

HAIDER CHOWK FLYOVER BRIDGE

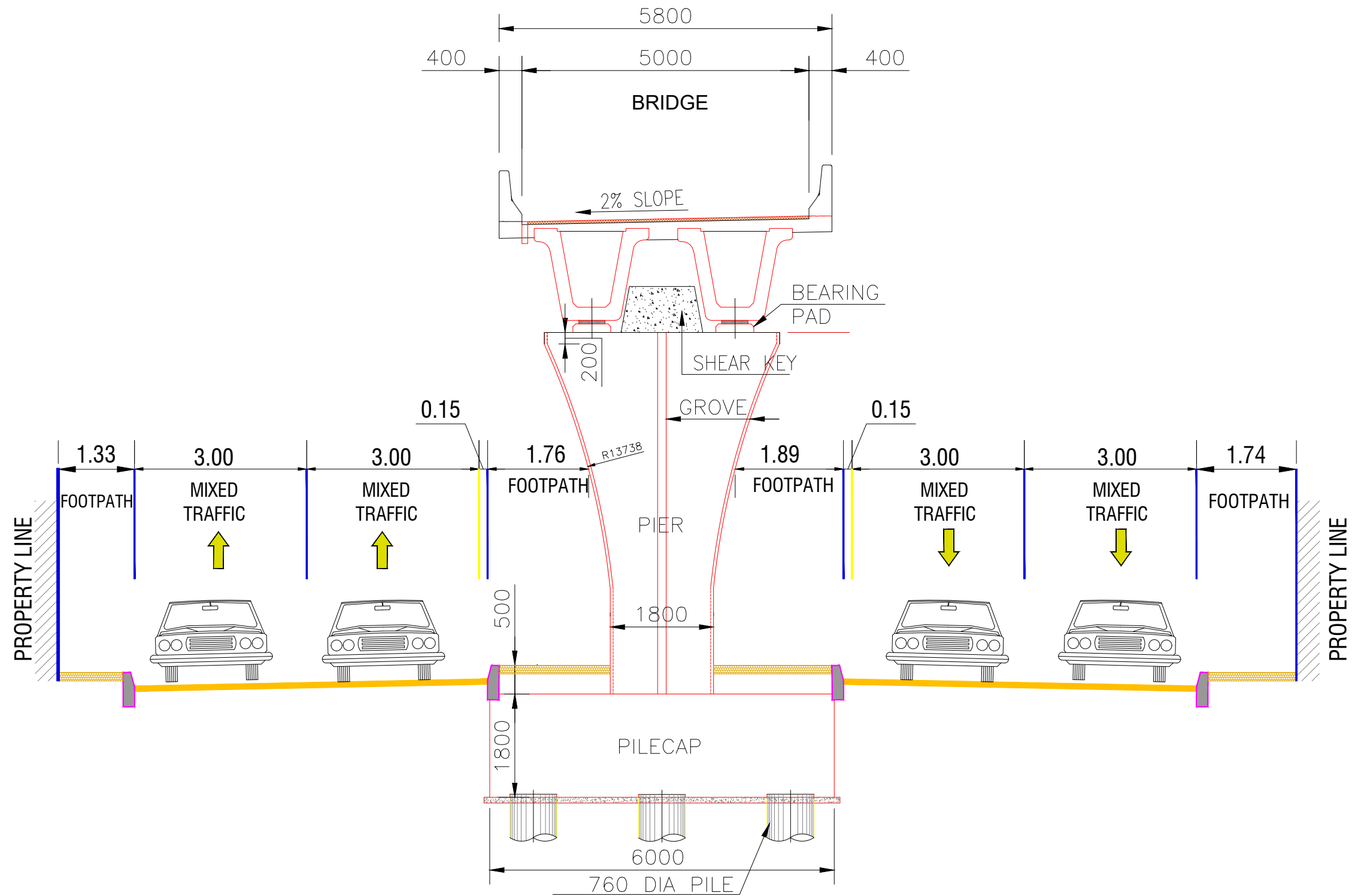


STRUCTURAL DRAWINGS (AUGUST, 2026)

CONSULTANT:



Exponent Engineers (Pvt) Limited
Consulting Engineers & Project Managers



CROSS SECTION
HAIDER CHOWK

STRUCTURE DRAWINGS LIST

(GENERAL DRAWING)

S.NO.	DWG.NO.	TITLE	REVISION No
1	EE-HC-CV-ST-LD	LIST OF DRAWINGS	00
2	EE-HC-CV-ST-GN	GENERAL NOTES	00

(ARRANGEMENT DRAWINGS)

S.NO.	DWG.NO.	TITLE	REVISION No
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9	EE-HC-CV-ST-106	DECK SLAB CONCRETE DETAILS (SHEET 2 OF 2)	00
10	EE-HC-CV-ST-107	GIRDER ELEVATION CONCRETE DETAILS	00
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12	EE-HC-CV-ST-109	RETAINING WALL PLAN & SECTION CONCRETE DETAILS	00

TENDER DRAWING
NOT FOR CONSTRUCTION

							 Exponent Engineers (Pvt) Limited Consulting Engineers & Project Managers	Client	DRAWN BY:	M.A		PROJECT:	HAIDER CHOWK FLYOVER BRIDGE				
						DESIGNED BY:			U.W		LOCATION:		KARACHI – PAKISTAN		DATE:	AUG/2026	
						CHECKED BY:			R.L				DRAWING TITLE:	LIST OF DRAWING		SCALE:	AS SHOWN
00	ISSUED FOR TENDER		AUG/2026	M.A	U.W	R.L			D.S.A	APPROVED BY:				D.S.A		DRAWING NO:	EE-HC-CV-ST-LD
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GENERAL NOTES

1. DESIGN LOAD:

LIVE LOAD	CLASS 'A' & CLASS 'AA' LOAD WPHC 1967
LONGITUDINAL BEARING FORCE	AS PER W.P.H.C 1967
EARTH PRESSURE	BASED ON RANKINE THEORY OF ACTIVE EARTH PRESSURE FOR COHESION LESS SELECTED FILL WITH AN ANGLE OF INTERNAL FRICTION OF $\phi = 30^\circ$ (ASSUMED) ALLOWANCE FOR EXCESSIVE STRESS DURING COMPACTING AND FOR RIGID WALLS IS MADE UTILIZING 1.5 TIMES ACTIVE EARTH PRESSURE FOR THE ABOVE CONDITIONS.

2. SPLICES:

- (1) WHEN LENGTH REQUIREMENT DICTATE SPLICING OF REINFORCING BARS IN SLABS OVER PRECAST PRE-STRESSED CONCRETE BEAMS, NO MORE THAN 1/2 THE BARS (EACH ALTERNATE BAR) MAY BE SPLICED AT A GIVEN SECTION. THE BARS SHALL BE SPLICED AT THE FOLLOWING LOCATIONS.
- (a). TOP TRANSVERSE BARS : AT CENTER OF SPAN BETWEEN BEAMS
 - (b). BOTTOM TRANSVERSE BARS : AT BEAMS
 - (c). LONGITUDINAL : AS REQUIRED

ALL LAP LENGTHS SHOULD BE AS FOLLOW
FOR BAR SIZE 20 MM AND SMALLER 48 TIMES DIAMETER OF BAR
FOR BAR SIZE 25 MM AND LARGER 60 TIMES DIAMETER OF BAR

3. CONSTRUCTION JOINTS:

- (1) UNLESS OTHERWISE INDICATED ON DRAWINGS, NO HORIZONTAL CONSTRUCTION JOINTS SHALL BE MADE IN SLABS, BEAMS AND FOOTINGS.
- (2) HORIZONTAL CONSTRUCTION JOINTS BETWEEN SLAB AND BARRIER AND BETWEEN TOP OF PRECAST BEAMS AND SLAB SHALL BE CLEAN, FREE OF LAITANCE, AND INTENTIONALLY ROUGHENED TO A FULL AMPLITUDE OF APPROXIMATELY 6.5 mm
- (3) NO HORIZONTAL CONSTRUCTION JOINTS SHALL BE MADE IN COLUMNS AND WALLS AND NO VERTICAL CONSTRUCTION JOINTS IN FOOTINGS, WALLS AND SLABS AT PLACES NOT INDICATED ON DRAWINGS WITHOUT THE APPROVAL OF THE ENGINEER.

4. DRIP NOTCHES:

20 mm DEEP & 40 mm WIDE DRIP NOTCHES SHALL BE PROVIDED AT BOTTOM OF ALL BRIDGE DECK SLAB THROUGHOUT THEIR LENGTH AT A POINT 100 mm FROM EDGES.

5. CONCRETE FINISHES:

ALL EXPOSED CONCRETE SURFACES SHALL BE FAIR FACED.

6. BACKFILL BEHIND ABUTMENTS AND RETAINING WALLS:

BACKFILL BEHIND ABUTMENTS AND RETAINING WALL SHALL BE SELECTED GRANULAR ENGINEERING FILL (AS PER SPECIFICATIONS) AND SHALL BE COMPACTED IN LAYERS NOT EXCEEDING 200 mm TO 95% OF MAXIMUM DRY DENSITY AS OBTAINED AS PER USING RELEVANT METHODS OF PRACTICE. 400 mm WIDE GRAVEL/SHEATH FILTER (AS PER SPECIFICATIONS) SHALL BE PLACED AT THE BACK WALL OF ALL CLOSED END ABUTMENTS AND RETAINING WALLS.

7. DECK WATER PROOFING:

BRIDGE DECKS SHALL BE WATER PROOFED BY THE APPLICATION OF A SELF ADHESIVE MEMBRANE APPLICATION SHALL BE CARRIED OUT UNDER THE FULL AREA OF ASPHALTIC CONCRETE WEARING COURSE AS SPECIFIED.

8. CONCRETE PROTECTIVE COATING:

CONCRETE SURFACES IN CONTACT WITH SOIL SHALL BE PROTECTED BY A DAMP PROOFING MEMBRANE AS SPECIFIED

9. PRE-STRESSING NOTES:

- (1) TENDON STRESSING, STRAND CROPPING AND DUCT GROUTING SHALL NOT BE PERFORMED PRIOR TO THE APPROVAL OF THE ENGINEER. STRANDS SHALL NOT BE CROPPED UNTIL ALL TENDONS IN THE BEAM HAVE BEEN STRESSED. CROPPING OF STRANDS SHALL NOT COMMENCE UNTIL STRESSING RECORDS HAVE BEEN APPROVED BY THE ENGINEER.
- (2) THE CONTRACTOR SHALL PROVIDE ADEQUATE SUPPORTS FOR THE PRE-STRESSING TENDON DUCTS BASED ON RADIUS OF CURVATURE AND MANUFACTURER'S RECOMMENDATION TO THE ENGINEER'S APPROVAL
- (3) END ANCHORAGE PLATE AND STRAND SHALL BE PAINTED WITH APPROVED PROTECTIVE COATING PRIOR TO CONCRETING ANCHORAGE PROCESSES. ANCHORAGE PIECES TO BE FILLED WITH NON SHRINK MORTAR TO THE APPROVAL OF THE ENGINEER.
- (4) CONTRACTOR TO PROVIDE ADEQUATE LIFTING HOOKS TO THE ENGINEER'S APPROVAL NO INTERMEDIATE LIFTING HOOK OR SUPPORT SHALL BE PROVIDED AT ANY TIME.
- (5) TOP OF PRE CAST BEAMS SHALL BE INTENTIONALLY ROUGHENED TO AN AMPLITUDE OF APPROXIMATELY 6 mm WITH THE RIDGES ACROSS THE WIDTH OF BEAM. AT JUNCTION OF END AND INTERMEDIATE DIAPHRAGMS, A LENGTH OF MEAN WEB EQUIVALENT TO ITS INTERFACE WIDTH WITH DIAPHRAGM SHALL BE ROUGHENED AS ABOVE WITH RIDGE PARALLEL TO BEAMS LENGTH.
- (6) METHODS OF PRE STRESSING SHALL BE 'STRONGHOLD' OR EQUIVALENT. ALL MATERIAL, FIXTURES AND PROCEDURES OF PRE-STRESSED GIRDERS SHALL BE BASED ON SPECIFICATIONS RELATED TO STRONGHOLD OR EQUIVALENT SYSTEM.

10. NOTES FOR FILES:

- (1) ALL PILES SHALL BE CAST IN PLACE REINFORCED CONCRETE BORED PILES.
- (2) ALL PILES SHALL BE EXECUTED BY A METHOD COMPATIBLE WITH THE SUB SOIL CONDITIONS. THE METHOD OF EXECUTION SHALL BE SUBJECT TO THE PRIOR WRITTEN APPROVAL OF THE ENGINEER.
- (3) PILE REINFORCEMENT SHALL BE PROVIDED FOR THE FULL LENGTH OF PILE AS GIVEN IN DRAWINGS.
- (4) PERMITTED MAXIMUM EXECUTION TOLERANCES FOR THE ALL PILES ARE 70 mm TOTAL IN ANY DIRECTION IN LOCATION OF PILE HEAD IN PLAN.
- (5) SERVICE LOAD CAPACITIES OF PILES SHALL BE CONFIRMED AT SITE BY PILE LOAD TESTS ON INDEX PILES EXECUTED AT LOCATIONS APPROVED BY THE ENGINEER.
- (6) ALL PILES SHALL BE EXECUTED FROM THE EXISTING GROUND SURFACE. IN GENERAL, NO BORING OPERATIONS SHALL TAKE PLACE NEARER THAN THREE (3 M) CLEAR FROM ANY PILE FOR WHICH CONCRETING OPERATIONS ARE IN PROGRESS OR FROM ANY NEWLY COMPLETED PILE UNTIL AT LEAST THREE (3) DAYS HAVE ELAPSED FORM THE LAST CONCRETING OPERATION ON THE PILE.
- (7) RECORDS AND DATA OF ALL INDEX, ANCHOR AND WORKING PILES INSTALLED, AND OF ALL TESTS CONDUCTED SHALL BE KEPT AND SUBMITTED TO THE ENGINEER.
- (8) DEFECTIVE PILES AS DEFINED IN THE SPECIFICATIONS SHALL BE SUBJECTED TO ADDITIONAL LOAD TESTS INTEGRITY TESTS AND REMEDIAL MEASURES AS DIRECTED BY THE ENGINEER ALL AT THE EXPENSE OF THE CONTRACTOR.

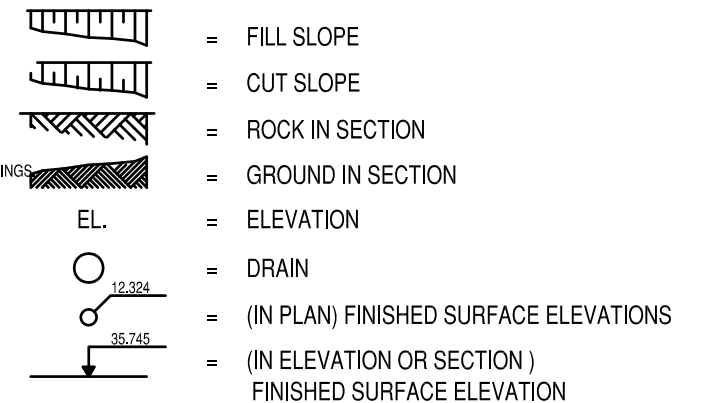
11. NOTES:-

- (1) ALLOWABLE STRESSES SHALL CONFORM TO THE "AASHTO LRFD BRIDGES DESIGN SPECIFICATIONS (2007)".
- (2) SUB-STRUCTURE COMPONENTS HAVE BEEN DESIGNED FOR LOADS SPECIFIED INCLUDING SEISMIC FORCES WITH GROUND ACCELERATION OF 0.19g CONCURRENTLY WITH GRAVITY LOADS
- (3) ALL STRUCTURAL CONCRETE SHALL BE OF DESIGNED MIX AS SPECIFIED.
MINIMUM CHARACTERISTIC STRENGTHS AS MEASURED ON
CYLINDERS AT 28 DAYS SHALL BE AS FOLLOW :-
- A) PILES, TOP SLAB, PILECAPS, ABUTMENT WALLS, CLASS A-3 280 Kg/cm2
WING WALLS, CURTAIN WALL, RETAINING WALLS,
CURBS, APPROACH SLAB, TRANSOM.
- B) PRE-CAST POST TENSIONED GIRDERS AND PIERWALL CLASS D-1 350 Kg/cm2
- C) PRECAST CONCRETE BARRIERS CLASS A-1 210 Kg/cm2
- (4) ALL REINFORCING STEEL SHALL BE DEFORMED BARS OF GRADE 60 CONFORMING TO ASTM A615
- (5) MULTISTRAND PRESTRESSING SYSTEM SHALL BE USED. PRESTRESSING STEEL SHALL BE RELAXATION CLASS-1 (NORMAL RELAXATION) CONFORM TO ASTM A-416 WITH MINIMUM ULTIMATE STRENGTH OF 1862 N/MM2.
- (6) MINIMUM CONCRETE COVER FOR REINFORCING STEEL SHALL BE AS FOLLOWS:-
- a) BOTTOM AND TOP OF DECK SLAB ----- 25 MM
- b) PRESTRESSED CONCRETE BEAM AND DIAPHRAGMS ----- 40 MM
- c) PIER AND FOOTING ----- 75 MM
- d) WING WALL / ABUTMENTS ----- 40 MM
- e) TRAN SOMS ----- 40 MM
- f) RAIL, POST AND BARRIER ----- 25 MM

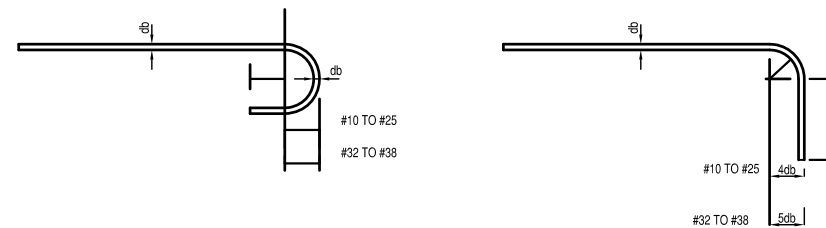
- (7) DIAPHRAGMS BETWEEN BEAMS SHALL BE CAST AT LEAST SEVEN DAYS BEFORE PLACING OF CONCRETE SLAB OR THEY COULD BE CAST MONOLITHICALLY WITH THE SLAB PROVIDED THAT THE PRESTRESSED BEAMS ARE TEMPORARILY PROVIDED WITH ADEQUATE LATERAL SUPPORTS AT THE TOP AND BOTTOM FLANGES SUBJECT TO THE APPROVAL OF THE ENGINEER.
- (8) CONCRETE IN THE DECK SLAB SHALL BE PLACED IN FULL WIDTH. NO CONSTRUCTION JOINTS SHALL BE PERMITTED. CONCRETE FOR THE BARRIERS AND GUARDRAIL SHALL BE PLACED 28 DAYS AFTER CASTING THE DECK SLAB.
- (9) FOR PRESTRESSED CONCRETE BEAM AS DETAILED ON DRAWINGS, CABLES MADE OF SPECIFIED NUMBER OF 0.5" DIAMETER STRANDS SHALL BE USED.
- (10) POST TENSIONING STEEL TENDONS SHALL BE DRAPED LONGITUDINALLY IN PARABOLIC CONFIGURATIONS. ALL TENDONS SHALL BE PLACED SO THAT THEIR CENTROID SHALL BE AT THE POSITIONS SHOWN ON THE PLANS. ALL TENDONS SHALL BE PRESSURE GROUTED IN ACCORDANCE WITH THE SPECIFICATIONS. GROUTING SHALL COMMENCE FROM ONE END AND SHALL STOP AFTER THE GROUT HAS REACHED THE OTHER END OF THE SAME DUCT.
- (11) IF ANCHORAGE PULL - IN EXCEEDS 6 MM, THE TENDON SHALL BE DESTRESSED BY FOLLOWING APPROVED MEANS AND SHALL BE RESTRESSED.
- (12) TENDONS SHALL BE STRESSED AFTER THE CONCRETE HAS ATTAINED A CRUSHING STRENGTH OF 34.4 N/mm² AS DETERMINED FROM CONTROL WORKS CUBES. TENDON EXTENSIONS GIVEN HERE IN ARE THE TOTAL EXTENSION ACHIEVED BEFORE LOCKING AND ARE CALCULATED ON THE BASIS OF 197,000 N / MM² AS MODULUS OF ELASTICITY OF PRE-STRESS STEEL. FOR OTHER VALUES OF MODULUS OF ELASTICITY EXTENSIONS SHOULD BE CALCULATED ON PRO RATA BASIS. TENDON SHOULD NOT BE LOCKED IF THE ACTUAL EXTENSIONS VARY MORE THAN 10 PERCENT FROM THE VALUES SHOWN OR CALCULATED AS THE CASE MAY BE AND THE MATTER REPORTED TO THE ENGINEER WHO SHALL GIVE FURTHER INSTRUCTIONS.

- (13) BEARINGS SHALL CONFORM TO SECTIONS AASHTO LRFD SECTION 14.
- (14) THE GIRDERS SHALL BE LIFTED BY MEANS APPROVED BY THE ENGINEER TO ENSURE THEIR PLACEMENT WITHOUT DAMAGE AND ACCIDENT. GIRDERS SHALL BE PLACED AT THEIR CORRECT POSITIONS AS SHOWN ON THE DRAWING AND TEMPORARILY BRACED LATERALLY UNTIL DIAPHRAGMS AND DECK SLAB ARE CAST.
- (15) PRECAST GIRDERS SHALL BE MAINTAINED IN AN UPRIGHT POSITION AND SHALL BE LIFTED BY DEVICES TO BE DESIGNED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.
- (16) ALL EXPOSED CORNERS ARE TO BE CHAMFERRED 40mm X 40mm EXCEPT OTHERWISE SHOWN IN DRAWINGS.
- (17) ALL MATERIALS AND WORKMANSHIP SHALL CONFIRM TO THE RELEVANT NHA/ AASHTO STANDARDS UNLESS OTHERWISE STIPULATED.
- (18) THE CONTRACTOR SHALL PREPARE ALL BAR BENDING SCHEDULES ETC. AND SUBMIT THEM FOR APPROVAL OF THE ENGINEER PRIOR TO CUTTING, BENDING AND PLACEMENT.
- (19) REINFORCING STEEL SHALL BE ACCURATELY LOCATED IN THE FORM WORK AND HELD FIRMLY IN PLACE BEFORE AND DURING PLACING OF CONCRETE BY MEANS OF 16 GAUGE BLACK ANNEALED WIRE AND ADEQUATELY DESIGNED SPACERS.
- (20) THE DESIGN AND ENGINEERING OF THE FORMWORK AND FALSEWORK AS WELL AS ITS CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. DESIGN OF FALSEWORK AND FORMWORK SHALL COMPLY WITH THE SPECIFICATIONS AND IN GENERAL CONFIRM TO ACI 318-02 AND ACI SP-4.

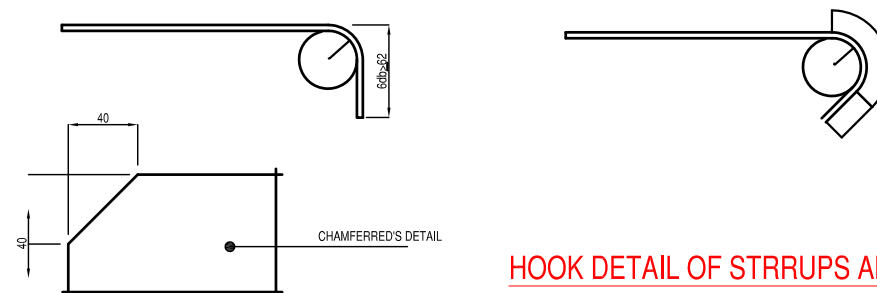
LEGEND & SYMBOLS



F.R.L.	FINISHED ROAD LEVEL
EXP. JT.	EXPASION JOINT
SYM.	SYMMETRICAL
N.T.S	NOT TO SCALE
E.F	EARTH FACE
O.F	OUTER FACE
N.G.L	NATURAL GROUND LEVEL
F.B	FIXED BEARING
M.B	MOBILE BEARING



HOOK DETAIL OF MAIN REINFORCEMENT



HOOK DETAIL OF STRRUPS AND TIES

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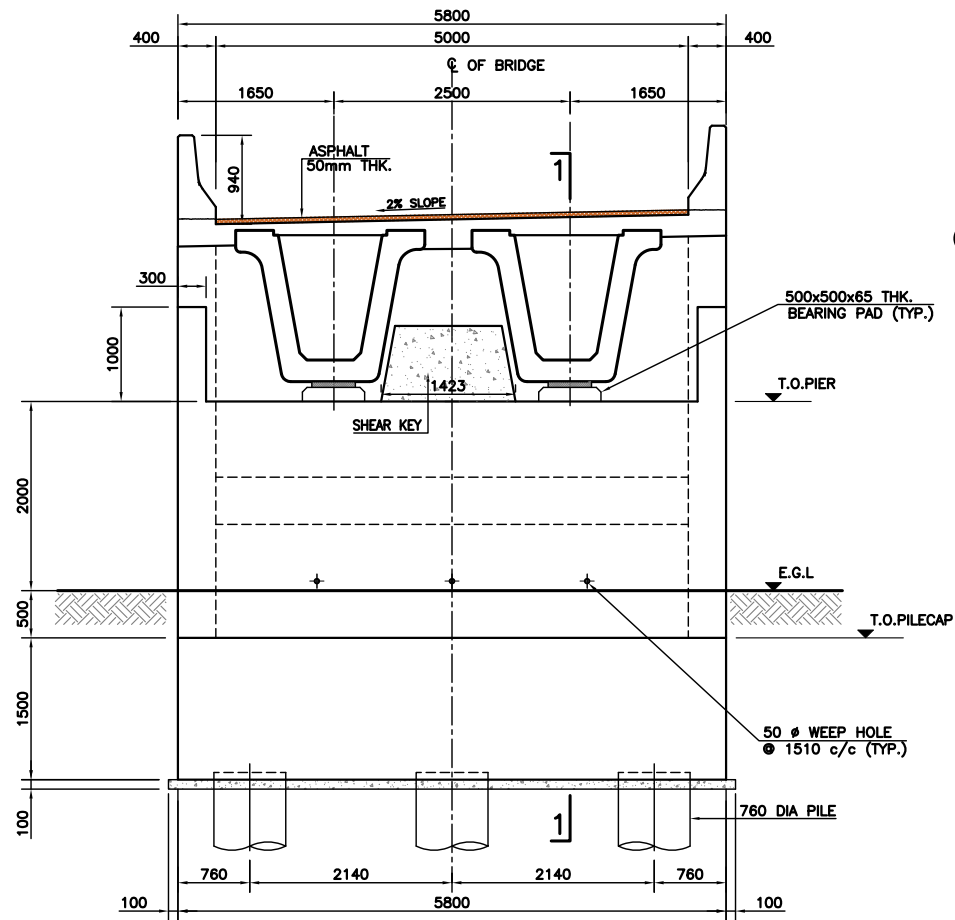
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						DESIGNED BY: U.W					
						CHECKED BY: R.L					
						APPROVED BY: D.S.A					
00	ISSUED FOR TENDER	AUG/2026	M.A	U.W	R.L	D.S.A					GRAPHIC SCALE: 0m 25m 50m
NO.	DESCRIPTION	DATE	DRAWN BY	DESIGNED BY	CHECKED BY	APPROVED BY				DRAWING TITLE: GENERAL NOTES	SCALE: AS SHOWN
Revision.										DRAWING NO: EE – HC – CV – ST – GN	REV. 00

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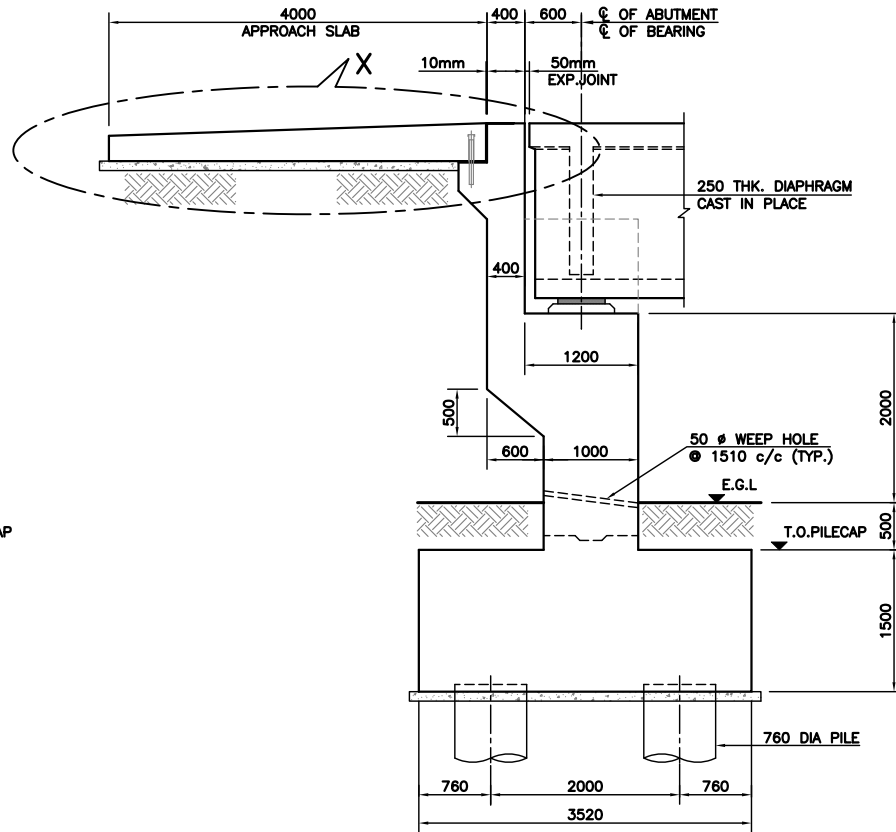


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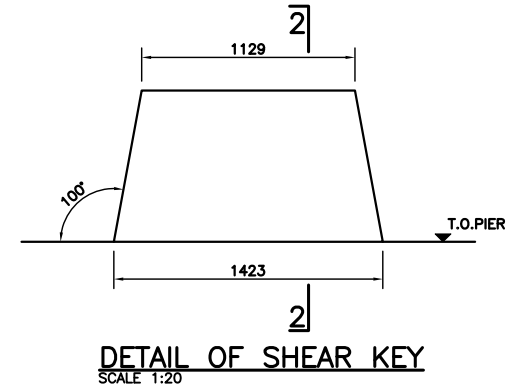
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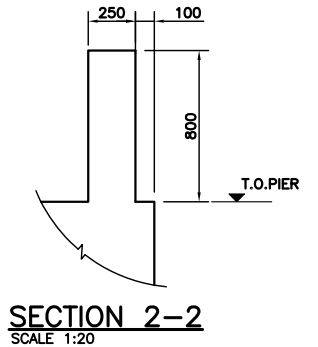
ELEVATION OF ABUTMENT
SCALE 1:40



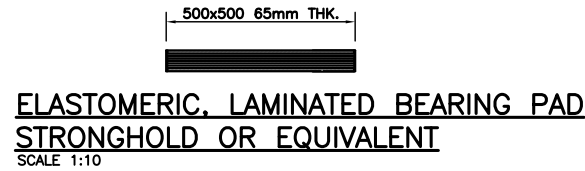
SECTION 1-1
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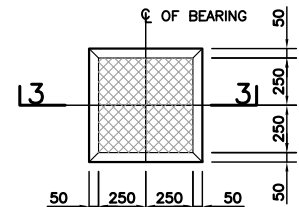
DETAIL OF SHEAR KEY
SCALE 1:20



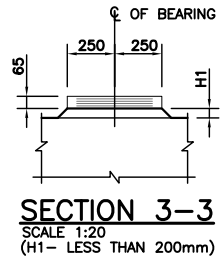
SECTION 2-2
SCALE 1:20



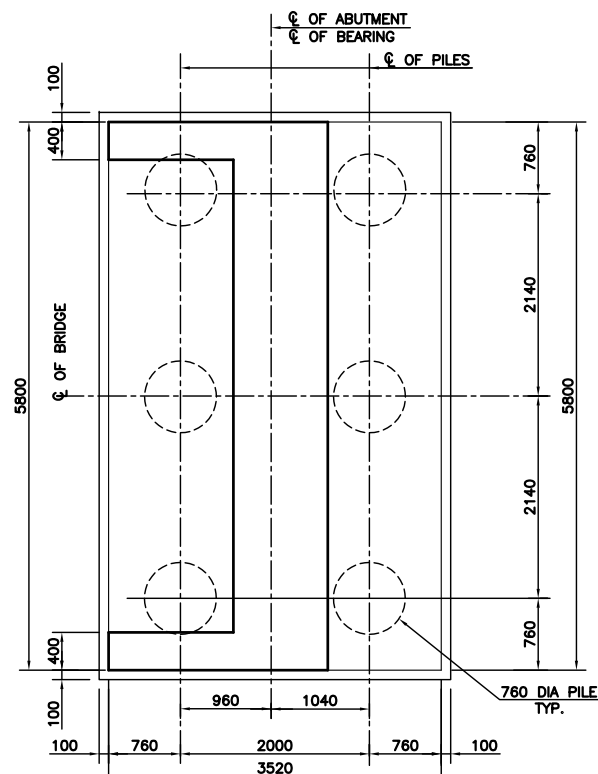
**ELASTOMERIC, LAMINATED BEARING PAD
STRONGHOLD OR EQUIVALENT**
SCALE 1:10



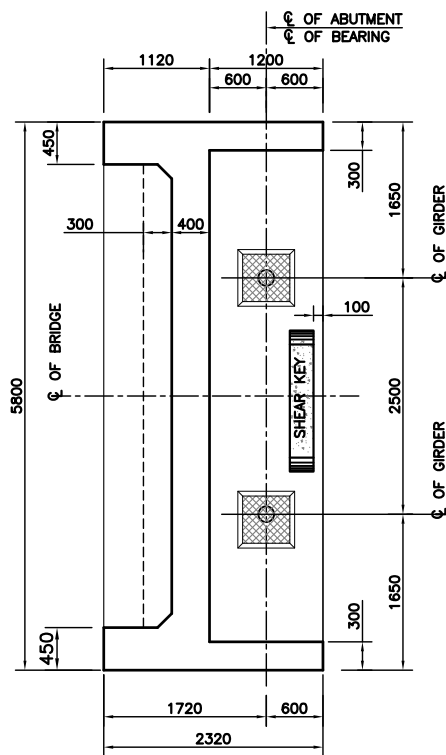
DETAIL OF BEARING PLINTH
SCALE 1:20



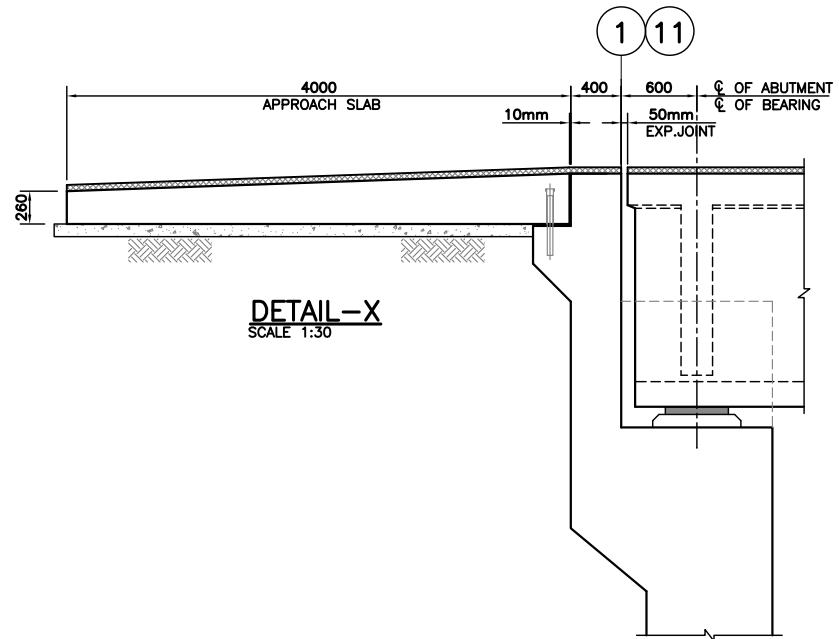
SECTION 3-3
SCALE 1:20
(H1- LESS THAN 200mm)



PLAN OF ABUTMENT
SCALE 1:40



TOP PLAN OF ABUTMENT
SCALE 1:40



DETAIL-X
SCALE 1:30

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DESIGNED BY:	U.W	LOCATION:	KARACHI - PAKISTAN			
CHECKED BY:	R.L	DRAWING TITLE:	ABUTMENT GRID 1 & 11 CONCRETE DETAILS			
APPROVED BY:	D.S.A	DRAWING NO:	EE-HC-CV-ST-103			
GRAPHIC SCALE:	0m 25m 50m	DATE:	AUG/2026			
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PLAN OF PILECAP AT GRIDS 2,3,4 & 8,9,10
SCALE 1:40

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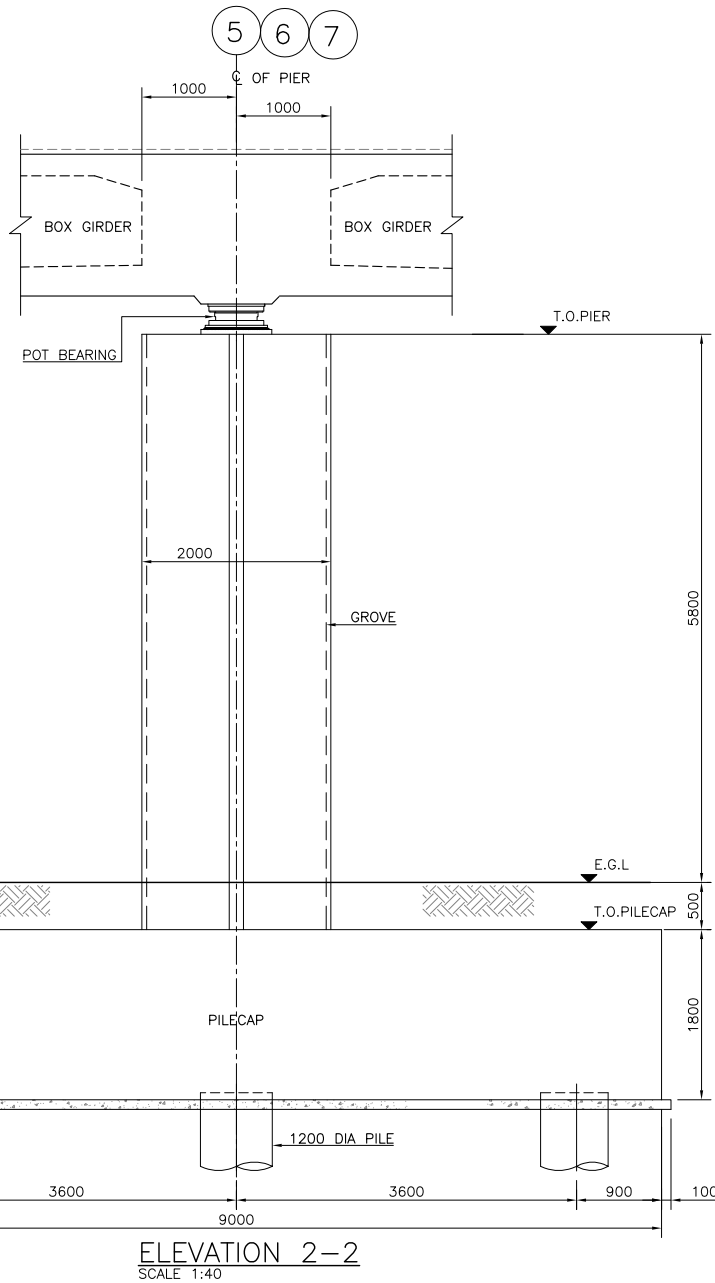
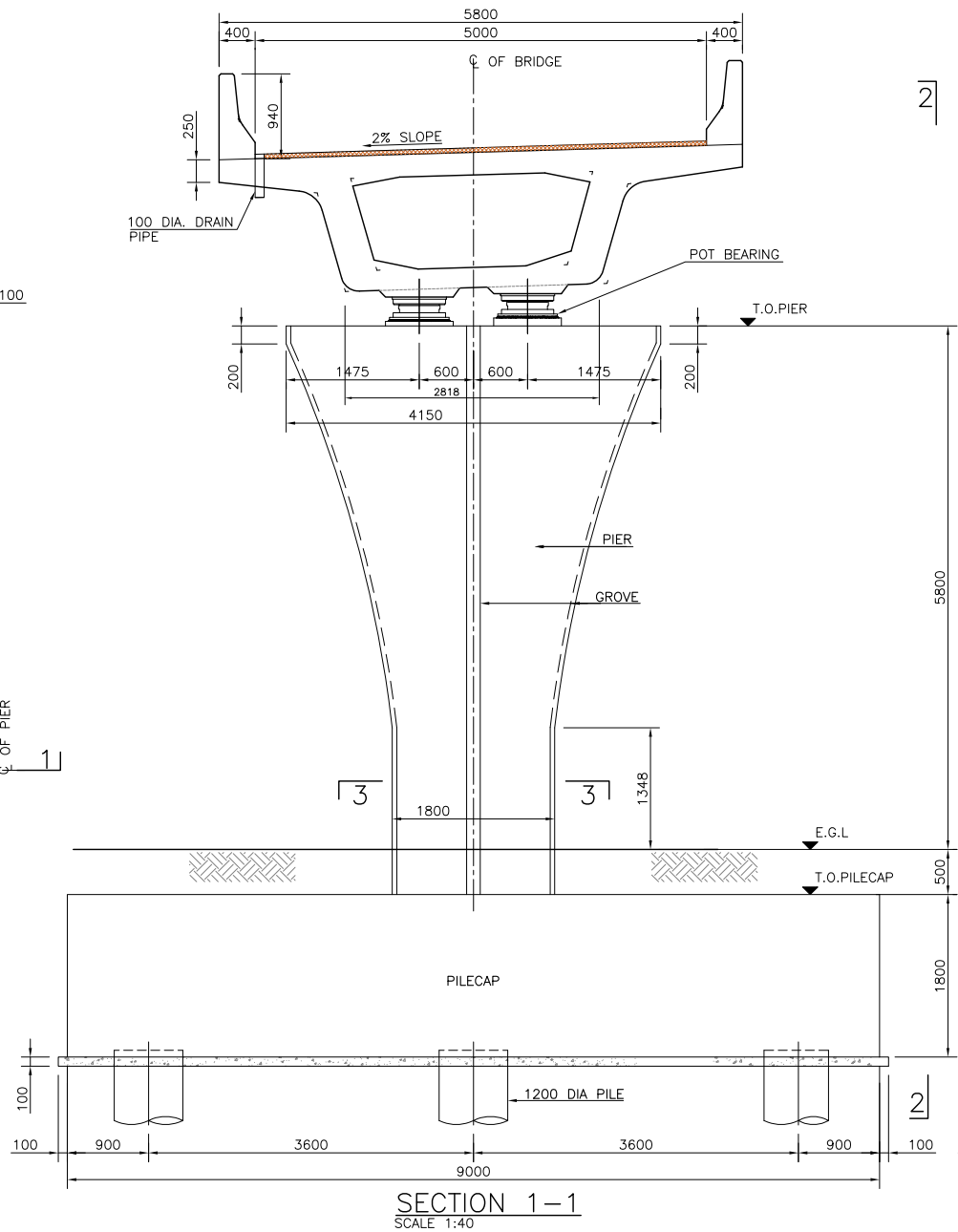
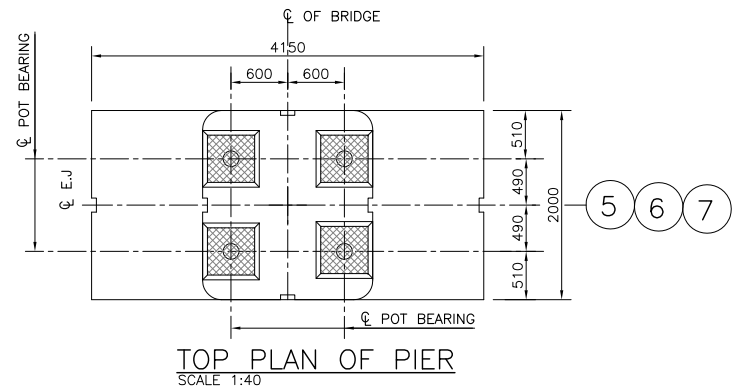
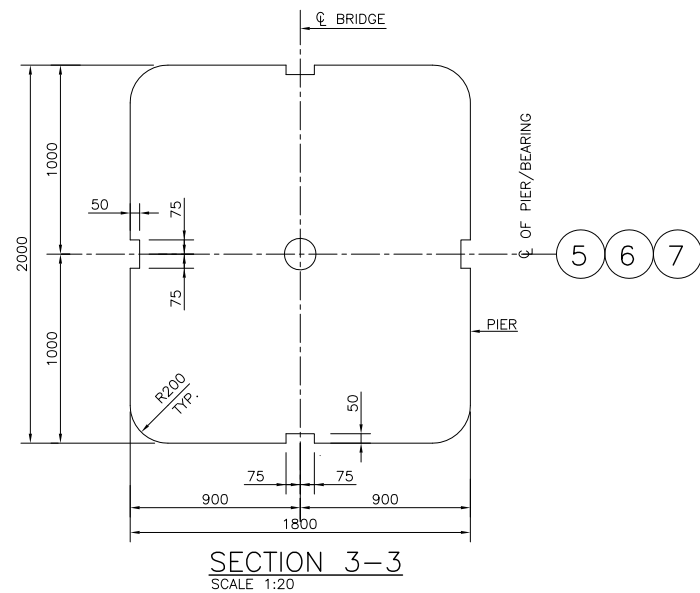
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LOCATION:	KARACHI – PAKISTAN	DATE:	AUG/2026
DRAWING TITLE:	PIER AT GRIDS 2,3,4 & 8,9,10 CONCRETE CONCRETE DETAILS	SCALE:	AS SHOWN
DRAWING NO:	EE-HC-CV-ST-104	REV.	00

NOTES

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PLAN OF PILECAP AT GRIDS 5,6 & 7
SCALE 1:40

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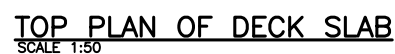


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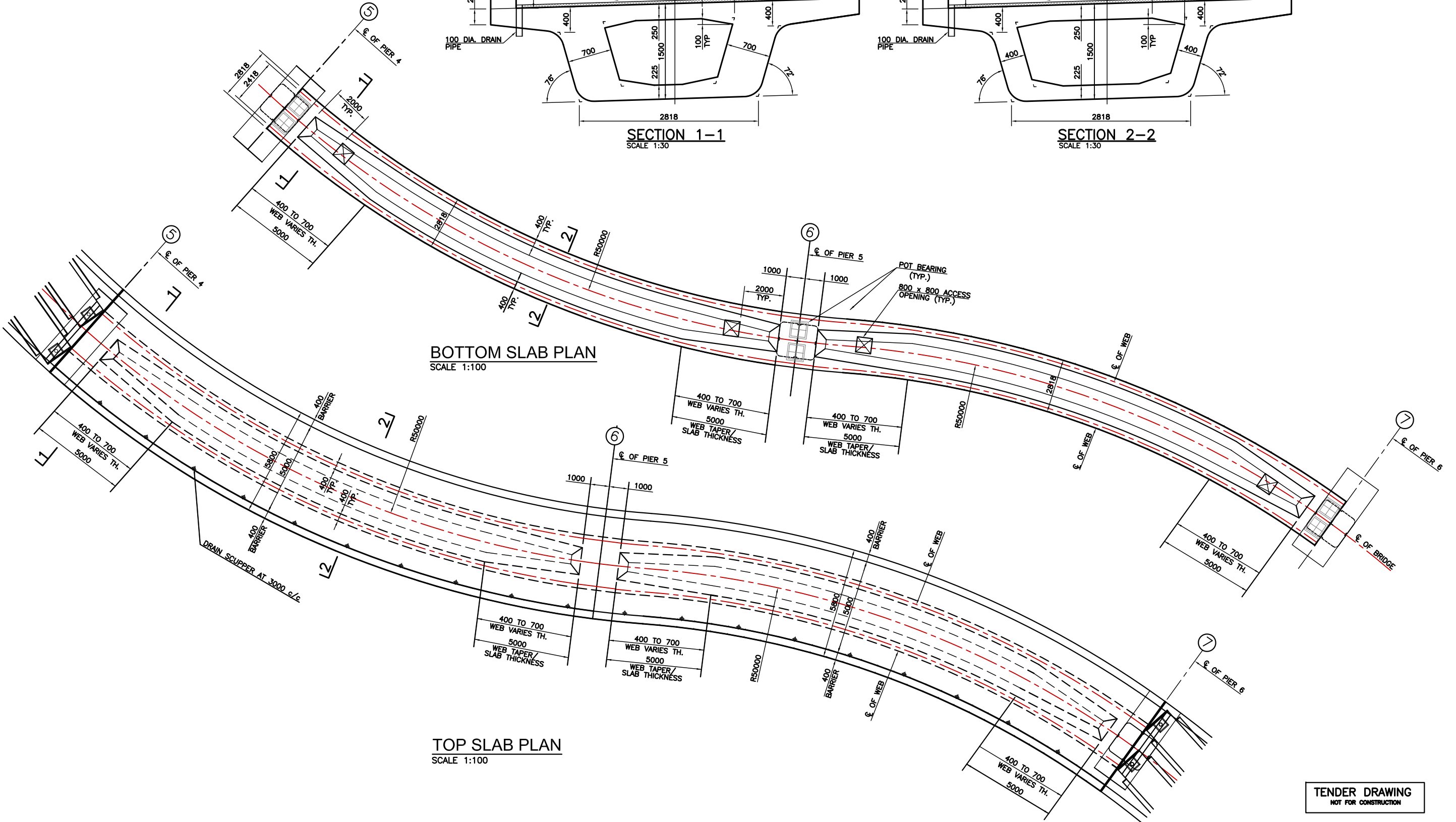
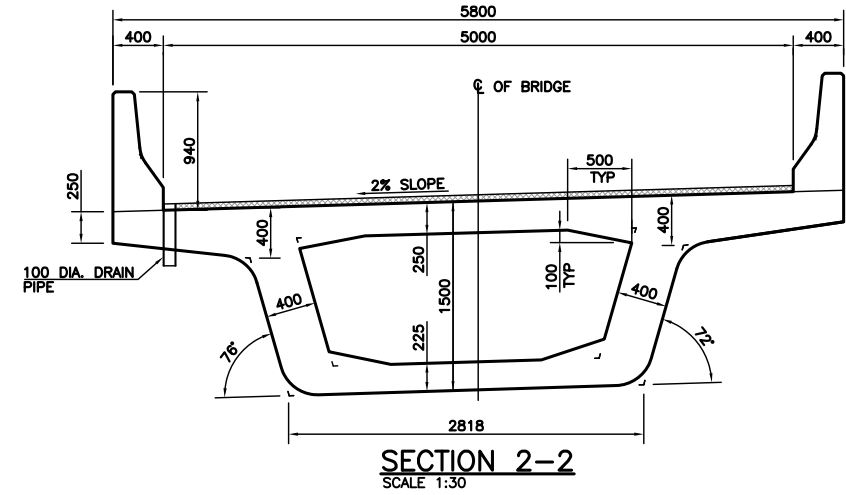
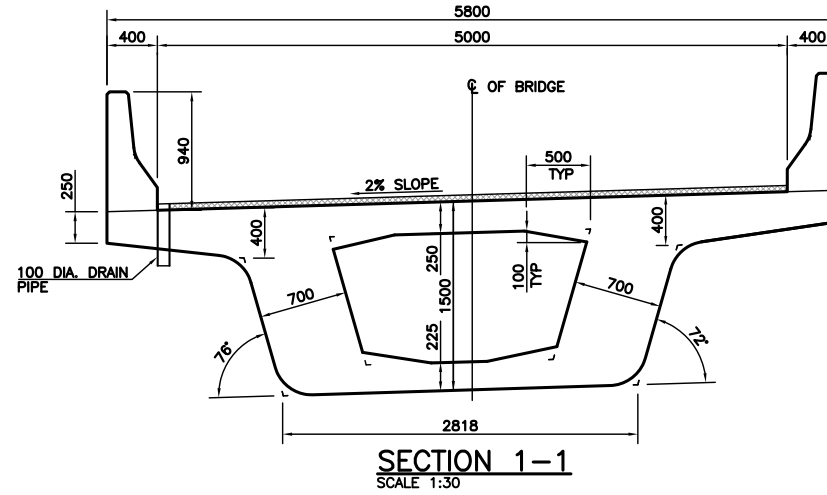


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NO.	DESCRIPTION	DATE	DRAWN BY	DESIGNED BY	CHECKED BY	APPROVED BY
Revision.						

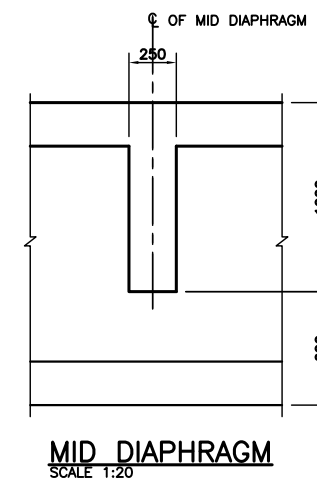
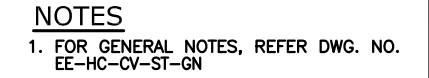
Consultants

Exponent Engineers (Pvt) Limited
Consulting Engineers & Project Managers

Client

DRAWN BY:	M.A
DESIGNED BY:	U.W
CHECKED BY:	R.L
APPROVED BY:	D.S.A
GRAPHIC SCALE:	0m 25m 50m

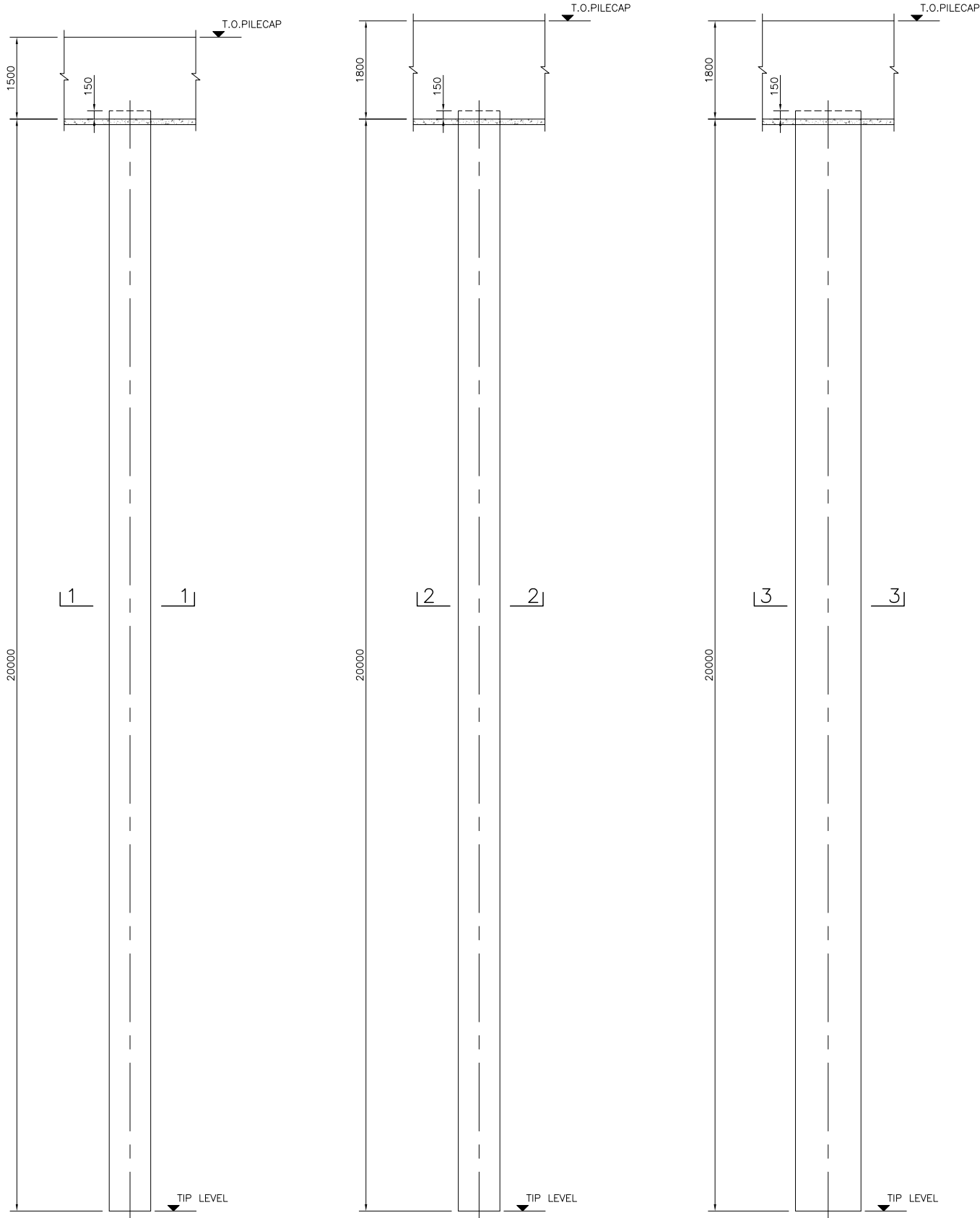
PROJECT:	HAIDER CHOWK FLYOVER BRIDGE		
LOCATION:	KARACHI - PAKISTAN	DATE:	AUG/2026
DRAWING TITLE:	DECK SLAB CONCRETE DETAILS (SHEET 1 OF 2)	SCALE:	AS SHOWN
DRAWING NO:	EE-HC-CV-ST-106	REV.	00



TENDER DRAWING
NOT FOR CONSTRUCTION

							 Exponent Engineers (Pvt) Limited Consulting Engineers & Project Managers	Client	DRAWN BY: M.A DESIGNED BY: U.W CHECKED BY: R.L APPROVED BY: D.S.A	PROJECT: HAIDER CHOWK FLYOVER BRIDGE
									LOCATION: KARACHI – PAKISTAN DATE: AUG/2026	
									DRAWING TITLE: GIRDER ELEVATION CONCRETE DETAILS SCALE: AS SHOWN	
00	ISSUED FOR TENDER	AUG/2026	M.A	U.W	R.L	D.S.A			GRAPHIC SCALE: 0m 25m 50m	DRAWING NO: EE-HC-CV-ST-107 REV. 00
NO.	DESCRIPTION	DATE	DRAWN BY	DESIGNED BY	CHECKED BY	APPROVED BY				
Revision.										

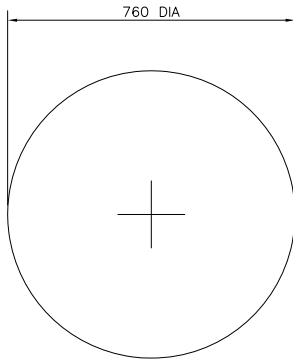
NOTES
1. FOR GENERAL NOTES, REFER DWG. NO.
EE-HC-CV-ST-GN



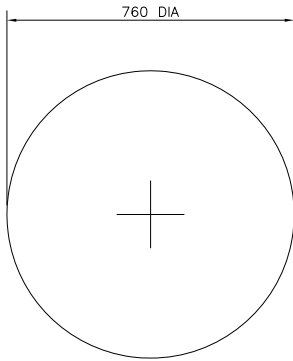
ELEVATION OF ABUTMENT PILE
SCALE 1:50
760 Ø PILES

ELEVATION OF PIER PILE 1
SCALE 1:50
760 Ø PILES

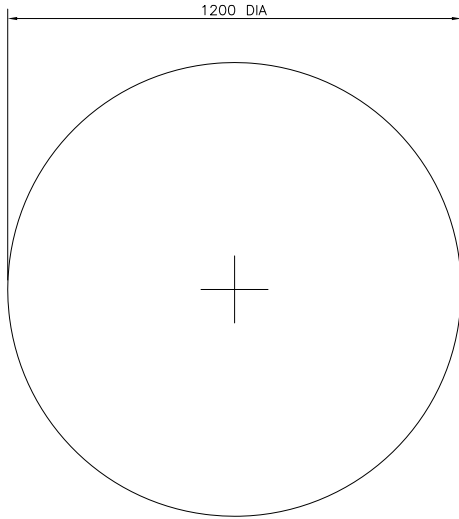
ELEVATION OF PIER PILE 2
SCALE 1:50
1200 Ø PILES



SECTION 1-1
SCALE 1:20



SECTION 2-2
SCALE 1:20



SECTION 3-3
SCALE 1:20

TENDER DRAWING
NOT FOR CONSTRUCTION

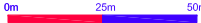
00	ISSUED FOR TENDER	AUG/2026	M.A	U.W	R.L	D.S.A
NO.	DESCRIPTION	DATE	DRAWN BY	DESIGNED BY	CHECKED BY	APPROVED BY
Revision.						

Consultants



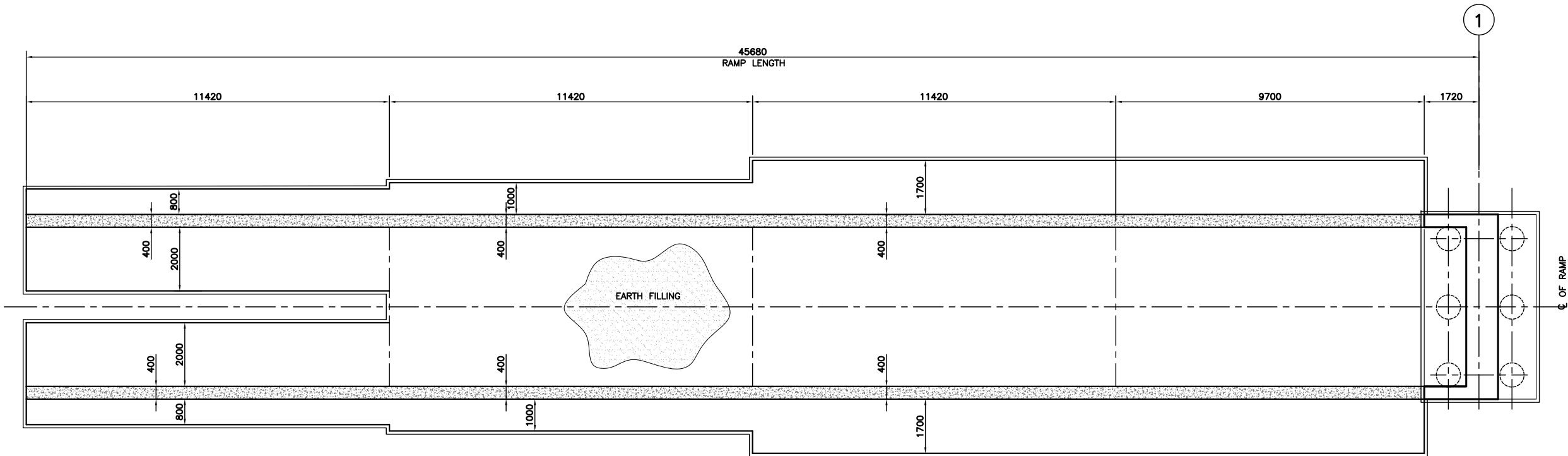
Exponent Engineers (Pvt) Limited
Consulting Engineers & Project Managers

Client

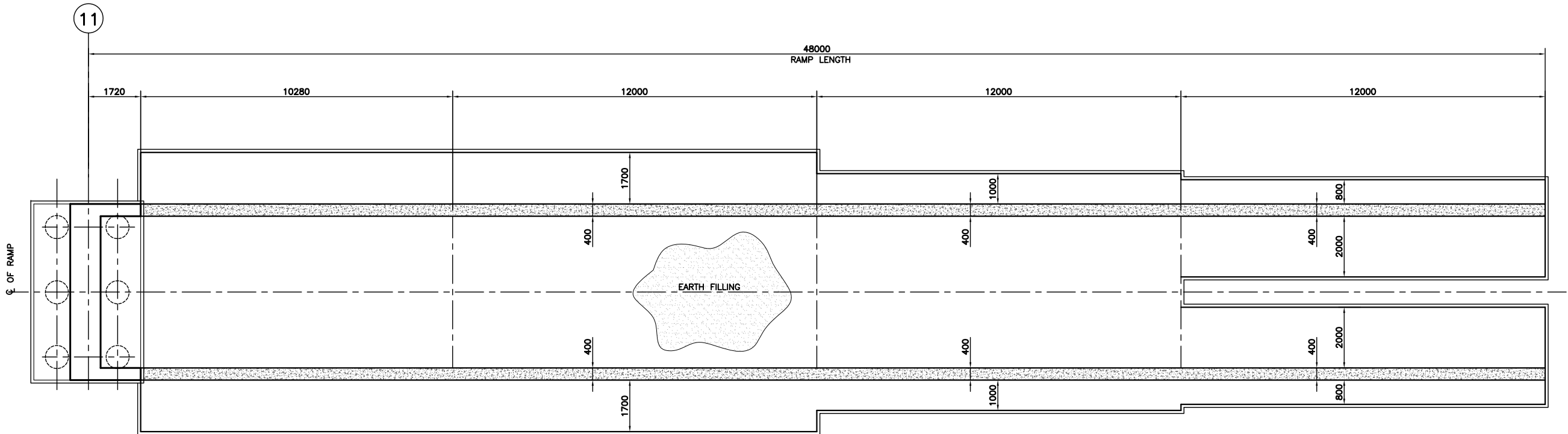
DRAWN BY:	M.A		PROJECT:	HAIDER CHOWK FLYOVER BRIDGE		
DESIGNED BY:	U.W					
CHECKED BY:	R.L		LOCATION:	KARACHI – PAKISTAN	DATE:	AUG/2026
APPROVED BY:	D.S.A		DRAWING TITLE:	PILE ELEVATION CONCRETE DETAILS	SCALE:	AS SHOWN
GRAPHIC SCALE: 			DRAWING NO:	EE-HC-CV-ST-108	REV.	00

NOTES

1. FOR GENERAL NOTES, REFER DWG. NO. EE-HC-CV-ST-GN



FOUNDATION PLAN OF RAMP
SCALE 1:75



FOUNDATION PLAN OF RAMP
SCALE 1:75

TENDER DRAWING
NOT FOR CONSTRUCTION

00	ISSUED FOR TENDER	AUG/2026	M.A	U.W	R.L	D.S.A
NO.	DESCRIPTION	DATE	DRAWN BY	DESIGNED BY	CHECKED BY	APPROVED BY
Revision.						

Consultants



Client

DRAWN BY:	M.A
DESIGNED BY:	U.W
CHECKED BY:	R.L
APPROVED BY:	D.S.A
GRAPHIC SCALE:	0m 25m 50m

PROJECT:	HAIDER CHOWK FLYOVER BRIDGE		
LOCATION:	KARACHI - PAKISTAN	DATE:	AUG/2026
DRAWING TITLE:	RETAINING WALL PLAN & SECTION CONCRETE DETAILS	SCALE:	AS SHOWN
DRAWING NO:	EE-HC-CV-ST-109	REV.	00