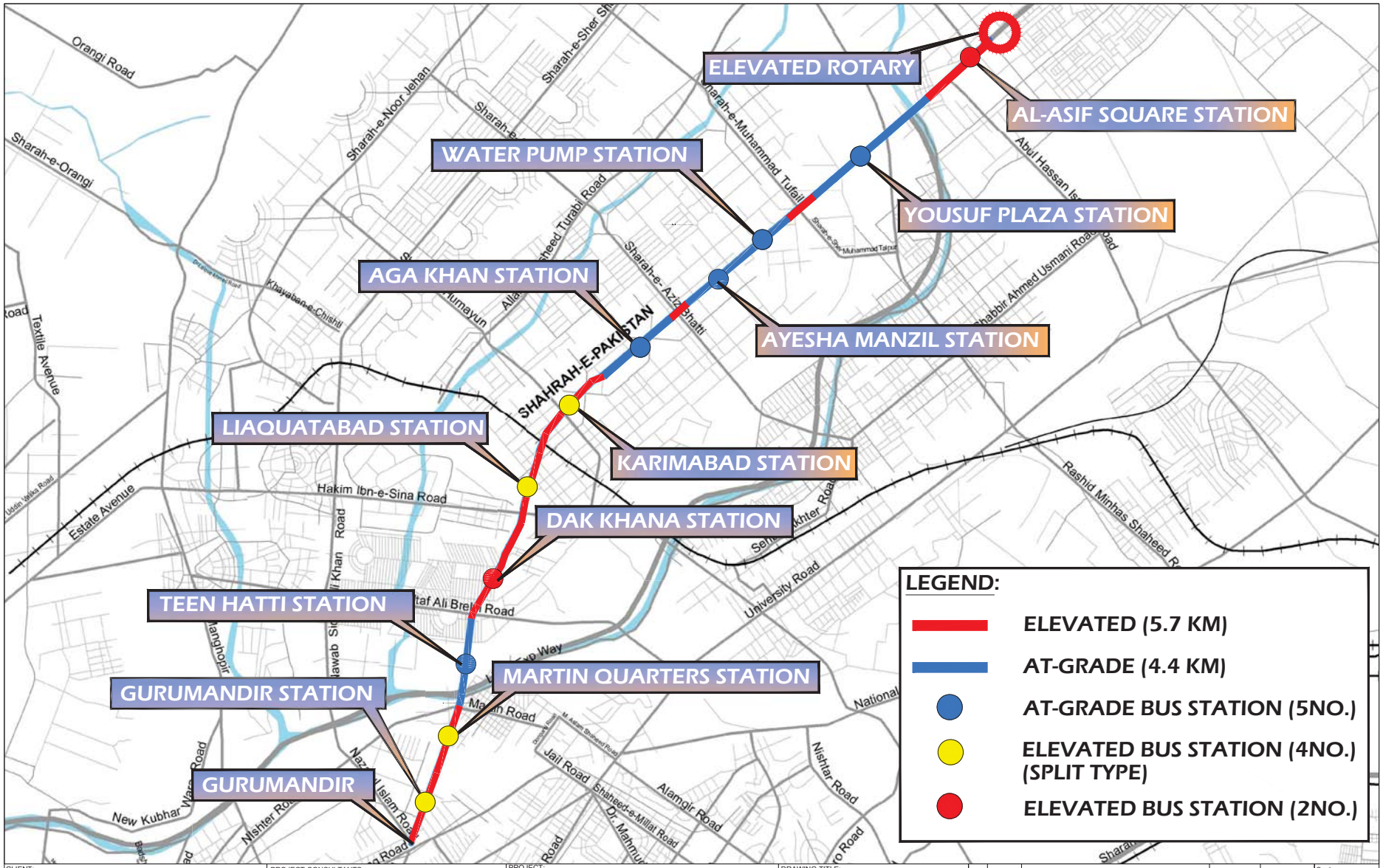
REQUEST FOR PROPOSALS (RFP)
BUS RAPID TRANSIT SYSTEM (BRTS) BLUE LINE PROJECT
(INFRASTRUCTURE DEVELOPMENT)
VOLUME III: PRELIMINARY DESIGN DRAWINGS

Sindh Mass Transit Authority
Transport & Mass Transit Department
Government of Sindh

February 2018



CLIENT: SINDH MASS TRANSIT CELL, TRANSPORT & MASS TRANSIT DEPARTMENT, GOVERNMENT OF SINDH	PROJECT CONSULTANTS: OSMANI Engineering - Architecture - Planning - Mapping - Technology	PROJECT: INFRASTRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE	DRAWING TITLE: KEY PLAN			DRAWN / DESIGNED / CHECKED / SUBMITTED / APPROVED	JUNAID / DANISH / NADEEM
		SECTION: GURUMANDIR TO AL-ASIF SQUARE	DATED: JANUARY 2018	DRAWING No: 2950-01-01-02-300 _P0	0 / 15-01-18 / PRELIMINARY DESIGN	Scale: NTS	CTB File Name: TGS-100
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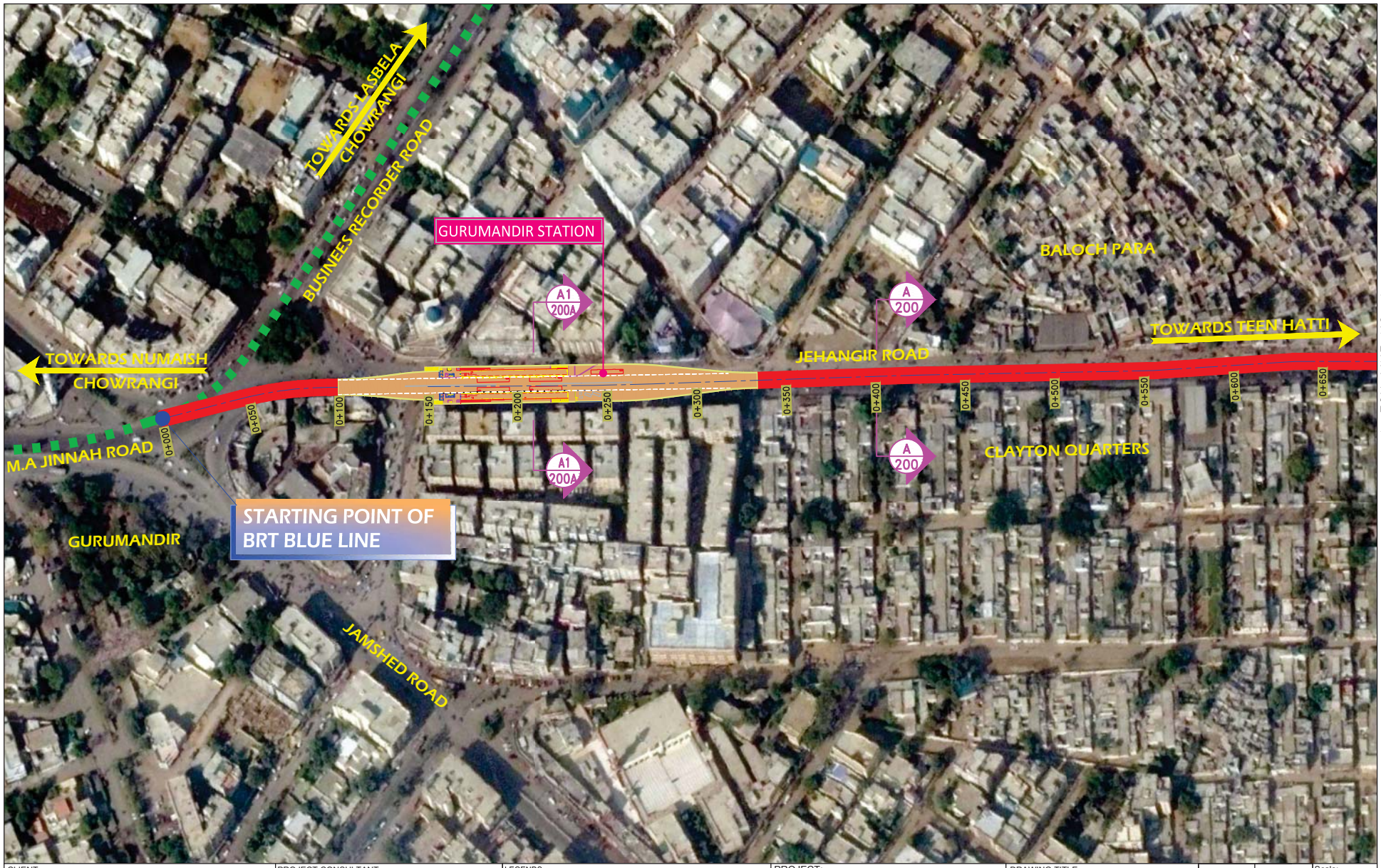
User and Plot Date Junaid_Rehman - Thu, 08 Feb 2018 - 10:56am

BRTS BLUE LINE KARACHI

ROAD LAYOUT



CLIENT:

SINDH MASS TRANSIT CELL
TRANSPORT & MASS TRANSIT DEPARTMENT
GOVERNMENT OF SINDH

PROJECT CONSULTANT:

OSMANI
Engineering - Architecture - Planning - Mapping - Technology

LEGENDS:

- BRT RUNWAY AT-GRADE
- BRT RUNWAY AT-RAMP
- BRT RUNWAY ELEVATED
- AT-GRADE BRT STATION
- ELEVATED BRT STATION

PROJECT:
INFRASTRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE

SEGMENT:
GURUMANDIR TO AL-ASIF SQUARE

DRAWING TITLE:
ROAD LAYOUT

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APPROVED	-	Rev No: P0

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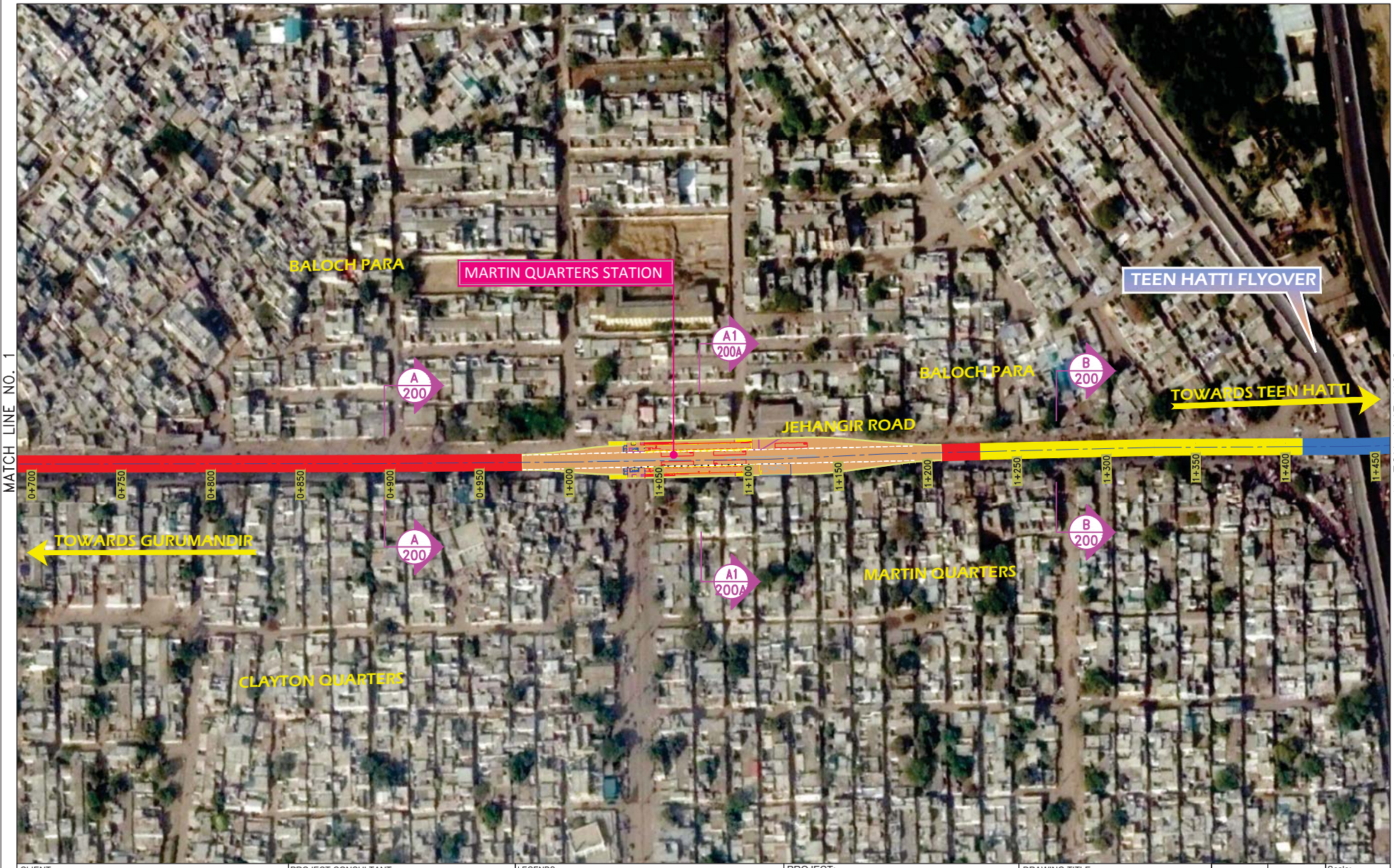

CLIENT:

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TRANSPORT & MASS
TRANSIT DEPARTMENT
GOVERNMENT OF SINDH

PROJECT CONSULTANT:

OSMANI
Engineering - Architecture - Planning - Mapping - Technology

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- BRT RUNWAY ELEVATED
- AT-GRADE BRT STATION
- ELEVATED BRT STATION

PROJECT:
INFRASTRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE

SEGMENT:
GURUMANDIR TO AL-ASIF SQUARE

DRAWING TITLE:
ROAD LAYOUT

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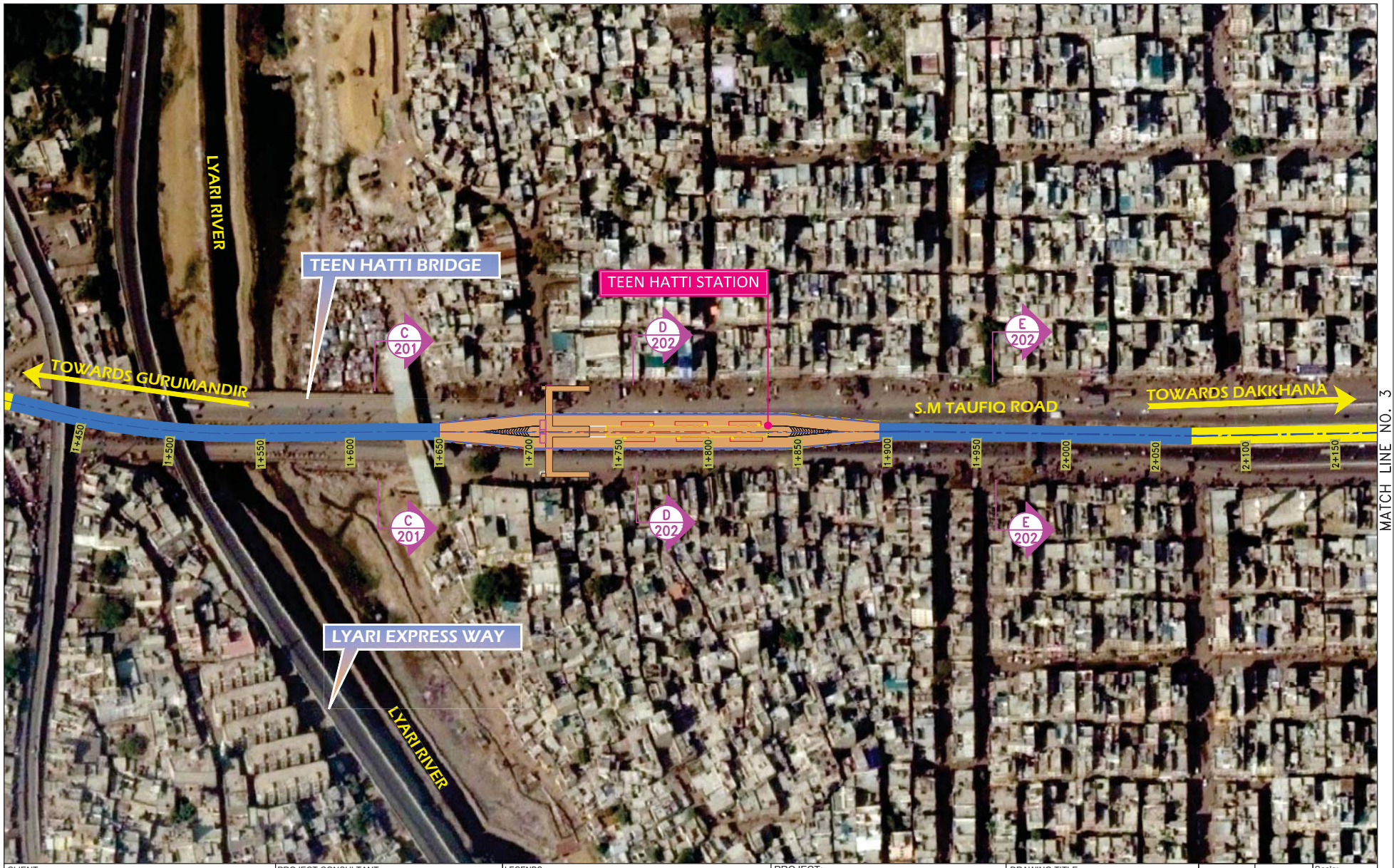

CLIENT:

SINDH MASS TRANSIT CELL
TRANSPORT & MASS
TRANSIT DEPARTMENT
GOVERNMENT OF SINDH

PROJECT CONSULTANT:

OSMANI
Engineering - Architecture - Planning - Mapping - Technology

LEGENDS:

- BRT RUNWAY AT-GRADE
- BRT RUNWAY AT-RAMP
- BRT RUNWAY ELEVATED
- AT-GRADE BRT STATION
- ELEVATED BRT STATION

PROJECT:
INFRASTRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE

SEGMENT:
GURUMANDIR TO AL-ASIF SQUARE

DRAWING TITLE:
ROAD LAYOUT

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MATCH LINE NO. 4

MATCH LINE NO. 5

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					APPROVED	-	Rev No: P0

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User and Plot Date Junaid_Rehman - Thu, 08 Feb 2018 - 10:04am

CLIENT:	PROJECT CONSULTANT:	LEGENDS:	PROJECT:	DRAWING TITLE:			
SINDH MASS TRANSIT CELL TRANSPORT & MASS TRANSIT DEPARTMENT GOVERNMENT OF SINDH	OSMANI Engineering - Architecture - Planning - Mapping - Technology	BRT RUNWAY AT-GRADE BRT RUNWAY AT-RAMP BRT RUNWAY ELEVATED AT-GRADE BRT STATION ELEVATED BRT STATION	INFRASTRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE SEGMENT: GURUMANDIR TO AL-ASIF SQUARE	ROAD LAYOUT	DRAWN: JUNAID DESIGNED: NADEEM CHECKED: NADEEM SUBMITTED: - APPROVED: -	Scale: 1:1000 CTB File Name: TGS-100 Sheet No. 7/14 Rev No: P0	

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User and Plot Date Junaid_Rehman - Thu, 08 Feb 2018 - 10:04am

CLIENT:

SINDH MASS TRANSIT CELL
TRANSPORT & MASS
TRANSIT DEPARTMENT
GOVERNMENT OF SINDH

PROJECT CONSULTANT:

OSMANI
Engineering - Architecture - Planning - Mapping - Technology

LEGENDS:

- BRT RUNWAY AT-GRADE
- BRT RUNWAY AT-RAMP
- BRT RUNWAY ELEVATED
- AT-GRADE BRT STATION
- ELEVATED BRT STATION

PROJECT:
INFRASTRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE

SEGMENT:
GURUMANDIR TO AL-ASIF SQUARE

DRAWING TITLE:
ROAD LAYOUT

DRAWN	JUNAID	Scale: 1:1000
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CHECKED	NADEEM	CTB File Name: TGS-100
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APPROVED	-	Rev No: P0

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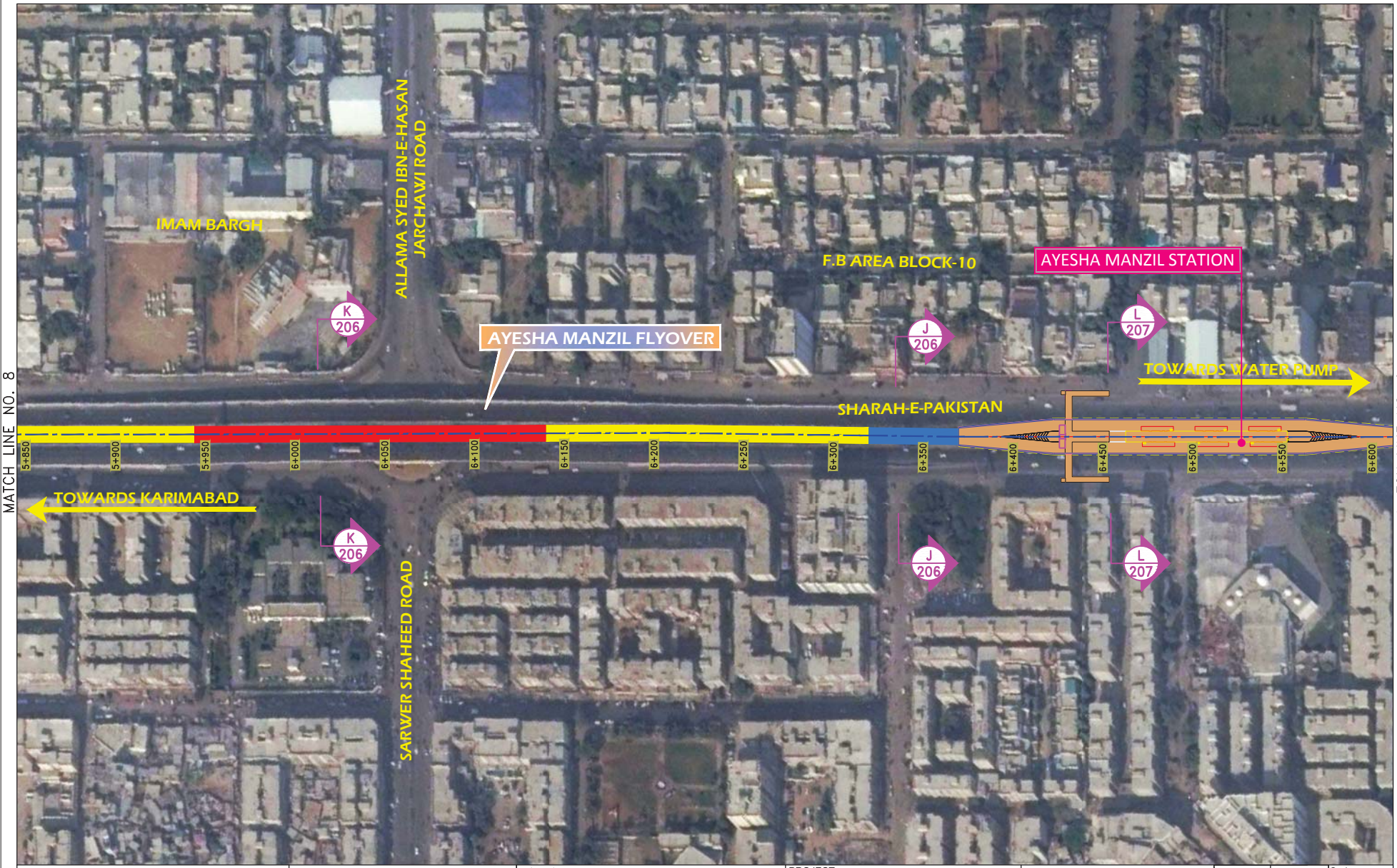

CLIENT: SINDH MASS TRANSIT CELL TRANSPORT & MASS TRANSIT DEPARTMENT GOVERNMENT OF SINDH	PROJECT CONSULTANT: OSMANI Engineering - Architecture - Planning - Mapping - Technology	LEGENDS: BRT RUNWAY AT-GRADE BRT RUNWAY AT-RAMP BRT RUNWAY ELEVATED AT-GRADE BRT STATION ELEVATED BRT STATION	PROJECT: INFRASTRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE SEGMENT: GURUMANDIR TO AL-ASIF SQUARE	DRAWING TITLE: ROAD LAYOUT	DRAWN: JUNAID DESIGNED: NADEEM CHECKED: NADEEM SUBMITTED: - APPROVED: -

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Rev No: P0

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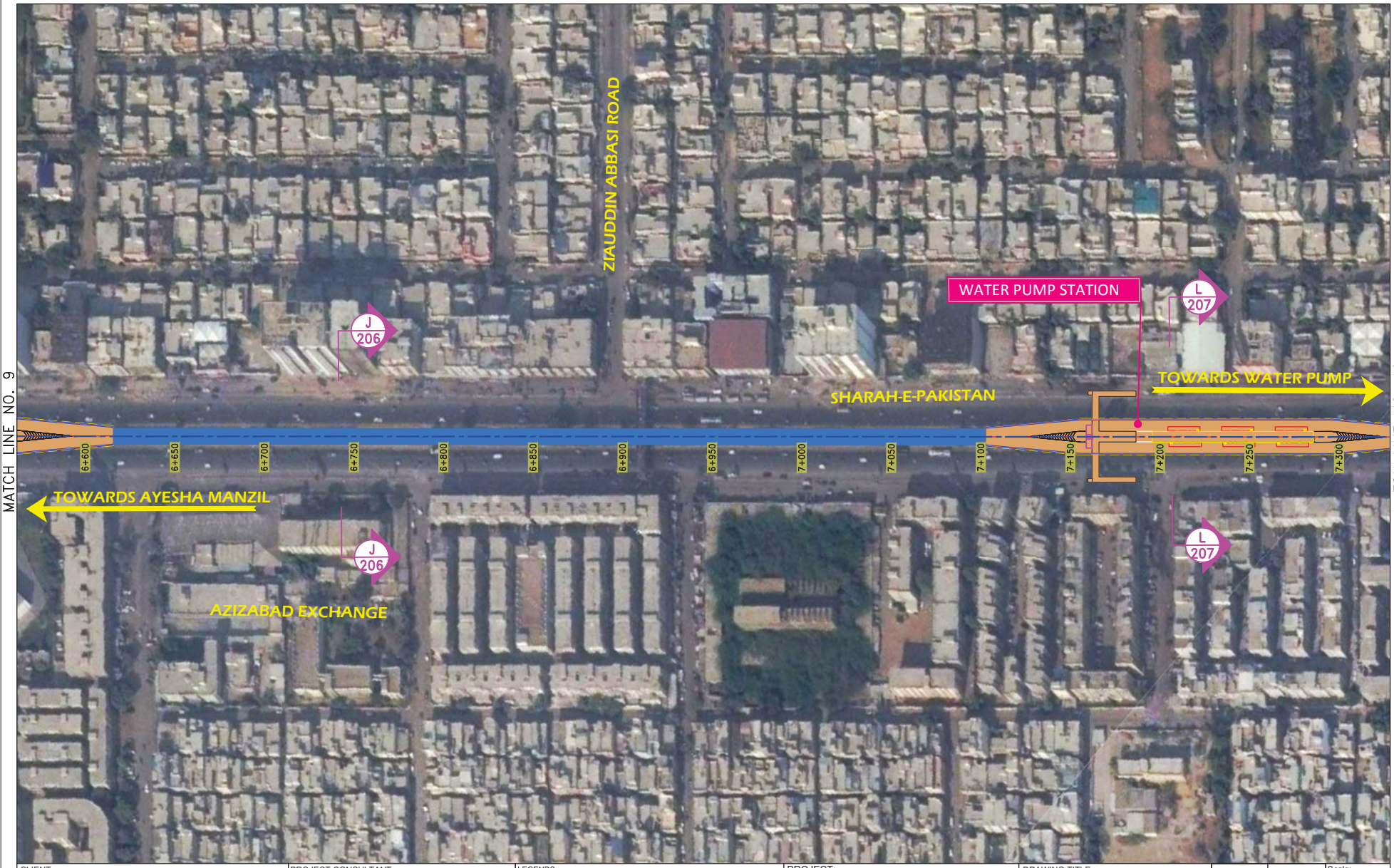

CLIENT:

SINDH MASS TRANSIT CELL
TRANSPORT & MASS
TRANSIT DEPARTMENT
GOVERNMENT OF SINDH

PROJECT CONSULTANT:

OSMANI
Engineering - Architecture - Planning - Mapping - Technology

LEGENDS:

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- BRT RUNWAY AT-RAMP
- BRT RUNWAY ELEVATED
- AT-GRADE BRT STATION
- ELEVATED BRT STATION

PROJECT:
INFRASTRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE

SEGMENT:
GURUMANDIR TO AL-ASIF SQUARE

DRAWING TITLE:
ROAD LAYOUT

DRAWN	JUNAID	Scale: 1:1000
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CHECKED	NADEEM	CTB File Name: TGS-100
SUBMITTED	-	Sheet No. 10/14
APPROVED	-	Rev No: P0

Drawing file path & name \\storage-server\03 - Engineering i\0 - Junaid-Ur-Rehman\2950 - BLUE LINE\MCSELLINEDGS\Alignment - 1(0944, 12-01-2018).dwg
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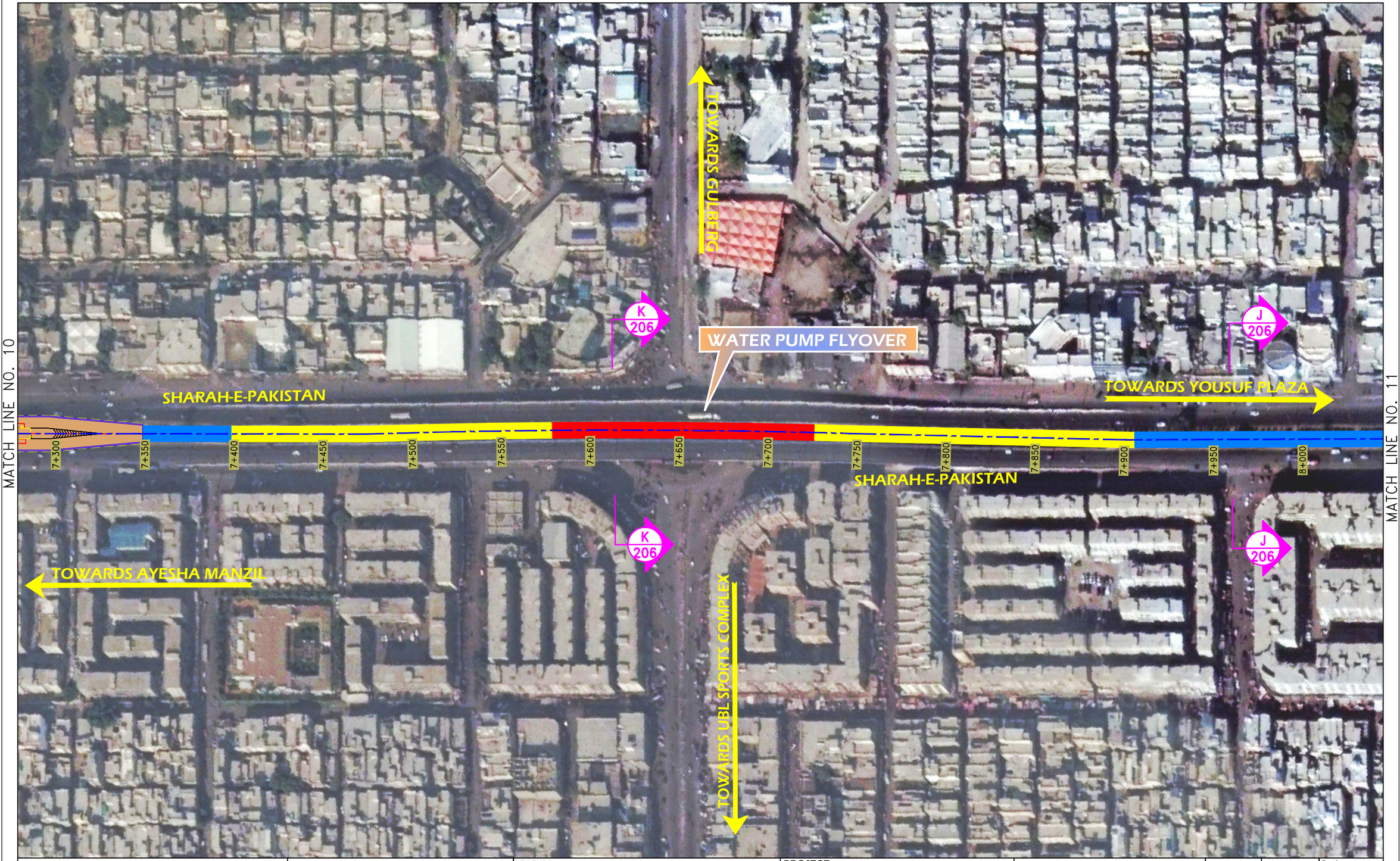
MATCH LINE NO. 10



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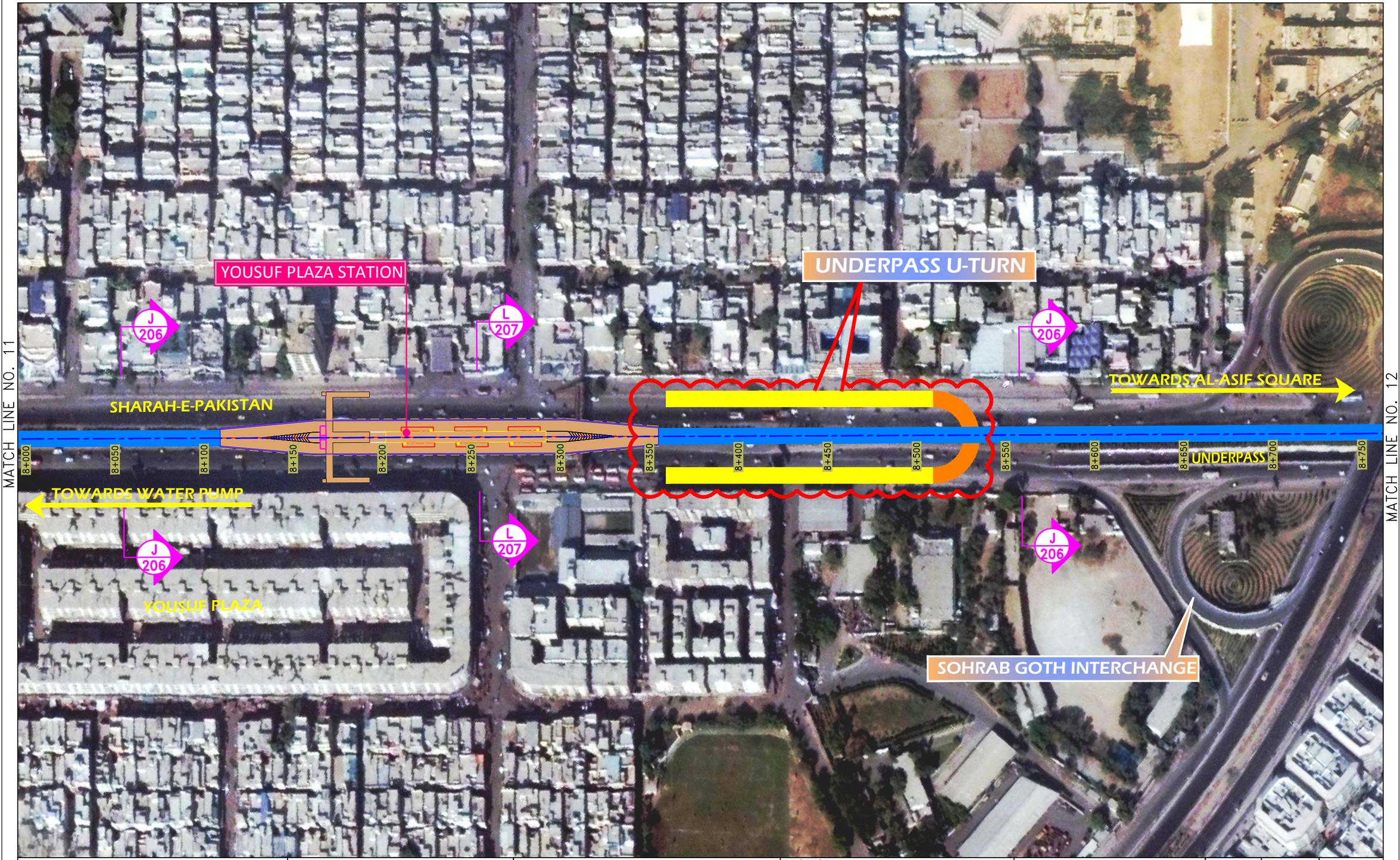

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CLIENT:	PROJECT CONSULTANT:	LEGENDS:	PROJECT:	DRAWING TITLE:			
SINDH MASS TRANSIT CELL TRANSPORT & MASS TRANSIT DEPARTMENT GOVERNMENT OF SINDH	OSMANI Engineering - Architecture - Planning - Mapping - Technology	BRT RUNWAY AT-GRADE BRT RUNWAY AT-RAMP BRT RUNWAY ELEVATED AT-GRADE BRT STATION ELEVATED BRT STATION	INFRASTRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE SEGMENT: GURUMANDIR TO AL-ASIF SQUARE	ROAD LAYOUT	DRAWN	JUNAID	Scale: 1:1000
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					APPROVED	-	Rev No: P0

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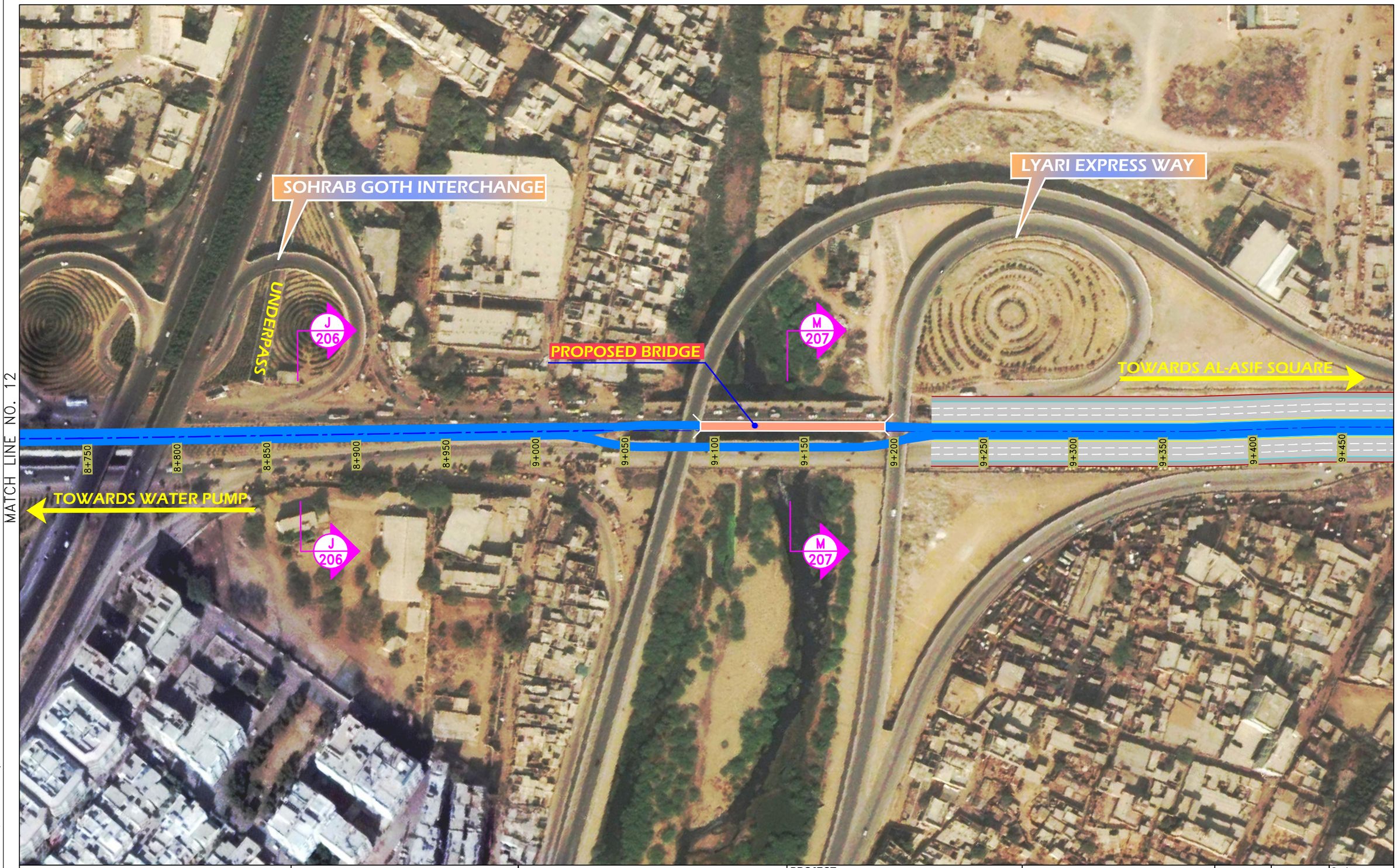

CLIENT:	PROJECT CONSULTANT:	LEGENDS:	PROJECT:	DRAWING TITLE:			
SINDH MASS TRANSIT CELL TRANSPORT & MASS TRANSIT DEPARTMENT GOVERNMENT OF SINDH	OSMANI Engineering - Architecture - Planning - Mapping - Technology	BRT RUNWAY AT-GRADE BRT RUNWAY AT-RAMP BRT RUNWAY ELEVATED AT-GRADE BRT STATION ELEVATED BRT STATION	INFRASTRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE SEGMENT: GURUMANDIR TO AL-ASIF SQUARE	ROAD LAYOUT	DRAWN	JUNAID	Scale: 1:1000
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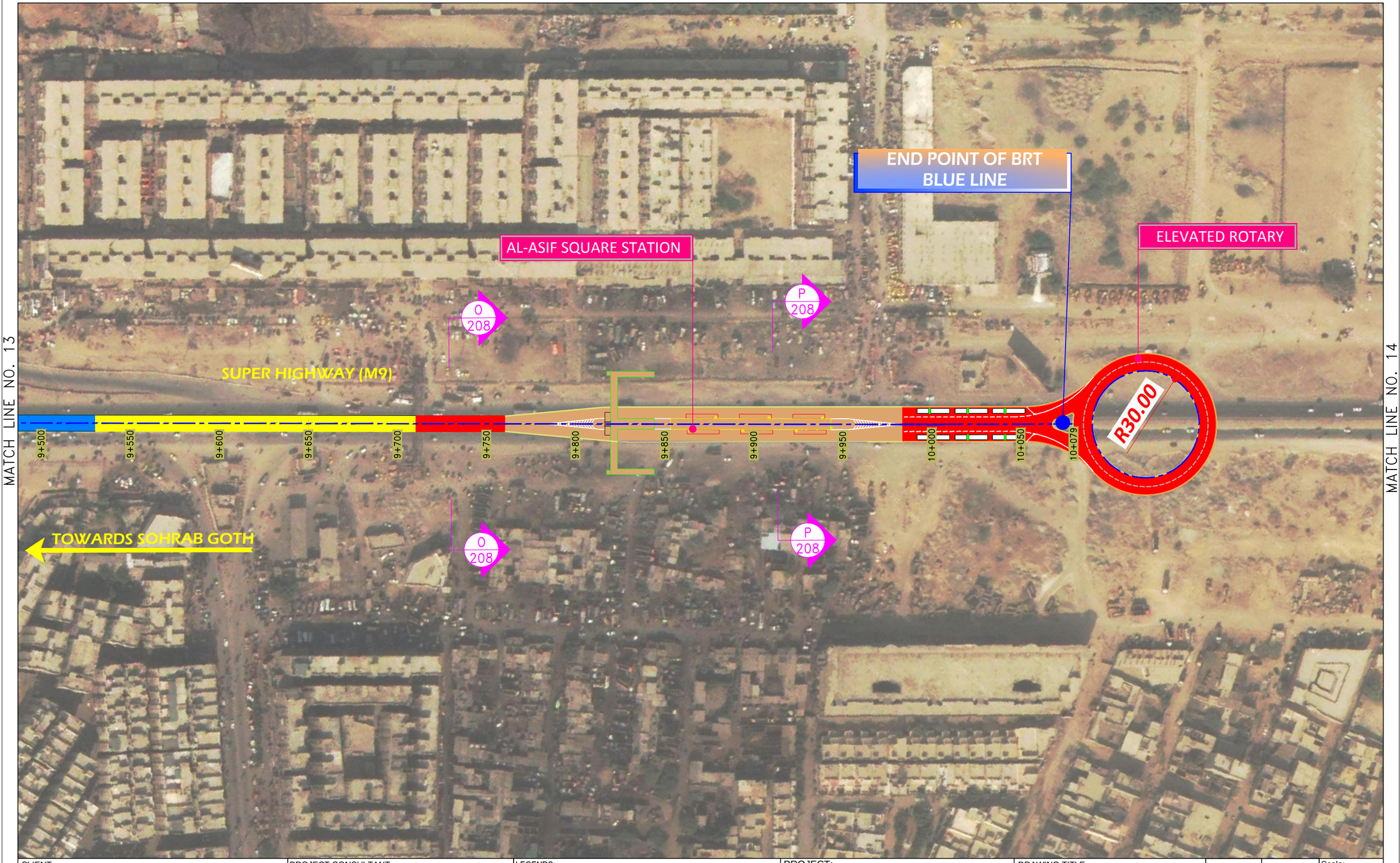
MATCH LINE NO. 13



MATCH LINE NO. 14

CLIENT:

SINDH MASS TRANSIT CELL
TRANSPORT & MASS
TRANSIT DEPARTMENT
GOVERNMENT OF SINDH

PROJECT CONSULTANT:

عثماني OSMANI
Engineering - Architecture - Planning - Mapping - Technology

LEGENDS:

- BRT RUNWAY AT-GRADE
- BRT RUNWAY AT-RAMP
- BRT RUNWAY ELEVATED
- AT-GRADE BRT STATION
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PROJECT:
INFRASTRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE

SEGMENT:
GURUMANDIR TO AL-ASIF SQUARE

DRAWING TITLE:
ROAD LAYOUT

DRAWN	JUNAID	Scale: 1:1000
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CHECKED	NADEEM	CTB File Name: TGS-100
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APPROVED		Rev No: P0

Drawing file path & name \\storage-server\03 - Engineering W\0 - Junaid-Ur-Rehman\2950 - BLUE LINE\MISCELLANEOUS\Alignment - 2(FINAL 12-01-2018).dwg
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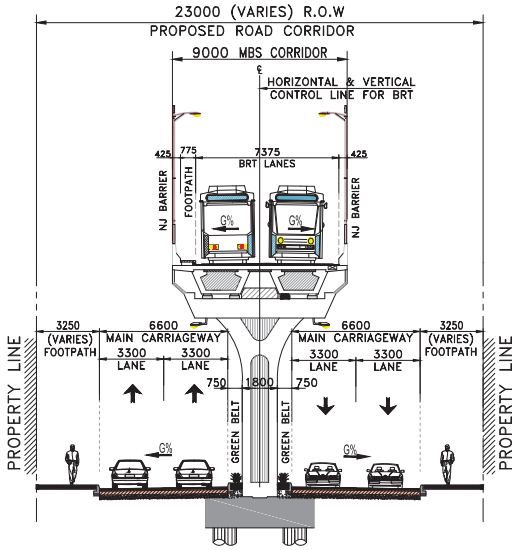
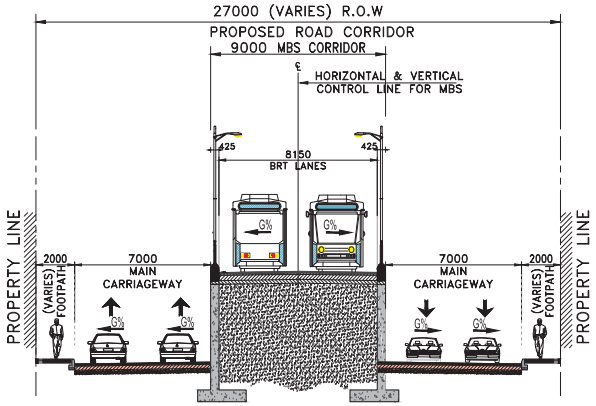
BRTS BLUE LINE KARACHI

TYPICAL CROSS SECTIONS



SECTION A–A

PROPOSED TYPICAL CROSS SECTION
FOR ELEVATED METRO BUS CORRIDOR FROM GURUMANDIR TO TEEN HATTI



SECTION B–B

PROPOSED TYPICAL CROSS SECTION AT RAMP OF METRO BUS
CORRIDOR FROM GURUMANDIR TO TEEN HATTI

CLIENT: SINDH MASS TRANSIT CELL, TRANSPORT & MASS TRANSIT DEPARTMENT, GOVERNMENT OF SINDH	PROJECT CONSULTANTS: OSMANI, Engineering - Architecture - Planning - Mapping - Technology	PROJECT: INFRASTRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE	DRAWING TITLE: TYPICAL ROADWAY CROSS SECTIONS FOR BRT CORRIDOR		DRAWN	JUNAID	Scale: 1:250
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					CHECKED	NADEEM	CTB File Name: TGS-100
		SEGMENT: GURUMANDIR TO AL-ASIF SQUARE	DATED: JANUARY 2018 / DRAWING No: 2950-01-01-02-200 _P0	0 / 15-01-18	PRELIMINARY DESIGN	SUBMITTED	Sheet No. 1/8
				REV / DATE	DESCRIPTION	APPROVED	Rev No: P0

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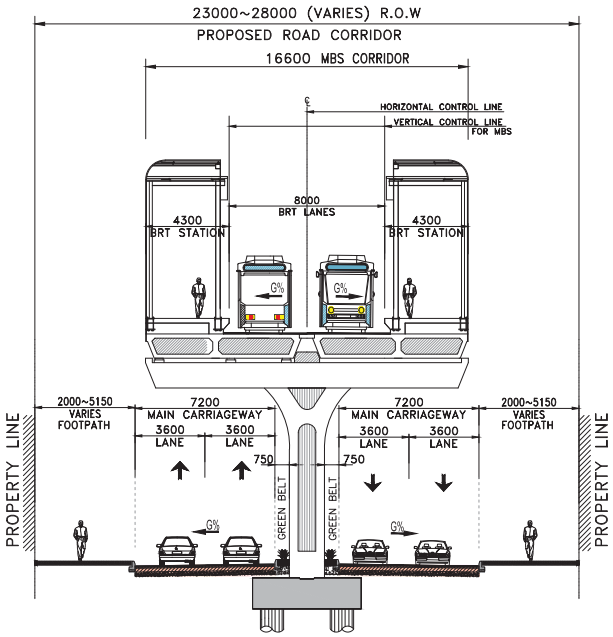
User and Plot Date Junaid_Rehman - Thu, 08 Feb 2018 - 10:29am



SECTION A1–A1

PROPOSED TYPICAL CROSS SECTION
FOR ELEVATED METRO BUS STATION (SPLIT TYPE) AT GURUMANDIR & MARTIN QUARTERS

CLIENT: SINDH MASS TRANSIT CELL, TRANSPORT & MASS TRANSIT DEPARTMENT, GOVERNMENT OF SINDH	PROJECT CONSULTANTS: OSMANI, Engineering - Architecture - Planning - Mapping - Technology	PROJECT: INFRASTRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE	DRAWING TITLE: TYPICAL ROADWAY CROSS SECTIONS FOR BRT CORRIDOR			DRAWN	JUNAID	Scale: 1:250
						DESIGNED	DANISH	
						CHECKED	NADEEM	CTB File Name: TGS-100
		SEGMENT: GURUMANDIR TO AL-ASIF SQUARE	DATED: JANUARY 2018 / DRAWING No: 2950-01-01-02-200A _P0	0	15-01-18	PRELIMINARY DESIGN	SUBMITTED	Sheet No. 1/8
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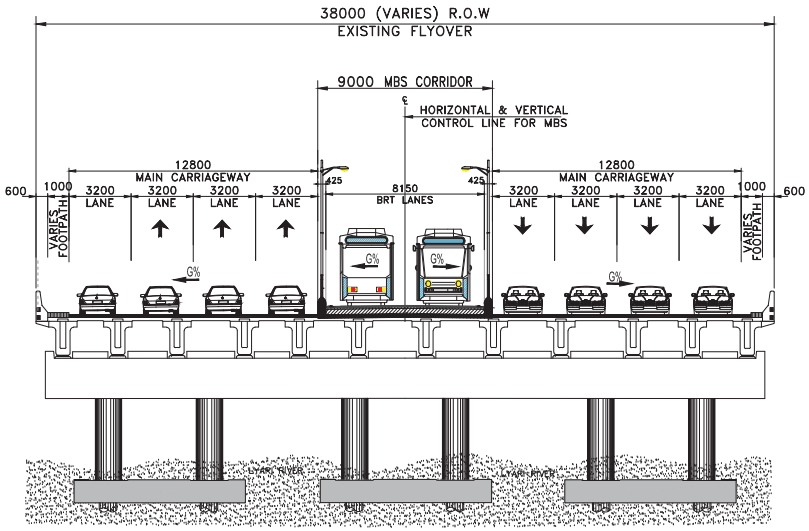
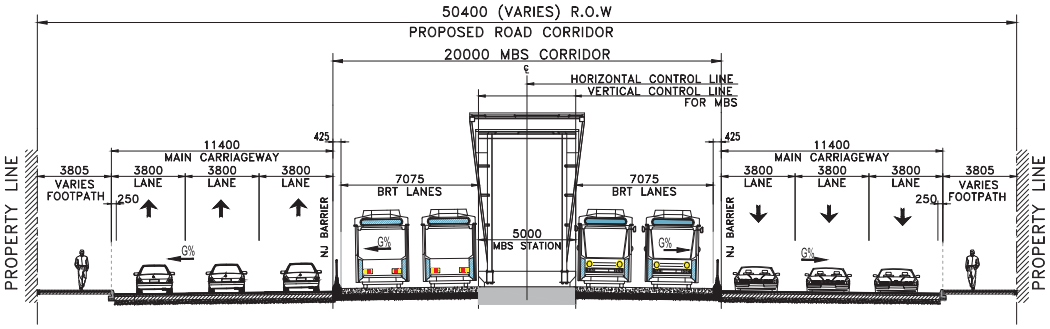


SECTION C–C

PROPOSED TYPICAL CROSS SECTION FOR METROBUS CORRIDOR AT EXISTING BRIDGE ON LYARI RIVER

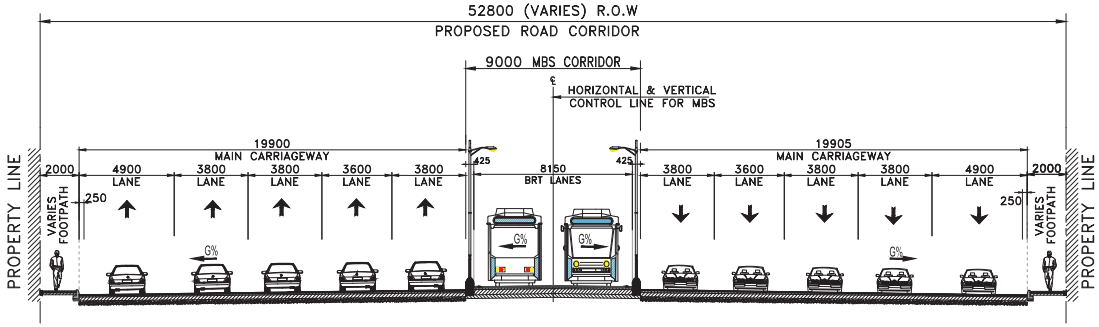
CLIENT: SINDH MASS TRANSIT CELL TRANSPORT & MASS TRANSIT DEPARTMENT GOVERNMENT OF SINDH	PROJECT CONSULTANTS: OSMANI Engineering - Architecture - Planning - Mapping - Technology	PROJECT: INFRASTRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE	DRAWING TITLE: TYPICAL ROADWAY CROSS SECTIONS FOR BRT CORRIDOR			DRAWN	JUNAID	Scale: 1:250
						DESIGNED	DANISH	CTB File Name: TGS-100
		SEGMENT: GURUMANDIR TO AL-ASIF SQUARE	DATED: JANUARY 2018 / DRAWING No: 2950-01-01-02-201_P0	0	15-01-18	PRELIMINARY DESIGN	CHECKED / SUBMITTED	NADEEM /	Sheet No. 2/8
				REV	DATE	DESCRIPTION	APPROVED		Rev No: P0

Drawing file path & name \\storage-server\03 - Engineering 1\0 - Junaid-Ur-Rehman\2950 - BLUE LINE\MCSELINEXVS\Cross Section(SC-01).dwg
User and Plot Date Junaid_Rehman - Thu, 08 Feb 2018 - 10:44am



SECTION D–D

PROPOSED TYPICAL CROSS SECTION
FOR AT–GRADE METRO BUS STATION
AT TEEN HATTI



SECTION E–E

PROPOSED TYPICAL CROSS SECTION FOR
AT–GRADE METRO BUS CORRIDOR

CLIENT: SINDH MASS TRANSIT CELL, TRANSPORT & MASS TRANSIT DEPARTMENT, GOVERNMENT OF SINDH	PROJECT CONSULTANTS: OSMANI, Engineering - Architecture - Planning - Mapping - Technology	PROJECT: INFRASTRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE	DRAWING TITLE: TYPICAL ROADWAY CROSS SECTIONS FOR BRT CORRIDOR	DRAWN: JUNAID	Scale: 1:250
		SEGMENT: GURUMANDIR TO AL-ASIF SQUARE	DATED: JANUARY 2018	DESIGNED: DANISH	CTB File Name: TGS-100
			DRAWING No: 2950-01-01-02-202_P0	CHECKED: NADEEM	
				SUBMITTED	Sheet No. 3/8
				APPROVED	Rev No: P0

REV	DATE	DESCRIPTION
0	15-01-18	PRELIMINARY DESIGN

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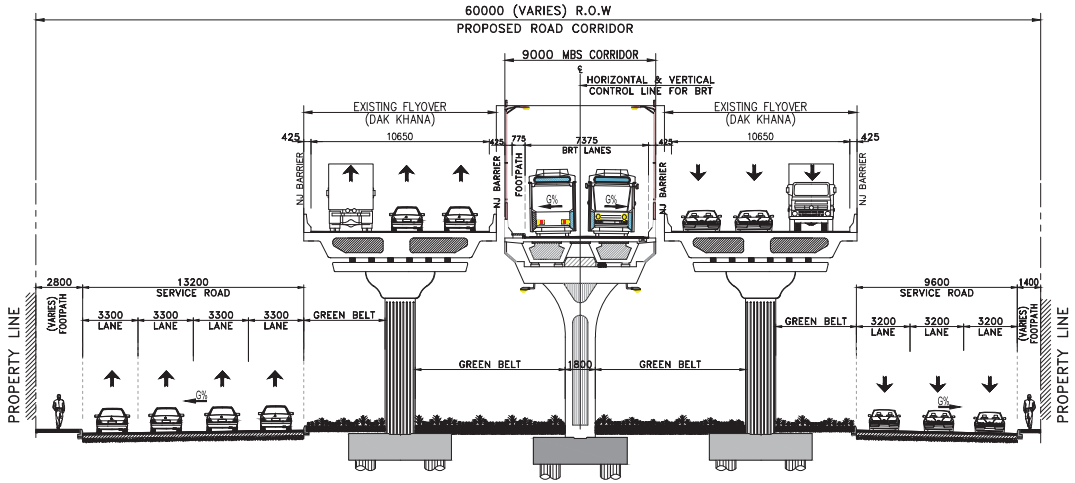
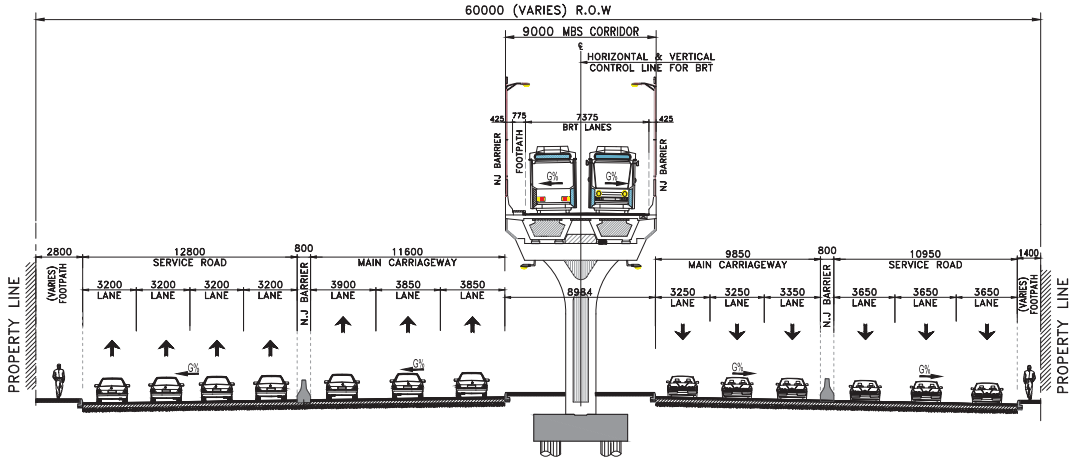


SECTION F–F

PROPOSED TYPICAL CROSS SECTION FOR ELEVATED METROBUS CORRIDOR
ALONG EXISTING FLYOVER OF DAK KHANA



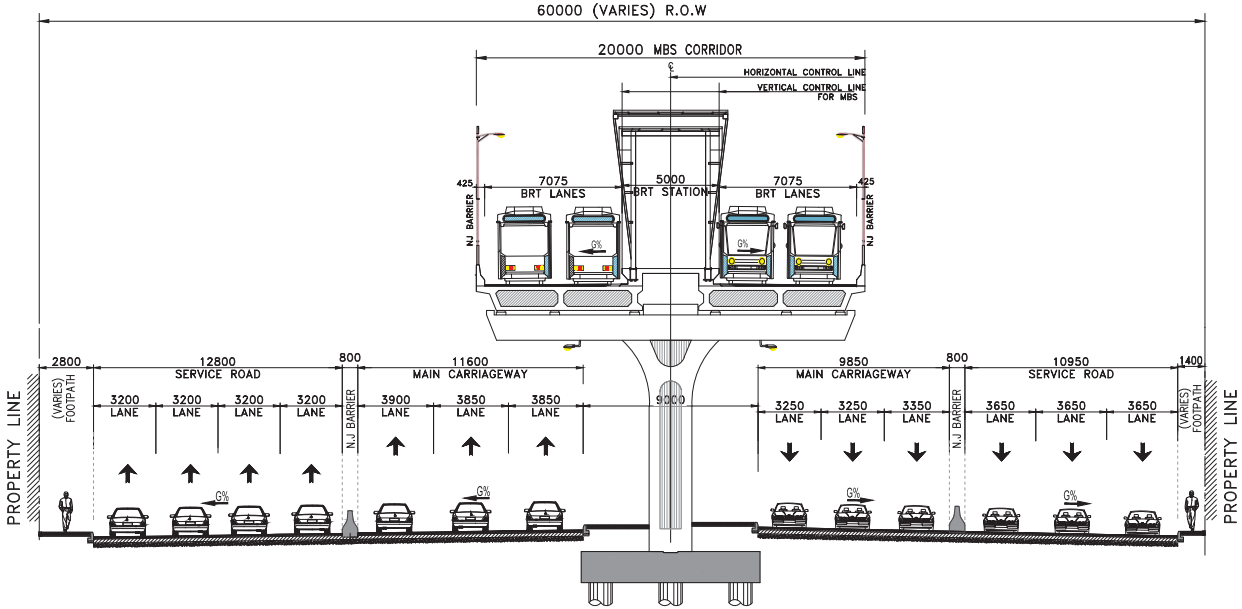
SECTION G–G

PROPOSED TYPICAL CROSS SECTION FOR ELEVATED METRO BUS CORRIDOR
WITH MAIN CARRIAGEWAY & SERVICE ROAD SEPARATED BY N.J BARRIER

CLIENT: SINDH MASS TRANSIT CELL, TRANSPORT & MASS TRANSIT DEPARTMENT, GOVERNMENT OF SINDH	PROJECT CONSULTANTS: OSMANI, Engineering - Architecture - Planning - Mapping - Technology	PROJECT: INFRASTRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE	DRAWING TITLE: TYPICAL ROADWAY CROSS SECTIONS FOR BRT CORRIDOR	DRAWN: JUNAID	Scale: 1:125
				DESIGNED: DANISH	
				CHECKED: NADEEM	CTB File Name: TGS-100
		SEGMENT: GURUMANDIR TO AL-ASIF SQUARE	DATED: JANUARY 2018 / DRAWING No: 2950-01-01-02-203_P0	SUBMITTED	Sheet No. 4/8
				APPROVED	Rev No: P0

REV	DATE	DESCRIPTION
0	15-01-18	PRELIMINARY DESIGN

Drawing file path & name \\storage-server\03 - Engineering 1\0 - Junaid-Ur-Rehman\2950 - BLUE LINE\MCSELINEXVS\Cross Section(SG-01).dwg
User and Plot Date Junaid_Rehman - Thu, 08 Feb 2018 - 10:46am

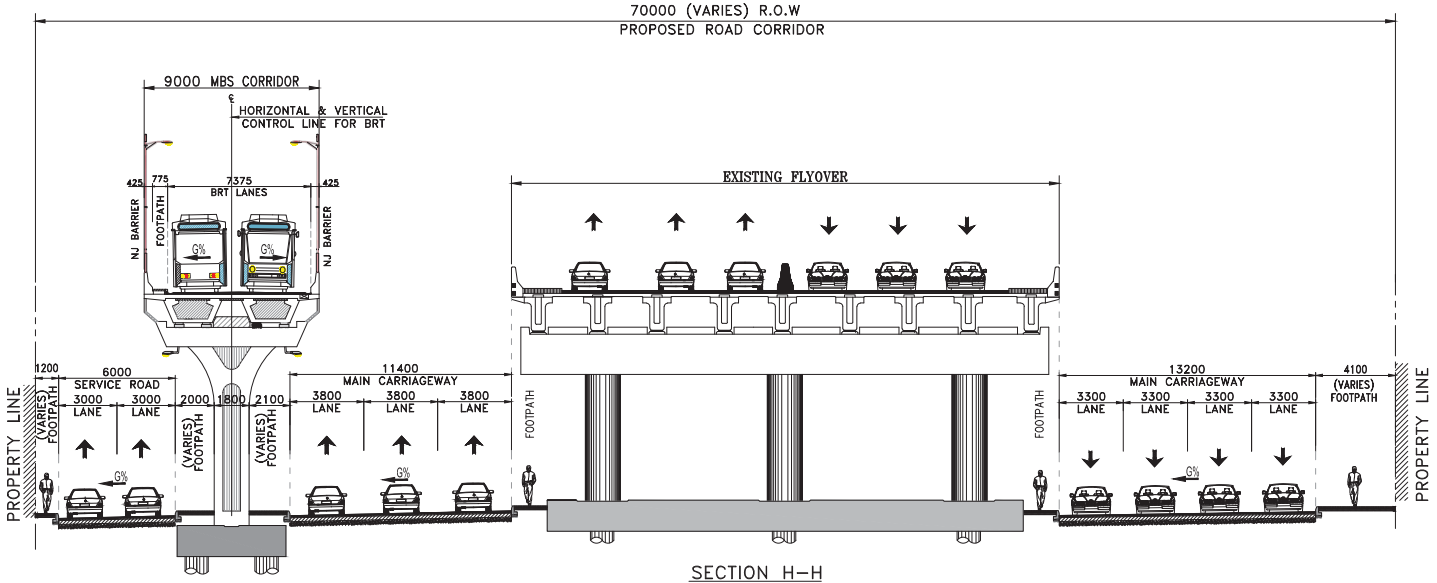


SECTION G1–G1

PROPOSED TYPICAL CROSS SECTION FOR ELEVATED METRO BUS STATION WITH MAIN CARRIAGEWAY & SERVICE ROAD SEPARATED BY N.J BARRIER

CLIENT: SINDH MASS TRANSIT CELL, TRANSPORT & MASS TRANSIT DEPARTMENT, GOVERNMENT OF SINDH	PROJECT CONSULTANTS: OSMANI Engineering - Architecture - Planning - Mapping - Technology	PROJECT: INFRASTRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE	DRAWING TITLE: TYPICAL ROADWAY CROSS SECTIONS FOR BRT CORRIDOR			DRAWN	JUNAID	Scale: 1:125
						DESIGNED	DANISH	
						CHECKED	NADEEM	CTB File Name: TGS-100
		SEGMENT: GURUMANDIR TO AL-ASIF SQUARE	DATED: JANUARY 2018 / DRAWING No: 2950-01-01-02-203A_P0	0	15-01-18	PRELIMINARY DESIGN	SUBMITTED	Sheet No. 4/8
				REV	DATE	DESCRIPTION	APPROVED	Rev No: P0

Drawing file path & name \\storage-server\03 - Engineering 1\0 - Junaid-Ur-Rehman\2950 - BLUE LINE\MASSELINEXVS\Cross Section(SG-01).dwg
User and Plot Date Junaid_Rehman - Thu, 08 Feb 2018 - 10:48am



SECTION H–H

PROPOSED TYPICAL CROSS SECTION FOR ELEVATED METROBUS CORRIDOR
ON ONE SIDE WITH EXISTING FLYOVER OF LIAQUATABAD

CLIENT: SINDH MASS TRANSIT CELL, TRANSPORT & MASS TRANSIT DEPARTMENT, GOVERNMENT OF SINDH	PROJECT CONSULTANTS: OSMANI, Engineering - Architecture - Planning - Mapping - Technology	PROJECT: INFRASTRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE	DRAWING TITLE: TYPICAL ROADWAY CROSS SECTIONS FOR BRT CORRIDOR			DRAWN	JUNAID	Scale: 1:250
						DESIGNED	DANISH	CTB File Name: TGS-100
		SEGMENT: GURUMANDIR TO AL-ASIF SQUARE	DATED: JANUARY 2018	DRAWING No: 2950-01-01-02-204_P0		CHECKED	NADEEM	
				0	15-01-18	PRELIMINARY DESIGN	SUBMITTED	Sheet No. 5/8
				REV	DATE	DESCRIPTION	APPROVED	Rev No: P0

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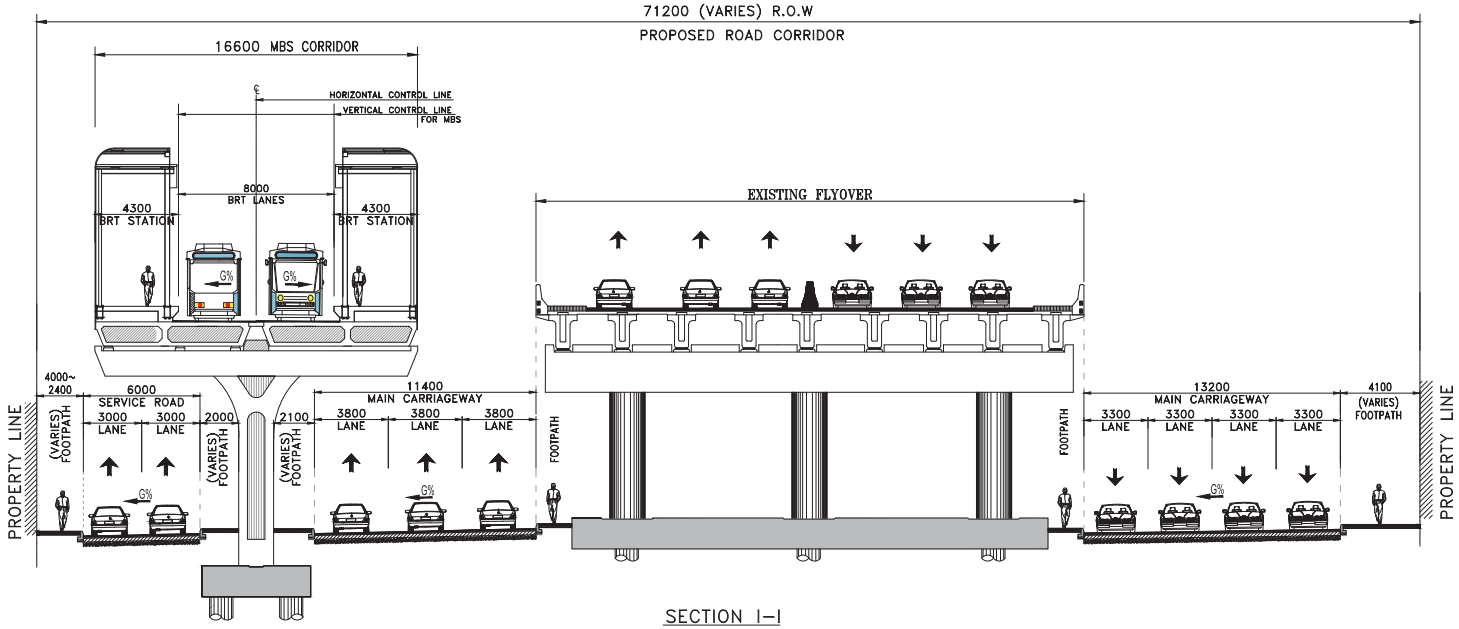
User and Plot Date Junaid_Rehman - Thu, 08 Feb 2018 - 10:48am



SECTION I–I

PROPOSED TYPICAL CROSS SECTION FOR ELEVATED METROBUS STATION (SPLIT TYPE) ON ONE SIDE WITH EXISTING FLYOVER OF LIAQUATABAD

CLIENT: SINDH MASS TRANSIT CELL, TRANSPORT & MASS TRANSIT DEPARTMENT, GOVERNMENT OF SINDH	PROJECT CONSULTANTS: OSMANI, Engineering - Architecture - Planning - Mapping - Technology	PROJECT: INFRASTRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE	DRAWING TITLE: TYPICAL ROADWAY CROSS SECTIONS FOR BRT CORRIDOR		DRAWN	JUNAID	Scale: 1:250
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				REV DATE DESCRIPTION	APPROVED		Rev No: P0

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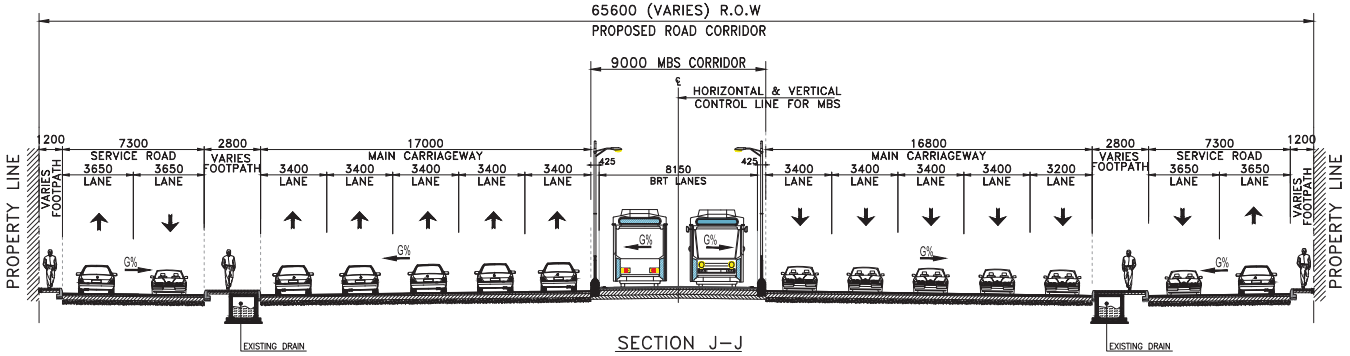
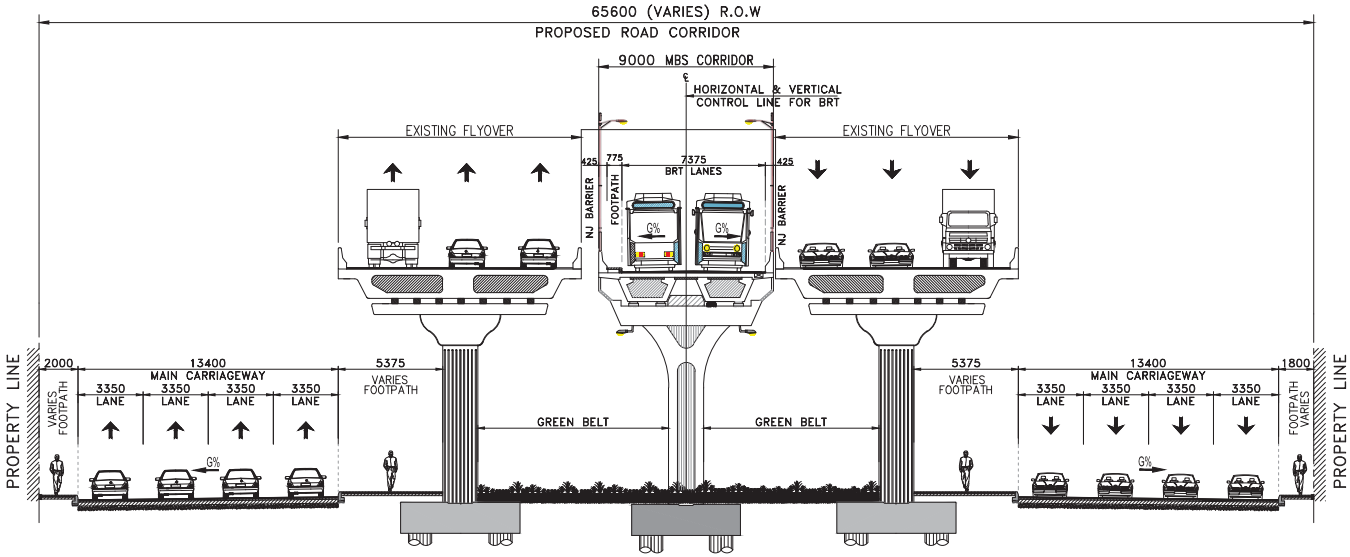
User and Plot Date Junaid_Rehman - Thu, 08 Feb 2018 - 10:50am



SECTION J–J

PROPOSED TYPICAL CROSS SECTION FOR AT–GRADE METRO BUS CORRIDOR AT SHAHRAH–E–PAKISTAN



SECTION K–K

PROPOSED TYPICAL CROSS SECTION FOR ELEVATED METROBUS CORRIDOR ALONG EXISTING FLYOVER OF AYSHA MANZIL & WATER PUMP

CLIENT: SINDH MASS TRANSIT CELL TRANSPORT & MASS TRANSIT DEPARTMENT GOVERNMENT OF SINDH	PROJECT CONSULTANTS: OSMANI Engineering - Architecture - Planning - Mapping - Technology	PROJECT: INFRASTRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE	DRAWING TITLE: TYPICAL ROADWAY CROSS SECTIONS FOR BRT CORRIDOR	DRAWN: JUNAID	Scale: 1:250
				DESIGNED: DANISH	
				CHECKED: NADEEM	CTB File Name: TGS-100
		SEGMENT: GURUMANDIR TO AL-ASIF SQUARE	DATED: JANUARY 2018 / DRAWING No: 2950-01-01-02-206_P0	SUBMITTED	Sheet No. 7/8
				APPROVED	Rev No: P0

REV	DATE	DESCRIPTION
0	15-01-18	PRELIMINARY DESIGN

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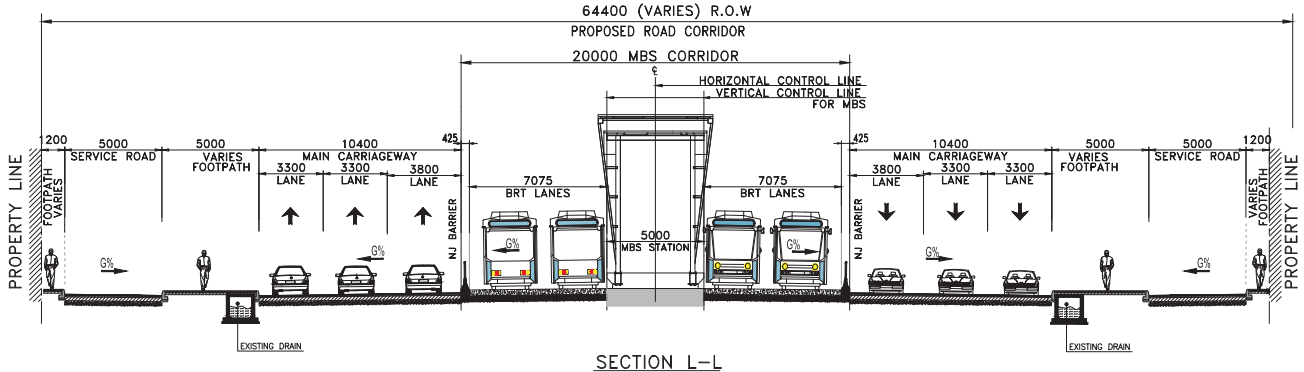
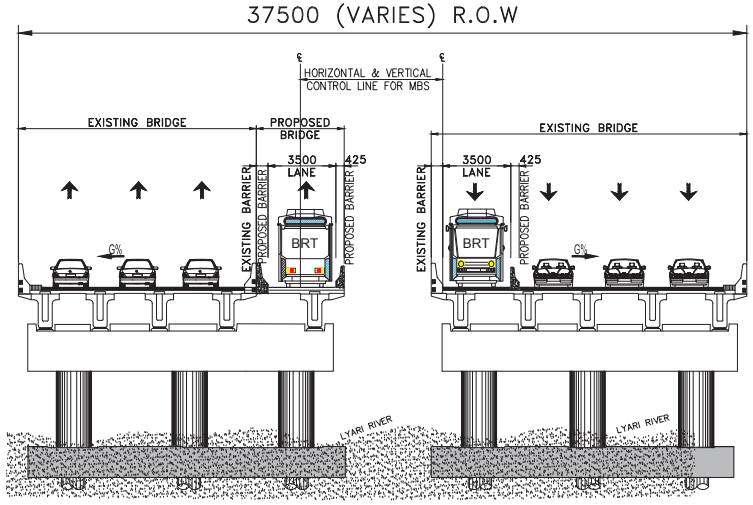
User and Plot Date Junaid_Rehman - Thu, 08 Feb 2018 - 10:51am



SECTION L–L

PROPOSED TYPICAL CROSS SECTION FOR AT–GRADE
METRO BUS STATION



SECTION M–M

PROPOSED TYPICAL CROSS SECTION FOR METROBUS CORRIDOR AT
EXISTING BRIDGE OF LYARI RIVER

CLIENT: SINDH MASS TRANSIT CELL, TRANSPORT & MASS TRANSIT DEPARTMENT, GOVERNMENT OF SINDH	PROJECT CONSULTANTS: OSMANI, Engineering - Architecture - Planning - Mapping - Technology	PROJECT: INFRASTRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE	DRAWING TITLE: TYPICAL ROADWAY CROSS SECTIONS FOR BRT CORRIDOR			DRAWN	JUNAID	Scale: 1:250
						DESIGNED	DANISH	CTB File Name: TGS-100
						CHECKED	NADEEM	
		SEGMENT: GURUMANDIR TO AL-ASIF SQUARE	DATED: JANUARY 2018	DRAWING No: 2950-01-01-02-207_P0	0 / 15-01-18 / PRELIMINARY DESIGN	SUBMITTED		Sheet No. 8/8
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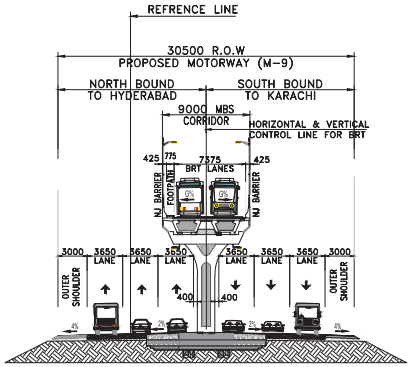
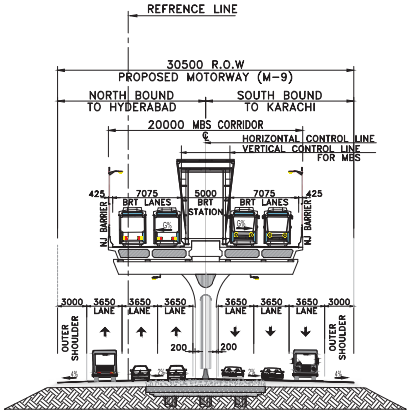
User and Plot Date Junaid_Rehman - Thu, 08 Feb 2018 - 10:52am



SECTION O-O

PROPOSED TYPICAL CROSS SECTION

ON M-9 FOR ELEVATED METRO CORRIDOR AFTER LYARI BRIDGE UP-TO AL-ASIF SQUARE



SECTION P-P

PROPOSED TYPICAL CROSS SECTION

ON M-9 FOR ELEVATED METRO STATION AT AL-ASIF SQUARE

CLIENT: SINDH MASS TRANSIT CELL, TRANSPORT & MASS TRANSIT DEPARTMENT, GOVERNMENT OF SINDH	PROJECT CONSULTANTS: OSMANI, Engineering - Architecture - Planning - Mapping - Technology	PROJECT: INFRASTRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE	DRAWING TITLE: TYPICAL ROADWAY CROSS SECTIONS FOR BRT CORRIDOR			DRAWN: JUNAID	Scale: 1:250
						DESIGNED: DANISH	
						CHECKED: NADEEM	CTB File Name: TGS-100
		SEGMENT: GURUMANDIR TO AL-ASIF SQUARE	DATED: JANUARY 2018	DRAWING No: 2950-01-01-02-208_P0	0 / 15-01-18 / PRELIMINARY DESIGN	SUBMITTED	Sheet No. 8/8
					REV / DATE / DESCRIPTION	APPROVED	Rev No: P0

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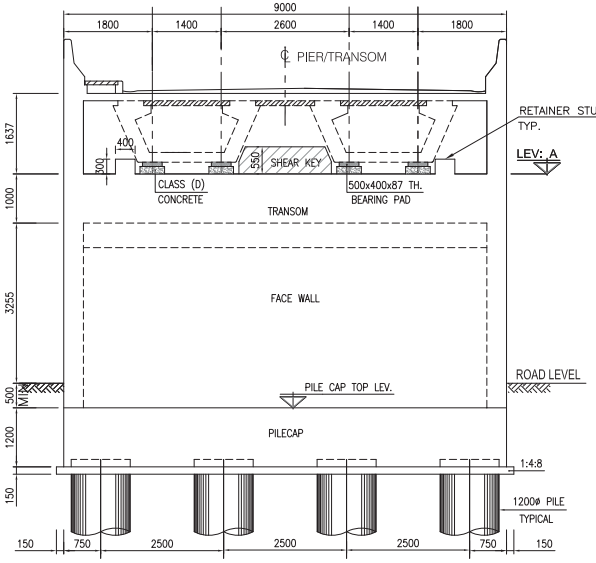
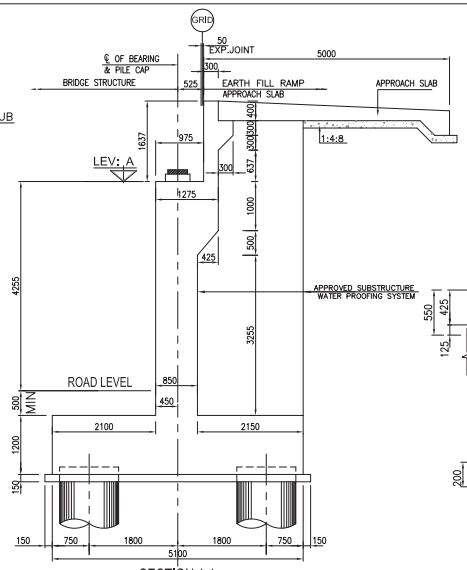
User and Plot Date Junaid_Rehman - Thu, 08 Feb 2018 - 10:53am

BRTS BLUE LINE KARACHI

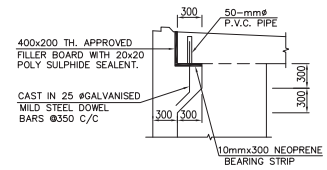
STRUCTURAL DRAWINGS



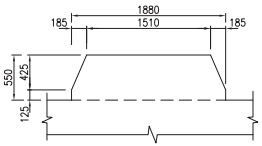
FRONT ELEVATION OF ABUTMENT.
SCALE: 1:50



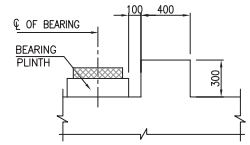
SECTION 1-1
SCALE: 1:50



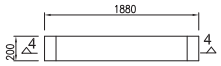
DETAIL X-X
SCALE 1:30



SECTION 4-4
SCALE 1:30



TYP. DETAIL OF RETAINER STUB
SCALE 1:20

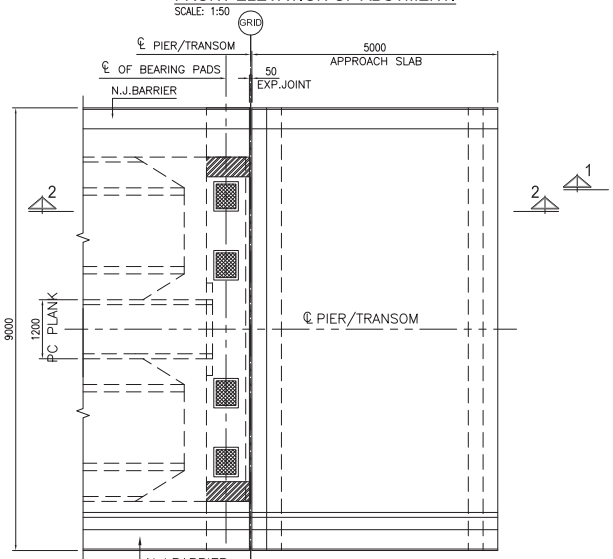


PLAN OF SHEAR KEY
SCALE 1:30

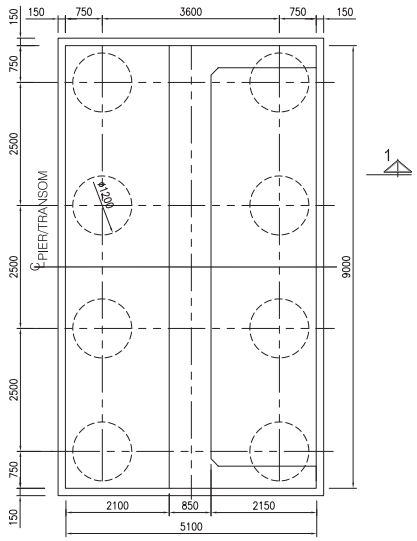
NOTES:-

1- FOR GENERAL NOTES REFER, DRAWING NO. GN01
2- THE CONTRACTOR HAS TO CONDUCT SOIL INVESTIGATION AND CONFORMATORY BORINGS AT LOCATIONS OF ABUTMENTS AND PIERS TO VERIFY THE BEARING CAPACITY AND SOIL PARAMETERS. INCASE OF VARIATION IN THE SOIL PROFILE AND BEARING CAPACITY, THE DESIGN SHOULD BE REVIEWED IN CONSULTATION WITH THE DESIGNER AND ENGINEER BEFORE EXECUTION OF THE WORK AT SITE.
3- CONTRACTOR HAS TO SUBMIT SHOP DRAWINGS REGARDING PROPOSAL FOR DEVELOPING THE AESTHETICS AND APPEARENCES OF THE BRIDGE,ABUTMENT, PIER WALL,NEW JERSEY BARRIER ETC, TO THE CONSULTANTS BEFORE PROCEEDING TO THE ACTUAL EXECUTION OF THE WORK AT SITE.
4- FOR ELECTRICAL POLES & LIGHTING ARRANGEMENT DETAILS, REFER ELECTRICAL DRAWINGS.
5- BACKFILLING SHALL BE DONE IN LAYERS NOT EXCEEDING 6 INCHES IN THICKNESS AND COMPACTED UPTO 95% MODIFIED AASHTO DRY DENSITY.
6- BACKFILL PLACED AROUND ABUTMENTS AND PIERS SHALL BE COMPACTED ON BOTH SIDES TO THE SAME ELEVATION AT THE SAME TIME.
7- FRACTURED LIME STONE ROCK AFTER EXCAVATION SHALL BE TREATED AND SEALED WITH APPROVED MATERIAL.

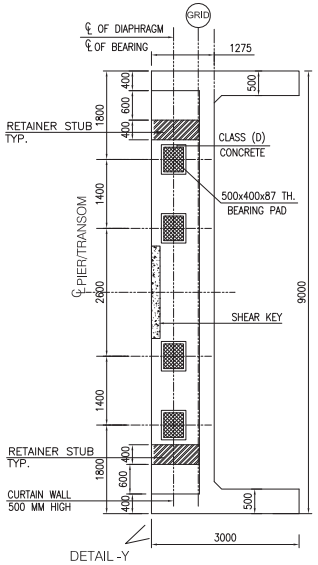
IMPORTANT NOTE
LOCATION OF ABUTMENT AND ABUT.PILES ARE SUBJECT TO FINAL DEMARCATION OF THE CORRIDOR PLAN AND PROFILE AT SITE.



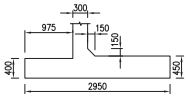
APPROACH SLAB PLAN
SCALE 1:50



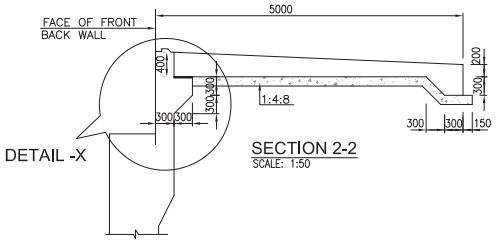
PLAN OF ABUTMENT PILE CAP
SCALE: 1:50



PLAN OF BEARING PADS ARRANGEMENT
SCALE: 1:50



DEATIL Y-Y
SCALE: 1:50



SECTION 2-2
SCALE: 1:50

CLIENT: SINDH MASS TRANSIT CELL, TRANSPORT & MASS TRANSIT DEPARTMENT, GOVERNMENT OF SINDH	PROJECT CONSULTANTS: OSMANI Engineering - Architecture - Planning - Mapping - Technology	PROJECT: STRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE	DRAWING TITLE: ABUTMENT PLAN, ELEVATION, SECTION & OTHER DETAILS (DIMENSIONAL DETAILS)	DRAWN: MR	Scale: N.T.S
		SECTION: GURUMANDIR TO AL ASIF SQUARE (M9)	DATED: FEBRUARY 2018 / DRAWING No: S200	DESIGNED: AA	CTB File Name: TGS-100
				CHECKED: SA	
			P0 FEB. PRELIMINARY DESIGN	SUBMITTED	Sheet No.
			REV DATE DESCRIPTION	APPROVED	Rev No: P0

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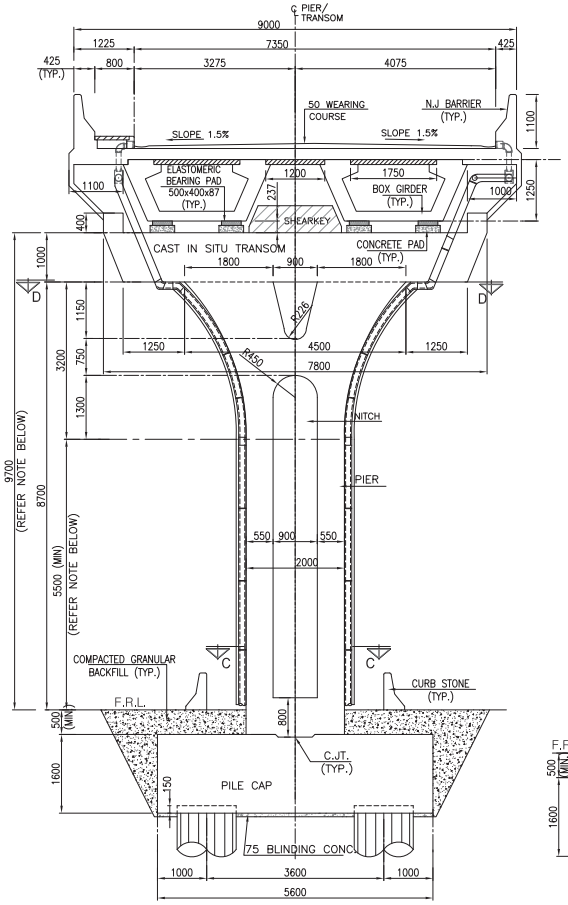
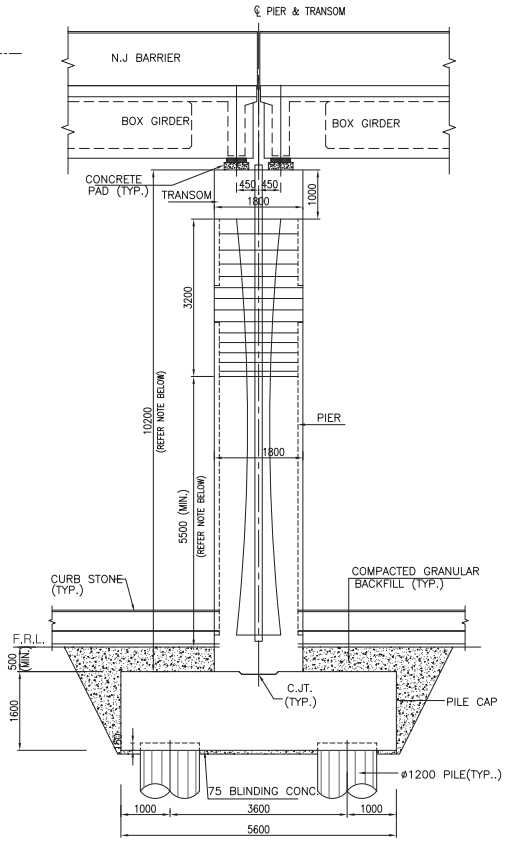
User and Plot Date: M.Mubeen - Thu, 08 Feb 2018 - 11:05am

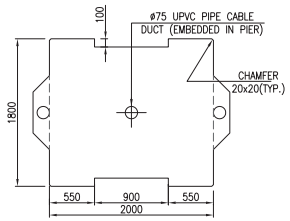


SECTIONAL ELEVATION A-A
(DIMENSIONAL) SCALE 1:50

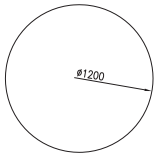
NOTE:
VERTICAL CLEARANCE & OVER ALL HEIGHT MAY VARY SUBJECT TO FINALISATION OF GEOMETRY & PROFILE OF BRIDGES AT PARTICULAR LOCATIONS.



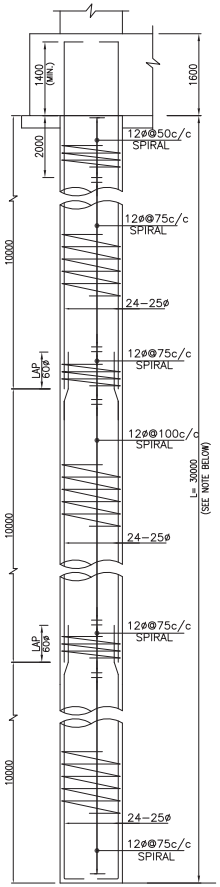
SECTIONAL ELEVATION B-B
(DIMENSIONAL) SCALE 1:50



TYP. SECTION C-C AT PIER
(DIMENSIONAL) (SCALE = 1:30)



TYP.SECTION OF PILE
SCALE = 1:20



SECTIONAL ELEVATION OF TEST PILE
(NOTE:- TIP LEVEL OF WORKING PILE SHALL BE DETERMINED AFTER REVIEWING PILE LOAD TEST RESULTS & REPORT.)
SCALE 1:30

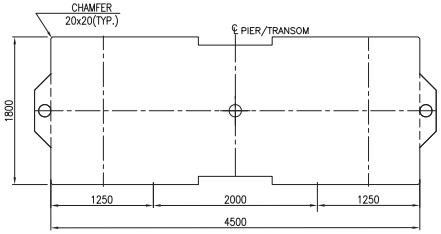
NOTES:-

1- FOR GENERAL NOTES REFER, DRAWING NO. GN-01

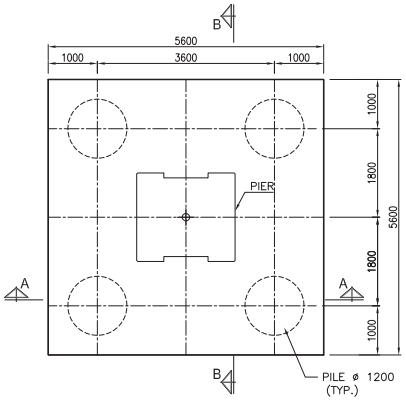
2- FOR BEARING PAD & ACCESSORIES APPROVAL OF THE FOREIGN (IMPORTED) VENDOR OF WESTERN EUROPE, USA, JAPAN SHALL BE OBTAINED BY THE DESIGNER.

3- DETAILS OF MATERIAL & ALL ACCESSORIES SHALL BE SUBMITTED FROM THE ORIGION SOURCE BY BY THE CONTRACTOR TO DESIGNER FOR APPROVAL.

4- PRE & POST INSPECTION AT SOURCE SHALL BE CARRIED OUT BY THE DESIGNER / ENGINEER TEAM. ALL COST SHALL BE DEEMED TO BE INCLUDED IN THE RATES QUOTED BY THE CONTRACTOR.



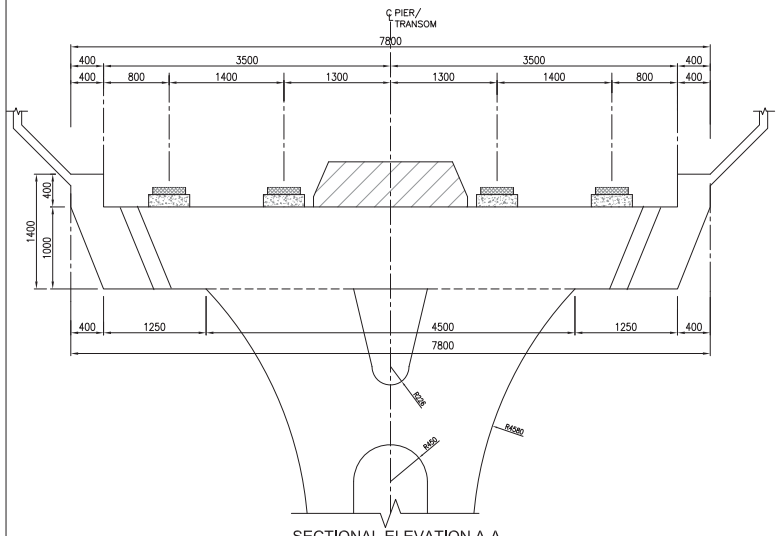
TYP. SECTION D-D AT PIER
(DIMENSIONAL) (SCALE = 1:30)



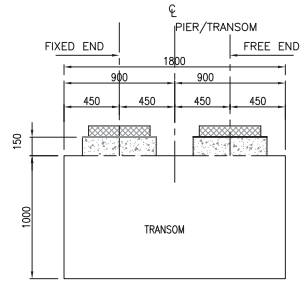
TYP. PLAN OF PILE CAP
(DIMENSIONAL) SCALE 1:50

CLIENT:	PROJECT CONSULTANTS:	PROJECT:	DRAWING TITLE:						
SINDH MASS TRANSIT CELL TRANSPORT & MASS TRANSIT DEPARTMENT GOVERNMENT OF SINDH	OSMANI Engineering - Architecture - Planning - Mapping - Technology	STRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE	PIER ELEVATION, TRANSOM, FOUNDATION, PILE & PILE CAP , (DIMENSIONAL DETAILS)			DRAWN	MR	Scale: N.T.S
						DESIGNED	AA	
						CHECKED	SA	CTB File Name: TGS-100
		SECTION: GURUMANDIR TO AL ASIF SQUARE (M9)	DATED: FEBRUARY 2018	DRAWING No: S300	P0 FEB. PRELIMINARY DESIGN	SUBMITTED		Sheet No.
					REV DATE DESCRIPTION	APPROVED		Rev No: P0

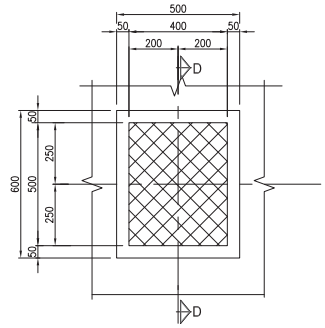
Drawing file path & name D:\WorkingFolder\MAMBEEN\2950 Bus Rapid Transit Blue Line Karachi\3-dw SPAN TYPICAL DETAILS\FINAL SM\S300 TO S303.dwg
User and Plot Date M.Mubeen - Thu, 08 Feb 2018 - 11:06am



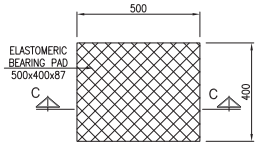
SECTIONAL ELEVATION A-A
(DIMENSIONAL) (SCALE = 1:30)



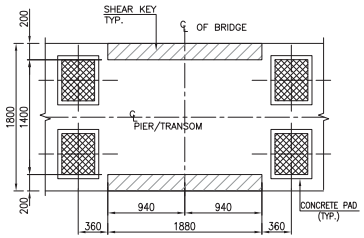
SECTION B-B
(DIMENSIONAL)
SCALE 1:20



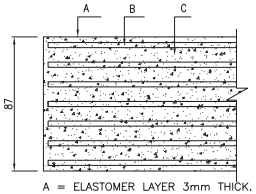
BEARING PLINTH DETAILS
DIMENSIONAL SCALE = 1:10



BEARING PAD PLAN
DIMENSIONAL SCALE = 1:10

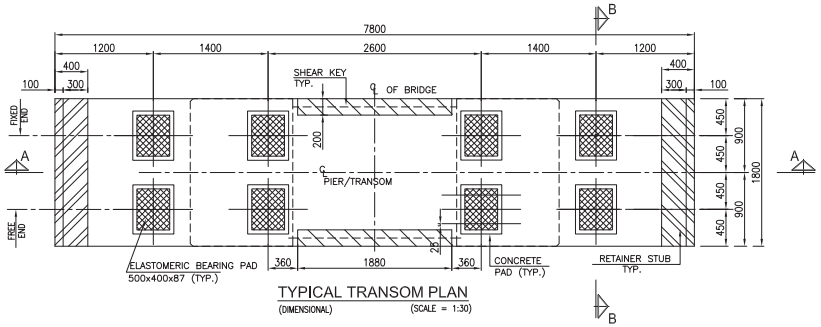


TYP. PLAN OF SHEAR KEY
(DIMENSIONAL) (SCALE = 1:30)

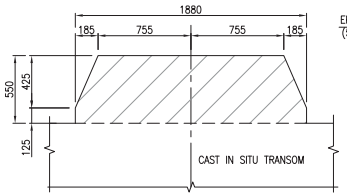


A = ELASTOMER LAYER 3mm THICK.
B = STEEL PLATE LAYER 3mm THICK.
C = ELASTOMER LAYER 10mm THICK.

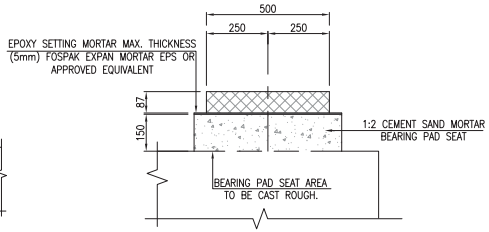
DETAIL "C"
DIMENSIONAL
SCALE = 1:10



TYPICAL TRANSOM PLAN
(DIMENSIONAL) (SCALE = 1:30)



TYP. SEC. OF SHEAR KEY
(DIMENSIONAL) SCALE 1:20



TYP. SEC. OF D-D
DIMENSIONAL SCALE = 1:10

CLIENT: SINDH MASS TRANSIT CELL, TRANSPORT & MASS TRANSIT DEPARTMENT, GOVERNMENT OF SINDH	PROJECT CONSULTANTS: OSMANI Engineering - Architecture - Planning - Mapping - Technology	PROJECT: STRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE	DRAWING TITLE: ELEVATION OF TRANSOM, SETOUT BEARING DATA & BEARING PLINTH (DIMENSIONAL DETAILS)	DRAWN: MR	Scale: N.T.S
		SECTION: GURUMANDIR TO AL ASIF SQUARE (M9)		DESIGNED: AA	CTB File Name: TGS-100
				CHECKED: SA	
			P0 FEB. PRELIMINARY DESIGN	SUBMITTED	Sheet No.
		DATED: FEBRUARY 2018	DRAWING No: S302	REV DATE DESCRIPTION	APPROVED / Rev No: P0

Drawing file path & name: D:\WorkingFolder\MAMBEEN\2950 Bus Rapid Transit Blue Line Karachi\3-4M SPAN TYPICAL DETAILS\FINAL 9M\S300 TO S303.dwg
User and Plot Date: M.Mubeen - Thu, 08 Feb 2018 - 11:07am

NOTES:-

1- FOR GENERAL NOTES REFER, DRAWING NO. 2950-1-1-GN-01

2- FOR BEARING PAD & ACCESSORIES APPROVAL OF THE FOREIGN (IMPORTED) VENDOR OF WESTERN EUROPE, USA, JAPAN SHALL BE OBTAINED BY THE DESIGNER.

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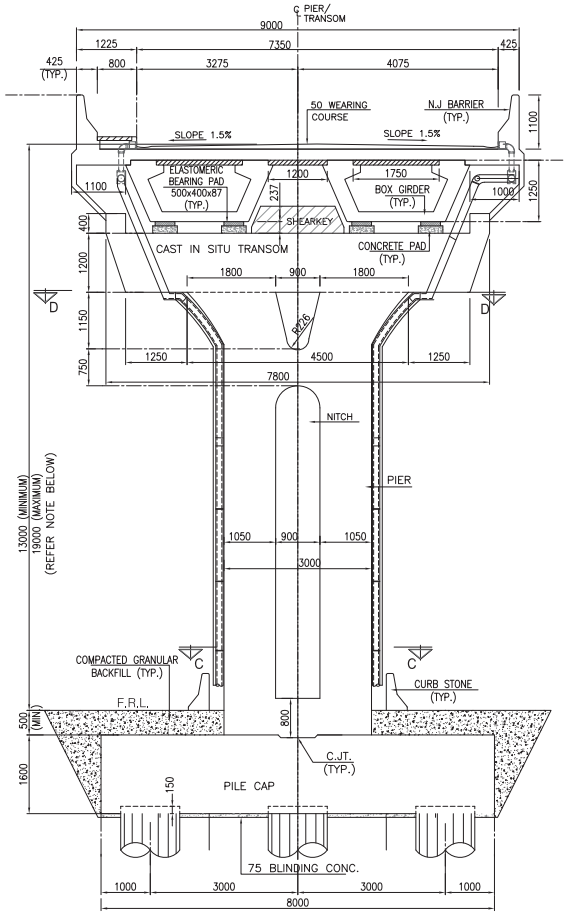
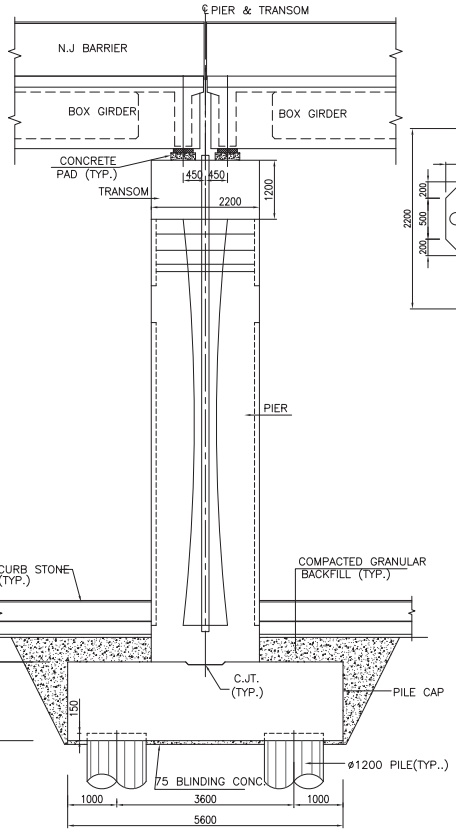
4- PRE & POST INSPECTION AT SOURCE SHALL BE CARRIED OUT BY THE DESIGNER / ENGINEER TEAM. ALL COST SHALL BE DEEMED TO BE INCLUDED IN THE RATES QUOTED BY THE CONTRACTOR.



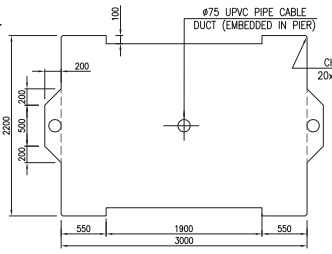
SECTIONAL ELEVATION A-A
(DIMENSIONAL) SCALE 1:50

NOTE:

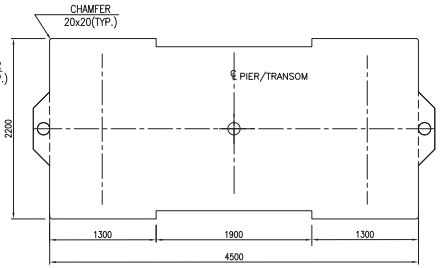
VERTICAL CLEARANCE & OVER ALL HEIGHT MAY VARY SUBJECT TO FINALISATION OF GEOMETRY & PROFILE OF BRIDGES AT PARTICULAR LOCATIONS.



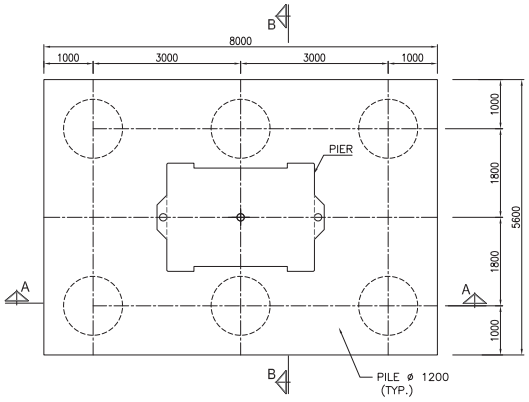
SECTIONAL ELEVATION B-B
(DIMENSIONAL) SCALE 1:50



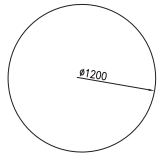
TYP. SECTION C-C AT PIER
(DIMENSIONAL) (SCALE = 1:30)



TYP. SECTION D-D AT PIER
(DIMENSIONAL) (SCALE = 1:30)



TYP. PLAN OF PILE CAP
(DIMENSIONAL) SCALE 1:50

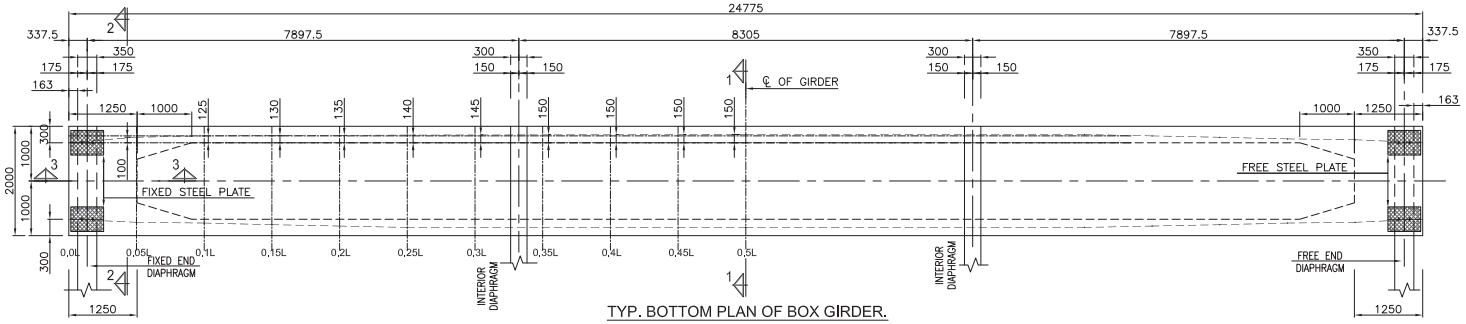


TYP.SECTION OF PILE
SCALE = 1:20

CLIENT: SINDH MASS TRANSIT CELL, TRANSPORT & MASS TRANSIT DEPARTMENT, GOVERNMENT OF SINDH	PROJECT CONSULTANTS: OSMANI Engineering - Architecture - Planning - Mapping - Technology	PROJECT: STRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE	DRAWING TITLE: PIER ELEVATION, TRANSOM, FOUNDATION, PILE & PILE CAP, (HEIGHT = 1250 TO 19000) (DIMENSIONAL DETAILS)	DRAWN: MR	Scale: N.T.S
		SECTION: GURUMANDIR TO AL ASIF SQUARE (M9)		DESIGNED: AA	CTB File Name: TGS-100
				CHECKED: SA	
			DATED: FEBRUARY 2018 / DRAWING No: S305	SUBMITTED	Sheet No.
				APPROVED	Rev No: P0

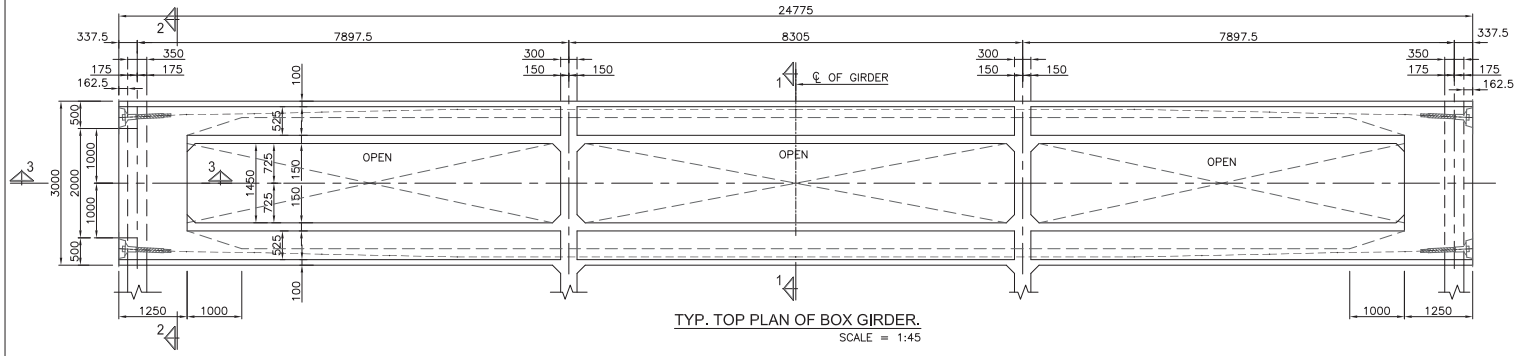
REV	DATE	DESCRIPTION
P0	FEB.	PRELIMINARY DESIGN

Drawing file path & name: D:\WorkingFolder\MAMBEEN\2950 Bus Rapid Transit Blue Line Karachi\3-4M SPAN TYPICAL DETAILS\FINAL 9M\S304.8.dwg
User and Plot Date: M.Mubeen - Thu, 08 Feb 2018 - 11:08am



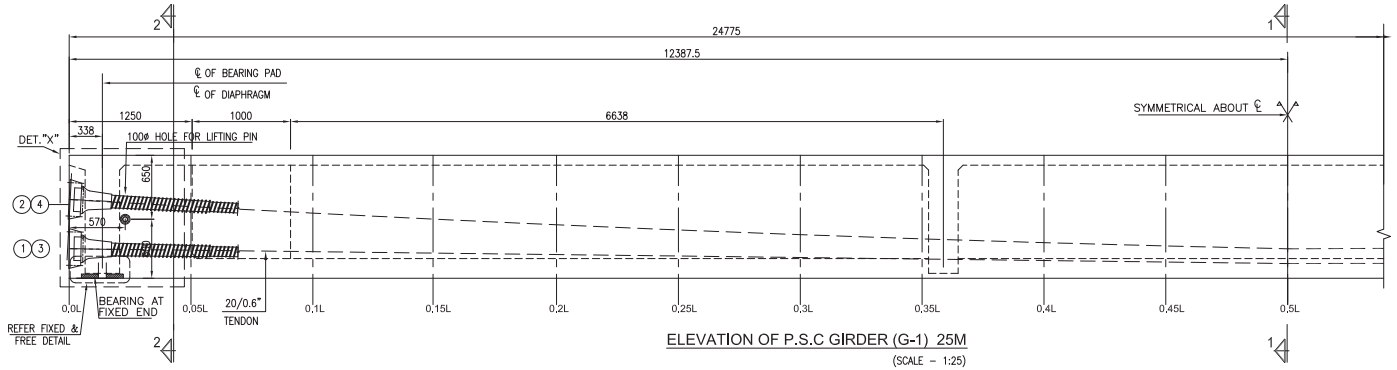
TYP. BOTTOM PLAN OF BOX GIRDER.

SCALE = 1:45



TYP. TOP PLAN OF BOX GIRDER.

SCALE = 1:45



ELEVATION OF P.S.C GIRDER (G-1) 25M

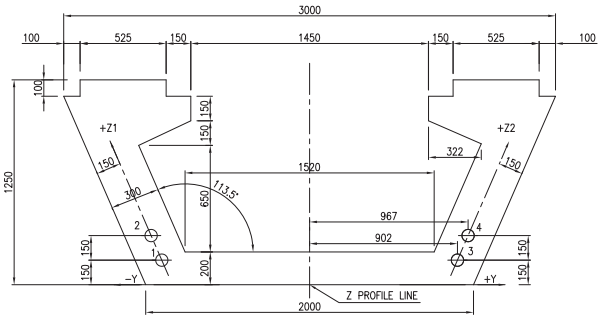
(SCALE - 1:25)

NOTES:-

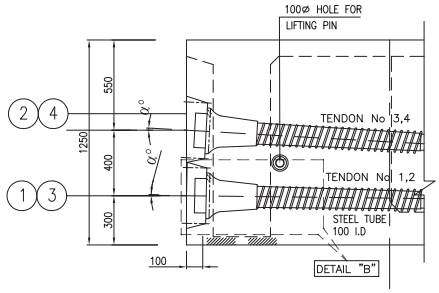
1. FOR GENERAL NOTES REFER, DRAWING NO. GN-01
2. CONTRACTOR HAS TO OBTAIN APPROVAL REGARDING EXECUTING COMPANY OF PRE / POST TENSIONING, FROM THE DESIGNER BEFORE EXECUTION OF THE WORK AT SITE.
3. CONTRACTOR HAS TO SUBMIT THE METHODOLOGY FOR THE PRE / POST TENSIONING METHODOLOGY.
4. CONTRACTOR HAS TO SUBMIT SAMPLES OF THE ACCESSORIES LIKE WEDGES, SHEATHING, COUPLER, ETC. INTENDED TO BE USED FOR THE PRE / POST TENSIONING OF THE GIRDERS TO THE DESIGNERS FOR APPROVAL BEFORE ACTUAL EXECUTION OF THE WORK AT SITE
5. CONTRACTOR HAS TO OBTAIN APPROVAL FROM THE DESIGNER OF THE PRE-STRESSING STRANDS AND THE SOURCE FROM WHERE THE STRANDS ARE INTENDED TO BE PROCURED, AT LEAST 30 (THIRTY) DAYS BEFORE ACTUAL EXECUTION OF THE WORK AT SITE.
6. ALL SECTION DETAILS & TENDON DATA REFER DWG NO. S402

CLIENT: SINDH MASS TRANSIT CELL, TRANSPORT & MASS TRANSIT DEPARTMENT, GOVERNMENT OF SINDH	PROJECT CONSULTANTS: OSMANI Engineering - Architecture - Planning - Mapping - Technology	PROJECT: STRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE	DRAWING TITLE: TYP.PRECAST BOX GIRDER 25 M SPAN PLAN ELEVATION & DETAILS (DIMENSIONAL)	DRAWN: MR	Scale: N.T.S
		SECTION: GURUMANDIR TO AL ASIF SQUARE (M9)	DATED: FEBRUARY 2018 / DRAWING No: S400	DESIGNED: AA	CTB File Name: TGS-100
				CHECKED: SA	
			P0 FEB. PRELIMINARY DESIGN	SUBMITTED	Sheet No.
			REV DATE DESCRIPTION	APPROVED	Rev No: P0

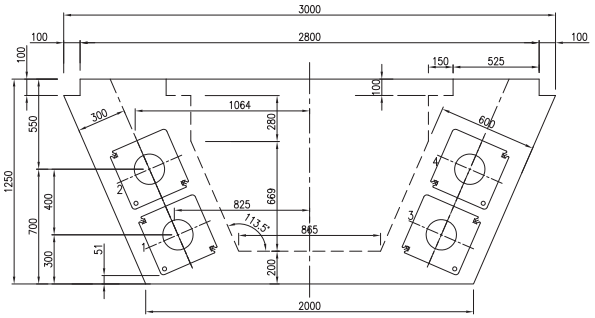
Drawing file path & name: D:\WorkingFolder\MAMBEEN\2950 Bus Rapid Transit Blue Line Karachi\3-dM SPAN TYPICAL DETAIL\FINAL 9M\S400 TO 403.dwg
User and Plot Date: M.Mubeen - Thu, 08 Feb 2018 - 11:09am



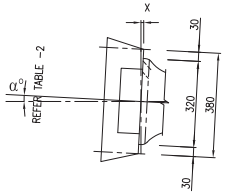
SECTION 1-1
DIMENSIONAL
(SCALE – 1:15)



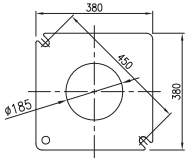
DETAIL - "X"
DETAIL OF ANCHORAGE RECESS
(SCALE – 1:15)



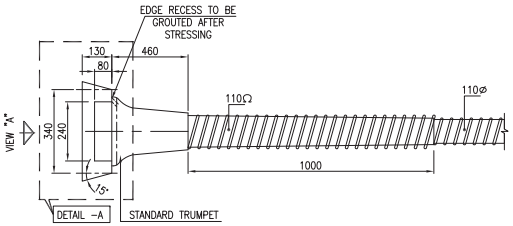
SECTION 2-2
DIMENSIONAL
(SCALE – 1:15)



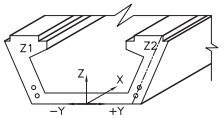
DETAIL - "A"
(SCALE – 1:8)



VIEW - "A"
(ANCHOR FACE)
(SCALE – 1:8)



DETAIL - "B"
(ANCHORAGE RECESS)
(SCALE – 1:10)



REFERENCE COORDINATES
SCALE = 1:45

NOTES:-

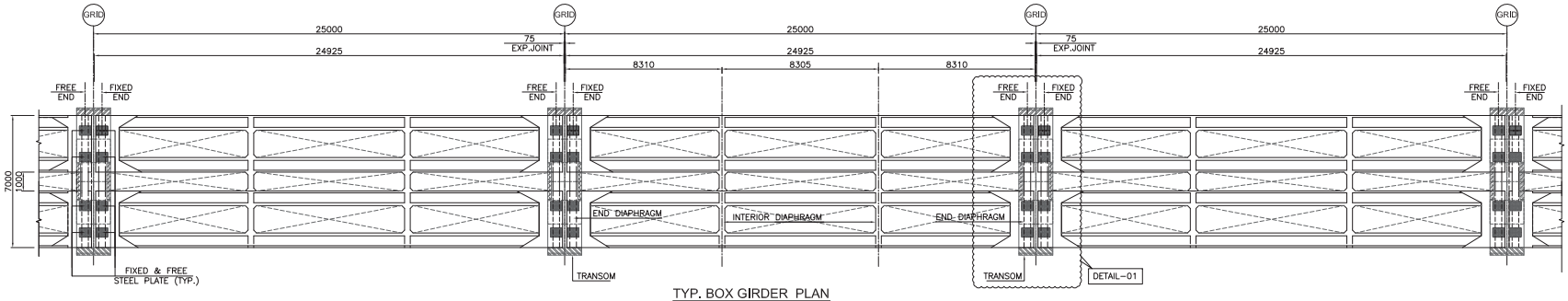
1. FOR GENERAL NOTES REFER, DRAWING NO. GN-01
2. ALL SECTION & DETAILS MARK REFER DWG NO. S400

CLIENT: SINDH MASS TRANSIT CELL, TRANSPORT & MASS TRANSIT DEPARTMENT, GOVERNMENT OF SINDH	PROJECT CONSULTANTS: OSMANI Engineering - Architecture - Planning - Mapping - Technology	PROJECT: STRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE	DRAWING TITLE: TYP.PRECAST BOX GIRDER 25 M SPAN SECTION & DETAIL PRESTRESSING DETAILS (DIMENSIONAL)		DRAWN: MR
		SECTION: GURUMANDIR TO AL ASIF SQUARE (M9)	DATED: FEBRUARY 2018	DRAWING No: S402	DESIGNED: AA
					CHECKED: SA
					SUBMITTED
					APPROVED

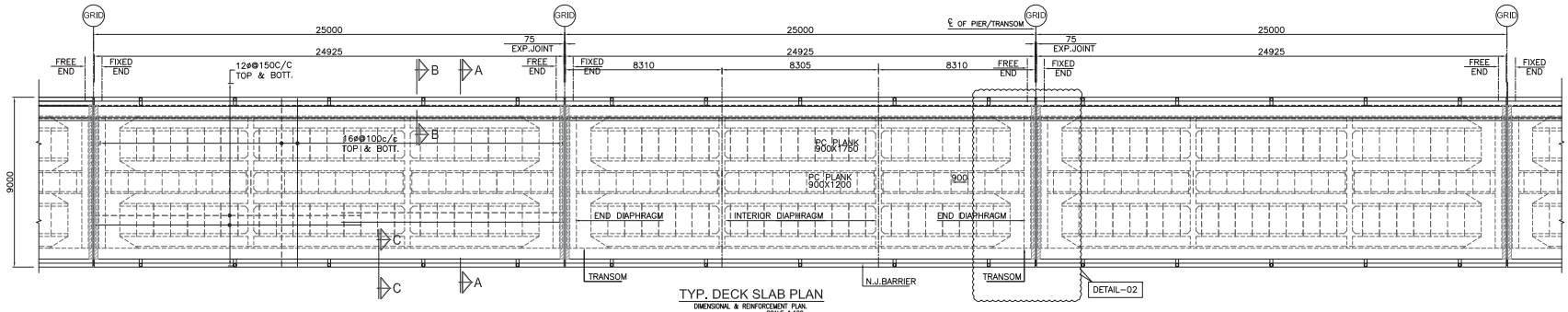
REV	DATE	DESCRIPTION
P0	FEB.	PRELIMINARY DESIGN

Scale: N.T.S
CTB File Name: TGS-100
Sheet No.
Rev No: P0

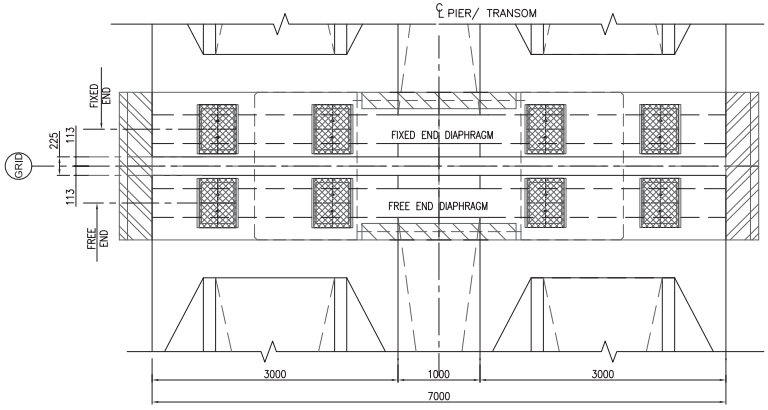
Drawing file path & name: D:\WorkingFolder\MAMBEEN\2950 Bus Rapid Transit Blue Line Karachi\3-4M SPAN TYPICAL DETAIL\FINAL 9M\S400 TO 403.dwg
User and Plot Date: M.Mubeen - Thu, 08 Feb 2018 - 11:11am



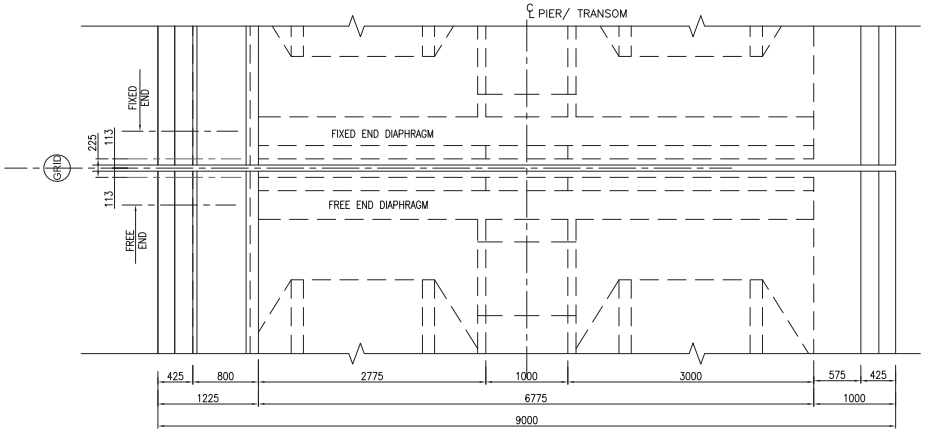
TYP. BOX GIRDER PLAN
DIMENSIONAL PLAN. SCALE 1:120



TYP. DECK SLAB PLAN
DIMENSIONAL & REINFORCEMENT PLAN.
SCALE 1:120



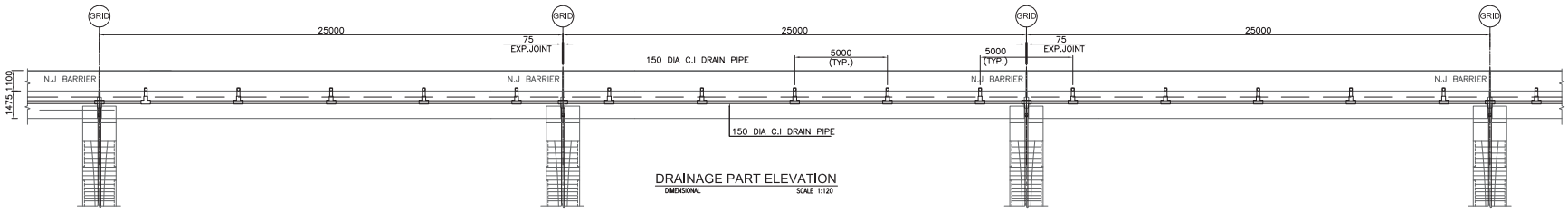
DETAIL-01
SCALE = 1:30



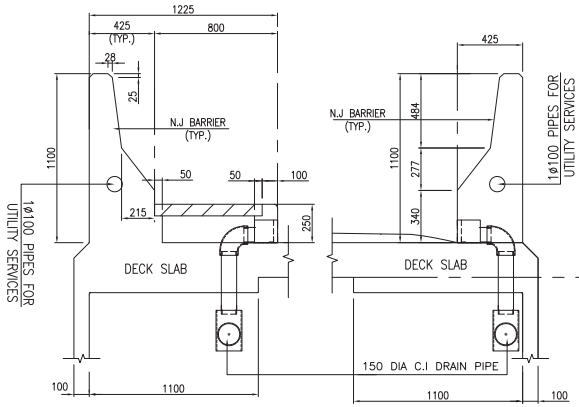
DETAIL-02
SCALE = 1:30

CLIENT: SINDH MASS TRANSIT CELL, TRANSPORT & MASS TRANSIT DEPARTMENT, GOVERNMENT OF SINDH	PROJECT CONSULTANTS: OSMANI Engineering - Architecture - Planning - Mapping - Technology	PROJECT: STRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE	DRAWING TITLE: TYPICAL PLAN OF DECK SLAB	DRAWN: MR	Scale: N.T.S
		SECTION: GURUMANDIR TO AL ASIF SQUARE (M9)		DESIGNED: AA	CTB File Name: TGS-100
			DATED: FEBRUARY 2018 / DRAWING No: S500	CHECKED: SA	
			P0 FEB. PRELIMINARY DESIGN	SUBMITTED	Sheet No.
			REV DATE DESCRIPTION	APPROVED	Rev No: P0

Drawing file path & name: D:\WorkingFolder\MAMBEEN\2950 Bus Rapid Transit Blue Line Karachi\3-dw SPAN TYPICAL DETAIL\FINAL 9M\S500 TO S501.dwg
User and Plot Date: M.Mubeen - Thu, 08 Feb 2018 - 11:12am

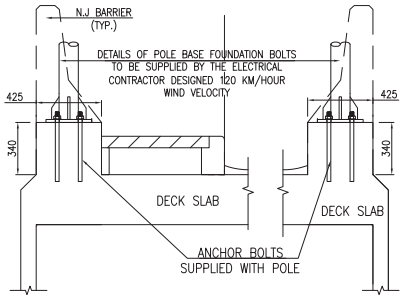


DRAINAGE PART ELEVATION
DIMENSIONAL SCALE 1:120

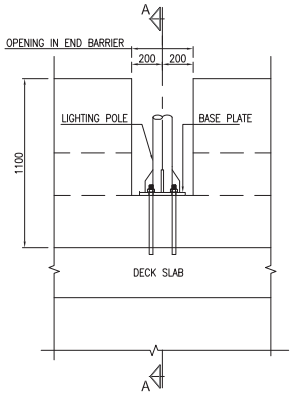


TYP. SECTION OF B-B
(DIMENSIONAL) SCALE = 1:16

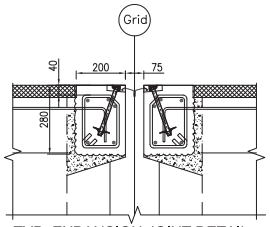
TYP. SECTION OF C-C
(DIMENSIONAL) SCALE = 1:16



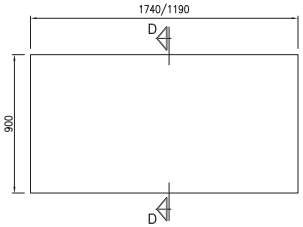
TYP. SEC. OF A-A
(DIMENSIONAL) SCALE = 1:16



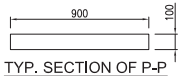
TYP. SEC. OF LIGHTING POLE
(DIMENSIONAL) SCALE = 1:16



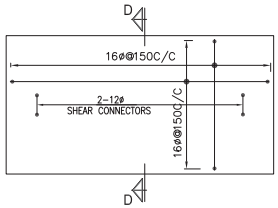
TYP. EXPANSION JOINT DETAIL
(APPROVED IMPORTED JOINTS DETAILS SHALL BE FOLLOWED)
(SCALE–1:10)



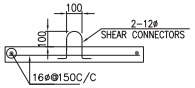
TYP. PLAN OF PLANK
(SCALE–1:16)



TYP. SECTION OF P-P
(SCALE–1:16)



TYP. PLAN OF PLANK
(SCALE–1:16)

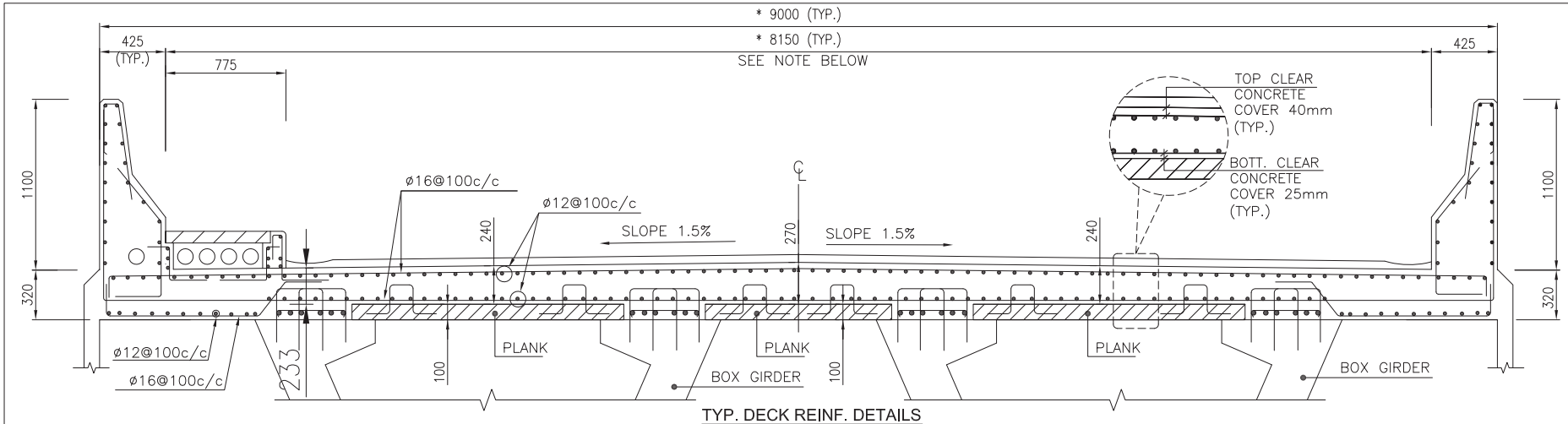


TYP. SECTION OF P-P
(SCALE–1:16)

CLIENT: SINDH MASS TRANSIT CELL, TRANSPORT & MASS TRANSIT DEPARTMENT, GOVERNMENT OF SINDH	PROJECT CONSULTANTS: OSMANI Engineering - Architecture - Planning - Mapping - Technology	PROJECT: STRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE	DRAWING TITLE: PLAN, SECTIONS, DET. OF DECK SLAB, N.J. BARRIER, EXPANSION. JOINT AND KERB BLOCK DETAILS (DIMENSIONAL)	DRAWN	MR	Scale: N.T.S
				DESIGNED	AA	CTB File Name: TGS-100
		SECTION: GURUMANDIR TO AL ASIF SQUARE (M9)	DATED: FEBRUARY 2018 / DRAWING No: S501	CHECKED	SA	
				SUBMITTED		Sheet No.
				APPROVED		Rev No: P0

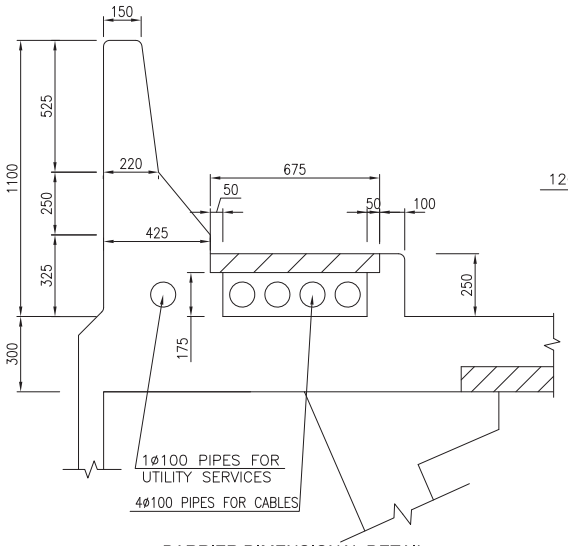
REV	DATE	DESCRIPTION
P0	FEB.	PRELIMINARY DESIGN

Drawing file path & name: D:\Working\Folder\MAMBEEN\2950 Bus Rapid Transit Blue Line Karachi\3-4M SPAN TYPICAL DETAIL\FINAL 9M\S500 TO S501.dwg
User and Plot Date: M.Mubeen - Thu, 08 Feb 2018 - 11:13am

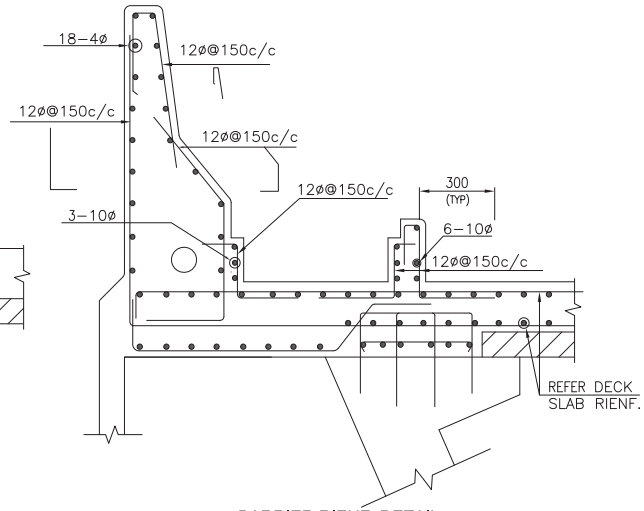


TYP. DECK REINF. DETAILS
(1.5% CROSS SLOPES BOTH SIDE)
SCALE=1:16

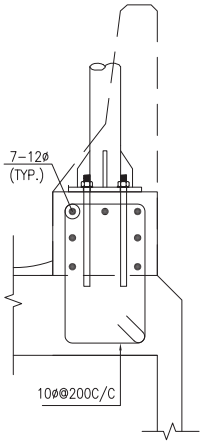
* NOTES:–
1. FOR OUT TO OUT DECK REFER DECK SLAB PLAN & CONCRETE SETOUT BEARING DETAILS.
2. DECK WIDTH (TYP.) SHOWN HERE FOR THE PURPOSE OF REINFORCEMENT DETAILS ONLY.



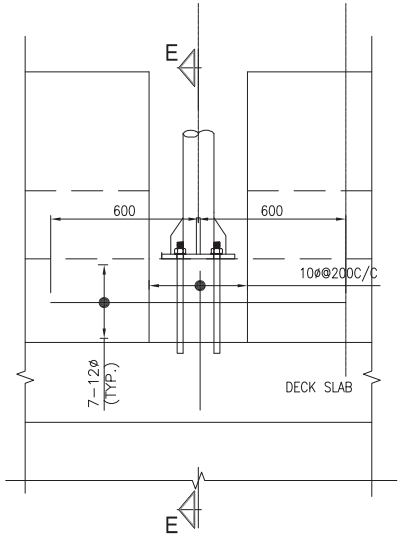
BARRIER DIMENSIONAL DETAIL
SCALE=1:10



BARRIER RIENF. DETAIL
SCALE=1:10



TYP. SEC. OF E-E
(DIMENSIONAL)
SCALE = 1:16



TYP. SEC. OF LIGHTING POLE
(DIMENSIONAL) SCALE = 1:10

CLIENT: SINDH MASS TRANSIT CELL, TRANSPORT & MASS TRANSIT DEPARTMENT, GOVERNMENT OF SINDH	PROJECT CONSULTANTS: OSMANI Engineering - Architecture - Planning - Mapping - Technology	PROJECT: STRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE	DRAWING TITLE: TYPICAL DECK REINFORCEMENT (1.5% CROSS SLOPES BOTH SIDE)	DRAWN MR	Scale: N.T.S
				DESIGNED AA	CTB File Name: TGS-100
		SECTION: GURUMANDIR TO AL ASIF SQUARE (M9)	DATED: FEBRUARY 2018 / DRAWING No: S503	CHECKED SA	
				SUBMITTED	Sheet No.
				APPROVED	Rev No: P0

REV	DATE	DESCRIPTION
P0	FEB.	PRELIMINARY DESIGN

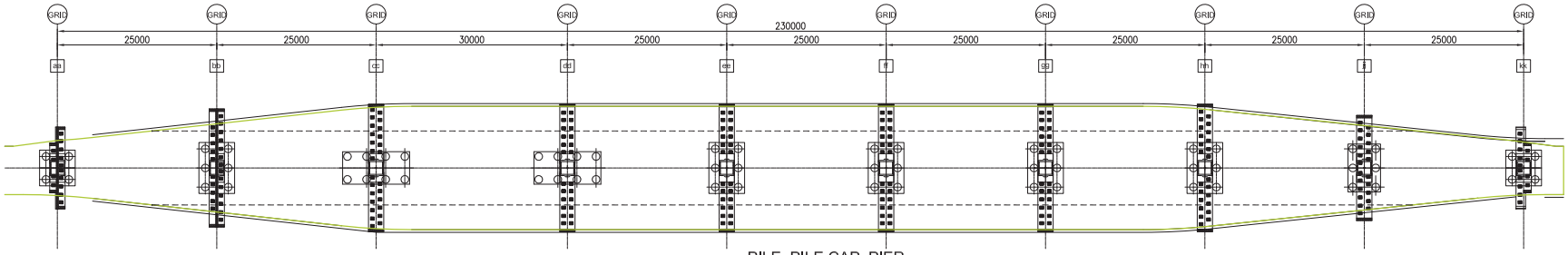
Drawing file path & name: D:\WorkingFolder\MAMBEEN\2950 Bus Rapid Transit Blue Line Karachi\3-4M SPAN TYPICAL DETAILS\FINAL 9M\S502.dwg
User and Plot Date: M.Mubeen - Thu, 08 Feb 2018 - 11:14am

NOTES:-

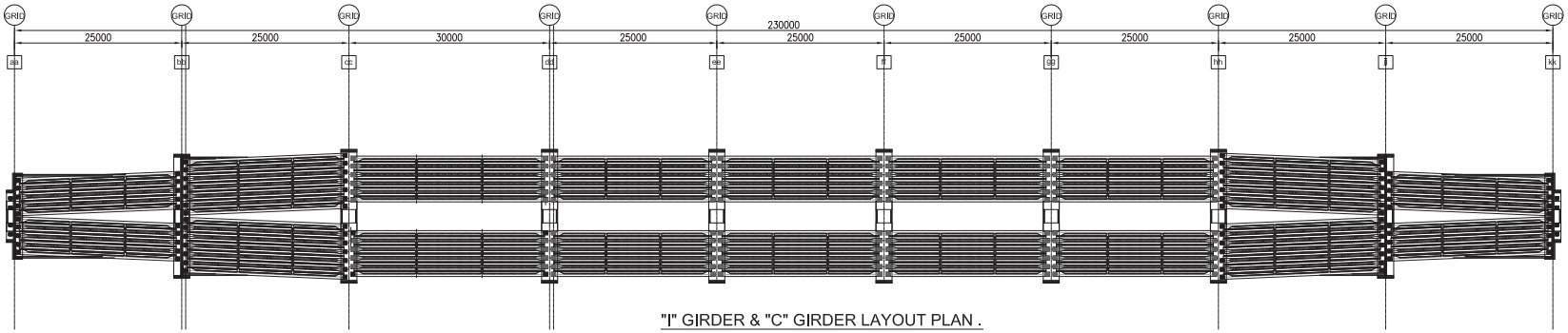
1- FOR GENERAL NOTES REFER, DRAWING NO. GN-01.
2- FOR BEARING PAD & ACCESSORIES APPROVAL OF THE FOREIGN (IMPORTED) VENDOR OF WESTERN EUROPE, USA, JAPAN SHALL BE OBTAINED BY THE DESIGNER.

3- DETAILS OF MATERIAL & ALL ACCESSORIES SHALL BE SUBMITTED FROM THE ORIGIN SOURCE BY BY THE CONTRACTOR TO DESIGNER FOR APPROVAL.

4- PRE & POST INSPECTION AT SOURCE SHALL BE CARRIED OUT BY THE DESIGNER / ENGINEER TEAM. ALL COST SHALL BE DEEMED TO BE INCLUDED IN THE RATES QUOTED BY THE CONTRACTOR.



PILE, PILE CAP ,PIER
TRANSOM LAYOUT PLAN.
SCALE 1:350



"I" GIRDER & "C" GIRDER LAYOUT PLAN .
SCALE 1:350

CLIENT: SINDH MASS TRANSIT CELL, TRANSPORT & MASS TRANSIT DEPARTMENT, GOVERNMENT OF SINDH	PROJECT CONSULTANTS: OSMANI Engineering - Architecture - Planning - Mapping - Technology	PROJECT: STRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE	DRAWING TITLE: TYPICAL CENTER TYPE STATION PILE & PILE CAP LAYOUT PLAN	DRAWN: MR	Scale: N.T.S
		SECTION: GURUMANDIR TO AL ASIF SQUARE (M9)	DATED: FEBRUARY 2018 / DRAWING No: S700	DESIGNED: AA	CTB File Name: TGS-100
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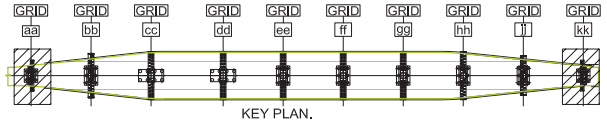
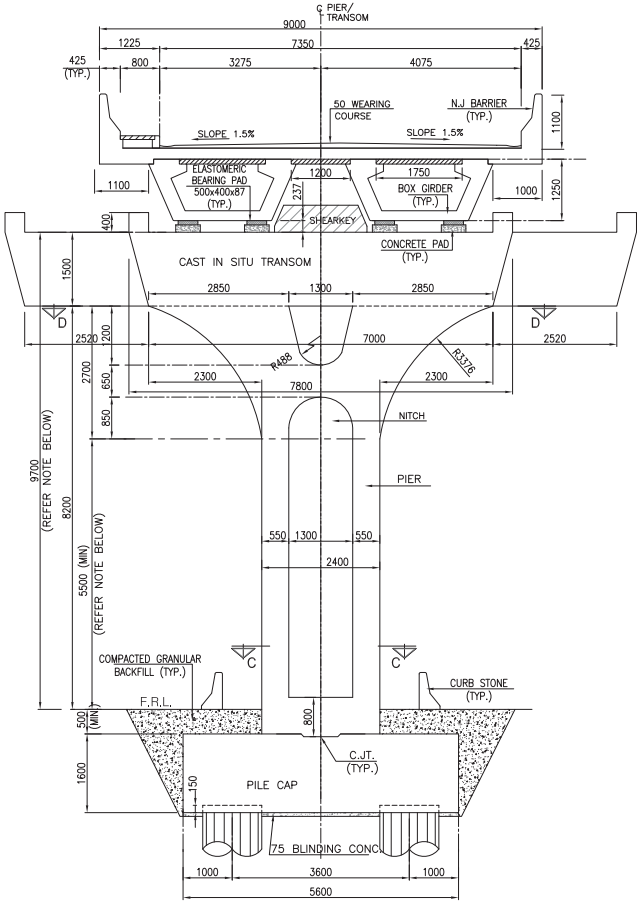
			P0 FEB. PRELIMINARY DESIGN	SUBMITTED	Sheet No.
			REV DATE DESCRIPTION	APPROVED	Rev No: P0

Drawing file path & name: D:\WorkingFolder\M.MUBEEN\2950 Bus Rapid Transit Blue Line Karachi\5-STATIONS\CENTER TYPE\S700 TO S730.dwg
User and Plot Date: M.Mubeen - Thu, 08 Feb 2018 - 11:15am

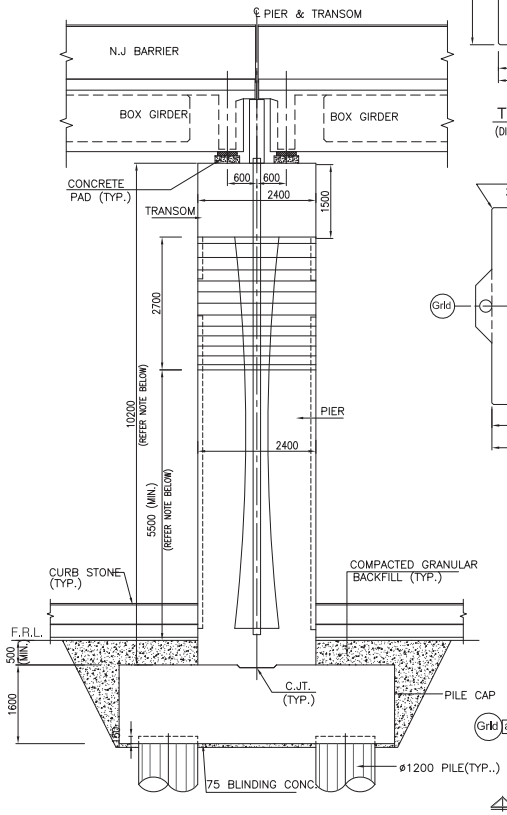


KEY PLAN.

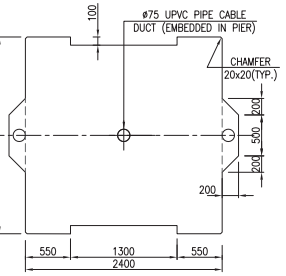


SECTIONAL ELEVATION A-A
(DIMENSIONAL) SCALE 1:50

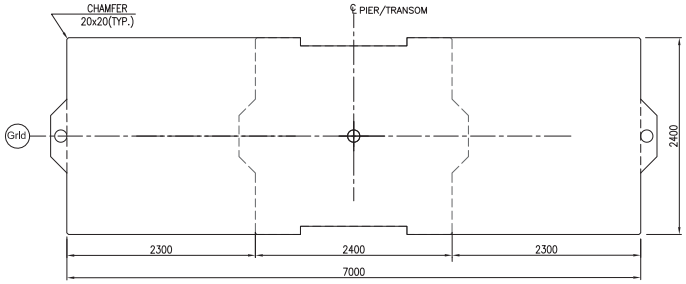
NOTE:
VERTICAL CLEARANCE & OVER ALL HEIGHT MAY VARY SUBJECT TO FINALISATION OF GEOMETRY & PROFILE OF BRIDGES AT PARTICULAR LOCATIONS.



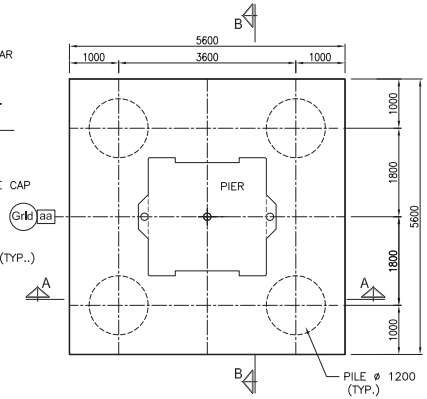
SECTIONAL ELEVATION B-B
(DIMENSIONAL) SCALE 1:50



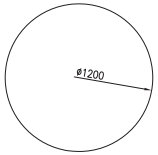
TYP. SECTION C-C AT PIER
(DIMENSIONAL) (SCALE = 1:30)



TYP. SECTION D-D AT PIER
(DIMENSIONAL) (SCALE = 1:30)



TYP. PLAN OF PILE CAP
(DIMENSIONAL) SCALE 1:50



TYP.SECTION OF PILE
SCALE = 1:20

NOTES:-

1- FOR GENERAL NOTES REFER, DRAWING NO. GN-01

2- FOR BEARING PAD & ACCESSORIES APPROVAL OF THE FOREIGN (IMPORTED) VENDOR OF WESTERN EUROPE, USA, JAPAN SHALL BE OBTAINED BY THE DESIGNER.

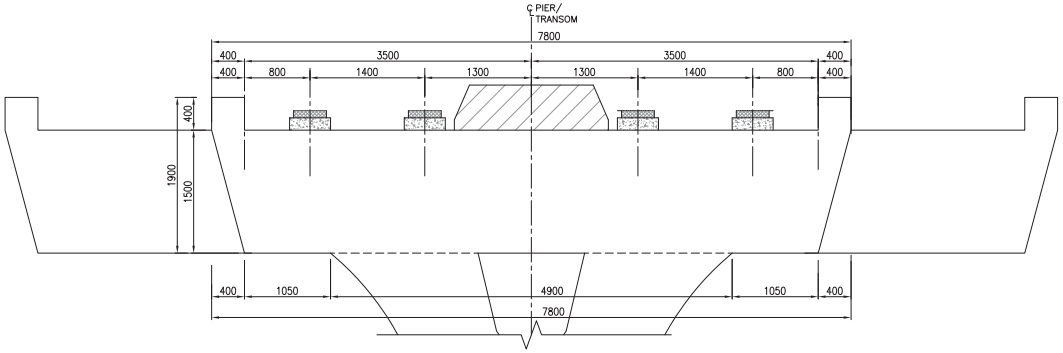
3- DETAILS OF MATERIAL & ALL ACCESSORIES SHALL BE SUBMITTED FROM THE ORIGION SOURCE BY BY THE CONTRACTOR TO DESIGNER FOR APPROVAL.

4- PRE & POST INSPECTION AT SOURCE SHALL BE CARRIED OUT BY THE DESIGNER / ENGINEER TEAM. ALL COST SHALL BE DEEMED TO BE INCLUDED IN THE RATES QUOTED BY THE CONTRACTOR.

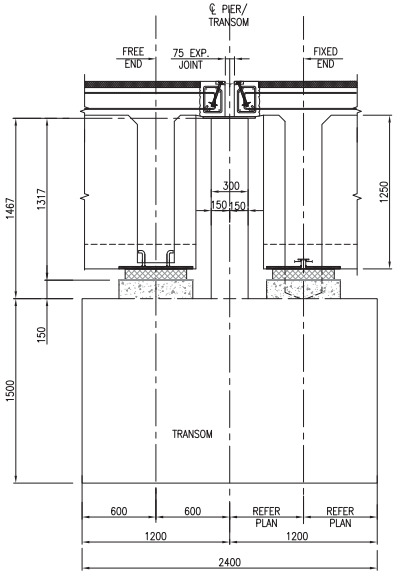
CLIENT: SINDH MASS TRANSIT CELL TRANSPORT & MASS TRANSIT DEPARTMENT GOVERNMENT OF SINDH	PROJECT CONSULTANTS: OSMANI Engineering - Architecture - Planning - Mapping - Technology	PROJECT: STRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE	DRAWING TITLE: PIER ELEVATION, TRANSOM, FOUNDATION, PILE & PILE CAP , (DIMENSIONAL DETAILS)	DRAWN: MR	Scale: N.T.S
				DESIGNED: AA	
				CHECKED: SA	CTB File Name: TGS-100
		SECTION: GURUMANDIR TO AL ASIF SQUARE (M9)	DATED: FEBRUARY 2018 / DRAWING No: S701	SUBMITTED	Sheet No.
				APPROVED	Rev No: P0

REV	DATE	DESCRIPTION
P0	FEB.	PRELIMINARY DESIGN

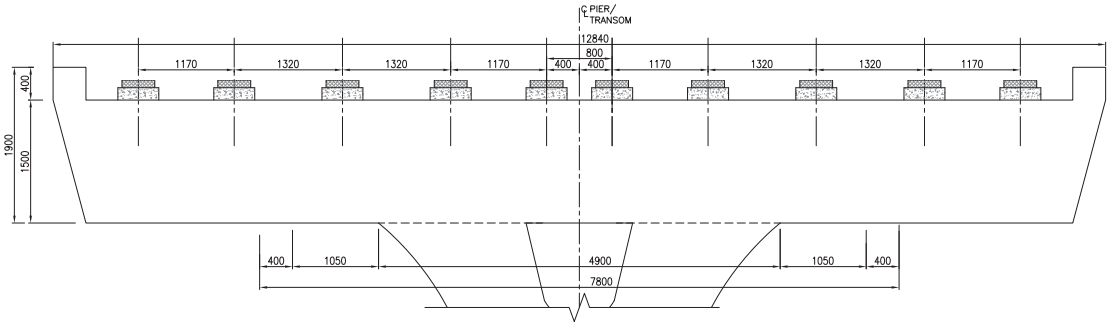
Drawing file path & name D:\WorkingFolder\MMUBEEN\2950 Bus Rapid Transit Blue Line Karachi\5-STATIONS\CENTER TYPE\S700 TO S730.dwg
User and Plot Date M.Mubeen - Thu, 08 Feb 2018 - 11:17am



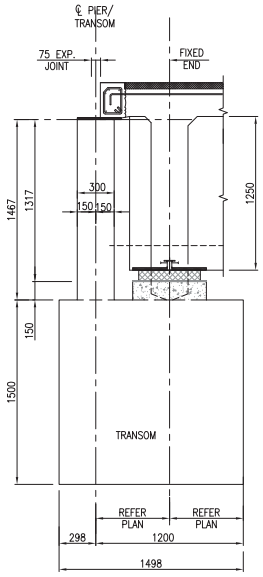
SECTIONAL ELEVATION A-A FREE END
(DIMENSIONAL) (SCALE = 1:30)



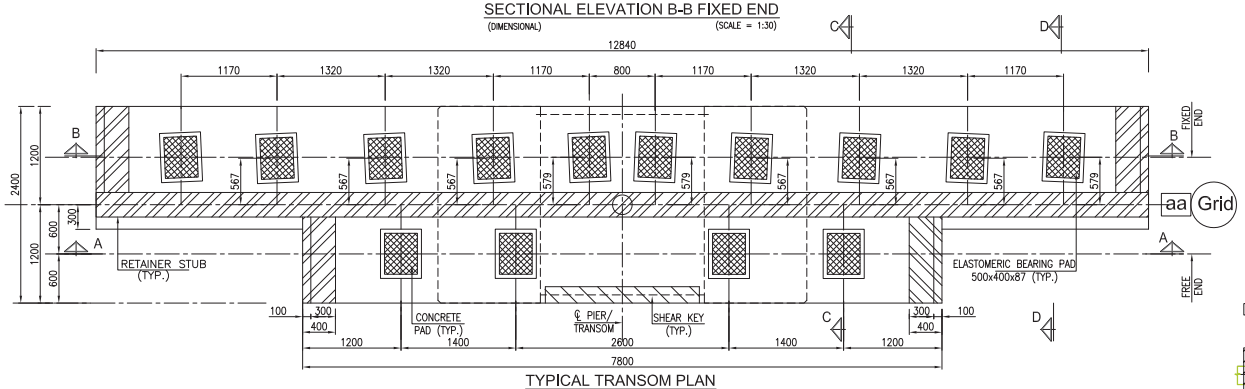
SECTION C-C
(DIMENSIONAL)
SCALE 1:20



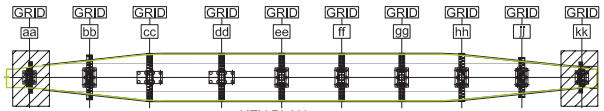
SECTIONAL ELEVATION B-B FIXED END
(DIMENSIONAL) (SCALE = 1:30)



SECTION D-D
(DIMENSIONAL)
SCALE 1:20



TYPICAL TRANSOM PLAN
(DIMENSIONAL) (SCALE = 1:30)

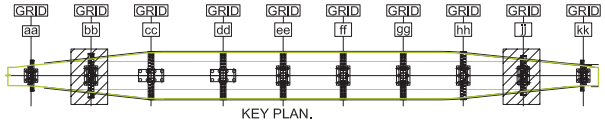


KEY PLAN.

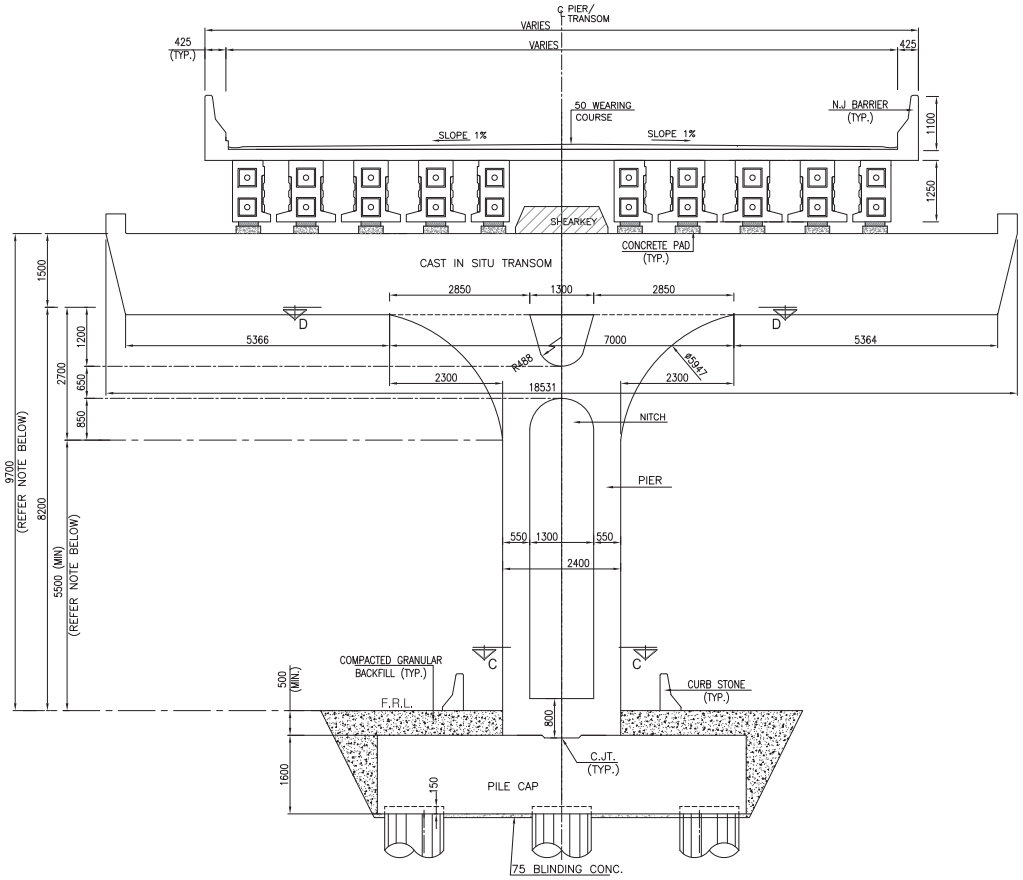
CLIENT: SINDH MASS TRANSIT CELL, TRANSPORT & MASS TRANSIT DEPARTMENT, GOVERNMENT OF SINDH	PROJECT CONSULTANTS: OSMANI Engineering - Architecture - Planning - Mapping - Technology	PROJECT: STRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE	DRAWING TITLE: ELEVATION OF TRANSOM, SETOUT BEARING DATA & BEARING PLINTH (DIMENSIONAL DETAILS)	DRAWN: MR	Scale: N.T.S
		SECTION: GURUMANDIR TO AL ASIF SQUARE (M9)	DATED: FEBRUARY 2018 / DRAWING No: S703	DESIGNED: AA	CTB File Name: TGS-100
				CHECKED: SA	
				SUBMITTED	Sheet No.
				APPROVED	Rev No: P0

REV	DATE	DESCRIPTION
P0	FEB.	PRELIMINARY DESIGN

Drawing file path & name: D:\WorkingFolder\MAMBEEN\2950 Bus Rapid Transit Blue Line Karachi\5-STATIONS\CENTER TYPE\S700 TO S730.dwg
User and Plot Date: M.Mubeen - Thu, 08 Feb 2018 - 11:17am

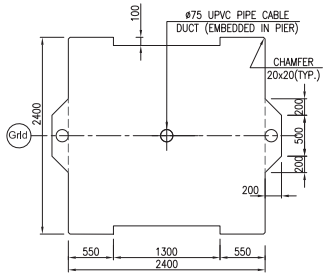


KEY PLAN.

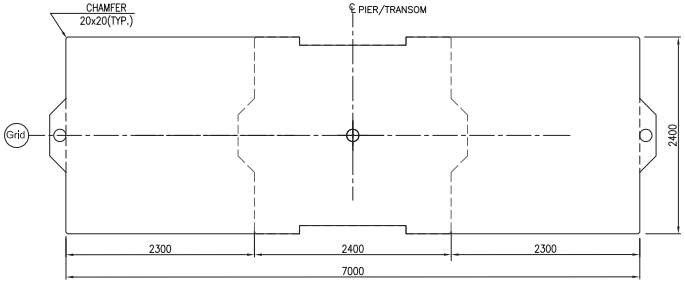


SECTIONAL ELEVATION A-A
(DIMENSIONAL) SCALE 1:50

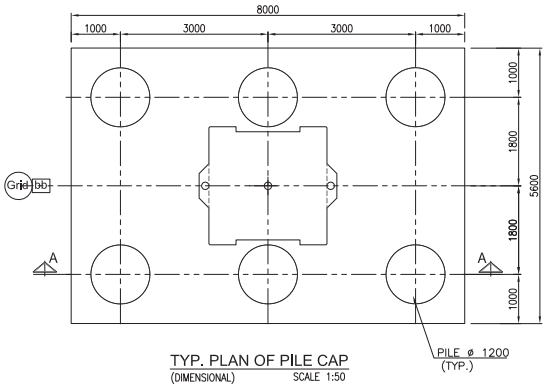
NOTE:
VERTICAL CLEARANCE & OVER ALL HEIGHT MAY VARY SUBJECT TO FINALISATION OF GEOMETRY & PROFILE OF BRIDGES AT PARTICULAR LOCATIONS.



TYP. SECTION C-C AT PIER
(DIMENSIONAL) (SCALE = 1:30)



TYP. SECTION D-D AT PIER
(DIMENSIONAL) (SCALE = 1:30)

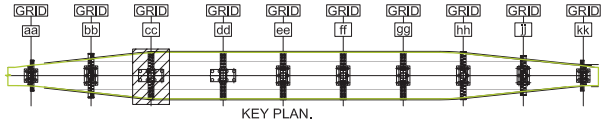


TYP. PLAN OF PILE CAP
(DIMENSIONAL) SCALE 1:50

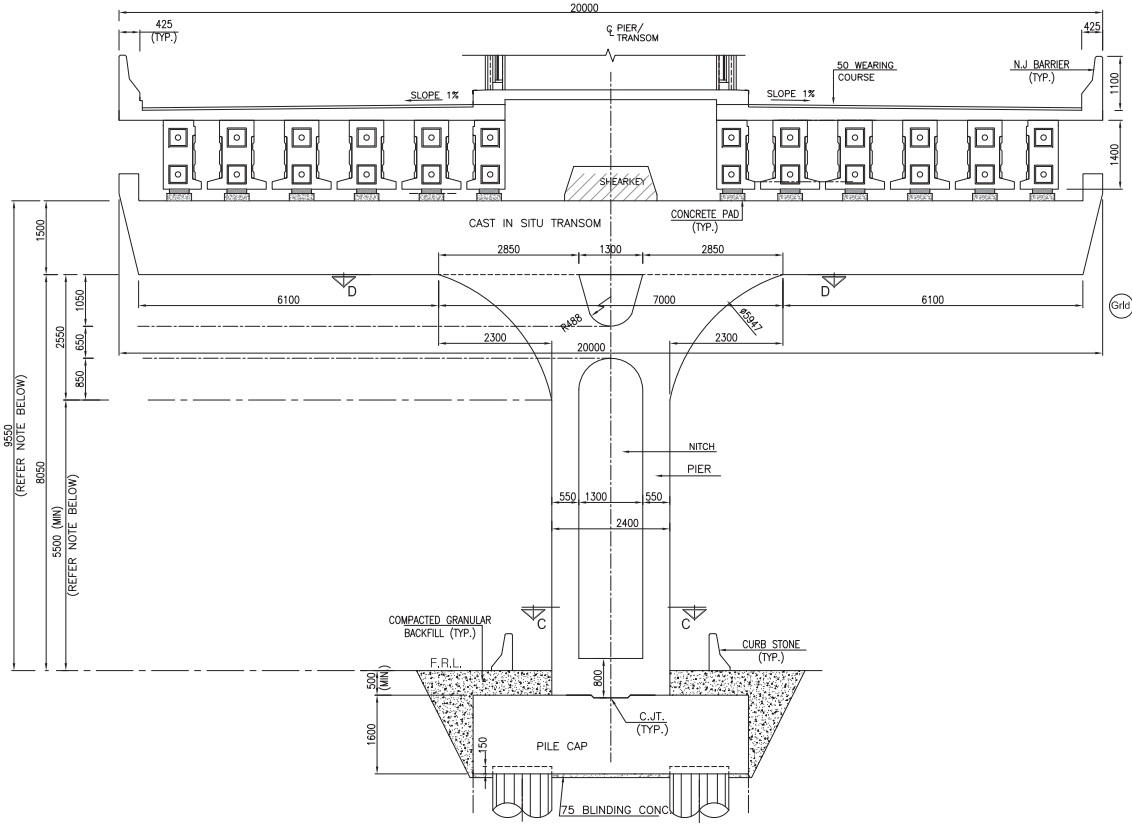
CLIENT: SINDH MASS TRANSIT CELL, TRANSPORT & MASS TRANSIT DEPARTMENT, GOVERNMENT OF SINDH	PROJECT CONSULTANTS: OSMANI Engineering - Architecture - Planning - Mapping - Technology	PROJECT: STRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE	DRAWING TITLE: PIER ELEVATION, TRANSOM, FOUNDATION & PILE CAP (DIMENSIONAL DETAILS)	DRAWN: MR
		SECTION: GURUMANDIR TO AL ASIF SQUARE (M9)	DATED: FEBRUARY 2018	DRAWING No: S705
				DESIGNED: AA
				CHECKED: SA
				SUBMITTED
				APPROVED
				Scale: N.T.S
				CTB File Name: TGS-100
				Sheet No.
				Rev No: P0

REV	DATE	DESCRIPTION
P0	FEB.	PRELIMINARY DESIGN

Drawing file path & name: D:\WorkingFolder\MAMBEEN\2950 Bus Rapid Transit Blue Line Karachi\5-STATIONS\CENTER TYPE\S700 TO S730.dwg
User and Plot Date: M.Mubeen - Thu, 08 Feb 2018 - 11:28am

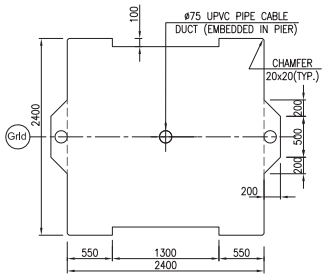


KEY PLAN.

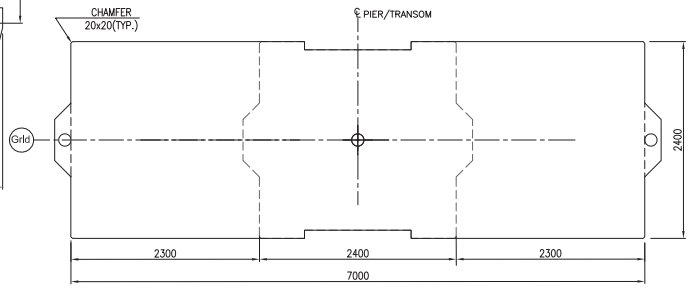


SECTIONAL ELEVATION A-A
(DIMENSIONAL) SCALE 1:50

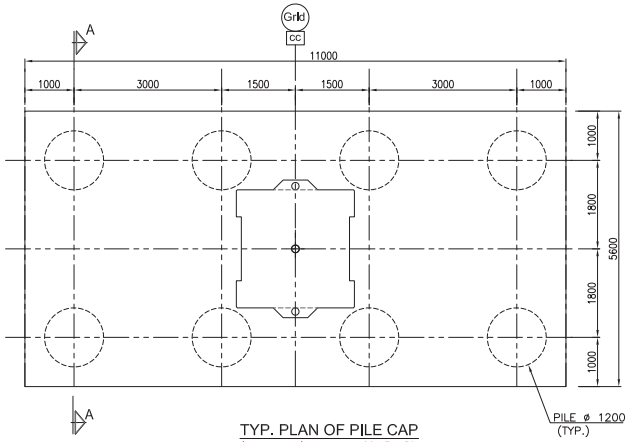
NOTE:
VERTICAL CLEARANCE & OVER ALL HEIGHT MAY VARY SUBJECT TO FINALISATION OF GEOMETRY & PROFILE OF BRIDGES AT PARTICULAR LOCATIONS.



TYP. SECTION C-C AT PIER
(DIMENSIONAL) (SCALE = 1:30)



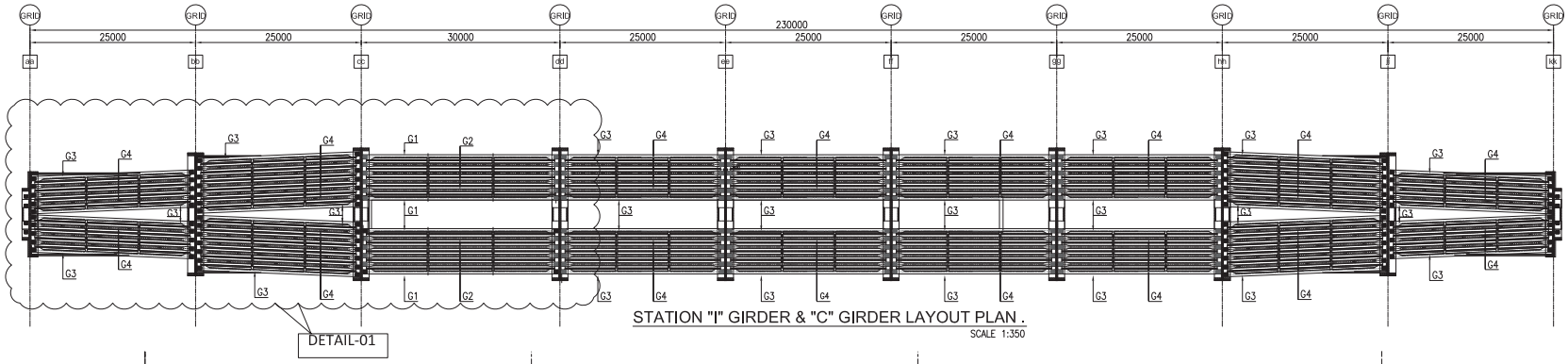
TYP. SECTION D-D AT PIER
(DIMENSIONAL) (SCALE = 1:30)



TYP. PLAN OF PILE CAP
(DIMENSIONAL) SCALE 1:50

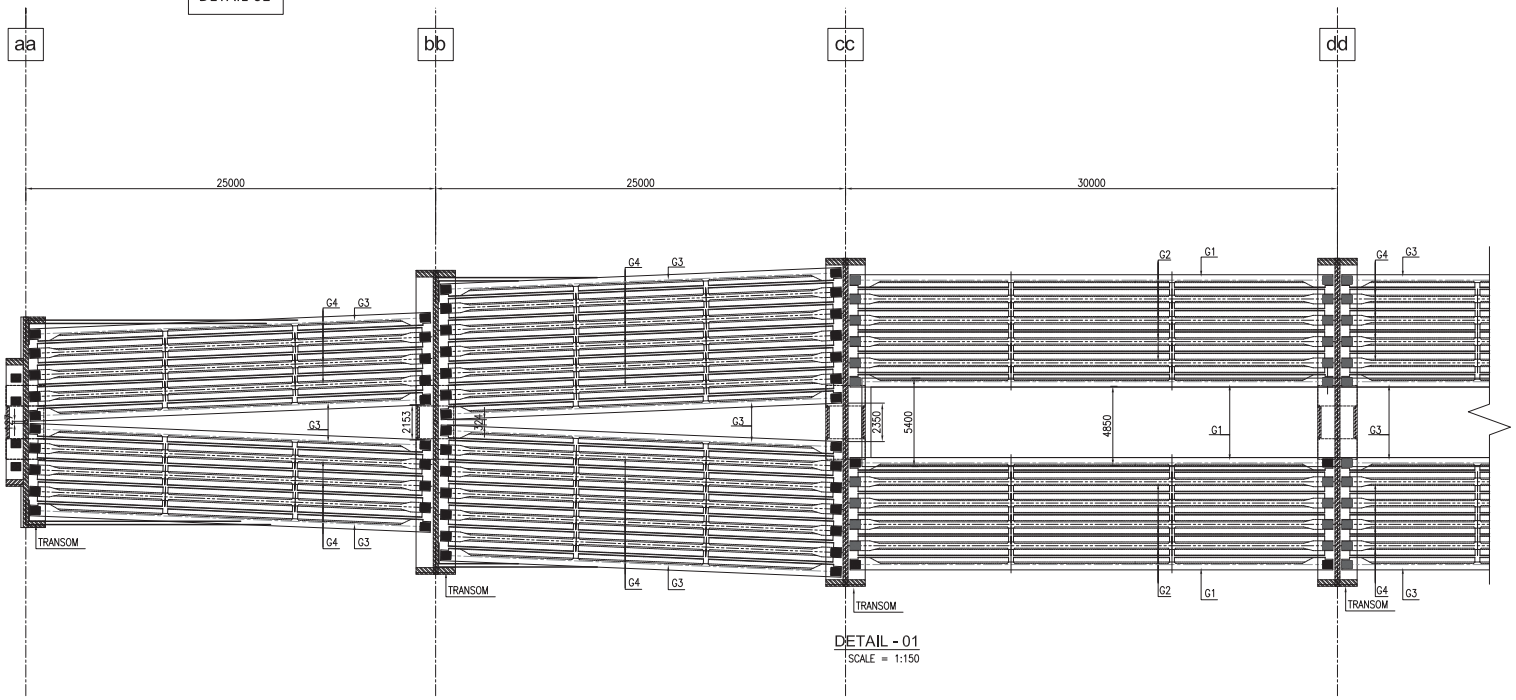
CLIENT:	PROJECT CONSULTANTS:	PROJECT:	DRAWING TITLE:						
SINDH MASS TRANSIT CELL TRANSPORT & MASS TRANSIT DEPARTMENT GOVERNMENT OF SINDH	OSMANI Engineering - Architecture - Planning - Mapping - Technology	STRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE	PIER ELEVATION, TRANSOM, FOUNDATION & PILE CAP (DIMENSIONAL DETAILS)			DRAWN	MR	Scale: N.T.S
						DESIGNED	AA	
						CHECKED	SA	CTB File Name: TGS-100
		SECTION: GURUMANDIR TO AL ASIF SQUARE (M9)	DATED: FEBRUARY 2018	DRAWING No: S711	P0 FEB. PRELIMINARY DESIGN	SUBMITTED		Sheet No.
					REV DATE DESCRIPTION	APPROVED		Rev No: P0

Drawing file path & name D:\WorkingFolder\MAMEEN\2950 Bus Rapid Transit Blue Line Karachi\5-STATIONS\CENTER TYPE\S700 TO S730.dwg
User and Plot Date M.Mubeen - Thu, 08 Feb 2018 - 11:42am



STATION "I" GIRDER & "C" GIRDER LAYOUT PLAN .

SCALE 1:350

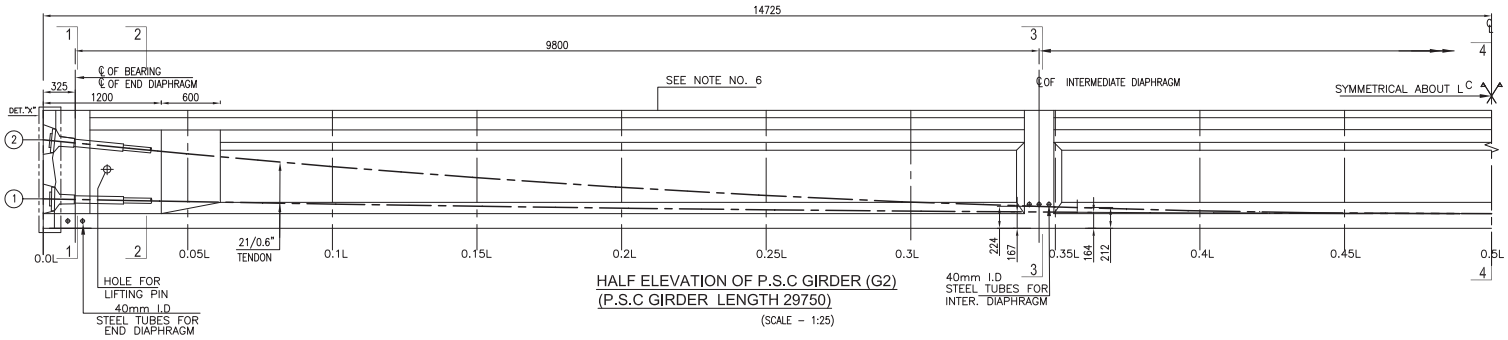


DETAIL - 01

SCALE = 1:150

CLIENT: SINDH MASS TRANSIT CELL, TRANSPORT & MASS TRANSIT DEPARTMENT, GOVERNMENT OF SINDH	PROJECT CONSULTANTS: OSMANI, Engineering - Architecture - Planning - Mapping - Technology	PROJECT: STRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE	DRAWING TITLE: PRECAST I - GIRDER & C - GIRDER LAYOUT PLAN. (FOR 20.0m DECK WIDTH,WITH BUS STATION)	DRAWN: MR	Scale: N.T.S
		SECTION: GURUMANDIR TO AL ASIF SQUARE (M9)	DATED: FEBRUARY 2018 / DRAWING No: S731	DESIGNED: AA	CTB File Name: TGS-100
				CHECKED: SA	
			P0 FEB. PRELIMINARY DESIGN	SUBMITTED	Sheet No.
			REV DATE DESCRIPTION	APPROVED	Rev No: P0

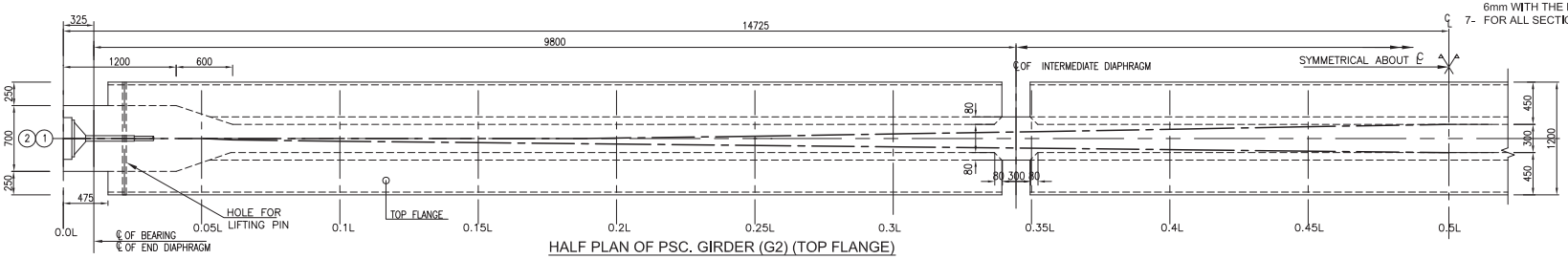
Drawing file path & name: D:\WorkingFolder\MAMBEEN\2950 Bus Rapid Transit Blue Line Karachi\5-STATIONS\CENTER TYPE\S731 TO S744.dwg
User and Plot Date: M.Mubeen - Thu, 08 Feb 2018 - 11:46am



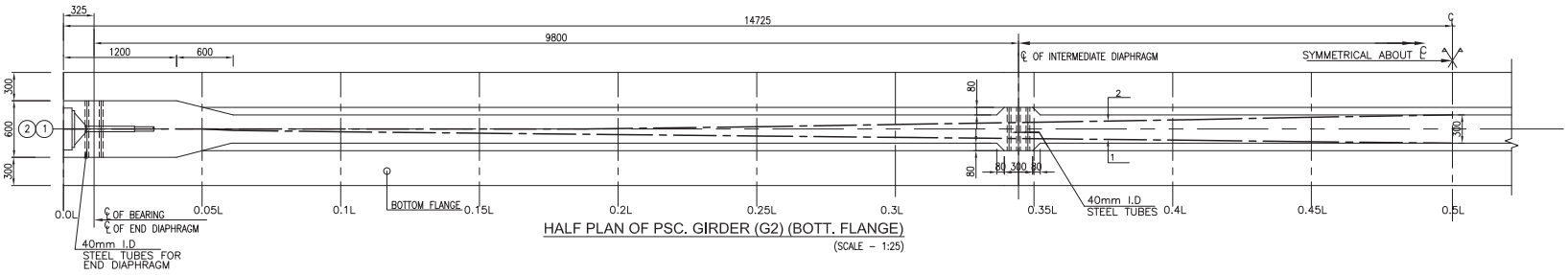
HALF ELEVATION OF P.S.C GIRDER (G2)
(P.S.C GIRDER LENGTH 29750)
(SCALE – 1:25)

NOTES:-

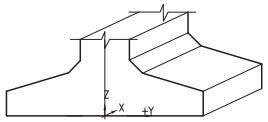
1- FOR GENERAL NOTES REFER, DRAWING NO. 2950-1-1-GN01 TO GN03
2- CONTRACTOR HAS TO OBTAIN APPROVAL REGARDING EXECUTING COMPANY OF PRE / POST TENSIONING, FROM THE DESIGNER BEFORE EXECUTION OF THE WORK AT SITE.
3- CONTRACTOR HAS TO SUBMIT THE METHODOLOGY FOR THE PRE / POST TENSIONING METHODOLOGY.
4- CONTRACTOR HAS TO SUBMIT SAMPLES OF THE ACCESSORIES LIKE WEDGES, SHEATHING, COUPLER, ETC. INTENDED TO BE USED FOR THE PRE / POST TENSIONING OF THE GIRDERS TO THE DESINGNER FOR APPROVAL BEFORE ACTUAL EXECUTION OF THE WORK AT SITE
5- CONTRACTOR HAS TO OBTAIN APPROVAL FROM THE DESIGNER OF THE PRESTRESSING STRANDS AND THE SOURCE FROM WHERE THE STRANDS ARE INTENDED TO BE PROCURED, AT LEAST 30 (THIRTY) DAYS BEFORE ACTUAL EXECUTION OF THE WORK AT SITE.
6- TOP OF PRECAST GIRDERS SHALL BE INTENTIONALLY ROUGHENED TO AN AMPLITUDE OF APPROXIMATELY 6mm WITH THE RIDGES ACROSS THE WIDTH OF BEAM.
7- FOR ALL SECTION REFER DWG NO. S733



HALF PLAN OF PSC. GIRDER (G2) (TOP FLANGE)
(SCALE – 1:25)



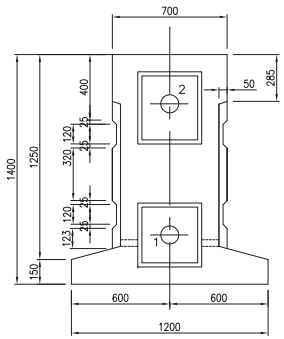
HALF PLAN OF PSC. GIRDER (G2) (BOTT. FLANGE)
(SCALE – 1:25)



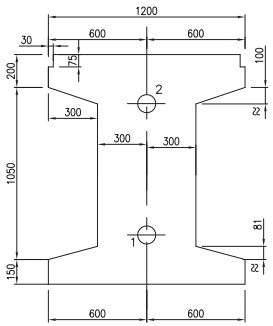
REFERENCE CO-ORDINATES
(SCALE = 1:15)

CLIENT: SINDH MASS TRANSIT CELL TRANSPORT & MASS TRANSIT DEPARTMENT GOVERNMENT OF SINDH	PROJECT CONSULTANTS: OSMANI Engineering - Architecture - Planning - Mapping - Technology	PROJECT: STRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE	DRAWING TITLE: PRECAST I - GIRDER (G2), 30 M SPAN PRESTRESSING DETAILS (FOR 20.0m DECK WIDTH,WITH BUS STATION)	DRAWN MR	Scale: N.T.S
		SECTION: GURUMANDIR TO AL ASIF SQUARE (M9)	DATED: FEBRUARY 2018 / DRAWING No: S732	DESIGNED AA	CTB File Name: TGS-100
				CHECKED SA	
			P0 FEB. PRELIMINARY DESIGN	SUBMITTED	Sheet No.
			REV DATE DESCRIPTION	APPROVED	Rev No: P0

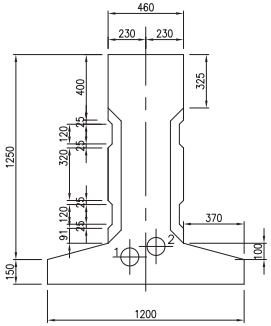
Drawing file path & name D:\WorkingFolder\MAMBEEN\2950 Bus Rapid Transit Blue Line Karachi\5-STATIONS\CENTER TYPE\S731 TO S744.dwg
User and Plot Date M.Mubeen - Thu, 08 Feb 2018 - 11:47am



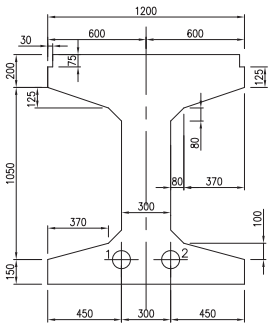
SECTION 1-1
(SCALE = 1:15)



SECTION 2-2
(SCALE = 1:15)



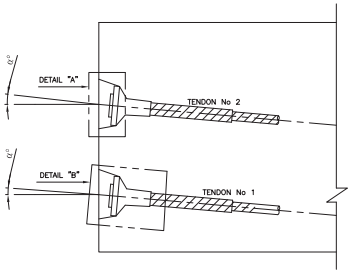
SECTION 3-3
(SCALE = 1:15)



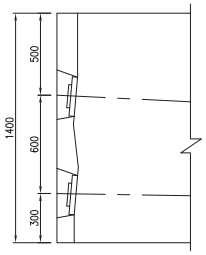
SECTION 4-4
(SCALE = 1:15)

NOTES:-

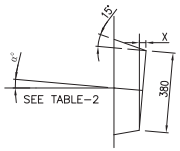
1- FOR GENERAL NOTES REFER, DRAWING NO. 2950-1-1-GN01 TO GN03
2- CONTRACTOR HAS TO OBTAIN APPROVAL REGARDING EXECUTING COMPANY OF PRE / POST TENSIONING, FROM THE DESIGNER BEFORE EXECUTION OF THE WORK AT SITE.
3- CONTRACTOR HAS TO SUBMIT THE METHODOLOGY FOR THE PRE / POST TENSIONING METHODOLOGY.
4- CONTRACTOR HAS TO SUBMIT SAMPLES OF THE ACCESSORIES LIKE WEDGES, SHEATHING, COUPLER, ETC. INTENDED TO BE USED FOR THE PRE / POST TENSIONING OF THE GIRDERS TO THE DESINGNER FOR APPROVAL BEFORE ACTUAL EXECUTION OF THE WORK AT SITE
5- CONTRACTOR HAS TO OBTAIN APPROVAL FROM THE DESIGNER OF THE PRESTRESSING STRANDS AND THE SOURCE FROM WHERE THE STRANDS ARE INTENDED TO BE PROCURED, AT LEAST 30 (THIRTY) DAYS BEFORE ACTUAL EXECUTION OF THE WORK AT SITE.
6- TOP OF PRECAST GIRDERS SHALL BE INTENTIONALLY ROUGHENED TO AN AMPLITUDE OF APPROXIMATELY 6mm WITH THE RIDGES ACROSS THE WIDTH OF BEAM.
7- FOR ALL SECTION MARK REFER DWG NO. S732



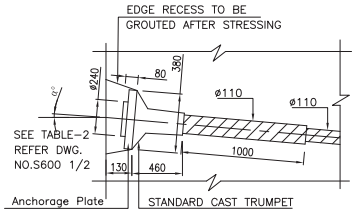
DETAIL OF ANCHORAGE RECESS
(SCALE = 1:15)



DETAIL - "X"
(SCALE = 1:15)



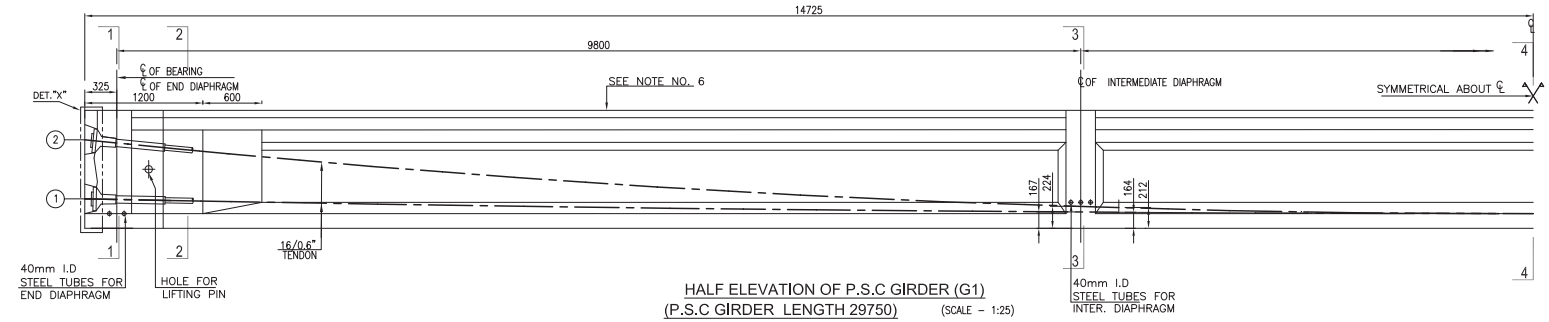
DETAIL - "A"
(SCALE - 1:10)



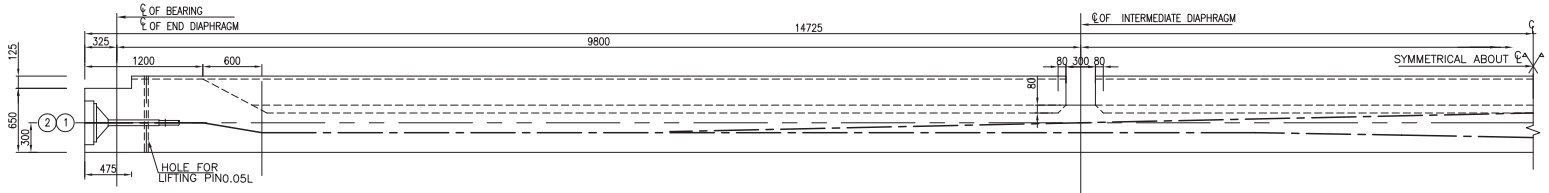
DETAIL - "B"
(ANCHORAGE RECESS)
(SCALE - 1:10)

CLIENT: SINDH MASS TRANSIT CELL TRANSPORT & MASS TRANSIT DEPARTMENT GOVERNMENT OF SINDH	PROJECT CONSULTANTS: OSMANI Engineering - Architecture - Planning - Mapping - Technology	PROJECT: STRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE	DRAWING TITLE: PRECAST I - GIRDER (G2), 30 M SPAN PRESTRESSING SECTION (FOR 20.0m DECK WIDTH WITH BUS STATION)	DRAWN: MR	Scale: N.T.S
		SECTION: GURUMANDIR TO AL ASIF SQUARE (M9)	DATED: FEBRUARY 2018 / DRAWING No: S733	DESIGNED: AA	CTB File Name: TGS-100
				CHECKED: SA	
			P0 FEB. PRELIMINARY DESIGN	SUBMITTED	Sheet No.
			REV DATE DESCRIPTION	APPROVED	Rev No: P0

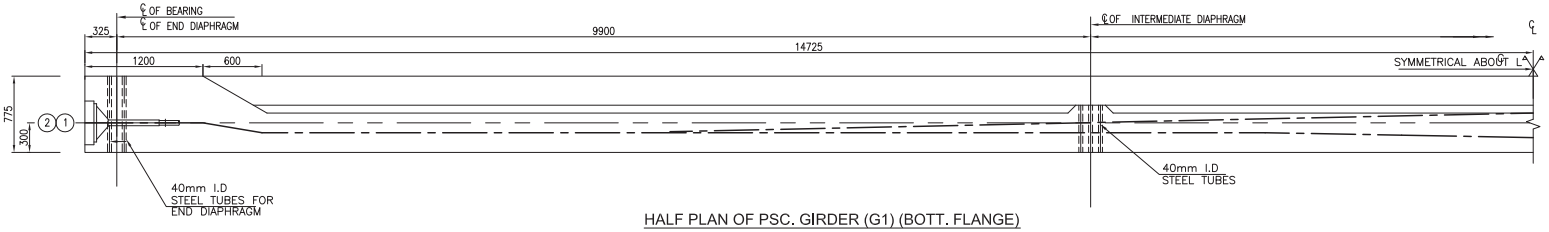
Drawing file path & name: D:\WorkingFolder\MAMBEEN\2950 Bus Rapid Transit Blue Line Karachi\5-STATIONS\CENTER TYPE\S731 TO S744.dwg
User and Plot Date: M.Mubeen - Thu, 08 Feb 2018 - 11:51am



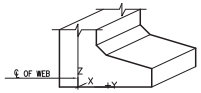
HALF ELEVATION OF P.S.C GIRDER (G1)
(P.S.C GIRDER LENGTH 29750) (SCALE – 1:25)



HALF PLAN OF PSC. GIRDER (G1) (TOP FLANGE)
(SCALE – 1:25)



HALF PLAN OF PSC. GIRDER (G1) (BOTT. FLANGE)
(SCALE – 1:25)



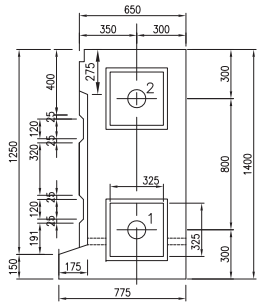
REFERENCE CO-ORDINATES
(SCALE = 1:15)

NOTES:-

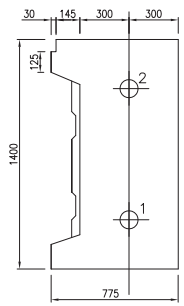
1. FOR GENERAL NOTES REFER, DRAWING NO. GN-01.
2. FOR ALL SECTION REFER DWG NO. S735

CLIENT: SINDH MASS TRANSIT CELL TRANSPORT & MASS TRANSIT DEPARTMENT GOVERNMENT OF SINDH	PROJECT CONSULTANTS: OSMANI Engineering - Architecture - Planning - Mapping - Technology	PROJECT: STRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE	DRAWING TITLE: PRECAST C - GIRDER (G1), 30 M SPAN PRESTRESSING DETAILS (FOR 20.0m DECK WIDTH,WITH BUS STATION)	DRAWN: MR	Scale: N.T.S
		SECTION: GURUMANDIR TO AL ASIF SQUARE (M9)	DATED: FEBRUARY 2018 / DRAWING No: S734	DESIGNED: AA	CTB File Name: TGS-100
				CHECKED: SA	
			P0 FEB. PRELIMINARY DESIGN	SUBMITTED	Sheet No.
			REV DATE DESCRIPTION	APPROVED	Rev No: P0

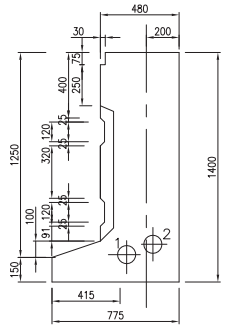
Drawing file path & name: D:\WorkingFolder\MAMEEN\2950 Bus Rapid Transit Blue Line Karachi\5-STATIONS\CENTER TYPE\S731 TO S744.dwg
User and Plot Date: M.Mubeen - Thu, 08 Feb 2018 - 11:52am



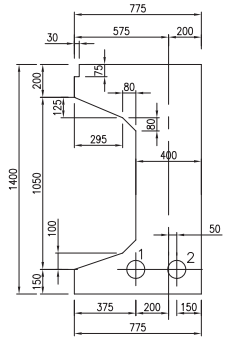
SECTION 1-1
(SCALE = 1:15)



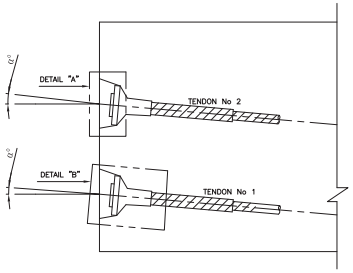
SECTION 2-2
(SCALE = 1:15)



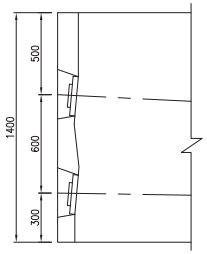
SECTION 3-3
(SCALE = 1:15)



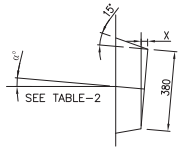
SECTION 4-4
(SCALE = 1:15)



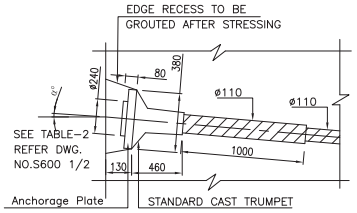
DETAIL OF ANCHORAGE RECESS
(SCALE = 1:15)



DETAIL - "X"
(SCALE = 1:15)



DETAIL - "A"
(SCALE – 1:10)



DETAIL - "B"
(ANCHORAGE RECESS)
(SCALE – 1:10)

NOTES:-

1. FOR GENERAL NOTES REFER, DRAWING NO. GN-01.
2. FOR ALL SECTION MARK REFER DWG NO. S734

CLIENT: SINDH MASS TRANSIT CELL TRANSPORT & MASS TRANSIT DEPARTMENT GOVERNMENT OF SINDH	PROJECT CONSULTANTS: OSMANI Engineering - Architecture - Planning - Mapping - Technology	PROJECT: STRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE	DRAWING TITLE: PRECAST C - GIRDER (G1), 30 M SPAN PRESTRESSING SECTION (FOR 20.0m DECK WIDTH,WITH BUS STATION)			DRAWN	MR	Scale: N.T.S
						DESIGNED	AA	CTB File Name: TGS-100
		SECTION: GURUMANDIR TO AL ASIF SQUARE (M9)				CHECKED	SA	
			DATED: FEBRUARY 2018	DRAWING No: S735	P0 FEB. PRELIMINARY DESIGN	SUBMITTED		Sheet No.
					REV DATE DESCRIPTION	APPROVED		Rev No: P0

Drawing file path & name D:\WorkingFolder\MJMUBEEN\2950 Bus Rapid Transit Blue Line Karachi\5-STATIONS\CENTER TYPE\S731 TO S744.dwg
User and Plot Date M.Mubeen - Thu, 08 Feb 2018 - 11:53am

AT GRADE
TYPICAL STATION

CLIENT:	PROJECT CONSULTANT:	LEGENDS:	PROJECT:	DRAWING TITLE:			
SINDH MASS TRANSIT CELL TRANSPORT & MASS TRANSIT DEPARTMENT GOVERNMENT OF SINDH	OSMANI Engineering - Architecture - Planning - Mapping - Technology		INFRASTRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE SECTION: GURUMANDIR TO AL-ASIF SQUARE (M9)	PROPOSED VIEW FOR AT GRADE STATION	DRAWN	–	Scale: N.T.S
					DESIGNED	FUAAD	CTB File Name: TGS-100
					CHECKED	FAISAL	
					SUBMITTED		Sheet No.
					APPROVED		Rev No: P0

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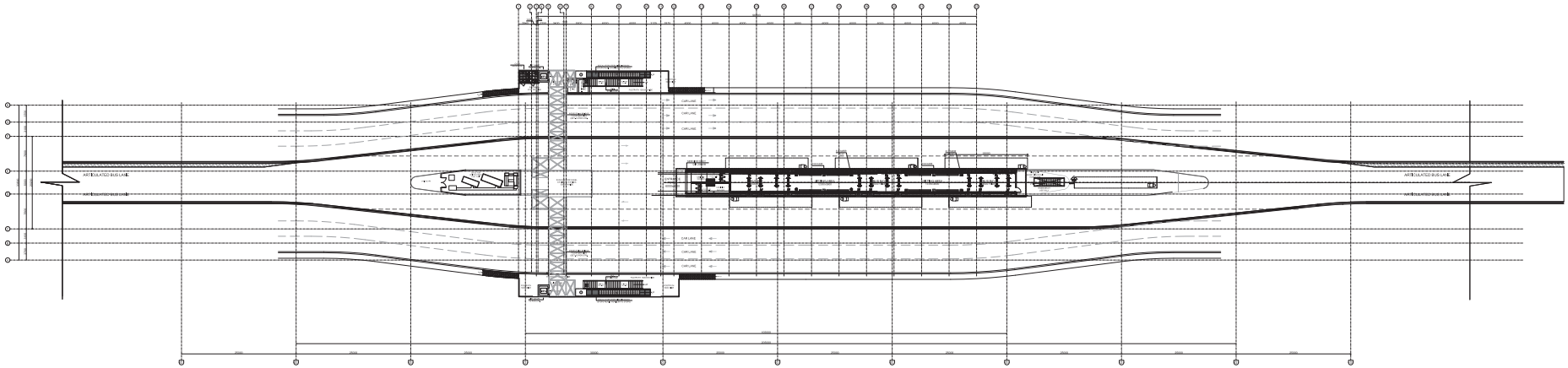
User and Plot Date FaisalSaad – Thu, 20 Jul 2017 – 4:27pm



GROUND FLOOR
PLAN

Drawing File path & name D:\ARCHITECTURE\Blue Line\PC-1 Blue Line BRT\20-07-17\At Grade Station Proposal.dwg
User and Plot Date Fahad Thu, 20 Jul 2017 - 4:12pm

CLIENT:	PROJECT CONSULTANT:	LEGENDS:	PROJECT:	DRAWING TITLE:			
SINDH MASS TRANSIT CELL TRANSPORT & MASS TRANSIT DEPARTMENT GOVERNMENT OF SINDH	OSMANI Engineering - Architecture - Planning - Mapping - Technology	BRT RUNWAY AT-GRADE BRT RUNWAY AT-RAMP BRT RUNWAY ELEVATED AT-GRADE BRT STATION ELEVATED BRT STATION MIX TRAFFIC (M9)	INFRASTRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE SECTION: GURUMANDIR TO AL-ASIF SQUARE (M9)	GROUND FLOOR PLAN AT GRADE STATION	DRAWN	FAHAD	Scale: 1:1000
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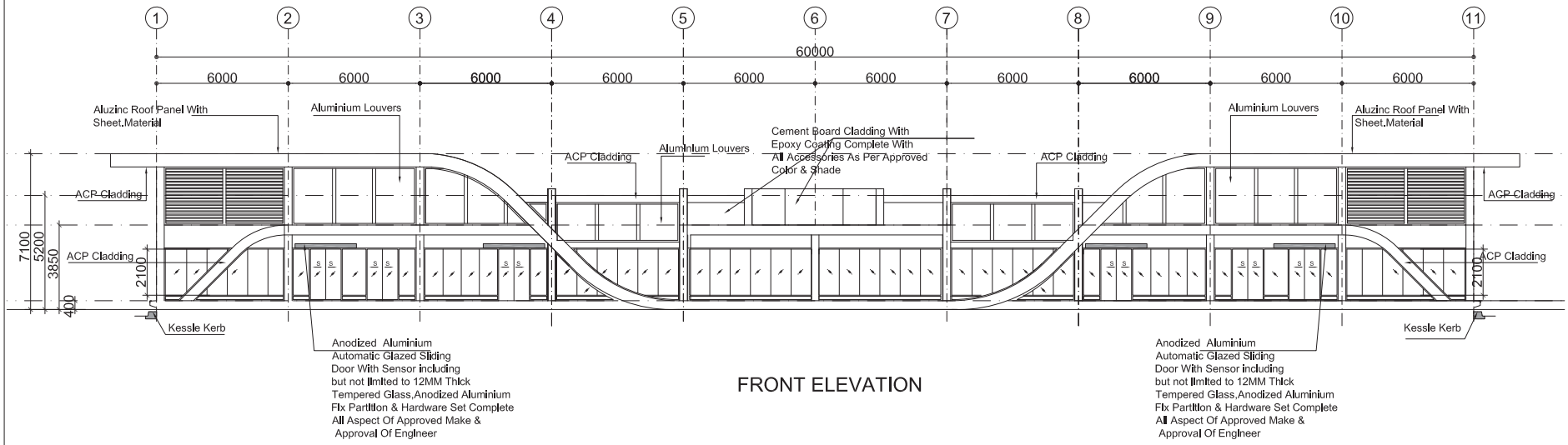
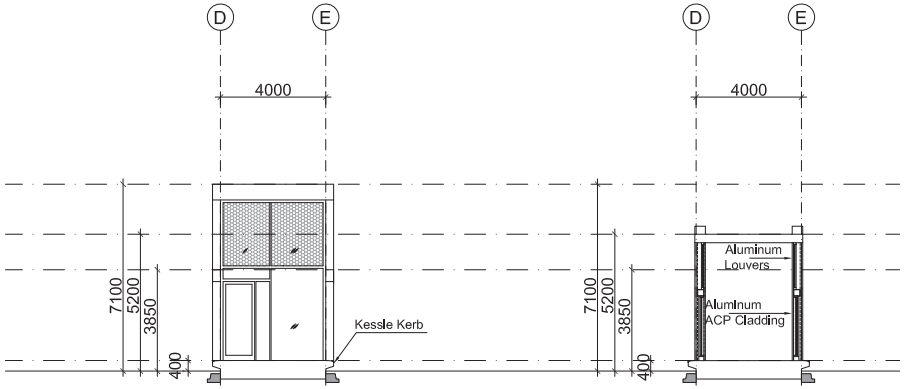
					APPROVED		Rev No: P0



FRONT ELEVATION



SIDE ELEVATION

SECTION

CLIENT:	PROJECT CONSULTANT:	LEGENDS:	PROJECT:	DRAWING TITLE:			
SINDH MASS TRANSIT CELL TRANSPORT & MASS TRANSIT DEPARTMENT GOVERNMENT OF SINDH	OSMANI Engineering - Architecture - Planning - Mapping - Technology	BRT RUNWAY AT-GRADE BRT RUNWAY AT-RAMP BRT RUNWAY ELEVATED AT-GRADE BRT STATION ELEVATED BRT STATION MIX TRAFFIC (M9)	INFRASTRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE SECTION: GURUMANDIR TO AL-ASIF SQUARE (M9)	FRONT SIED ELEVATION & SECTION			

DRAWN	FAHAD	Scale: 1:1000
DESIGNED	FUAAD	CTB File Name: TGS-100
CHECKED	FAISAL	
SUBMITTED		Sheet No.
APPROVED		Rev No: P0

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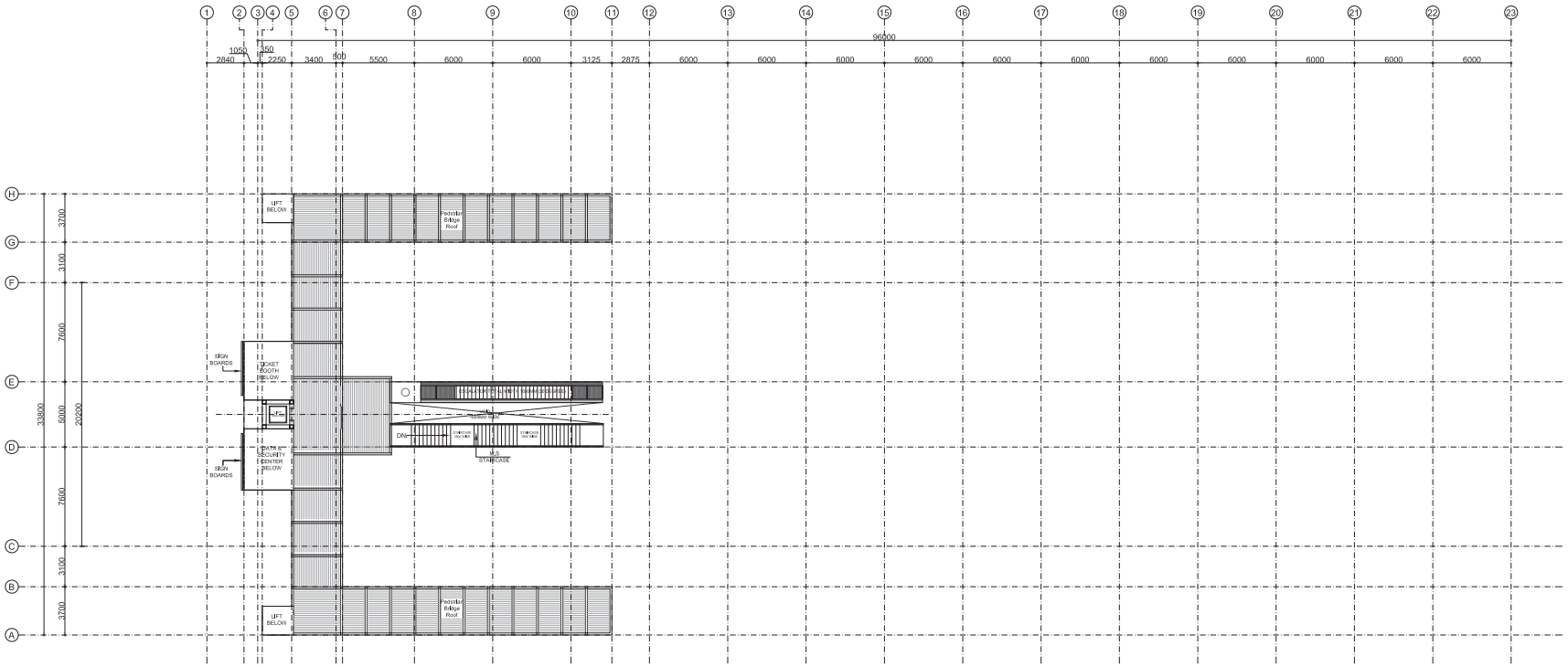
User and Plot Date Fahad Thu, 20 Jul 2017 - 4:16pm



PEDESTRIAN BRIDGE ROOF PLAN

CLIENT: SINDH MASS TRANSIT CELL TRANSPORT & MASS TRANSIT DEPARTMENT GOVERNMENT OF SINDH	PROJECT CONSULTANT: OSMANI Engineering · Architecture · Planning · Mapping · Technology	LEGENDS: BRT RUNWAY AT-GRADE; BRT RUNWAY AT-RAMP; BRT RUNWAY ELEVATED; AT-GRADE BRT STATION; ELEVATED BRT STATION; MIX TRAFFIC (M9)	PROJECT: INFRASTRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE	DRAWING TITLE: PEDESTRIAN BRIDGE ROOF PLAN	DRAWN: FAHAD
			SECTION: GURUMANDIR TO AL-ASIF SQUARE (M9)		DESIGNED: FUAAD
					CHECKED: FAISAL
					SUBMITTED
					APPROVED

Scale: 1:1000
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Sheet No.
Rev No: P0

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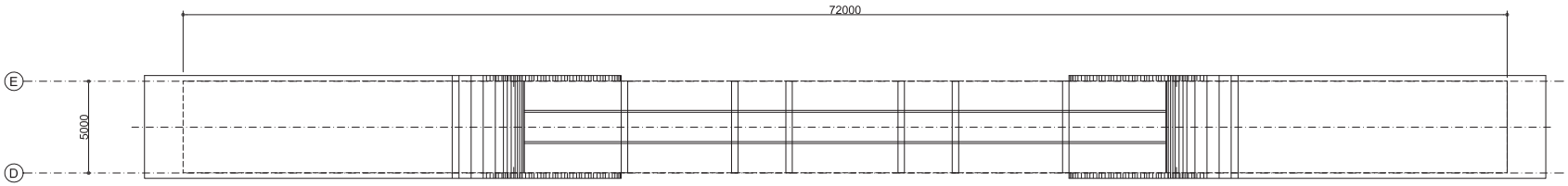

ROOF PLAN STATION

CLIENT: SINDH MASS TRANSIT CELL TRANSPORT & MASS TRANSIT DEPARTMENT GOVERNMENT OF SINDH	PROJECT CONSULTANT: OSMANI Engineering - Architecture - Planning - Mapping - Technology	LEGENDS: BRT RUNWAY AT-GRADE; BRT RUNWAY AT-RAMP; BRT RUNWAY ELEVATED; AT-GRADE BRT STATION; ELEVATED BRT STATION; MIX TRAFFIC (M9)	PROJECT: INFRASTRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE	DRAWING TITLE: ROOF PLAN	DRAWN	FAHAD	Scale: 1:1000
			SECTION: GURUMANDIR TO AL-ASIF SQUARE (M9)		DESIGNED	FUAAD	CTB File Name: TGS-100
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					SUBMITTED		Sheet No.
					APPROVED		Rev No: P0

Drawing File path & name D:\ARCHITECTURE\Blue Line\PC-1 Blue Line BRT\20-07-17\At Grade Station Proposal.dwg
User and Plot Date Fahad Thu, 20 Jul 2017 - 4:16pm

ELEVATED

TYPICAL STATION

SINDH MASS TRANSIT CELL
TRANSPORT & MASS
TRANSIT DEPARTMENT
GOVERNMENT OF SINDH

PROJECT CONSULTANT:
OSMANI
Engineering - Architecture - Planning - Mapping - Technology

LEGENDS:

PROJECT:
INFRASTRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE

SECTION:
GURUMANDIR TO AL-ASIF SQUARE (M9)

DRAWING TITLE:
PROPOSED VIEW FOR ELEVATED STATION

DRAWN	–	Scale: N.T.S
DESIGNED	FUAAD	
CHECKED	FAISAL	CTB File Name: TGS-100
SUBMITTED		Sheet No.
APPROVED		Rev No: P0

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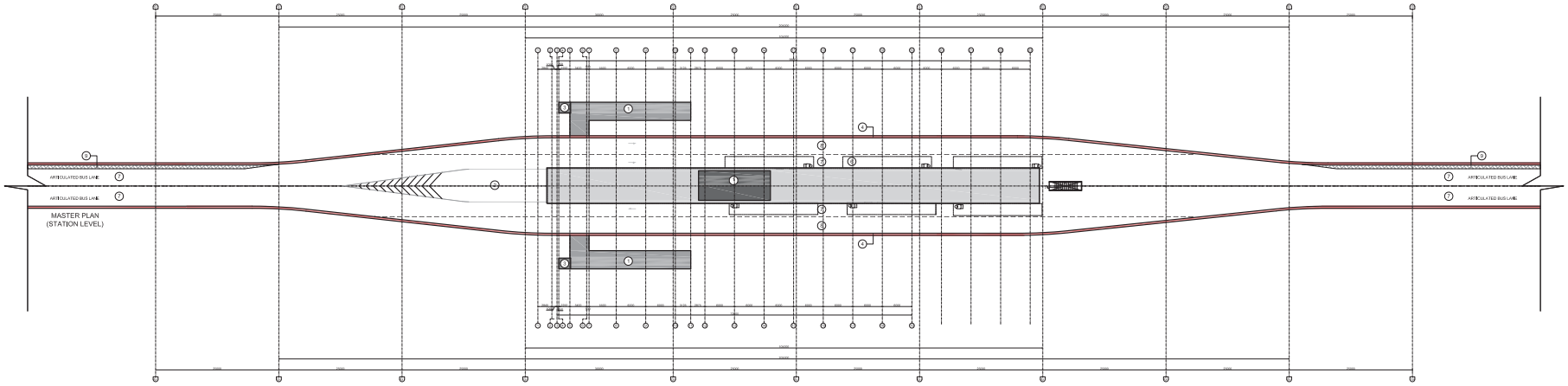
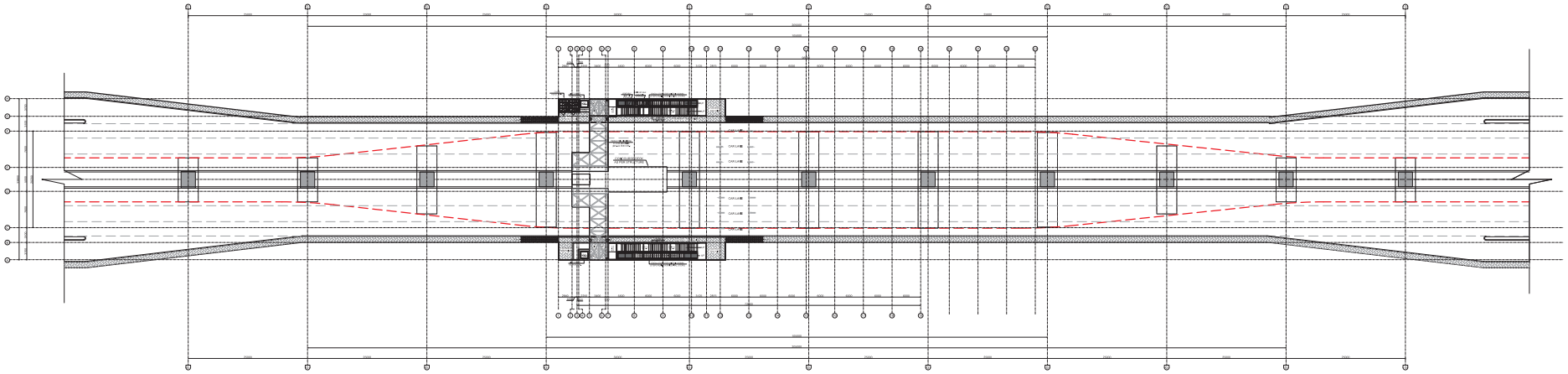
User and Plot Date FaisalAnsul - Thu, 20 Jul 2017 - 3:06pm



MASTER PLAN
(STATION LEVEL)

Drawing File path & name D:\ARCHITECTURE\Blue Line\PC-1 Blue Line BRT\20-07-17\Elevated Station 5 meter (2).dwg
User and Plot Date Fahad Thu, 20 Jul 2017 - 3:53pm

CLIENT: SINDH MASS TRANSIT CELL TRANSPORT & MASS TRANSIT DEPARTMENT GOVERNMENT OF SINDH	PROJECT CONSULTANT: OSMANI Engineering · Architecture · Planning · Mapping · Technology	LEGENDS: BRT RUNWAY AT-GRADE; BRT RUNWAY AT-RAMP; BRT RUNWAY ELEVATED; AT-GRADE BRT STATION; ELEVATED BRT STATION; MIX TRAFFIC (M9)	PROJECT: INFRASTRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE SECTION: GURUMANDIR TO AL-ASIF SQUARE (M9)	DRAWING TITLE: MASTER PLAN STATION LEVEL (ELEVATED)	DRAWN: FAHAD DESIGNED: FUAAD CHECKED: FAISAL SUBMITTED APPROVED	Scale: 1:1000 CTB File Name: TGS-100 Sheet No. Rev No: P0



GROUND FLOOR
PLAN

Drawing File path & name D:\ARCHITECTURE\Blue Line\PC-1 Blue Line BRT\20-07-17\Elevated Station 5 meter (2).dwg
User and Plot Date Fahad Thu, 20 Jul 2017 - 3:53pm

CLIENT:

SINDH MASS TRANSIT CELL
TRANSPORT & MASS
TRANSIT DEPARTMENT
GOVERNMENT OF SINDH

PROJECT CONSULTANT:

OSMANI
Engineering - Architecture - Planning - Mapping - Technology

LEGENDS:

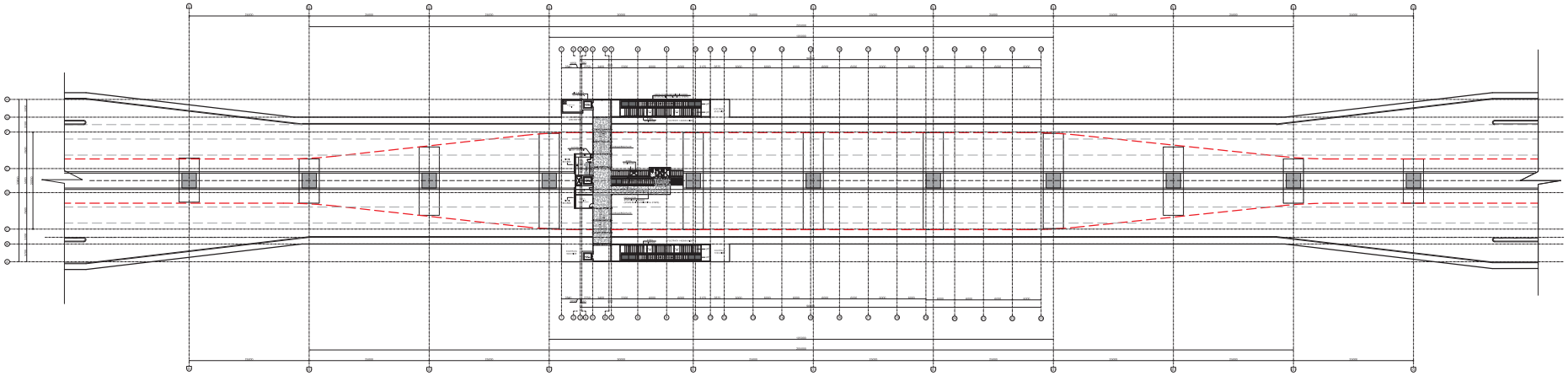
BRT RUNWAY AT-GRADE
BRT RUNWAY AT-RAMP
BRT RUNWAY ELEVATED
AT-GRADE BRT STATION
ELEVATED BRT STATION
MIX TRAFFIC (M9)

PROJECT:
INFRASTRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE

SECTION:
GURUMANDIR TO AL-ASIF SQUARE (M9)

DRAWING TITLE:
GROUND FLOOR PLAN (ELEVATED)

DRAWN	FAHAD	Scale: 1:1000
DESIGNED	FUAAD	CTB File Name: TGS-100
CHECKED	FAISAL	
SUBMITTED		Sheet No.
APPROVED		Rev No: P0



PEDESTRIAN
BRIDGE LEVEL PLAN

CLIENT: SINDH MASS TRANSIT CELL TRANSPORT & MASS TRANSIT DEPARTMENT GOVERNMENT OF SINDH	PROJECT CONSULTANT: OSMANI Engineering - Architecture - Planning - Mapping - Technology	LEGENDS: BRT RUNWAY AT-GRADE; BRT RUNWAY AT-RAMP; BRT RUNWAY ELEVATED; AT-GRADE BRT STATION; ELEVATED BRT STATION; MIX TRAFFIC (M9)	PROJECT: INFRASTRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE	DRAWING TITLE: PEDESTRIAN BRIDGE LEVEL PLAN (ELEVATED)	DRAWN: FAHAD	Scale: 1:1000
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					APPROVED	Rev No: P0

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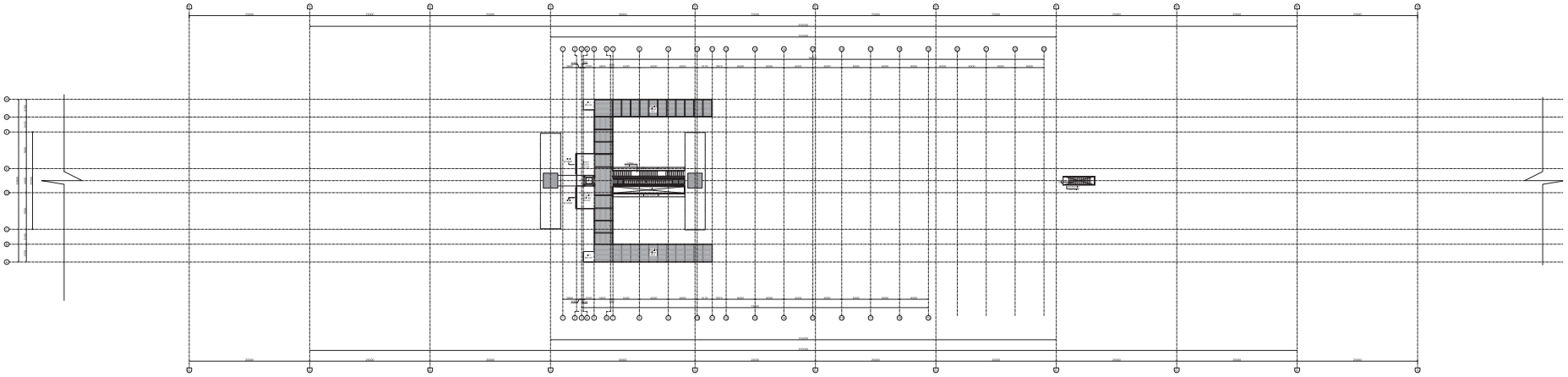

PEDESTRIAN
BRIDGE ROOF PLAN

CLIENT: SINDH MASS TRANSIT CELL TRANSPORT & MASS TRANSIT DEPARTMENT GOVERNMENT OF SINDH	PROJECT CONSULTANT: OSMANI Engineering - Architecture - Planning - Mapping - Technology	LEGENDS: BRT RUNWAY AT-GRADE; BRT RUNWAY AT-RAMP; BRT RUNWAY ELEVATED; AT-GRADE BRT STATION; ELEVATED BRT STATION; MIX TRAFFIC (M9)	PROJECT: INFRASTRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE	DRAWING TITLE: PEDESTRIAN BRIDGE ROOF PLAN (ELEVATED)	DRAWN	FAHAD	Scale: 1:1000
			SECTION: GURUMANDIR TO AL-ASIF SQUARE (M9)		DESIGNED	FUAAD	CTB File Name: TGS-100
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					APPROVED		Rev No: P0

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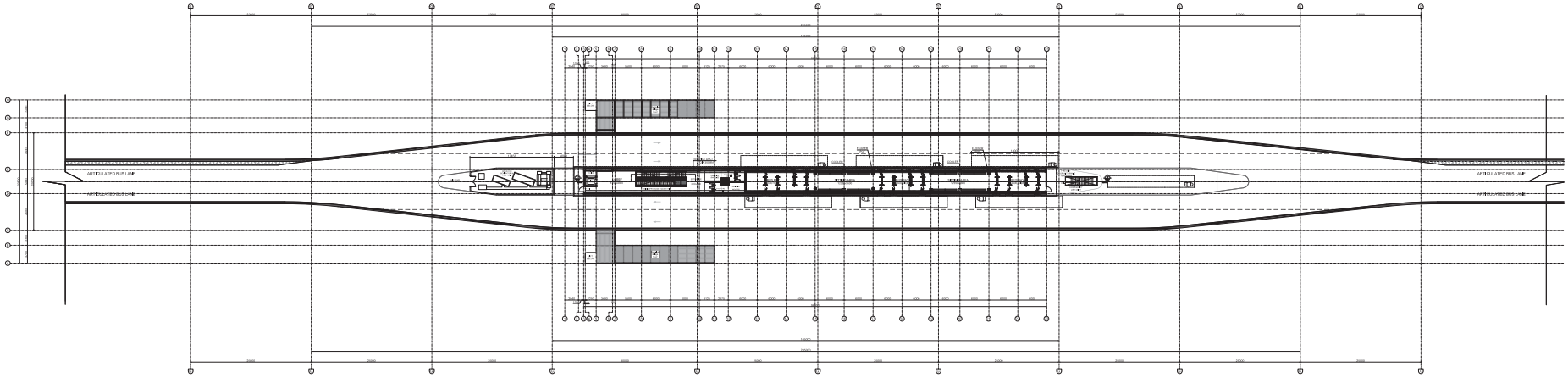
User and Plot Date Fahad Thu, 20 Jul 2017 - 12:54pm



STATION PLAN

CLIENT: SINDH MASS TRANSIT CELL TRANSPORT & MASS TRANSIT DEPARTMENT GOVERNMENT OF SINDH	PROJECT CONSULTANT: OSMANI Engineering - Architecture - Planning - Mapping - Technology	LEGENDS: BRT RUNWAY AT-GRADE; BRT RUNWAY AT-RAMP; BRT RUNWAY ELEVATED; AT-GRADE BRT STATION; ELEVATED BRT STATION; MIX TRAFFIC (M9)	PROJECT: INFRASTRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE	DRAWING TITLE: STATION PLAN (ELEVATED)	DRAWN: FAHAD	Scale: 1:1000
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					SUBMITTED	Sheet No.
					APPROVED	Rev No: P0

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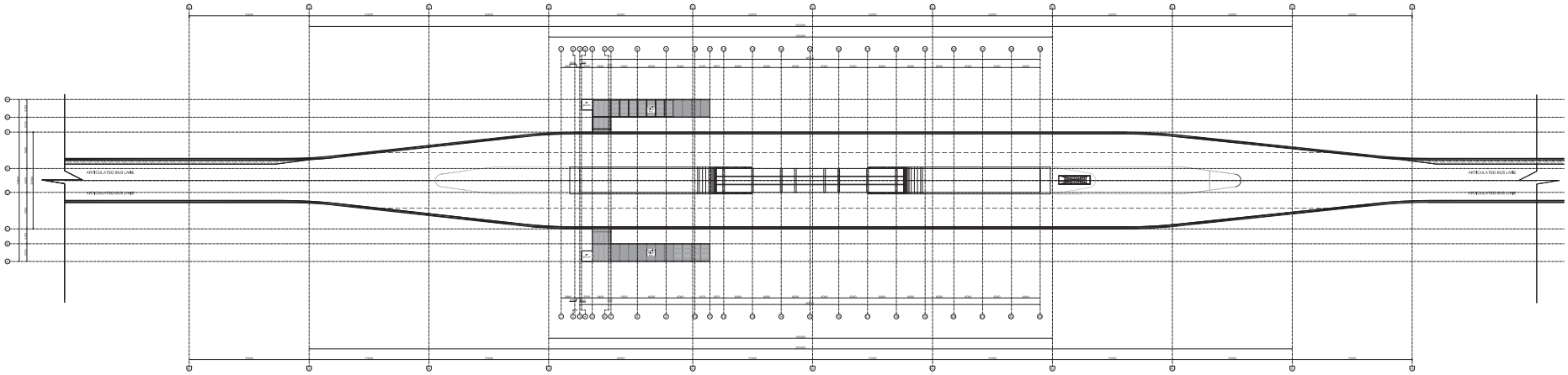
User and Plot Date Fahad Thu, 20 Jul 2017 - 4:07pm



ROOF PLAN

CLIENT: SINDH MASS TRANSIT CELL TRANSPORT & MASS TRANSIT DEPARTMENT GOVERNMENT OF SINDH	PROJECT CONSULTANT: OSMANI Engineering - Architecture - Planning - Mapping - Technology	LEGENDS: BRT RUNWAY AT-GRADE; BRT RUNWAY AT-RAMP; BRT RUNWAY ELEVATED; AT-GRADE BRT STATION; ELEVATED BRT STATION; MIX TRAFFIC (M9)	PROJECT: INFRASTRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE	DRAWING TITLE: ROOF PLAN (ELEVATED)	DRAWN	FAHAD	Scale: 1:1000
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					CHECKED	FAISAL	
					SUBMITTED		Sheet No.
					APPROVED		Rev No: P0

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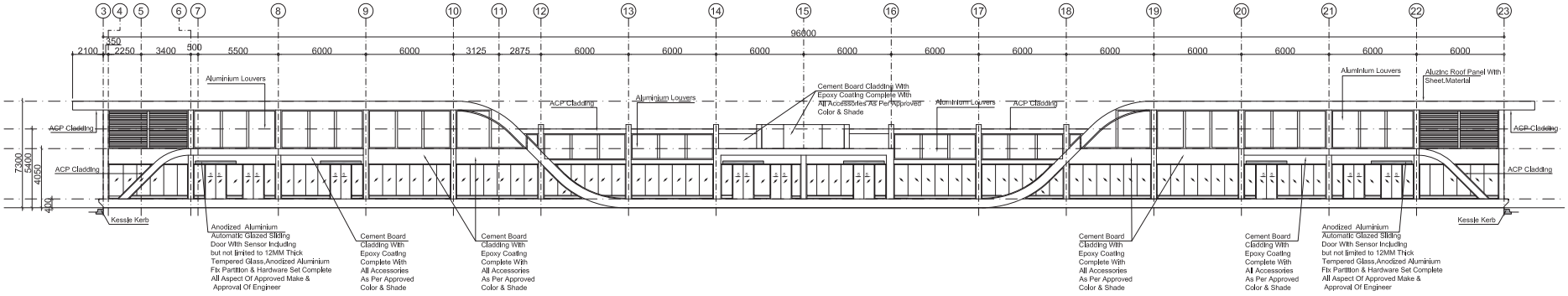
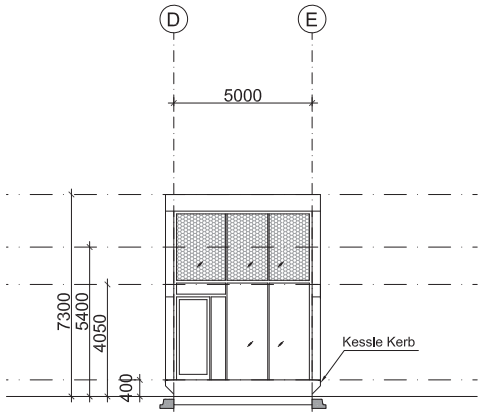
User and Plot Date Fahad Thu, 20 Jul 2017 - 4:07pm



FRONT ELEVATION



LEFT ELEVATION

CLIENT:	PROJECT CONSULTANT:	LEGENDS:	PROJECT:	DRAWING TITLE:			
SINDH MASS TRANSIT CELL TRANSPORT & MASS TRANSIT DEPARTMENT GOVERNMENT OF SINDH	OSMANI Engineering - Architecture - Planning - Mapping - Technology	BRT RUNWAY AT-GRADE BRT RUNWAY AT-RAMP BRT RUNWAY ELEVATED AT-GRADE BRT STATION ELEVATED BRT STATION MIX TRAFFIC (M9)	INFRASTRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE SECTION: GURUMANDIR TO AL-ASIF SQUARE (M9)	ELEVATIONS (ELEVATED)	DRAWN	FAHAD	Scale: 1:1000
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					APPROVED		Rev No: P0

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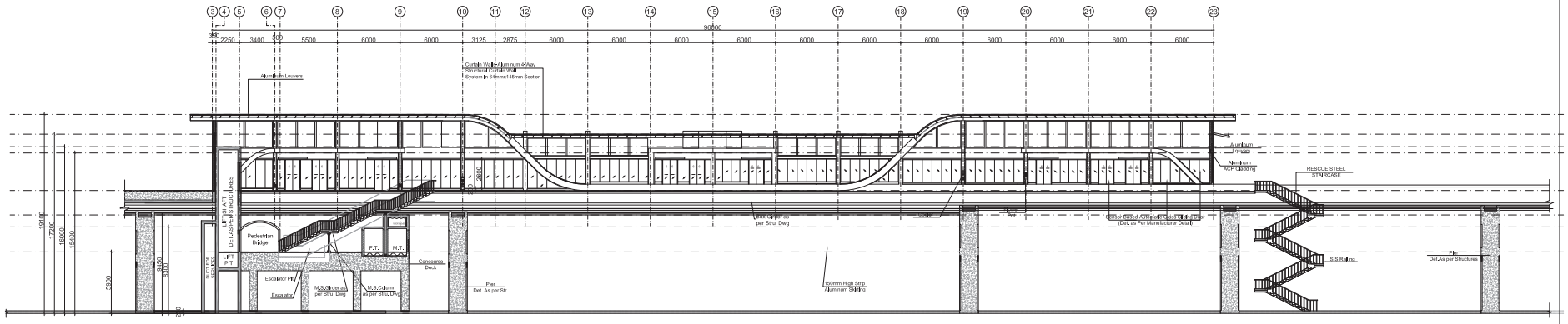
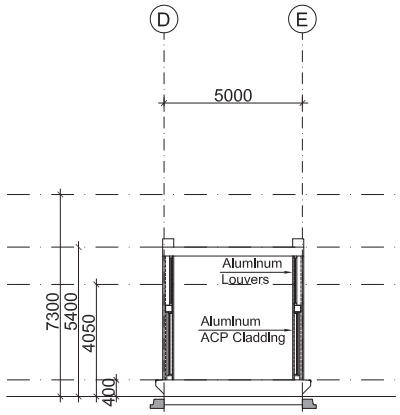


SECTION



SECTION

CLIENT:	PROJECT CONSULTANT:	LEGENDS:	PROJECT:	DRAWING TITLE:			
SINDH MASS TRANSIT CELL TRANSPORT & MASS TRANSIT DEPARTMENT GOVERNMENT OF SINDH	OSMANI Engineering - Architecture - Planning - Mapping - Technology	BRT RUNWAY AT-GRADE BRT RUNWAY AT-RAMP BRT RUNWAY ELEVATED AT-GRADE BRT STATION ELEVATED BRT STATION MIX TRAFFIC (M9)	INFRASTRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE SECTION: GURUMANDIR TO AL-ASIF SQUARE (M9)	SECTIONS (ELEVATED)	DRAWN	FAHAD	Scale: 1:1000
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					APPROVED		Rev No: P0

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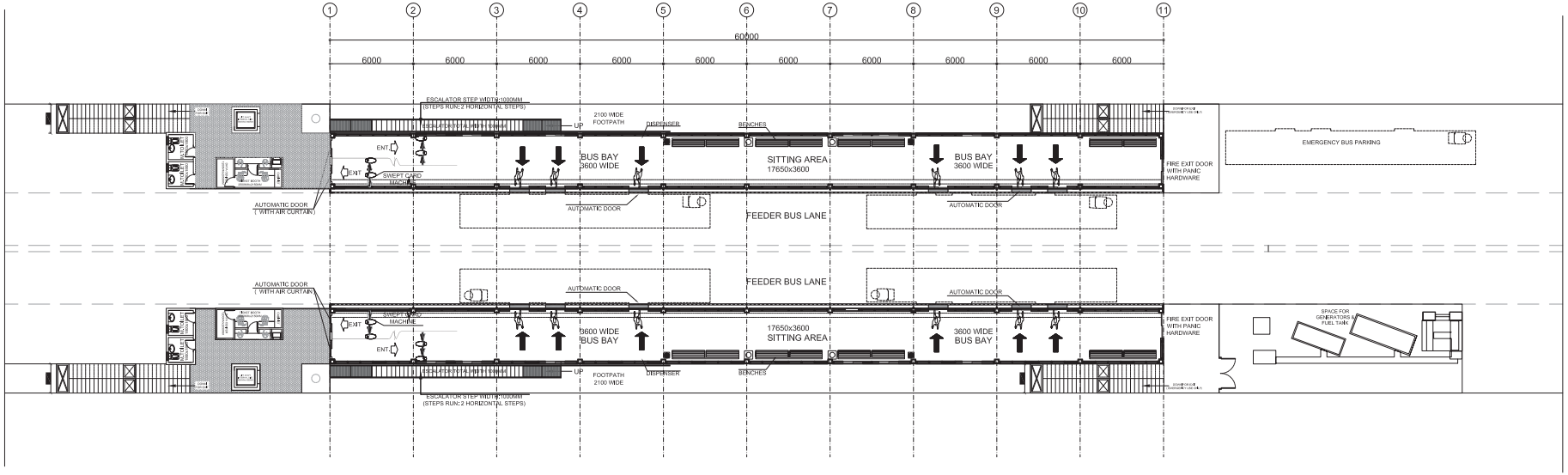
User and Plot Date Fahad Thu, 20 Jul 2017 - 4:04pm

SPLIT TYPE

STATION



PLAN AT STATION LEVEL

CLIENT:	PROJECT CONSULTANT:	LEGENDS:	PROJECT:	DRAWING TITLE:			
SINDH MASS TRANSIT CELL TRANSPORT & MASS TRANSIT DEPARTMENT GOVERNMENT OF SINDH	OSMANI Engineering - Architecture - Planning - Mapping - Technology	BRT RUNWAY AT-GRADE BRT RUNWAY AT-RAMP BRT RUNWAY ELEVATED AT-GRADE BRT STATION ELEVATED BRT STATION MIX TRAFFIC (M9)	INFRASTRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE SECTION: GURUMANDIR TO AL-ASIF SQUARE (M9)	PLAN AT STATION LEVEL (SPLIT TYPE)	DRAWN	FAHAD	Scale: 1:1000
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					APPROVED		Rev No: P0

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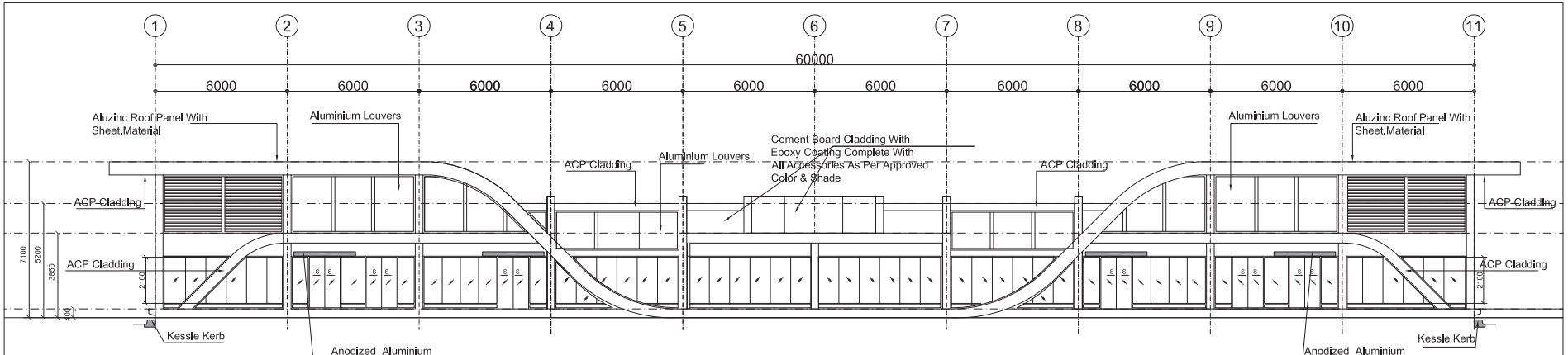
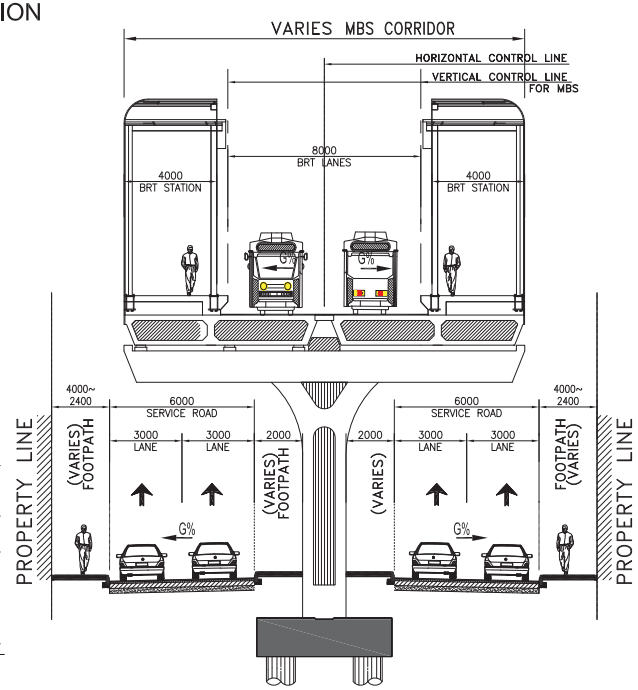
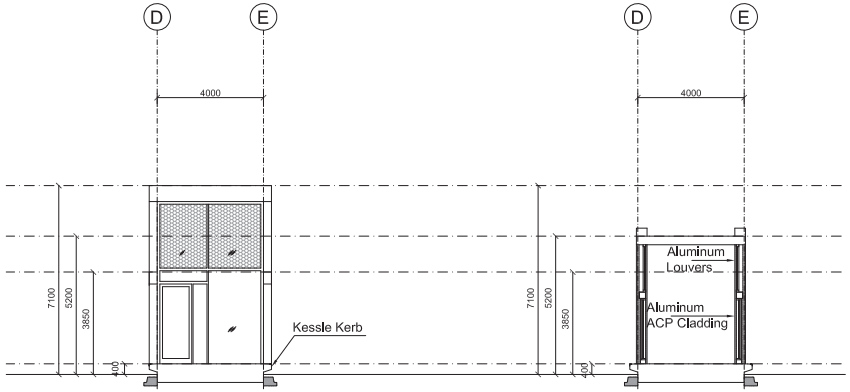
User and Plot Date Plotted - Thu, 20 Jul 2017 - 4:07pm



FRONT ELEVATION



PROPOSED TYPICAL CROSS SECTION FOR ELEVATED METROBUS STATION (SPLIT TYPE)



SIDE ELEVATION

SECTION

CLIENT: SINDH MASS TRANSIT CELL TRANSPORT & MASS TRANSIT DEPARTMENT GOVERNMENT OF SINDH	PROJECT CONSULTANT: OSMANI Engineering · Architecture · Planning · Mapping · Technology	LEGENDS: BRT RUNWAY AT-GRADE; BRT RUNWAY AT-RAMP; BRT RUNWAY ELEVATED; AT-GRADE BRT STATION; ELEVATED BRT STATION; MIX TRAFFIC (M9)	PROJECT: INFRASTRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE SECTION: GURUMANDIR TO AL-ASIF SQUARE (M9)	DRAWING TITLE: FRONT SIED ELEVATION & SECTION	DRAWN: FAHAD DESIGNED: FUAAD CHECKED: FAISAL SUBMITTED APPROVED

Scale: 1:1000
CTB File Name: TGS-100
Sheet No.
Rev No: P0

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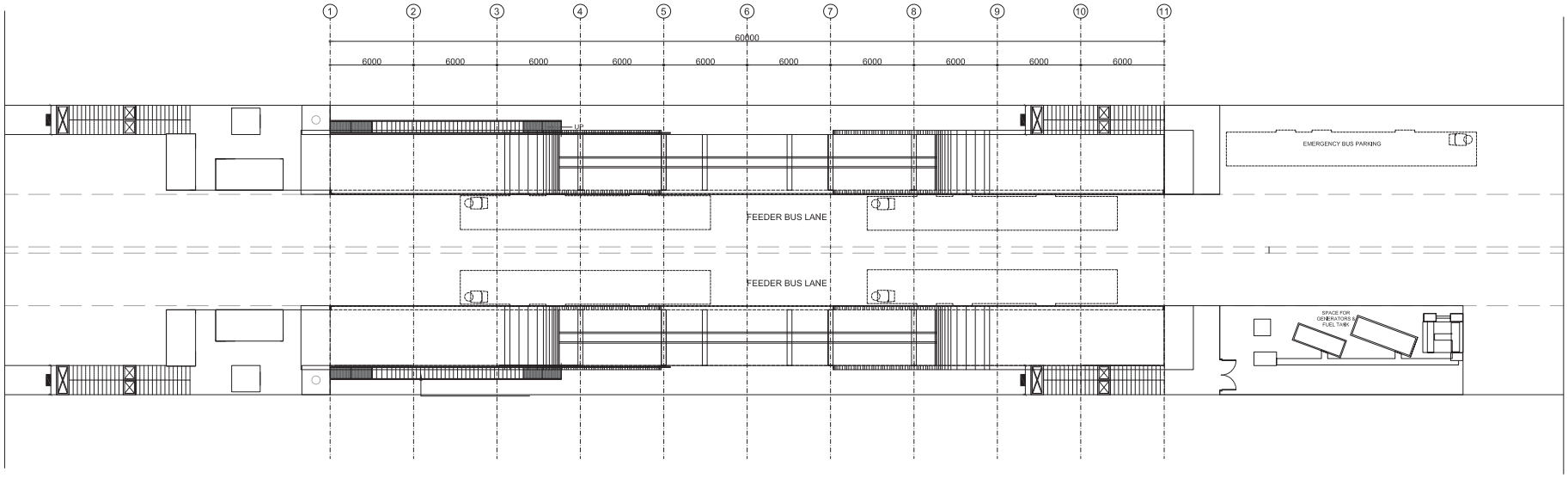
User and Plot Date: Printed - Thu, 20 Jul 2017 - 4:09pm



ROOF PLAN

CLIENT: SINDH MASS TRANSIT CELL TRANSPORT & MASS TRANSIT DEPARTMENT GOVERNMENT OF SINDH	PROJECT CONSULTANT: OSMANI Engineering - Architecture - Planning - Mapping - Technology	LEGENDS: BRT RUNWAY AT-GRADE; BRT RUNWAY AT-RAMP; BRT RUNWAY ELEVATED; AT-GRADE BRT STATION; ELEVATED BRT STATION; MIX TRAFFIC (M9)	PROJECT: INFRASTRUCTURE DEVELOPMENT OF BUS RAPID TRANSIT SYSTEM BLUE LINE	DRAWING TITLE: ROOF PLAN (SPLIT TYPE)	DRAWN	FAHAD	Scale: 1:1000
			SECTION: GURUMANDIR TO AL-ASIF SQUARE (M9)		DESIGNED	FUAAD	CTB File Name: TGS-100
					CHECKED	FAISAL	
					SUBMITTED		Sheet No.
					APPROVED		Rev No: P0

Drawing file path & name: D:\ARCHITECTURE\Blue Line\PC-1 Blue Line BRT\20-07-17\SPLIT TYPE (FAISAL).dwg
User and Plot Date: Printed - Thu, 20 Jul 2017 - 4:07pm