

PROJECT NAME:

MASJID COMSATS ISLAMABAD

STRUCTURAL CONSULTANTS:	VETTING CONSULTANT
 Designmen CONSULTING ENGINEERS (Pvt) LTD. 1st Floor , Block 9-West , Rizwan Plaza, Jinnah Avenue F-6 , ISLAMABAD - PAKISTAN Ph: 92-51-2828577 , 2829002 Fax : 92-51-2307615 E-mail: designmenislamabad@gmail.com	 SHAHZAD CONSULTING ENGINEERS Office No:12, 3rd Floor, National Business Centre Murree Road,Rawalpindi Tel: 92-300-8507032 PH: 92-51-4935712 E-mail: sceconsult@gmail.com

GENERAL STRUCTURAL NOTES

All dimensions shall be verified at site before commencement of fabrication and erection.

Do not scale drawings. Written dimensions shall govern.

The structure is designed for a basic wind speed of 160 km/hr and shall be executed strictly as per approved structural drawings.

All structural steel shall conform to the specified grade with minimum yield strength $F_y = 250$ MPa , unless otherwise noted.

All tubular members shall be CHS sections of approved quality and sizes as shown on drawings.

All steel sections shall be free from rust, scale, cracks, laminations and other defects.

Tubular trusses shall be fabricated using approved jigs/templates to maintain the required curvature, alignment and geometry. on the approved drawings.

Gusset plates shall be minimum 12 mm thick, unless otherwise specified by the structural design.

All structural bolts shall be Grade 8.8 high-strength bolts with approved nuts and washers.

Anchor bolts shall be M24 Grade 8.8, complete with nuts, washers, templates and anchorage arrangements.

Welding shall be carried out by qualified welders in accordance with an approved Welding Procedure Specification (WPS).

Unless otherwise noted, provide minimum 8 mm continuous fillet welds at principal structural connections.

Welding surfaces shall be properly prepared and cleaned before welding. Defective welds shall be removed and re-welded.

All steel members shall be hot-dip galvanized or provided with the approved corrosion-protection system after completion of fabrication.

Damaged galvanized surfaces and site welds shall be repaired using an approved zinc-rich protective coating.

RCC foundations shall be constructed using minimum 3000 PSI cylindrical concrete.

Reinforcement steel shall be Grade 60 deformed bars having minimum yield strength $F_y = 420$ MPa.

Provide 75 mm clear concrete cover to footing reinforcement and 50 mm cover to pedestal reinforcement.

Foundation excavation shall be inspected and approved by the Engineer before placing PCC or RCC.

Allowable soil bearing capacity shall be taken as 1.0 ton/ft², subject to confirmation of actual site soil conditions.

Base plates shall be properly levelled and fully supported on approved non-shrink grout.

Anchor bolts shall be accurately positioned using steel templates before concreting.

Temporary supports and bracing shall be provided during erection to ensure structural stability.

No temporary erection support shall be removed until the complete structural framing and bracing system has been installed and approved.

PTFE membrane shall be architectural-grade PTFE-coated of minimum 850 GSM.

PTFE membrane cutting pattern, form-finding, compensation and pretension shall be finalized by the specialized membrane manufacturer/contractor.

Membrane pretension, edge cables, clamps, turnbuckles and tensioning accessories shall be installed in accordance with the approved specialist design.

No unauthorized cutting, drilling, welding or modification of any structural member shall be permitted at site.

Any discrepancy between drawings, calculations and actual site conditions shall be immediately referred to the Structural Engineer before execution.

The contractor shall submit shop drawings and fabrication details for approval prior to fabrication.

Fabrication and erection shall conform to applicable AISC, ASCE, ACI and AWS standards, codes.

All works shall be executed under the supervision of qualified technical personnel and to the satisfaction of the Engineer.

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TITLE OF DRAWING:

TENDER DRAWING

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#	DATE	REV	TITLE

PROJECT NAME:

MASJID COMSATS ISLAMABAD

DESIGNED BY: SHAHZAD ASLAM	DRAWN BY: ASIF IQBAL	CHECKED BY:
DRAWING NO: S-0A	REVISION NO: 00	
SCALE: N.T.S	DATE: AUG-2026	
DRAWING TITLE: GENERAL NOTES		

WELDING NOTES

All structural welding shall conform to AWS D1.1/D1.1M - Structural Welding Code-Steel.

Welding symbols shall conform to AWS A2.4.

Welding consumables shall comply with applicable AWS A5 Series Specifications.

Use E7018 low-hydrogen electrodes or approved equivalent.

All welding shall be carried out by qualified welders using an approved WPS.

Provide minimum 6 mm fillet weld and 8 mm continuous fillet weld at main structural connections, unless otherwise shown.

All weld surfaces shall be clean and free from rust, oil, paint and other contaminants.

All structural welds shall be visually inspected; critical welds shall be tested by approved NDT methods, where required.

Defective welds shall be removed and repaired as per AWS D1.1/D1.1M.

Site-welded or damaged galvanized surfaces shall be repaired with approved zinc-rich coating.

STRUCTURAL STEEL TESTING & GALVANIZING NOTES

Structural steel/CHS members shall be verified through Mill Test Certificates (MTC) for yield strength, tensile strength and chemical composition.

Welding shall be visually inspected and tested by Dye Penetrant Test (DPT) or Magnetic Particle Test (MPT) for critical connections; Ultrasonic Testing (UT) shall be carried out for critical full-penetration welds, where applicable.

High-strength bolts shall be supplied with manufacturer's test certificates and verified for specified grade.

All fabricated structural steel shall be hot-dip galvanized after fabrication in accordance with ASTM A123/A123M or ISO 1461.

Bolts, nuts and washers shall be galvanized in accordance with ASTM A153/A153M or applicable equivalent standard.

Galvanized coating thickness and continuity shall be checked by an approved Dry Film Thickness/Coating Thickness Gauge.

Minimum average galvanized coating thickness shall be 85 microns, unless otherwise specified by the applicable galvanizing standard.

Damaged galvanized surfaces and site-welded areas shall be repaired with approved zinc-rich coating.

All test reports, MTCs, welding inspection/NDT reports and galvanizing certificates shall be submitted to the Engineer for approval

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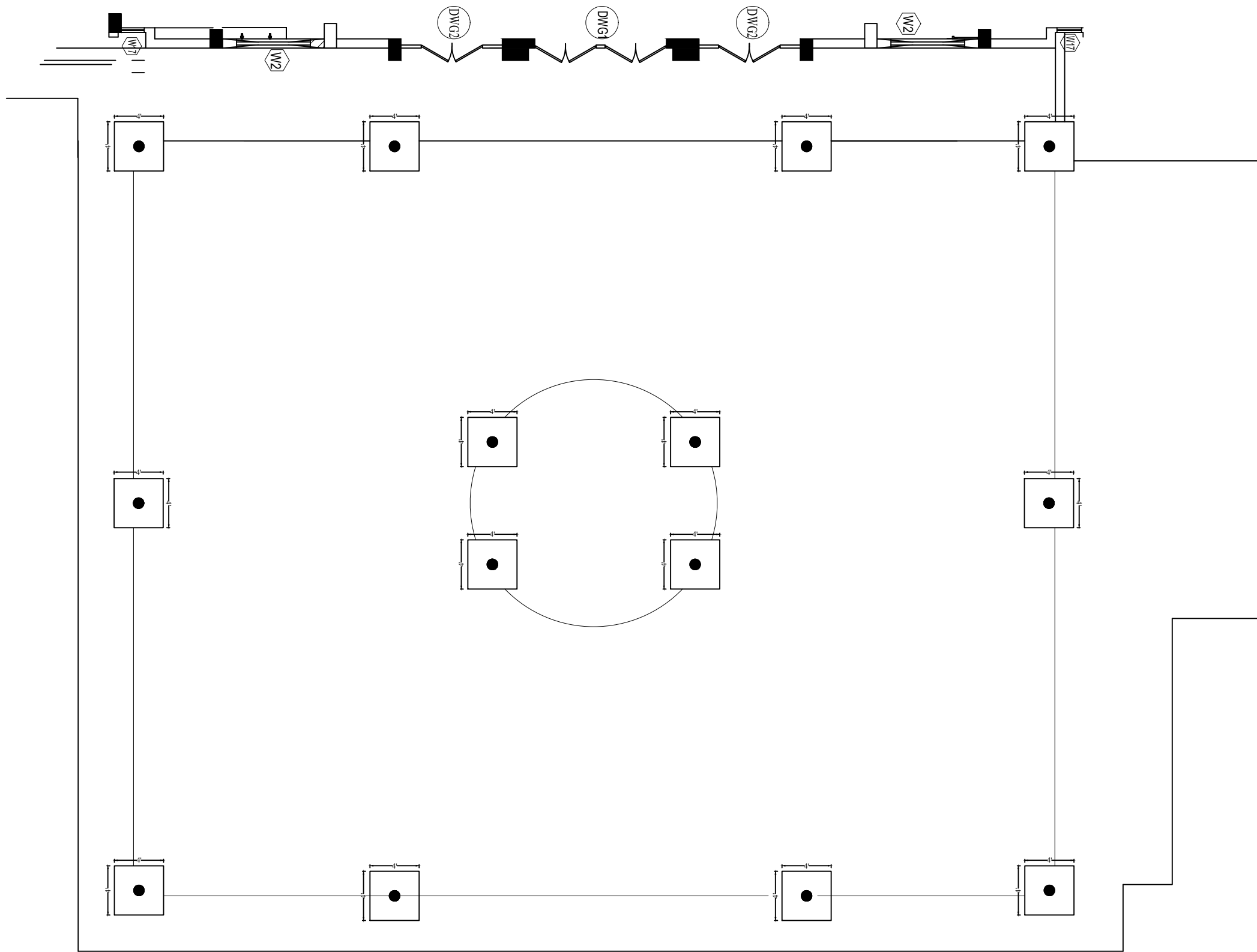
PROJECT NAME:

MASJID COMSATS ISLAMABAD

DESIGNED BY: SHAHZAD ASLAM	DRAWN BY: ASIF IQBAL	CHECKED BY:
DRAWING NO: S-0B	REVISION NO: 00	
SCALE: N.T.S	DATE: AUG-2026	

DRAWING TITLE:

GENERAL NOTES



FOUNDATION LAYOUT PLAN

STRUCTURAL CONSULTANTS:



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PROJECT NAME:

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DESIGNED BY:
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ASIF IQBAL

CHECKED BY:

DRAWING NO:
S-01

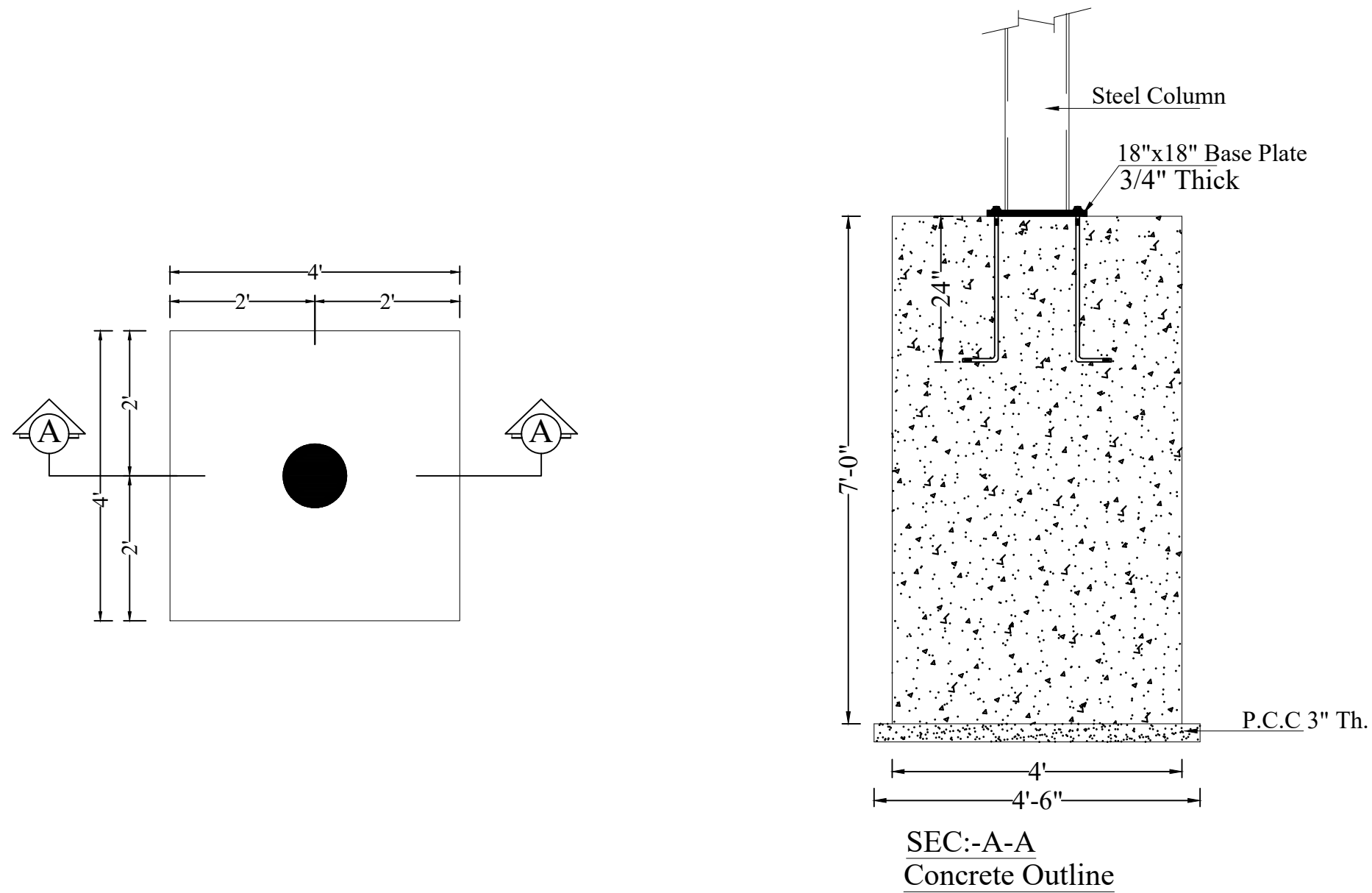
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SCALE:
N.T.S

DATE:
AUG-2026

DRAWING TITLE:

FOUNDATION LAYOUT PLAN



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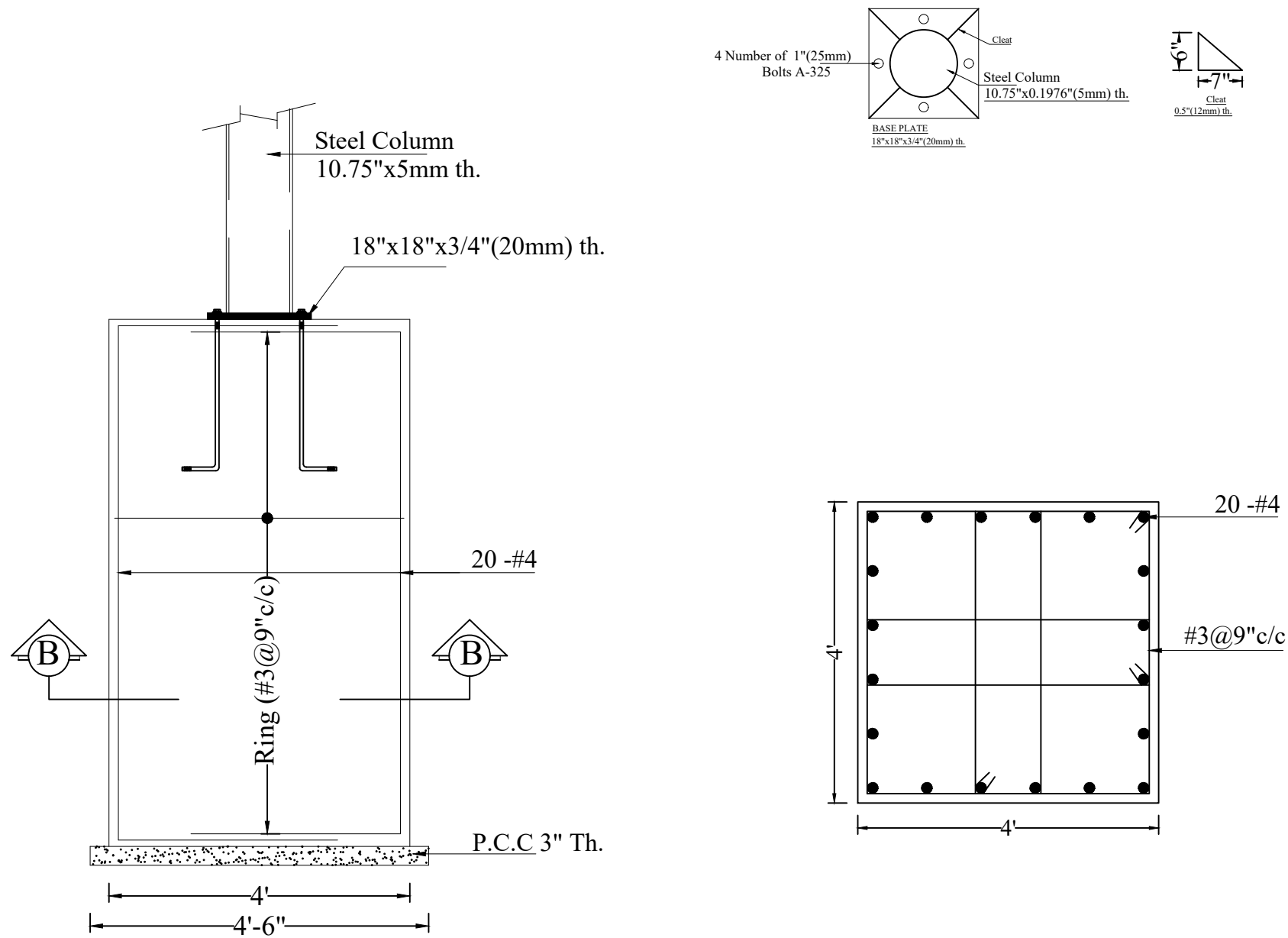
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DESIGNED BY: SHAHZAD ASLAM	DRAWN BY: ASIF IQBAL	CHECKED BY:
DRAWING NO: S-02	REVISION NO: 00	
SCALE: N.T.S	DATE: AUG-2026	
DRAWING TITLE: FOOTING SECTION CONCRETE OUTLINE		



SEC:-A-A
Reinforcement Detail

STRUCTURAL CONSULTANTS:



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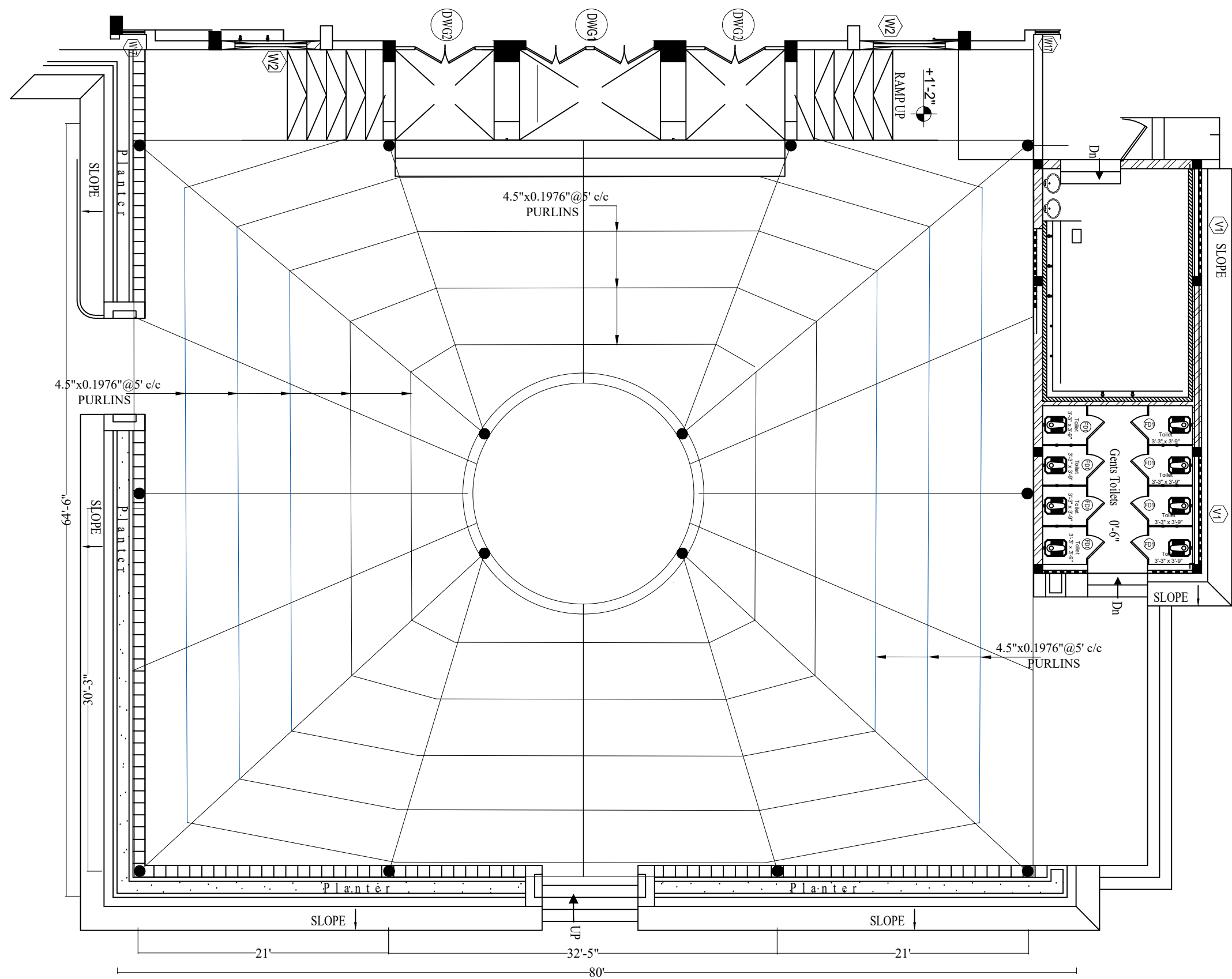
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DRAWING NO: S-03	REVISION NO: 00	
SCALE: N.T.S	DATE: AUG-2026	
DRAWING TITLE: FOOTING SECTION REINFORCEMENT DETAIL		



PURLINS LAYOUT PLAN

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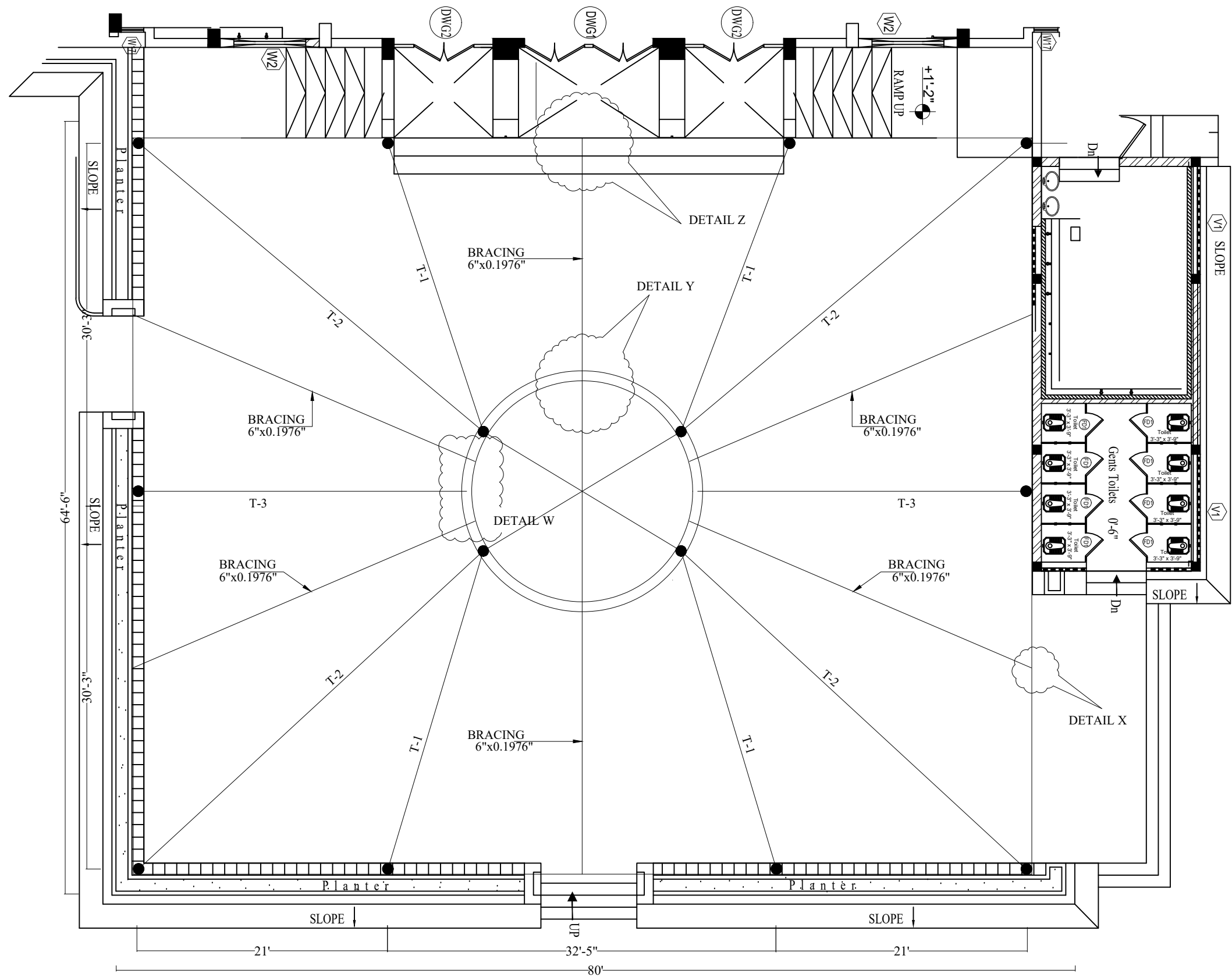
PROJECT NAME:

MASJID COMSATS ISLAMABAD

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DRAWING NO:	S-04	REVISION NO: 00
SCALE:	N.T.S	DATE: AUG-2026

DRAWING TITLE:

PURLINS LAYOUT PLAN



TRUSS LAYOUT PLAN

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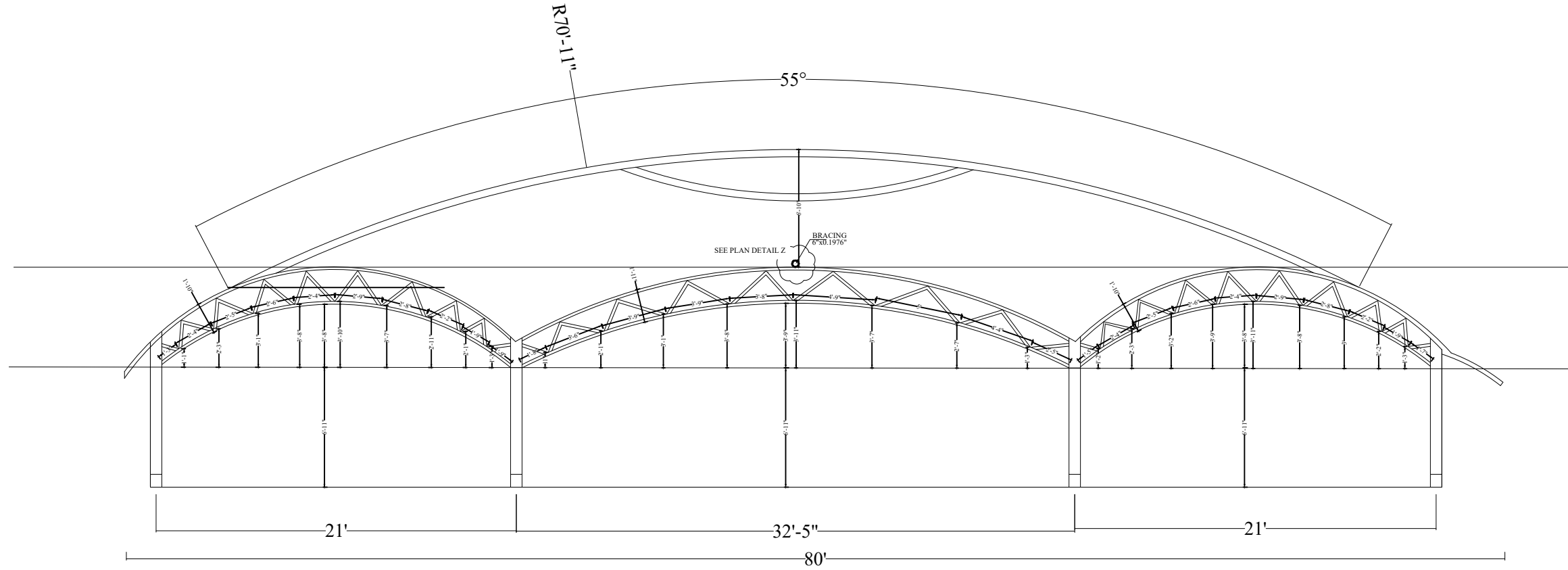
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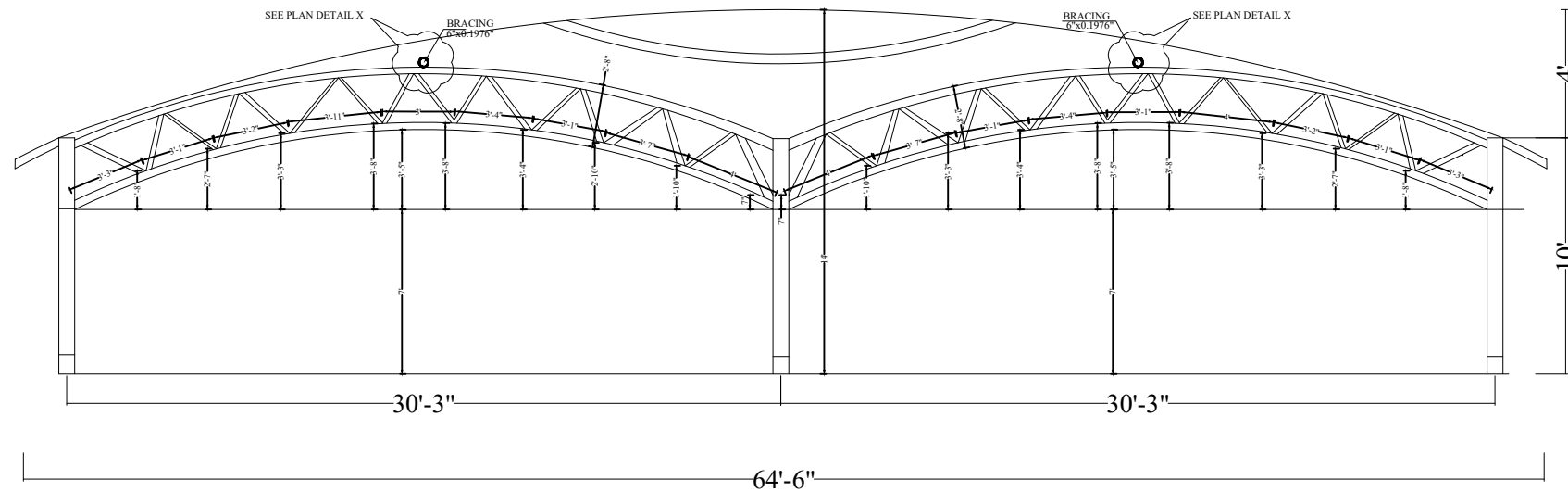
MASJID COMSATS ISLAMABAD

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DRAWING NO: S-05	REVISION NO: 00	
SCALE: N.T.S	DATE: AUG-2026	

DRAWING TITLE:
TRUSS LAYOUT PLAN



FRONT ELEVATION



SIDE ELEVATION

STRUCTURAL CONSULTANTS:



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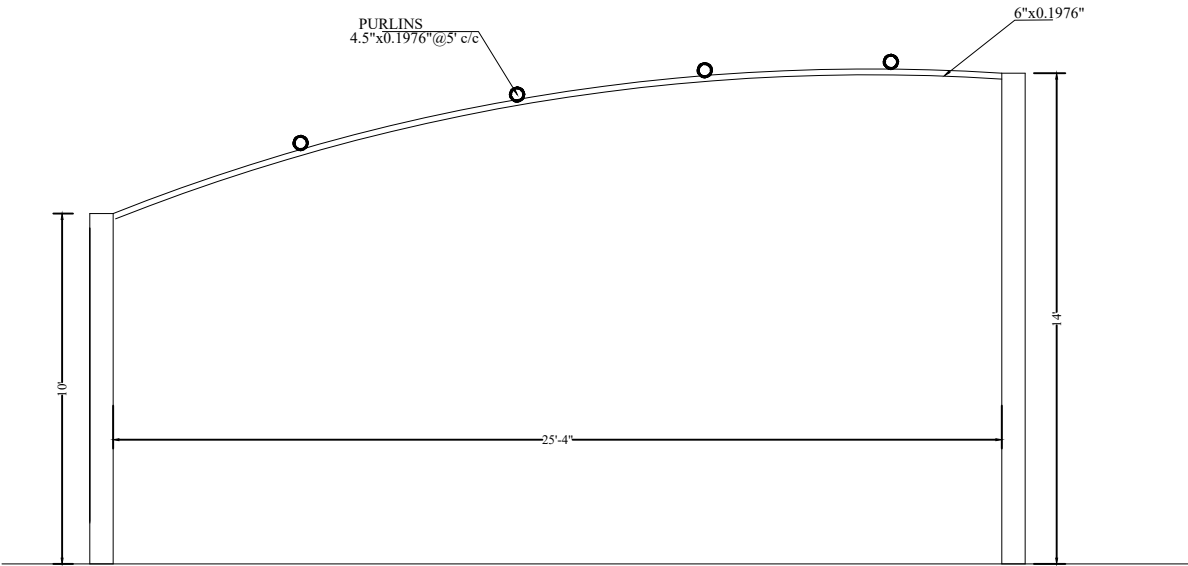
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MASJID COMSATS ISLAMABAD

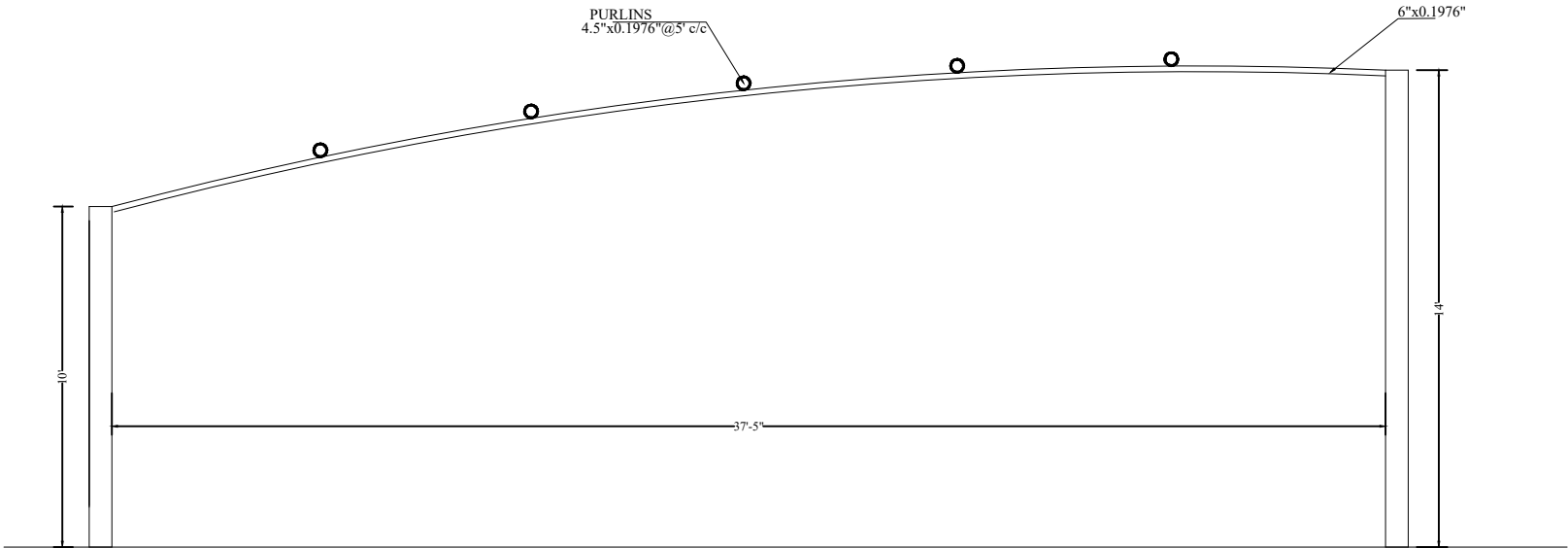
DESIGNED BY: SHAHZAD ASLAM	DRAWN BY: ASIF IQBAL	CHECKED BY:
DRAWING NO: S-06	REVISION NO: 00	
SCALE: N.T.S	DATE: AUG-2026	

DRAWING TITLE:

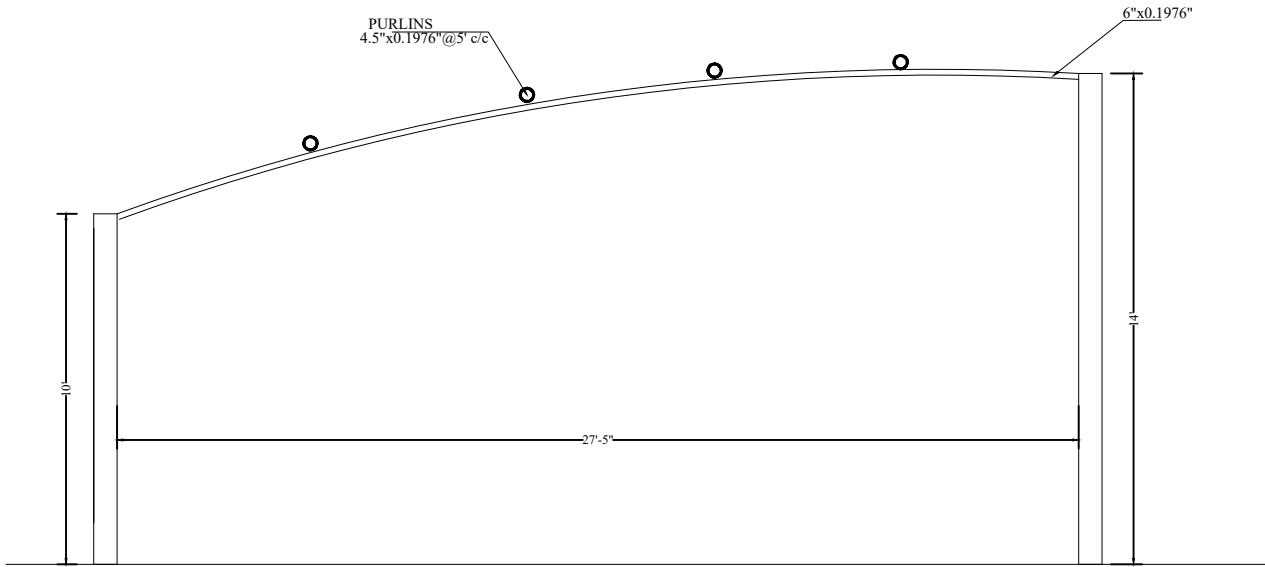
FRONT & SIDE ELEVATION



TRUSS T-1



TRUSS T-2



TRUSS T-3

STRUCTURAL CONSULTANTS:



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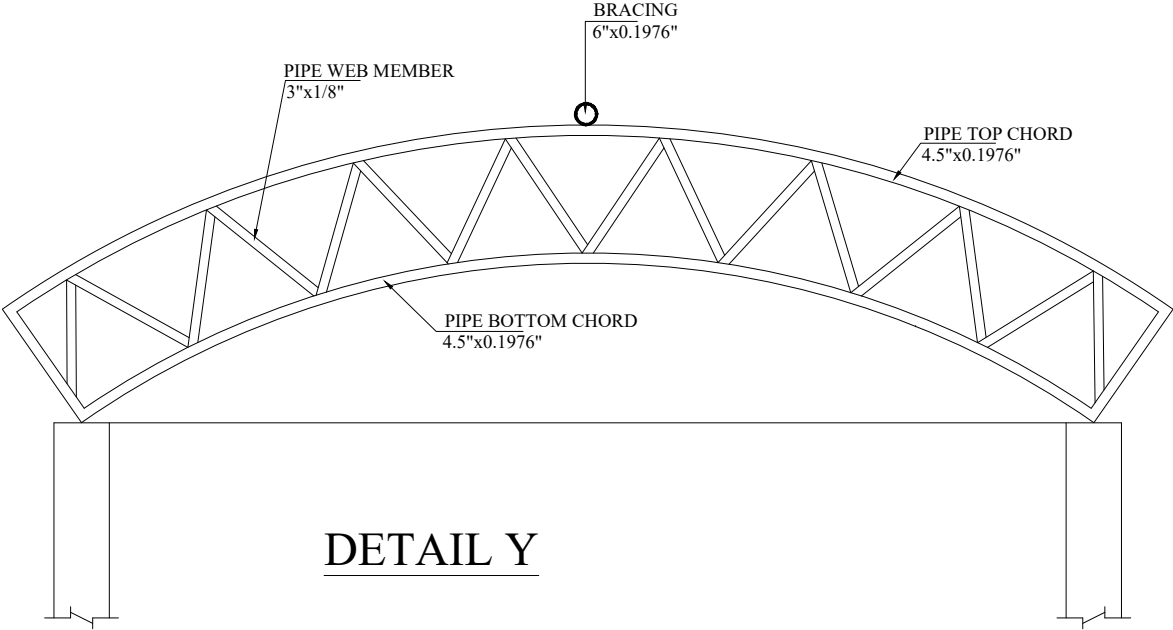
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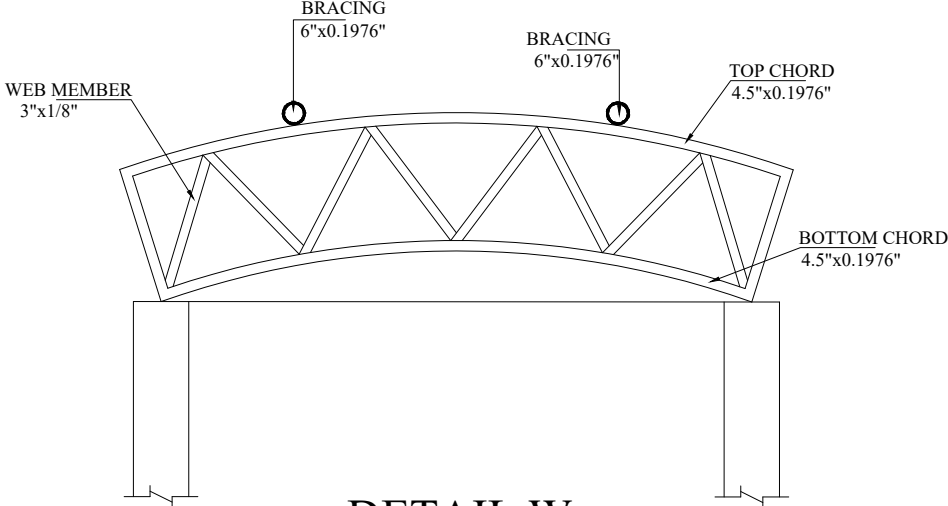
PROJECT NAME:

MASJID COMSATS ISLAMABAD

DESIGNED BY: SHAHZAD ASLAM	DRAWN BY: ASIF IQBAL	CHECKED BY:
DRAWING NO:	S-07	REVISION NO: 00
SCALE:	N.T.S	DATE: AUG-2026
DRAWING TITLE: TRUSS T-1,T-2 & T-3		



DETAIL Y



DETAIL W

STRUCTURAL CONSULTANTS:



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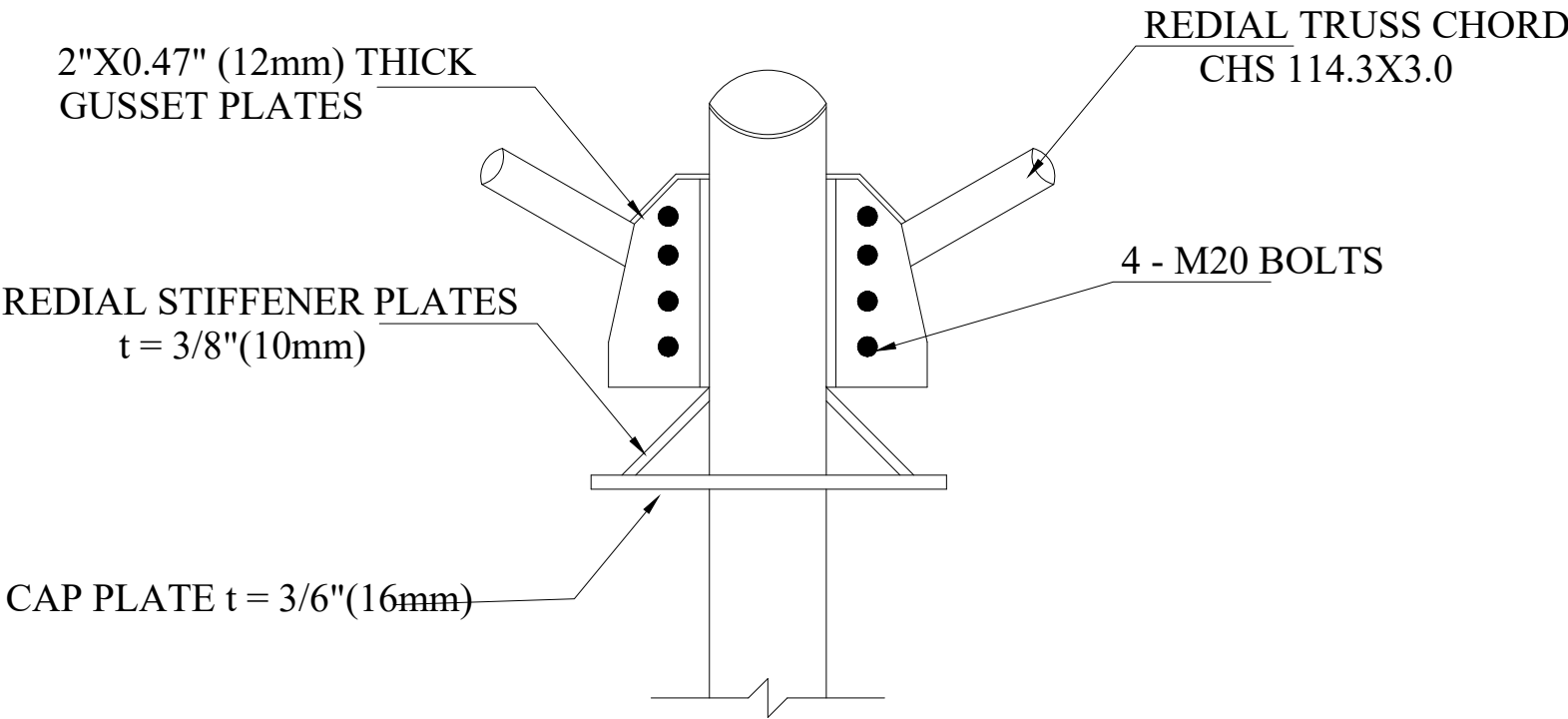
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DRAWING NO: S-08	REVISION NO: 00	
SCALE: N.T.S	DATE: AUG-2026	
DRAWING TITLE: DETAILS		



EXTERNAL COLUMN CONNECTION TO RADIAL TRUSS

STRUCTURAL CONSULTANTS:



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DRAWING NO: S-09	REVISION NO: 00	
SCALE: N.T.S	DATE: AUG-2026	

DRAWING TITLE:

EXTERNAL COLUMN CONNECTION TO RADIAL TRUSS