Government of Nepal
Ministry of Urban Development
Department of Urban Development and Building Construction

Regional Urban Development Project

Project Coordination Office

Babarmahal, Kathmandu

STRUCTURAL DRAWINGS of TERMINAL BUILDING

LUMBINI SANSKRITIK MUNICIPALITY

Structural Drawing		Structural Drawing	
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TERMINAL BUILDING BLOCK		TERMINAL BUILDING BLOCK	
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CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Table of Contents
TERMINAL BUILDING BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: **Er. Ajay Shrestha**	
Designed By: **Er. Enu Rai 17819 Civil "A"** **Er. Arbind Yadav**	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 00

CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV

GENERAL NOTES

GENERAL

1. General notes and typical structural details shall apply to all drawings unless otherwise shown or noted.
2. All works to be carried out in accordance with current practice, structure regulation, project specification,Nepalese Code and relevant Indian Standard and Codes of Practice. Materials and components to be appropriate for their intended use.
3. The contractor shall be responsible for verifying the dimensions on site and ensuring that all the dimensions and levels shown on the drawings are correct and consistent with other relevant drawings. Any discrepancies are to be reported immediately to Engineer
4. During construction, the contractor shall be responsible for maintain the structure in a stable condition and ensuring no par shall be damaged under construction activities.
5. Workmanship and materials are to be in accordance with the relevant Indian Standards.
6. The Engineer shall accept no responsibility for the works unless they are inspected and approved by the Engineer during the Construction. At least 48hours notice shall be provided for all engineering inspections.
7. Any damage to the surface during construction/erection is to be made good.
8. Before commencing the structural steel works, the shop drawings shall be provided to the Engineer.

DESIGN CRITERIA

1. LOADS

1.1. DEAD LOADS

Unit Weight of PCC = 24 kN/m^3

Unit Weight of RCC = 25 kN/m^3

Unit Weight of Steel (Rebar) = 78.5 kN/m^3

Unit Weight of Brick = 19 kN/m^3

1.2. LIVE LOADS

Roof Live Load = 4 kN/m^2 (Restaurant)

Staircase and Passage Live Load = 4 kN/m^2

Rooms =2kN/m^2 / 3 kN/m^2

1.3. SEISMIC LOAD

Code Followed = NBC 105:2020

Soil Type = C Type

Seismic Zoning Factor = 0.35

Importance Factor = 1.25

Over Strength Factor = 1.5 For ULS

Ductility Factor = 4.0 For ULS

Type of Structural System = RC Moment Resisting Frame System

1.4. SOIL PROPERTIES

Unit Weight of Soil = 19 kN/m^3

Bearing Capacity of Soil = 120 kN/m^2 (Geotechnical Report)

2. DESIGN AND CODE REFERENCE

Following references shall govern the design, fabrication and construction of project.

- IS 875(part I) Code of practice for design loads (dead) for buildings and structures.
- IS 875 (part II) Code of practice for design loads (live) for buildings and structures.
- IS 875 (part III) Code of practice for design loads (Iwind) for buildings and structures.
- NBC 105:2020 Seismic Design of Building in Nepal
- IS 13920:2016 Ductile Design and Detailing of Reinforced Concrete Structures Subjected to Seismic Forces
- SP 34 Handbook on Concrete Reinforcement and Detailing

MATERIAL

1. CONCRETE

a. The cement used shall be Ordinary Portland cement conforming to IS 269:1976.

b. All RCC work shall be continuously cured by moist jute sheets or any means.

c. The concrete strength shall be measured on (150x150x150) mm^3 cube at 7,14 and 28 days for various structural elements.

d. Unless indicated otherwise on plans. the concrete class and strength shall be as follows:

Block Name: Bus Terminal Block

SN	Structural Member	Concrete Grade	Remarks
1	Footing,	M25	
2	Tie Beam	M25	
3	RC Column	M25	
4	RC Main Beam, Slab	M25	
5	PCC	M15	

2. REINFORCING STEEL

a. Reinforcement steel shall be TMT having yield strength of 500 N/mm^2.

b. Cover to main reinforcing steel shall be in accordance with IS 456:2000.

c. Clear Cover of Concrete shall be:

Footing = 50 mm

Column = 40 mm

Beam = 25 mm

Slab = 20 mm

d. Details of reinforcing steel fabrication and placement shall conform to SP 34-1987.

e. Bar bending schedule shall be submitted for approval before the reinforcement work and contractor shall corresponds to the Engineer in case of any discrepancies.

3. STRUCTURAL STEEL BOLTS/WELD (Applicable for Steel Structure)

a. Structural steel shall have a yield strength of 250 N/mm^2.

b. Requirements of welds and welding shall conforms to IS 816 and IS9595, as appropriate.

c. The electrodes required for metal or welding shall be covered and shall conform to IS814: 1991

d. Metal Surface shall be properly cleaned

e. Nomenclature of structural steel is as per Indian Standard Steel Section.

f. Welds and welding shall be applied as per drawing.

g. Application of metal primes and finishing coat of paint shall be in accordance with IS1477:1971 (Part-I and Part-II).

h. Anchor Bolt:

- Bolt shall be of grade as per specified in the drawing if not specified 8.8 grade shall be considered.
- Bolts shall be galvanize as per IS 5358:1969 provision.
- Anchor bolts shall confirm to IS 5624:1995. As an alternate for anchor bolts of 8.8 grade threaded steel rebar of 500 N/mm^2 of length as per design shall be used.

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PAPER SIZE: A3	SCALE: AS SHOWN
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CONSTRUCTION

1. SETTING OUT

The setting out and the elevations of the different components of the structure shall be approved by the engineer prior to the start of any construction work.

2. REINFORCED CONCRETE

A. CONCRETE MIX AND PLACING

a. Concrete mix shall meet the design concrete strength given under material.
b. Concrete shall be deposited, vibrated and cured in accordance with the specifications.
c. The contractor shall submit to the engineer for approval the pouring sequences for the concrete work.
d. The contractor shall notify the engineer 48 hours prior to the pouring of any structural concrete, so an inspection can be made on all the forms and reinforcing
e. Use of the admixture is permitted to produce proper slump and workability but subjected to the engineer approval addition of concrete at job site is not allowed.
f. For two or more layers of reinforcing bars, use separator spacing @ 900 mm o/c and in no case shall be less than 2 separator. Clear distance between layers should not be less than 25 mm or larger bar diameters.
g. Location of all the constructions or cold joints must be approved by the engineer/Architect.
h. Pipes or duct exceeding one third the slab or wall thickness shall not be placed in structural concrete unless specifically detailed. Pipes may pass through structural concrete in sleeves but shall not be embedded therein
i. Reinforcing bars, anchorage bolts, and other inserts shall be secured in place before pouring concrete bar placement and support wall be in accordance with recommend Indian standard practice.
j. In general, the latest edition of the manual of standard for detailing concrete structure unless shown otherwise.

B. BAR BENDING, SPLICING AND PLACING

a. The contractor shall submit to the engineer for approval all shop drawing indicating the bending, cutting, splicing and installation of all reinforcing bars.
b. Bar splicing not indicated on drawing shall be subjected to the approval of engineer.
c. Lapped splices shall be staggered where possible.
d. Anchorage bolts, dowels and other embedded items are to be securely tied in place before concrete is poured.
e. Typical standard hook details. (Refer Typical Drawing)
f. Typical lap splice details. (Refer Refer Typical Drawing))

C. FORM WORK

a. Forms shall be provided for all concrete indicated unless specified otherwise, forms shall be set true to line and grade and maintained so as to ensure competent work within the allowable tolerances specified and shall be mortar tight.
b. Forms and their supports shall be designed so as not to damage previously placed structure.
c. No construction load shall be supported on, nor any shoring removed from any part of structure in combination with the remaining forming and shoring systems has sufficient strength to support safely its weight and additional imposed load.
d. Forms shall be removed in such manner as not to impair safely and serviceability of the structure.
e. Schedule of stripping of forms will be as table: stripping time as per clause 11.3 of IS456:2000.

D. PROTECTION AND CURING OF CONCRETE

Concrete surfaces shall be protected from harmful effects of sun, wind and running water and shall be kept damp for at least 7 days.

Table : Stripping Time As per clause 11.3 of IS456:2000

SN		Type of Formwork	Minimum Period Before Striking	Remake
1		Sides of Walls, Columns and Vertical Faces of beam	16 to 24 hours	
2		Soffit formwork of slabs (Props Left Under)	3 days	
3		Soffit formwork of beams (Props Left Under)	7 days	
4		Removal of Props of Slabs:		
	a.	Slabs spanning uot 4.5m	7 days	
	b.	Slabs spanning over 4.5m	14 days	
5		Removal of props for beams and arches		
	a.	Span up to 6m	14days	
	b.	Span voer 6m	21 days	

3. STRUCTURAL STEEL

a. Hole size for anchorage bars
b. Welded connections between members of moment frames shall be tested by non-destructive test method.
c. Comply with Indian Standard for bearing, adequacy of temporary connection and alignment.
d. Fabricator shall submit shop drawing for approval by the engineer and the owner prior to fabrication.

4. FOOTINGS

a. All footing shall be on the natural soil.
b. All engineered fill beneath slab and over footing shall be compacted to a dry density of at least 90% of the Modified Proctor maximum dry density.
c. Foundation shall be inspected to ensure that loose soft or otherwise undesirable material (such as organic materials) is removed, and that the foundation will bear on the natural soil.

5. LIMITATION FOR FOOTING

a. Foundations in areas under infill soil may require special design considerations, such as deeper foundations, reinforced foundation systems, or soil stabilization techniques
b. Areas with infill soil must be assessed for differential settlement and localized instability. Differential settlements between blocks on solid ground and those over infill should be minimized.

UNITS

1. Do not scale drawings. Any missing dimension shall be furnished upon request.
2. All dimensions are in millimeter unless otherwise noted.

LIMITATION

The construction design has been done assuming quality materials and steel sections are available. Therefore, the design needs to be verified with the actual situation when the work progress and may require some changes during the implementation.

SYMBOL

- ϕ = Diameter of Rebar

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SHEET TITLE: General Notes-2
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SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
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PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 02

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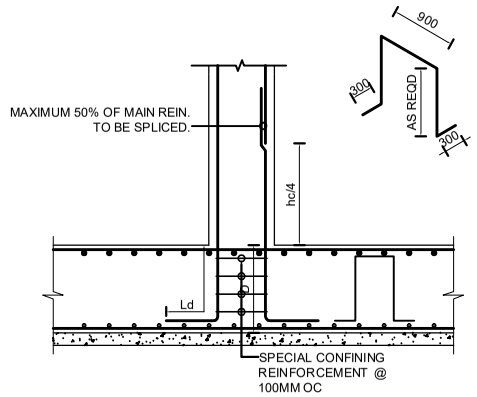
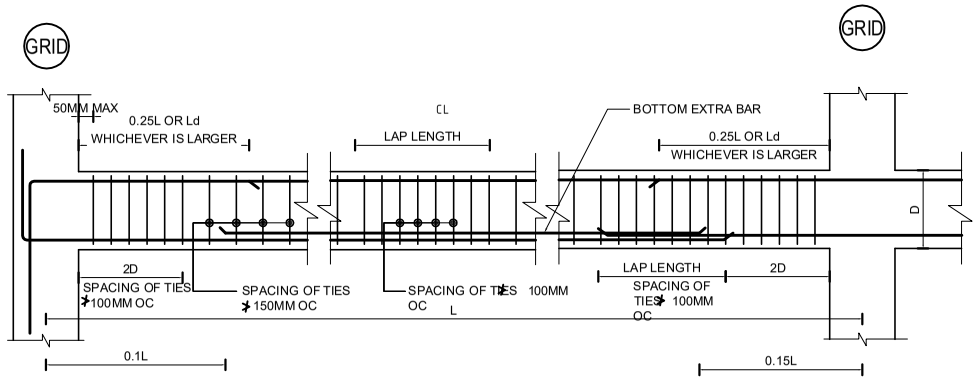


1 TYP, FOUNDATION CHAIR DETAIL

NTS

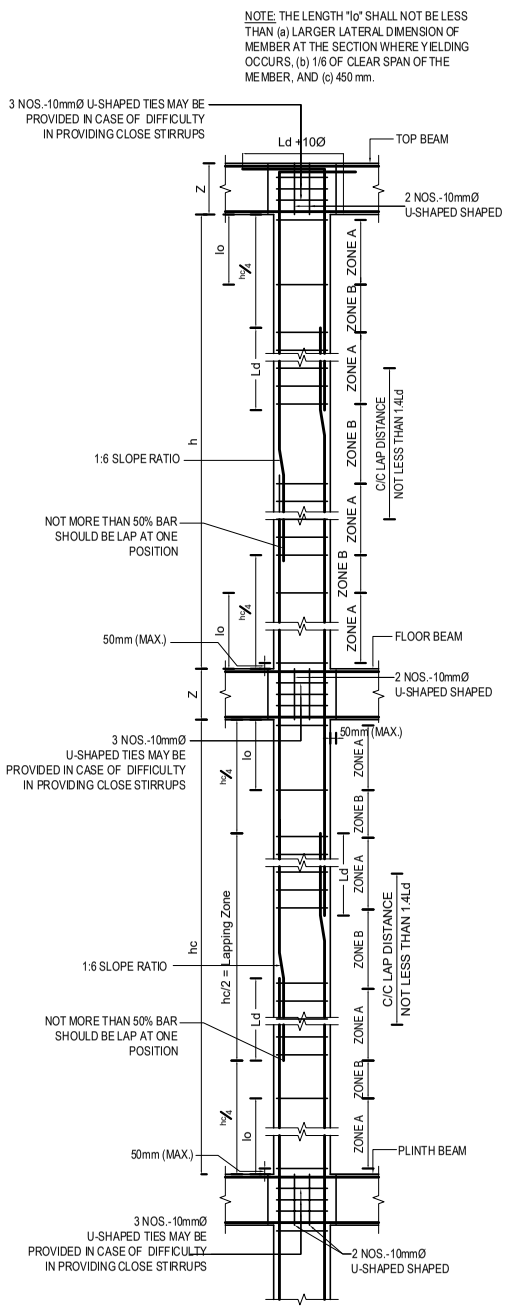


3 TYP,DETAIL LAPPING FOR BEAM BAR

NTS

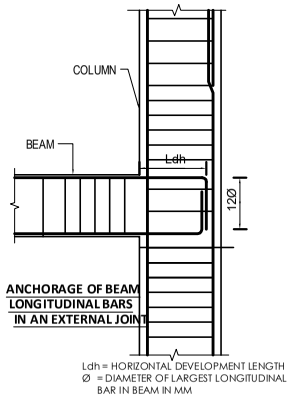
LAPPING NOTES FOR BEAM

1) Lap length shall not be less than bar development length in tension
2) Not more than 50% of the bars shall be spliced at one section
3) Lap splice shall not be provided:
a. Within the joint
b. Within the distance of 2d from joint face
c. within the quarter length of the member



2 TYP, COLUMN SHEAR REINFORCEMENT DETAIL & SPLICING DETAIL

NTS



4 TYP, BEAM COLUMN JOINT

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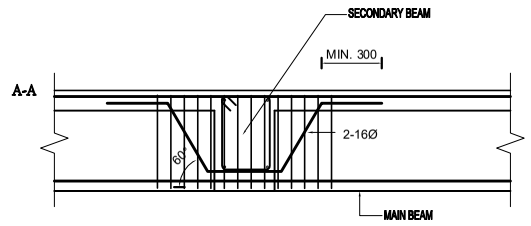

5 TYP, JUNCTION DETAIL OF MAIN & SECONDARY BEAM

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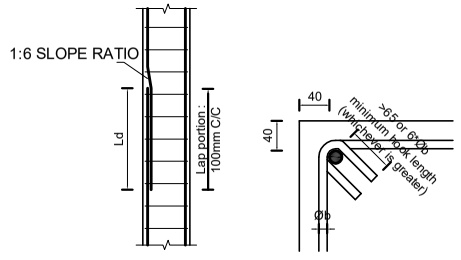
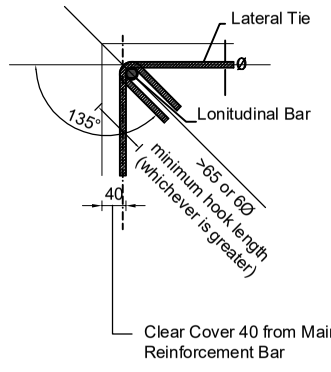


LAP PORTION DETAIL DETAIL OF HOOK

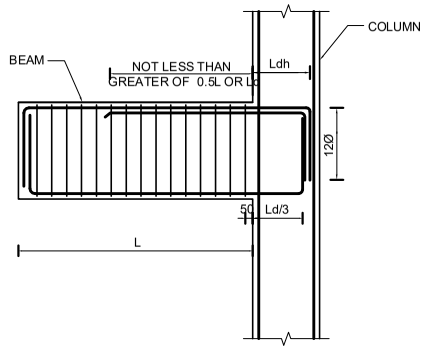


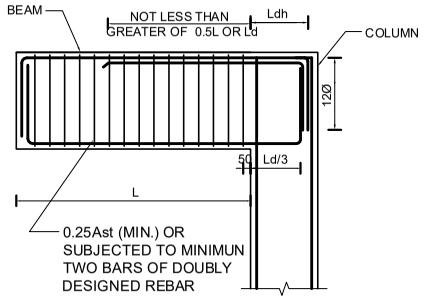
SEISMIC HOOK DETAIL

(Scale 1:10)

6 TYPICAL DETAILS

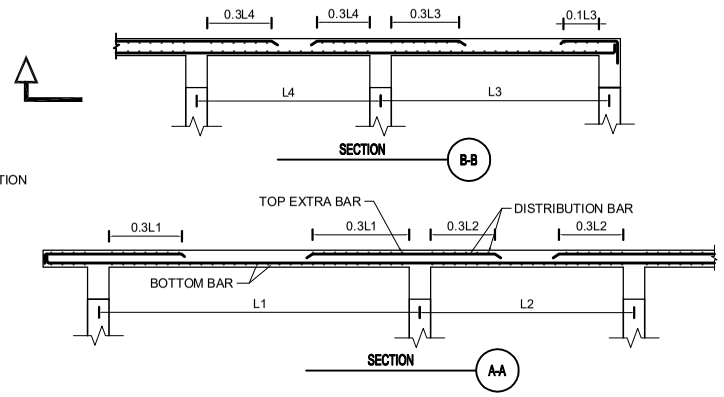
NTS

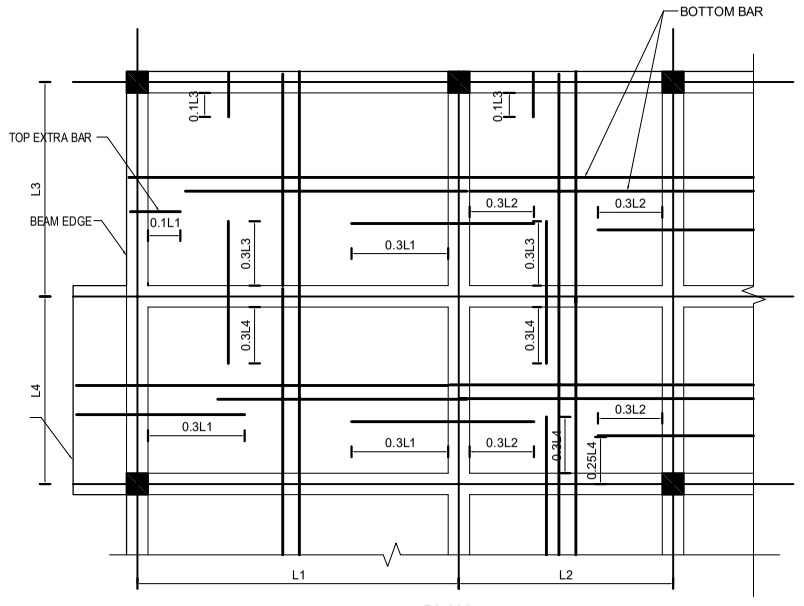




7 TYPICAL DETAILS OF CANTILEVER BEAM PROJECTIING FROM A COLUMN

N.T.S.





PLAN

8 TYP, SLAB PLAN

NTS

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SHEET TITLE: Typical Drawing-1
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NAME: Bus Terminal

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PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 03

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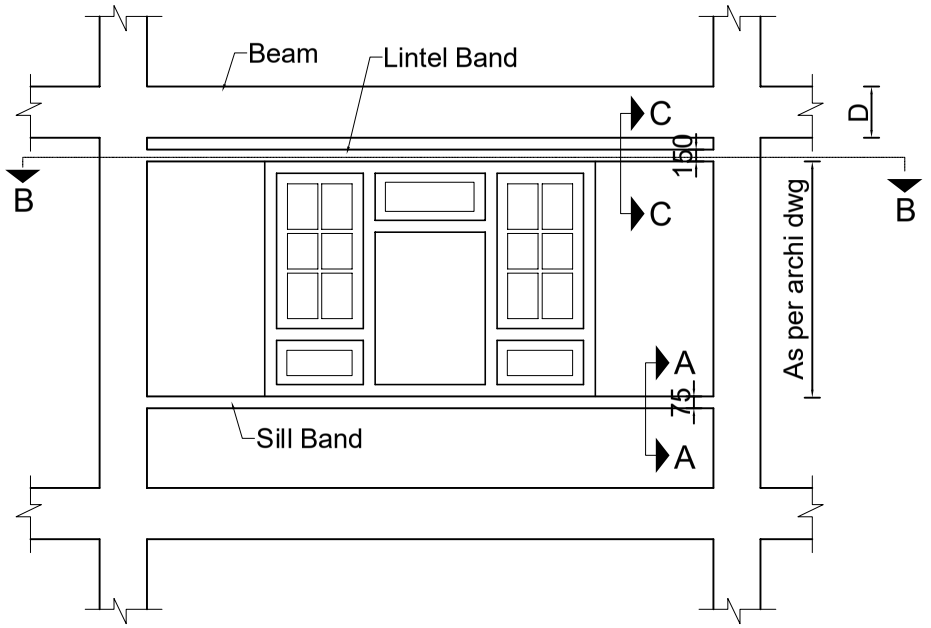
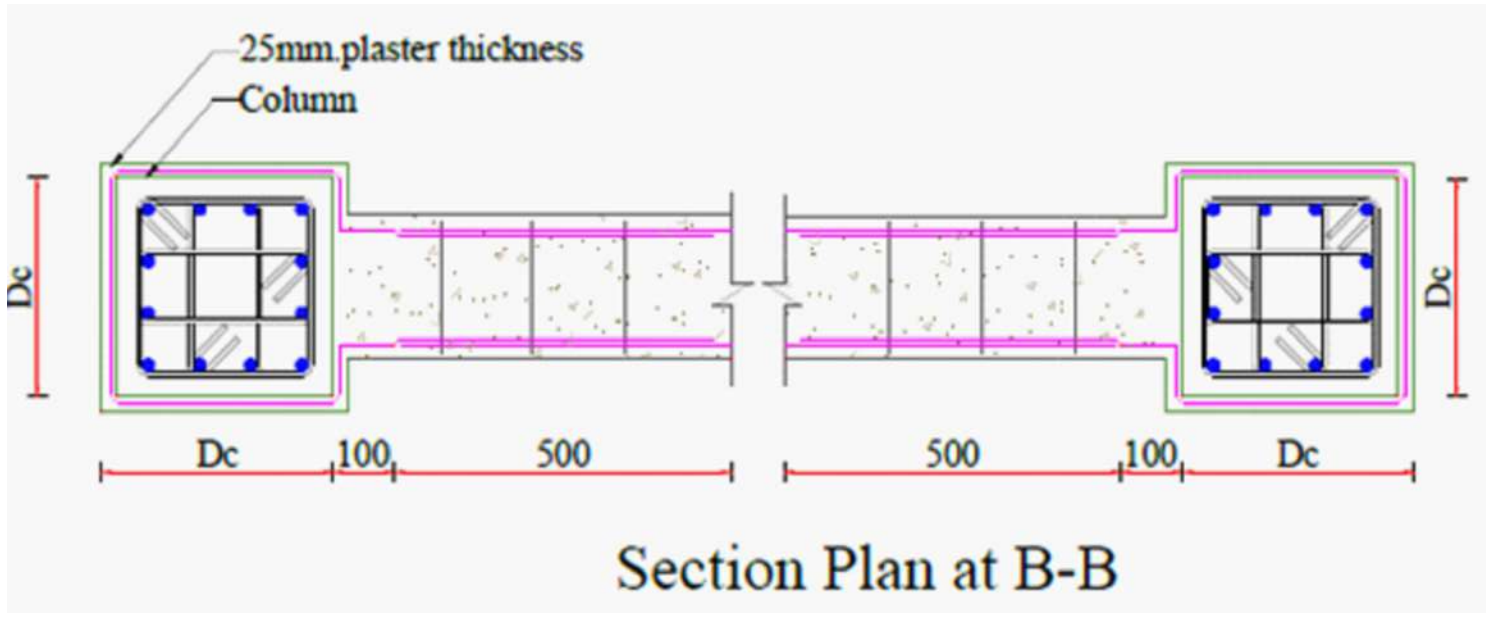
HORIZONTAL DEVELOPMENT LENGTH (Ldh)		
Ldh For Grade Of Steel, fy = 500 MPa in mm		
Bar Diameter	Grade of Concrete, fck	
	M20	M25
12	277	247
16	369	330
20	461	412
25	576	515



BEAM JOINT AND LAP DETAILS

(SCALE 1:50)

DEVELOPMENT LENGTH (ld)		
Grade of Steel,fy	Grade of Concrete,fck	In tension
500	20	57Ø
	25	49Ø



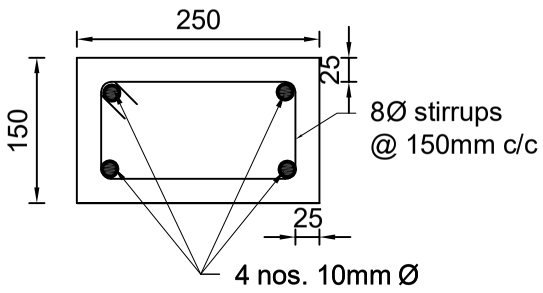
Section Plan at B-B

NOTES:

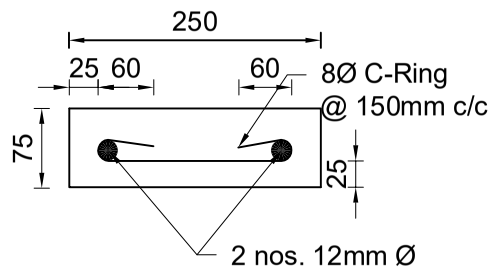
1. L_{dh} = HORIZONTAL DEVELOPMENT LENGTH,
   L_d = DEVELOPMENT LENGTH, LAP LENGTH

2. "TOP" BARS ARE HORIZONTAL WITH MORE THAN 300mm [12"] OF FRESH CONCRETE CAST BELOW BARS. ALL OTHER BARS ARE "BOT" BARS.

3. SPLICE LENGTHS SHOWN ARE FOR CLEAR SPACING NOT LESS THAN 2Ø, CONCRETE COVER NOT LESS THAN Ø.
4. ALL THE REINFORCEMENT DETAILING SHALL COMPLY WITH THE REQUIREMENT OF IS 13920:2016 (DUCTILE DETAILING OF REINFORCED CONCRETE STRUCTURES SUBJECTED TO SEISMIC FORCES-CODE FOR PRACTICE)



Lintel Beam
SECTION AT C-C
SCALE = 1:10



Sill Beam
SECTION AT A-A
SCALE = 1:10

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PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 04

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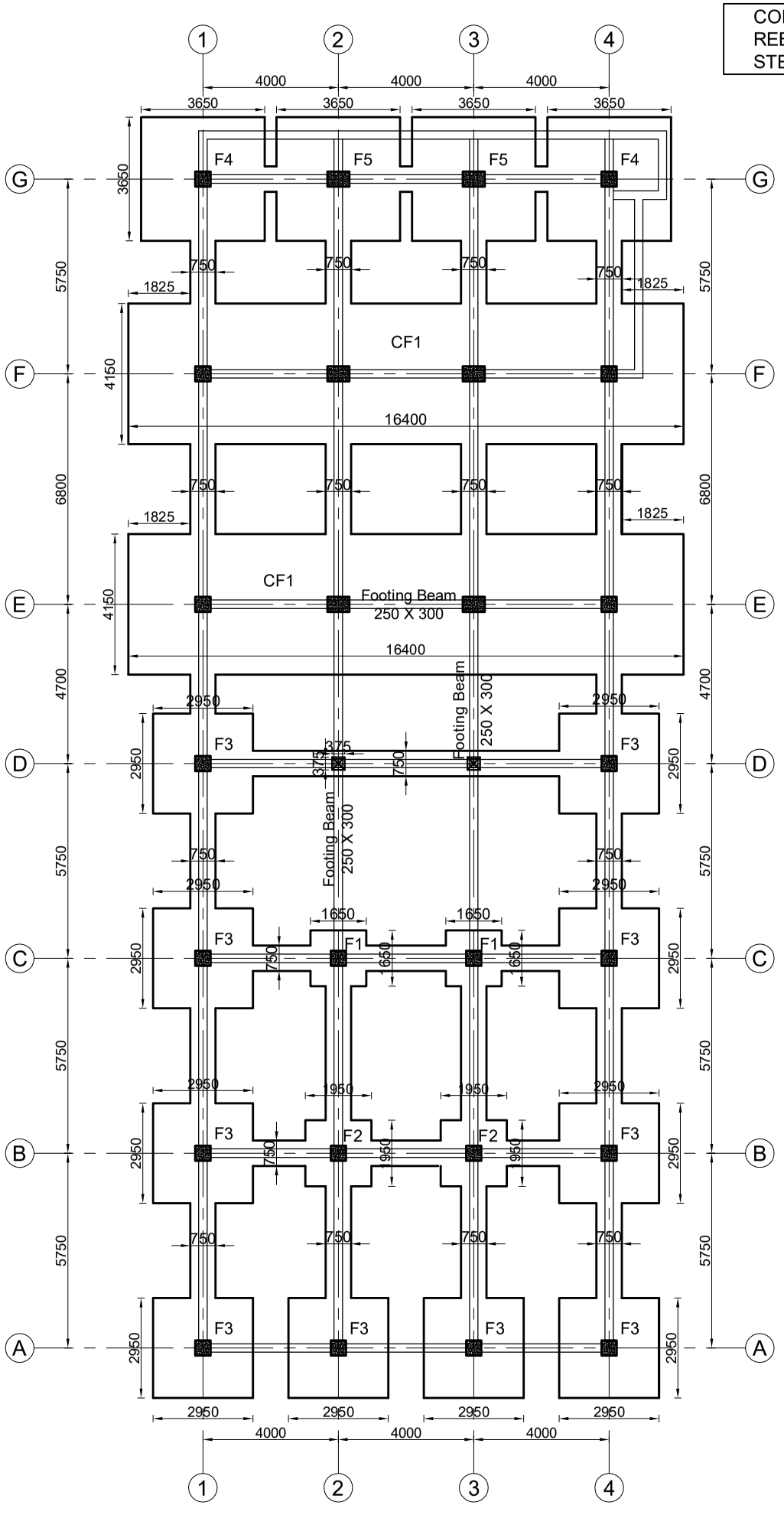
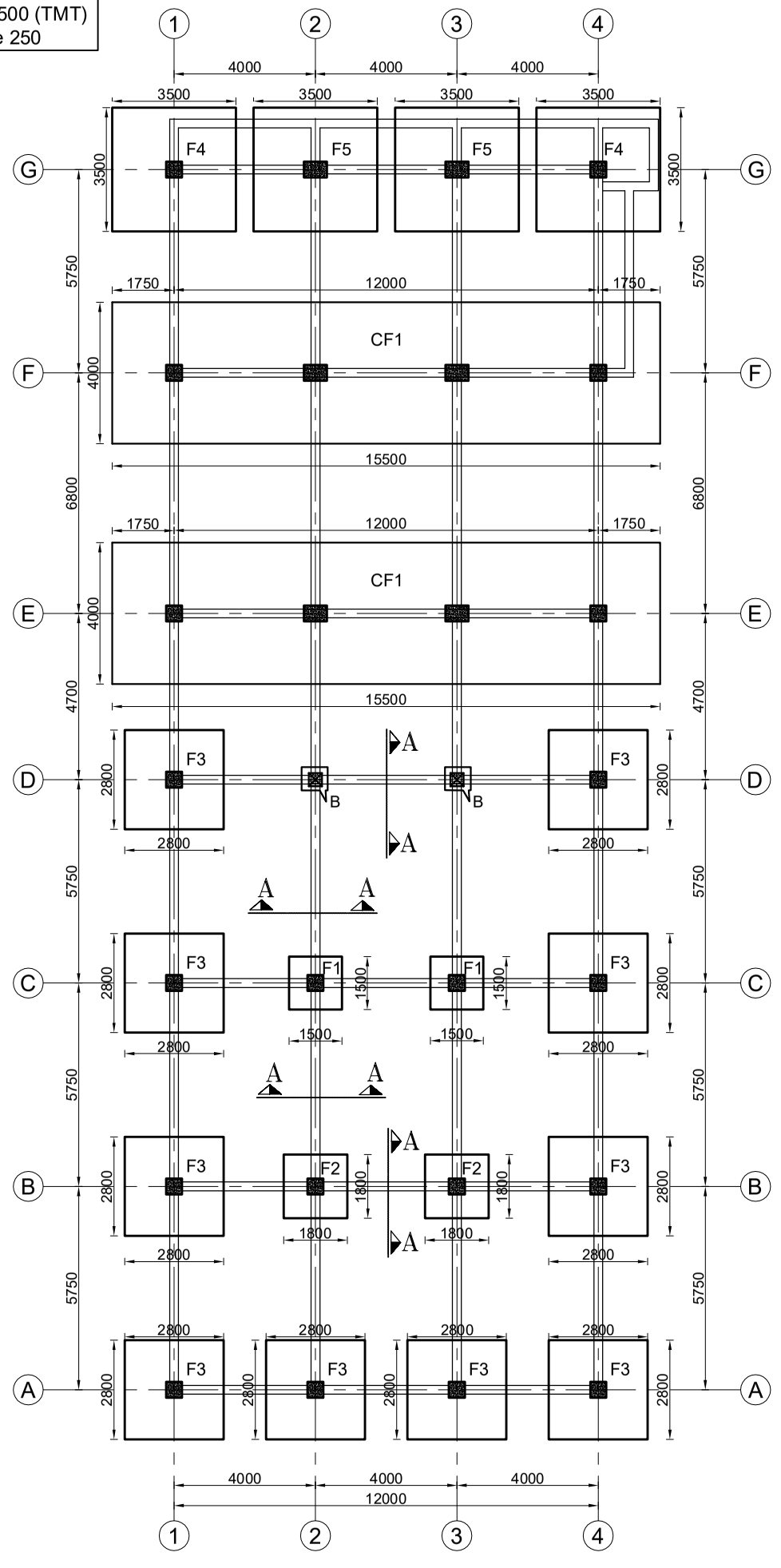
NOTE:

CONCRETE GRADE = M25
REBAR GRADE = Fe 500 (TMT)
STEEL SECTION = Fe 250



TRENCH PLAN
(SCALE 1:175)



FOOTING LAYOUT PLAN
(SCALE 1:175)

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CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 05

CONSULTANT:
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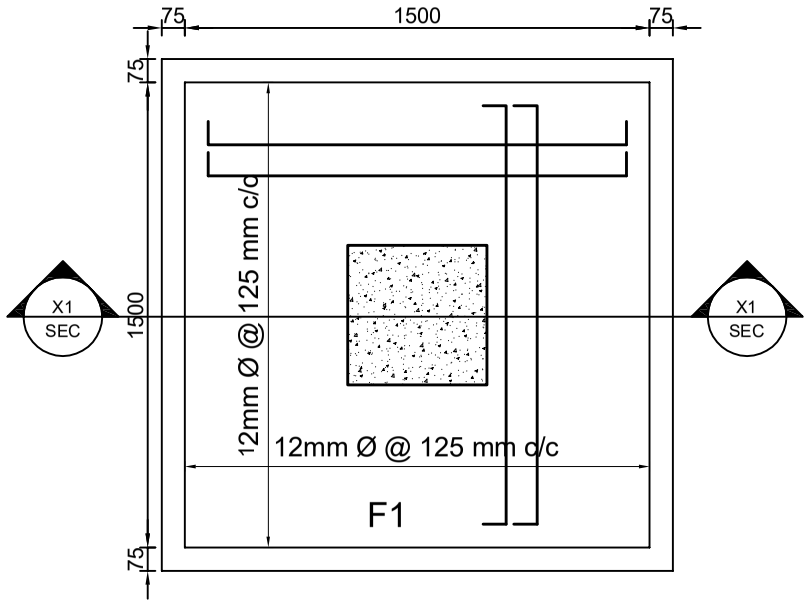
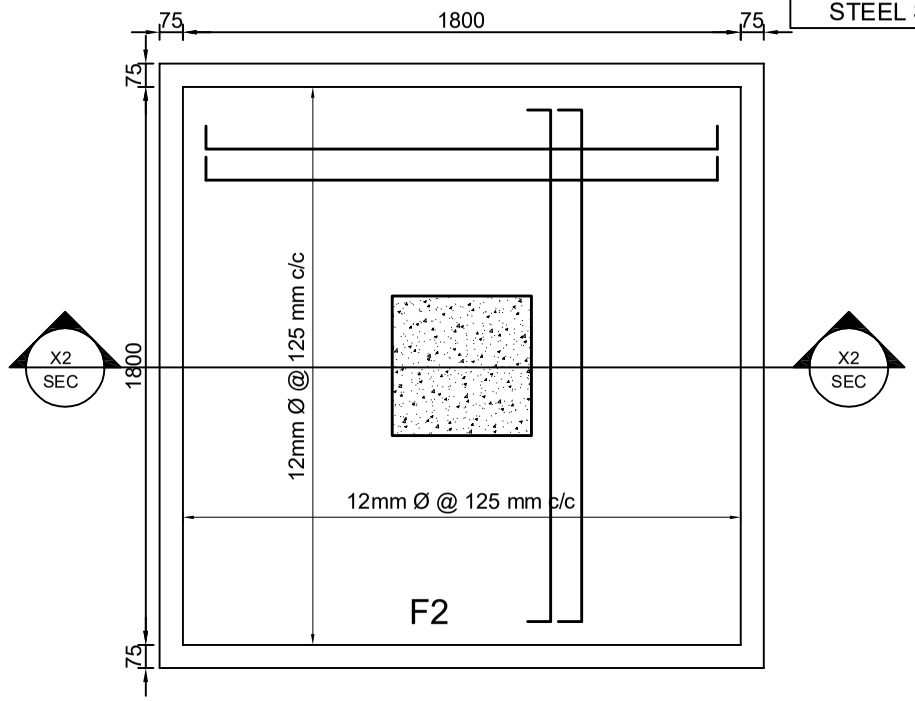
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV

NOTE:
CONCRETE GRADE = M25
REBAR GRADE = Fe 500 (TMT)
STEEL SECTION = Fe 250



FOOTING PLAN (F1)
(SCALE 1:25)



FOOTING PLAN (F2)
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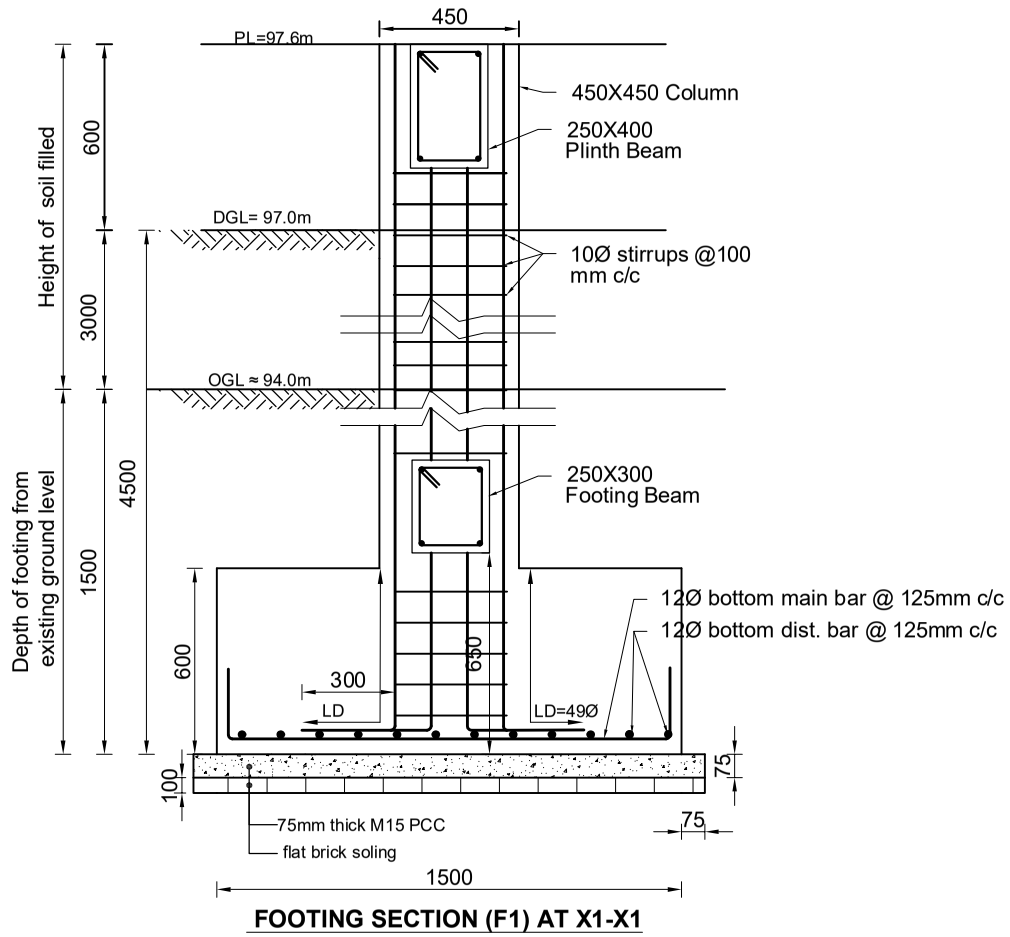
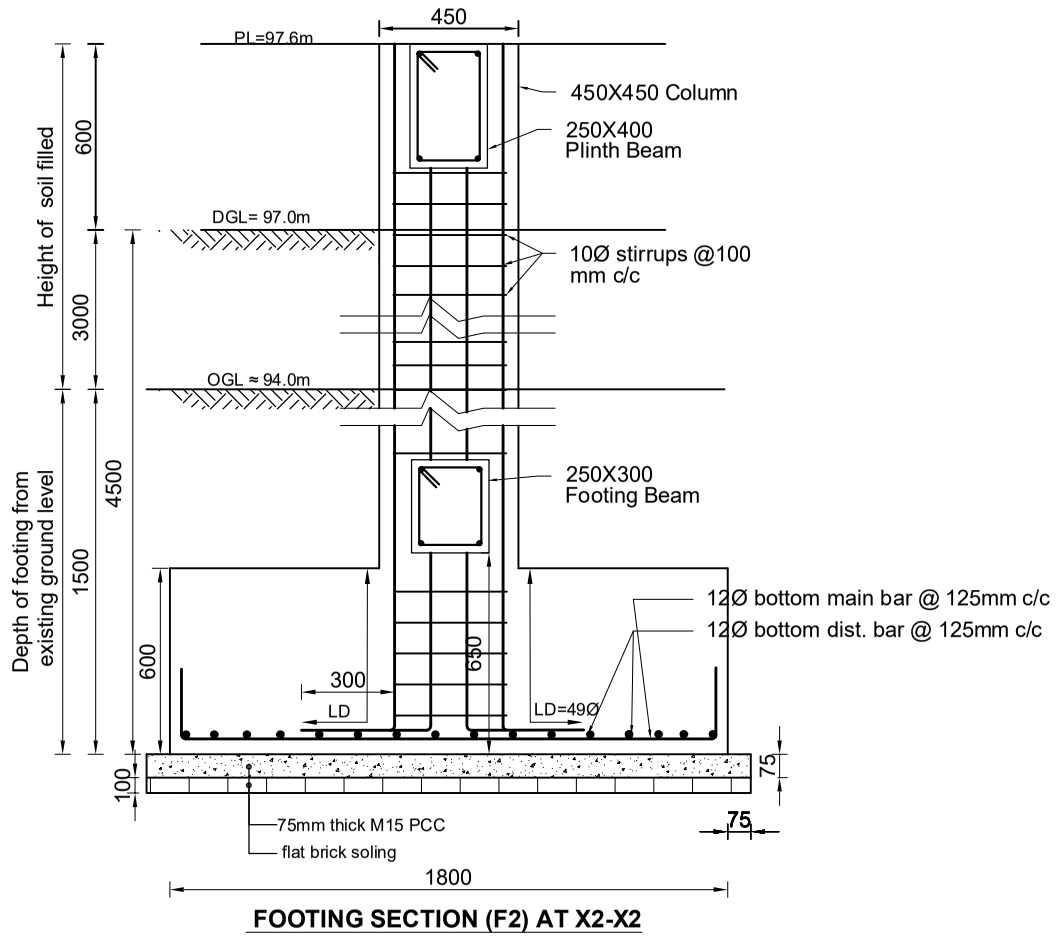


FOOTING SECTION (F1) AT X1-X1
(SCALE 1:25)



FOOTING SECTION (F2) AT X2-X2
(SCALE 1:25)

CLIENT:

Department of Urban Development &
Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of
Detail Project Report of West Urban Corridor (WUC)
Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Footing Details
TERMINAL BUILDING BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 06

CONSULTANT:
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In association with
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and DIGICON (P.) Ltd.
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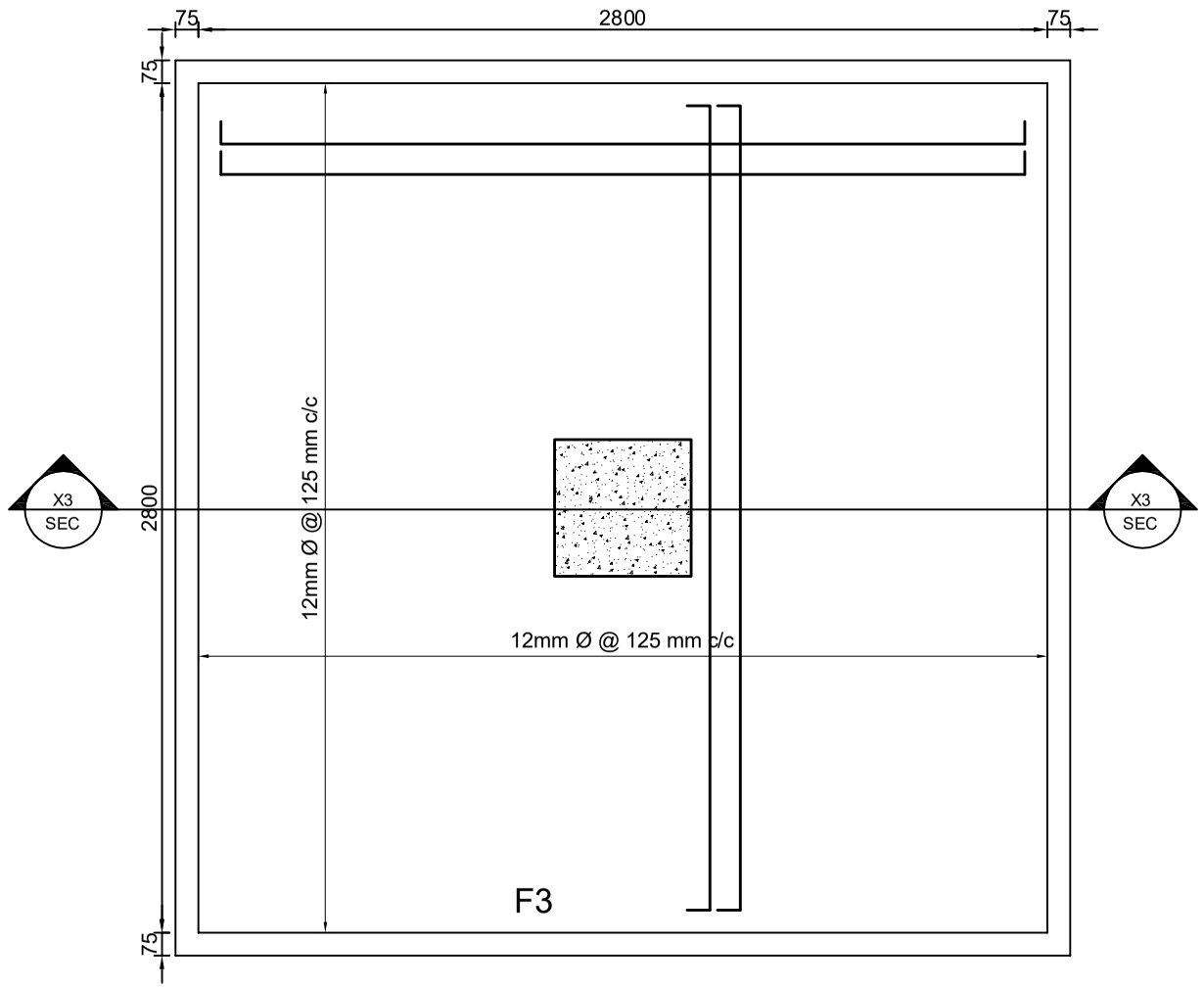
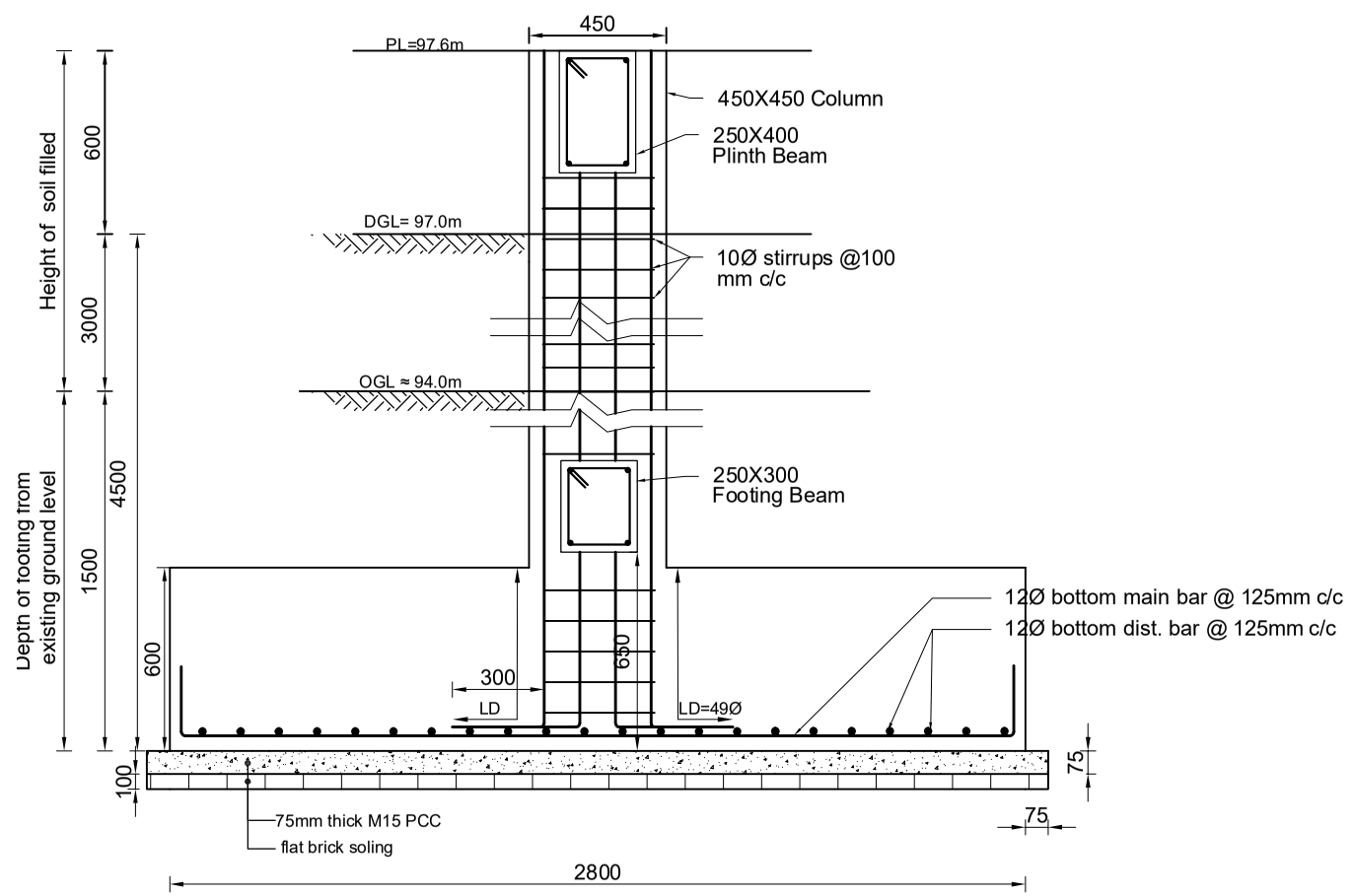
REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV



FOOTING PLAN (F3)
(SCALE 1:25)



FOOTING SECTION (F3) AT X3-X3
(SCALE 1:25)

CLIENT:

Department of Urban Development &
Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of
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Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Footing Details
TERMINAL BUILDING BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: **Er. Ajay Shrestha**	
Designed By: **Er. Enu Rai 17819 Civil "A"** **Er. Arbind Yadav**	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 07

CONSULTANT:
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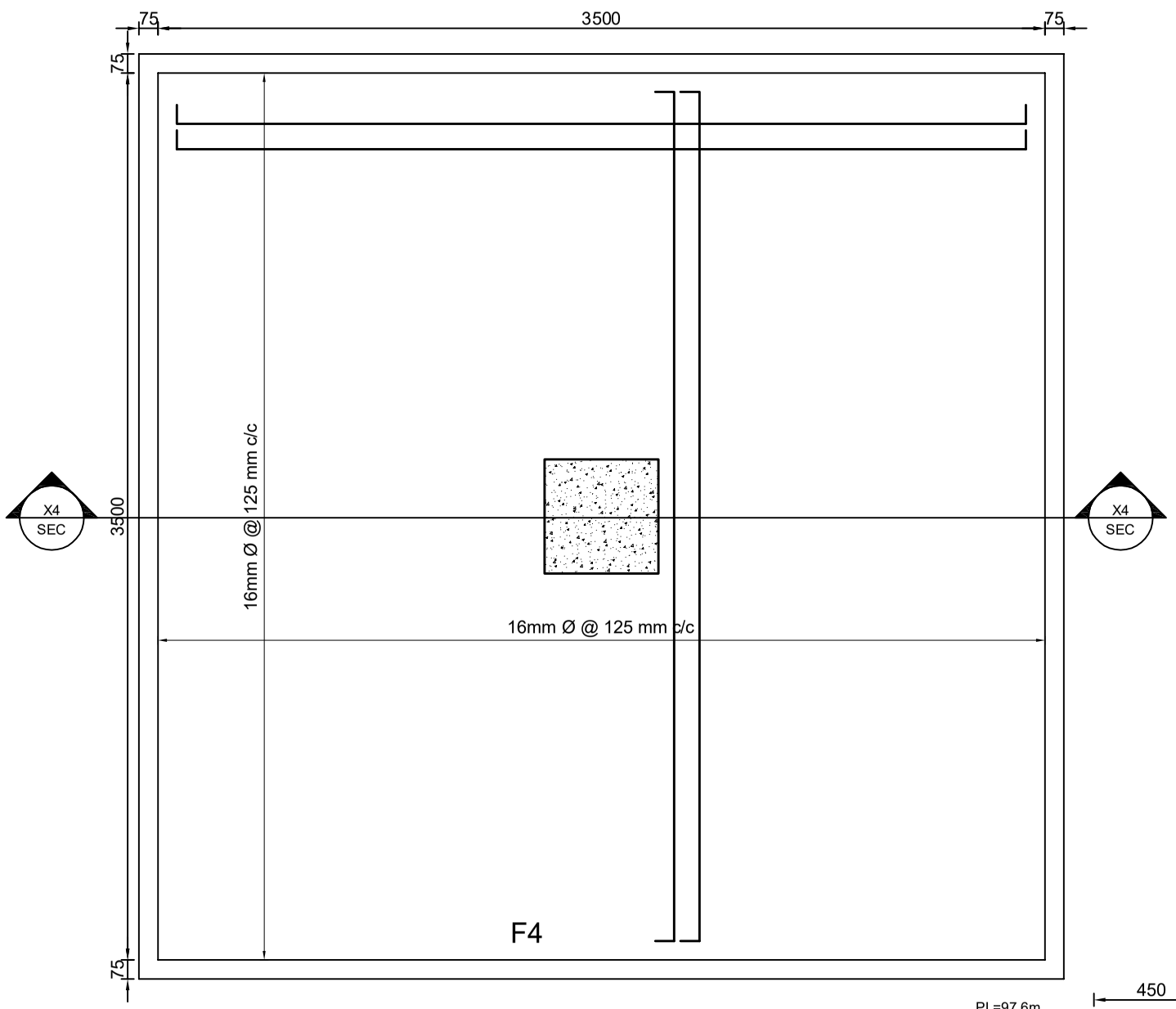
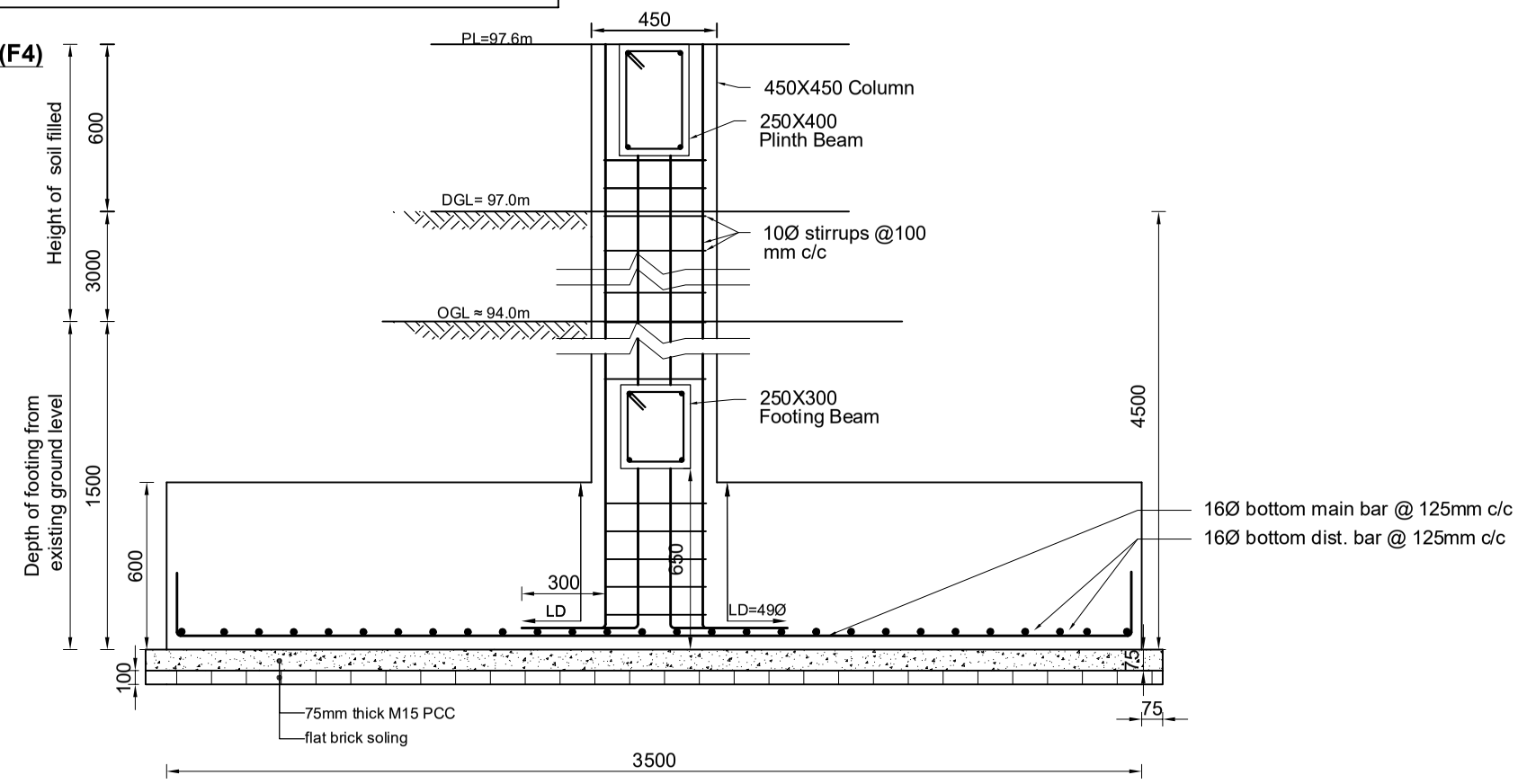
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV



FOOTING PLAN (F4)
(SCALE 1:25)



FOOTING SECTION (F4) AT X4-X4
(SCALE 1:25)

NOTE:
CONCRETE GRADE = M25
REBAR GRADE = Fe 500 (TMT)
STEEL SECTION = Fe 250

CLIENT:

Department of Urban Development &
Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Footing Details
TERMINAL BUILDING BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 08

CONSULTANT:
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and DIGICON (P.) Ltd.
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REVIEWED BY:
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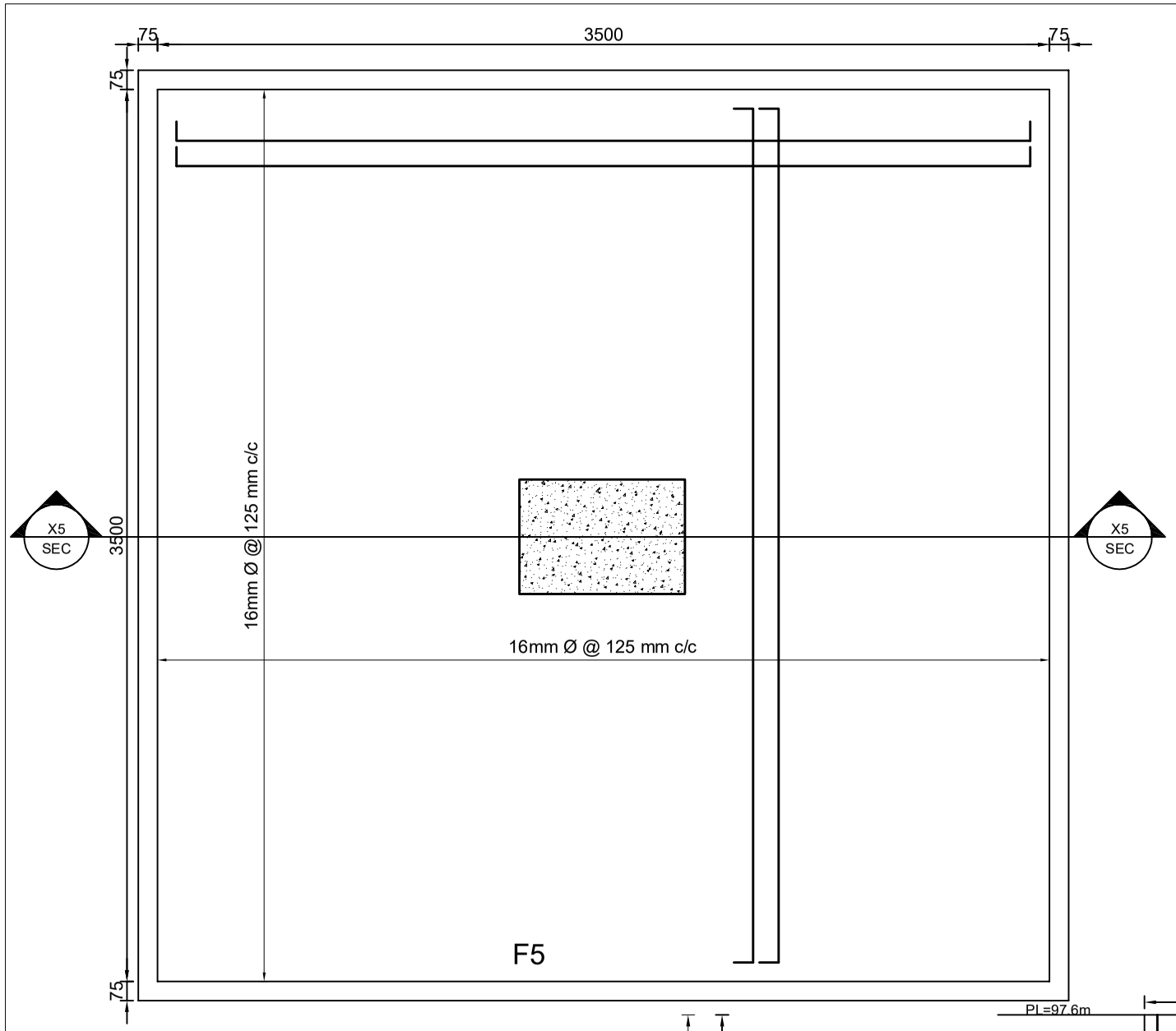
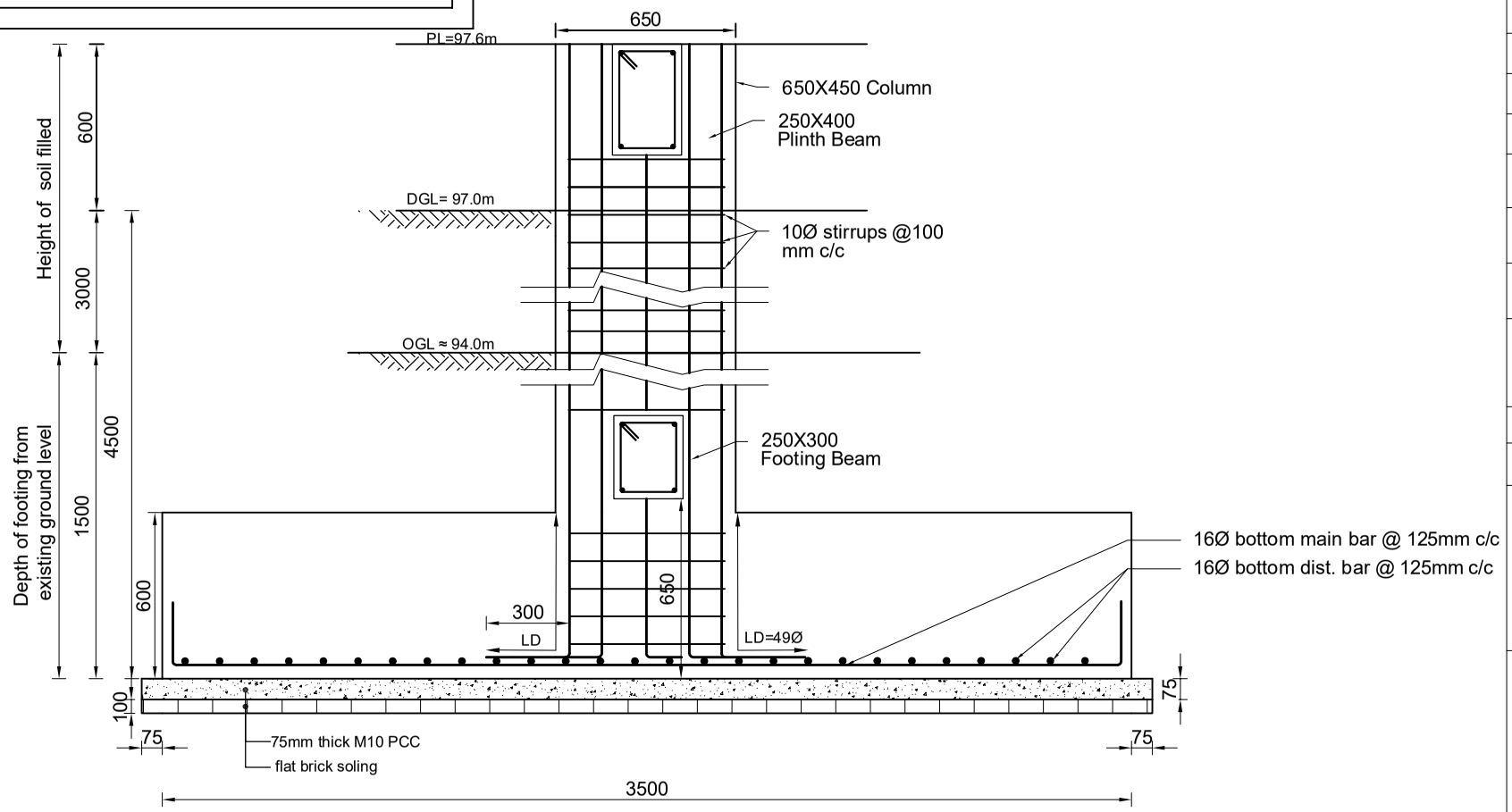


FOOTING PLAN (F5)
(SCALE 1:25)



FOOTING SECTION (F5) AT X5-X5
(SCALE 1:25)

NOTE:

CONCRETE GRADE = M25
REBAR GRADE = Fe 500 (TMT)
STEEL SECTION = Fe 250

CLIENT:

Department of Urban Development &
Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of
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Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Footing Details
TERMINAL BUILDING BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: **Er. Ajay Shrestha**	
Designed By: **Er. Enu Rai 17819 Civil "A"** **Er. Arbind Yadav**	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 09

CONSULTANT:
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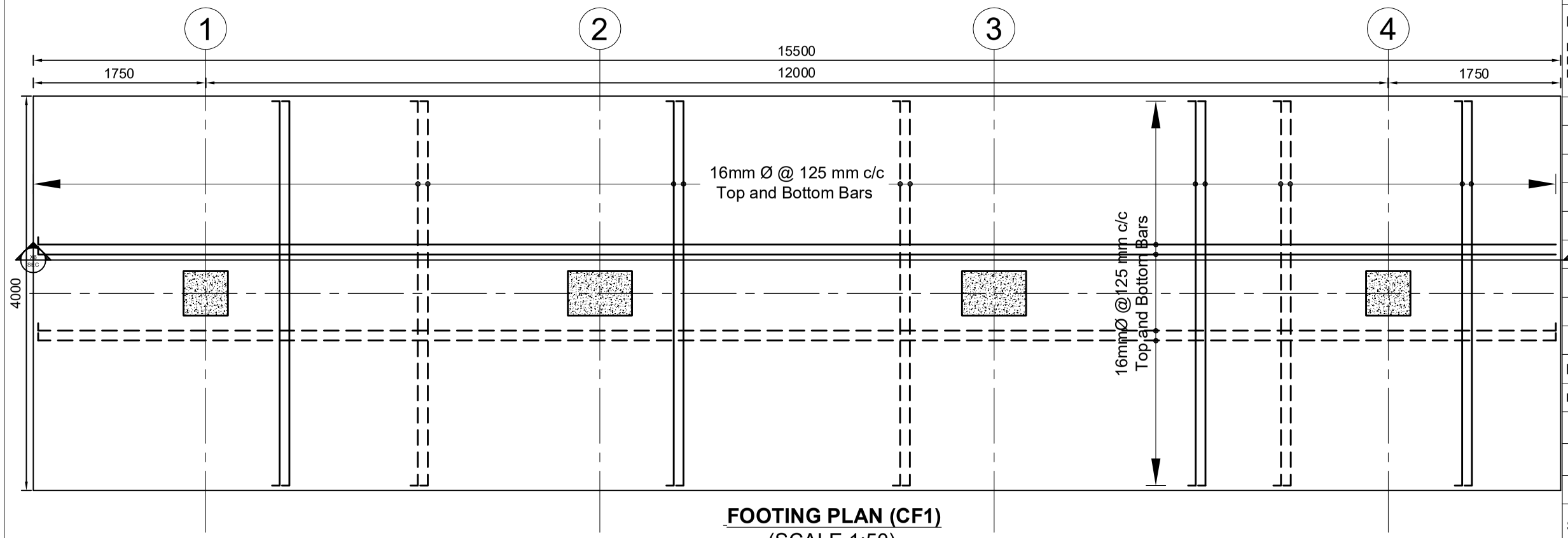
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

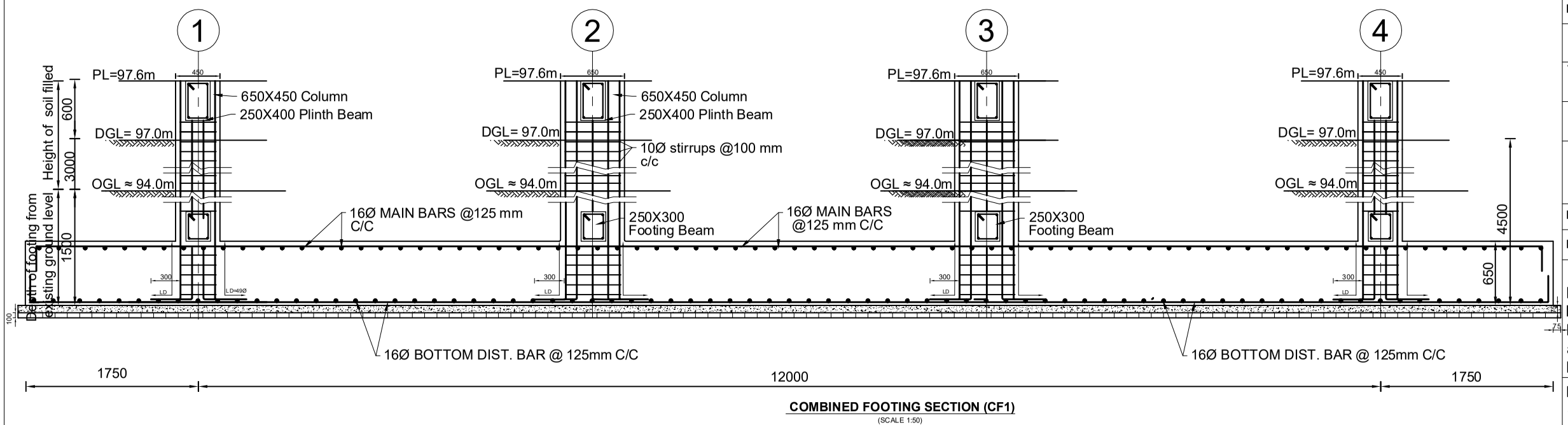
REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV

NOTE:

CONCRETE GRADE = M25
REBAR GRADE = Fe 500 (TMT)
STEEL SECTION = Fe 250



FOOTING PLAN (CF1)
(SCALE 1:50)



COMBINED FOOTING SECTION (CF1)
(SCALE 1:50)

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Footing Details
TERMINAL BUILDING BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 10

CONSULTANT:
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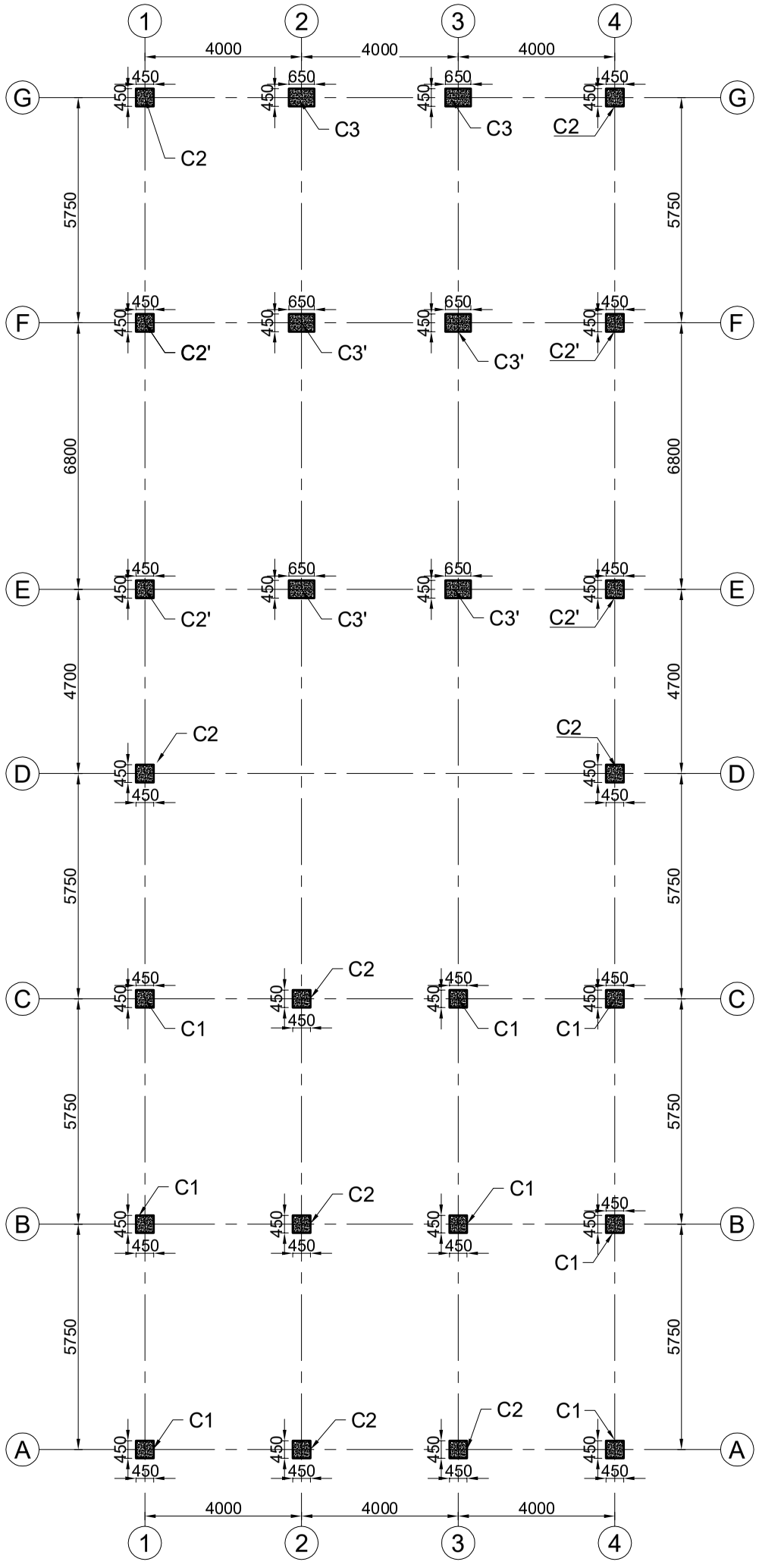
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV

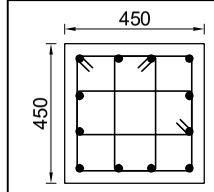
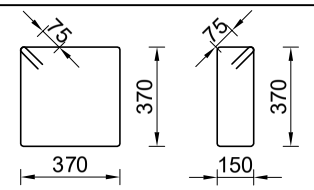
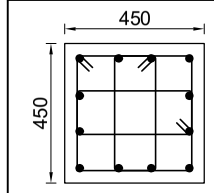
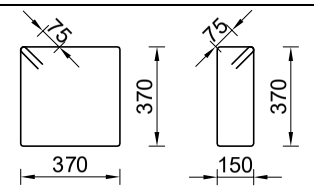


COLUMN LAYOUT PLAN

(SCALE 1:150)

NOTE:

CONCRETE GRADE = M25
REBAR GRADE = Fe 500 (TMT)
STEEL SECTION = Fe 250

CONCRETE GRADE = M25		STEEL = (Fe500)			TYPES OF STIRRUPS
POSITION OF BAR	COLUMN NAME	GROUND FLOOR	FIRST FLOOR	SECOND FLOOR	10 mm Ø Bar @ 100 mm c/c Full height
	C1	8-20Ø+4-16Ø	8-20Ø+4-16Ø		
	C2	12-20Ø	12-20Ø		
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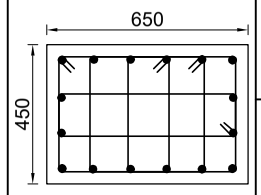
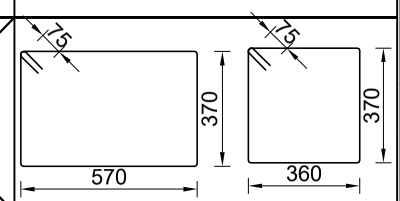
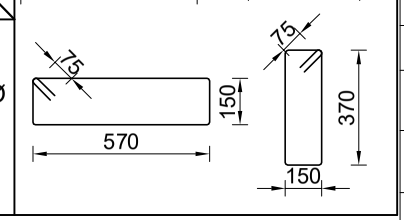
	C3	16-20Ø	16-20Ø		
	C3'	16-20Ø	16-20Ø	8-20Ø+8-12Ø	

COLUMN REINFORCEMENT DETAILS

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Column Layout Plan
TERMINAL BUILDING BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 11

CONSULTANT:
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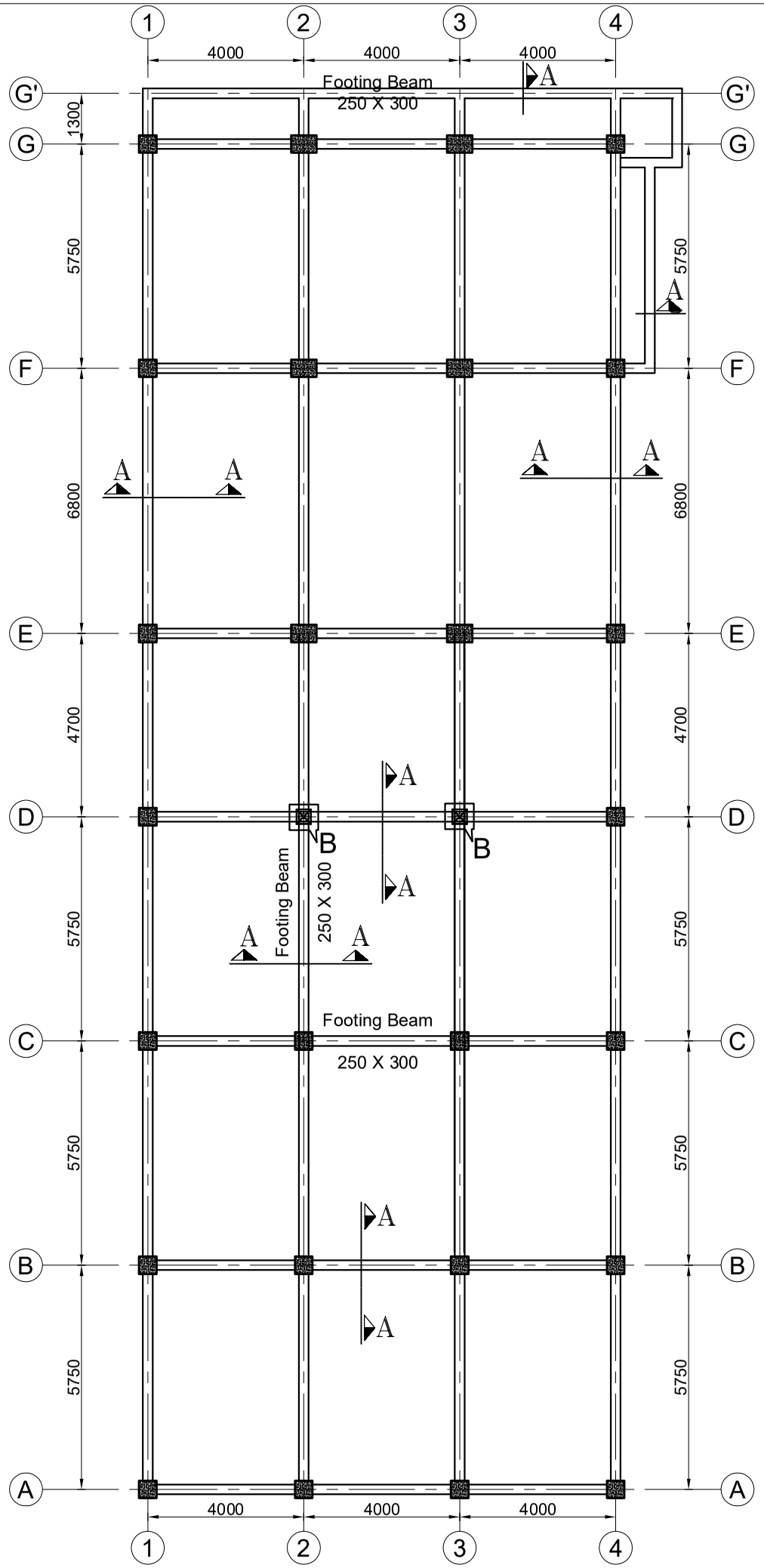
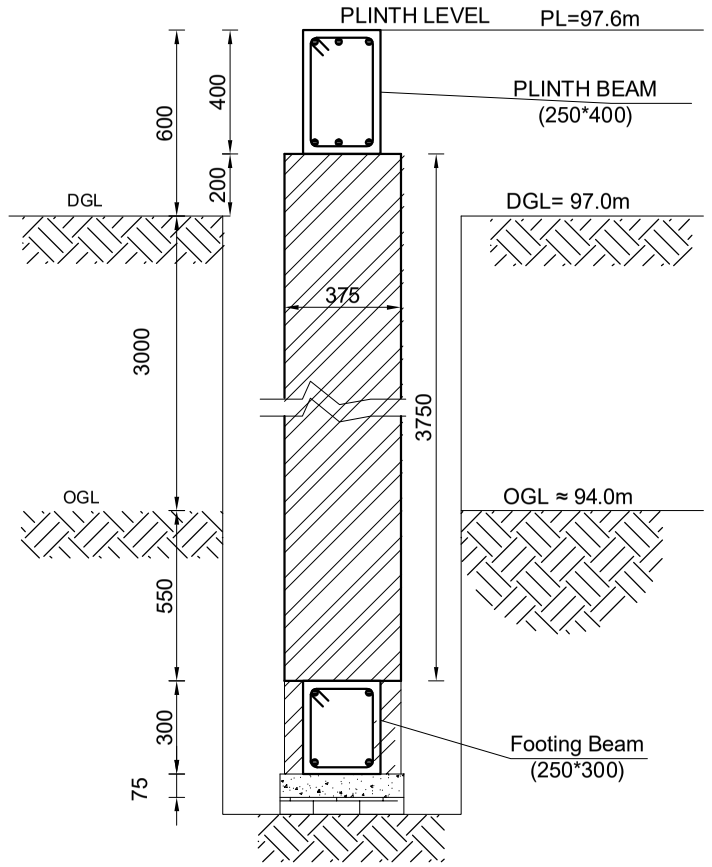
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV



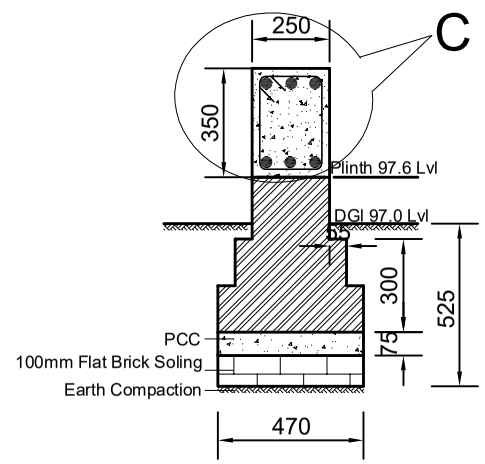
FOOTING BEAM LAYOUT PLAN

(SCALE 1:150)



BRICK COLUMN
Section B

Scale(1:25)



TOE WALL UNDER SECONDARY BEAM
Section C-C

Scale(1:25)

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

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NO	DATE	REVISION
1	18th DEC 2024	1st
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SHEET TITLE: Footing Beam Layout Plan and Details
TERMINAL BUILDING BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 12

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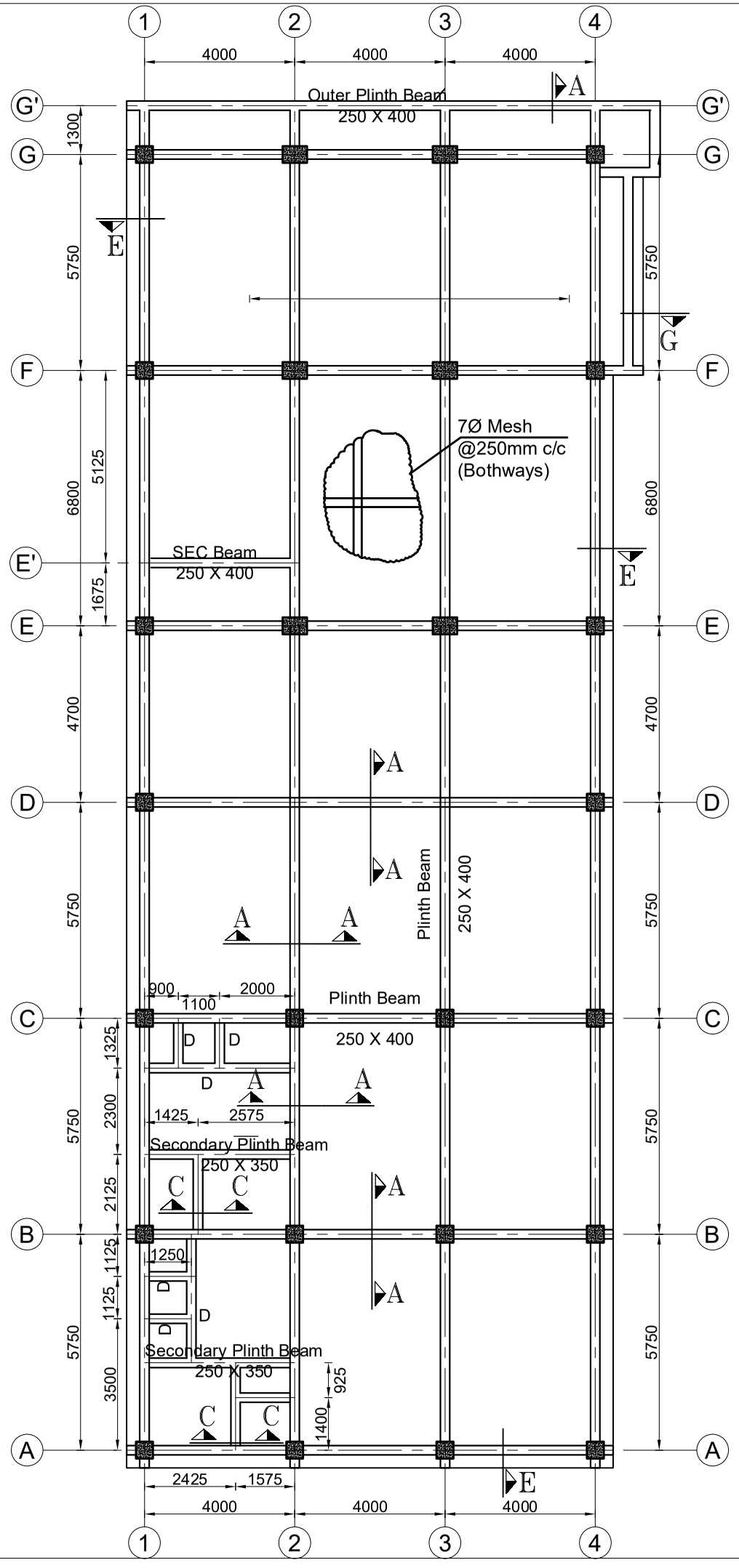
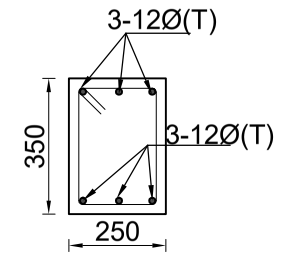
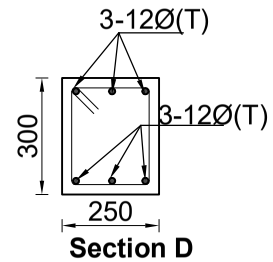
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV

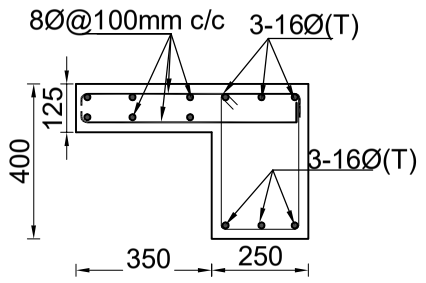




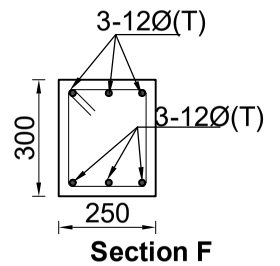
Section C
Secondary Plinth beam
Stirrup 8Ø@ 100 at Ends. &
8Ø@ 125 at mid.
Scale 1:20



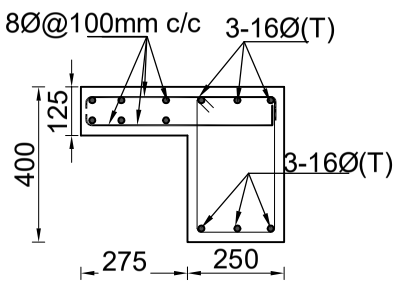
Section D
Secondary Plinth beam
Stirrup 8Ø@ 100 at Ends. &
8Ø@ 125 at mid.
Scale 1:20



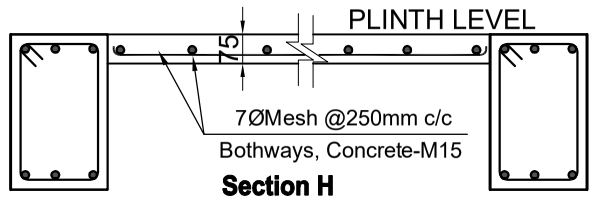
Section E
(Plinth Beam)
Stirrup 8Ø@ 100 at Ends. &
8Ø@ 125 at mid.
Scale 1:20



Section F
Footing beam
Stirrup 8Ø@ 100 at Ends. &
8Ø@ 125 at mid.
Scale 1:20



Section G
(Plinth Beam)
Stirrup 8Ø@ 100 at Ends. &
8Ø@ 125 at mid.
Scale 1:20



Section H
Plinth Mesh Flooring Details
Scale 1:20

PLINTH BEAM LAYOUT PLAN
(SCALE 1:150)

NOTE:
CONCRETE GRADE = M25
REBAR GRADE = Fe 500 (TMT)
STEEL SECTION = Fe 250

CLIENT:

Department of Urban Development &
Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

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Development Project

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NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Plinth Beam Layout Plan and Details
TERMINAL BUILDING BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 13

CONSULTANT:
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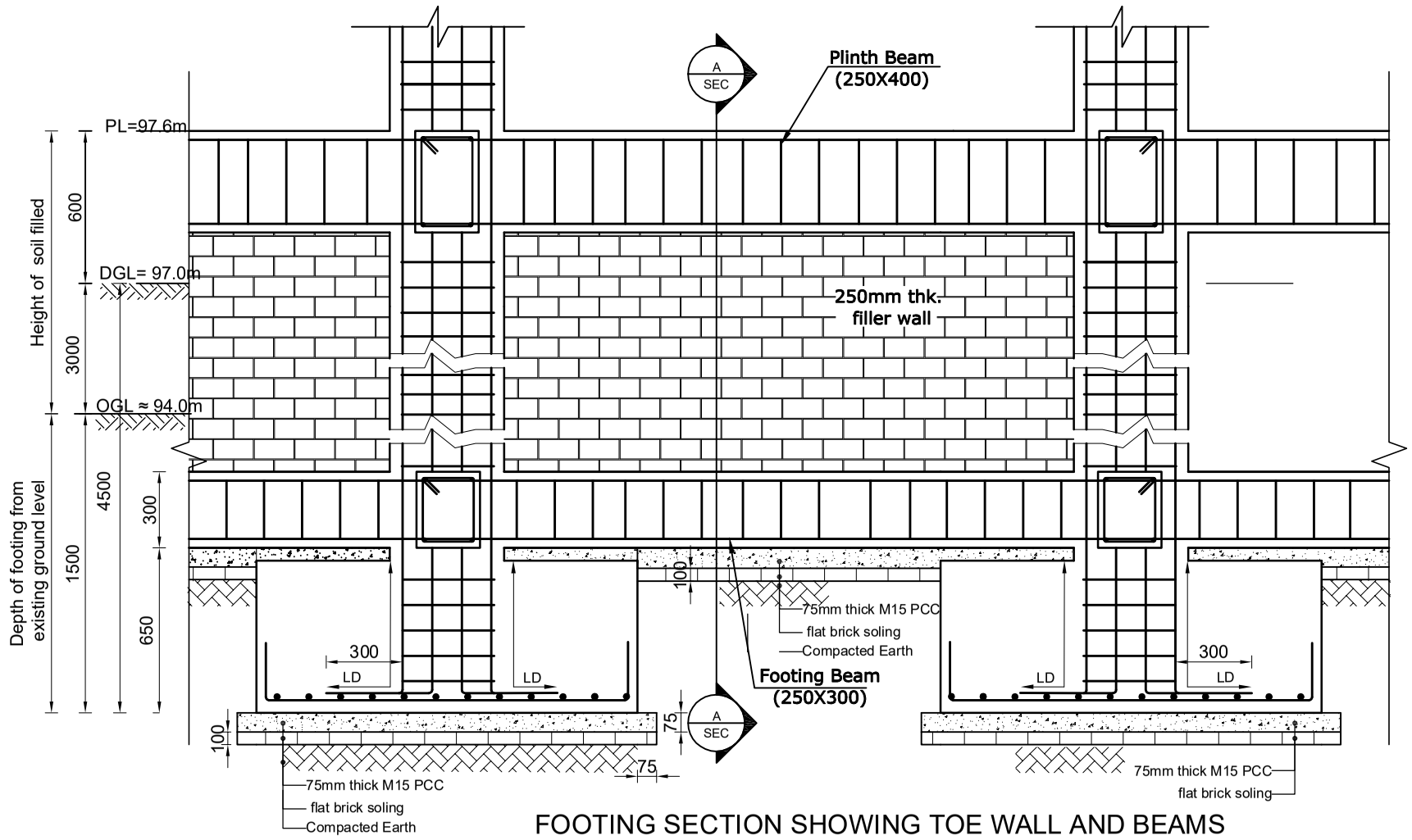
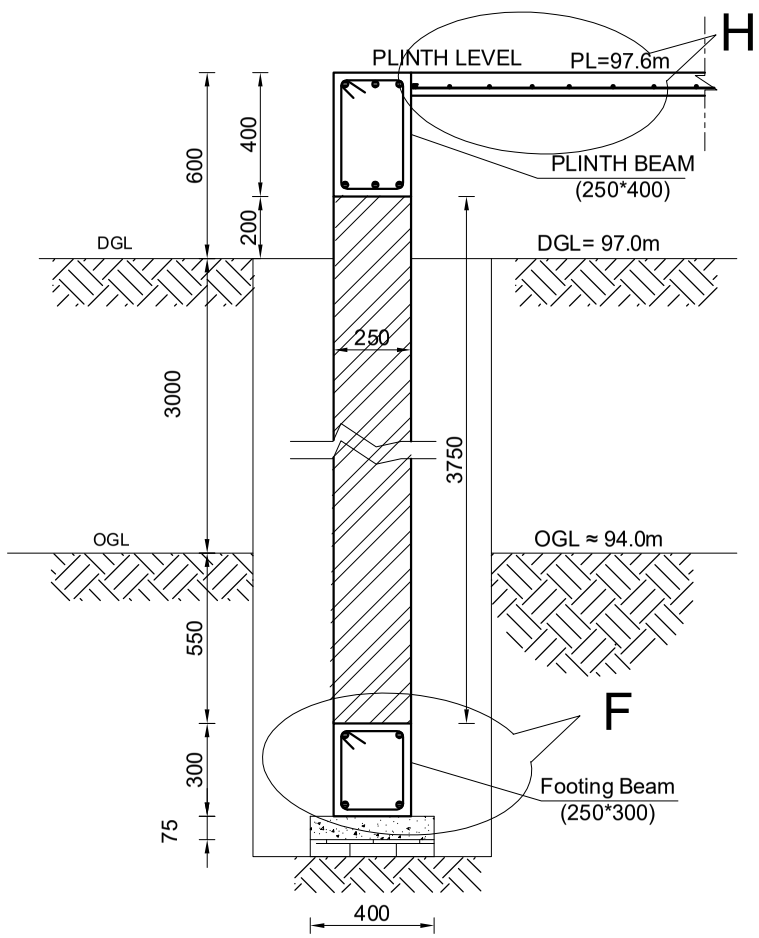
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV



FOOTING SECTION SHOWING TOE WALL AND BEAMS

Scale(1:25)



TOE WALL UNDER PLINTH BEAM

Section A-A

Scale(1:25)

NOTE:

CONCRETE GRADE = M25
REBAR GRADE = Fe 500 (TMT)
STEEL SECTION = Fe 250

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Footing Section and Details
TERMINAL BUILDING BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

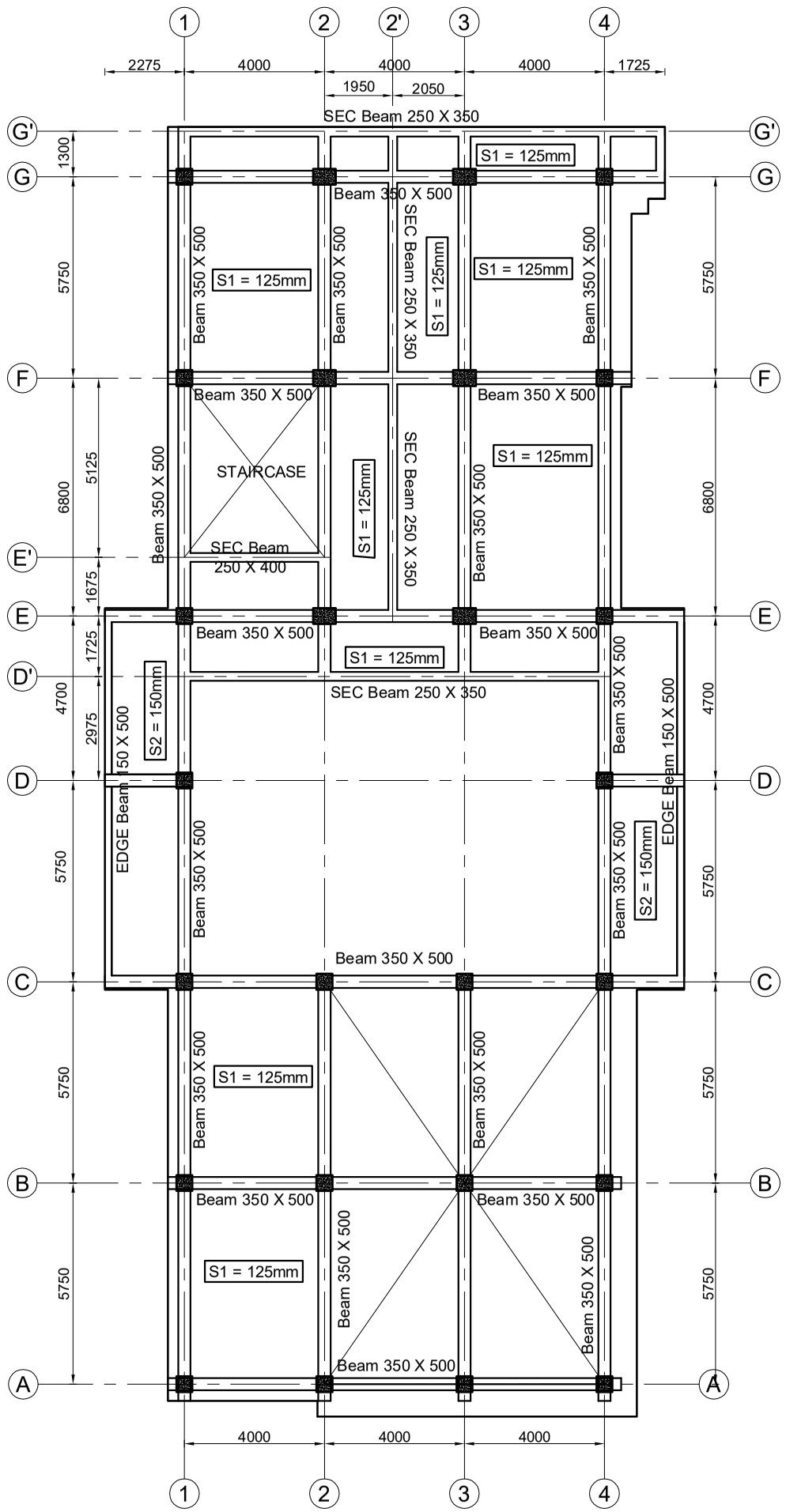
LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 14

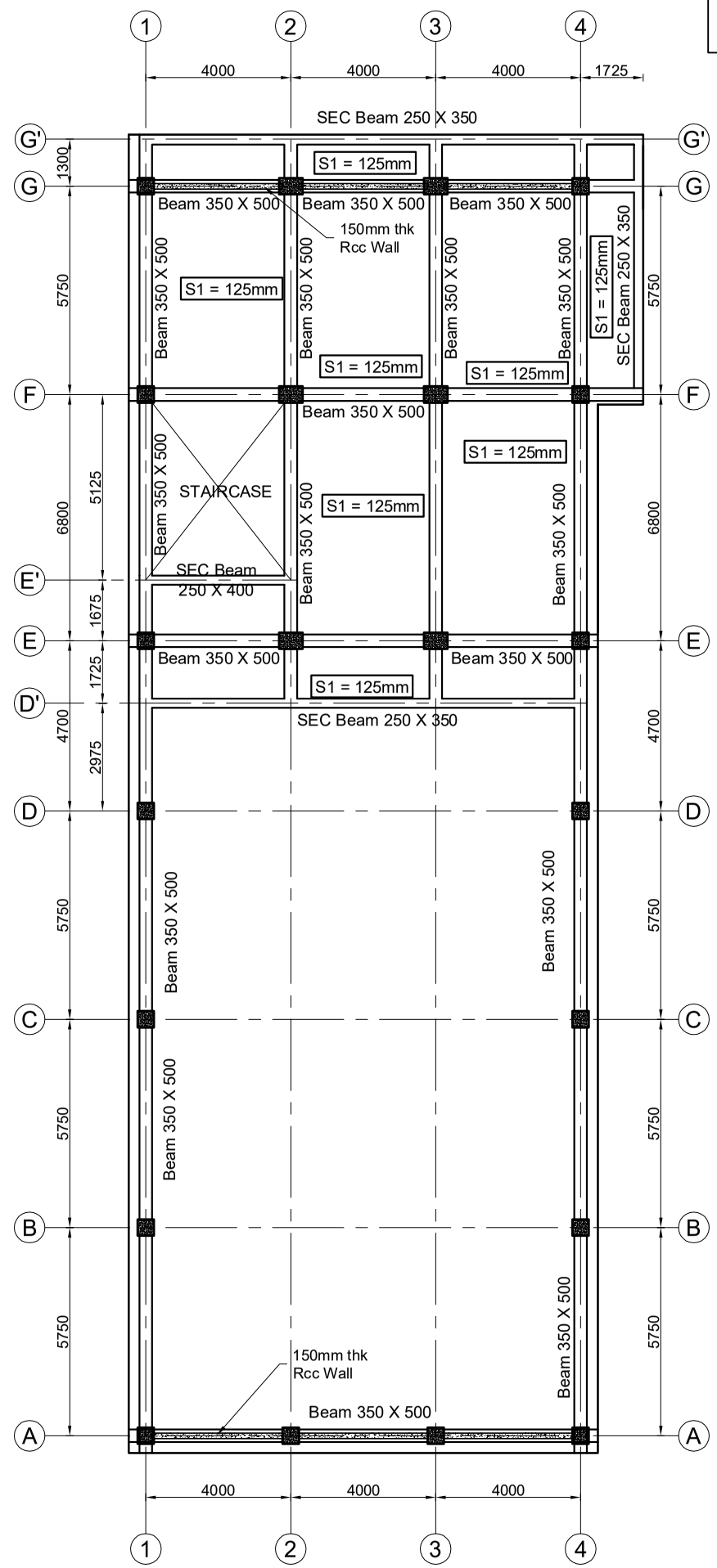
CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV

NOTE:
CONCRETE GRADE = M25
REBAR GRADE = Fe 500 (TMT)
STEEL SECTION = Fe 250



FIRST FLOOR BEAM LAYOUT PLAN
(SCALE 1:175)



SECOND FLOOR BEAM LAYOUT PLAN
(SCALE 1:175)

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: First and Second Floor Beam Plan
TERMINAL BUILDING BLOCK

SITE INFORMATION:

NAME: Bus Terminal

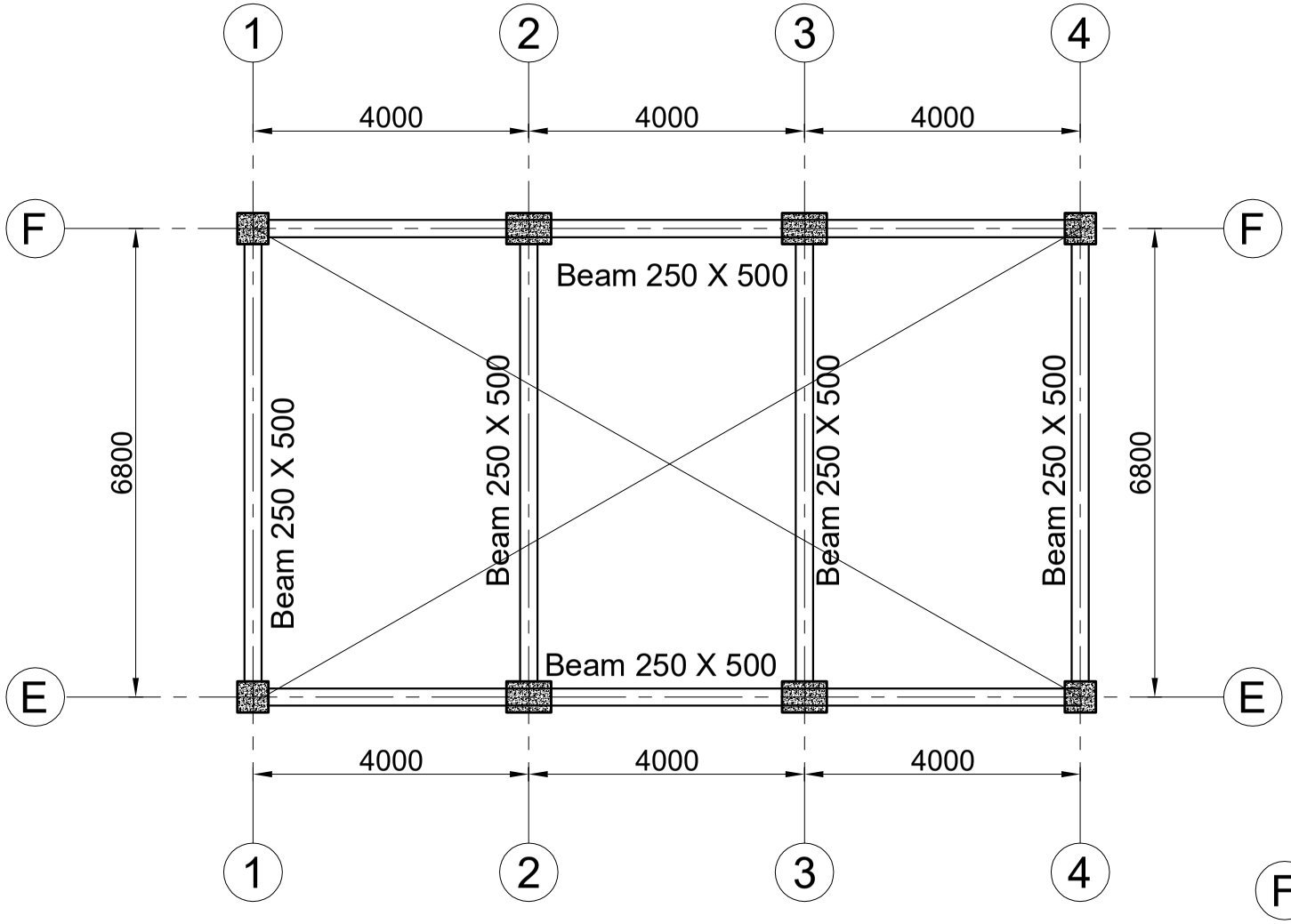
AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: **Er. Ajay Shrestha**	
Designed By: **Er. Enu Rai 17819 Civil "A"** **Er. Arbind Yadav**	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 15

CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV

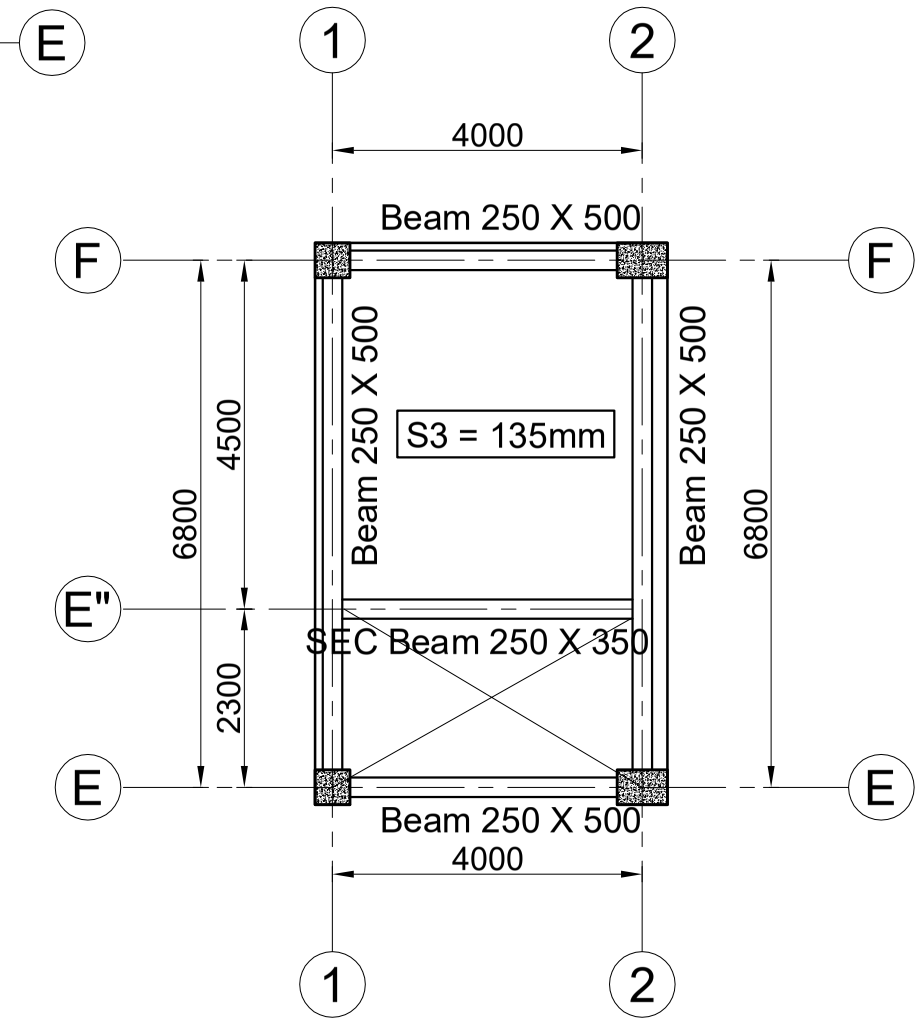


TOP FLOOR BEAM LAYOUT PLAN

(SCALE 1:100)

NOTE:

CONCRETE GRADE = M25
REBAR GRADE = Fe 500 (TMT)
STEEL SECTION = Fe 250



WATER TANK PLAN

(SCALE 1:100)

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: First and Second Floor Beam Plan
TERMINAL BUILDING BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

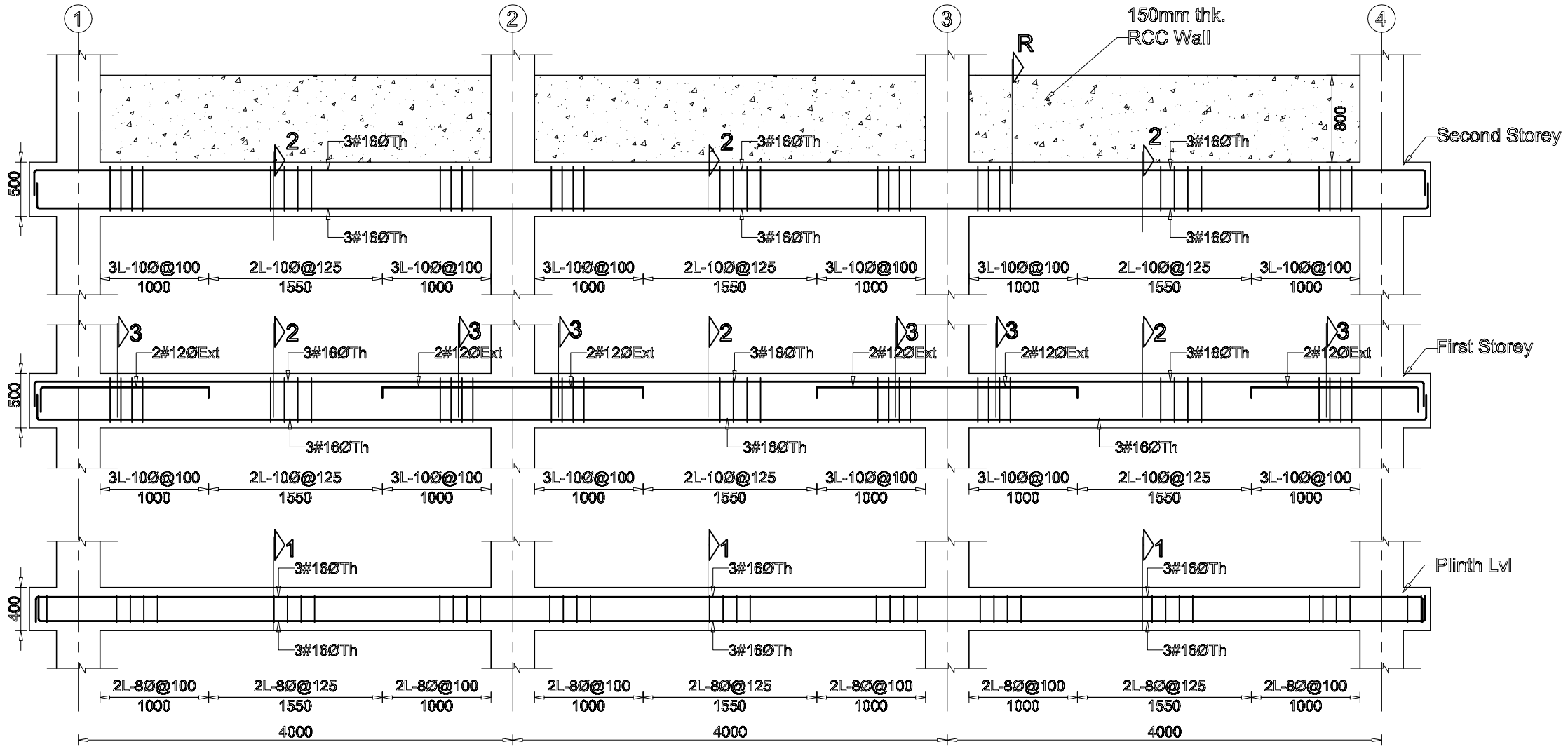
CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 16

CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV

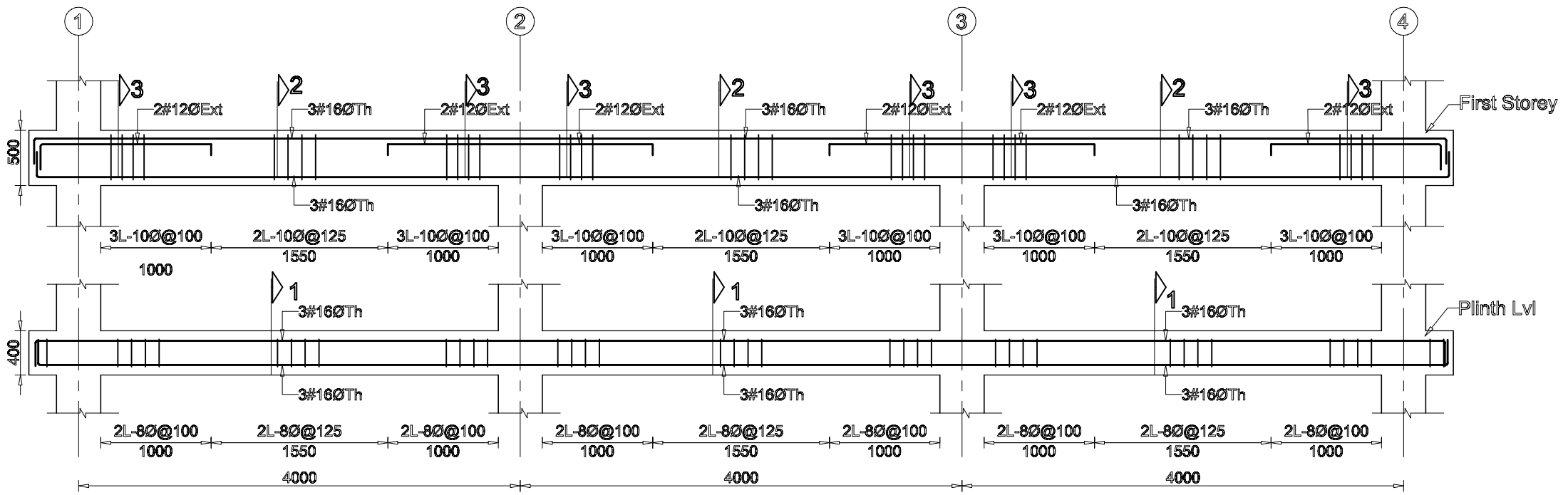
NOTE:

CONCRETE GRADE = M25
REBAR GRADE = Fe 500 (TMT)
STEEL SECTION = Fe 250



LONGITUDINAL REINFORCEMENT OF BEAM ALONG GRID A-A

SCALE 1:50



LONGITUDINAL REINFORCEMENT OF BEAM ALONG GRID B-B

SCALE 1:50

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: L-Section Beam Details
TERMINAL BUILDING BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

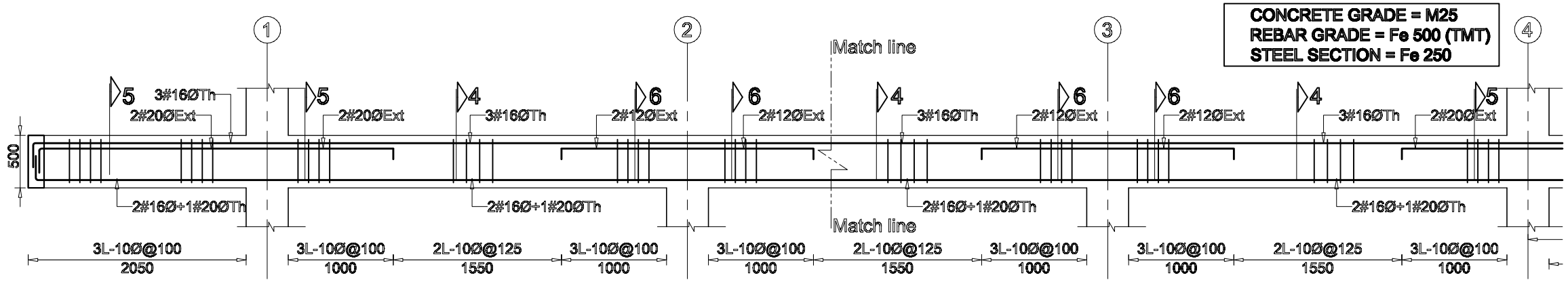
LOCATION: Lumbini Sanskritik Municipality

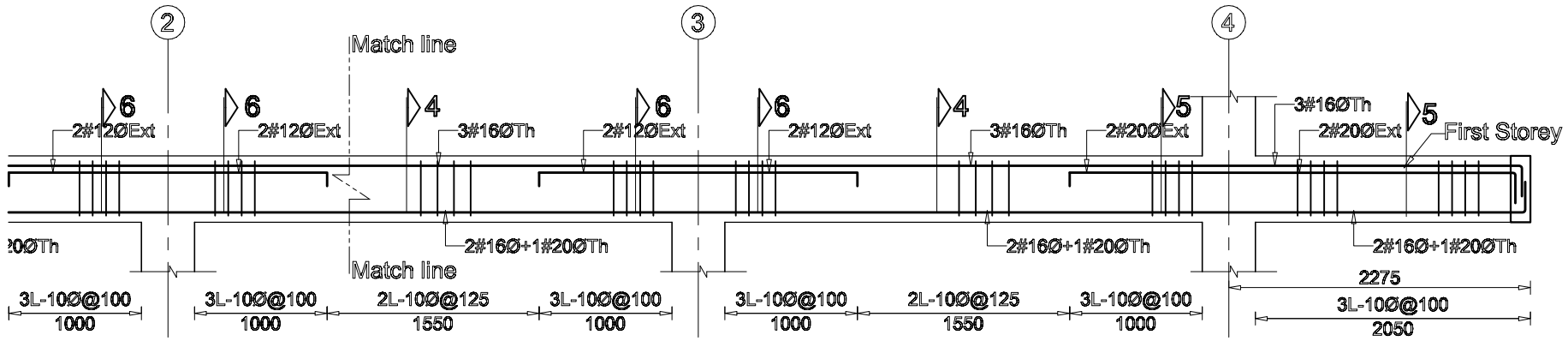
CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 17

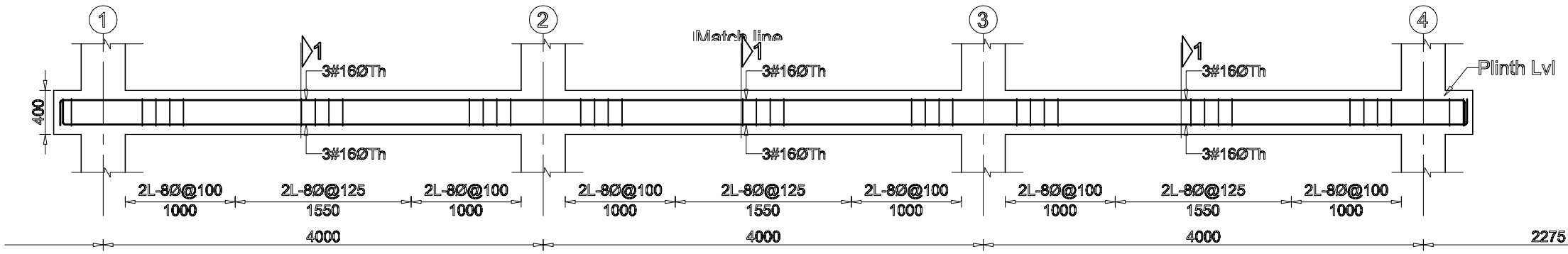
CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV

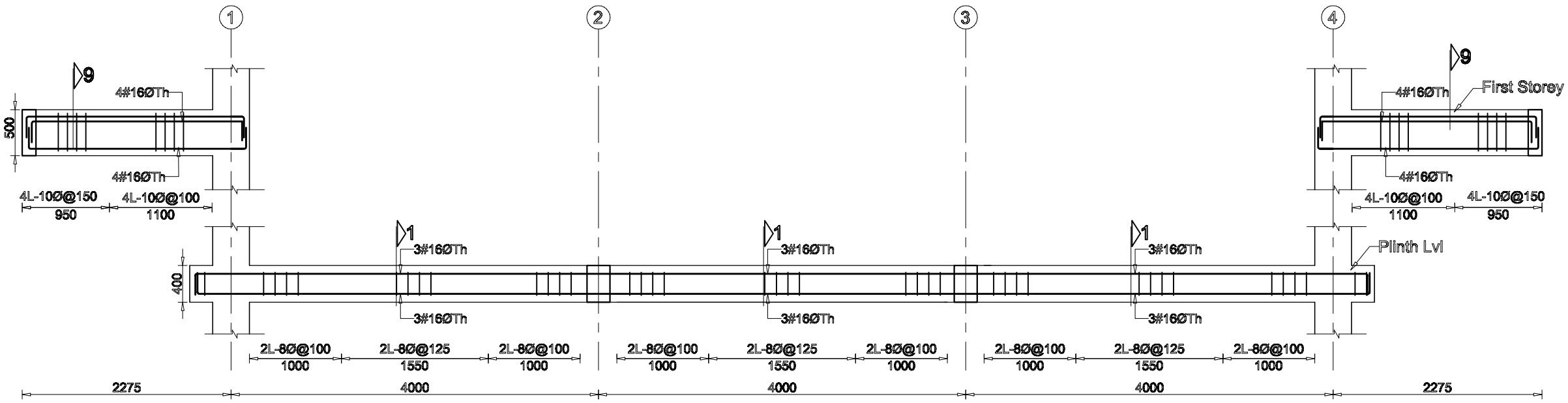
NOTE:
CONCRETE GRADE = M25
REBAR GRADE = Fe 500 (TMT)
STEEL SECTION = Fe 250







LONGITUDINAL REINFORCEMENT OF BEAM ALONG GRID C-C
SCALE 1:50



LONGITUDINAL REINFORCEMENT OF BEAM ALONG GRID D-D
SCALE 1:50

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: L-Section Beam Details
TERMINAL BUILDING BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

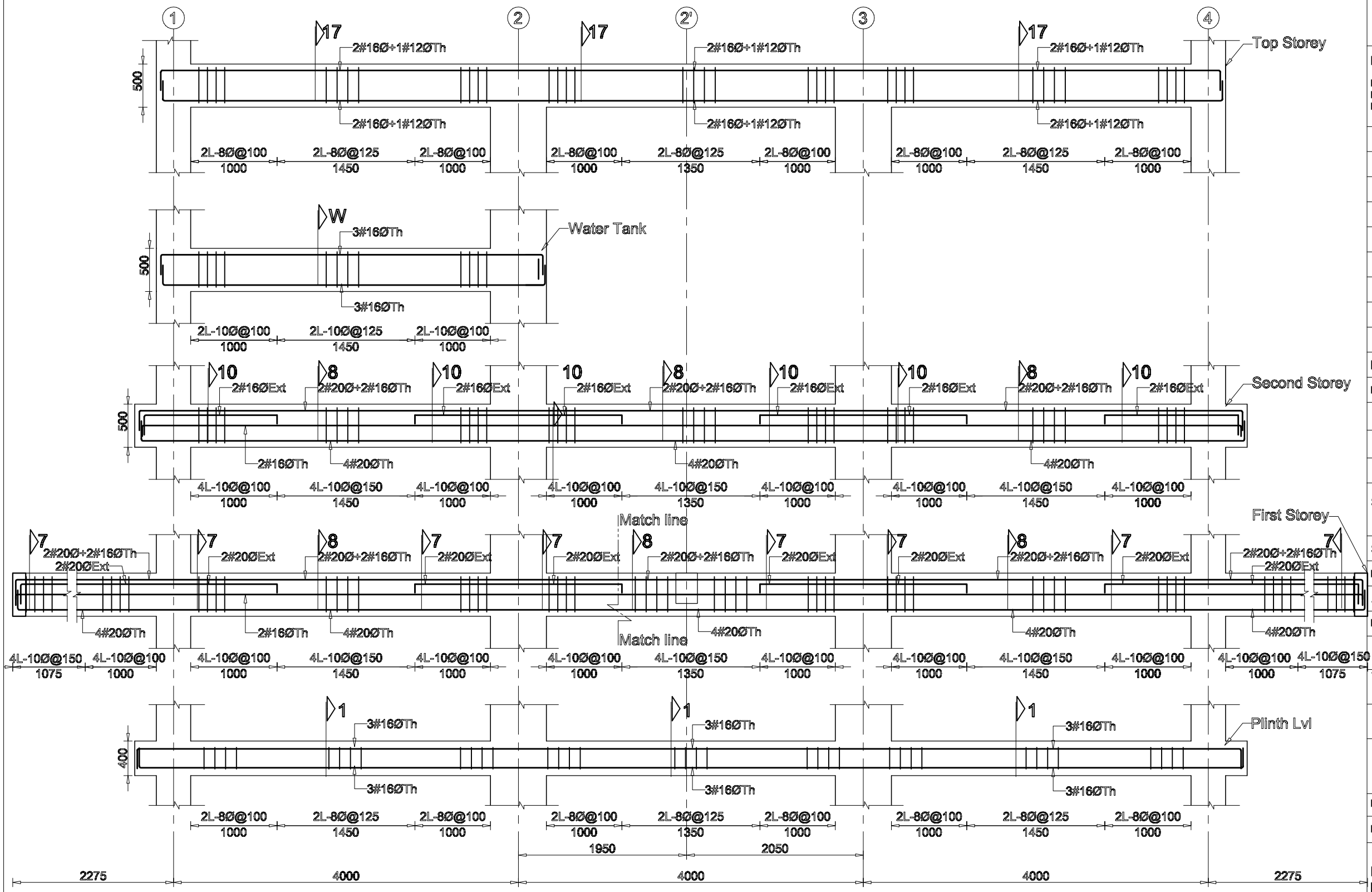
CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 18

CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV

NOTE:

CONCRETE GRADE = M25
REBAR GRADE = Fe 500 (TMT)
STEEL SECTION = Fe 250



LONGITUDINAL REINFORCEMENT OF BEAM ALONG GRID E-E

SCALE 1:50

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: L-Section Beam Details
TERMINAL BUILDING BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

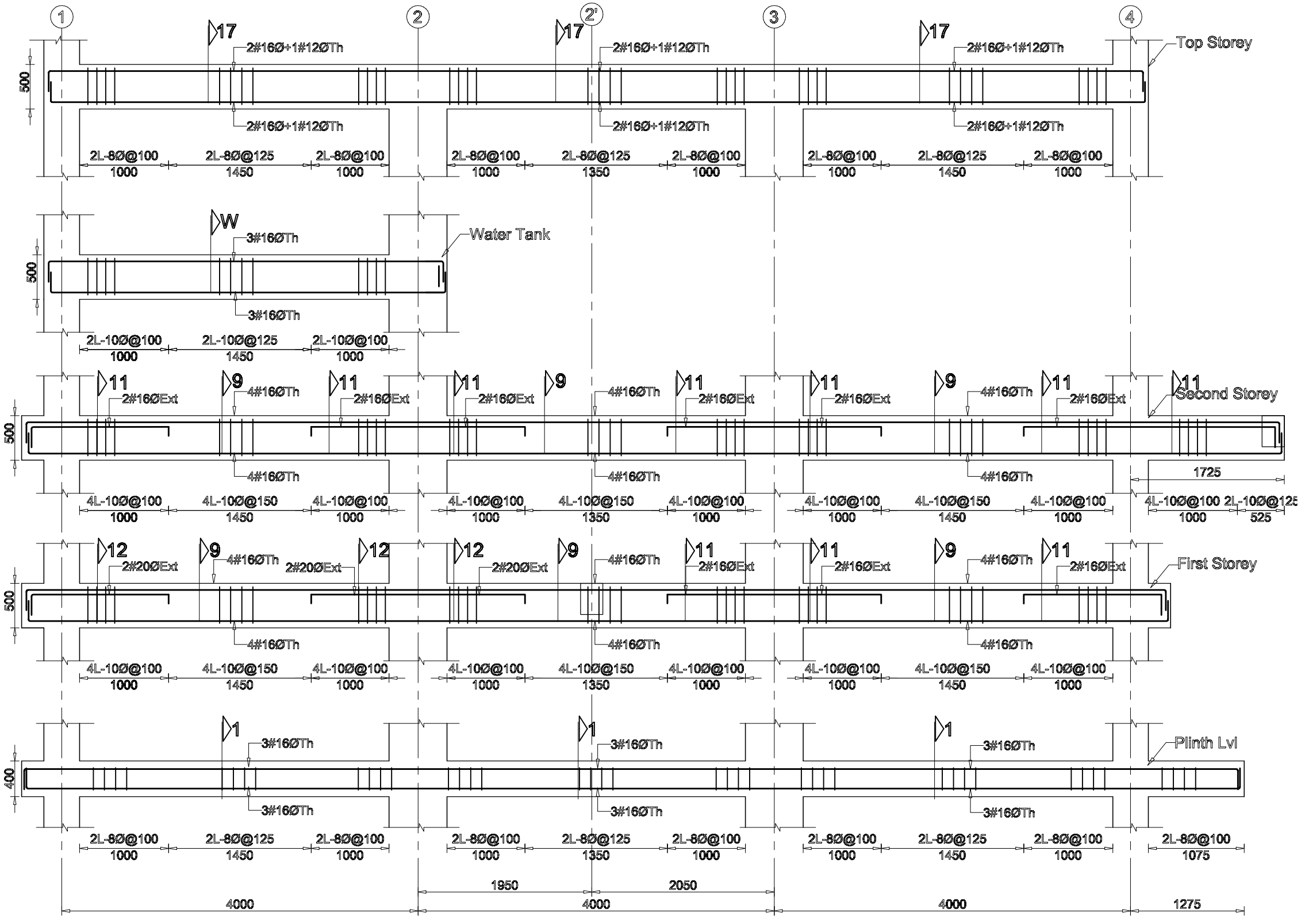
CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 19

CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV

NOTE:

CONCRETE GRADE = M25
REBAR GRADE = Fe 500 (TMT)
STEEL SECTION = Fe 250



LONGITUDINAL REINFORCEMENT OF BEAM ALONG GRID F-F

SCALE 1:50

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: L-Section Beam Details
TERMINAL BUILDING BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

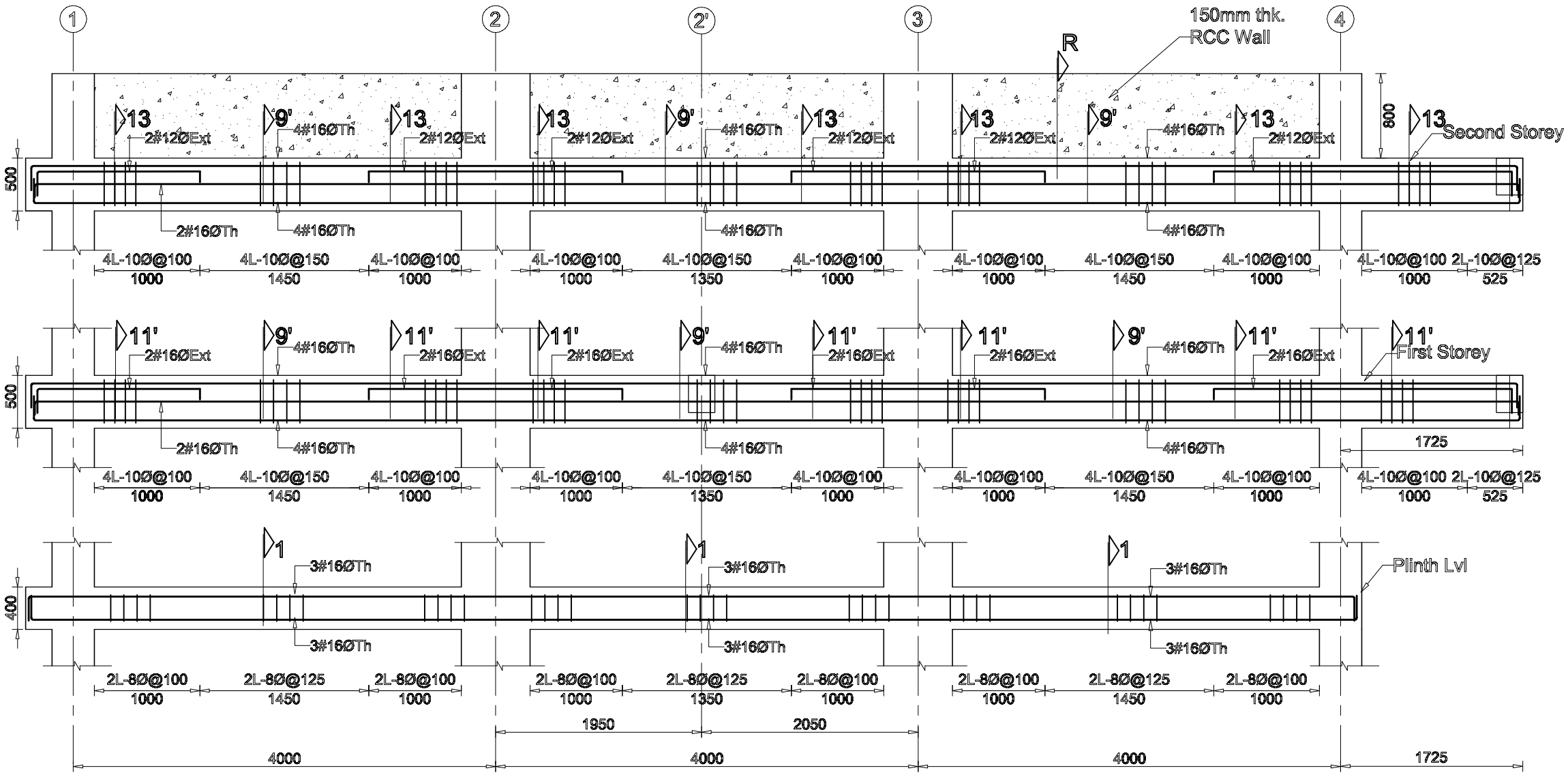
CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 20

CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV

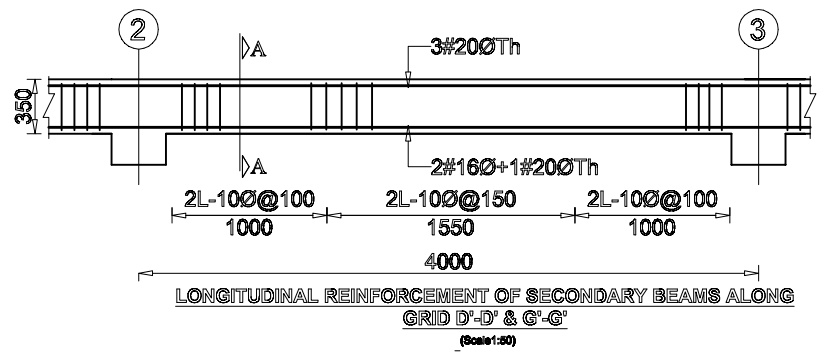
NOTE:

CONCRETE GRADE = M25
REBAR GRADE = Fe 500 (TMT)
STEEL SECTION = Fe 250



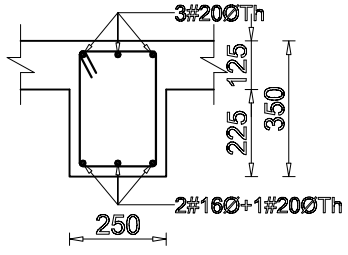
LONGITUDINAL REINFORCEMENT OF BEAM ALONG GRID G-G

SCALE 1:50



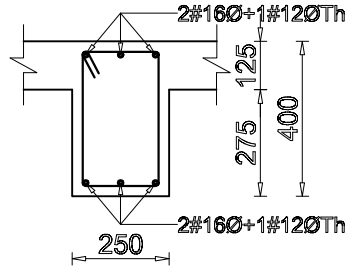
LONGITUDINAL REINFORCEMENT OF SECONDARY BEAMS ALONG GRID D'-D' & G'-G'

(Scale1:50)



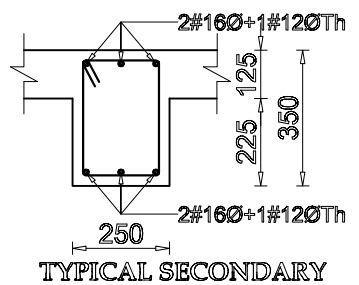
SECTION AT A-A

(Scale 1:20)



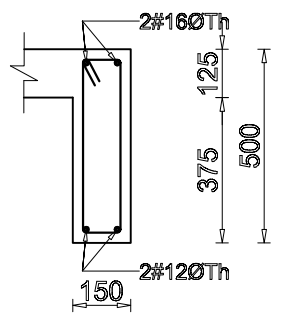
STAIRCASE SECONDARY BEAM

Stirrup 10Ø@ 100 at Ends. & 10Ø@ 150 at mid.
Scale 1:20



TYPICAL SECONDARY BEAM SECTION (Except Grid D'-D' & G'-G')

Stirrup 10Ø@ 100 at Ends. & 10Ø@ 150 at mid.
Scale 1:20



EDGE BEAM SECTION

Stirrup 10Ø@ 100 at Ends. & 10Ø@ 150 at mid.
Scale 1:20

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: L-Section and X-Sectional Beam Details
TERMINAL BUILDING BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

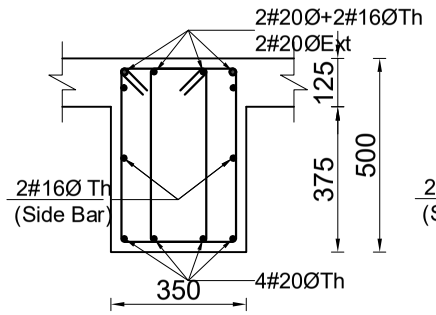
CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 21

CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd., and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

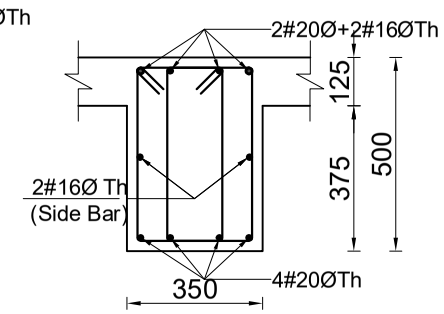
REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV

NOTE:

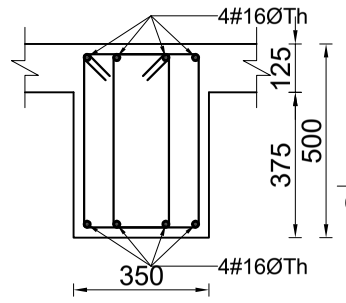
CONCRETE GRADE = M25
REBAR GRADE = Fe 500 (TMT)
STEEL SECTION = Fe 250



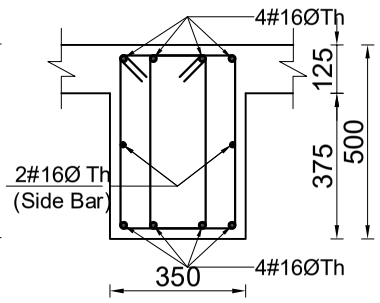
SECTION AT 7-7
(Scale 1:20)



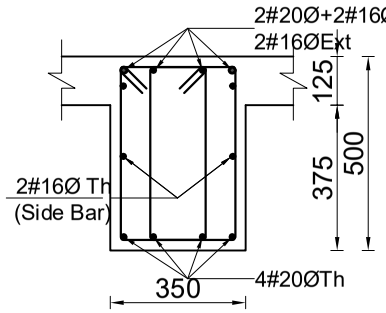
SECTION AT 8-8
(Scale 1:20)



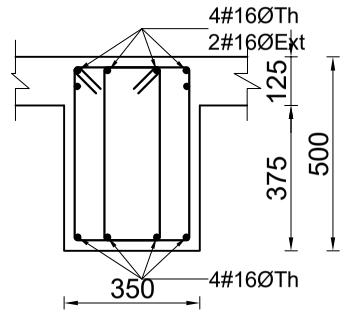
SECTION AT 9-9
(Scale 1:20)



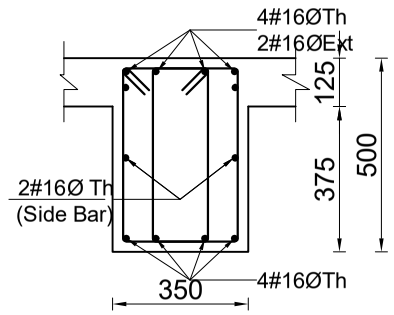
SECTION AT 9'-9'
(Scale 1:20)



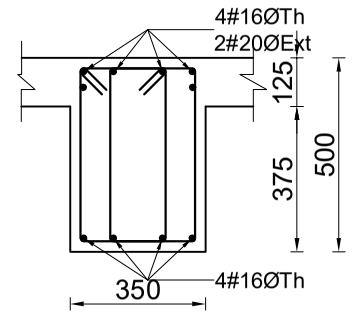
SECTION AT 10-10
(Scale 1:20)



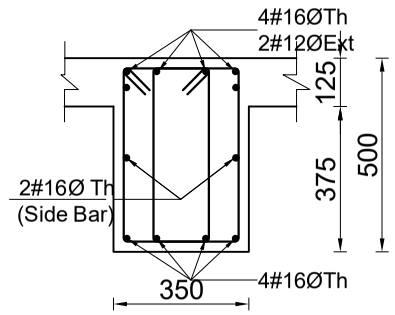
SECTION AT 11-11
(Scale 1:20)



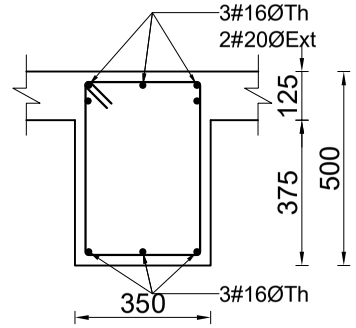
SECTION AT 11'-11'
(Scale 1:20)



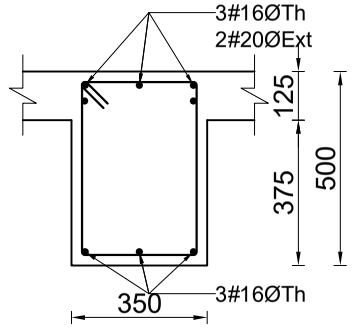
SECTION AT 12-12
(Scale 1:20)



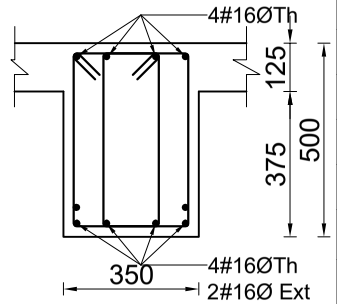
SECTION AT 13-13
(Scale 1:20)



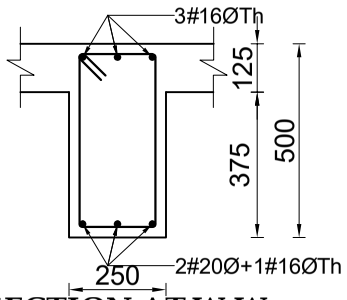
SECTION AT 14-14
(Scale 1:20)



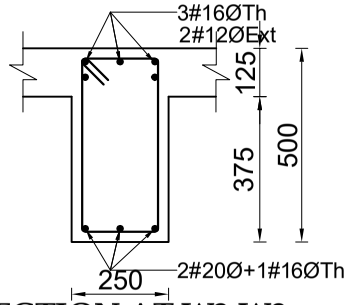
SECTION AT 15-15
(Scale 1:20)



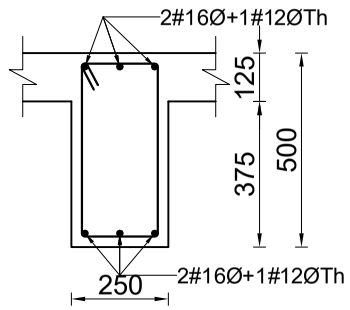
SECTION AT 16-16
(Scale 1:20)



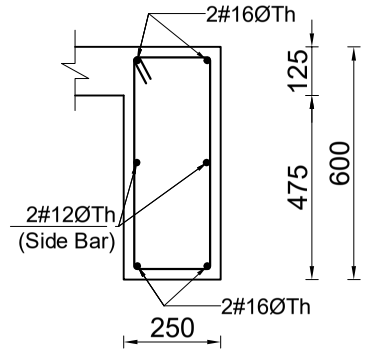
SECTION AT W-W
(Water Tank)
(Scale 1:20)



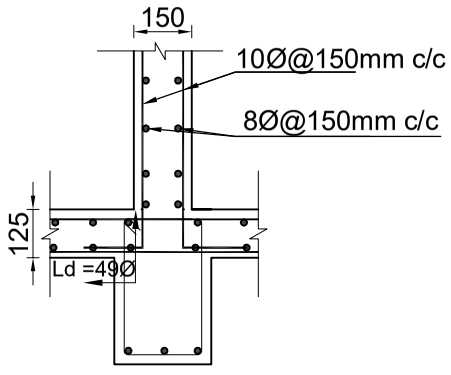
SECTION AT W2-W2
(Water Tank)
(Scale 1:20)



SECTION AT 17-17
(Scale 1:20)



CURVED BEAM
SECTION AT 18-18
Stirrup 8Ø@ 100 at Ends. &
8Ø@ 125 at mid.
Scale 1:20



RCC WALL Section AT R-R
Scale 1:20

CLIENT:

Department of Urban Development &
Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of
Detail Project Report of West Urban Corridor (WUC)
Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Beam Sections
TERMINAL BUILDING BLOCK

SITE INFORMATION:

NAME: Bus Terminal

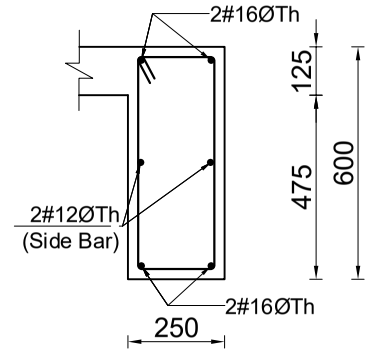
AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 22

CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV



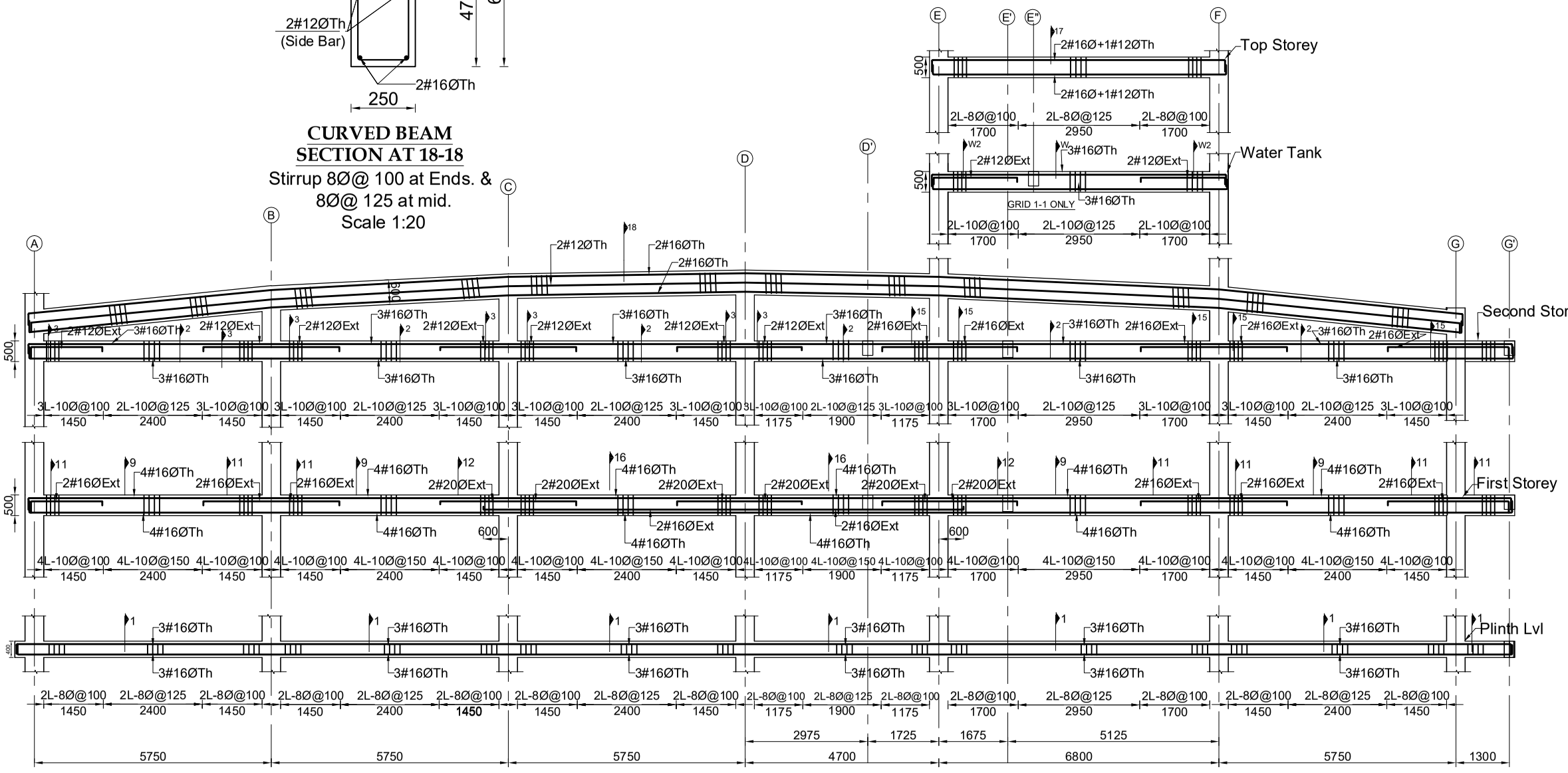
CURVED BEAM SECTION AT 18-18

Stirrup 8Ø@ 100 at Ends. & 8Ø@ 125 at mid.

Scale 1:20

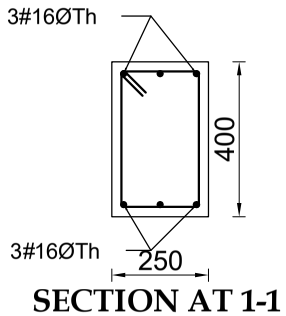
NOTE:

CONCRETE GRADE = M25
REBAR GRADE = Fe 500 (TMT)
STEEL SECTION = Fe 250



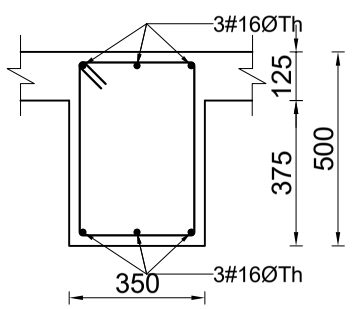
LONGITUDINAL REINFORCEMENT OF BEAM ALONG GRID 1-1 AND 4-4

SCALE 1:125



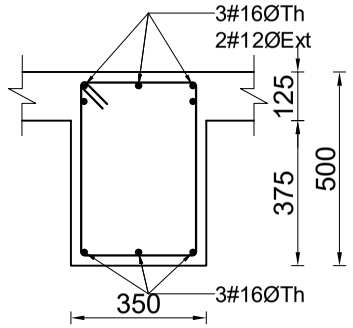
SECTION AT 1-1

(Scale 1:20)



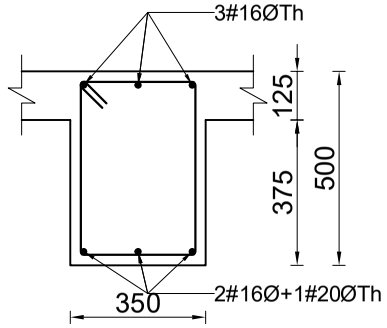
SECTION AT 2-2

(Scale 1:20)



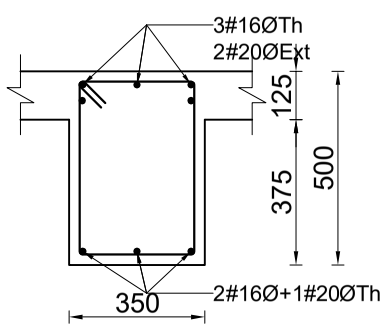
SECTION AT 3-3

(Scale 1:20)



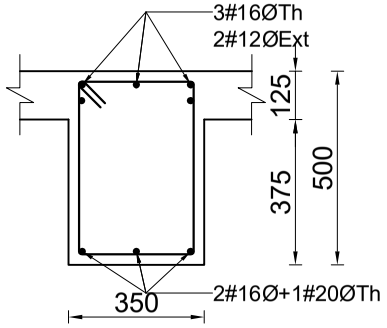
SECTION AT 4-4

(Scale 1:20)



SECTION AT 5-5

(Scale 1:20)



SECTION AT 6-6

(Scale 1:20)

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: L Section and X-sectional Beam Details
TERMINAL BUILDING BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

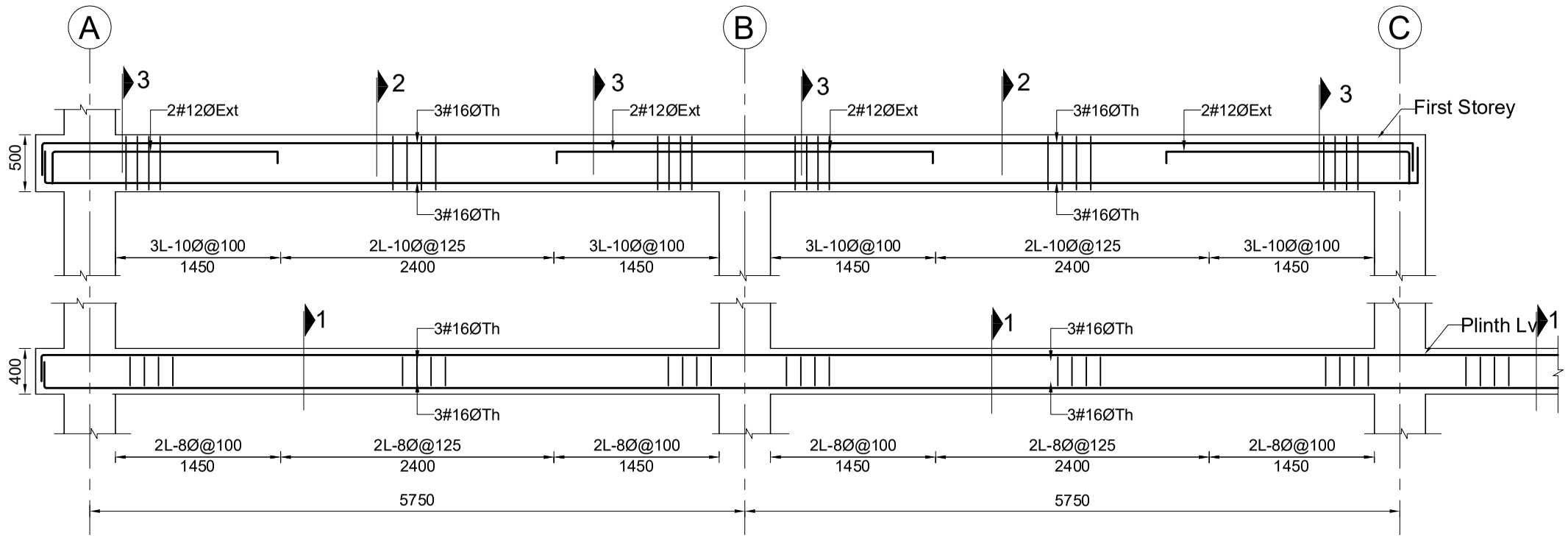
LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 23

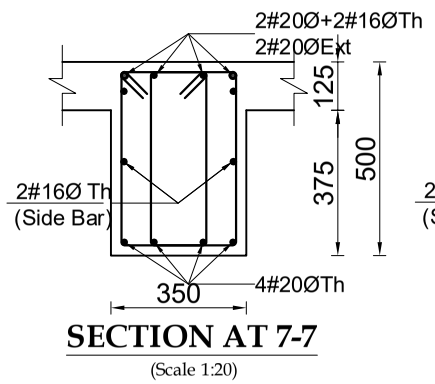
CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV

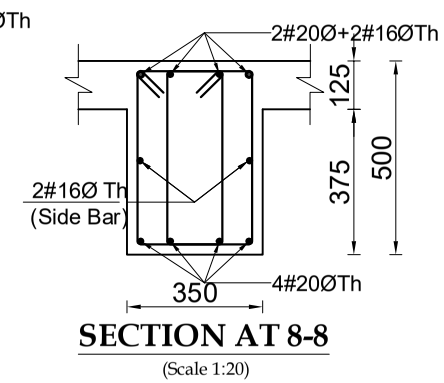
NOTE:
CONCRETE GRADE = M25
REBAR GRADE = Fe 500 (TMT)
STEEL SECTION = Fe 250



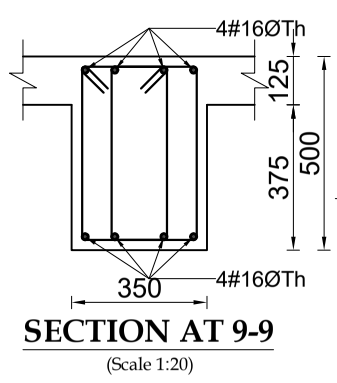
LONGITUDINAL REINFORCEMENT OF BEAM ALONG GRID 2-2 AND 3-3
SCALE 1:50



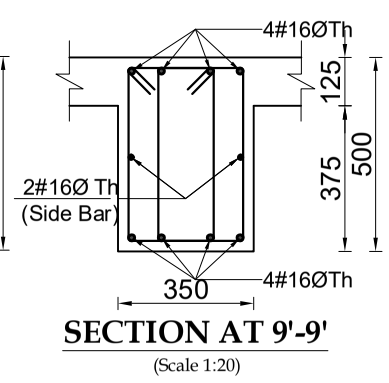
SECTION AT 7-7
(Scale 1:20)



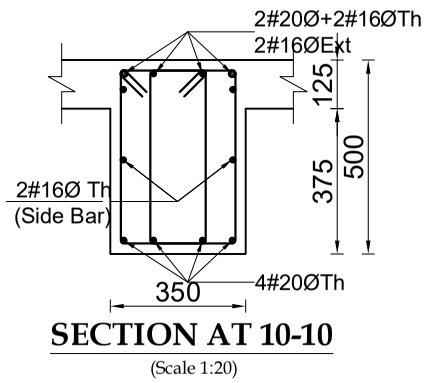
SECTION AT 8-8
(Scale 1:20)



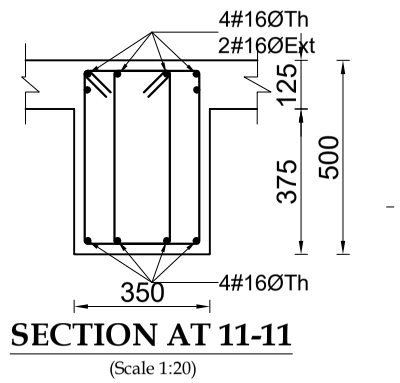
SECTION AT 9-9
(Scale 1:20)



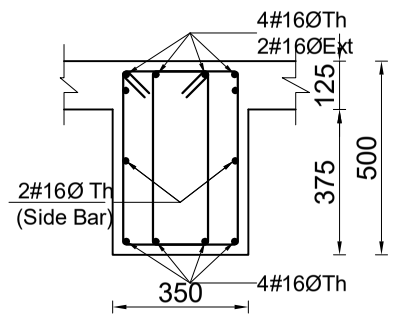
SECTION AT 9'-9'
(Scale 1:20)



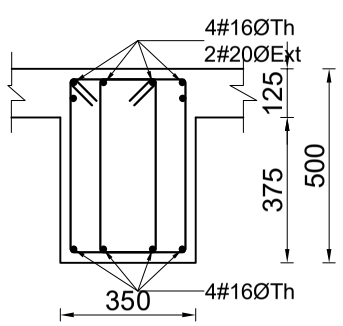
SECTION AT 10-10
(Scale 1:20)



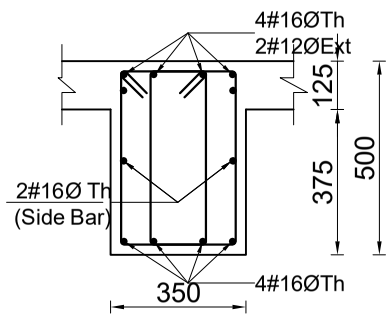
SECTION AT 11-11
(Scale 1:20)



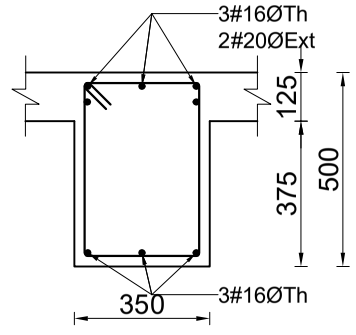
SECTION AT 11'-11'
(Scale 1:20)



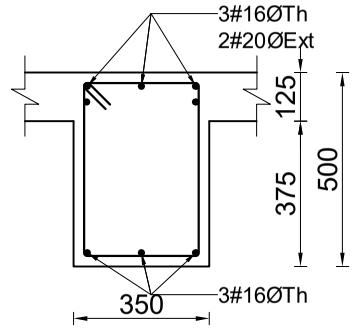
SECTION AT 12-12
(Scale 1:20)



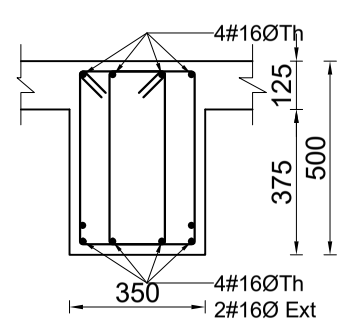
SECTION AT 13-13
(Scale 1:20)



SECTION AT 14-14
(Scale 1:20)



SECTION AT 15-15
(Scale 1:20)



SECTION AT 16-16
(Scale 1:20)

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: L Section and X-sectional Beam Details
TERMINAL BUILDING BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

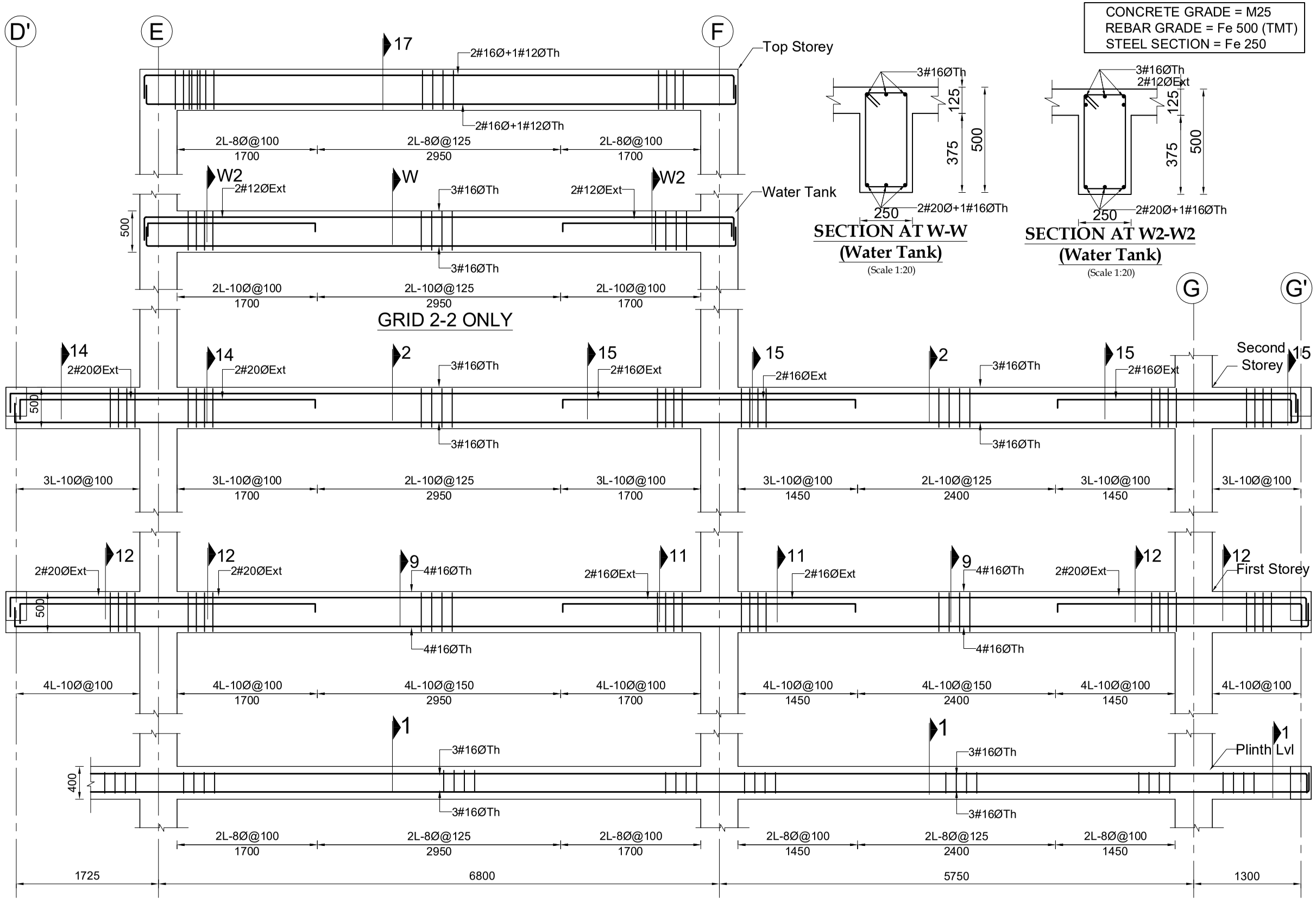
LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 24

CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV

NOTE:
CONCRETE GRADE = M25
REBAR GRADE = Fe 500 (TMT)
STEEL SECTION = Fe 250

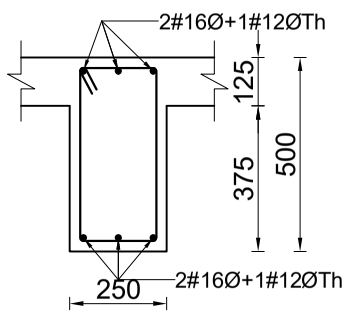


LONGITUDINAL REINFORCEMENT OF BEAM ALONG GRID 2-2 AND 3-3

SCALE 1:50

SECTION AT W-W
(Water Tank)
(Scale 1:20)

SECTION AT W2-W2
(Water Tank)
(Scale 1:20)



SECTION AT 17-17
(Scale 1:20)

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: L Section and X-sectional Beam Details
TERMINAL BUILDING BLOCK

SITE INFORMATION:

NAME: Bus Terminal

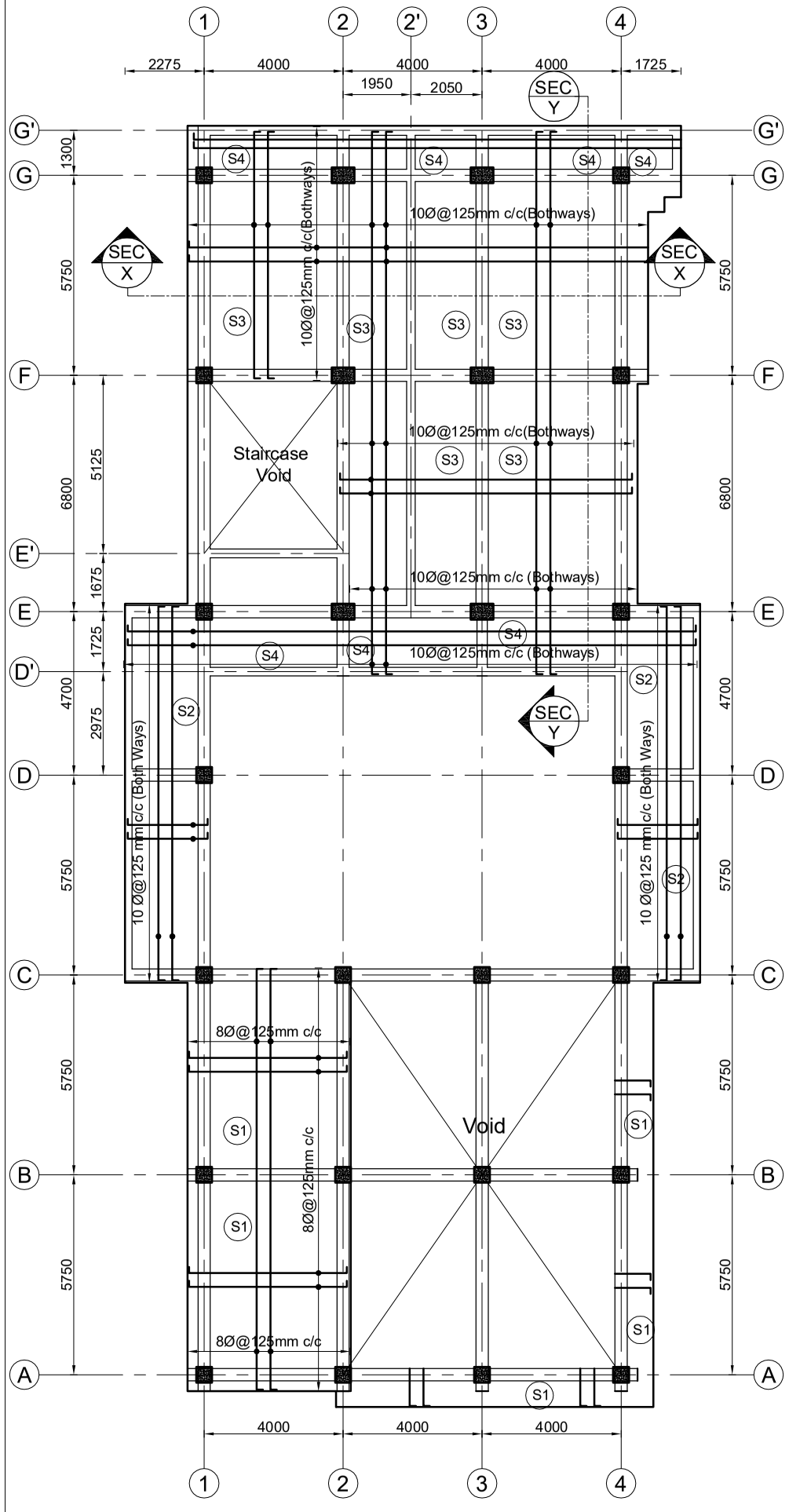
AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 25

CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV



BOTTOM REINFORCEMENT PLAN OF FIRST FLOOR SLAB

Distribution Bar = 8Ø@150mm c/c where neccessary)

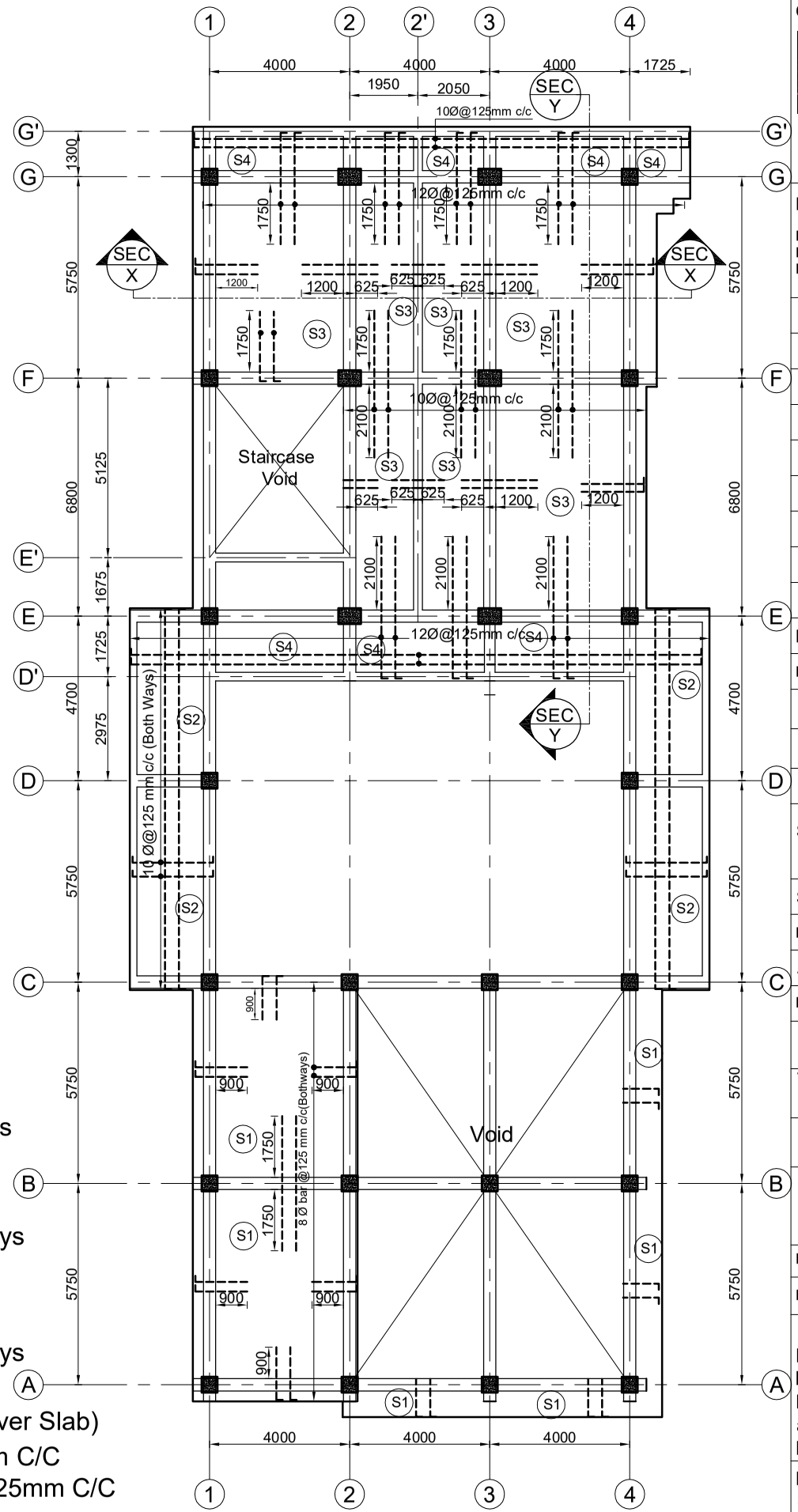
(SCALE 1:175)

NOTE:

CONCRETE GRADE = M25
REBAR GRADE = Fe 500 (TMT)
STEEL SECTION = Fe 250

NOTE:

1. SLAB S1=125mm
   8Ø @125mm C/C Bothways
   (TOP & BOTTOM BARS)
2. SLAB S2=150mm
   10Ø @125mm C/C Bothways
   (TOP & BOTTOM BARS)
3. SLAB S3=125mm
   10Ø @125mm C/C Bothways
   (TOP & BOTTOM BARS)
4. SLAB S4=125mm (Cantilever Slab)
   TOP BARS =12Ø @125mm C/C
   BOTTOM BARS = 10Ø@125mm C/C



TOP REINFORCEMENT PLAN OF FIRST FLOOR SLAB

Distribution Bar = 8Ø@150mm c/c where neccessary)

(SCALE 1:175)

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Frist Floor Slab Reinforcement Plan
TERMINAL BUILDING BLOCK

SITE INFORMATION:

NAME: Bus Terminal

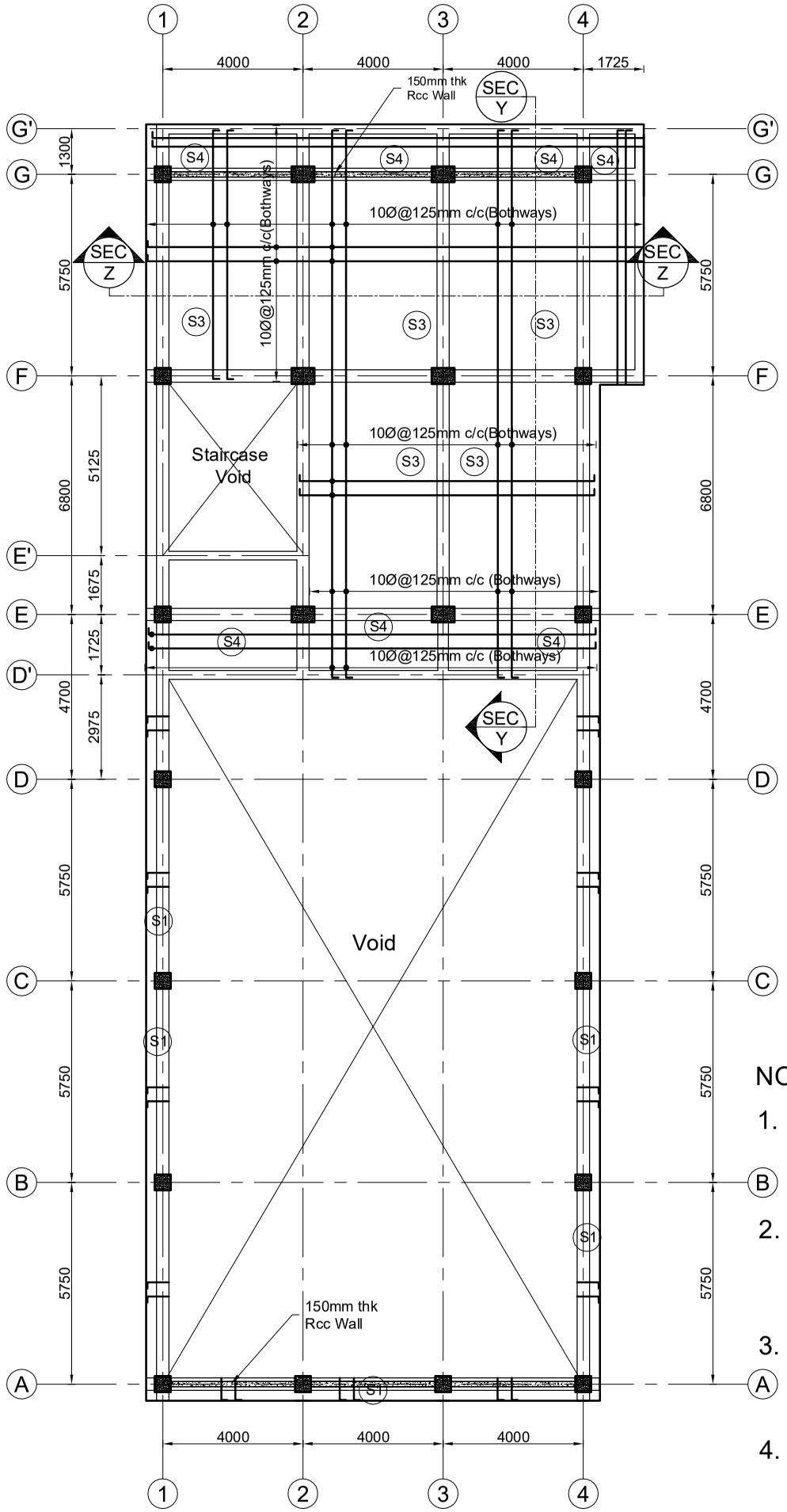
AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 26

CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd., and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV



NOTE:

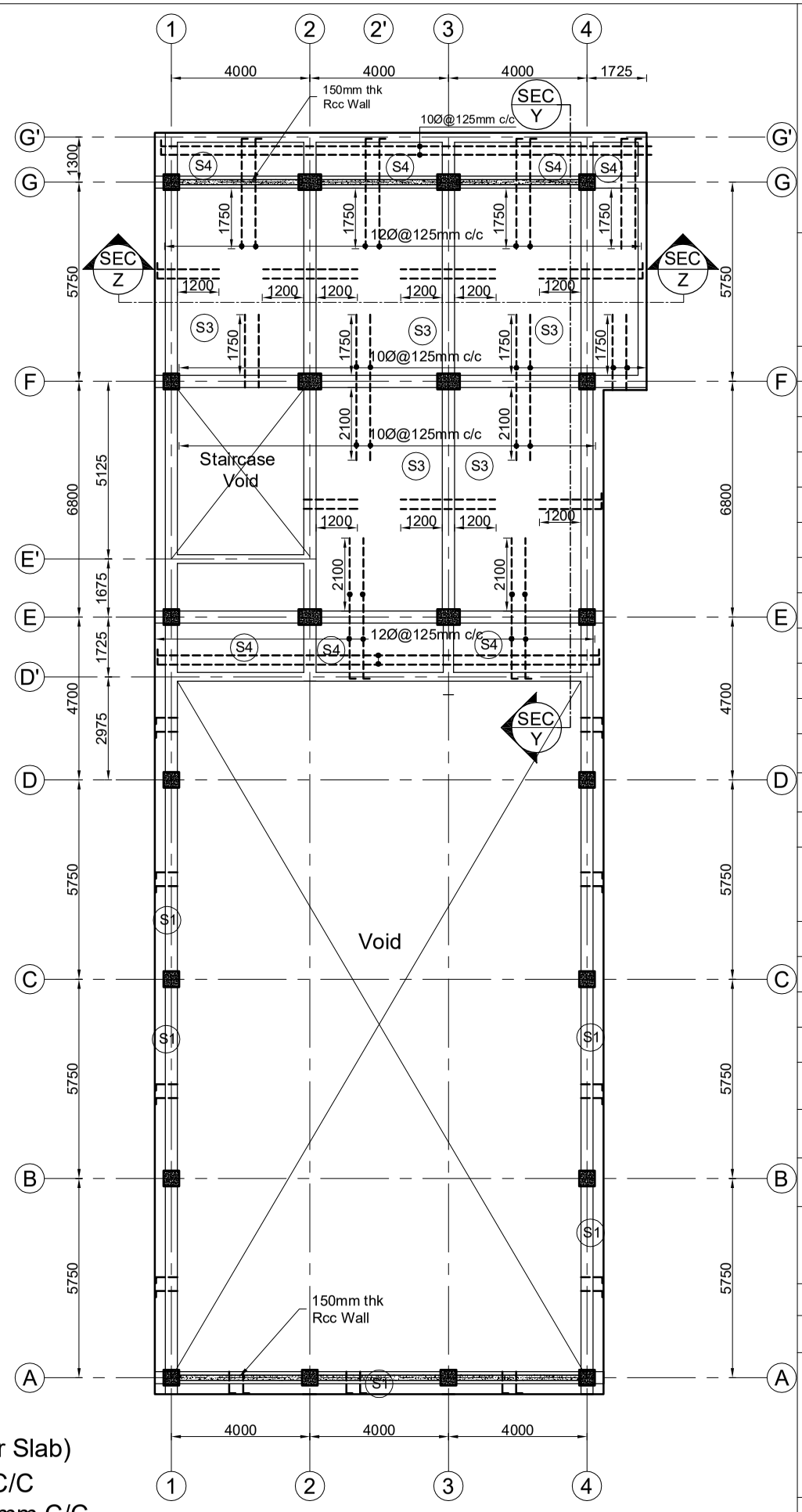
CONCRETE GRADE = M25
REBAR GRADE = Fe 500 (TMT)
STEEL SECTION = Fe 250

NOTE:

1. SLAB S1=125mm
   8Ø @125mm C/C Bothways
   (TOP & BOTTOM BARS)
2. SLAB S2=150mm
   10Ø @125mm C/C Bothways
   (TOP & BOTTOM BARS)
3. SLAB S3=125mm
   10Ø @125mm C/C Bothways
   (TOP & BOTTOM BARS)
4. SLAB S4=125mm (Cantilever Slab)
   TOP BARS =12Ø @125mm C/C
   BOTTOM BARS = 10Ø@125mm C/C

BOTTOM REINFORCEMENT PLAN OF SECOND FLOOR SLAB

(SCALE 1:175)



TOP REINFORCEMENT PLAN OF SECOND FLOOR SLAB

(SCALE 1:175)

CLIENT:

Department of Urban Development &
Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Second Floor Slab Reinforcement Plan
TERMINAL BUILDING BLOCK

SITE INFORMATION:

NAME: Bus Terminal

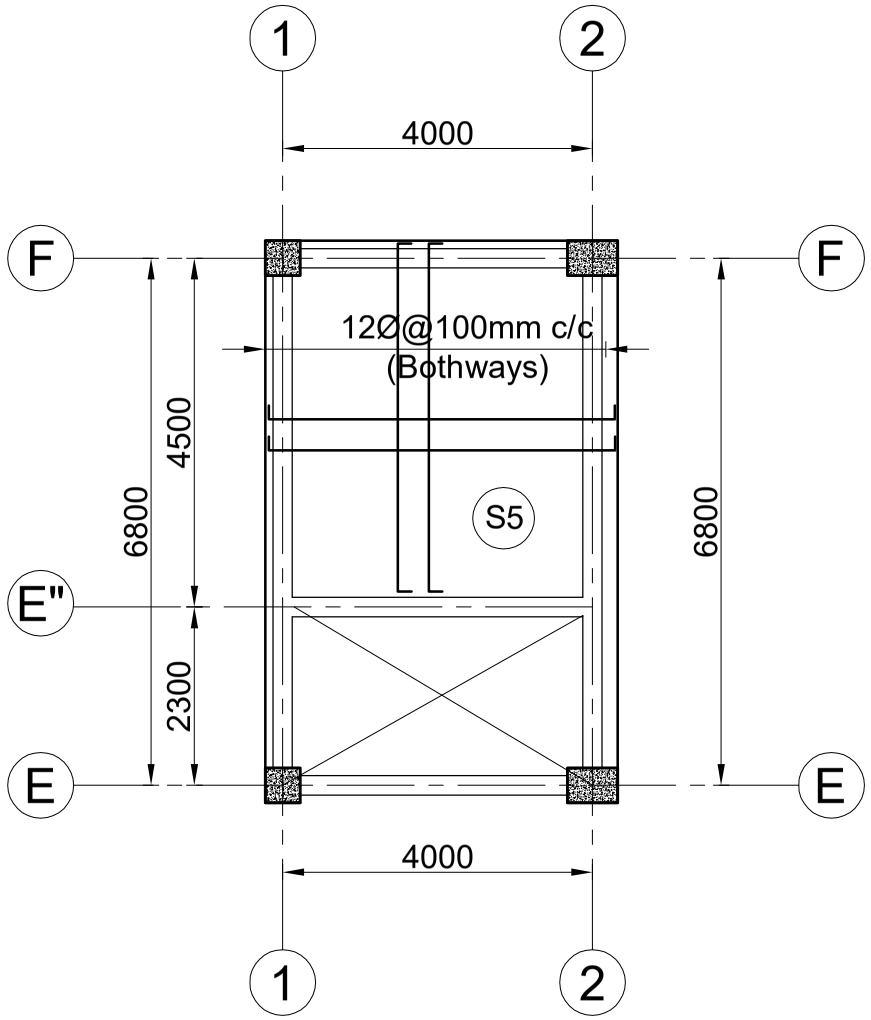
AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: **Er. Ajay Shrestha**	
Designed By: **Er. Enu Rai 17819 Civil "A"** **Er. Arbind Yadav**	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 27

CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV

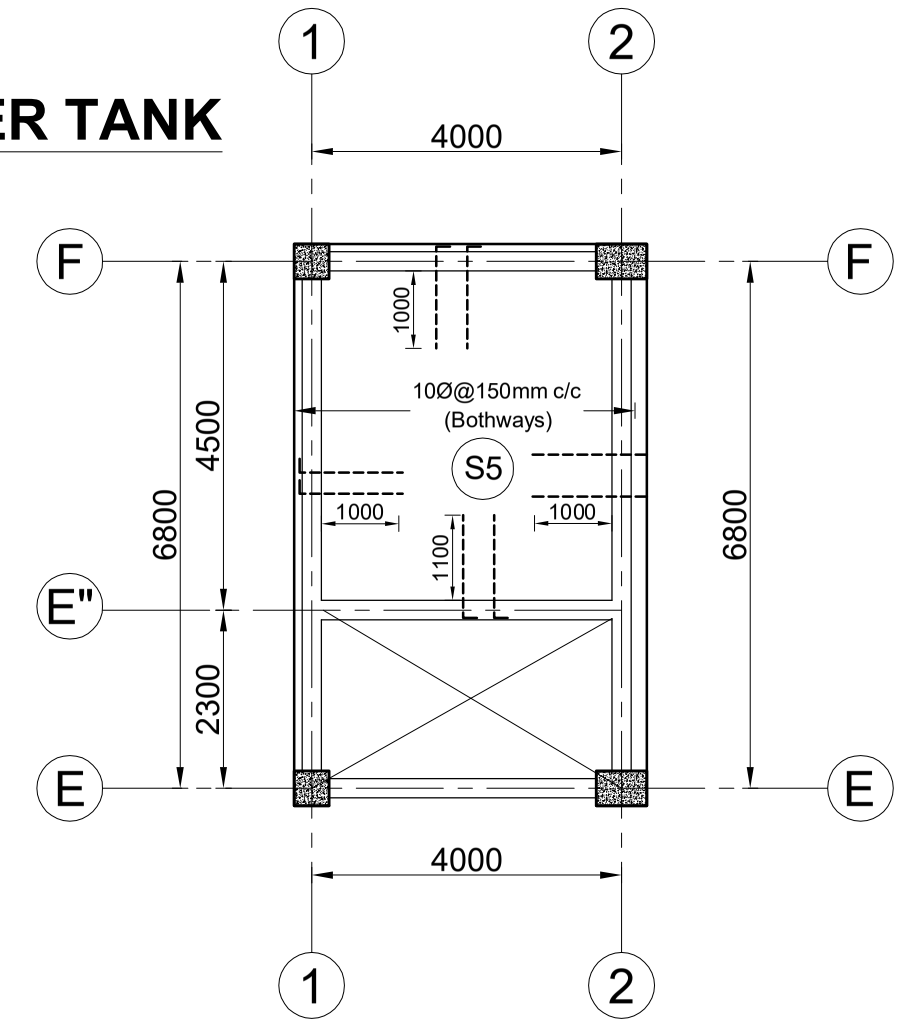


BOTTOM REINFORCEMENT PLAN OF WATER TANK

(SCALE 1:100)

NOTE:

1. SLAB S5=135mm
   TOP BARS =10Ø @150mm C/C
   BOTTOM BARS = 12Ø@100mm C/C
   BOTHWAYS



TOP REINFORCEMENT PLAN OF WATER TANK

(SCALE 1:100)

NOTE:

CONCRETE GRADE = M25
REBAR GRADE = Fe 500 (TMT)
STEEL SECTION = Fe 250

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Water Tank Slab Reinforcement Plan
TERMINAL BUILDING BLOCK

SITE INFORMATION:

NAME: Bus Terminal

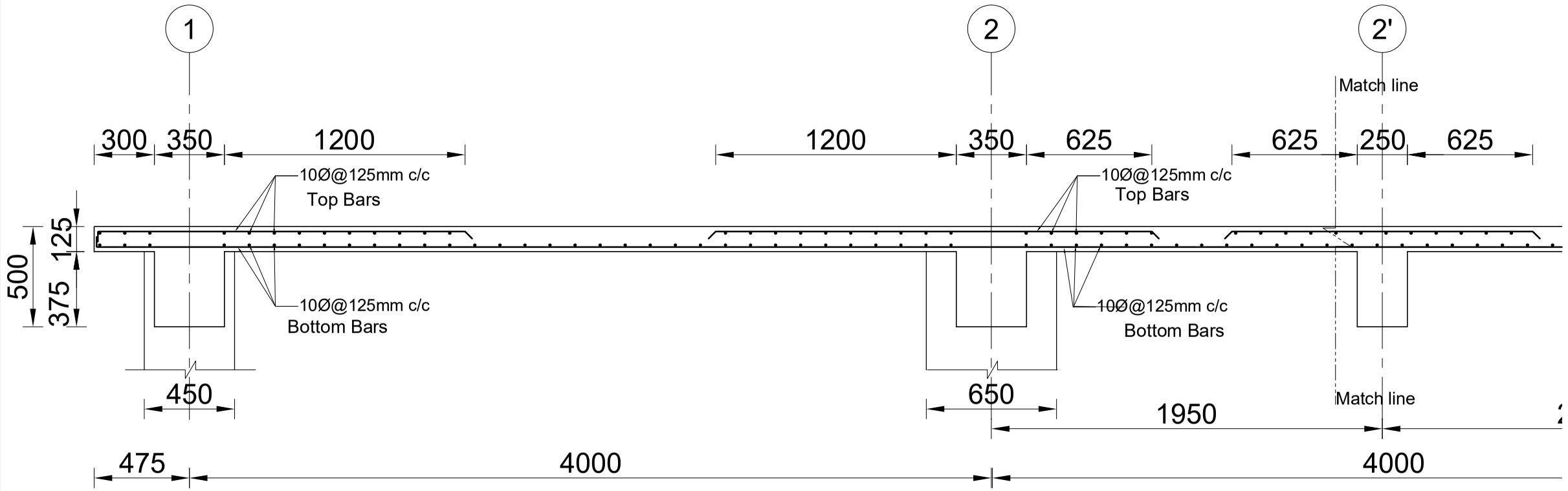
AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 28

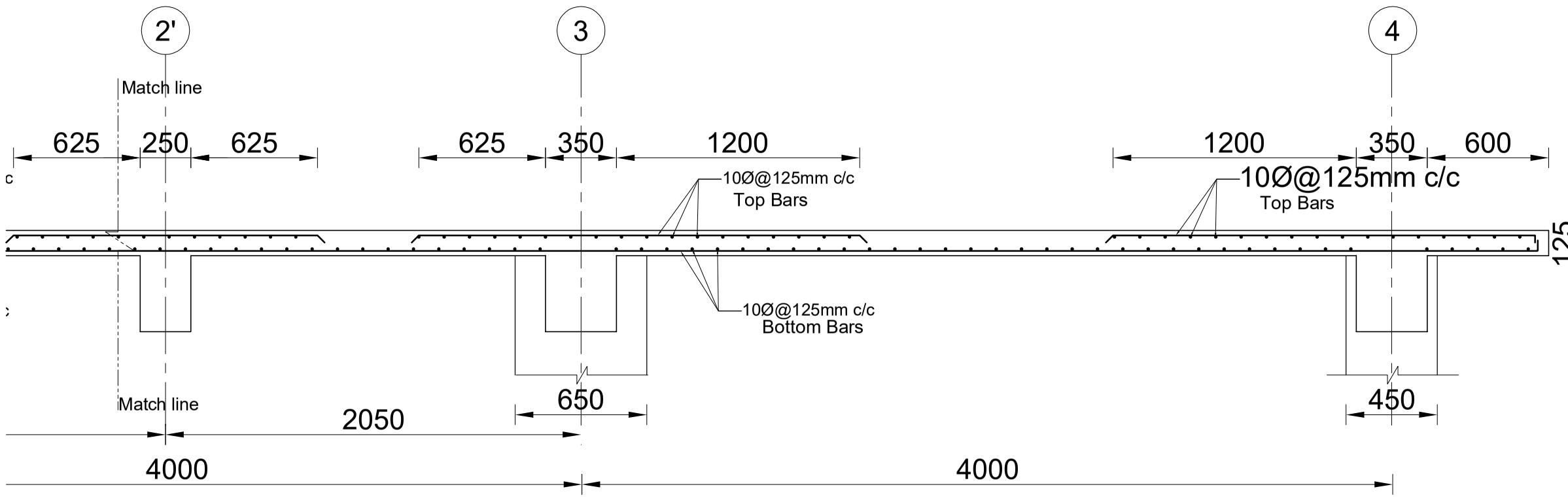
CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV



SLAB SECTION AT X-X

(SCALE 1:25)



SLAB SECTION AT X-X

(SCALE 1:25)

NOTE:

CONCRETE GRADE = M25
REBAR GRADE = Fe 500 (TMT)
STEEL SECTION = Fe 250

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Slab Section
TERMINAL BUILDING BLOCK

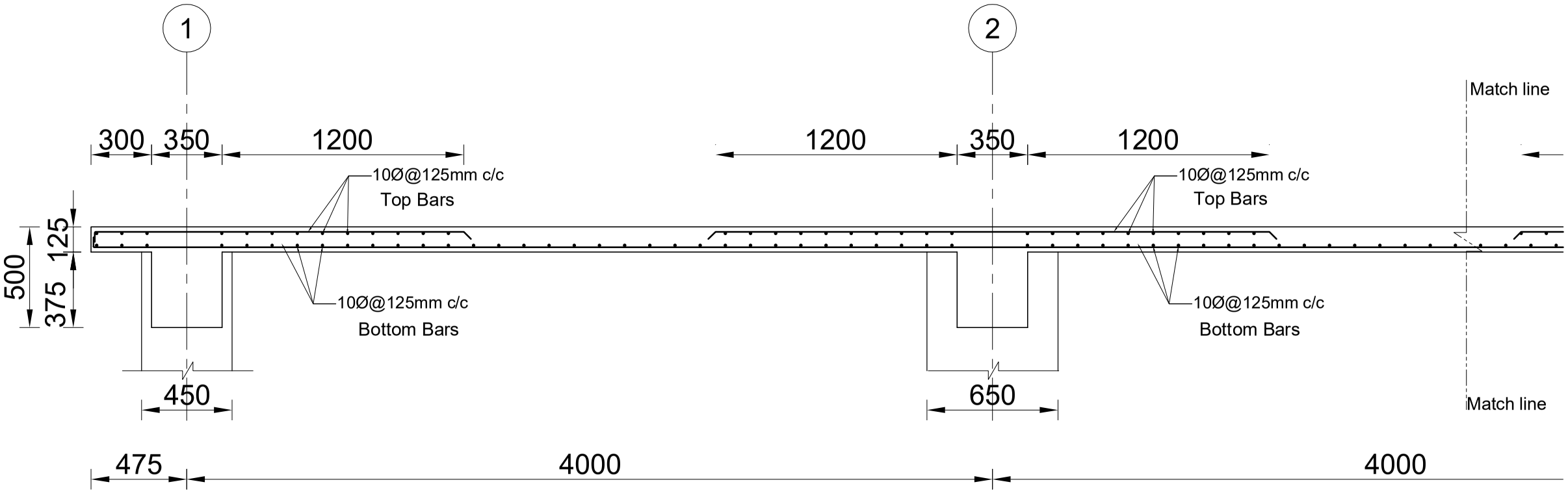
SITE INFORMATION:

NAME: Bus Terminal
AREA:
LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 29

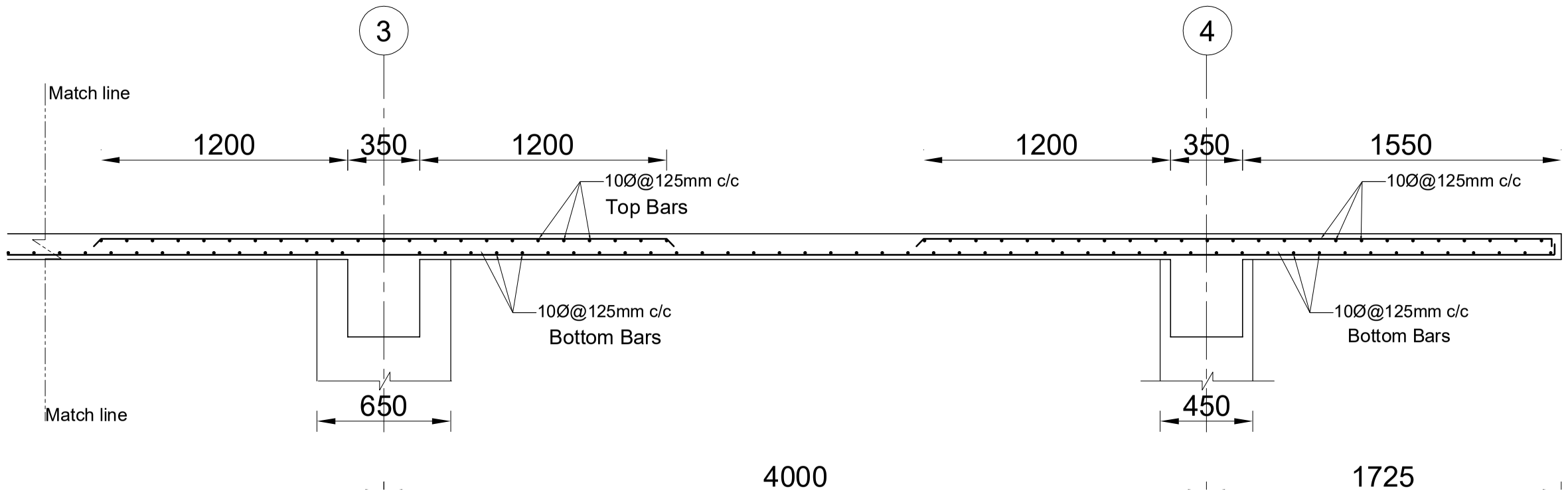
CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV



SLAB SECTION AT Z-Z

(SCALE 1:25)



NOTE:

CONCRETE GRADE = M25
REBAR GRADE = Fe 500 (TMT)
STEEL SECTION = Fe 250

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Slab Section
TERMINAL BUILDING BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

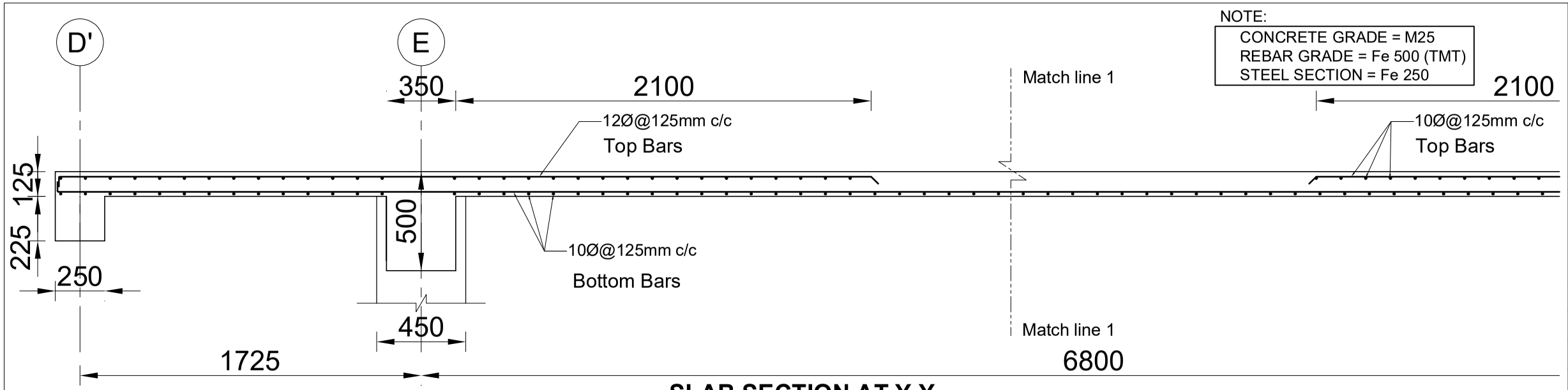
LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: **Er. Ajay Shrestha**	
Designed By: **Er. Enu Rai 17819 Civil "A"** **Er. Arbind Yadav**	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 30

CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

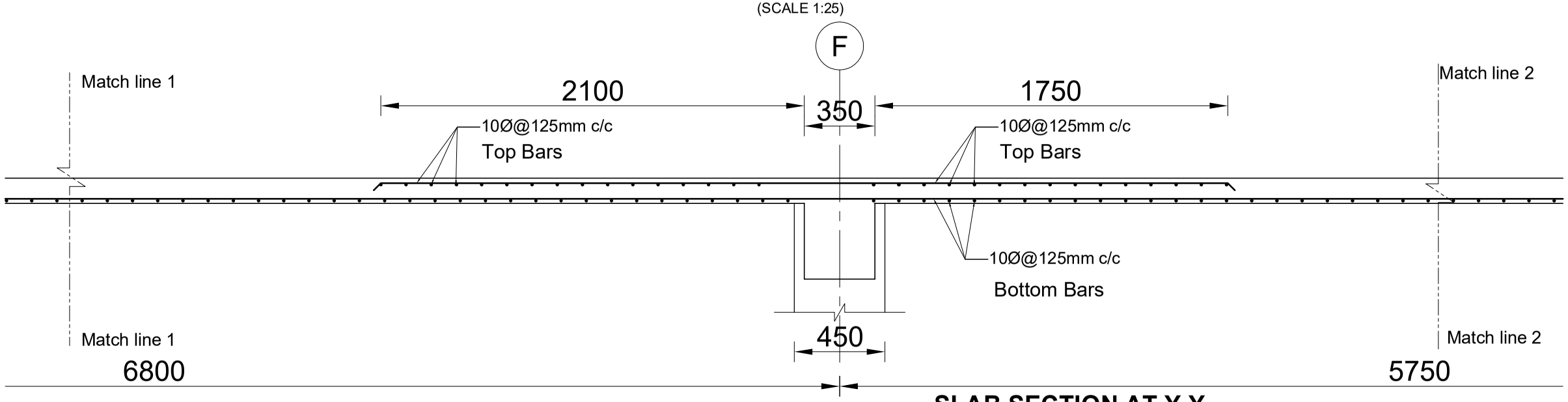
REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV

NOTE:
CONCRETE GRADE = M25
REBAR GRADE = Fe 500 (TMT)
STEEL SECTION = Fe 250



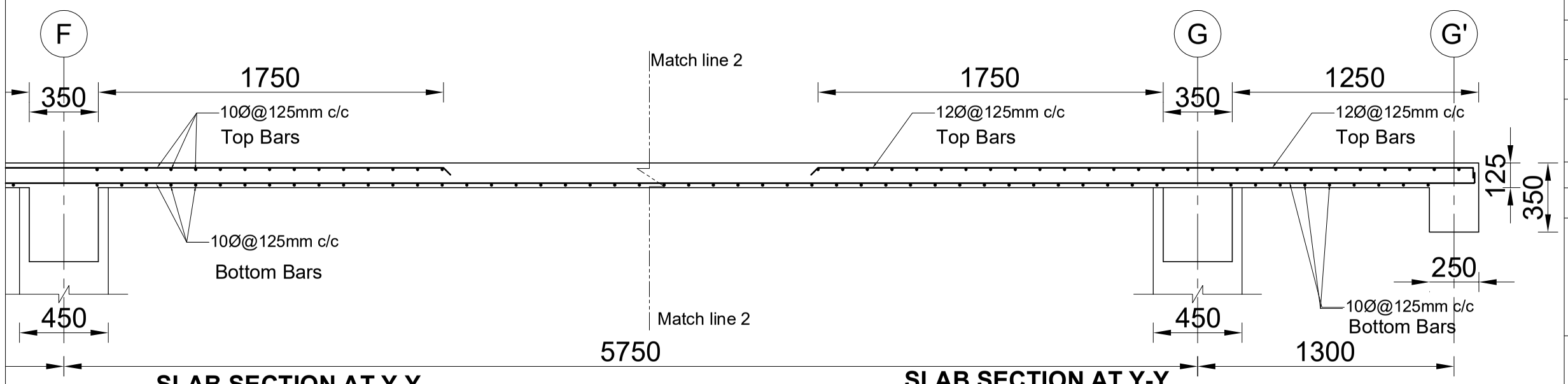
SLAB SECTION AT Y-Y

(SCALE 1:25)



SLAB SECTION AT Y-Y

(SCALE 1:25)



SLAB SECTION AT Y-Y

(SCALE 1:25)

SLAB SECTION AT Y-Y

(SCALE 1:25)

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Slab Section
TERMINAL BUILDING BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

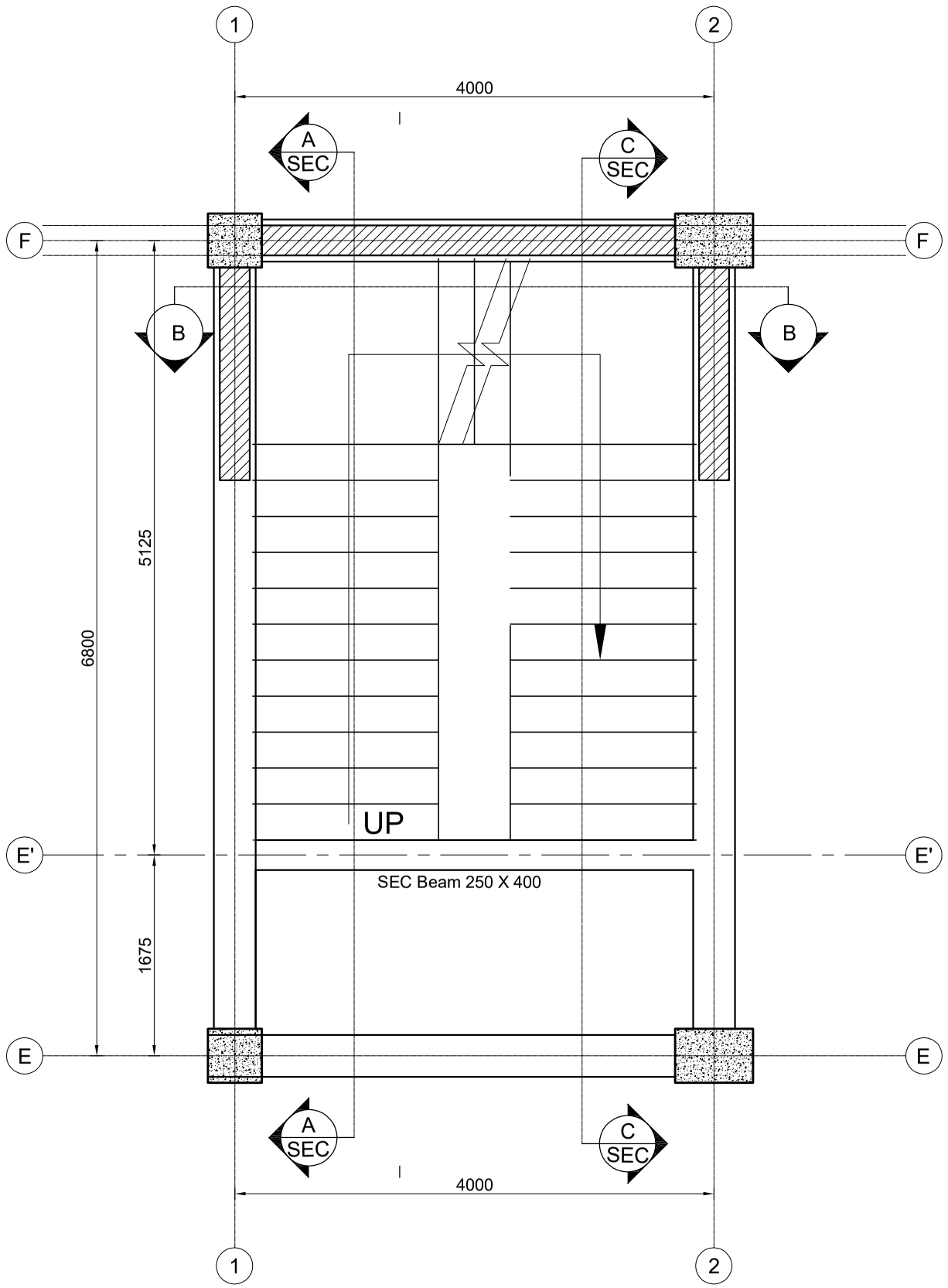
CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 31

CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV

NOTE:

CONCRETE GRADE = M25
REBAR GRADE = Fe 500 (TMT)
STEEL SECTION = Fe 250



STAIRCASE PLAN

(SCALE 1:50)

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Staircase Plan
TERMINAL BUILDING BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

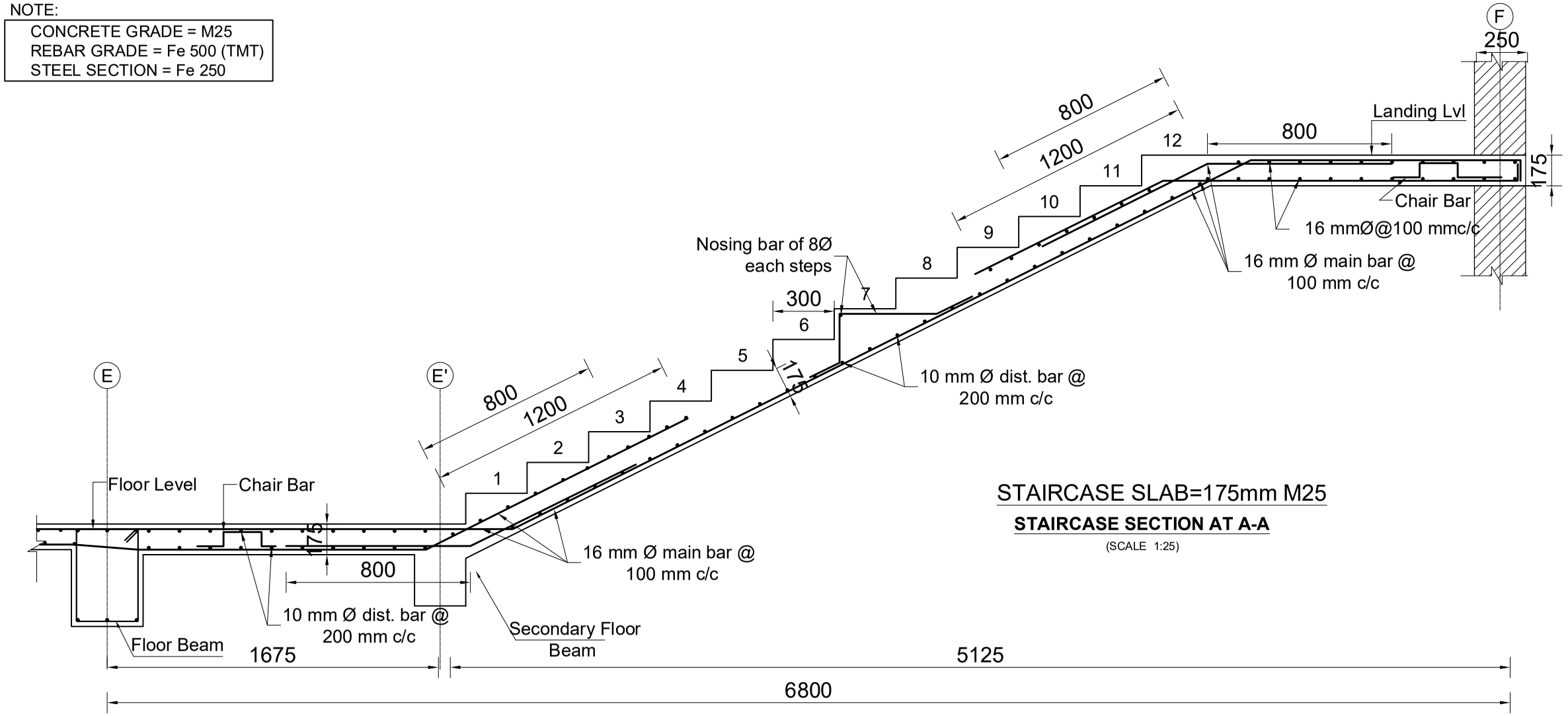
CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: **Er. Ajay Shrestha**	
Designed By: **Er. Enu Rai 17819 Civil "A"** **Er. Arbind Yadav**	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 32

CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV

NOTE:

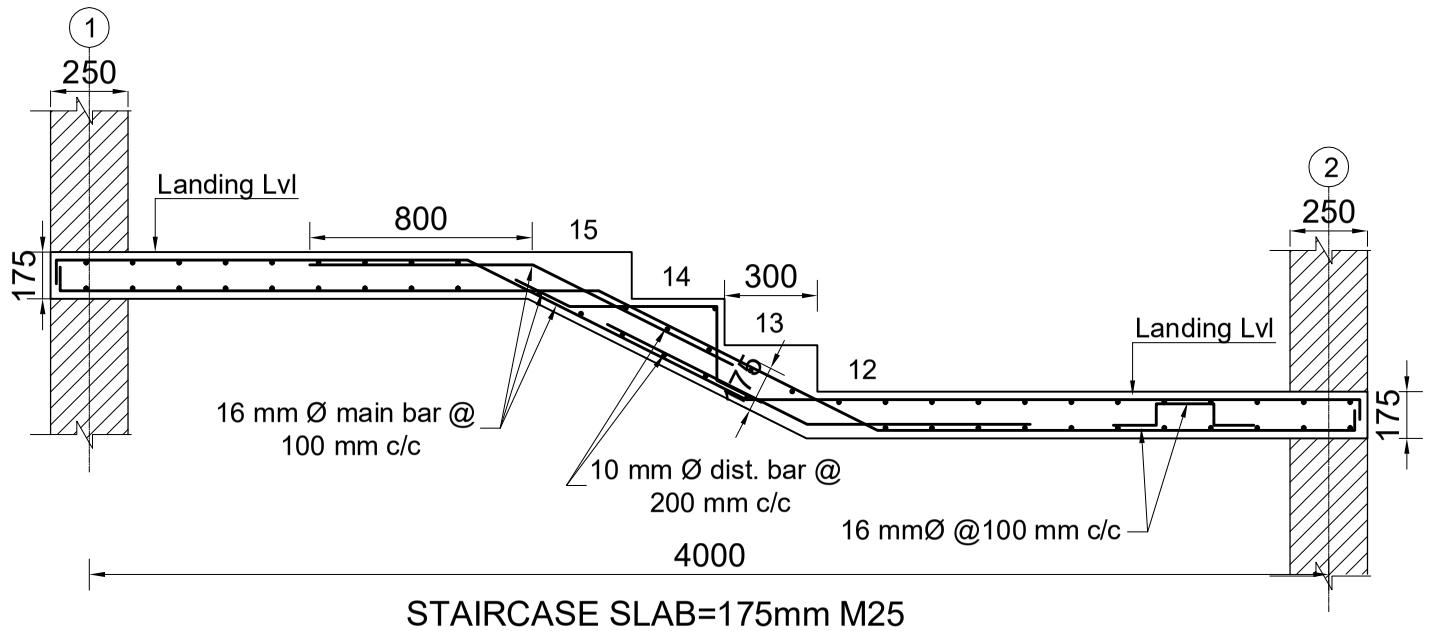
CONCRETE GRADE = M25
REBAR GRADE = Fe 500 (TMT)
STEEL SECTION = Fe 250



STAIRCASE SLAB=175mm M25

STAIRCASE SECTION AT A-A

(SCALE 1:25)



STAIRCASE SLAB=175mm M25

STAIRCASE SECTION AT B-B

(SCALE 1:25)

CLIENT:

Department of Urban Development &
Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Staircase Section
TERMINAL BUILDING BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

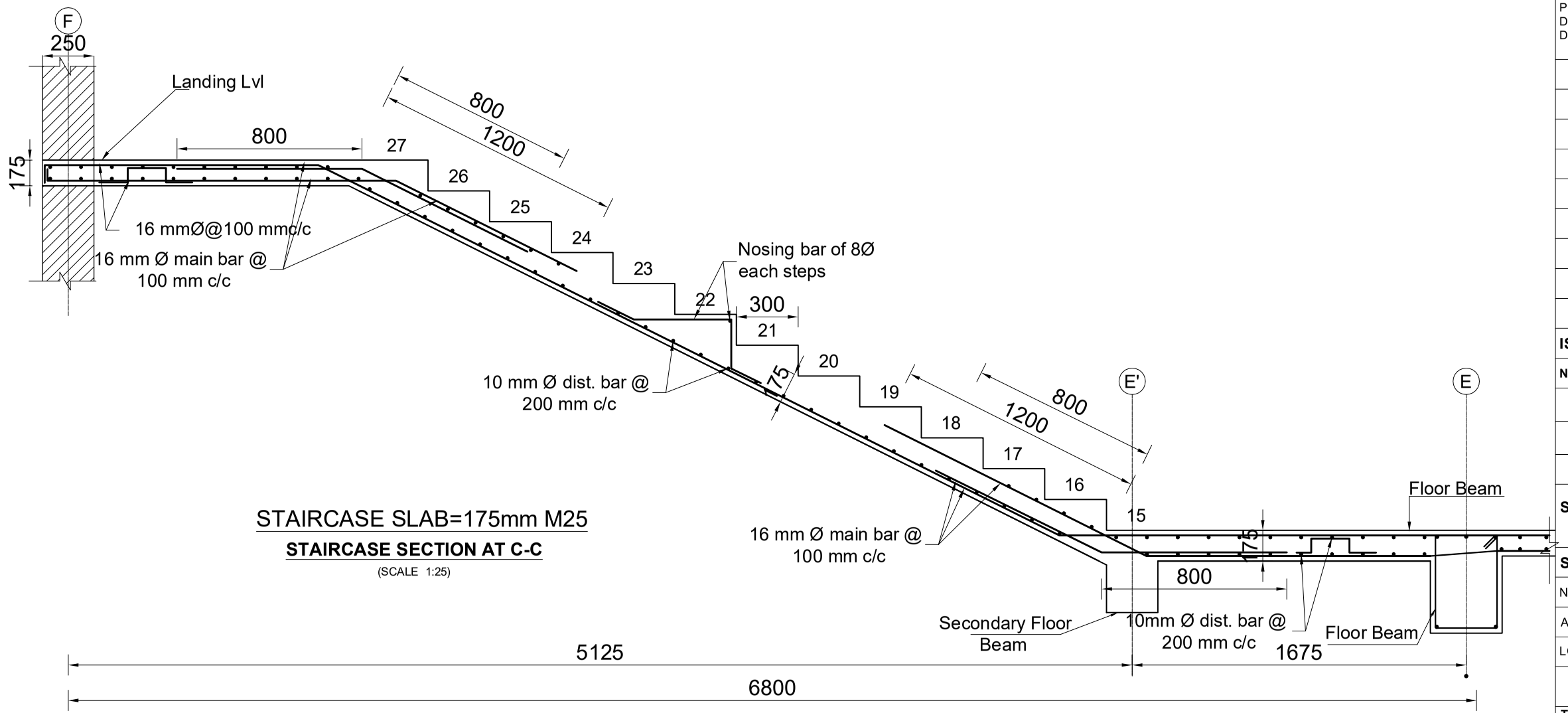
CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 33

CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV

NOTE:

CONCRETE GRADE = M25
REBAR GRADE = Fe 500 (TMT)
STEEL SECTION = Fe 250



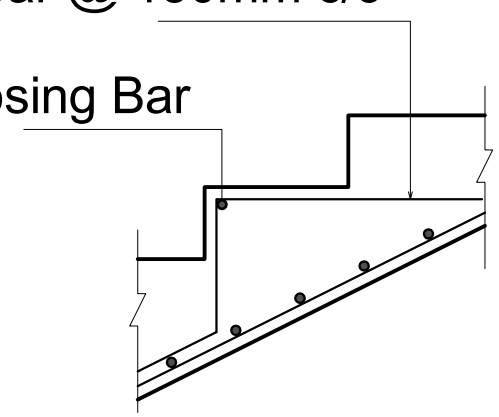
STAIRCASE SLAB=175mm M25

STAIRCASE SECTION AT C-C

(SCALE 1:25)

8mmØ Nosing tie bar @ 150mm c/c

8mmØ Nosing Bar



NOSING BAR DETAILS

CLIENT:

Department of Urban Development &
Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Staircase Section
TERMINAL BUILDING BLOCK

SITE INFORMATION:

NAME: Bus Terminal

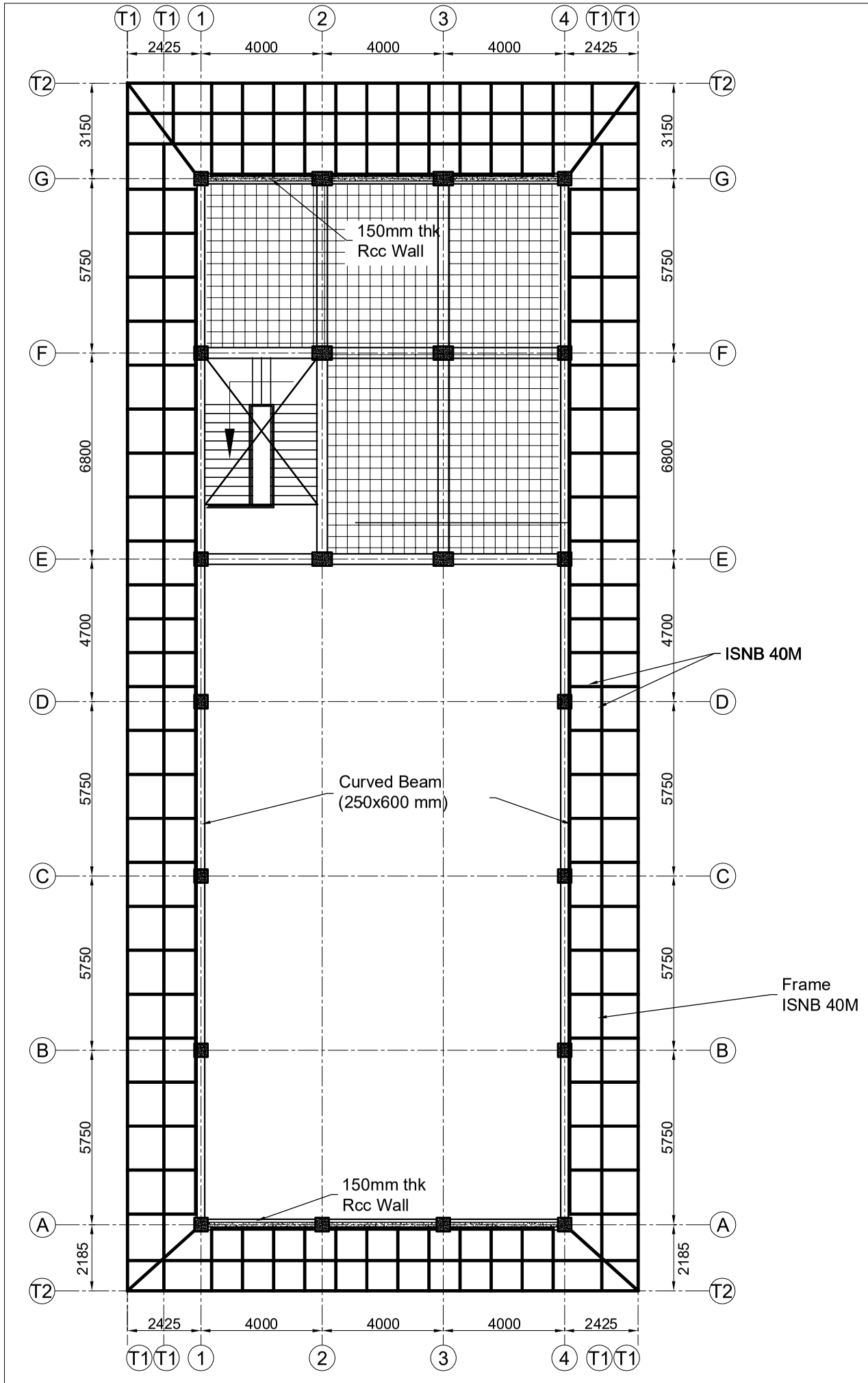
AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: **Er. Ajay Shrestha**	
Designed By: **Er. Enu Rai 17819 Civil "A"** **Er. Arbind Yadav**	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 34

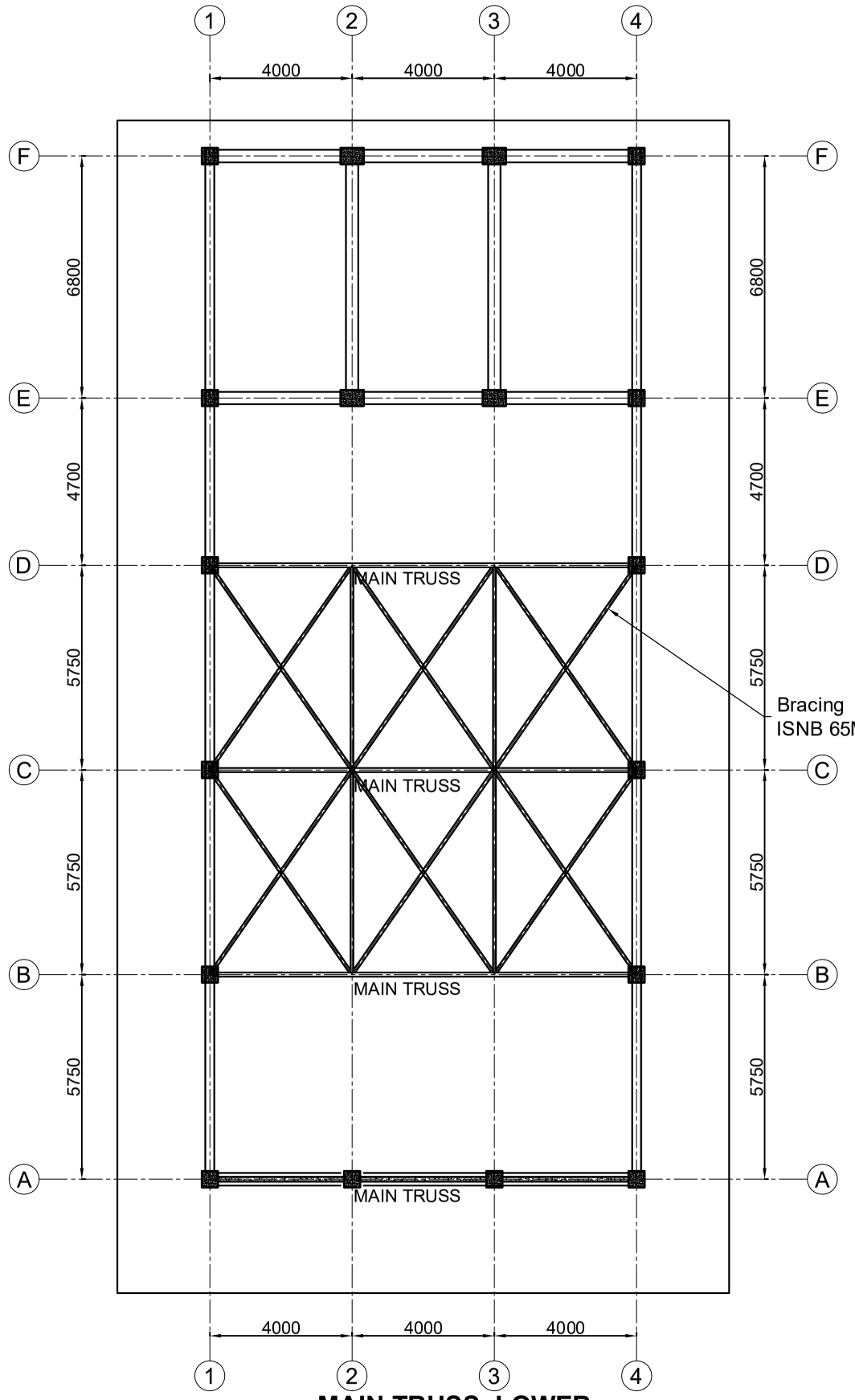
CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV



LOWER CANTILEVER TRUSS LAYOUT PLAN

(SCALE 1:175)



MAIN TRUSS LOWER LAYOUT PLAN FOR BRACING

(SCALE 1:175)

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Truss Layout Plan
TERMINAL BUILDING BLOCK

SITE INFORMATION:

NAME: Bus Terminal

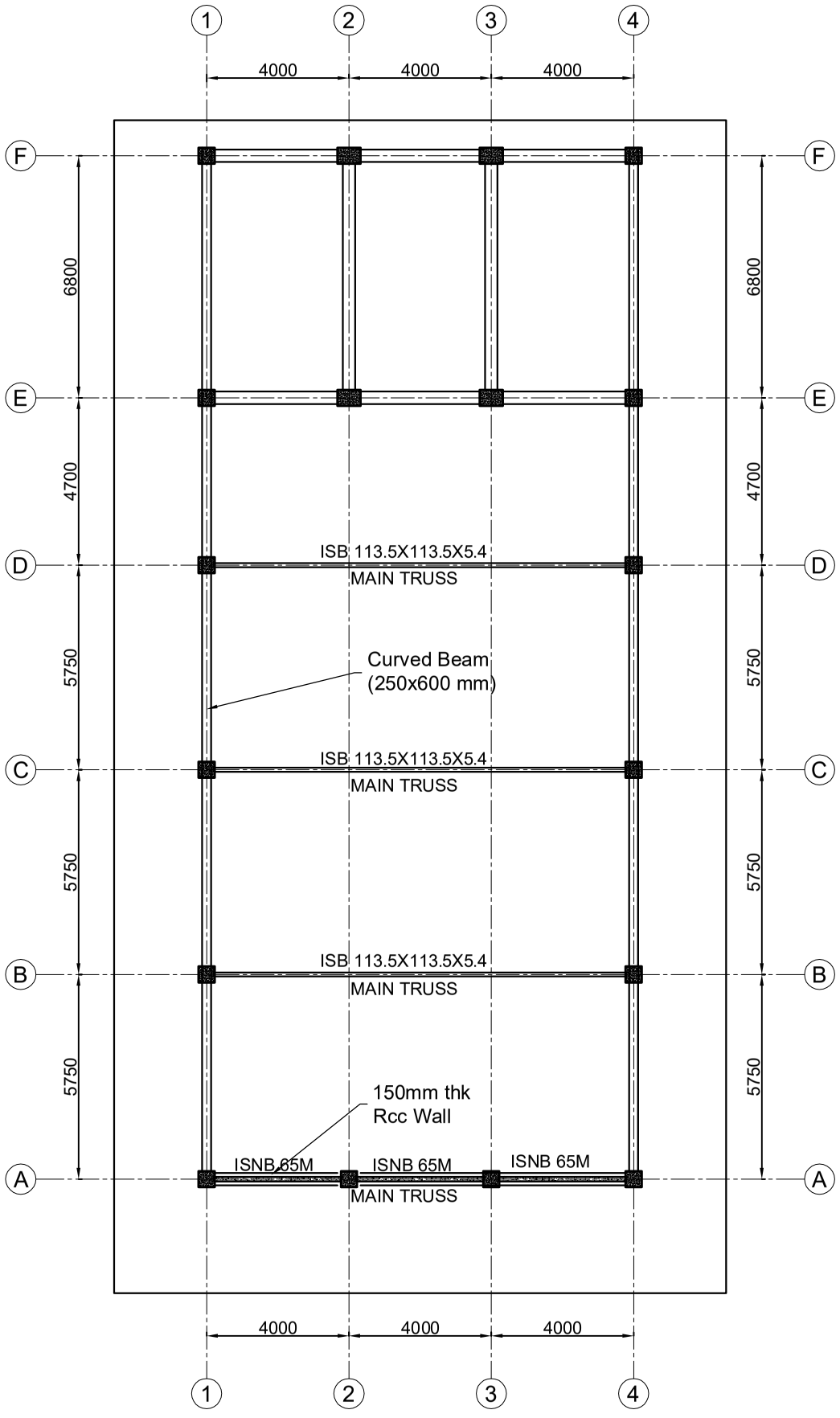
AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 35

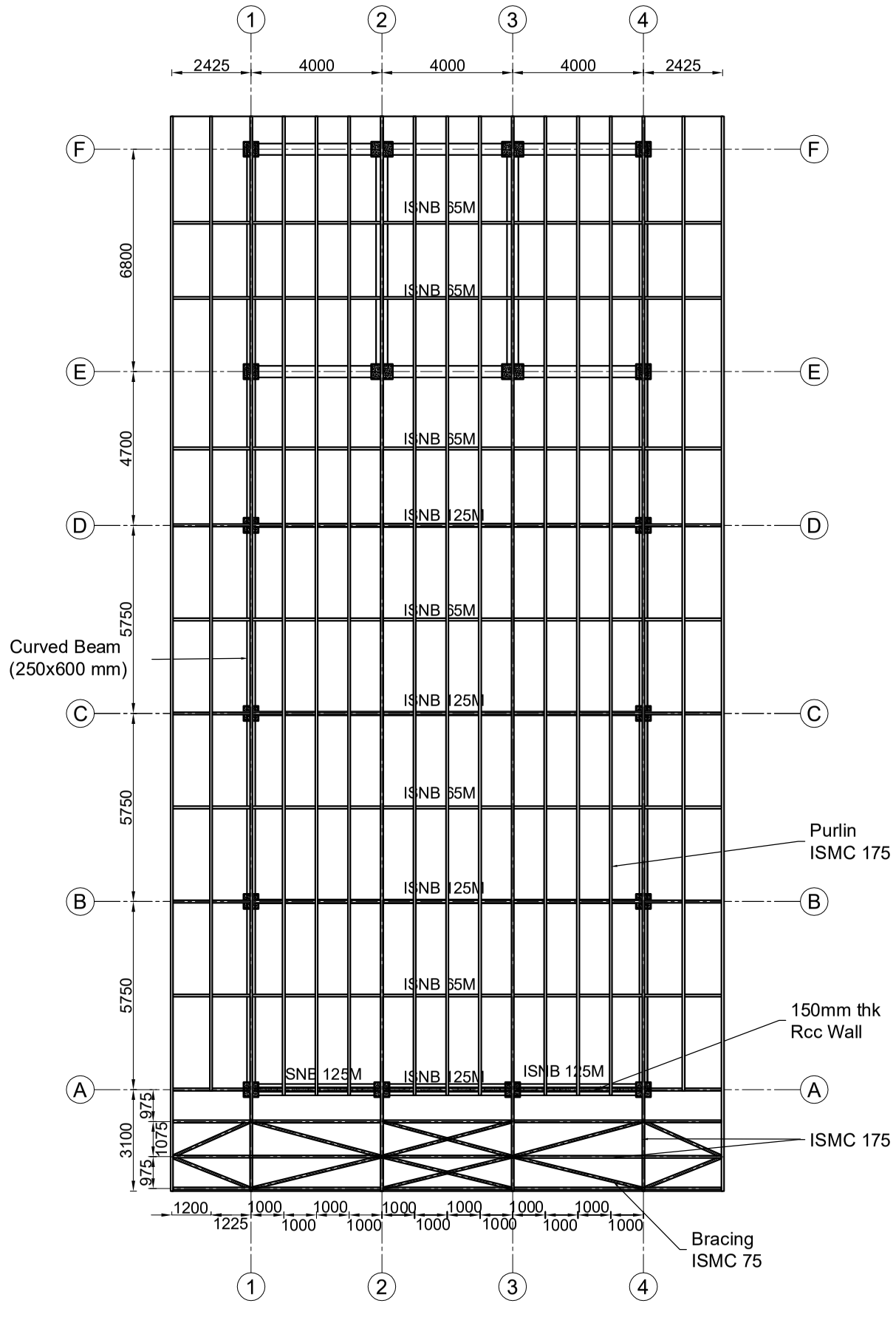
CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV



MAIN TRUSS LOWER LAYOUT PLAN

(SCALE 1:175)



MAIN TRUSS TOP LAYOUT PLAN

(SCALE 1:175)

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Truss Layout Plan
TERMINAL BUILDING BLOCK

SITE INFORMATION:

NAME: Bus Terminal

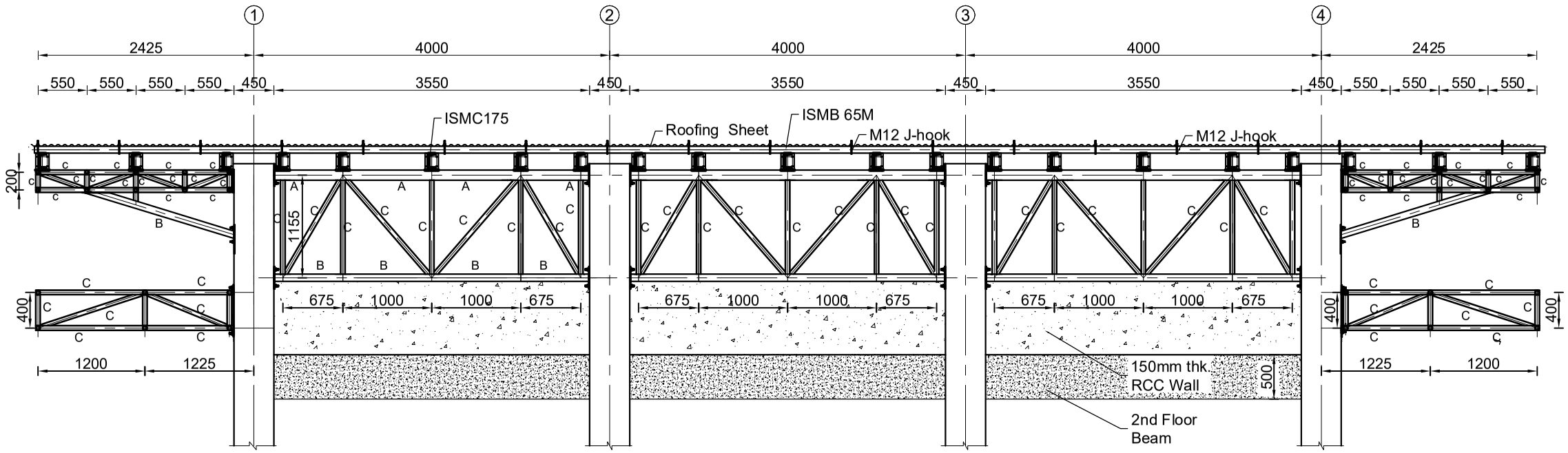
AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 36

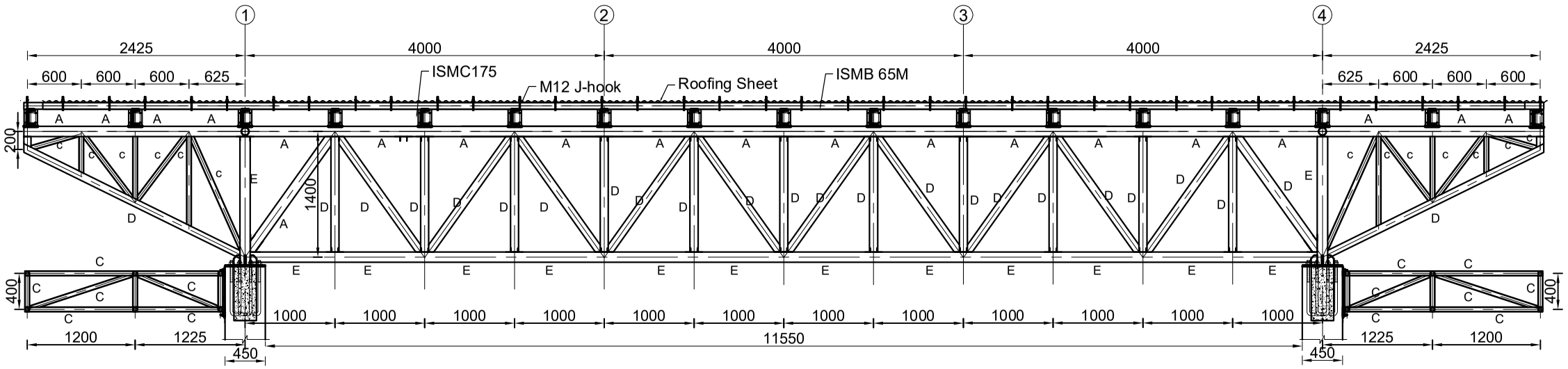
CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV



TRUSS SECTION AT GRID A-A

A = ISNB125M
B = ISNB65M
C = ISNB40M
D = ISNB80M
E = ISB 113.5 X 113.5 X 5.4mm
(Scale 1:60)



TRUSS SECTION AT GRID B-B

A = ISNB125M
B = ISNB65M
C = ISNB40M
D = ISNB80M
E = ISB 113.5 X 113.5 X 5.4mm
(Scale 1:60)

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Truss Sections
TERMINAL BUILDING BLOCK

SITE INFORMATION:

NAME: Bus Terminal

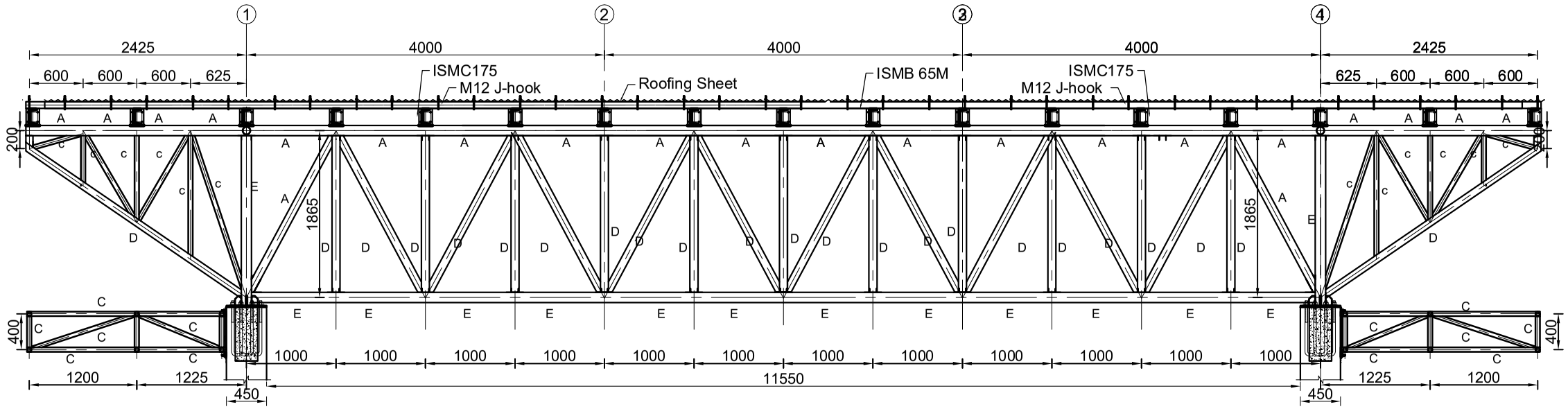
AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 37

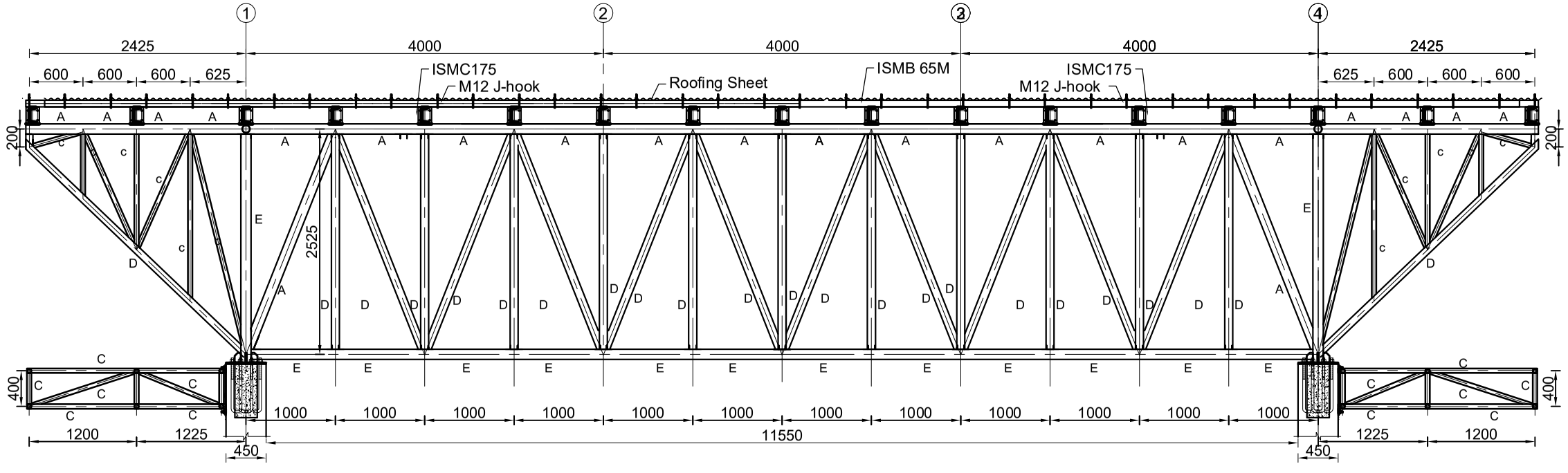
CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV



TRUSS SECTION AT GRID C-C

A = ISNB125M
B = ISNB65M
C = ISNB40M
D = ISNB80M
E = ISB 113.5 X 113.5 X 5.4mm
(Scale 1:60)



TRUSS SECTION AT GRID D-D

A = ISNB125M
B = ISNB65M
C = ISNB40M
D = ISNB80M
E = ISB 113.5 X 113.5 X 5.4mm
(Scale 1:60)

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Truss Sections
TERMINAL BUILDING BLOCK

SITE INFORMATION:

NAME: Bus Terminal

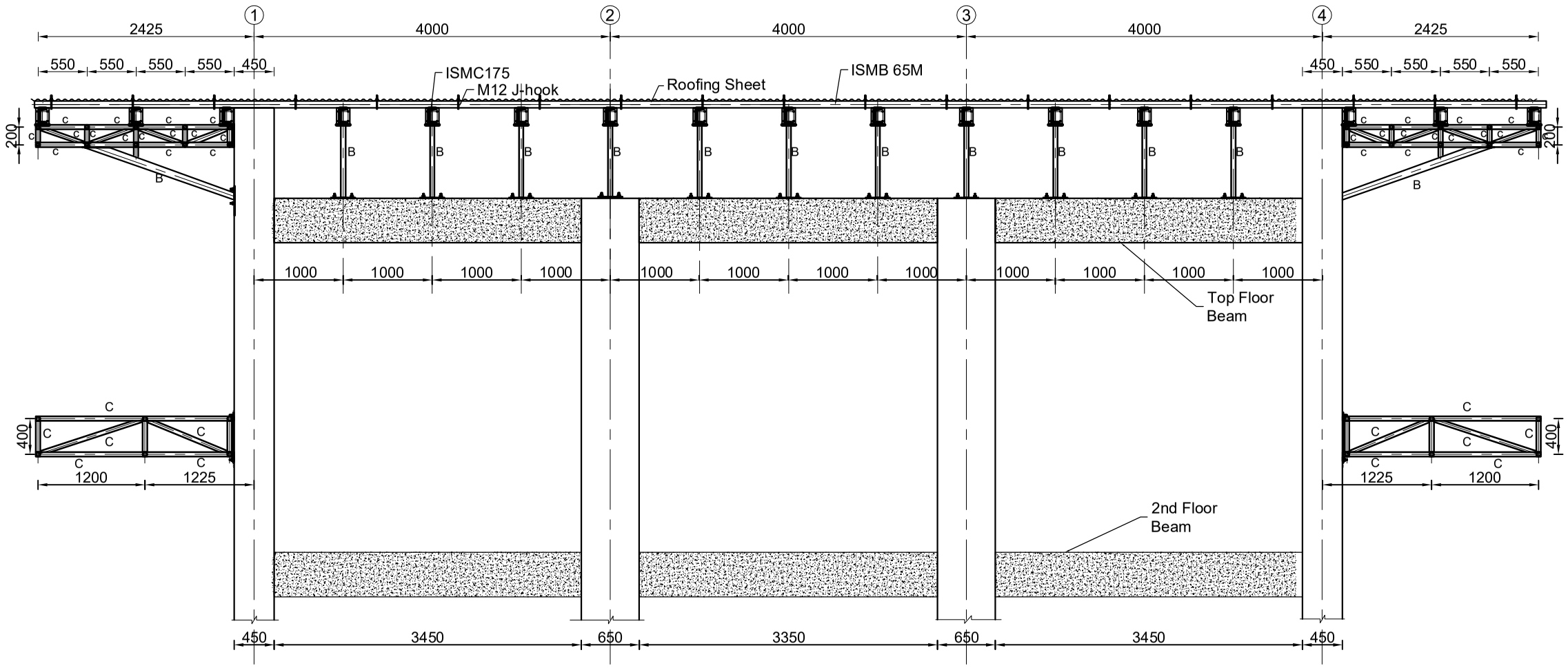
AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 38

CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV



TRUSS SECTION AT GRID E-E

A = ISNB125M
B = ISNB65M
C = ISNB40M
D = ISNB80M
E = ISB 113.5 X 113.5 X 5.4mm
(Scale 1:60)

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Truss Sections
TERMINAL BUILDING BLOCK

SITE INFORMATION:

NAME: Bus Terminal

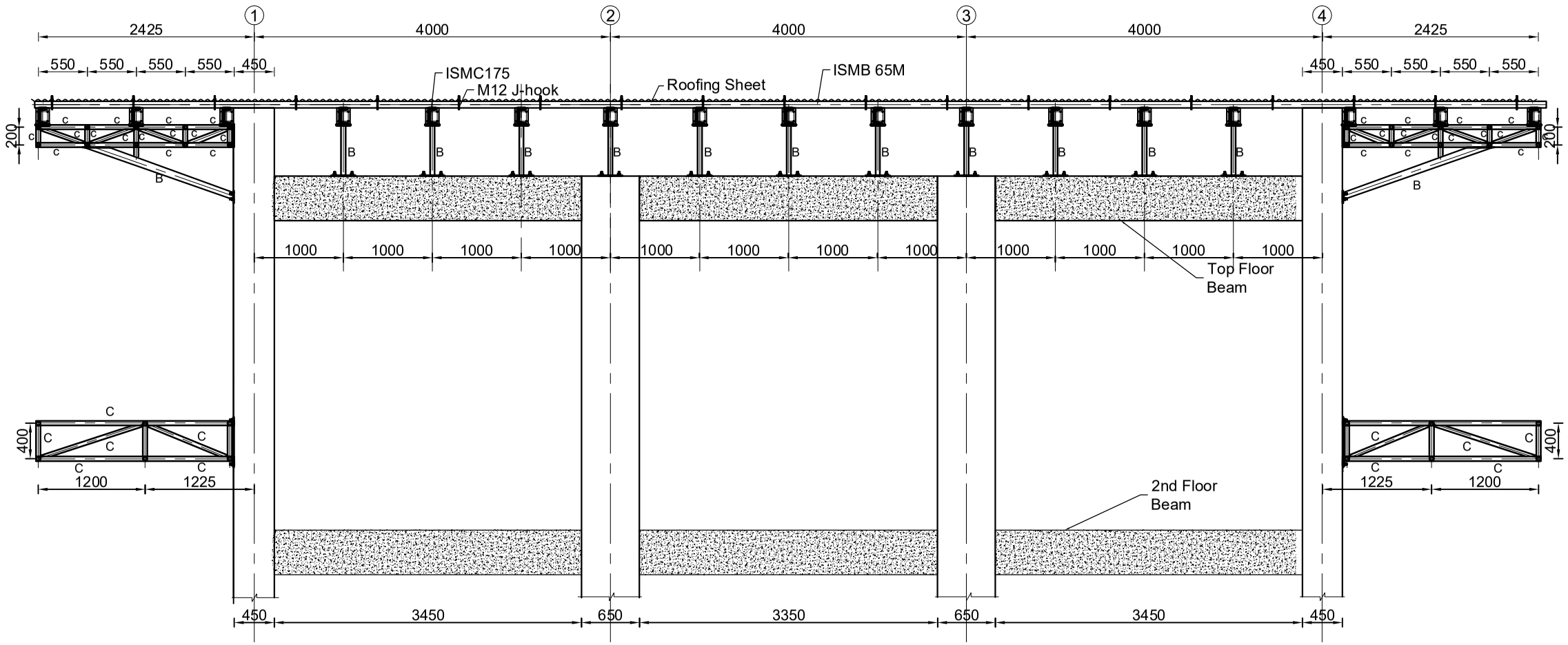
AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 39

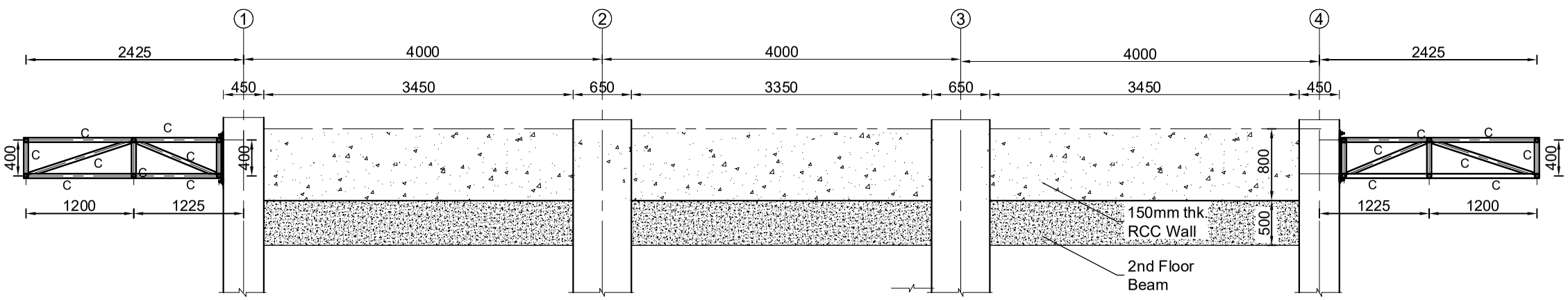
CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV



TRUSS SECTION AT GRID F-F

A = ISNB125M
B = ISNB65M
C = ISNB40M
D = ISNB80M
E = ISB 113.5 X 113.5 X 5.4mm
(Scale 1:60)



TRUSS SECTION AT GRID G-G

A = ISNB125M
B = ISNB65M
C = ISNB40M
D = ISNB80M
(Scale 1:60)

CLIENT:

Department of Urban Development &
Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Truss Sections
TERMINAL BUILDING BLOCK

SITE INFORMATION:

NAME: Bus Terminal

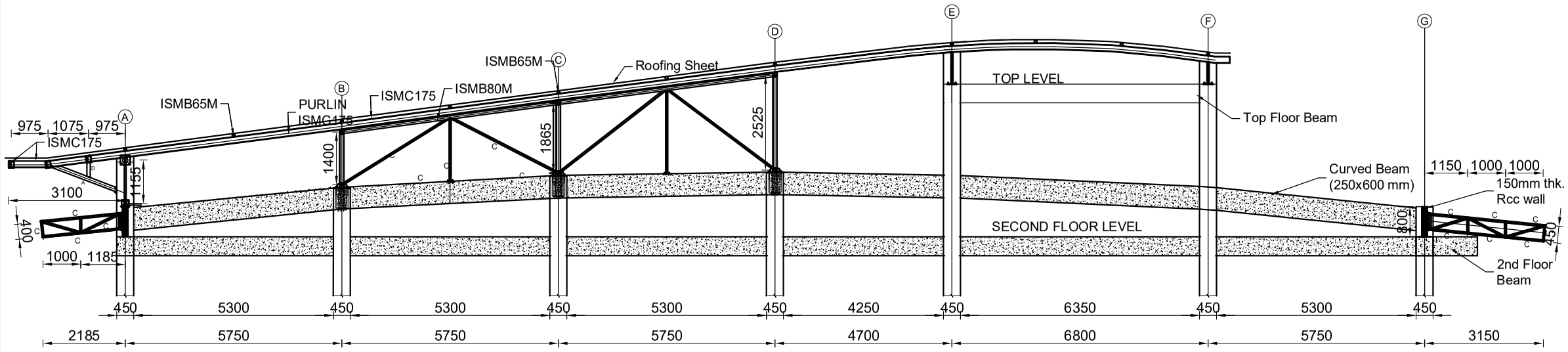
AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 40

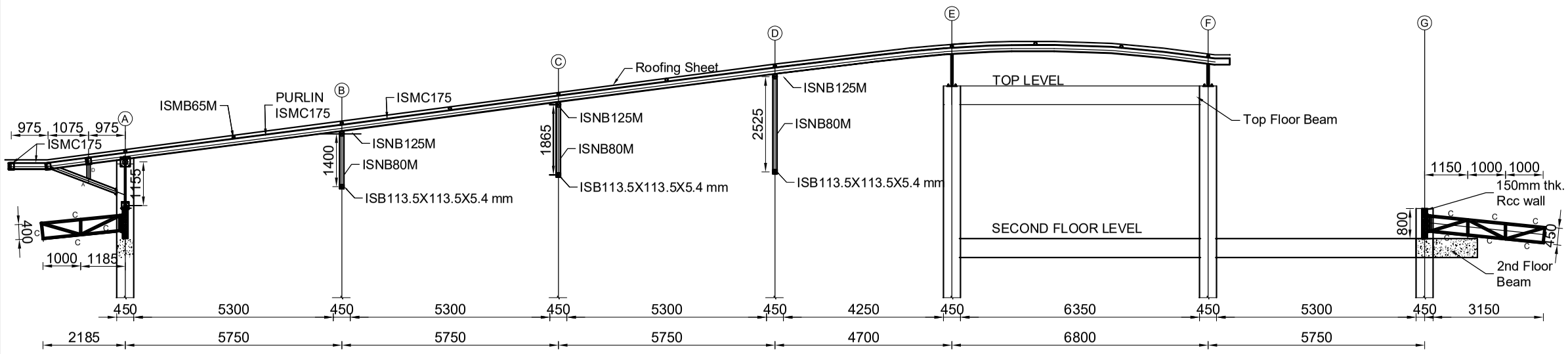
CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV



TRUSS SECTION AT GRID 1-1 AND 4-4

A = ISNB125M
B = ISNB65M
C = ISNB40M
D = ISNB80M
E = ISB 113.5 X 113.5 X 5.4mm
(Scale 1:135)



TRUSS SECTION AT GRID 2-2 AND 3-3

A = ISNB125M
B = ISNB65M
C = ISNB40M
D = ISNB80M
E = ISB 113.5 X 113.5 X 5.4mm
(Scale 1:135)

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Truss Sections
TERMINAL BUILDING BLOCK

SITE INFORMATION:

NAME: Bus Terminal

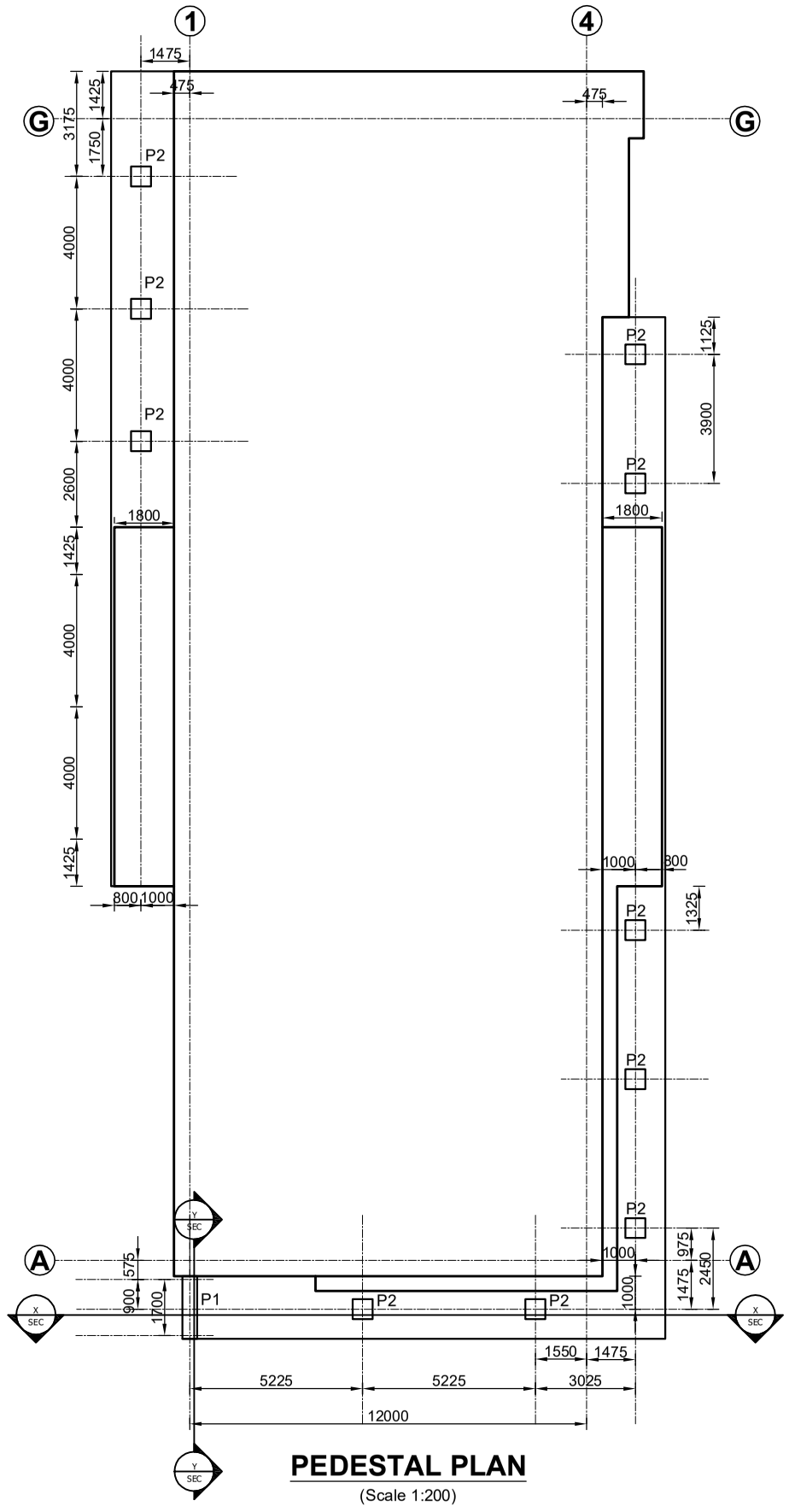
AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 41

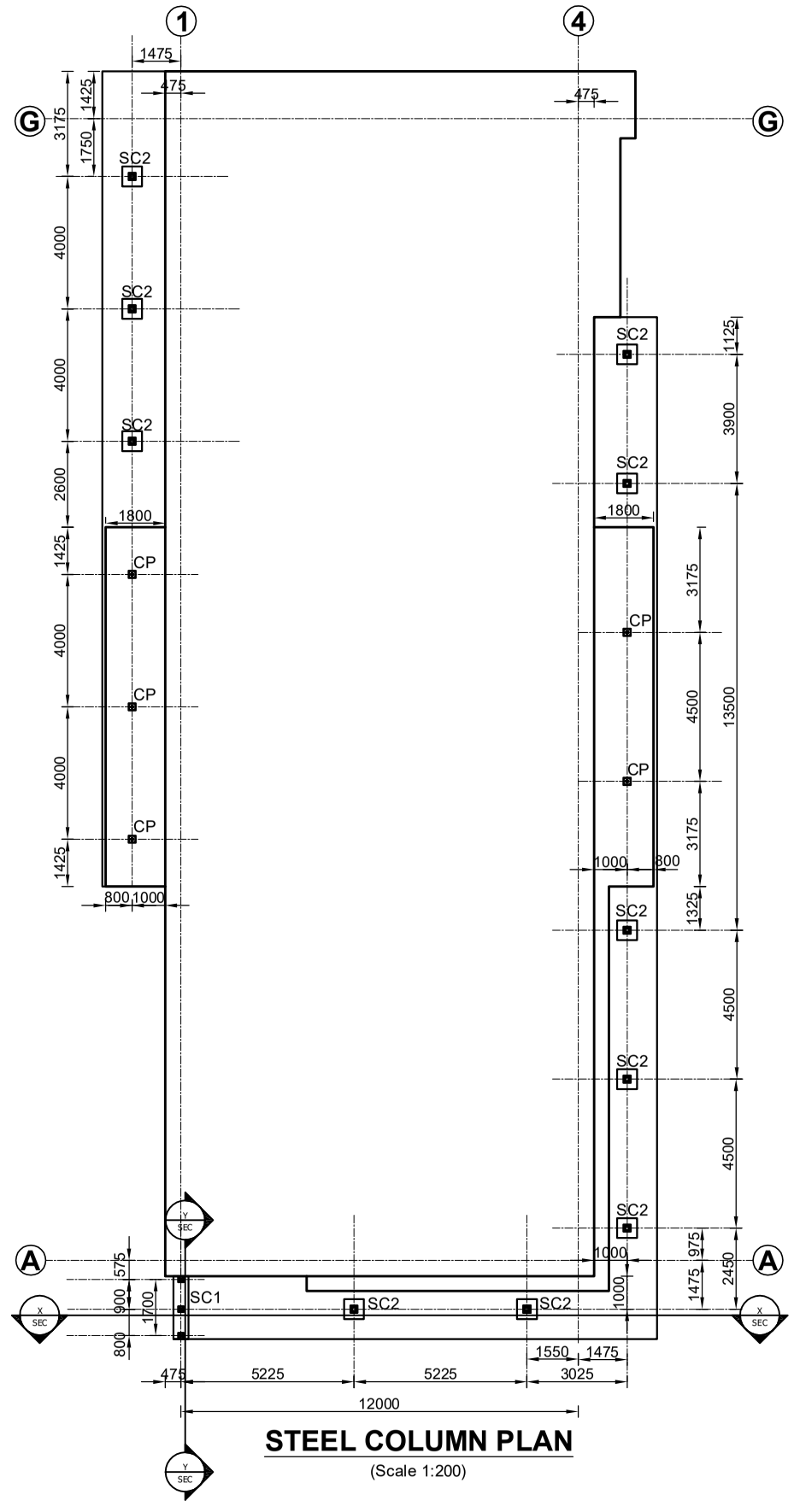
CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV



PEDESTAL PLAN

(Scale 1:200)



STEEL COLUMN PLAN

(Scale 1:200)

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Pedestal and Steel Column Plan
TERMINAL BUILDING BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 42

CONSULTANT:
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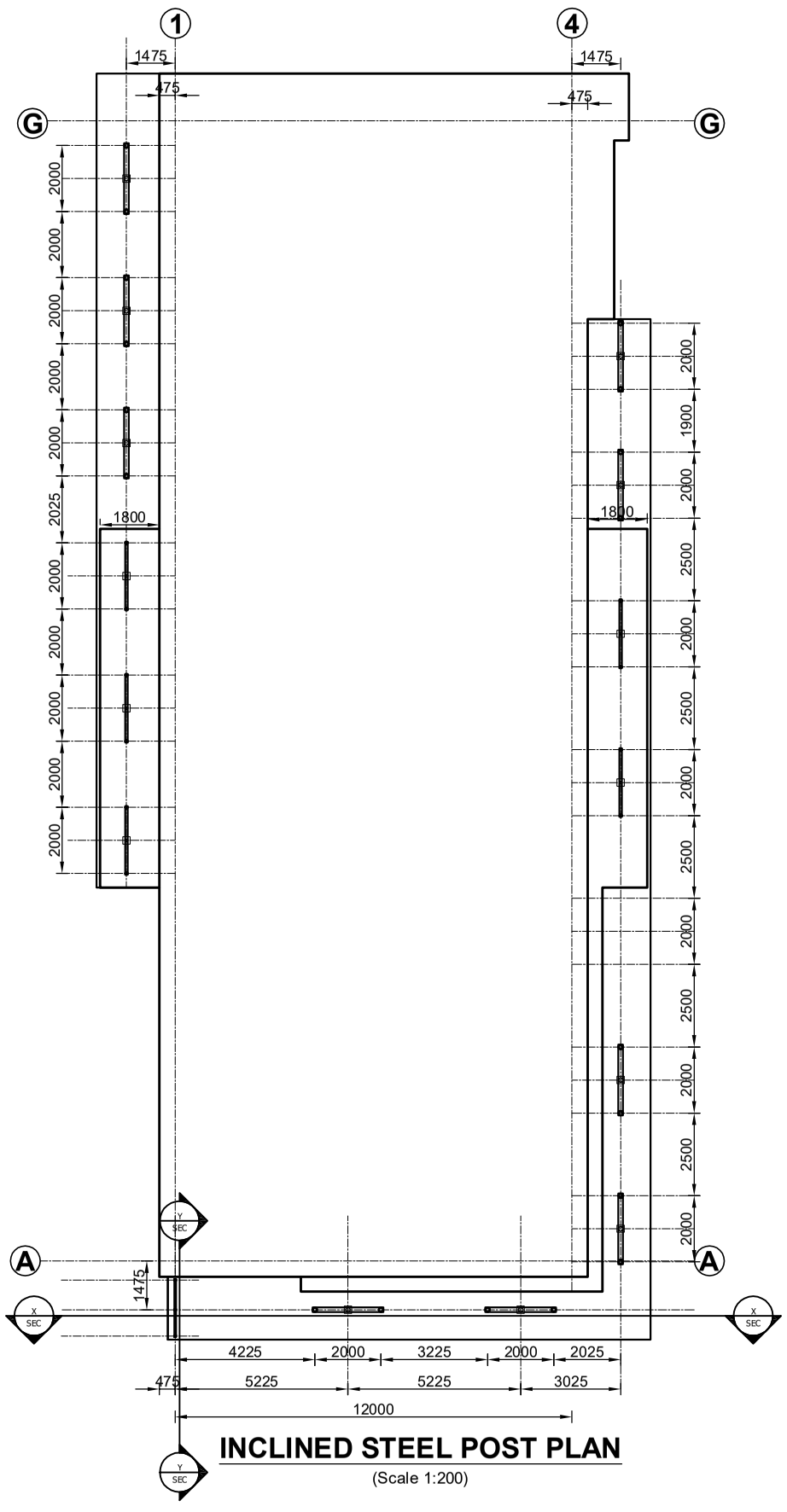
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

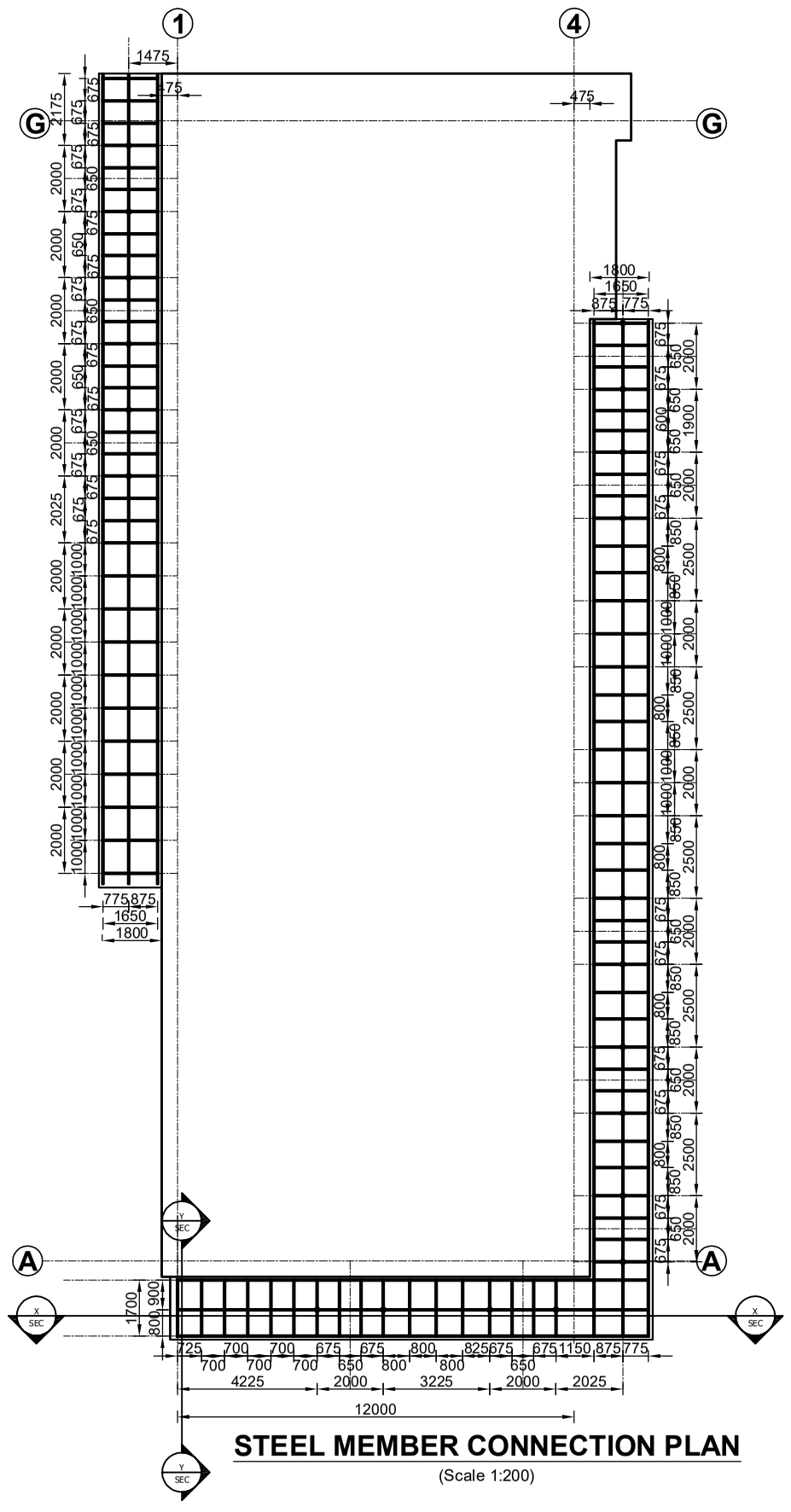
REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)

Building Design Authority(P) Ltd.- BN- UDAYA JV



INCLINED STEEL POST PLAN

(Scale 1:200)



STEEL MEMBER CONNECTION PLAN

(Scale 1:200)

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Steel Member Connection Plan
TERMINAL BUILDING BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: **Er. Ajay Shrestha**	
Designed By: **Er. Enu Rai 17819 Civil "A"** **Er. Arbind Yadav**	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 43

CONSULTANT:
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In association with
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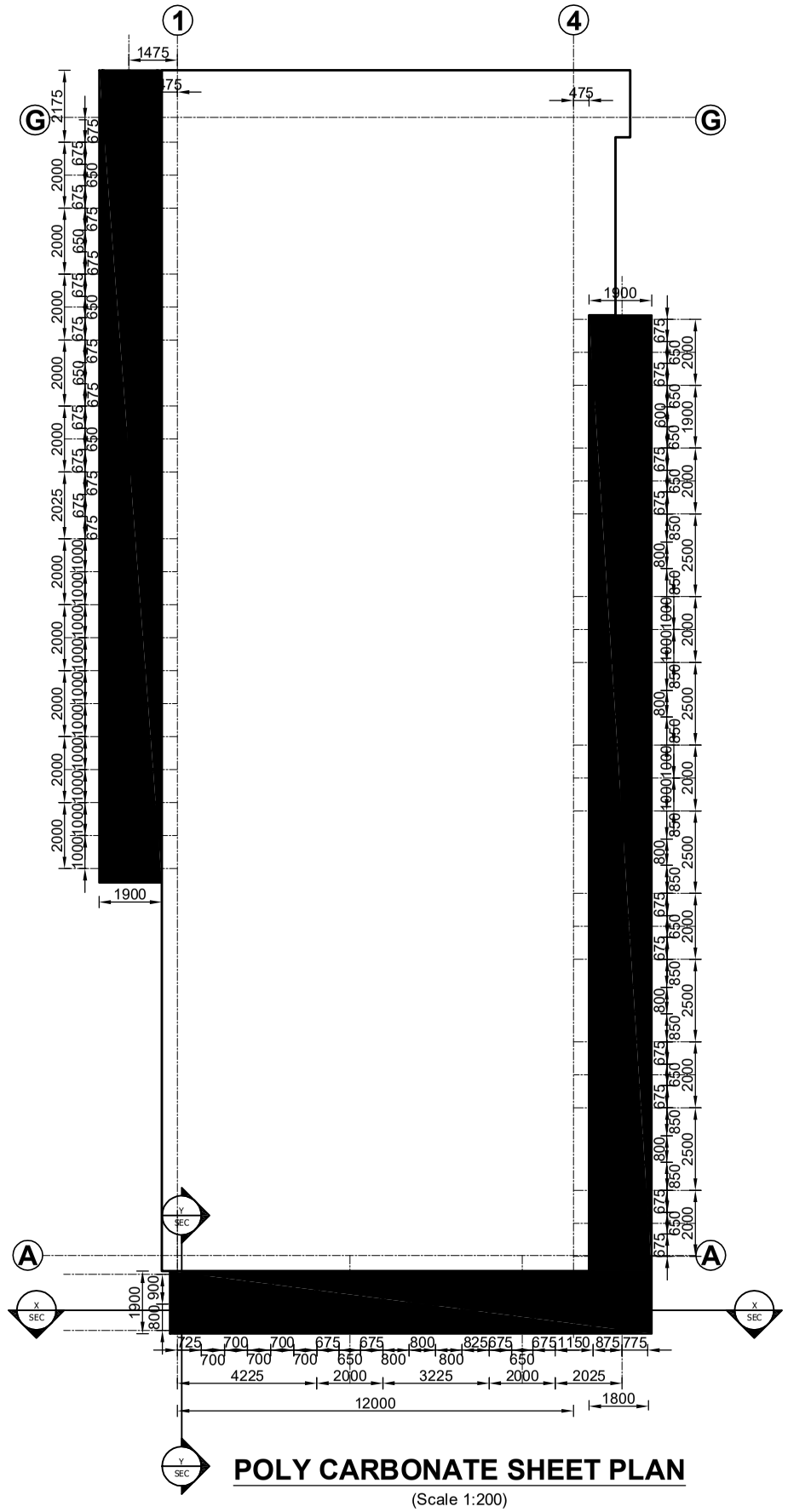
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV



POLY CARBONATE SHEET PLAN

(Scale 1:200)

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Polycarbonate Sheet Plan
TERMINAL BUILDING BLOCK

SITE INFORMATION:

NAME: Bus Terminal

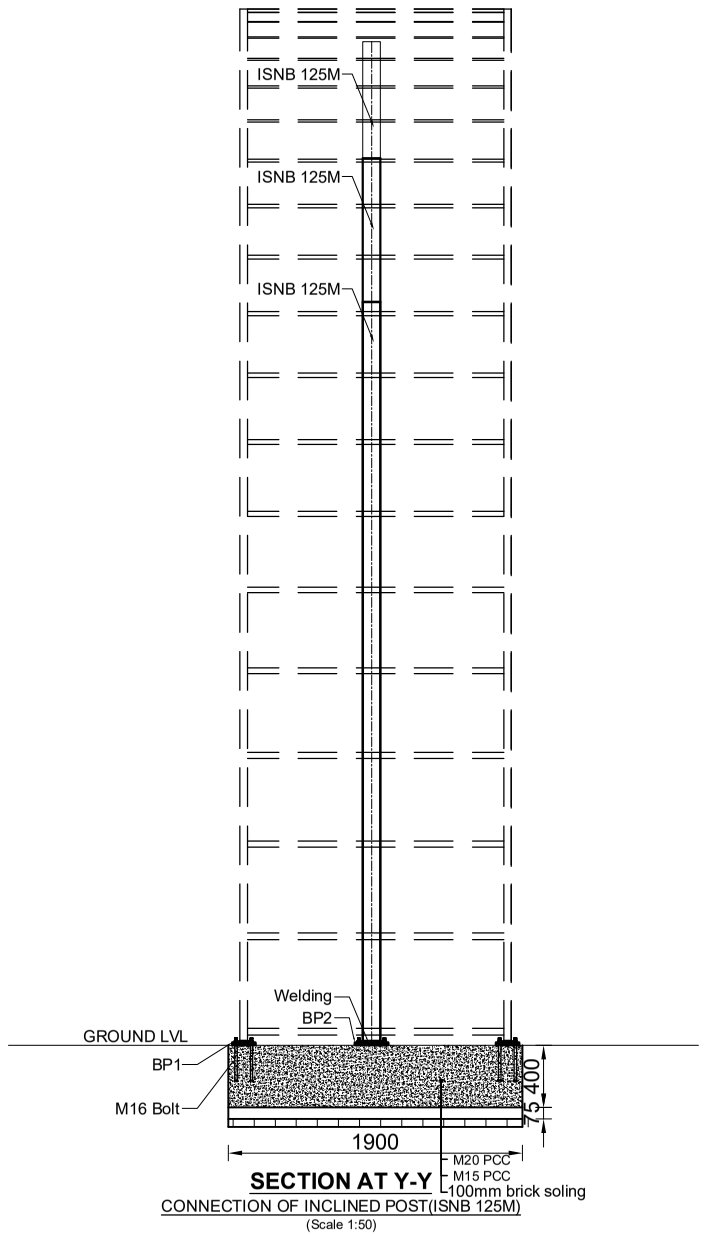
AREA:

LOCATION: Lumbini Sanskritik Municipality

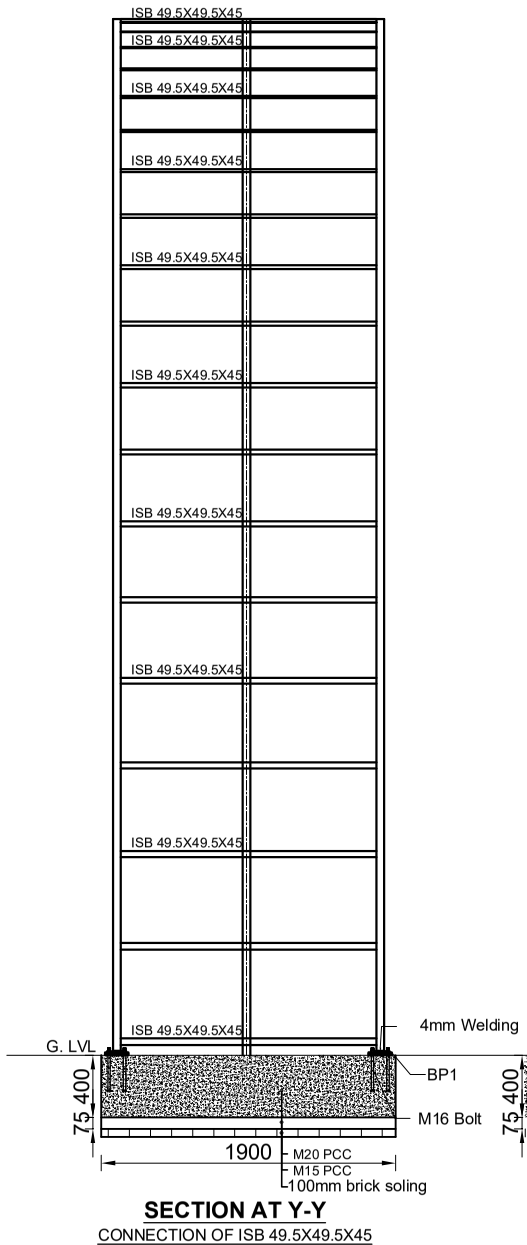
CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: **Er. Ajay Shrestha**	
Designed By: **Er. Enu Rai 17819 Civil "A"** **Er. Arbind Yadav**	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 44

CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

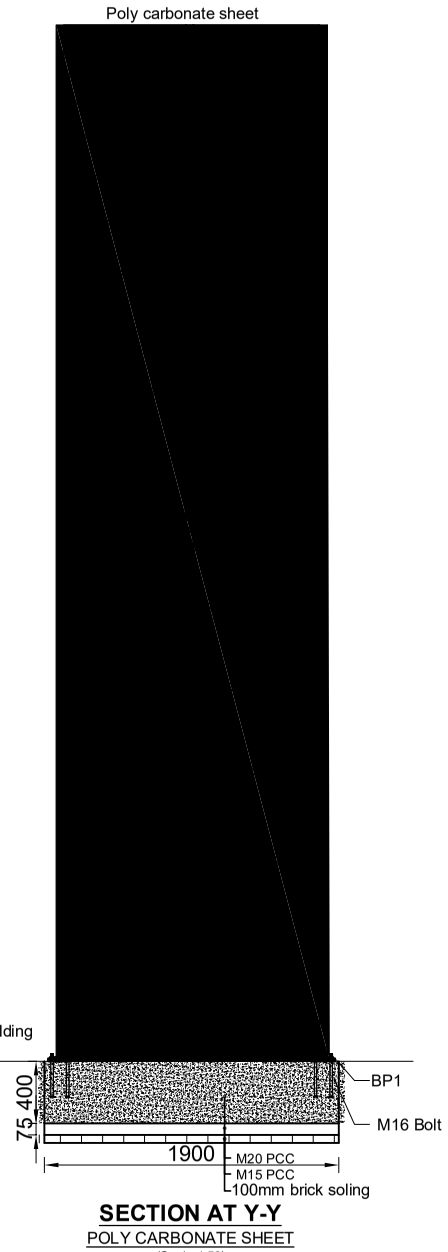
REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV



SECTION AT Y-Y
CONNECTION OF INCLINED POST(ISNB 125M)
(Scale 1:50)



SECTION AT Y-Y
CONNECTION OF ISB 49.5X49.5X45
(Scale 1:50)



SECTION AT Y-Y
POLY CARBONATE SHEET
(Scale 1:50)

CLIENT:

Department of Urban Development &
Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of
Detail Project Report of West Urban Corridor (WUC)
Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Steel Section Details
TERMINAL BUILDING BLOCK

SITE INFORMATION:

NAME: Bus Terminal

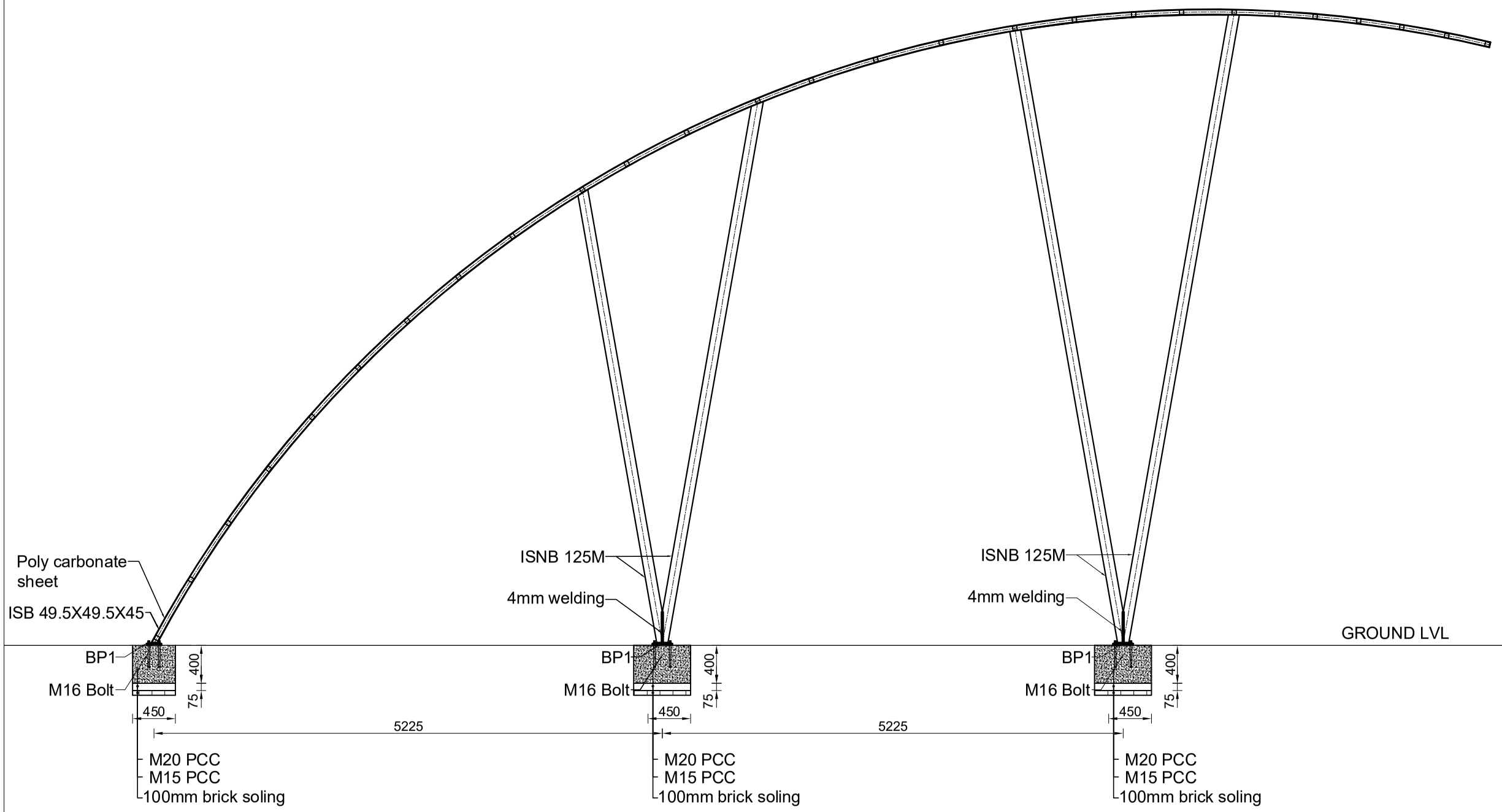
AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 45

CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV



SECTION AT X-X

(Scale 1:50)

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Steel Section Details
TERMINAL BUILDING BLOCK

SITE INFORMATION:

NAME: Bus Terminal

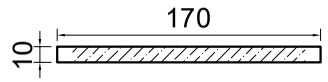
AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 46

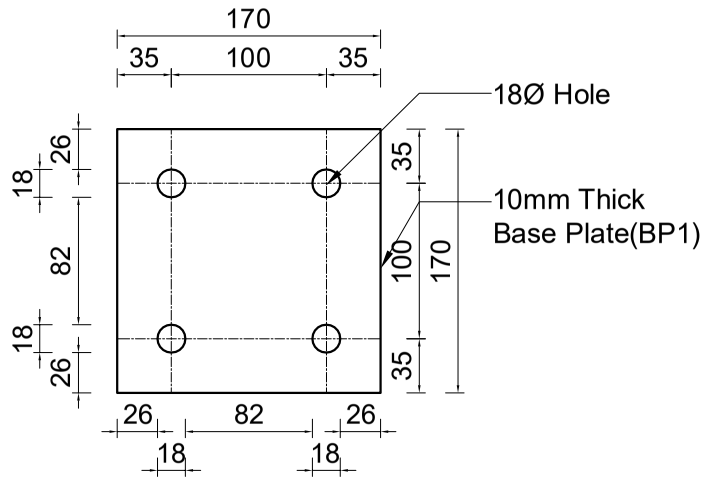
CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV



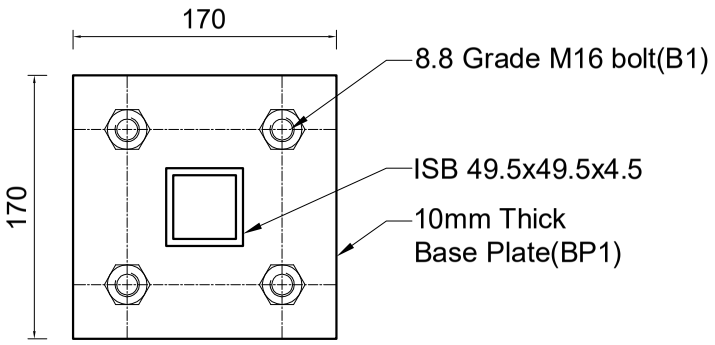
2-BASE PLATE (BP1)

(Scale 1:5)



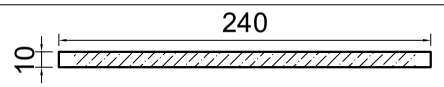
BASE PLATE DETAIL(BP1)

(Scale 1:5)



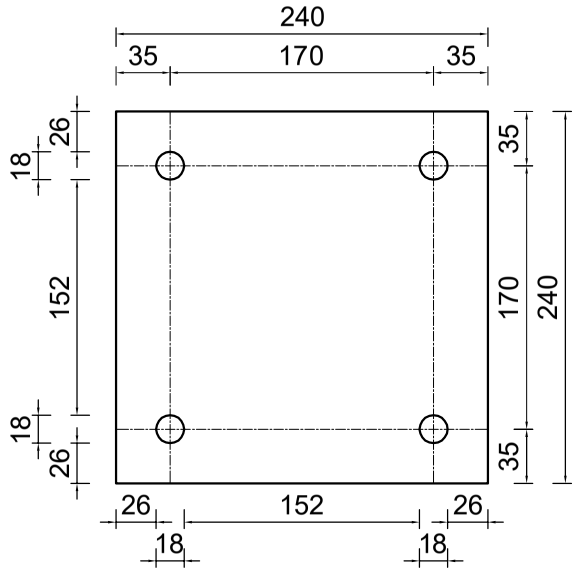
ISB 49.5X49.5X4.5
CONNECTION PLATE (CP1)

(Scale 1:5)



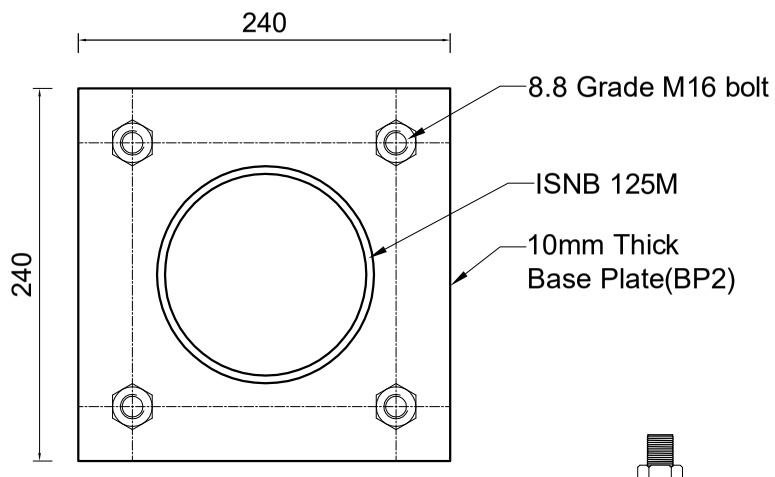
2-BASE PLATE (BP2)

(Scale 1:5)



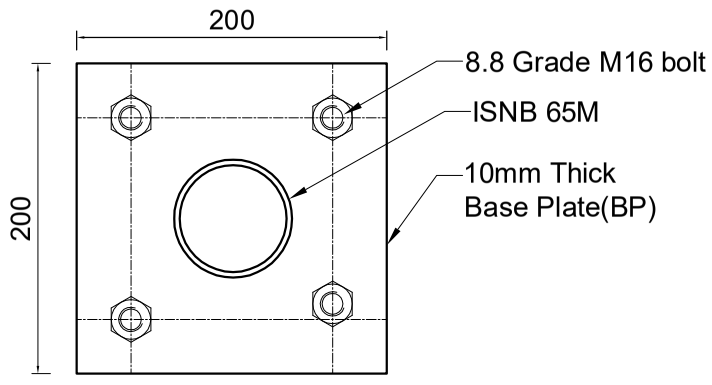
BASE PLATE DETAIL(BP2)

(Scale 1:5)



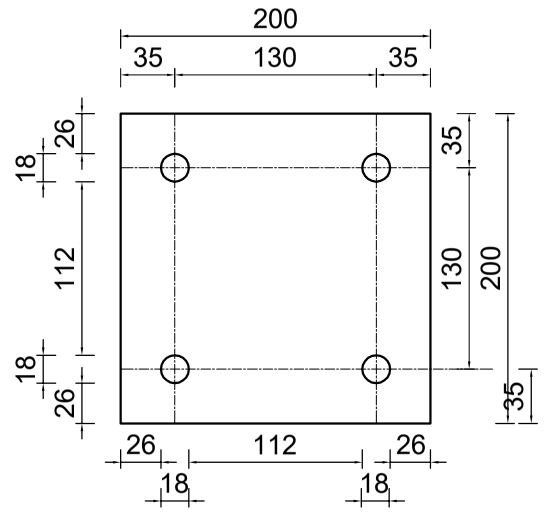
ISNB 125M
CONNECTION PLATE(CP2)

(Scale 1:5)



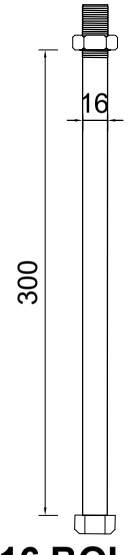
ISNB 65M
CONNECTION PLATE(CP)

(Scale 1:5)



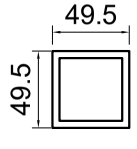
BASE PLATE DETAIL(BP)

(Scale 1:5)



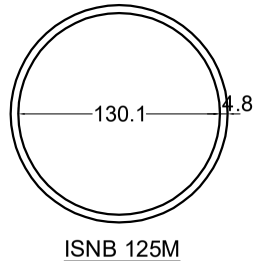
M16 BOLT DETAIL

(Scale 1:5)

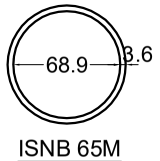


ISB 49.5X49.5X4.5

(Scale 1:5)



ISNB 125M
(Scale 1:4)



ISNB 65M
(Scale 1:4)

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Connection Details-1
TERMINAL BUILDING BLOCK

SITE INFORMATION:

NAME: Bus Terminal

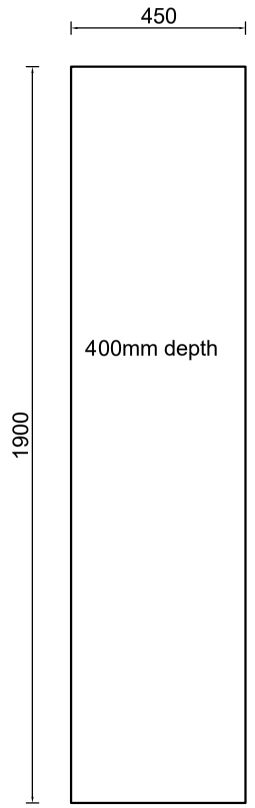
AREA:

LOCATION: Lumbini Sanskritik Municipality

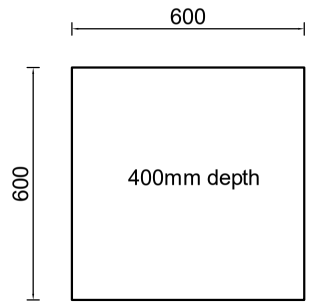
CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 47

CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

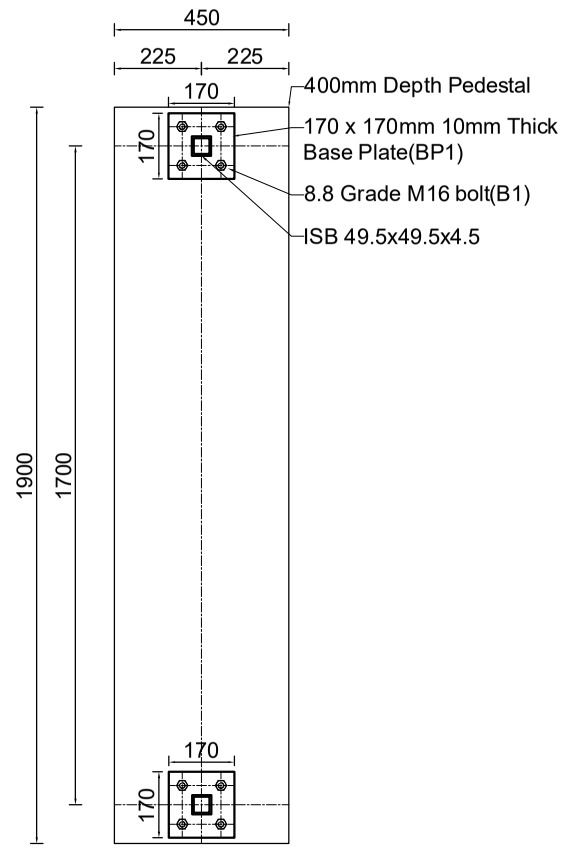
REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV



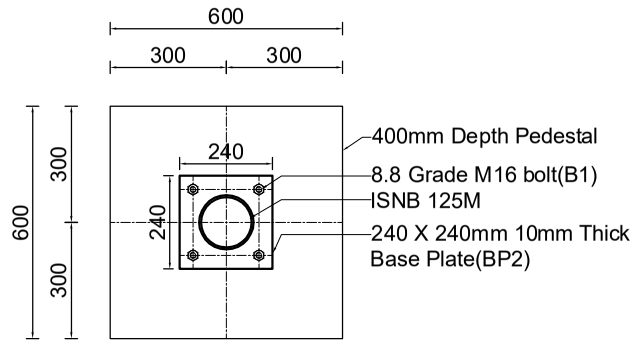
PEDESTAL-(P1)
(Scale 1:20)



PEDESTAL- (P2)
(Scale 1:20)



BASE PLATE AND ISB 49.5X49.5X4.5 PLAN (SC1)
(Scale 1:20)



BASE PLATE AND ISNB 125M PLAN (SC2)
(Scale 1:20)

CLIENT:

Department of Urban Development &
Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of
Detail Project Report of West Urban Corridor (WUC)
Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Connection Details-2
TERMINAL BUILDING BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: **Er. Ajay Shrestha**	
Designed By: **Er. Enu Rai 17819 Civil "A"** **Er. Arbind Yadav**	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 48

CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV

Government of Nepal
Ministry of Urban Development
Department of Urban Development and Building Construction

Regional Urban Development Project

Project Coordination Office

Babarmahal, Kathmandu

STRUCTURAL DRAWINGS of STAFF ACCOMMODATION BLOCK

LUMBINI SANSKRITIK MUNICIPALITY

Structural Drawing

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CLIENT:

Department of Urban Development &
Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Table of Contents
STAFF BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: **Er. Ajay Shrestha**	
Designed By: **Er. Enu Rai 17819 Civil "A"** **Er. Arbind Yadav**	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 00

CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV

GENERAL NOTES

GENERAL

1. General notes and typical structural details shall apply to all drawings unless otherwise shown or noted.
2. All works to be carried out in accordance with current practice, structure regulation, project specification,Nepalese Code and relevant Indian Standard and Codes of Practice. Materials and components to be appropriate for their intended use.
3. The contractor shall be responsible for verifying the dimensions on site and ensuring that all the dimensions and levels shown on the drawings are correct and consistent with other relevant drawings. Any discrepancies are to be reported immediately to Engineer
4. During construction, the contractor shall be responsible for maintain the structure in a stable condition and ensuring no par shall be damaged under construction activities.
5. Workmanship and materials are to be in accordance with the relevant Indian Standards.
6. The Engineer shall accept no responsibility for the works unless they are inspected and approved by the Engineer during the Construction. At least 48hours notice shall be provided for all engineering inspections.
7. Any damage to the surface during construction/erection is to be made good.
8. Before commencing the structural steel works, the shop drawings shall be provided to the Engineer.

DESIGN CRITERIA

1. LOADS

1.1. DEAD LOADS

Unit Weight of PCC = 24 kN/m^3

Unit Weight of RCC = 25 kN/m^3

Unit Weight of Steel (Rebar) = 78.5 kN/m^3

Unit Weight of Brick = 19 kN/m^3

1.2. LIVE LOADS

Roof Live Load = 1.5 kN/m^2

Staircase and Passage Live Load = 4 kN/m^2

Rooms =2kN/m^2 / 3 kN/m^2

1.3. SEISMIC LOAD

Code Followed = NBC 105:2020

Soil Type = C Type

Seismic Zoning Factor = 0.35

Importance Factor = 1.0

Over Strength Factor = 1.5 For ULS

Ductility Factor = 4.0 For ULS

Type of Structural System = RC Moment Resisting Frame System

1.4. SOIL PROPERTIES

Unit Weight of Soil = 19 kN/m^3

Bearing Capacity of Soil = 120 kN/m^2 (Geotechnical Report)

2. DESIGN AND CODE REFERENCE

Following references shall govern the design, fabrication and construction of project.

- IS 875(part I) Code of practice for design loads (dead) for buildings and structures.
- IS 875 (part II) Code of practice for design loads (live) for buildings and structures.
- IS 875 (part III) Code of practice for design loads (lwind) for buildings and structures.
- NBC 105:2020 Seismic Design of Building in Nepal
- IS 13920:2016 Ductile Design and Detailing of Reinforced Concrete Structures Subjected to Seismic Forces
- SP 34 Handbook on Concrete Reinforcement and Detailing

MATERIAL

1. CONCRETE
   a. The cement used shall be Ordinary Portland cement conforming to IS 269:1976.
   b. All RCC work shall be continuously cured by moist jute sheets or any means.
   c. The concrete strength shall be measured on (150x150x150) mm^3 cube at 7,14 and 28 days for various structural elements.
   d. Unless indicated otherwise on plans. the concrete class and strength shall be as follows:

Block Name: Staff Block

SN	Structural Member	Concrete Grade
1	Footing,	M20
2	Tie Beam	M20
3	RC Column	M20
4	RC Main Beam, Slab	M20
5	PCC	M15

2. REINFORCING STEEL
   a. Reinforcement steel shall be TMT having yield strength of 500 N/mm^2.
   b. Cover to main reinforcing steel shall be in accordance with IS 456:2000.
   c. Clear Cover of Concrete shall be:
      Footing = 50 mm
      Column = 40 mm
      Beam = 25 mm
      Slab = 20 mm
   d. Details of reinforcing steel fabrication and placement shall conform to SP 34-1987.
   e. Bar bending schedule shall be submitted for approval before the reinforcement work and contractor shall corresponds to the Engineer in case of any discrepancies.
3. STRUCTURAL STEEL BOLTS/WELD (Applicable for Steel Structure)
   a. Structural steel shall have a yield strength of 250 N/mm^2.
   b. Requirements of welds and welding shall conforms to IS 816 and IS9595, as appropriate.
   c. The electrodes required for metal or welding shall be covered and shall conform to IS814: 1991
   d. Metal Surface shall be properly cleaned
   e. Nomenclature of structural steel is as per Indian Standard Steel Section.
   f. Welds and welding shall be applied as per drawing.
   g. Application of metal primes and finishing coat of paint shall be in accordance with IS1477:1971 (Part-I and Part-II).
   h. Anchor Bolt:
      - Bolt shall be of grade as per specified in the drawing if not specified 8.8 grade shall be considered.
      - Bolts shall be galvanize as per IS 5358:1969 provision.
      - Anchor bolts shall confirm to IS 5624:1995. As an alternate for anchor bolts of 8.8 grade threaded steel rebar of 500 N/mm^2 of length as per design shall be used.

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PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 01

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CONSTRUCTION

1. SETTING OUT

The setting out and the elevations of the different components of the structure shall be approved by the engineer prior to the start of any construction work.

2. REINFORCED CONCRETE

A. CONCRETE MIX AND PLACING

a. Concrete mix shall meet the design concrete strength given under material.
b. Concrete shall be deposited, vibrated and cured in accordance with the specifications.
c. The contractor shall submit to the engineer for approval the pouring sequences for the concrete work.
d. The contractor shall notify the engineer 48 hours prior to the pouring of any structural concrete, so an inspection can be made on all the forms and reinforcing
e. Use of the admixture is permitted to produce proper slump and workability but subjected to the engineer approval addition of concrete at job site is not allowed.
f. For two or more layers of reinforcing bars, use separator spacing @ 900 mm o/c and in no case shall be less than 2 separator. Clear distance between layers should not be less than 25 mm or larger bar diameters.
g. Location of all the constructions or cold joints must be approved by the engineer/Architect.
h. Pipes or duct exceeding one third the slab or wall thickness shall not be placed in structural concrete unless specifically detailed. Pipes may pass through structural concrete in sleeves but shall not be embedded therein
i. Reinforcing bars, anchorage bolts, and other inserts shall be secured in place before pouring concrete bar placement and support wall be in accordance with recommend Indian standard practice.
j. In general, the latest edition of the manual of standard for detailing concrete structure unless shown otherwise.

B. BAR BENDING, SPLICING AND PLACING

a. The contractor shall submit to the engineer for approval all shop drawing indicating the bending, cutting, splicing and installation of all reinforcing bars.
b. Bar splicing not indicated on drawing shall be subjected to the approval of engineer.
c. Lapped splices shall be staggered where possible.
d. Anchorage bolts, dowels and other embedded items are to be securely tied in place before concrete is poured.
e. Typical standard hook details. (Refer Typical Drawing)
f. Typical lap splice details. (Refer Refer Typical Drawing))

C. FORM WORK

a. Forms shall be provided for all concrete indicated unless specified otherwise, forms shall be set true to line and grade and maintained so as to ensure competent work within the allowable tolerances specified and shall be mortar tight.
b. Forms and their supports shall be designed so as not to damage previously placed structure.
c. No construction load shall be supported on, nor any shoring removed from any part of structure in combination with the remaining forming and shoring systems has sufficient strength to support safely its weight and additional imposed load.
d. Forms shall be removed in such manner as not to impair safely and serviceability of the structure.
e. Schedule of stripping of forms will be as table: stripping time as per clause 11.3 of IS456:2000.

D. PROTECTION AND CURING OF CONCRETE

Concrete surfaces shall be protected from harmful effects of sun, wind and running water and shall be kept damp for at least 7 days.

Table : Stripping Time As per clause 11.3 of IS456:2000

SN		Type of Formwork	Minimum Period Before Striking	Remake
1		Sides of Walls, Columns and Vertical Faces of beam	16 to 24 hours	
2		Soffit formwork of slabs (Props Left Under)	3 days	
3		Soffit formwork of beams (Props Left Under)	7 days	
4		Removal of Props of Slabs:		
	a.	Slabs spanning uot 4.5m	7 days	
	b.	Slabs spanning over 4.5m	14 days	
5		Removal of props for beams and arches		
	a.	Span up to 6m	14days	
	b.	Span voer 6m	21 days	

3. STRUCTURAL STEEL

a. Hole size for anchorage bars
b. Welded connections between members of moment frames shall be tested by non-destructive test method.
c. Comply with Indian Standard for bearing, adequacy of temporary connection and alignment.
d. Fabricator shall submit shop drawing for approval by the engineer and the owner prior to fabrication.

4. FOOTINGS

a. All footing shall be on the natural soil.
b. All engineered fill beneath slab and over footing shall be compacted to a dry density of at least 90% of the Modified Proctor maximum dry density.
c. Foundation shall be inspected to ensure that loose soft or otherwise undesirable material (such as organic materials) is removed, and that the foundation will bear on the natural soil.

5. LIMITATION FOR FOOTING

a. Foundations in areas under infill soil may require special design considerations, such as deeper foundations, reinforced foundation systems, or soil stabilization techniques
b. Areas with infill soil must be assessed for differential settlement and localized instability. Differential settlements between blocks on solid ground and those over infill should be minimized.

UNITS

1. Do not scale drawings. Any missing dimension shall be furnished upon request.
2. All dimensions are in millimeter unless otherwise noted.

LIMITATION

The construction design has been done assuming quality materials and steel sections are available. Therefore, the design needs to be verified with the actual situation when the work progress and may require some changes during the implementation.

SYMBOL

- ϕ = Diameter of Rebar

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SHEET TITLE: General Notes-2
STAFF BLOCK

SITE INFORMATION:

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CONSULTANT	CLIENT
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PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 02

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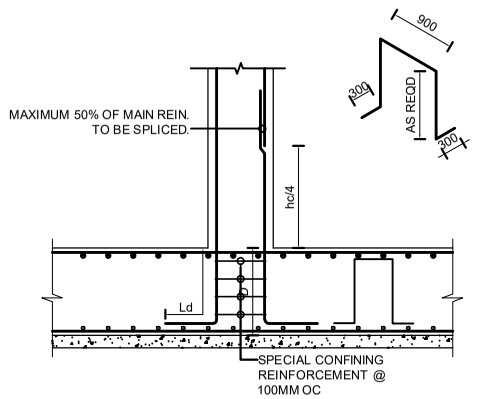
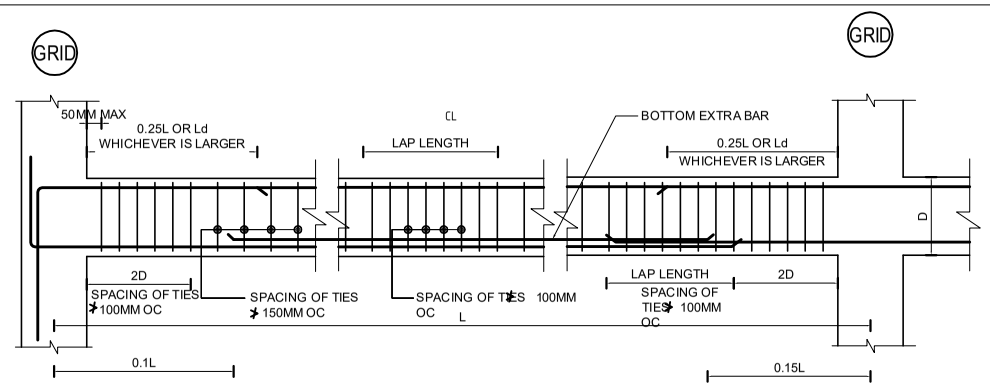


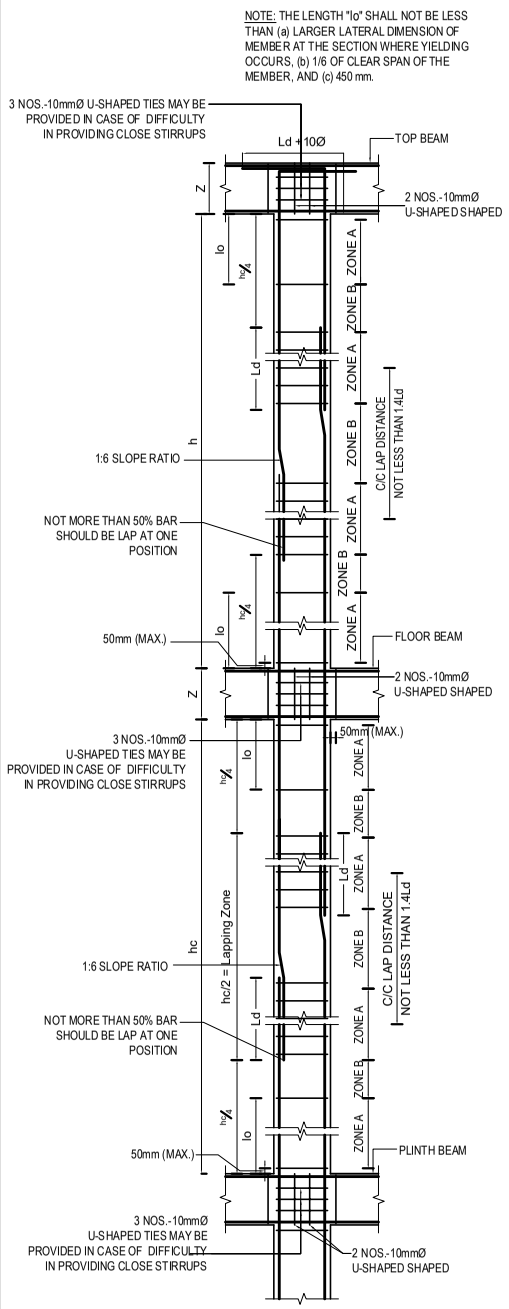
1 TYP, FOUNDATION CHAIR DETAIL
NTS



3 TYP,DETAIL LAPPING FOR BEAM BAR
NTS

LAPPING NOTES FOR BEAM

1) Lap length shall not be less than bar development length in tension
2) Not more than 50% of the bars shall be spliced at one section
3) Lap splice shall not be provided:
a. Within the joint
b. Within the distance of 2d from joint face
c. within the quarter length of the member



2 TYP, COLUMN SHEAR REINFORCEMENT DETAIL & SPLICING DETAIL
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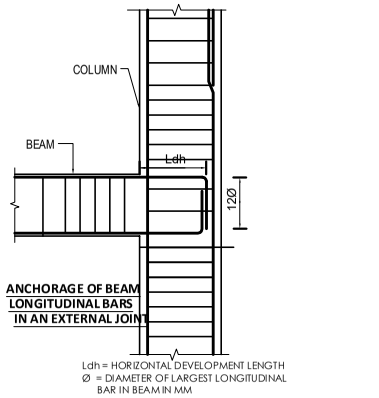

4 TYP, BEAM COLUMN JOINT
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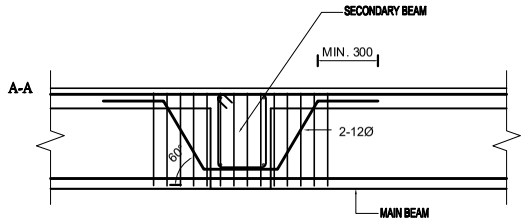

5 TYP, JUNCTION DETAIL OF MAIN & SECONDARY BEAM
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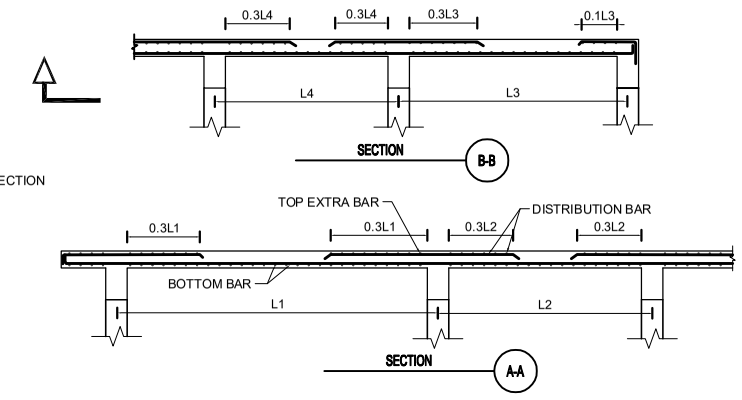
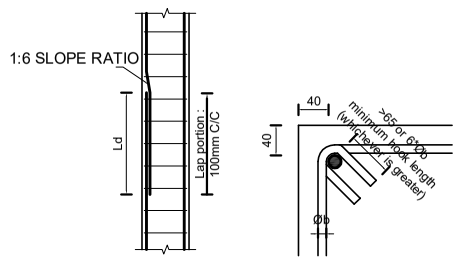
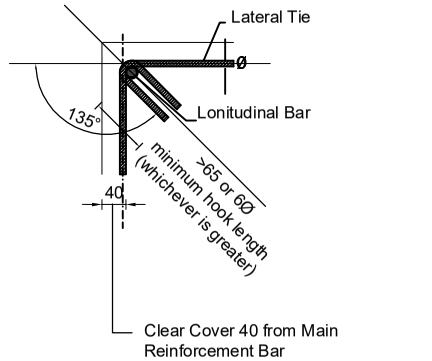


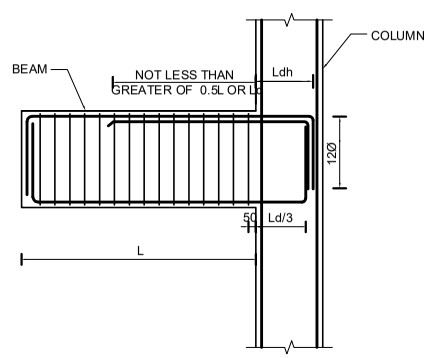


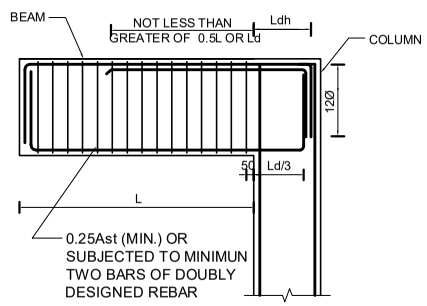
LAP PORTION DETAIL DETAIL OF HOOK



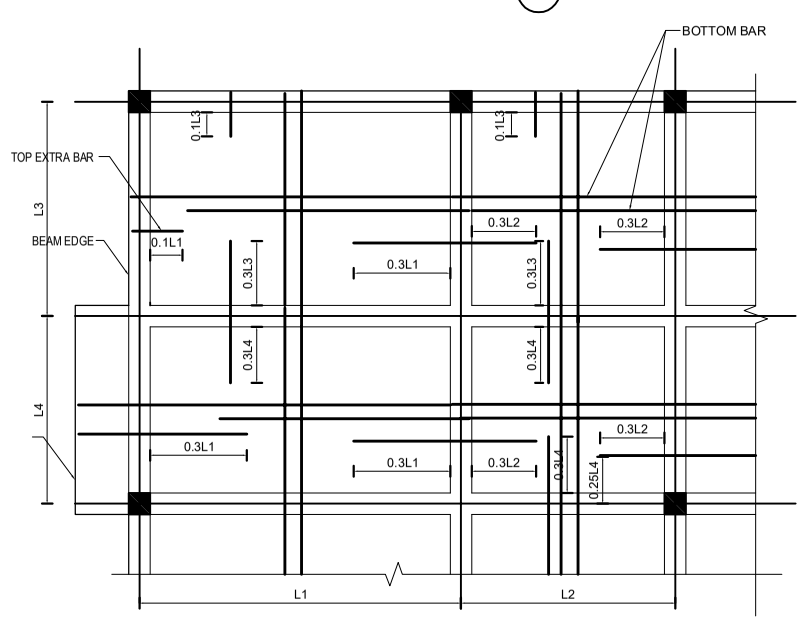
SEISMIC HOOK DETAIL
(Scale 1:10)

6 TYPICAL DETAILS
NTS





7 TYPICAL DETAILS OF CANTILEVER BEAM PROJECTIING FROM A COLUMN
N.T.S.



PLAN

8 TYP, SLAB PLAN
NTS

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SHEET TITLE: Typical Drawings-1
STAFF BLOCK

SITE INFORMATION:

NAME: Bus Terminal

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Reviewed By: Er. Ajay Shrestha	
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PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 03

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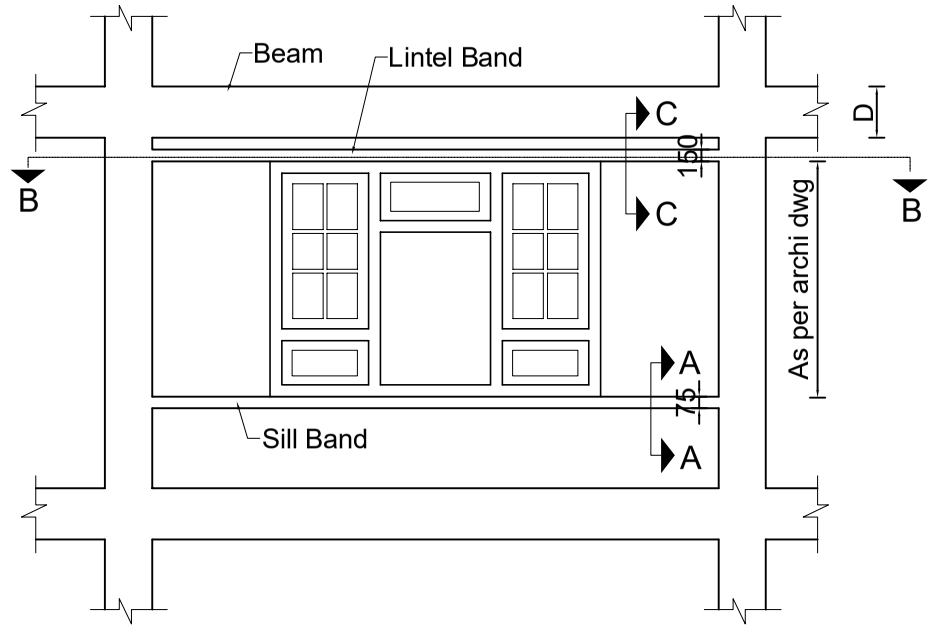
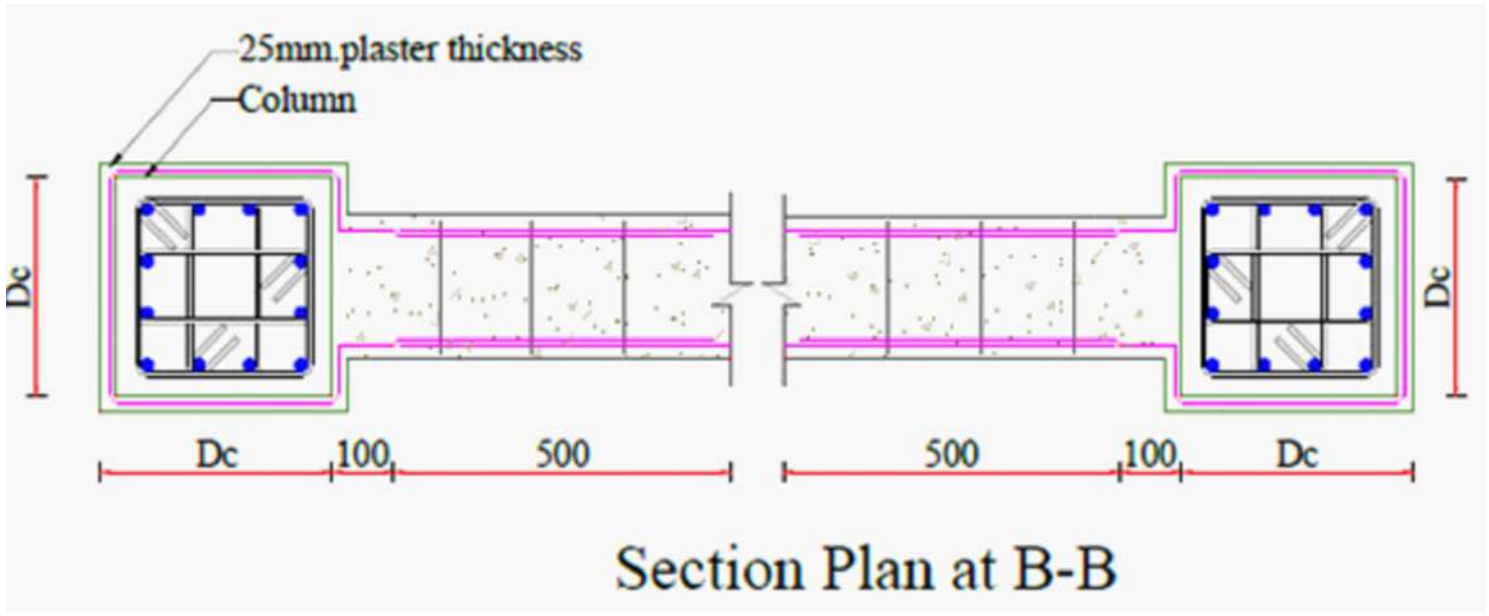
HORIZONTAL DEVELOPMENT LENGTH (Ldh)		
Ldh For Grade Of Steel, fy = 500 MPa in mm		
Bar Diameter	Grade of Concrete, fck	
	M20	M25
12	277	247
16	369	330
20	461	412
25	576	515



BEAM JOINT AND LAP DETAILS

(SCALE 1:50)

DEVELOPMENT LENGTH (ld)		
Grade of Steel,fy	Grade of Concrete,fck	In tension
500	20	57Ø
	25	49Ø



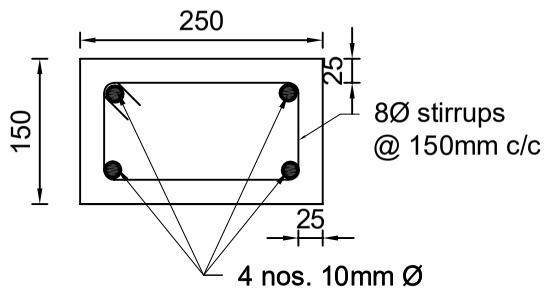
Section Plan at B-B

NOTES:

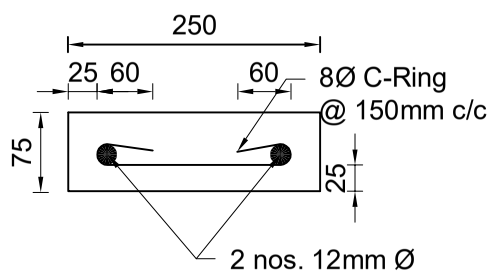
1. L_{dh} = HORIZONTAL DEVELOPMENT LENGTH,
   L_d = DEVELOPMENT LENGTH, LAP LENGTH

2. "TOP" BARS ARE HORIZONTAL WITH MORE THAN 300mm [12"] OF FRESH CONCRETE CAST BELOW BARS. ALL OTHER BARS ARE "BOT" BARS.

3. SPLICE LENGTHS SHOWN ARE FOR CLEAR SPACING NOT LESS THAN 2Ø, CONCRETE COVER NOT LESS THAN Ø.
4. ALL THE REINFORCEMENT DETAILING SHALL COMPLY WITH THE REQUIREMENT OF IS 13920:2016 (DUCTILE DETAILING OF REINFORCED CONCRETE STRUCTURES SUBJECTED TO SEISMIC FORCES-CODE FOR PRACTICE)



Lintel Beam
SECTION AT C-C
SCALE = 1:10



Sill Beam
SECTION AT A-A
SCALE = 1:10

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PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 04

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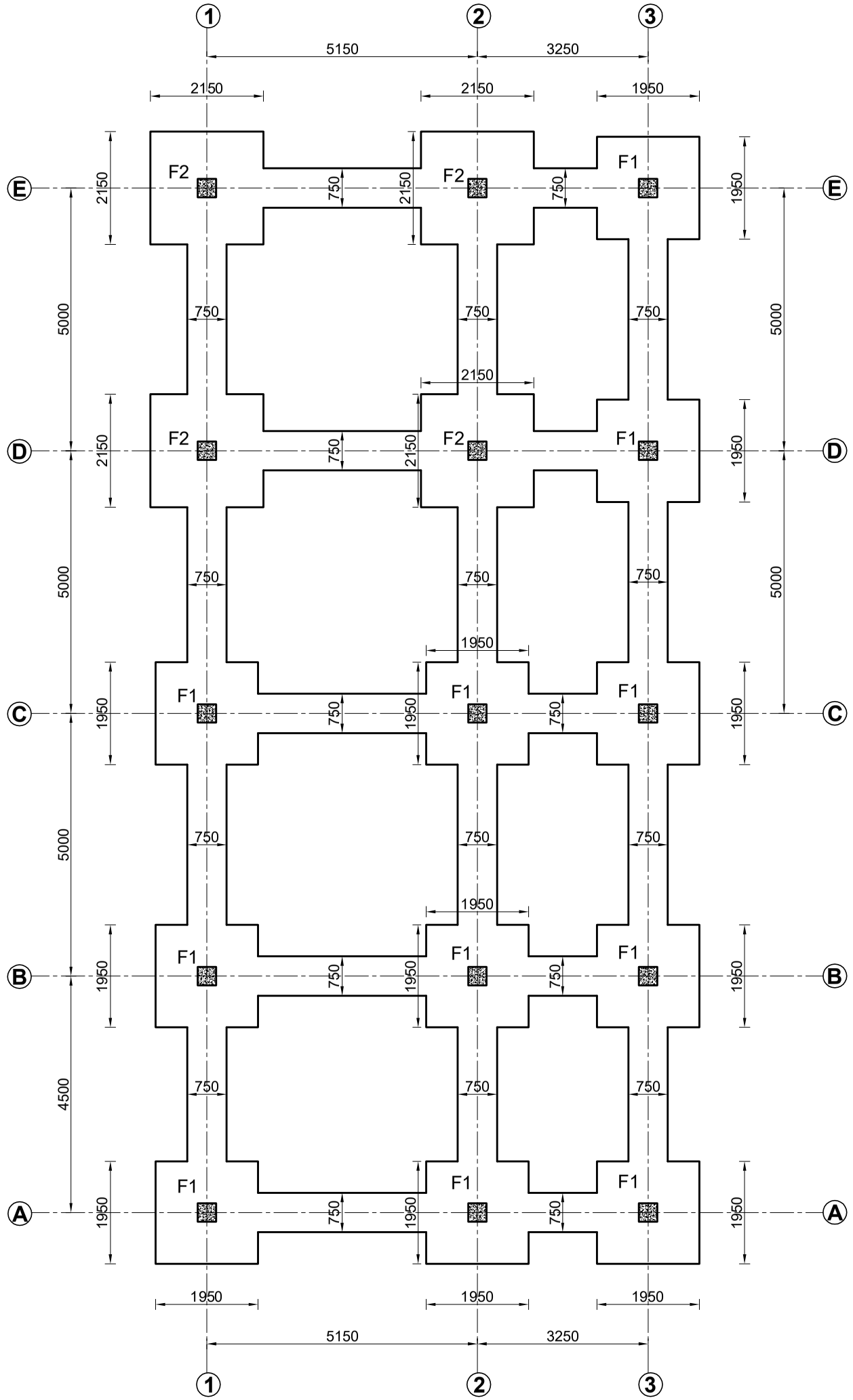

NOTE:

CONCRETE GRADE = M20
REBAR GRADE = Fe 500 (TMT)

TRENCH LAYOUT PLAN
(SCALE 1:100)

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PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 05

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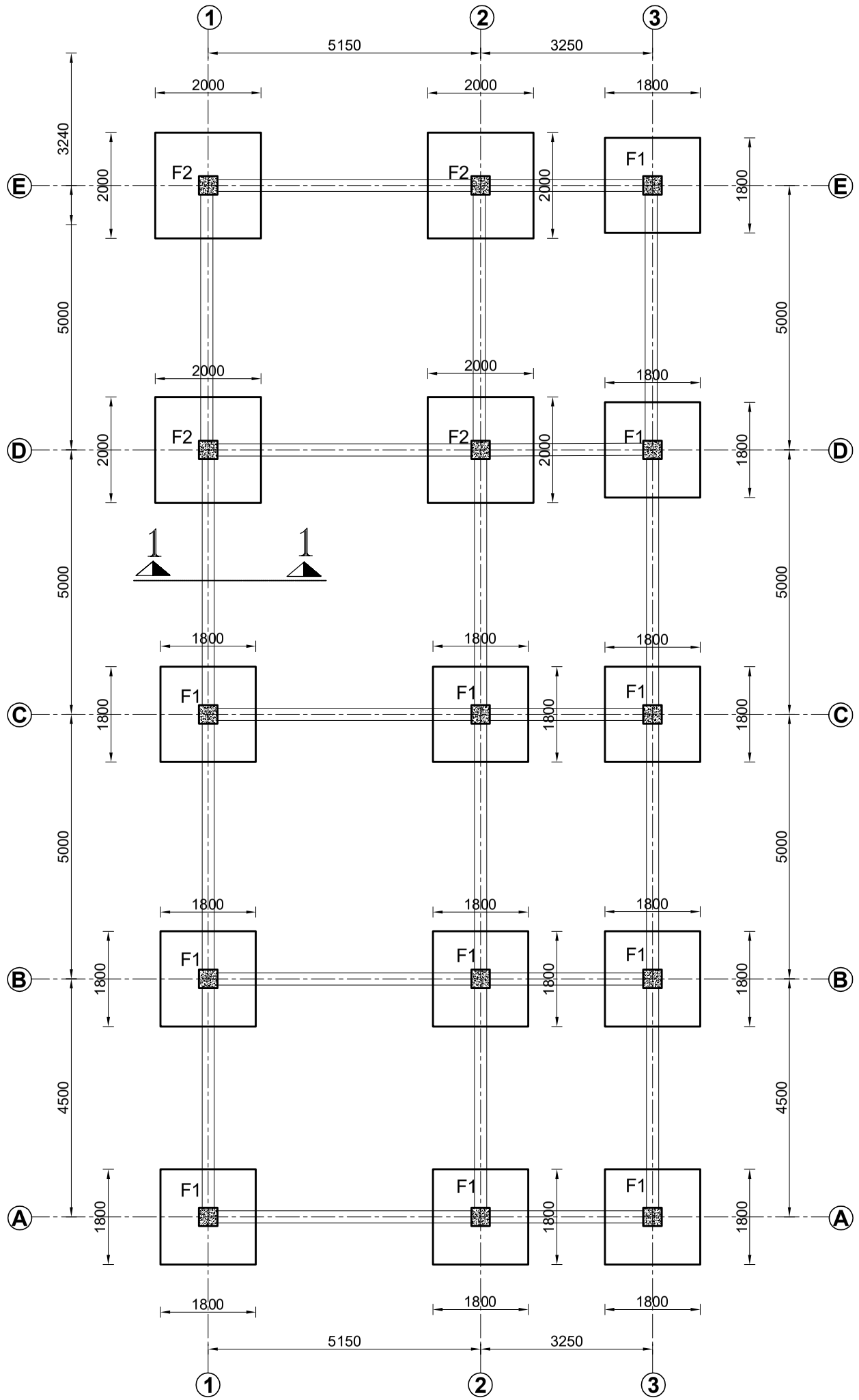
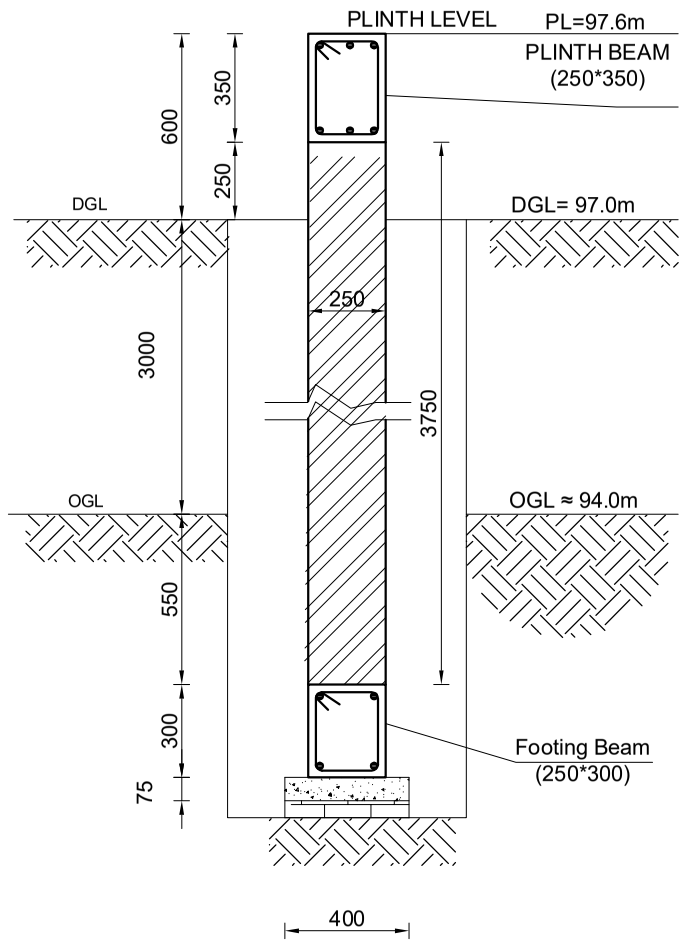
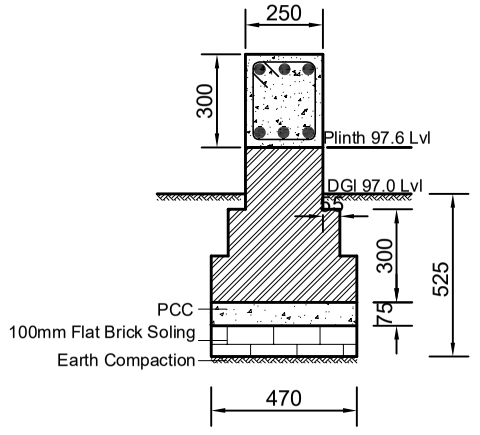


FOOTING LAYOUT PLAN
(SCALE 1:100)

NOTE:
CONCRETE GRADE = M20
REBAR GRADE = Fe 500 (TMT)



TOE WALL UNDER PLINTH BEAM
Section 1-1
(Scale 1:25)



TOE WALL UNDER SECONDARY BEAM
Section 2-2
(Scale 1:25)

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Footing Layout Plan
STAFF BLOCK

SITE INFORMATION:

NAME: Bus Terminal

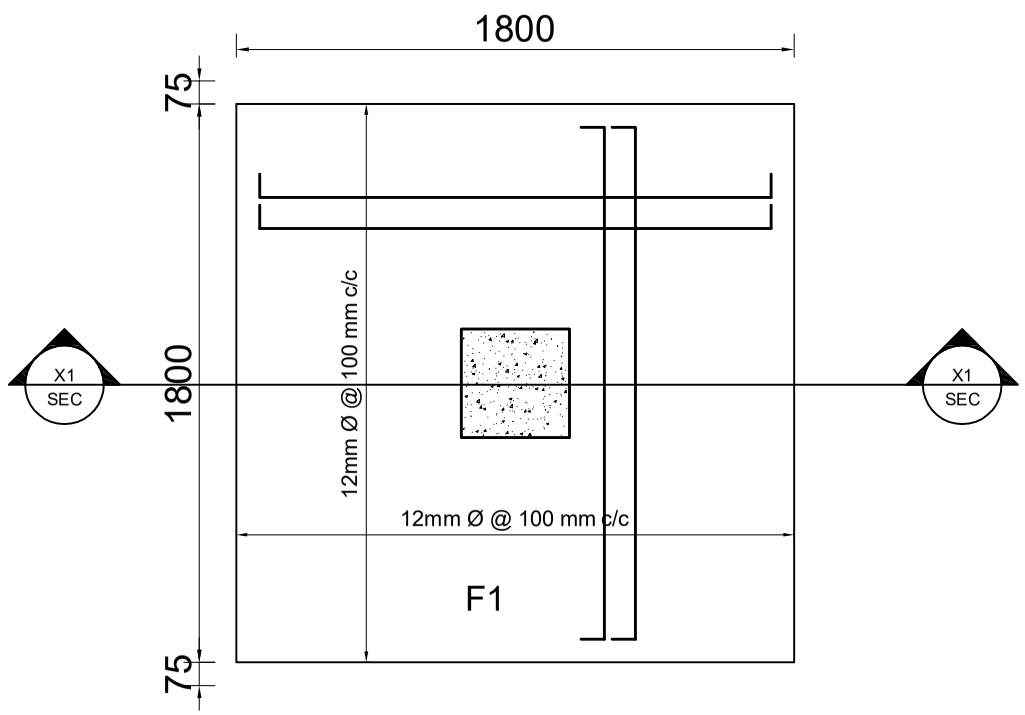
AREA:

LOCATION: Lumbini Sanskritik Municipality

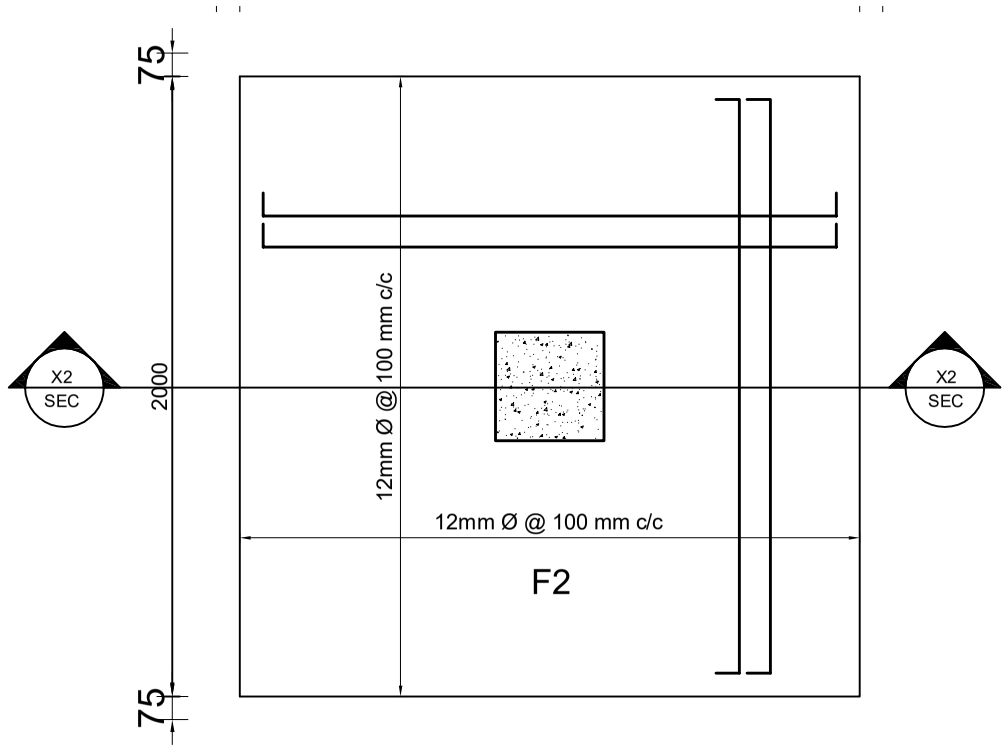
CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 06

CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

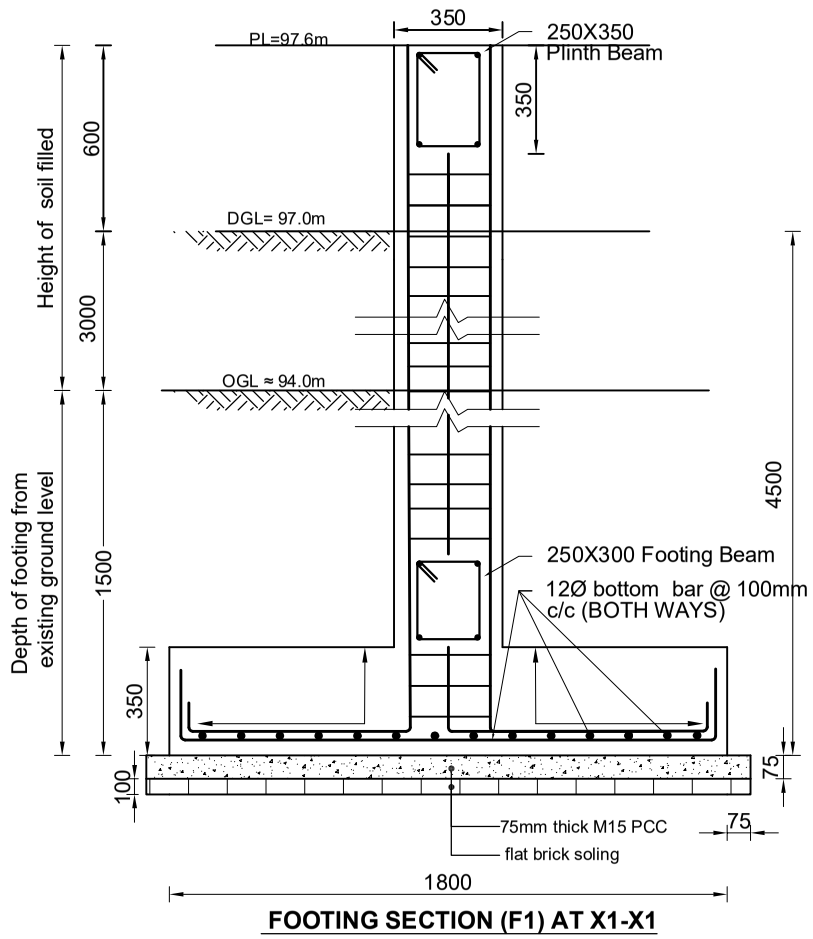
REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV



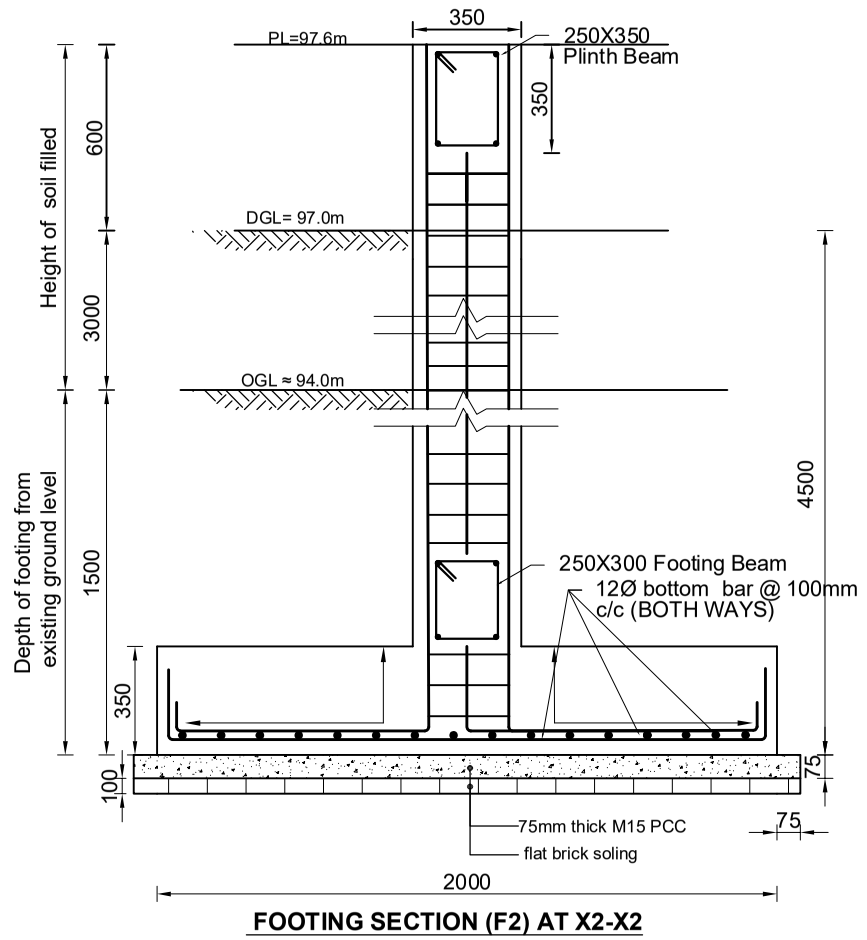
FOOTING PLAN (F1)
(SCALE 1:25)



FOOTING PLAN (F2)
(SCALE 1:25)



FOOTING SECTION (F1) AT X1-X1
(SCALE 1:25)



FOOTING SECTION (F2) AT X2-X2
(SCALE 1:25)

NOTE:
CONCRETE GRADE = M20
REBAR GRADE = Fe 500 (TMT)

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Footing Details
STAFF BLOCK

SITE INFORMATION:

NAME: Bus Terminal

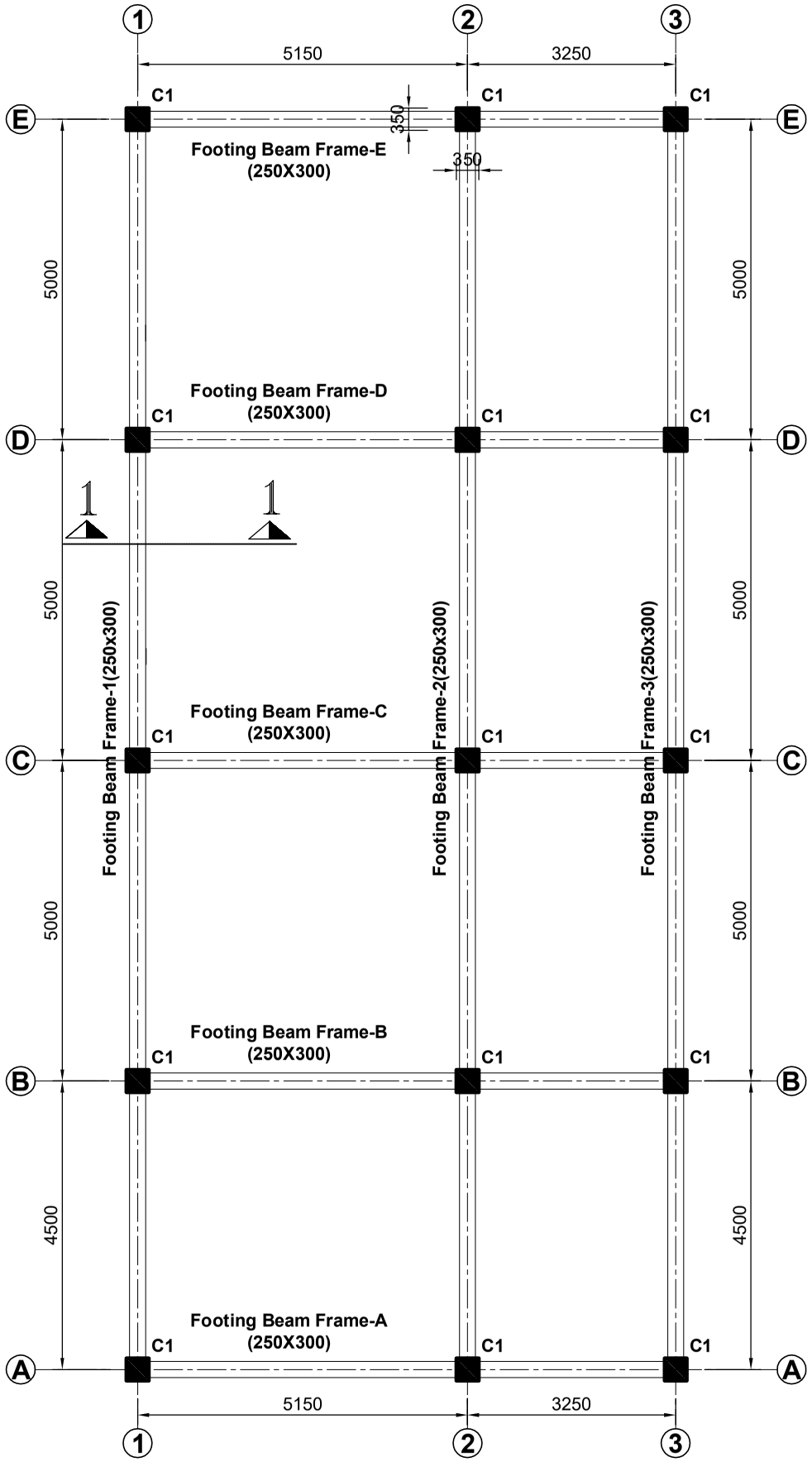
AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 07

CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd., and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV

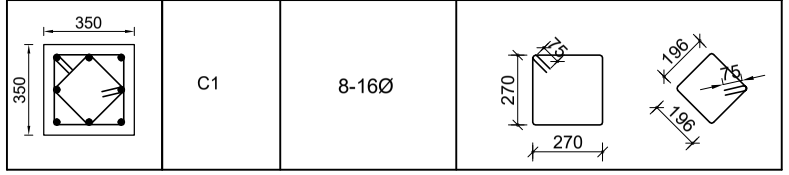


FOOTING BEAM AND COLUMN LAYOUT PLAN

(SCALE 1:100)

NOTE:

CONCRETE GRADE = M20
REBAR GRADE = Fe 500 (TMT)

CONCRETE GRADE = M20		STEEL = (Fe500)	TYPES OF STIRRUPS
POSITION OF BAR	COLUMN NAME	GROUND FLOOR	10 mm Ø Bar @ 100 mm c/c Full height
	C1	8-16Ø	

COLUMN SIZE & LONGITUDINAL STEEL

(Scale1:25)

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

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ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Footing Beam and Column Layout Plan
STAFF BLOCK

SITE INFORMATION:

NAME: Bus Terminal

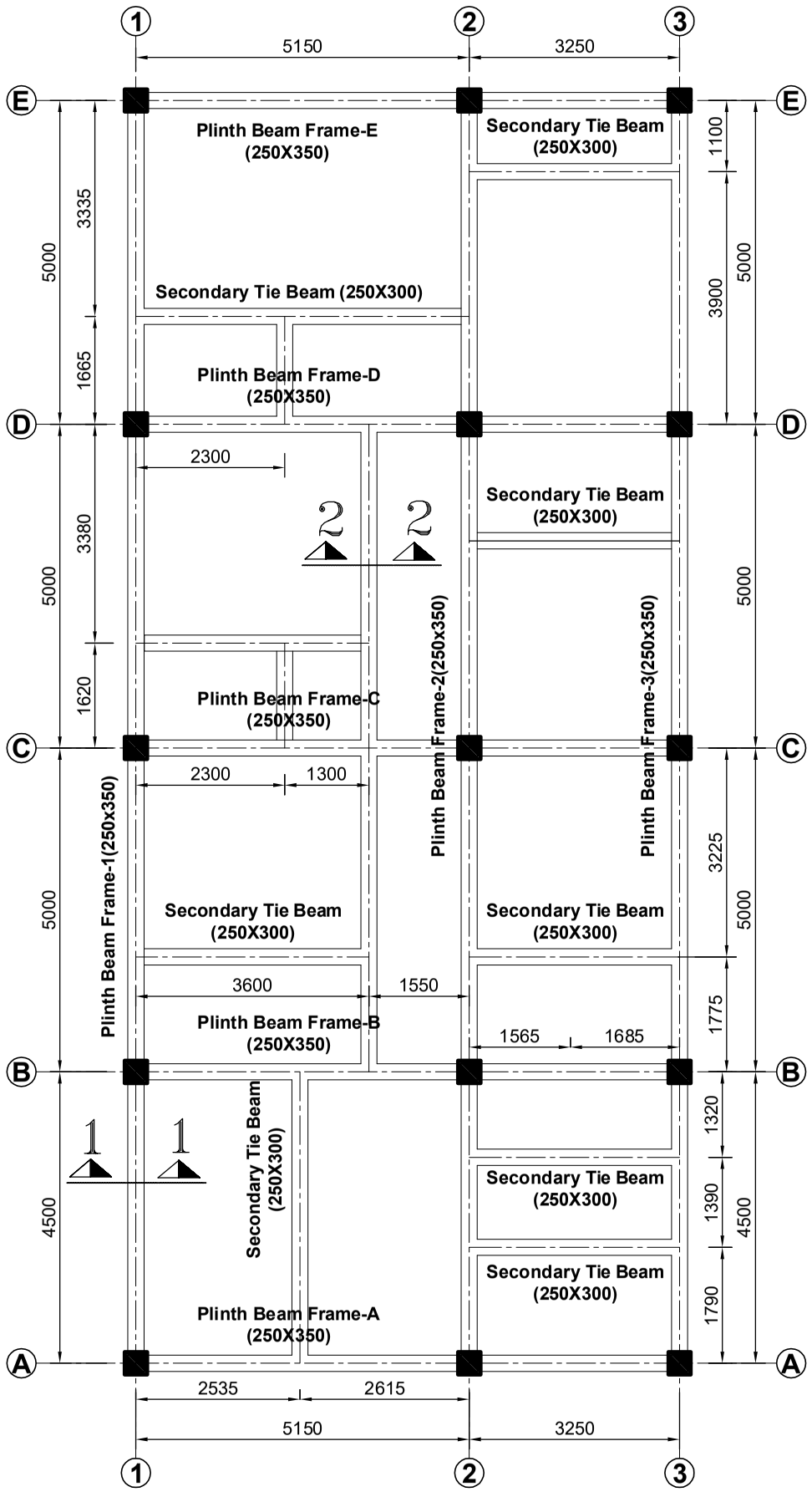
AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: **Er. Ajay Shrestha**	
Designed By: **Er. Enu Rai 17819 Civil "A"** **Er. Arbind Yadav**	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 08

CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV

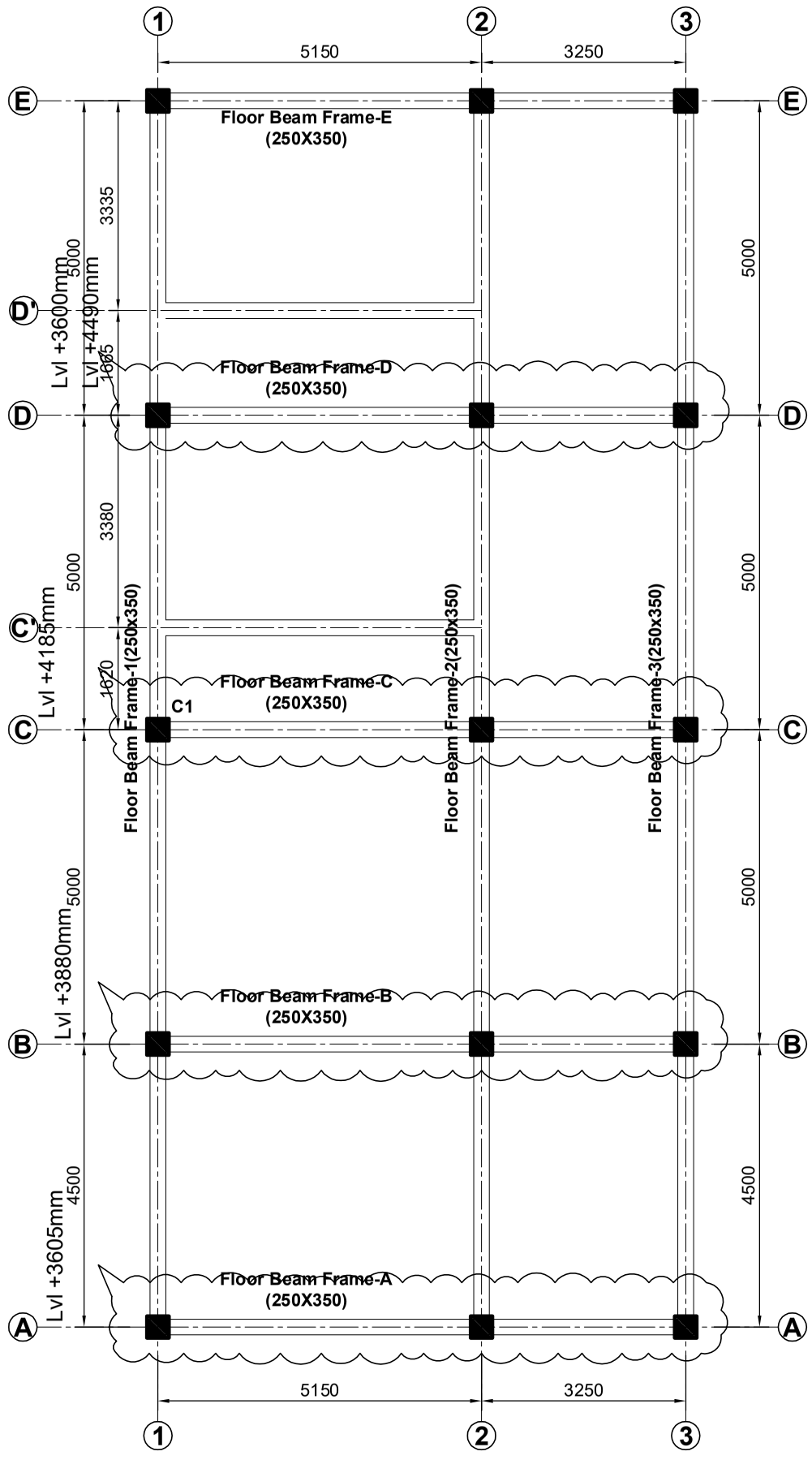


PLINTH BEAM PLAN SHOWING SECONDARY TIE BEAM

(SCALE 1:100)

NOTE:

CONCRETE GRADE = M20
REBAR GRADE = Fe 500 (TMT)



ROOF BEAM PLAN

(SCALE 1:100)

NOTE

1- All Secondary Tie Beam 250X350

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Plinth Beam and Roof Beam Plan
STAFF BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	Approved By:
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 09

CONSULTANT:
DOHWA Engineering Co. Ltd.
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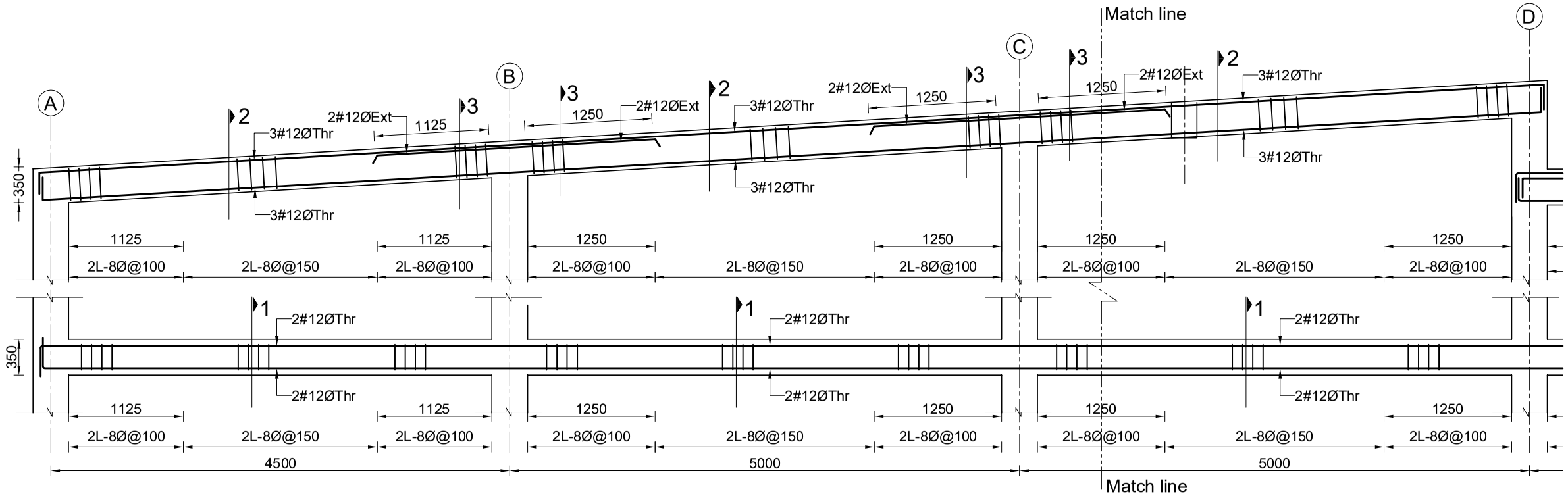
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

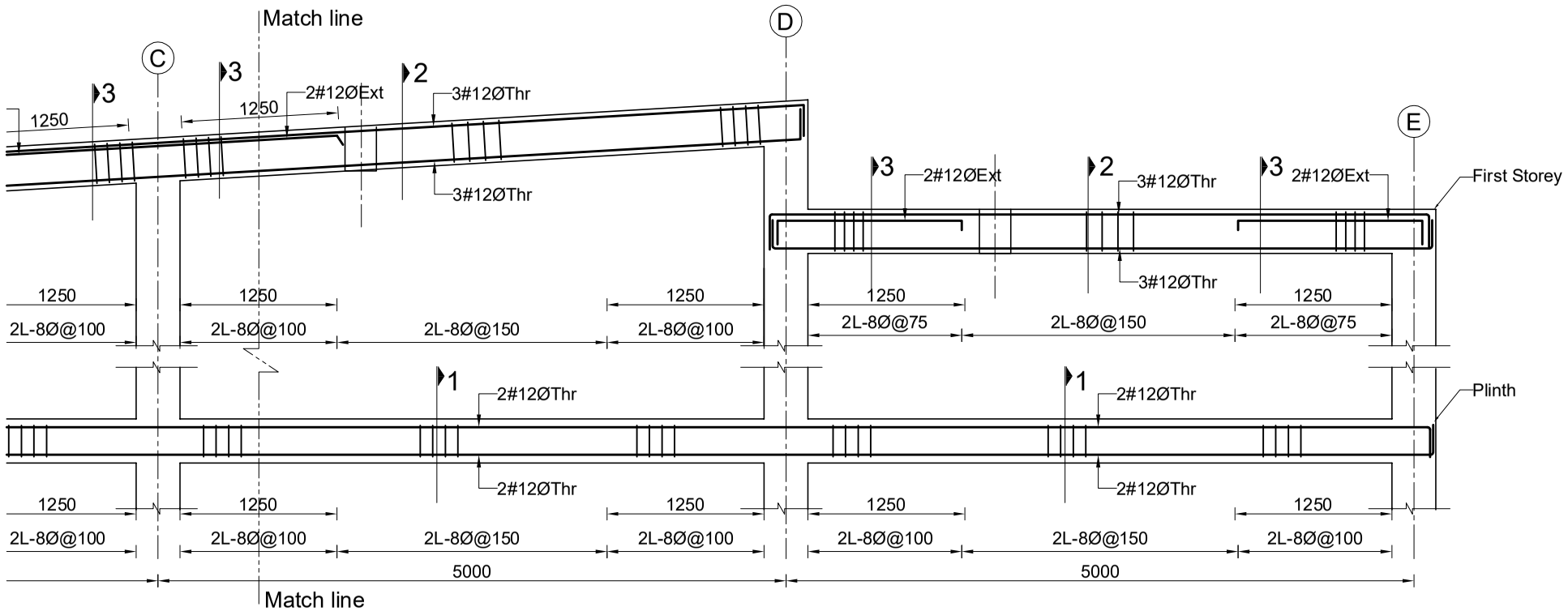
REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV

NOTE:
CONCRETE GRADE = M20
REBAR GRADE = Fe 500 (TMT)



L-SECTION ALONG GRID AT (1-1)

(SCALE 1:50)



L-SECTION ALONG GRID AT (1-1)

(SCALE 1:50)

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: L-Section Beam Details
STAFF BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

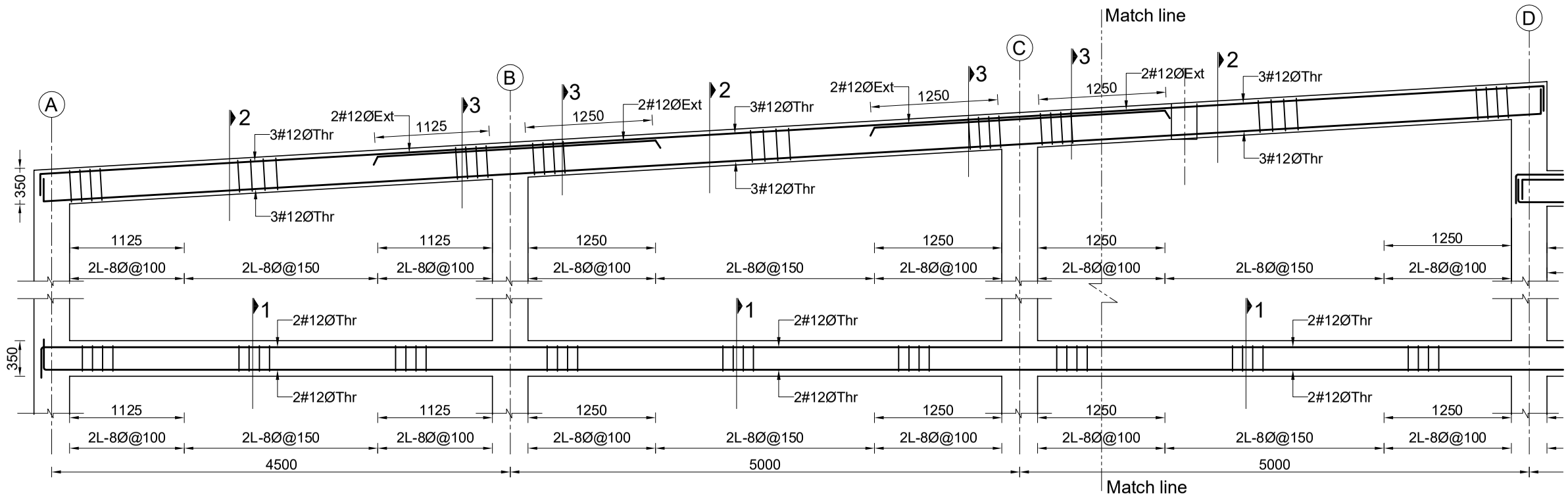
LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 10

CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

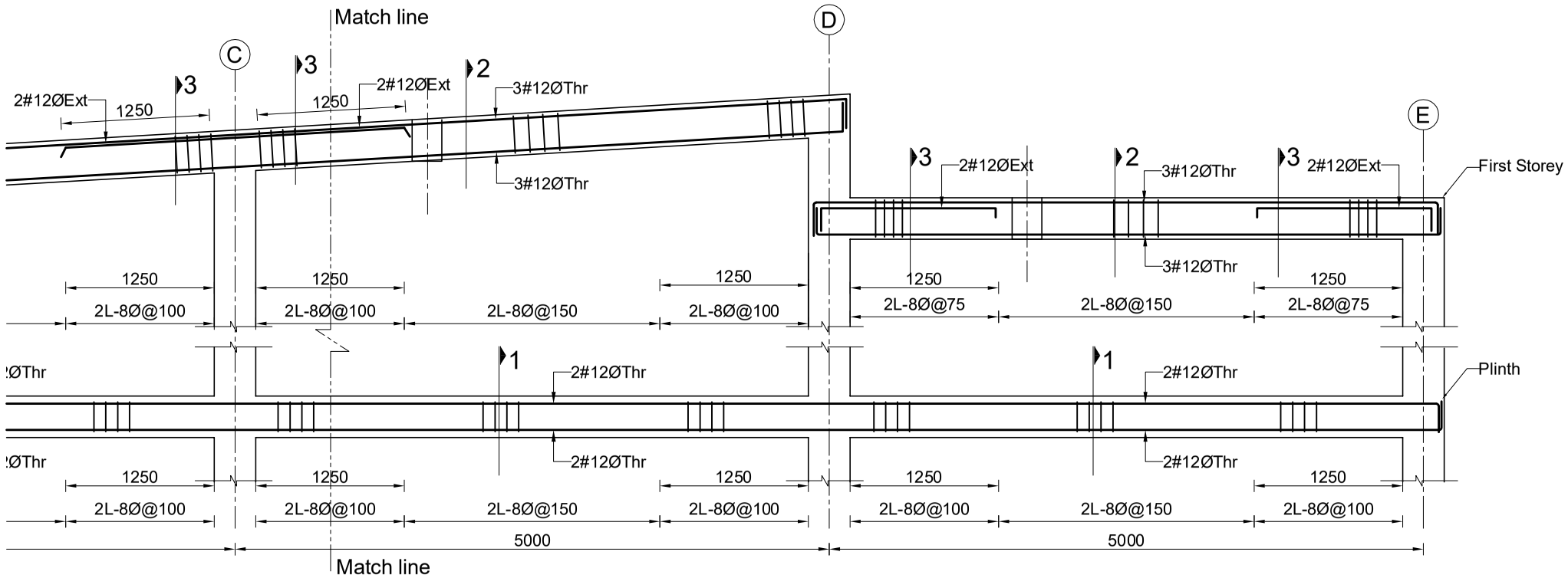
REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV

NOTE:
CONCRETE GRADE = M20
REBAR GRADE = Fe 500 (TMT)



L-SECTION ALONG GRID AT (2-2) AND (3-3)

(SCALE 1:50)



L-SECTION ALONG GRID AT (2-2) AND (3-3)

(SCALE 1:50)

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: L-Section Beam Details
STAFF BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

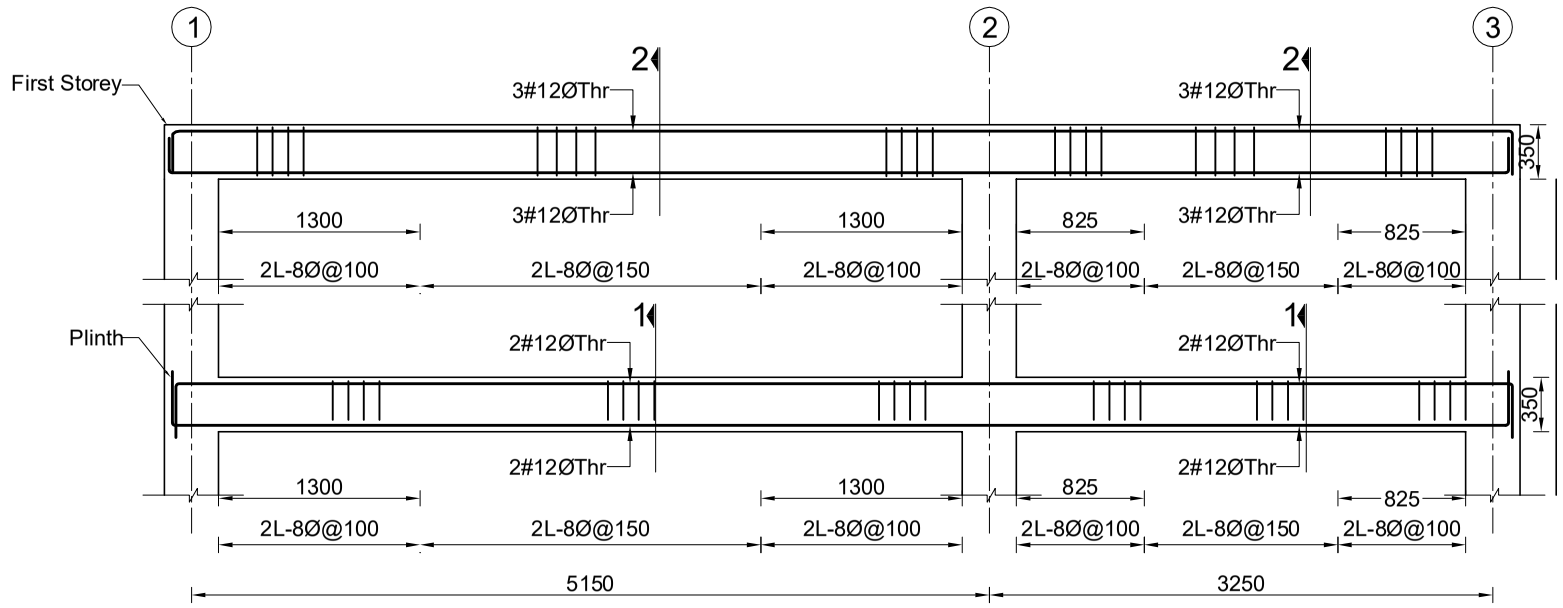
CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 11

CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV

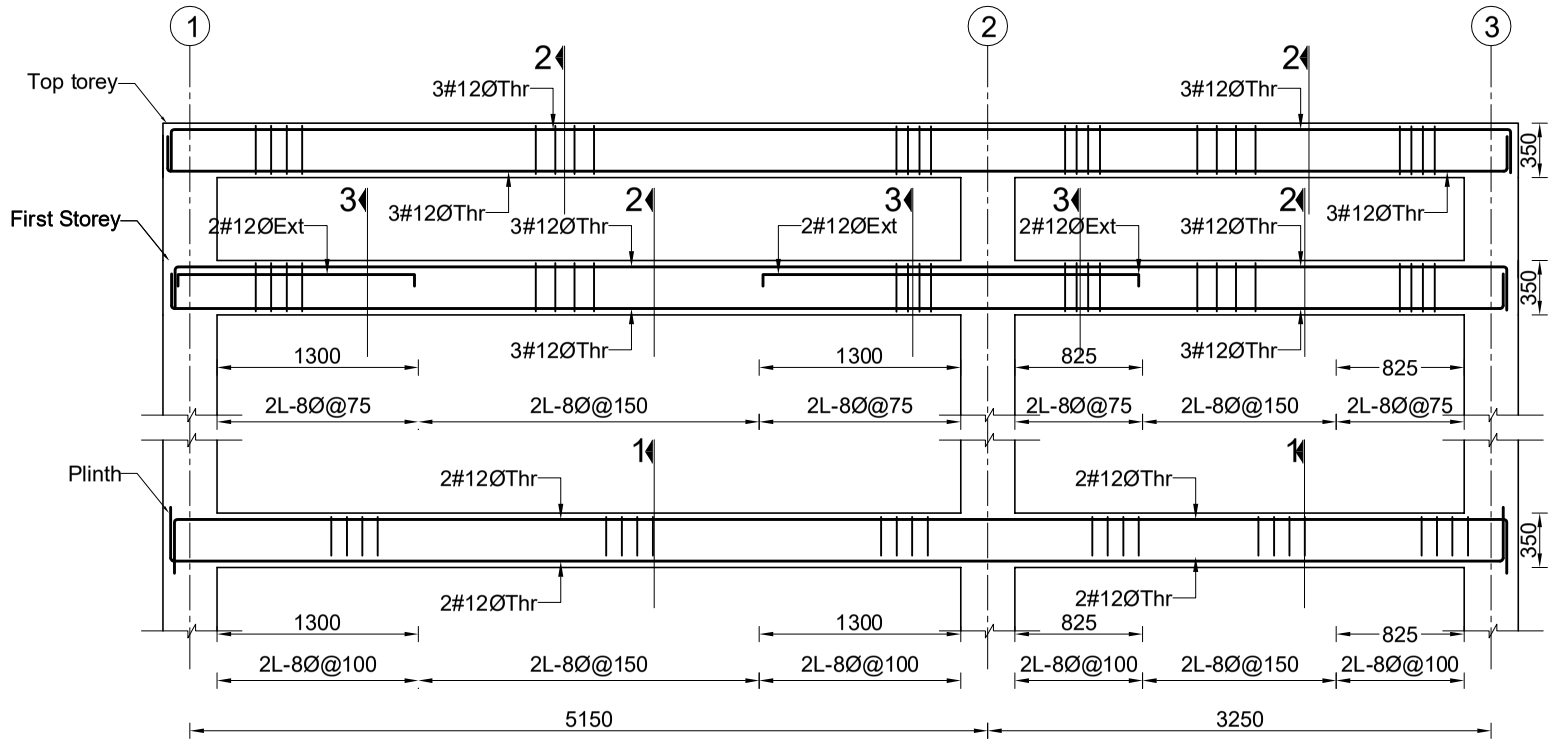
NOTE:

CONCRETE GRADE = M20
REBAR GRADE = Fe 500 (TMT)



L-SECTION ALONG GRID AT (A-A) ,(B-B)AND (C-C)

(SCALE 1:50)



L-SECTION ALONG GRID AT (D-D)

(SCALE 1:50)

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: L-Section Beam Details
STAFF BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 12

CONSULTANT:
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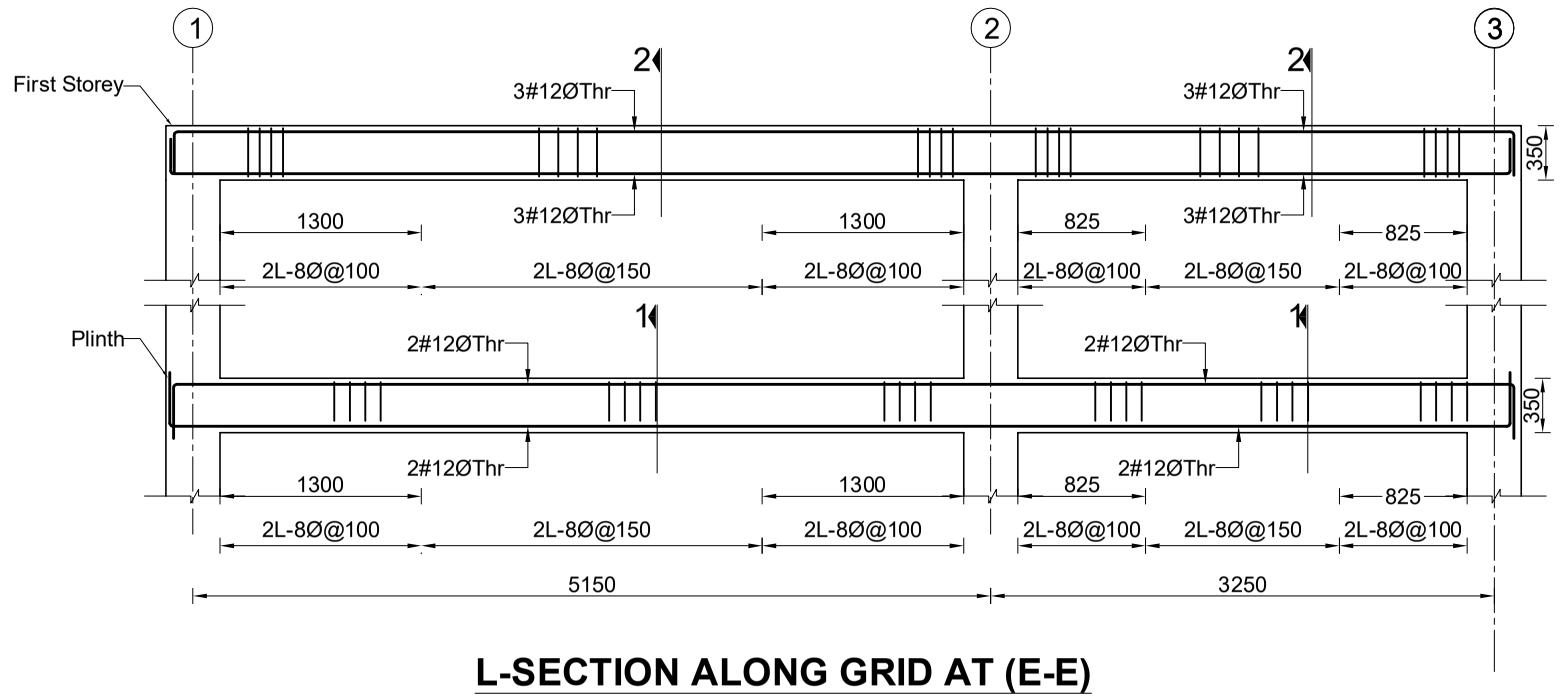
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV

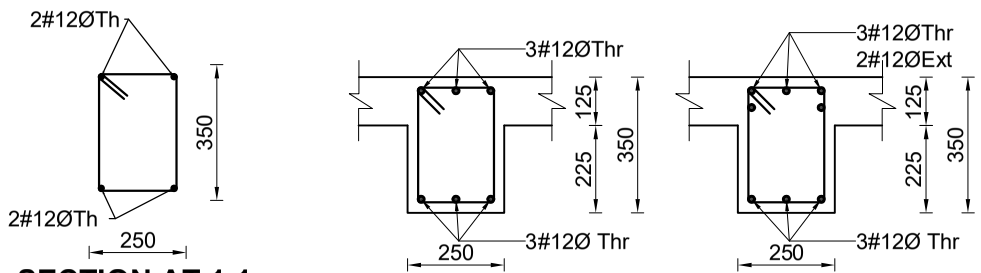
NOTE:

CONCRETE GRADE = M20
REBAR GRADE = Fe 500 (TMT)



L-SECTION ALONG GRID AT (E-E)

(SCALE 1:50)



SECTION AT 1-1

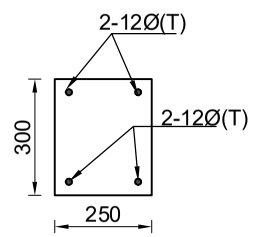
(Scale 1:20)

SECTION AT 2-2

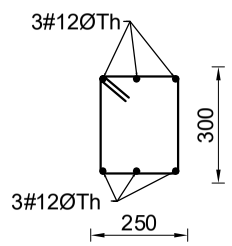
(Scale 1:20)

SECTION AT 3-3

(Scale 1:20)



Secondary Plinth beam Section
stirrup 8Ø@ 100 at ends & 8Ø@ 150 at mid.
Scale 1:20



FOOTING BEAM SECTION

(Scale 1:20)

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: L-Section and X-Sectional Beam Details
STAFF BLOCK

SITE INFORMATION:

NAME: Bus Terminal

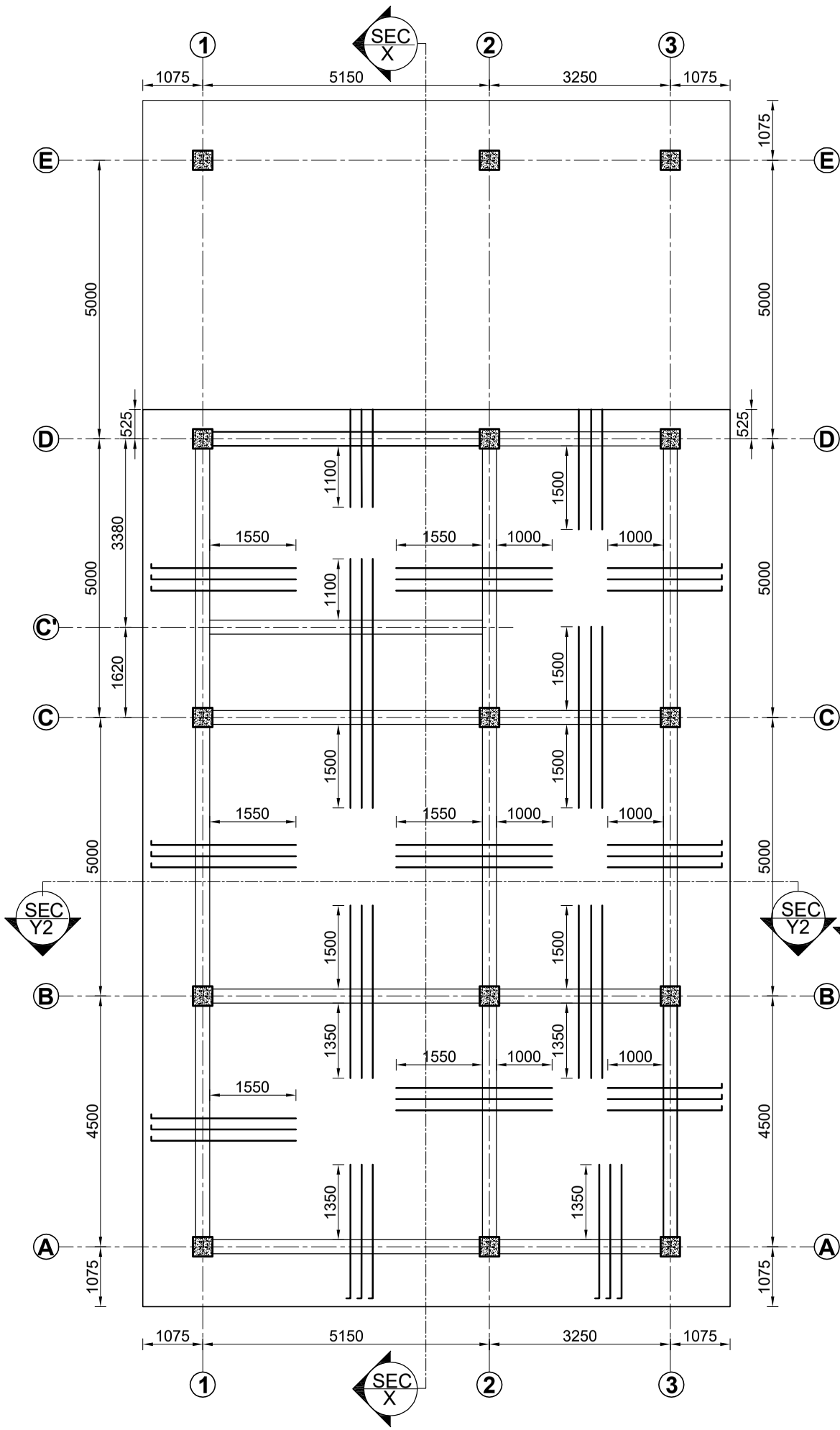
AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: **Er. Ajay Shrestha**	
Designed By: **Er. Enu Rai 17819 Civil "A"** **Er. Arbind Yadav**	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 13

CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

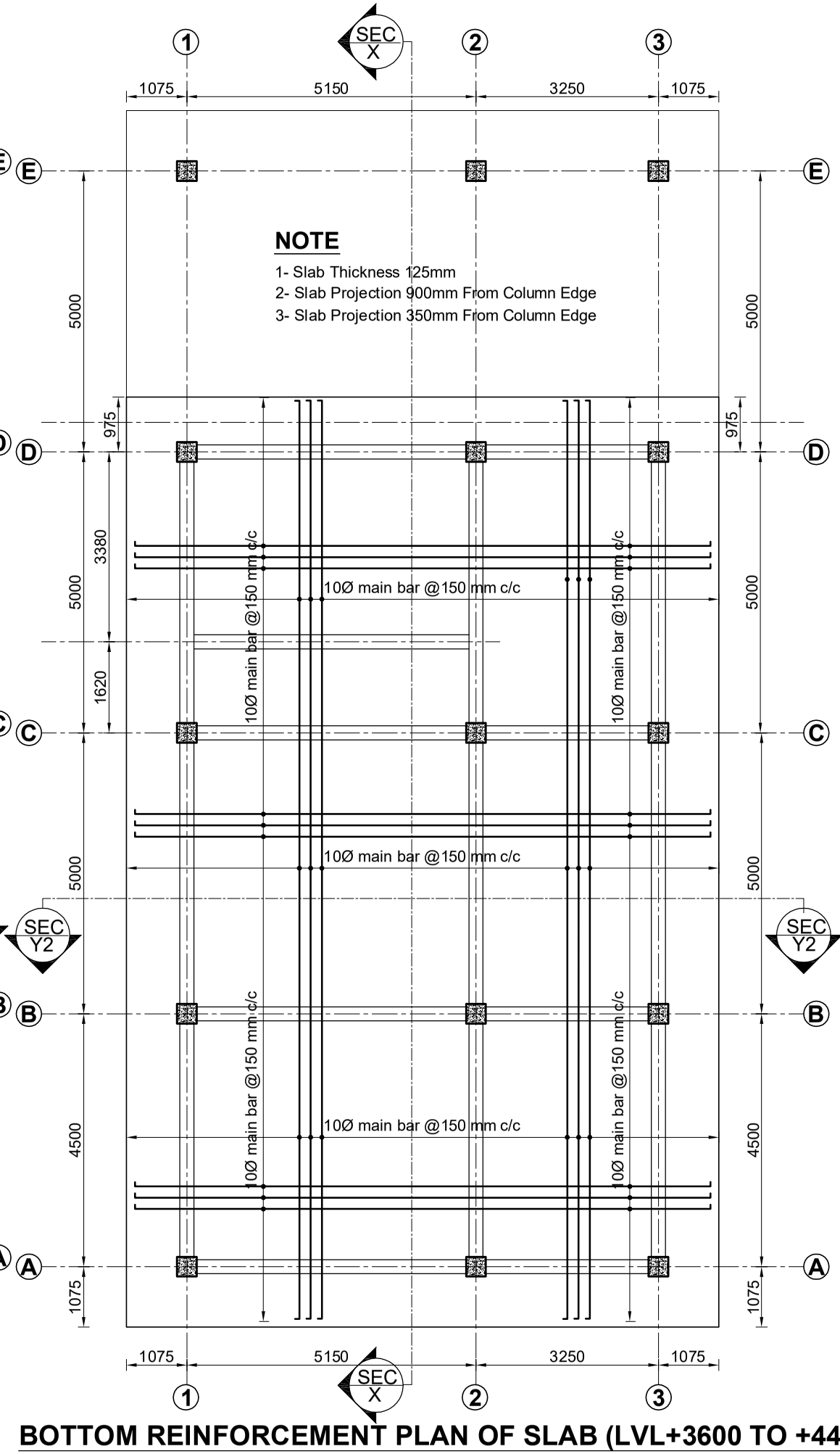
REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV



TOP EXTRA REINFORCEMENT PLAN OF SLAB (LVL+3600 TO +4490)

8Ø BAR @ 125 mm C/C

(SCALE 1:100)



NOTE

1- Slab Thickness 125mm
2- Slab Projection 900mm From Column Edge
3- Slab Projection 350mm From Column Edge

BOTTOM REINFORCEMENT PLAN OF SLAB (LVL+3600 TO +4490)

8Ø BAR @ 125 mm C/C BOTH DIRECTION

(SCALE 1:100)

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Slab Reinforcement Plan
STAFF BLOCK

SITE INFORMATION:

NAME: Bus Terminal

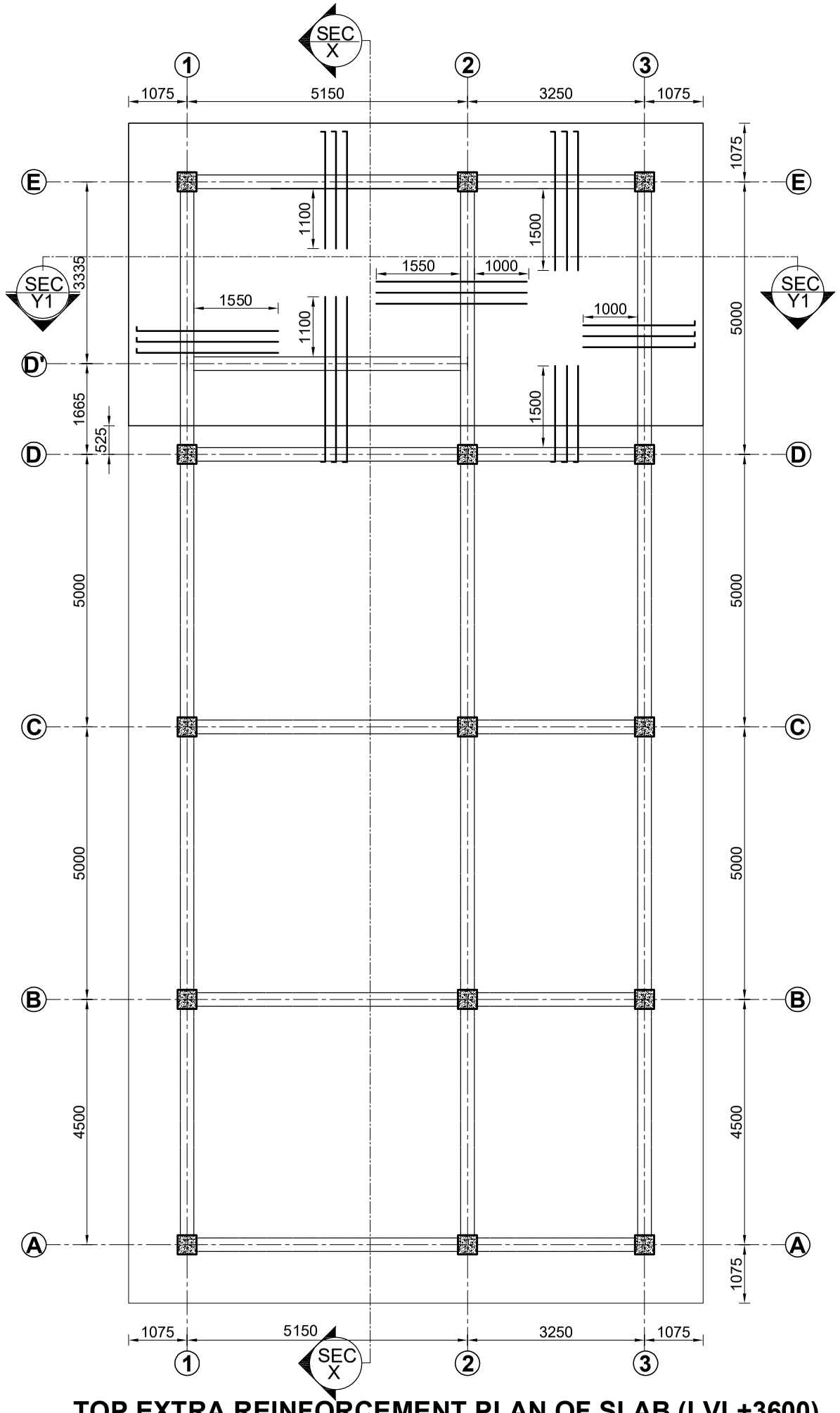
AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	Approved By:
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 14

CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

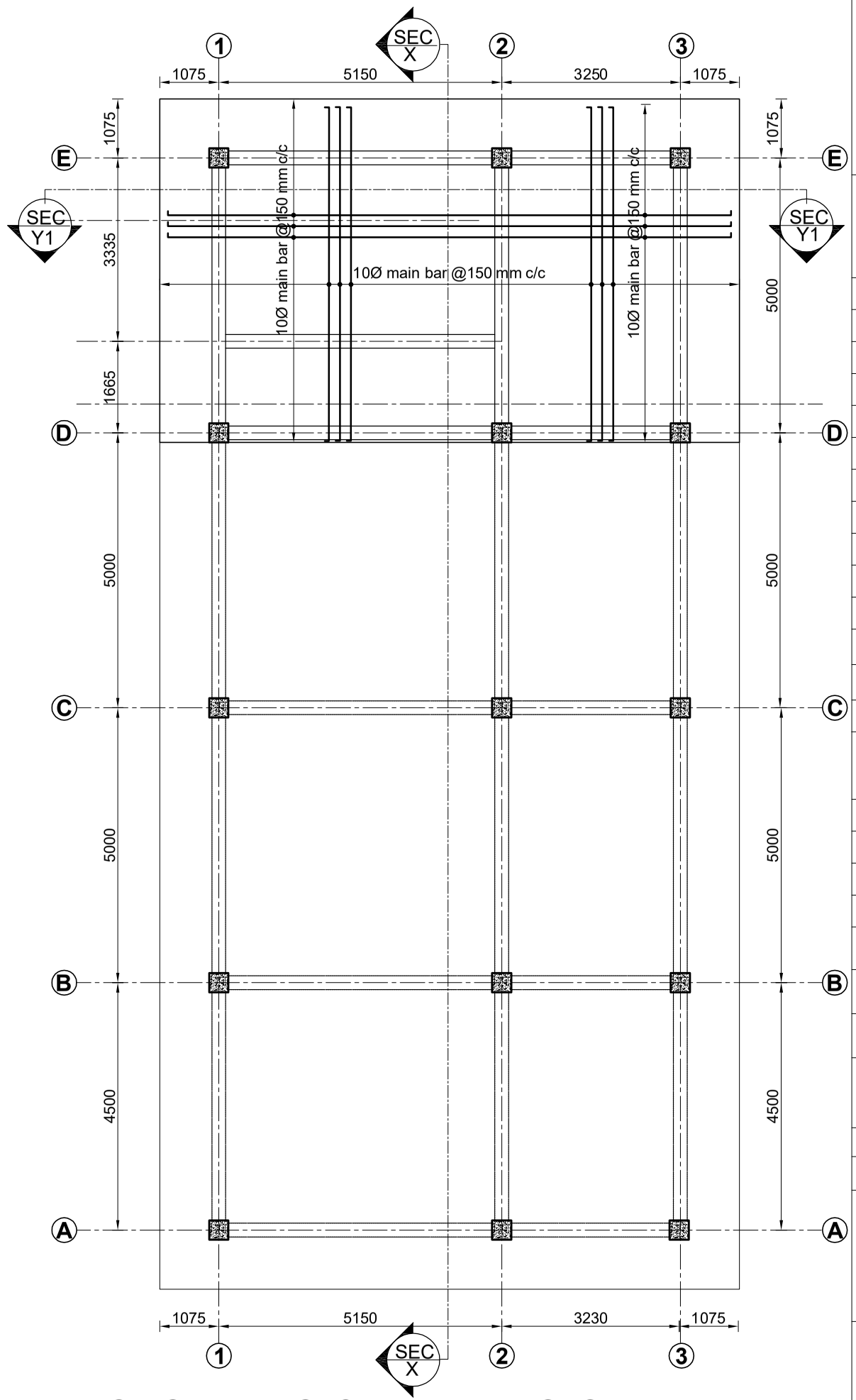
REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV



TOP EXTRA REINFORCEMENT PLAN OF SLAB (LVL+3600)

8Ø BAR @ 125 mm C/C

(SCALE 1:100)



BOTTOM REINFORCEMENT PLAN OF SLAB (LVL+3600)

8Ø BAR @ 125 mm C/C BOTH DIRECTION

(SCALE 1:100)

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

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ISSUES & REVISIONS

NO	DATE	REVISION
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2	14th JAN 2026	2nd

SHEET TITLE: Slab Reinforcement Plan
STAFF BLOCK

SITE INFORMATION:

NAME: Bus Terminal

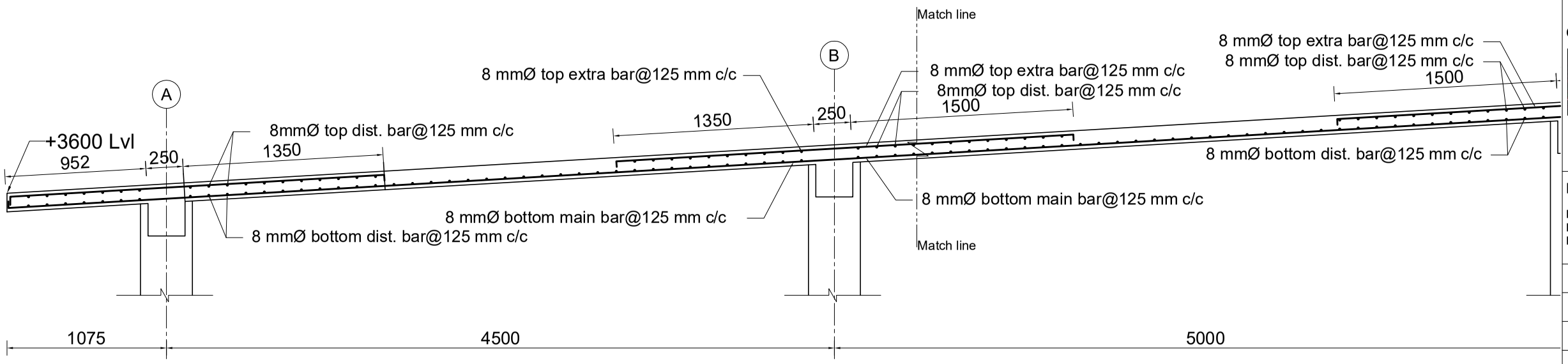
AREA:

LOCATION: Lumbini Sanskritik Municipality

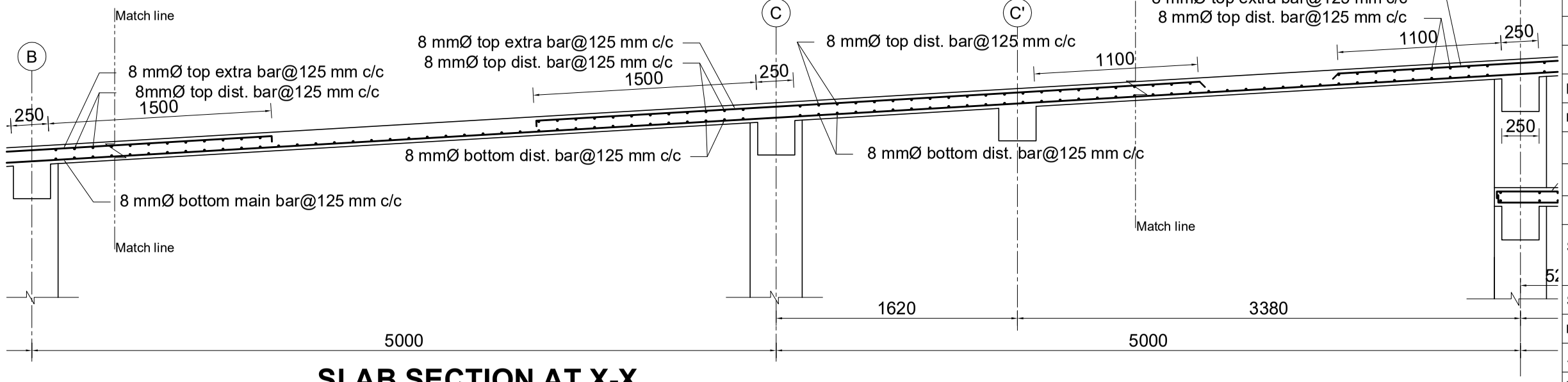
CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 15

CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV



SLAB SECTION AT X-X



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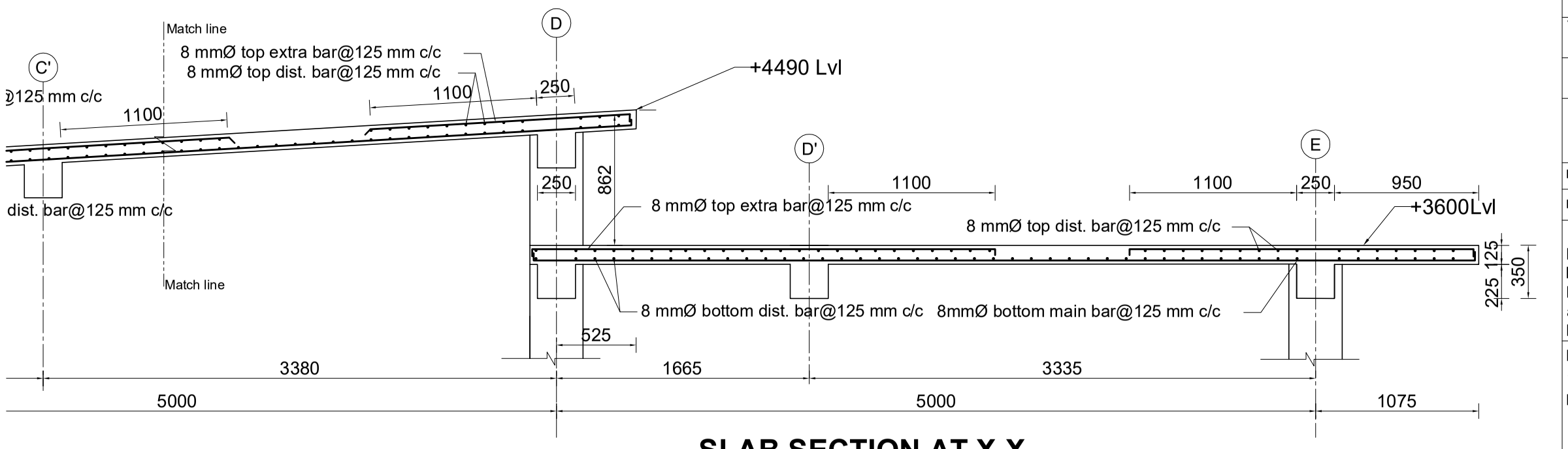

SLAB SECTION AT X-X

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Slab Section Details
STAFF BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
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PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 16

CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
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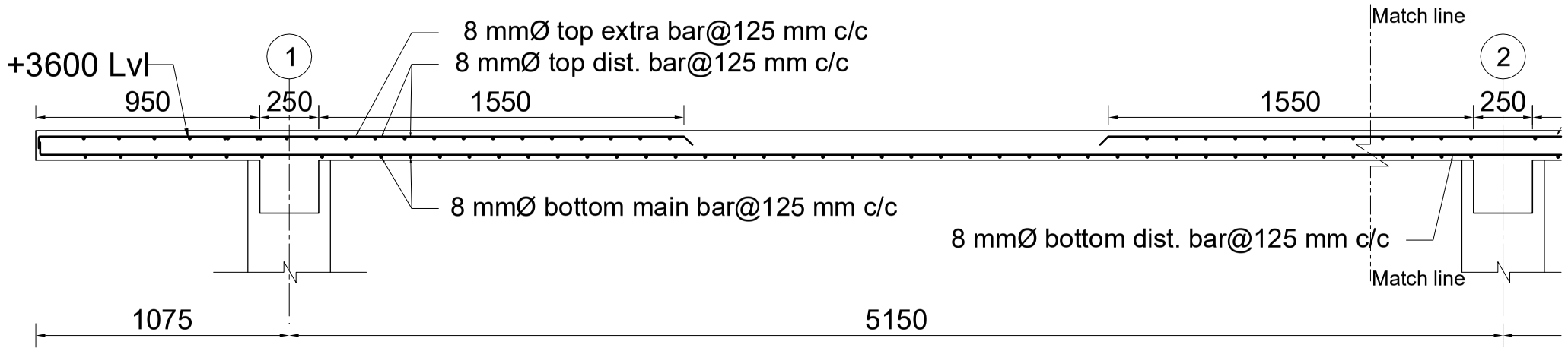
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV

NOTE:
CONCRETE GRADE = M20
REBAR GRADE = Fe 500 (TMT)



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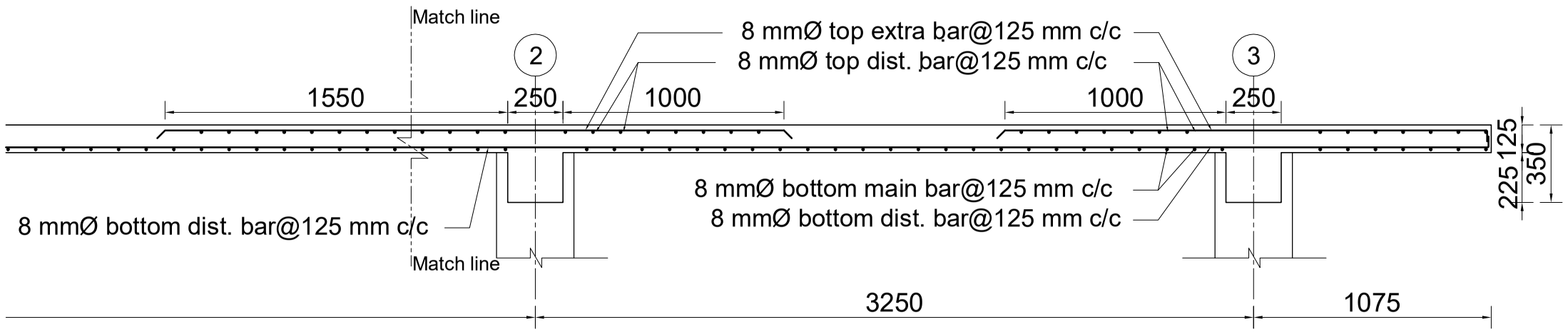
(SCALE 1:25)



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Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
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PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 17

CONSULTANT:
DOHWA Engineering Co. Ltd.
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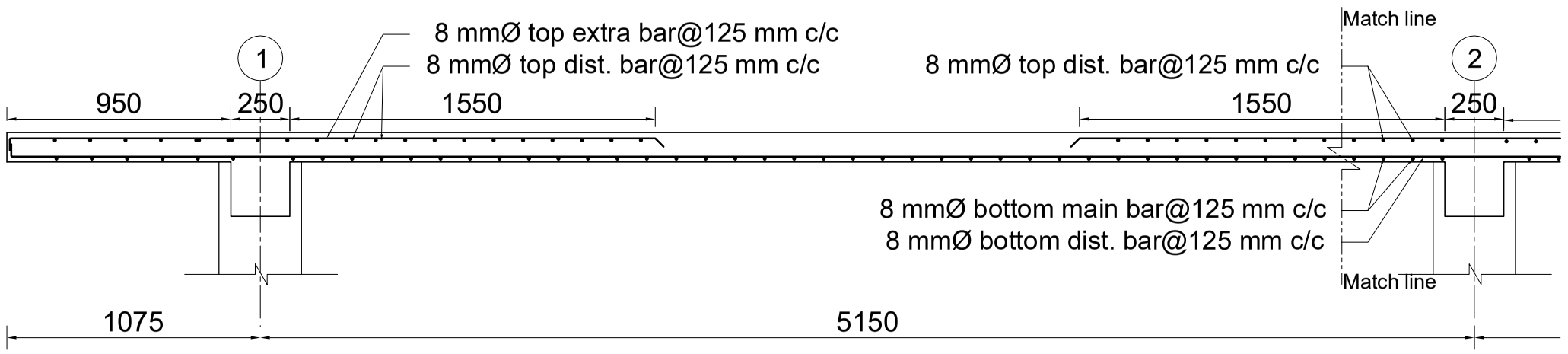

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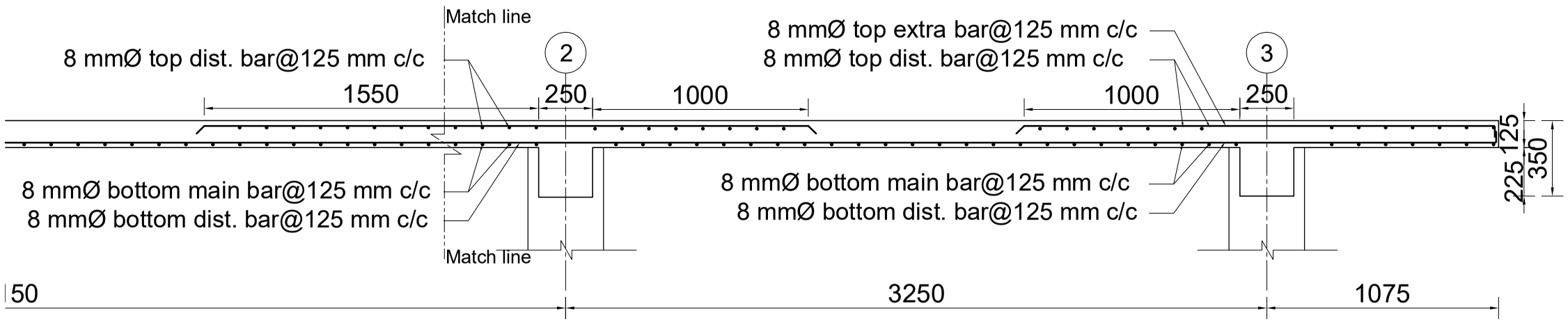

SLAB SECTION AT Y2-Y2
(SCALE 1:50)

CLIENT:

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Regional Urban Development Project (RUDP)
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SHEET TITLE: Slab Section Details
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Team Leader:	**Approved By:**
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PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 18

CONSULTANT:
DOHWA Engineering Co. Ltd.
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ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
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Government of Nepal
Ministry of Urban Development
Department of Urban Development and Building Construction
Regional Urban Development Project
Project Coordination Office
Babarmahal, Kathmandu

STRUCTURAL DRAWINGS of STORAGE BLOCK

LUMBINI SANSKRITIK MUNICIPALITY

Structural Drawing

Name of Sheet	Sheet Number
STORAGE BLOCK	
Cover Page	C0
Table of Contents	00
General Notes-1	01
General Notes-2	02
Typical Drawing-1	03
Typical Drawing-2	04
Footing Layout Plan	05
Footing Details	06
Beam and Column Layout Plan	07
L-Section and X-Sectional Details of Beam	08
Slab Reinforcement Plan	09
Slab Details	10

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SHEET TITLE: Table of Contents
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PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 00

CONSULTANT:
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GENERAL NOTES

GENERAL

1. General notes and typical structural details shall apply to all drawings unless otherwise shown or noted.
2. All works to be carried out in accordance with current practice, structure regulation, project specification,Nepalese Code and relevant Indian Standard and Codes of Practice. Materials and components to be appropriate for their intended use.
3. The contractor shall be responsible for verifying the dimensions on site and ensuring that all the dimensions and levels shown on the drawings are correct and consistent with other relevant drawings. Any discrepancies are to be reported immediately to Engineer
4. During construction, the contractor shall be responsible for maintain the structure in a stable condition and ensuring no par shall be damaged under construction activities.
5. Workmanship and materials are to be in accordance with the relevant Indian Standards.
6. The Engineer shall accept no responsibility for the works unless they are inspected and approved by the Engineer during the Construction. At least 48hours notice shall be provided for all engineering inspections.
7. Any damage to the surface during construction/erection is to be made good.
8. Before commencing the structural steel works, the shop drawings shall be provided to the Engineer.

DESIGN CRITERIA

1. LOADS

1.1. DEAD LOADS

Unit Weight of PCC = 24 kN/m^3

Unit Weight of RCC = 25 kN/m^3

Unit Weight of Steel (Rebar) = 78.5 kN/m^3

Unit Weight of Brick = 19 kN/m^3

1.2. LIVE LOADS

Roof Live Load = 1.5 kN/m^2

Staircase and Passage Live Load = 4 kN/m^2

Rooms =2kN/m^2 / 3 kN/m^2

1.3. SEISMIC LOAD

Code Followed = NBC 105:2020

Soil Type = C Type

Seismic Zoning Factor = 0.35

Importance Factor = 1.0

Over Strength Factor = 1.5 For ULS

Ductility Factor = 4.0 For ULS

Type of Structural System = RC Moment Resisting Frame System

1.4. SOIL PROPERTIES

Unit Weight of Soil = 19 kN/m^3

Bearing Capacity of Soil = 120 kN/m^2 (Geotechnical Report)

2. DESIGN AND CODE REFERENCE

Following references shall govern the design, fabrication and construction of project.

- IS 875(part I) Code of practice for design loads (dead) for buildings and structures.
- IS 875 (part II) Code of practice for design loads (live) for buildings and structures.
- IS 875 (part III) Code of practice for design loads (lwind) for buildings and structures.
- NBC 105:2020 Seismic Design of Building in Nepal
- IS 13920:2016 Ductile Design and Detailing of Reinforced Concrete Structures Subjected to Seismic Forces
- SP 34 Handbook on Concrete Reinforcement and Detailing

MATERIAL

1. CONCRETE

a. The cement used shall be Ordinary Portland cement conforming to IS 269:1976.

b. All RCC work shall be continuously cured by moist jute sheets or any means.

c. The concrete strength shall be measured on (150x150x150) mm^3 cube at 7,14 and 28 days for various structural elements.

d. Unless indicated otherwise on plans. the concrete class and strength shall be as follows:

Block Name: Storage Block			
SN	Structural Member	Concrete Grade	Remarks
1	Footing,	M20	
2	Tie Beam	M20	
3	RC Column	M20	
4	RC Main Beam, Slab	M20	
5	PCC	M15	

2. REINFORCING STEEL

a. Reinforcement steel shall be TMT having yield strength of 500 N/mm^2.

b. Cover to main reinforcing steel shall be in accordance with IS 456:2000.

c. Clear Cover of Concrete shall be:

Footing = 50 mm

Column = 40 mm

Beam = 25 mm

Slab = 20 mm

d. Details of reinforcing steel fabrication and placement shall conform to SP 34-1987.

e. Bar bending schedule shall be submitted for approval before the reinforcement work and contractor shall corresponds to the Engineer in case of any discrepancies.

3. STRUCTURAL STEEL BOLTS/WELD (Applicable for Steel Structure)

a. Structural steel shall have a yield strength of 250 N/mm^2.

b. Requirements of welds and welding shall conforms to IS 816 and IS9595, as appropriate.

c. The electrodes required for metal or welding shall be covered and shall conform to IS814: 1991

d. Metal Surface shall be properly cleaned

e. Nomenclature of structural steel is as per Indian Standard Steel Section.

f. Welds and welding shall be applied as per drawing.

g. Application of metal primes and finishing coat of paint shall be in accordance with IS1477:1971 (Part-I and Part-II).

h. Anchor Bolt:

- Bolt shall be of grade as per specified in the drawing if not specified 8.8 grade shall be considered.
- Bolts shall be galvanize as per IS 5358:1969 provision.
- Anchor bolts shall confirm to IS 5624:1995. As an alternate for anchor bolts of 8.8 grade threaded steel rebar of 500 N/mm^2 of length as per design shall be used.

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SHEET TITLE: General Notes-1
STORAGE BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: **Er. Ajay Shrestha**	
Designed By: **Er. Enu Rai 17819 Civil "A"** **Er. Arbind Yadav**	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 01

CONSULTANT:
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REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV

CONSTRUCTION

1. SETTING OUT

The setting out and the elevations of the different components of the structure shall be approved by the engineer prior to the start of any construction work.

2. REINFORCED CONCRETE

A. CONCRETE MIX AND PLACING

a. Concrete mix shall meet the design concrete strength given under material.
b. Concrete shall be deposited, vibrated and cured in accordance with the specifications.
c. The contractor shall submit to the engineer for approval the pouring sequences for the concrete work.
d. The contractor shall notify the engineer 48 hours prior to the pouring of any structural concrete, so an inspection can be made on all the forms and reinforcing
e. Use of the admixture is permitted to produce proper slump and workability but subjected to the engineer approval addition of concrete at job site is not allowed.
f. For two or more layers of reinforcing bars, use separator spacing @ 900 mm o/c and in no case shall be less than 2 separator. Clear distance between layers should not be less than 25 mm or larger bar diameters.
g. Location of all the constructions or cold joints must be approved by the engineer/Architect.
h. Pipes or duct exceeding one third the slab or wall thickness shall not be placed in structural concrete unless specifically detailed. Pipes may pass through structural concrete in sleeves but shall not be embedded therein
i. Reinforcing bars, anchorage bolts, and other inserts shall be secured in place before pouring concrete bar placement and support wall be in accordance with recommend Indian standard practice.
j. In general, the latest edition of the manual of standard for detailing concrete structure unless shown otherwise.

B. BAR BENDING, SPLICING AND PLACING

a. The contractor shall submit to the engineer for approval all shop drawing indicating the bending, cutting, splicing and installation of all reinforcing bars.
b. Bar splicing not indicated on drawing shall be subjected to the approval of engineer.
c. Lapped splices shall be staggered where possible.
d. Anchorage bolts, dowels and other embedded items are to be securely tied in place before concrete is poured.
e. Typical standard hook details. (Refer Typical Drawing)
f. Typical lap splice details. (Refer Refer Typical Drawing))

C. FORM WORK

a. Forms shall be provided for all concrete indicated unless specified otherwise, forms shall be set true to line and grade and maintained so as to ensure competent work within the allowable tolerances specified and shall be mortar tight.
b. Forms and their supports shall be designed so as not to damage previously placed structure.
c. No construction load shall be supported on, nor any shoring removed from any part of structure in combination with the remaining forming and shoring systems has sufficient strength to support safely its weight and additional imposed load.
d. Forms shall be removed in such manner as not to impair safely and serviceability of the structure.
e. Schedule of stripping of forms will be as table: stripping time as per clause 11.3 of IS456:2000.

D. PROTECTION AND CURING OF CONCRETE

Concrete surfaces shall be protected from harmful effects of sun, wind and running water and shall be kept damp for at least 7 days.

Table : Stripping Time As per clause 11.3 of IS456:2000

SN		Type of Formwork	Minimum Period Before Striking	Remake
1		Sides of Walls, Columns and Vertical Faces of beam	16 to 24 hours	
2		Soffit formwork of slabs (Props Left Under)	3 days	
3		Soffit formwork of beams (Props Left Under)	7 days	
4		Removal of Props of Slabs:		
	a.	Slabs spanning uot 4.5m	7 days	
	b.	Slabs spanning over 4.5m	14 days	
5		Removal of props for beams and arches		
	a.	Span up to 6m	14days	
	b.	Span voer 6m	21 days	

3. STRUCTURAL STEEL

a. Hole size for anchorage bars
b. Welded connections between members of moment frames shall be tested by non-destructive test method.
c. Comply with Indian Standard for bearing, adequacy of temporary connection and alignment.
d. Fabricator shall submit shop drawing for approval by the engineer and the owner prior to fabrication.

4. FOOTINGS

a. All footing shall be on the natural soil.
b. All engineered fill beneath slab and over footing shall be compacted to a dry density of at least 90% of the Modified Proctor maximum dry density.
c. Foundation shall be inspected to ensure that loose soft or otherwise undesirable material (such as organic materials) is removed, and that the foundation will bear on the natural soil.

5. LIMITATION FOR FOOTING

a. Foundations in areas under infill soil may require special design considerations, such as deeper foundations, reinforced foundation systems, or soil stabilization techniques
b. Areas with infill soil must be assessed for differential settlement and localized instability. Differential settlements between blocks on solid ground and those over infill should be minimized.

UNITS

1. Do not scale drawings. Any missing dimension shall be furnished upon request.
2. All dimensions are in millimeter unless otherwise noted.

LIMITATION

The construction design has been done assuming quality materials and steel sections are available. Therefore, the design needs to be verified with the actual situation when the work progress and may require some changes during the implementation.

SYMBOL

- ϕ = Diameter of Rebar

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SHEET TITLE: General Notes-2
STORAGE BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: **Er. Ajay Shrestha**	
Designed By: **Er. Enu Rai 17819 Civil "A"** **Er. Arbind Yadav**	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 02

CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
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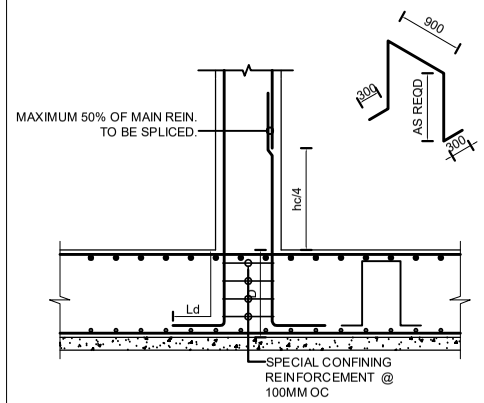
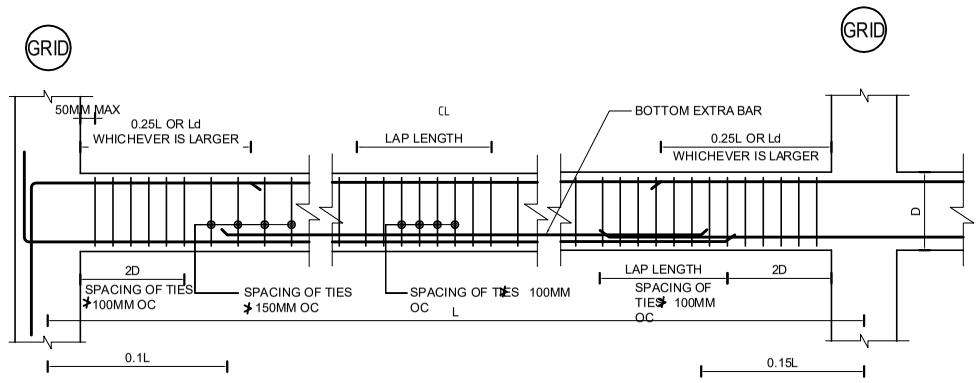


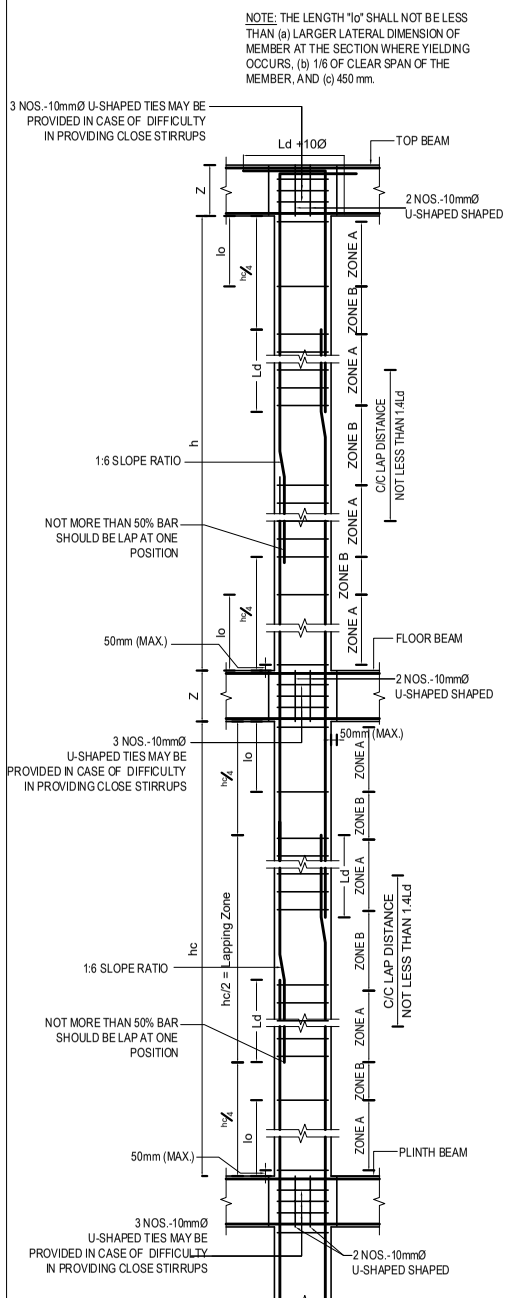
1 TYP, FOUNDATION CHAIR DETAIL
NTS



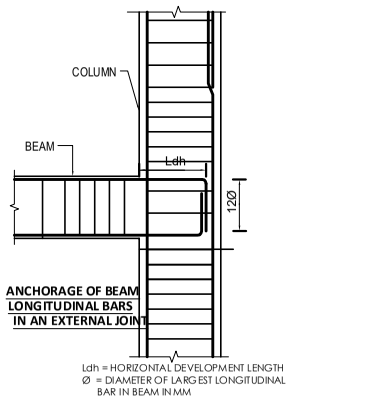
3 TYP,DETAIL LAPPING FOR BEAM BAR
NTS

LAPPING NOTES FOR BEAM

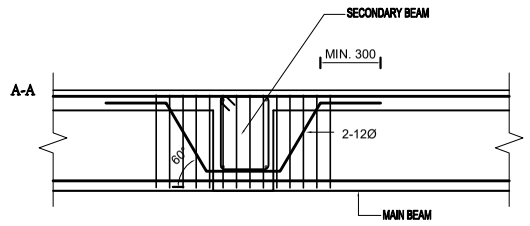
1) Lap length shall not be less than bar development length in tension
2) Not more than 50% of the bars shall be spliced at one section
3) Lap splice shall not be provided:
a. Within the joint
b. Within the distance of 2d from joint face
c. within the quarter length of the member



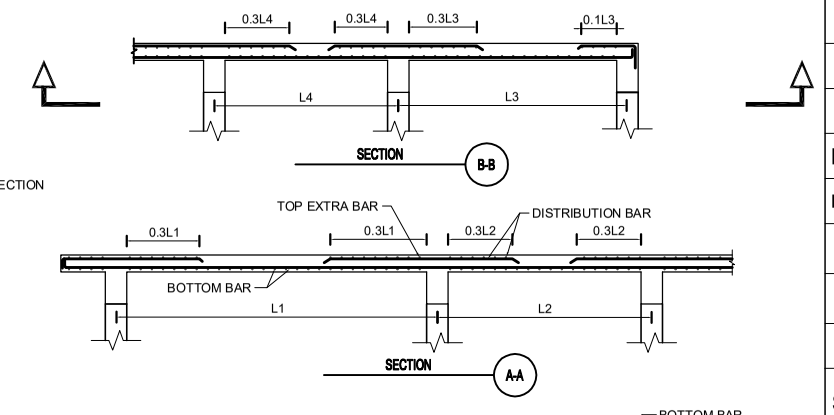
2 TYP, COLUMN SHEAR REINFORCEMENT DETAIL & SPLICING DETAIL
NTS

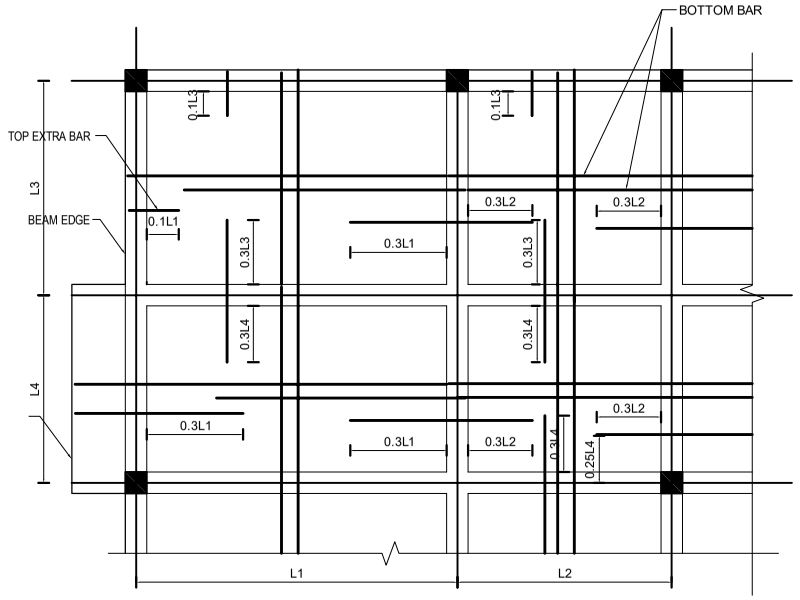


4 TYP, BEAM COLUMN JOINT
NTS



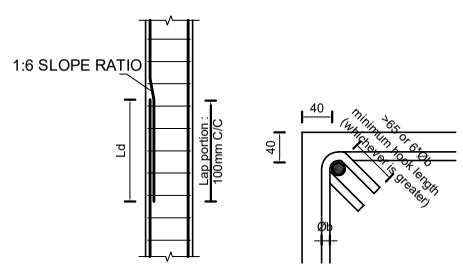
5 TYP, JUNCTION DETAIL OF MAIN & SECONDARY BEAM
NTS



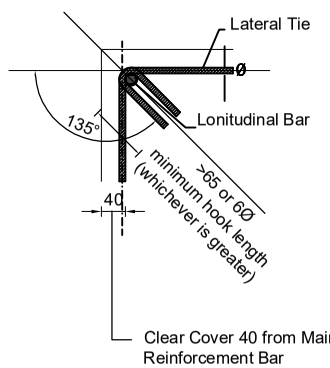


PLAN

8 TYP, SLAB PLAN
NTS

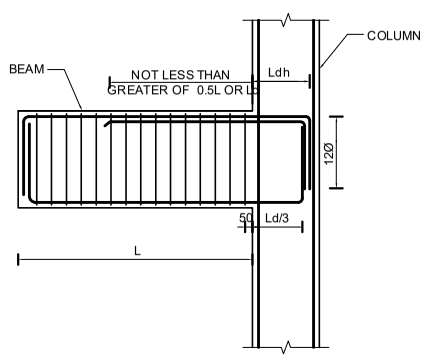


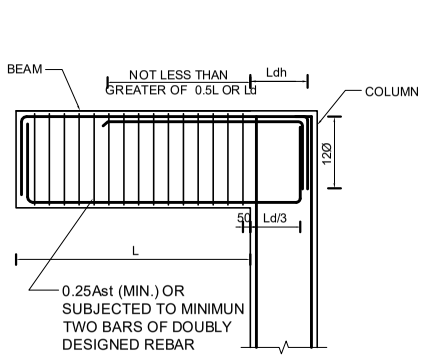
LAP PORTION DETAIL DETAIL OF HOOK



SEISMIC HOOK DETAIL
(Scale 1:10)

6 TYPICAL DETAILS
NTS





7 TYPICAL DETAILS OF CANTILEVER BEAM PROJECTIING FROM A COLUMN
N.T.S.

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SHEET TITLE: Typical Drawings-1
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Reviewed By: Er. Ajay Shrestha	
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PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 03

CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd., and DIGICON (P.) Ltd.
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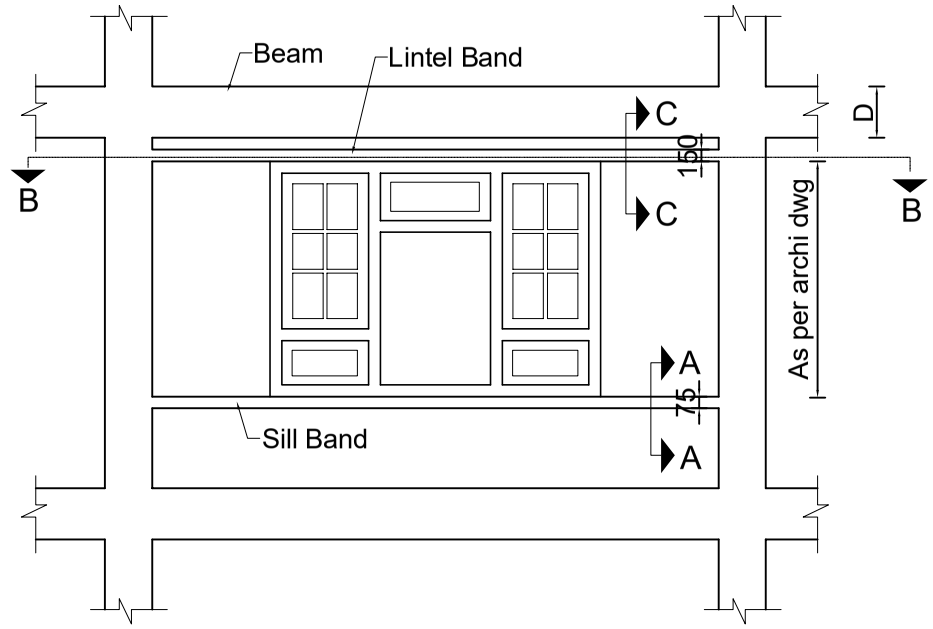
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV

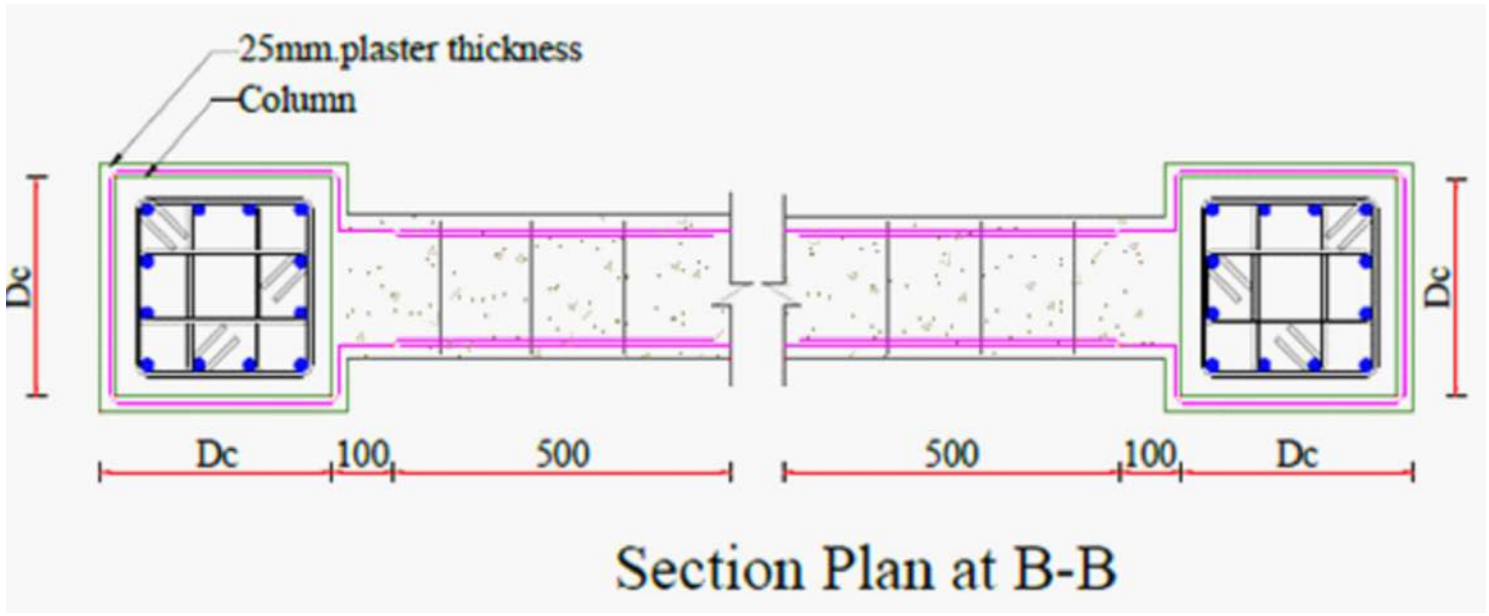
HORIZONTAL DEVELOPMENT LENGTH (Ldh)		
Ldh For Grade Of Steel, fy = 500 MPa in mm		
Bar Diameter	Grade of Concrete, fck	
	M20	M25
12	277	247
16	369	330
20	461	412
25	576	515



BEAM JOINT AND LAP DETAILS

(SCALE 1:50)

DEVELOPMENT LENGTH (ld)		
Grade of Steel,fy	Grade of Concrete,fck	In tension
500	20	57Ø
	25	49Ø



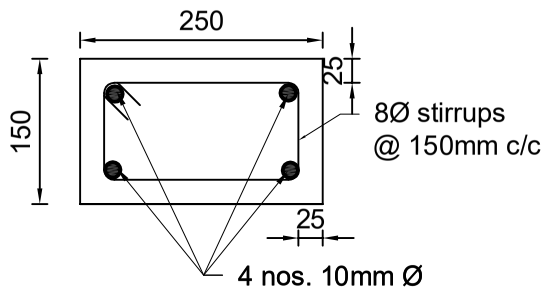
Section Plan at B-B

NOTES:

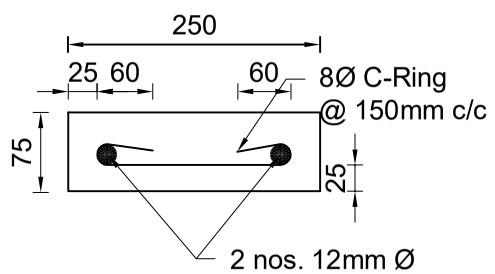
1. L_{dh} = HORIZONTAL DEVELOPMENT LENGTH,
   L_d = DEVELOPMENT LENGTH, LAP LENGTH

2. "TOP" BARS ARE HORIZONTAL WITH MORE THAN 300mm [12"] OF FRESH CONCRETE CAST BELOW BARS. ALL OTHER BARS ARE "BOT" BARS.

3. SPLICE LENGTHS SHOWN ARE FOR CLEAR SPACING NOT LESS THAN 2Ø, CONCRETE COVER NOT LESS THAN Ø.
4. ALL THE REINFORCEMENT DETAILING SHALL COMPLY WITH THE REQUIREMENT OF IS 13920:2016 (DUCTILE DETAILING OF REINFORCED CONCRETE STRUCTURES SUBJECTED TO SEISMIC FORCES-CODE FOR PRACTICE)



Lintel Beam
SECTION AT C-C
SCALE = 1:10



Sill Beam
SECTION AT A-A
SCALE = 1:10

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Typical Drawings-2
STORAGE BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 04

CONSULTANT:
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In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

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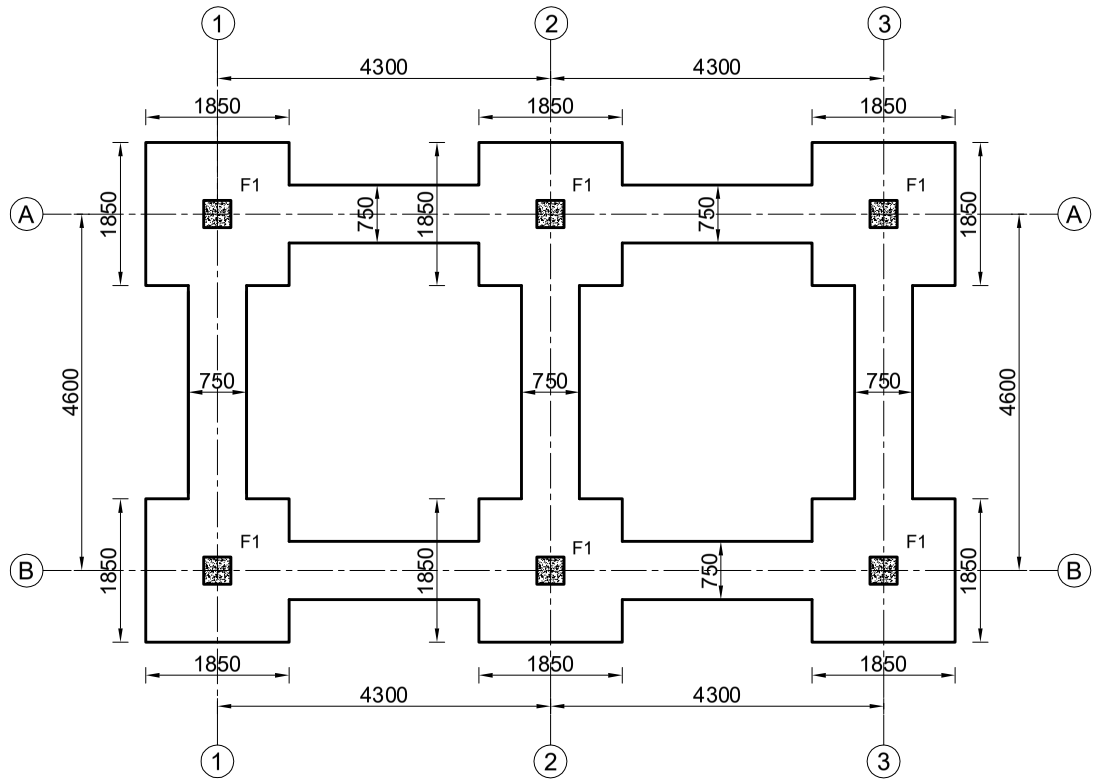
Building Design Authority(P) Ltd.- BN- UDAYA JV

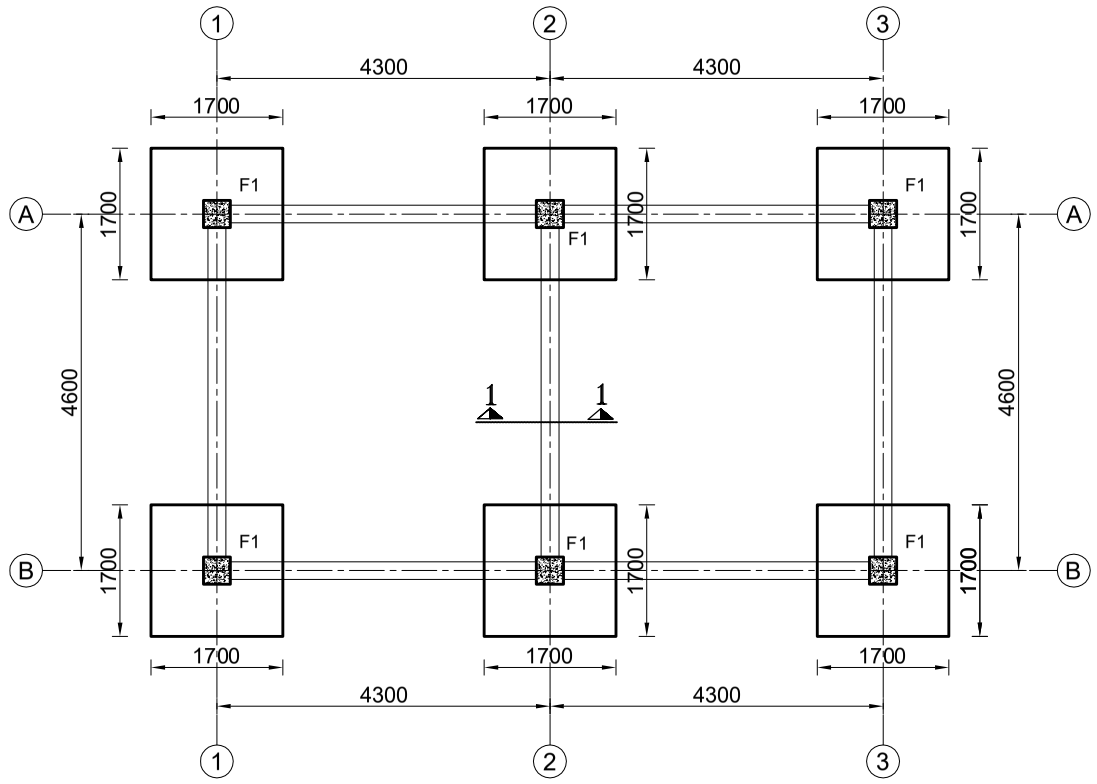


TRENCH PLAN

(SCALE 1:100)

NOTE:

CONCRETE GRADE = M20
REBAR GRADE = Fe 500 (TMT)



FOOTING LAYOUT PLAN

(SCALE 1:100)

NOTE

1- All Column (C1) 350X350
2- Slab Projection 900mm From Column Edge

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Footing Layout Plan
STORAGE BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
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DATE: Feb, 2024	SHEET NO ST- 05

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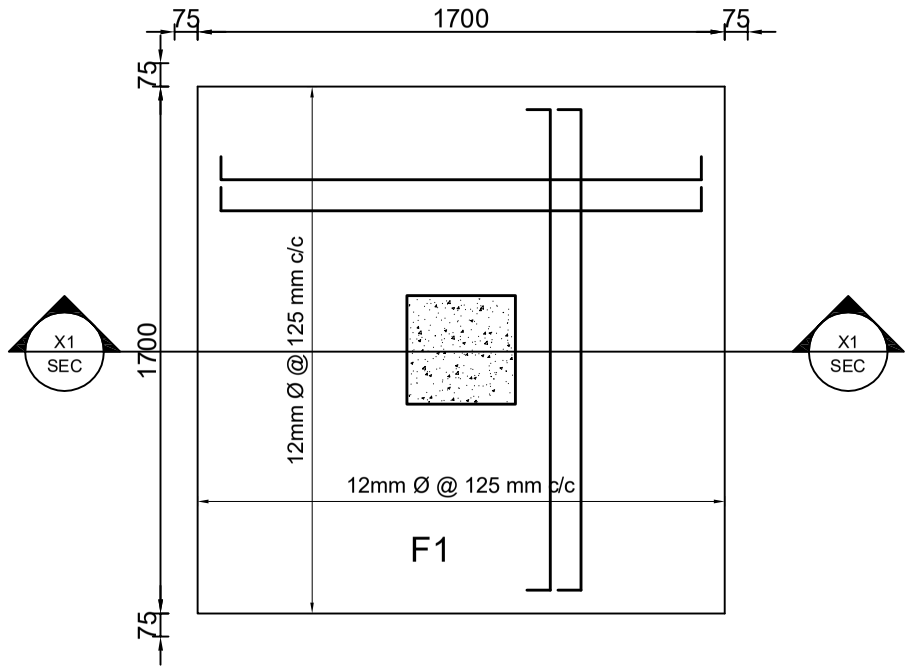
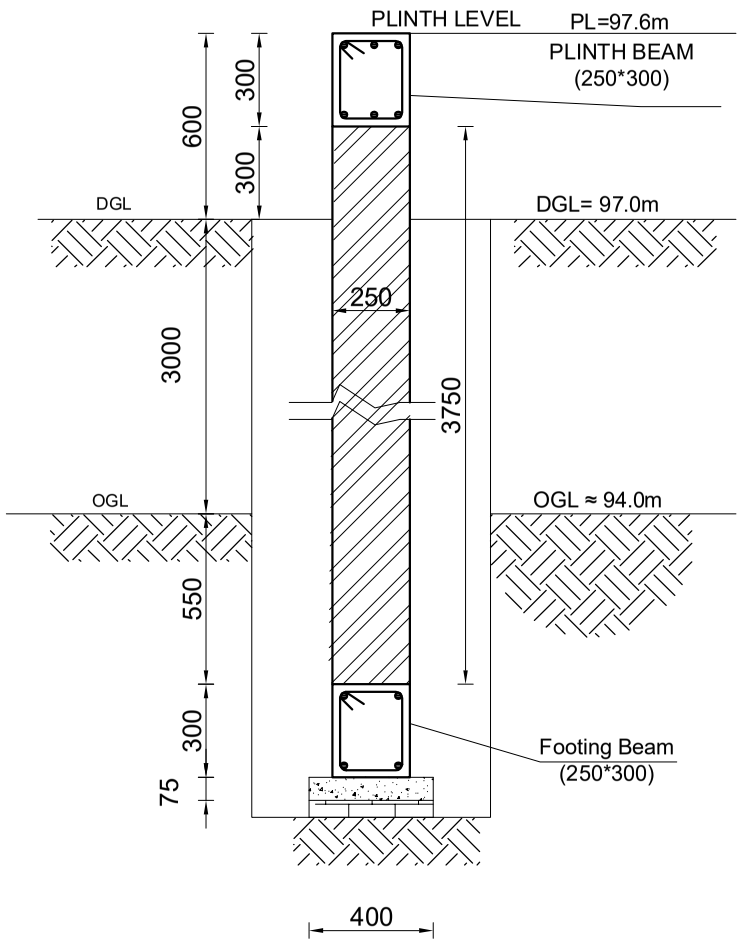


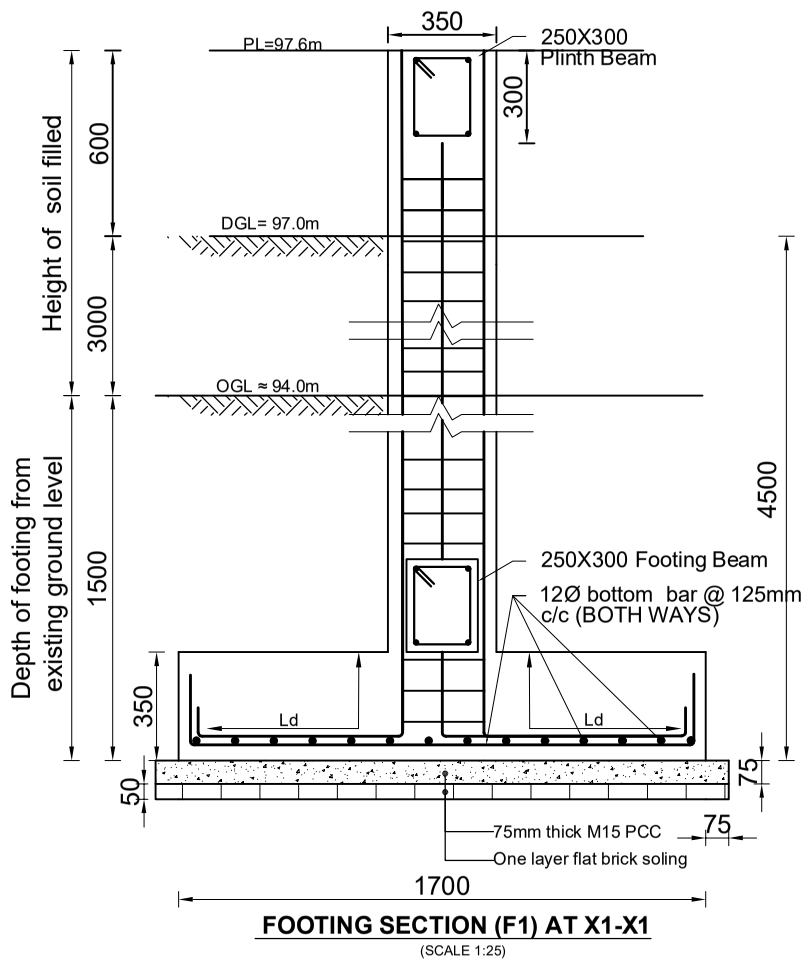
FOOTING PLAN (F1)
(SCALE 1:25)

NOTE:

CONCRETE GRADE = M20
REBAR GRADE = Fe 500 (TMT)



TOE WALL UNDER PLINTH BEAM
Section 1-1
(Scale 1:25)



FOOTING SECTION (F1) AT X1-X1
(SCALE 1:25)

CLIENT:

Department of Urban Development &
Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of
Detail Project Report of West Urban Corridor (WUC)
Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Footing Details
STORAGE BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: **Er. Ajay Shrestha**	
Designed By: **Er. Enu Rai 17819 Civil "A"** **Er. Arbind Yadav**	
PAPER SIZE: A3	SCALE: AS SHOWN
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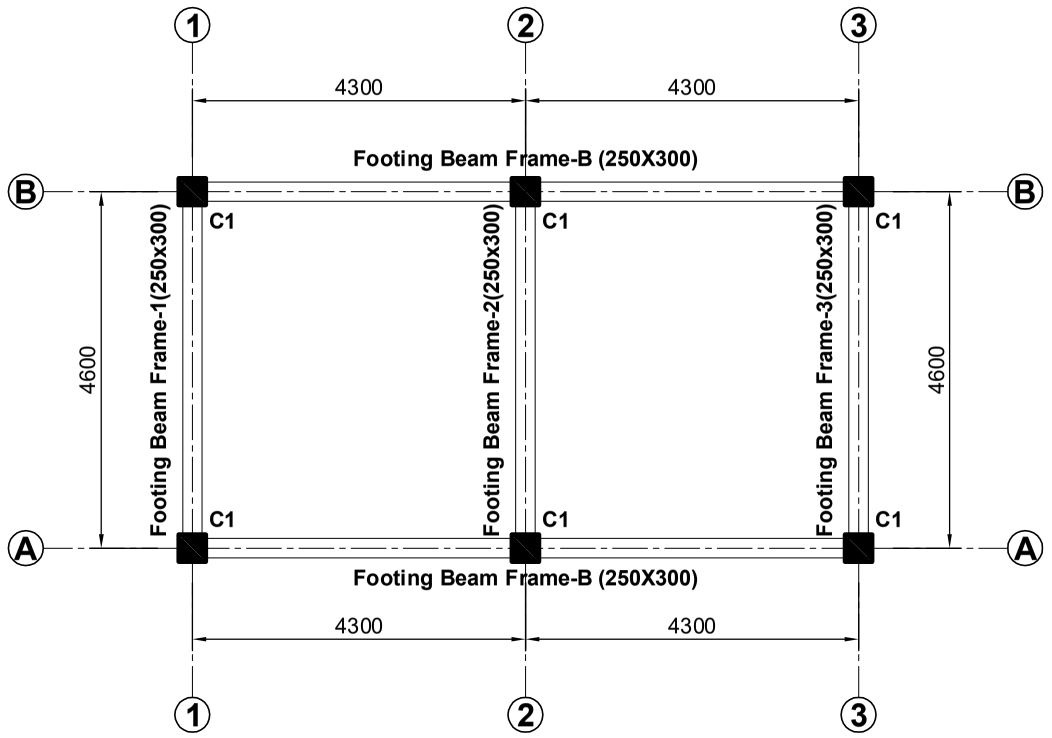
Building Design Authority(P) Ltd.- BN- UDAYA JV

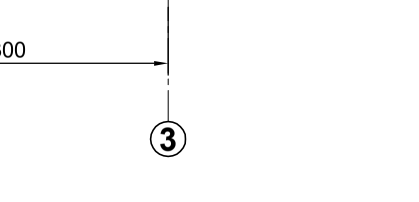


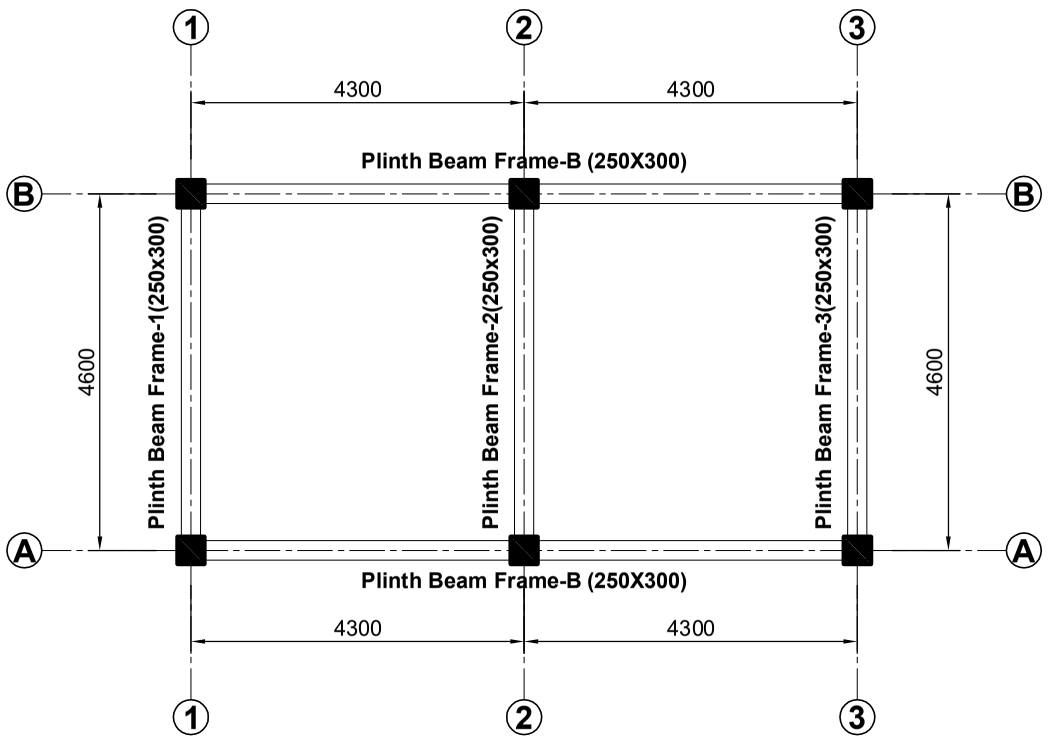
FOOTING BEAM AND COLUMN LAYOUT PLAN (STORAGE BLOCK)

(SCALE 1:100)

NOTE:

CONCRETE GRADE = M20
REBAR GRADE = Fe 500 (TMT)

CONCRETE GRADE = M20		STEEL = (Fe500)	TYPES OF STIRRUPS
POSITION OF BAR	COLUMN NAME	GROUND FLOOR	10 mm Ø Bar @ 100 mm c/c Full height
	C1	4-16Ø + 4-12Ø	



PLINTH BEAM PLAN (STORAGE BLOCK)

(SCALE 1:100)

ROOF BEAM PLAN (STORAGE BLOCK)

(SCALE 1:100)

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Beam and Column Layout Plan
STORAGE BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	Approved By:
Reviewed By: Er. Ajay Shrestha	
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PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 07

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REVIEWED BY:
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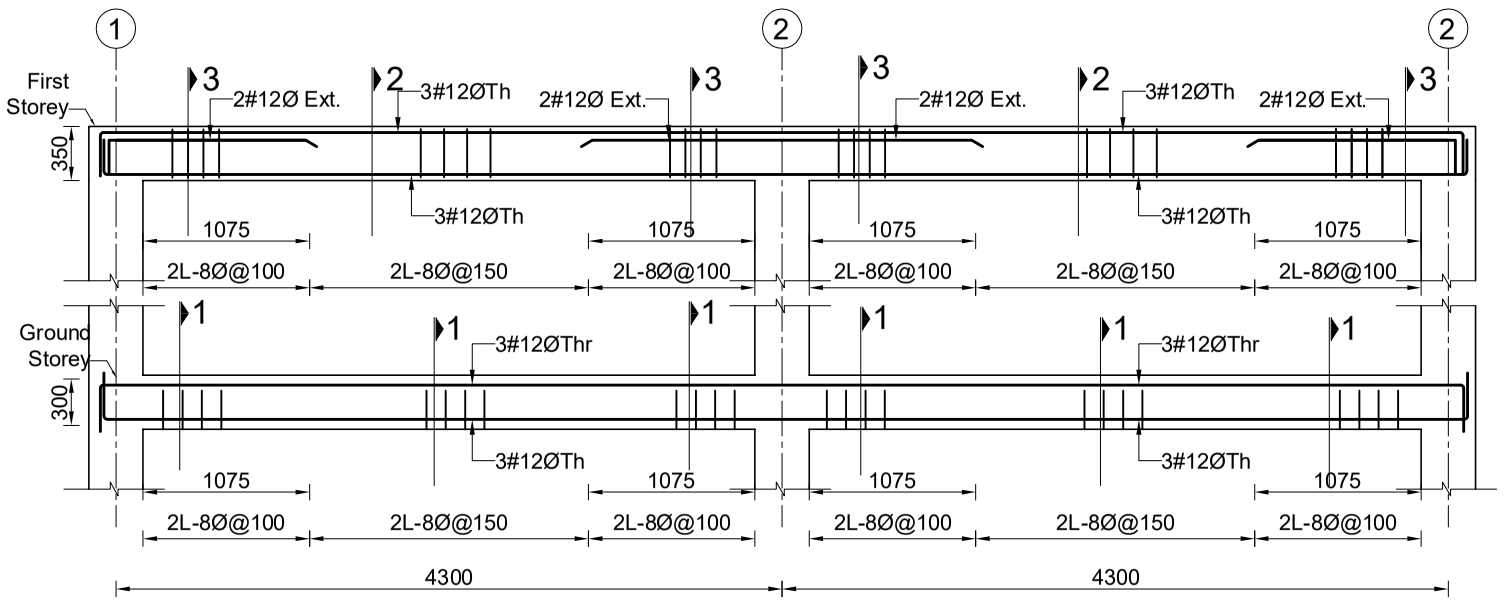
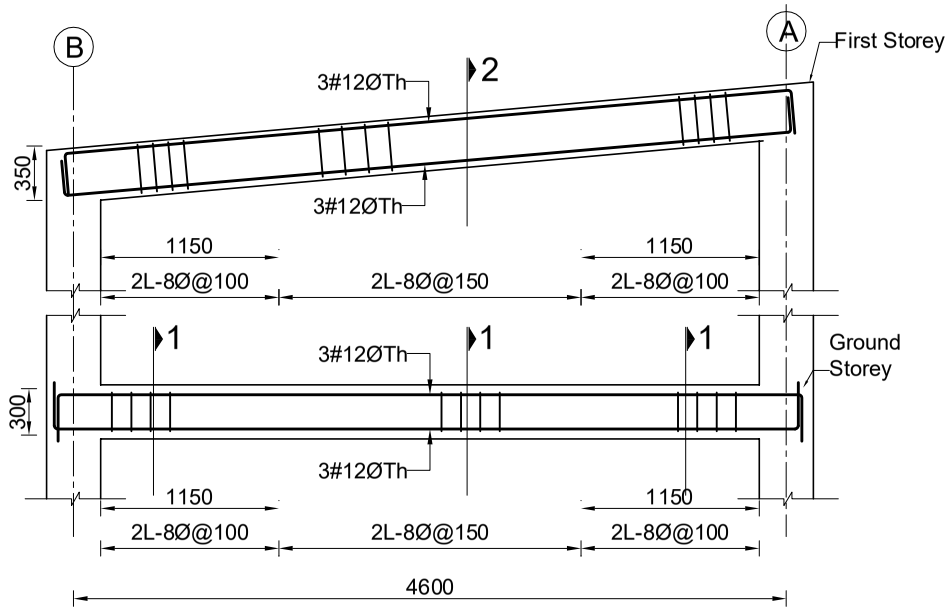


L-SECTION ALONG GRID AT(A-A) AND (B-B)

(SCALE 1:50)

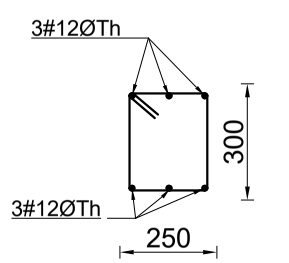
NOTE:

CONCRETE GRADE = M20
REBAR GRADE = Fe 500 (TMT)



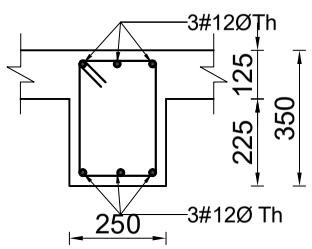
L-SECTION ALONG GRID AT(1-1),(2-2) AND (3-3)

(SCALE 1:50)



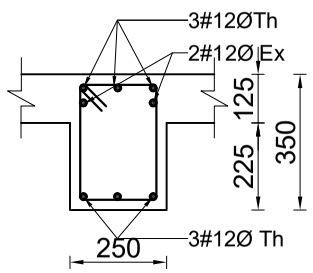
SECTION AT 1-1

(Scale 1:20)



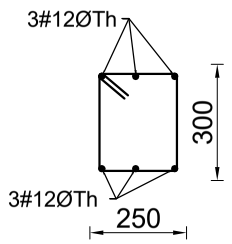
SECTION AT 2-2

(Scale 1:20)



SECTION AT 3-3

(Scale 1:20)



FOOTING BEAM SECTION

(Scale 1:20)

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: L-Section and X-Sectional Details of Beam
STORAGE BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: **Er. Ajay Shrestha**	
Designed By: **Er. Enu Rai 17819 Civil "A"** **Er. Arbind Yadav**	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 08

CONSULTANT:
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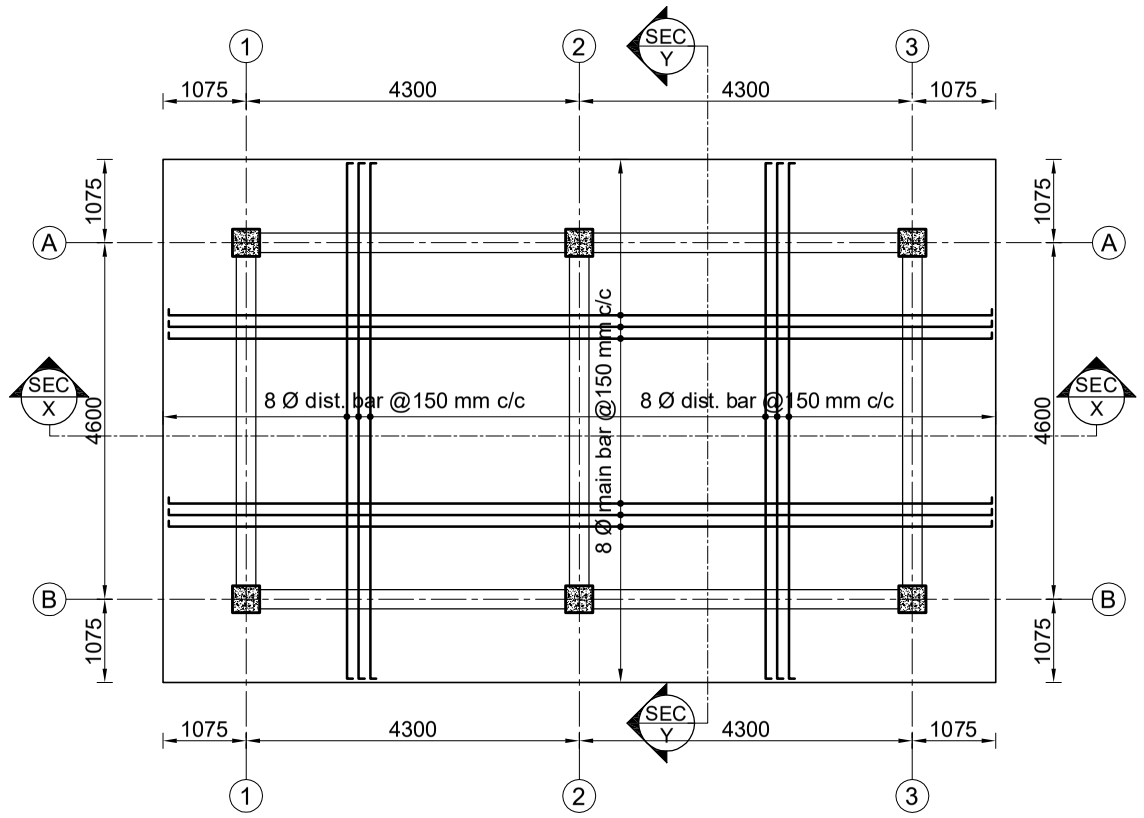
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)

Building Design Authority(P) Ltd.- BN- UDAYA JV



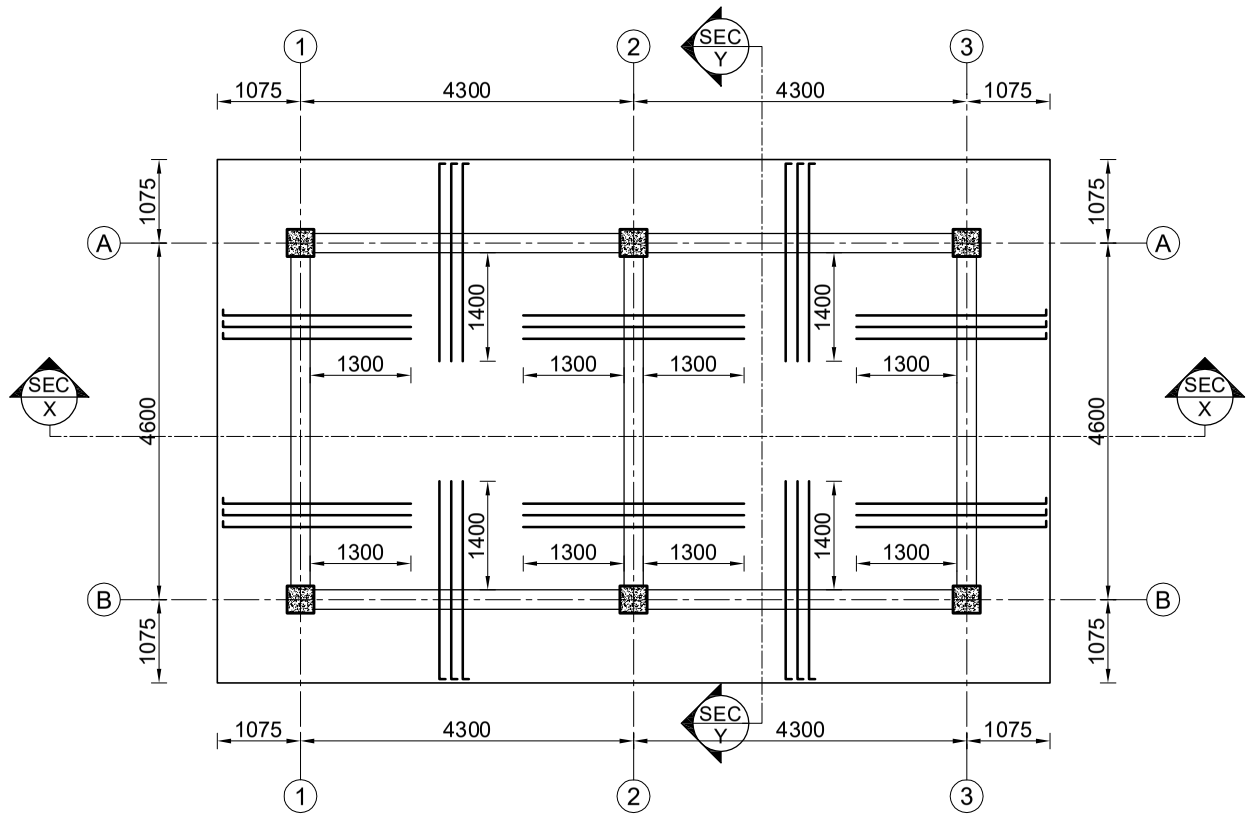
BOTTOM REINFORCEMENT PLAN OF ROOF SLAB

8Ø BAR @ 150 mm C/C BOTHWAY

(SCALE 1:100)

NOTE:

CONCRETE GRADE = M20
REBAR GRADE = Fe 500 (TMT)



TOP EXTRA REINFORCEMENT PLAN OF ROOF SLAB

8Ø BAR @ 150 mm C/C

(SCALE 1:100)

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Slab Reinforcement Plan
STORAGE BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
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DATE: Feb, 2024	SHEET NO ST- 09

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Mid Baneshwor,Kathmandu

REVIEWED BY:
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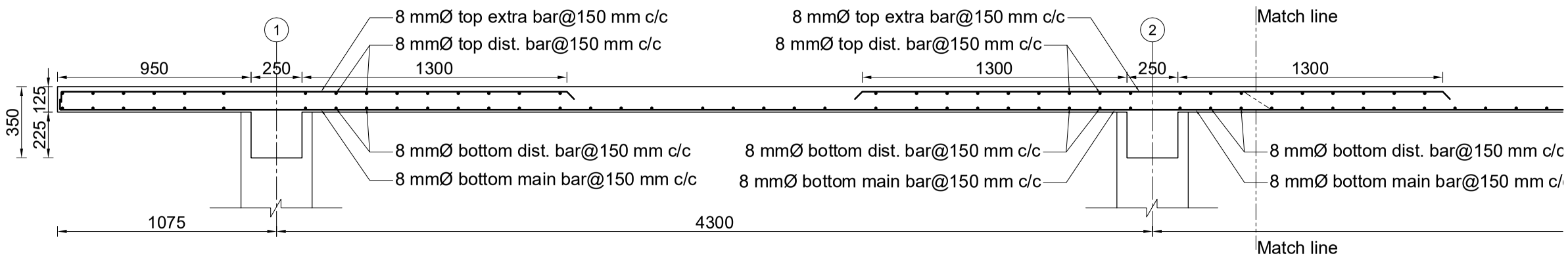
Building Design Authority(P) Ltd.- BN- UDAYA JV

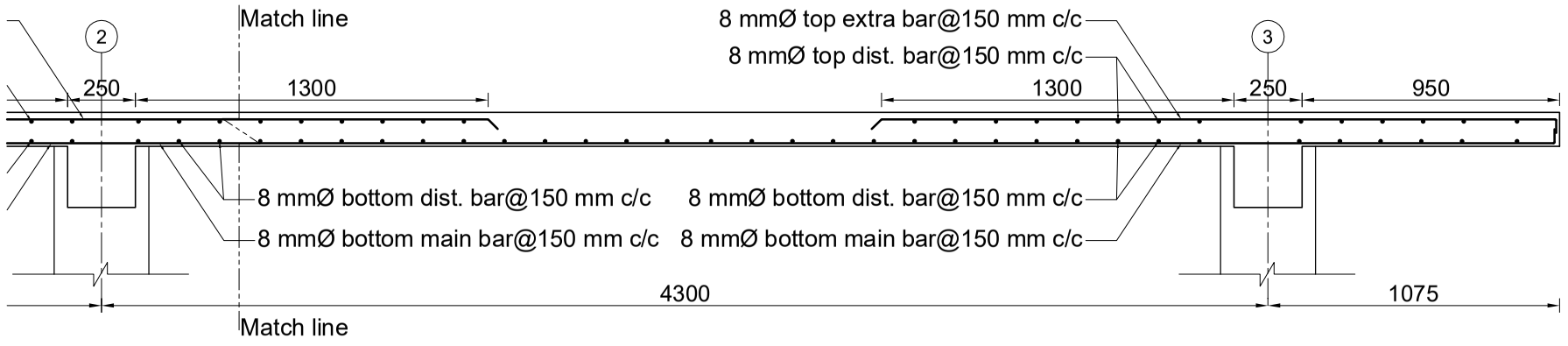
NOTE:

CONCRETE GRADE = M20
REBAR GRADE = Fe 500 (TMT)



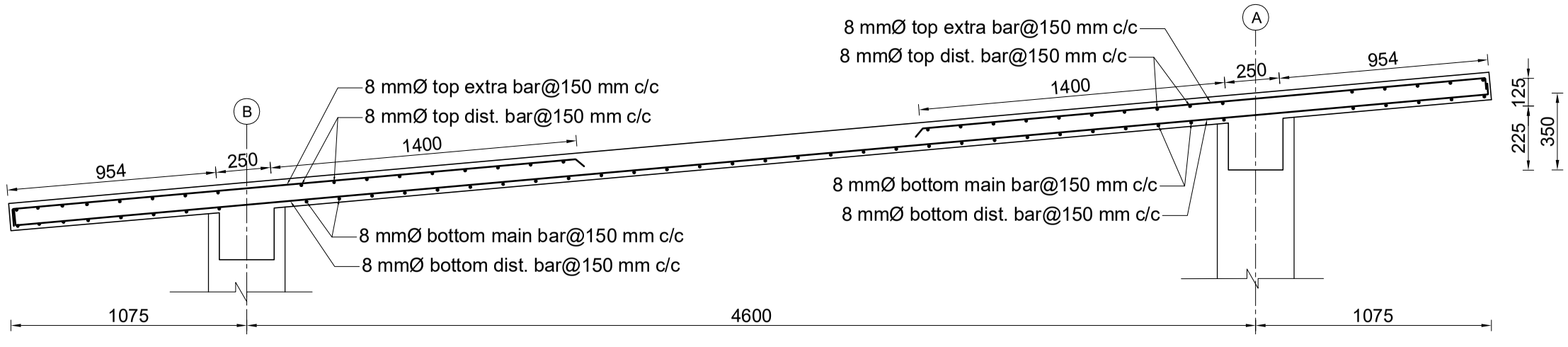
SLAB SECTION AT X-X

(SCALE 1:25)



SLAB SECTION AT X-X

(SCALE 1:25)



SLAB SECTION AT Y-Y

(SCALE 1:25)

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Slab Details
STORAGE BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 10

CONSULTANT:
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REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)

Building Design Authority(P) Ltd.- BN- UDAYA JV

Government of Nepal
Ministry of Urban Development
Department of Urban Development and Building Construction

Regional Urban Development Project

Project Coordination Office

Babarmahal, Kathmandu

STRUCTURAL DRAWINGS of GARAGE BLOCK (MASONRY)

LUMBINI SANSKRITIK MUNICIPALITY

Structural Drawing

Name of Sheet	Sheet Number
GARAGE BLOCK: GARAGE MASONRY DRAWINGS	
Cover Page	CP
Table of Contents	00
General Notes	01
Trench and Footing Plan and Section	02
Footing Sections	03
Plinth and Roof Beam Plan	04
L-Section and X-Sectional Beam Details	05
Reinforcement and Band Details	06
Reinforcement Details for Bands	07
Top and Bottom Reinforcement Plan of Slab	08
Slab Sections	09

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Table of Contents
GARAGE BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: **Er. Ajay Shrestha**	
Designed By: **Er. Enu Rai 17819 Civil "A"** **Er. Arbind Yadav**	
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DATE: Feb, 2024	SHEET NO ST- 00

CONSULTANT:
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In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV

GENERAL NOTES:-

A. General:

1. All works to be carried out in accordance with current best practice, Building Regulations, the project specification and relevant Nepal Building Code(NBC) NBC 109-1994, NBC 202-2015, NBC 205-2024 , Indian Standards and Codes of Practice (IS 1905-1987). Materials and components to be appropriate for their intended use.
2. The Site Engineer shall be responsible for verifying all dimensions on site and ensuring that all dimensions and levels shown on the drawings are correct and consistent with other relevant drawings. Any discrepancies are to be reported immediately to the Field Engineer.
3. During construction, the Site Engineer shall be responsible for maintaining the structure in a stable condition and ensuring no part shall be damaged under construction activities.
4. Workmanship and materials are to be in accordance with the relevant current Indian Standards including all amendments and the local statutory authorities.
5. The Site Engineer shall inform Field Engineer for inspection and approval of construction. At least 48 hours notice shall be provided for all engineering inspections.

B. Structural:

1. Bricks shall be of a standard rectangular shape, burnt red, hand formed or machine made.
2. Bricks shall have a minimum dry compressive strength 10.5 Mpa for one storey building,
3. Cement mortar used in the load bearing walls of brick shall not be leaner than 1:4 (cement:sand). For a half brick partition wall, a ratio not leaner than 1:4 shall be used.
4. Cast-In-Situ concrete shall have minimum 28 days compressive cube strength of 20N/mm² (M20) for all structural members.
5. The concrete compressive strength shall be measured on 150*150*150mm cube at 28 days, for various structural elements.
6. Reinforcing steel shall be TMT having minimum yield strength of 500N/mm² and minimum elongation not less than 14%.
7. Development length for tor steel bar shall be as follows:

Diameter	Tension	Compression
4.75	250	200
8	375	300
10	470	375
12	565	450
16	760	600

8. Cover to main reinforcing steel be in accordance with IS 456:2000 & as specified on structural drawing.
9. Clear Cover of Concrete shall be:
   - Beam surface at soil = 50mm
   - Beam surface on brick/PCC = 25mm
13. Unless otherwise specified, all horizontal & vertical construction joints shall be roughened.
14. The cement used shall be ordinary Portland cement conforming to IS 269:1976.
15. Bar bending schedule shall be submitted for approval before the reinforcement work and the Site Engineer shall correspond to the Field Engineer in case of any discrepancies.
16. A minimum of 48 hours notice shall be given to the Field Engineer before concrete is poured, in order that the formation and/or reinforcement may be inspected.
17. Detail of fabrication of reinforcement, handling and placing of concrete, construction of forms and placement of reinforcement not otherwise covered by the plans and specification shall comply with the IS code requirement of the latest revised date.
18. All concrete shall be regular weight concrete, unless otherwise specified.
19. All R.C.C work shall be continuously cured for 14-days by moist jute sheets.
20. Cement plaster of cement : sand ratio of 1:6 shall be use.
21. All cement plaster works shall be continuously cured for 7 days.All footing shall bear on the natural soil.
22. Foundation shall be inspected to ensure that the loose soft or otherwise undesirable material (such as organic materials) is removed and that the foundation will bear on the natural soil.
23. The Site Engineer shall prepare drawing of temporary scaffolding bracing and shoring against lateral forces and all construction loads throughout the work.

C. Units:

1. Do not scale drawings. Any missing dimensions shall be furnished upon request.
2. All dimensions are in millimeters unless otherwise stated.

D. Abbreviations:

1. CL = Centre line
2. C/C = Centre to centre
3. EL = Elevation
4. N.T.S. = Not to scale
5. RC = Reinforced concrete
6. ST = Stirrup(s)
7. G.I. = Galvanized Iron
8. N/A = Not applicable
9. BoQ = Bill of Quantities
10. SWG = Standard Wire Gauge

Note:

1. The Field Engineer may issue additional drawings for construction showing further details / clarifications etc whenever necessary.
2. The Site Engineer shall keep record of the effect to the existing architectural, plumbing, electrical and finishing elements due to the retrofitting works.

LIMITATIONS

The construction design has been done assuming quality materials are available. Therefore the design needs to be verified with the actual situation when the work progresses and may require some changes during the implementation..
Some of the possible uncertainties are listed below.

1. The quality of the existing materials and detailing cannot be fully ascertained, so assumptions have to be made which may not be 100% right. If the quality of some parts of the building structure found significantly different from the assumptions in the design, the design will need to be reviewed and possibly revised.

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: General Notes
GARAGE BLOCK

SITE INFORMATION:

NAME: Bus Terminal

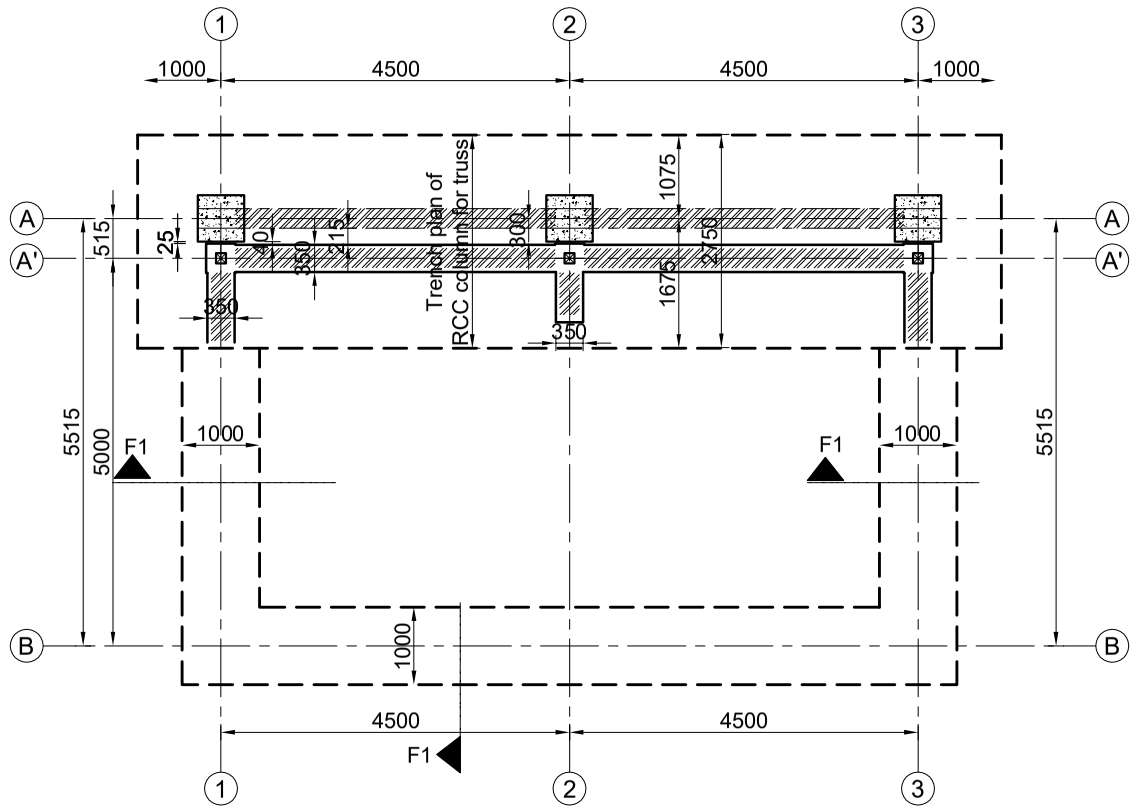
AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 01

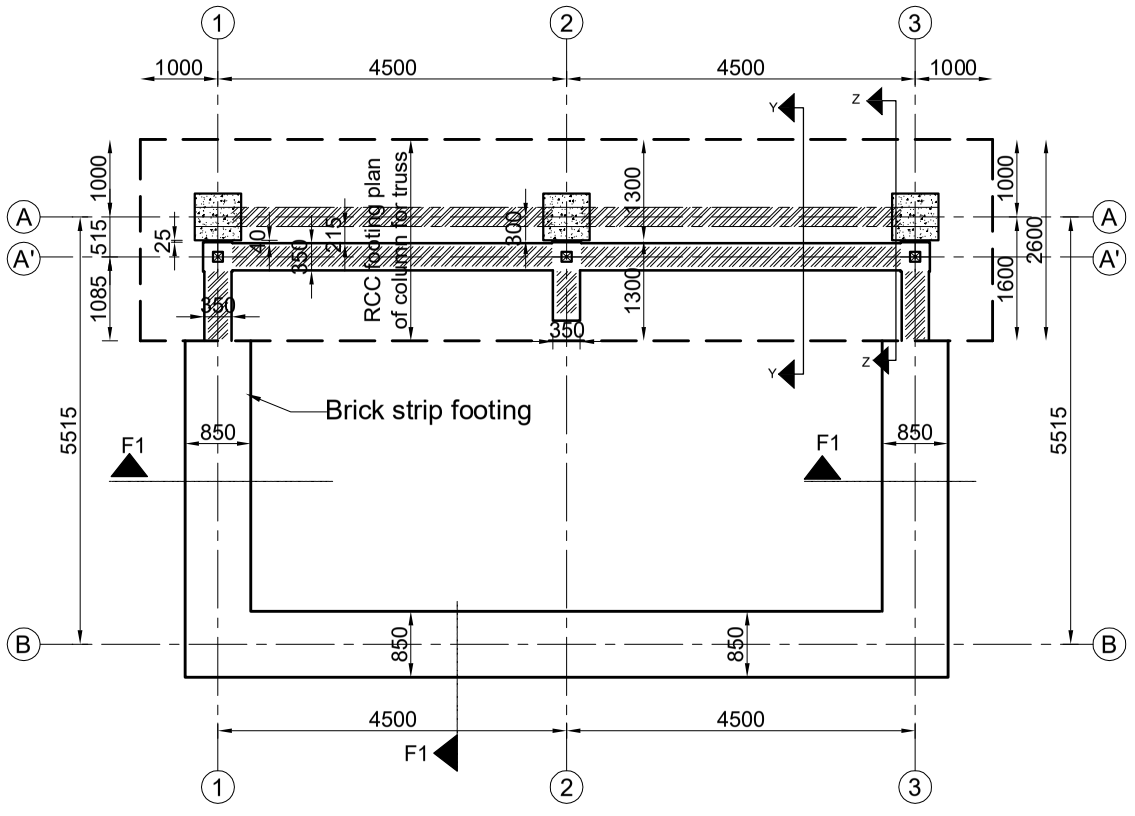
CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd., and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV



TRENCH PLAN (MASONRY BLOCK)

(Scale 1:100)

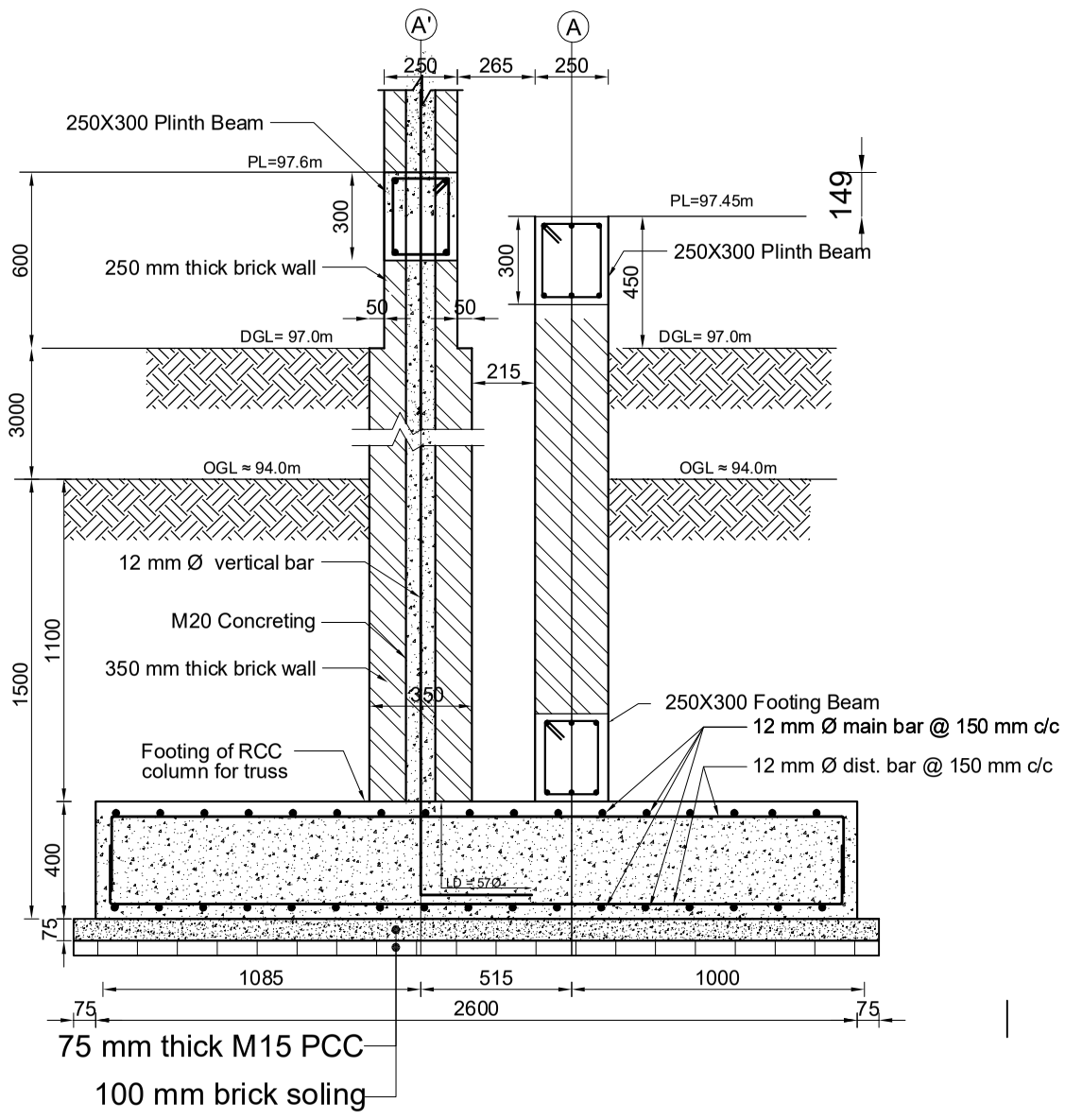


FOOTING PLAN (MASONRY BLOCK)

(Scale 1:100)

NOTE:

CONCRETE GRADE = M20
REBAR GRADE = Fe 500 (TMT)



FOOTING SECTION AT Y-Y

(SCALE 1:25)

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Trench and Footing Plan and Section
GARAGE BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
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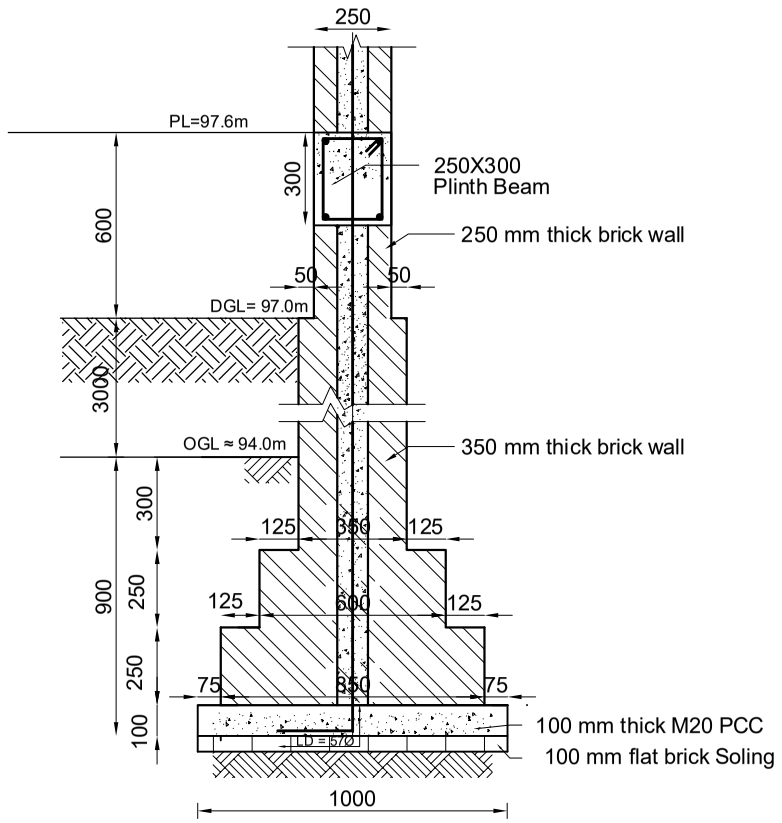
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 02

CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV

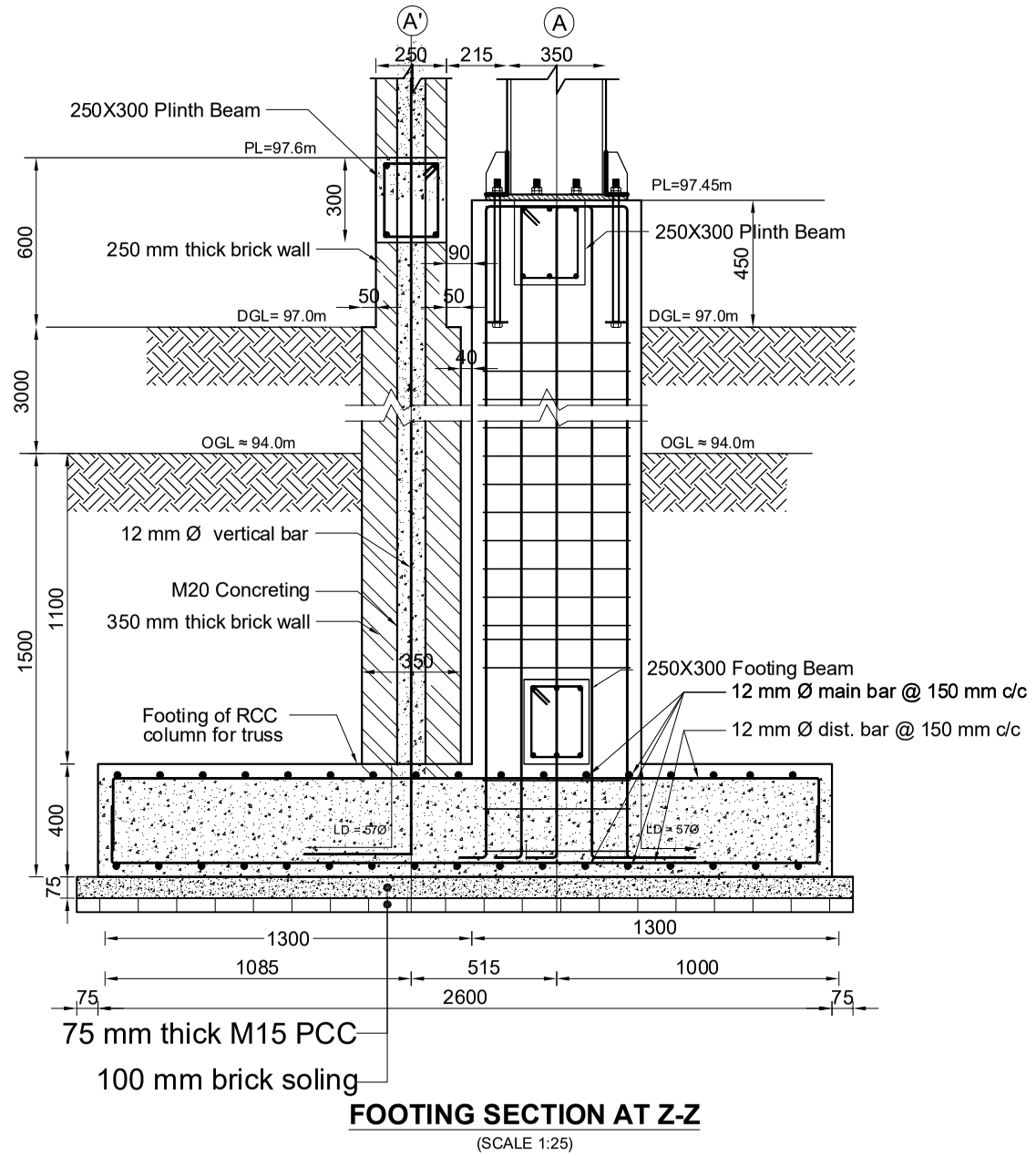
NOTE:

CONCRETE GRADE = M20
REBAR GRADE = Fe 500 (TMT)



FOOTING SECTION AT F1

(SCALE 1:25)



FOOTING SECTION AT Z-Z

(SCALE 1:25)

CLIENT:

Department of Urban Development &
Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Footing Sections
GARAGE BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

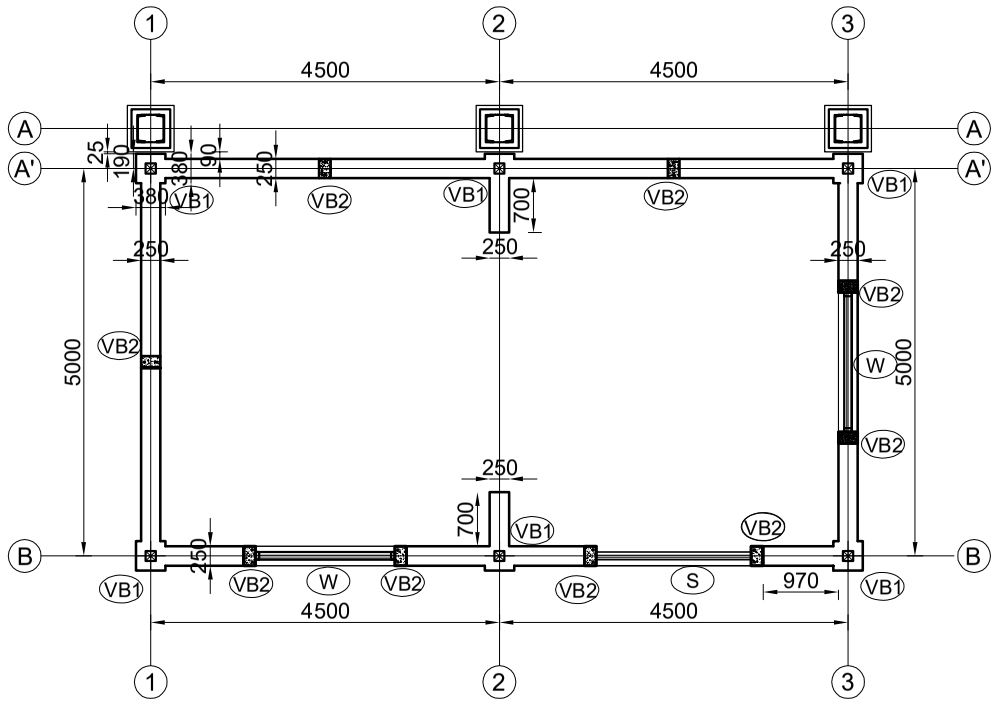
CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 03

CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

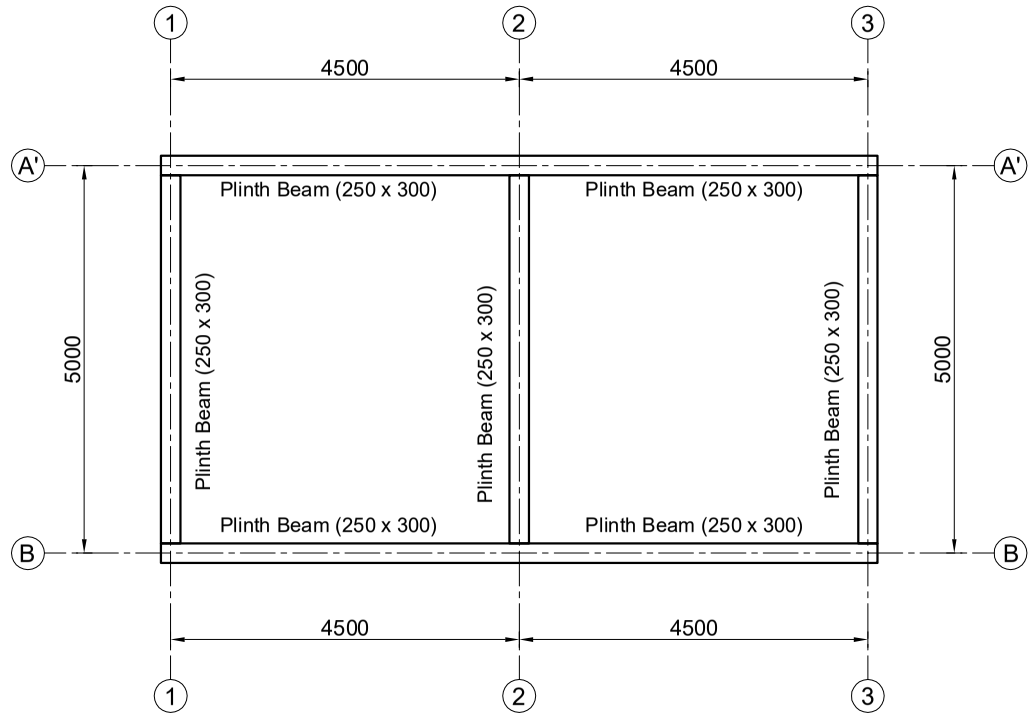
REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV

NOTE:

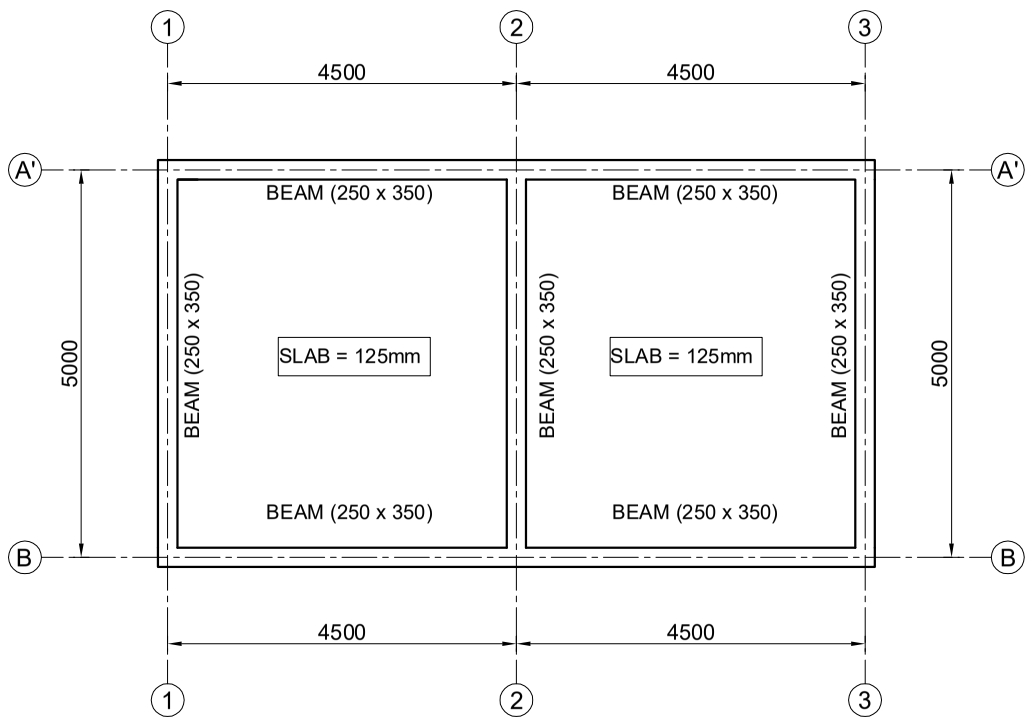
CONCRETE GRADE = M20
REBAR GRADE = Fe 500 (TMT)



GROUND FLOOR PLAN SHOWING VERTICAL BARS
(Scale 1:100)



PLINTH BEAM PLAN
(Scale 1:100)



ROOF BEAM PLAN
(Scale 1:100)

CLIENT:

Department of Urban Development &
Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Plinth and Roof Beam Plan
GARAGE BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: **Er. Ajay Shrestha**	
Designed By: **Er. Enu Rai 17819 Civil "A"** **Er. Arbind Yadav**	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 04

CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
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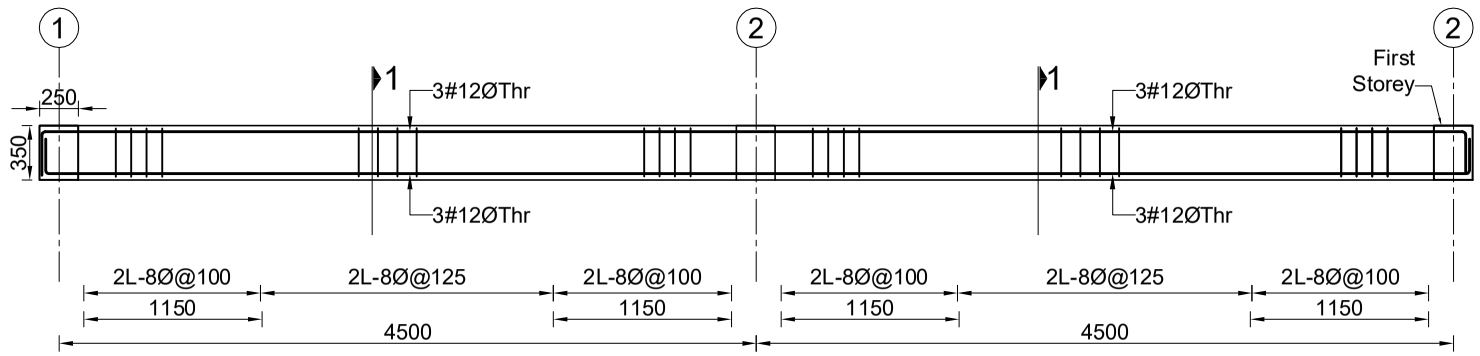
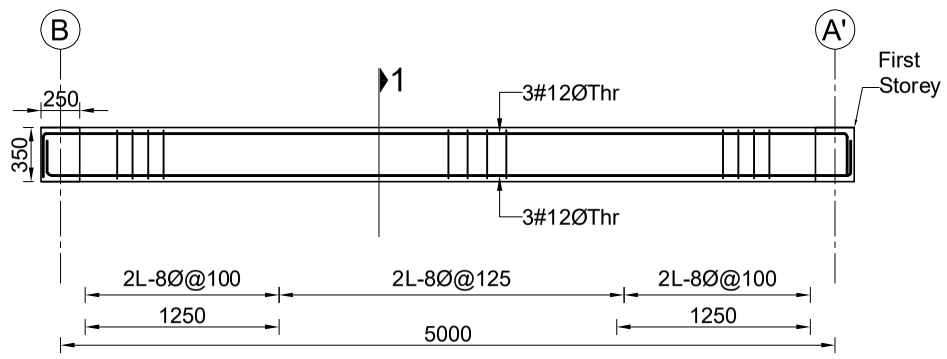
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV



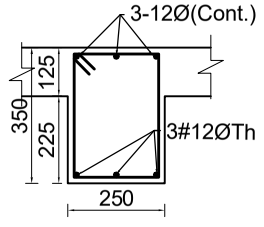
L-SECTION ALONG GRID AT(A'-A') AND (B-B)

(SCALE 1:50)



L-SECTION ALONG GRID AT(1-1),(2-2) AND (3-3)

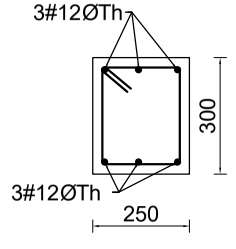
(SCALE 1:50)



Stirrups: 2L-8Ø @100c/c at ends
2L-8Ø @125c/c at mid

SECTION AT 1-1

(Scale 1:20)



Stirrups: 2L-8Ø @100c/c at ends
2L-8Ø @125c/c at mid

PLINTH BEAM SECTION

(Scale 1:20)

NOTE:

CONCRETE GRADE = M20
REBAR GRADE = Fe 500 (TMT)

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: L-Section and X-Sectional Beam Details
GARAGE BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
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PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 05

CONSULTANT:
DOHWA Engineering Co. Ltd.
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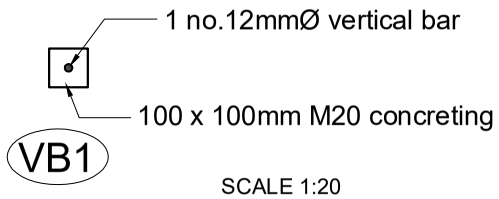
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV

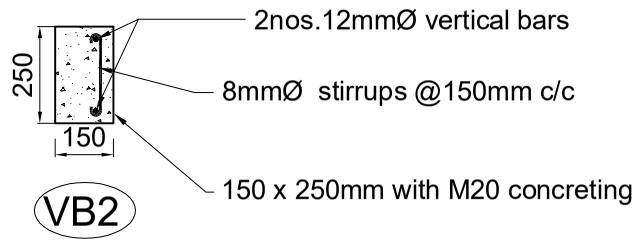
VERTICAL REINFORCEMENT

For Corners and Wall Junctions:



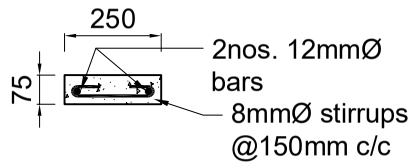
SCALE 1:20

For Sides of Openings/ Middle of Wall Length:



SCALE 1:20

HORIZONTAL REINFORCEMENT

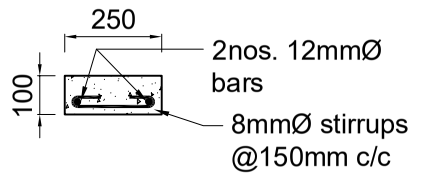


75 x 250mm with M20 concreting

Sill Band

X- sectional Details At Section A)

SCALE 1:20

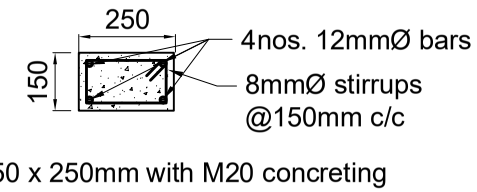


100 x 250mm with M20 concreting

Lintel Band At Solid Wall

(X- sectional Details At Section B)

SCALE 1:20

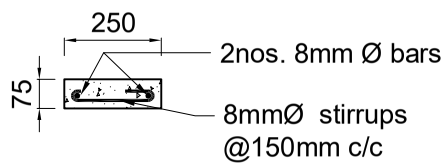


150 x 250mm with M20 concreting

Lintel Band At Openings

(X- sectional Details)

SCALE 1:20



Dowel Band (Stiches)

(X- sectional Details)

(1500mm length)

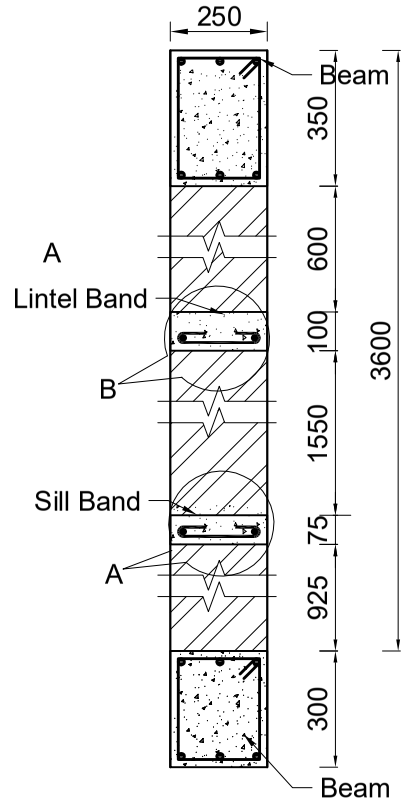
(Between Plinth Beam and Sill Band and Between Sill band and Lintel Band)

SCALE 1:20

NOTE:

CONCRETE GRADE = M20

REBAR GRADE = Fe 500 (TMT)



LINTEL BAND AT SOLID WALL

Elevation

SCALE 1:20

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Reinforcement and Band Details
GARAGE BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: **Er. Ajay Shrestha**	
Designed By: **Er. Enu Rai 17819 Civil "A"** **Er. Arbind Yadav**	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 06

CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
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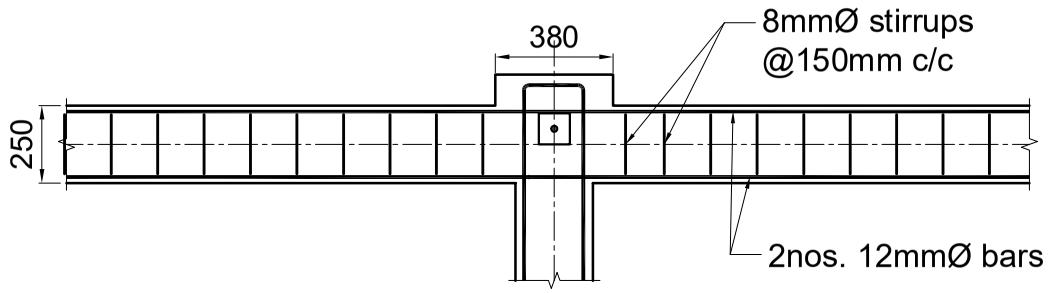
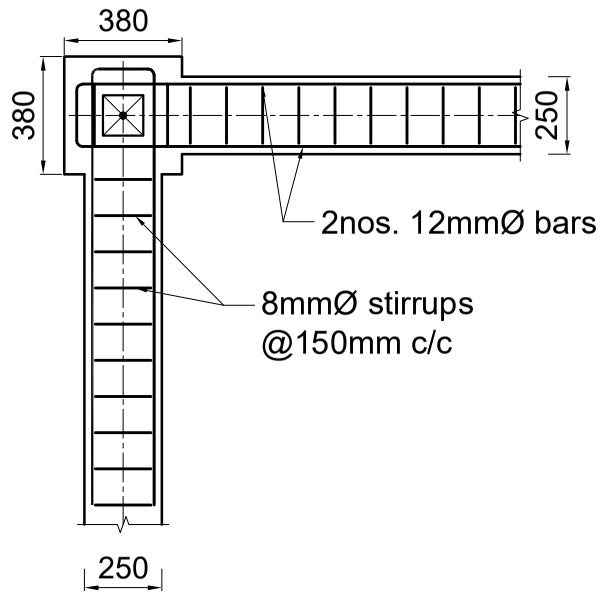
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV



AT WALL JUNCTIONS



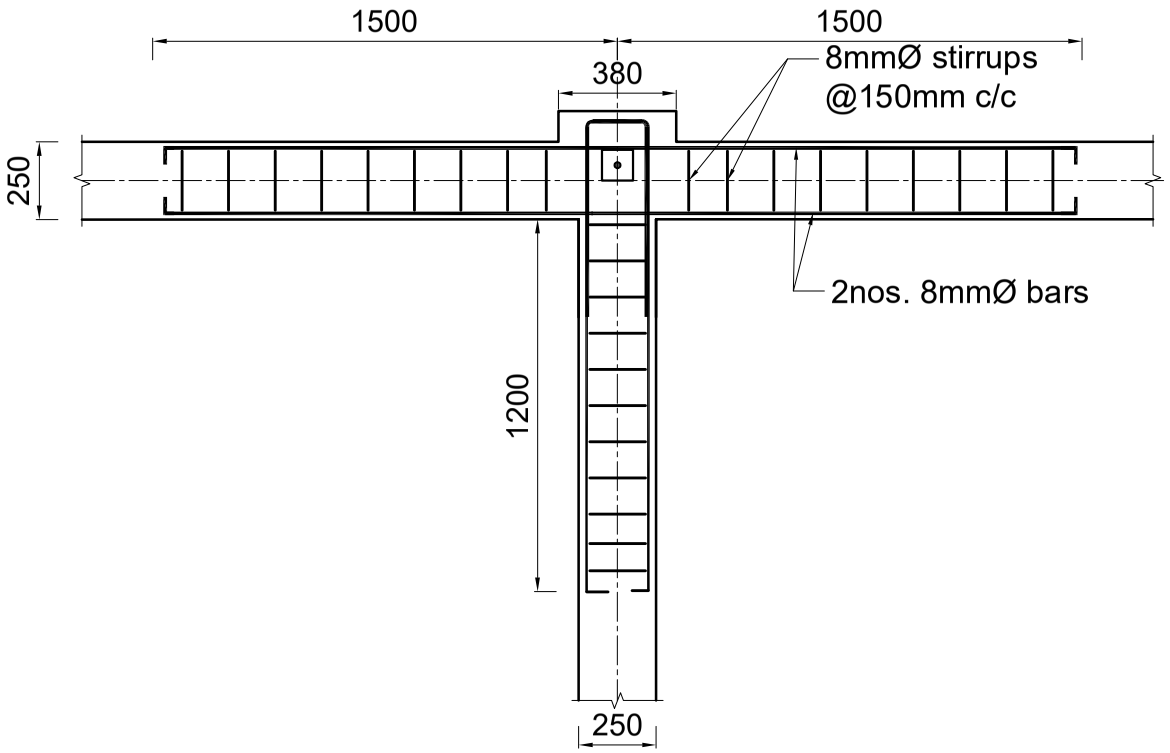
AT CORNERS

NOTE:

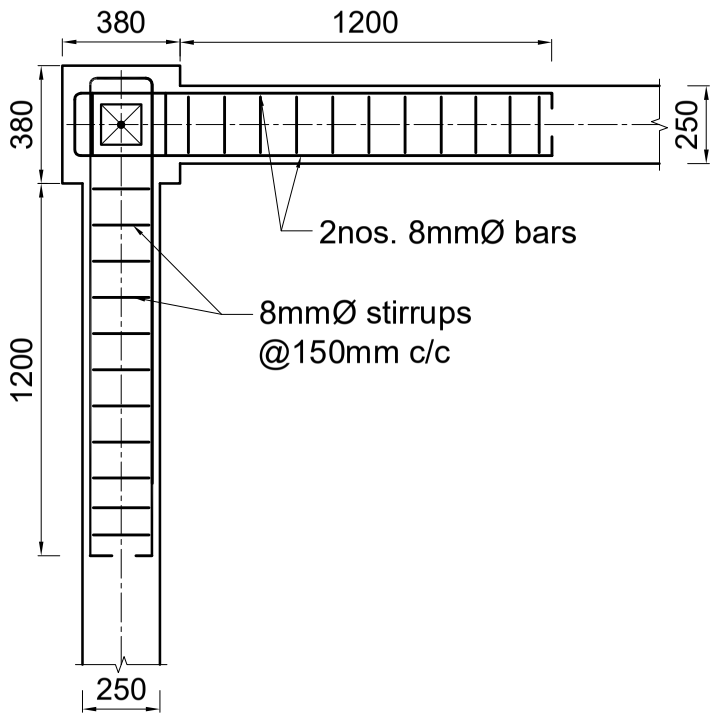
CONCRETE GRADE = M20
REBAR GRADE = Fe 500 (TMT)

REINFORCMENT DETAILS FOR RC HORIZONTAL BANDS (SILL AND LINTEL)
(Sectional Plan)

SCALE 1:25



AT WALL JUNCTIONS



AT CORNERS

REINFORCEMENT DETAILS FOR DOWEL BAND (STICHES)
(Sectional Plan)

(Between Plinth Beam and Sill Band
and Between Sill band and Lintel Band)

SCALE 1:25

CLIENT:

Department of Urban Development &
Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of
Detail Project Report of West Urban Corridor (WUC)
Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Reinforcement Details for Bands
GARAGE BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 07

CONSULTANT:
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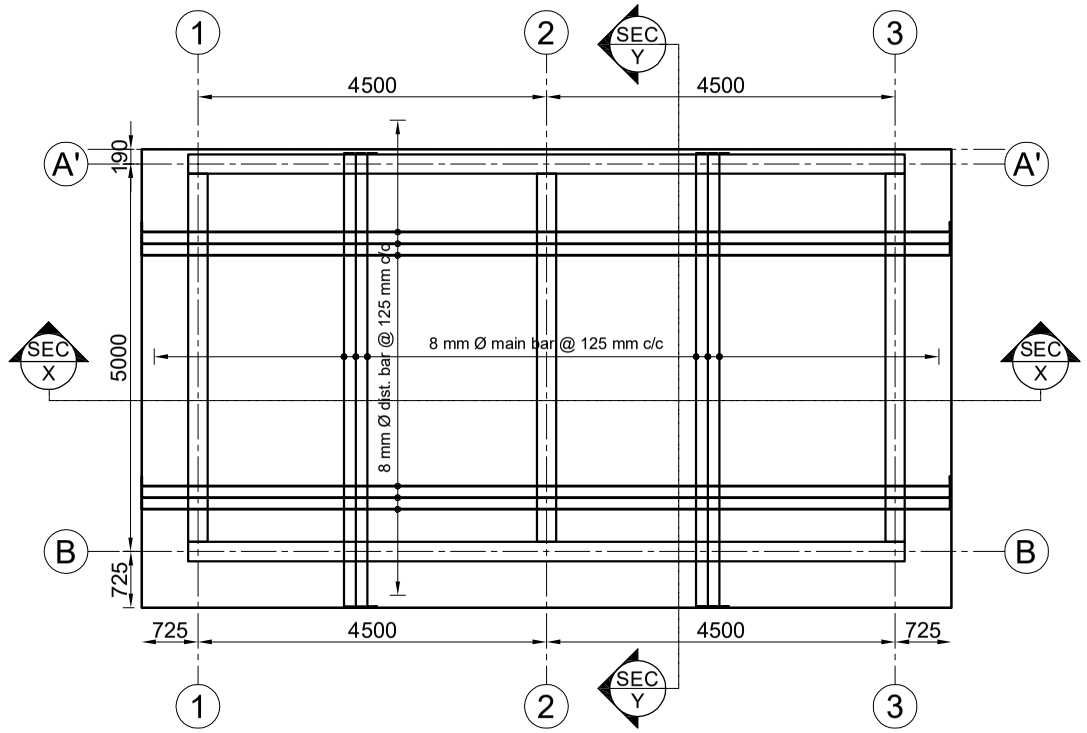
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV

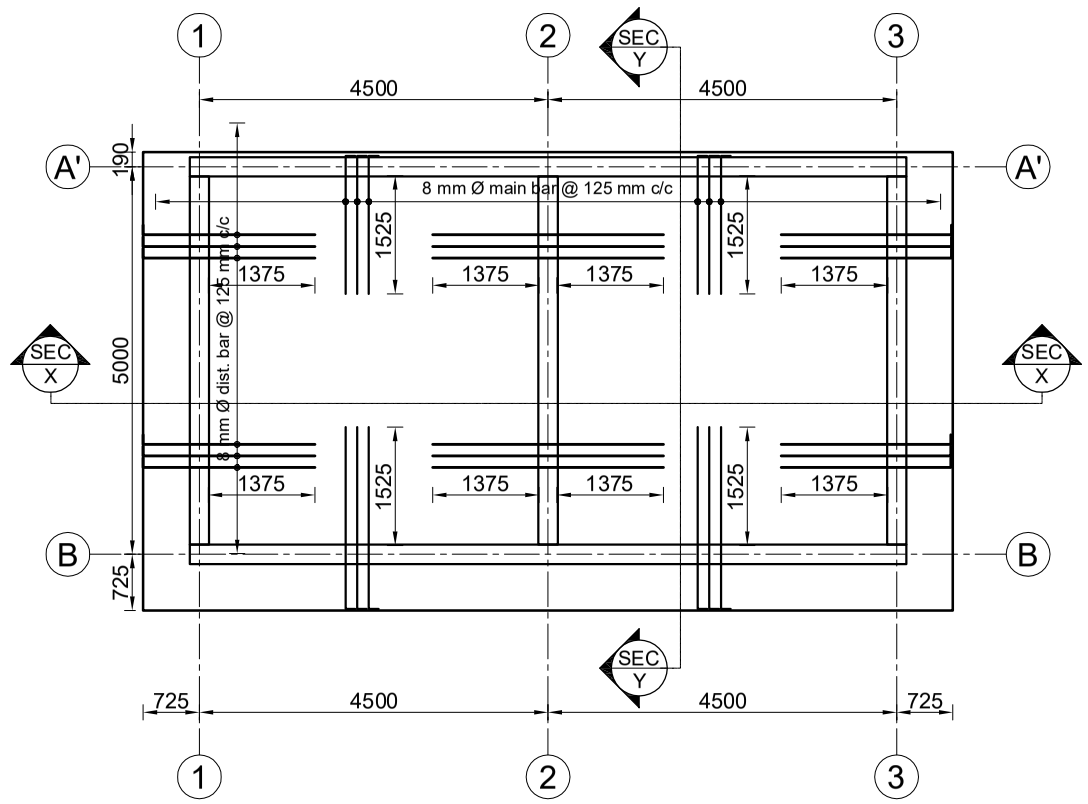
NOTE:

CONCRETE GRADE = M20
REBAR GRADE = Fe 500 (TMT)



BOTTOM BAR REINFORCEMENT PLAN AT ROOF

(Scale 1:100)



TOP BAR REINFORCEMENT PLAN AT ROOF

(Scale 1:100)

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Top and Bottom Reinforcement Plan of Slab
GARAGE BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: **Er. Ajay Shrestha**	
Designed By: **Er. Enu Rai 17819 Civil "A"** **Er. Arbind Yadav**	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 08

CONSULTANT:
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ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
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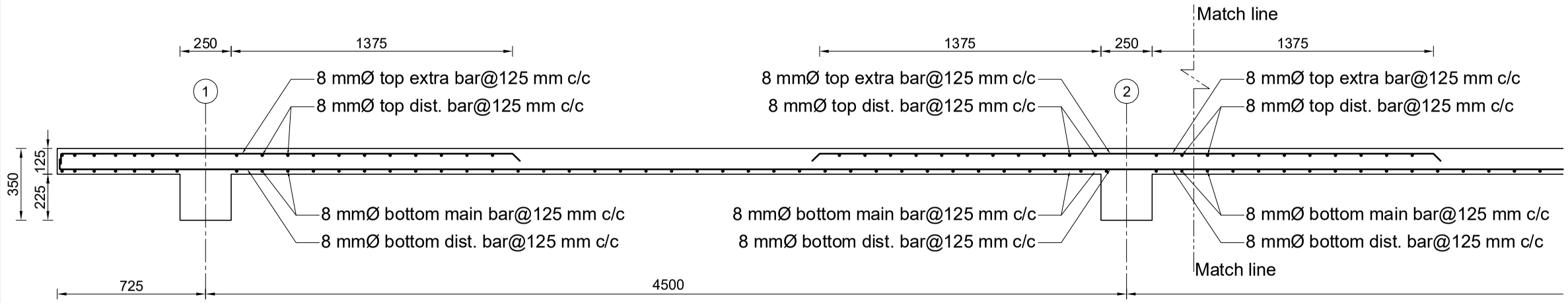
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV

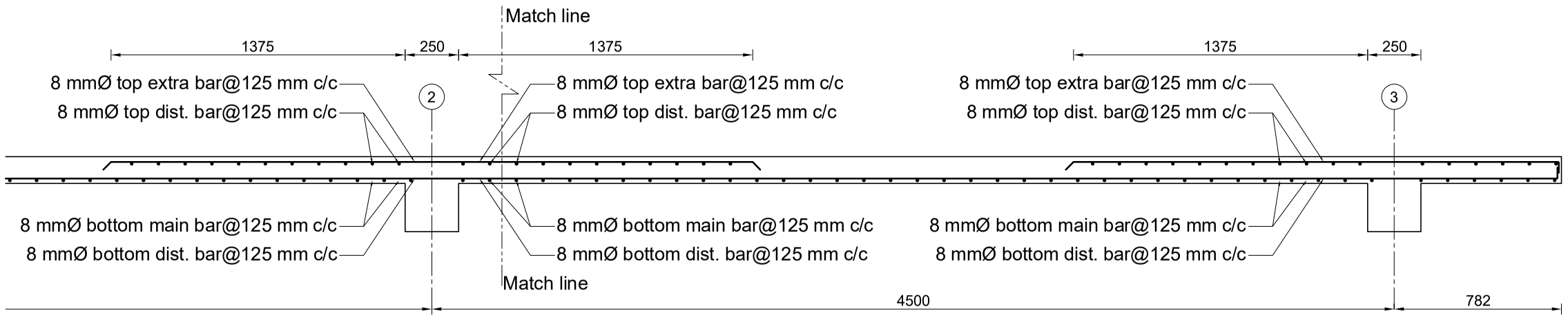
NOTE:

CONCRETE GRADE = M20
REBAR GRADE = Fe 500 (TMT)



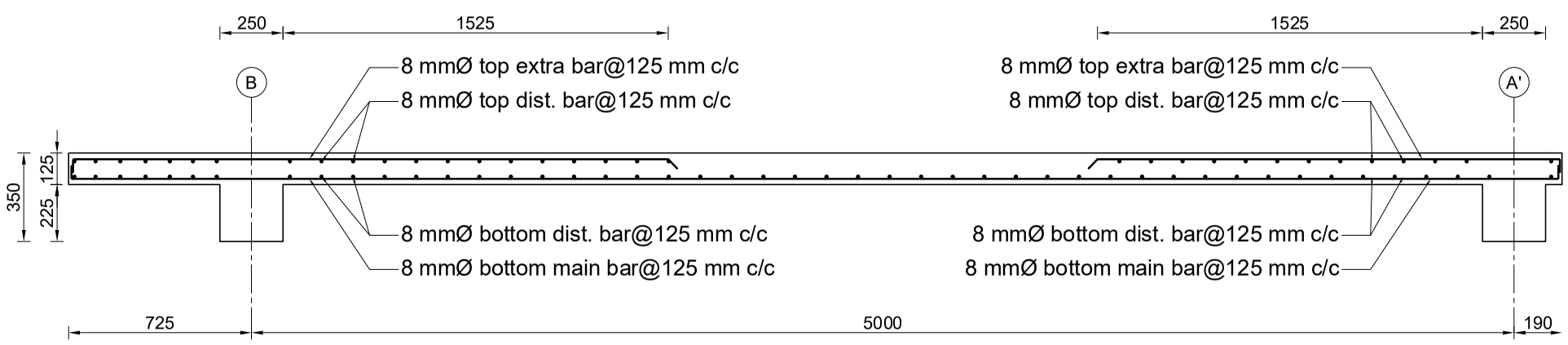
SLAB SECTION AT X-X

(SCALE 1:25)



SLAB SECTION AT X-X

(SCALE 1:25)



SLAB SECTION AT Y-Y

(SCALE 1:25)

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Slab Sections
GARAGE BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 09

CONSULTANT:
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Building Design Authority(P) Ltd.- BN- UDAYA JV

Government of Nepal
Ministry of Urban Development
Department of Urban Development and Building Construction

Regional Urban Development Project

Project Coordination Office

Babarmahal, Kathmandu

STRUCTURAL DRAWINGS of GARAGE BLOCK (TRUSS)

LUMBINI SANSKRITIK MUNICIPALITY

Structural Drawing

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
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SHEET TITLE: Table of Contents
GARAGE TRUSS BLOCK

SITE INFORMATION:

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PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 00

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GENERAL NOTES

GENERAL

1. General notes and typical structural details shall apply to all drawings unless otherwise shown or noted.
2. All works to be carried out in accordance with current practice, structure regulation, project specification,Nepalese Code and relevant Indian Standard and Codes of Practice. Materials and components to be appropriate for their intended use.
3. The contractor shall be responsible for verifying the dimensions on site and ensuring that all the dimensions and levels shown on the drawings are correct and consistent with other relevant drawings. Any discrepancies are to be reported immediately to Engineer
4. During construction, the contractor shall be responsible for maintain the structure in a stable condition and ensuring no par shall be damaged under construction activities.
5. Workmanship and materials are to be in accordance with the relevant Indian Standards.
6. The Engineer shall accept no responsibility for the works unless they are inspected and approved by the Engineer during the Construction. At least 48hours notice shall be provided for all engineering inspections.
7. Any damage to the surface during construction/erection is to be made good.
8. Before commencing the structural steel works, the shop drawings shall be provided to the Engineer.

DESIGN CRITERIA

1. LOADS

1.1. DEAD LOADS

Unit Weight of PCC = 24 kN/m^3

Unit Weight of RCC = 25 kN/m^3

Unit Weight of Steel (Rebar) = 78.5 kN/m^3

Unit Weight of Brick = 19 kN/m^3

Unit Weight of Steel = 78.5 kN/m^3

1.2. LIVE LOADS

Roof Live Load = 1.5 kN/m^2

1.3. SEISMIC LOAD

Code Followed = NBC 105:2020

Soil Type = C Type

Seismic Zoning Factor = 0.35

Importance Factor = 1.0

Over Strength Factor = 1.5 For ULS

Ductility Factor = 4.0 For ULS

Type of Structural System = Steel Moment Resisting Frame System

1.4. Wind Load Properties

Basic Wind Speed = 47 m/sec

Wind Load = As Per IS 875:1987 (Part-III)

1.5. SOIL PROPERTIES

Unit Weight of Soil = 19 kN/m^3

Bearing Capacity of Soil = 120 kN/m^2 (Geotechnical Report)

2. DESIGN AND CODE REFERENCE

Following references shall govern the design, fabrication and construction of project.

- IS 875(part I) Code of practice for design loads (dead) for buildings and structures.
- IS 875 (part II) Code of practice for design loads (live) for buildings and structures.
- IS 875 (part III) Code of practice for design loads (lwind) for buildings and structures.
- NBC 105:2020 Seismic Design of Building in Nepal
- IS 13920:2016 Ductile Design and Detailing of Reinforced Concrete Structures Subjected to Seismic Forces
- SP 34 Handbook on Concrete Reinforcement and Detailing
- IS 800:2007 General Construction in steel code of practice.
- IS 13920:2016 Ductile Design and Detailing of Reinforced Concrete Structures Subjected to Seismic Forces
- SP 34 Handbook on Concrete Reinforcement and Detailing
- IS 11384(1985) Code of Practice for Composite Construction in Structural Steel and Concrete.
- AISC 360-10 Specification for structural steel building

MATERIAL

1. CONCRETE
   a. The cement used shall be Ordinary Portland cement conforming to IS 269:1976.
   b. All RCC work shall be continuously cured by moist jute sheets or any means.
   c. The concrete strength shall be measured on (150x150x150) mm^3 cube at 7,14 and 28 days for various structural elements.
   d. Unless indicated otherwise on plans. the concrete class and strength shall be as follows:

Block Name: Garage Truss			
SN	Structural Member	Concrete Grade	Remarks
1	Footing,	M20	
2	Tie Beam	M20	
3	RC Pedestal/Column	M20	
4	PCC	M15	

2. REINFORCING STEEL
   a. Reinforcement steel shall be TMT having yield strength of 500 N/mm^2.
   b. Cover to main reinforcing steel shall be in accordance with IS 456:2000.
   c. Clear Cover of Concrete shall be:
      Footing = 50 mm
      Column = 40 mm
      Beam = 25 mm
      Slab = 20 mm
   d. Details of reinforcing steel fabrication and placement shall conform to SP 34-1987.
   e. Bar bending schedule shall be submitted for approval before the reinforcement work and contractor shall corresponds to the Engineer in case of any discrepancies.
3. STRUCTURAL STEEL BOLTS/WELD (Applicable for Steel Structure)
   a. Structural steel shall have a yield strength of 250 N/mm^2.
   b. Requirements of welds and welding shall conforms to IS 816 and IS9595, as appropriate.
   c. The electrodes required for metal or welding shall be covered and shall conform to IS814: 1991
   d. Metal Surface shall be properly cleaned
   e. Nomenclature of structural steel is as per Indian Standard Steel Section.
   f. Welds and welding shall be applied as per drawing.
   g. Application of metal primes and finishing coat of paint shall be in accordance with IS1477:1971 (Part-I and Part-II).
   h. Anchor Bolt:
      - Bolt shall be of grade as per specified in the drawing if not specified 4.6 grade shall be considered.
      - Bolts shall be galvanize as per IS 5358:1969 provision.
      - Anchor bolts shall confirm to IS 5624:1995. As an alternate for anchor bolts of 4.6 grade threaded steel rebar of 500 N/mm^2 of length as per design shall be used.

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SHEET TITLE: General Notes-1
GARAGE TRUSS BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
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PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 01

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CONSTRUCTION

1. SETTING OUT

The setting out and the elevations of the different components of the structure shall be approved by the engineer prior to the start of any construction work.

2. REINFORCED CONCRETE

A. CONCRETE MIX AND PLACING

a. Concrete mix shall meet the design concrete strength given under material.
b. Concrete shall be deposited, vibrated and cured in accordance with the specifications.
c. The contractor shall submit to the engineer for approval the pouring sequences for the concrete work.
d. The contractor shall notify the engineer 48 hours prior to the pouring of any structural concrete, so an inspection can be made on all the forms and reinforcing
e. Use of the admixture is permitted to produce proper slump and workability but subjected to the engineer approval addition of concrete at job site is not allowed.
f. For two or more layers of reinforcing bars, use separator spacing @ 900 mm o/c and in no case shall be less than 2 separator. Clear distance between layers should not be less than 25 mm or larger bar diameters.
g. Location of all the constructions or cold joints must be approved by the engineer/Architect.
h. Pipes or duct exceeding one third the slab or wall thickness shall not be placed in structural concrete unless specifically detailed. Pipes may pass through structural concrete in sleeves but shall not be embedded therein
i. Reinforcing bars, anchorage bolts, and other inserts shall be secured in place before pouring concrete bar placement and support wall be in accordance with recommend Indian standard practice.
j. In general, the latest edition of the manual of standard for detailing concrete structure unless shown otherwise.

B. BAR BENDING, SPLICING AND PLACING

a. The contractor shall submit to the engineer for approval all shop drawing indicating the bending, cutting, splicing and installation of all reinforcing bars.
b. Bar splicing not indicated on drawing shall be subjected to the approval of engineer.
c. Lapped splices shall be staggered where possible.
d. Anchorage bolts, dowels and other embedded items are to be securely tied in place before concrete is poured.
e. Typical standard hook details. (Refer Typical Drawing)
f. Typical lap splice details. (Refer Typical Drawing

C. FORM WORK

a. Forms shall be provided for all concrete indicated unless specified otherwise, forms shall be set true to line and grade and maintained so as to ensure competent work within the allowable tolerances specified and shall be mortar tight.
b. Forms and their supports shall be designed so as not to damage previously placed structure.
c. No construction load shall be supported on, nor any shoring removed from any part of structure in combination with the remaining forming and shoring systems has sufficient strength to support safely its weight and additional imposed load.
d. Forms shall be removed in such manner as not to impair safely and serviceability of the structure.
e. Schedule of stripping of forms will be as table: stripping time as per clause 11.3 of IS456:2000.

D. PROTECTION AND CURING OF CONCRETE

Concrete surfaces shall be protected from harmful effects of sun, wind and running water and shall be kept damp for at least 7 days.

Table : Stripping Time As per clause 11.3 of IS456:2000

SN		Type of Formwork	Minimum Period Before Striking	Remake
1		Sides of Walls, Columns and Vertical Faces of beam	16 to 24 hours	
2		Soffit formwork of slabs (Props Left Under)	3 days	
3		Soffit formwork of beams (Props Left Under)	7 days	
4		Removal of Props of Slabs:		
	a.	Slabs spanning uot 4.5m	7 days	
	b.	Slabs spanning over 4.5m	14 days	
5		Removal of props for beams and arches		
	a.	Span up to 6m	14days	
	b.	Span voer 6m	21 days	

3. STRUCTURAL STEEL

a. Hole size for anchorage bars
b. Welded connections between members of moment frames shall be tested by non-destructive test method.
c. Comply with Indian Standard for bearing, adequacy of temporary connection and alignment.
d. Fabricator shall submit shop drawing for approval by the engineer and the owner prior to fabrication.

4. FOOTINGS

a. All footing shall be on the natural soil.
b. All engineered fill beneath slab and over footing shall be compacted to a dry density of at least 90% of the Modified Proctor maximum dry density.
c. Foundation shall be inspected to ensure that loose soft or otherwise undesirable material (such as organic materials) is removed, and that the foundation will bear on the natural soil.

5. LIMITATION FOR FOOTING

a. Foundations in areas under infill soil may require special design considerations, such as deeper foundations, reinforced foundation systems, or soil stabilization techniques
b. Areas with infill soil must be assessed for differential settlement and localized instability. Differential settlements between blocks on solid ground and those over infill should be minimized.

UNITS

1. Do not scale drawings. Any missing dimension shall be furnished upon request.
2. All dimensions are in millimeter unless otherwise noted.

LIMITATION

The construction design has been done assuming quality materials and steel sections are available. Therefore, the design needs to be verified with the actual situation when the work progress and may require some changes during the implementation.

SYMBOL

- ϕ = Diameter of Rebar

ABBREVIATIONS

(N)L	:	(Number) Stirrups Leg Number
BP	:	Base Plate
C/C	:	Center to Center
CP	:	Connection Plate
D (N)	:	Detail Number
Dia.	:	Diameter
Dist.	:	Distribution
Ext.	:	Extra
GL	:	Ground Level
mm	:	Millimeter
PCC	:	Plain Cement Concrete
PL	:	Plinth Level
RCC	:	Reinforced Cement Concrete
S Beam	:	Secondary Beam
SC	:	Steel Column
SEC	:	Section
ST	:	Strap Beam
SW	:	Shear Wall
Th.	:	Through
UTB	:	Upper Tie Beam

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SHEET TITLE: General Notes-2
GARAGE TRUSS BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

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PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 02

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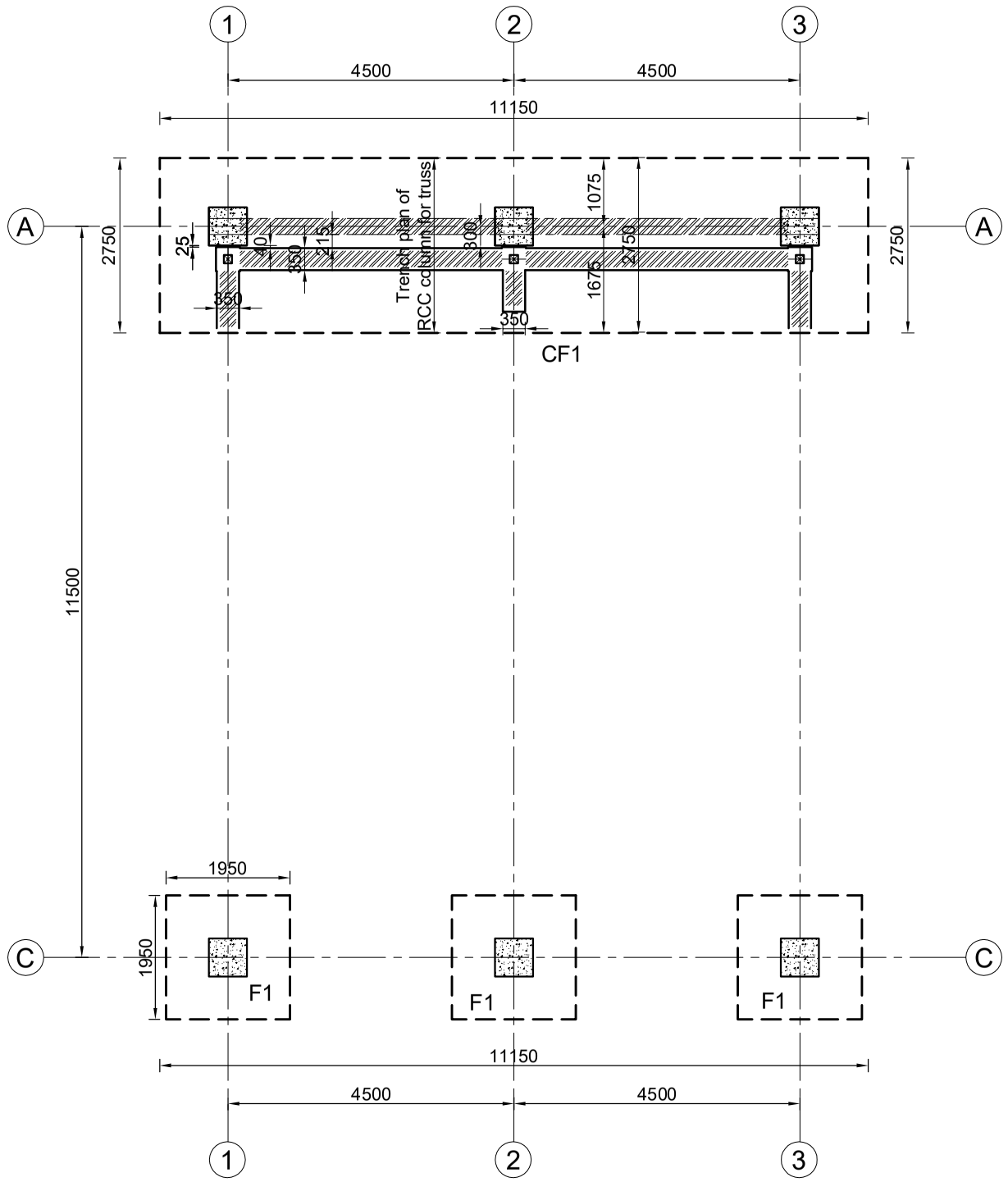
NOTE:

CONCRETE GRADE = M20
REBAR GRADE = Fe 500 (TMT)
STEEL GRADE = Fe 250



TRENCH PLAN (TRUSS BLOCK)

(SCALE 1:100)

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Regional Urban Development Project (RUDP)
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SHEET TITLE: Trench Plan
GARAGE TRUSS BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
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PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 03

CONSULTANT:
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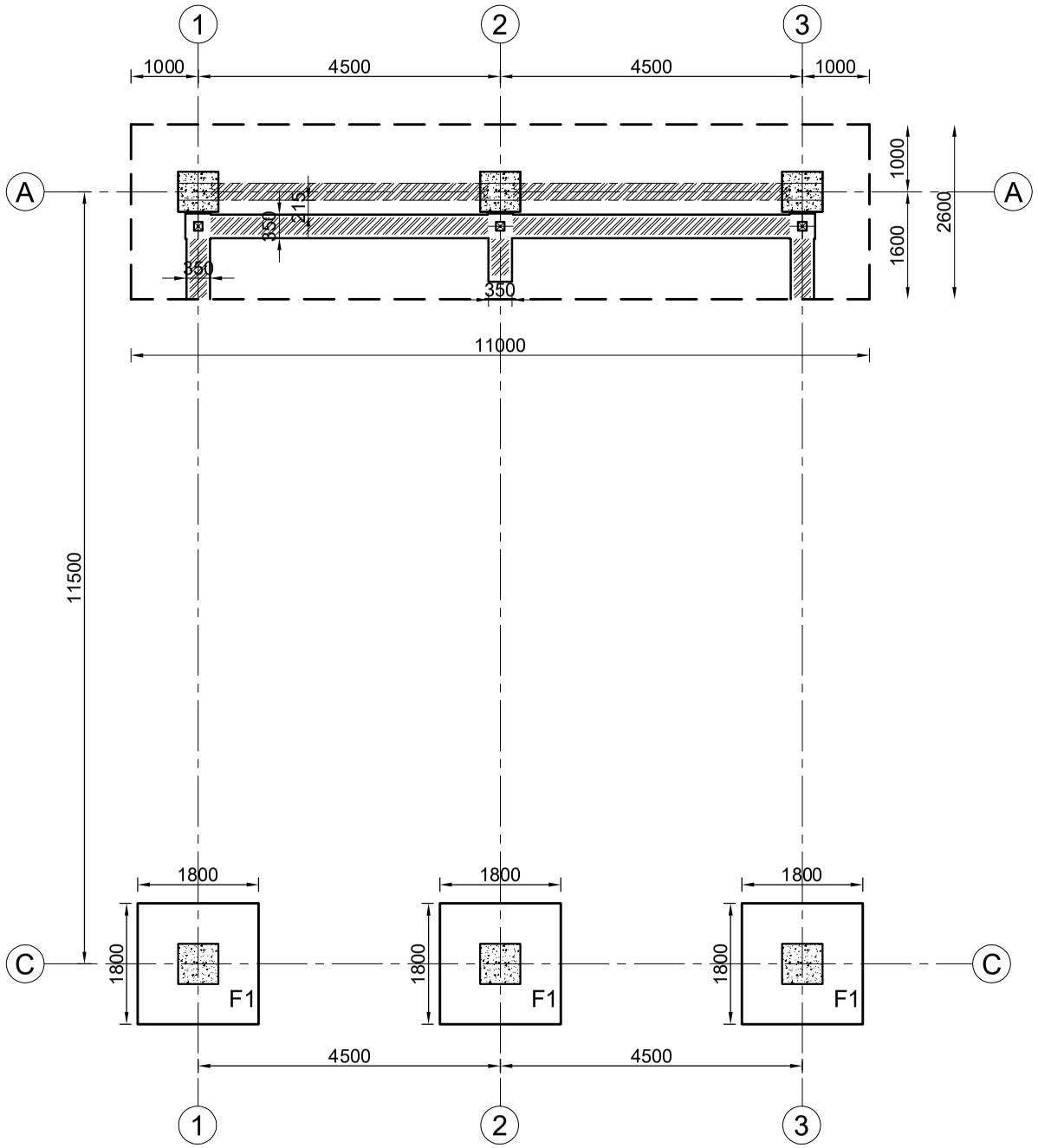

FOOTING PLAN (TRUSS BLOCK)

(SCALE 1:100)

NOTE:

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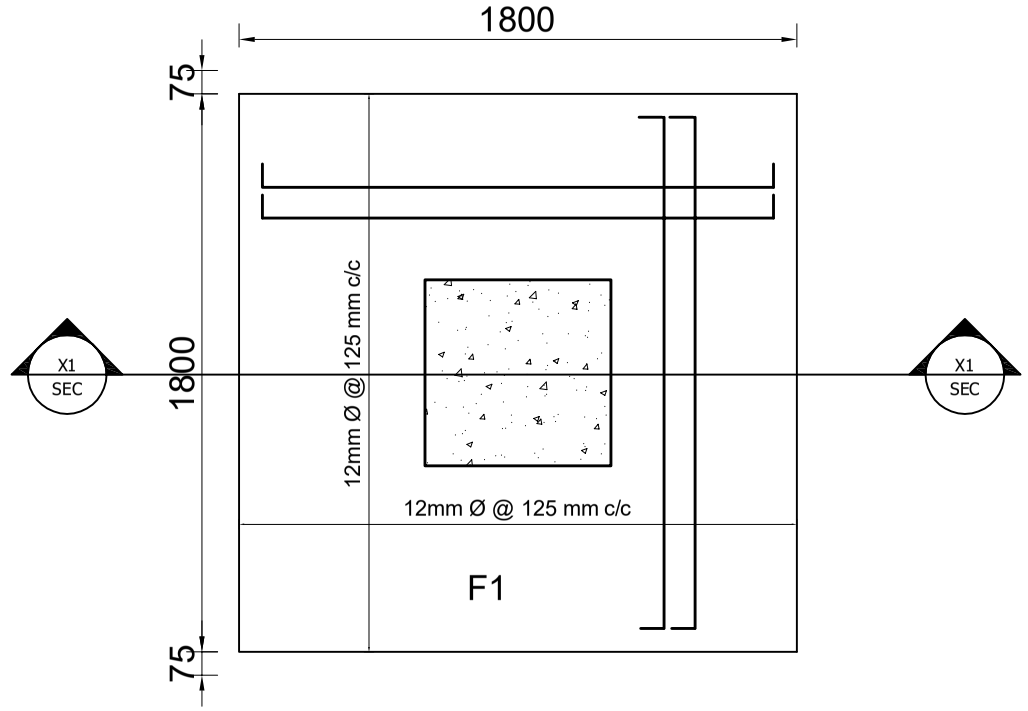
STEEL GRADE = Fe 250

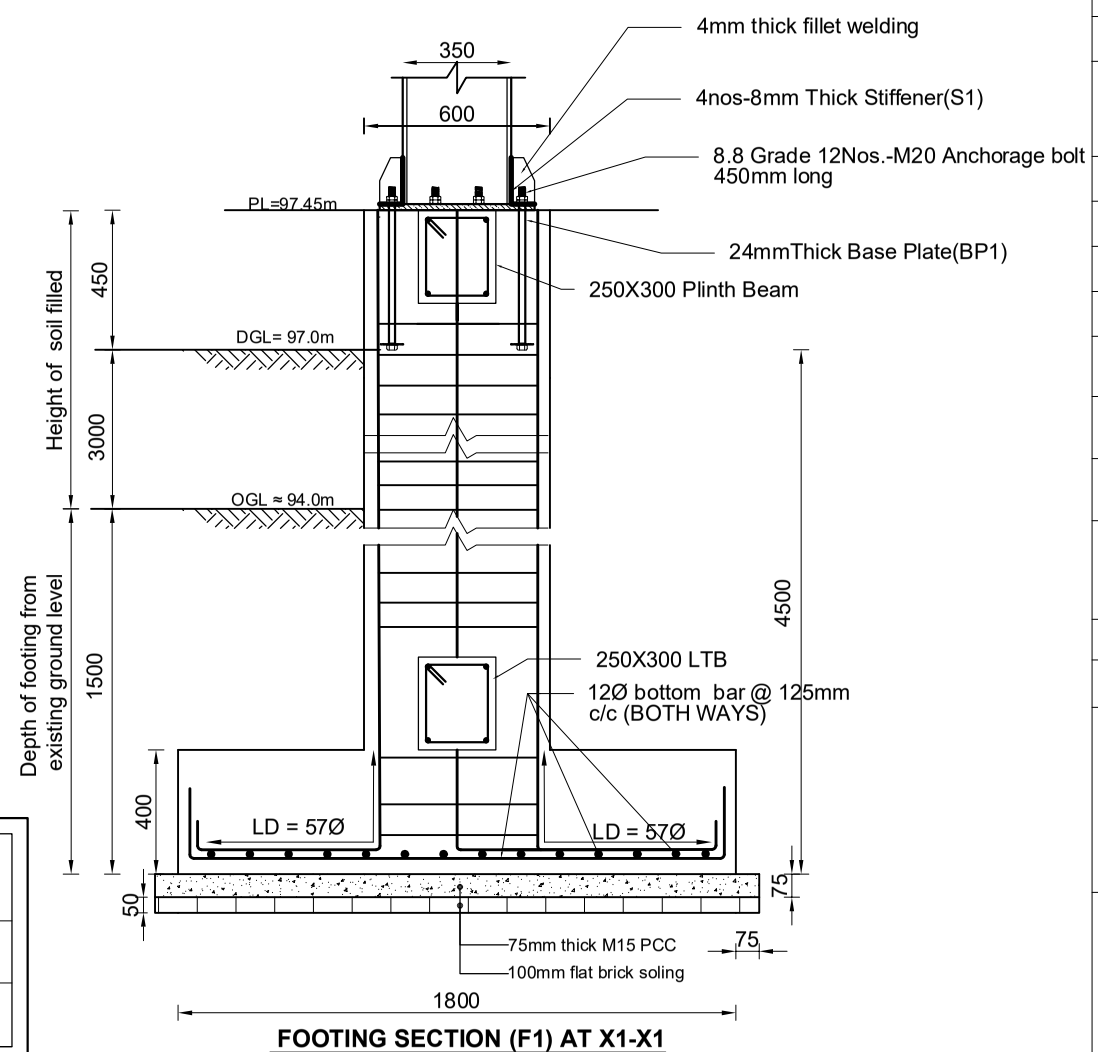


FOOTING PLAN (F1)

(SCALE 1:25)

FOOTING DETAILS TABLE

SN	DESCRIPTION	SIZE	DEPTH	DIA AND SPACING OF BAR
1	FOOTING -CF1	11000x2600	400	12 mm Ø bar @ 150 mm c/c
2	FOOTING -F1	1800x1800	400	12 mm Ø bar @ 125 mm c/c



FOOTING SECTION (F1) AT X1-X1

(SCALE 1:25)

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SHEET TITLE: Footing Plan and Details
GARAGE TRUSS BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

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PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 04

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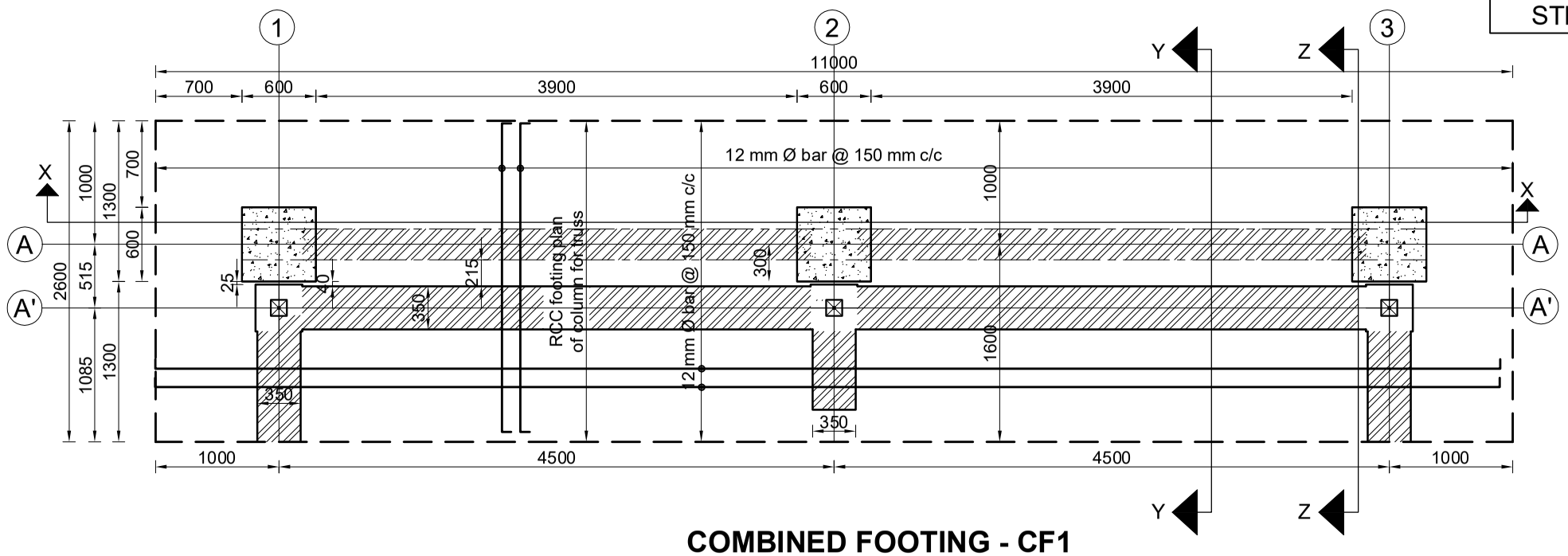
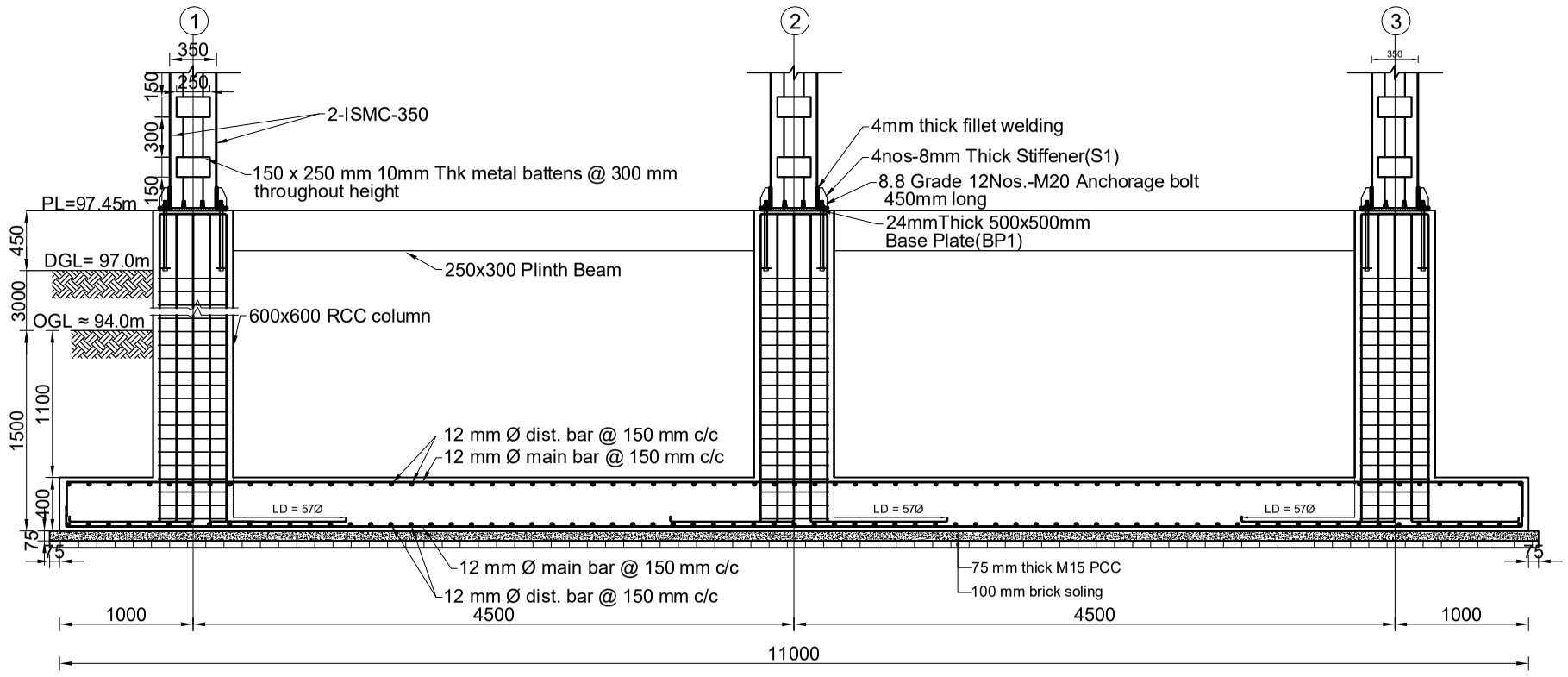


COMBINED FOOTING - CF1

(SCALE 1:50)



SECTION OF COMBINE FOOTING CF1 AT X-X

(SCALE 1:50)

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SHEET TITLE: Footing Detals
GARAGE TRUSS BLOCK

SITE INFORMATION:

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PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 05

CONSULTANT:
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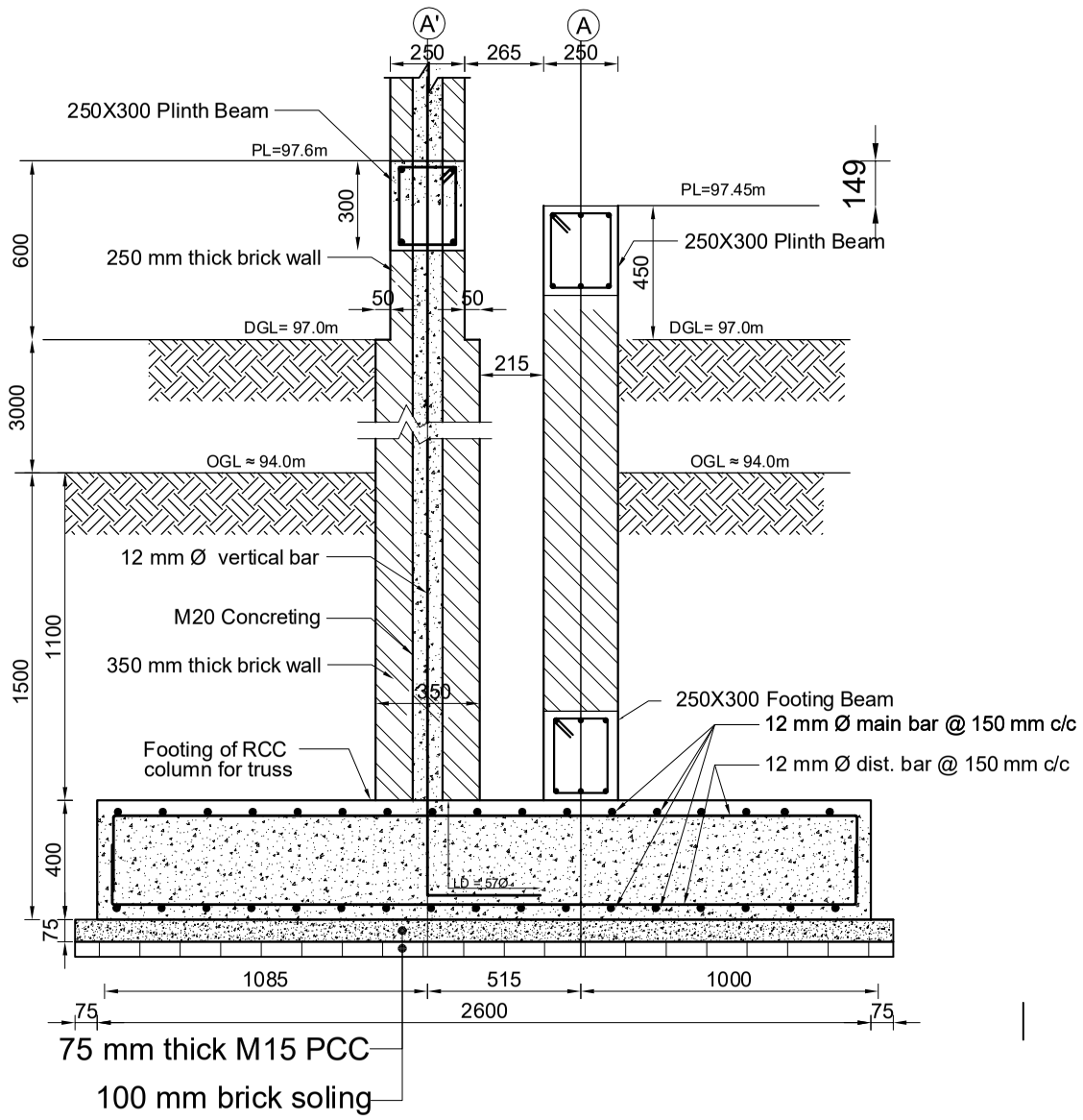

FOOTING SECTION CF1 AT Y-Y

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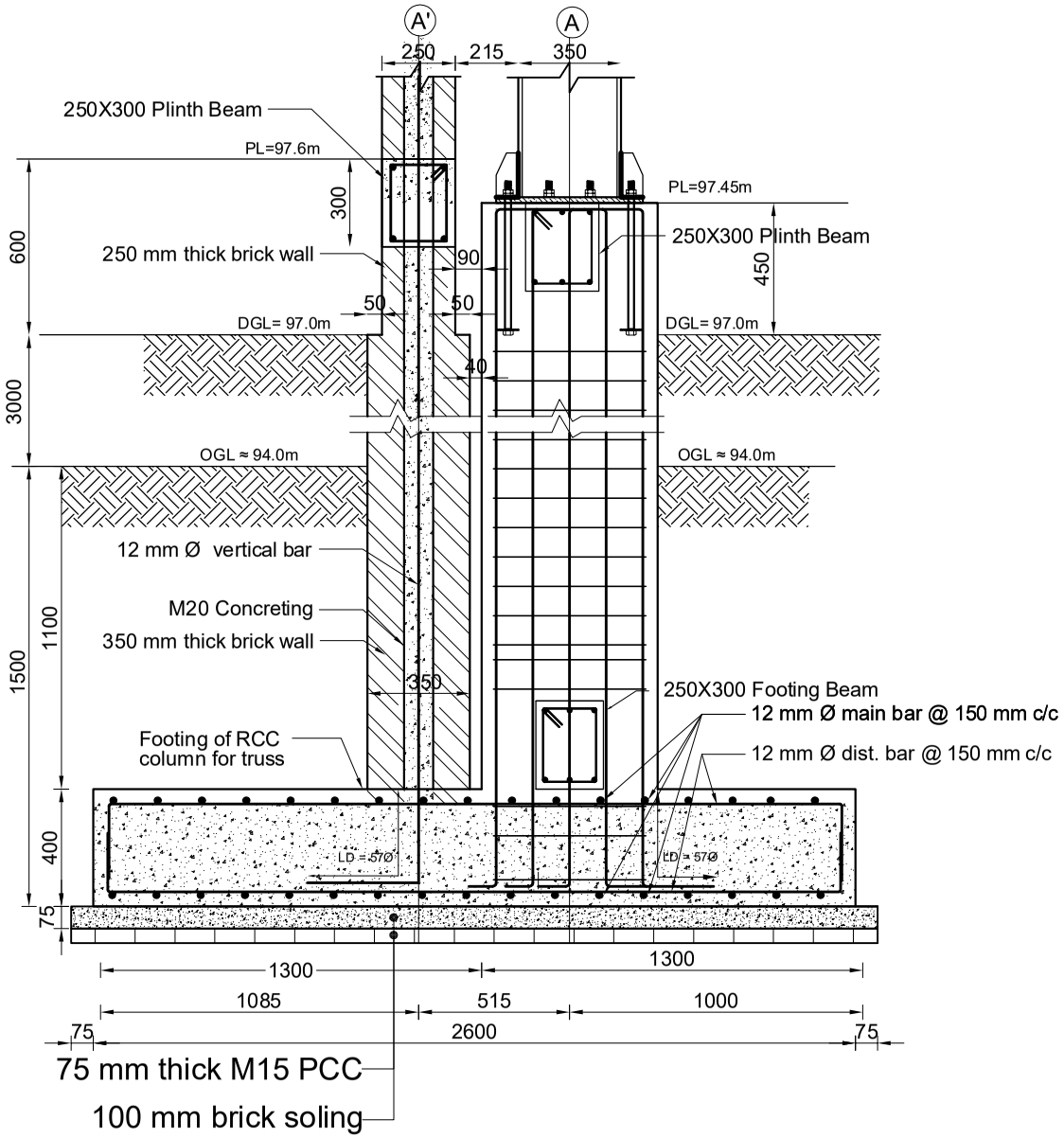

FOOTING SECTION CF1 AT Z-Z

(SCALE 1:25)

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PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 06

CONSULTANT:
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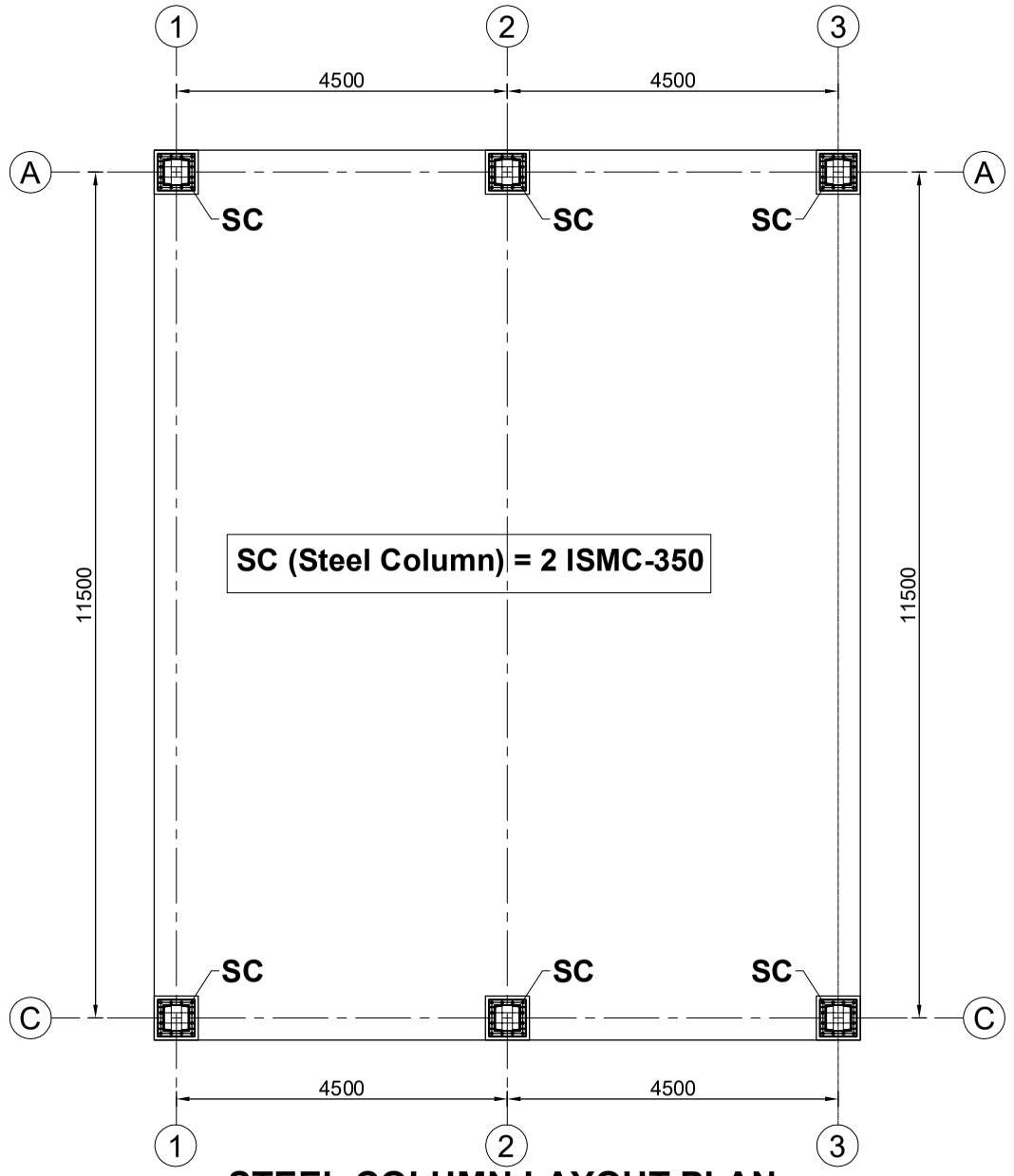
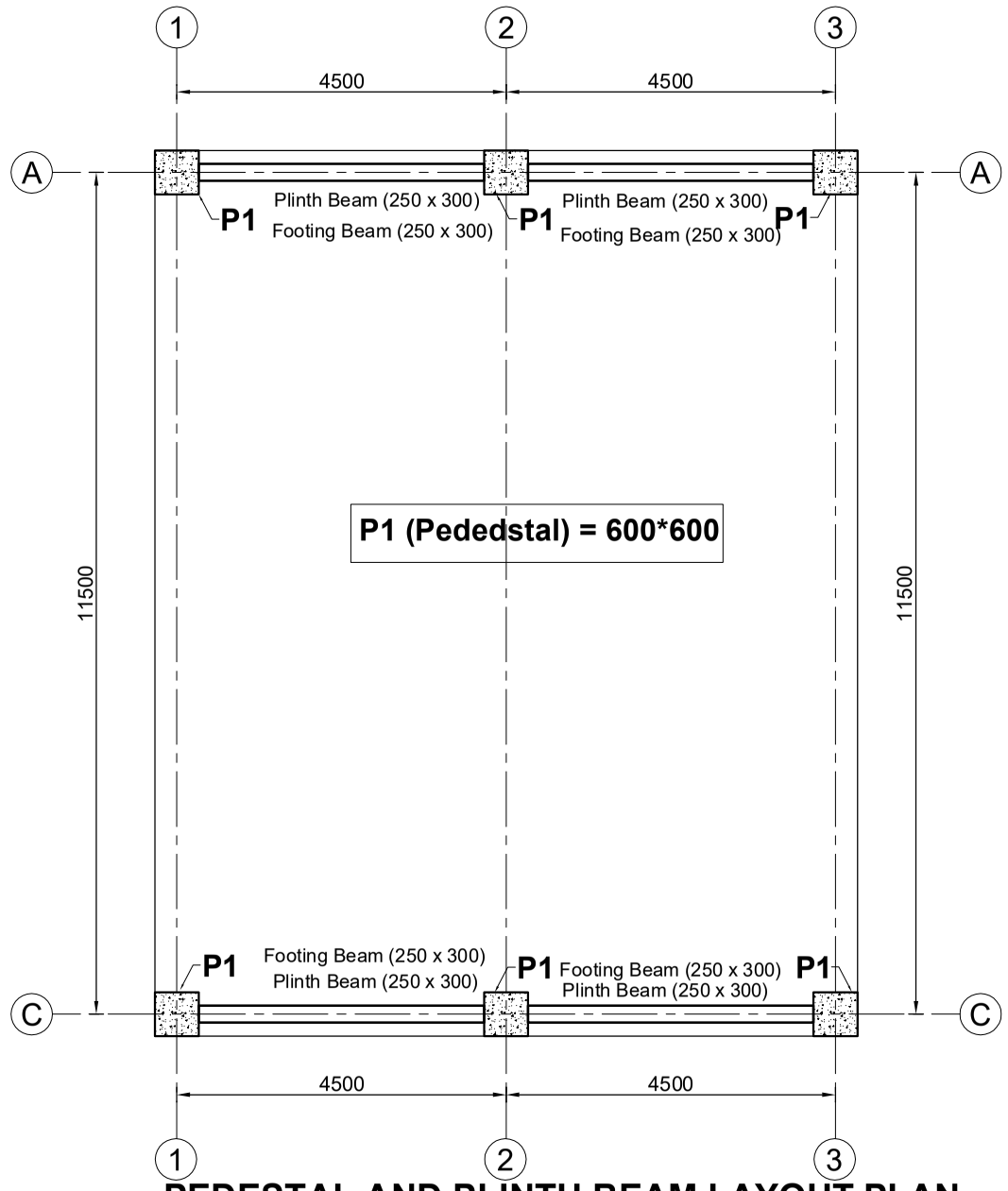


STEEL COLUMN LAYOUT PLAN

(Scale 1:100)

NOTE:

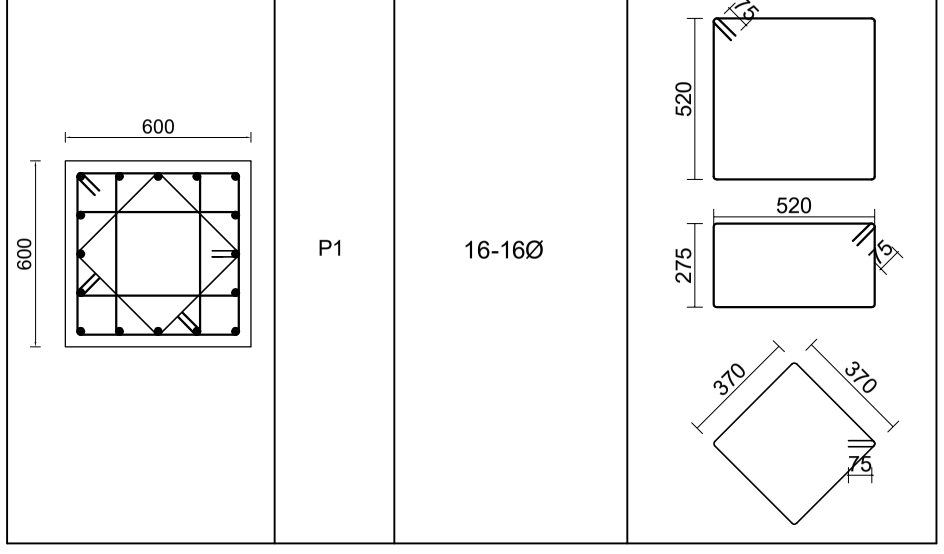
CONCRETE GRADE = M20
REBAR GRADE = Fe 500 (TMT)
STEEL GRADE = Fe 250



PEDESTAL AND PLINTH BEAM LAYOUT PLAN

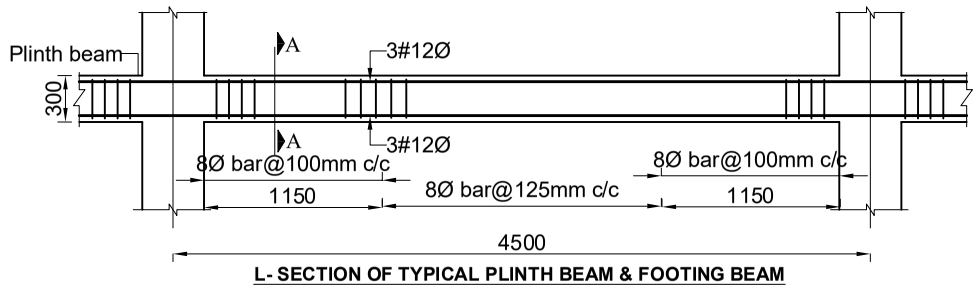
(Scale 1:100)

CONCRETE GRADE = M20	STEEL = (Fe500)	TYPES OF STIRRUPS
POSITION OF BAR	PEDESTAL NAME	GROUND FLOOR
		10 mm Ø Bar @ 100 mm c/c Full height
600 / 600	P1	16-16Ø



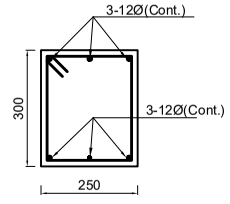
PEDESTAL SIZE & LONGITUDINAL STEEL

(Scale1:25)



L- SECTION OF TYPICAL PLINTH BEAM & FOOTING BEAM

(Scale1:50)



Stirrups: 2L-8Ø @100c/c at ends
2L-8Ø @125c/c at mid

PLINTH & FOOTING BEAM SECTION AT A-A

(Scale 1:20)

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Steel Column and Pedestal Layout Plan
GARAGE TRUSS BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

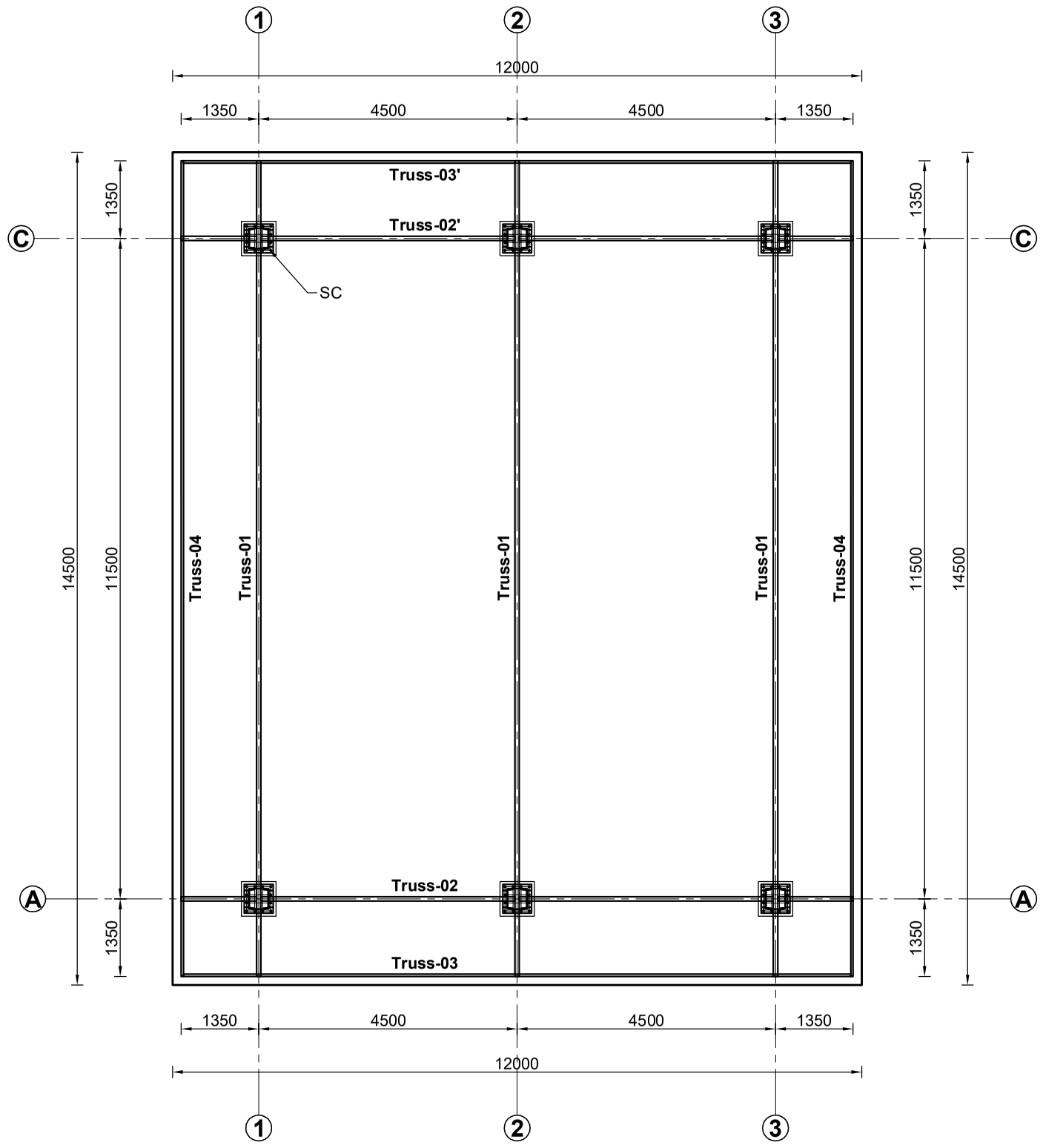
CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 07

CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV

NOTE:

CONCRETE GRADE = M20
REBAR GRADE = Fe 500 (TMT)
STEEL GRADE = Fe 250



TRUSS LAYOUT PLAN (TRUSS BLOCK)

(Scale 1:100)

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Truss Layout Plan
GARAGE TRUSS BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 08

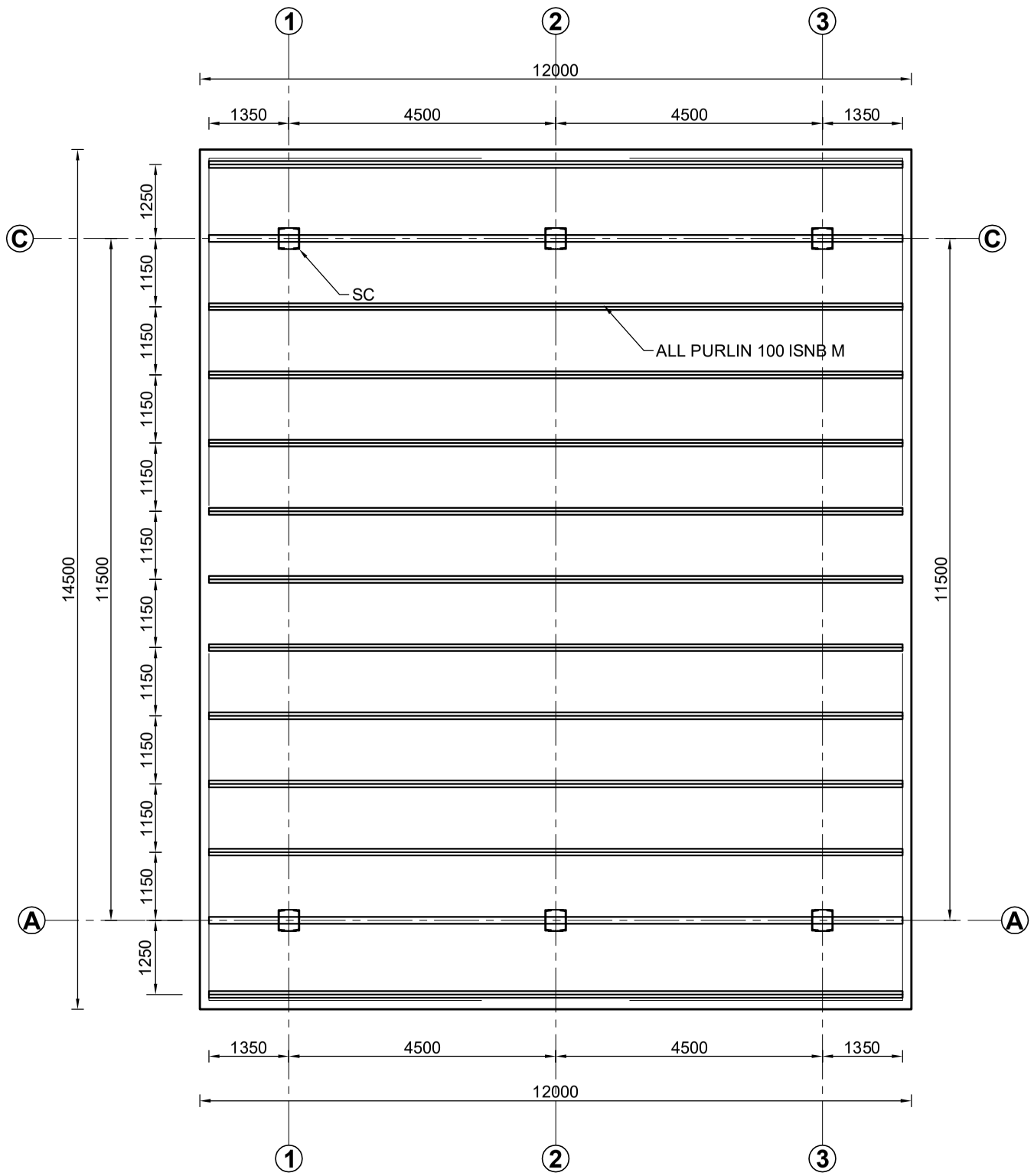
CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)

Building Design Authority(P) Ltd.- BN- UDAYA JV

NOTE:

CONCRETE GRADE = M20
REBAR GRADE = Fe 500 (TMT)
STEEL GRADE = Fe 250



PURLIN LAYOUT PLAN (TRUSS BLOCK)

PURLIN = ISNB 100M

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Purlin Layout Plan
GARAGE TRUSS BLOCK

SITE INFORMATION:

NAME: Bus Terminal

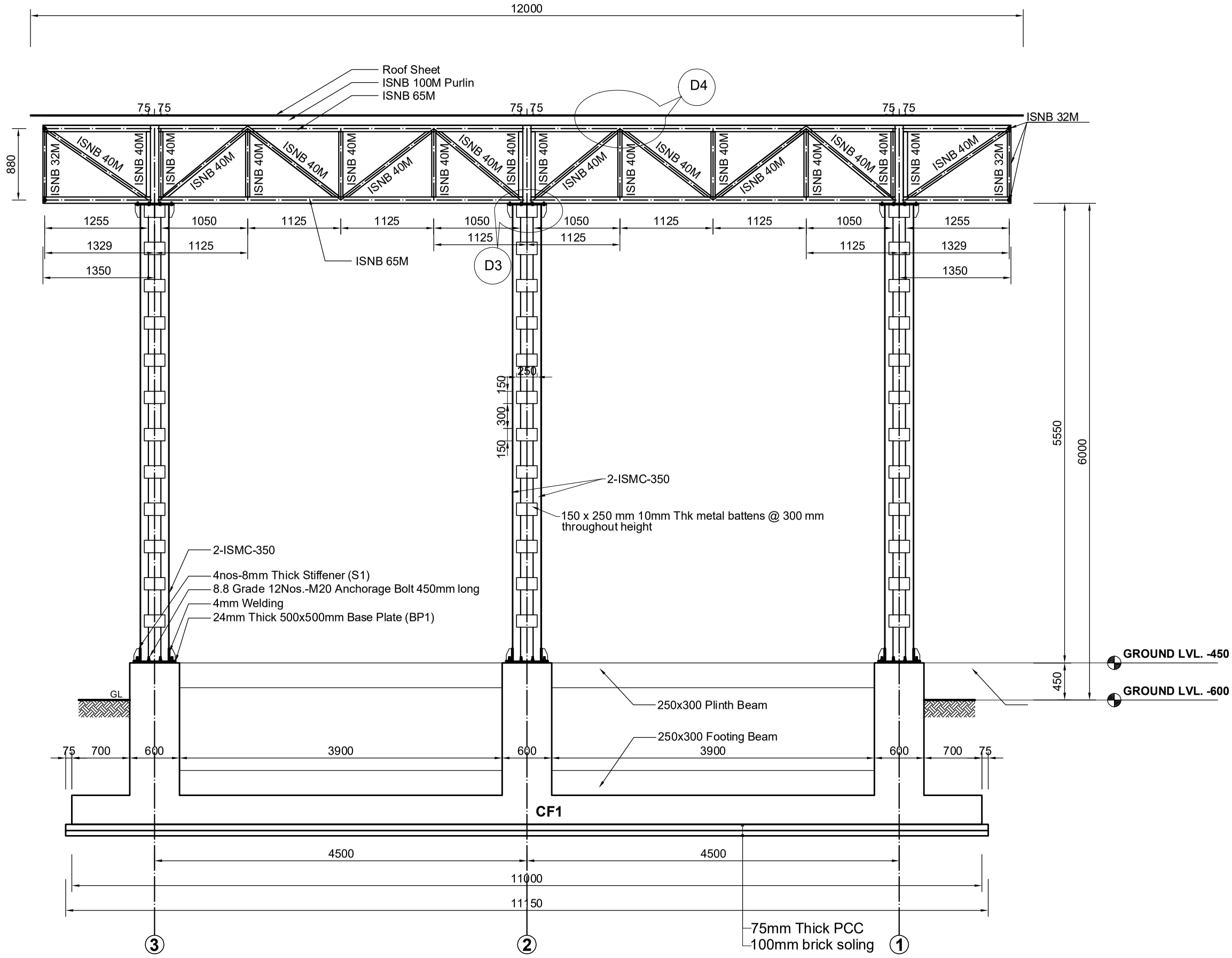
AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: **Er. Ajay Shrestha**	
Designed By: **Er. Enu Rai 17819 Civil "A"** **Er. Arbind Yadav**	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 09

CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV



TRUSS (02) SECTION ALONG GRID A-A (GARAGE TRUSS BLOCK)

(Scale 1:50)

NOTE:

CONCRETE GRADE = M20
REBAR GRADE = Fe 500 (TMT)
STEEL GRADE = Fe 250

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Truss Section
GARAGE TRUSS BLOCK

SITE INFORMATION:

NAME: Bus Terminal

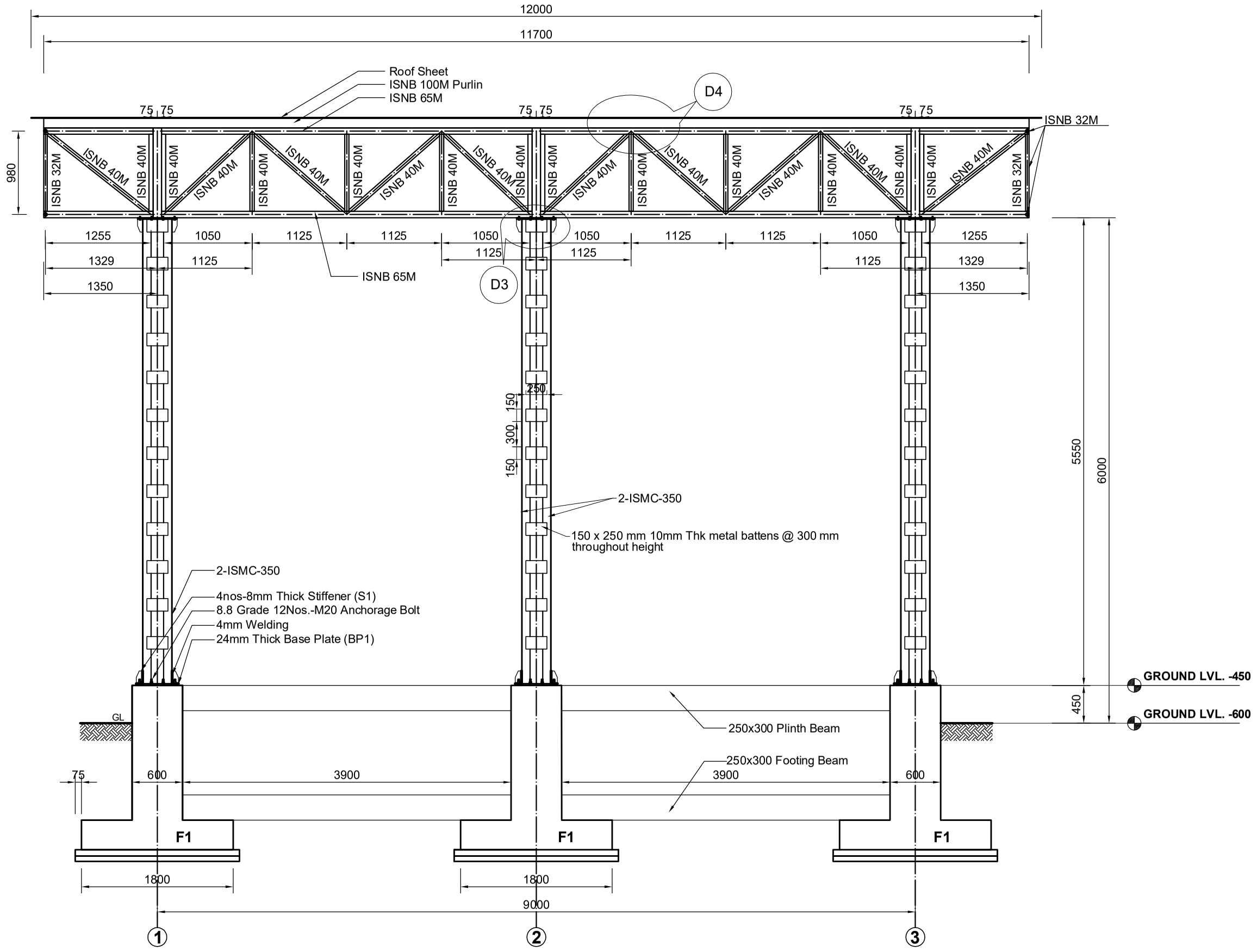
AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 10

CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV



TRUSS (02') SECTION ALONG GRID C-C (GARAGE TRUSS BLOCK)

(Scale 1:50)

NOTE:

CONCRETE GRADE = M20
REBAR GRADE = Fe 500 (TMT)
STEEL GRADE = Fe 250

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Truss Section
GARAGE TRUSS BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 11

CONSULTANT:
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In association with
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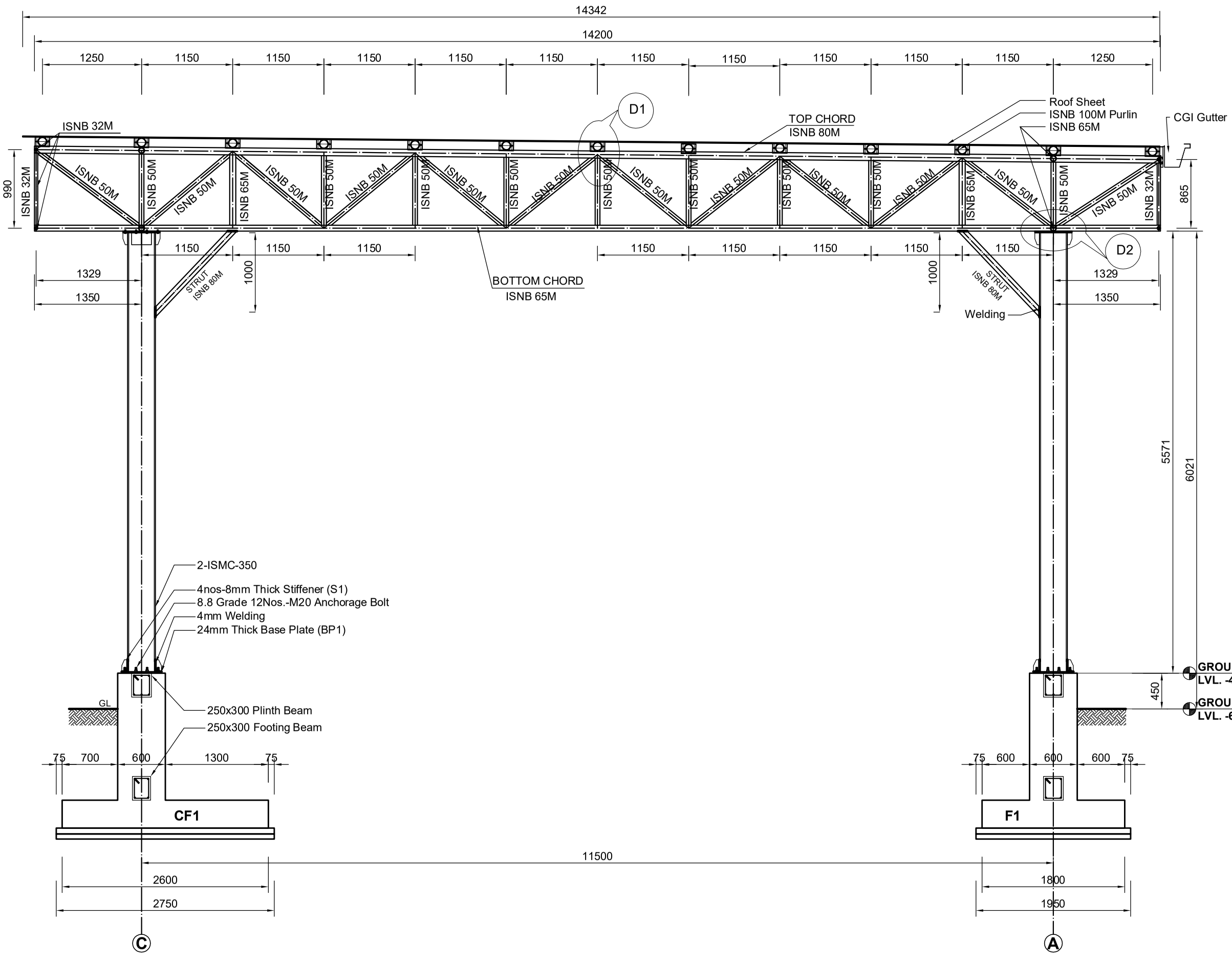
REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV



TRUSS (01) SECTION AT 1-1, 2-2 & 3-3(GARAGE TRUSS BLOCK)

(Scale 1:50)

NOTE:

CONCRETE GRADE = M20
REBAR GRADE = Fe 500 (TMT)
STEEL GRADE = Fe 250

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Truss Sections
GARAGE TRUSS BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 12

CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
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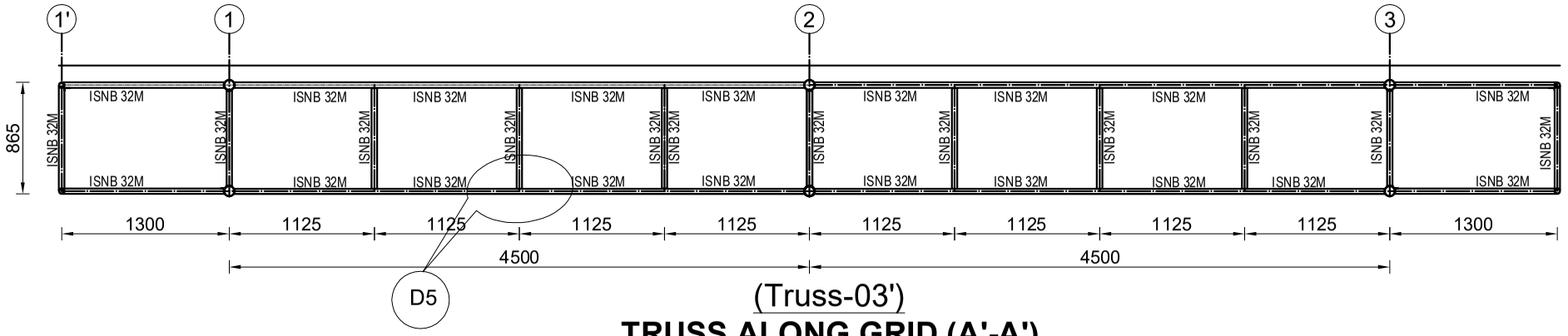
Mid Baneshwor,Kathmandu

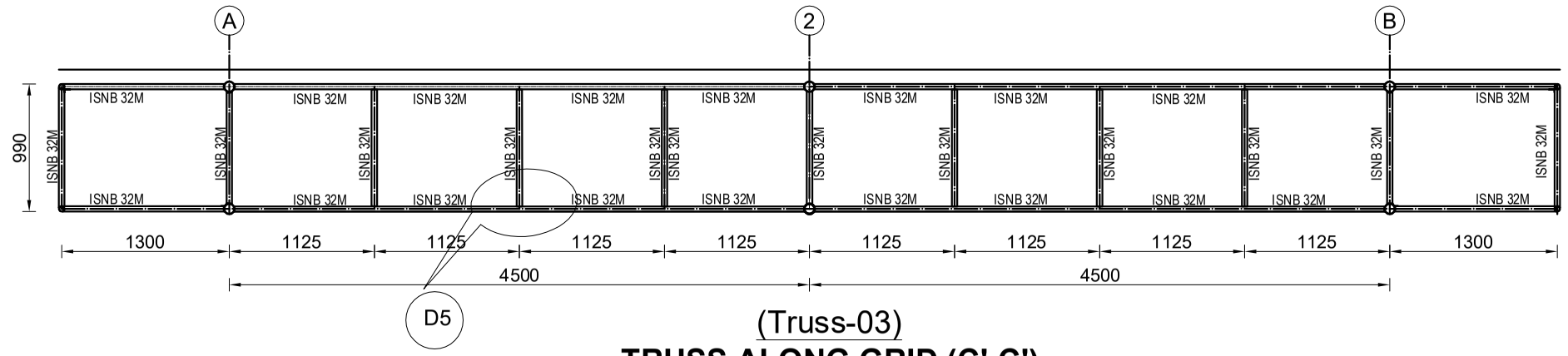
REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV



(Truss-03')

TRUSS ALONG GRID (A'-A')

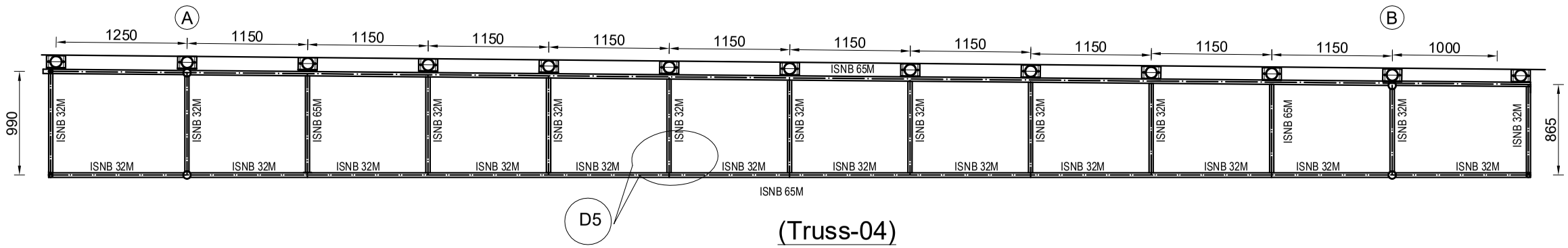
Scale 1:50)



(Truss-03)

TRUSS ALONG GRID (C'-C')

Scale 1:50)



(Truss-04)

TRUSS ALONG GRID (1'-1') & (3'-3')

Scale 1:50)

NOTE:

CONCRETE GRADE = M20
REBAR GRADE = Fe 500 (TMT)
STEEL GRADE = Fe 250

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Truss Sections
GARAGE TRUSS BLOCK

SITE INFORMATION:

NAME: Bus Terminal

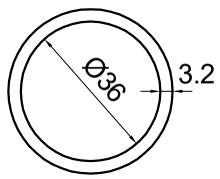
AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: **Er. Ajay Shrestha**	
Designed By: **Er. Enu Rai 17819 Civil "A"** **Er. Arbind Yadav**	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 13

CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV



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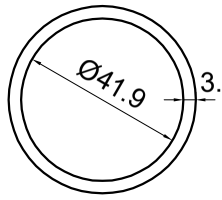
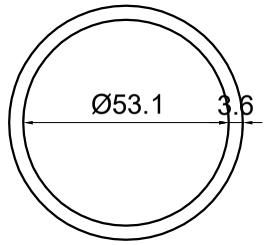
(Scale 1:2)



ISNB 40M
(Scale 1:2)



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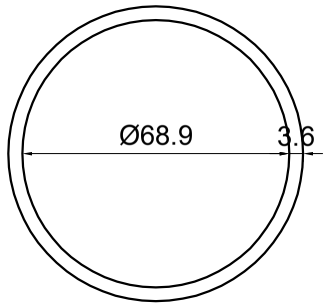
(Scale 1:2)



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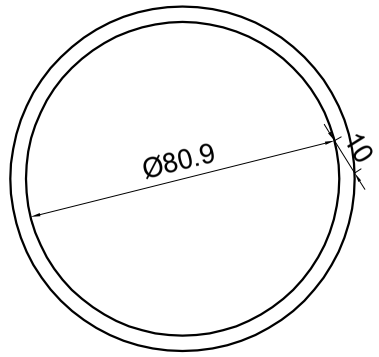
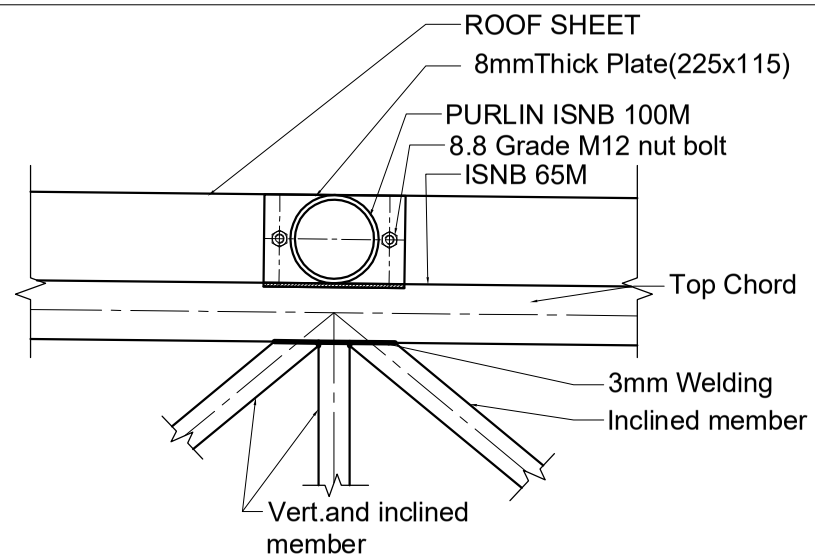
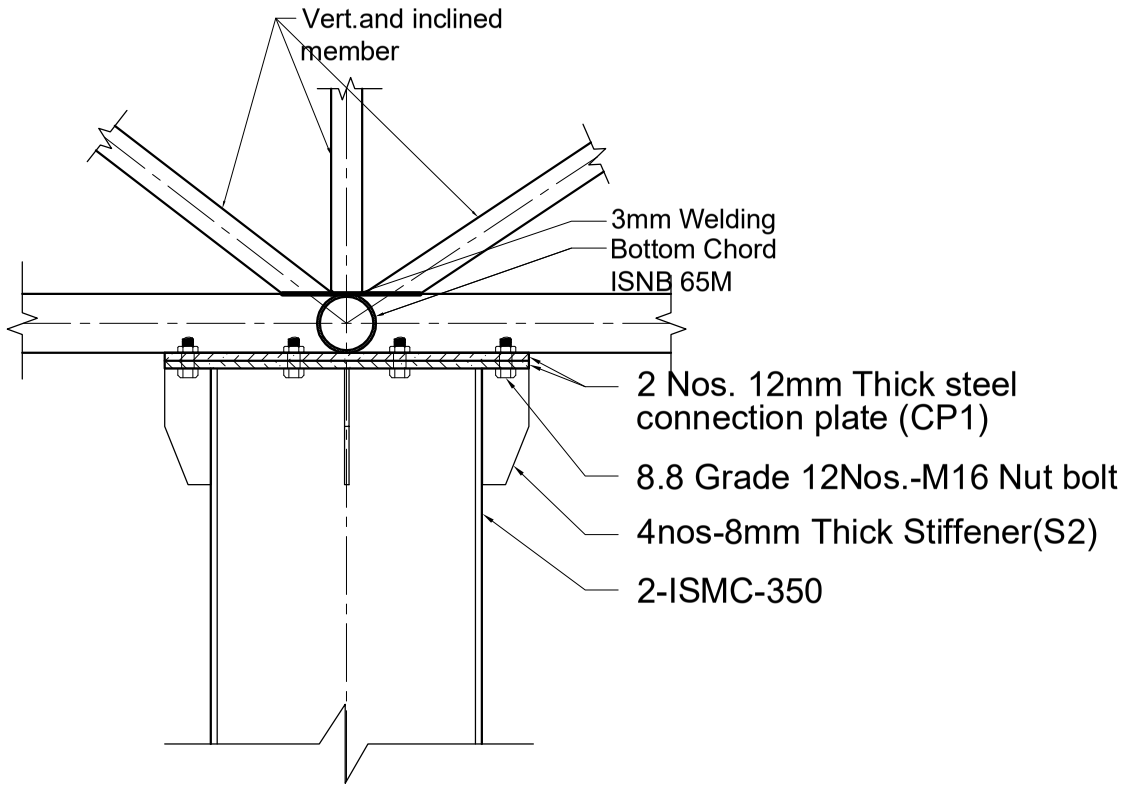
(Scale 1:2)



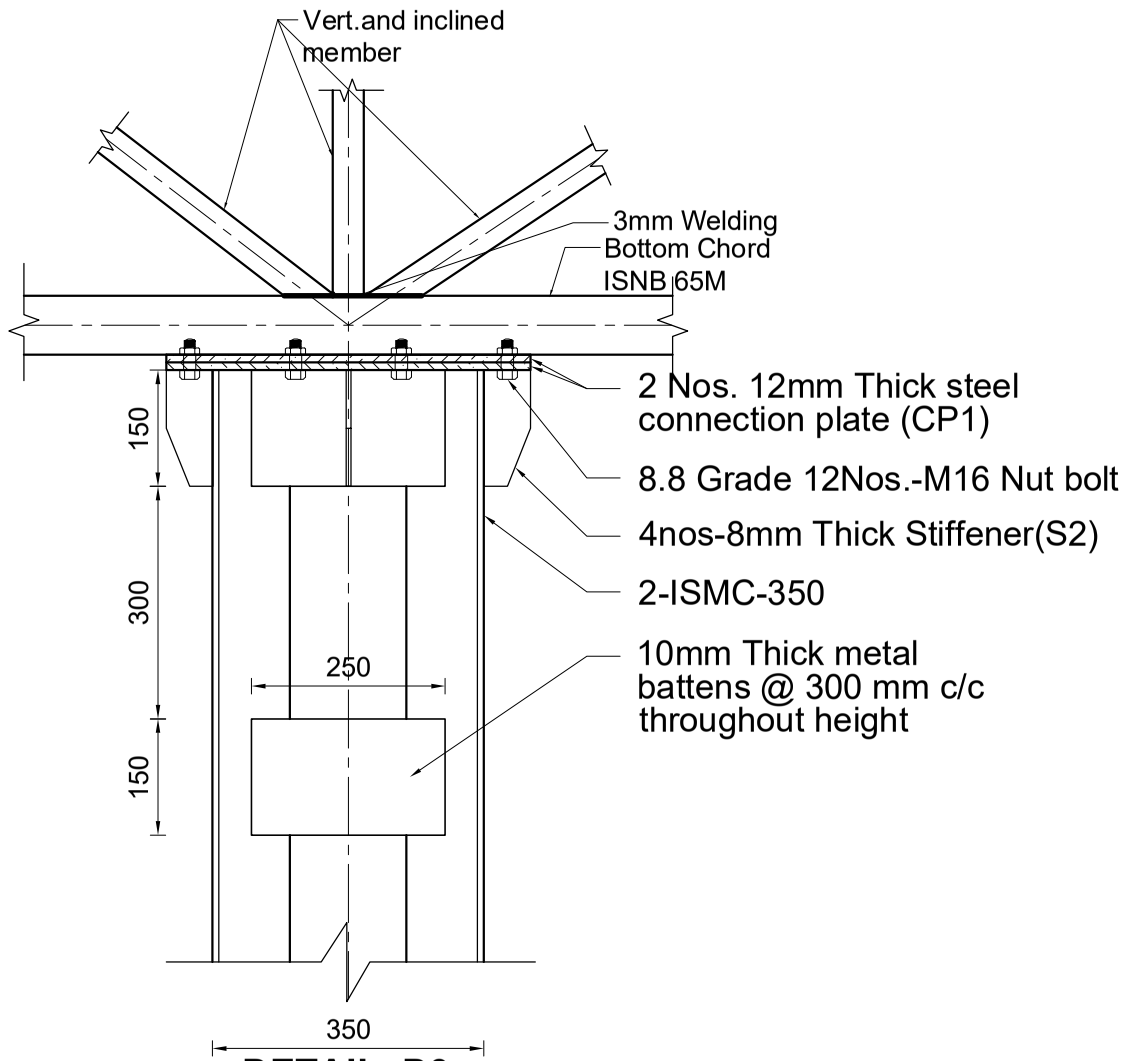
ISNB 80M
(Scale 1:2)



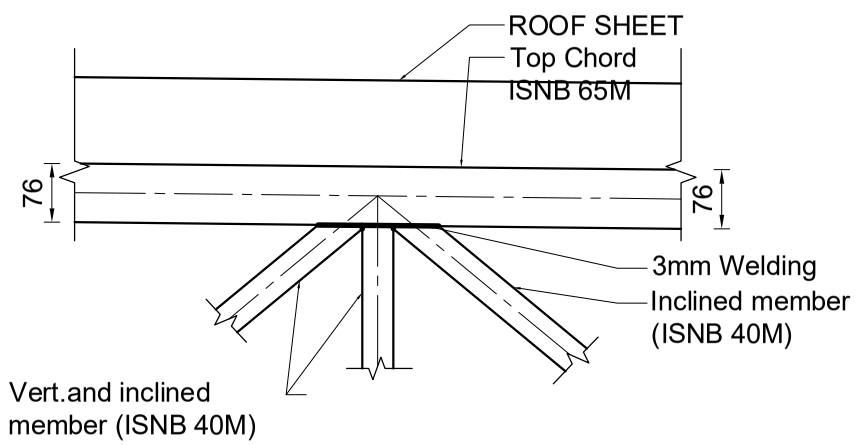
DETAIL -D1
CONNECTION DETAIL
(Scale 1:10)



DETAIL -D2
CONNECTION DETAIL
(Scale 1:10)



DETAIL -D3
CONNECTION DETAIL
(Scale 1:10)



DETAIL -D4
CONNECTION DETAIL
(Scale 1:10)

NOTE:

CONCRETE GRADE = M20
REBAR GRADE = Fe 500 (TMT)
STEEL GRADE = Fe 250

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Details-1
GARAGE TRUSS BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

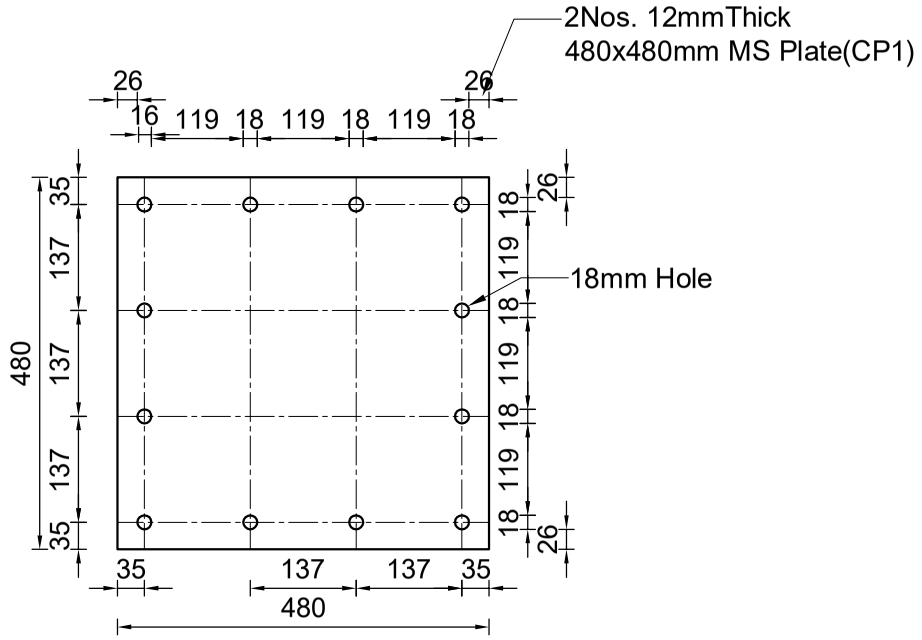
CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 14

CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV

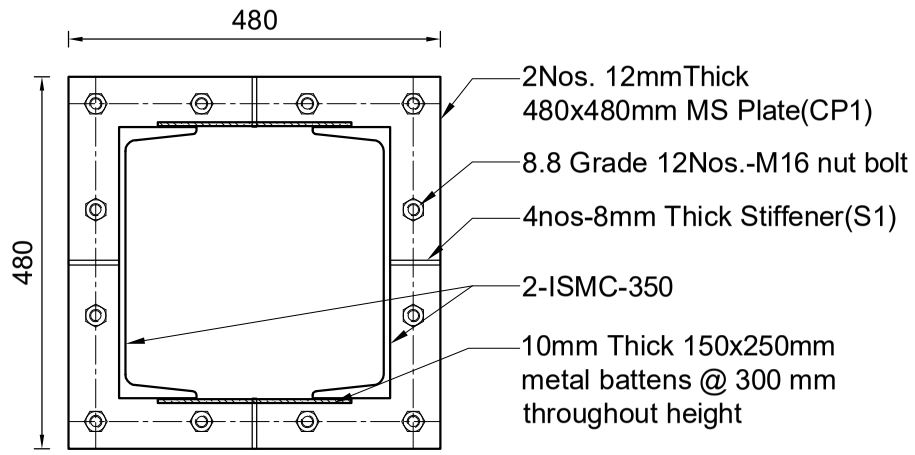
NOTE:

CONCRETE GRADE = M20
REBAR GRADE = Fe 500 (TMT)
STEEL GRADE = Fe 250



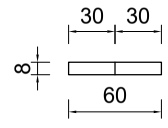
CONNECTION PLATE (CP1)

(SCALE 1:10)



STEEL COLUMN (CP1)

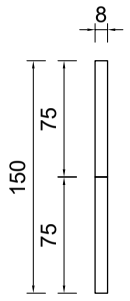
(SCALE 1:10)



PLAN STIFFENER-S2

8mm THICK METAL

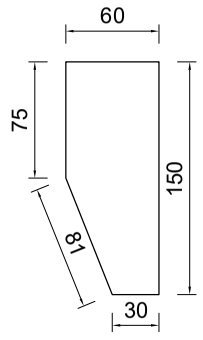
(SCALE 1:5)



FRONT VIEW STIFFENER-S2

8mm THICK METAL

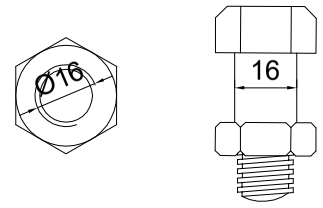
(SCALE 1:5)



SIDE VIEW STIFFENER-S2

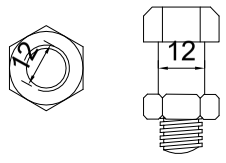
8mm THICK METAL

(SCALE 1:5)



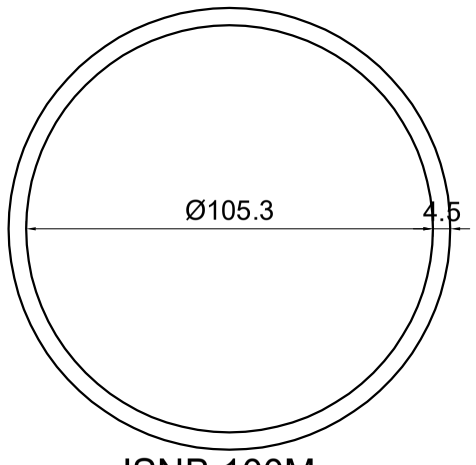
8.8 GRADE M16 NUT BOLT

(Scale 1:2)



8.8 GRADE M12 NUT BOLT

(Scale 1:2)



ISNB 100M

(Scale 1:2)

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Details-2
GARAGE TRUSS BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

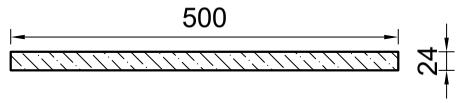
CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: **Er. Ajay Shrestha**	
Designed By: **Er. Enu Rai 17819 Civil "A"** **Er. Arbind Yadav**	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 15

CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
ERMC (P.) Ltd., SILT Consultants (P.) Ltd.,
and DIGICON (P.) Ltd.
Mid Baneshwor,Kathmandu

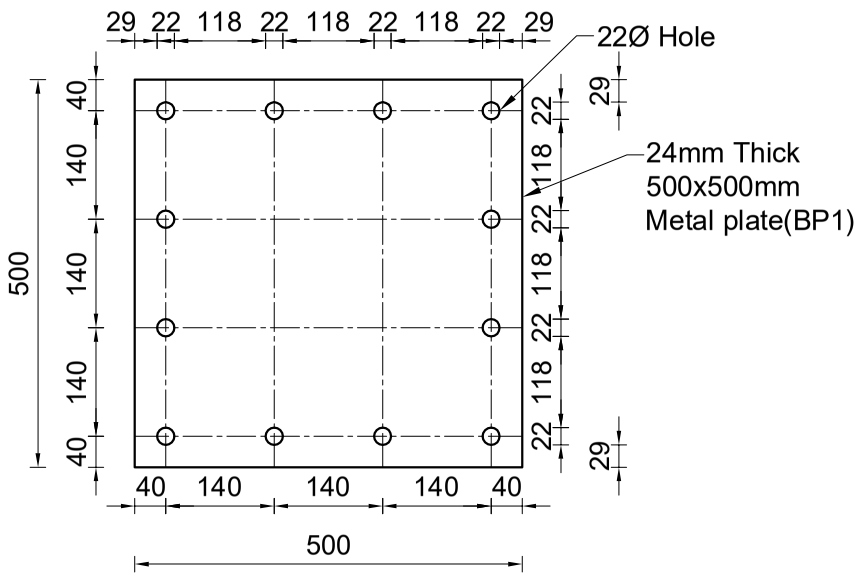
REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV

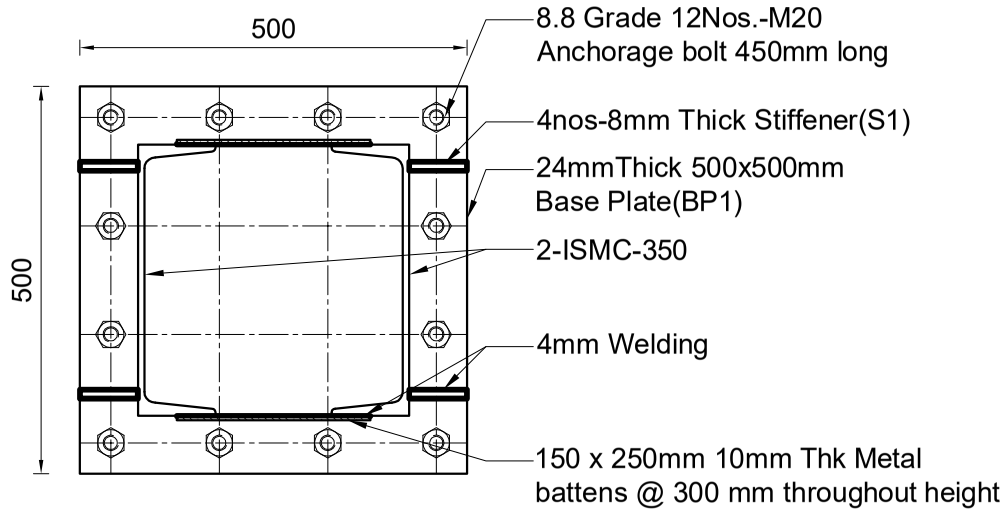
NOTE:

CONCRETE GRADE = M20
REBAR GRADE = Fe 500 (TMT)
STEEL GRADE = Fe 250



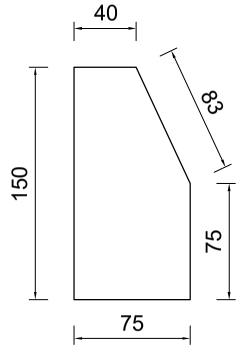
SIDE VIEW
BASE PLATE
(SCALE 1:10)



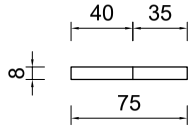


STEEL COLUMN (SC)
(SCALE 1:10)

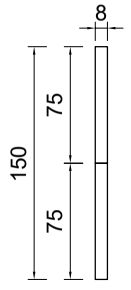
BASE PLATE (BP1)
(SCALE 1:10)



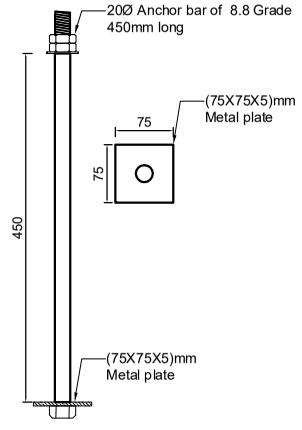
SIDE VIEW STIFFENER-S1
8mmTHICK METAL
(SCALE 1:5)



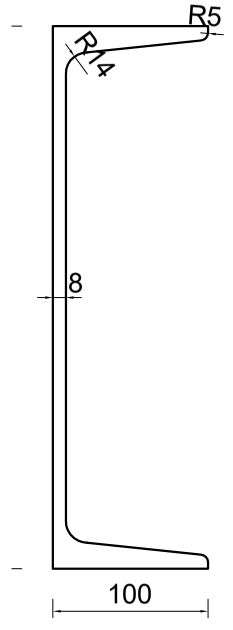
PLAN STIFFENER-S1
8mm THICK METAL
(SCALE 1:5)



FRONT VIEW STIFFENER-S1
8mm THICK METAL
(SCALE 1:5)



DETAIL OF ANCHOR BAR
(SCALE 1:10)



ISMC-350
(SCALE 1:5)

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Details-3
GARAGE TRUSS BLOCK

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: **Er. Ajay Shrestha**	
Designed By: **Er. Enu Rai 17819 Civil "A"** **Er. Arbind Yadav**	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 16

CONSULTANT:
DOHWA Engineering Co. Ltd.
In association with
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REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV

Government of Nepal
Ministry of Urban Development
Department of Urban Development and Building Construction
Regional Urban Development Project
Project Coordination Office
Babarmahal, Kathmandu

STRUCTURAL DRAWINGS of CLOCK TOWER

LUMBINI SANSKRITIK MUNICIPALITY

Structural Drawing

Name of Sheet	Sheet Number
CLOCK TOWER	
List of Drawing	C0
General Notes	01
Trench & Footing Layout plan	02
Column Layout Plan	03
Beam Layout Plan	04
L-Section of Beam	05
Section Details	06

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Table of Contents
CLOCK TOWER

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: **Er. Ajay Shrestha**	
Designed By: **Er. Enu Rai 17819 Civil "A"** **Er. Arbind Yadav**	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 00

CONSULTANT:
DOHWA Engineering Co. Ltd.
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Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)

Building Design Authority(P) Ltd.- BN- UDAYA JV

STRUCTURAL NOTES:

1. STRUCTURAL NOTES AND TYPICAL DETAILS SHALL APPLY TO ALL STRUCTURAL DRAWINGS UNLESS OTHERWISE SHOWN OR NOTED.
2. AS PER GEOTECHNICAL REPORT, FOUNDATION ARE DESIGNED FOR SOIL BEARING CAPACITY OF 77.8 KN/m² AND SETTLEMENT OF 25mm.
3. PLACING OF FOUNDATION CONCRETE SHALL BE DONE AS SOON AS EXCAVATION HAVE BEEN COMPLETED & APPROVED BY THE SITE ENGINEER.
4. CAST IN SITU CONCRETE SHALL HAVE A MINIMUM 28 DAYS COMPRESSIVE CUBE STRENGTH OF 20 MPA FOR ALL RCC WORKS.
5. REINFORCEMENT STEEL SHALL BE THERMOMECHANICALLY TREATED DEFORMED BARS HAVING MINIMUM YIELD STRENGTH OF 500 MPa & CONFORMING TO NS 191-2046
6. CEMENT USED SHALL BE ORDINARY PORTLAND CEMENT CONFORMING TO NS 49-2041.
7. BARS IN COLUMNS SHALL BE SPLICED ONLY AT MID HEIGHT OF COLUMN, 50% BARS AT A TIME / ALTERNATIVE FLOOR (JOINT) AS PER DUCTILE DETAILING IS 13920- 2016
8. BARS SPLICING IN BEAM SHALL BE AVOIDED IN THE SPAN WHERE INTERMEDIATE BEAM IS CONNECTED AND SHALL BE ONLY AS SHOWN ON DRAWING.
9. UNLESS OTHERWISE INDICATED, ALL CONSTRUCTION JOINTS SHALL BE ROUGHED JOINTS OF MINIMUM AMPLITUDE 5MM.
10. CLEAR VERTICAL DISTANCE BETWEEN TWO ROWS (LAYERS) OF BARS=25mm.
11. PROVIDE SHEAR REINFORCEMENT OF 100 mm c/c AT LAP LOCATIONS.
12. NO MEASUREMENT CAN BE DIRECTLY TAKEN FROM THE PRINT ALSO WRITTEN DIMENSION SHALL BE FOLLOWED.
13. ALL DIMENSIONS ARE IN MILIMETER UNLESS NOTED OTHERWISE.
14. ANY DISCREPANCY OR OMISSION IN THIS DRAWING IF FOUND SHALL BE REPORTED IMMEDIATELY.
15. CLEAR COVER TO MAIN REINFORCEMENT STEEL BE IN ACCORDANCE WITH IS 456:2000 & AS SPECIFIED ON STRUCTURAL DRAWINGS.
    a. FOR CONCRETE MEMBERS IN CONTACT WITH SOIL = 50mm
    b. FOR LONGITUDINAL (VERTICAL) BARS IN COLUMN = 40mm
    c. FOR MAIN BARS IN BEAMS = 25mm
    d. FOR OUTER BARS IN SLAB & STAIRCASE = 20mm
16. DEVELOPMENT / LAP LENGTH (Ld.) FOR BARS

DEVELOPMENT LENGTH			
Grade of Steel / Grade of Concrete	fck / fy	20	25
Tension Development (Beam, Slab and Footing)	500	57Ø	49Ø
Compression Development (Column)	500	46Ø	39Ø

ABBREVIATIONS:-	
2L	TWO LEGGED STIRRUP
4L	FOUR LEGGED STIRRUP
@	AT
Ø	DIAMETER OF REBAR
C/C	CENTER TO CENTER
NOS.	NUMBERS
Th.	THROUGH BAR
Ex.	EXTRA BAR
L	SPAN LENGTH
Ldh or Ld	DEVELOPMENT LENGTH
PB	PLINTH BEAM
FB	FOUNDATION BEAM
MB	MAIN BEAM
SB	SECONDARY BEAM
mm	MILIMETER
PCC	PLAIN CEMENT CONCRETE

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: General Notes
CLOCK TOWER

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
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PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 01

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SUPERVISION & DESIGN CONSULTANT (SDC)
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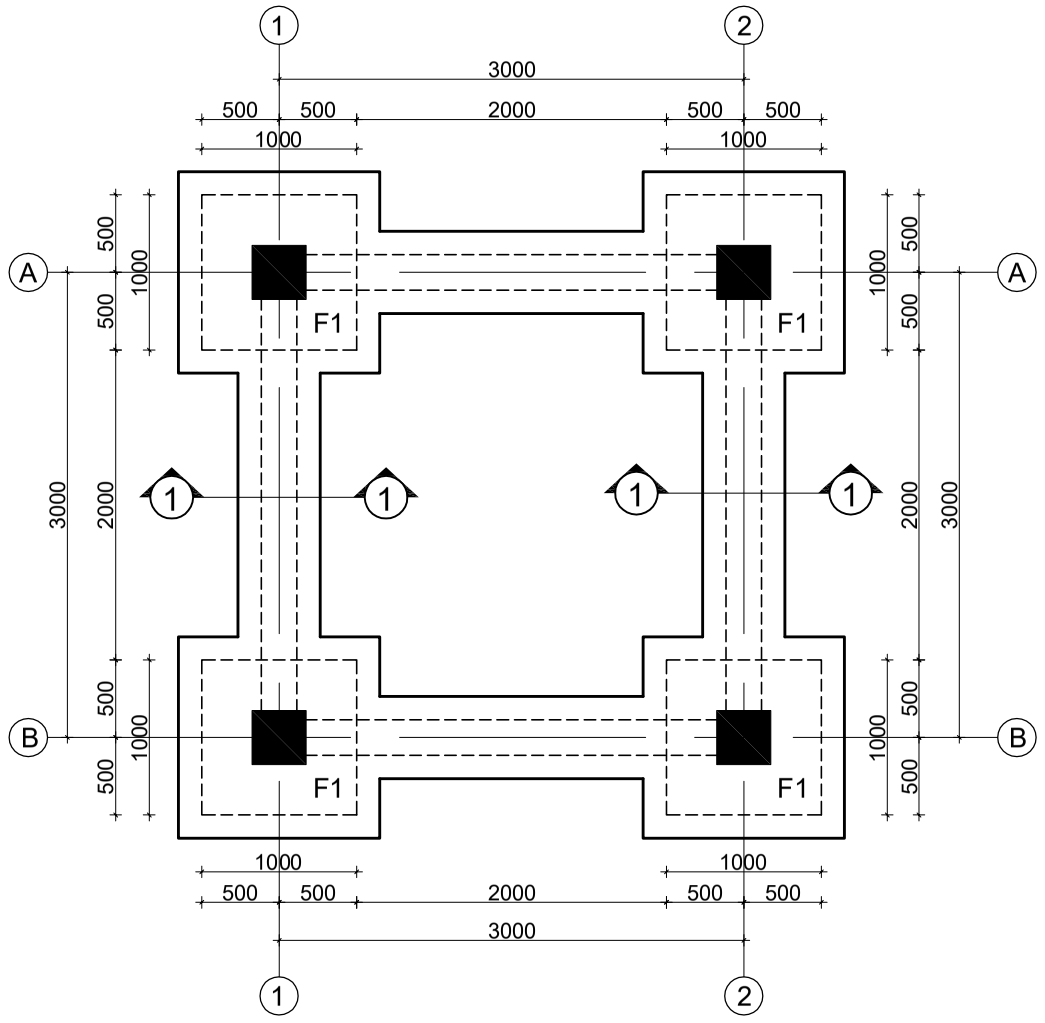
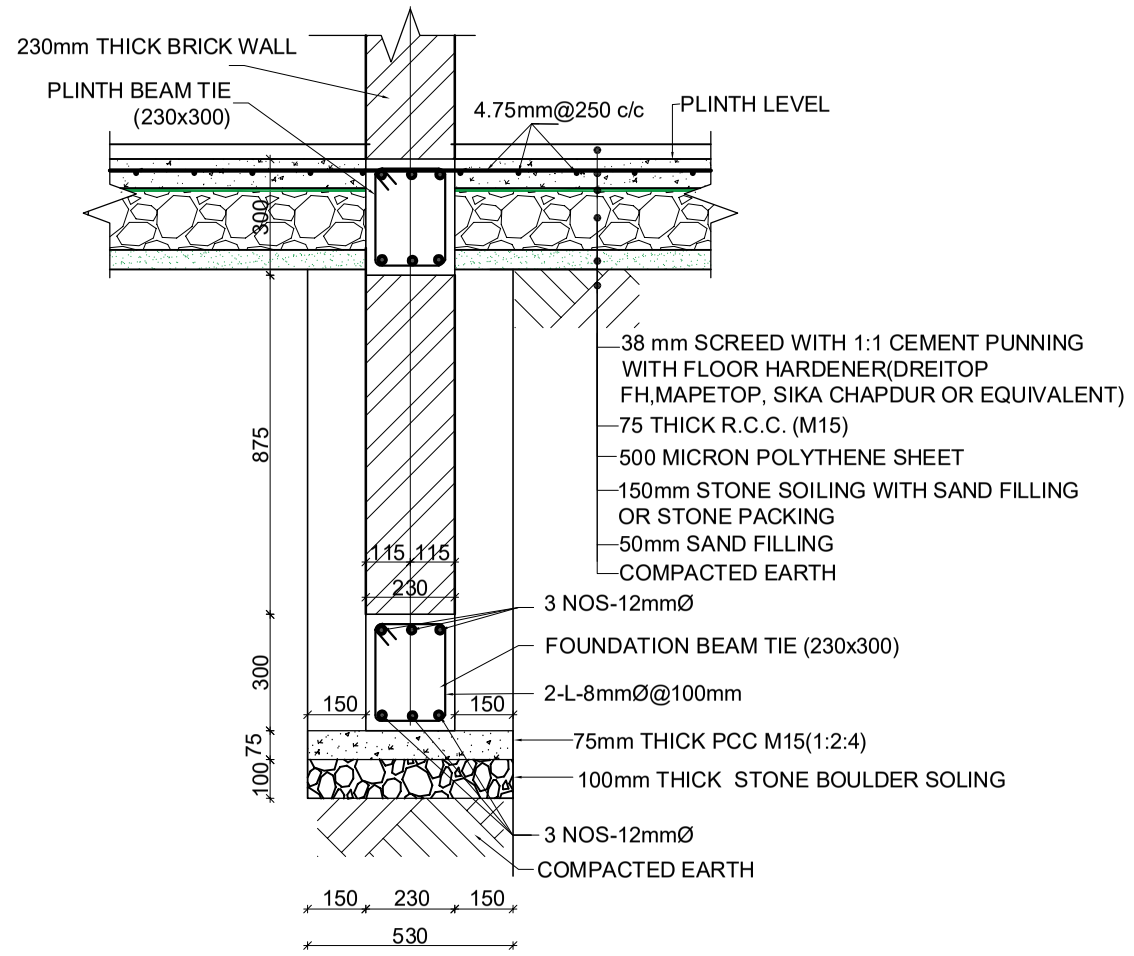


TRENCH FOUNDATION LAYOUT PLAN

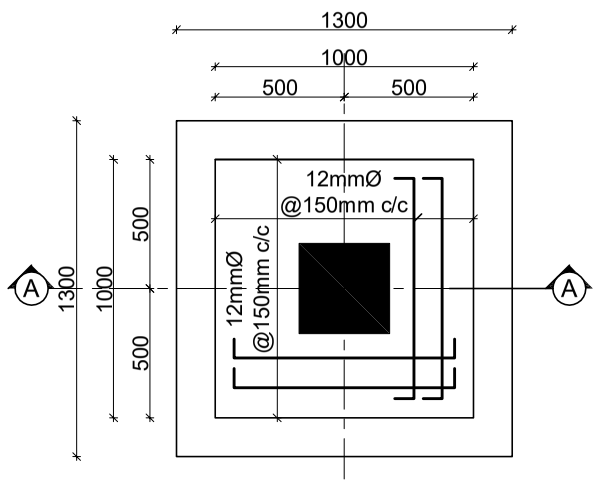
SCALE:- 1:50



FOUNDATION BEAM TIE SECTION DETAIL AT -1

(SCALE = 1:20)

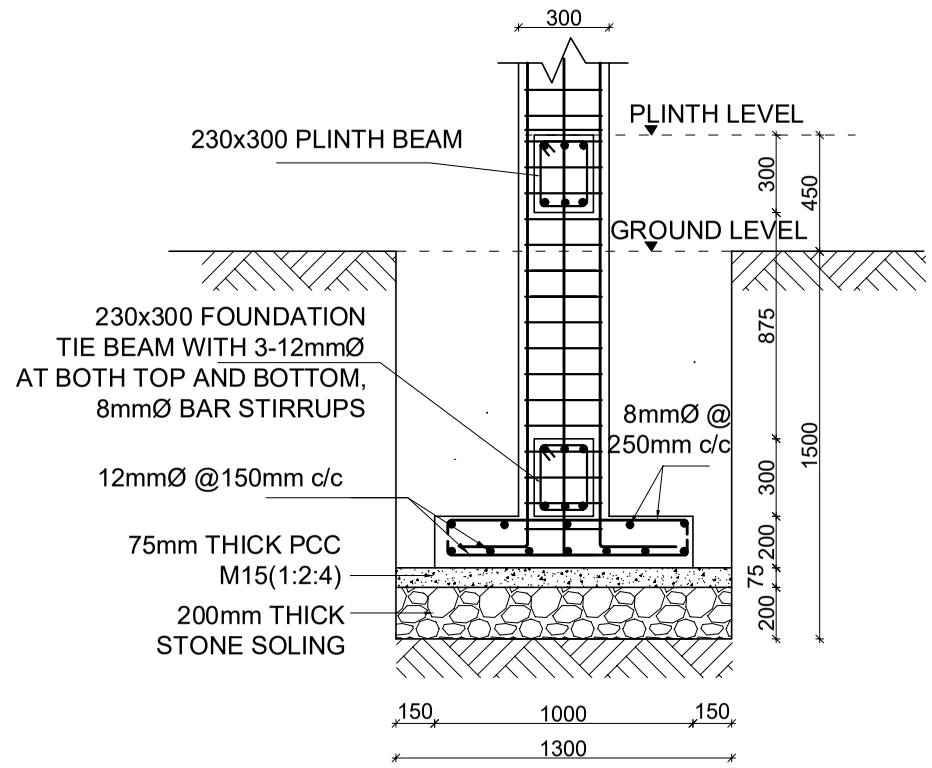
FOOTING SIZE DETAILS				
S.N.	FOOTING TYPE	LENGTH(mm)	BREADTH(mm)	DEPTH(mm)
1	F1	1000	1000	200



ISOLATED FOOTING PLAN -F1

BOTTOM BARS

SCALE:- 1:30



ISOLATED FOOTING SECTION- A-A

SCALE:- 1:30

CLIENT:

Department of Urban Development &
Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Trench and Footing Layout Plan
CLOCK TOWER

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 02

CONSULTANT:
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Mid Baneshwor,Kathmandu

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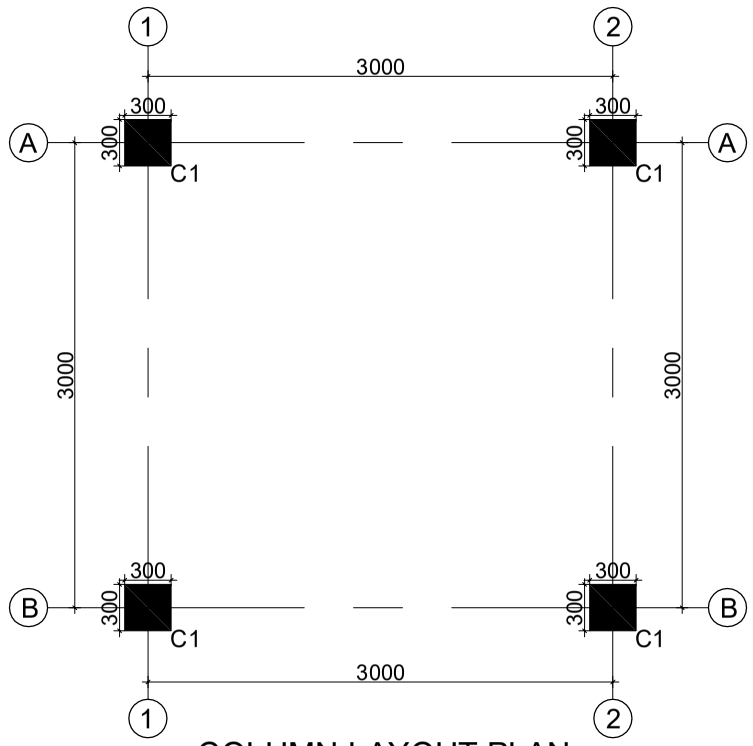
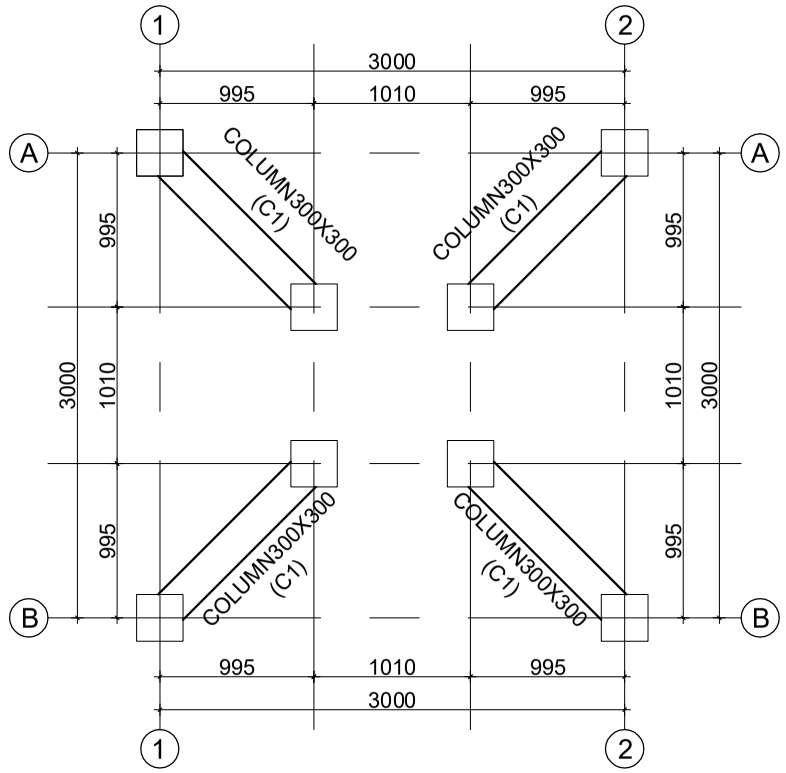


COLUMN LAYOUT PLAN

LEVEL:-FOUNDATION TO 3925mm

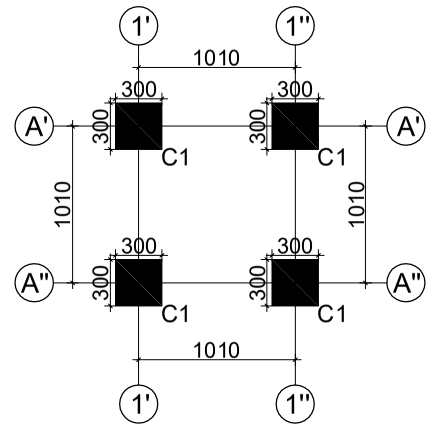
SCALE:- 1:50



COLUMN LAYOUT PLAN

LEVEL:-3925mm TO 4200mm

SCALE:- 1:50

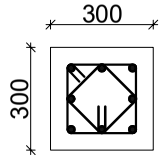


COLUMN LAYOUT PLAN

LEVEL:- +4200mm TO 5125mm

SCALE:- 1:50

COLUMN REINFORCEMENT DETAILS

S. NO.	COLUMN	COLUMN	Grade of Concrete & Steel	ALL FLOORS	STIRRUPS	
1	C1	300 X 300	M20 & FE 500	 • 4 NOS. -16mmØ • 4 NOS. -12mmØ	 8mmØ	 8mmØ
					8mmØ @ 100mm c/c upto h/4 from both ends and150mm c/c onwards	

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Column Layout Plan
CLOCK TOWER

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
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PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 03

CONSULTANT:
DOHWA Engineering Co. Ltd.
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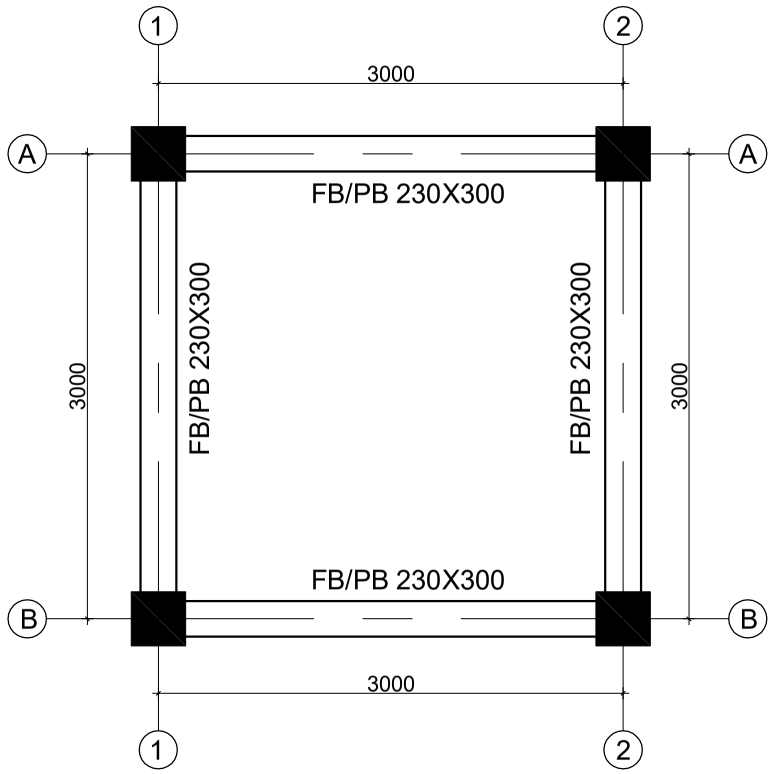
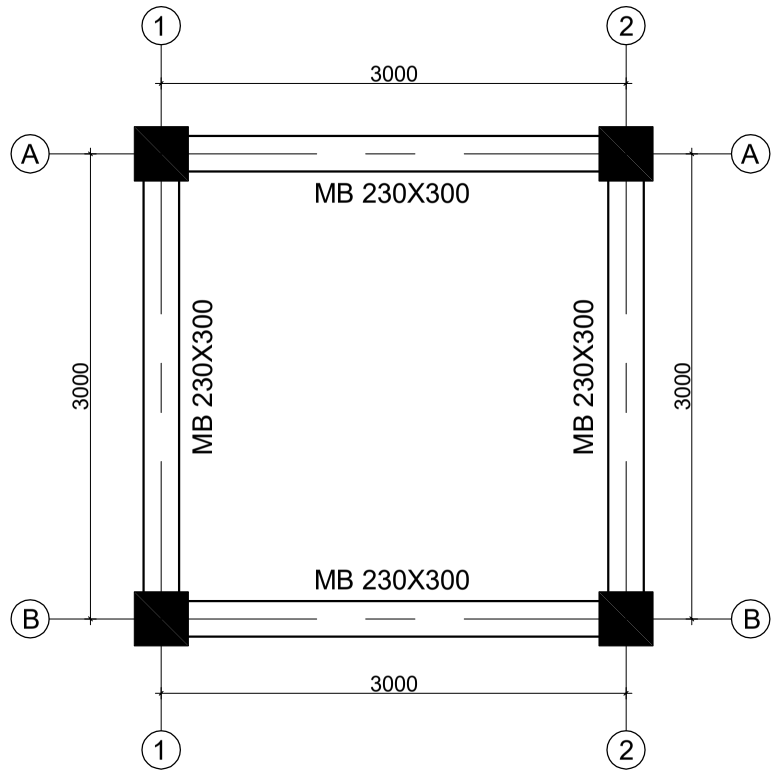
Mid Baneshwor,Kathmandu

REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV



FOUNDATION AND PLINTH BEAM LAYOUT PLAN

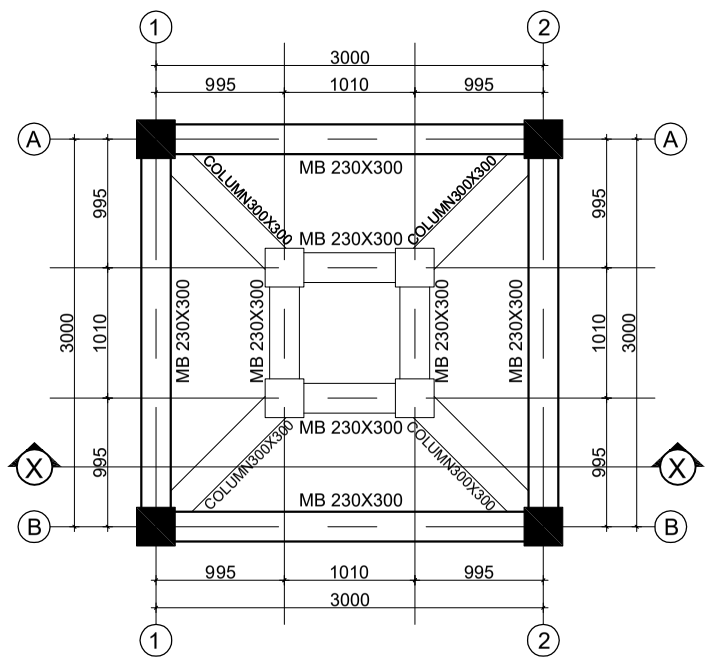
SCALE:- 1:50



BEAM LAYOUT PLAN

LEVEL:- +2550mm

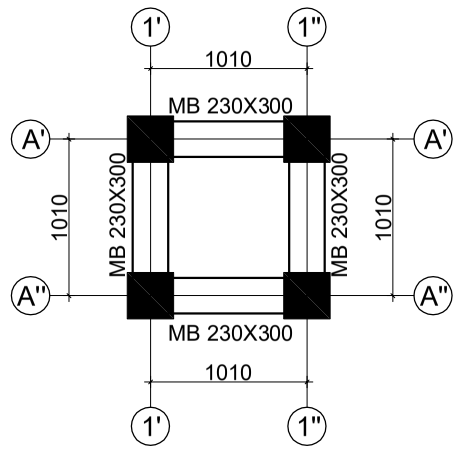
SCALE:- 1:50



FLOOR BEAM LAYOUT PLAN

LEVEL:- +3925mm

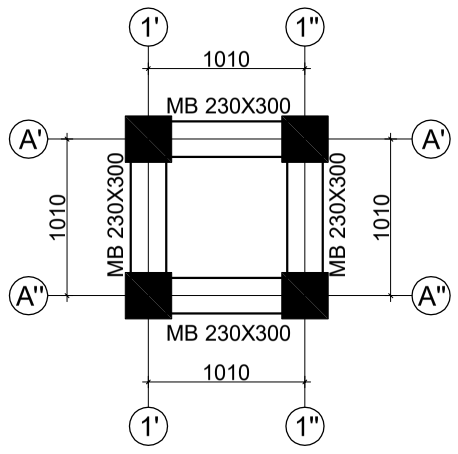
SCALE:- 1:50



BEAM LAYOUT PLAN

LEVEL:- +4200mm

SCALE:- 1:50



BEAM LAYOUT PLAN

LEVEL:- +5125mm

SCALE:- 1:50

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Beam Layout Plan
CLOCK TOWER

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
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PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 04

CONSULTANT:
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Mid Baneshwor,Kathmandu

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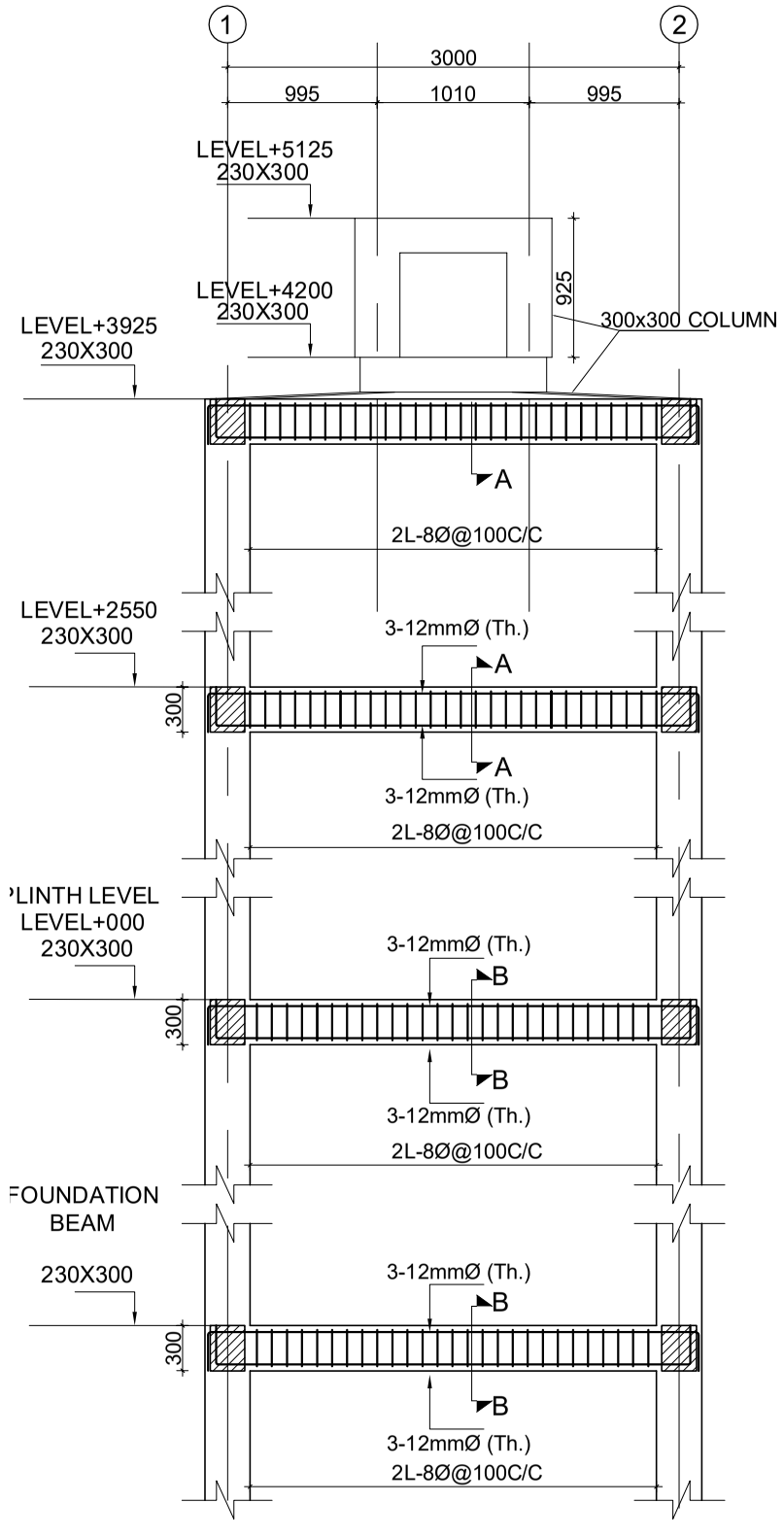
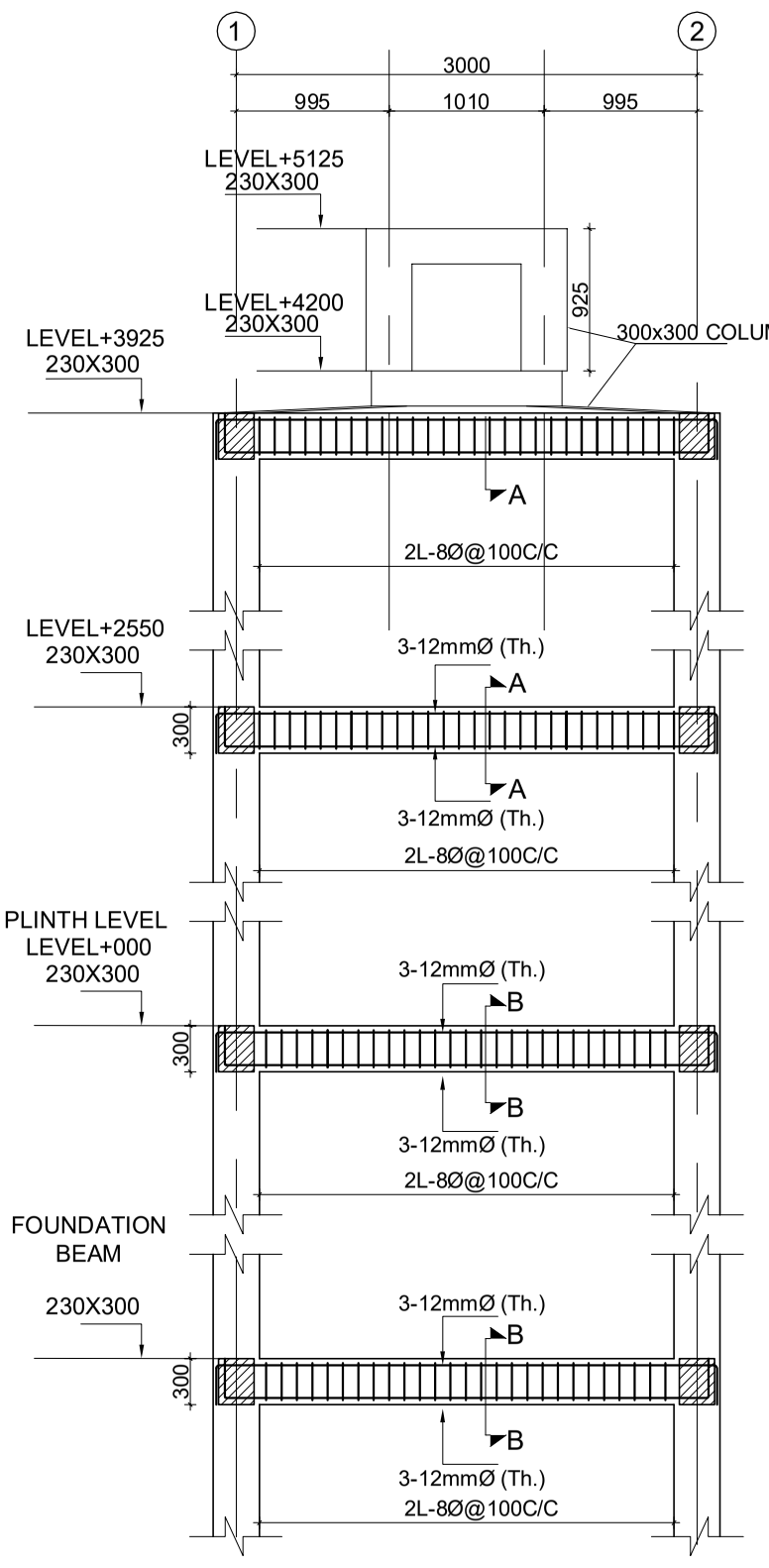
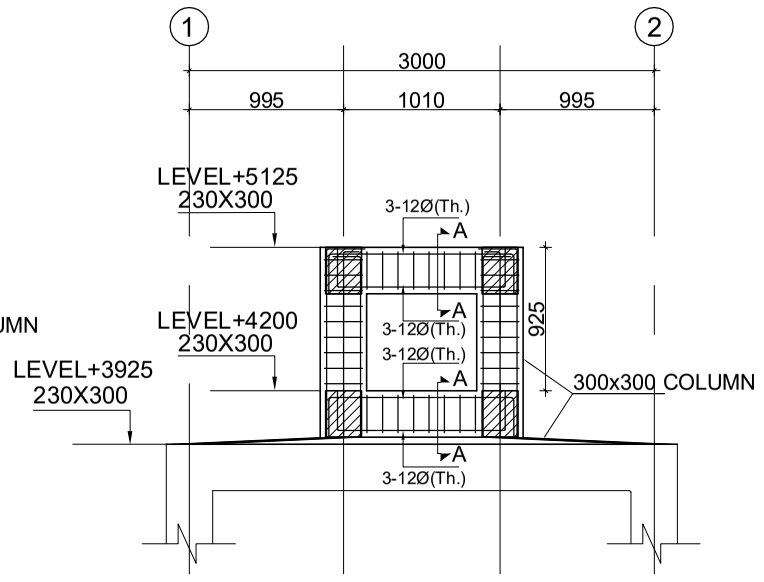
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV



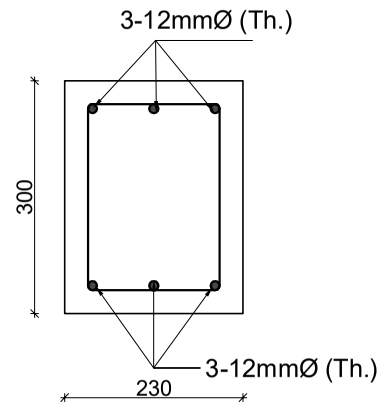
L-SECTION OF BEAM ALONG GRID A-A, B-B
SCALE:- 1:50



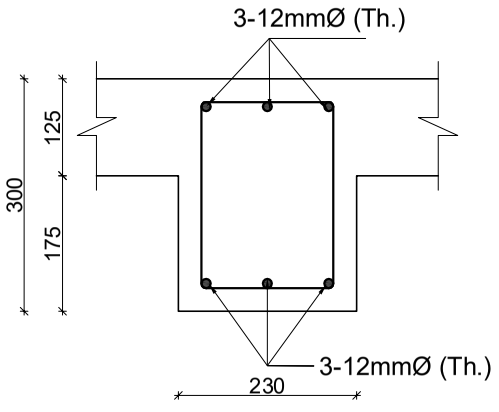
L-SECTION OF BEAM ALONG GRID A-A, B-B
SCALE:- 1:50



L-SECTION OF BEAM ALONG GRID A'-A', A"-A", 1'-1', 1"-1"
SCALE:- 1:50



SECTION AT B-B
SCALE = 1:10



SECTION AT A-A
SCALE = 1:10

CLIENT:

Department of Urban Development & Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: L-Section of Beam
CLOCK TOWER

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: Er. Ajay Shrestha	
Designed By: Er. Enu Rai 17819 Civil "A" Er. Arbind Yadav	
PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 05

CONSULTANT:
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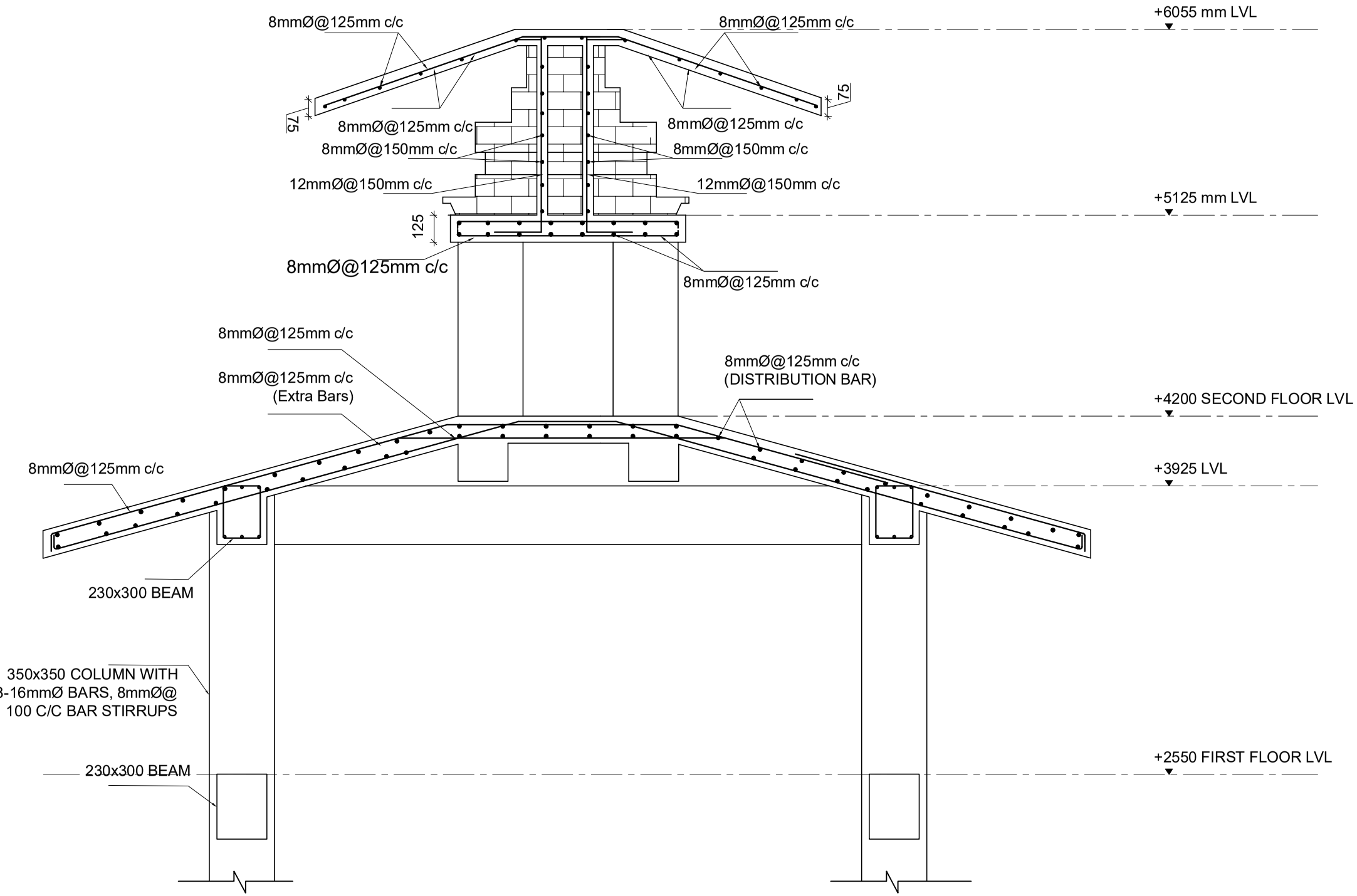
REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)
Building Design Authority(P) Ltd.- BN- UDAYA JV



SECTION AT X-X

SCALE:-1:25

CLIENT:

Department of Urban Development &
Building Construction (DUDBC)
Regional Urban Development Project (RUDP)
Project Coordination Office
Babarmahal, Kathmandu, Nepal

PROJECT TITLE

Pre-Feasibility Study, Feasibility Study and Preparation of Detail Project Report of West Urban Corridor (WUC) Development Project

ISSUES & REVISIONS

NO	DATE	REVISION
1	18th DEC 2024	1st
2	14th JAN 2026	2nd

SHEET TITLE: Section Detail
CLOCK TOWER

SITE INFORMATION:

NAME: Bus Terminal

AREA:

LOCATION: Lumbini Sanskritik Municipality

CONSULTANT	CLIENT
Team Leader:	**Approved By:**
Reviewed By: **Er. Ajay Shrestha**	
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PAPER SIZE: A3	SCALE: AS SHOWN
DATE: Feb, 2024	SHEET NO ST- 06

CONSULTANT:
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REVIEWED BY:
SUPERVISION & DESIGN CONSULTANT (SDC)

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