

SECTION

S-02

S-01

S-03

INFRASTRUCTURE AXIS

6

3

4

B

S2

6

6

6

6

SECTION

S-03
-

S-02
-

S-01
-

S-02
-

S-01
-

T.O.R.

T.O.R.

5

B

2

1

S1

B

2

1

5A

B

1

5

1 Ø 20 / 20

L.tot = 130

5A

1 Ø 20 / 20

L.tot = 130

31

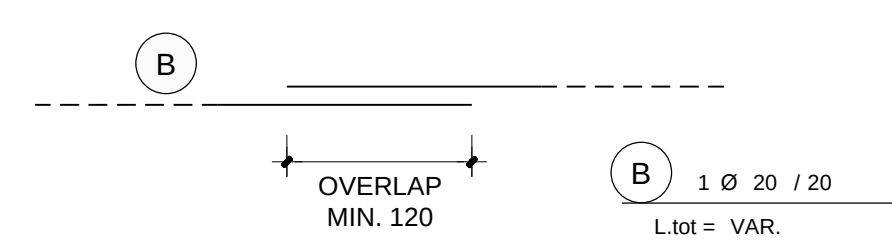
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31

31

[illegible]

ALL THE LONGITUDINAL BARS SHOULD BE BENT AT THE END OF THE SLABS/WALLS. THE LENGTH OF THE BENT IS VARIABLE DEPENDING ON THE STRUCTURAL ELEMENT THICKNESS AND SHALL BE ALWAYS $>10\phi$



KEY PLAN

LINE 1

LINE 2

LINE 3

LINE 4

LINE 5

LINE 6

LINE 7

LINE 8

LINE 9

LINE 10

LINE 11

LINE 12

LINE 13

LINE 14

LINE 15

LINE 16

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LINE 369

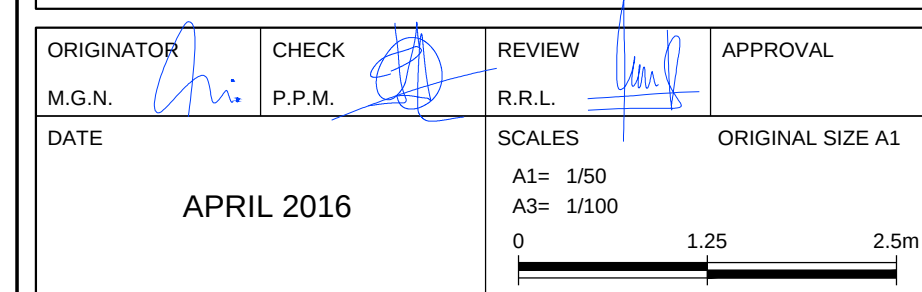
1. DIMENSIONS IN CENTIMETERS
2. REINFORCEMENT BAR NUMBERING IS RELATED TO EACH SEGMENT
3. SECTION NUMBERING IS RELATED TO EACH SEGMENT

PROJECT

RIYADH METRO PROJECT

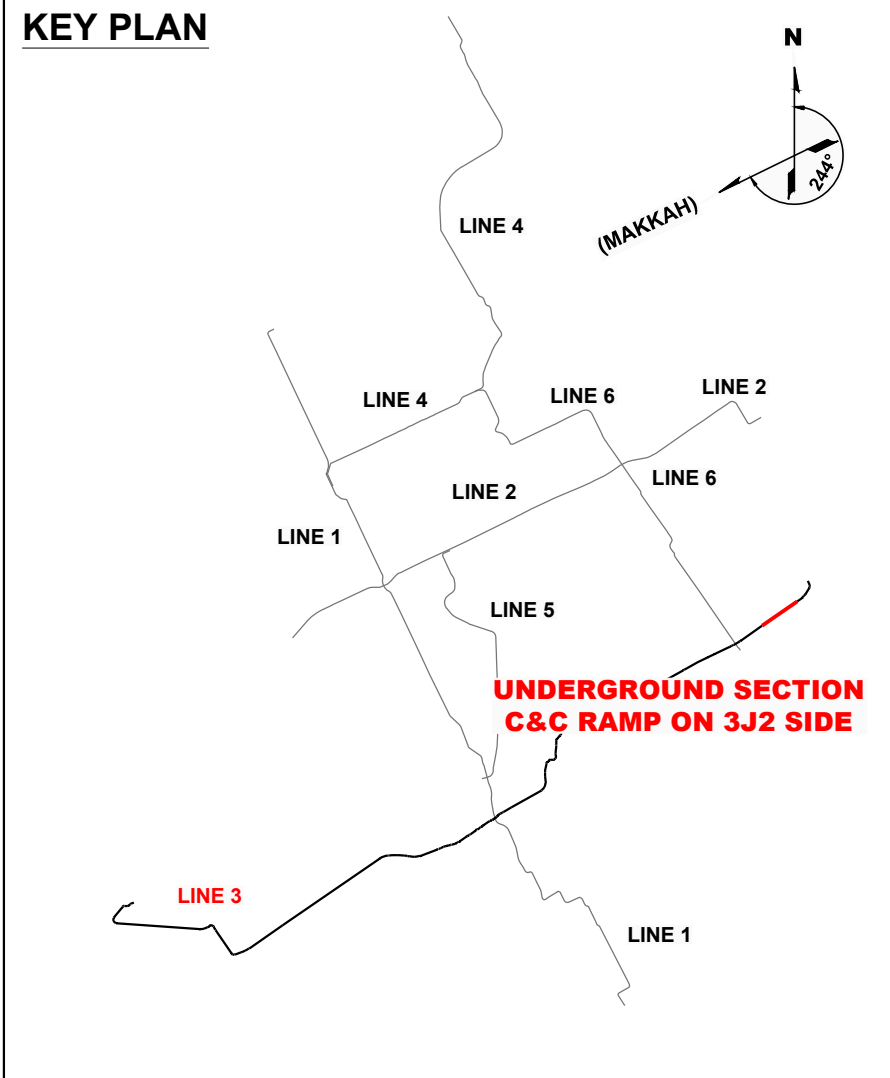
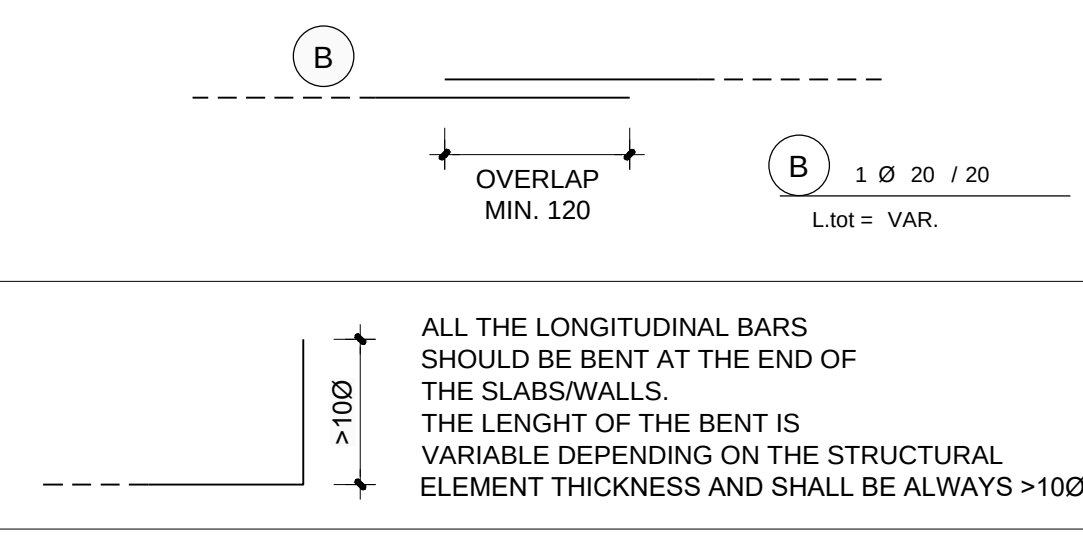
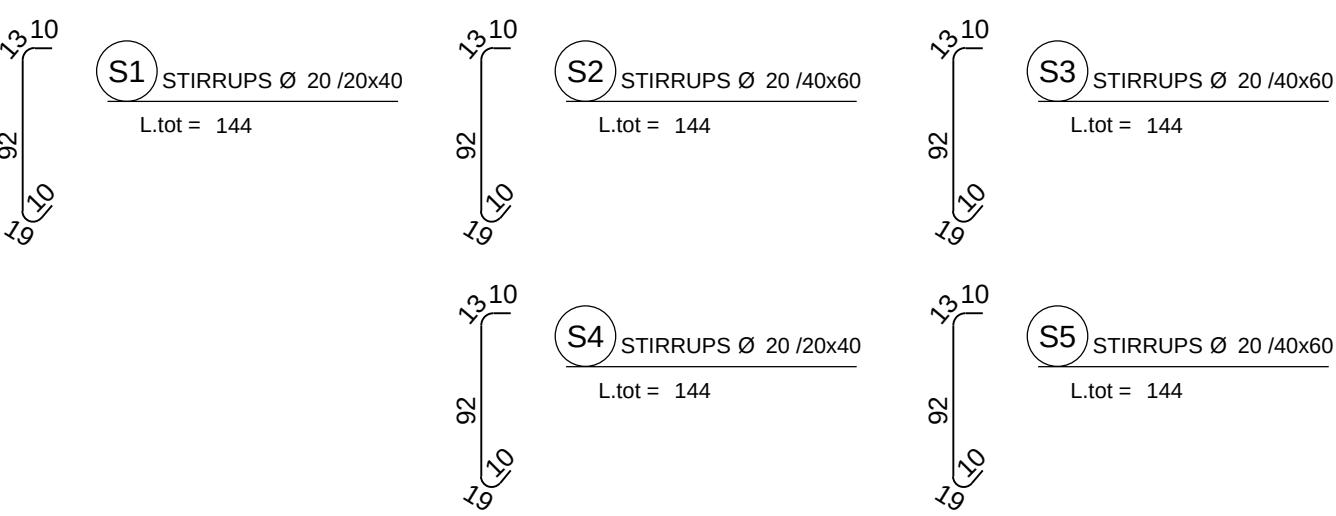
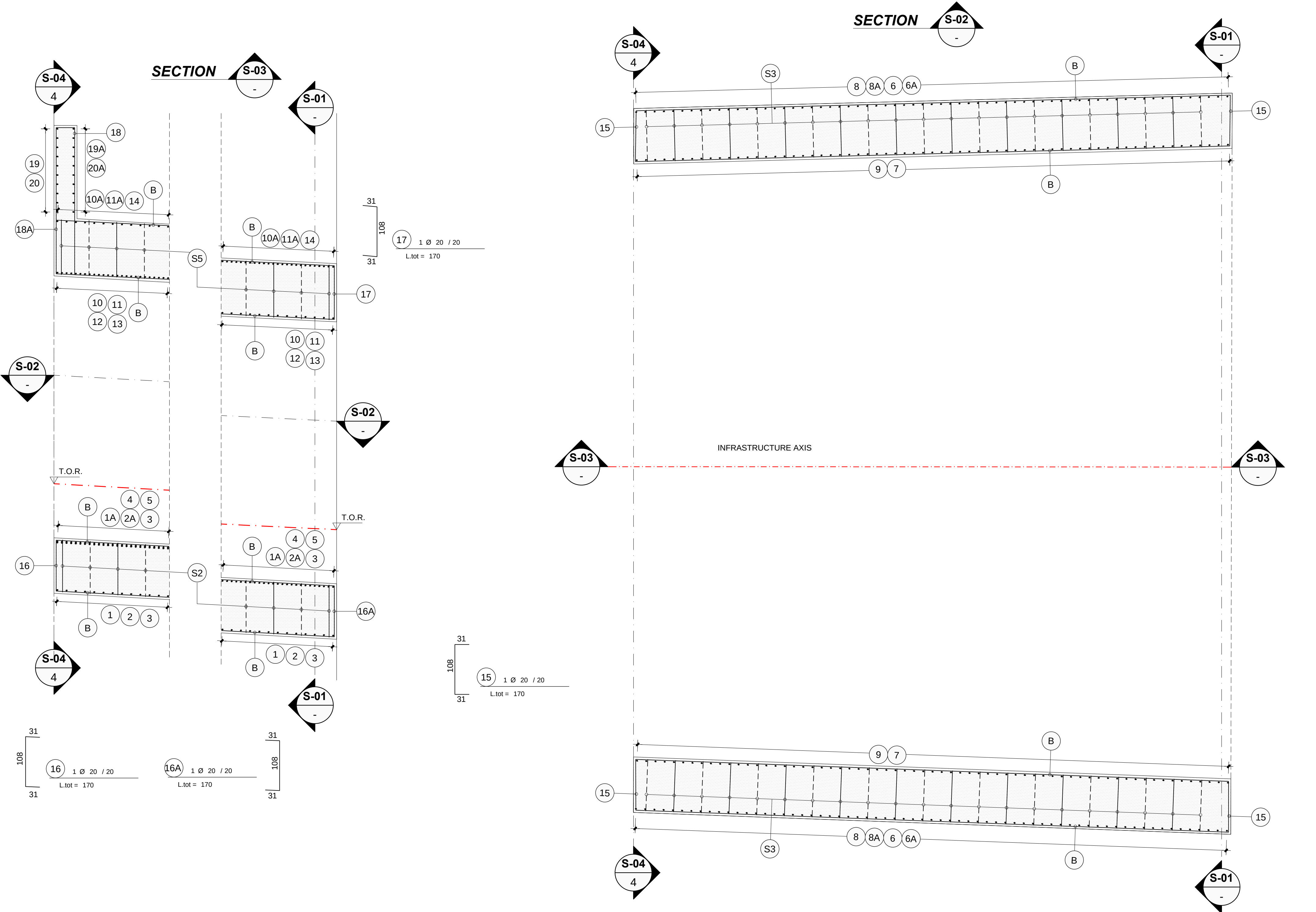
PACKAGE 2

LINE 3



ANM DRAWING NUMBER M-ANM-3J1TU2-CTCC-EDR-200034	REVISION P1	SHEET 1 of 24
ALTERNATE DOCUMENT NUMBER M-ANM-3J1TU2-CTCC-EDR-200034	REVISION P1	SHEET 1 of 24

SEGMENT 9



- NOTES:**
1. DIMENSIONS IN CENTIMETERS
 2. REINFORCEMENT BAR NUMBERING IS RELATED TO EACH SEGMENT
 3. SECTION NUMBERING IS RELATED TO EACH SEGMENT

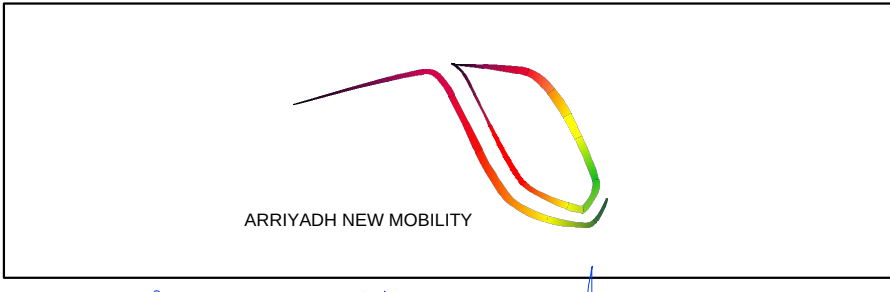
P1	01.04.2016	INTRA AND INTER-DISCIPLINARY CHECKS (IDC)	R.R.L.
REV.	DATE	DESCRIPTION	APP.

PROJECT

RIYADH METRO PROJECT

PACKAGE 2

LINE 3



ORIGINATOR	CHECK	REVIEW	APPROVAL
M.G.N.	P.P.M.	R.R.L.	
DATE		SCALES	ORIGINAL SIZE A1
		A1= 1/50	
		A3= 1/100	
		0	1.25 2.5m

DRAWING

UNDERGROUND SECTION

90% DETAILED DESIGN

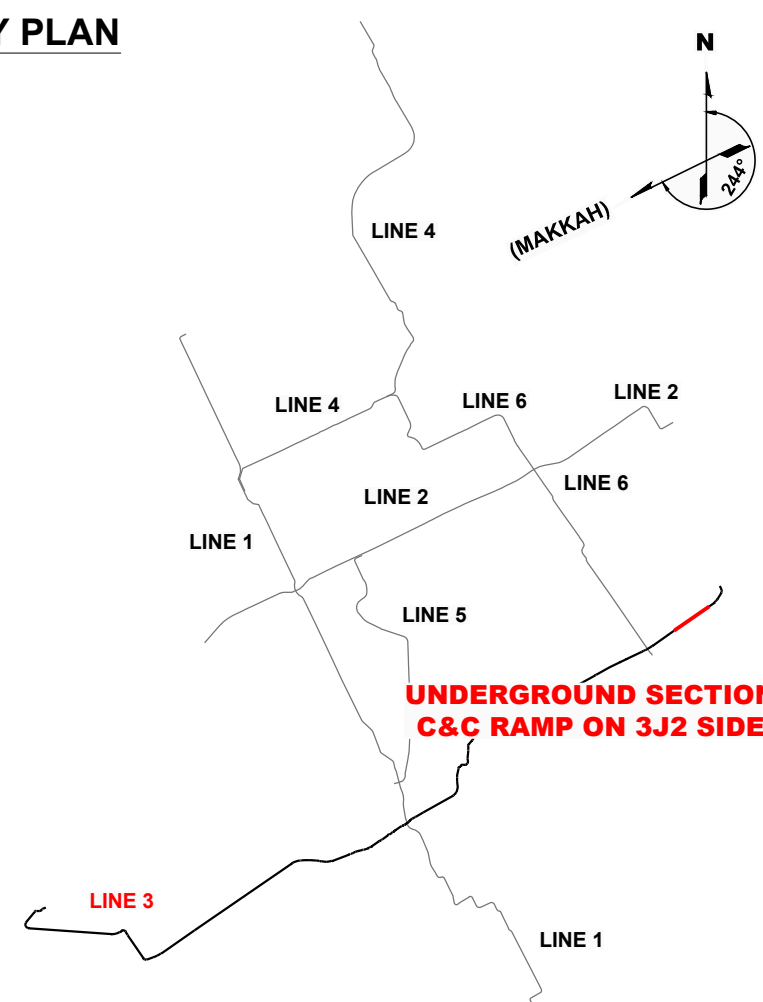
CUT AND COVER RAMP ON 3J2 SIDE

PERMANENT WORKS

CROSS SECTION - REINFORCEMENT

ANM DRAWING NUMBER	REVISION	SHEET
M-ANM-3J1TU2-CTCC-EDR-200034	P1	4 of 24
ALTERNATE DOCUMENT NUMBER	REVISION	SHEET
M-ANM-3J1TU2-CTCC-EDR-200034	P1	4 of 24

SECTION



NOTES:

1. DIMENSIONS IN CENTIMETERS
2. REINFORCEMENT BAR NUMBERING IS RELATED TO EACH SEGMENT
3. SECTION NUMBERING IS RELATED TO EACH SEGMENT

P1	01.04.2016	INTRA AND INTER-DISCIPLINARY CHECKS (IDC)	R.R.L.
REV.	DATE	DESCRIPTION	APP.

PROJECT

RIYADH METRO PROJECT
PACKAGE 2
LINE 3



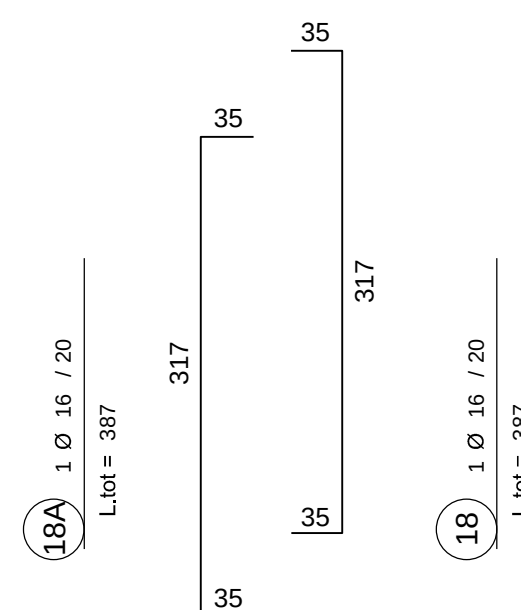
ORIGINATOR	CHECK	REVIEW	APPROVAL
M.G.N.	P.P.M.	R.R.L.	
DATE		SCALES	ORIGINAL SIZE A1
APRIL 2016		A1= 1/50 A3= 1/100 0 1.25 2.5m	

DRAWING

UNDERGROUND SECTION
90% DETAILED DESIGN
CUT AND COVER RAMP ON 3J2 SIDE
PERMANENT WORKS
CROSS SECTION - REINFORCEMENT

ANM DRAWING NUMBER M-ANM-3J1TU2-CTCC-EDR-200034	REVISION P1	SHEET 5 of 24
ALTERNATE DOCUMENT NUMBER M-ANM-3J1TU2-CTCC-EDR-200034	REVISION P1	SHEET 5 of 24

Figure 1: Schematic diagram of the 1200 bp DNA fragment. The top part shows the full 1200 bp fragment with a 1165 bp region in the center. The bottom part shows the 1165 bp region with a 465 bp overlap on the right. The 1165 bp region is flanked by 20A and 19A primers. The 465 bp overlap is flanked by 19 and 20 primers. The 1165 bp region is flanked by 20A and 19A primers. The 465 bp overlap is flanked by 19 and 20 primers.



1. DIMENSIONS IN CENTIMETERS
2. REINFORCEMENT BAR NUMBERING IS RELATED TO EACH SEGMENT
3. SECTION NUMBERING IS RELATED TO EACH SEGMENT

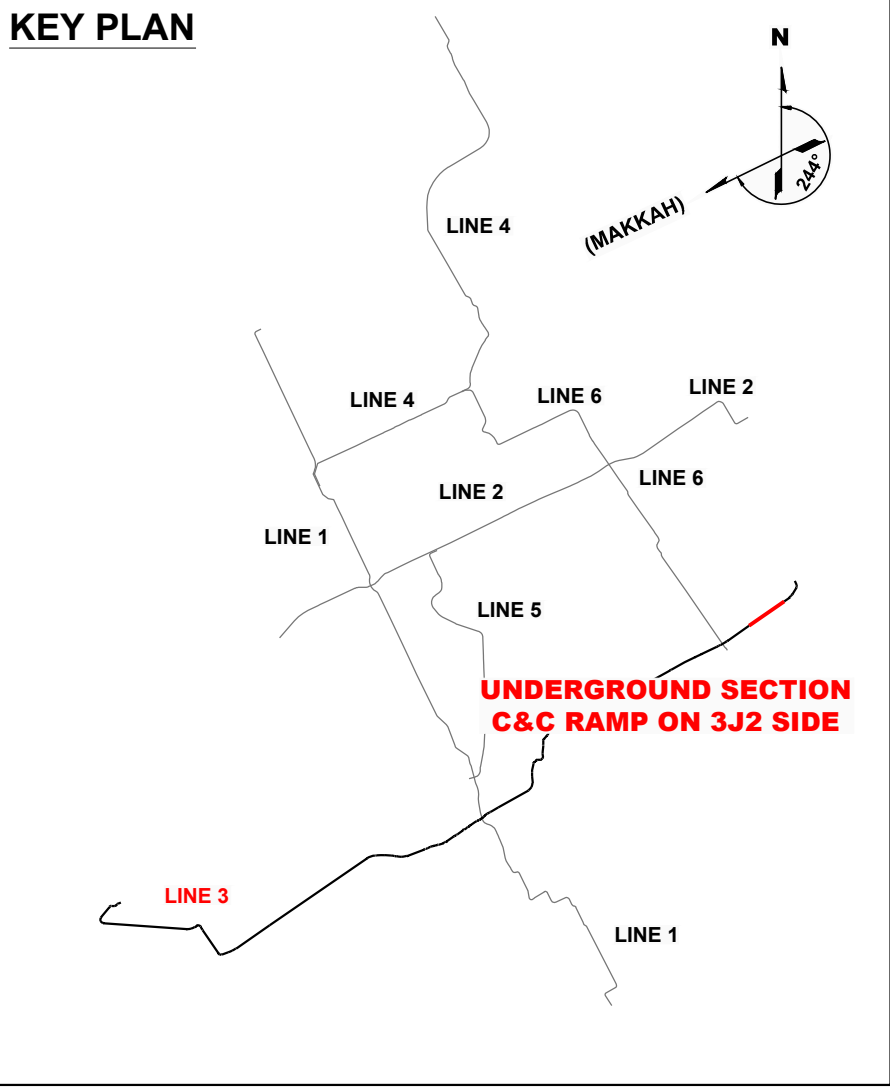
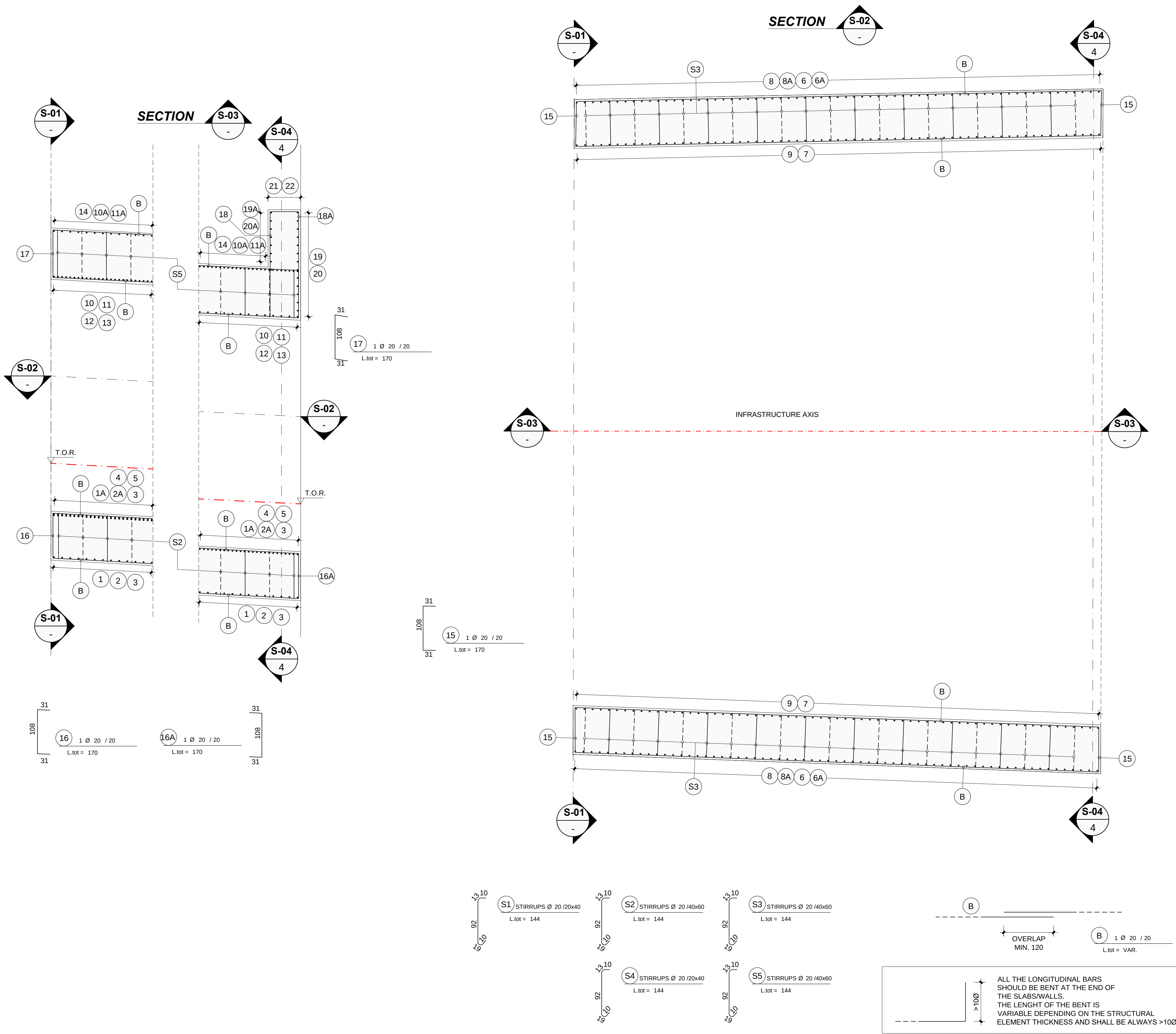
P1	01.04.2016	INTRA AND INTER-DISCIPLINARY CHECKS (IDC)	R.R.
REV.	DATE	DESCRIPTION	APP



ORIGINATOR M.G.N.	CHECK P.P.M.	REVIEW R.R.L.	APPROVAL
DATE APRIL 2016		SCALES A1= 1/50 A3= 1/100 0 1.25 2.5	

ANM DRAWING NUMBER M-ANM-3J1TU2-CTCC-EDR-200034	REVISION P1	SHEET 6 of 2
ALTERNATE DOCUMENT NUMBER M-ANM-3J1TU2-CTCC-EDR-200034	REVISION P1	SHEET 6 of 2

SEGMENT 10



- NOTES:**
- 1. DIMENSIONS IN CENTIMETERS
 - 2. REINFORCEMENT BAR NUMBERING IS RELATED TO EACH SEGMENT
 - 3. SECTION NUMBERING IS RELATED TO EACH SEGMENT

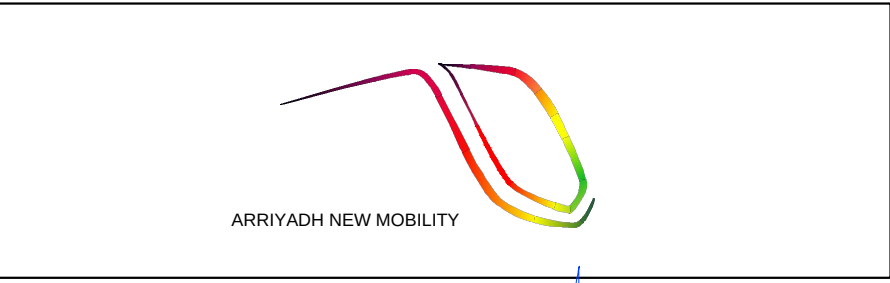
P1	01.04.2016	INTRA AND INTER-DISCIPLINARY CHECKS (IDC)	R.R.L.
REV.	DATE	DESCRIPTION	APP.

PROJECT

RIYADH METRO PROJECT

PACKAGE 2

LINE 3



ORIGINATOR	CHECK	REVIEW	APPROVAL
M.G.N.	P.P.M.	R.R.L.	
DATE	APRIL 2016	SCALES	ORIGINAL SIZE A1
		A1= 1/50	
		A3= 1/100	
		0	1.25 2.5m

DRAWING

UNDERGROUND SECTION

90% DETAILED DESIGN

CUT AND COVER RAMP ON 3J2 SIDE

PERMANENT WORKS

CROSS SECTION - REINFORCEMENT

ANM DRAWING NUMBER	REVISION	SHEET
M-ANM-3J1TU2-CTCC-EDR-200034	P1	7 of 24
ALTERNATE DOCUMENT NUMBER	REVISION	SHEET
M-ANM-3J1TU2-CTCC-EDR-200034	P1	7 of 24

SECTION



NOTES:

1. DIMENSIONS IN CENTIMETERS
2. REINFORCEMENT BAR NUMBERING IS RELATED TO EACH SEGMENT
3. SECTION NUMBERING IS RELATED TO EACH SEGMENT

P1	01.04.2016	INTRA AND INTER-DISCIPLINARY CHECKS (IDC)	R.R.L.
REV.	DATE	DESCRIPTION	APP.

PROJECT

RIYADH METRO PROJECT
PACKAGE 2
LINE 3



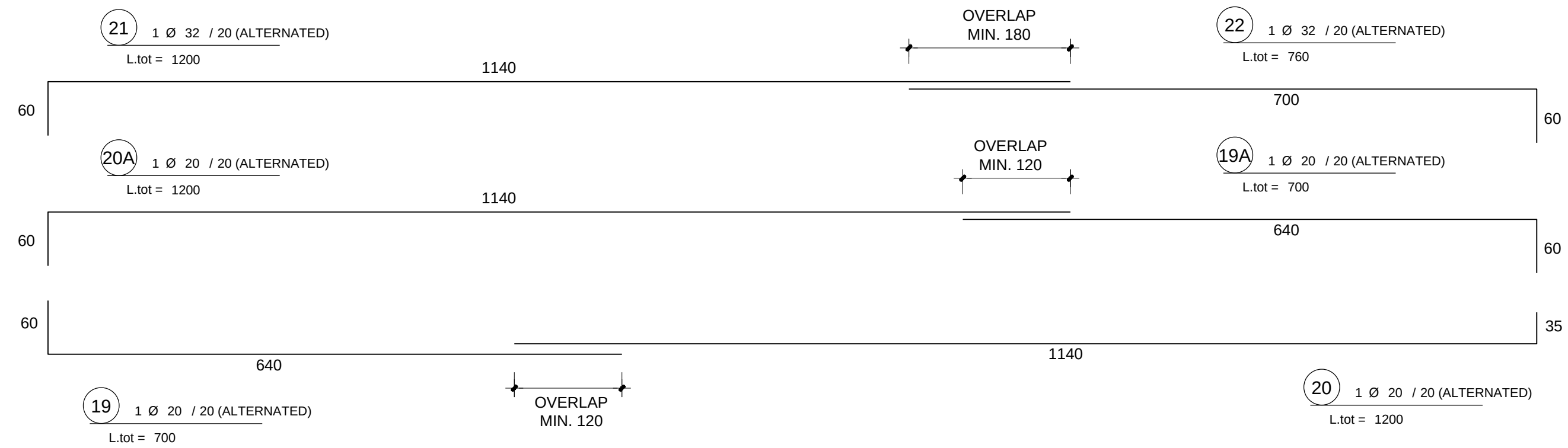
ORIGINATOR	CHECK	REVIEW	APPROVAL
M.G.N.	P.P.M.	R.R.L.	
DATE		SCALES	ORIGINAL SIZE A1
APRIL 2016		A1= 1/50 A3= 1/100 0 1.25 2.5m	

DRAWING

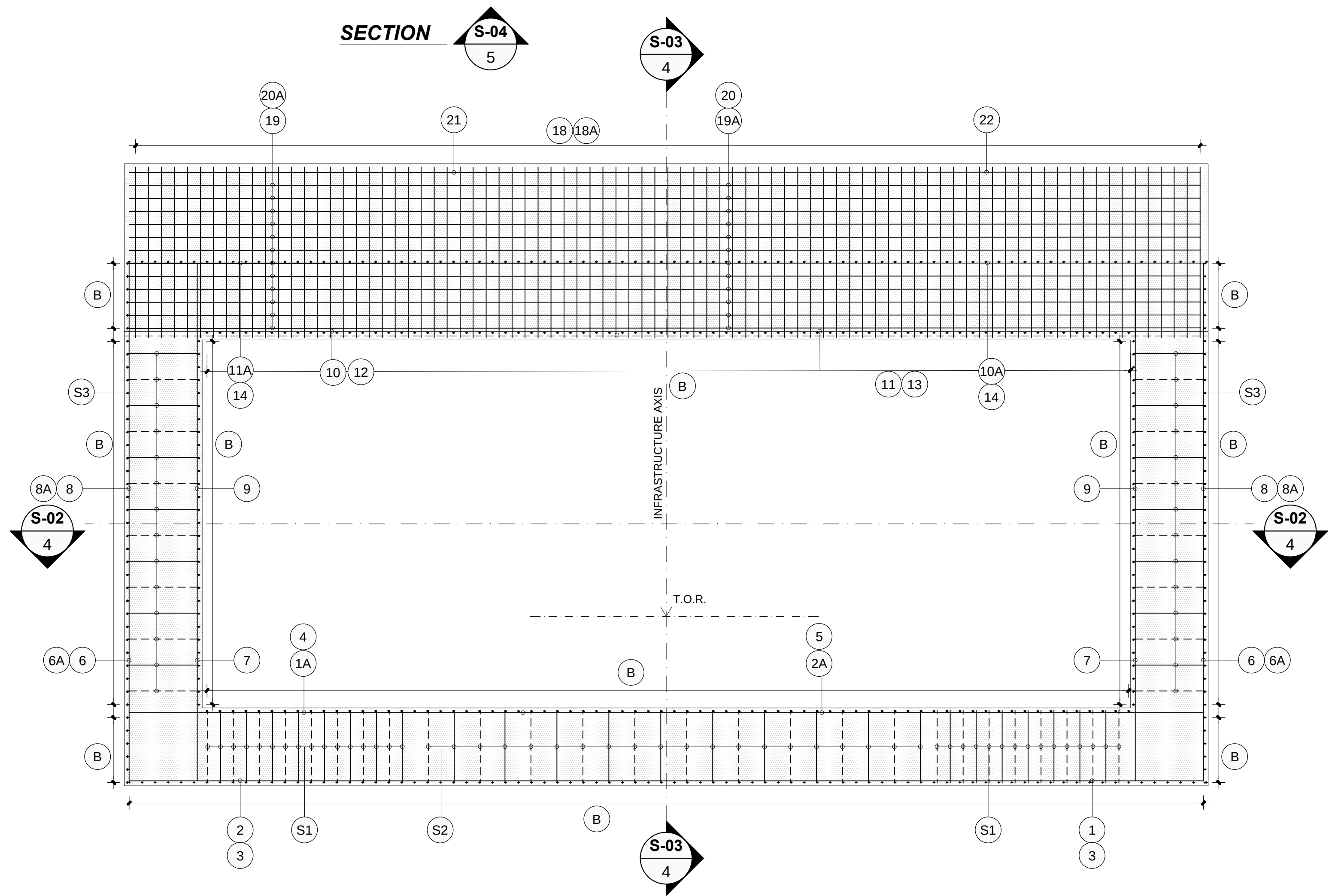
UNDERGROUND SECTION
90% DETAILED DESIGN
CUT AND COVER RAMP ON 3J2 SIDE
PERMANENT WORKS
CROSS SECTION - REINFORCEMENT

ANM DRAWING NUMBER M-ANM-3J1TU2-CTCC-EDR-200034	REVISION P1	SHEET 8 of 24
ALTERNATE DOCUMENT NUMBER M-ANM-3J1TU2-CTCC-EDR-200034	REVISION P1	SHEET 8 of 24

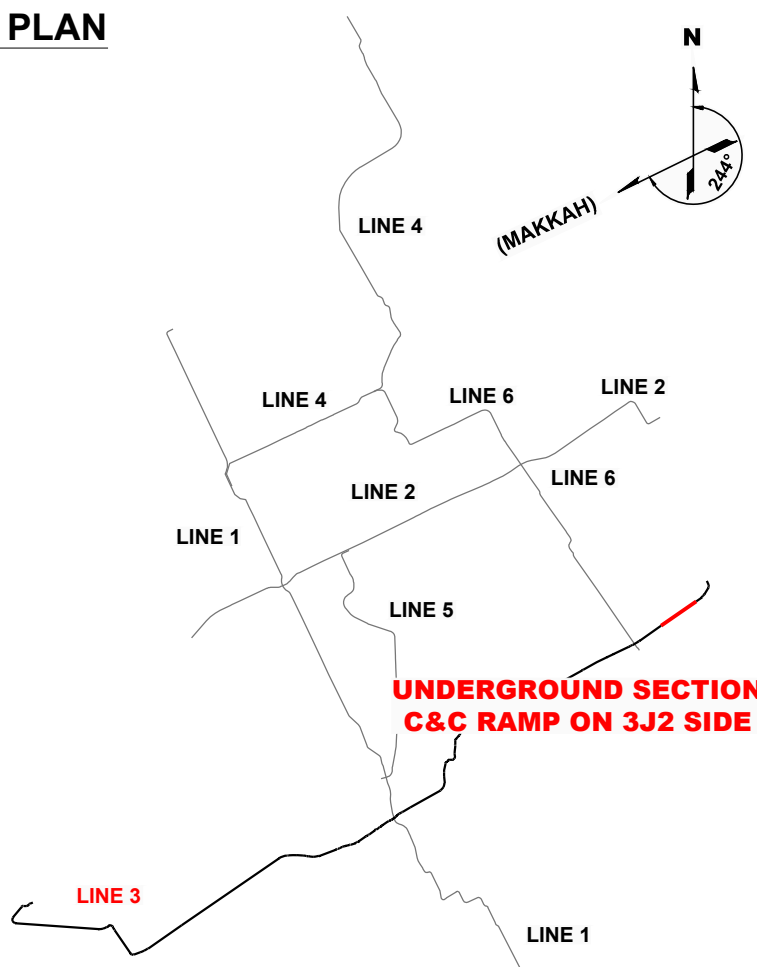
SEGMENT 10



SECTION



KEY PLAN



NOTES:

1. DIMENSIONS IN CENTIMETERS
2. REINFORCEMENT BAR NUMBERING IS RELATED TO EACH SEGMENT
3. SECTION NUMBERING IS RELATED TO EACH SEGMENT

REV.	DATE	DESCRIPTION	APP.
P1	01.04.2016	INTRA AND INTER-DISCIPLINARY CHECKS (IDC)	R.R.L.

PROJECT

RIYADH METRO PROJECT

PACKAGE 2

LINE 3



ORIGINATOR	CHECK	REVIEW	APPROVAL
M.G.N.	P.P.M.	R.R.L.	
DATE	APRIL 2016		
SCALES		ORIGINAL SIZE A1	
A1= 1/50			
A3= 1/100			
0		1.25 2.5m	

DRAWING

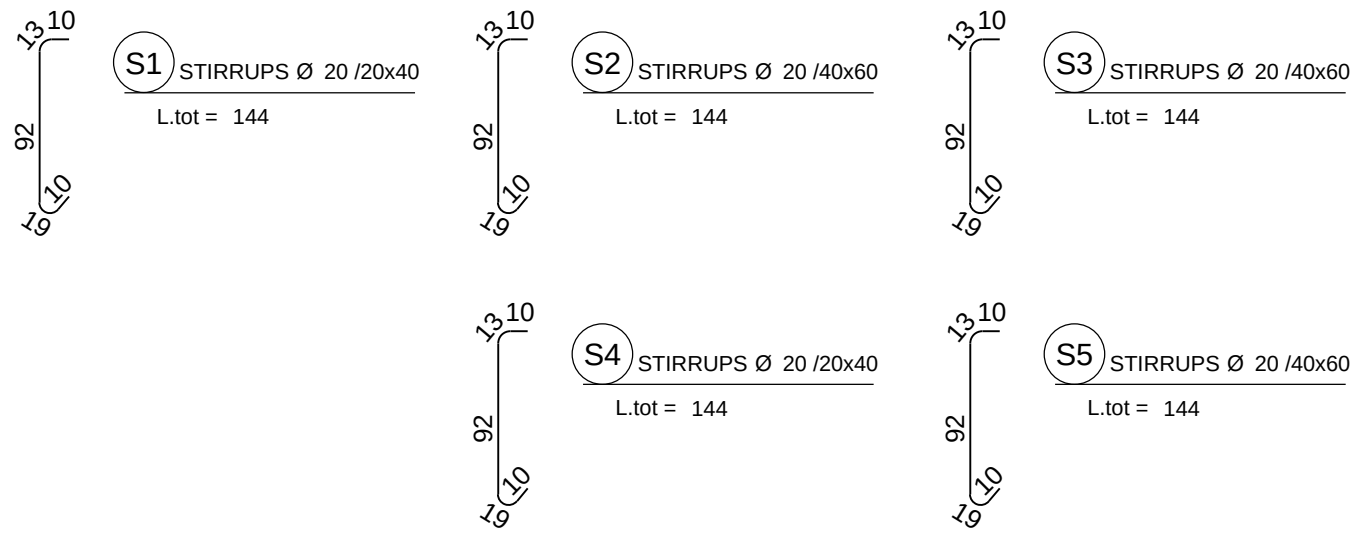
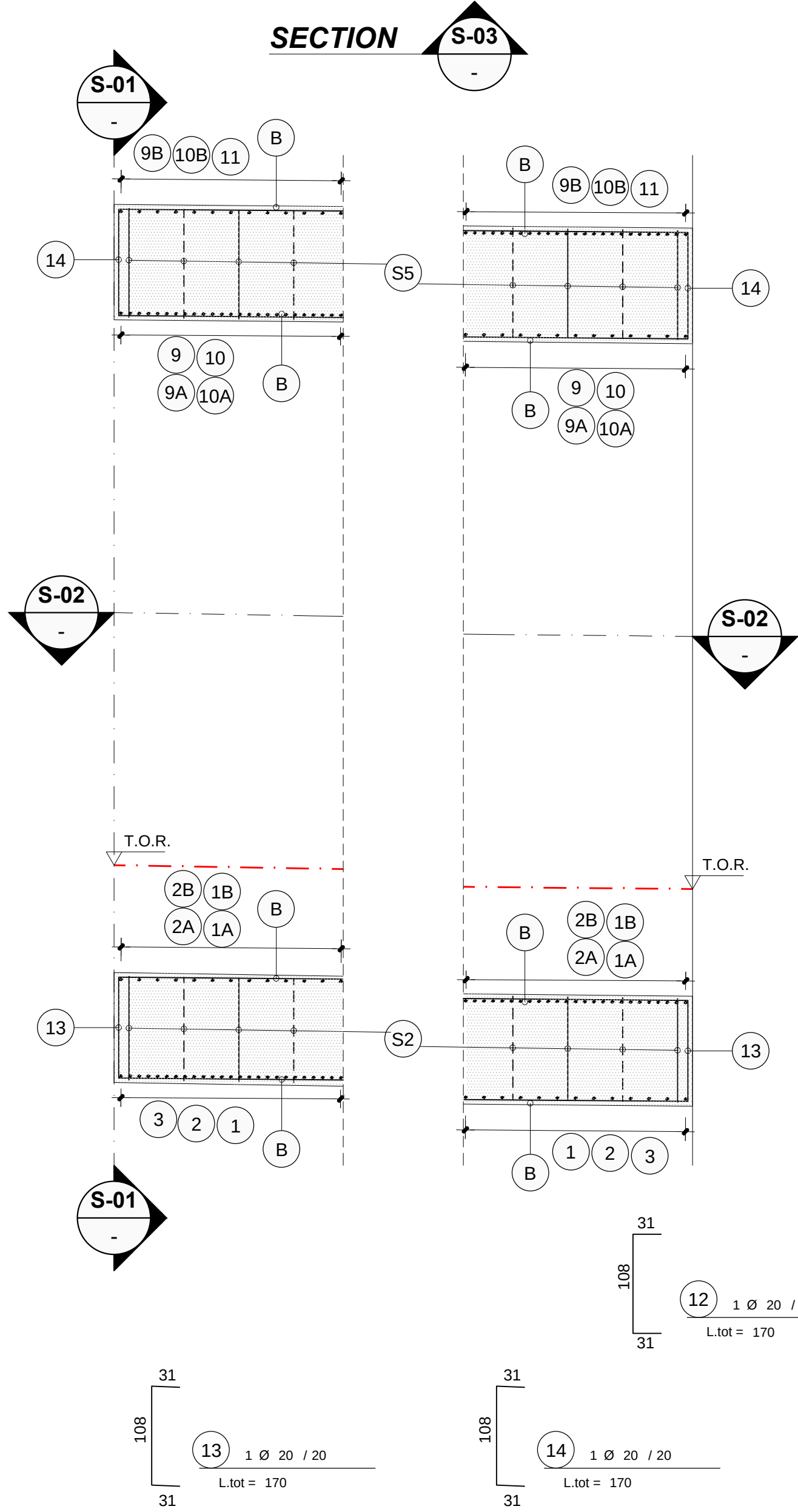
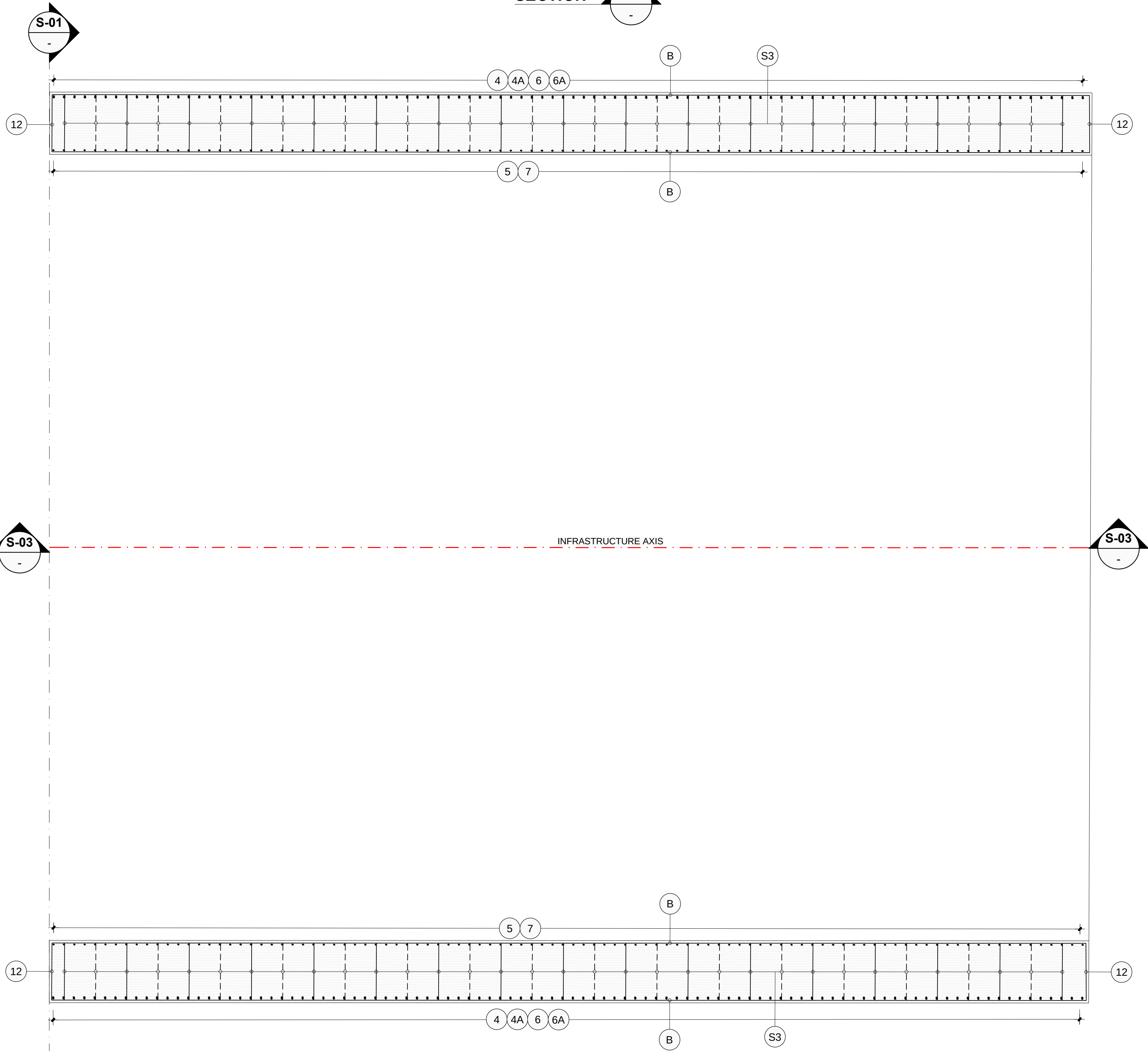
UNDERGROUND SECTION
90% DETAILED DESIGN
CUT AND COVER RAMP ON 3J2 SIDE
PERMANENT WORKS
CROSS SECTION - REINFORCEMENT

ANM DRAWING NUMBER	REVISION	SHEET
M-ANM-3J1TU2-CTCC-EDR-200034	P1	9 of 24
ALTERNATE DOCUMENT NUMBER	REVISION	SHEET
M-ANM-3J1TU2-CTCC-EDR-200034	P1	9 of 24

SEGMENT 11-12-13-14-15-16-17-18

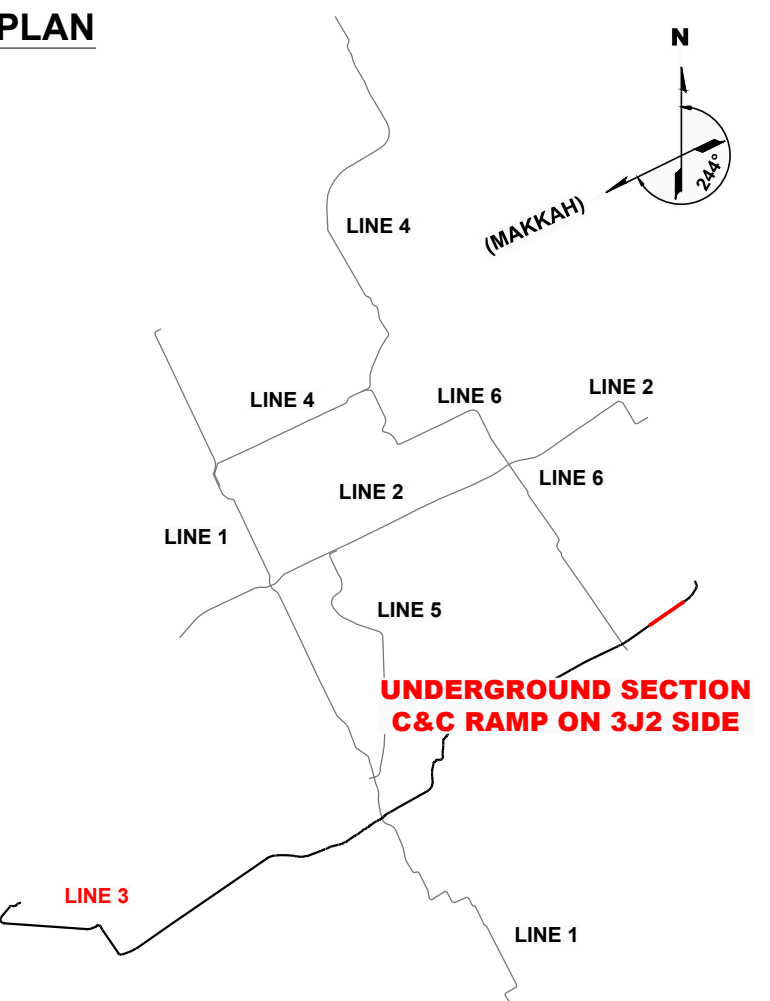
SECTION

S-02



ALL THE LONGITUDINAL BARS SHOULD BE BENT AT THE END OF THE SLABS/WALLS. THE LENGHT OF THE BENT IS VARIABLE DEPENDING ON THE STRUCTURAL ELEMENT THICKNESS AND SHALL BE ALWAYS >100

KEY PLAN

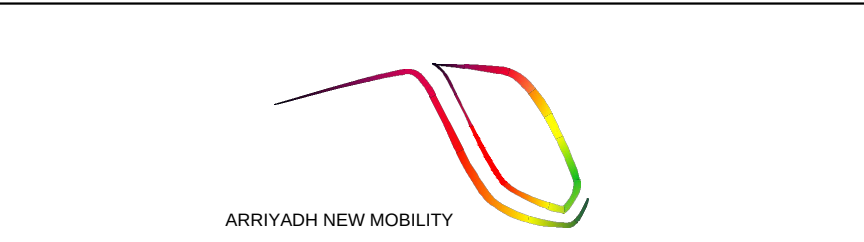


NOTES:

1. DIMENSIONS IN CENTIMETERS
2. REINFORCEMENT BAR NUMBERING IS RELATED TO EACH SEGMENT
3. SECTION NUMBERING IS RELATED TO EACH SEGMENT

P1	01.04.2016	INTRA AND INTER-DISCIPLINARY CHECKS (IDC)	R.R.L.
REV.	DATE	DESCRIPTION	APP.

PROJECT
RIYADH METRO PROJECT
PACKAGE 2
LINE 3



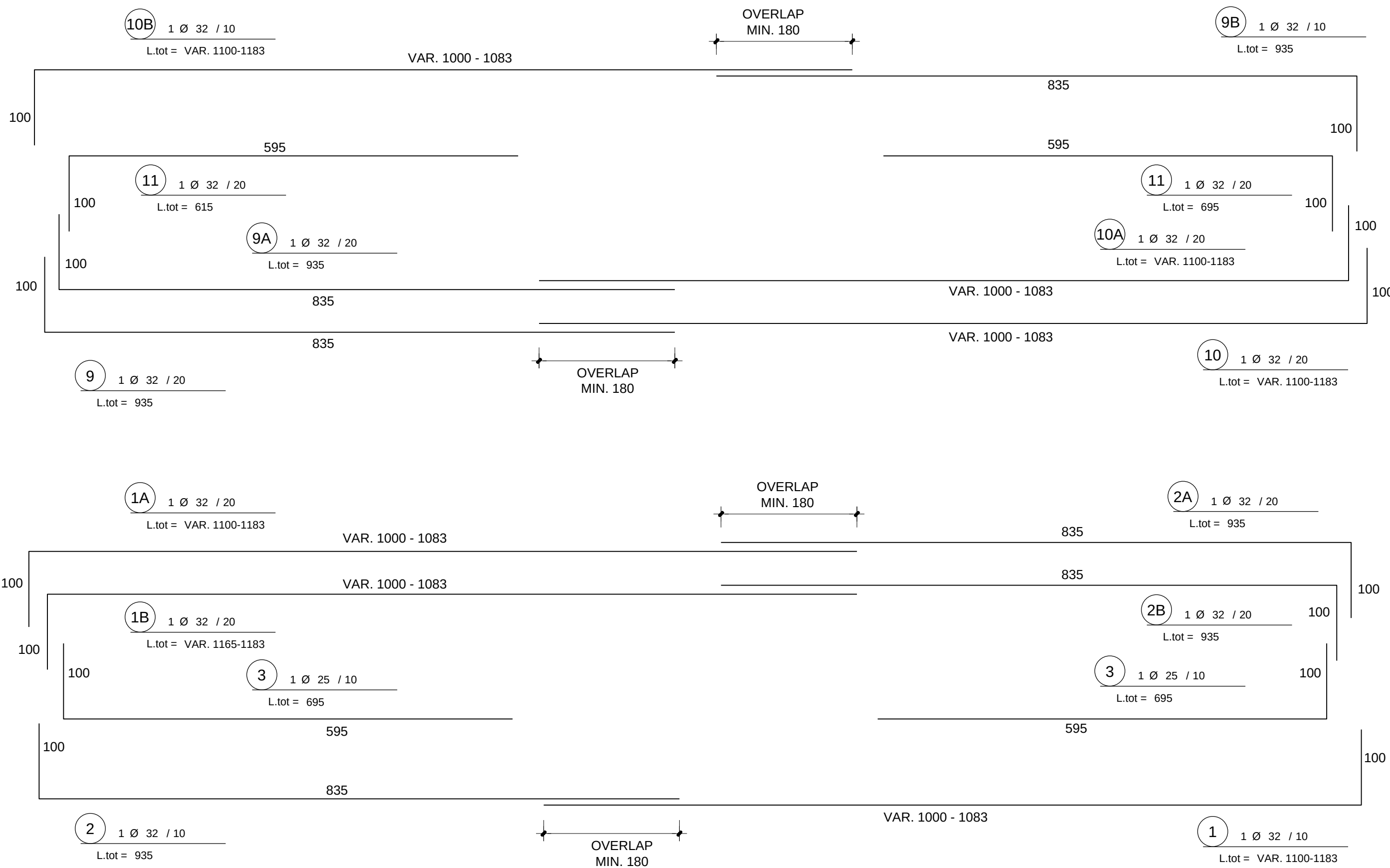
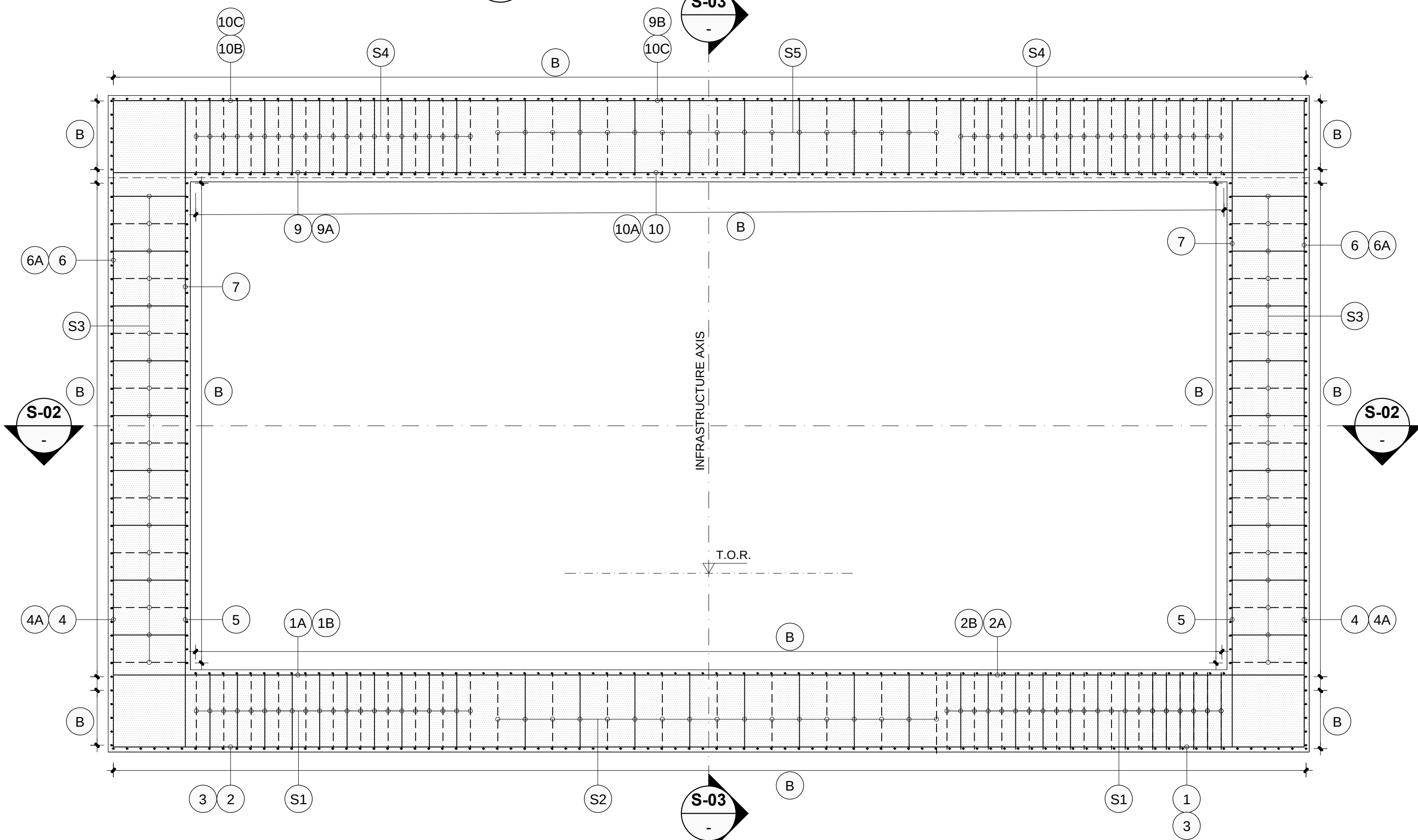
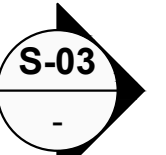
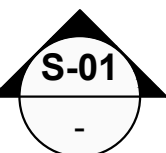
ORIGINATOR	CHECK	REVIEW	APPROVAL
M.G.N.	P.P.M.	R.R.L.	
DATE	APRIL 2016	SCALES	ORIGINAL SIZE A1
		A1= 1/50 A3= 1/100	
		0 1.25 2.5m	

DRAWING
UNDERGROUND SECTION
90% DETAILED DESIGN
CUT AND COVER RAMP ON 3J2 SIDE
PERMANENT WORKS
CROSS SECTION - REINFORCEMENT

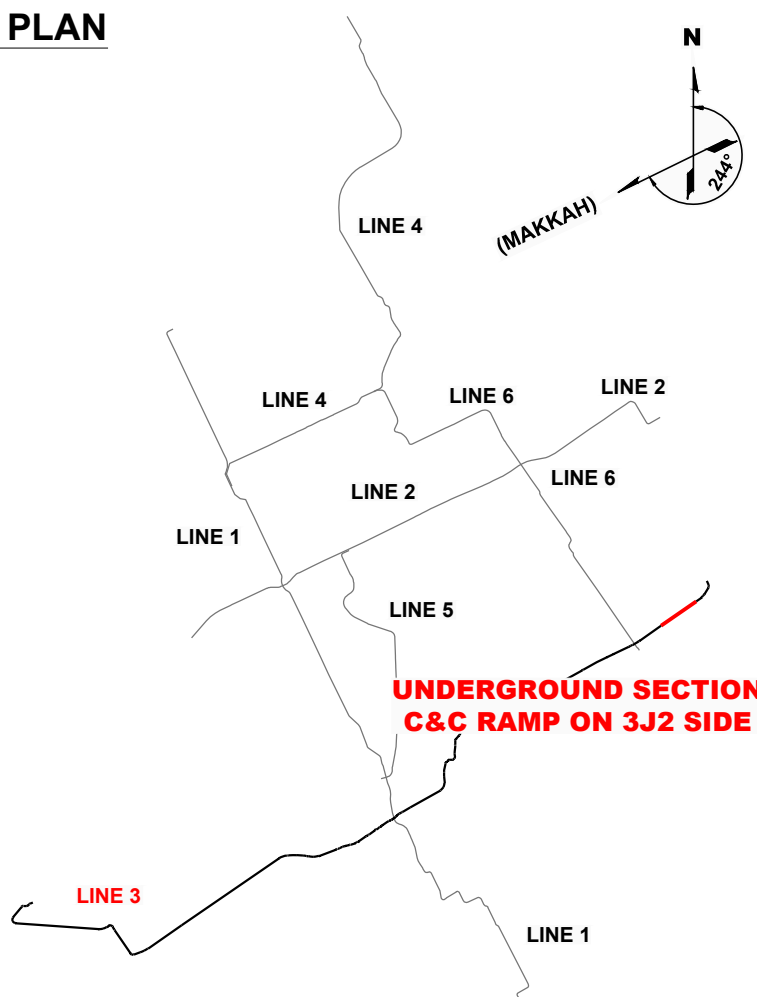
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ALTERNATE DOCUMENT NUMBER	REVISION	SHEET
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SEGMENT 11-12-13-14-15-16-17-18

SECTION



KEY PLAN

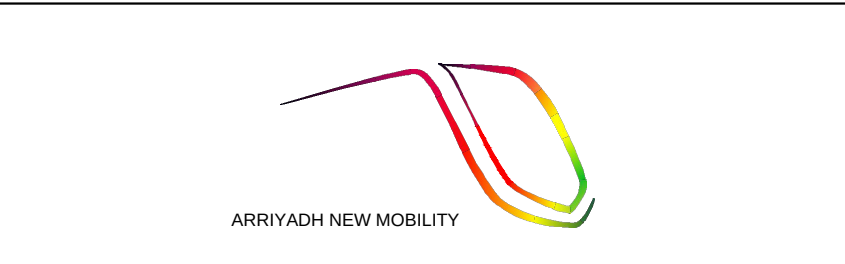


NOTES:

- DIMENSIONS IN CENTIMETERS
- REINFORCEMENT BAR NUMBERING IS RELATED TO EACH SEGMENT
- SECTION NUMBERING IS RELATED TO EACH SEGMENT

REV.	DATE	DESCRIPTION	APP.
P1	01.04.2016	INTRA AND INTER-DISCIPLINARY CHECKS (IDC)	R.R.L.

PROJECT
RIYADH METRO PROJECT
PACKAGE 2
LINE 3

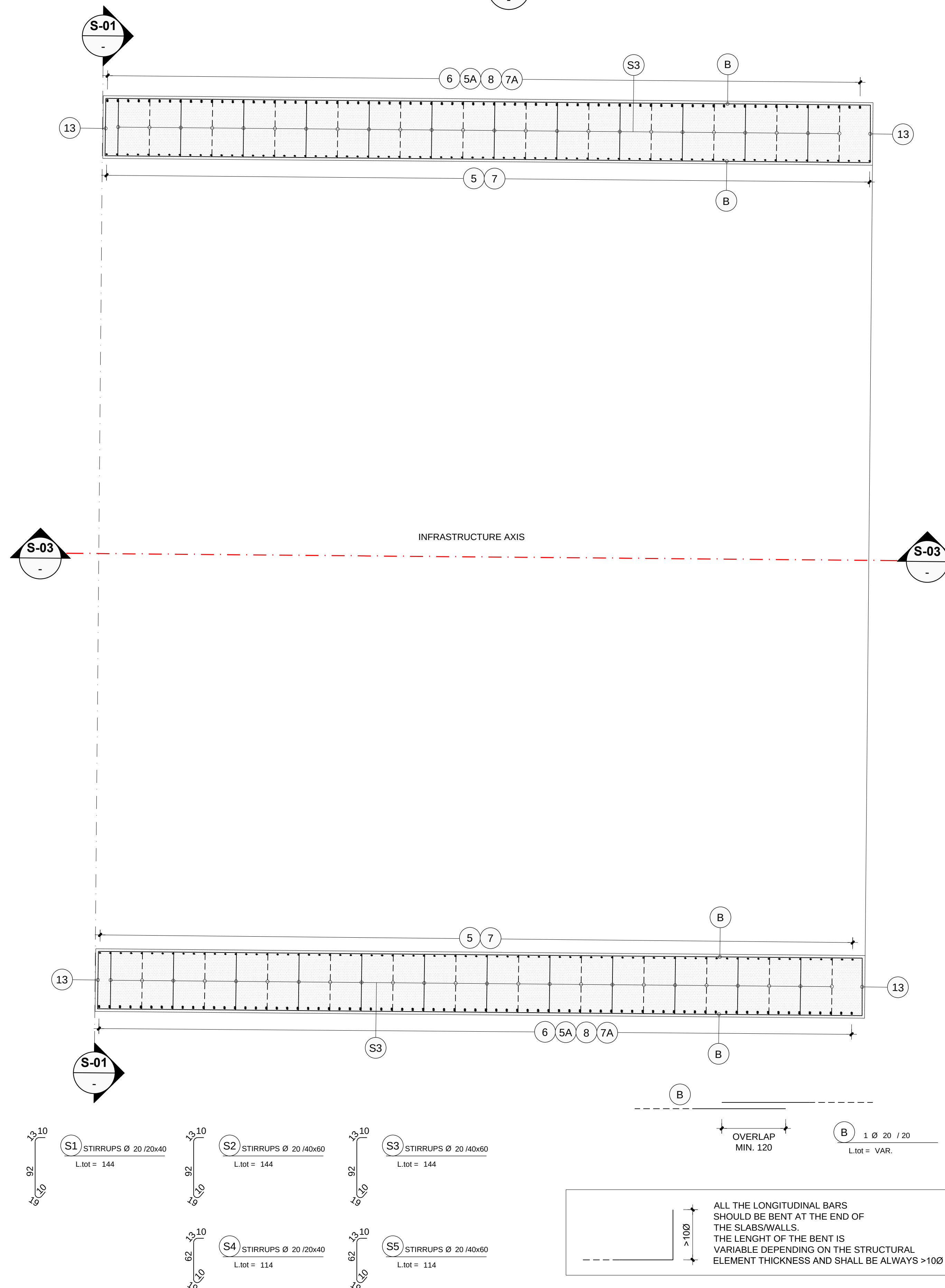


ORIGINATOR	CHECK	REVIEW	APPROVAL
M.G.N.	P.P.M.	R.R.L.	
DATE	APRIL 2016	SCALES	ORIGINAL SIZE A1
		A1= 1/50	
		A3= 1/100	
		0 1.25 2.5m	

DRAWING
UNDERGROUND SECTION
90% DETAILED DESIGN
CUT AND COVER RAMP ON 3J2 SIDE
PERMANENT WORKS
CROSS SECTION - REINFORCEMENT

ANM DRAWING NUMBER	REVISION	SHEET
M-ANM-3J1TU2-CTCC-EDR-200034	P1	11 of 24
ALTERNATE DOCUMENT NUMBER	REVISION	SHEET
M-ANM-3J1TU2-CTCC-EDR-200034	P1	11 of 24

SECTION



1. DIMENSIONS IN CENTIMETERS
2. REINFORCEMENT BAR NUMBERING IS RELATED TO EACH SEGMENT
3. SECTION NUMBERING IS RELATED TO EACH SEGMENT

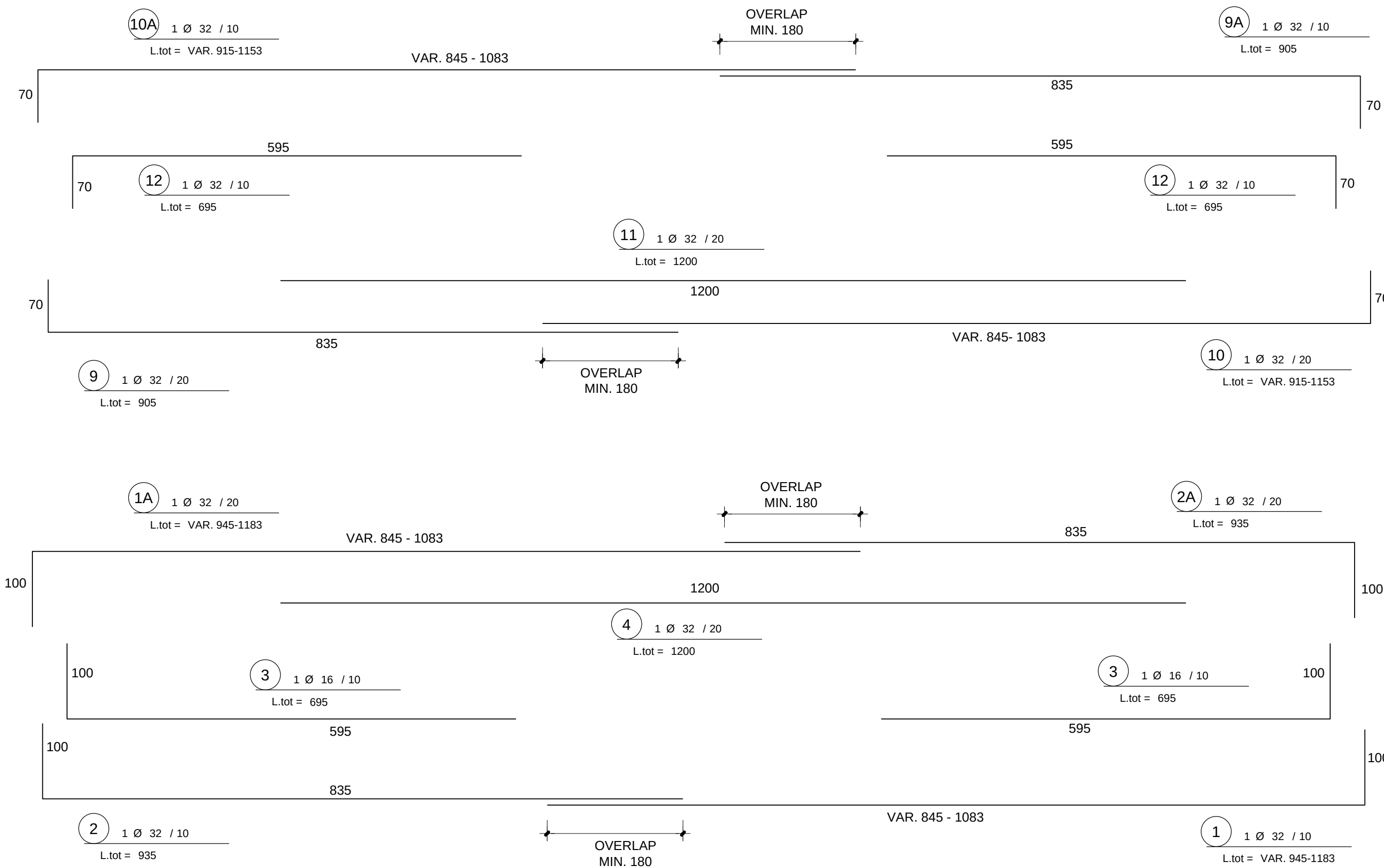
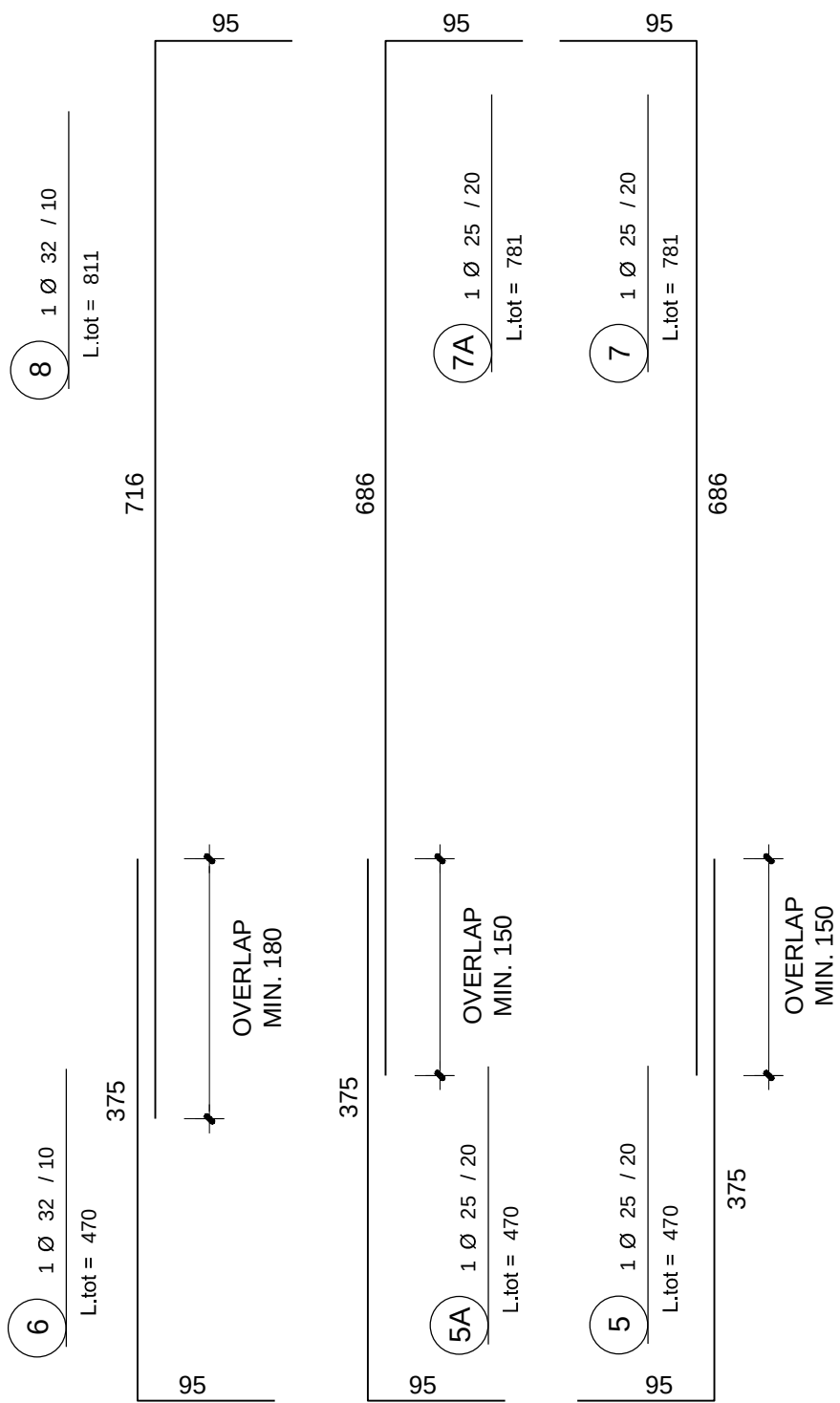
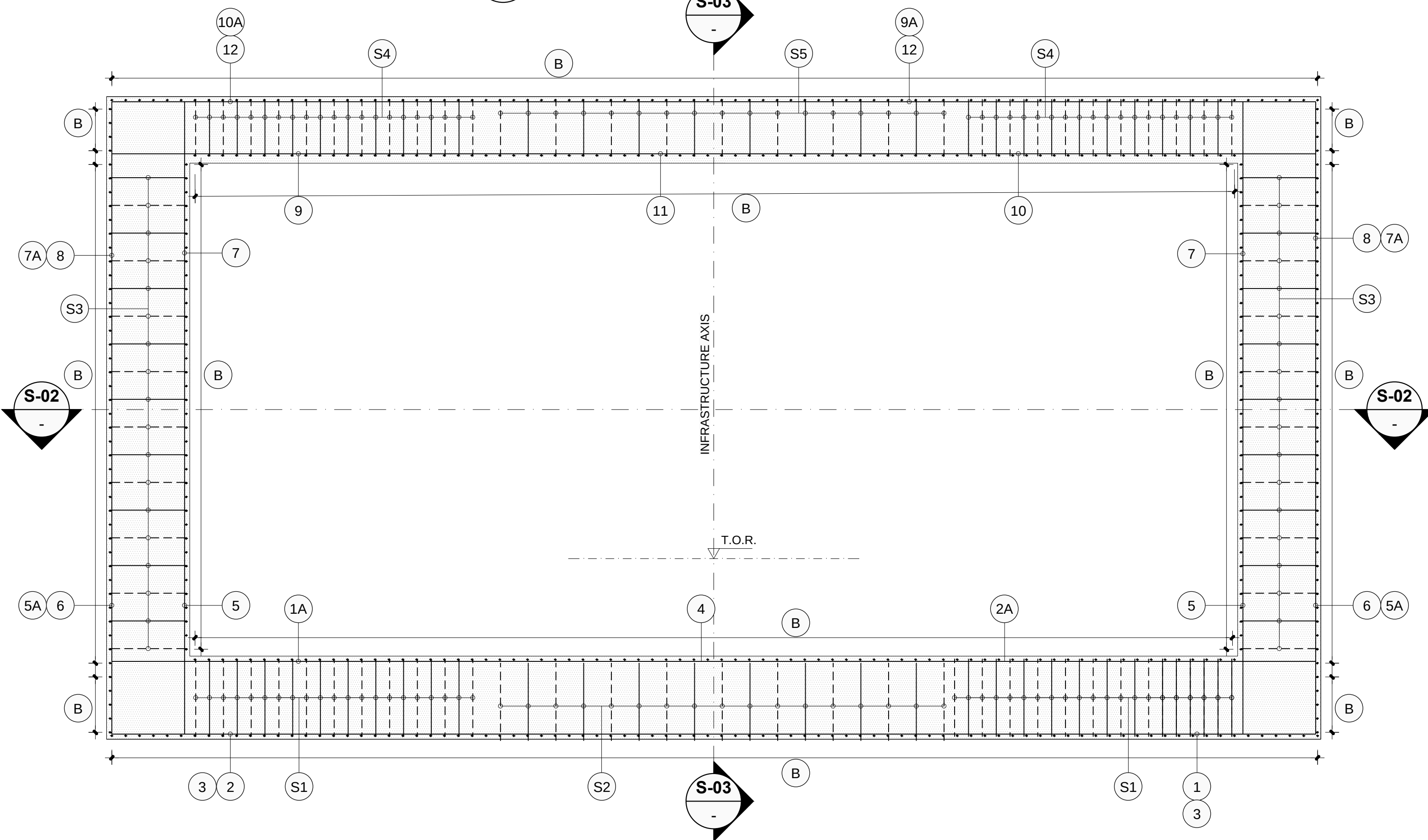
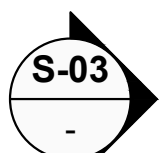
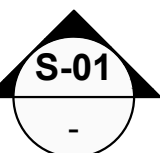
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REV.	DATE	DESCRIPTION			APP.

ORIGINATOR	CHECK	REVIEW	APPROVAL
M.G.N.	P.P.M.	R.R.L.	
DATE		SCALES	ORIGINAL SIZE A1
APRIL 2016		A1= 1/50 A3= 1/100	

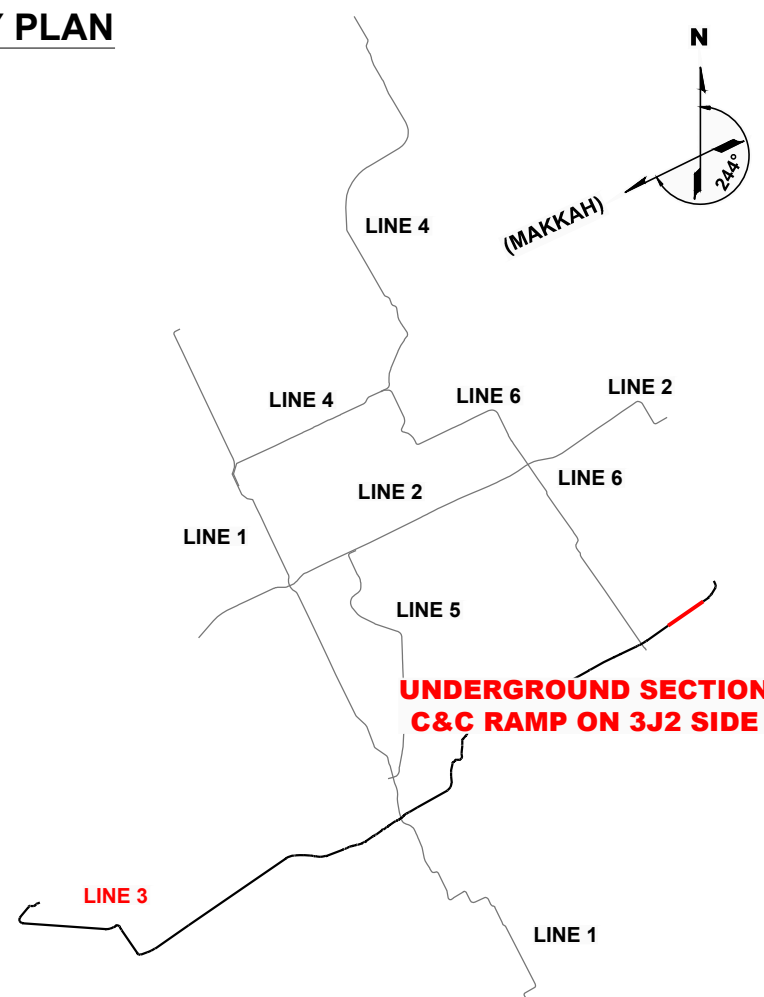
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ALTERNATE DOCUMENT NUMBER M-ANM-3J1TU2-CTCC-EDR-200034	REVISION P1	SHEET 12 of 24

SEGMENT 19-20-21-22-23

SECTION



KEY PLAN

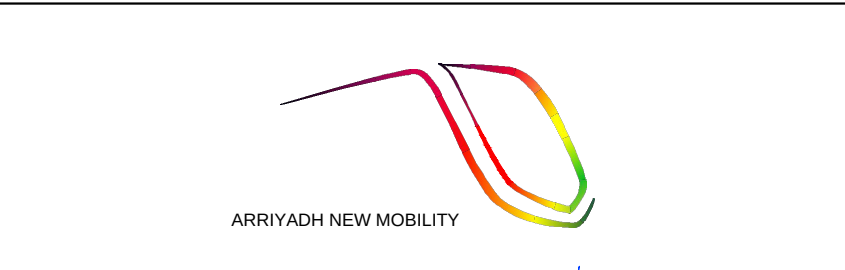


NOTES:

1. DIMENSIONS IN CENTIMETERS
2. REINFORCEMENT BAR NUMBERING IS RELATED TO EACH SEGMENT
3. SECTION NUMBERING IS RELATED TO EACH SEGMENT

REV.	DATE	DESCRIPTION	APP.
P1	01.04.2016	INTRA AND INTER-DISCIPLINARY CHECKS (IDC)	R.R.L.

PROJECT
RIYADH METRO PROJECT
PACKAGE 2
LINE 3

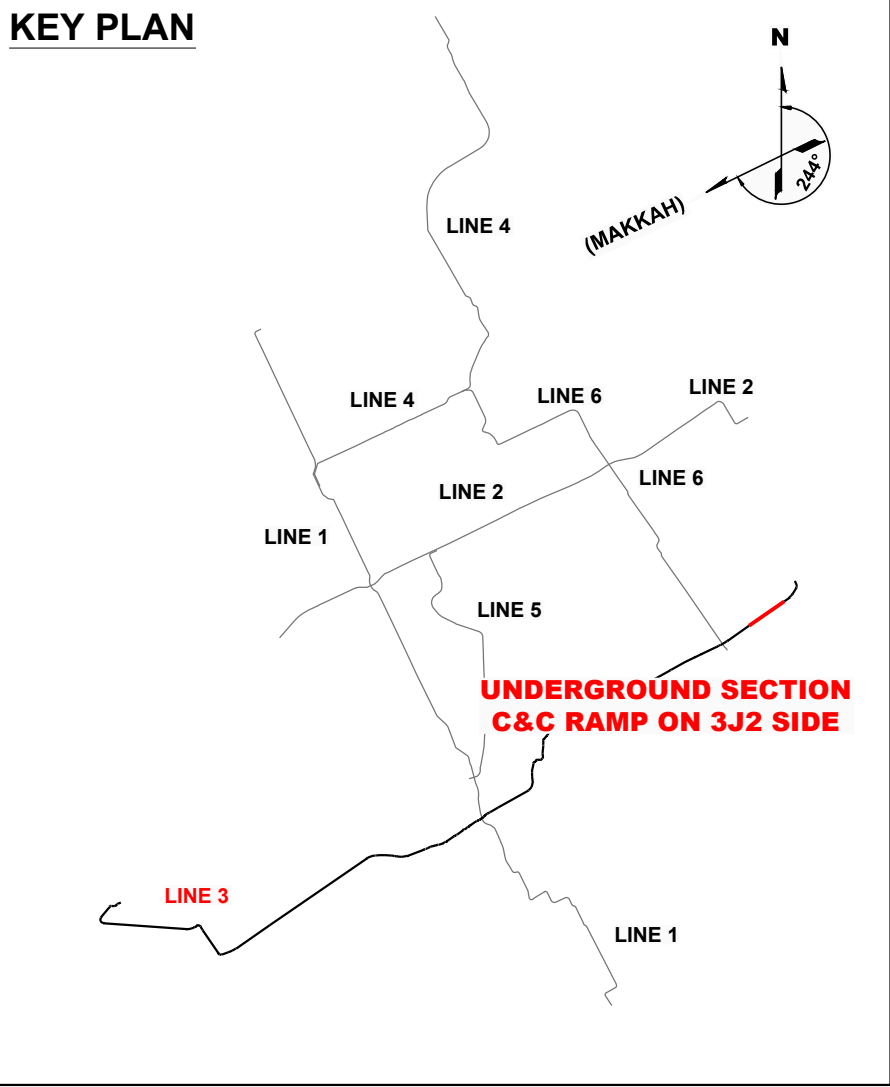
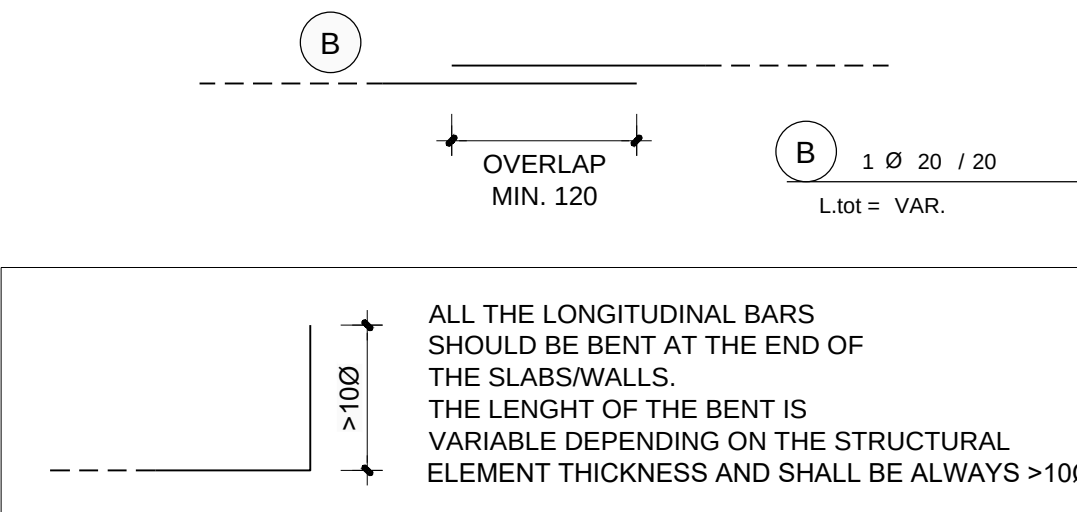
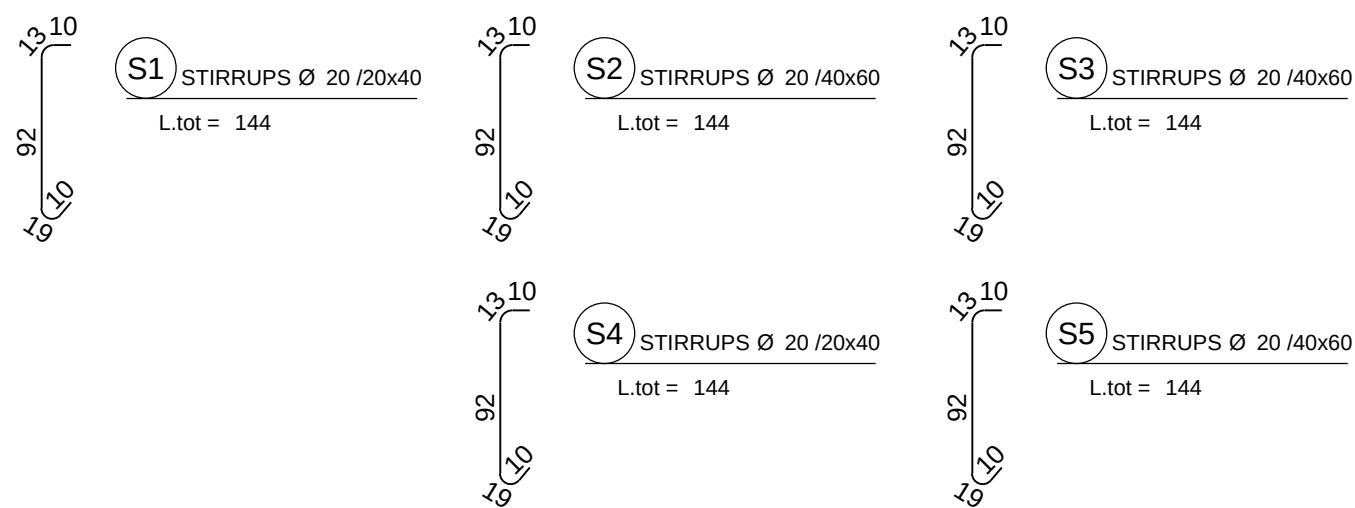
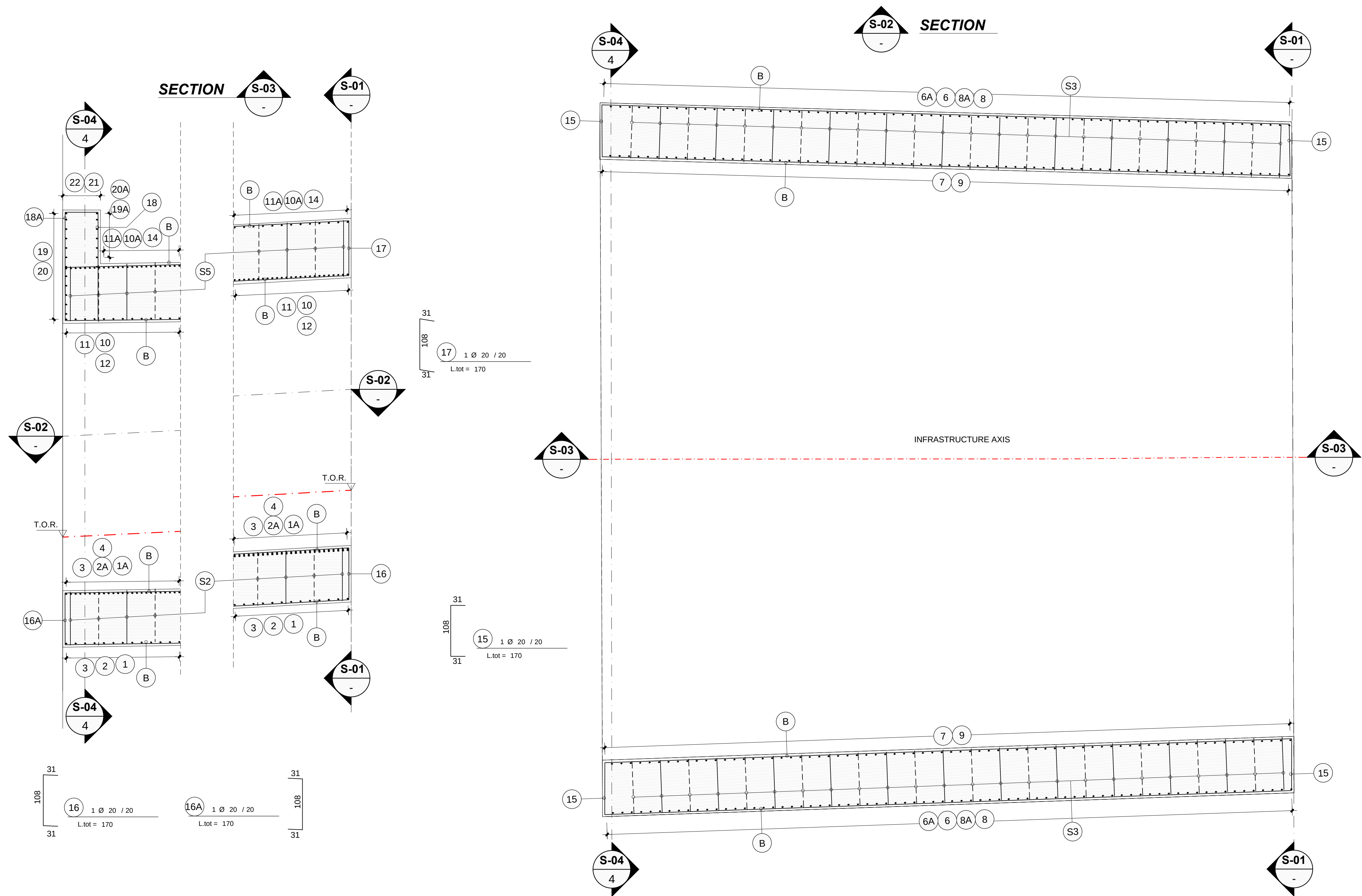


ORIGINATOR M.G.N.	CHECK P.P.M.	REVIEW R.R.L.	APPROVAL
DATE APRIL 2016	SCALES A1= 1/50 A3= 1/100 0 1.25 2.5m	ORIGINAL SIZE A1	

DRAWING
UNDERGROUND SECTION
90% DETAILED DESIGN
CUT AND COVER RAMP ON 3J2 SIDE
PERMANENT WORKS
CROSS SECTION - REINFORCEMENT

ANM DRAWING NUMBER M-ANM-3J1TU2-CTCC-EDR-200034	REVISION P1	SHEET 13 of 24
ALTERNATE DOCUMENT NUMBER M-ANM-3J1TU2-CTCC-EDR-200034	REVISION P1	SHEET 13 of 24

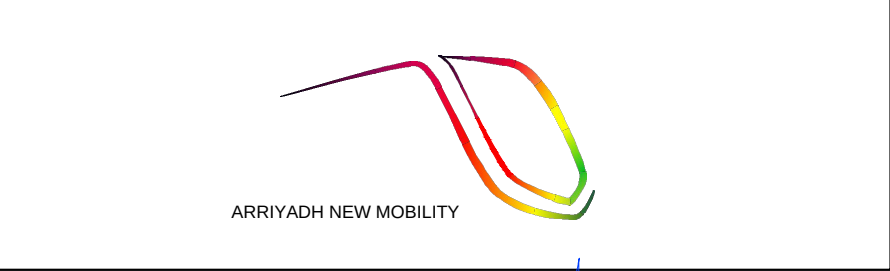
SEGMENT 24



- NOTES:**
1. DIMENSIONS IN CENTIMETERS
 2. REINFORCEMENT BAR NUMBERING IS RELATED TO EACH SEGMENT
 3. SECTION NUMBERING IS RELATED TO EACH SEGMENT

REV.	DATE	DESCRIPTION	APP.
P1	01.04.2016	INTRA AND INTER-DISCIPLINARY CHECKS (IDC)	R.R.L.

PROJECT
RIYADH METRO PROJECT
PACKAGE 2
LINE 3

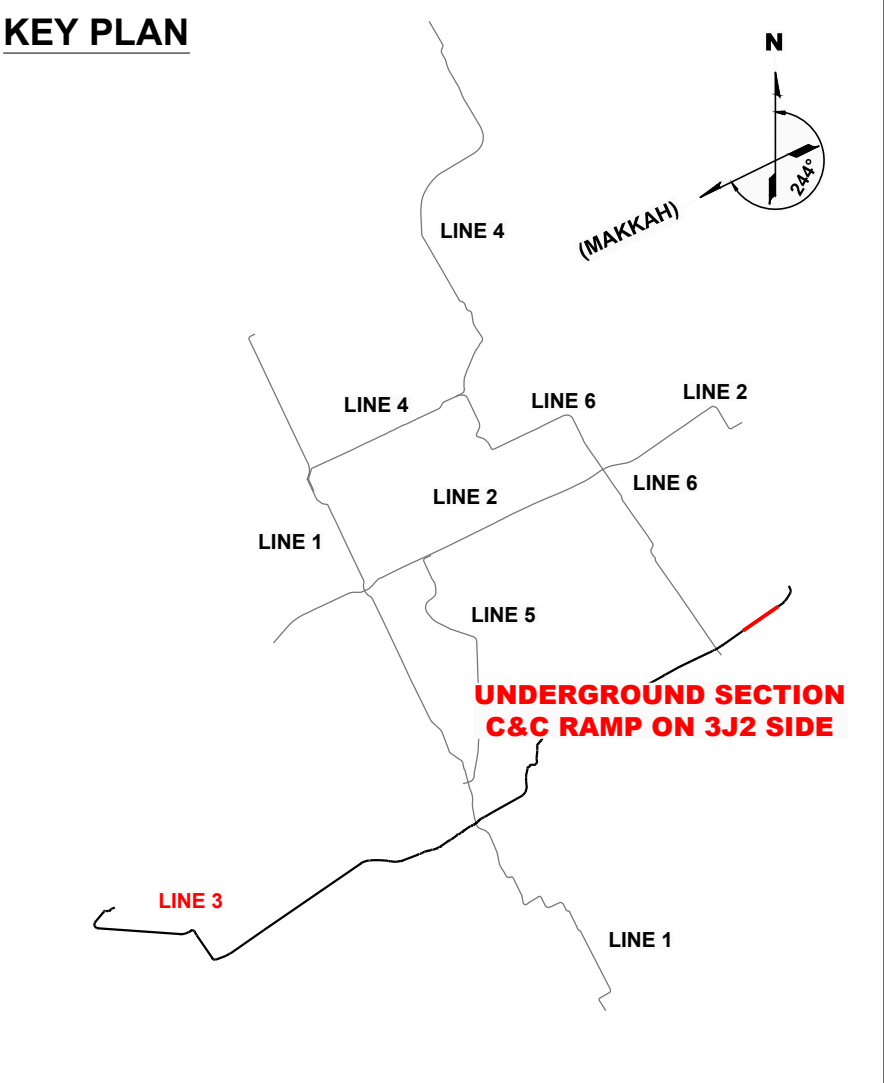


ORIGINATOR	CHECK	REVIEW	APPROVAL
M.G.N.	P.P.M.	R.R.L.	
DATE	APRIL 2016	SCALES	ORIGINAL SIZE A1
		A1= 1/50	
		A3= 1/100	
		0	1.25 2.5m

DRAWING
UNDERGROUND SECTION
90% DETAILED DESIGN
CUT AND COVER RAMP ON 3J2 SIDE
PERMANENT WORKS
CROSS SECTION - REINFORCEMENT

ANM DRAWING NUMBER	REVISION	SHEET
M-ANM-3J1TU2-CTCC-EDR-200034	P1	14 of 24
ALTERNATE DOCUMENT NUMBER	REVISION	SHEET
M-ANM-3J1TU2-CTCC-EDR-200034	P1	14 of 24

SECTION **S-01**



NOTES:

1. DIMENSIONS IN CENTIMETERS
2. REINFORCEMENT BAR NUMBERING IS RELATED TO EACH SEGMENT
3. SECTION NUMBERING IS RELATED TO EACH SEGMENT

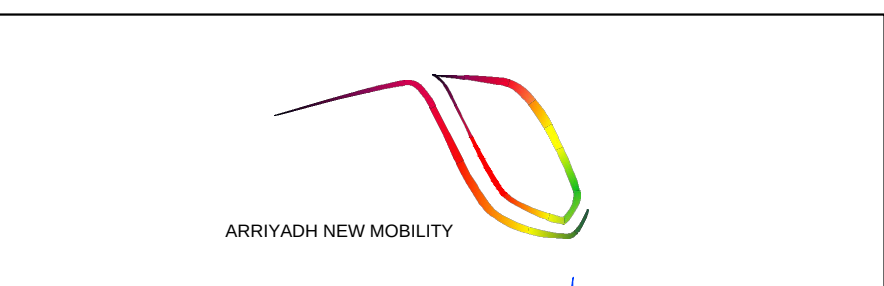
P1	01.04.2016	INTRA AND INTER-DISCIPLINARY CHECKS (IDC)	R.R.L.
REV.	DATE	DESCRIPTION	APP.

PROJECT

RIYADH METRO PROJECT

PACKAGE 2

LINE 3



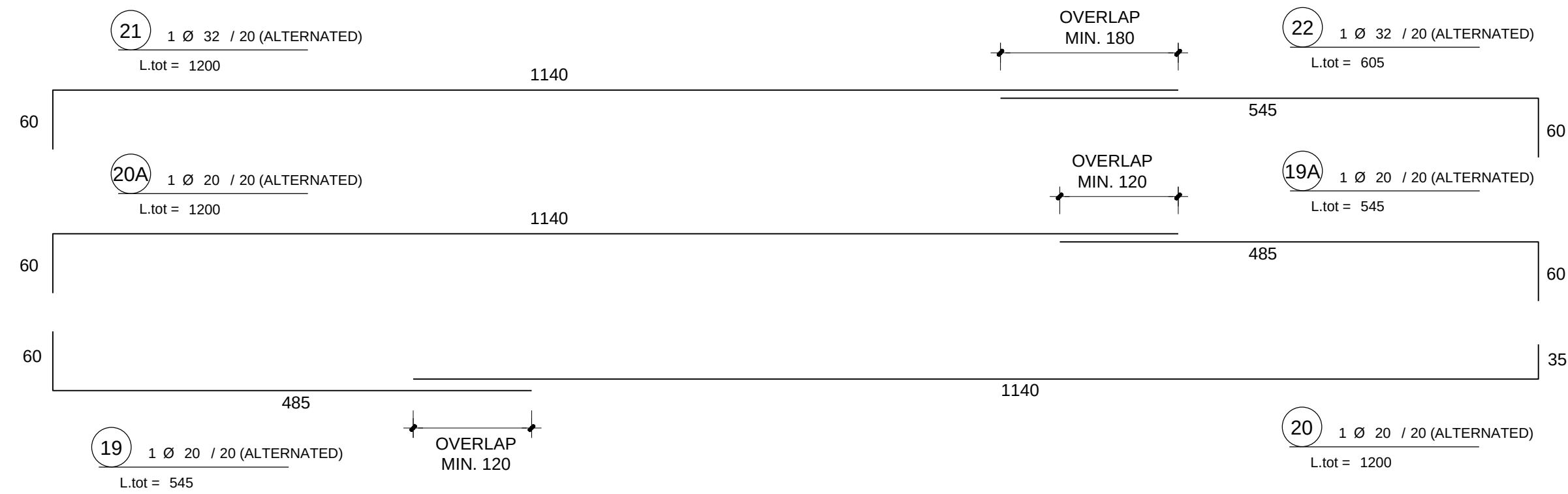
ORIGINATOR	CHECK	REVIEW	APPROVAL
M.G.N.	P.P.M.	R.R.L.	
DATE		SCALES	ORIGINAL SIZE A1
APRIL 2016		A1= 1/50 A3= 1/100 0 1.25 2.5m	

DRAWING

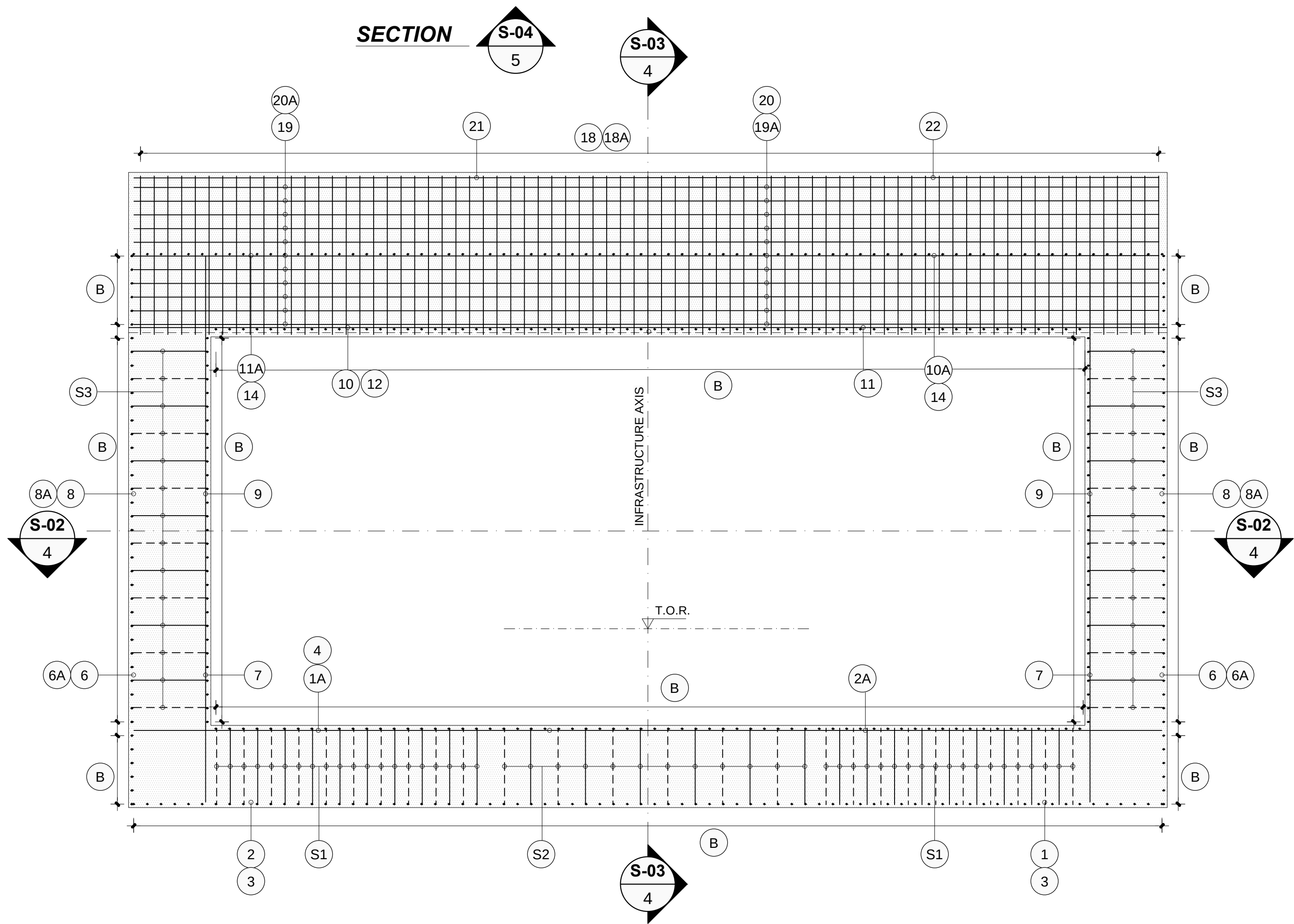
UNDERGROUND SECTION
90% DETAILED DESIGN
CUT AND COVER RAMP ON 3J2 SIDE
PERMANENT WORKS
CROSS SECTION - REINFORCEMENT

ANM DRAWING NUMBER M-ANM-3J1TU2-CTCC-EDR-200034	REVISION P1	SHEET 15 of 24
ALTERNATE DOCUMENT NUMBER M-ANM-3J1TU2-CTCC-EDR-200034	REVISION P1	SHEET 15 of 24

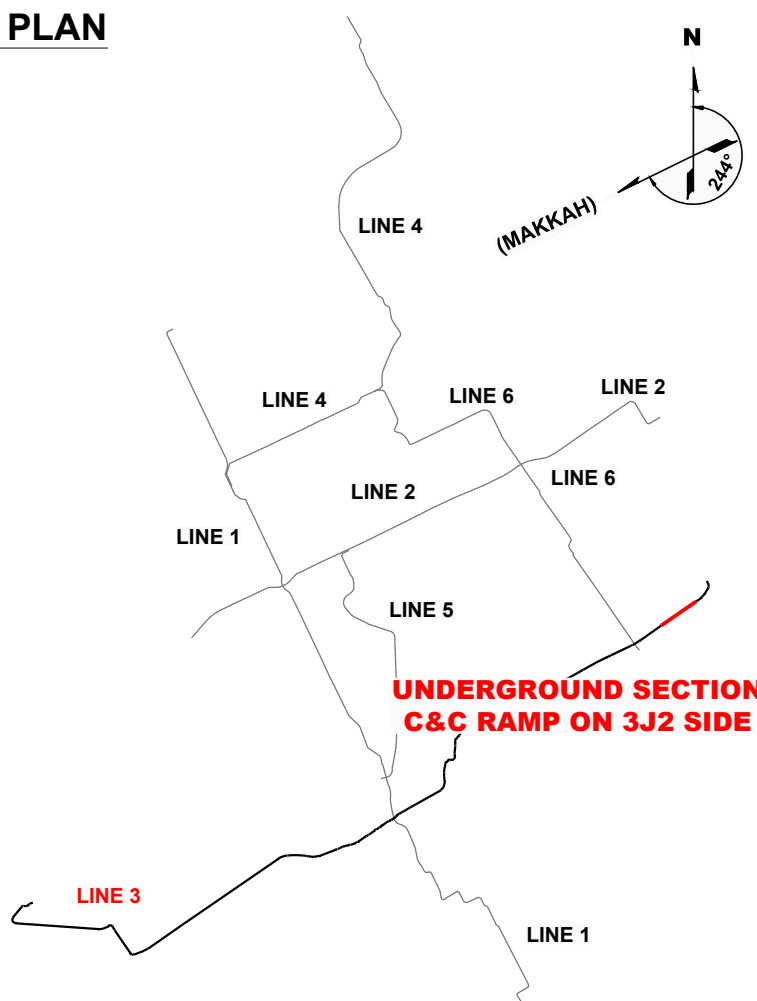
SEGMENT 24



SECTION



KEY PLAN



NOTES:

1. DIMENSIONS IN CENTIMETERS
2. REINFORCEMENT BAR NUMBERING IS RELATED TO EACH SEGMENT
3. SECTION NUMBERING IS RELATED TO EACH SEGMENT

REV.	DATE	DESCRIPTION	APP.
P1	01.04.2016	INTRA AND INTER-DISCIPLINARY CHECKS (IDC)	R.R.L.

PROJECT
RIYADH METRO PROJECT
PACKAGE 2
LINE 3

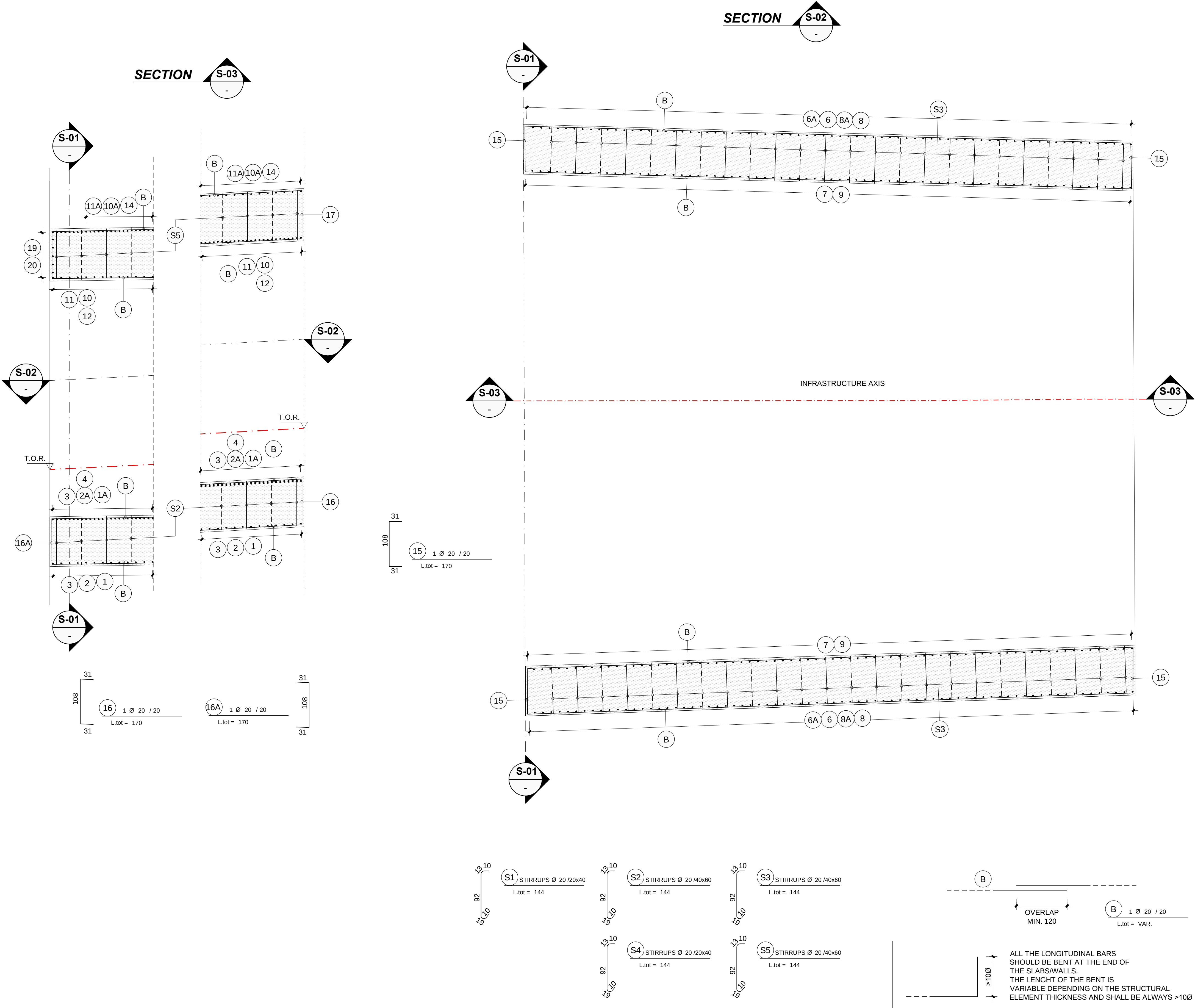


ORIGINATOR	CHECK	REVIEW	APPROVAL
M.G.N.	P.P.M.	R.R.L.	
DATE	APRIL 2016	SCALES A1= 1/50 A3= 1/100 0 1.25 2.5m	ORIGINAL SIZE A1

DRAWING
UNDERGROUND SECTION
90% DETAILED DESIGN
CUT AND COVER RAMP ON 3J2 SIDE
PERMANENT WORKS
CROSS SECTION - REINFORCEMENT

ANM DRAWING NUMBER	REVISION	SHEET
M-ANM-3J1TU2-CTCC-EDR-200034	P1	16 of 24
ALTERNATE DOCUMENT NUMBER	REVISION	SHEET
M-ANM-3J1TU2-CTCC-EDR-200034	P1	16 of 24

SEGMENT 25



SECTION



NOTES:

1. DIMENSIONS IN CENTIMETERS
2. REINFORCEMENT BAR NUMBERING IS RELATED TO EACH SEGMENT
3. SECTION NUMBERING IS RELATED TO EACH SEGMENT

P1	01.04.2016	INTRA AND INTER-DISCIPLINARY CHECKS (IDC)	R.F.
REV.	DATE	DESCRIPTION	AF

PROJECT

RIYADH METRO PROJECT
PACKAGE 2
LINE 3



ORIGINATOR	CHECK	REVIEW	APPROVAL
M.G.N.	P.P.M.	R.R.L.	
DATE		SCALES	ORIGINAL SIZE A
APRIL 2016		A1= 1/50 A3= 1/100 0 1.25 2.	

DRAWING

UNDERGROUND SECTION
90% DETAILED DESIGN
CUT AND COVER RAMP ON 3J2 SIDE
PERMANENT WORKS
CROSS SECTION - REINFORCEMENT

ANM DRAWING NUMBER M-ANM-3J1TU2-CTCC-EDR-200034	REVISION P1	SHEET 18 of
ALTERNATE DOCUMENT NUMBER M-ANM-3J1TU2-CTCC-EDR-200034	REVISION P1	SHEET 18 of

SECTION

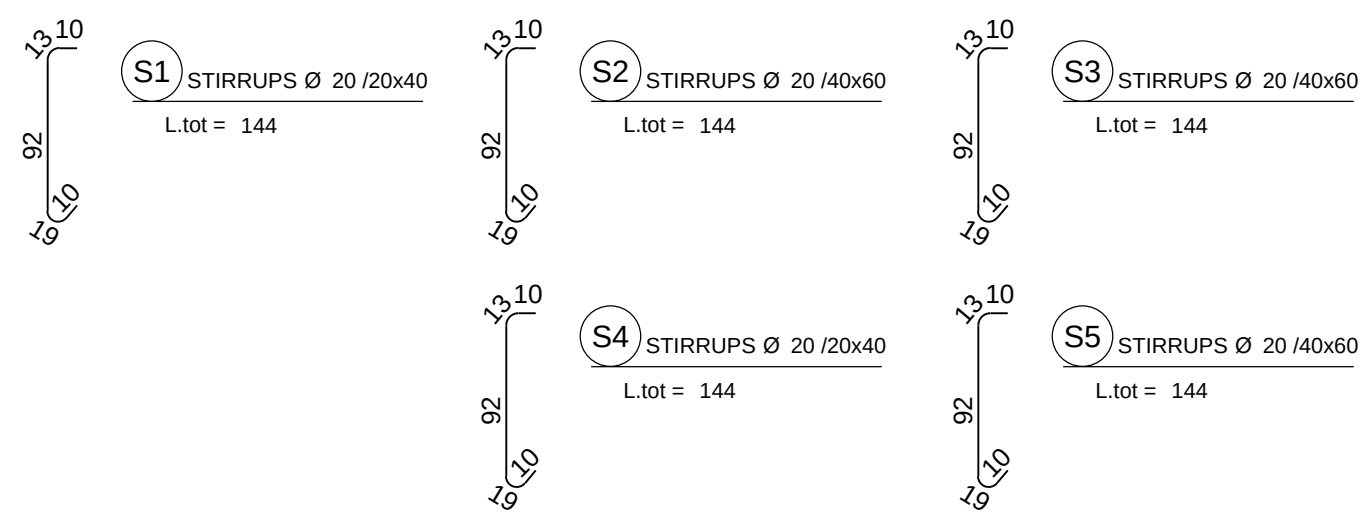


Diagram illustrating the overlap of reinforcement bars (B) between two slabs. The overlap length is labeled "OVERLAP MIN. 120". To the right, a circular detail "B" is shown with dimensions "1 Ø 20 / 20" and "L.tot = VAR.".

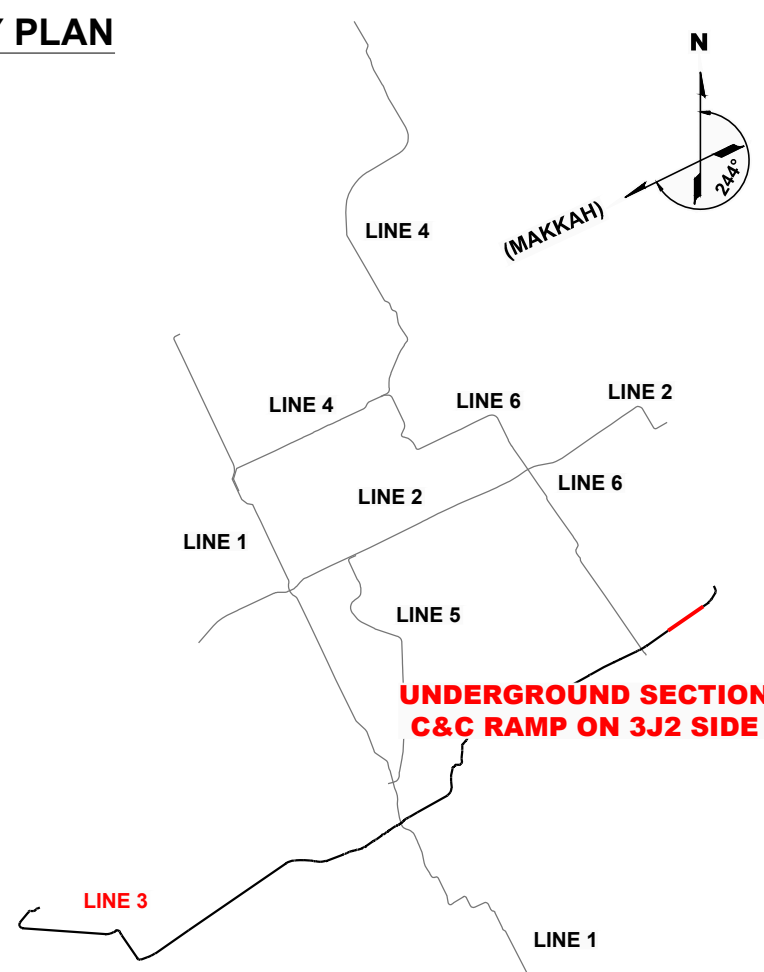
1. DIMENSIONS IN CENTIMETERS
2. REINFORCEMENT BAR NUMBERING IS RELATED TO EACH SEGMENT
3. SECTION NUMBERING IS RELATED TO EACH SEGMENT

P1	01.04.2016	INTRA AND INTER-DISCIPLINARY CHECKS (DC)			R.R.L.
REV.	DATE	DESCRIPTION			APP.

ORIGINATOR	CHECK	REVIEW	APPROVAL
M.G.N.	P.P.M.	R.R.L.	
DATE		SCALES	ORIGINAL SIZE A1
APRIL 2016		A1= 1/50 A3= 1/100	

ANM DRAWING NUMBER M-ANM-3J1TU2-CTCC-EDR-200034	REVISION P1	SHEET 19 of 24
ALTERNATE DOCUMENT NUMBER M-ANM-3J1TU2-CTCC-EDR-200034	REVISION P1	SHEET 19 of 24

SECTION



NOTES:

1. DIMENSIONS IN CENTIMETERS
2. REINFORCEMENT BAR NUMBERING IS RELATED TO EACH SEGMENT
3. SECTION NUMBERING IS RELATED TO EACH SEGMENT

P1	01.04.2016	INTRA AND INTER-DISCIPLINARY CHECKS (DC)	R.R.L.
REV.	DATE	DESCRIPTION	APP.

PROJECT

RIYADH METRO PROJECT
PACKAGE 2
LINE 3



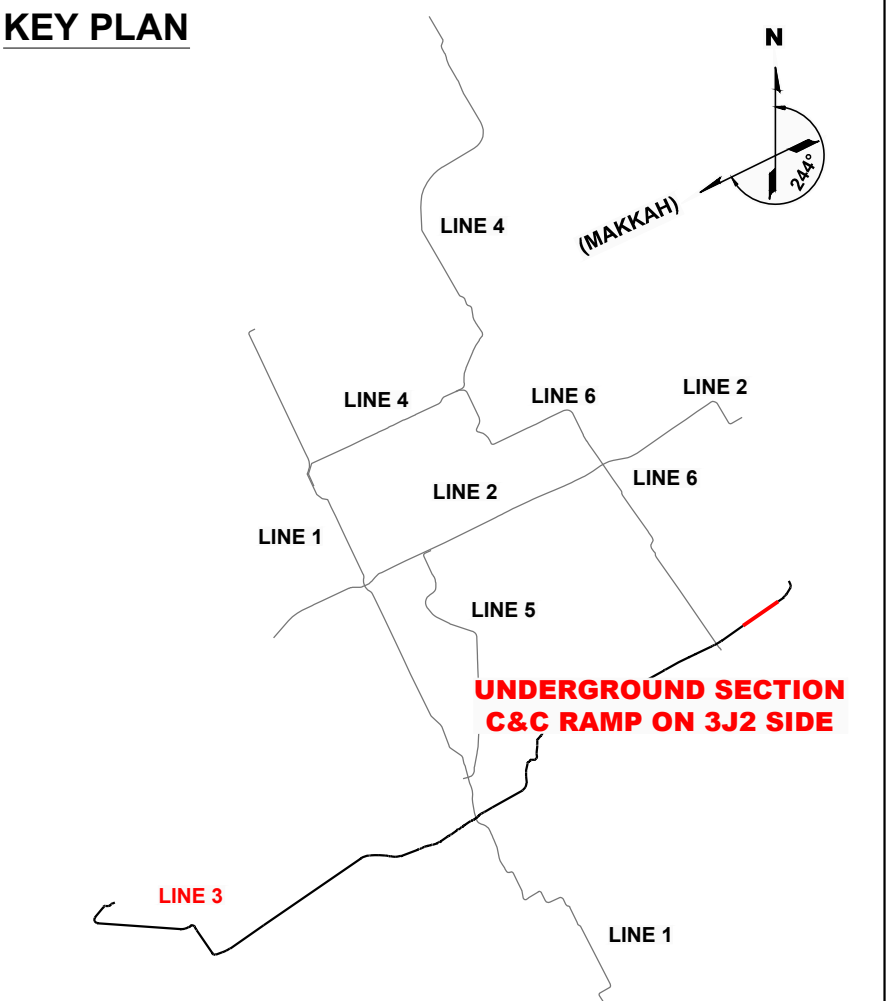
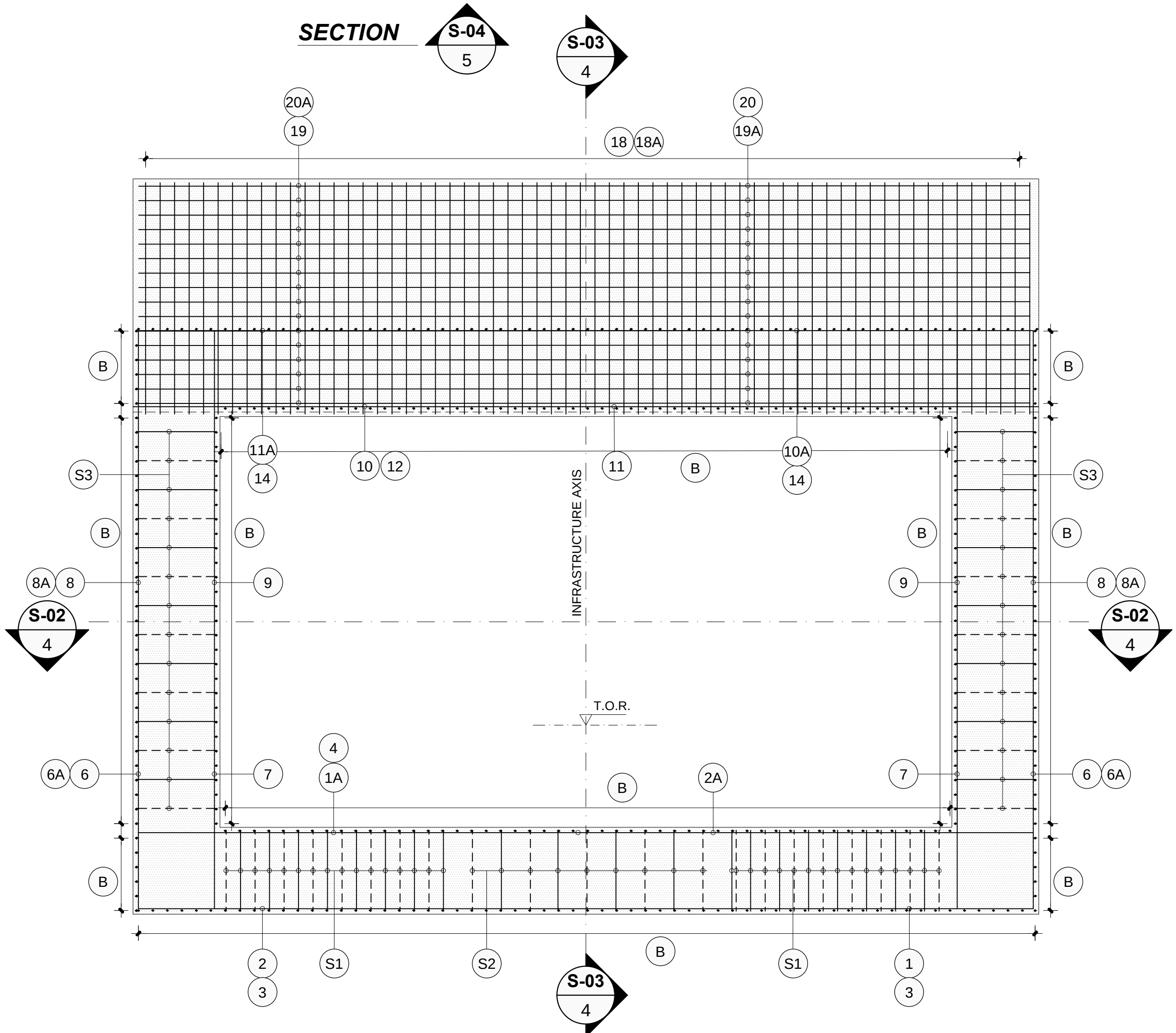
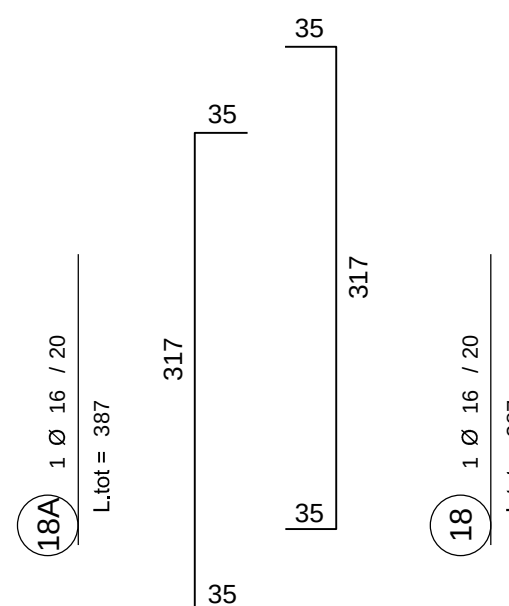
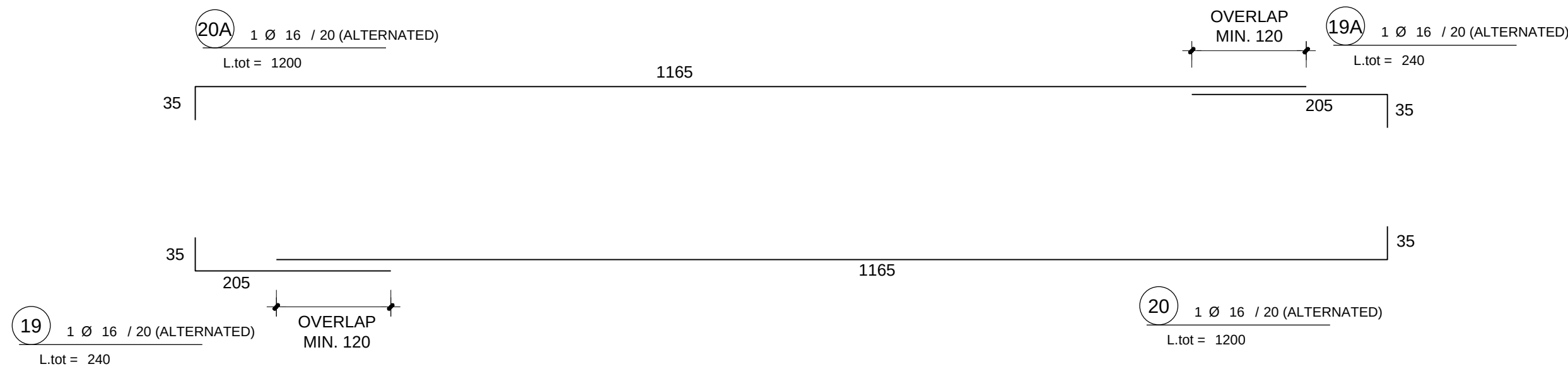
ORIGINATOR M.G.N.	CHECK P.P.M.	REVIEW R.R.L.	APPROVAL
DATE APRIL 2016		SCALES A1= 1/50 A3= 1/100 0 1.25 2.5m	ORIGINAL SIZE A1

DRAWING

UNDERGROUND SECTION
90% DETAILED DESIGN
CUT AND COVER RAMP ON 3J2 SIDE
PERMANENT WORKS
CROSS SECTION - REINFORCEMENT

ANM DRAWING NUMBER M-ANM-3J1TU2-CTCC-EDR-200034	REVISION P1	SHEET 20 of 24
ALTERNATE DOCUMENT NUMBER M-ANM-3J1TU2-CTCC-EDR-200034	REVISION P1	SHEET 20 of 24

SEGMENT 26



- NOTES:**
1. DIMENSIONS IN CENTIMETERS
 2. REINFORCEMENT BAR NUMBERING IS RELATED TO EACH SEGMENT
 3. SECTION NUMBERING IS RELATED TO EACH SEGMENT

P1	01.04.2016	INTRA AND INTER-DISCIPLINARY CHECKS (IDC)	R.R.L.
REV.	DATE	DESCRIPTION	APP.

PROJECT

RIYADH METRO PROJECT

PACKAGE 2

LINE 3



ORIGINATOR	CHECK	REVIEW	APPROVAL
M.G.N.	P.P.M.	R.R.L.	
DATE	APRIL 2016	SCALES	ORIGINAL SIZE A1
		A1= 1/50	
		A3= 1/100	
		0	1.25 2.5m

DRAWING

UNDERGROUND SECTION

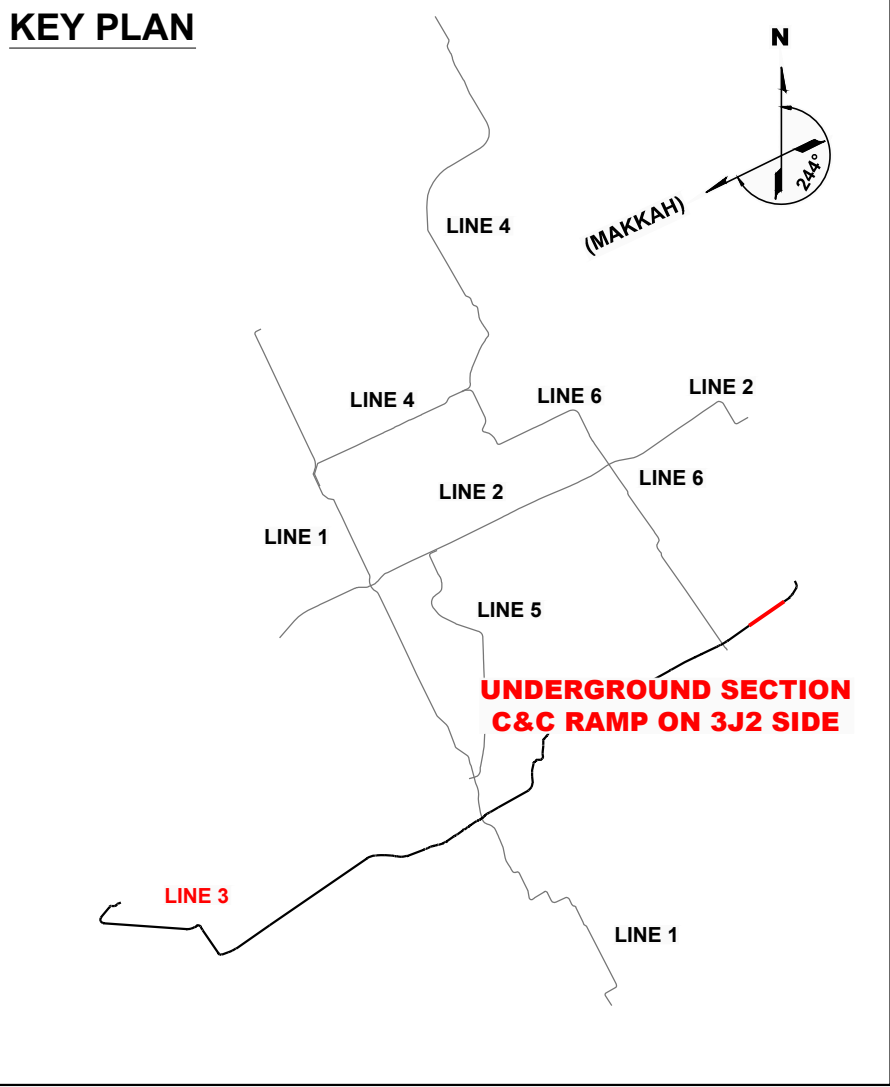
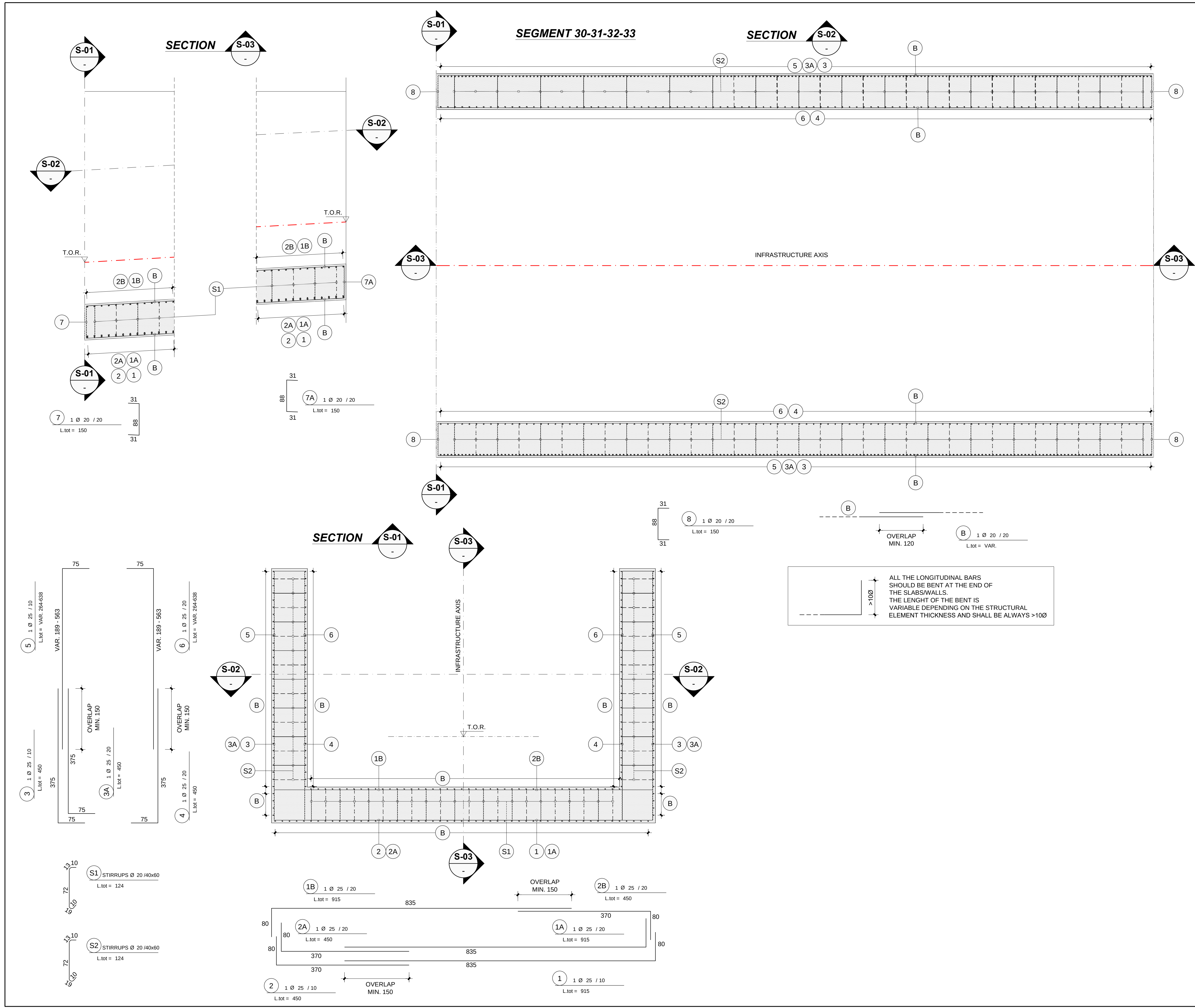
90% DETAILED DESIGN

CUT AND COVER RAMP ON 3J2 SIDE

PERMANENT WORKS

CROSS SECTION - REINFORCEMENT

ANM DRAWING NUMBER	REVISION	SHEET
M-ANM-3J1TU2-CTCC-EDR-200034	P1	21 of 24
ALTERNATE DOCUMENT NUMBER	REVISION	SHEET
M-ANM-3J1TU2-CTCC-EDR-200034	P1	21 of 24



- NOTES:**
1. DIMENSIONS IN CENTIMETERS
 2. REINFORCEMENT BAR NUMBERING IS RELATED TO EACH SEGMENT
 3. SECTION NUMBERING IS RELATED TO EACH SEGMENT

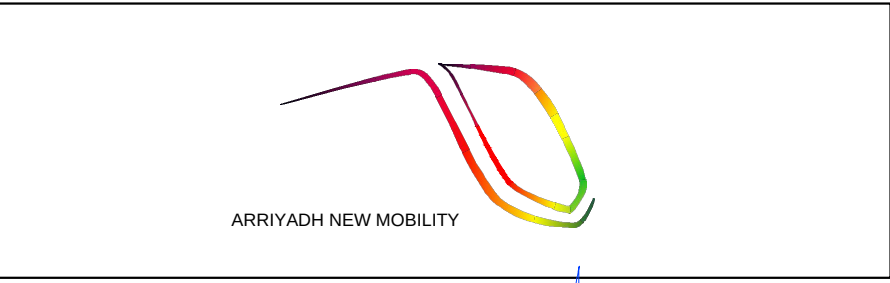
REV.	DATE	DESCRIPTION	APP.
P1	01.04.2016	INTRA AND INTER-DISCIPLINARY CHECKS (IDC)	R.R.L.

PROJECT

RIYADH METRO PROJECT

PACKAGE 2

LINE 3



ORIGINATOR	CHECK	REVIEW	APPROVAL
M.G.N.	P.P.M.	R.R.L.	
DATE		SCALES	ORIGINAL SIZE A1
APRIL 2016		A1= 1/50 A3= 1/100 0 1.25 2.5m	

DRAWING

UNDERGROUND SECTION

90% DETAILED DESIGN

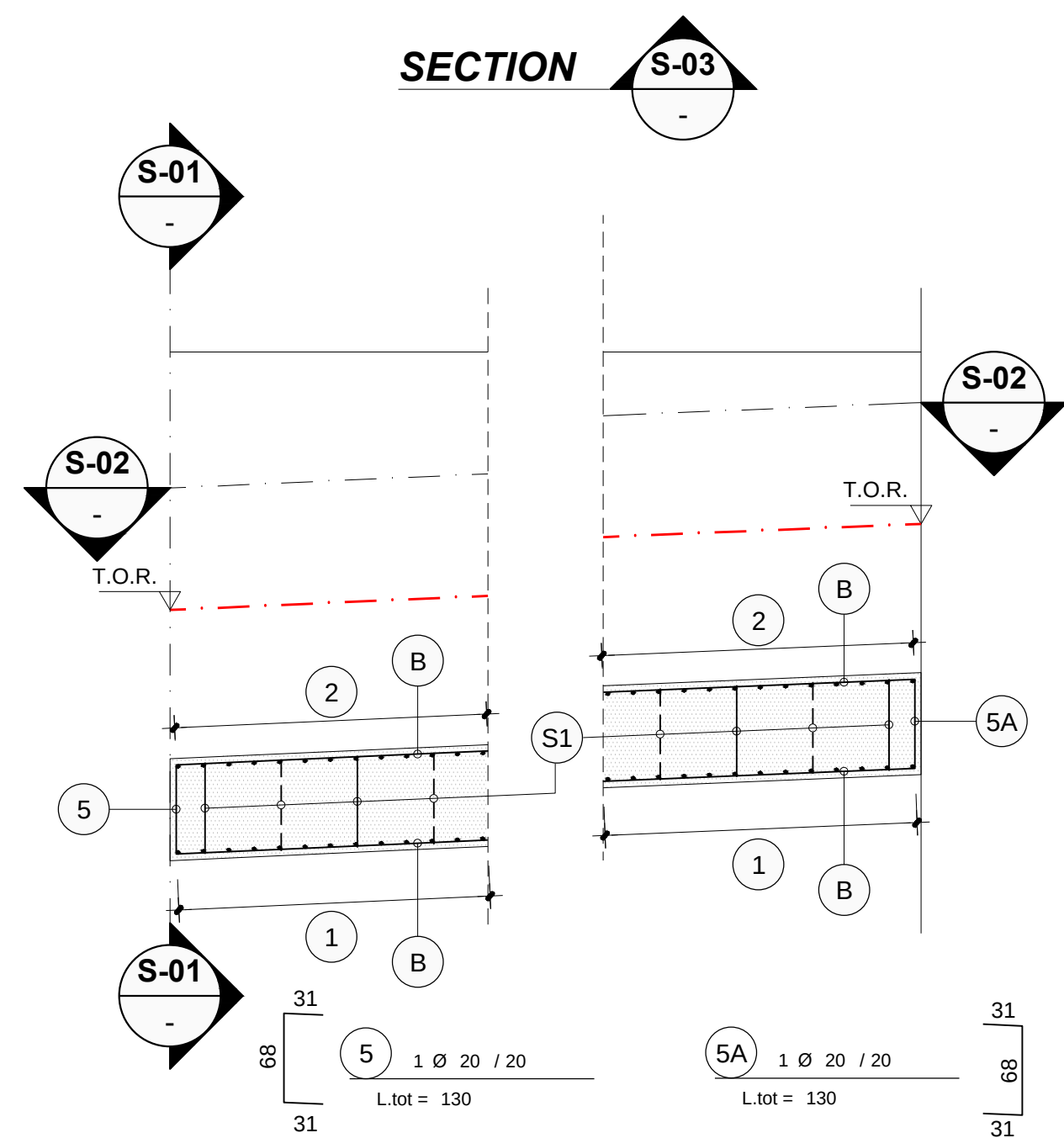
CUT AND COVER RAMP ON 3J2 SIDE

PERMANENT WORKS

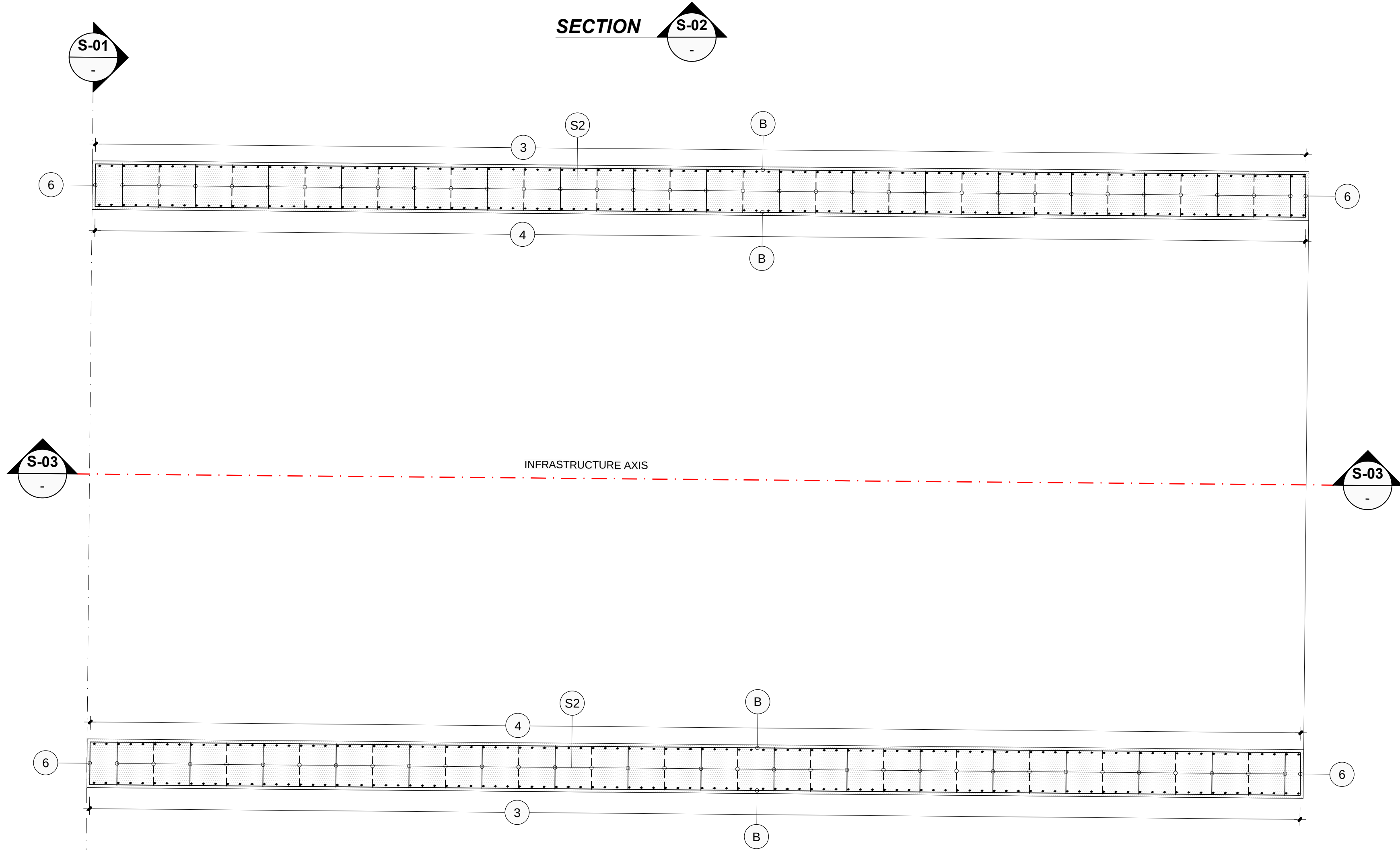
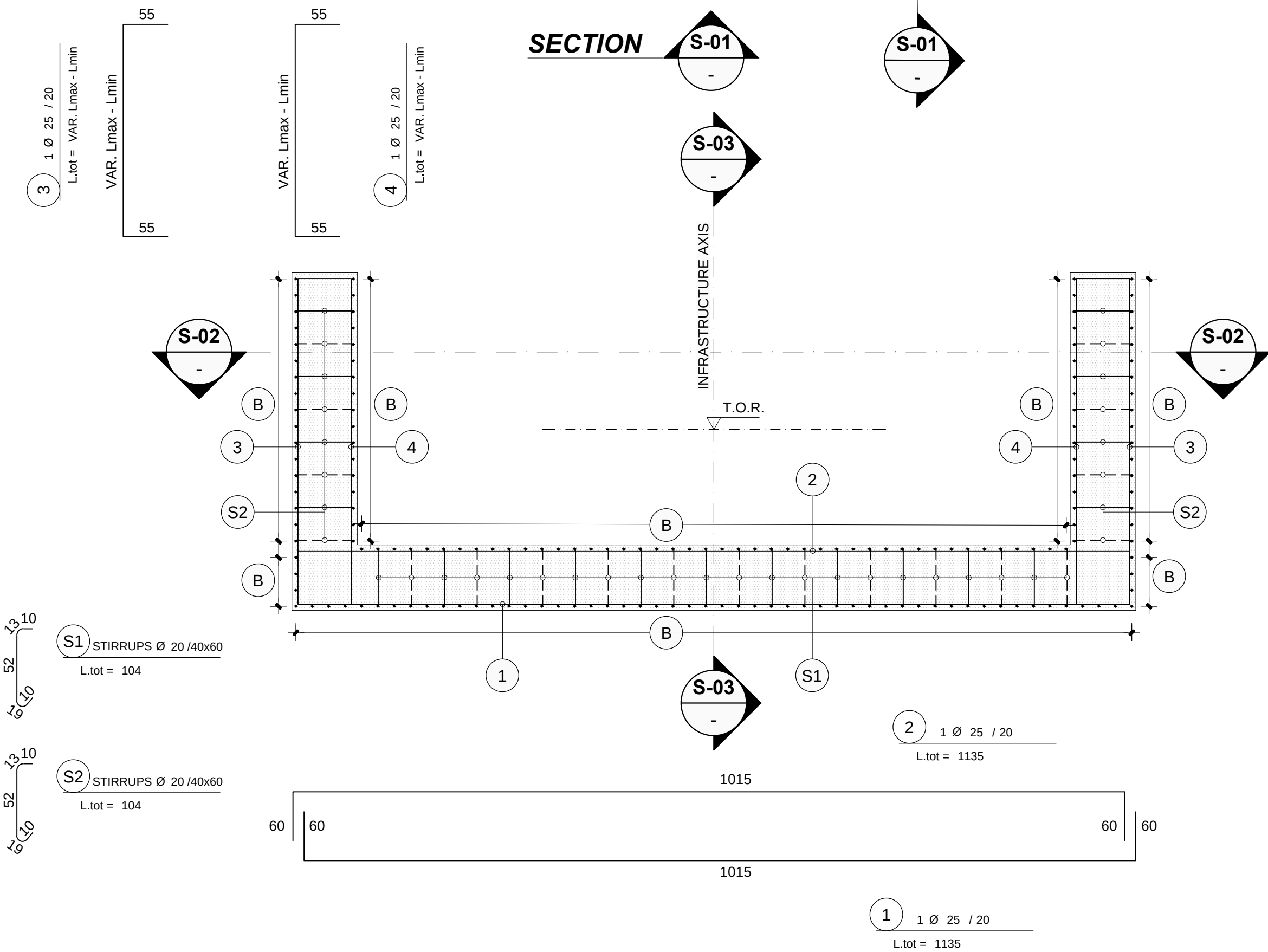
CROSS SECTION - REINFORCEMENT

ANM DRAWING NUMBER	REVISION	SHEET
M-ANM-3J1TU2-CTCC-EDR-200034	P1	23 of 24
ALTERNATE DOCUMENT NUMBER	REVISION	SHEET
M-ANM-3J1TU2-CTCC-EDR-200034	P1	23 of 24

SEGMENT 34-35-36



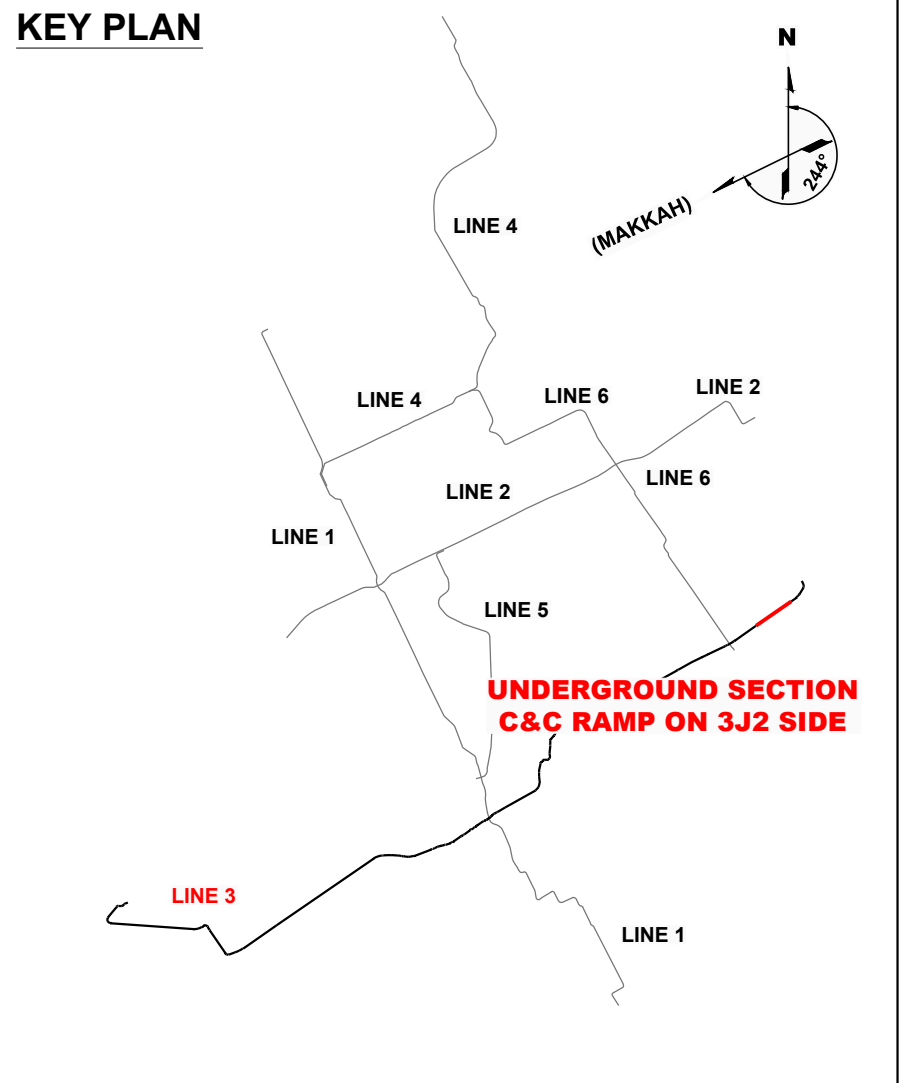
BARS LENGTH PER SEGMENT				
No.		Segment 1	Segment 2	Segment 3
3	Lmin.	192	238	308
	Lmax.	238	292	394
4	Lmin.	192	238	308
	Lmax.	238	292	394



ALL THE LONGITUDINAL BARS SHOULD BE BENT AT THE END OF THE SLABS/WALLS. THE LENGHT OF THE BENT IS VARIABLE DEPENDING ON THE STRUCTURAL ELEMENT THICKNESS AND SHALL BE ALWAYS $>10\phi$

OVERLAP MIN. 120

B 1 Ø 20 / 20 L_tot = VAR.



- NOTES:**
- DIMENSIONS IN CENTIMETERS
 - REINFORCEMENT BAR NUMBERING IS RELATED TO EACH SEGMENT
 - SECTION NUMBERING IS RELATED TO EACH SEGMENT

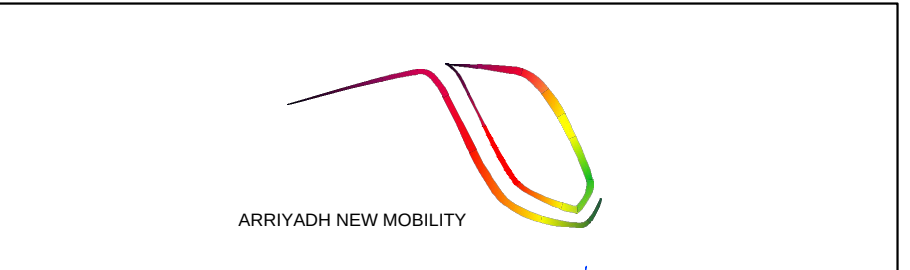
REV.	DATE	DESCRIPTION	APP.
P1	01.04.2016	INTRA AND INTER-DISCIPLINARY CHECKS (IDC)	R.R.L.

PROJECT

RIYADH METRO PROJECT

PACKAGE 2

LINE 3



ORIGINATOR	CHECK	REVIEW	APPROVAL
M.G.N.	P.P.M.	R.R.L.	
DATE	APRIL 2016		
SCALES		ORIGINAL SIZE A1	
A1= 1/50			
A3= 1/100			
0 1.25 2.5m			

DRAWING

UNDERGROUND SECTION

90% DETAILED DESIGN

CUT AND COVER RAMP ON 3J2 SIDE

PERMANENT WORKS

CROSS SECTION - REINFORCEMENT

ANM DRAWING NUMBER	REVISION	SHEET
M-ANM-3J1TU2-CTCC-EDR-200034	P1	24 of 24
ALTERNATE DOCUMENT NUMBER	REVISION	SHEET
M-ANM-3J1TU2-CTCC-EDR-200034	P1	24 of 24