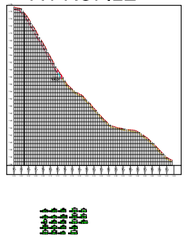
VOLUME 5

DESIGN DOCUMENTS, INCLUDING DRAWINGS

List of drawings attached

No.	Name	Drawing No.
1.	GENERAL DRAINAGE PLAN	DD-W-001
2.	DRAINAGE PLAN & PROFILE A	DD-W-002
3.	DRAINAGE PLAN & PROFILE B	DD-W-003
4.	DRAINAGE PLAN & PROFILE C	DD-W-004
5.	DRAINAGE PLAN & PROFILE D	DD-W-005
6.	DRAINAGE PLAN & PROFILE E	DD-W-006
7.	DRAINAGE PLAN & PROFILE F	DD-W-007
8.	DRAINAGE PLAN & PROFILE K	DD-W-008
9.	DRAINAGE PLAN & PROFILE L	DD-W-009
10.	DRAINAGE PLAN & PROFILE M	DD-W-010
11.	TYPICAL SECTION DETAILS	DD-W-011
12.	CHANNELS DETAILS	DD-W-012
13.	DETAILS CONCRETE PIPES AND MANHOLES	DD-W-013

A PROFILE



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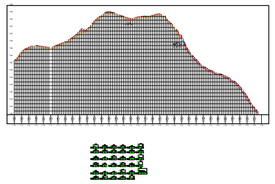

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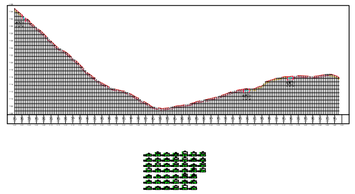

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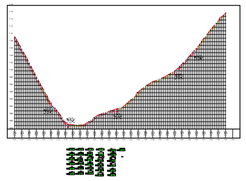
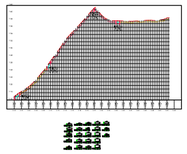


E PROFILE



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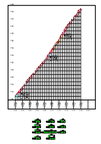

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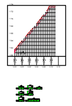

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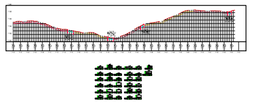

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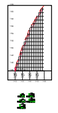


REPUBLIC OF LEBANON

MINISTRY OF INTERIOR AND MUNICIPALITY
JBEIL UNION OF MUNICIPALITIES

CONSTRUCTION DRAWING OF :
QARTABA CONCRETE WATER CHANNELS

اتحاد بلديات قضاء جبيل
FEDERATION OF JBEIL MUNICIPALITIES

KAD KHALIFE ARCHITECTS & DEVELOPERS

NOTES

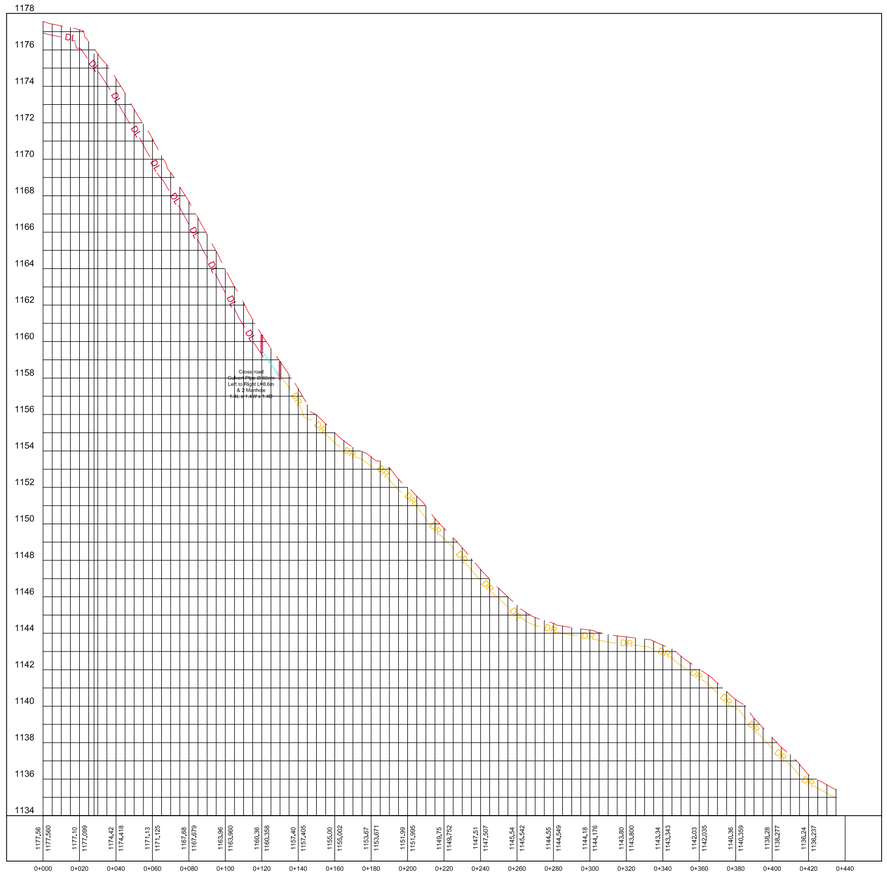
SYMBOL	SPECIFICATION
	CANAL
	WATER DIRECTION
	GRILL
	TANK
	REAL–ESTATE
	CENTERLINE
	MANHOLE
	SECTION LINE
	ROAD
	EXISTING WALLS
	HIDDEN PIPES
	HIDDEN CANALS

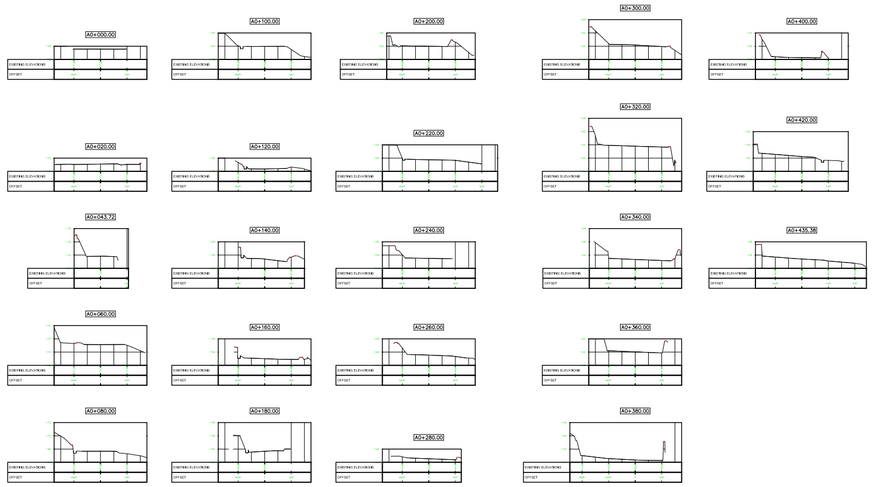
DRAWING TITLE

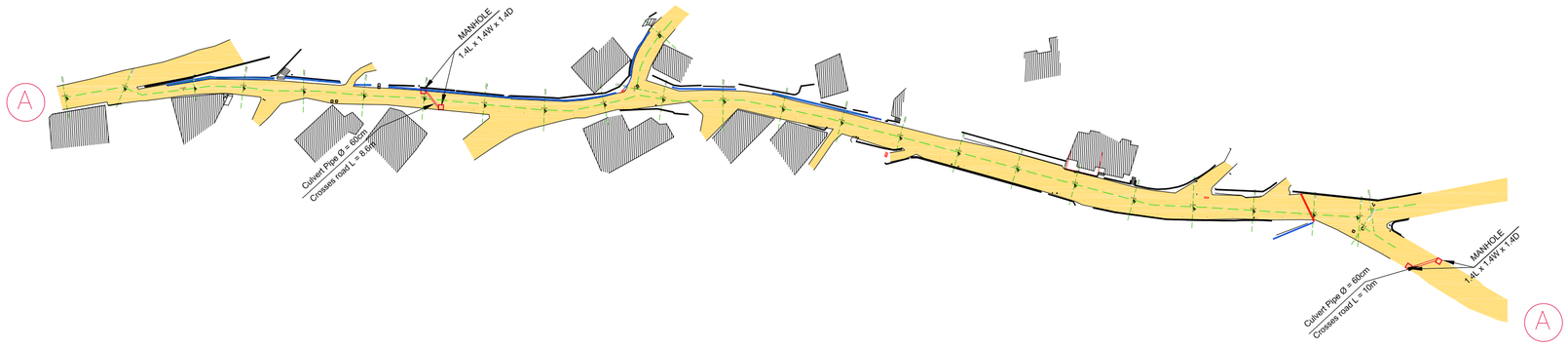
GENERAL DRAINAGE PLAN

DRAWING NUMBER	REVISION	
DD–W–001		
SCALE 1/2000	DRAWN Chadi DAOU	DESIGNED KAD– KHALIFE ARCHITECTS & DEVELOPERS
DATE September 2020	CHECKED KAD	APPROVED A. Michel Khalife

A PROFILE







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MINISTRY OF INTERIOR AND MUNICIPALITY
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CONSTRUCTION DRAWING OF :
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KAD KHALIFE ARCHITECTS & DEVELOPERS

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	ROAD
	EXISTING WALLS
	HIDDEN PIPES
	HIDDEN CANALS

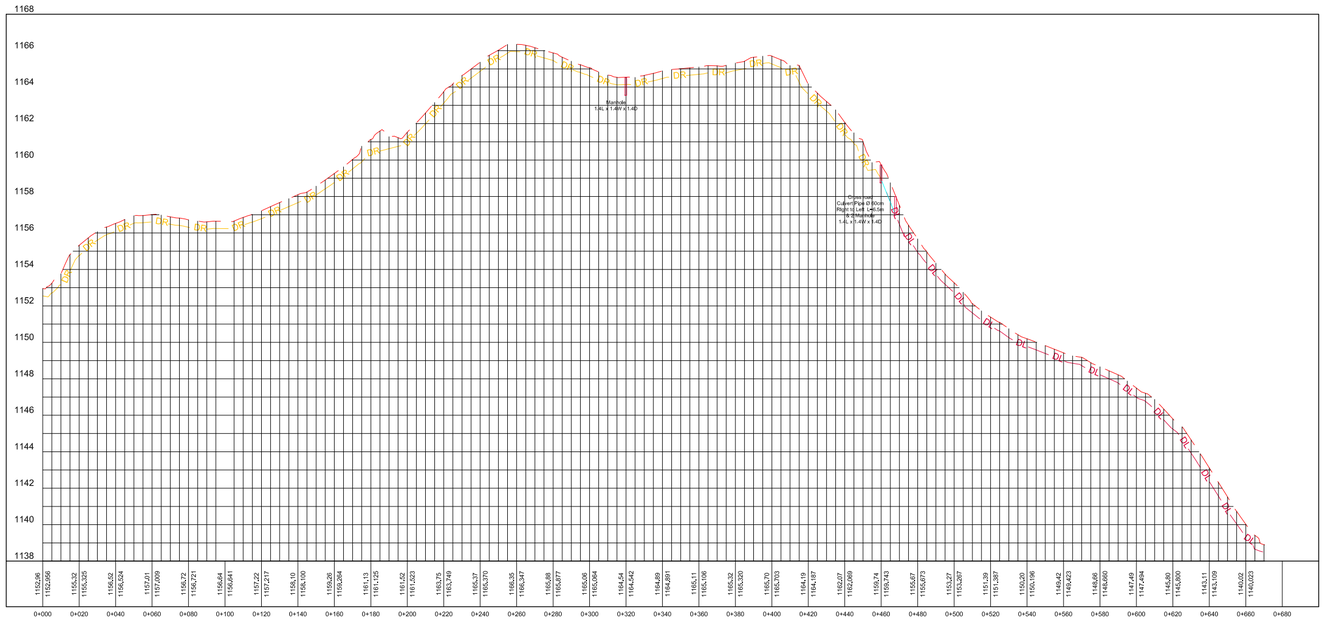
DRAWING TITLE

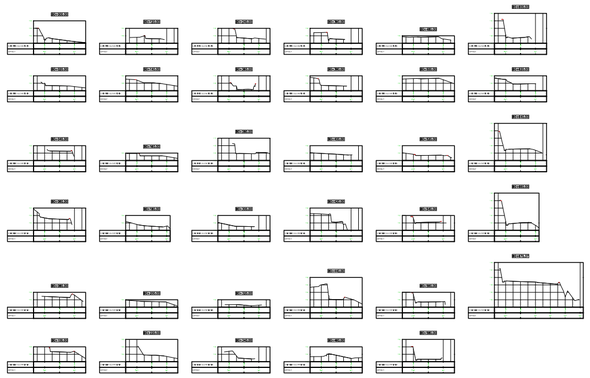
DRAINAGE PLAN & PROFILE
A

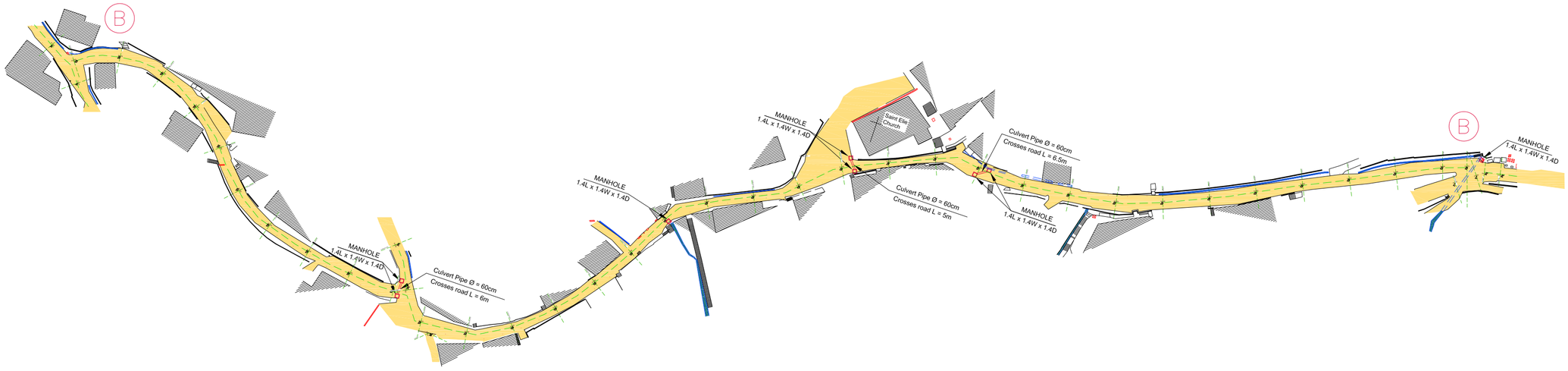
DRAWING NUMBER	REVISION
DD–W–002	

SCALE	DRAWN	DESIGNED
1/1000	Chadi DAOU	KAD– KHALIFE ARCHITECTS & DEVELOPERS
DATE	**CHECKED**	**APPROVED**
September 2020	KAD	A. Michel Khalife

B PROFILE







REPUBLIC OF LEBANON

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JBEIL UNION OF MUNICIPALITIES

CONSTRUCTION DRAWING OF :
QARTABA CONCRETE WATER CHANNELS

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FEDERATION OF JBEIL MUNICIPALITIES

KAD KHALIFE ARCHITECTS & DEVELOPERS

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	MANHOLE
	SECTION LINE
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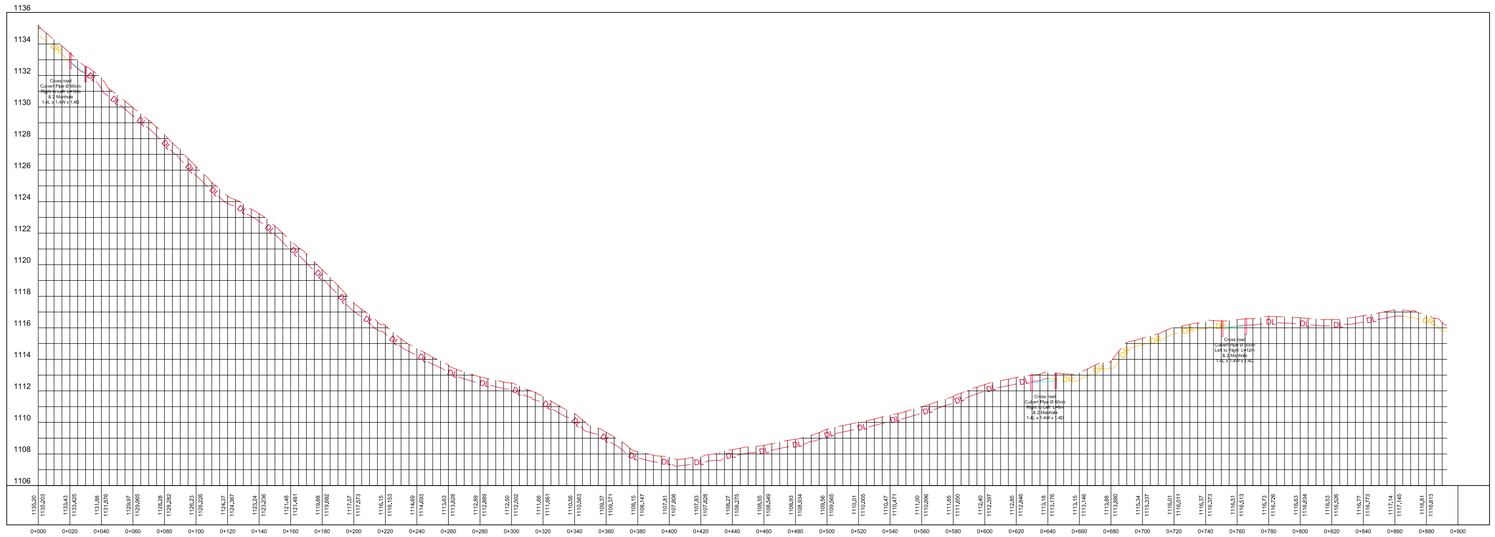
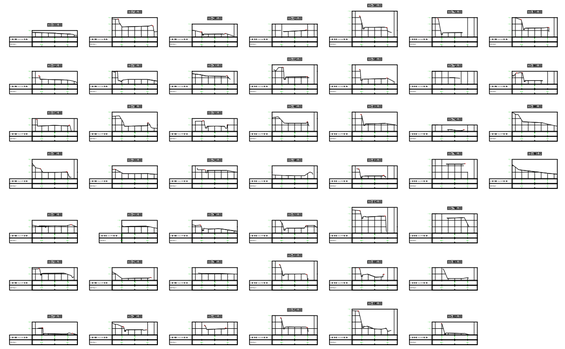
	EXISTING WALLS
	HIDDEN PIPES
	HIDDEN CANALS

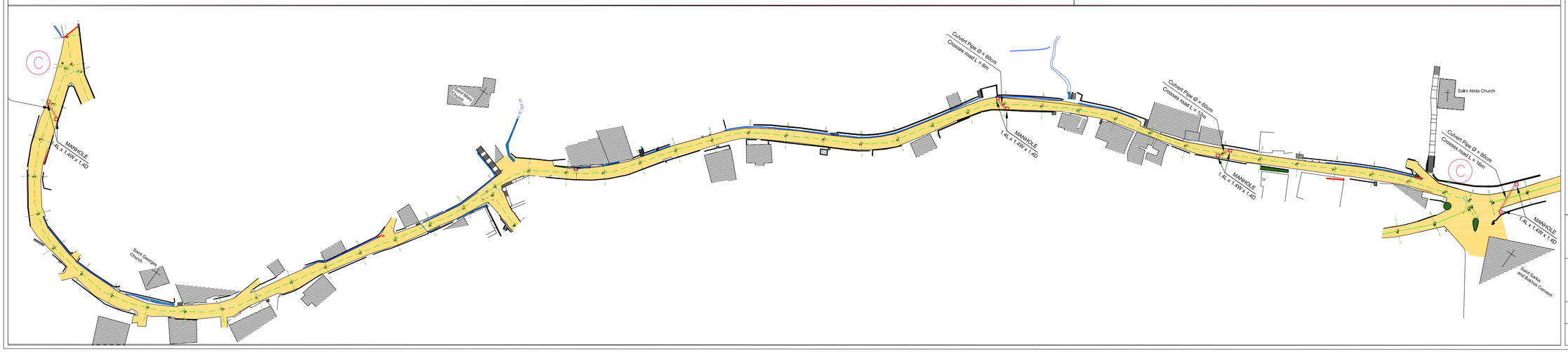
DRAWING TITLE
DRAINAGE PLAN & PROFILE
B

DRAWING NUMBER	REVISION	
DD–W–003		
SCALE 1/1000	DRAWN Chadi DAOU	DESIGNED KAD– KHALIFE ARCHITECTS & DEVELOPERS
DATE September 2020	CHECKED KAD	APPROVED A. Michel Khalife

C PROFILE







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FEDERATION OF JBEIL MUNICIPALITIES

KAD KHALIFE ARCHITECTS & DEVELOPERS

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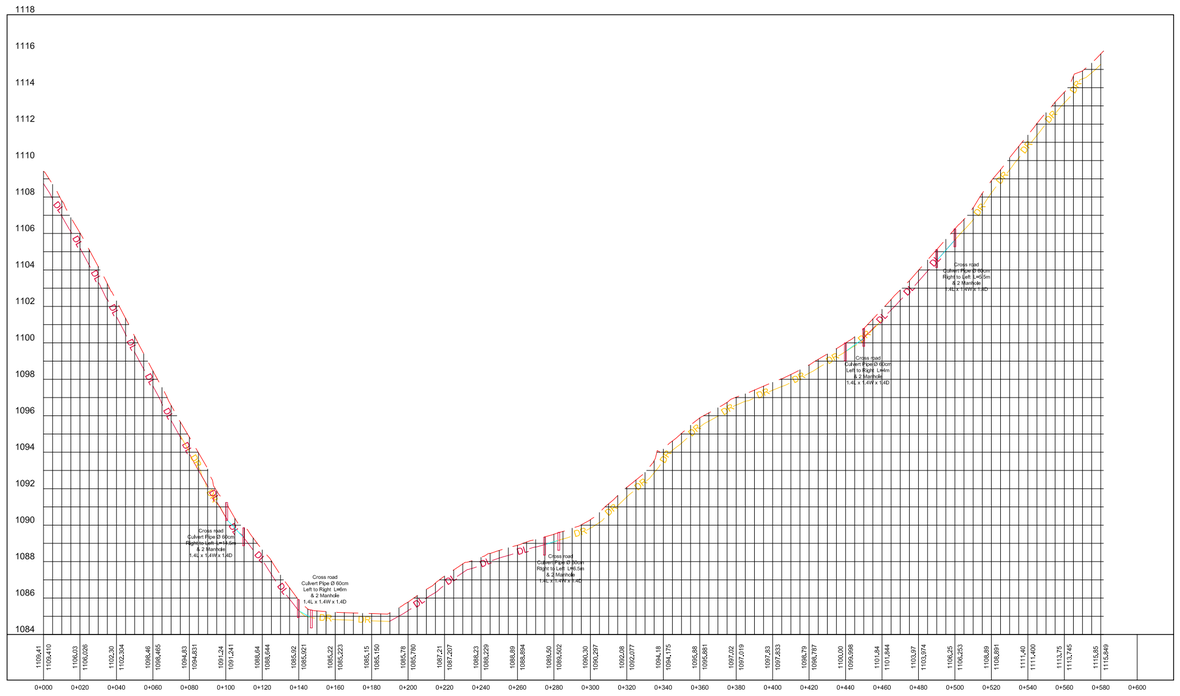
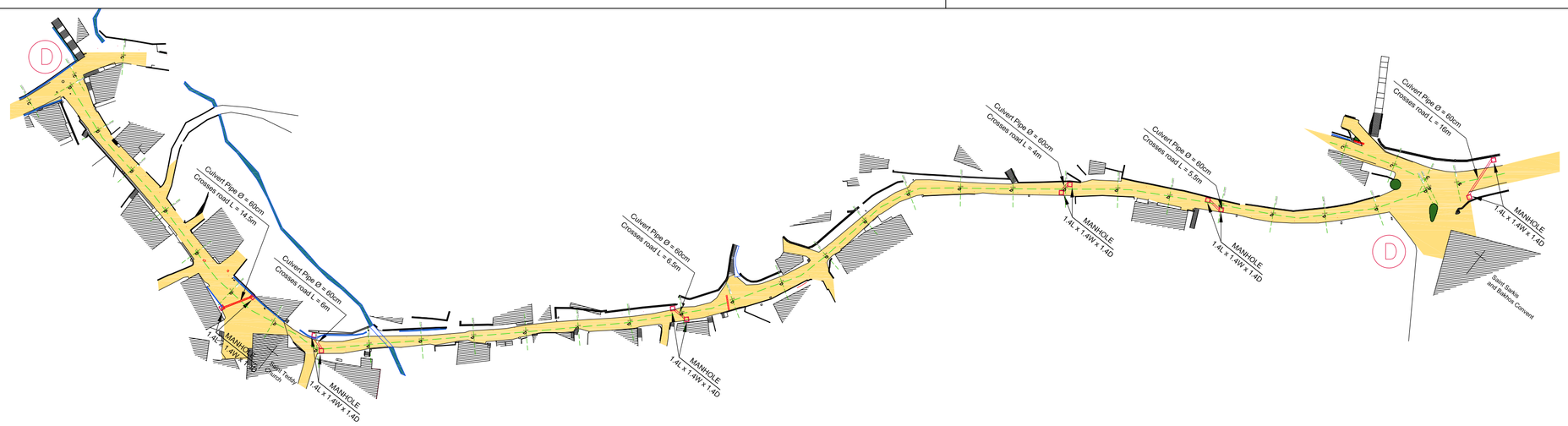
DRAWING TITLE
DRAINAGE PLAN & PROFILE
C

DRAWING NUMBER		REVISION
DD-W-004		
SCALE 1/1000	DRAWN Chadi DAOU	DESIGNED KAD- KHALIFE ARCHITECTS & DEVELOPERS
DATE September 2020	CHECKED KAD	APPROVED A. Michel Khalife

D PROFILE





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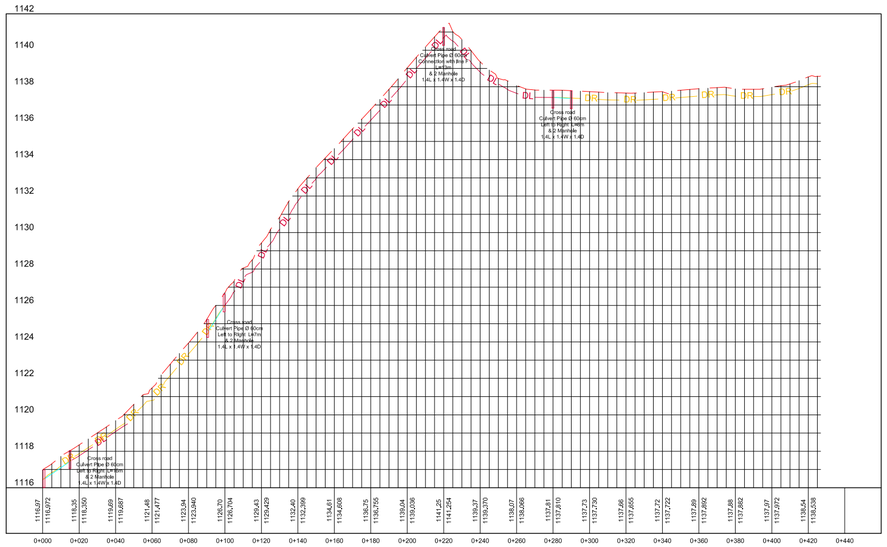
DRAWING TITLE

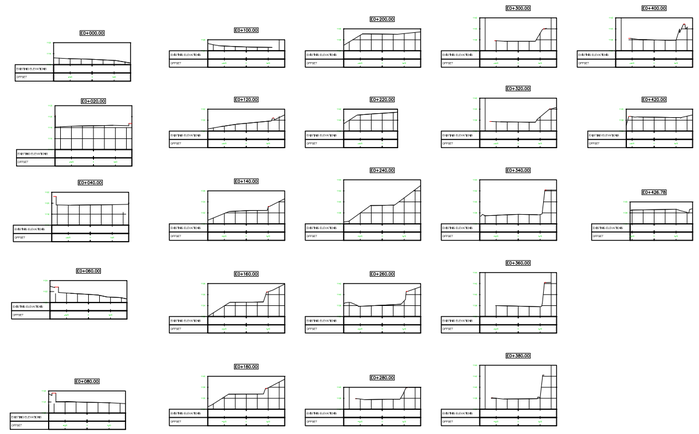
DRAINAGE PLAN & PROFILE
D

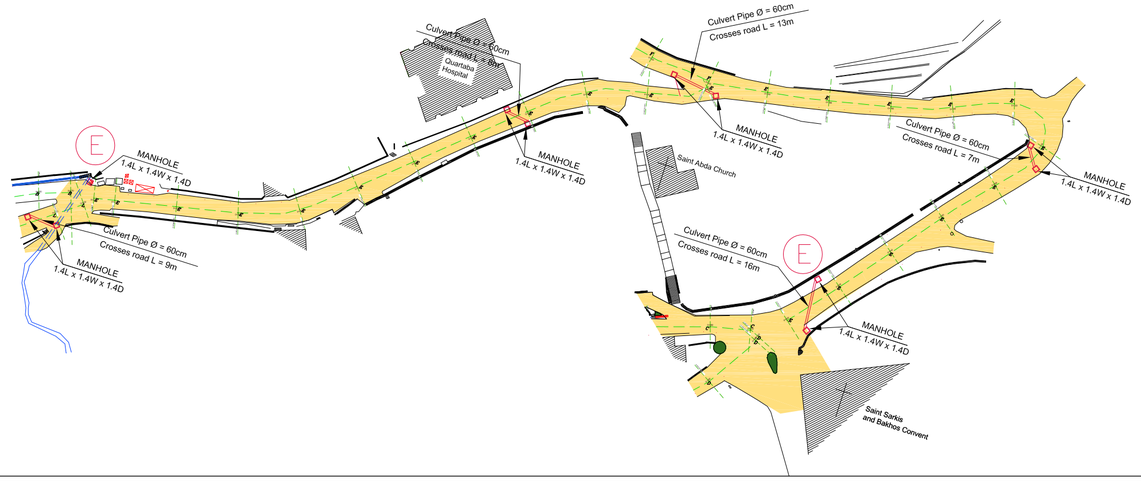
DRAWING NUMBER	REVISION
DD–W–005	

SCALE	DRAWN	DESIGNED
1/1000	Chadi DAOU	KAD– KHALIFE ARCHITECTS & DEVELOPERS
DATE	CHECKED	APPROVED
September 2020	KAD	A. Michel Khalife

E PROFILE







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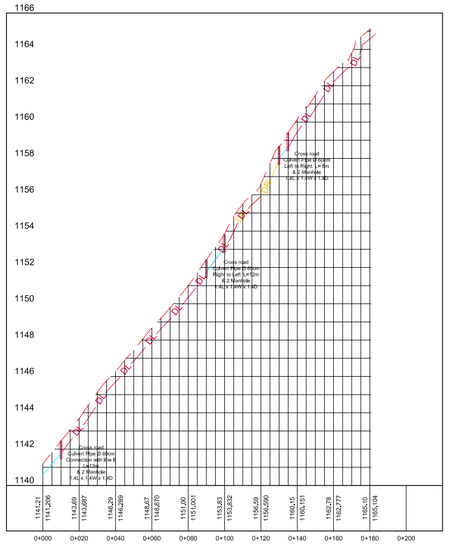
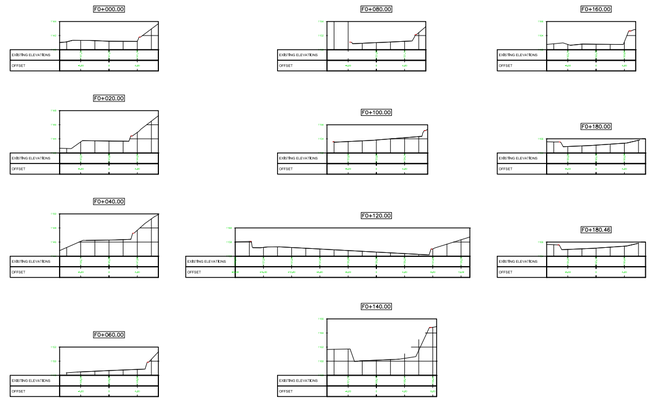
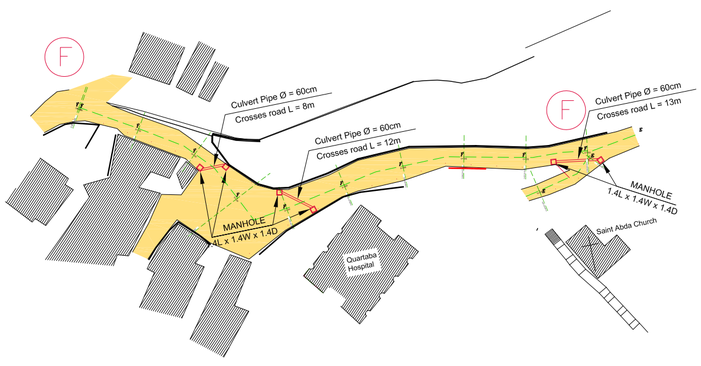
DRAWING TITLE
DRAINAGE PLAN & PROFILE
E

DRAWING NUMBER	REVISION	
DD–W–006		
SCALE 1/1000	DRAWN Chadi DAOU	DESIGNED KAD– KHALIFE ARCHITECTS & DEVELOPERS
DATE September 2020	CHECKED KAD	APPROVED A. Michel Khalife

F PROFILE







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MINISTRY OF INTERIOR AND MUNICIPALITY
JBEIL UNION OF MUNICIPALITIES

CONSTRUCTION DRAWING OF :
QARTABA CONCRETE WATER CHANNELS

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FEDERATION OF JBEIL MUNICIPALITIES

KAD KHALIFE ARCHITECTS & DEVELOPERS

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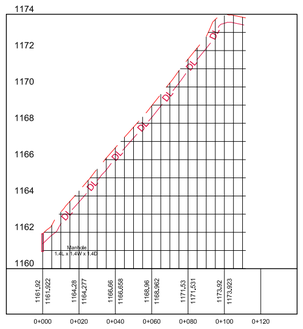
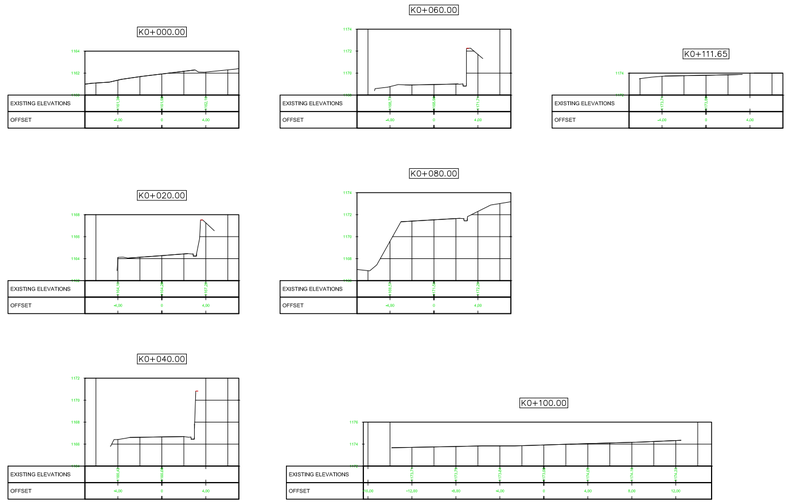
DRAWING TITLE
DRAINAGE PLAN & PROFILE
F

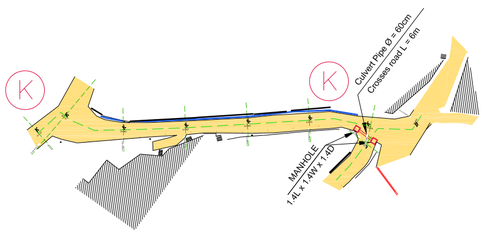
DRAWING NUMBER	REVISION
DD–W–007	

SCALE	DRAWN	DESIGNED
1/1000	Chadi DAOU	KAD– KHALIFE ARCHITECTS & DEVELOPERS
DATE	CHECKED	APPROVED
September 2020	KAD	A. Michel Khalife

K PROFILE







REPUBLIC OF LEBANON

MINISTRY OF INTERIOR AND MUNICIPALITY
JBEIL UNION OF MUNICIPALITIES

CONSTRUCTION DRAWING OF :
QARTABA CONCRETE WATER CHANNELS

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FEDERATION OF JBEIL MUNICIPALITIES

KAD KHALIFE ARCHITECTS & DEVELOPERS

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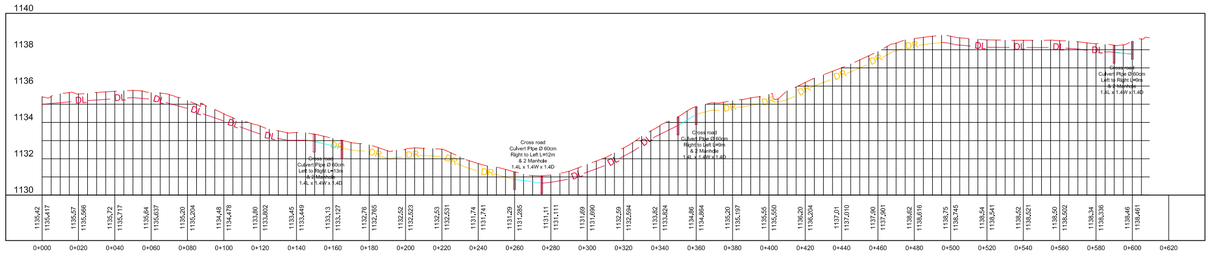
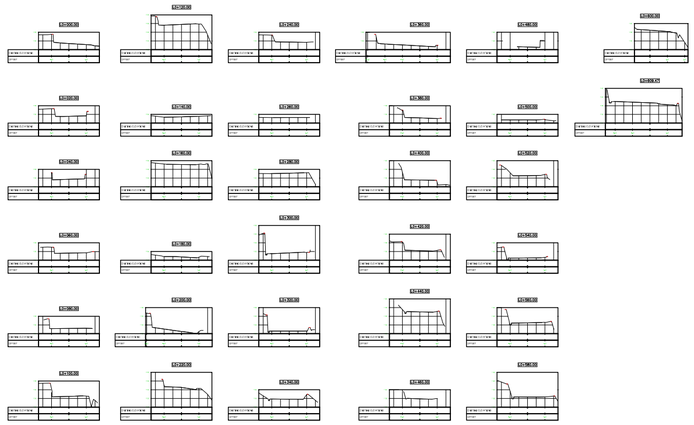
DRAINAGE PLAN & PROFILE
K

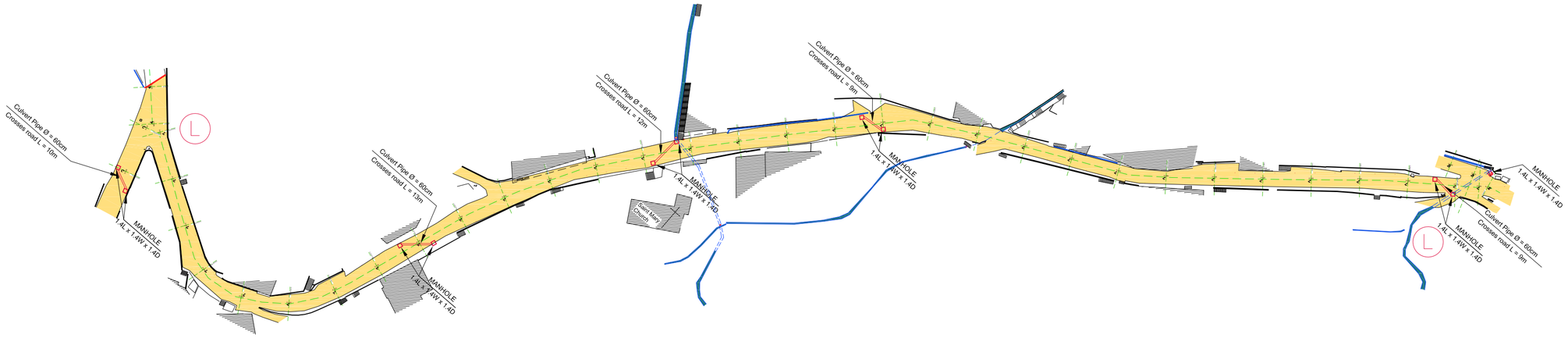
DRAWING NUMBER	REVISION
DD–W–008	

SCALE	DRAWN	DESIGNED
1/1000	Chadi DAOU	KAD– KHALIFE ARCHITECTS & DEVELOPERS
DATE	CHECKED	APPROVED
September 2020	KAD	A. Michel Khalife

L PROFILE







REPUBLIC OF LEBANON

MINISTRY OF INTERIOR AND MUNICIPALITY
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CONSTRUCTION DRAWING OF :
QARTABA CONCRETE WATER CHANNELS

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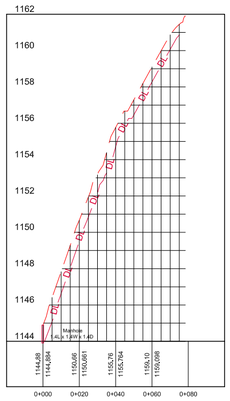
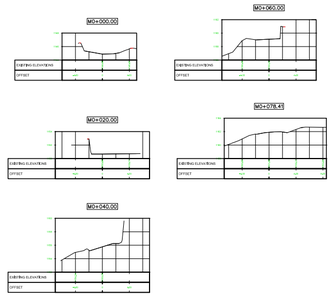
DRAWING TITLE
DRAINAGE PLAN & PROFILE
L

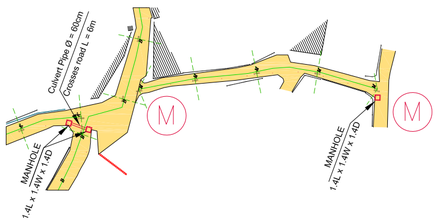
DRAWING NUMBER	REVISION
DD–W–009	

SCALE	DRAWN	DESIGNED
1/1000	Chadi DAOU	KAD– KHALIFE ARCHITECTS & DEVELOPERS
DATE	**CHECKED**	**APPROVED**
September 2020	KAD	A. Michel Khalife

M PROFILE







REPUBLIC OF LEBANON

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JBEIL UNION OF MUNICIPALITIES

CONSTRUCTION DRAWING OF :
QARTABA CONCRETE WATER CHANNELS

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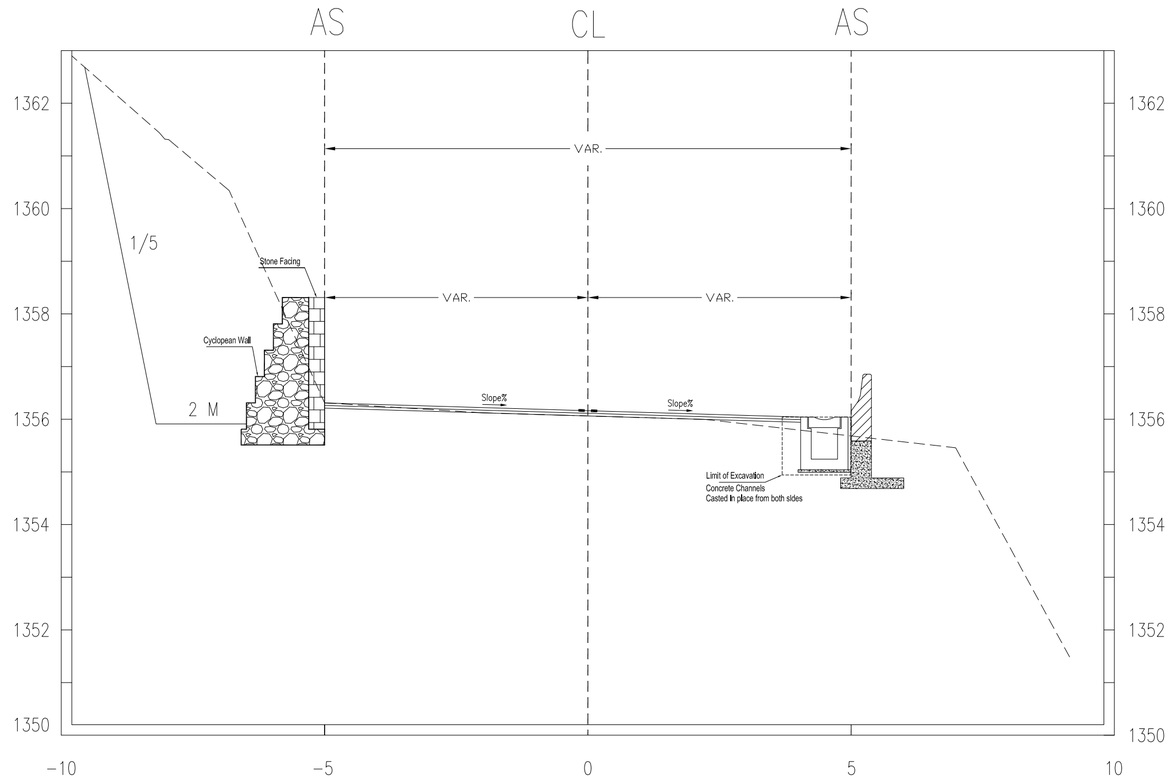
	HIDDEN CANALS

DRAWING TITLE
DRAINAGE PLAN & PROFILE
M

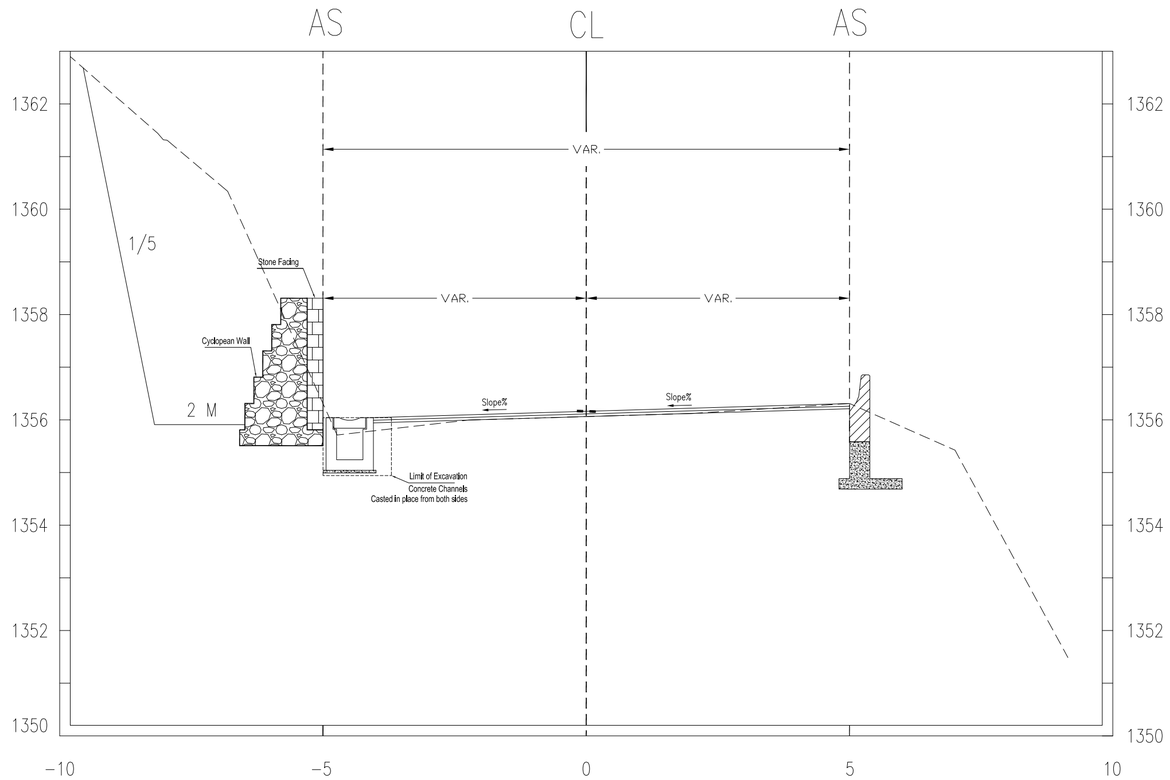
DRAWING NUMBER	REVISION
DD–W–010	

SCALE	DRAWN	DESIGNED
1/1000	Chadi DAOU	KAD– KHALIFE ARCHITECTS & DEVELOPERS
DATE	CHECKED	APPROVED
September 2020	KAD	A. Michel Khalife

Typical Section-1



Typical Section-2



REPUBLIC OF LEBANON

MINISTRY OF INTERIOR AND MUNICIPALITY
JBEIL UNION OF MUNICIPALITIES

CONSTRUCTION DRAWING OF :
QARTABA CONCRETE WATER CHANNELS

..\..\..\Desktop\Pap\Qartaba\Ettihad Logo.jpg

KAD KHALIFE ARCHITECTS & DEVELOPERS

NOTES

1- ALL DIMENSIONS ARE SHOWN IN METERS

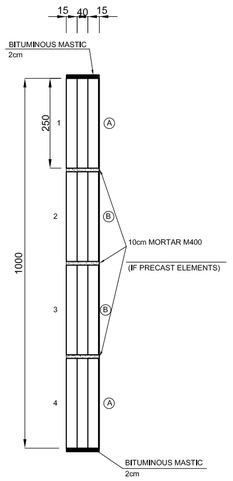
SYMBOL	SPECIFICATION
	CANAL
	WATER DIRECTION
	GRILL
	TANK
	REAL-ESTATE
	CENTERLINE
	MANHOLE
	SECTION LINE
	ROAD
	EXISTING WALLS
	HIDDEN PIPES
	HIDDEN CANALS

DRAWING TITLE

TYPICAL SECTION DETAILS

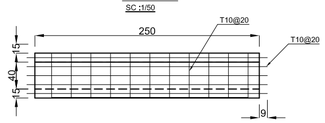
DRAWING NUMBER	REVISION	
DD-W-011		
SCALE 1/2000	DRAWN Chadi DAOU	DESIGNED KAD- KHALIFE ARCHITECTS & DEVELOPERS
DATE September 2020	CHECKED KAD	APPROVED A. Michel Khalife

JOINTS DETAILS

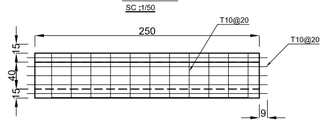


JOINTS DETAIL
SC :1/25

TYPE A
SC :1/50

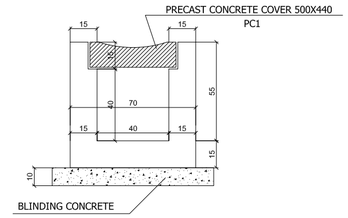


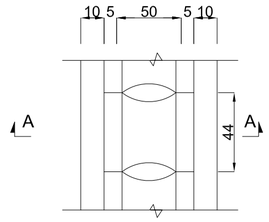
TYPE B
SC :1/50



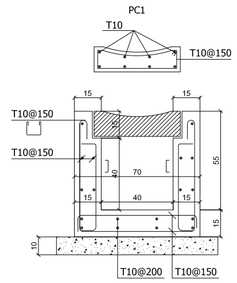
CONCRETE DITCH TYPE A

SC :1/20

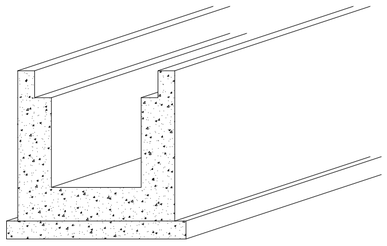




TOP VIEW



REINFORCEMENT



REPUBLIC OF LEBANON

MINISTRY OF INTERIOR AND MUNICIPALITY
JBEIL UNION OF MUNICIPALITIES

CONSTRUCTION DRAWING OF :
QARTABA CONCRETE WATER CHANNELS

اتحاد بلديات قضاء جبيل
FEDERATION OF JBEIL MUNICIPALITIES

KAD KHALIFE ARCHITECTS & DEVELOPERS

NOTES

SYMBOL	SPECIFICATION
	CANAL
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	GRILL
	TANK
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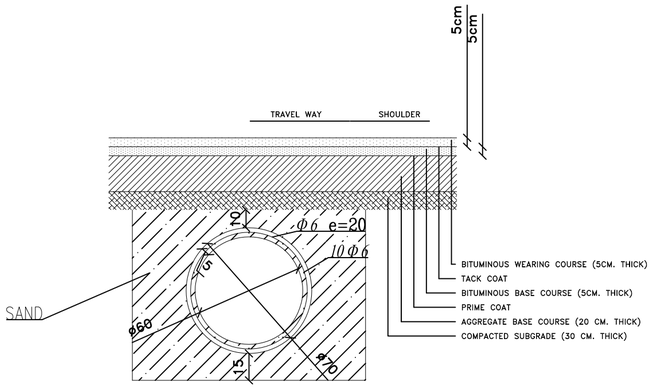
	MANHOLE
	SECTION LINE
	ROAD
	EXISTING WALLS
	HIDDEN PIPES
	HIDDEN CANALS

DRAWING TITLE

CHANNELS DETAILS

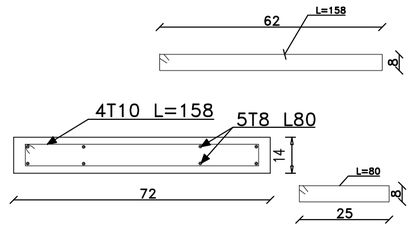
DRAWING NUMBER	REVISION
DD-W-012	

SCALE	DRAWN	DESIGNED
1/100	Chadi DAOU	KAD- KHALIFE ARCHITECTS & DEVELOPERS
DATE	CHECKED	APPROVED
September 2020	KAD	A. Michel Khalife



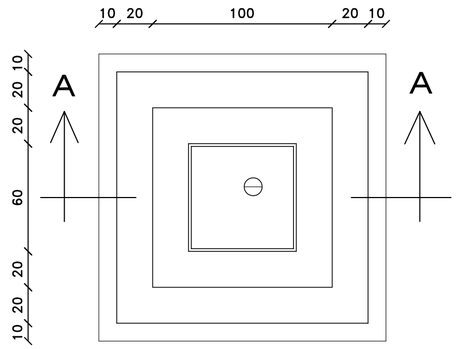
CULVERT PIPE Φ 60 cm

DITCH COVER



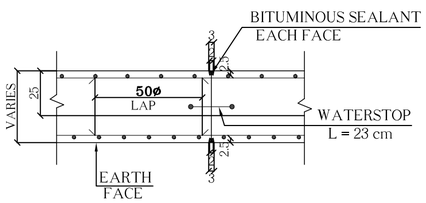
SECTION A-A

Manhole

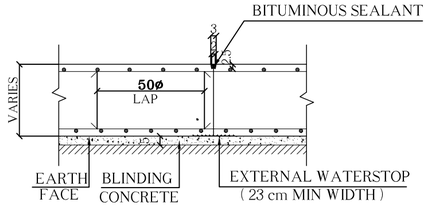


PLAN

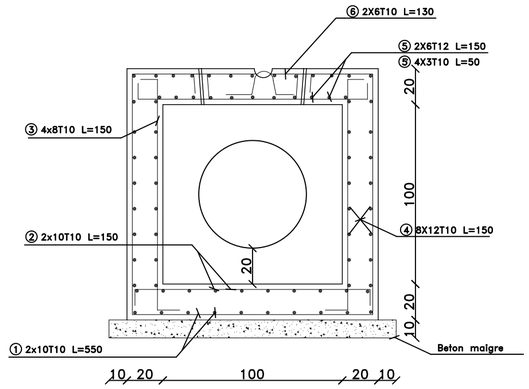
TYPICAL CONSTRUCTION OF CONTRACTION JOINT DETAILS



WALLS

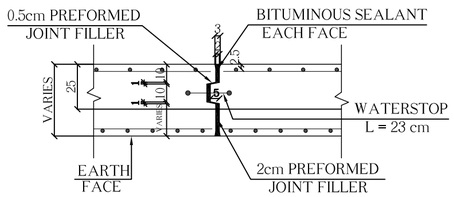


BASE SLAB

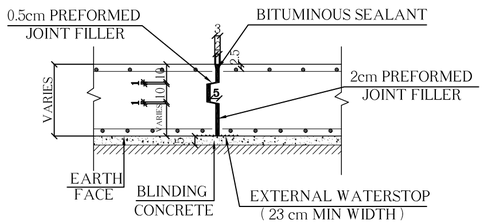


SECTION A - A

TYPICAL EXPANSION JOINT DETAILS

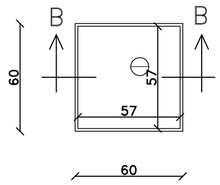


WALLS

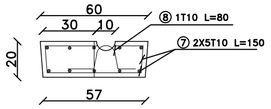


BASE SLAB

Cover Detail



PLAN



SECTION B - B

REPUBLIC OF LEBANON

MINISTRY OF INTERIOR AND MUNICIPALITY
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FEDERATION OF JBEIL MUNICIPALITIES

KAD KHALIFE ARCHITECTS & DEVELOPERS

NOTES

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	MANHOLE
	SECTION LINE
	ROAD
	EXISTING WALLS
	HIDDEN PIPES
	HIDDEN CANALS

DRAWING TITLE
DETAILS
CONCRETE PIPES & MANHOLES

DRAWING NUMBER	REVISION
DD–W–013	

SCALE	DRAWN	DESIGNED
1/100	Chadi DAOU	KAD– KHALIFE ARCHITECTS & DEVELOPERS
DATE	CHECKED	APPROVED
September 2020	KAD	A. Michel Khalife