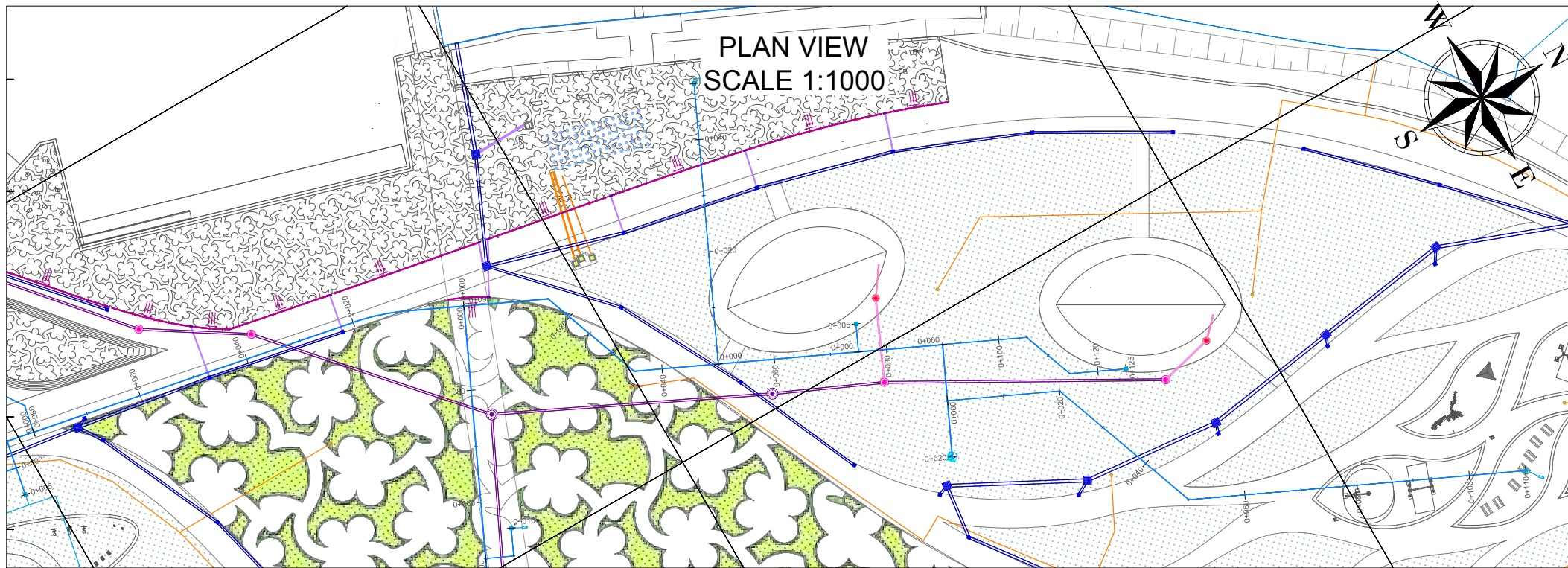


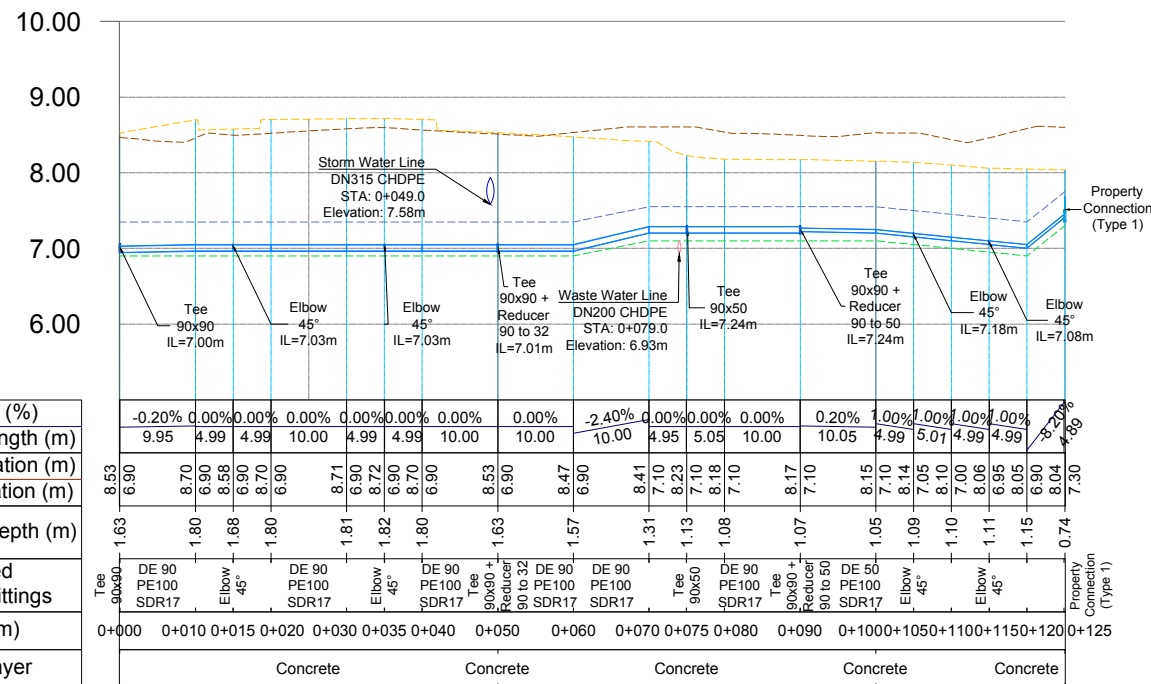
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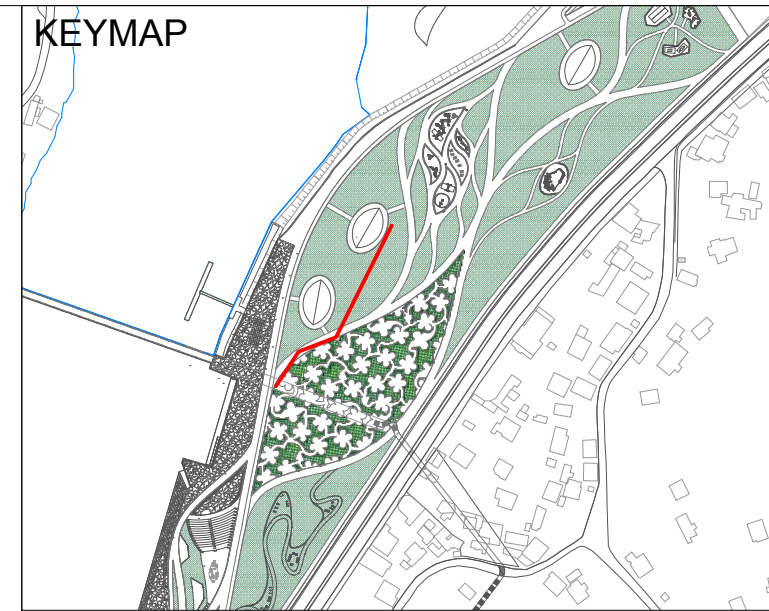


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LONGITUDINAL PROFILE SCALE H 1:1000 V 1:100



KEYMAP



LEGEND AND NOTES

LEGEND	
SYMBOL	DESCRIPTION
	Proposed Circular Manhole - d=1500mm, H = 2.0-5.0m
	Proposed Circular Manhole - d=1000mm, H = 1.4-2.0m
	Proposed Circular Manhole - d=800mm, H = 0.8-1.4m
	Proposed Storm Water Manhole
	Proposed Hydrant
	Proposed Water Supply Property Connection
	Proposed Drinking Water Fountain
	Proposed Pipes to Water Fountains
	Proposed Storm Water Network
	Proposed Waste Water Network
	Proposed Water Supply Network
	Proposed Irrigation Network
	Existing Water Supply Line
	Warning Tape
	Excavation Line
	Existing Ground Level
	New Proposed Ground Level

- NOTES :
- All coordinates are in UTM WGS84 34N
 - All dimensions are in meters, otherwise there will be a note.
 - All property connection manhole covers are according to drawing DD-D-C-01. These manhole covers shall also be used to cover underground hydrant pipe and spindle exits.

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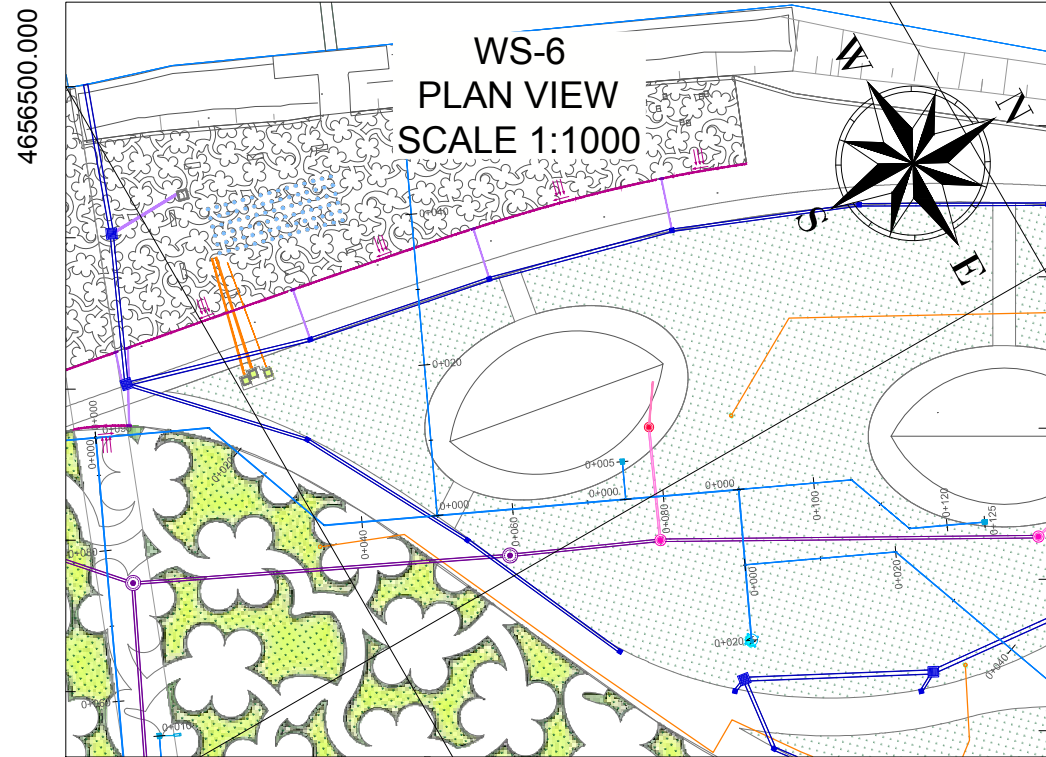
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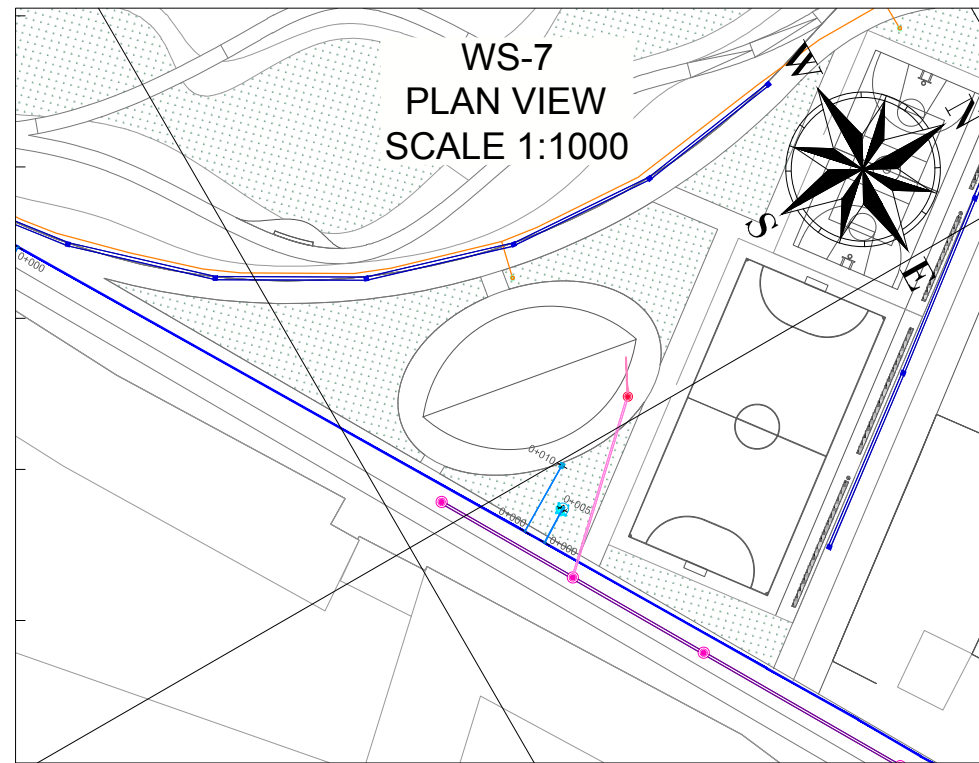
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DD-H-SW-LP-WS-5		Water Supply Line WS-5 Longitudinal Profile	
Drawing number	Description		
Detailed Design	420 x 297 mm	1:1000	23-09-2022
Phase	Format	Scale	Date
L077	Master Plan of Interventions at the Entrance of Shkodra		
Project number	Project name		
casanova+hernandez architects		Lombardkade 24A 3011 AH Rotterdam	
SRP Schneider & Partner, Ingenieur-Consult GmbH		T +31 (0)10 240 9333 F +31 (0)10 240 9229	
SRP Albanian Engineering sh.p.k.		contact@casanova-hernandez.com	

VOLUMES TABLE										
AREA	CIVIL WORKS	Excavation	Transport	Topsoil Fill	Sand Bedding Fill	DE32mm HDPE Pipe	DE50mm HDPE Pipe	DN90mm CHDPE Pipe	Property Connection	Warning Tape
LO RP	UNIT	m ³	m ³	m ³	m ³	ml	ml	ml	pcs	ml
	VOLUME	88.65	45.24	44.35	28.96	0.00	35.00	90.00	1.00	125.00

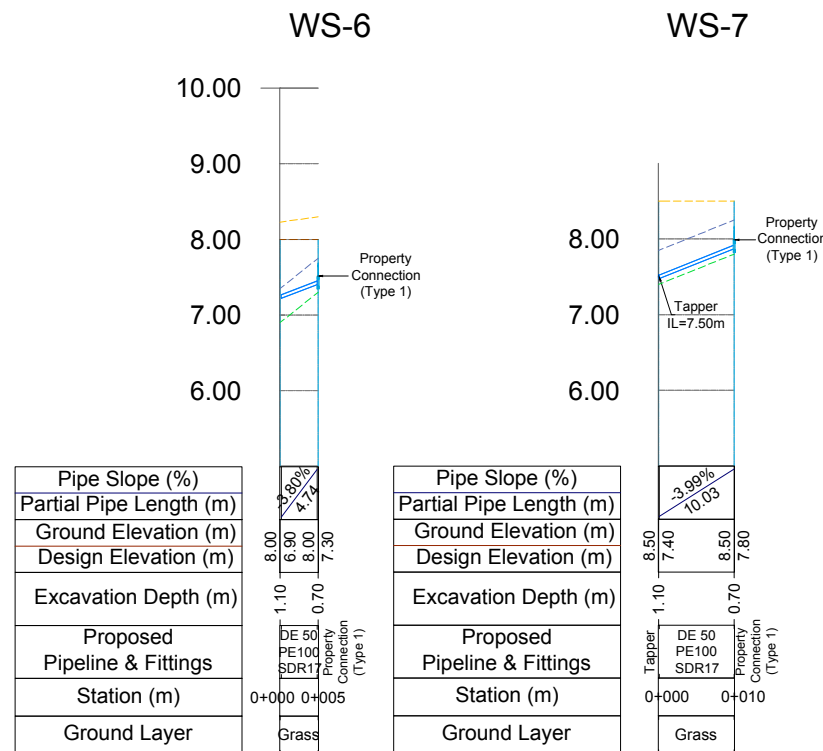


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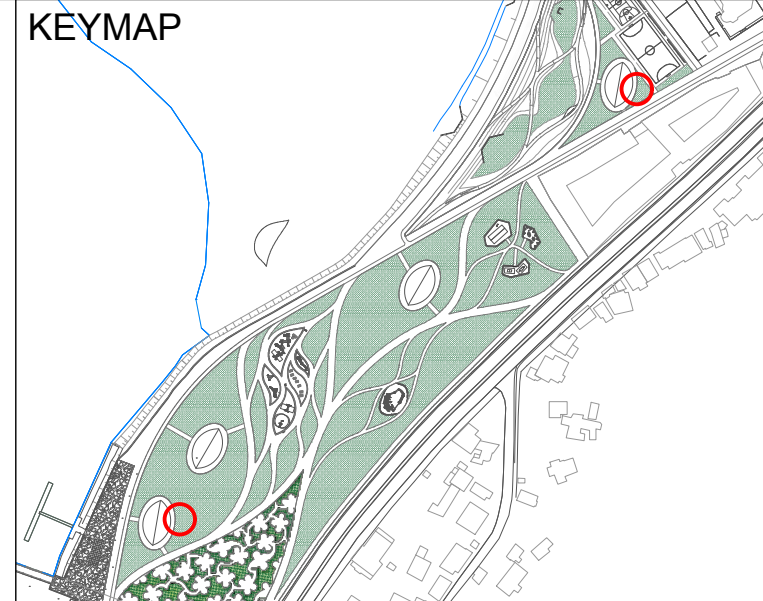
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LONGTITUDINAL PROFILES
SCALE H 1:1000 V 1:100



VOLUMES TABLE										
AREA	CIVIL WORKS	Excavation	Transport	Topsoil Fill	Sand Bedding Fill	DE32mm HDPE Pipe	DE50mm HDPE Pipe	DN90mm CHDPE Pipe	Property Connection	Warning Tape
LO RP	UNIT	m ³	m ³	m ³	m ³	ml	ml	ml	pcs	ml
	VOLUME	3.00	1.68	1.88	1.11	0.00	5.00	0.00	1.00	5.00

VOLUMES TABLE										
AREA	CIVIL WORKS	Excavation	Transport	Topsoil Fill	Sand Bedding Fill	DE32mm HDPE Pipe	DE50mm HDPE Pipe	DN90mm CHDPE Pipe	Property Connection	Warning Tape
LO W	UNIT	m ³	m ³	m ³	m ³	ml	ml	ml	pcs	ml
	VOLUME	4.65	3.15	2.41	2.22	0.00	10.00	0.00	1.00	10.00



LEGEND AND NOTES

LEGEND	
SYMBOL	DESCRIPTION
	Proposed Circular Manhole - d=1500mm, H = 2.0-5.0m
	Proposed Circular Manhole - d=1000mm, H = 1.4-2.0m
	Proposed Circular Manhole - d=800mm, H = 0.8-1.4m
	Proposed Storm Water Manhole
	Proposed Hydrant
	Proposed Water Supply Property Connection
	Proposed Drinking Water Fountain
	Proposed Pipes to Water Fountains
	Proposed Storm Water Network
	Proposed Waste Water Network
	Proposed Water Supply Network
	Proposed Irrigation Network
	Existing Water Supply Line
	Warning Tape
	Excavation Line
	Existing Ground Level
	New Proposed Ground Level

- NOTES :**
- All coordinates are in UTM WGS84 34N
 - All dimensions are in meters, otherwise there will be a note.
 - All property connection manhole covers are according to drawing DD-D-C-01. These manhole covers shall also be used to cover underground hydrant pipe and spindle exits.

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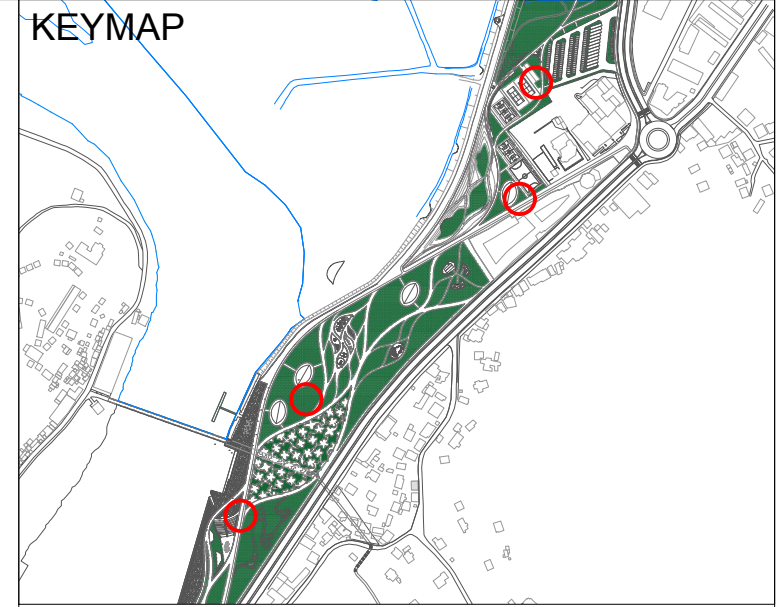
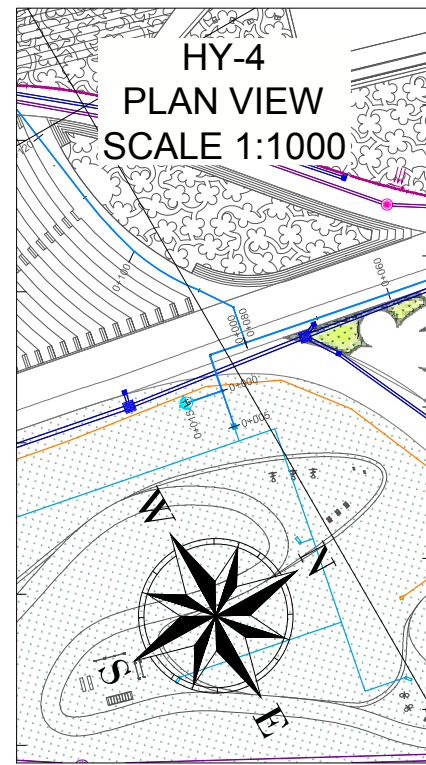
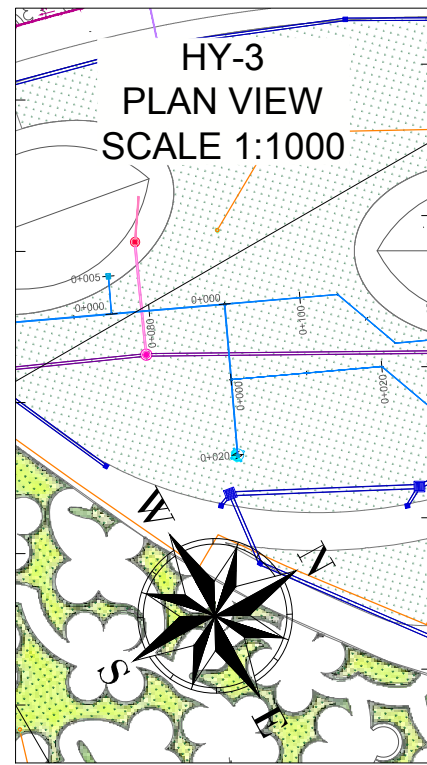
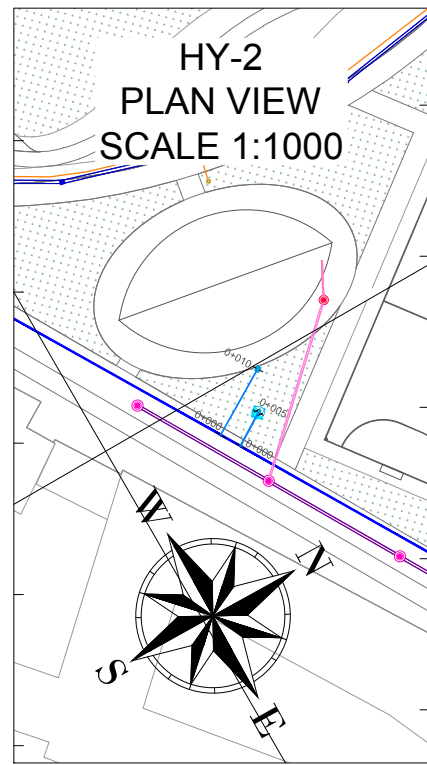
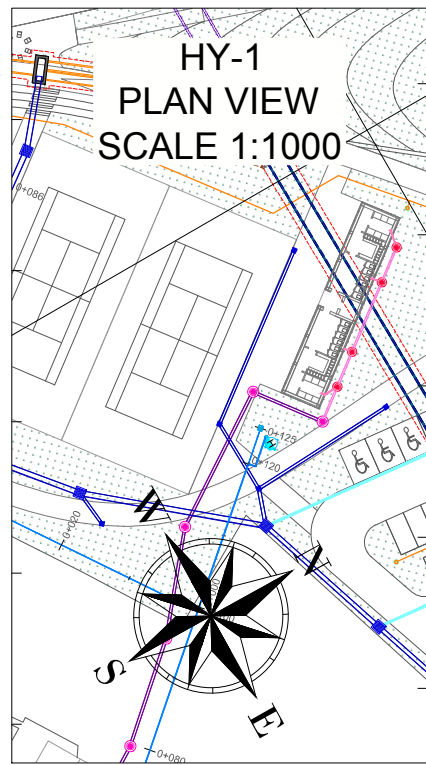
SRP Albanian Engineering s.h.p.k.
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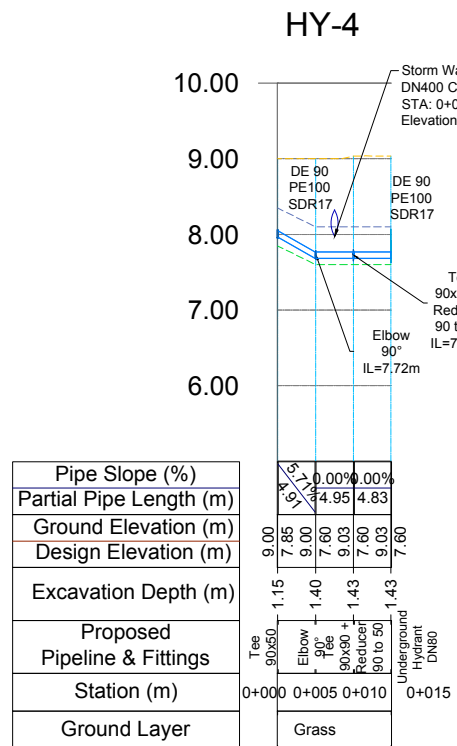
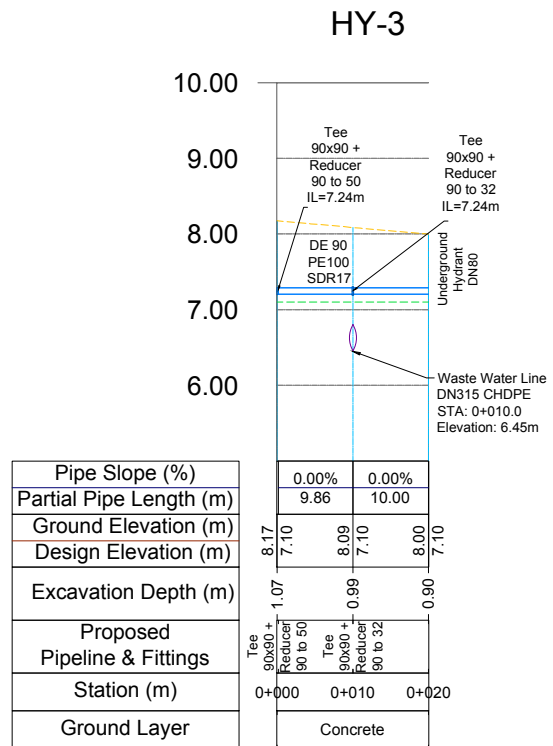
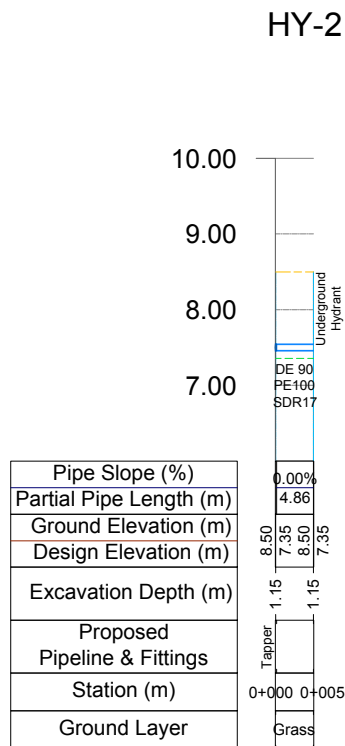
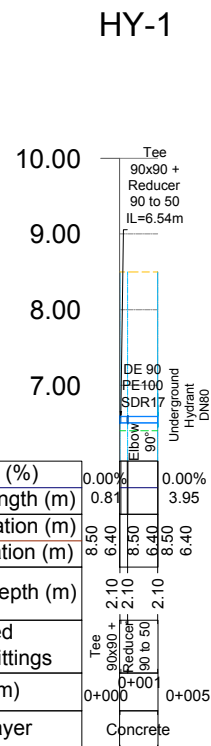
DD-H-WS-LP-WS-6-7 Water Supply Line WS-6&7 Longitudinal Profile

Drawing number	Description
Detailed Design	420 x 297 mm 1:1000 23-09-2022
Phase	Format Scale Date
L077	Master Plan of Interventions at the Entrance of Shkodra
Project number	Project name
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LONGTITUDINAL PROFILES SCALE H 1:1000 V 1:100



LEGEND AND NOTES

LEGEND	
SYMBOL	DESCRIPTION
	Proposed Circular Manhole - d=1500mm, H = 2.0-5.0m
	Proposed Circular Manhole - d=1000mm, H = 1.4-2.0m
	Proposed Circular Manhole - d=800mm, H = 0.8-1.4m
	Proposed Storm Water Manhole
	Proposed Hydrant
	Proposed Water Supply Property Connection
	Proposed Drinking Water Fountain
	Proposed Pipes to Water Fountains
	Proposed Storm Water Network
	Proposed Waste Water Network
	Proposed Water Supply Network
	Proposed Irrigation Network
	Existing Water Supply Line
	Warning Tape
	Excavation Line
	Existing Ground Level
	New Proposed Ground Level

NOTES :

- All coordinates are in UTM WGS84 34N
- All dimensions are in meters, otherwise there will be a note.
- All property connection manhole covers are according to drawing DD-D-C-01. These manhole covers shall also be used to cover underground hydrant pipe and spindle exits.

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VOLUMES TABLE

AREA	CIVIL WORKS	Excavation	Transport	Topsoil Fill	Sand Bedding Fill	DE32mm HDPE Pipe	DE50mm HDPE Pipe	DN90mm CHDPE Pipe	DN80mm Fire Hydrant	Warning Tape
L0 RP	UNIT	m ³	m ³	m ³	m ³	ml	ml	ml	pcs	ml
	VOLUME	16.60	9.93	9.54	7.06	0.00	0.00	35.00	2.00	35.00

VOLUMES TABLE

AREA	CIVIL WORKS	Excavation	Transport	Topsoil Fill	Sand Bedding Fill	DE32mm HDPE Pipe	DE50mm HDPE Pipe	DN90mm CHDPE Pipe	DN80mm Fire Hydrant	Warning Tape
L0 W	UNIT	m ³	m ³	m ³	m ³	ml	ml	ml	pcs	ml
	VOLUME	8.10	4.05	5.68	2.35	0.00	0.00	10.00	2.00	10.00

DD-H-WS-LP-WS-HY Hydrants HY-1,2,3,4 Longitudinal Profiles

Drawing number	Description		
Detailed Design	420 x 297 mm 1:1000 23-09-2022		
Phase	Format	Scale	Date
L077	Master Plan of Interventions at the Entrance of Shkodra		
Project number	Project name		

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LEGEND

- ① SAND BEDDING
- ② BACKFILLING WITH SUITABLE EXCAVATED MATERIAL OR IMPORTED MATERIAL IF NECESSARY (COMPACTED 95% OF DRY DENSITY IN LAYERS OF 30)
- ③ CRUSHED GRAVEL OR STONE
- ④ CRUSHED GRAVEL DIFFERENT SIZES
- ⑤ ASPHALT MATERIAL MIN 10CM AFTER ROLLING
- ⑥ SAW CUT OF EDGES AND ALONG STRAIGHT LINES
- ⑦ WARNING TAPE WITH METAL STRIP
- ⑧ CONCRETE ROAD
- ⑨ GRANITE PAVING STONE
- ⑩ R/C SLAB
- ⑪ BALLAST
- ⑫ MORTAR JOINT
- ⑬ MORTAR BED

MATERIAL	Pipe (DN)	A (cm)	B (cm)	C (cm)	D (cm)
HDPE	≤ DE 110	15	10	15	20
HDPE	> DE 110	15	10	15	30
HDPE	≥ DE 350	15	10	15	40

EXCAVATION SLOPE IN CASE OF NO TRENCH SUPPORT IS PROVIDED

SOIL CATEGORY	M
CATEGORY FROM II - III	0.5
CATEGORY FROM IV - V	0.25
CATEGORY FROM VI - VII	0.00

MINIMUM TRENCH SIZE SELECTION ACCORDING TO PIPE DIAMETER

PIPE DIAMETER	HP (m) (FD+D)	HT (m) (FD+D+B)	WT (m) (de+2xA)
de20, de32, de40	1.05	1.15	0.5
de50, de63	1.05	1.15	0.6
de90, de110	1.05	1.15	0.7
de160, de200	1.15	1.25	0.7
de225, de250, de280	1.15	1.3	0.7
de315	1.25	1.4	0.8

NOTES

1. Excavation shall be performed as shown in the detail with additional trench support for depth >1.25m. If the construction contractor fail to provide the necessary equipment, trench shall be excavated with slopes according the category of the soil, with no additional costs on excavation or reinstatement
2. Cutting of asphalt shall be width of trench + 20 cm
3. All dimensions in centimeters unless otherwise noted.
4. Pipe diameters in millimeters.
5. In case of dual pipe trench, the minimum distance between the 2 pipes shall be 30cm
6. Freezing depth round to 85 cm.
7. Concrete class shall be C25 unless otherwise noted.

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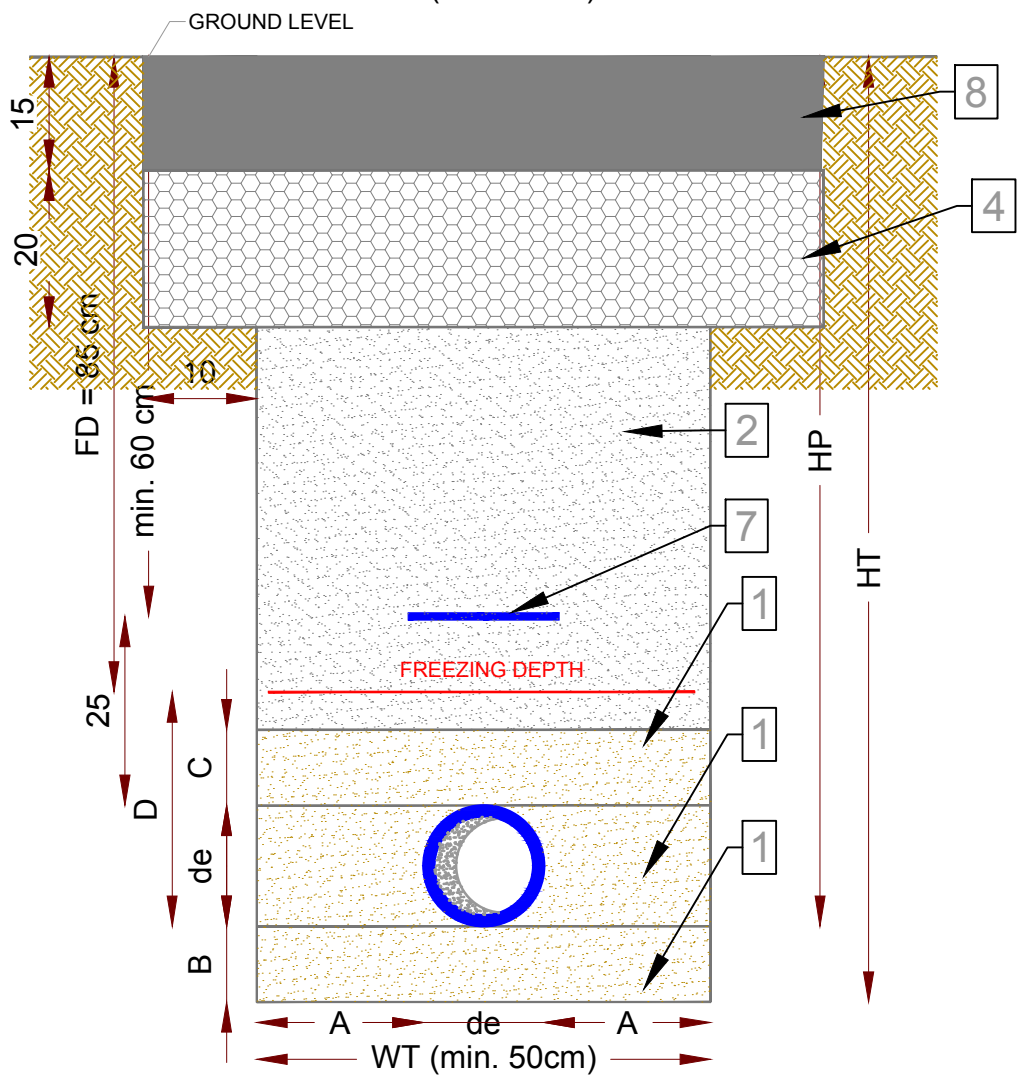
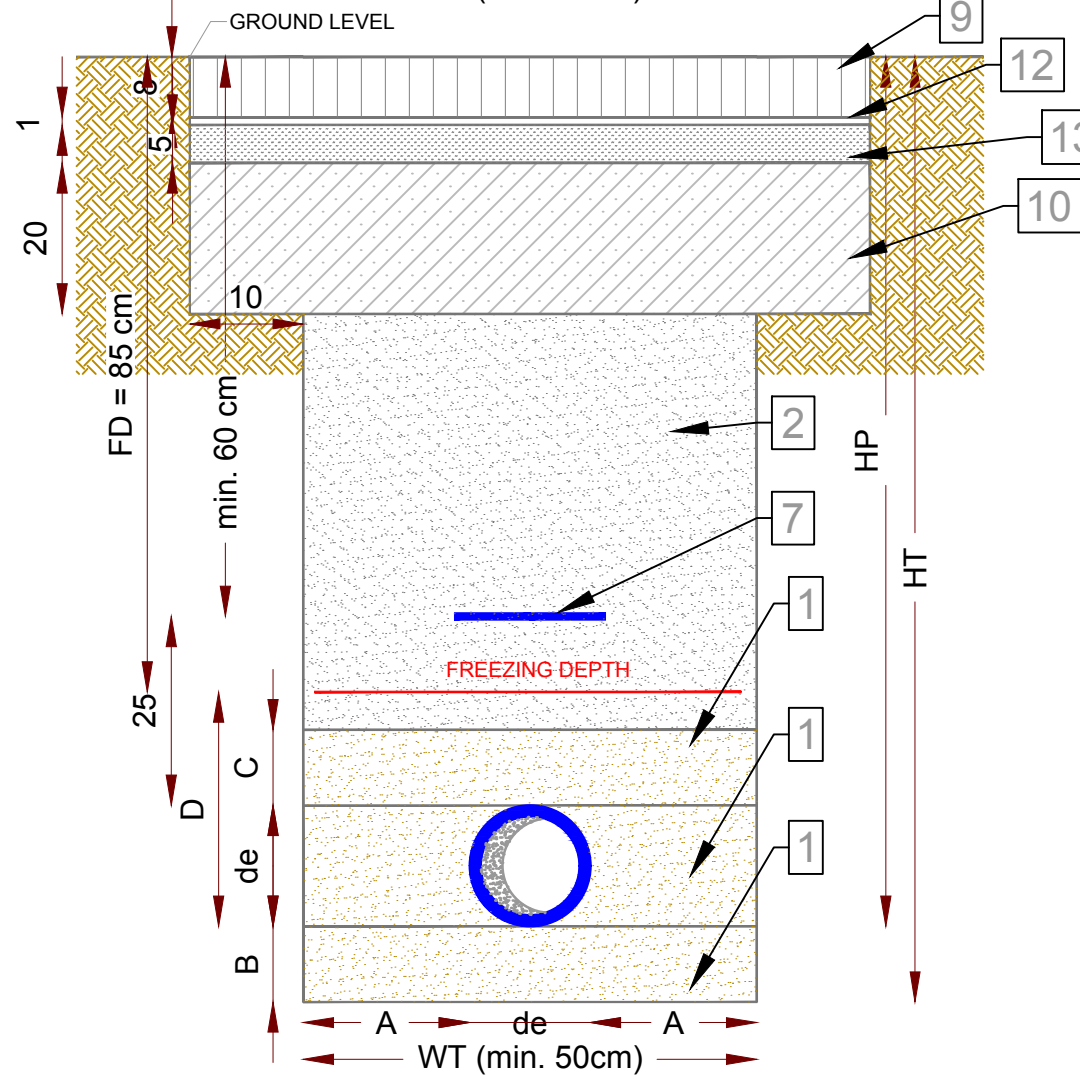
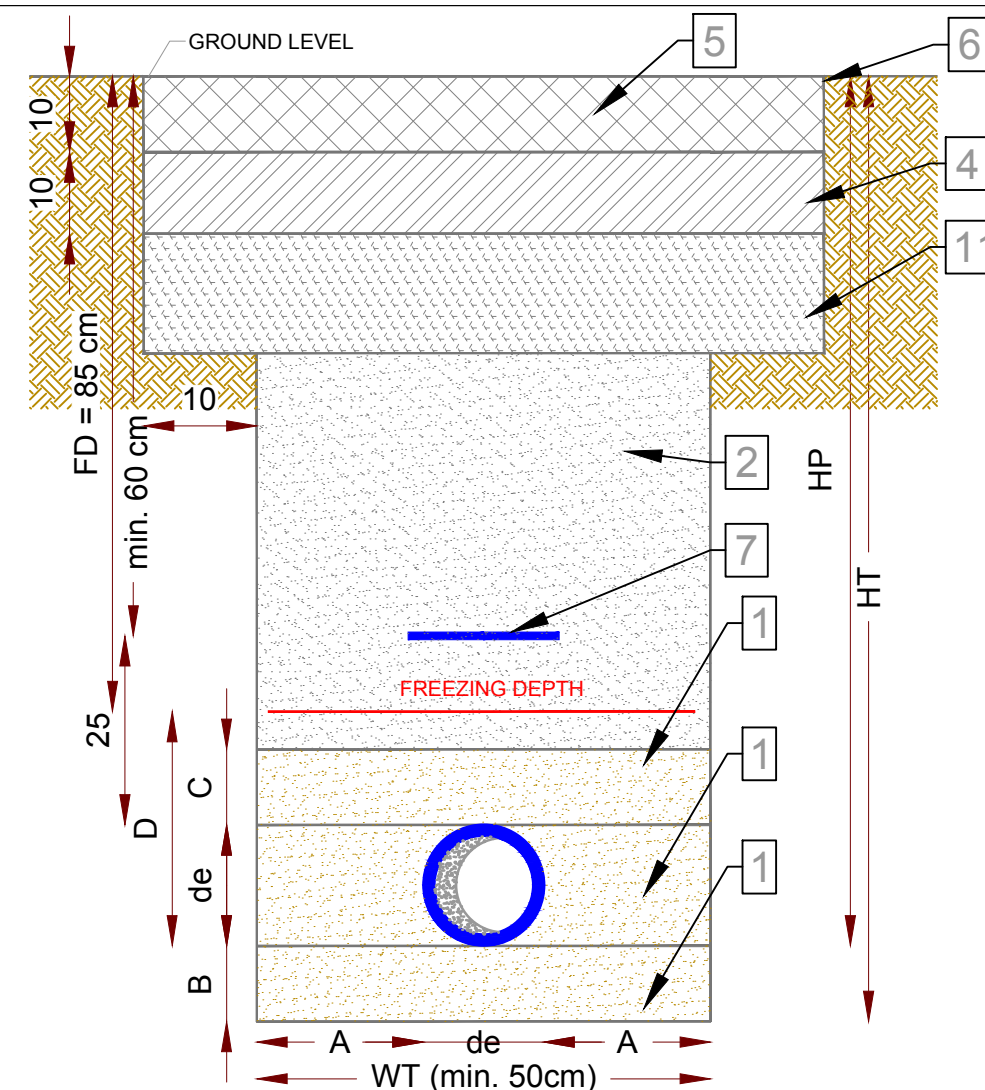
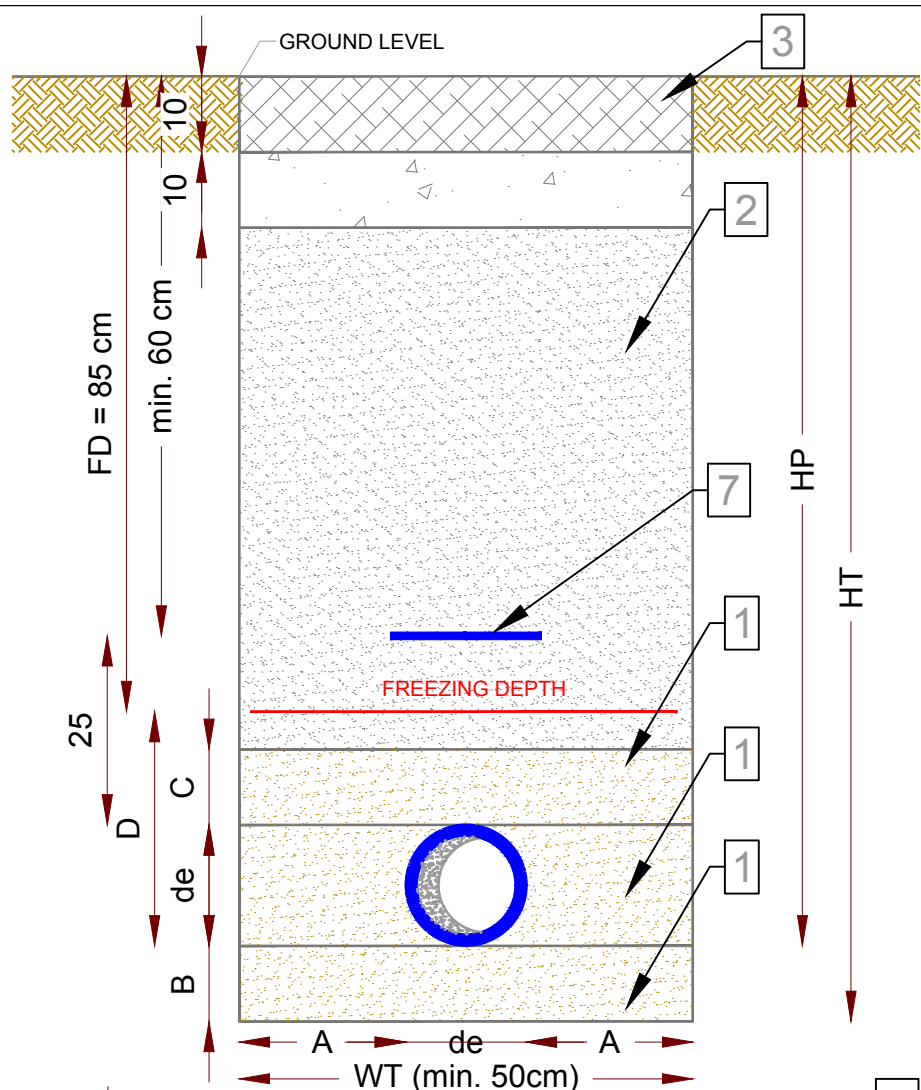
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DD-SD-WS-01		Water Supply Typical Trench Detail	
Drawing number	Description	Scale	Date
Detailed Design	420 x 297 mm	1:10	04-10-2022
Phase	Format	Scale	Date
L077	Master Plan of Interventions at the Entrance of Shkodra		
Project number	Project name		

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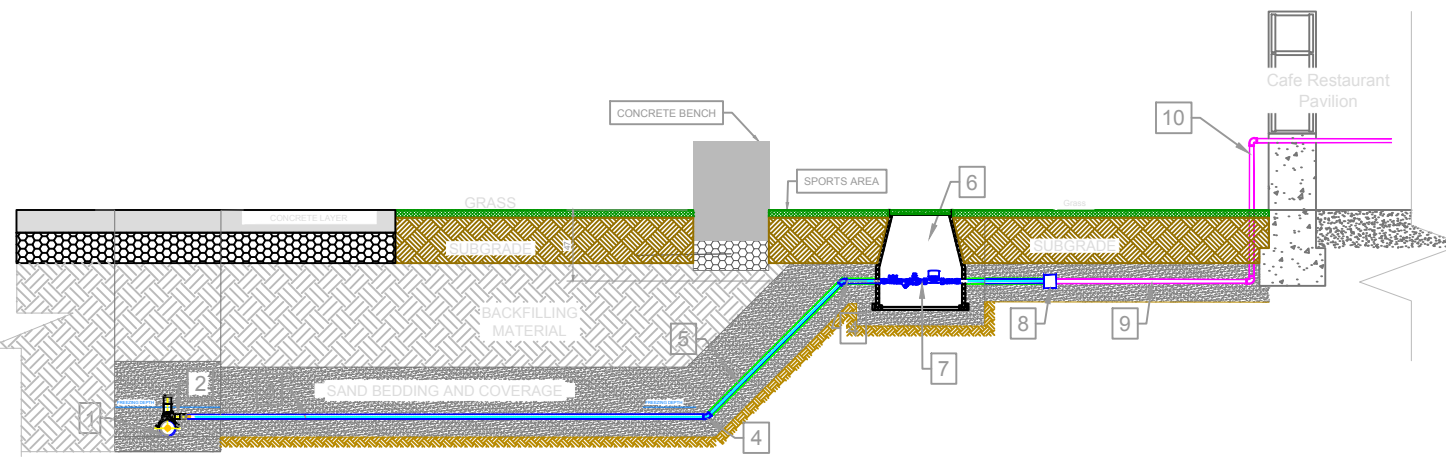
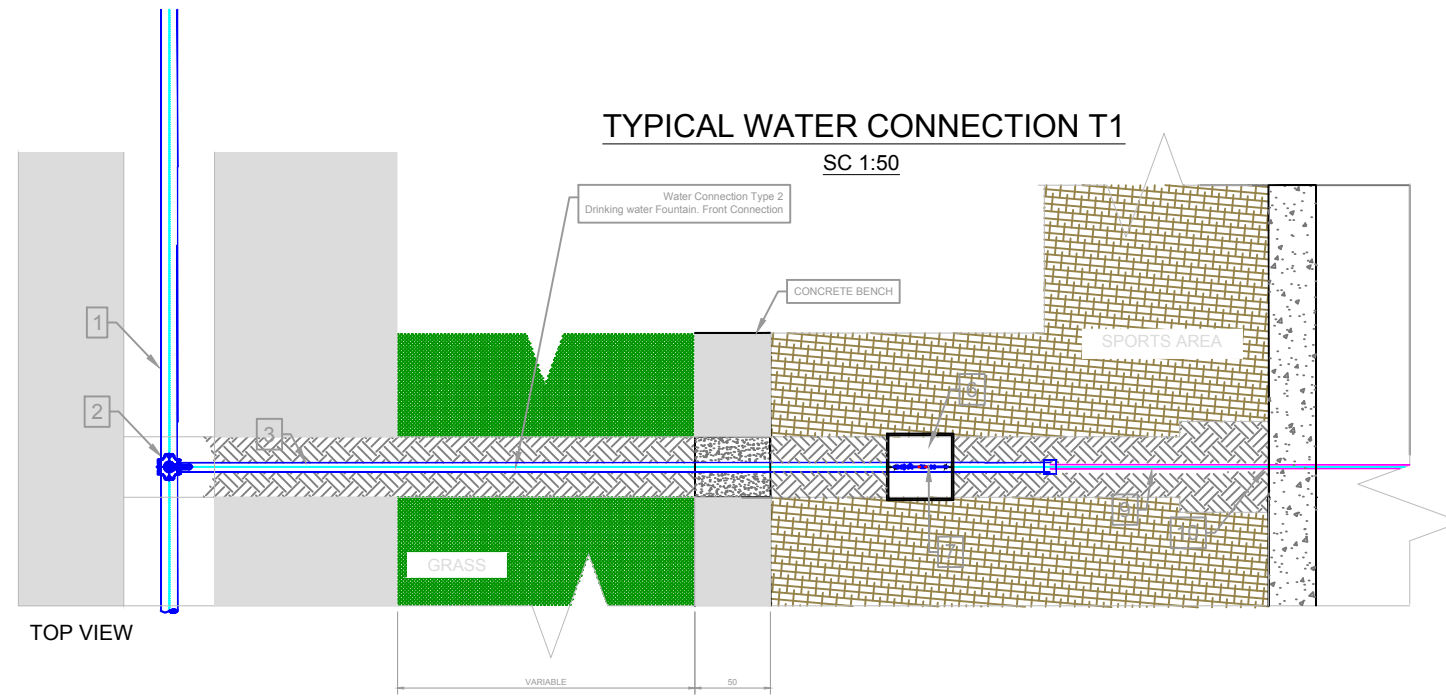
MATERIALS

LIST OF MATERIALS		
ITEM	DESCRIPTION	QTY
1	HDPE PIPE (DISTRIBUTION) DE X, X=50 up to 280	-
2	PRESSURE TAPING TEE DE X/50	1
3	WATER CONNECTION HDPE PIPE DE50 (TOTAL AVERAGE LENGTH,m)	20
4	COLD BENDING 45° DE50	2
5	PIPE TERMIC INSULATION	1
6	WATER METER BOX (EQUIPPED WITH LOCKABLE COVER)	1
7	WATER METER SET.	1
8	ADAPTOR PE/ ST, GI etc...	1
9	WATER PIPE CONNECTION DE50	3
10	INTERNAL NETWORK	1

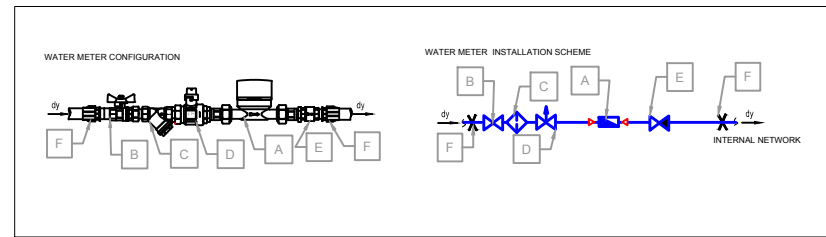
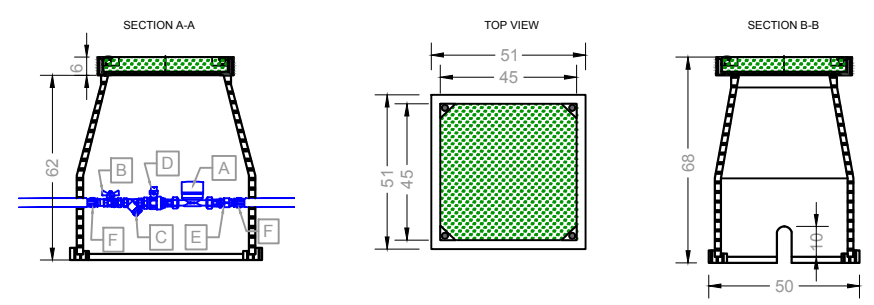
WATER METER SET (40mm) PN 10		
ITEM	DESCRIPTION	QTY
A	WATER METER (Class C)	-
B	BALL VALVE	1
C	STRAINER	1
D	AIR RELEASE VALVE	1
E	NON RETURN VALVE	1
F	ADAPTOR PE/ST, GI. etc...	2

NOTES

- All Fittings required are PN16.
- All manhole covers used for these manholes shall be made according to detailed drawing DD-D-C-01, Type 600x600mm.



SIDE VIEW



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DD-SD-WS-02		Typical Water Connection - Type 1	
Drawing number	Description	Scale	Date
Detailed Design	420 x 297 mm	1:50	04-10-2022
Phase	Format	Scale	Date
L077	Master Plan of Interventions at the Entrance of Shkoda		
Project number	Project name		

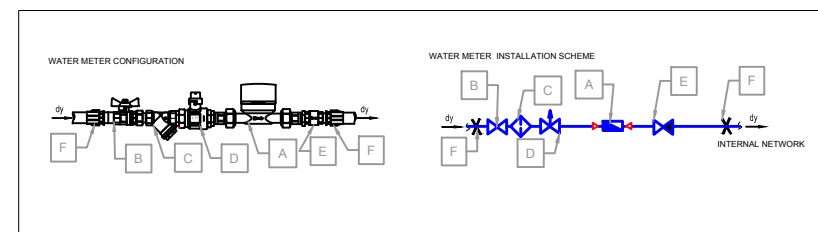
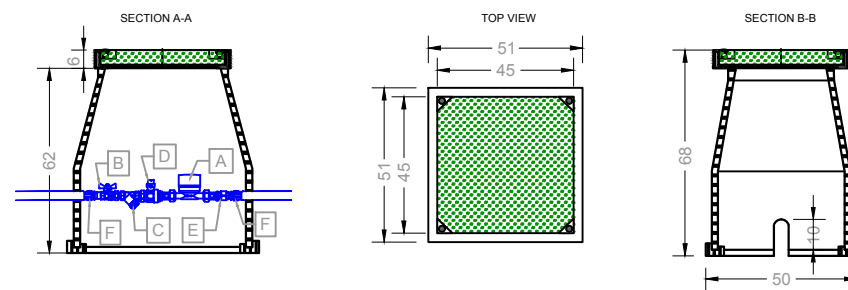
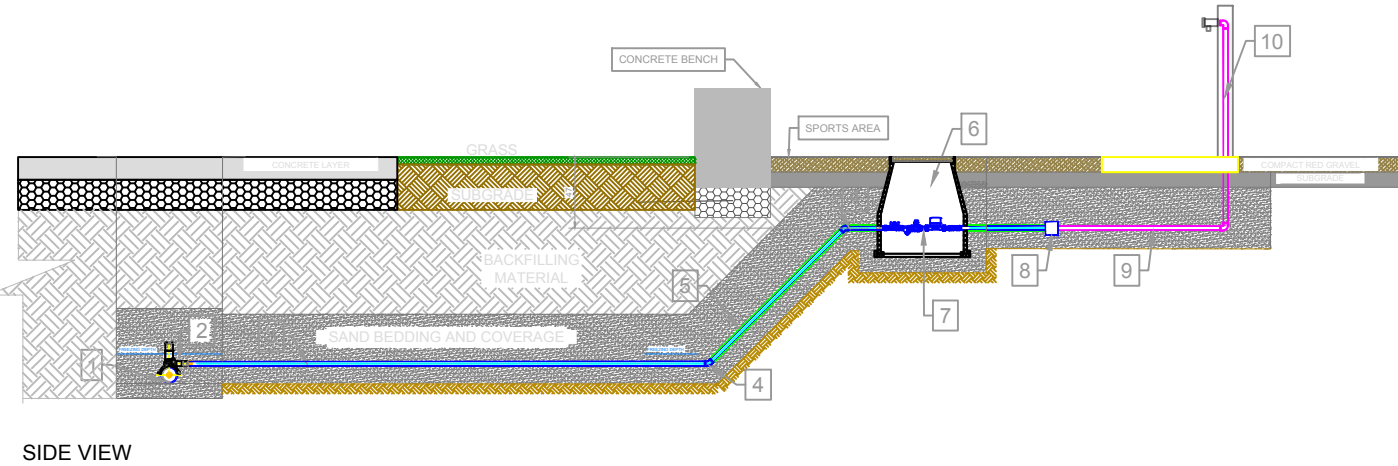
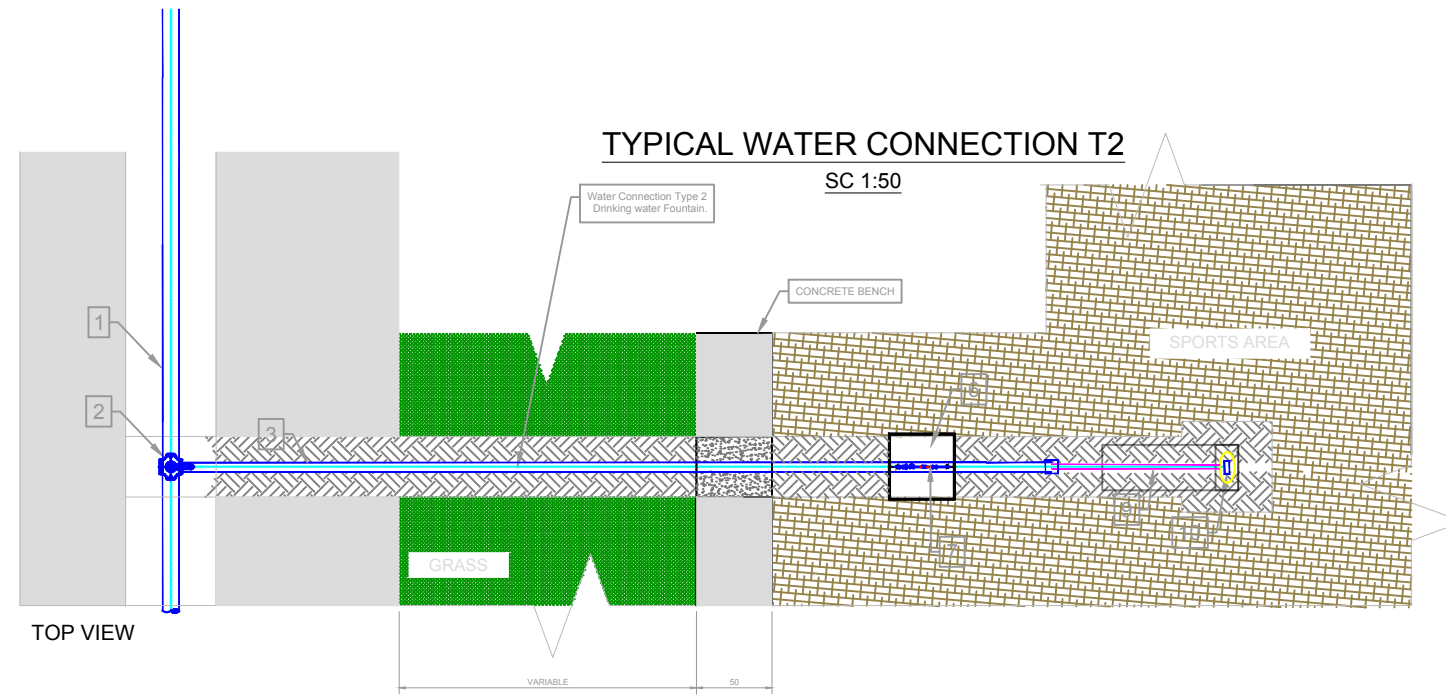
MATERIALS

LIST OF MATERIALS		
ITEM	DESCRIPTION	QTY
1	HDPE PIPE (DISTRIBUTION) DE X, X=50 up to 280	-
2	PRESSURE TAPING TEE DE X/32	1
3	WATER CONNECTION HDPE PIPE DE32 (TOTAL AVERAGE LENGTH,m)	20
4	COLD BENDING 45° DE32	2
5	PIPE TERMIC INSULATION	1
6	WATER METER BOX (EQUIPED WITH LOCKABLE COVER)	1
7	WATER METER SET	1
8	ADAPTOR PE/ ST.Gl etc...	1
9	WATER PIPE CONNECTION DE32	3
10	DRINKING WATER FOUNTAIN	1

WATER METER SET (25mm) PN 10		
ITEM	DESCRIPTION	QTY
A	WATER METER (Class C)	-
B	BALL VALVE	1
C	STRAINER	1
D	AIR RELEASE VALVE	1
E	NON RETURN VALVE	1
F	ADAPTOR PE/ST, Gl. etc...	2

NOTES

- All Fittings required are PN16.
- All manhole covers used for these manholes shall be made according to detailed drawing DD-D-C-01, Type 600x600mm.



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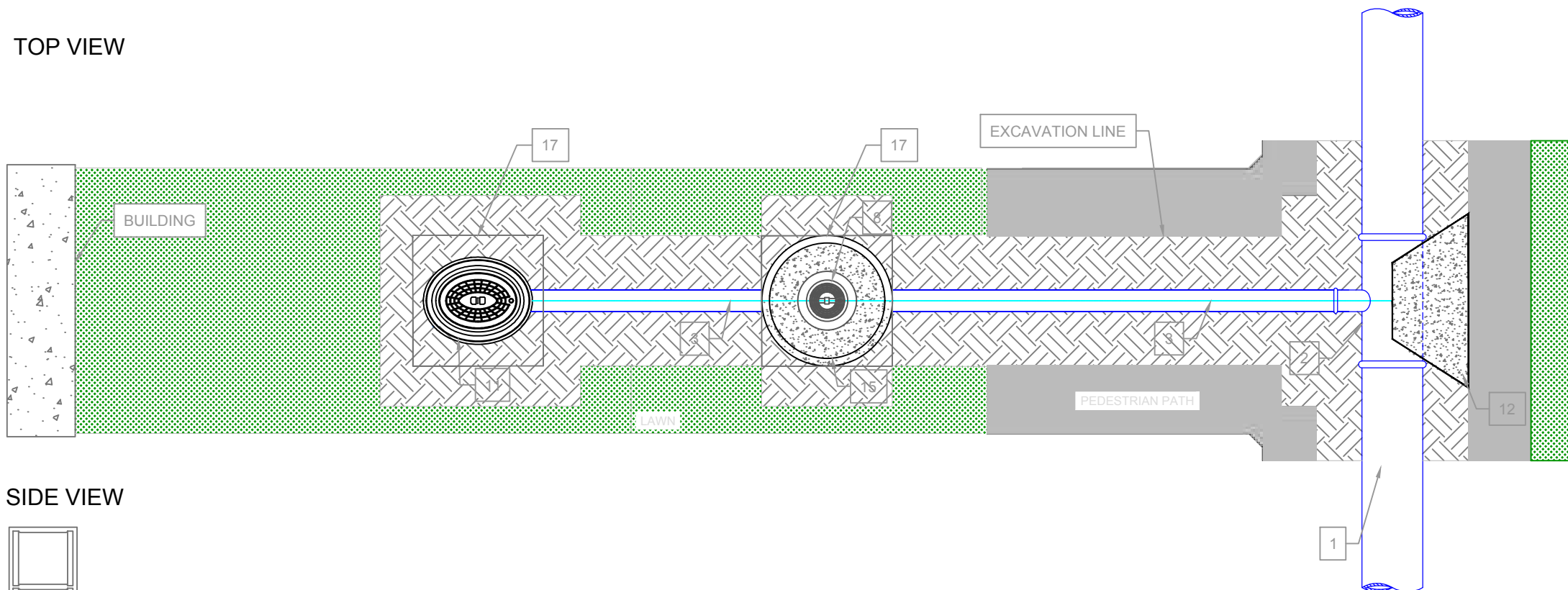
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DD-SD-WS-03		Typical Water Connection - Type 2	
Drawing number	Description		
Detailed Design	420 x 297 mm	1:50	04-10-2022
Phase	Format	Scale	Date
L077	Master Plan of Interventions at the Entrance of Shkodra		
Project number	Project name		

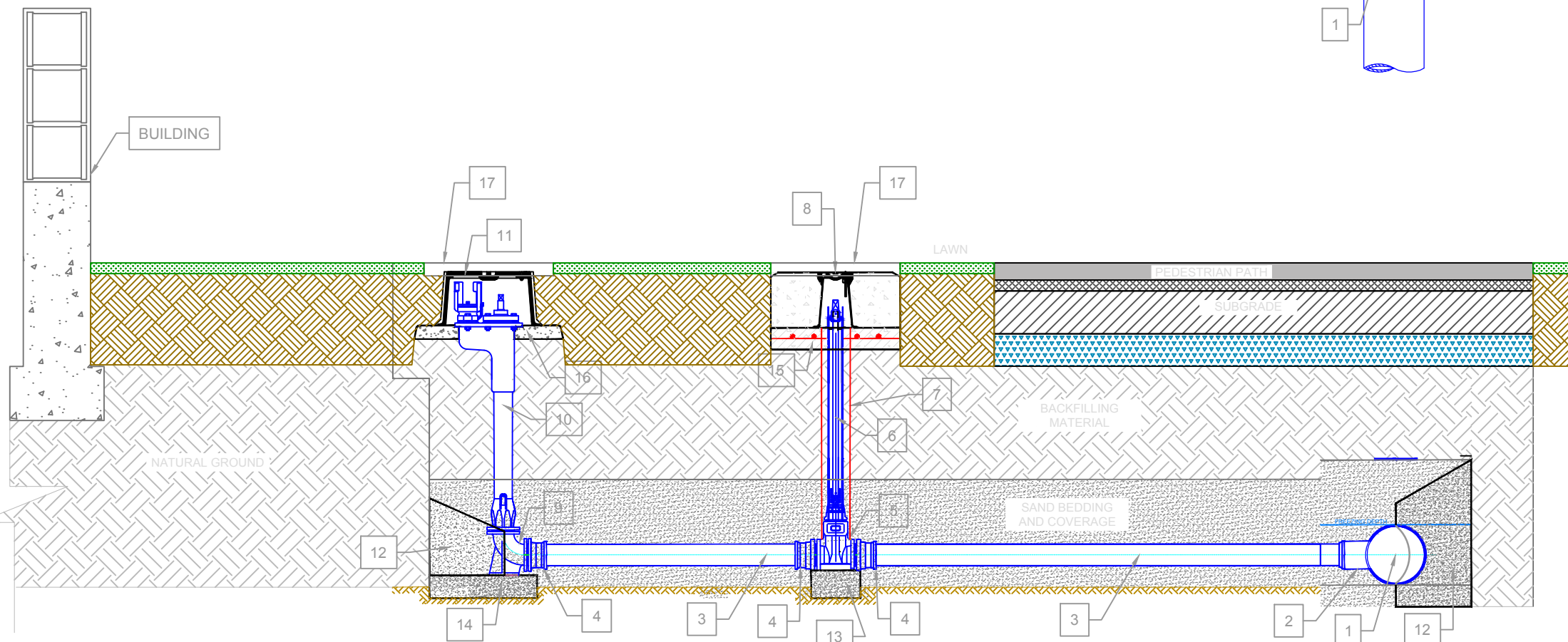
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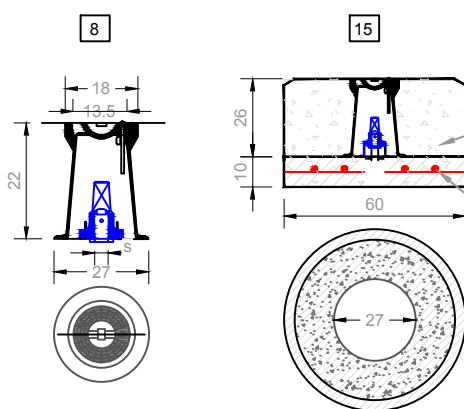
TOP VIEW



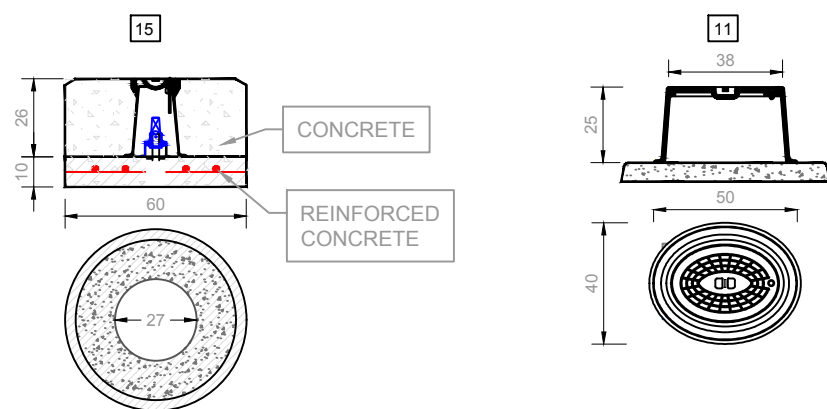
SIDE VIEW



VALVE SURFACE BOX DETAIL



HYDRANT SURFACE BOX DETAIL



MATERIALS

LIST OF MATERIALS		
ITEM	DESCRIPTION	QTY
1	HDPE PIPE (DISTRIBUTION) DE X, X=90	-
2	TEE PIECE DE 90/90	1
3	HDPE PIPE DE90 (TOTAL AVERAGE LENGTH, m)	4
4	FLANGE ADAPTOR DE90/DN80	3
5	GATE VALVE DN80	1
6	EXTENSION SPINDLE WITH COUPLING (S=32mm)	1
7	PVC PROTECTION TUBE PN4 (L=VARIABLE)	1
8	SURFACE BOX	1
9	DUCK FOOT DN100	1
10	UNDERGROUND FIREFIGHTING HYDRANT	1
11	SURFACE BOX FOR UNDERGROUND HYDRANT	1
12	THRUST BLOCK	2
13	ANCHOR BLOCK FOR VALVE DN100 HxBxL (15x25x25)	1
14	ANCHOR BLOCK FOR DUCK FOOT DN100 HxBxL (10x25x50)	1
15	ANCHOR BLOCK FOR VALVE SURFACE BOX (SEE DETAIL)	1
16	ANCHOR BLOCK FOR HYDRANT SURFACE BOX	1
17	MANHOLE COVER ACCORDING TO DD-D-C-01 - TYPE 600x600MM	2

NOTES

- All Fittings required are PN16.
- All manhole covers used for these manholes shall be made according to detailed drawing DD-D-C-01, Type 600x600mm.

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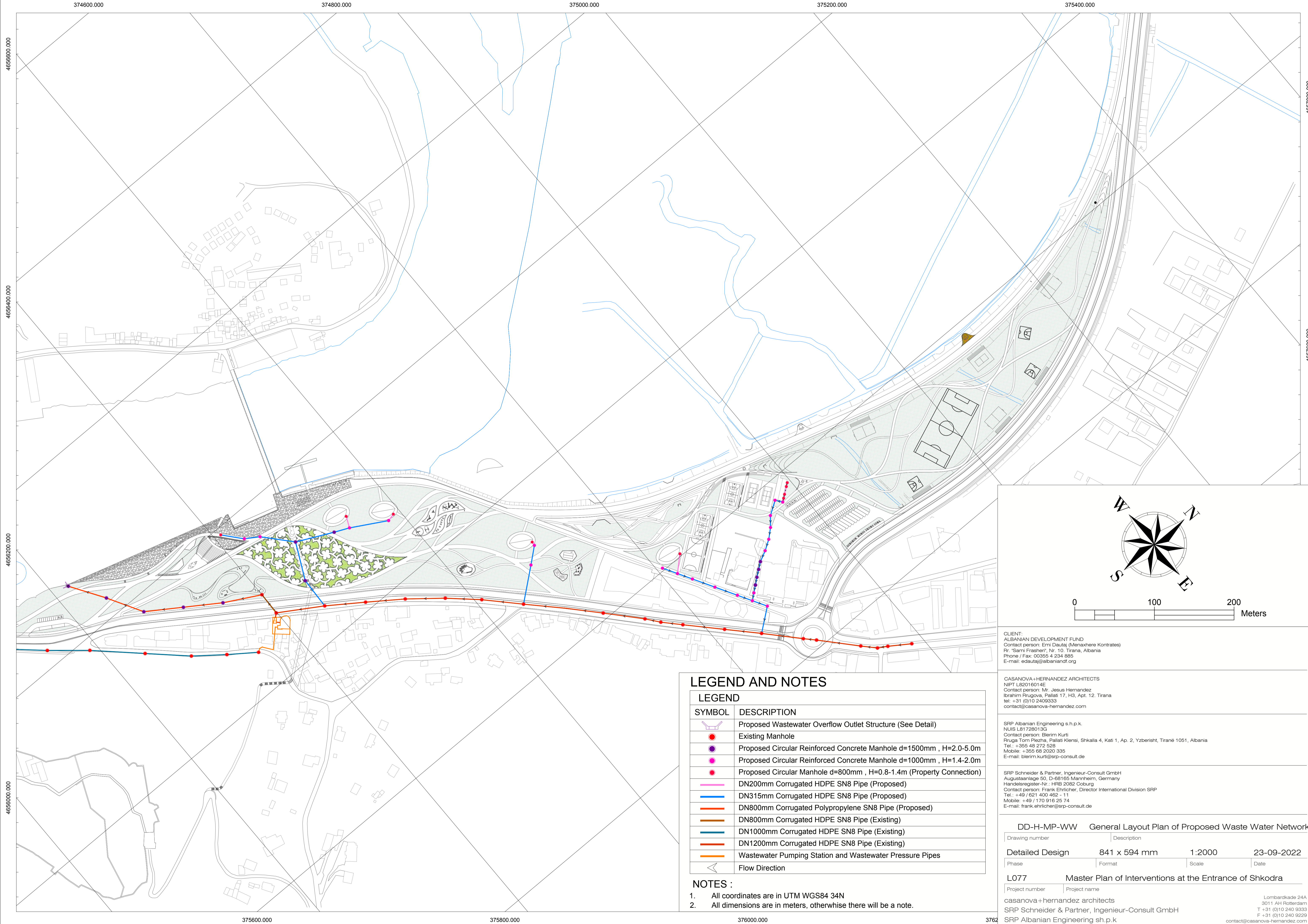
SRP Schneider & Partner, Ingenieur-Consult GmbH
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DD-SD-WS-04 Typical Underground Fire Hydrant

Drawing number	Description	Scale	Date
Detailed Design	420 x 297 mm	1:25	04-10-2022
Phase	Format	Scale	Date
L077	Master Plan of Interventions at the Entrance of Shkodra		
Project number	Project name		

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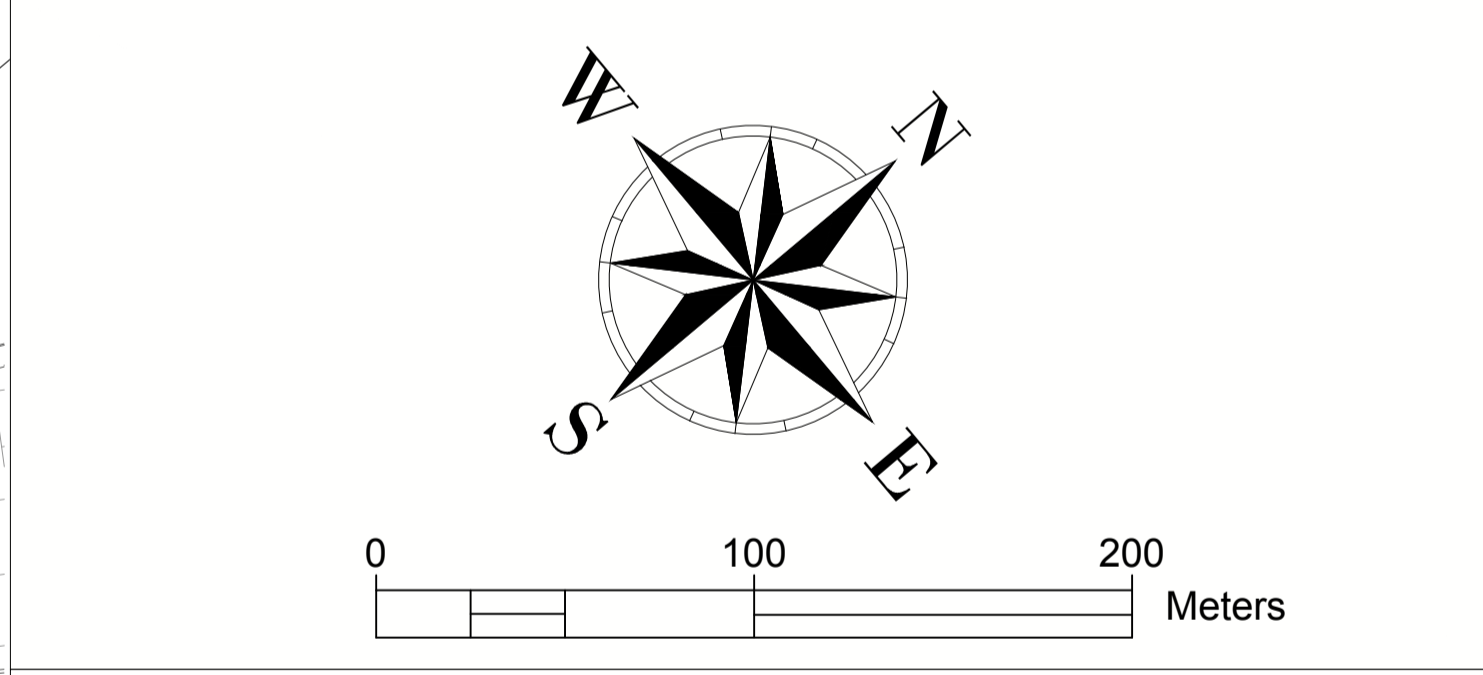
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LEGEND AND NOTES

LEGEND	
SYMBOL	DESCRIPTION
	Proposed Wastewater Overflow Outlet Structure (See Detail)
	Existing Manhole
	Proposed Circular Reinforced Concrete Manhole d=1500mm , H=2.0-5.0m
	Proposed Circular Reinforced Concrete Manhole d=1000mm , H=1.4-2.0m
	Proposed Circular Manhole d=800mm , H=0.8-1.4m (Property Connection)
	DN200mm Corrugated HDPE SN8 Pipe (Proposed)
	DN315mm Corrugated HDPE SN8 Pipe (Proposed)
	DN800mm Corrugated Polypropylene SN8 Pipe (Proposed)
	DN800mm Corrugated HDPE SN8 Pipe (Existing)
	DN1000mm Corrugated HDPE SN8 Pipe (Existing)
	DN1200mm Corrugated HDPE SN8 Pipe (Existing)
	Wastewater Pumping Station and Wastewater Pressure Pipes
	Flow Direction

- NOTES :**
- All coordinates are in UTM WGS84 34N
 - All dimensions are in meters, otherwise there will be a note.



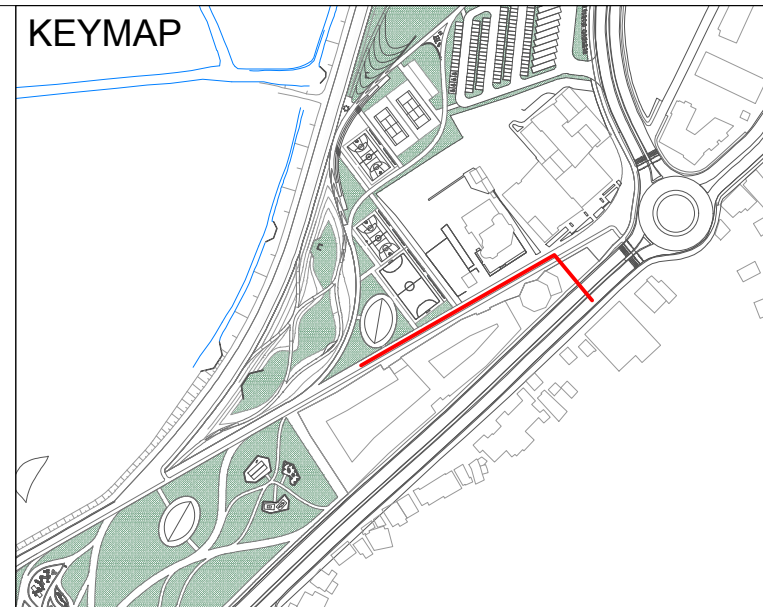
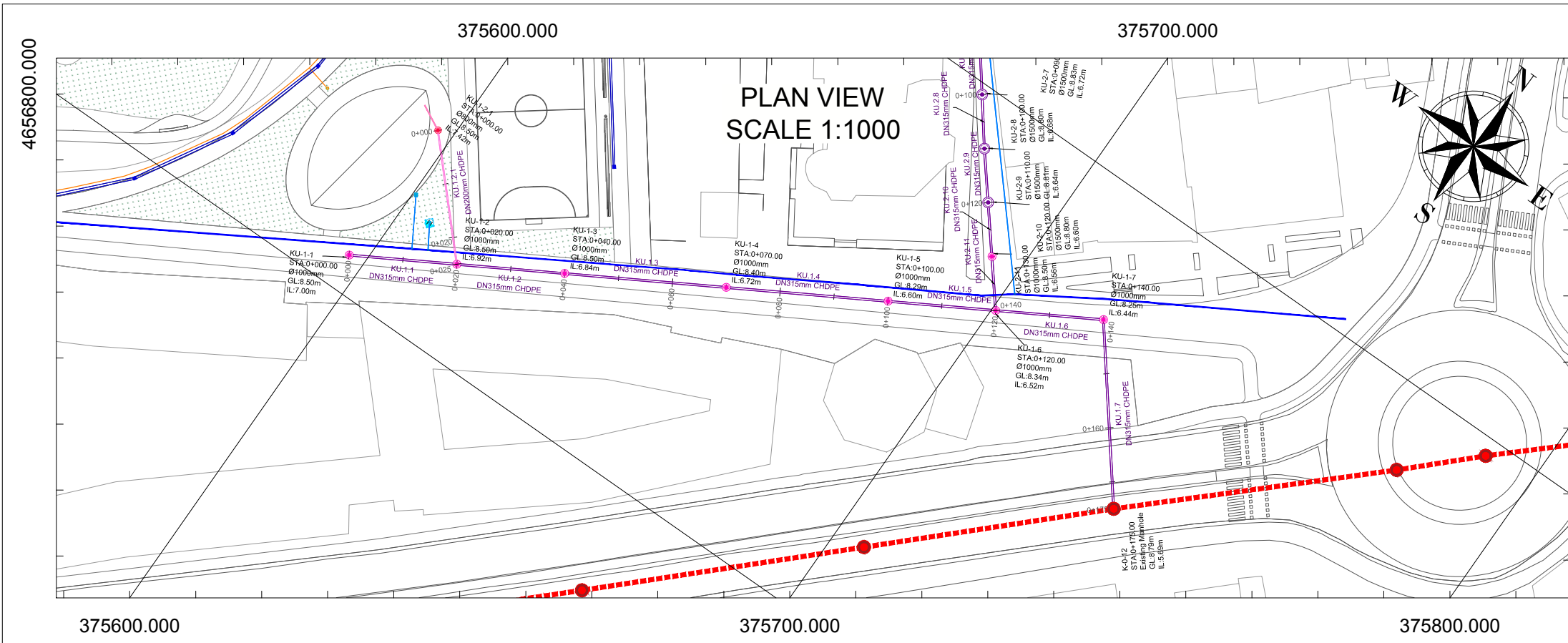
CLIENT:
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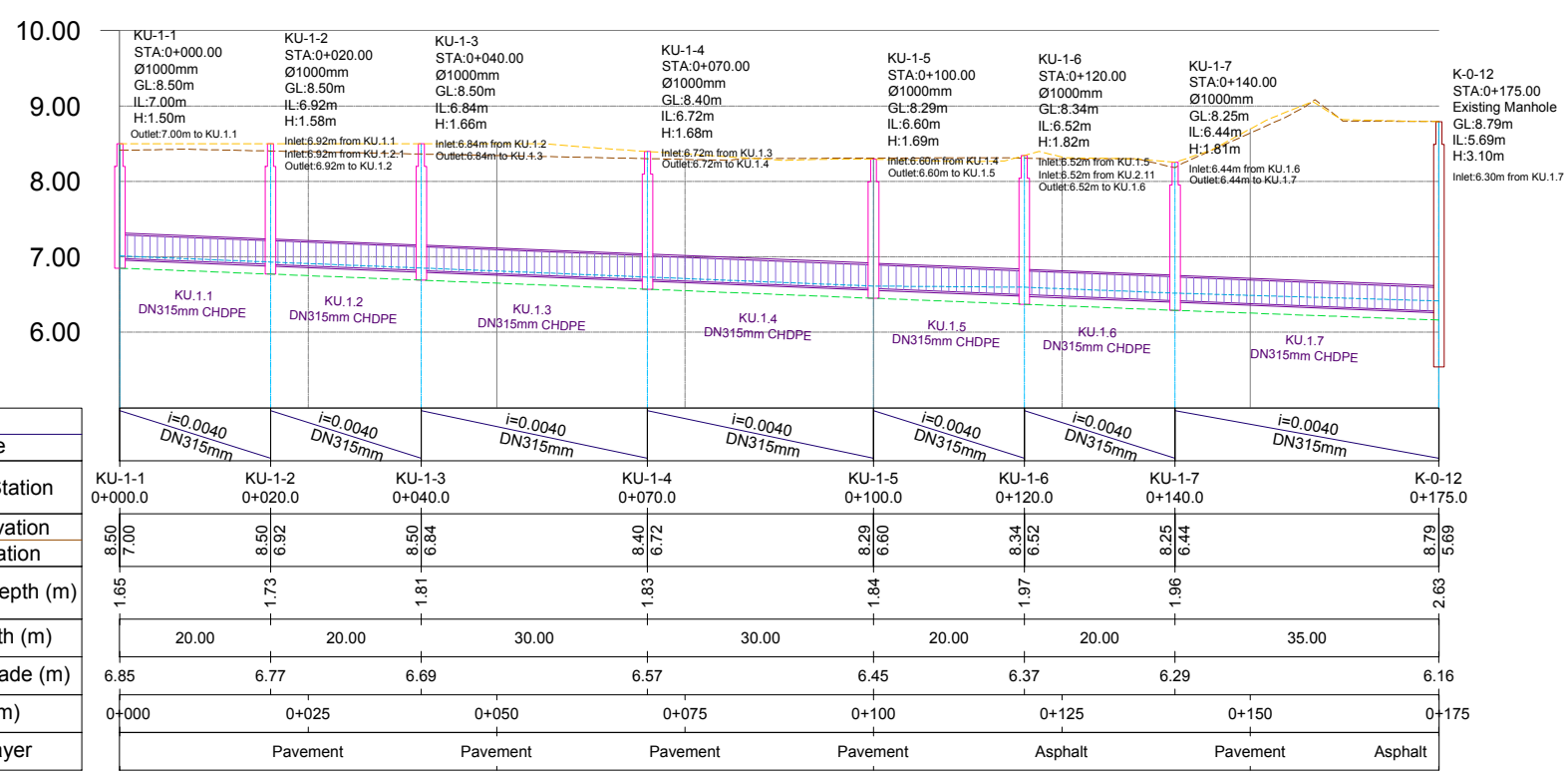
SRP Albanian Engineering s.h.p.k.
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DD-H-MP-WW		General Layout Plan of Proposed Waste Water Network	
Drawing number	Description	Scale	Date
Detailed Design	841 x 594 mm	1:2000	23-09-2022
Phase	Format	Scale	Date
L077	Master Plan of Interventions at the Entrance of Shkodra		
Project number	Project name		
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LONGTITUDINAL PROFILE SCALE H 1:1000 V 1:100



Slope Pipeline	Manhole + Station	Ground Elevation	Invert Elevation	Excavation Depth (m)	Partial Length (m)	Hydraulic Grade (m)	Station (m)	Ground Layer
$i=0.0040$ DN315mm	KU-1-1 0+000.0	8.50 7.00	6.92	1.65	20.00	6.85	0+000	Pavement
$i=0.0040$ DN315mm	KU-1-2 0+020.0	8.50 6.92	6.84	1.73	20.00	6.77	0+025	Pavement
$i=0.0040$ DN315mm	KU-1-3 0+040.0	8.50 6.84	6.81	1.81	30.00	6.69	0+050	Pavement
$i=0.0040$ DN315mm	KU-1-4 0+070.0	8.40 6.72	6.72	1.83	30.00	6.57	0+075	Pavement
$i=0.0040$ DN315mm	KU-1-5 0+100.0	8.29 6.60	6.60	1.84	20.00	6.45	0+100	Pavement
$i=0.0040$ DN315mm	KU-1-6 0+120.0	8.34 6.52	6.52	1.97	20.00	6.37	0+125	Asphalt
$i=0.0040$ DN315mm	KU-1-7 0+140.0	8.25 6.44	6.44	1.96	35.00	6.29	0+150	Pavement
	K-0-12 0+175.0	8.79 5.60	5.60	2.63		6.16	0+175	Asphalt

LEGEND AND NOTES

LEGEND	
SYMBOL	DESCRIPTION
	Existing Wastewater Manhole
	Proposed Circular Manhole - d=1500mm, H = 2.0-5.0m
	Proposed Circular Manhole - d=1000mm, H = 1.4-2.0m
	Proposed Circular Manhole - d=800mm, H = 0.8-1.4m
	Proposed Storm Water Manhole
	Wastewater Overflow Outlet to Buna River (See Detail)
	Existing Waste Water Network
	Proposed Waste Water Network
	Proposed Storm Water Network
	Proposed Water Supply Network
	Proposed Irrigation Network
	Existing Overflow Pipeline
	Excavation Line
	Existing Ground Level
	New Proposed Ground Level
	Hydraulic Grade Line

- NOTES :
- All coordinates are in UTM WGS84 34N
 - All dimensions are in meters, otherwise there will be a note.
 - The Hydraulic Grade Line inside the Pipeline shows the maximum water level for the most loaded hour, occurring at the same time as the one in a 10 Year Rain Event.
 - All manholes in the project area that are not in asphalt pavement shall follow cover detail as shown in drawing DD-D-C-01.

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VOLUMES TABLE												
AREA	CIVIL WORKS	Excavation	Transport	Topsoil Fill	Sand Bedding Fill	DN200mm CHDPE Pipe	DN315mm CHDPE Pipe	d=800m Manholes	d=1000m Manholes	Sheetpiles	Pavement Reinstare	Asphalt Reinstare
L0 W	UNIT	m ³	m ³	m ³	m ³	ml	ml	pcs	pcs	m ²	m ²	m ²
	VOLUME	369.60	177.33	183.33	122.87	25.00	175.00	1.00	7.00	322.00	140.00	35.00

NOTES : All Existing Lines / Connections from Existing Buildings shall stay in the Project Area but connect to proposed manholes. Reinstatement of paved and asphalt roads shall be done throughout all the length of this line (Stations 0-120, 145-165 are paved; Stations 120-145, 165-175 are asphalted)

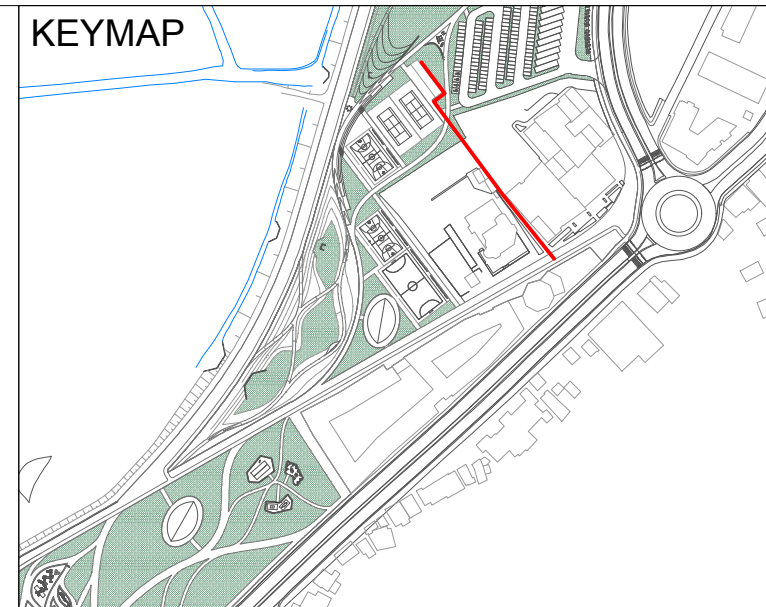
DD-H-WW-LP-KU-1 Wastewater Line KU-1 Longitudinal Profile

Drawing number	Description		
Detailed Design	420 x 297 mm	1:1000	23-09-2022
Phase	Format	Scale	Date
L077	Master Plan of Interventions at the Entrance of Shkodra		
Project number	Project name		
casanova+hernandez architects SRP Schneider & Partner, Ingenieur-Consult GmbH SRP Albanian Engineering sh.p.k.			
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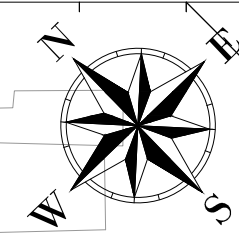
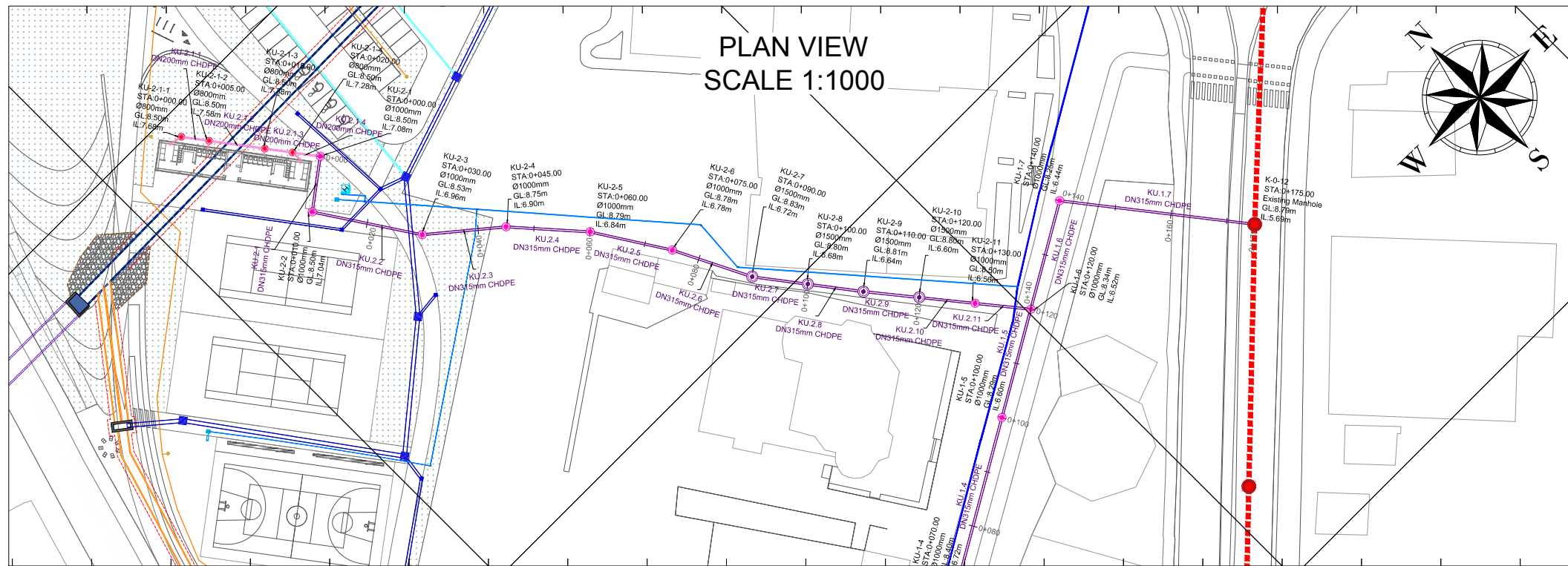
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KEYMAP



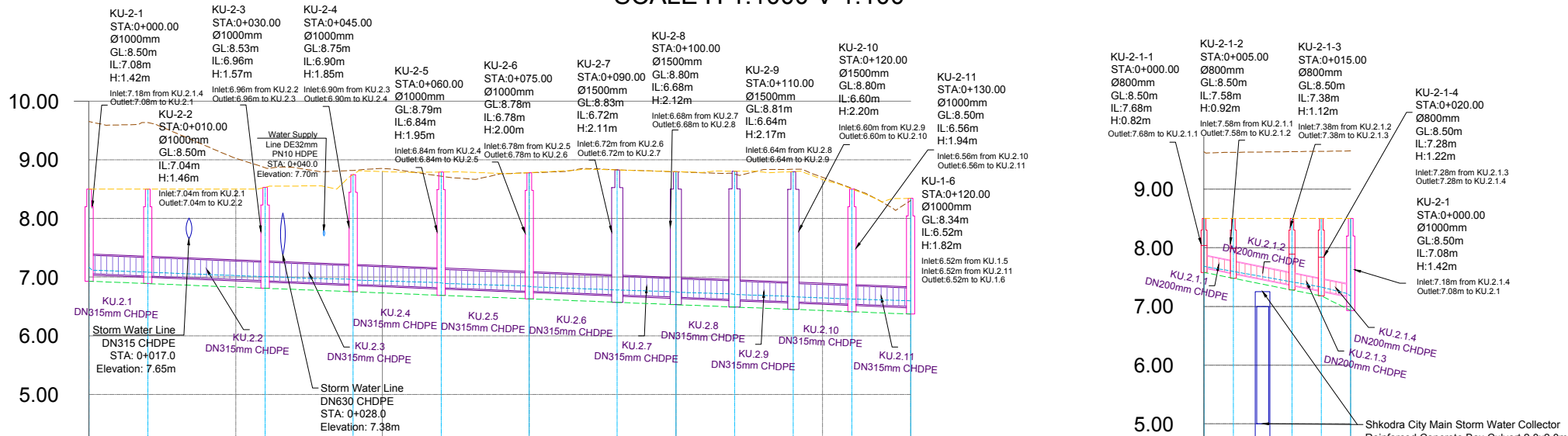
PLAN VIEW SCALE 1:1000



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LONGITUDINAL PROFILE SCALE H 1:1000 V 1:100



Slope Pipeline
Manhole + Station
Ground Elevation
Invert Elevation
Excavation Depth (m)
Partial Length (m)
Hydraulic Grade (m)
Station (m)
Ground Layer

Slope Pipeline	Manhole + Station	Ground Elevation	Invert Elevation	Excavation Depth (m)	Partial Length (m)	Hydraulic Grade (m)	Station (m)	Ground Layer
$i=0.0040$ DN315mm	KU-2-1 0+000.0	8.50	7.08	1.57	10.00	7.17	0+000	Concrete
$i=0.0040$ DN315mm	KU-2-2 0+010.0	8.50	7.04	1.61	20.00	7.08	0+010	Concrete
$i=0.0040$ DN315mm	KU-2-3 0+030.0	8.53	6.96	1.72	15.00	7.01	0+030	Asphalt
$i=0.0040$ DN315mm	KU-2-4 0+045.0	8.75	6.90	2.00	15.00	6.96	0+045	Asphalt
$i=0.0040$ DN315mm	KU-2-5 0+060.0	8.79	6.84	2.10	15.00	6.90	0+060	Asphalt
$i=0.0040$ DN315mm	KU-2-6 0+075.0	8.78	6.78	2.15	15.00	6.84	0+075	Asphalt
$i=0.0040$ DN315mm	KU-2-7 0+090.0	8.83	6.72	2.26	10.00	6.78	0+090	Asphalt
$i=0.0040$ DN315mm	KU-2-8 0+100.0	8.80	6.68	2.27	10.00	6.75	0+100	Asphalt
$i=0.0040$ DN315mm	KU-2-9 0+110.0	8.81	6.64	2.32	10.00	6.71	0+110	Asphalt
$i=0.0040$ DN315mm	KU-2-10 0+120.0	8.80	6.60	2.35	10.00	6.67	0+120	Asphalt
$i=0.0040$ DN315mm	KU-2-11 0+130.0	8.50	6.56	2.09	10.00	6.63	0+130	Asphalt
$i=0.0040$ DN315mm	KU-1-6 0+140.0	8.34	6.52	1.97	10.00	6.60	0+140	Asphalt

Slope Pipeline
Manhole + Station
Ground Elevation
Invert Elevation
Excavation Depth (m)
Partial Length (m)
Hydraulic Grade (m)
Station (m)
Ground Layer

Slope Pipeline	Manhole + Station	Ground Elevation	Invert Elevation	Excavation Depth (m)	Partial Length (m)	Hydraulic Grade (m)	Station (m)	Ground Layer
$i=0.0200$ DN200mm	KU-2-1-1 0+000.0	8.50	7.58	0.92	5.00	7.68	0+000	Grass
$i=0.0200$ DN200mm	KU-2-1-2 0+005.0	8.50	7.58	1.02	10.00	7.60	0+005	Grass
$i=0.0200$ DN200mm	KU-2-1-3 0+015.0	8.50	7.38	1.22	5.00	7.42	0+015	Grass
$i=0.0200$ DN200mm	KU-2-1-4 0+020.0	8.50	7.28	1.32	5.00	7.33	0+020	Grass
$i=0.0200$ DN200mm	KU-2-1 0+000.0	8.50	7.08	1.57	10.00	7.18	0+000	Grass

VOLUMES TABLE

AREA	CIVIL WORKS	Excavation	Transport	Topsoil Fill	Sand Bedding Fill	DN200mm CHDPE Pipe	DN315mm CHDPE Pipe	d=800m Manholes	d=1000m Manholes	d=1500m Manholes	Sheetpiles	Asphalt Reinstatement
LO W	UNIT	m ³	m ³	m ³	m ³	ml	ml	pcs	pcs	pcs	m ²	m ²
	VOLUME	343.90	174.14	191.63	100.57	25.00	140.00	4.00	7.00	4.00	422.00	200.00

NOTES : All Existing Lines / Connections from Existing Buildings shall stay in the Project Area but connect to proposed manholes. Reinstatement of asphalt roads / parking shall be done from Station 40 to the end of this line.

LEGEND AND NOTES

SYMBOL	DESCRIPTION
	Existing Wastewater Manhole
	Proposed Circular Manhole - d=1500mm, H = 2.0-5.0m
	Proposed Circular Manhole - d=1000mm, H = 1.4-2.0m
	Proposed Circular Manhole - d=800mm, H = 0.8-1.4m
	Proposed Storm Water Manhole
	Wastewater Overflow Outlet to Buna River (See Detail)
	Existing Waste Water Network
	Proposed Waste Water Network
	Proposed Storm Water Network
	Proposed Water Supply Network
	Proposed Irrigation Network
	Existing Overflow Pipeline
	Excavation Line
	Existing Ground Level
	New Proposed Ground Level
	Hydraulic Grade Line

- NOTES :
- All coordinates are in UTM WGS84 34N
 - All dimensions are in meters, otherwise there will be a note.
 - The Hydraulic Grade Line inside the Pipeline shows the maximum water level for the most loaded hour, occurring at the same time as the one in a 10 year Rain Event.
 - All manholes in the project area that are not in asphalt pavement shall follow cover detail as shown in drawing DD-D-C-01.

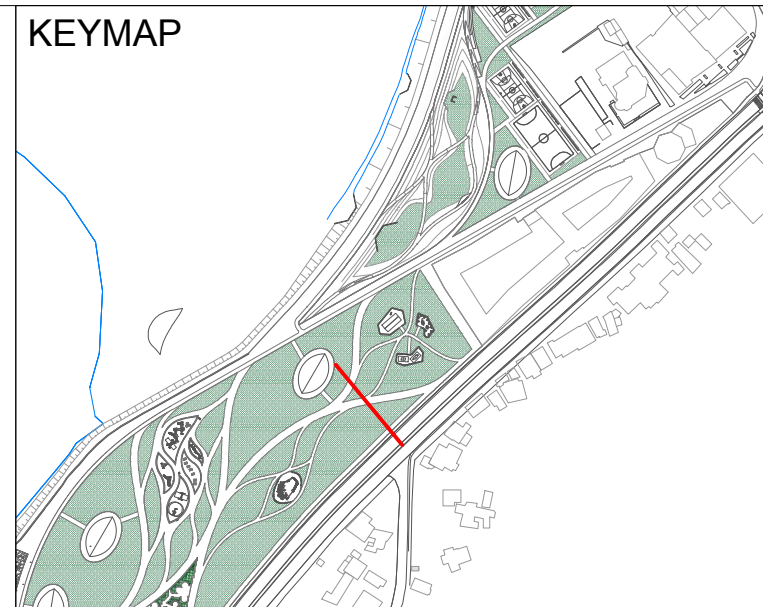
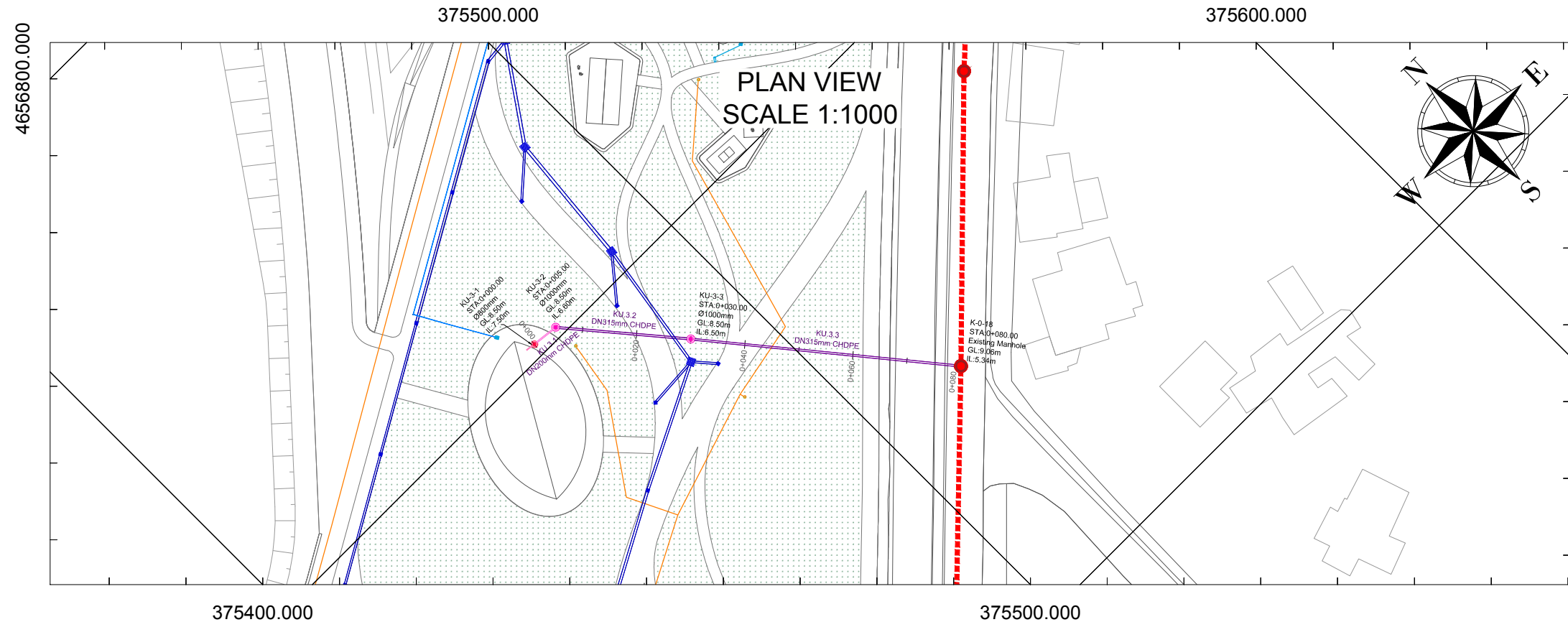
CLIENT:
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DD-H-WW-LP-KU-2 Wastewater Line KU-2 Longitudinal Profile			
Drawing number	Description		
Detailed Design	420 x 297 mm	1:1000	31-08-2022
Phase	Format	Scale	Date
L077	Master Plan of Interventions at the Entrance of Shkodra		
Project number	Project name		
casanova+hernandez architects	Lombardkade 24A 3011 AH Rotterdam		
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LEGEND AND NOTES

LEGEND	
SYMBOL	DESCRIPTION
	Existing Wastewater Manhole
	Proposed Circular Manhole - d=1500mm, H = 2.0-5.0m
	Proposed Circular Manhole - d=1000mm, H = 1.4-2.0m
	Proposed Circular Manhole - d=800mm, H = 0.8-1.4m
	Proposed Storm Water Manhole
	Wastewater Overflow Outlet to Buna River (See Detail)
	Existing Waste Water Network
	Proposed Waste Water Network
	Proposed Storm Water Network
	Proposed Water Supply Network
	Proposed Irrigation Network
	Existing Overflow Pipeline
	Excavation Line
	Existing Ground Level
	New Proposed Ground Level
	Hydraulic Grade Line

- NOTES :**
- All coordinates are in UTM WGS84 34N
 - All dimensions are in meters, otherwise there will be a note.
 - The Hydraulic Grade Line inside the Pipeline shows the maximum water level for the most loaded hour, occurring at the same time as the one in a 10 Year Rain Event.
 - All manholes in the project area that are not in asphalt pavement shall follow cover detail as shown in drawing DD-D-C-01.

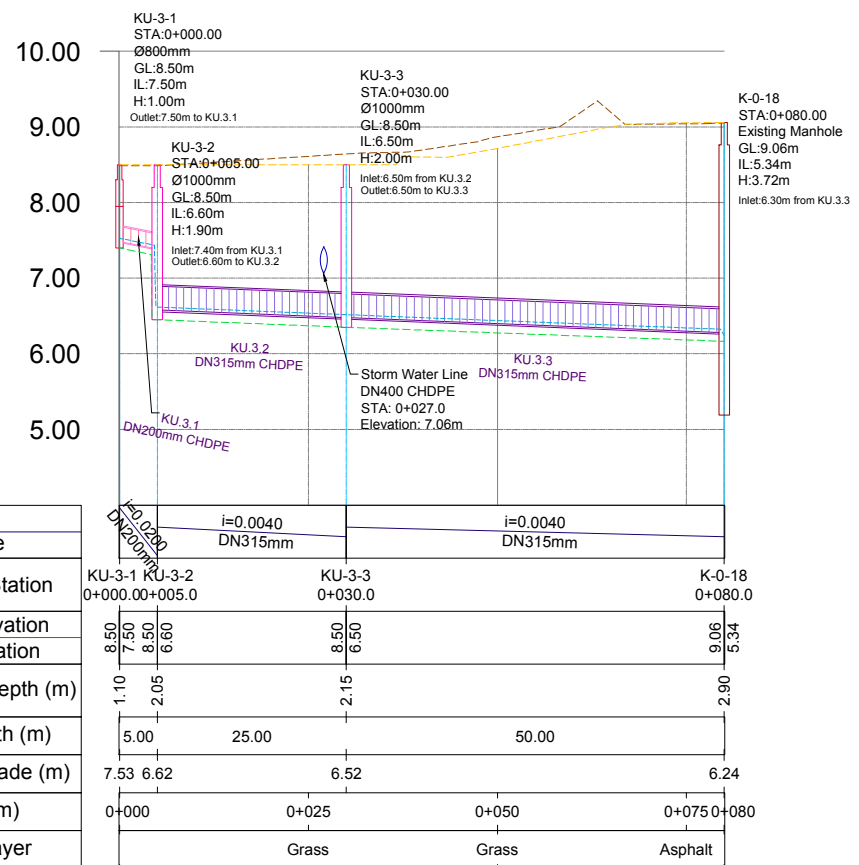
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LONGITUDINAL PROFILE SCALE H 1:1000 V 1:100



Slope	Pipeline
Manhole + Station	
Ground Elevation	
Invert Elevation	
Excavation Depth (m)	
Partial Length (m)	
Hydraulic Grade (m)	
Station (m)	
Ground Layer	

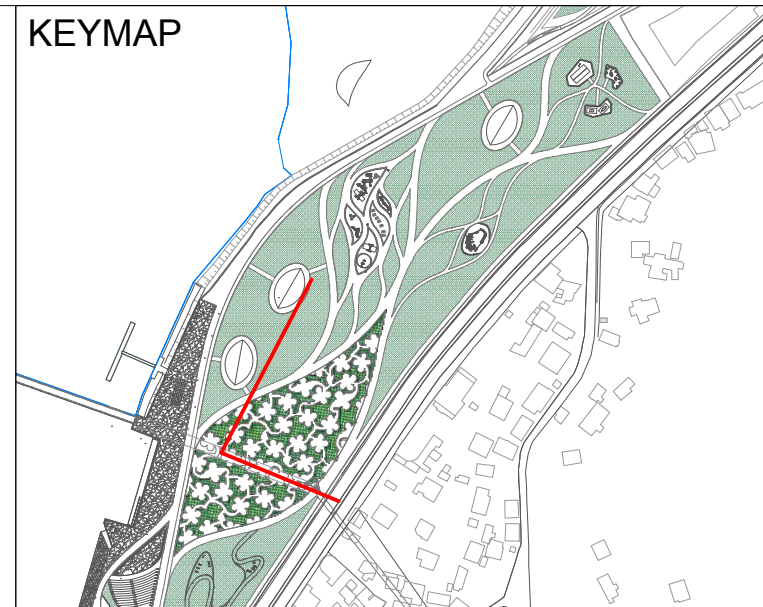
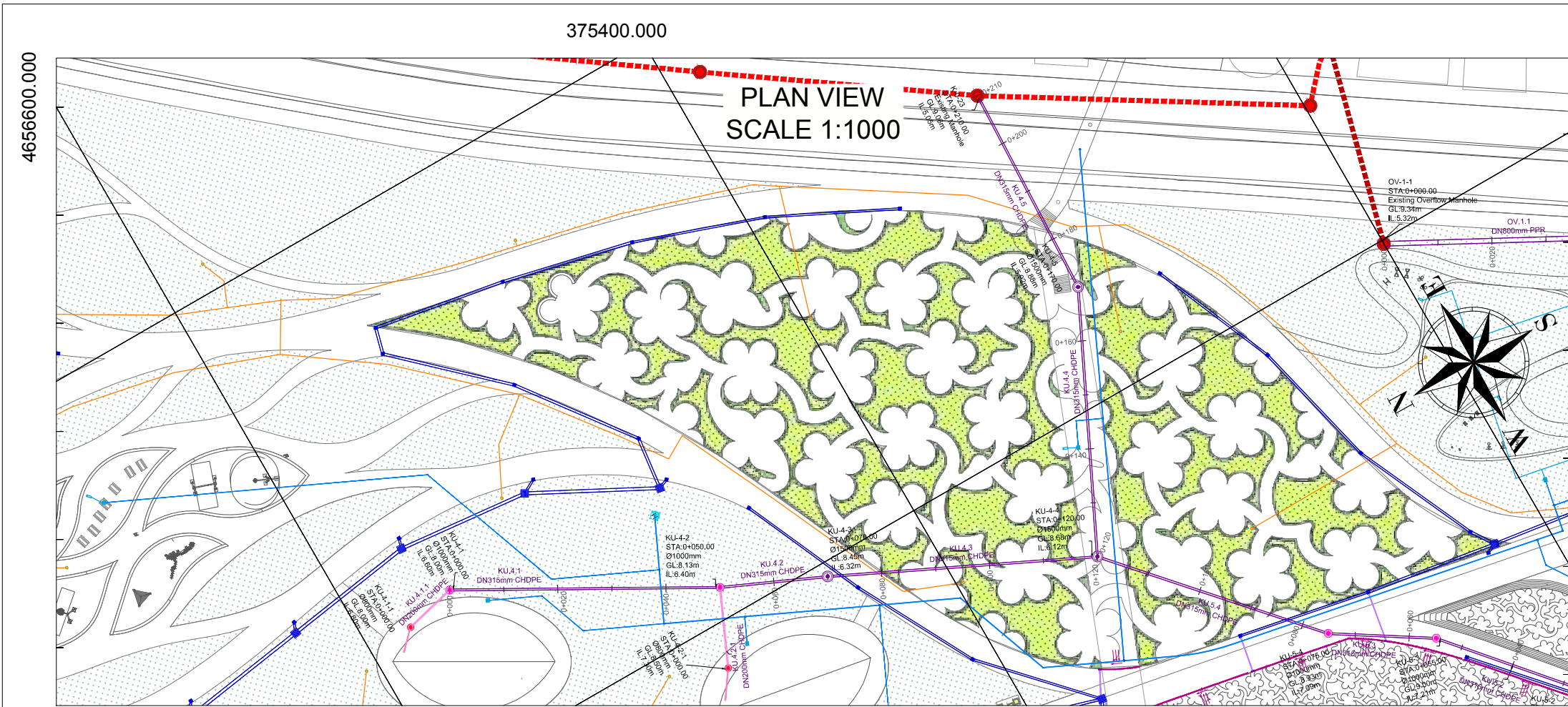
VOLUMES TABLE

AREA	CIVIL WORKS	Excavation	Transport	Topsoil Fill	Sand Bedding Fill	DN200mm CHDPE Pipe	DN315mm CHDPE Pipe	d=800m Manholes	d=1000m Manholes	d=1500m Manholes	Sheetpiles	Reinstatement
UNIT		m ³	m ³	m ³	m ³	ml	ml	pcs	pcs	pcs	m ²	m ²
L0 RP	VOLUME	185.10	91.40	125.50	50.05	5.00	75.00	1.00	2.00	1.00	362.00	15.00

NOTES : Proposed line shall connect with the existing one on the main road. Reinstatement of asphalt road and pavement shall be done from Station 65 to the end of this line (10 meters Asphalt, 5 meters Pavement)

DD-H-WW-LP-KU-3 Wastewater Line KU-3 Longitudinal Profile			
Drawing number	Description	Scale	Date
Detailed Design	420 x 297 mm	1:1000	23-09-2022
Phase	Format	Scale	Date
L077	Master Plan of Interventions at the Entrance of Shkodra		
Project number	Project name		
casanova+hernandez architects			
SRP Schneider & Partner, Ingenieur-Consult GmbH			
SRP Albanian Engineering sh.p.k.			

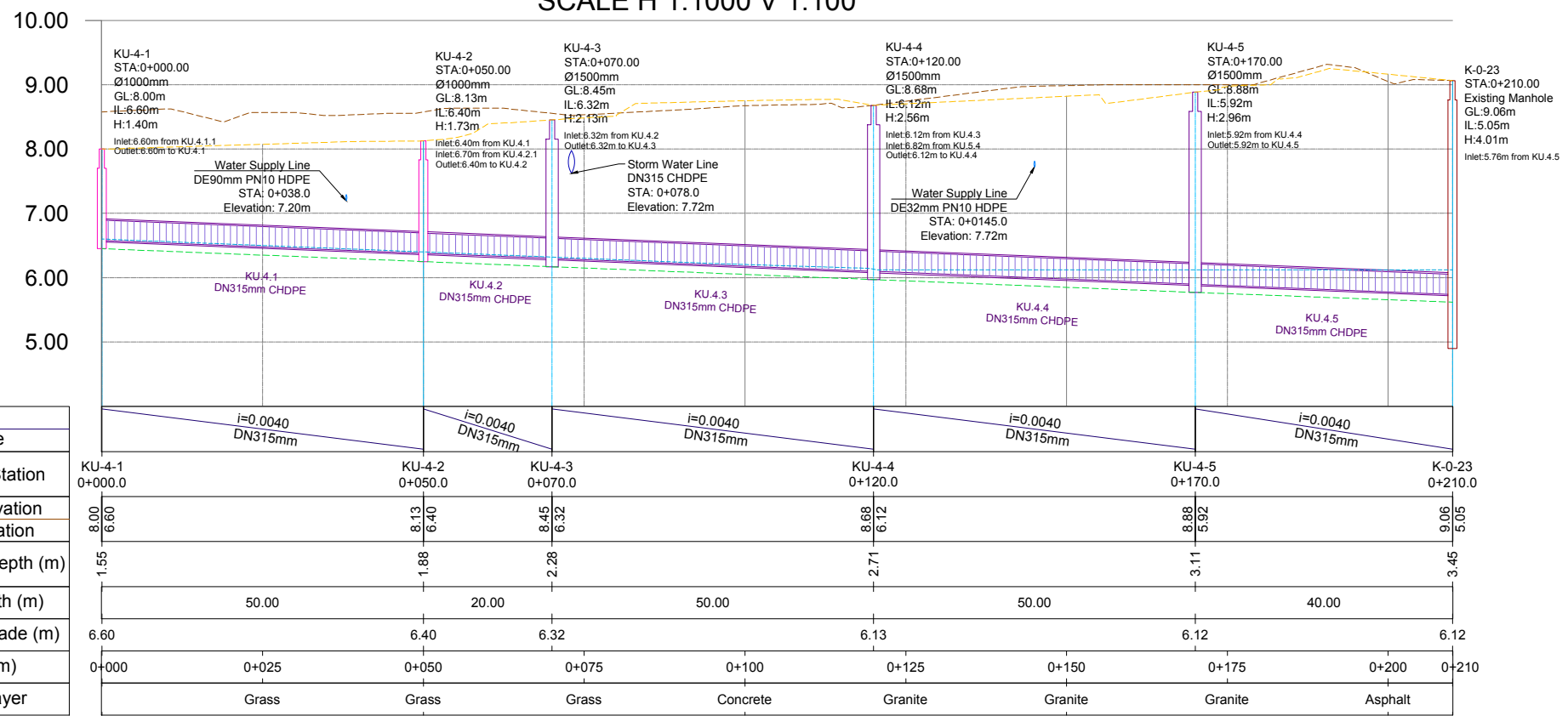
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LEGEND AND NOTES

LEGEND	
SYMBOL	DESCRIPTION
	Existing Wastewater Manhole
	Proposed Circular Manhole - d=1500mm, H = 2.0-5.0m
	Proposed Circular Manhole - d=1000mm, H = 1.4-2.0m
	Proposed Circular Manhole - d=800mm, H = 0.8-1.4m
	Proposed Storm Water Manhole
	Wastewater Overflow Outlet to Buna River (See Detail)
	Existing Waste Water Network
	Proposed Waste Water Network
	Proposed Storm Water Network
	Proposed Water Supply Network
	Proposed Irrigation Network
	Existing Overflow Pipeline
	Excavation Line
	Existing Ground Level
	New Proposed Ground Level
	Hydraulic Grade Line

LONGITUDINAL PROFILE SCALE H 1:1000 V 1:100



Slope	Pipeline
	$i=0.0040$
Manhole + Station	KU-4-1 0+000.0
Ground Elevation	8.00
Invert Elevation	6.60
Excavation Depth (m)	1.55
Partial Length (m)	50.00
Hydraulic Grade (m)	6.60
Station (m)	0+000
Ground Layer	Grass

VOLUMES TABLE

AREA	CIVIL WORKS	Excavation	Transport	Topsoil Fill	Sand Bedding Fill	DN200mm CHDPE Pipe	DN315mm CHDPE Pipe	d=800m Manholes	d=1000m Manholes	d=1500m Manholes	Sheetpiles	Reinstatement
LO RP	UNIT	m ³	m ³	m ³	m ³	ml	ml	pcs	pcs	pcs	m ²	m ²
	VOLUME	571.80	295.65	379.50	145.15	25.00	210.00	2.00	2.00	3.00	1004.00	20.00

NOTES : Proposed line shall connect with the existing one on the main road. Reinstatement of asphalt road and pavement shall be done from Station 190 to the end of this line (10 meters Asphalt, 10 meters Pavement)

- NOTES :**
- All coordinates are in UTM WGS84 34N
 - All dimensions are in meters, otherwise there will be a note.
 - The Hydraulic Grade Line inside the Pipeline shows the maximum water level for the most loaded hour, occurring at the same time as the one in a 10 Year Rain Event.
 - All manholes in the project area that are not in asphalt pavement shall follow cover detail as shown in drawing DD-D-C-01.

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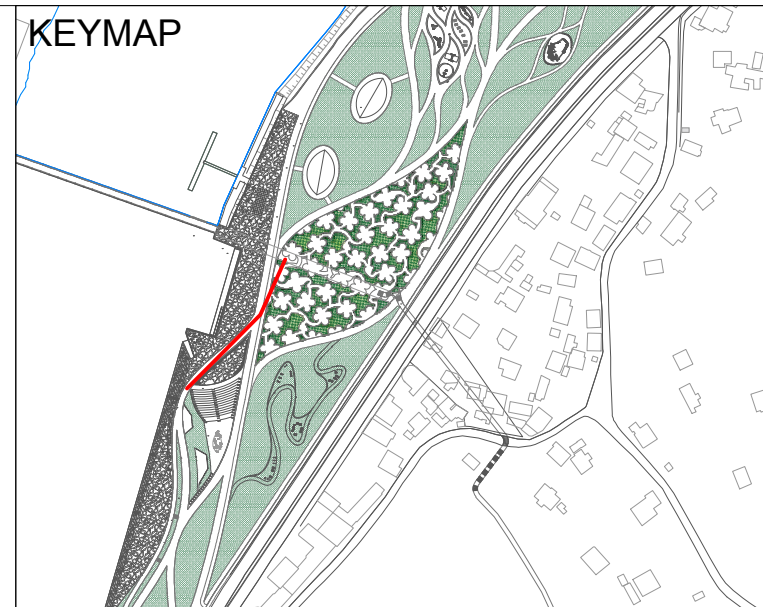
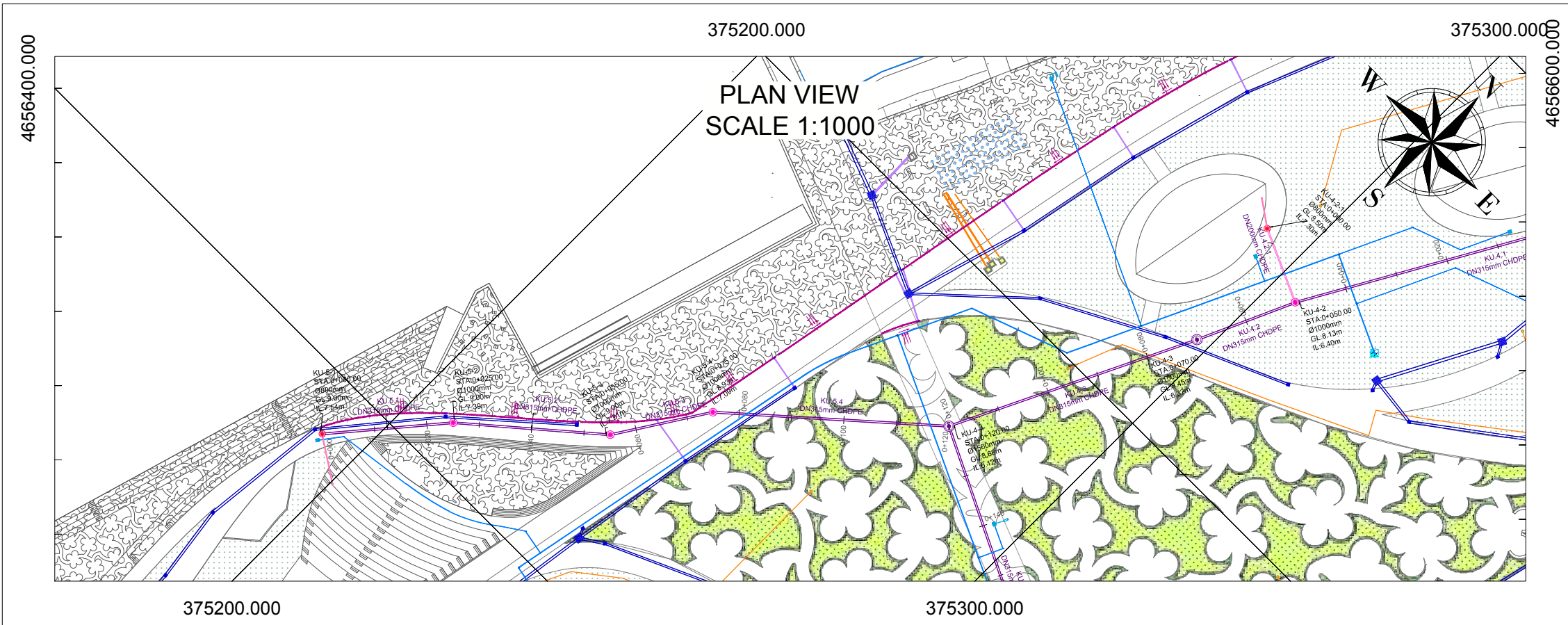
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DD-H-WW-LP-KU-4 Wastewater Line KU-4 Longitudinal Profile

Drawing number	Description
Detailed Design	420 x 297 mm 1:1000 23-09-2022
Phase	Format Scale Date
L077	Master Plan of Interventions at the Entrance of Shkodra
Project number	Project name
casanova+hernandez architects	Lombardkade 24A 3011 AH Rotterdam
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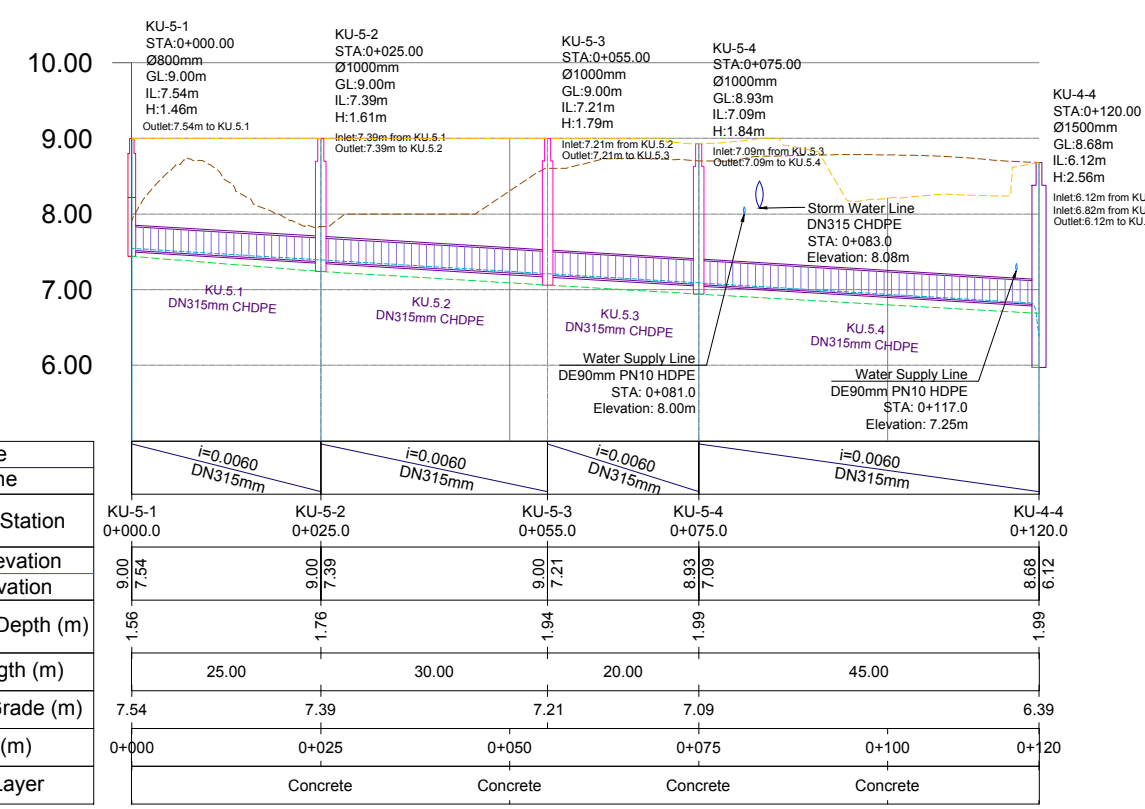


LEGEND AND NOTES

LEGEND	
SYMBOL	DESCRIPTION
	Existing Wastewater Manhole
	Proposed Circular Manhole - d=1500mm, H = 2.0-5.0m
	Proposed Circular Manhole - d=1000mm, H = 1.4-2.0m
	Proposed Circular Manhole - d=800mm, H = 0.8-1.4m
	Proposed Storm Water Manhole
	Wastewater Overflow Outlet to Buna River (See Detail)
	Existing Waste Water Network
	Proposed Waste Water Network
	Proposed Storm Water Network
	Proposed Water Supply Network
	Proposed Irrigation Network
	Existing Overflow Pipeline
	Excavation Line
	Existing Ground Level
	New Proposed Ground Level
	Hydraulic Grade Line

- NOTES :**
- All coordinates are in UTM WGS84 34N
 - All dimensions are in meters, otherwise there will be a note.
 - The Hydraulic Grade Line inside the Pipeline shows the maximum water level for the most loaded hour, occurring at the same time as the one in a 10 Year Rain Event.
 - All manholes in the project area that are not in asphalt pavement shall follow cover detail as shown in drawing DD-D-C-01.

LONGTITUDINAL PROFILE SCALE H 1:1000 V 1:1000



Slope	Pipeline
i=0.0060	DN315mm

Manhole + Station	Ground Elevation	Invert Elevation	Excavation Depth (m)	Partial Length (m)	Hydraulic Grade (m)	Station (m)	Ground Layer
KU-5-1 0+000.0	9.00	7.54	1.56	25.00	7.54	0+000	Concrete
KU-5-2 0+025.0	9.00	7.39	1.76	30.00	7.39	0+025	Concrete
KU-5-3 0+055.0	9.00	7.21	1.94	20.00	7.21	0+050	Concrete
KU-5-4 0+075.0	8.93	7.09	1.99	45.00	7.09	0+075	Concrete
KU-4-4 0+120.0	8.68	6.12	1.99		6.39	0+120	Concrete

VOLUMES TABLE

AREA	CIVIL WORKS	Excavation	Transport	Topsoil Fill	Sand Bedding Fill	DN200mm CHDPE Pipe	DN315mm CHDPE Pipe	d=800m Manholes	d=1000m Manholes	Sheetpiles	Reinstare
LO RP	UNIT	m ³	m ³	m ³	m ³	ml	ml	pcs	pcs	m ²	m ²
	VOLUME	219.60	103.11	102.30	76.45	0.00	75.00	1.00	3.00	362.00	0.00

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DD-H-WW-LP-KU-5 Wastewater Line KU-5 Longitudinal Profile

Drawing number	Description
Detailed Design	420 x 297 mm 1:1000 23-09-2022
Phase	Format Scale Date
L077	Master Plan of Interventions at the Entrance of Shkodra
Project number	Project name
casanova+hernandez architects	Lombardkade 24A 3011 AH Rotterdam
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