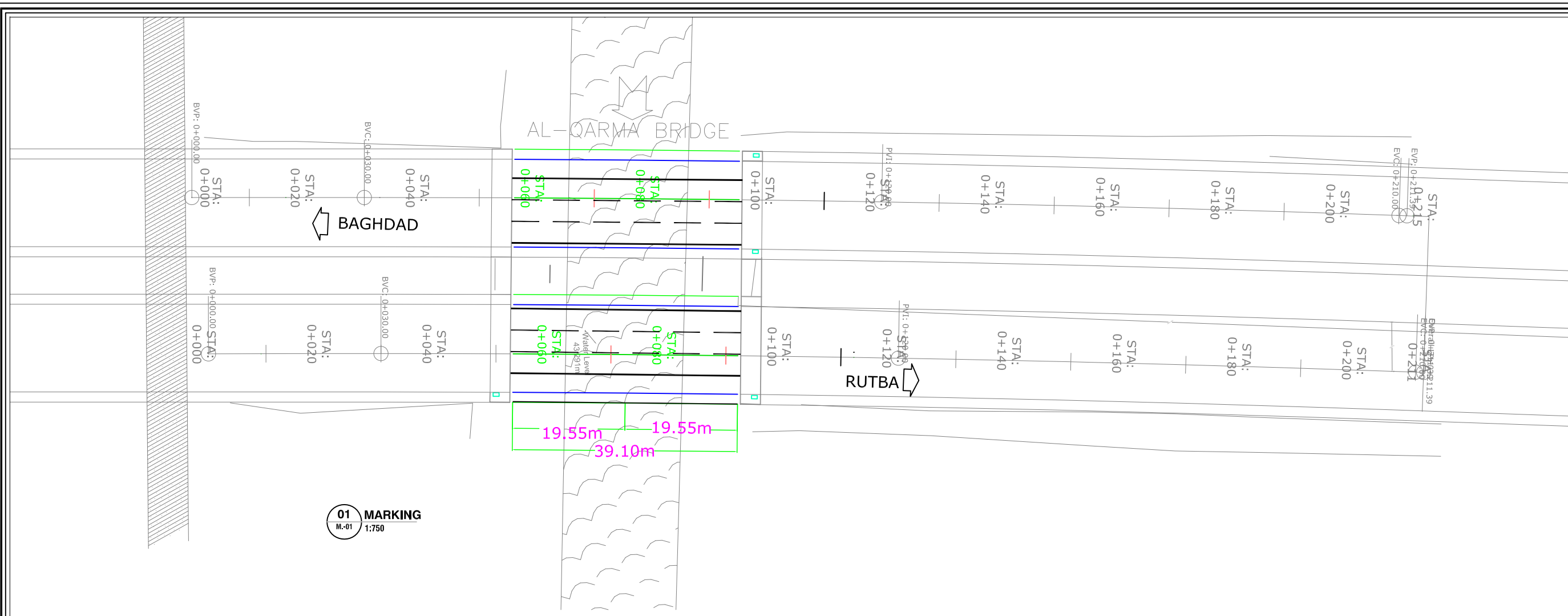




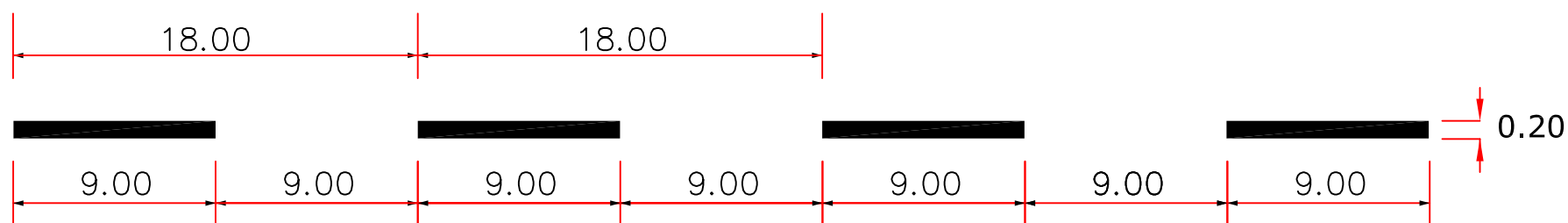
DIRECTION
OF TRAFFIC



DIRECTION
OF TRAFFIC

EMERGENCY STRIP LINE CONTINUOUS
WHITE COLOR

DIRECTION
OF TRAFFIC



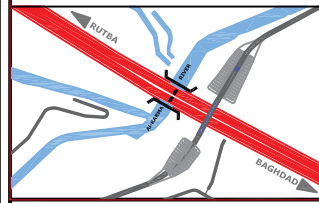
DIRECTION
OF TRAFFIC

EDGE LANE BROKEN
WHITE COLOR



REPUBLIC OF IRAQ
MINISTRY OF CONSTRUCTION AND HOUSING AND PUBLIC MUNICIPALITIES
ROADS AND BRIDGES DIRECTORATE

KEY MAP



NOTES

A. NO DIMENSIONS ARE TO BE SCALED FROM THIS DRAWING.
B. ALL DIMENSIONS ARE IN METRIC UNLESS OTHERWISE STATED.
C. BUILDER TO CHECK ALL DIMENSIONS AT SITE PRIOR TO CONSTRUCTION, ASSEMBLY OR FABRICATION OF ALL WORKS.
D. ALL WORKS ARE ACCORDING TO SPECIFICATIONS OF GENERAL DIRECTORATE FOR ROADS AND BRIDGES OF IRAQ.

ROADS SPECIFICATIONS

- THE CONTRACTOR SHALL ADOPT THE EXPRESSWAY No.1 SPECIFICATIONS DURING REHABILITATION EXECUTIVE PERIOD.
- ROADS FEATURES ARE BASED ON EXPRESSWAY No.1 SPECIFICATIONS, IN ADDITION TO THE APPROVAL OF SUPERVISED ENGINEER.
- THE CONTRACTOR SURVIVOR SHALL SURVEY THE SITE DURING DELIVERED AND COMPARE WITH THE DESIGN LEVELS USING THE AVAILABLE TECHNOLOGY.

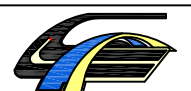
REV.	DATE	DESCRIPTION	BY
05			
04			
03			
02			
01			
00			

PROJECT NAME:

**ARCHITECTURAL & CIVIL
ENGINEERING DESIGN SERVICES**

LOCATION: AL-ANBAR - IRAQ
(AL-GARMAH RIVER BRIDGE)

CLIENT:



GENERAL DIRECTORATE FOR ROADS
AND BRIDGES

SERVICES NAME:

CIVIL DESIGN

DESIGN BY:

MUHAMMED HIKMET

SUPERVISOR:

MUHAMMED HIKMET

DRAWING NAME:

PAVEMENT MARKING & DETAILS

DRAWING NO.

TR-203

SCALE:

@ A3

DRAWN BY:

MUHAMMED HIKMET

PROJECT NO:

IQ-17-001

DATE:

APRIL 2017



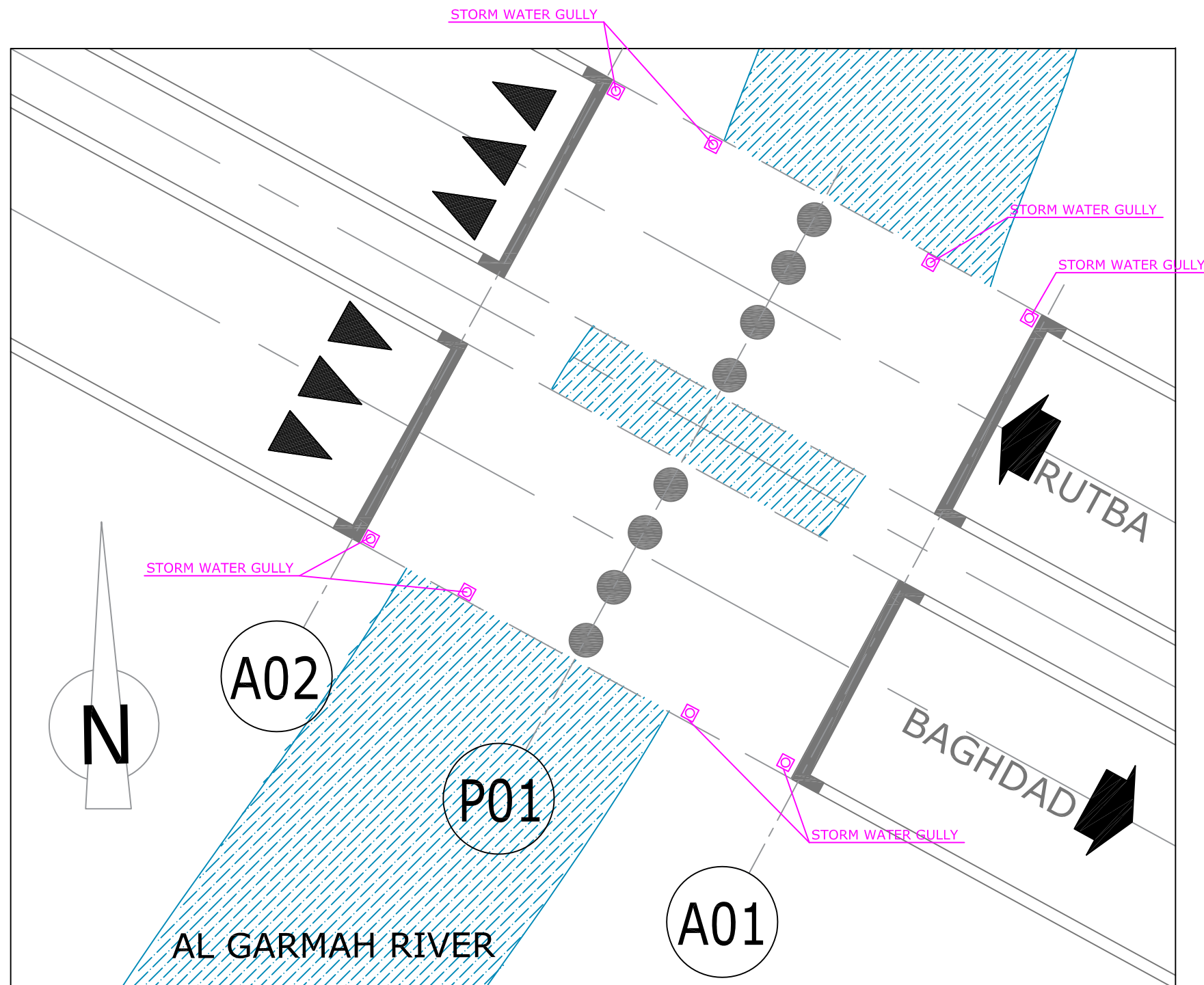
UNITED NATIONS
DEVELOPMENT PROGRAMME



NUDHUM ALBENAA
CONSULTANCY

An aerial photograph of a complex highway interchange with multiple overpasses and ramps. The image is heavily filtered with a blue color, giving it a monochromatic appearance. Several vehicles, including cars and trucks, are visible traveling on the roads. The surrounding landscape includes some greenery and palm trees. The text 'STORM WATER DESIGN' is centered over the lower part of the interchange.

STORM WATER DESIGN



REPUBLIC OF IRAQ
MINISTRY OF CONSTRUCTION AND HOUSING AND PUBLIC MUNICIPALITIES /
ROADS AND BRIDGES DIRECTORATE

KEY MAP



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CONSTRUCTION, ASSEMBLY OR FABRICATION OF ALL WORKS.
D. ALL WORKS ARE ACCORDING TO SPECIFICATIONS OF GENERAL
DIRECTORATE FOR ROADS AND BRIDGES OF IRAQ.

REV.	DATE	DESCRIPTION	BY
05			
04			
03			
02			
01			
00			

PROJECT NAME:
ARCHITECTURAL & CIVIL
ENGINEERING DESIGN
SERVICES

LOCATION:
AL-ANBAR - IRAQ

CLIENT:

GENERAL DIRECTORATE FOR ROADS
AND BRIDGES

SERVICES NAME:
CIVIL DESIGN

DESIGN BY:
IBRAHIM ABD ELHALIM

SUPERVISOR:
SAFA'A AL-MU'MAAR

DRAWING NAME:
LOCATION OF STORM WATER GULLIES

DRAWING NO.
SD-301

SCALE:
@A3

DRAWN BY:

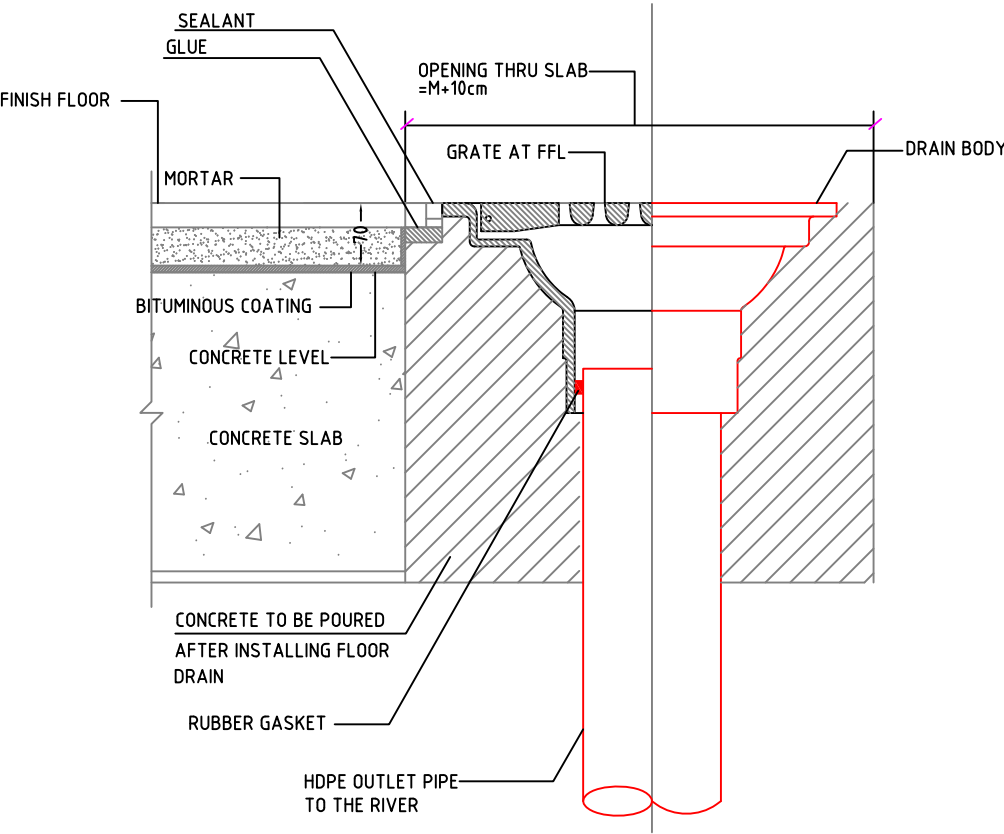
PROJECT NO:
IQ-17-001

DATE:
MAY 2017



NOTES:

- Specifications Pipe Connections of Storm Drainage Should Follow the Specifications, Details and Construction Procedures of Sewarage Works



STORM WATER GULLTY (N.T.S.)



REPUBLIC OF IRAQ
MINISTRY OF CONSTRUCTION AND HOUSING AND PUBLIC MUNICIPALITIES /
ROADS AND BRIDGES DIRECTORATE

KEY MAP



NOTES

- A. NO DIMENSIONS ARE TO BE SCALED FROM THIS DRAWING.
- B. ALL DIMENSIONS ARE IN METRIC UNLESS OTHERWISE STATED.
- C. BUILDER TO CHECK ALL DIMENSIONS AT SITE PRIOR TO CONSTRUCTION, ASSEMBLY OR FABRICATION OF ALL WORKS.
- D. ALL WORKS ARE ACCORDING TO SPECIFICATIONS OF GENERAL DIRECTORATE FOR ROADS AND BRIDGES OF IRAQ.

REV.	DATE	DESCRIPTION	BY
05			
04			
03			
02			
01			
00			

PROJECT NAME:
ARCHITECTURAL & CIVIL
ENGINEERING DESIGN
SERVICES

LOCATION:
AL-ANBAR - IRAQ

CLIENT:

GENERAL DIRECTORATE FOR ROADS
AND BRIDGES

SERVICES NAME:
CIVIL DESIGN

DESIGN BY:
IBRAHIM ABD ELHALIM

SUPERVISOR:
SAFA'A AL-MU'MAAR

DRAWING NAME:
TYPICAL DETAILS

DRAWING NO.
SD-302

SCALE:
@A3

DRAWN BY:

PROJECT NO:
IQ-17-001

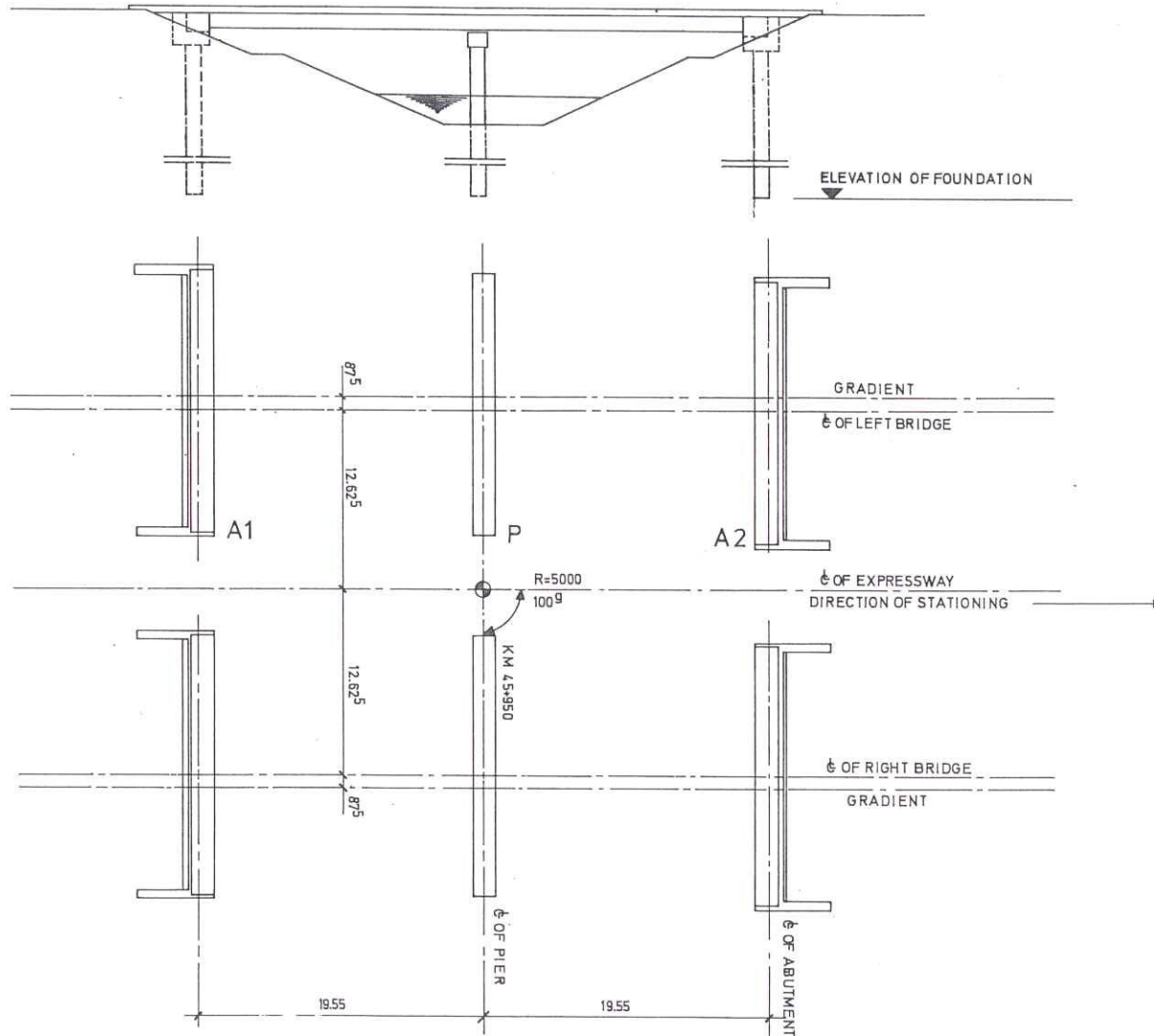
DATE:
MAY 2017



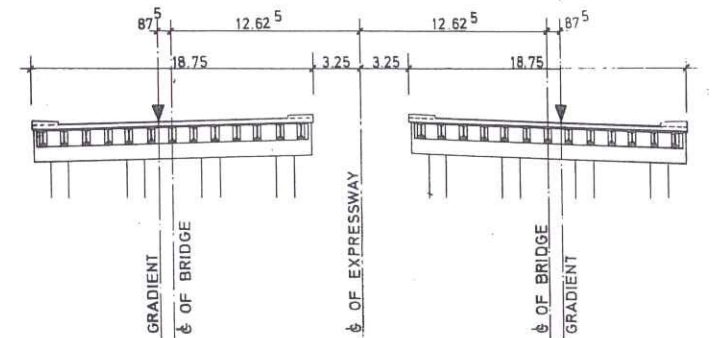
An aerial photograph of a multi-lane highway interchange, overlaid with a semi-transparent blue filter. The image shows several lanes of traffic, including cars and trucks, moving through the interchange. Palm trees are visible along the sides of the road. The word "ANNEX" is centered in the image in a bold, blue, sans-serif font.

ANNEX

S.45.6
FUTURE IRRIGATION CANAL



S.45.6	GRADIENT		EXISTING GROUND ELEVATION	ELEVATION OF FOUNDATION	PILE FOUNDATION (ø120 CM)		HINGE SLAB (H) OR TYPE OF EXPANSION JOINT	TYPE OF BEARING	CORRESPONDING DRAWINGS				NOTES
	LEFT BRIDGE	RIGHT			NO OF PILES	LOAD FOR EACH PILE			SUBSTRUCTURE		SUPERSTRUCTURE		
									DIMENSIONS	REINFORCEMENT	DIMENSIONS	REINFORCEMENT	
ABUTMENT 1	45.73	45.73	42.32	22.50	4	2 20 to	T 50	ø 250/74	2.2.203, 2.2.206 2.2.207, 2.2.208	2.2.214 2.2.217	2.2.201 2.2.202	2.2.211 2.2.212	
PIER	45.72	45.72	42.01	↓	↓	2 60 to	H	↓	2.2.204 2.2.207	2.2.218 22.221 (TYPE 5)	2.2.205 2.2.209		
ABUTMENT 2	45.71	45.71	41.10	↓	↓	2 20 to	T 50	↓	2.2.203, 2.2.206 2.2.207, 2.2.208	2.2.214 2.2.217	2.2.210		



REPUBLIC OF IRAQ
MINISTRY OF WORKS AND HOUSING
DIRECTORATE GENERAL OF ROADS AND BRIDGES

IRAQ EXPRESSWAY No ONE



DORSCH CONSULT

CONSULTING ENGINEERS · MUNICH · W. GERMANY
 in association with
AL-KHAZEN, CONSULTING ENGINEERS · BAGHDAD-IRAQ

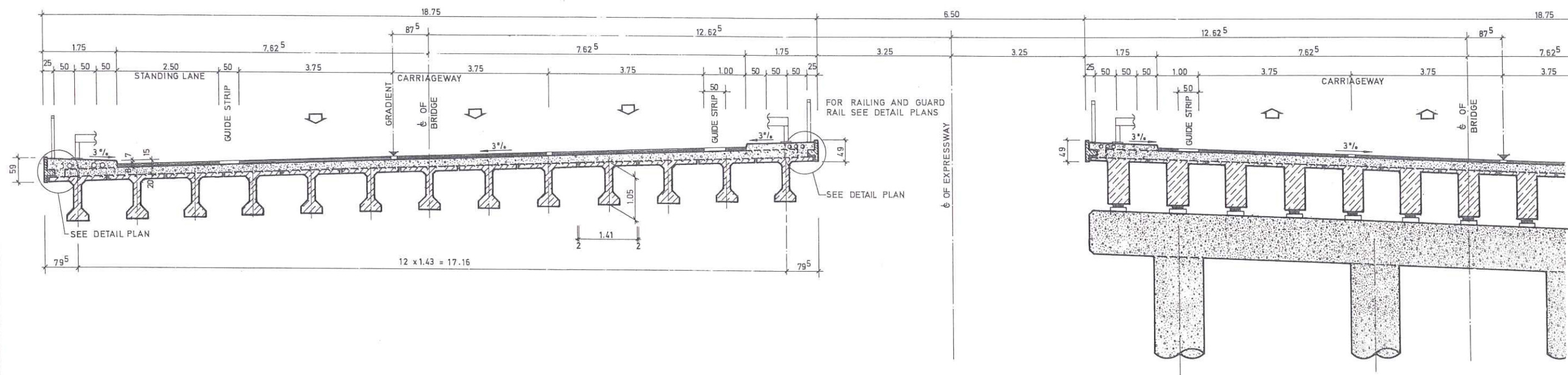
CONTRACT SECTION UP		R/9A/1976 BAGHDAD - WEST- HABBAYIA UNDERPASSES GENERAL PLAN	
DATE	DESIGNED	DRAWN	SCALE
Dec. 76	th	Asht	C 1:100
			DRG. No
			22 B

CROSS SECTION

SCALE 1:50

MIDSPAN

PIER / ABUTMENT



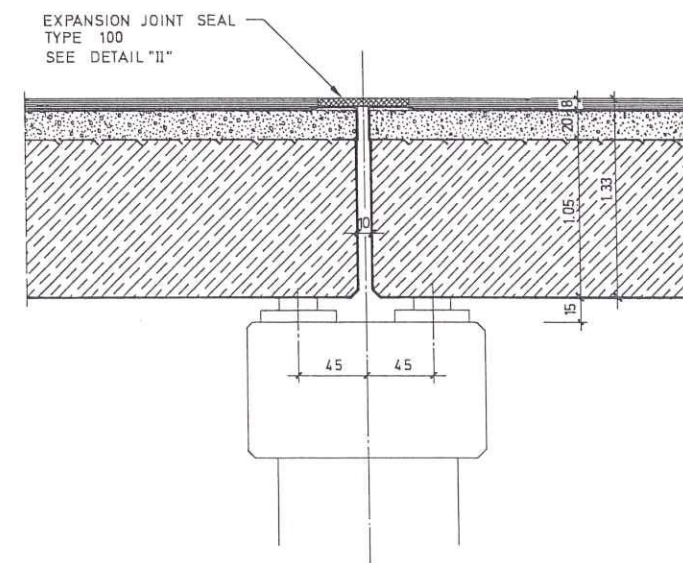
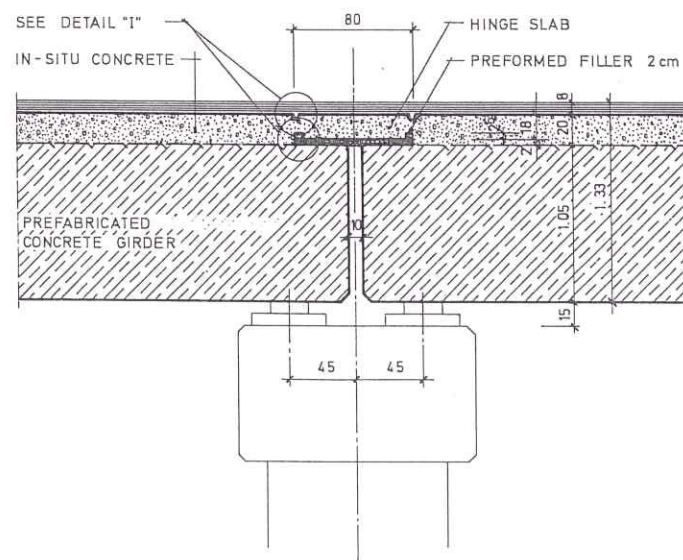
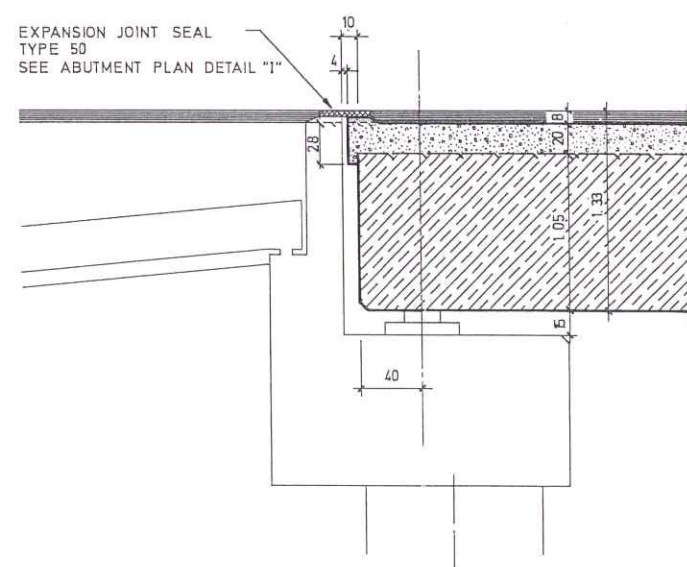
LONGITUDINAL SECTION

SCALE 1:25

ABUTMENT
EXPANSION JOINT

PIER
HINGE SLAB-IF USED

PIER
EXPANSION JOINT - IF USED

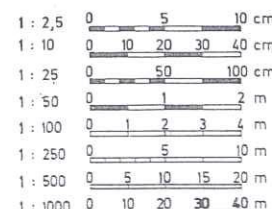
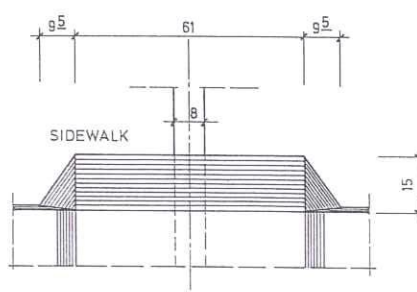
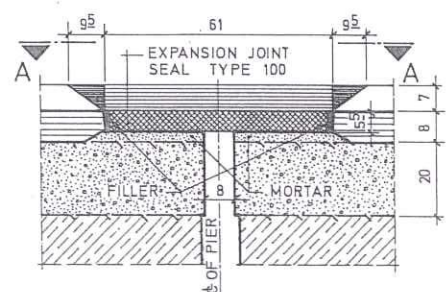
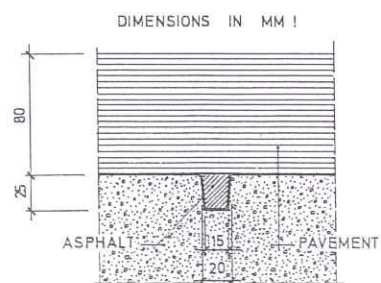


DETAIL "I"
SCALE 1:2.5

DETAIL "II"
SCALE 1:10

SECTION PERP. TO C PIER

TOP VIEW A-A



REPUBLIC OF IRAQ MINISTRY OF WORKS AND HOUSING DIRECTORATE GENERAL OF ROADS AND BRIDGES		CONTRACT SECTION UP 100 g		SUPERSTRUCTURE	
IRAQ EXPRESSWAY No ONE		DATE	DESIGNED	DRAWN	SCALE
CONSULTING ENGINEERS - MUNICH - W. GERMANY in association with AL-KHAZEN - CONSULTING ENGINEERS - BAGHDAD - IRAQ		DRG. No	2.2.201		

PREFABRICATED PRESTRESSED CONCRETE GIRDER

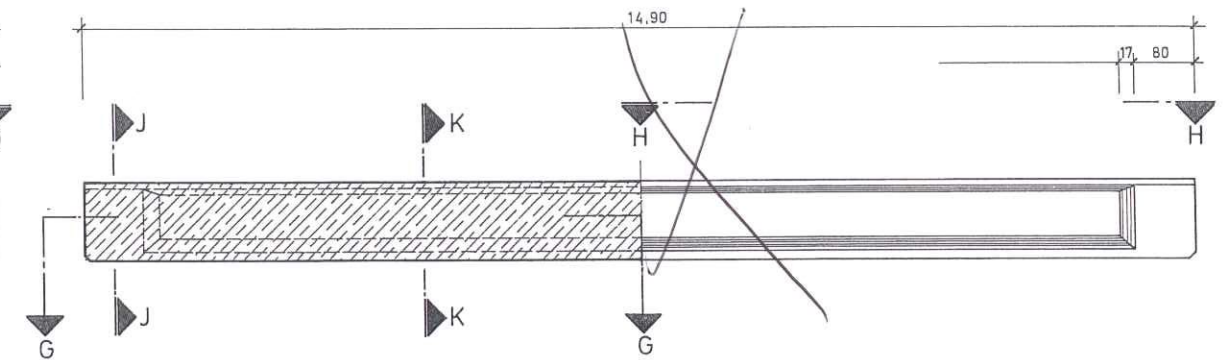
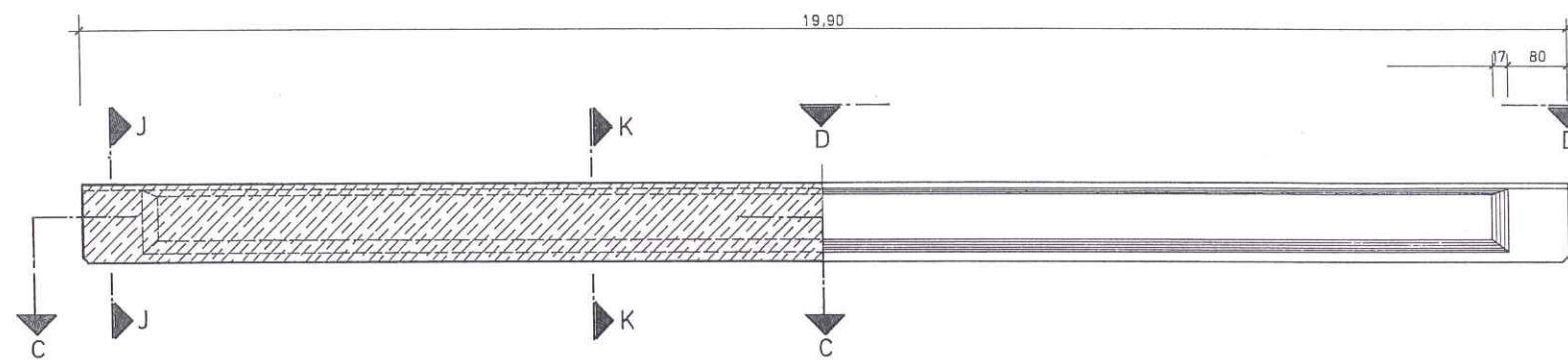
PREFABRICATED REINFORCED CONCRETE GIRDER

SECTION A-A
SCALE 1:50

ELEVATION B-B
SCALE 1:50

SECTION E-E
SCALE 1:50

ELEVATION F-F
SCALE 1:50

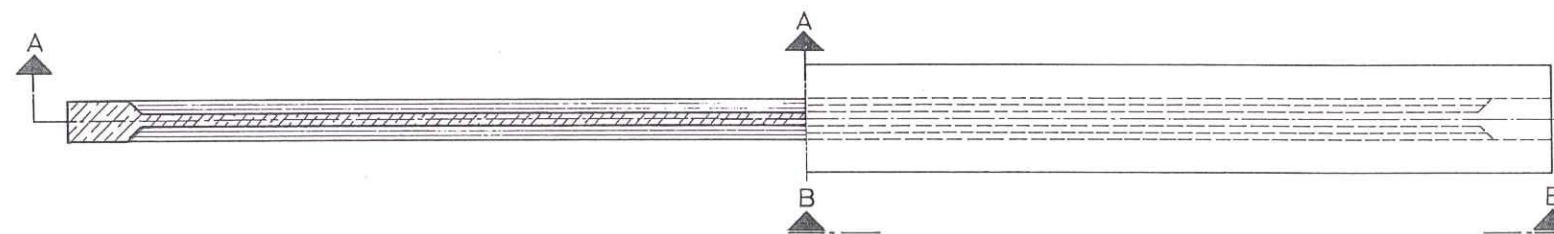


SECTION C-C
SCALE 1:50

TOP VIEW D-D
SCALE 1:50

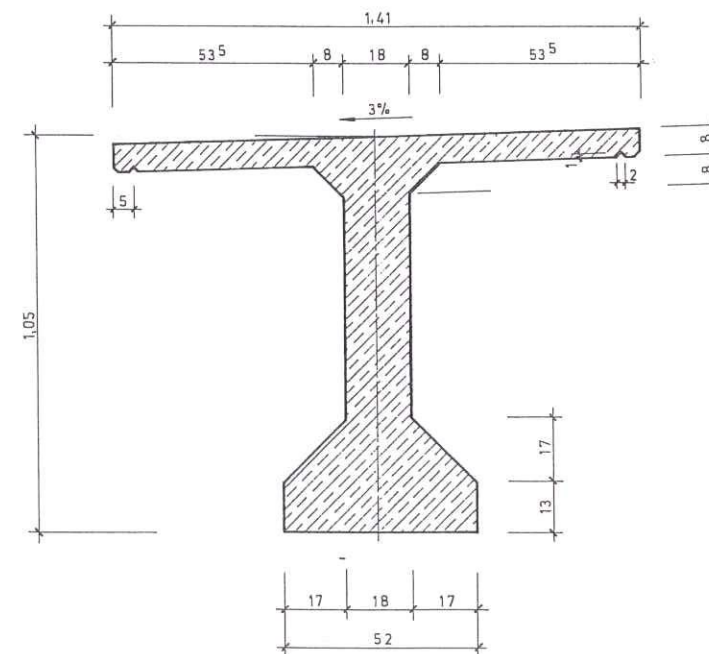
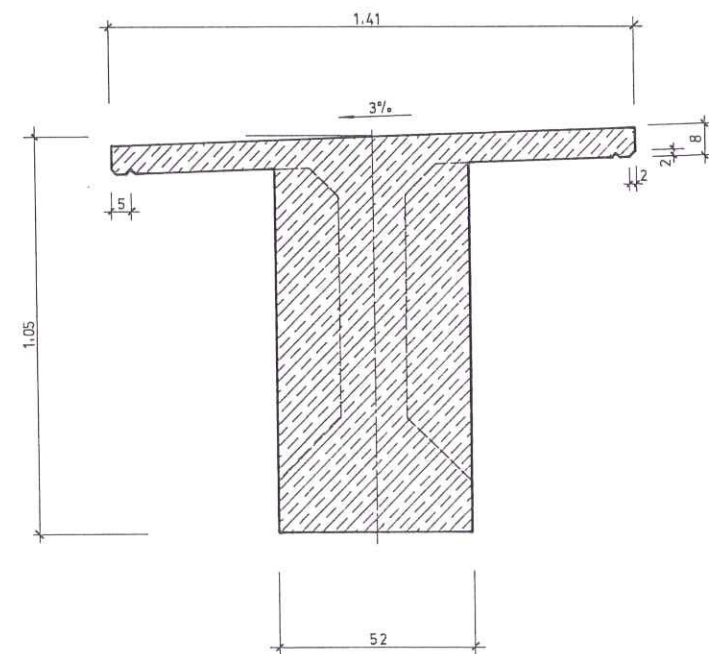
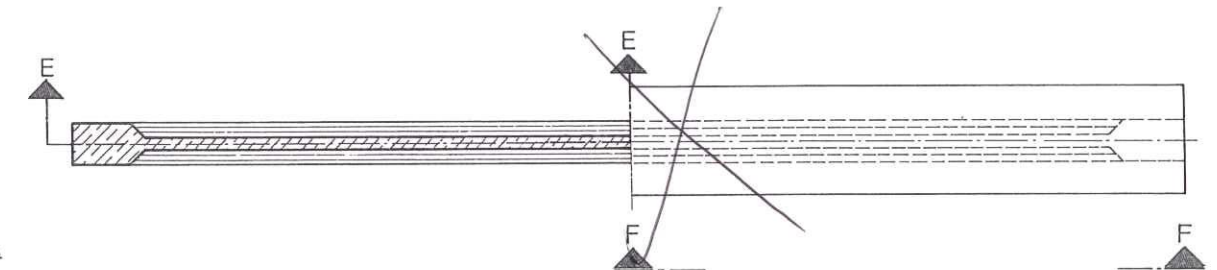
SECTION G-G
SCALE 1:50

TOP VIEW H-H
SCALE 1:50



CROSS SECTION J-J
SCALE 1:10

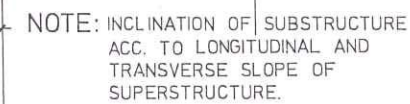
CROSS SECTION K-K
SCALE 1:10



1:2.5	0	5	10	cm
1:10	0	10	20	cm
1:25	0	50	100	cm
1:50	0	1	2	m
1:100	0	1	2	m
1:250	0	5	10	m
1:500	0	5	10	m
1:1000	0	10	20	m

REPUBLIC OF IRAQ MINISTRY OF WORKS AND HOUSING DIRECTORATE GENERAL OF ROADS AND BRIDGES IRAQ EXPRESSWAY No ONE				CONTRACT SECTION UP 100.9 PREFABRICATED CONCRETE GIRDERS			
DORSCH CONSULT CONSULTING ENGINEERS - MUNICH - W. GERMANY in association with AL-KHAZEN - CONSULTING ENGINEERS - BAGHDAD-IRAQ		DATE	DESIGNED	DRAWN	SCALE	DRG. No.	
		3.1.76	Beding	ke		2.2.202	

SCALE 1:50



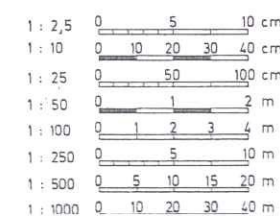
SCALE 1:50



SCALE 1:50



Diagram illustrating the cross-section of a pile cap and abutment. The pile cap is shown with a central pile of diameter 250mm. The cap has a top width of 135mm on either side of the pile and a bottom width of 135mm. The cap is supported by a bearing pad of diameter 250mm, which is in turn supported by a reinforced grout pad of 50/50 concrete. The entire assembly is embedded in an abutment. Labels include: PILE, BEARING PAD, REIN. GROUT PAD 50/50, and AT & OF ABUTMENT.

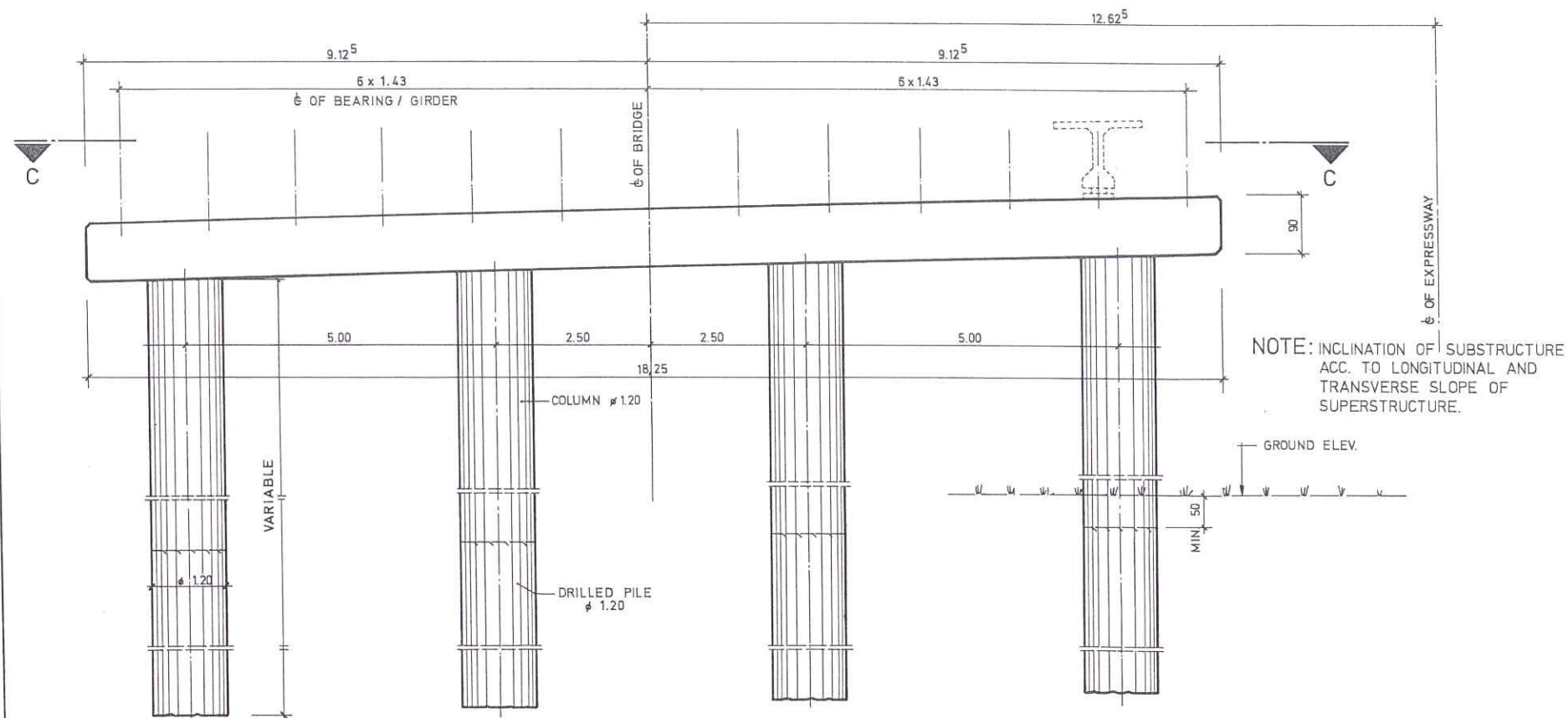


DORSCH CONSULT

Y	DATE	DESIGNED	DRAWN	SCALE	DRG. No
		2023/05/05	20		2.2.203

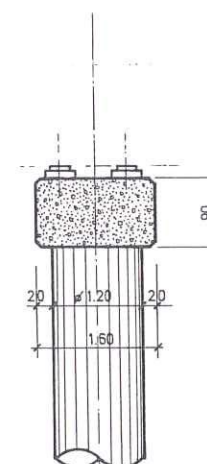
ELEVATION A-A

SCALE 1:50



SECTION B-B

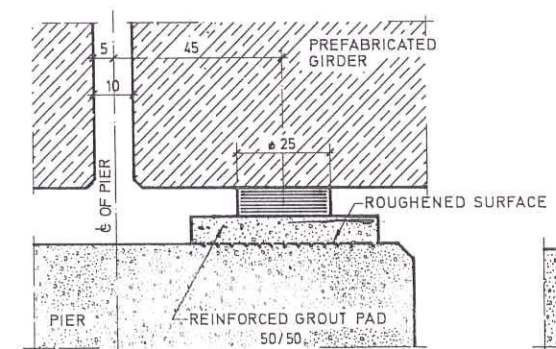
SCALE 1:50



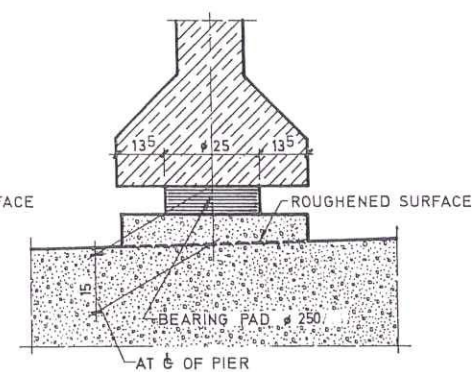
DETAIL OF BEARING

SCALE 1:10

SECTION D-D

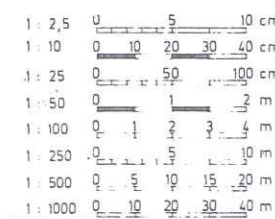
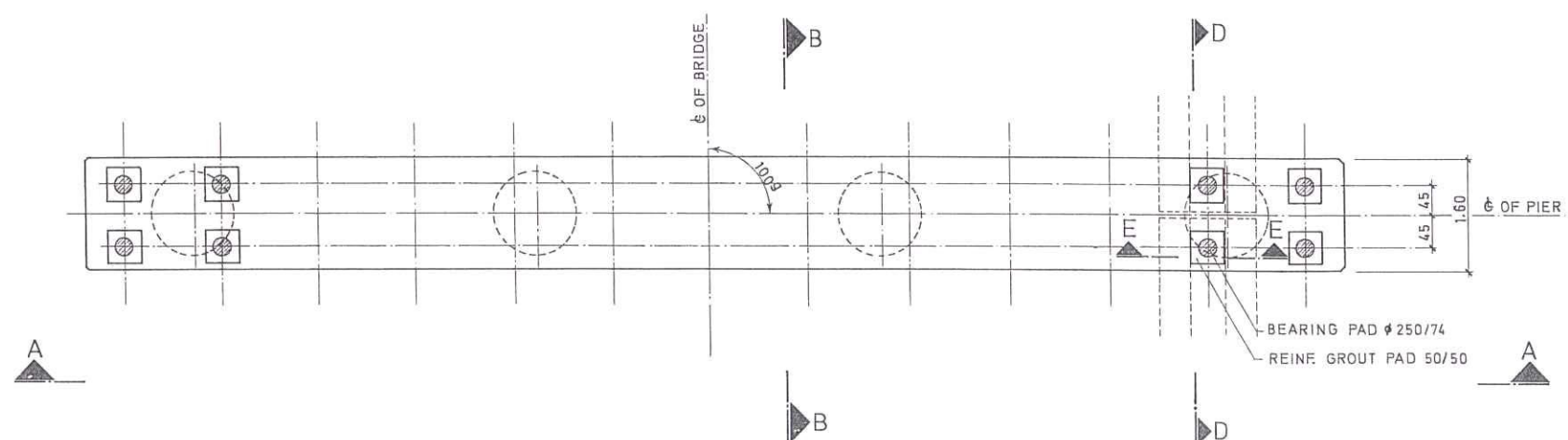


SECTION E-E



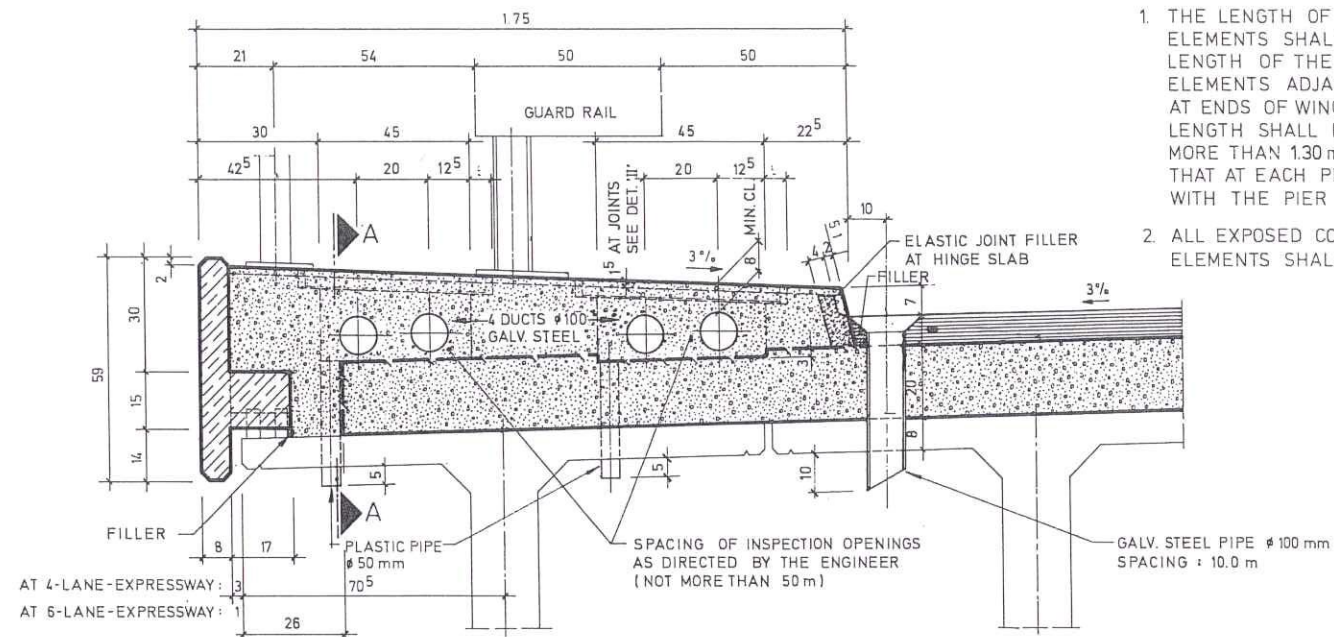
TOP VIEW C-C

SCALE 1:50



REPUBLIC OF IRAQ MINISTRY OF WORKS AND HOUSING DIRECTORATE GENERAL OF ROADS AND BRIDGES		CONTRACT SECTION UP 100 ⁹	
IRAQ EXPRESSWAY No ONE		PIER	
CONSULTING ENGINEERS - MUNICH - W. GERMANY In association with AL-KHAZEN - CONSULTING ENGINEERS - BAGHDAD - IRAQ	DATE DESIGNED DRAWN	SCALE DRG. No	2.2.204

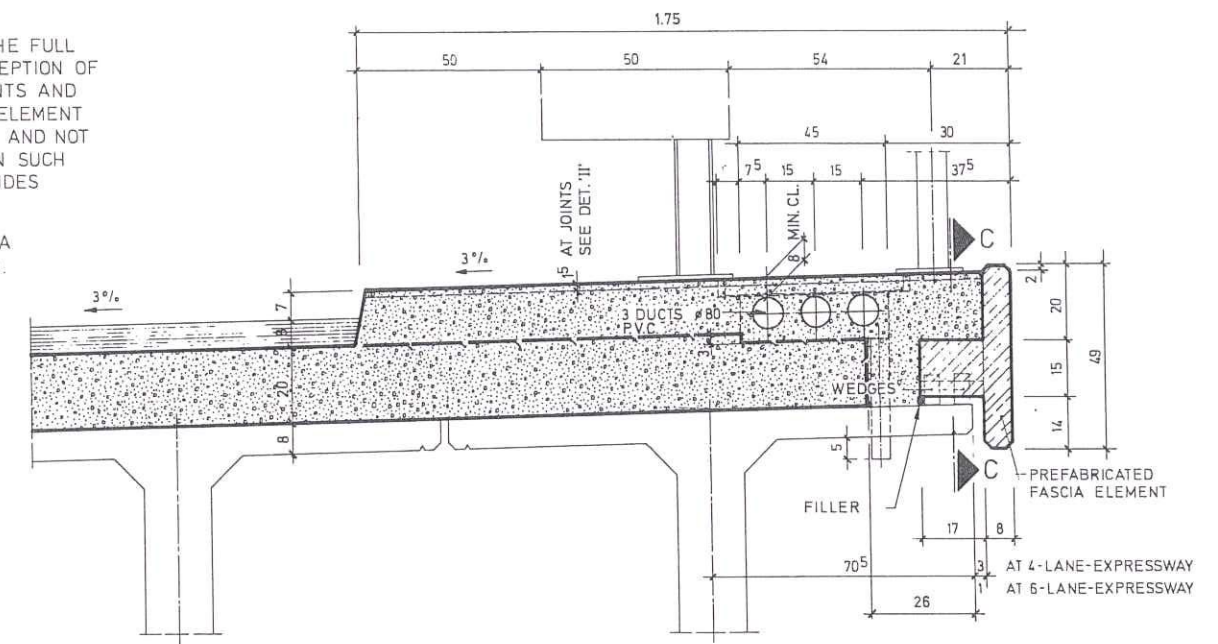
SCALE 1 10



NOTES :

1. THE LENGTH OF PREFABRICATED FASCIA ELEMENTS SHALL BE CONSTANT OVER THE FULL LENGTH OF THE BRIDGE, WITH THE EXCEPTION OF ELEMENTS ADJACENT TO EXPANSION JOINTS AND AT ENDS OF WING WALLS. THE CONSTANT ELEMENT LENGTH SHALL BE NOT LESS THAN 1.10 m AND NOT MORE THAN 1.30 m, AND SHALL BE CHOSEN SUCH THAT AT EACH PIER A JOINT ALWAYS COINCIDES WITH THE PIER AXIS.
2. ALL EXPOSED CORNERS AT ENDS OF FASCIA ELEMENTS SHALL BE CHAMFERED 0,5 cm.

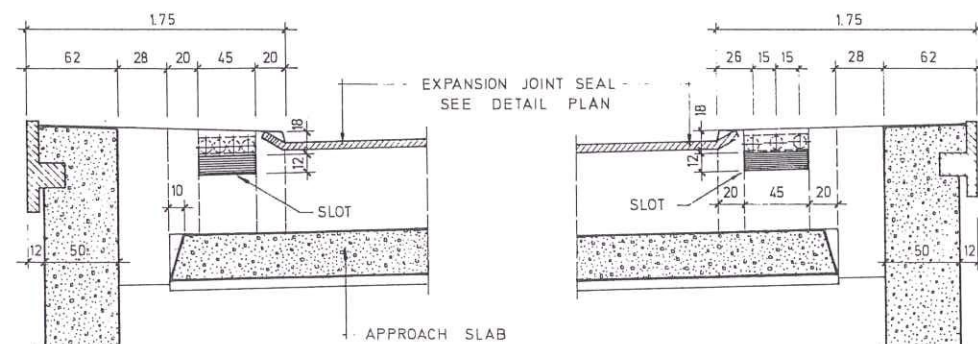
SCALE 1-10



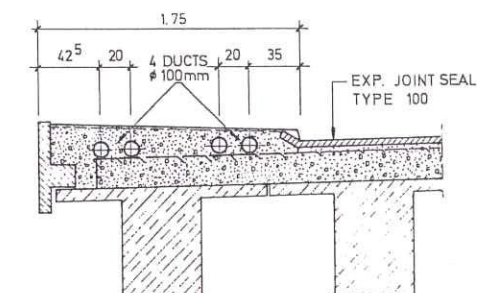
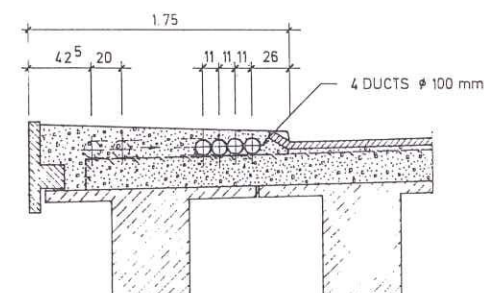
SCALE 1:25

ABUTMENT (RIGHT SIDE)

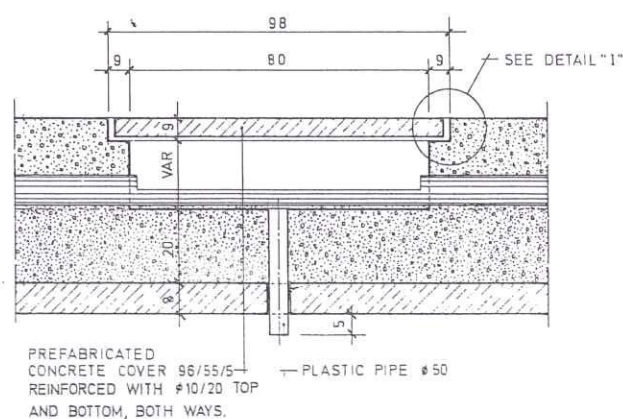
FOR FURTHER DETAILS AND SECTIONS SEE
DETAILPLAN OF END OF BRIDGE



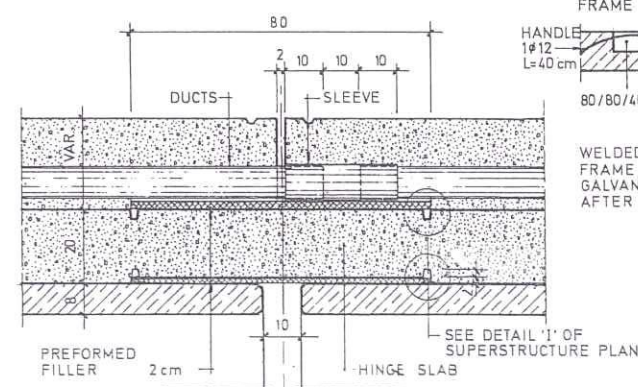
EXPANSION JOINT (PIER)



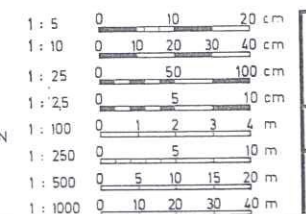
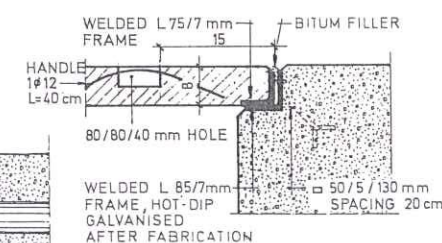
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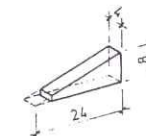
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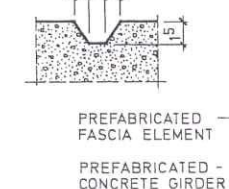
NOT TO SCALE



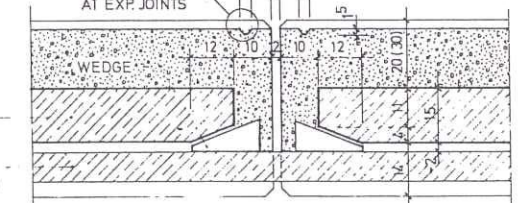
SCALE 1:10



SCALE 1:2,5



SCALE 1 10



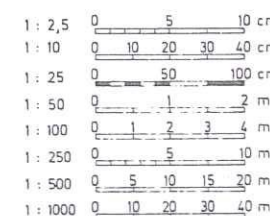
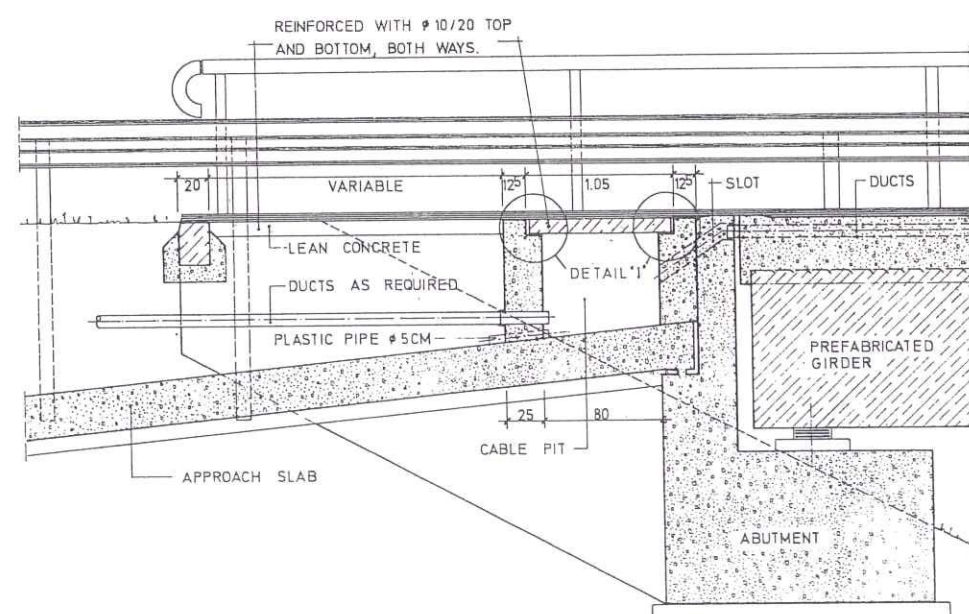
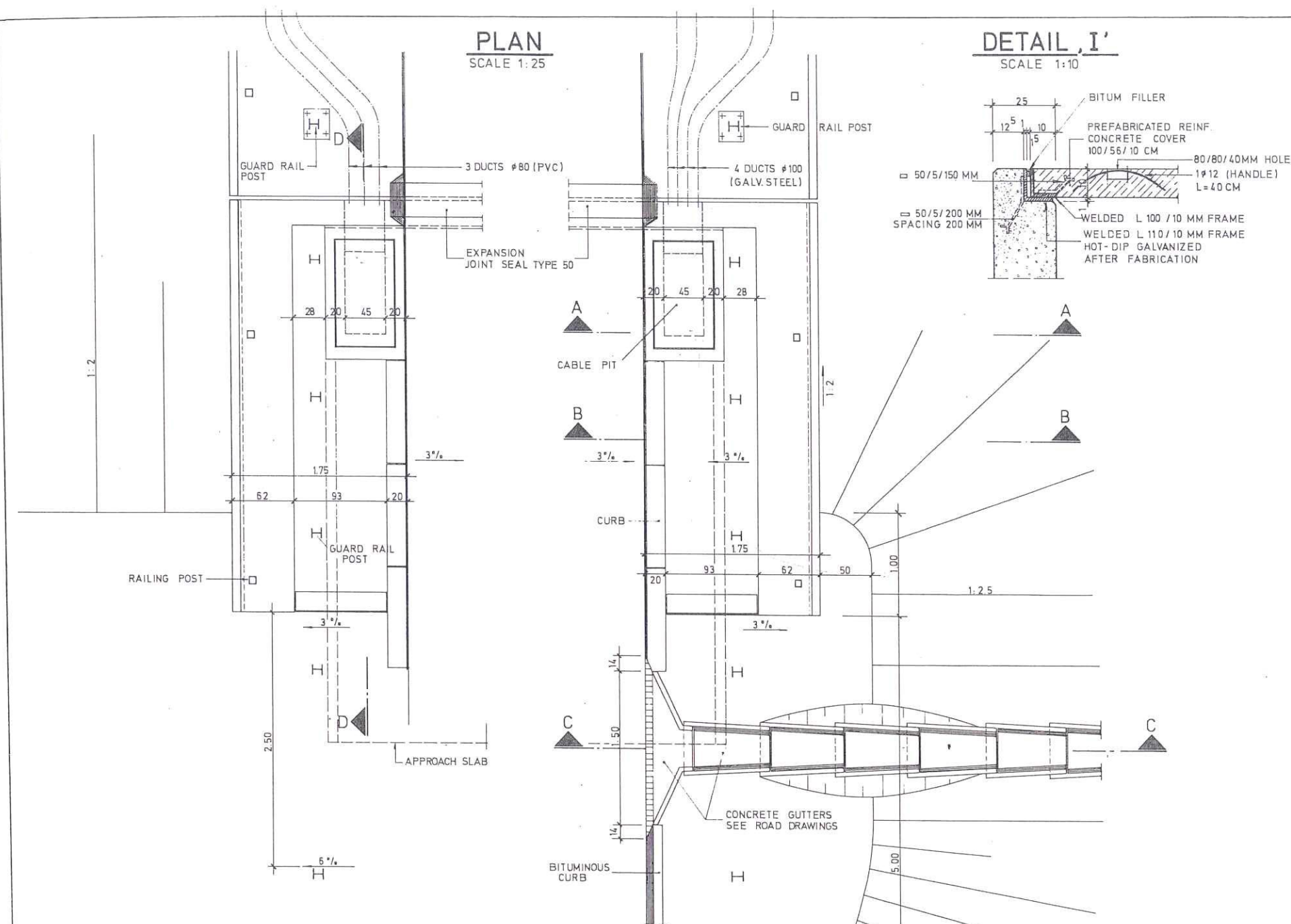
REPUBLIC OF IRAQ
MINISTRY OF WORKS AND HOUSING
 DIRECTORATE GENERAL OF ROADS AND BRIDGES

IRAQ EXPRESSWAY No ONE


 DORSCH CONSULT

CONSULTING ENGINEERS - MUNICH - W. GERMANY
 in association with
AL-KHAZEN - CONSULTING ENGINEERS - BAGHDAD - IRAQ

CONTRACT SECTION					
UP		SIDEWALK			
1009					
DATE	DESIGNED	DRAWN		SCALE	DRG. No.
June 30	<i>Howe</i>	<i>Ke</i>			2.2.205



REPUBLIC OF IRAQ
MINISTRY OF WORKS AND HOUSING
 DIRECTORATE GENERAL OF ROADS AND BRIDGES

IRAQ EXPRESSWAY No ONE


 DORSCH CONSULT

CONSULTING ENGINEERS · MUNICH · W. GERMANY
 in association with
AL-KHAZEN · CONSULTING ENGINEERS · BAGHDAD-IRAQ

CONTRACT SECTION					
UP 100 g		TYPICAL DETAILS AT APPROACH EMBANKMENT			
DATE	DESIGNED	DRAWN		SCALE	DRG. No.
	<i>Shahid</i>	<i>ke</i>			22.201

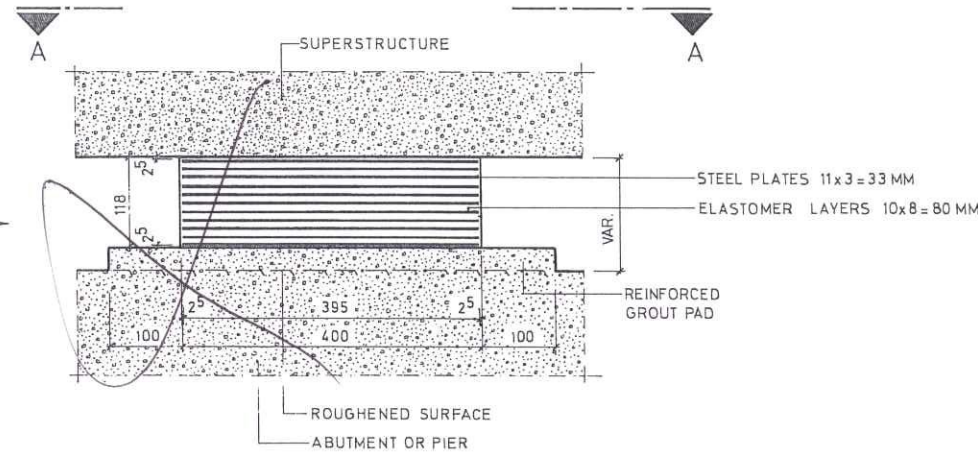
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SCALE 1:5

TOP VIEW A-A



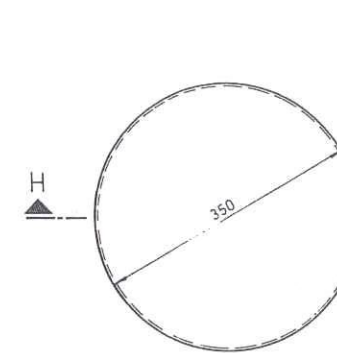
SECTION B-B



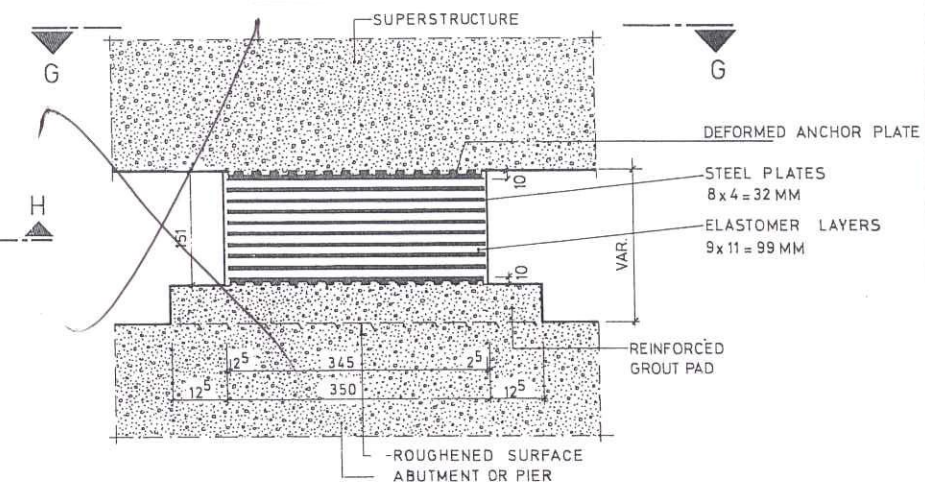
TYPE Ø 350/151

SCALE 1:5

TOP VIEW G-G



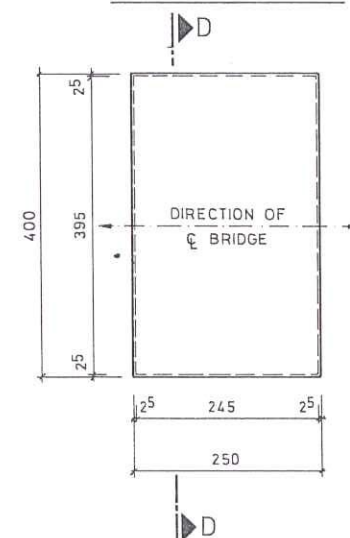
SECTION H-H



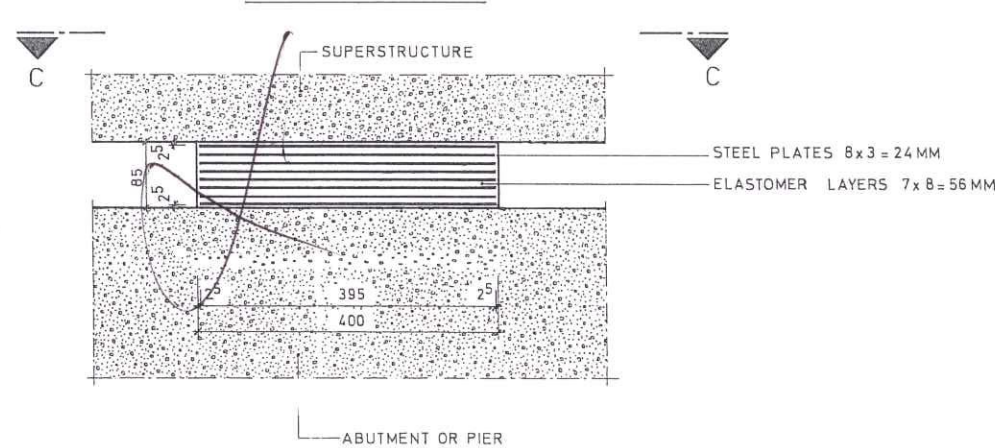
TYPE 400x250/85

SCALE 1:5

TOP VIEW C-C



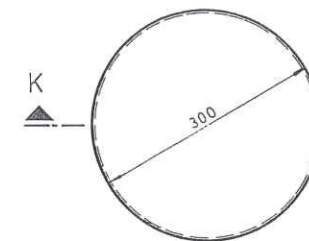
SECTION D-D



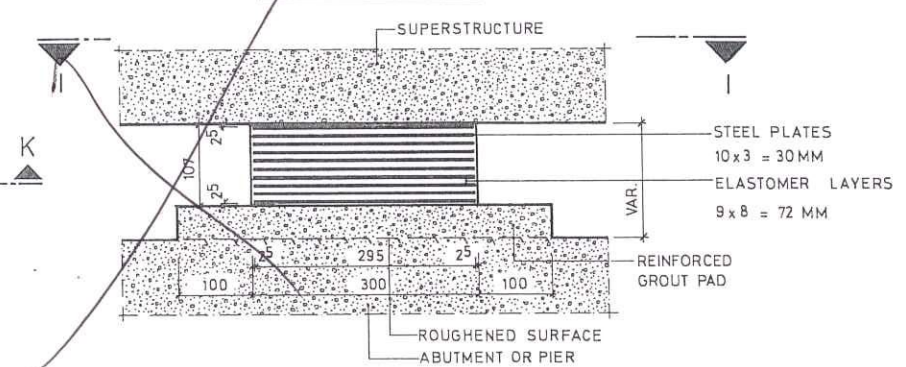
TYPE Ø 300/107

SCALE 1:5

TOP VIEW I-I



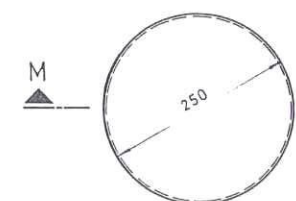
SECTION K-K



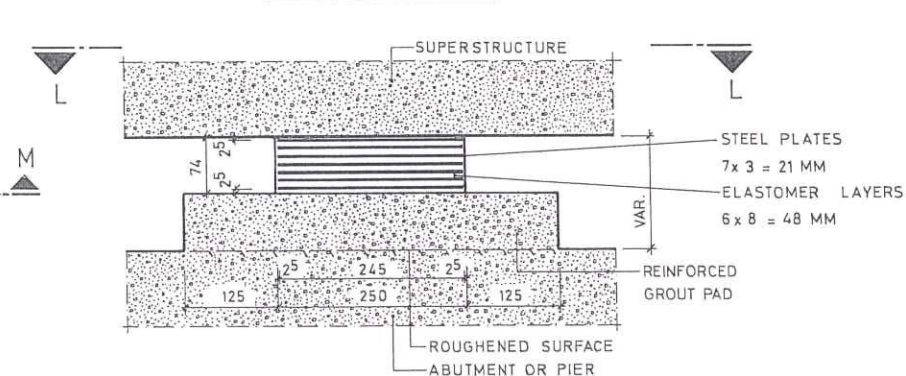
TYPE Ø 250/74

SCALE 1:5

TOP VIEW L-L



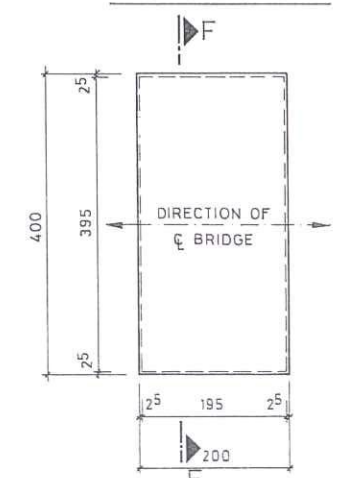
SECTION M-M



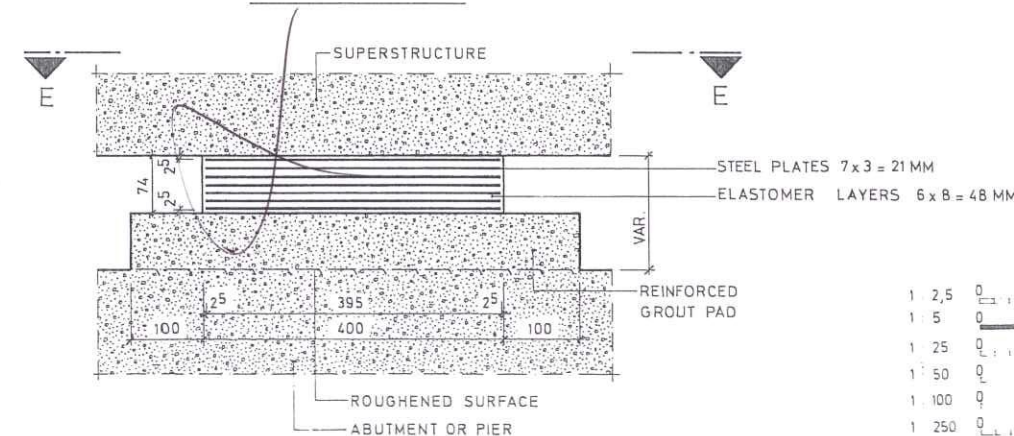
TYPE 400x200/74

SCALE 1:5

TOP VIEW E-E



SECTION F-F



ALL DIMENSIONS IN MM !

1	2,5	0	5	10	cm
1	5	0	5	10	cm
1	25	0	50	100	cm
1	50	0	1	2	m
1	100	0	1	2	m
1	250	0	5	10	m
1	500	0	5	10	m
1	1000	0	10	20	m

REPUBLIC OF IRAQ MINISTRY OF WORKS AND HOUSING DIRECTORATE GENERAL OF ROADS AND BRIDGES		CONTRACT SECTION UP 1009		ELASTOMERIC REINFORCED BEARINGS	
IRAQ EXPRESSWAY No ONE		DATE	DESIGNED	DRAWN	SCALE
DORSCH CONSULT CONSULTING ENGINEERS · MUNICH · W. GERMANY in association with AL-KHAZEN · CONSULTING ENGINEERS · BAGHDAD-IRAQ					DRG. N
					2.2.20

MAX. ALLOWABLE MOVEMENT = ± 25 MM

SECTION A-A SCALE 1:2

[illegible]

Technical drawing of a bridge deck cross-section. The drawing shows a rectangular cross-section with a total width of 2000 mm and a total height of 376 mm. The top flange has a thickness of 43 mm. The web has a height of 240 mm. The bottom flange has a thickness of 43 mm. The deck is divided into 7 lanes, each 250 mm wide, totaling 1750 mm. The distance from the centerline of the deck to the centerline of the first lane is 130 mm. The distance from the centerline of the last lane to the centerline of the deck is 120 mm. The drawing is labeled "SCALE 1:20" and "A".

Technical drawing of a bonded repair showing dimensions and a note:

- Top dimensions: 10, 20, 50, 50, 20, 10
- Left vertical dimension: 47
- Right note: BONDED, ACCORDING TO MANUFACTURER'S SPECIFICATIONS!
- Bottom dimensions: 10, 2000, 2000, 10
- Total bottom dimension: 2010

1. ALL DIMENSIONS IN MM.
2. ALL MATERIALS SHALL STRICTLY COMPLY WITH MANUFACTURER'S SPECIFICATIONS.

C.S. IN SIDEWALK AREA
SCALE 1:10

LEGEND:

- ① = SEALANT AS PROVIDED BY EXP. JOINT SEAL MANUFACTURER AND APPROVED BY ENGINEER'S REPRESENTATIVE.
- ② = BITUMINOUS FILLER AS APPROVED BY ENGINEER'S REPRESENTATIVE.
- ③ = EPOXY - BONDED STUD ANCHOR BOLTS (16 MM DIAM.)

 = NEOPRENE

 OR  = STEEL

MAX. ALLOWABLE MOVEMENT = ± 35 MM

Technical drawing of a bridge cross-section showing the abutment and superstructure. The drawing includes dimensions in millimeters (mm) and meters (m). Key components labeled include the ABUTMENT, SUPERSTRUCTURE, PAVEMENT, and various structural elements like the M 16 bolt. Dimensions include 30, 45, 90, 25, 160, 25, 90, 45, 30, 391, 300 m, 53, 39, 159, 70, 125, 20, 80, and 159. A callout (2) points to the PAVEMENT layer.

ELEVATION OF STONE LINTEL

SCALE 1:20

391

45

300

45

130

7 x 250 = 1750

120

10

2000

SECTION A-A SCALE 1:2

Technical drawing of a bonded repair patch. The drawing shows a cross-section of a concrete substrate with a repair patch. The patch is 2010 mm wide and 2000 mm high. The substrate is 2000 mm wide and 10 mm thick. The patch is 10 mm thick. The patch is bonded to the substrate. The drawing includes dimensions for the patch and substrate, and a note: "BONDED ACCORDING TO MANUFACTURER'S SPECIFICATIONS!"

REQUIRED SPACING OF ANCHOR BOLTS AT INSTALLATION

[illegible]MAX. ALLOWABLE MOVEMENT = ± 50 MM

Technical drawing of a bridge cross-section showing the abutment and superstructure. The drawing includes dimensions in millimeters and centimeters, and a scale of 1:250. Key components labeled include the abutment, superstructure, pavement, and various structural elements like the L 100 x 12 and 120 x 80 x 15. A table of scales is provided at the bottom right.

1: 2	0
1: 10	0 10
1: 20	0
1: 50	0
1: 100	0 1
1: 250	0

SCALE 1:20

591

500

45

250

250

130

7 x 250 = 1750

2000

120

A

SECTION A-A SCALE 1:2

Technical drawing of a cross-section of a concrete slab with a central joint. The slab has a total width of 2000 mm and a height of 55 mm. The joint is located in the center, with 1000 mm on either side. The drawing shows reinforcement bars (rebar) and a central joint. Dimensions are given in mm: 10, 20, 50, 50, 20, 10 for the top reinforcement; 10, 2000, 2000, 10 for the bottom reinforcement; and 55 for the height. A note points to the joint area: "BONDED ACCORDING TO MANUFACTURE SPECIFICATIONS!"

SCALE 1:10

1 : 2	0	4	8	cm		
1 : 10	0	10	20	30	40	cm
1 : 20	0	40	80	cm		
1 : 50	0	1	2	m		
1 : 100	0	1	2	3	4	m
1 : 250	0	5	10	m		
1 : 500	0	5	10	15	20	m
1 : 1000	0	10	20	30	40	m

REPUBLIC OF IRAQ
MINISTRY OF WORKS AND HOUSING
DIRECTORATE GENERAL OF ROADS AND BRIDGES

IRAQ EXPRESSWAY No ONE


DORSCH CONSULT

CONSULTING ENGINEERS · MUNICH · W. GERMANY

In association with

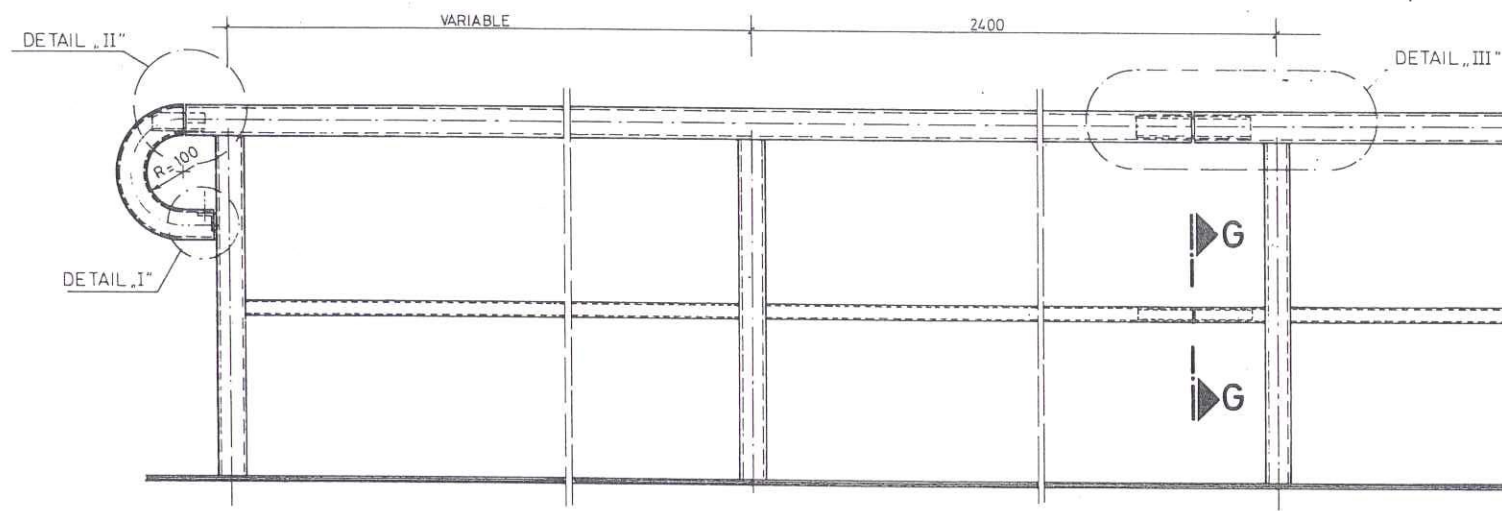
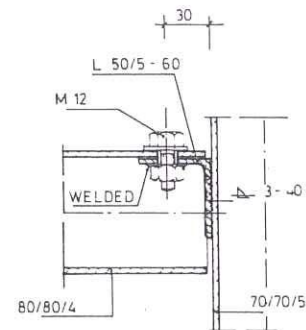
AL-KHAZEN · CONSULTING ENGINEERS · BAGHDAD-IRAQ

CONTRACT SECTION UP 100 ^g						EXPANSION JOINT SEALS TYPES 50/70/100	
DATE	DESIGNED	DRAWN		SCALE	DRG. No		
June 76	W	Te	C KET		2.2.208		

ELEVATION RAILING

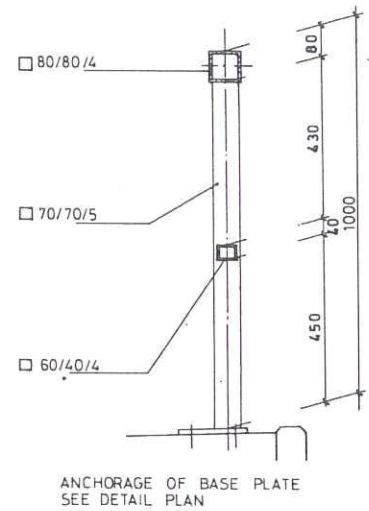
SCALE 1:10

DETAIL „I“
SCALE 1:2,5

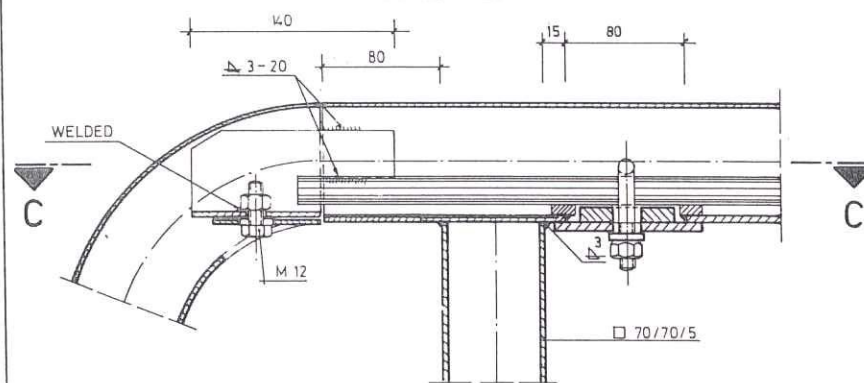


SECTION A-A

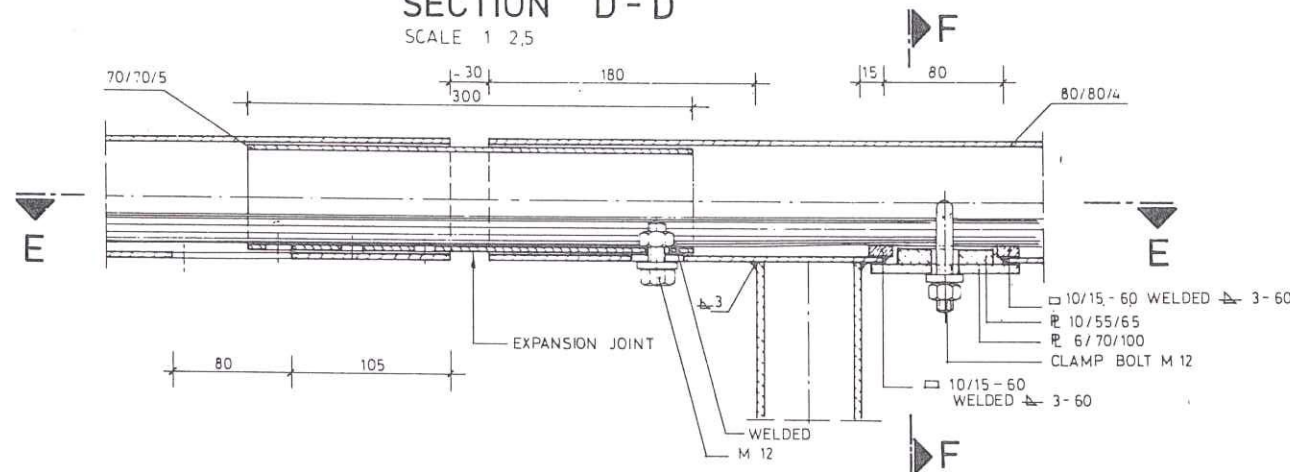
SCALE 1:10



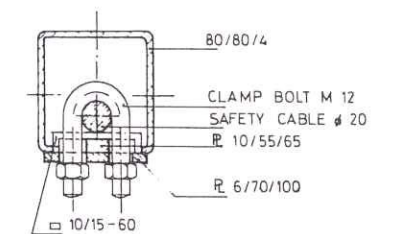
DETAIL „II“
SECTION B-B
SCALE 1:2,5



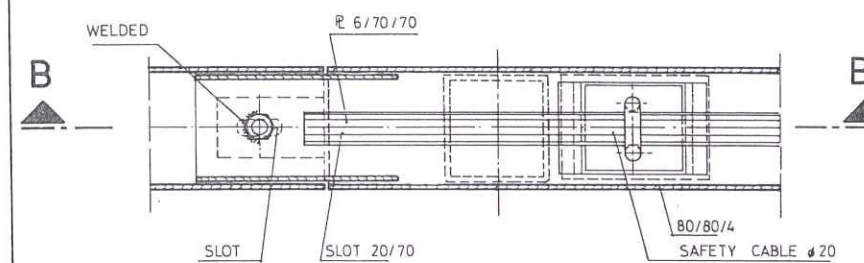
DETAIL „III“
SECTION D-D
SCALE 1:2,5



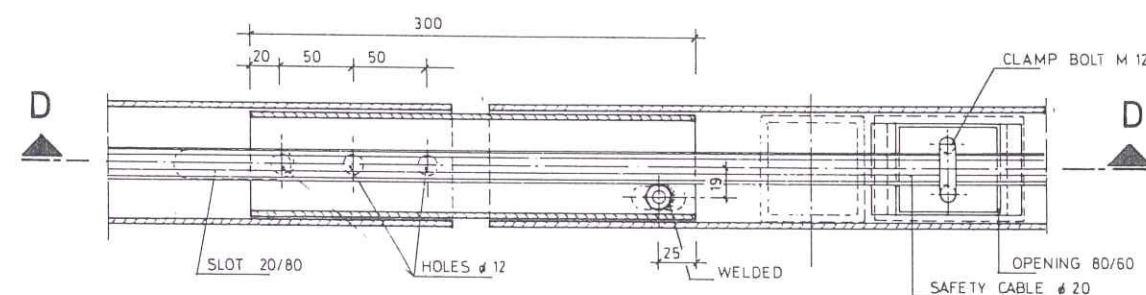
SECTION F-F
SCALE 1:2,5



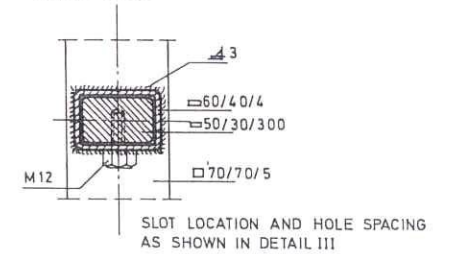
SECTION C-C
SCALE 1:2,5



SECTION E-E
SCALE 1:2,5

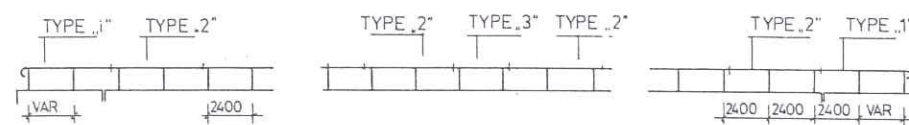


SECTION G-G
SCALE 1:2,5



ALL DIMENSIONS IN MM

LOCATION OF EXPANSION JOINTS



1 : 2,5	
1 : 10	
1 : 25	
1 : 50	
1 : 100	
1 : 250	
1 : 500	
1 : 1000	

REPUBLIC OF IRAQ
MINISTRY OF WORKS AND HOUSING
DIRECTORATE GENERAL OF ROADS AND BRIDGES

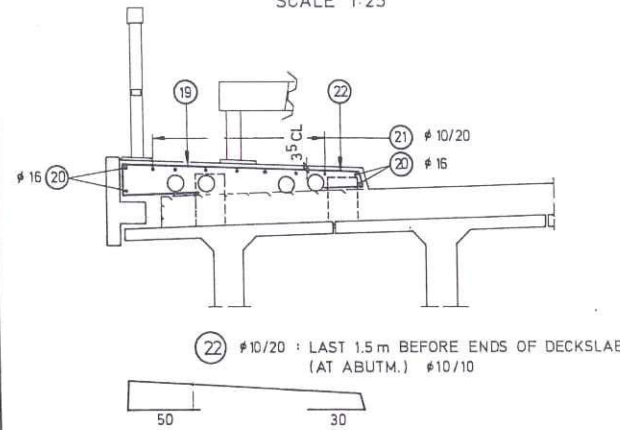
IRAQ EXPRESSWAY No ONE

CONSULTING ENGINEERS - MUNICH - W. GERMANY
in association with
AL-KHAZEN - CONSULTING ENGINEERS - BAGHDAD-IRAQ

CONTRACT SECTION		RAILING		SCALE		DRG. No	
UP	100 9						
DATE	DESIGNED	DRAWN					
June 76							

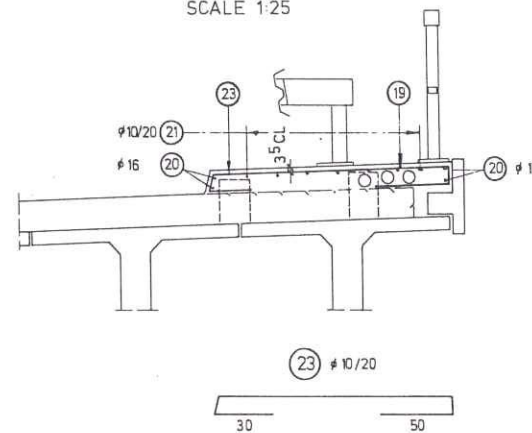
CROSS-SECTION - LEFT SIDE

SCALE 1:25



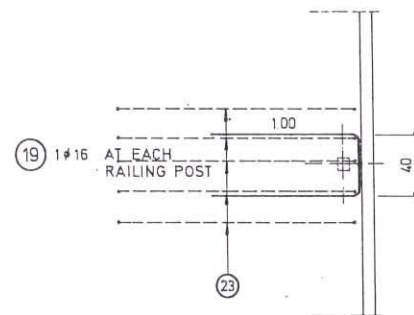
CROSS-SECTION - RIGHT SIDE

SCALE 1:25

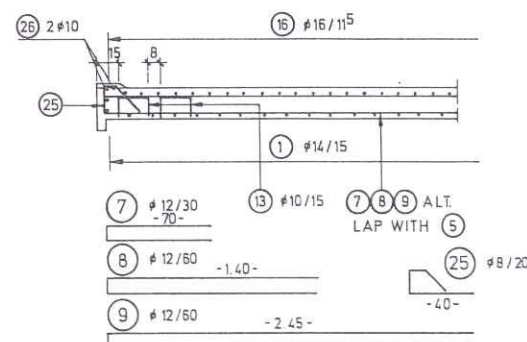


REINF. AT RAILING POST

SCALE 1:25

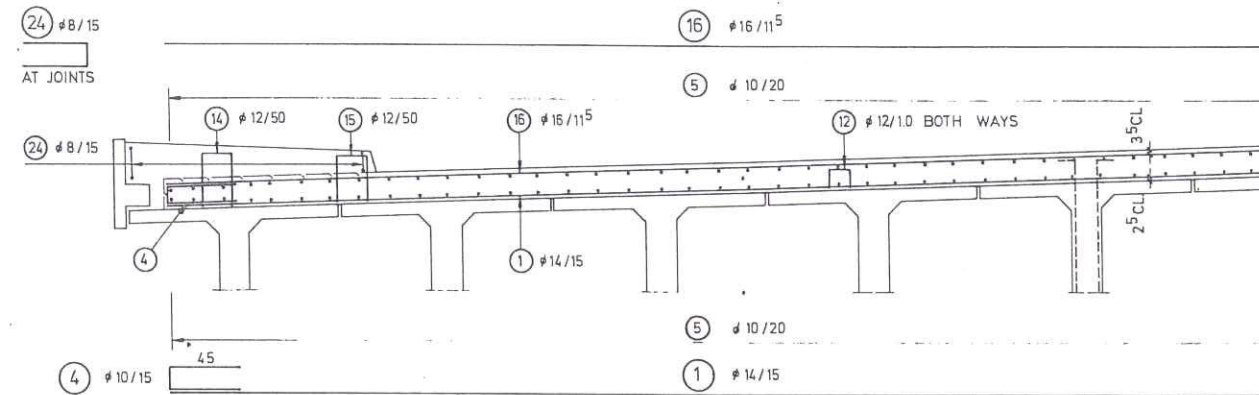


AT ABUTMENT



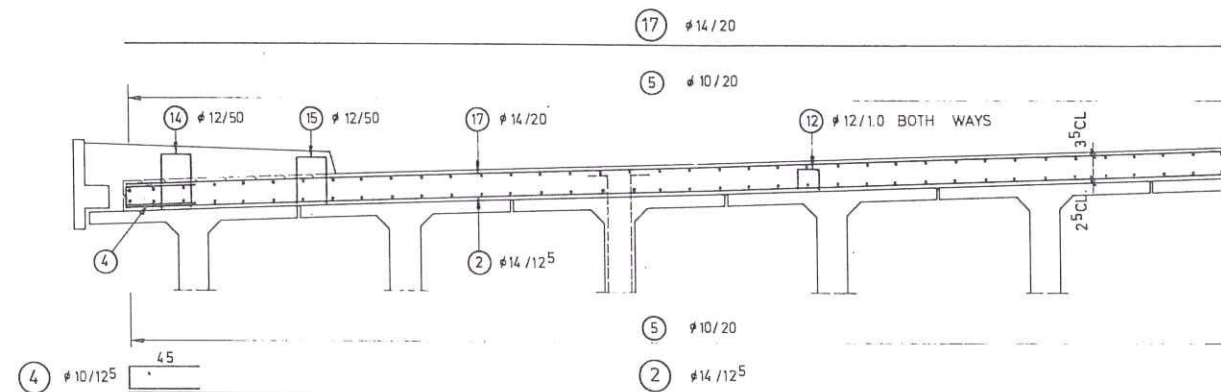
CROSS-SECTION ZONE A

SCALE 1:25



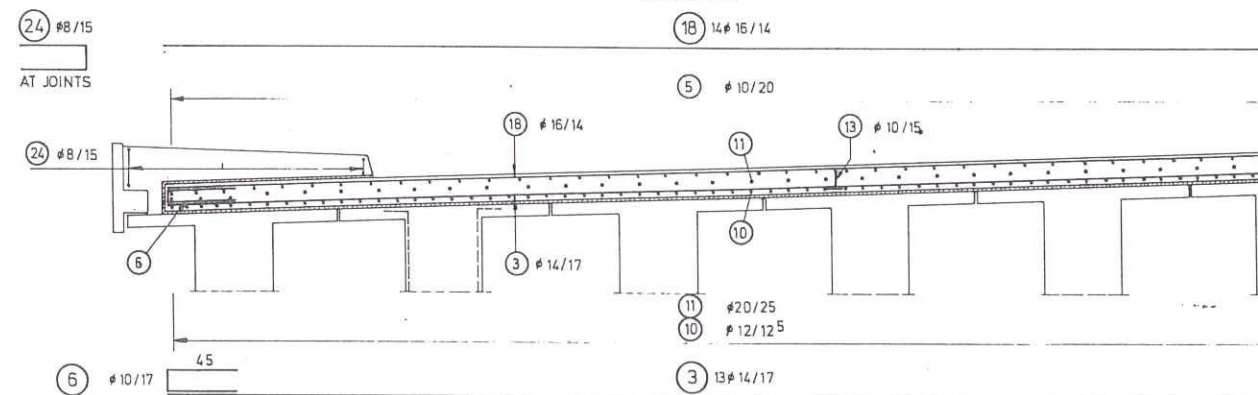
CROSS-SECTION ZONE B

SCALE 1:25



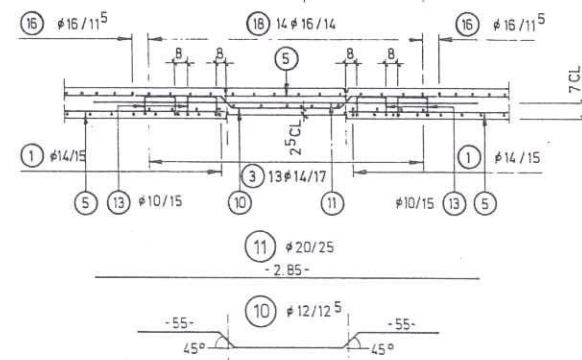
CROSS-SECTION HINGE SLAB

SCALE 1:25

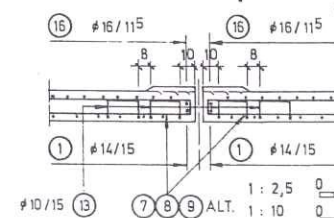


LONG. SECTION D-D

AT PIER (HINGE SLAB)*
SCALE 1:25



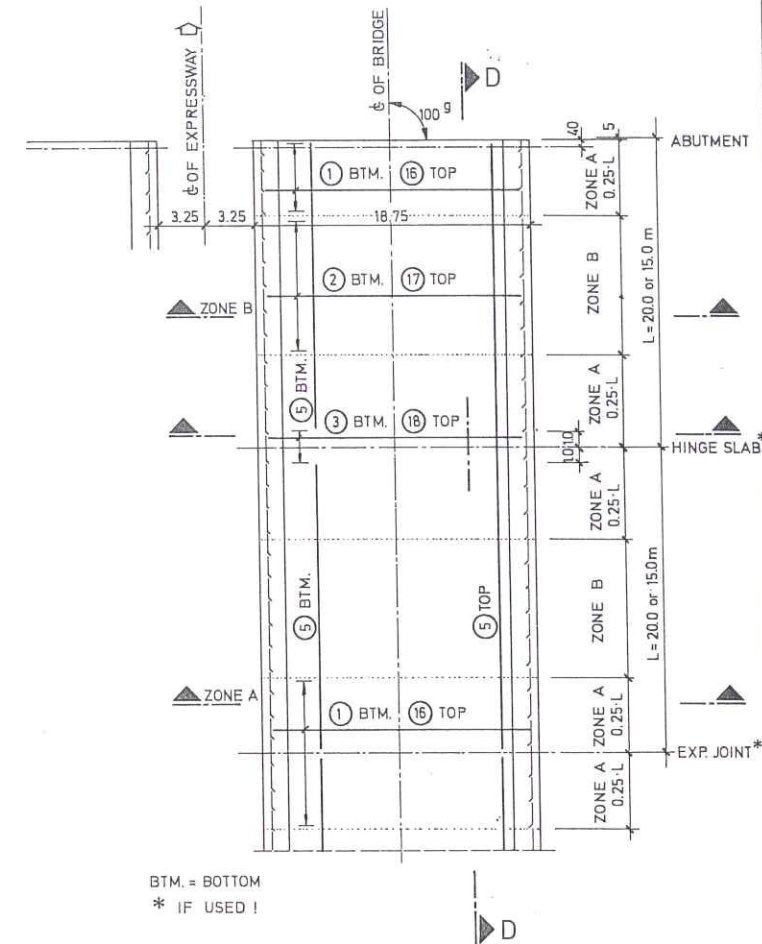
AT PIER (EXP. JOINT)*



* IF USED !

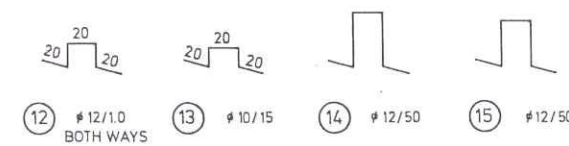
PLAN DECK SLAB

SCALE 1:250



BTM. = BOTTOM
* IF USED !

STIRRUPS

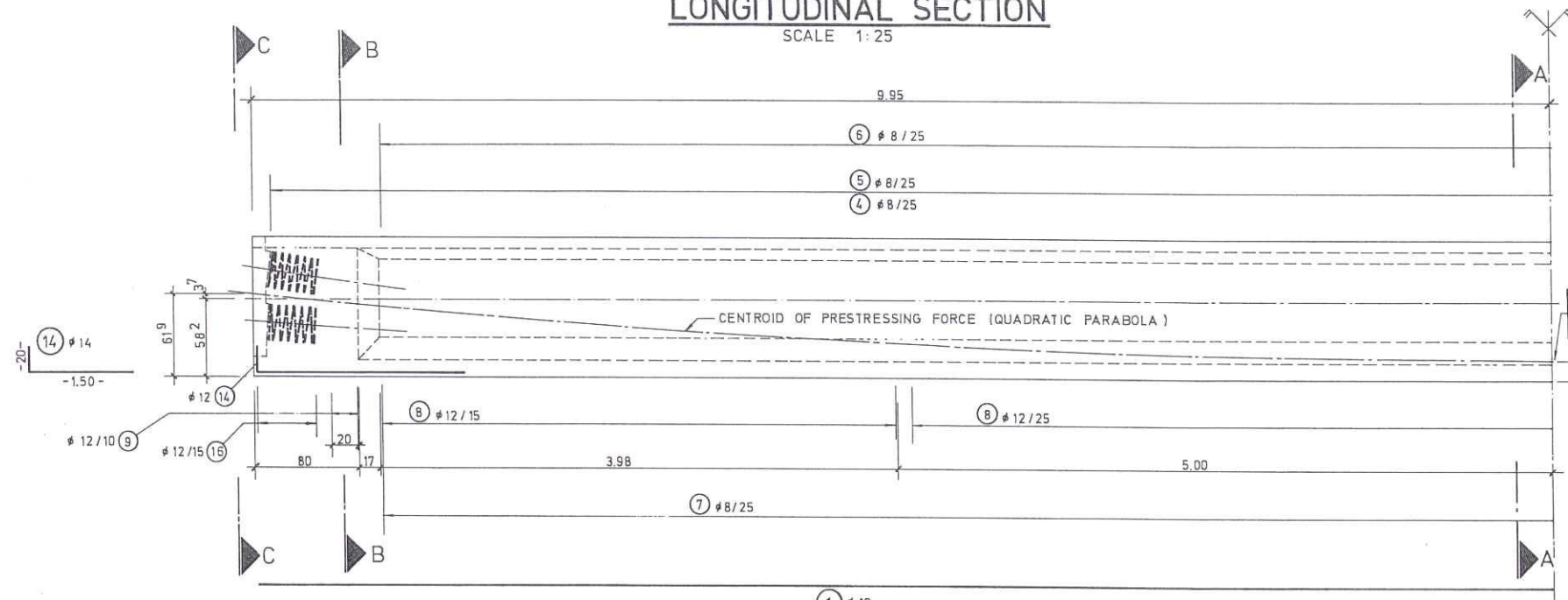


REPUBLIC OF IRAQ MINISTRY OF WORKS AND HOUSING DIRECTORATE GENERAL OF ROADS AND BRIDGES IRAQ EXPRESSWAY No ONE				CONTRACT SECTION UP 100 ^g SUPERSTRUCTURE REINFORCEMENT			
CONSULTING ENGINEERS - MUNICH - W. GERMANY in association with AL-KHAZEN - CONSULTING ENGINEERS - BAGHDAD-IRAQ				DATE	DESIGNED	DRAWN	SCALE
DORSCH CONSULT							DRG. No
							2.2.211

PRESTRESSED GIRDER 20m

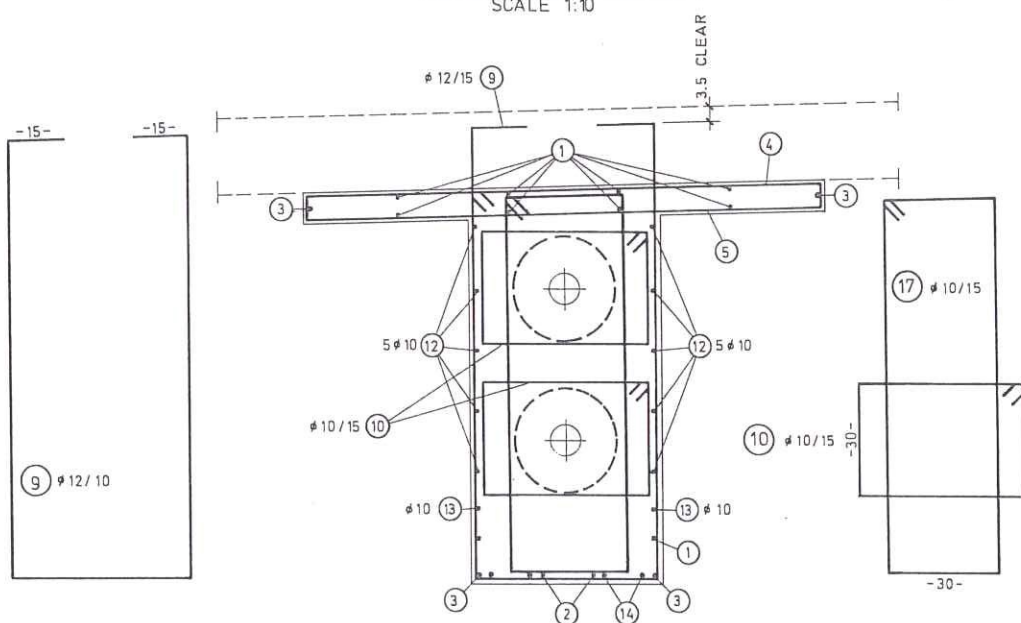
LONGITUDINAL SECTION

SCALE 1:25



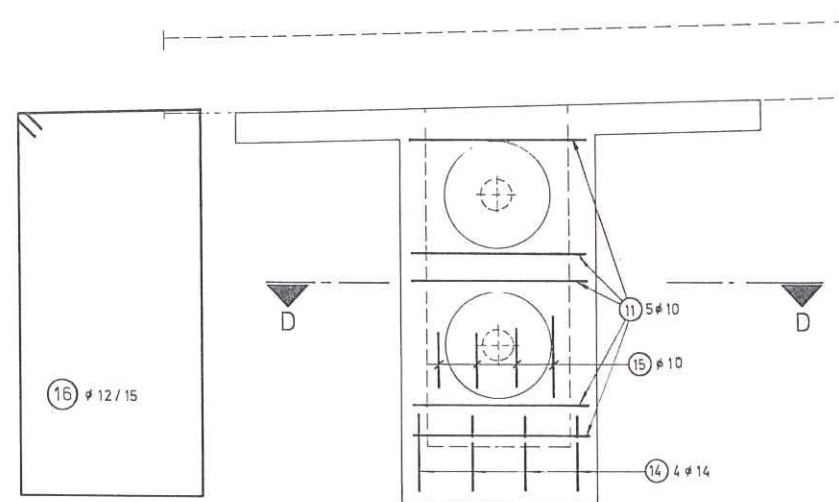
SECTION B-B

SCALE 1:10



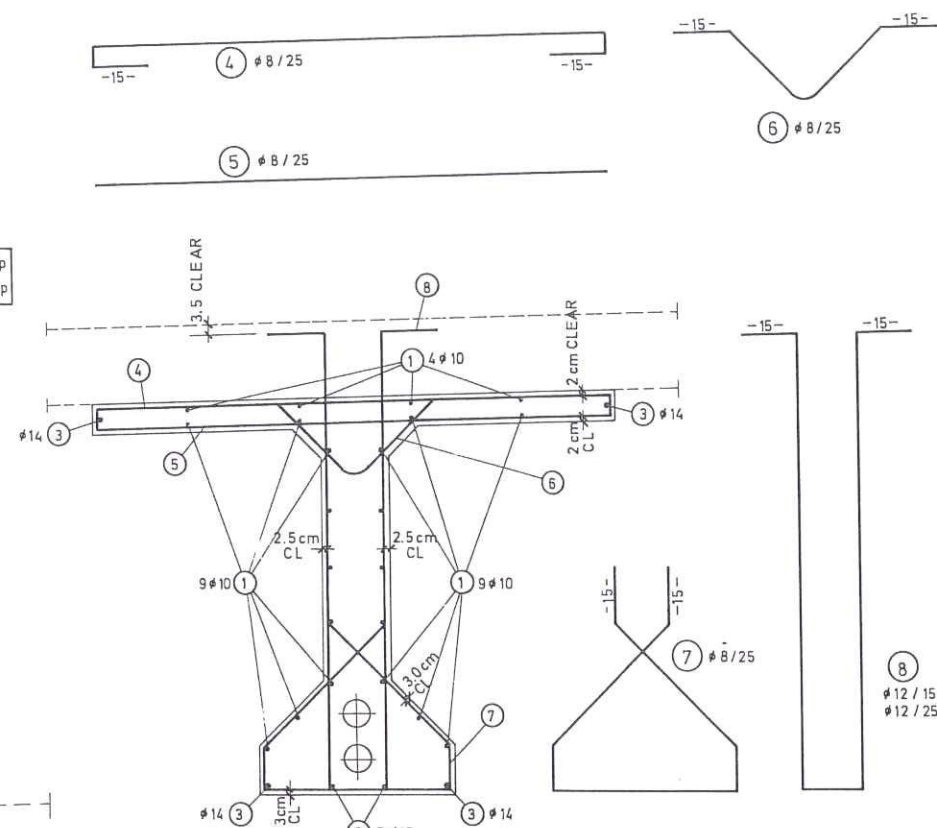
SECTION C-C

SCALE 1:10



SECTION A-A

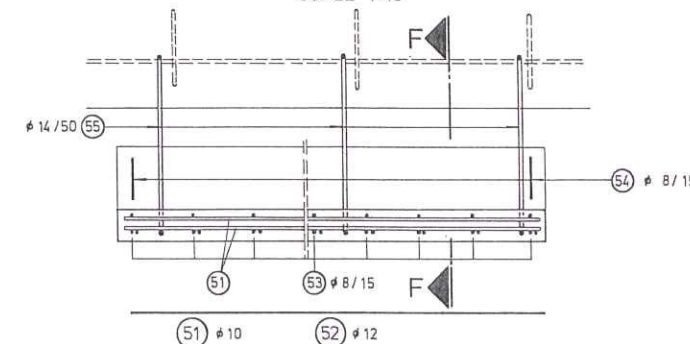
SCALE 1:10



PREFABRICATED FASCIA ELEMENT

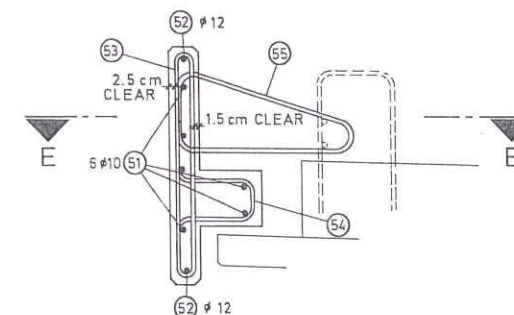
SECTION E-E

SCALE 1:10



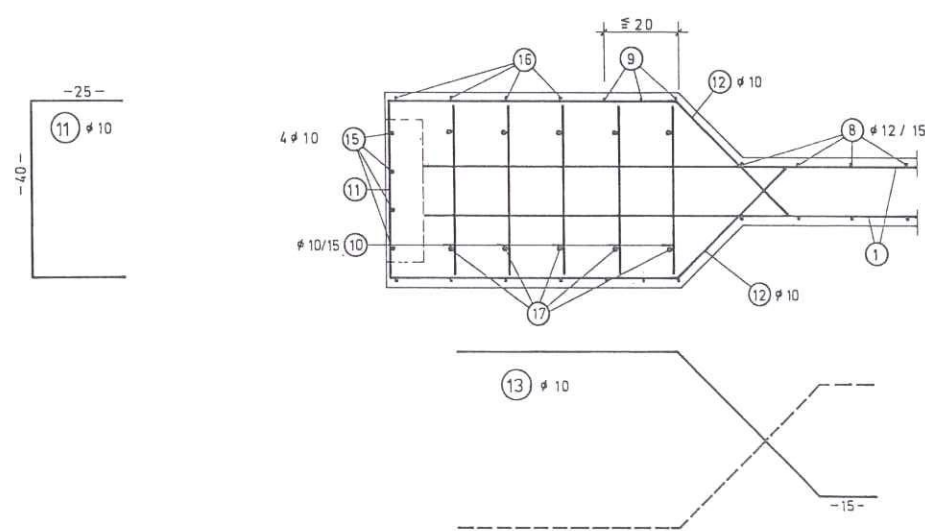
SECTION F-F

SCALE 1:10



SECTION D-D

SCALE 1:10



1 : 2,5	0	5	10	cm		
1 : 10	0	10	20	30	40	cm
1 : 25	0	50	100	cm		
1 : 50	0	1	2	3	4	m
1 : 100	0	1	2	3	4	m
1 : 250	0	5	10	15	20	m
1 : 500	0	5	10	15	20	m
1 : 1000	0	10	20	30	40	m

REPUBLIC OF IRAQ
MINISTRY OF WORKS AND HOUSING
DIRECTORATE GENERAL OF ROADS AND BRIDGES

IRAQ EXPRESSWAY No ONE



CONSULTING ENGINEERS · MUNICH · W. GERMANY
in association with
AL-KHAZEN · CONSULTING ENGINEERS · BAGHDAD · IRAQ

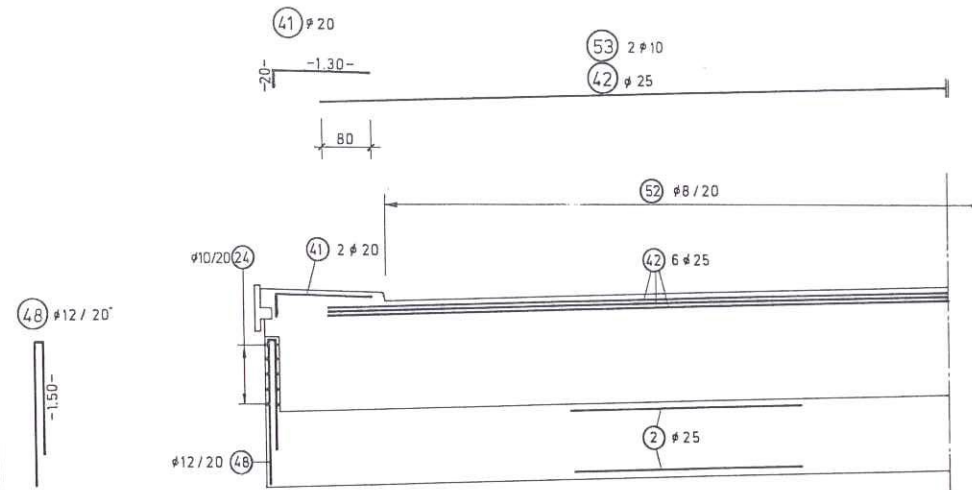
CONTRACT
SECTION

UP
100 9

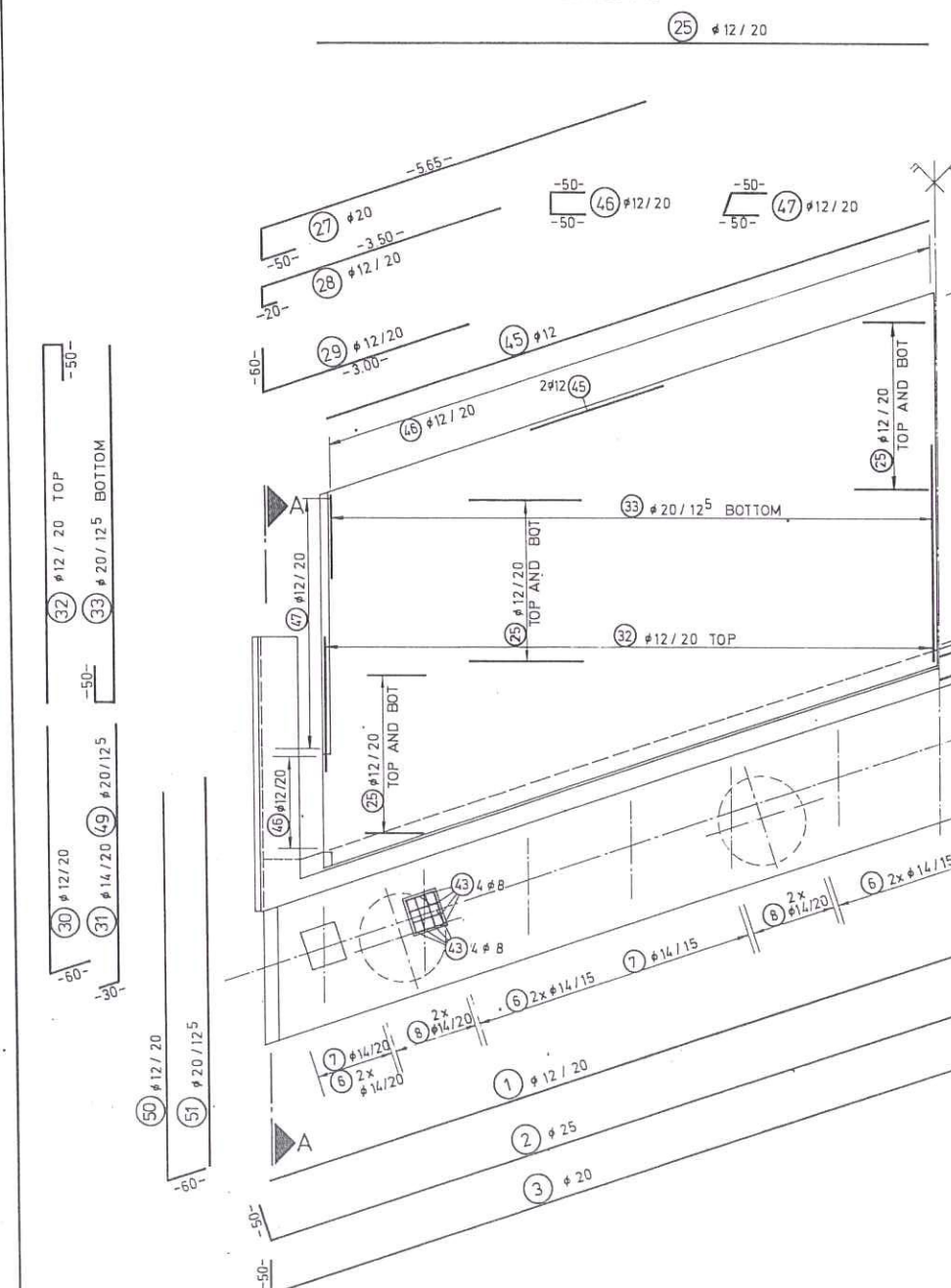
PREF. GIRDER, FASCIA ELEMENT
REINFORCEMENT

DATE	DESIGNED	DRAWN	SCALE	DRG. No
2000.12	Al-Khaizen	Ke		2.2.212

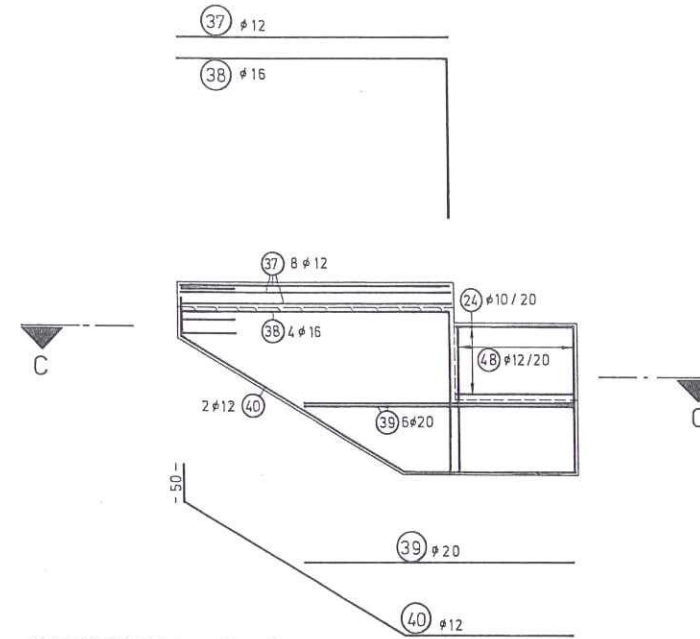
ELEVATION
SCALE 1:50



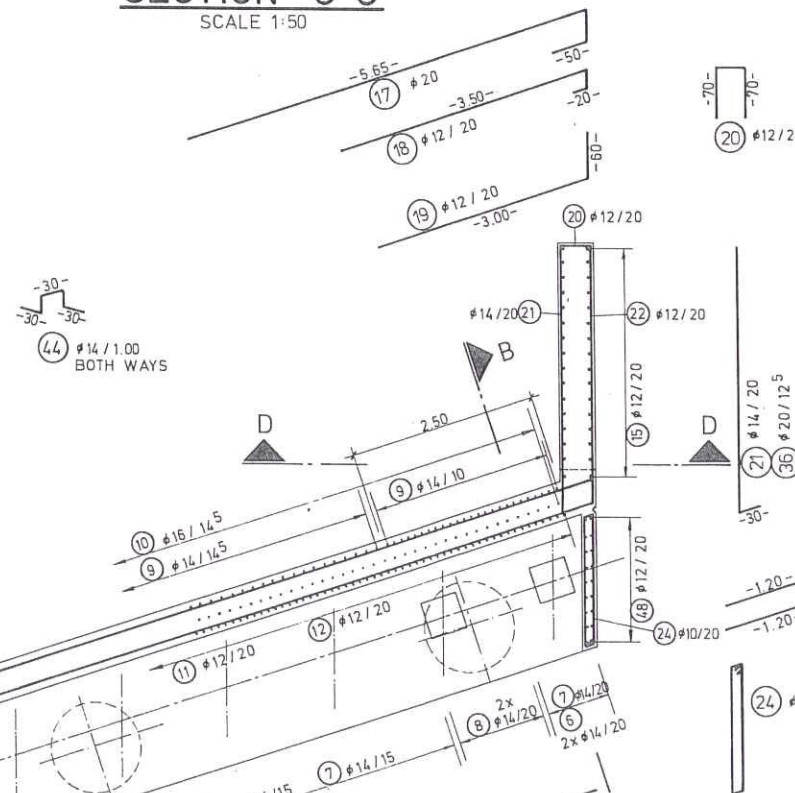
PLAN
SCALE 1:50



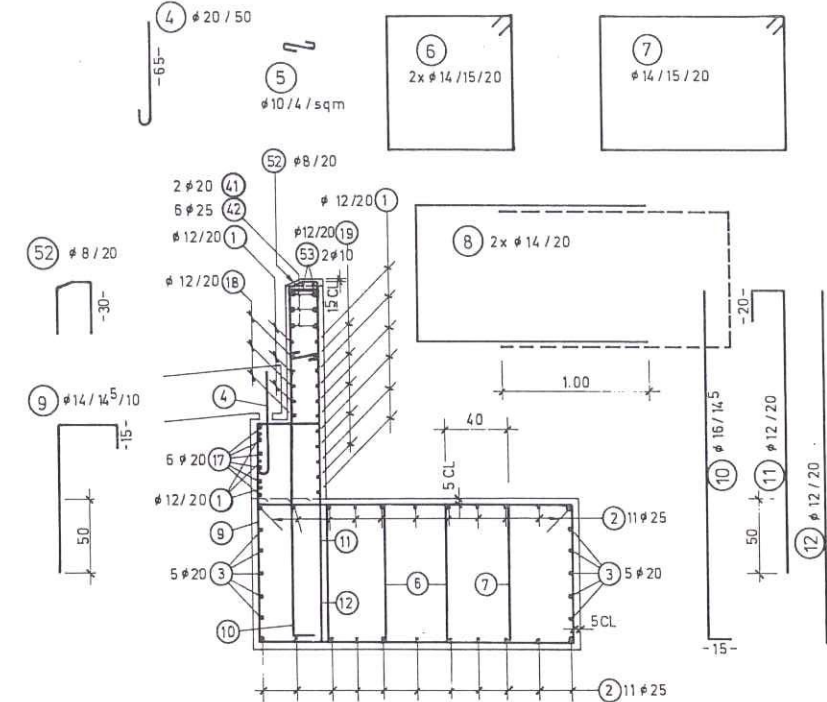
SECTION A-A
SCALE 1:50



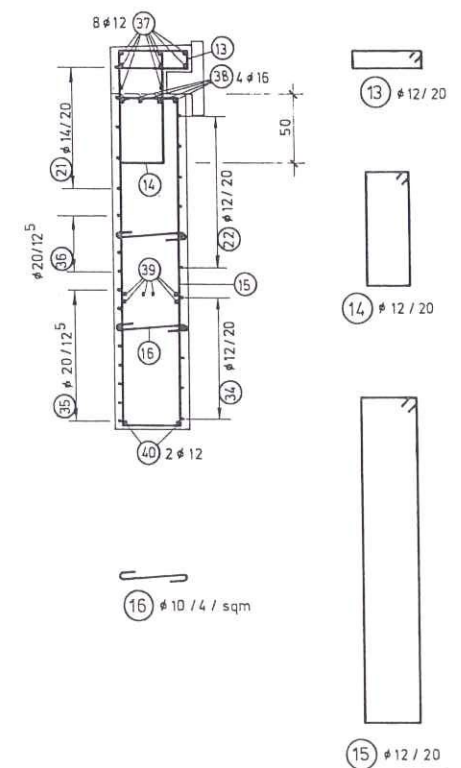
SECTION C-C
SCALE 1:50



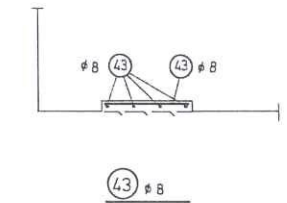
SECTION B-B
SCALE 1:25



SECTION D-D
SCALE 1:25



REINF. GROUT PAD
SCALE 1:25



NOTE: CROSSING ANGLE 80° SHOWN !

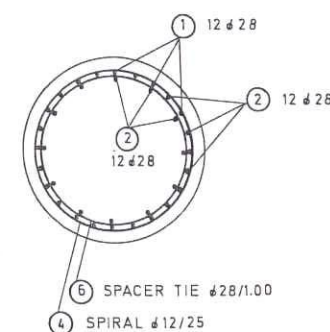
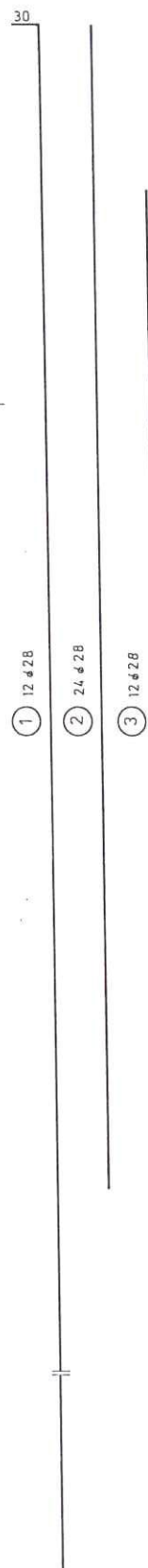
1:2.5	0	1	5	10 cm
1:10	0	10	20	40 cm
1:25	0	25	50	100 cm
1:50	0	50	100	200 cm
1:100	0	100	200	400 cm
1:250	0	250	500	1000 cm
1:500	0	500	1000	2000 cm
1:1000	0	1000	2000	4000 cm

REPUBLIC OF IRAQ MINISTRY OF WORKS AND HOUSING DIRECTORATE GENERAL OF ROADS AND BRIDGES		CONTRACT SECTION UP 100 9	
IRAQ EXPRESSWAY No ONE		ABUTMENT REINFORCEMENT	
CONSULTING ENGINEERS - MUNICH - W. GERMANY in association with AL-KHAZEN - CONSULTING ENGINEERS - BAGHDAD - IRAQ	DATE DESIGNED DRAWN	SCALE DRG. No	2.2.214

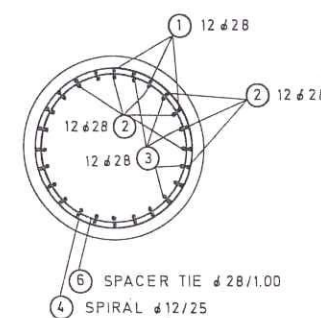
$$(H = 6.00 \div 9.00 \text{ m})$$

SCALE 1:50

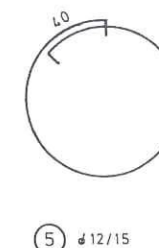
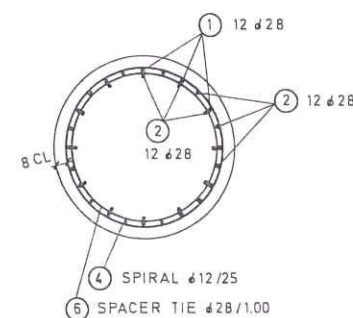
SCALE 1:25

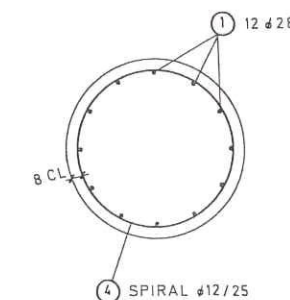


SCALE 1:25

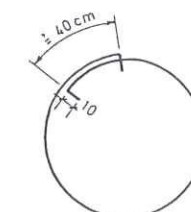


SCALE 1:25

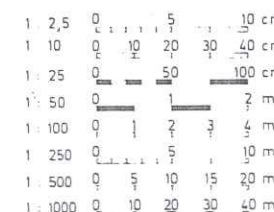




SPLICE FOR SPIRALS



INSTEAD OF SPIRALS CLOSED
TIES WITH SAME SPACING AND
STAGGERED SPLICES AS SHOWN
MAY BE USED



REPUBLIC OF IRAQ
MINISTRY OF WORKS AND HOUSING
 DIRECTORATE GENERAL OF ROADS AND BRIDGES

IRAQ EXPRESSWAY No ONE


 DORSCH CONSULT

CONSULTING ENGINEERS · MUNICH · W. GERMANY

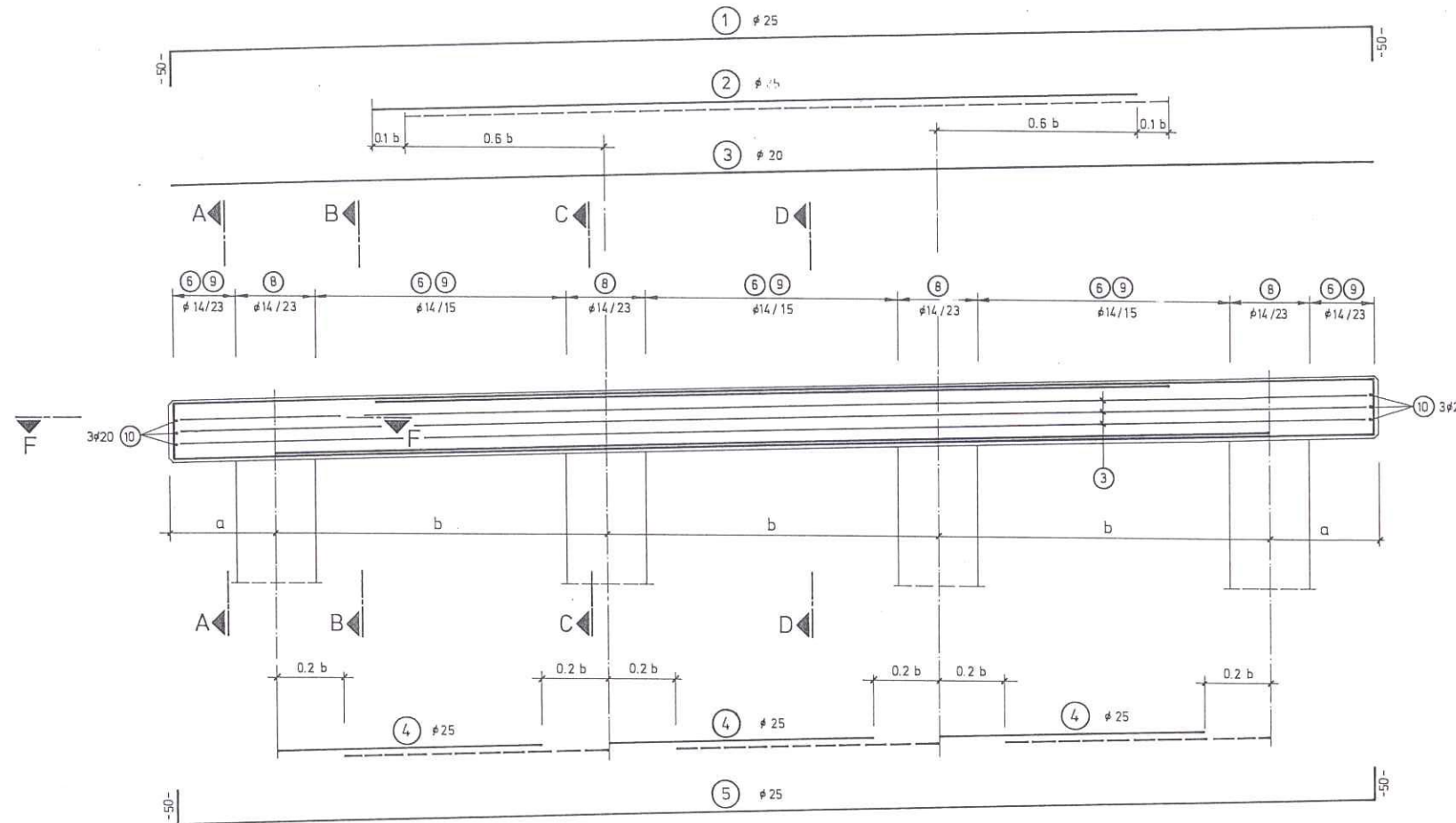
in association with

AL-KHAZEN · CONSULTING ENGINEERS · BAGHDAD-IRAQ

CONTRACT SECTION					
UP 100 g		PILE AT ABUTMENT TYPE I REINFORCEMENT			
DATE Feb 78	DESIGNED <i>L. Shaw</i>	DRAWN <i>AOL</i>		SCALE	DRG. No. 2.2.217

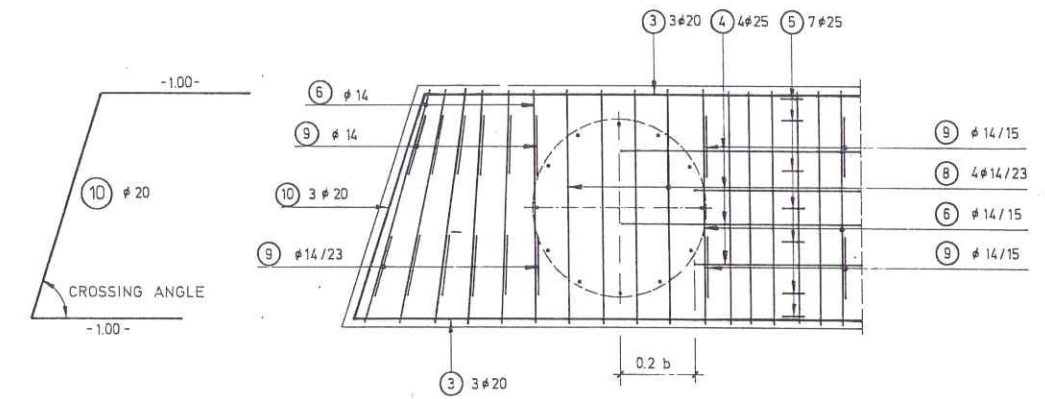
LONGITUDINAL SECTION

SCALE 1:50
100^g BRIDGE SHOWN



SECTION F-F

SCALE 1:25
80^g BRIDGE SHOWN



LIST OF REINFORCEMENT

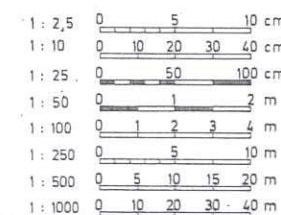
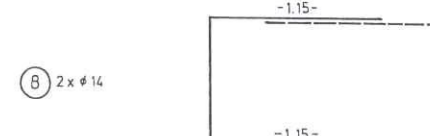
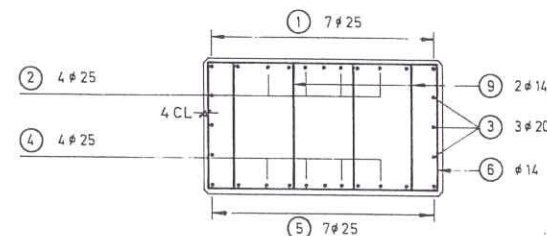
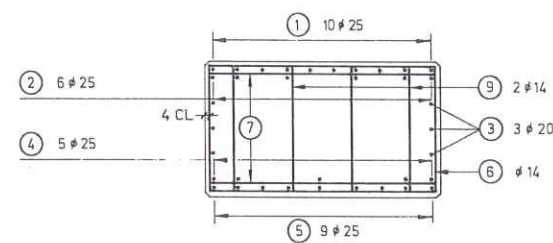
CROSSING ANGLE	60 ^g /140 ^g	80 ^g /120 ^g	100 ^g
DIMENSIONS:			
a	2.01 m	1.71 m	1.625 m
b	6.18 m	5.26 m	5.00 m
REINFORCEMENT:			
SECTIONS	AA	TOP	10 #25 (1)
		BOTTOM	9 #25 (5)
	BB	TOP	10 #25 (1)
		BOTTOM	9 #25 (5) + 8 #25 (4)
SECTIONS	CC	TOP	10 #25 (1) + 6 #25 (2)
		BOTTOM	9 #25 (5)
	DD	TOP	10 #25 (1) + 6 #25 (2)
		BOTTOM	9 #25 (5) + 5 #25 (4)

SECTION D-D

SCALE 1:25

60^g, 140^g

80^g, 100^g, 120^g



REPUBLIC OF IRAQ MINISTRY OF WORKS AND HOUSING DIRECTORATE GENERAL OF ROADS AND BRIDGES		CONTRACT SECTION UP 100 ^g PIER TRANSVERSE BEAM REINFORCEMENT	
IRAQ EXPRESSWAY No ONE		DATE: 10/10/70	DESIGNED: <i>Handwritten signature</i>
CONSULTING ENGINEERS - MUNICH - W. GERMANY AL-KHAZEN - CONSULTING ENGINEERS - BAGHDAD - IRAQ		DRAWN: <i>Handwritten signature</i>	SCALE: 2.2.218