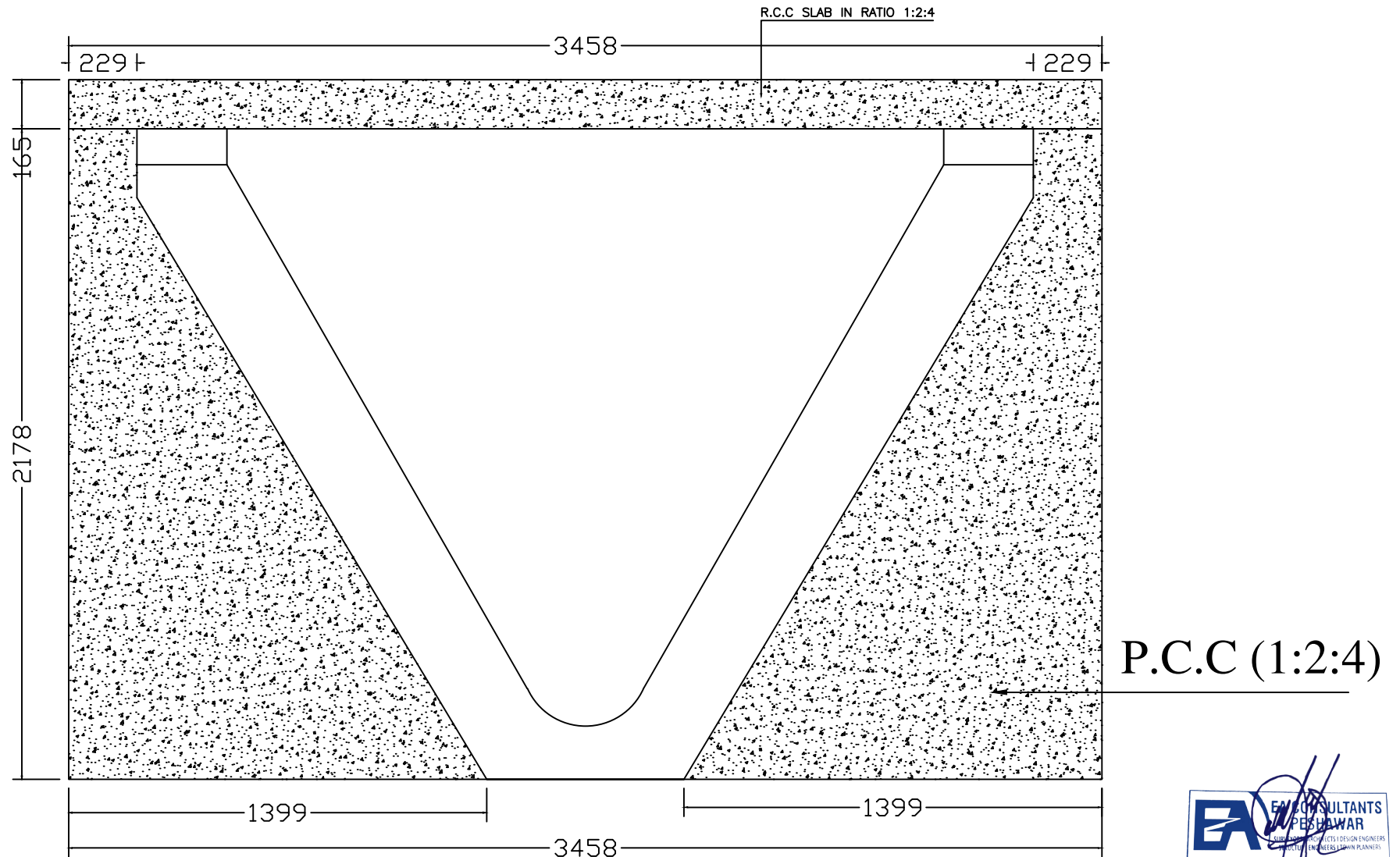
Title:

STANDARD TYPE R.C.C
CULVERT FOR OPEN DRAIN &
X-SECTION OF STREET
PAVEMENT

Client :

Ayub Medical Teaching Institute
Abbottabad

TYPE-G



Project :

DETAIL DESIGN & CONSTRUCTION
SUPERVISION FOR STORM WATER
DISPOSAL / DRAINAGE SYSTEM IN AMTI
ABBOTABAD

CONSULTANTS



Design By:

Tariq Hussain

Drawing By :

Faisal Afridi

Date :

July, 2023

Title:

STANDARD TYPE R.C.C
CULVERT FOR OPEN DRAIN &
X-SECTION OF STREET
PAVEMENT

Client :

Ayub Medical Teaching Institute
Abbottabad

R.WALL TYPICAL SECTION



CONSULTANTS / DESIGNERS:



EAST ASIAN CONSULTANTS

PESHAWAR

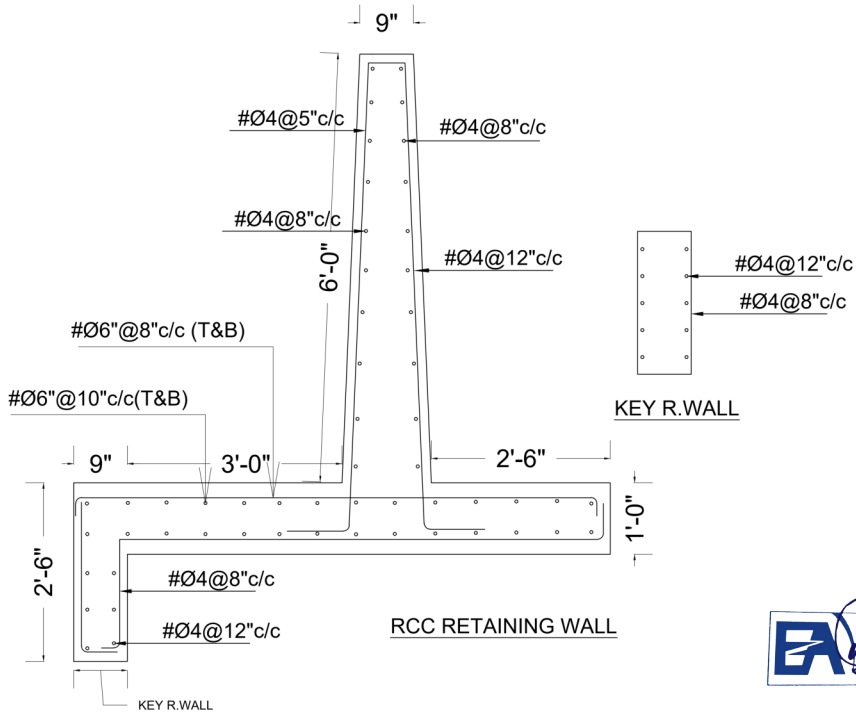
Architects, Engineers, Town Planners & Surveyors

OFFICE: Flat No. 27-30, 3rd Floor Spinzar Plaza

University Road, Peshawar

Mobile : 0300 - 5701978, Phone : 091-5860118

E-mail : eaconsultants1@gmail.com



Project :

DETAIL DESIGN & CONSTRUCTION SUPERVISION
FOR STORM WATER
DISPOSAL / DRAINAGE SYSTEM IN AMTI
ABBOTABAD

CONSULTANTS



Design By:

Tariq Hussain

Drawing By :

Faisal Afridi

Date:

July, 2023

Title:

RETAINING WALL
SECTION

Client :

Ayub Medical Teaching Institute
Abbottabad