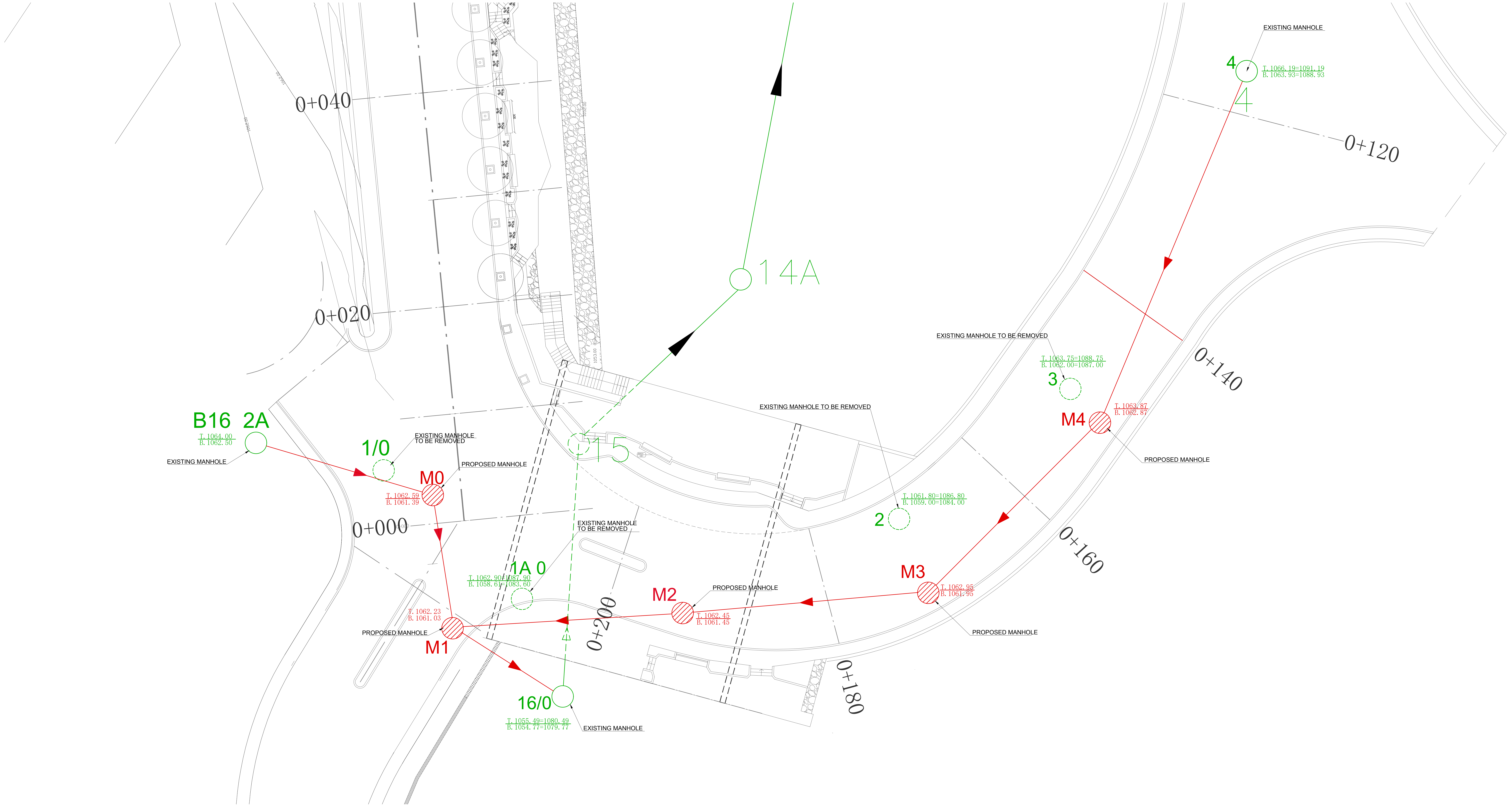

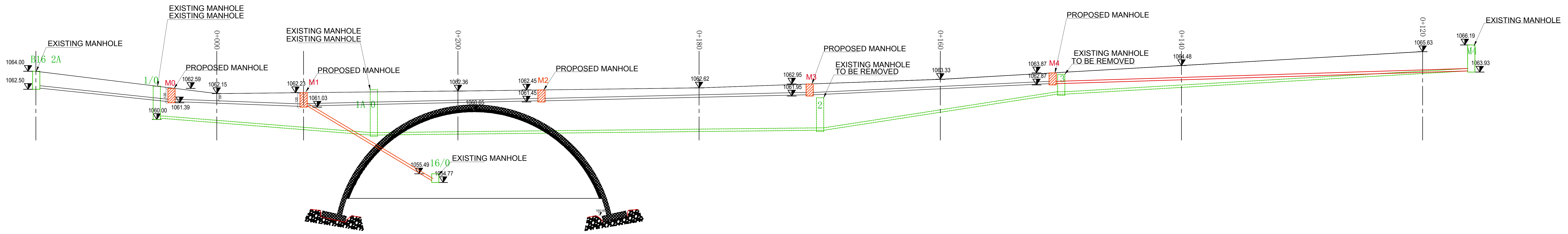

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PROJECT

ADDRESS
0000000, JORDAN

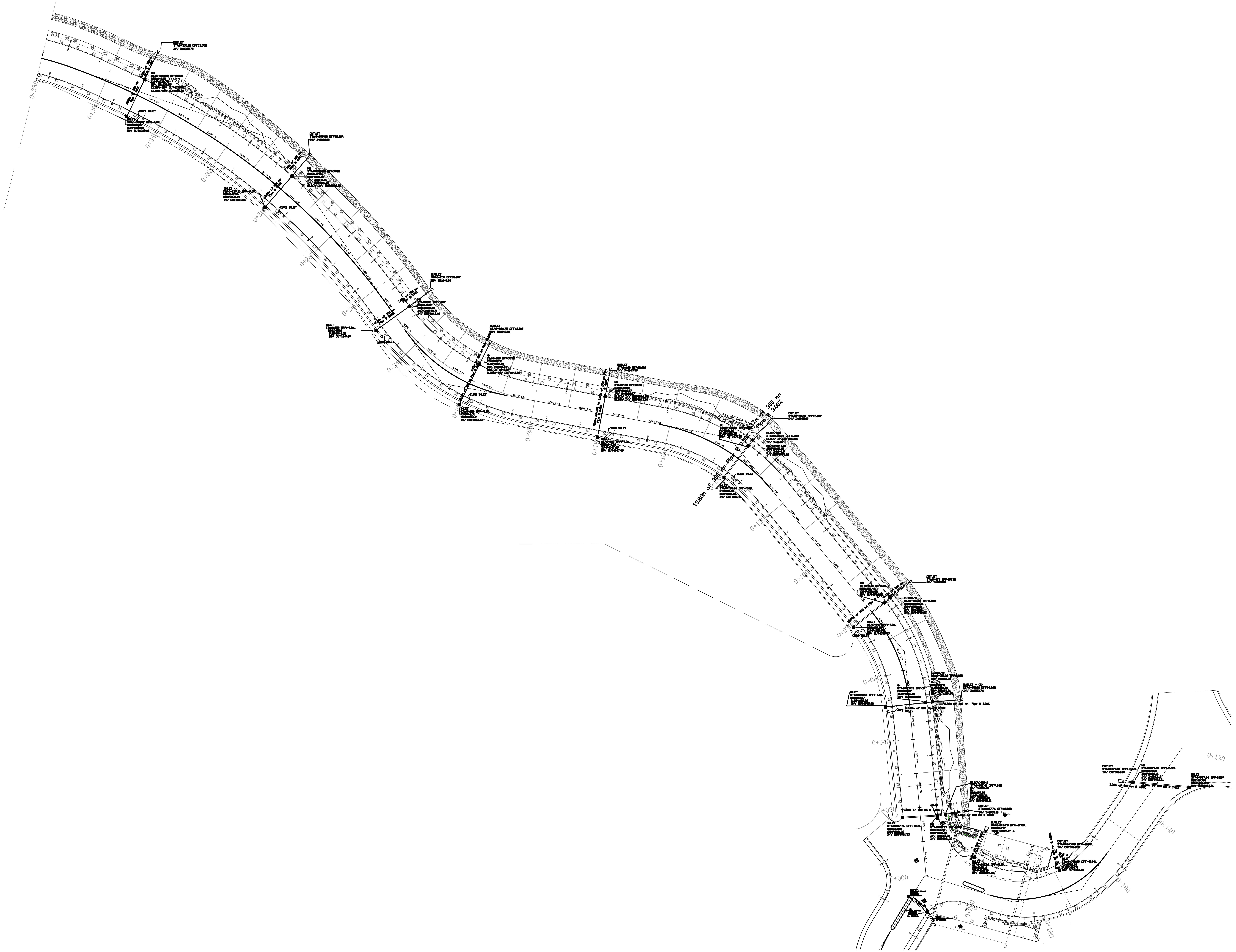
STATUS
TENDER

NOTES

ISSUE	DATE	AMENDMENT	CHECKED	ISSUE	DATE	AMENDMENT	CHECKED

DRAWN
—
NORTH
SCALE
1: 200 A1
CHECKED
—
APPROVED
AK

DRAWING TITLE
MASTER SITE PLAN - MANHOLE PLAN
SHEET NUMBER
M—001
ISSUE
DATE
MARCH 2020



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NOTES

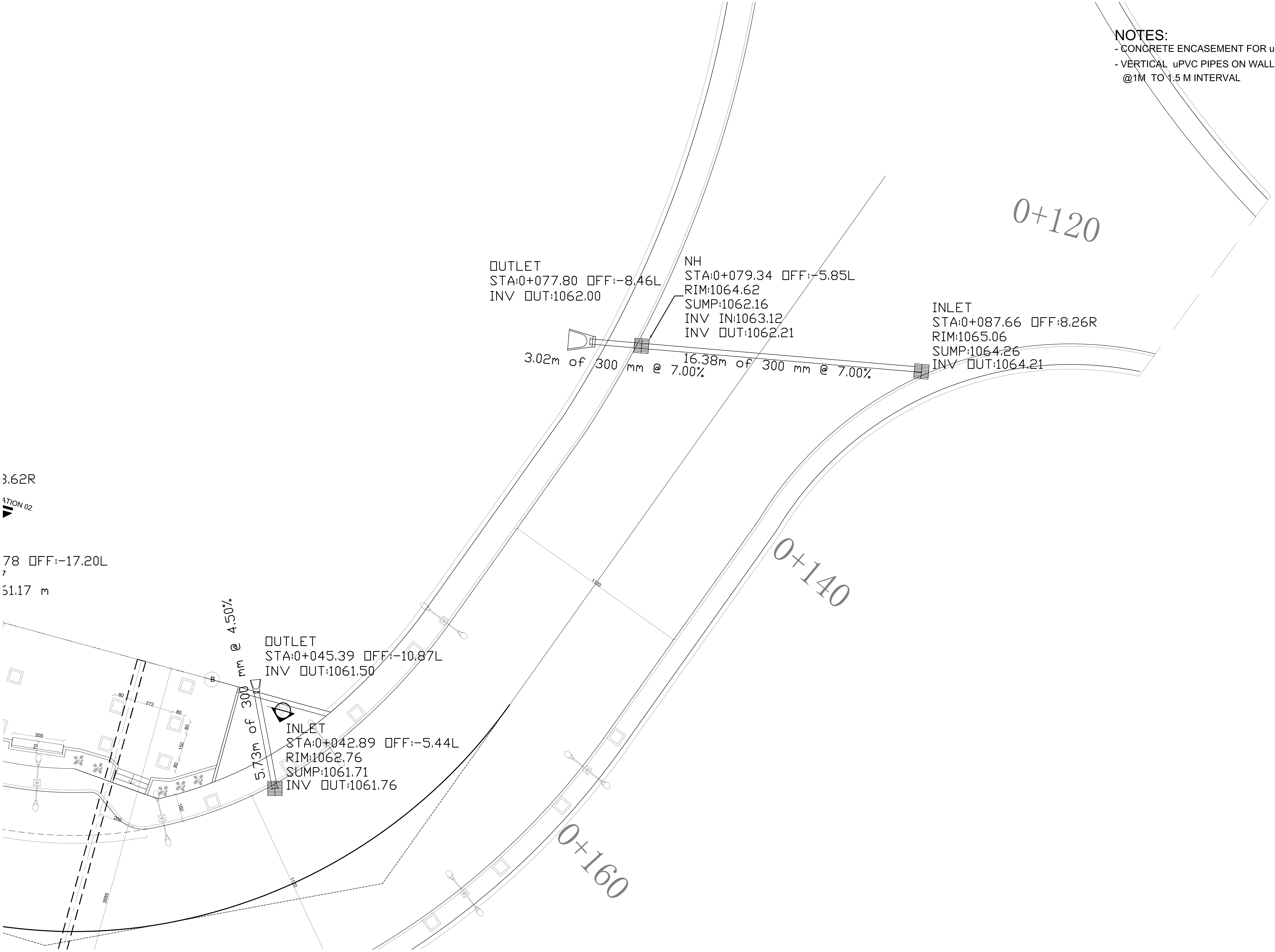
ISSUE	DATE	AMENDMENT	CHECKED	ISSUE	DATE	AMENDMENT	CHECKED

DRAWN: –
NORTH
SCALE: 1:500 A1
CHECKED: –
APPROVED: AK

DRAWING TITLE
DRAINAGE MASTER PLAN

SHEET NUMBER: A–010
ISSUE
DATE: FEBRUARY 2020

NOTES:
- CONCRETE ENCASEMENT FOR uPVC PIPES ON ROOFS
- VERTICAL uPVC PIPES ON WALLS SHALL BE ANCHORED @1M TO 1.5 M INTERVAL



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NOTES

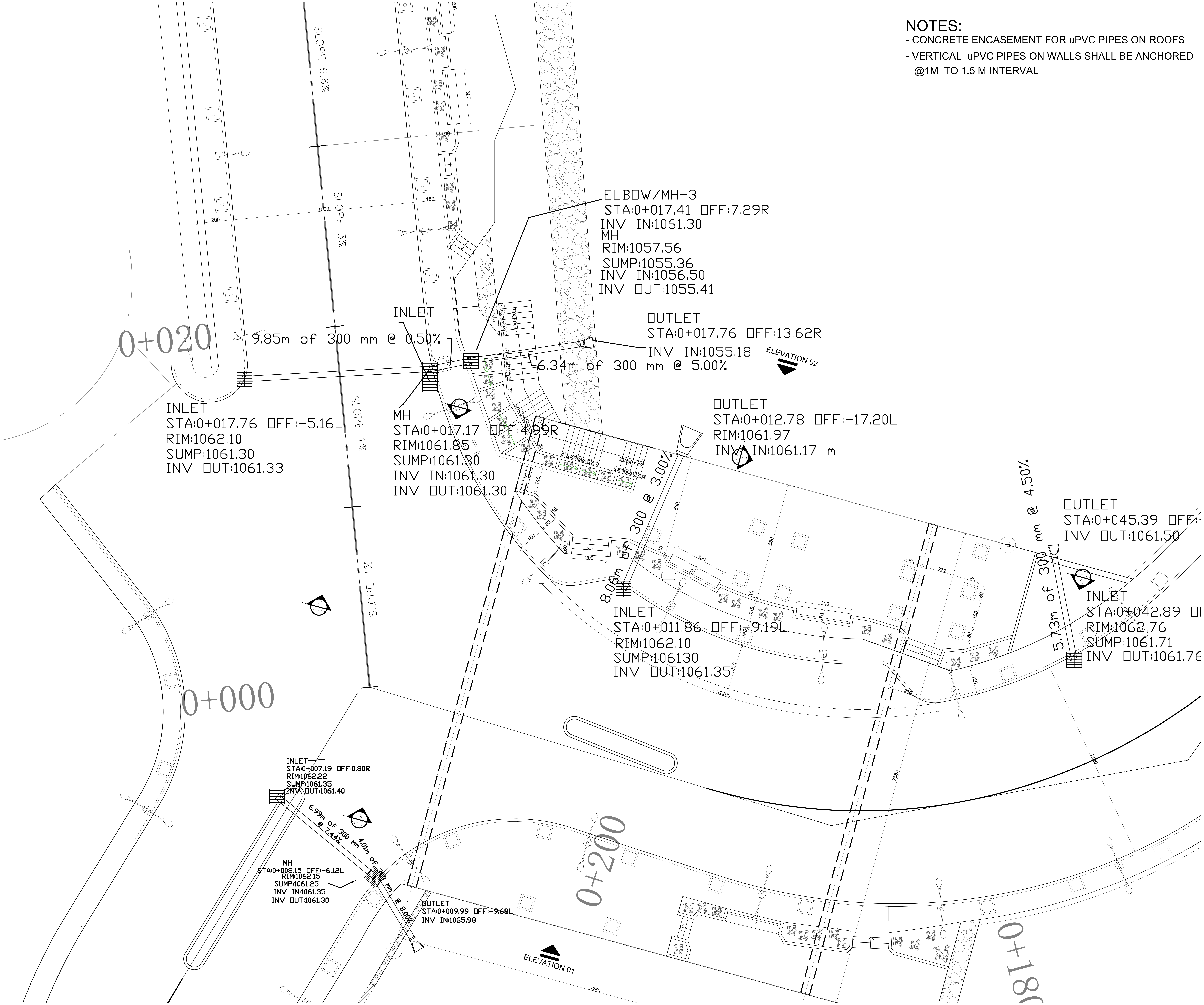
ISSUE	DATE	AMENDMENT	CHECKED

ISSUE	DATE	AMENDMENT	CHECKED

DRAWN: –
NORTH
SCALE: 1:100 A1
CHECKED: –
APPROVED: AK
DRAWING TITLE: DRAINAGE LAYOUT 1/6
SHEET NUMBER: A–011
ISSUE
DATE: FEBRUARY 2020

NOTES:

- CONCRETE ENCASEMENT FOR uPVC PIPES ON ROOFS
- VERTICAL uPVC PIPES ON WALLS SHALL BE ANCHORED @1M TO 1.5 M INTERVAL



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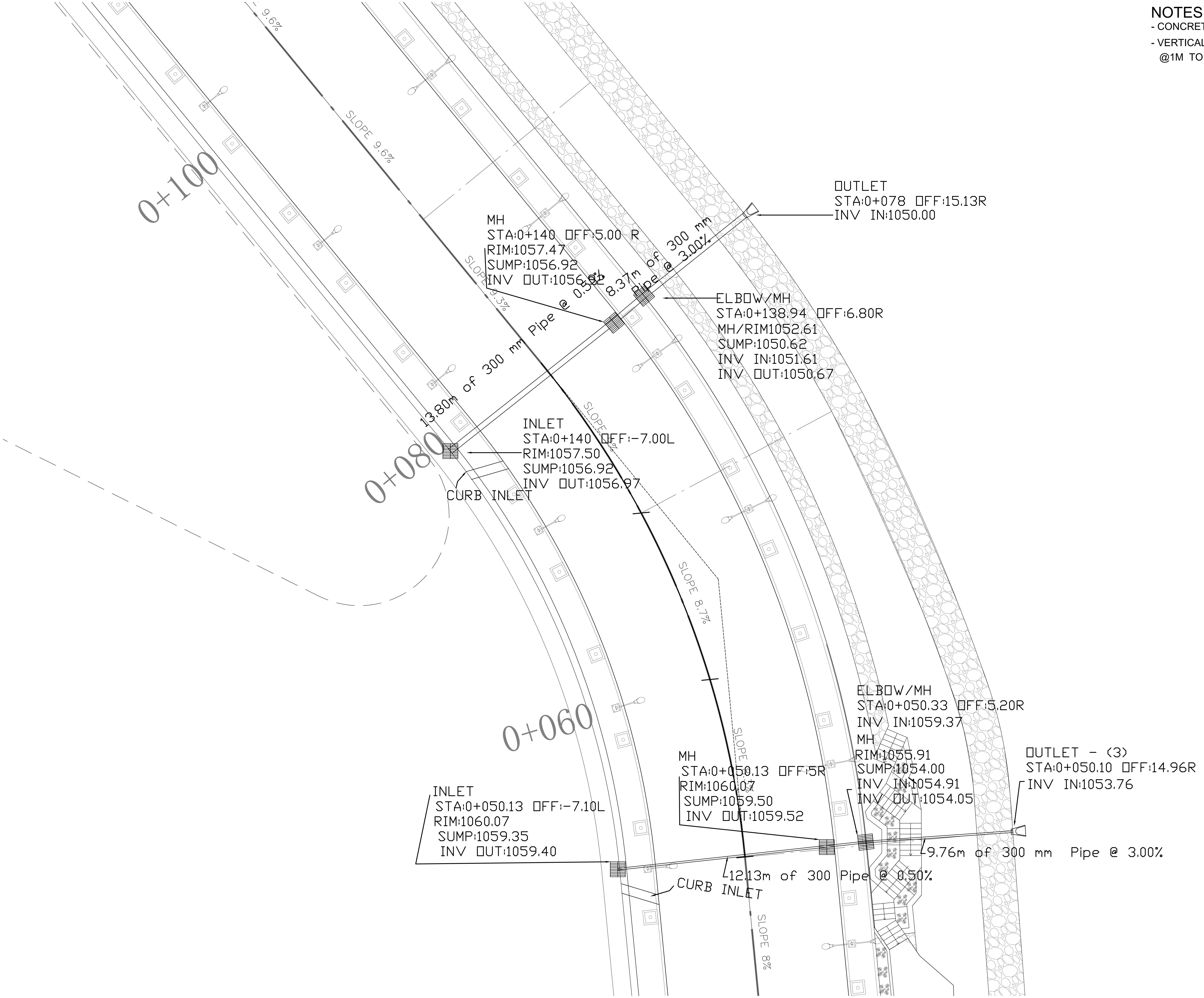
NOTES

ISSUE	DATE	AMENDMENT	CHECKED	ISSUE	DATE	AMENDMENT	CHECKED

DRAWN	NORTH	SCALE	DRAWING TITLE	
—	⊕	1:100 A1	DRAINAGE LAYOUT 2/6	
CHECKED	APPROVED		SHEET NUMBER	ISSUE DATE
—	AK		A–013	FEBRUARY 2020

NOTES:
- CONCRETE ENCASEMENT FOR uPVC PIPES ON ROOFS
- VERTICAL uPVC PIPES ON WALLS SHALL BE ANCHORED @1M TO 1.5 M INTERVAL



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NOTES

ISSUE	DATE	AMENDMENT	CHECKED	ISSUE	DATE	AMENDMENT	CHECKED

DRAWN: —
NORTH: ⊕
SCALE: 1:100 A1
DRAWING TITLE: DRAINAGE LAYOUT 3/6
CHECKED: —
APPROVED: AK
SHEET NUMBER: A—014
ISSUE
DATE: FEBRUARY 2020

NOTES:

- CONCRETE ENCASEMENT FOR uPVC PIPES ON ROOFS
- VERTICAL uPVC PIPES ON WALLS SHALL BE ANCHORED @1M TO 1.5 M INTERVAL

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NOTES

ISSUE	DATE	AMENDMENT	CHECKED	ISSUE	DATE	AMENDMENT	CHECKED

DRAWN	NORTH	SCALE	DRAWING TITLE	
–	⊕	1:100 A1	DRAINAGE LAYOUT 4/6	
CHECKED	APPROVED		SHEET NUMBER	ISSUE DATE
–	AK		A–015	FEBRUARY 2020

NOTES:

- CONCRETE ENCASEMENT FOR uPVC PIPES ON ROOFS
- VERTICAL uPVC PIPES ON WALLS SHALL BE ANCHORED @1M TO 1.5 M INTERVAL

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NOTES

ISSUE	DATE	AMENDMENT	CHECKED	ISSUE	DATE	AMENDMENT	CHECKED

DRAWN —
NORTH ⊕
SCALE 1:100 A1
DRAWING TITLE DRAINAGE LAYOUT 5/6
CHECKED —
APPROVED AK
SHEET NUMBER A–016
ISSUE
DATE FEBRUARY 2020

NOTES:

- CONCRETE ENCASEMENT FOR uPVC PIPES ON ROOFS
- VERTICAL uPVC PIPES ON WALLS SHALL BE ANCHORED @1M TO 1.5 M INTERVAL

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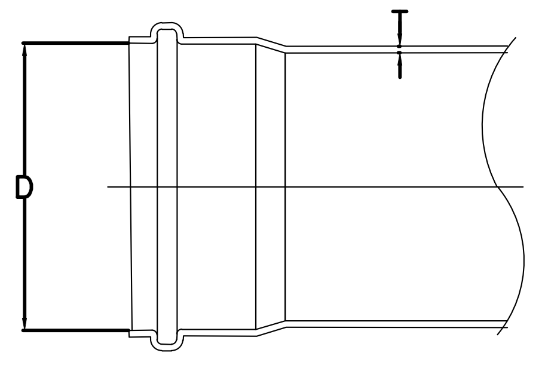
ISSUE	DATE	AMENDMENT	CHECKED	ISSUE	DATE	AMENDMENT	CHECKED

DRAWN
—
NORTH ⊕
SCALE
1:100 A1
CHECKED
—
APPROVED
AK

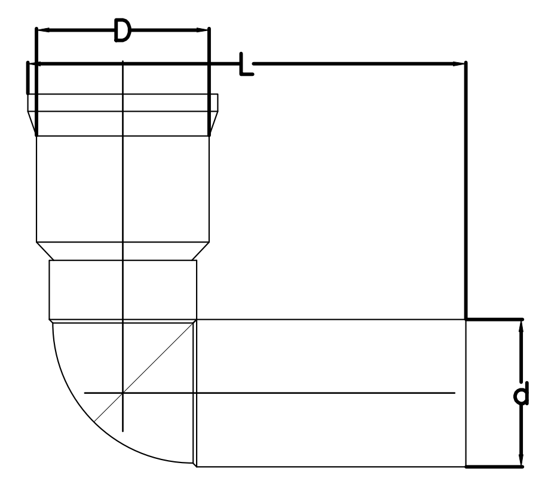
DRAWING TITLE
DRAINAGE LAYOUT 6/6
SHEET NUMBER
A—017
ISSUE DATE
FEBRUARY 2020



uPVC Pipe Push Fit

uPVC Pipe Push Fit

NOMINAL SIZE	MEAN OUTSIDE DIA.		WALL THICKNESS		LENGTH
	uPVC Pipe Push Fit MIN. (mm)	MAX. (mm)	MIN. (mm)	MAX. (mm)	M
8"	219	219.4	7.8	9	5.86
10"	273	273.4	9.7	11.2	5.86
12"	323	324.3	11.5	13.3	5.86
16"	406	406.9	14.5	16.7	5.86

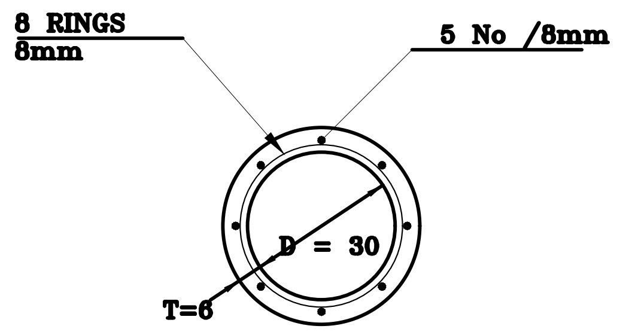


uPVC Elbow Push Fit

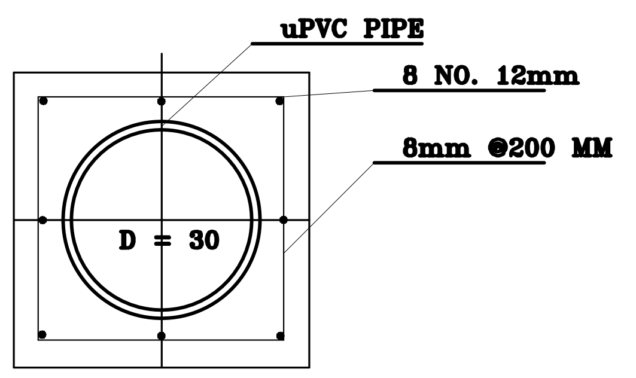
uPVC Elbow Push Fit

NOMINAL SIZE	MEAN OUTSIDE DIA.		LENGTH
	D (mm)	d (mm)	M
8"	219	219	325
10"	273	273	440
12"	323	323	520
16"	406	406	650

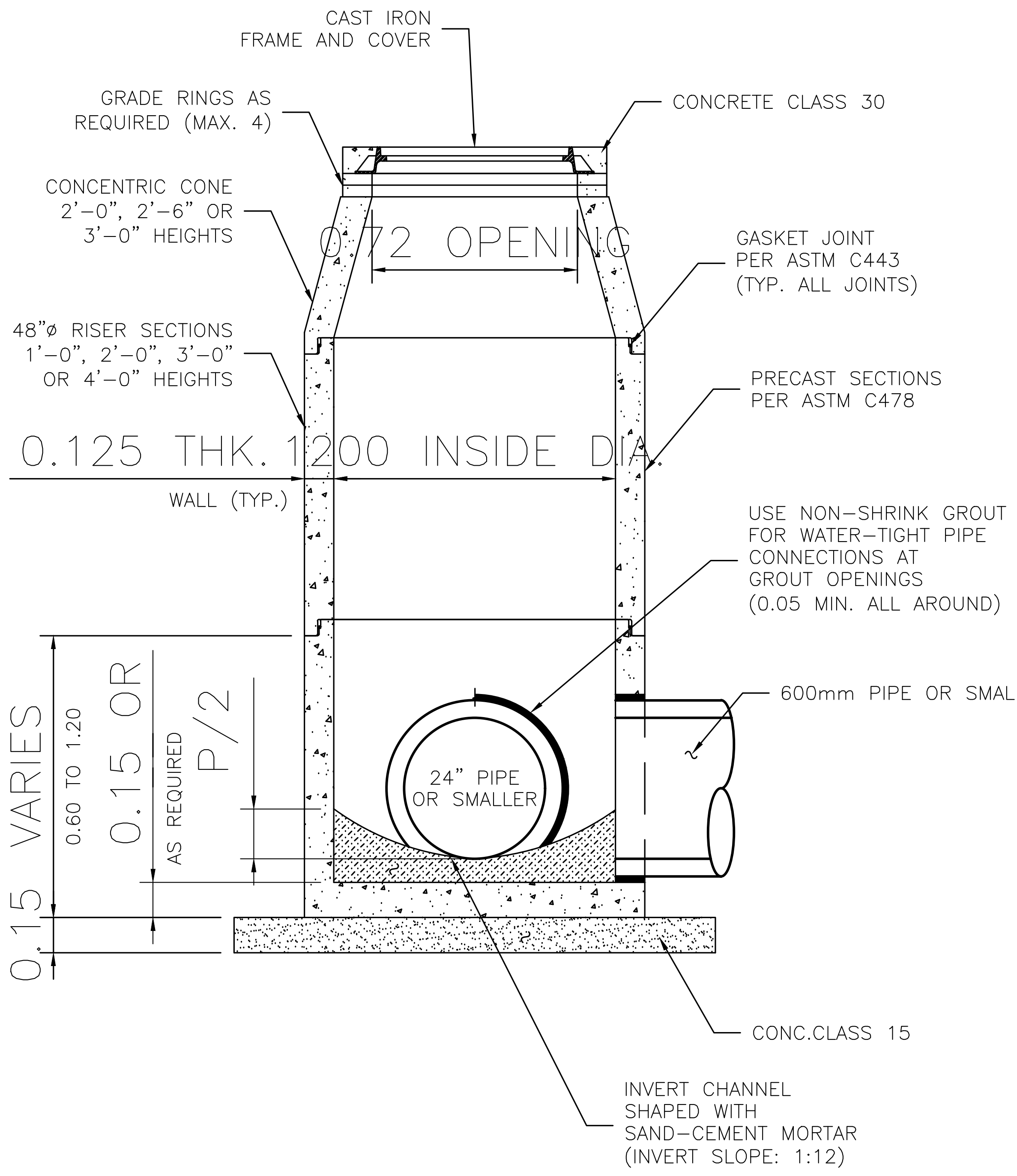
uPVC PIPE
FOR DRAINAGE IN ROAD ON ROOFS



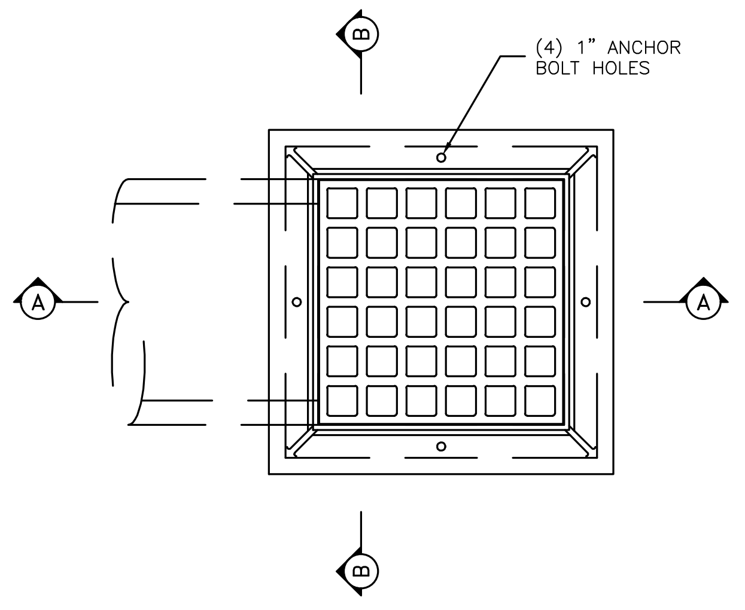
REINFORCED PIPES CROSS SECTIONS
FOR DRAINAGE IN ROAD ON EARTH



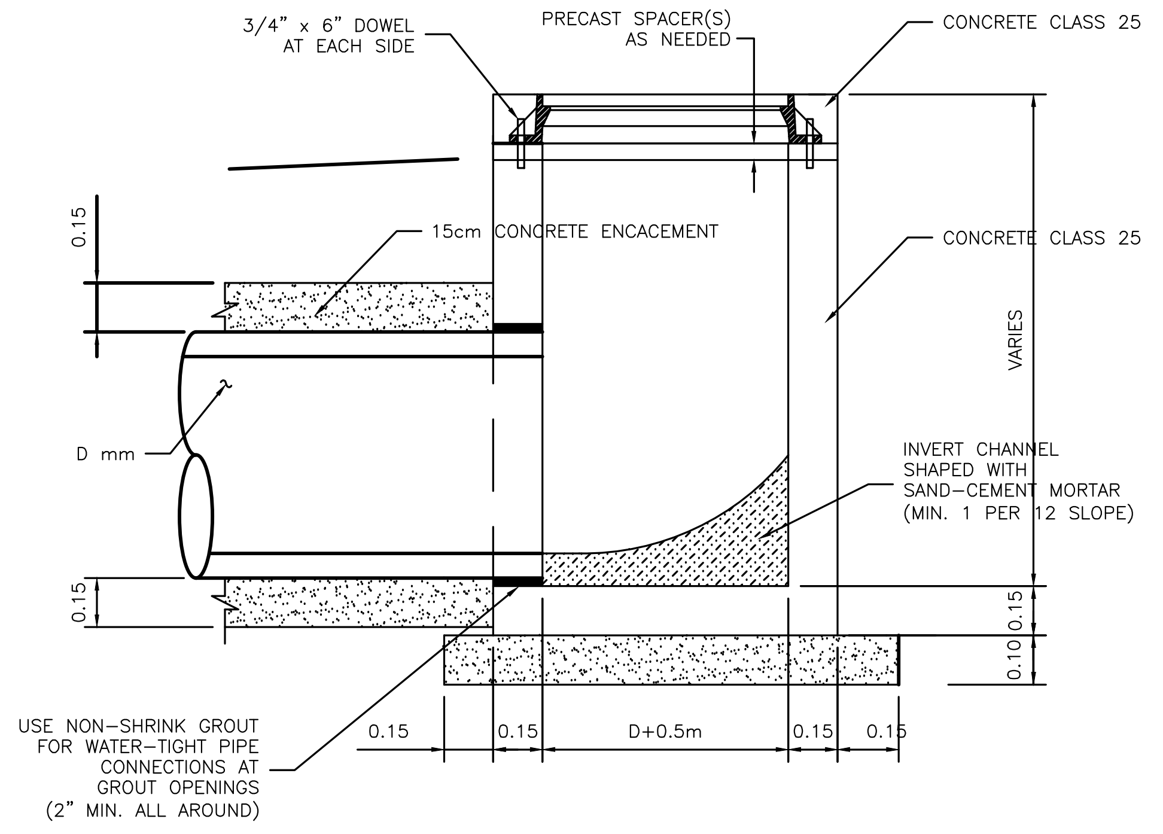
REINFORCED ENCASEMENT
FOR DRAINAGE IN ROAD ON ROOFS



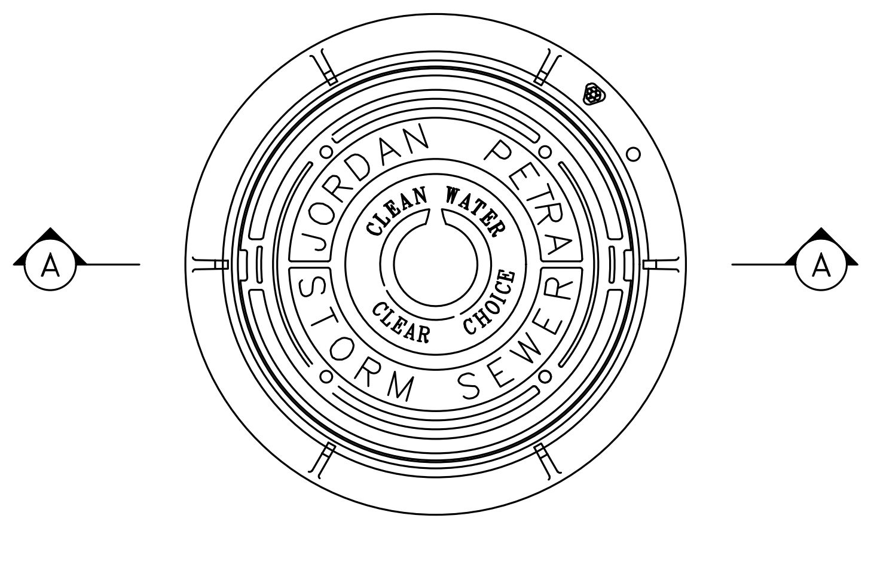
1200∅ PRECAST CONCENTRIC MANHOLE
FOR PIPE SIZES 600mM OR SMALLER



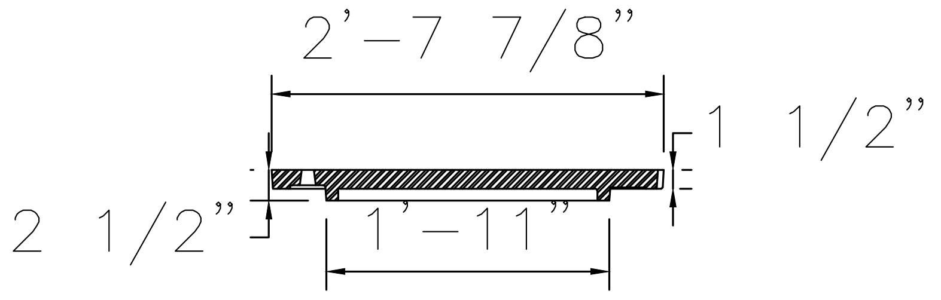
PLAN VIEW



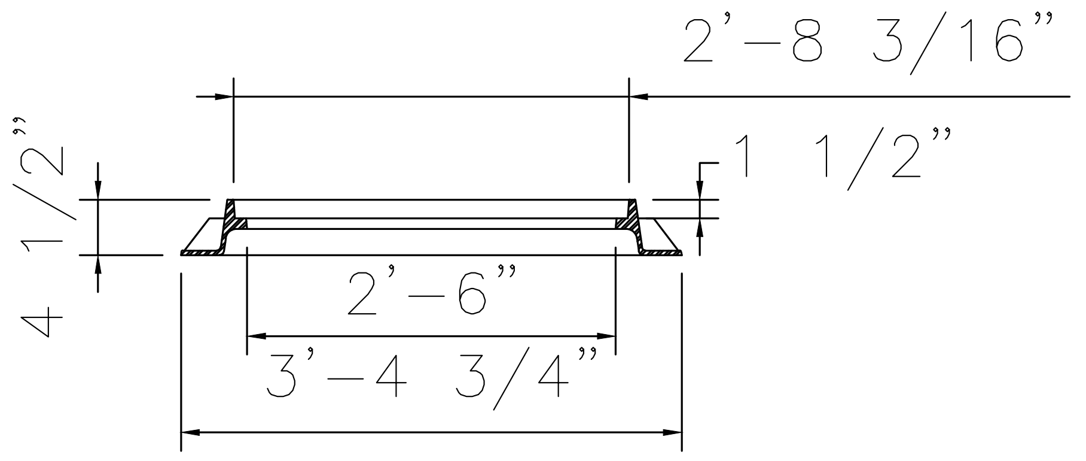
SECTION A-A



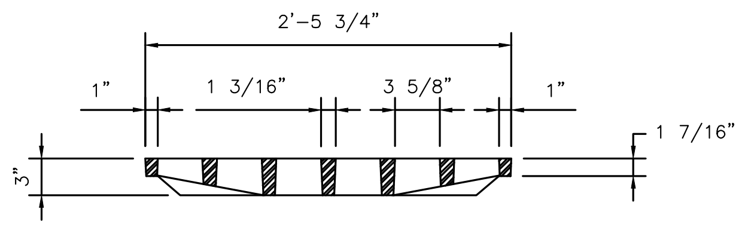
PLAN VIEW
FRAME AND COVER
SCALE: 1" = 1'-0"



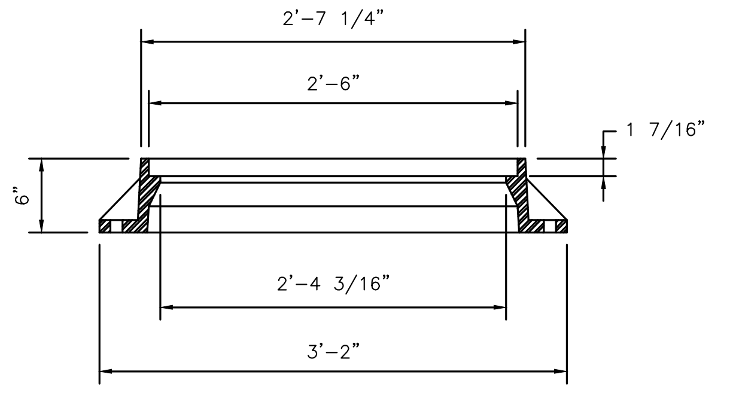
COVER SECTION A-A



FRAME SECTION A-A



GRATE SECTION A-A



FRAME SECTION A-A

MAXIMUM PIPE DIA. 'P IN mm'	INSIDE DIA. 'A IN mm'	MIN. WALL THICKNESS 'B IN MM'	MIN. BASE THICKNESS 'C IN mm'
300	800	150	200
400	900	150	200
500	1000	150	200
600	1200	175	200

1. ALL DIMENSIONS ARE IN cm EXCEPT REINFORCEMENT BAR DIAMETER WHICH ARE IN mm.

2. REINFORCED CONCRETE FOR PIPES SHALL BE AS PER SPECIFICATIONS OTHER REINFORCED CONCRETE SHALL BE CLASS 40, AND BLINDING CONCRETE SHALL BE CLASS15

3. STEEL REINFORCEMENT SHALL CONFORM TO THE REQ. OF ASTIM A615 GARDE 60.

4. ALL EXPOSED FACES OF WING-WALLS AND HEAD-WALL SHALL BE FAIR-FACED CONCRETE.

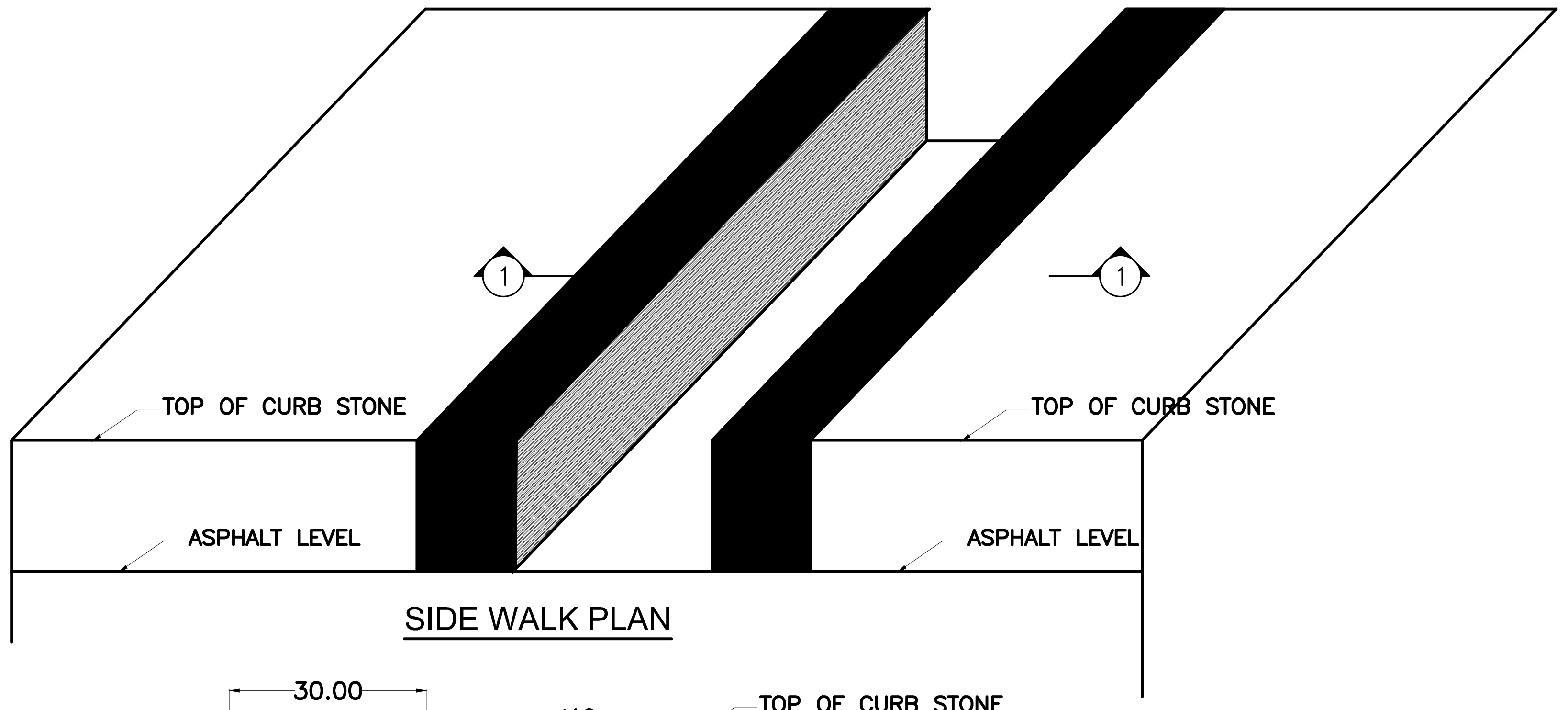
5. PROVIDE 7.5cm THICK BLINDING CONC. C15 UNDER APRON SLAB & WING-WALLS.

6. FLARE ANGLES, WING WALLS & APRON SLAB DIMENSIONS (L, W1, H...) SHALL BE DETERMINED BY THE ENGINEER TO SUIT SITE CONDITION.

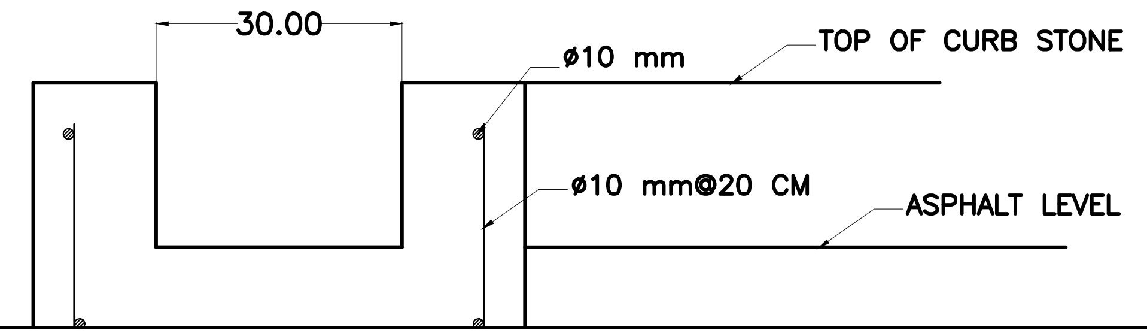
7. REINFORCEMENT BARS SHALL HAVE THE FOLLOWING CONC. COVER :-
   I) ALL OUTSIDE FACES 4cm.
   II) VERTICAL INSIDE FACES 5cm.
   III) BOTTOM SLAB TOP FACES 7.5cm.

8. BACKFILL IMMEDIATELY ABOVE THE REINFORCED PIPES SHALL BE COMPACTED MANUALLY .

9. OTHER PIPES REINFORCEMENT ARRANGEMENT CAN BE USED IF IT SATISFIES SPECIFICATIONS REQUIREMENTS



SIDE WALK PLAN



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PROJECT
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ADDRESS
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STATUS
TENDER

NOTES

ISSUE	DATE	AMENDMENT	CHECKED	ISSUE	DATE	AMENDMENT	CHECKED

DRAWN	NORTH	SCALE	DRAWING TITLE	
–		1:100 A1	DRAINAGE DETAILS	
CHECKED	APPROVED		SHEET NUMBER	ISSUE DATE
–	AK		A-300	FEBRUARY 2020