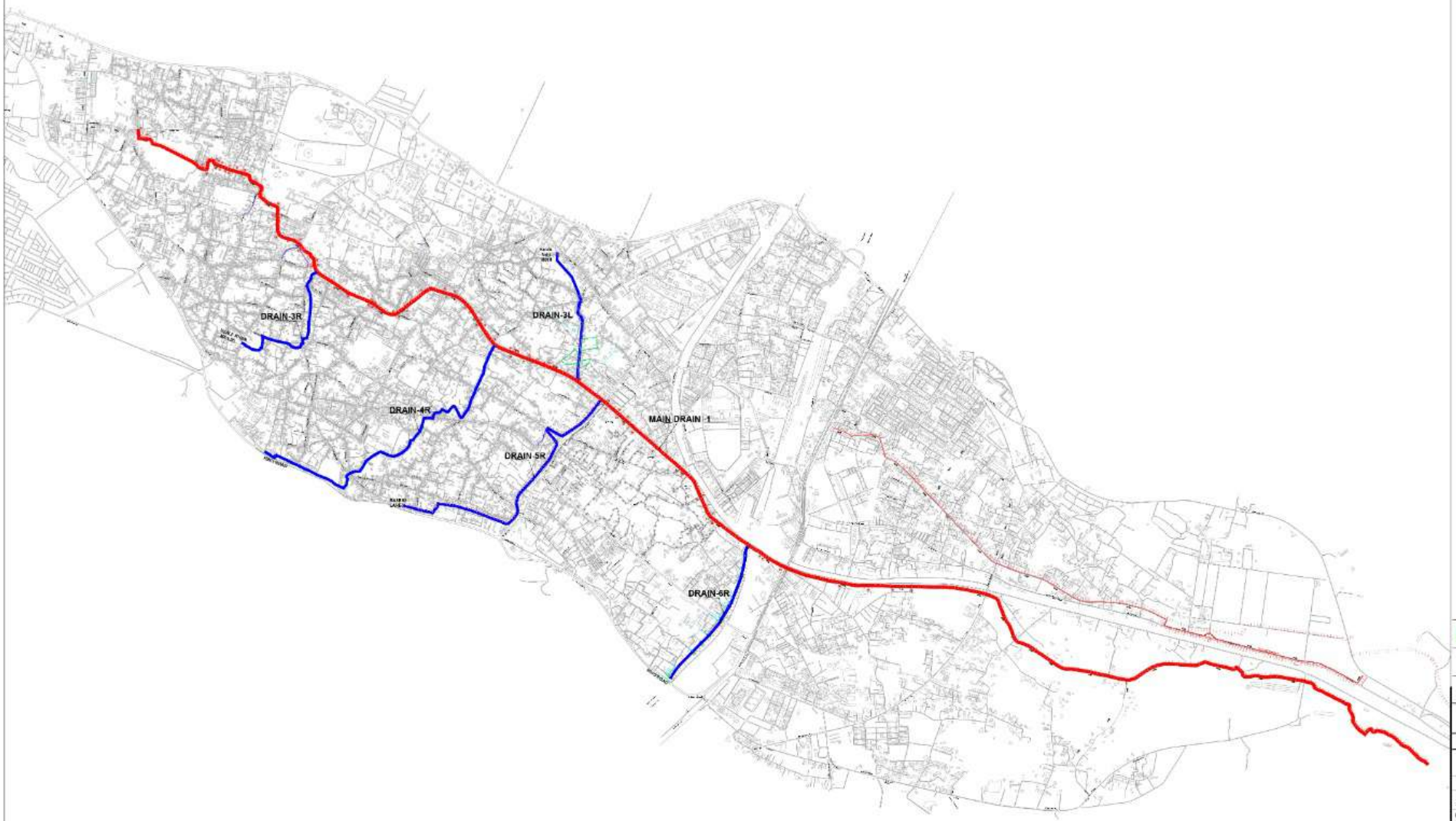


N
W E
S

LEGEND

MAIN DRAIN LINE

SUB DRAIN LINE

Auth'd

Rev	Revision Description	Drawn	Date	Check'd

Project

Construction of 5 Major Strom water Drains in Cuttack City

Client

WATCO

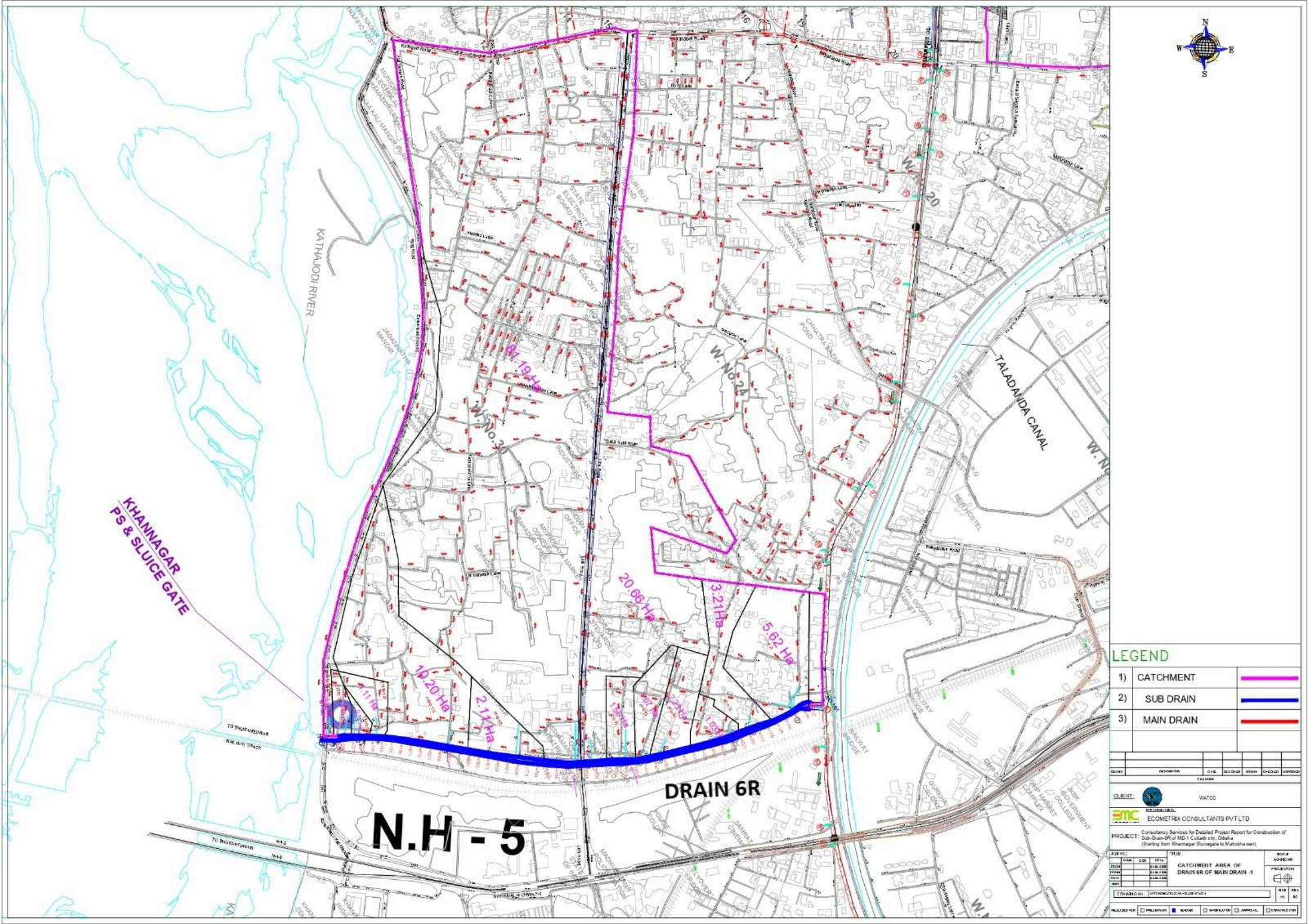
CONSULTANT-

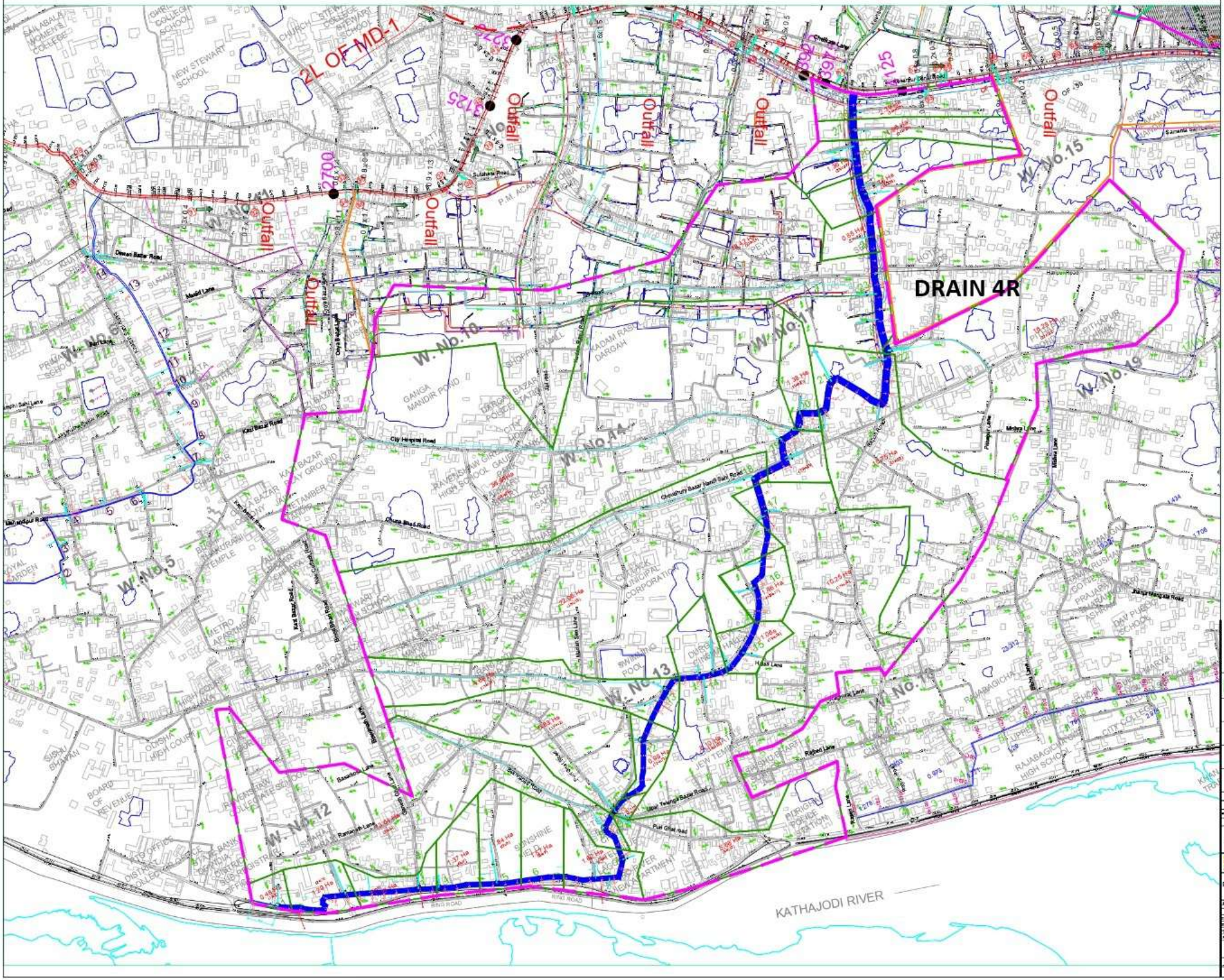
ECOMETRIX CONSULTANTS PVT. LTD.

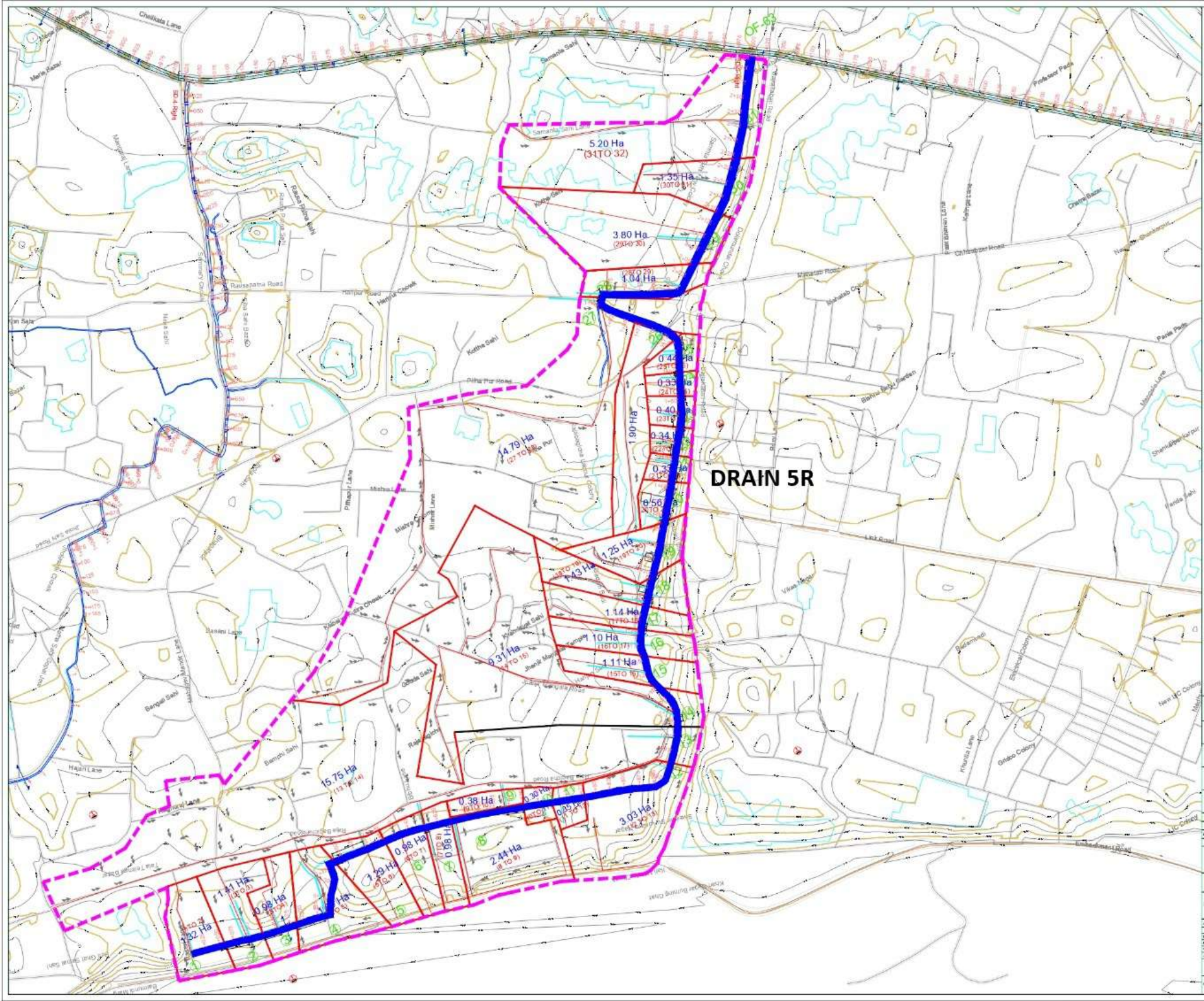
Title

MAP OF SUBDRAINS OF MD-1

Scale	Drawn	Checked	Authorised	S.SIZE
NTS	Date	Date	Date	A3
Drawing Number: OISIP/CTC/CMC/4R OF MD-1		Ref. Code	Sheet No	Rev 0


KATHAJODI RIVER
KHANNAGAR PS & SLUICE GATE
TALADANDA CANAL
W.No.20
W.No.24
W.No.30
81.19Ha
20.66Ha
3.21Ha
5.62Ha
19.20Ha
2.11Ha
DRAIN 6R
N.H - 5
LEGEND
1) CATCHMENT
2) SUB DRAIN
3) MAIN DRAIN
CLIENT: WATCO
ECOMETRIX CONSULTANTS PVT LTD
PROJECT: Consultancy Services for Detailed Project Report for Construction of Sub-Drain-6R of MD-1 Cuttack city, Odisha (Starting from Khannagar Sluicegate to Mahubhawan).
TITLE: CATCHMENT AREA OF DRAIN 6R OF MAIN DRAIN -1


2L OF MD-1
Outfall
Outfall
Outfall
Outfall
Outfall
Outfall
2700
3725
3522
2625
1625
DRAIN 4R
W. No.5
W. No.10
W. No.11
W. No.14
W. No.15
W. No.19
W. No.13
W. No.12
KATHAJODI RIVER
BIRI ROAD
BNS ROAD
Dewan Bazar Road
Kazi Bazar Road
City Hospital Road
Choudhury Bazar Hanuman Sahi Road
Chhatra Bhag Road
Mahanadi Road
New Telenga Bazar Road
Puri Ghat road
Rathod Lane
Ramanath Lane
Basantia Lane
Nalua Sahi Lane
Mishra Lane
Jhanjhamangala Road
Sishu Bhawan
Board of Revenue
Odisha High Court
Metro Apartment
Sishu Mandir High School
Ravenshaw Girls High School
Ravenshaw University
Gangia Mandir Pond
Kadam Rasul Dargah
Durga Mandir
Durga Police Station
Kazi Bazar Boy Ground
Kazi Bazar Shiv Mandir
Jagannath Temple
Municipal Corporation
Swimming Pool
Jew Temple
Sishu Bhawan
Rajabagicha High School
Rajabagicha Police Station
Pithapur
Pithapur Bank
Samanta Sahi
Sishu Mandir
Ward School
Ward Office
Ward Office
Ward Office



LEGEND

1)	CATCHMENT	
2)	SUB DRAIN	
3)	MAIN DRAIN	

CLIENT: WATCO

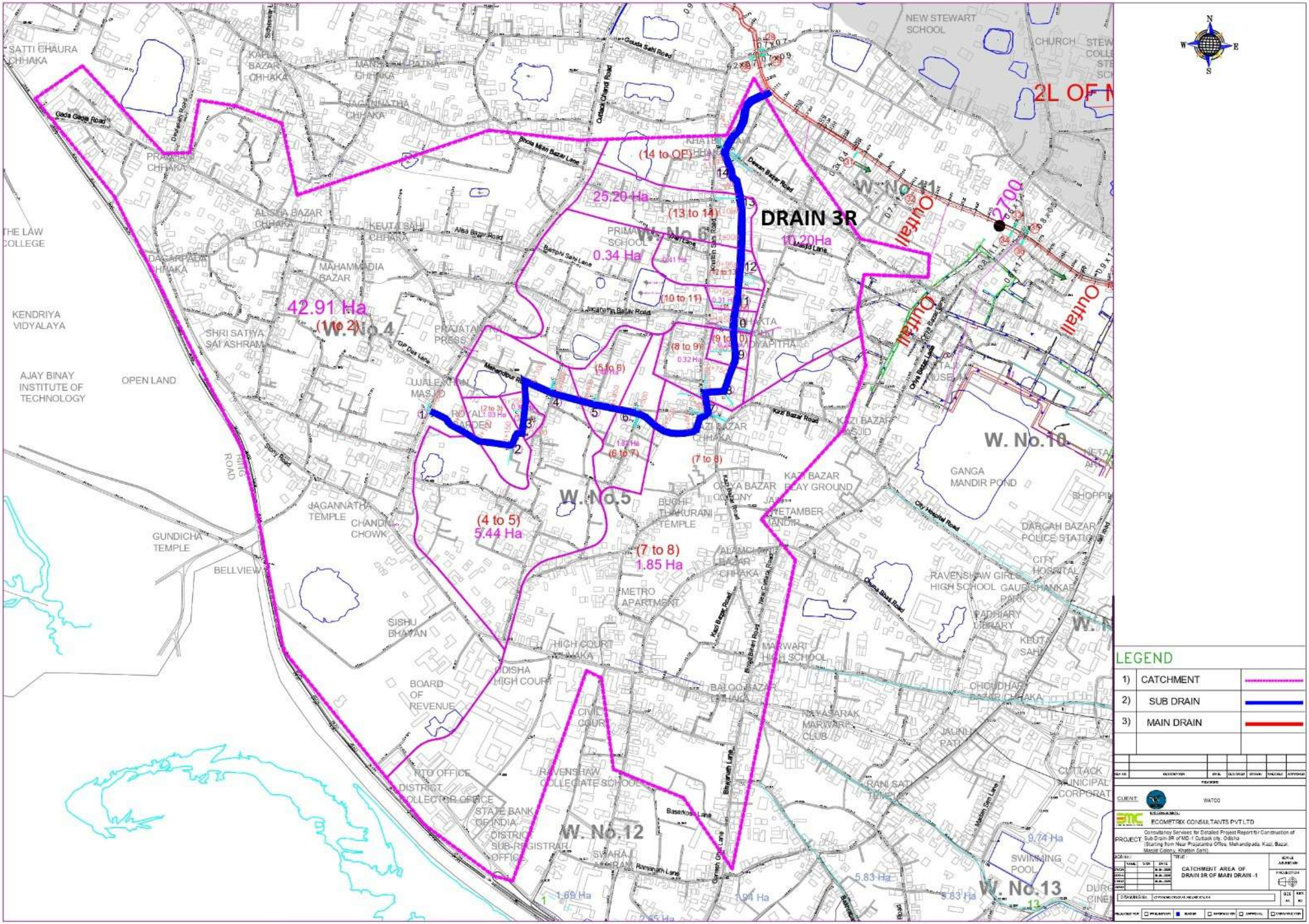
ECOMETRIX CONSULTANTS PVT LTD

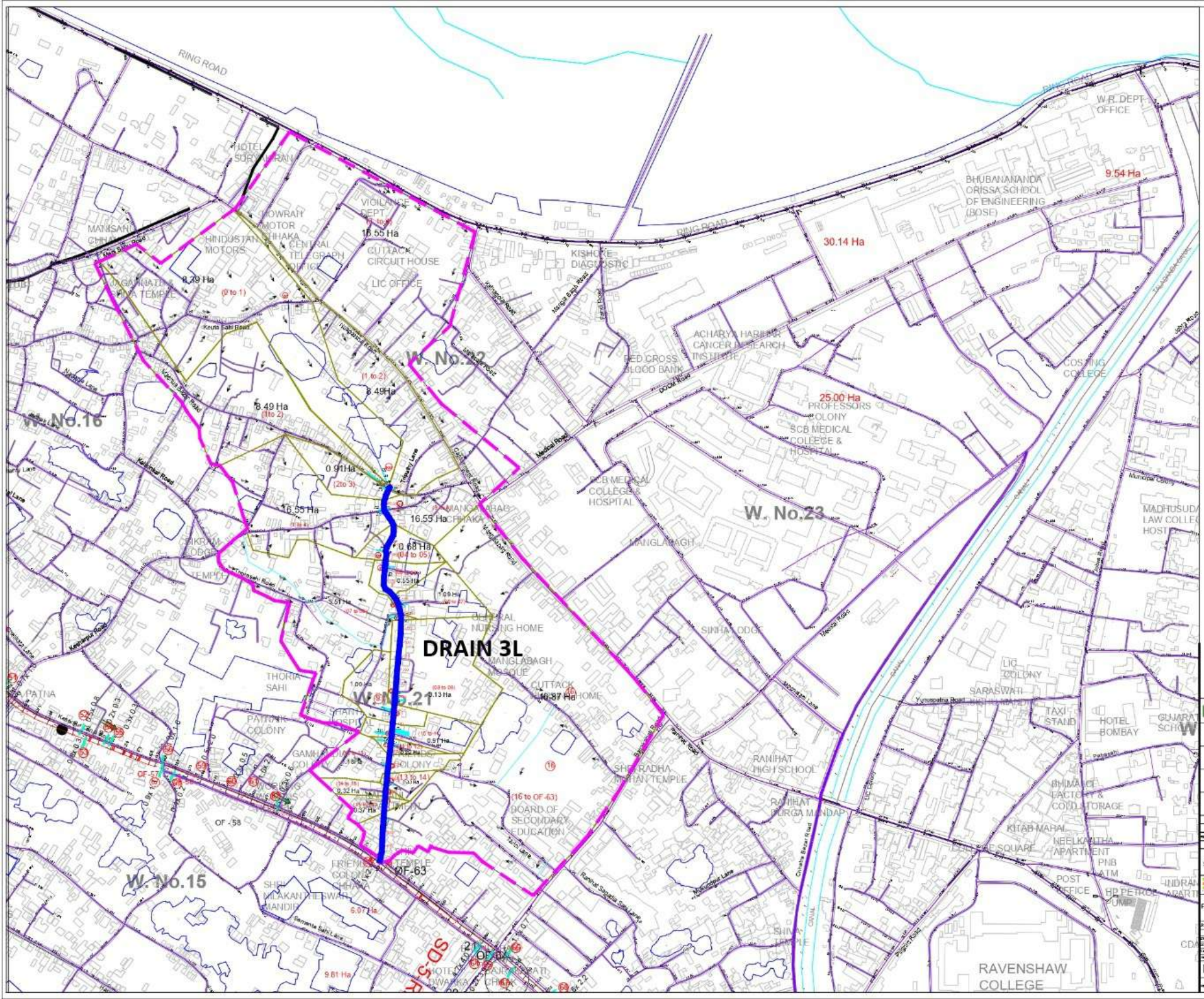
PROJECT: Consultancy Services for Detailed Project Report for Construction of Sub-Drain-5R of MD-1 Outfall drain Gokalpuri (Starting from the backside of Tilak Hospital, Qaseem Ilahi High School, Raja Bagecha Colony, Bedarabad, Dolamandai Chowk, Sabzimandi Road)

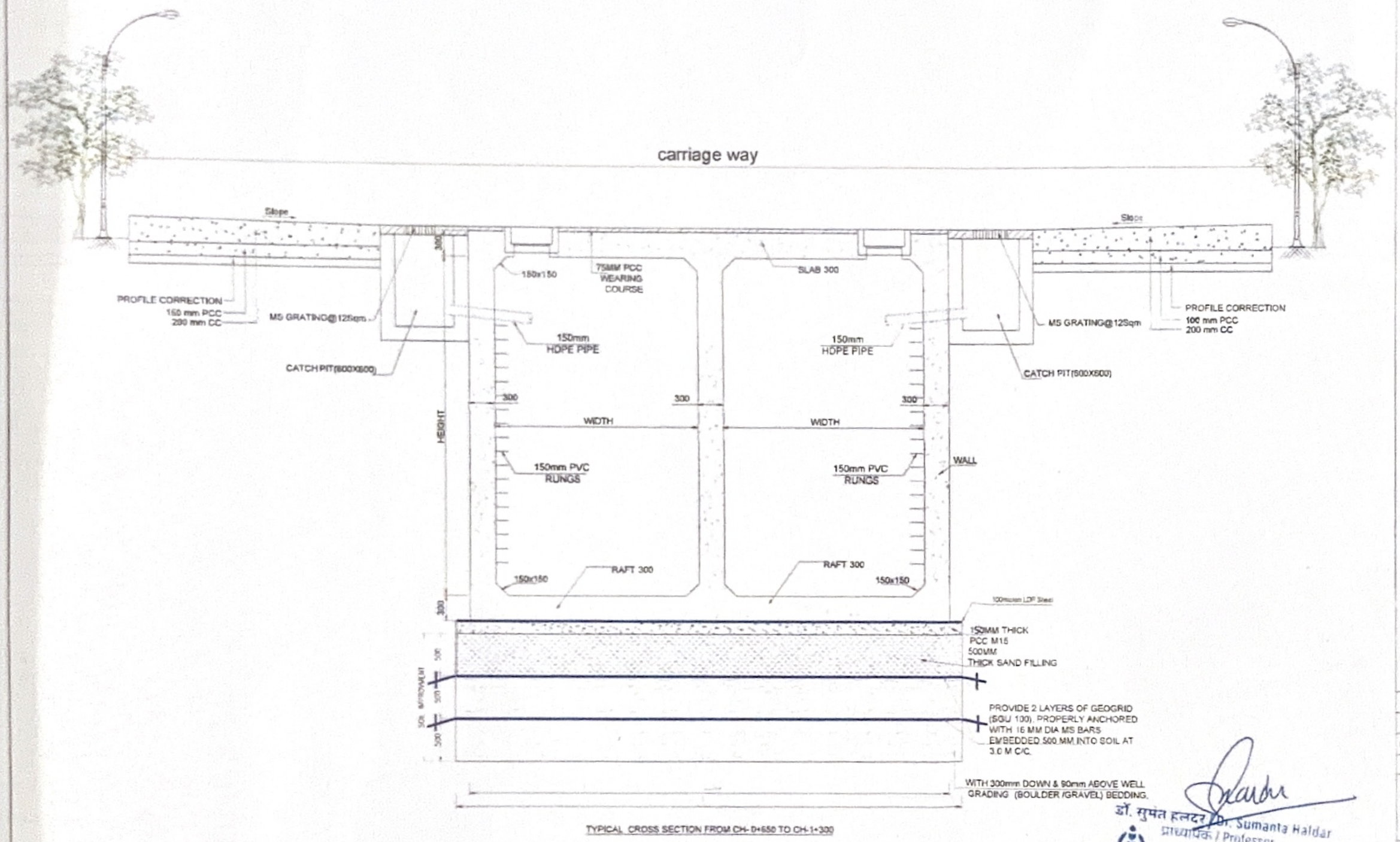
TITLE: CATCHMENT AREA OF DRAIN 5R OF MAIN DRAIN -1

DRAWING NO.

RELEASED FOR: PRELIMINARY | BASIC | INTERIM | APPROVAL | CONSTRUCTION


DRAIN 3R
10.20Ha
25.20 Ha
(13 to 14)
(14 to OF)
0.34 Ha
(10 to 11)
(8 to 9)
0.32 Ha
(5 to 6)
(6 to 7)
(7 to 8)
1.85 Ha
(4 to 5)
5.44 Ha
42.91 Ha
(1 to 2)
W. No.4
W. No.5
W. No.10
W. No.12
W. No.13
W. No.14
Outfall
2700
LEGEND
1) CATCHMENT
2) SUB DRAIN
3) MAIN DRAIN
ECOMETRIX CONSULTANTS PVT LTD
CATCHMENT AREA OF DRAIN 3R OF MAIN DRAIN -1


DRAIN 3L
W. No.16
W. No.22
W. No.23
W. No.21
W. No.15
RING ROAD
8.49 Ha
16.55 Ha
0.91Ha
0.68 Ha
10.87 Ha
30.14 Ha
9.54 Ha
25.00 Ha
6.07 Ha
9.81 Ha
OF-63
OF - 58
SD-3L
HOTEL SURYA MAHAL
HOWRAH MOTOR CHHAKA
HINDUSTAN MOTORS
CENTRAL TELEGRAPH OFFICE
VIGILANCE DEPT.
CUTTACK CIRCUIT HOUSE
LIC OFFICE
KISHORE DIAGNOSTIC
W.R. DEPT. OFFICE
BHUBANANANDA ORISSA SCHOOL OF ENGINEERING (BOSE)
ACHARYA HARIHAR CANCER RESEARCH INSTITUTE
RED CROSS BLOOD BANK
PROFESSORS COLONY
SCB MEDICAL COLLEGE & HOSPITAL
COSTING COLLEGE
MANGLABAGH
MANGLABAGH MASJID
GENERAL NURSING HOME
SINHA LODGE
LIC COLONY
SARASWATI
TAXI STAND
HOTEL BOMBAY
RANIHAT HIGH SCHOOL
RANIHAT DURGA MANDAP
BHIMAJEE FACTORY & COLD STORAGE
KITAB MAHAL
NEELKANTHA APARTMENT
PNB ATM
POST OFFICE
HP PETROL PUMP
INDRANI APARTMENT
RAVENSHAW COLLEGE
BOARD OF SECONDARY EDUCATION
SHREE RADHA MADHAV TEMPLE
THORIA SAHI
PATTNAIK COLONY
SHANTI HOSPITAL
FRIENDS COLONY
SHREE LINGARAJ MANDIR
SHREE JAGANNATH TEMPLE
MANSAHI CHHAKA
KRISHNA LODGE
HOTEL
MADHUSUDAN LAW COLLEGE HOSTEL
Munirpur Colony
Kalibari Road
Kalibari Lane
Kalibari Sahi Road
Keuta Sahi Road
Mangalabag Road
Medical Road
Hospital Road
Tikarty Lane
Kesharpur Road
Nimishai Road
Mangalabag Lane
Mahanadi Lane
Yusupatna Road
Ranihat Road
Ranihat Sasadia Sahi Lane
Ranihat Durga Mandap Lane
Ganesha Bazar Road
Pilgrim Road
Samanta Sahi Lane
Temple Lane
Jobra Road
Jobra Bridge
Cuttack Bypass Road
Mangalabag Masjid Lane
Kesharpur Road
Kesharpur Lane
Kesharpur Bridge
Kesharpur Canal
Kesharpur Canal Bridge
Kesharpur Canal Road
Kesharpur Canal Lane
Kesharpur Canal Bridge Road
Kesharpur Canal Bridge



TYPICAL CROSS SECTION FROM CH- 0+650 TO CH-1+300

NOTES :

1) Unless otherwise specified, all dimensions are in millimetres (mm) and levels are in metres (m).

2) The drain configuration is selected based on the required waterway. Single-cell drains are adopted for waterway widths up to 4.5 m, while twin-cell drains are provided for widths exceeding 4.5 m to ensure adequate hydraulic performance and structural stability.

3) During construction, a suitable water diversion arrangement shall be made and maintained to ensure uninterrupted flow of existing drainage and to prevent flooding or waterlogging at the site, as per provisions of the Ministry of Road Transport and Highways.

4) For excavation support, drains up to 2.5 m width shall be constructed using MS shoring systems, whereas for widths greater than 2.5 m, MS sheet piling shall be implemented prior to excavation.

5) Pile driving operations, wherever required, shall be carried out using silent piler technology or any other approved low-vibration method to minimise disturbance to adjacent structures.

6) All silt and unsuitable material below the design bed level shall be completely removed during excavation, irrespective of the depth shown in the drawings, to ensure proper founding conditions.

7) Maintenance openings shall be provided at regular intervals along the drain. Full-width openings at every 100 m shall be incorporated to facilitate inspection, cleaning, and maintenance of the drainage system.

8) The road width along the drain shall not be restricted to a Single or two-lane configuration but shall extend up to the property line, ensuring provision for future development.

9) Catch pits or collection chambers fitted with MS gratings shall be provided as per approved typical drawings. These shall be spaced at approximately one unit per 12 Sq.m or as per hydraulic design requirements and relevant IRC guidelines to ensure efficient surface water collection.

10) Camber shall be provided on the road surface in accordance with relevant IRC/IS standards to facilitate proper drainage of surface runoff towards the catch pits and collection chambers.

11) All lateral or connecting drains shall be reconstructed for a minimum length of 5 m or as per site requirements. These shall be integrated with silt chambers and bar screens to r prevent entry of debris into the main drainage system.

REV.NO.	DESCRIPTION	DATE	DESIGNED	DRAWN	CHECKED	APPROVED

REVISIONS

CLIENT: WATCO

DPR CONSULTANTS

ECOMETRIX CONSULTANTS PVT LTD

PROJECT: Consultancy Services for Detailed Project Report for Construction of Sub-Drain-6R of MD-1 Cuttack city, Odisha (Starting from Khannagar Sluicegate to Matrubhawan).

JOB No.:	NAME	SIGN	DATE
DSGN			04-04-2026
DRWN			04-04-2026
CHKD			04-04-2026
APPD			

TITLE: **TYPICAL SECTION FOR DOUBLE CELL CUM ROAD(6R) FROM CH- 0+650 TO CH-1+300**

SCALE AS SHOWN

PROJECTION

DRAWING No. WATCO\ECM\CKTC\DRAINAGE\6R\R1-2

SIZE A0 REV. R0

RELEASED FOR ☐ PRELIMINARY ■ TENDER ☐ INFORMATION ☐ APPROVAL ☐ CONSTRUCTION

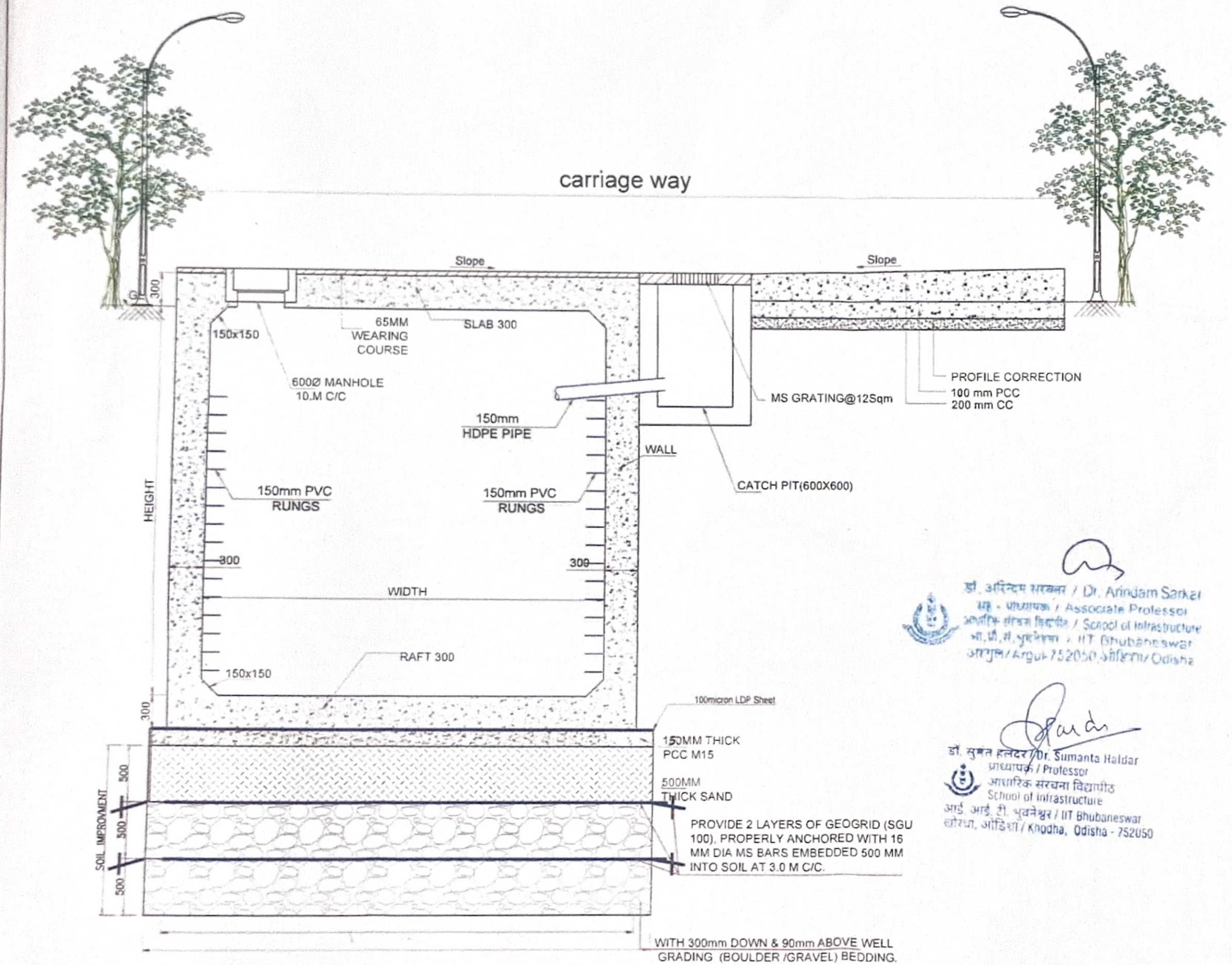
20/04/2026
General Manager
Drainage WATCO, Cuttack

Director (Projects),
WATCO, Bhubaneswar

Managing Director
WATCO, Bhubaneswar

डॉ. सुमंत हलदर / Dr. Sumanta Haldar
प्राध्यापक / Professor
आधारिक संरचना विद्यापीठ
School of Infrastructure
आई. आई. टी. भुवनेश्वर / IIT Bhubaneswar
खोरधा, ओडिशा / Khodha, Odisha - 752050

डॉ. आनंदम सरकार / Dr. Anndam Sarkar
सह - प्राध्यापक / Associate Professor
आधारिक संरचना विद्यापीठ / School of Infrastructure
भा. प्रौ. सं. भुवनेश्वर / IIT Bhubaneswar
अरगुल/ Argul- 752050 ओडिशा/ Odisha



TYPICAL CROSS SECTION FROM CH - 0+000 TO CH- 0+716

डॉ. अरिन्दम सरकार / Dr. Arindam Sarkar
सह - प्राध्यापक / Associate Professor
आधारिक संरचना विद्यापीठ / School of Infrastructure
भा.प्रौ.सं.भुवनेश्वर / IIT Bhubaneswar
अरगुल/Argul-752050,ओड़िशा/Odisha

डॉ. सुमन्त हलदर / Dr. Sumanta Haldar
प्राध्यापक / Professor
आधारिक संरचना विद्यापीठ
School of Infrastructure
आई आई टी भुवनेश्वर / IIT Bhubaneswar
खोरधा, ओड़िशा / Khodha, Odisha - 752050

20/04/2026
General Manager
Drainage WATCO, Cuttack

Director (Projects),
WATCO, Bhubaneswar

Managing Director
WATCO, Bhubaneswar

NOTES :

1) Unless otherwise specified, all dimensions are in millimetres (mm) and levels are in metres (m).

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11) All lateral or connecting drains shall be reconstructed for a minimum length of 5 m or as per site requirements. These shall be integrated with silt chambers and bar screens to r prevent entry of debris into the main drainage system.

REV.NO.	DESCRIPTION	DATE	DESIGNED	DRAWN	CHECKED	APPROVED

REVISIONS

CLIENT: WATCO

DPR CONSULTANTS
ECOMETRIX CONSULTANTS PVT LTD

PROJECT: Consultancy Services for Detailed Project Report for Construction of Sub-Drain-3L of MD-1 Cuttack city, Odisha
(Starting from the Krishna Mangala Temple, Friends Colony Road, Shanti Memorial Hospital Near Bajrakabati).

JOB No.:

	NAME	SIGN	DATE
DSGN			04-04-2026
DRWN			04-04-2026
CHKD			04-04-2026
APPD			

TITLE: TYPICAL SECTION FOR SINGLE CELL CUM ROAD(3L) FROM CH - 0+000 TO CH- 0+716

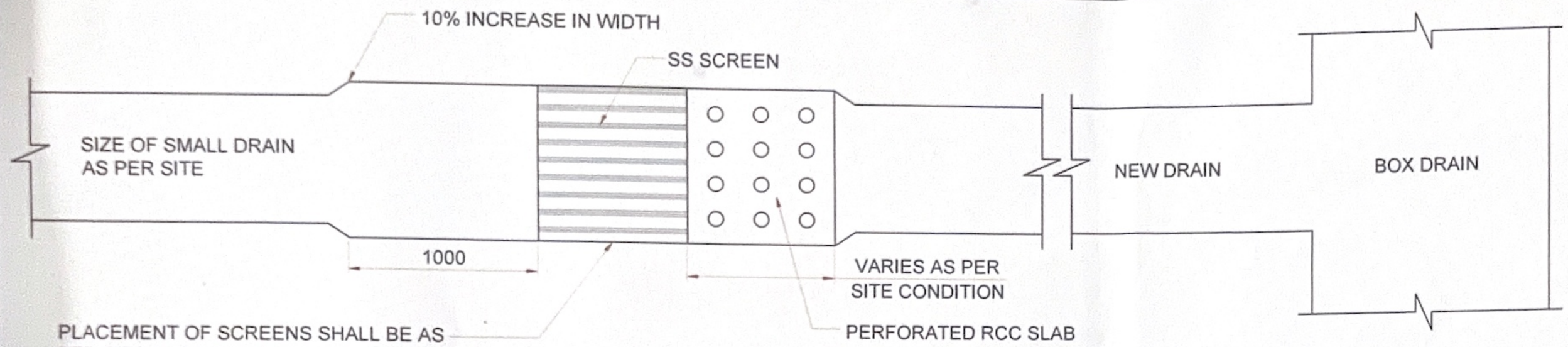
SCALE AS SHOWN

PROJECTION

DRAWING No. WATCO/EMC/CTC/DRAINAGE/GU1-1

SIZE A3 | REV. R0

RELEASED FOR: ☐ PRELIMINARY ■ TENDER ☐ INFORMATION ☐ APPROVAL ☐ CONSTRUCTION

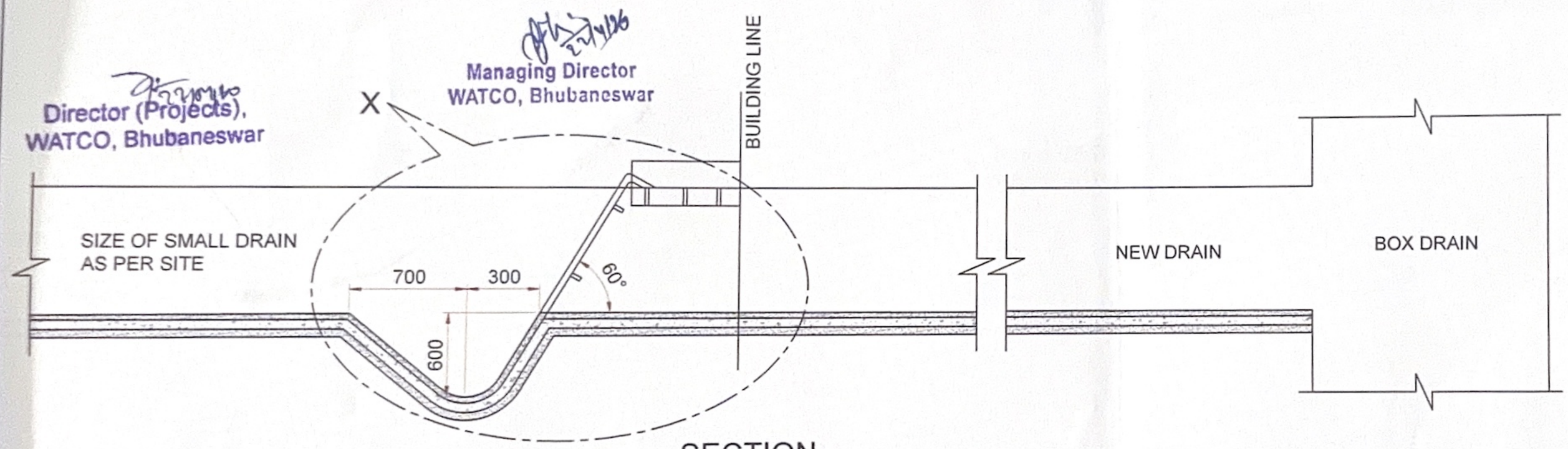


PLACEMENT OF SCREENS SHALL BE AS PER SITE CONDITION. IT CAN BE ADJOINING MAIN DRAIN OR OTHER SIDE OF THE ROAD ADJOINING DRAIN.

PLAN OF DETAIL - A&B

Director (Projects),
WATCO, Bhubaneswar

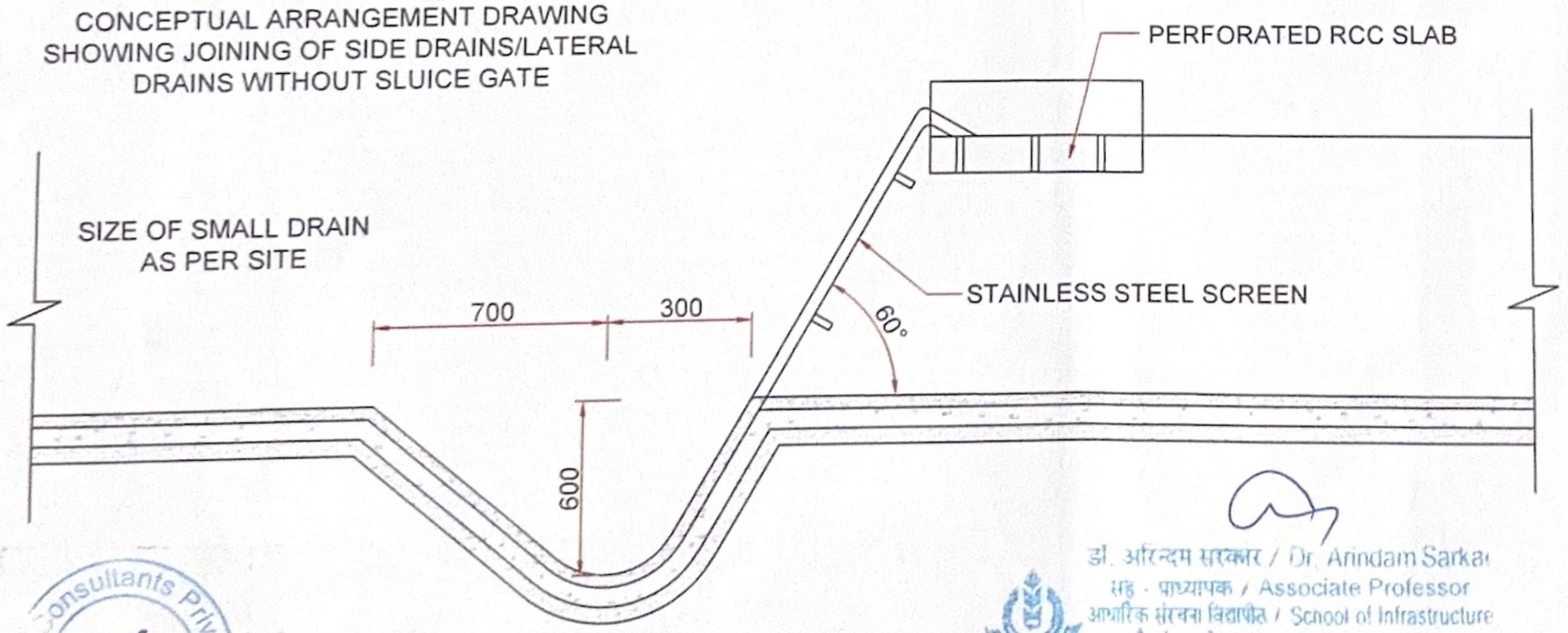
Managing Director
WATCO, Bhubaneswar



SECTION

CONCEPTUAL ARRANGEMENT DRAWING
SHOWING JOINING OF SIDE DRAINS/LATERAL
DRAINS WITHOUT SLUICE GATE

General Manager
Drainage WATCO, Cuttack



DETAIL 'X'

Dr. Samanta Haldar
Professor
School of Infrastructure
IIT Bhubaneswar

डॉ. अरिन्दम सरकार / Dr. Arindam Sarkar
सह - प्राध्यापक / Associate Professor
आधारिक संरचना विद्यापीठ / School of Infrastructure
भा.प्रौ.सं.भुवनेश्वर / IIT Bhubaneswar
अरगुल/Argul-752050,ओडिशा/Odisha

NOTES :

1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN MILLIMETERS, & LEVELS ARE IN METERS.
2. EXCAVATION SHALL BE DONE TO THE REQUIRED WIDTH, DEPTH, AND SLOPE AS PER APPROVED DRAWINGS.
3. SIDE SLOPES SHALL BE PROTECTED WITH SHORING IF REQUIRED.
4. EXCAVATED EARTH SHALL BE DISPOSED OF OR USED AS DIRECTED BY THE ENGINEER-IN-CHARGE.
5. THE BED OF THE DRAIN SHALL BE COMPACTED AND LEVELLED PROPERLY.
6. A LAYER OF SAND OR GRANULAR SUB–BASE (500 MM THICK) SHALL BE LAID AND COMPACTED BEFORE DRAIN BED CONSTRUCTION.
7. RCC DRAINS: M25 GRADE CONCRETE WITH 20 MM DOWN COARSE AGGREGATE.
8. PCC/LEVELLING COURSE: 150 MM THICK 20 GRADE WITH 20 MM DOWN COARSE AGGREGATE.
9. ALL REINFORCEMENT SHALL BE IN FORM OF H.Y.S.D STEEL BARS OF GRADE FE 500 CONFORMING TO IS:1786.
10. PROVIDED DEVELOPMENT LENGTH 'LDT' FOR TENSION MAIN R/F BAR SHALL BE = 52D. OF BAR.
11. PROVIDED DEVELOPMENT LENGTH 'LDC' FOR COMPRESSION MAIN R/F BAR SHALL BE = 42D. OF BAR.
12. COVER WALLS / BASE SLAB: 45 MM FOR WATER FACE AND 50 MM SOIL FACE.
13. THE INVERT LEVEL OF THE SUB/LATERAL-DRAIN MUST BE AT LEAST 150 MM HIGHER THAN THE MAIN DRAIN INVERT TO ENSURE FREE FLOW.
14. CONNECTION SHALL BE SMOOTH, WITHOUT SHARP EDGES OR SUDDEN CHANGES IN FLOW DIRECTION.
15. A CHAMBER OR MANHOLE SHALL BE CONSTRUCTED AT THE JUNCTION FOR MAINTENANCE AS PER THE DRAWING.
16. STAINLESS STEEL SCREEN IS TO BE PROVIDED AS PER THE DRAWINGS.
17. STEP RUNGS (GALVANIZED OR SS) TO BE PROVIDED IF DEPTH EXCEEDS 1.2 M.
18. ALL JOINTS BETWEEN DRAINS AND CHAMBERS SHALL BE WATERTIGHT USING NON-SHRINK GROUT OR RUBBER GASKETS (FOR PRECAST ELEMENTS).
19. PROPER COMPACTION AROUND THE JUNCTION TO AVOID SETTLEMENT OR LEAKAGE.
20. AFTER CURING, BACKFILLING SHALL BE DONE WITH SELECTED EARTH IN 250 MM LAYERS, WELL COMPACTED TO 95% PROCTOR DENSITY.
21. NO BLACK COTTON SOIL OR EXPANSIVE SOIL TO BE USED IN BACKFILLING.

REV.NO.	DESCRIPTION	DATE	DESIGNED	DRAWN	CHECKED	APPROVED

REVISIONS

CLIENT: WATCO

DPR CONSULTANTS:
ECOMETRIX CONSULTANTS PVT LTD

PROJECT: Consultancy Services for Detailed Project Report for Construction of Sub-Drain-3R of MD-1 Cuttack city, Odisha (Starting from Near Prajatantra Office, Mehandipada, Kazi, Bazar, Masjid Colony, Khatbin Sahi).

JOB No.:	NAME	SIGN	DATE
DSGN			04-04-2026
DRWN			04-04-2026
CHKD			04-04-2026
APPD			

TITLE : **TYPICAL DETAIL OF LATERAL DRAIN CONNECTION FOR DRAIN SD-3R**

SCALE AS SHOWN

PROJECTION

DRAWING No. WATCO/EMC/CTC/DRAINAGE/3R/05-1

SIZE A3 | REV R0

RELEASED FOR: ☐ PRELIMINARY ■ TENDER ☐ INFORMATION ☐ APPROVAL ☐ CONSTRUCTION

LEGEND

1)	SUB DRAIN LINE	
2)	TERTIARY DRAIN LINE	

LEGEND

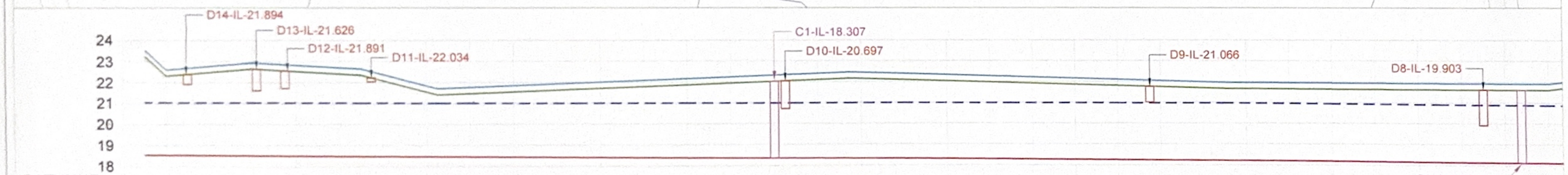
1)	INVERT LEVEL	
2)	MWL	
3)	GROUND LVL	
4)	DRAIN TOP LEVEL	
5)	TERTIARY DRAIN	D
6)	CULVERT	C

DETAILS OF LATERAL DRAIN

Sub Drain No.	Side	Chainage (m)	Size of Drain (m)	Proposed Provision
14	Left	0+020	1.2X1.3	Development of a drain up to 5 m length+ Bar Screen + Silt Chamber
13	Left	0+052	0.6X1	
12	Left	0+065	0.8X0.9	
11	Left	0+110	0.7X0.6	
10	Left	0+295	1.6X1.6	
9	Left	0+465	0.6X0.8	

DETAILS OF ROAD

SL. NO.	CHAINAGE (M)	ROAD WIDTH(M)
1	From 0+000 to 1+300	10



| | | |

LEGEND

1)	SUB DRAIN LINE	
2)	TERTIARY DRAIN LINE	

LEGEND

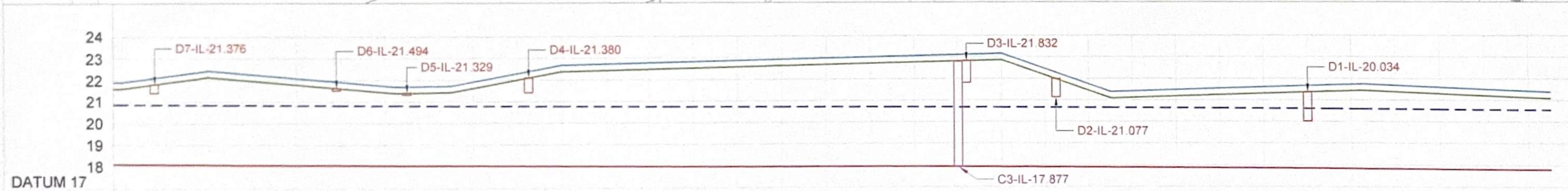
1)	INVERT LEVEL	
2)	MWL	
3)	GROUND LVL	
4)	DRAIN TOP LEVEL	
5)	TERTIARY DRAIN	D
6)	CULVERT	C

DETAILS OF LATERAL DRAIN

Sub Drain No.	Side	Chainage (m)	Size of Drain (m)	Proposed Provision
7	Left	0+665	0.65X0.9	Development of a drain up to 5 m length+ Bar Screen + Silt Chamber
6	Left	0+748	0.95X0.6	
5	Left	0+780	0.6X0.9	
4	Left	0+835	1X1.2	
3	Left	1+030	0.6X0.5	
2	Left	1+075	0.6X0.95	
1	Left	1+190	0.6X0.8	

DETAILS OF ROAD

SL. NO.	CHAINAGE (M)	ROAD WIDTH(M)
1	From 0+000 to 1+300	10



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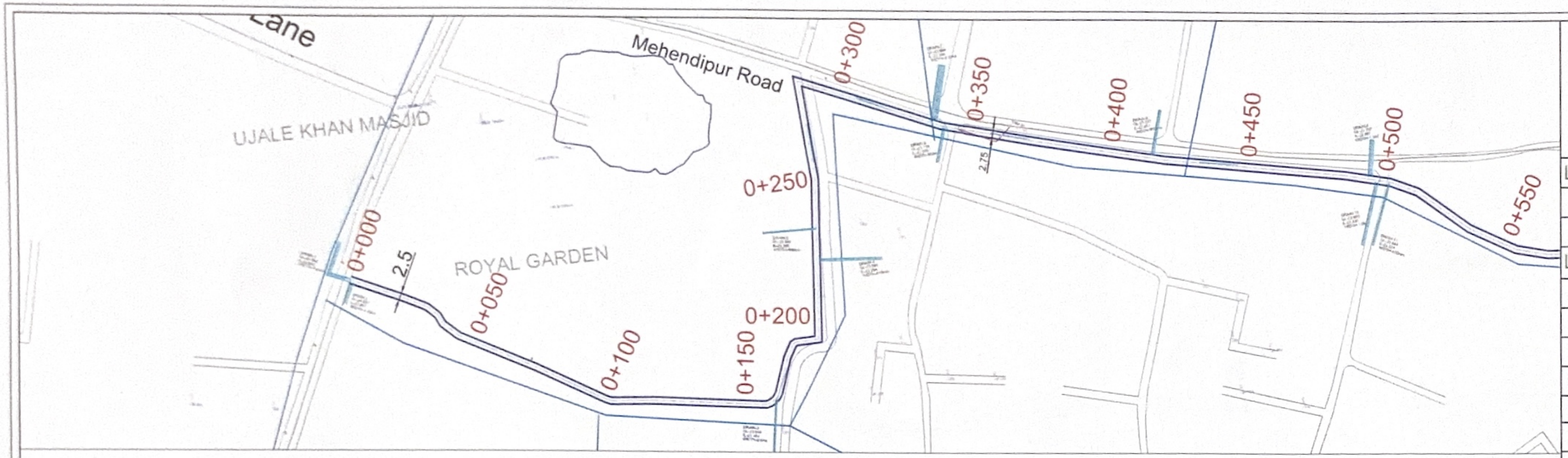
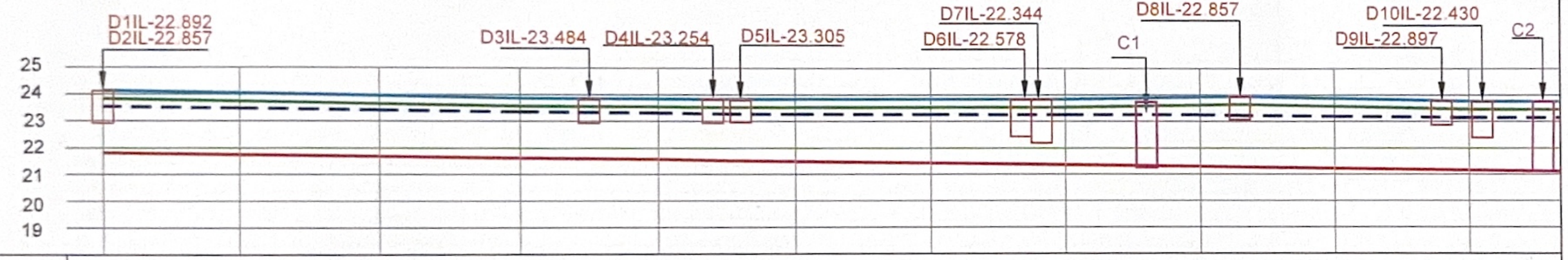


LEGEND

	SUB DRAIN LINE	
	TERTIARY DRAIN LINE	

LEGEND

1)	INVERT LEVEL	
2)	MWL	
3)	GROUND LVL	
4)	DRAIN TOP LEVEL	
5)	TERTIARY DRAIN	D
6)	CULVERT	C



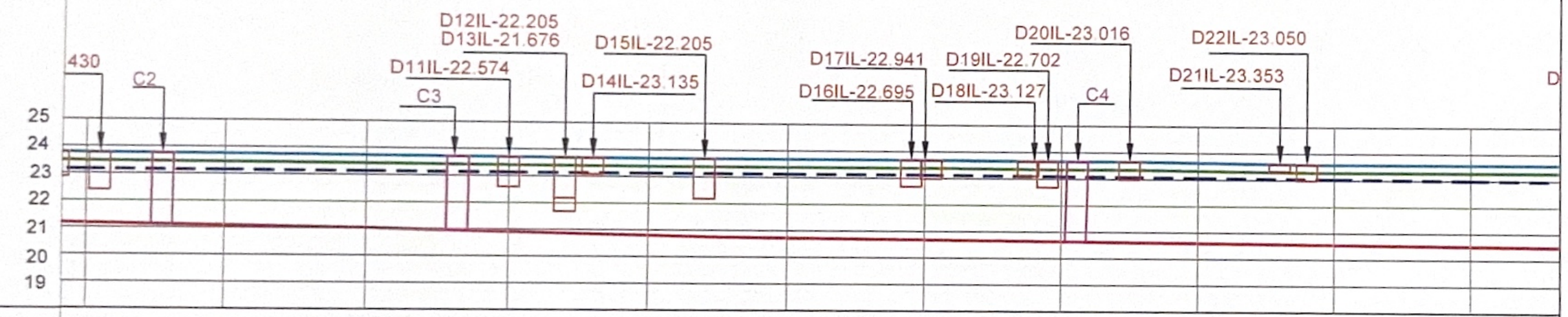
DATUM-18

CHAINAGE	ROAD_WIDTH_M
0+000	4.92
0+050	
0+100	6.2
0+150	
0+200	5.54
0+250	
0+300	7.75
0+350	
0+400	6.89
0+450	
0+500	6.68
0+550	

DETAILS OF LATERAL DRAIN

Sl. No.	Side	Chainage (m)	Size of Drain (m)	Proposed Provision
1	Start	0+000	1.23x1.15	Development of a drain up to 5 m length- Bar Screen-Silt Chamber
2	Right	0+000	1.23x1.2	
3	Right	0+175	0.6x0.46	
4	Right	0+220	0.8x0.33	
5	Left	0+230	0.4x0.3	
6	Right	0+340	0.9x1.14	
7	Left	0+335	2.35x1.32	
8	Left	0+415	1x1.47	
9	Left	0+490	1.5x0.82	

| | | |



CHAINAGE (M)	500	550	600	650	700	725	750	800	850	875	900	950	1000
DRAIN TOP LEVEL	23.78	23.76	23.74	23.72	23.7	23.69	23.693	23.7	23.67	23.68	23.653	23.6	23.6
GROUND LEVEL	23.48	23.46	23.44	23.42	23.4	23.39	23.393	23.4	23.37	23.38	23.353	23.3	23.3
MWL (M)	23.164	23.154	23.144	23.141	23.137	23.135	23.135	23.135	23.11	23.089	23.075	23.048	23.01
INVERT LVL (M)	21.174	21.104	21.034	20.927	20.819	20.765	20.744	20.7	20.659	20.639	20.618	20.578	20.54
WIDTH	1X1.5mX2.5m								1X1.5mX3.0m				
ROAD ACCESSIBILITY	NOT ACCESSIBLE								NOT ACCESSIBLE				

LEGEND

	SUB DRAIN LINE	
	TERTIARY DRAIN LINE	

LEGEND

1)	INVERT LEVEL	
2)	MWL	
3)	GROUND LVL	
4)	DRAIN TOP LEVEL	
5)	TERTIARY DRAIN	D
6)	CULVERT	C

DETAILS OF ROAD WIDTH

CHAINAGE	ROAD_WIDTH_M
0+550	6.68
0+600	7.79
0+650	
0+700	6.78
0+750	
0+800	5.77
0+850	
0+900	8.15
0+950	
1+000	4.61
1+050	

DETAILS OF LATERAL DRAIN

Sl. No.	Side	Chainage (m)	Size of Drain (m)	Proposed Provision
10	Right	0+795	1.0to1.47	Development of a drain up to 5 m length- Bar Screen Silt Chamber
11	Right	0+505	0.6x1.12	
12	Left	0+650	1.2x1.36	
13	Right	0+650	2.11x1.85	
14	Left	0+670	0.35x0.43	
15	Left	0+680	1.83x0.4	
16	Right	0+720	1.2x1.25	
17	Left	0+800	1.0x0.5	
18	Left	0+840	0.6x0.65	
19	Right	0+845	1.2x0.8	
20	Left	0+875	0.6x0.60	
21	Right	0+930	0.35x0.43	
22	Right	0+940	0.6x0.3	

WATCO

BT BBSR

REVISIONS						
REVNO	DESCRIPTION	DATE	DESIGNED	DRAWN	CHECKED	APPROVED

CLIENT: WATCO

ECOMETRIX CONSULTANTS PVT LTD

PROJECT: Consultancy Services for Detailed Project Report for Construction of Sub-Drain-3R of MD-1 Cuttack city, Odisha (Starting from Near Prasanta Office, Mohandipada, Kazi Bazar, Masjid Colony, Khatbin Sahi).

JOB No.	TITLE	SCALE
	L-SECTION FOR DRAIN SD-3R FROM CHN-0+550 TO CHN-1+000	AS SHOWN

PROJECTION

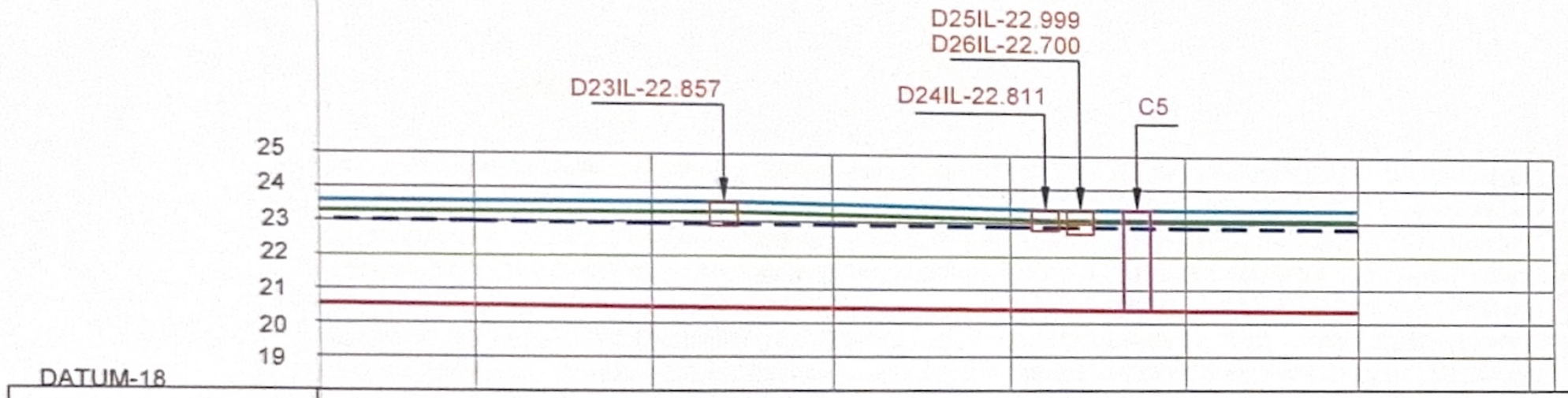
DRAWING No.	SHT.	REV.
	A3	NC

RELEASED FOR: PRELIMINARY | TENDER | INFORMATION | APPROVAL | CONSTRUCTION

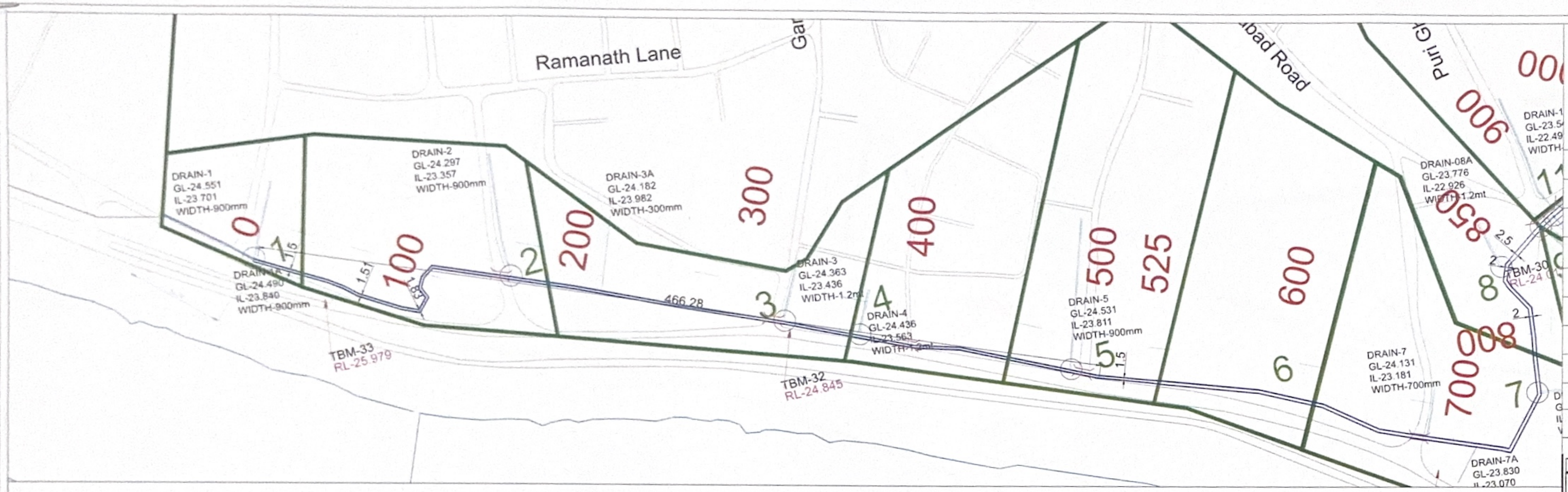
डॉ. अरिन्दम सरकार / Dr. Arindam Sarkar
सह - प्राध्यापक / Associate Professor
आधारिक संरचना विद्यापीठ / School of Infrastructure
भा.प्रौ.सं. भुवनेश्वर / IIT Bhubaneswar
अरुल/ Argul-752050,ओडिशा/Odisha

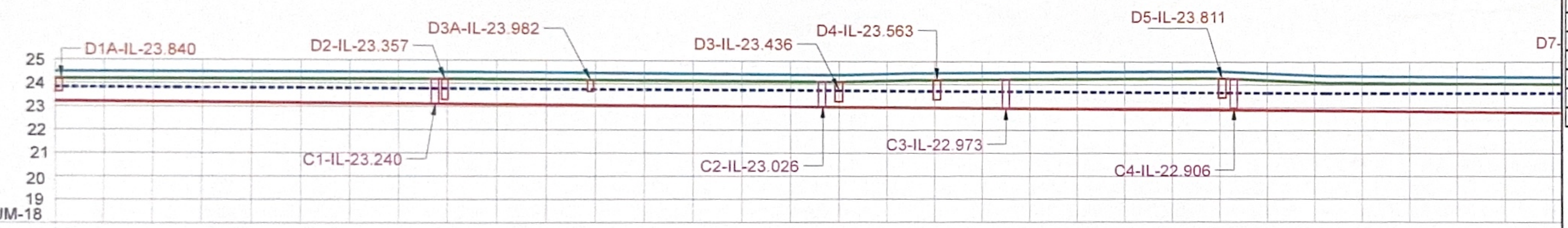
डॉ. सुमन्त हलदर / Dr. Sumanta Haldar
सहायक प्राध्यापक / Professor
आधारिक संरचना विद्यापीठ
School of Infrastructure
आई.आई.टी. भुवनेश्वर / IIT Bhubaneswar
खोरधा, ओडिशा / Khordha, Odisha - 752050

Khatbin Sahi Road
Dewan Bazar
1+000
1+050
1+100
1+150
1+200
1+250
1+300
0.2 x 0.7
0.7 x 0.7
0.7 x 0.7
28
29

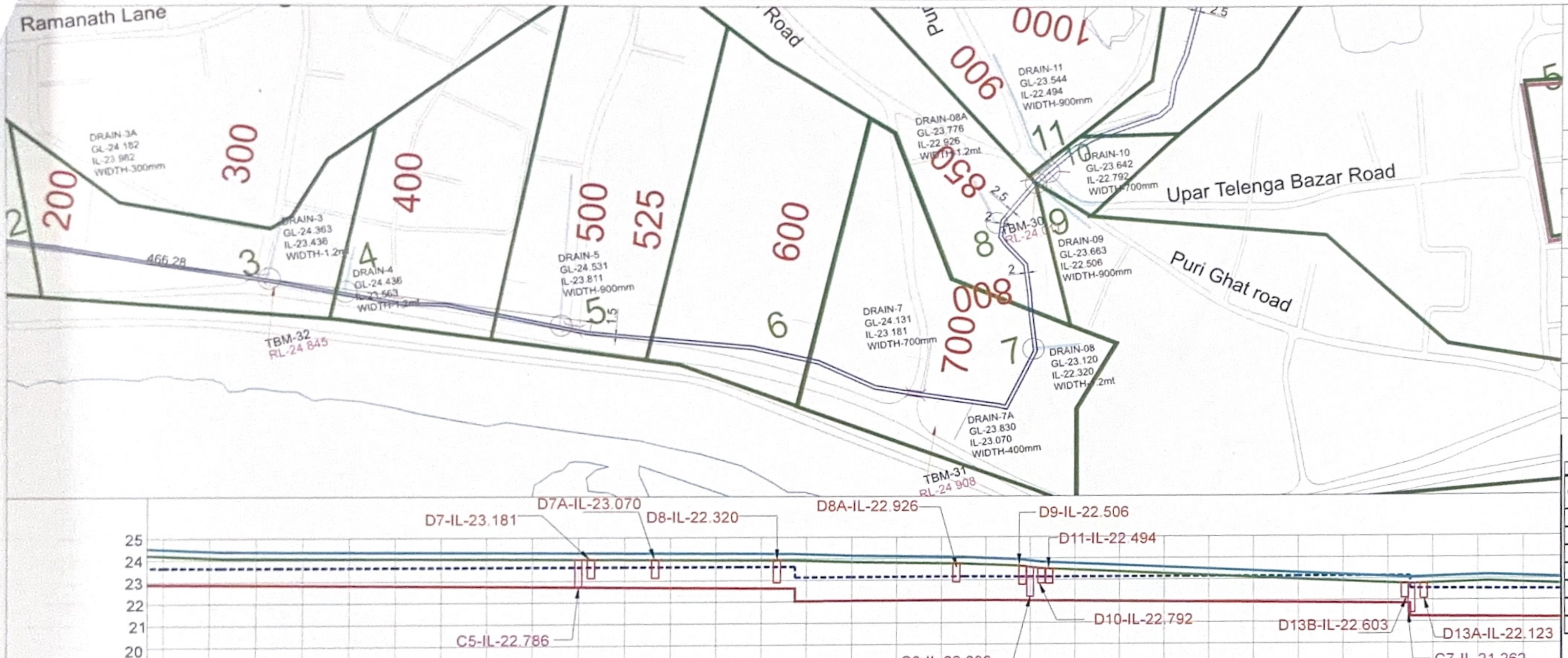

D25IL-22.999
D26IL-22.700
D23IL-22.857
D24IL-22.811
C5
25
24
23
22
21
20
19
DATUM-18

| | | |


Ramanath Lane
Puri Ghat Road
DRAIN-1
GL-24.551
IL-23.701
WIDTH-900mm
DRAIN-1A
GL-24.490
IL-23.840
WIDTH-900mm
DRAIN-2
GL-24.297
IL-23.357
WIDTH-900mm
DRAIN-3A
GL-24.182
IL-23.982
WIDTH-300mm
DRAIN-3
GL-24.363
IL-23.436
WIDTH-1.2mt
DRAIN-4
GL-24.436
IL-23.563
WIDTH-1.2mt
DRAIN-5
GL-24.531
IL-23.811
WIDTH-900mm
DRAIN-7
GL-24.131
IL-23.181
WIDTH-700mm
DRAIN-7A
GL-23.830
IL-23.070
DRAIN-08A
GL-23.776
IL-22.926
WIDTH-1.2mt
TBM-33
RL-25.979
TBM-32
RL-24.845
TBM-30
RL-24
466.28
0
100
200
300
400
500
525
600
700
850
900
1.5
1.51
2.5
2


D1A-IL-23.840
D2-IL-23.357
D3A-IL-23.982
D3-IL-23.436
D4-IL-23.563
D5-IL-23.811
C1-IL-23.240
C2-IL-23.026
C3-IL-22.973
C4-IL-22.906
25
24
23
22
21
20
19
DATUM-18

| | | |



LEGEND

1)	SUB DRAIN LINE	
2)	TERTIARY DRAIN LINE	

LEGEND

1)	INVERT LEVEL	
2)	MWL	
3)	GROUND LVL	
4)	DRAIN TOP LEVEL	
5)	TERTIARY DRAIN	D
6)	CULVERT	C

DETAILS OF LATERAL DRAIN

Chainage	Sub-Drain no.	Width	Depth	Side
0+685	7	0.7	0.95	LHS
0+713	7A	0.4	0.76	RHS
0+767	8	1.2	0.8	RHS
0+846	8A	1.2	0.85	LHS
0+876	9	0.9	1.157	RHS
0+885	10	0.7	0.85	RHS
0+888	11	0.9	1.05	LHS

DETAILS OF ROAD

Chainage	Width of road (M)
0+525	12.72
0+600	12.72
0+700	8.77
0+850	8.77
0+900	6.7
1+000	6.7

CHAINAGE (M)	DRAIN TOP LEVEL	GROUND LEVEL	MWL (M)	INVERT LVL (M)
500	24.51	24.21	23.65	22.906
525	24.4	24.1	23.64	22.889
550	24.38	24.08	23.64	22.864
600	24.35	24.05	23.64	22.814
650	24.32	24.02	23.64	22.764
700	24.29	23.99	23.64	22.714
750	24.26	23.96	23.64	22.664
775	24.24	23.94	23.14 / 23.64	22.039 / 22.639
800	24.155	23.855	23.155	22.0555
850	24.07	23.77	23.17	22.072
875	23.96	23.66	23.15	22.047
885	23.84	23.54	23.14	22.036
900	23.77	23.47	23.14	22.02
950	23.54	23.24	23.14	21.967
1000	23.3	23	23.14	21.915
1050	23.07	22.77	22.56 / 23.14	21.262 / 21.862
1085	23.19	22.89	22.53	21.227
1100	23.13	22.83	22.52	21.212

SIZE (M) CellxWxD: 1X1.5mX1.5m | 1X2X2m | 1X2.5mX2

ROAD ACCESSIBILITY: ACCESSIBLE | NO ACCESSIBLE | ACC

Dr. Sumanta Sa
Associate Professor
School of Infrastructure

डॉ सुमन्त हैदर / Dr. Sumanta Haldar
सहायक / Professor
आधारिक संरचना विद्यालय
आई आई टी भुवनेश्वर / IIT Bhubaneswar
खोरधा, ओडिशा / Khordha, Odisha - 752050

WATCO
IIT BBSR

CLIENT: WATCO

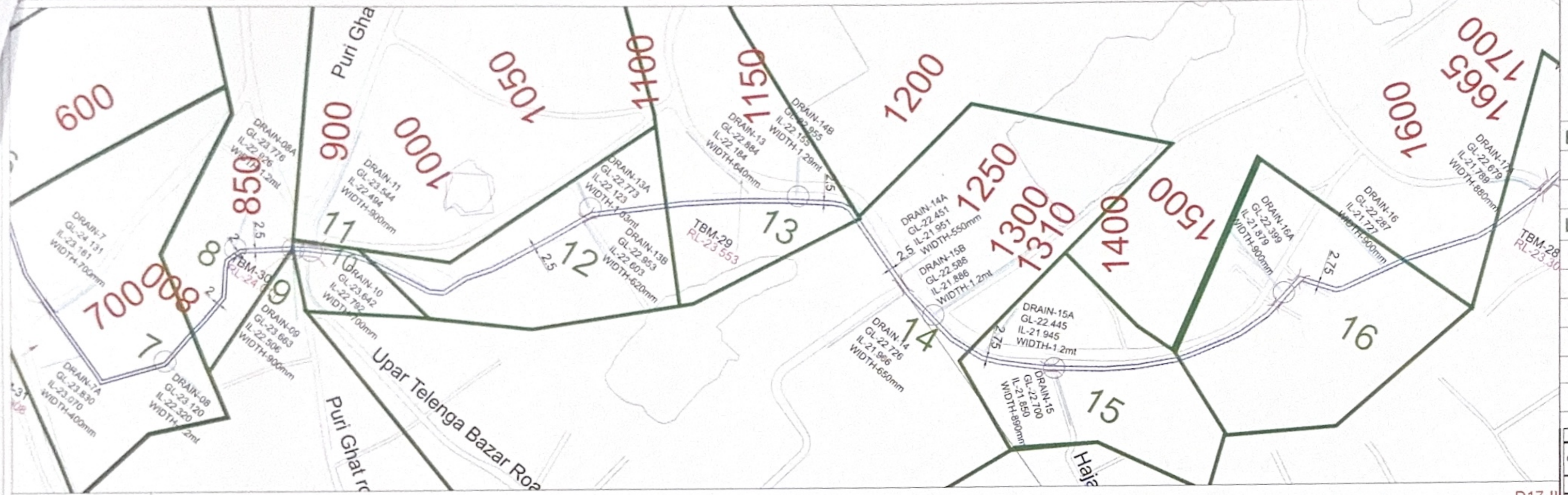
ECOMETRIX CONSULTANTS PVT LTD

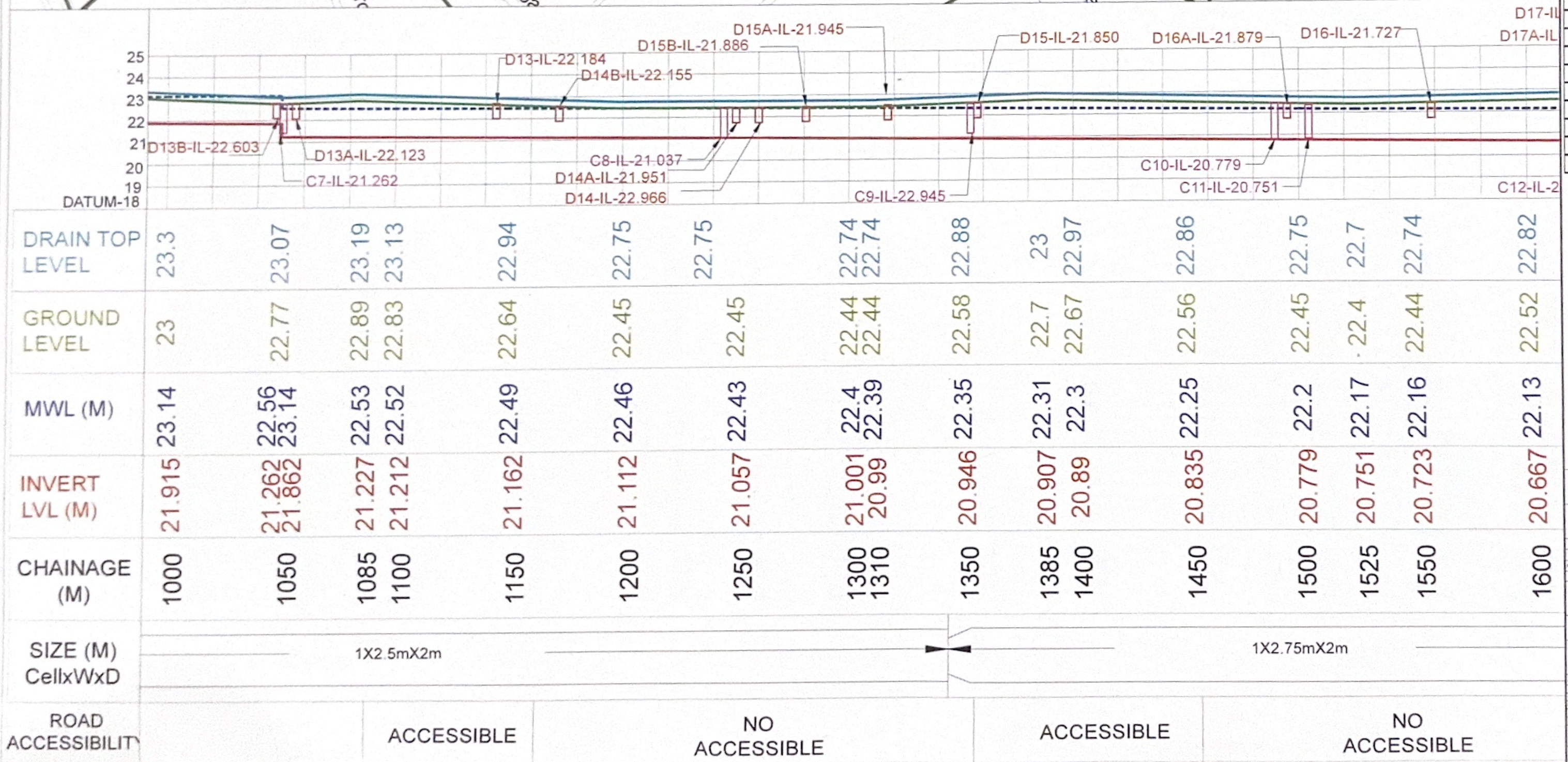
PROJECT: Consultancy Services for Detailed Project Report for Construction of Sub-Drain-4R of MD-1 Cuttack city, Odisha (Starting from CP Office, Indian Oil Pump, Ganesh Ghat, Sunshine field, Ward, Jhollasahi, Chowk, Seminary Chowk & to New Rausapatana).

TITLE: L-SECTION FOR DRAIN SD-4R FROM CH-0+586 TO CH-1+086

SCALE: AS SHOWN

DRAWING No.


600
700
800
850
900
1000
1050
1100
1150
1200
1250
1300
1310
1400
1500
1600
1665
1700
Puri Ghat
Upar Telenga Bazar Road
Puri Ghat road
Haldia
DRAIN-7
GL-24.131
IL-23.161
WIDTH-700mm
DRAIN-7A
GL-23.830
IL-23.070
WIDTH-400mm
DRAIN-08
GL-23.120
IL-22.320
WIDTH-1.2mt
DRAIN-08A
GL-23.776
IL-22.826
WIDTH-1.2mt
DRAIN-09
GL-23.663
IL-22.506
WIDTH-900mm
DRAIN-10
GL-23.642
IL-22.782
WIDTH-700mm
DRAIN-11
GL-23.544
IL-22.494
WIDTH-900mm
DRAIN-13
GL-22.884
IL-22.184
WIDTH-640mm
DRAIN-13A
GL-22.773
IL-22.123
WIDTH-1.03mt
DRAIN-13B
GL-22.953
IL-22.603
WIDTH-920mm
DRAIN-14
GL-22.726
IL-21.966
WIDTH-650mm
DRAIN-14A
GL-22.451
IL-21.951
WIDTH-550mm
DRAIN-14B
GL-22.655
IL-22.155
WIDTH-1.29mt
DRAIN-15
GL-22.700
IL-21.850
WIDTH-890mm
DRAIN-15A
GL-22.445
IL-21.945
WIDTH-1.2mt
DRAIN-15B
GL-22.586
IL-21.886
WIDTH-1.2mt
DRAIN-16
GL-22.287
IL-21.727
WIDTH-900mm
DRAIN-16A
GL-22.399
IL-21.879
WIDTH-900mm
DRAIN-17
GL-22.679
IL-21.789
WIDTH-880mm
TBM-29
RL-23.553
TBM-30
RL-24.0
TBM-28
RL-23.30
2.5
2.75
7
8
9
10
11
12
13
14
15
16


D15A-IL-21.945
D15B-IL-21.886
D13-IL-22.184
D14B-IL-22.155
D15-IL-21.850
D16A-IL-21.879
D16-IL-21.727
D17-IL
D17A-IL
D13B-IL-22.603
D13A-IL-22.123
C7-IL-21.262
C8-IL-21.037
D14A-IL-21.951
D14-IL-22.966
C9-IL-22.945
C10-IL-20.779
C11-IL-20.751
C12-IL-2
DATUM-18
25
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23
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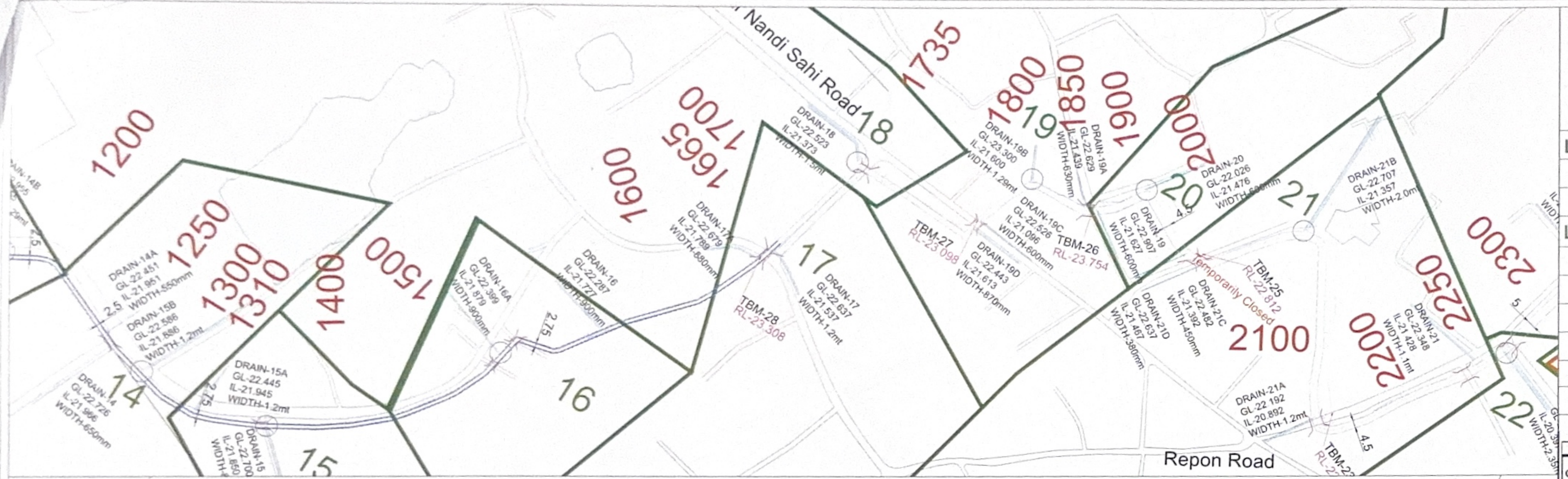
19

| | | |


Nandi Sahi Road
Repon Road
1200
1250
1300
1310
1400
1500
1600
1665
1700
1735
1800
1850
1900
2000
2100
2200
2250
2300
DRAIN-14A GL-22.451 IL-21.951 WIDTH-550mm
DRAIN-14B
DRAIN-15B GL-22.586 IL-21.886 WIDTH-1.2mt
DRAIN-14 GL-22.726 IL-21.996 WIDTH-650mm
DRAIN-15A GL-22.445 IL-21.945 WIDTH-1.2mt
DRAIN-15 GL-22.700 IL-21.850
DRAIN-16A GL-22.399 IL-21.879 WIDTH-900mm
DRAIN-16 GL-22.287 IL-21.727 WIDTH-950mm
DRAIN-17A GL-22.679 IL-21.789 WIDTH-880mm
DRAIN-17 GL-22.637 IL-21.537 WIDTH-1.2mt
DRAIN-18 GL-22.523 IL-21.373 WIDTH-1.2mt
DRAIN-19B GL-22.300 IL-21.600 WIDTH-1.29mt
DRAIN-19C GL-22.526 IL-21.096 WIDTH-600mm
DRAIN-19D GL-22.443 IL-21.613 WIDTH-870mm
DRAIN-19A GL-22.629 IL-21.439 WIDTH-630mm
DRAIN-19 GL-22.907 IL-21.627 WIDTH-600mm
DRAIN-20 GL-22.026 IL-21.476 WIDTH-630mm
DRAIN-21B GL-22.707 IL-21.357 WIDTH-2.0mt
DRAIN-21C GL-22.462 IL-21.392 WIDTH-450mm
DRAIN-21D GL-22.637 IL-21.467 WIDTH-380mm
DRAIN-21 GL-22.348 IL-21.428 WIDTH-1.1mt
DRAIN-21A GL-22.192 IL-20.892 WIDTH-1.2mt
TBM-25 RL-22.912
TBM-26 RL-23.754
TBM-27 RL-23.098
TBM-28 RL-23.308
Temporarily Closed
14
15
16
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18
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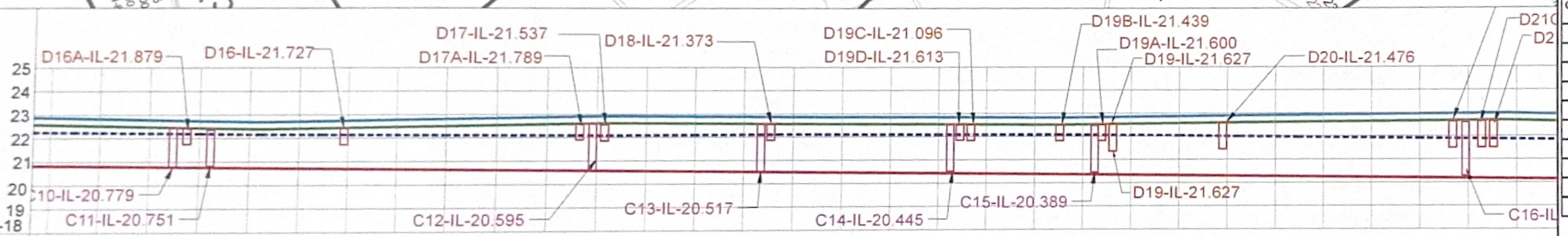
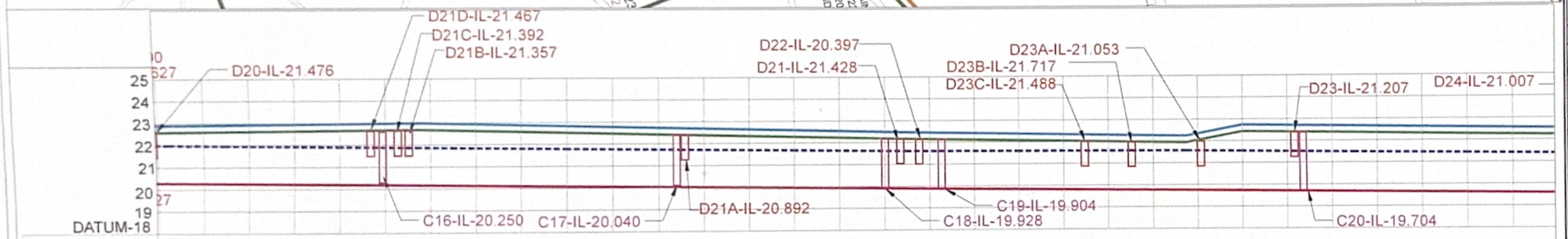
20
21
22


D16A-IL-21.879
D16-IL-21.727
D17-IL-21.537
D17A-IL-21.789
D18-IL-21.373
D19C-IL-21.096
D19D-IL-21.613
D19B-IL-21.439
D19A-IL-21.600
D19-IL-21.627
D20-IL-21.476
D21C
D2
25
24
23
22
21
20
19
DATUM-18
C10-IL-20.779
C11-IL-20.751
C12-IL-20.595
C13-IL-20.517
C14-IL-20.445
C15-IL-20.389
D19-IL-21.627
C16-IL

| | | |

Repon Road
DRAIN-17 GL-22.637 IL-21.537 WIDTH-1.2mt
DRAIN-18A GL-23.300 IL-21.600 WIDTH-1.2mt
DRAIN-18B GL-23.300 IL-21.600 WIDTH-1.2mt
DRAIN-19 GL-22.907 IL-21.627 WIDTH-600mm
DRAIN-19A GL-22.629 IL-21.439 WIDTH-630mm
DRAIN-19B GL-22.526 IL-21.096 WIDTH-600mm
DRAIN-19C GL-22.526 IL-21.096 WIDTH-600mm
DRAIN-19D GL-22.443 IL-21.613 WIDTH-670mm
DRAIN-20 GL-22.026 IL-21.476 WIDTH-600mm
DRAIN-21 GL-22.348 IL-21.428 WIDTH-1.1mt
DRAIN-21A GL-22.192 IL-20.892 WIDTH-1.2mt
DRAIN-21B GL-22.707 IL-21.357 WIDTH-2.0mt
DRAIN-21C GL-22.482 IL-21.392 WIDTH-450mm
DRAIN-21D GL-22.637 IL-21.467 WIDTH-380mm
DRAIN-22 GL-22.231 IL-20.731 WIDTH-1.2mt
DRAIN-23A GL-21.963 IL-21.053 WIDTH-1.2mt
DRAIN-23B GL-22.227 IL-21.717 WIDTH-600mm
DRAIN-23C GL-22.158 IL-21.488 WIDTH-620mm
DRAIN-24 GL-21.983 IL-21.007 WIDTH-1.2mt
DRAIN-25 GL-21.874 IL-21.084 WIDTH-840mm
DRAIN-25A GL-22.174 IL-21.524 WIDTH-800mm
DRAIN-26A GL-21.655 IL-20.655 WIDTH-1.2mt
TBM-23 RL-22.
TBM-24 RL-22.596
TBM-25 RL-22.812
TBM-26 RL-23.754
TBM-27 RL-23.098
TBM-28 RL-23.308
Temporarily Closed
16
17
18
19
20
21
22
23
24
25
26
1900
2000
2100
2200
2250
2300
2400
2500
2600
4.5
5


D21D-IL-21.467
D21C-IL-21.392
D21B-IL-21.357
D20-IL-21.476
D22-IL-20.397
D21-IL-21.428
D23A-IL-21.053
D23B-IL-21.717
D23C-IL-21.488
D23-IL-21.207
D24-IL-21.007
C16-IL-20.250
C17-IL-20.040
D21A-IL-20.892
C18-IL-19.928
C19-IL-19.904
C20-IL-19.704
DATUM-18
25
24
23
22
21
20
19

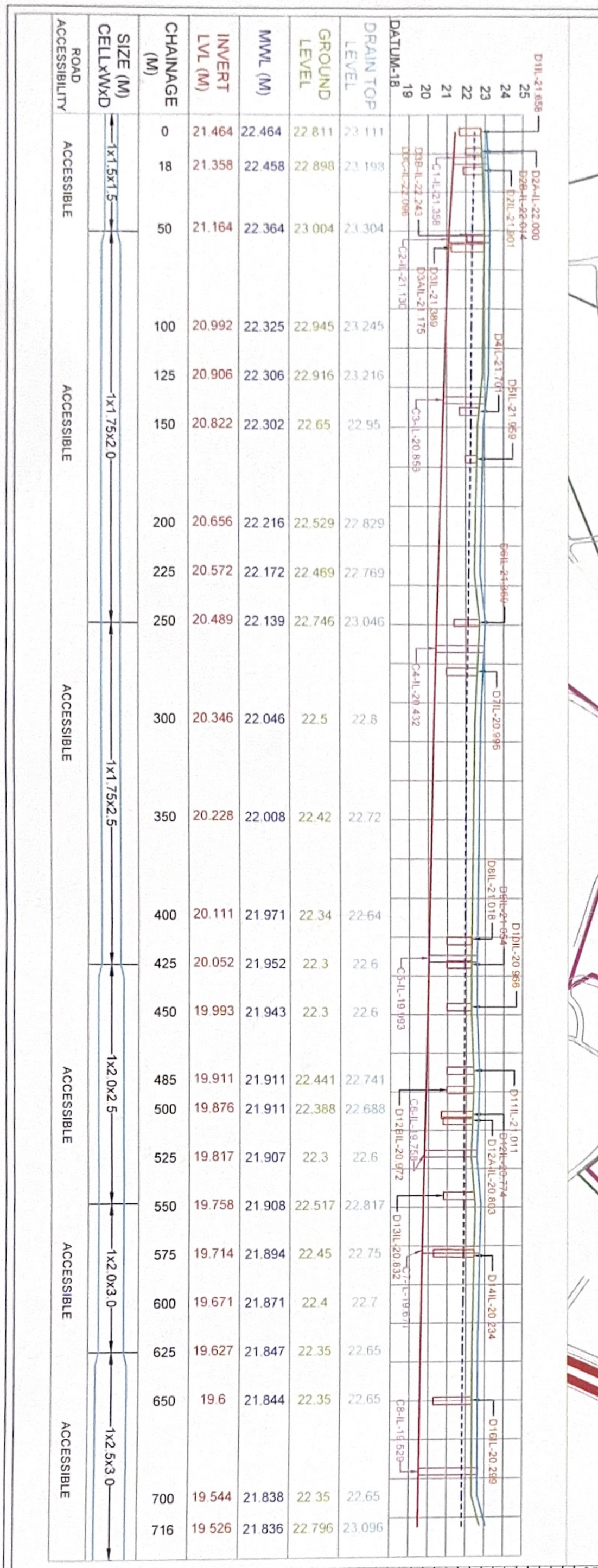
| | | |

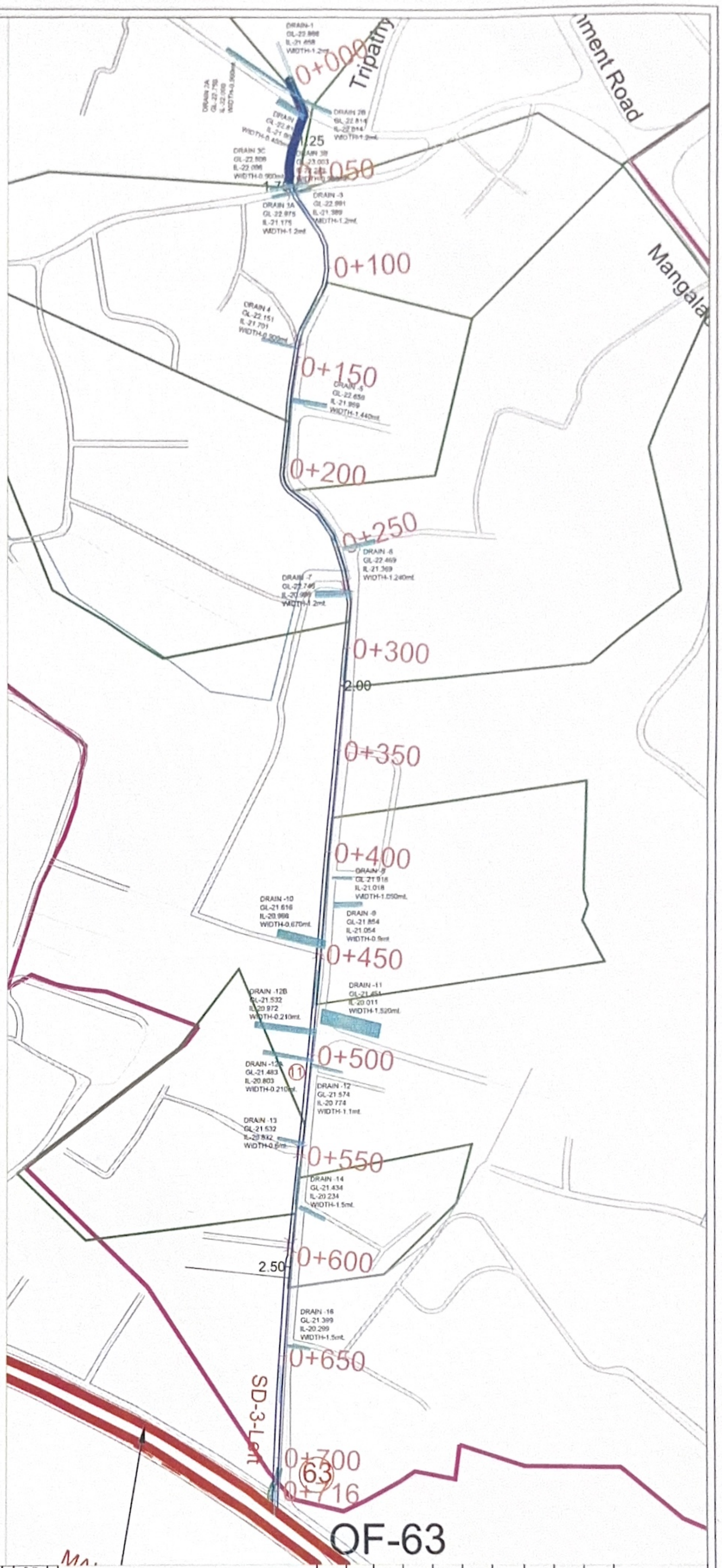
DRAIN-21B
GL-22.707
IL-21.357
WIDTH-2.0m
DRAIN-21
GL-22.348
IL-21.428
WIDTH-1.1mt
DRAIN-23C
GL-22.158
IL-21.488
WIDTH-600mm
DRAIN-23A
GL-21.963
IL-21.053
WIDTH-1.2mt
DRAIN-23
GL-22.247
IL-21.717
WIDTH-600mm
DRAIN-22
GL-22.177
IL-20.997
WIDTH-2.35mt
DRAIN-23B
GL-22.247
IL-21.717
WIDTH-600mm
TBM-24
RL-22.596
DRAIN-24
GL-21.963
IL-21.007
WIDTH-1.2mt
DRAIN-26A
GL-21.655
IL-20.665
WIDTH-1.2mt
DRAIN-25
GL-21.874
IL-21.024
WIDTH-640mm
DRAIN-25A
GL-22.174
IL-21.524
WIDTH-800mm
DRAIN-26
GL-21.692
IL-20.772
WIDTH-1.21mt
TBM-22
RL-22.231
DRAIN-27
GL-21.646
IL-20.646
WIDTH-900mm
DRAIN-28
GL-21.555
IL-20.755
WIDTH-600mm
0.5x 0.5
0.7x 1.0
Cheilkala Lane
Kesharpur Road
Kesarpu
2200
2250
2300
2400
2500
2600
2700
2797
3925
3975
4125
21
22
23
24
25
26
27
28
51

D23A-IL-21.053
-21.717
-21.488
D23-IL-21.207
D24-IL-21.007
D25A-IL-21.524
D25-IL-21.024
D26A-IL-20.655
D26-IL-20.772
D27-IL-20.646
D28-IL-20.755
25
24
23
22
21
20
19
DATUM-18
C19-IL-19.904
19.928
C20-IL-19.704
C21-IL-19.512
C22-IL-19.369
C23-IL-19.332

| | | |

CHAINAGE (M)	INVERT LVL (M)	MWL (M)	GROUND LEVEL	DRAIN TOP LEVEL	SIZE (M) CELLxWxD	ROAD ACCESSIBILITY
0	21.464	22.464	22.811	23.111	1x1.5x1.5	ACCESSIBLE
18	21.358	22.458	22.898	23.198		
50	21.164	22.364	23.004	23.304		
100	20.992	22.325	22.945	23.245		
125	20.906	22.306	22.916	23.216	1x1.75x2.0	ACCESSIBLE
150	20.822	22.302	22.65	22.95		
200	20.656	22.216	22.529	22.829		
225	20.572	22.172	22.469	22.769		
250	20.489	22.139	22.746	23.046		
300	20.346	22.046	22.5	22.8	1x1.75x2.5	ACCESSIBLE
350	20.228	22.008	22.42	22.72		
400	20.111	21.971	22.34	22.64		
425	20.052	21.952	22.3	22.6		
450	19.993	21.943	22.3	22.6	1x2.0x2.5	ACCESSIBLE
485	19.911	21.911	22.441	22.741		
500	19.876	21.911	22.388	22.688		
525	19.817	21.907	22.3	22.6		
550	19.758	21.908	22.517	22.817		
575	19.714	21.894	22.45	22.75	1x2.0x3.0	ACCESSIBLE
600	19.671	21.871	22.4	22.7		
625	19.627	21.847	22.35	22.65		
650	19.6	21.844	22.35	22.65	1x2.5x3.0	ACCESSIBLE
700	19.544	21.838	22.35	22.65		
716	19.526	21.836	22.796	23.096		





DETAILS OF ROAD WIDTH	
CHAINAGE	ROAD_WIDTH_M
0+000	5.95
0+050	
0+100	9.42
0+150	
0+200	8.94
0+250	
0+300	7.78
0+350	
0+400	6.53
0+450	
0+500	10.85
0+550	
0+600	9.29
0+650	
0+700	9.22
0+716	

DETAILS OF LATERAL DRAIN				
Sub drain no	Side	Chainage (m)	Size of Drain (m)	Proposed Provision
D-1		0+000	1.2x1.21	
D-2A	Right	0+000	0.9x0.75	
D-2B	Left	0+000	1.2x0.8	
D-2	Right	0+020	0.45x0.91	
D-3B	Left	0+050	0.9x0.76	
D-3C	Right	0+050	0.9x0.710	
D-3A	Right	0+060	1.2x1.8	
D-3	Left	0+060	1.2x1.6	
D-4	Right	0+140	0.9x0.45	
D-5	Left	0+160	1.4x0.7	
D-6	Left	0+250	1.24x1.1	
D-7	Right	0+270	1.2x1.75	
D-8	Left	0+420	1.05x0.9	
D-9	Left	0+430	0.9x0.8	
D-10	Right	0+450	0.6x0.85	
D-11	Left	0+470	1.52x1.44	
D-12B	Right	0+480	0.2x0.56	
D-12A	Right	0+500	0.2x0.5	
D-12	Left	0+500	1.1x0.6	
D-13	Right	0+550	0.6x0.70	
D-14	Left	0+560	1.5x1.2	
D-16	Left	0+650	1.5x1.1	

Development of a drain up to 5 m length+ Bar Screen + Silt Chamber

LEGEND	
SUB DRAIN LINE	
TERTIARY DRAIN LINE	

LEGEND		
1)	INVERT LEVEL	
2)	MWL	
3)	GROUND LVL	
4)	DRAIN TOP LEVEL	
5)	TERTIARY DRAIN	D
6)	CULVERT	C

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WATCO

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CLIENT:

WATCO

ECOMETRIX CONSULTANTS PVT LTD

Consultancy Services for Detailed Project Report for Construction of SUE-Drain-3L of MDI-1 Cuttack city, Odisha (Starting from the Krishna Mangala Temple Friends Colony Road, Shanti Memorial Hospital Nagar (Ranipokhali))

PROJECT

L-SECTION FOR DRAIN SD-3L FROM CHN 0+000 TO CHN 0+716

TITLE

DRAWING No.

JOB No.

SCALE: AS SHOWN

PROJECTION

SHEET No.

REVISION No.

DATE

DESIGNED

DRAWN

CHECKED

APPROVED

RELEASED FOR: PRELIMINARY / TENDER / APPROVAL / CONSTRUCTION

डॉ. सुमंत हलदर / Dr. Sumanta Haldar
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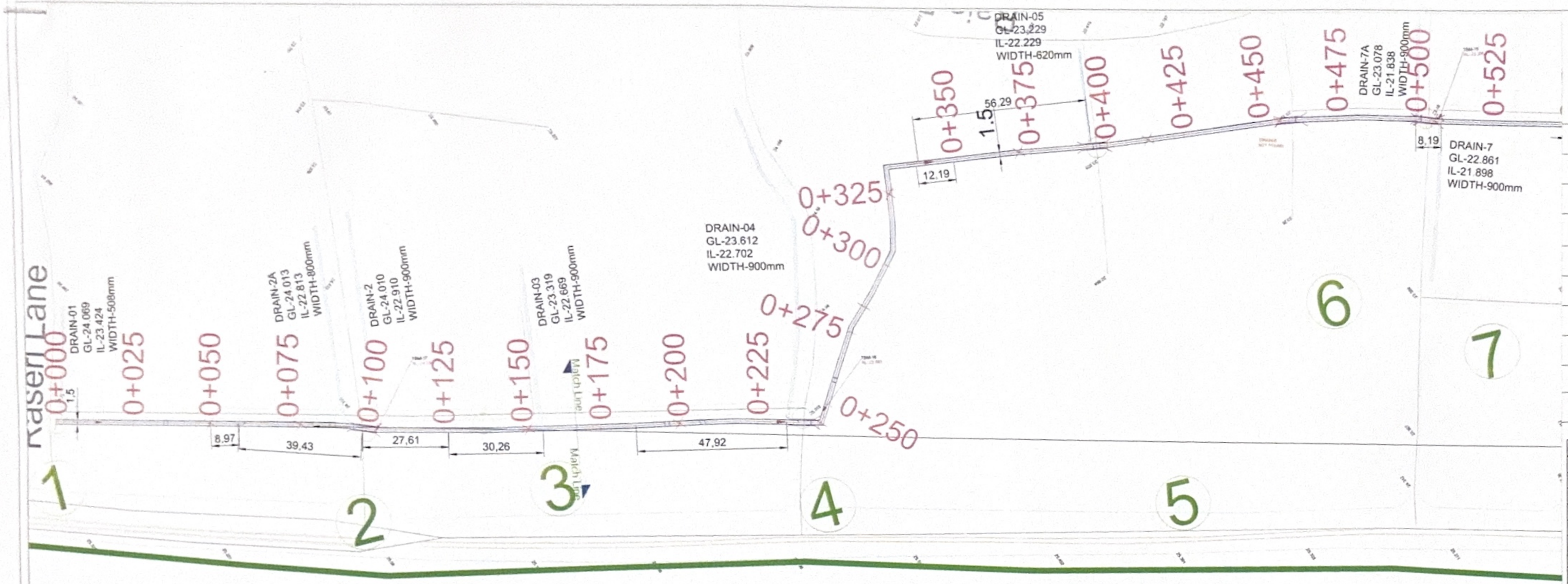
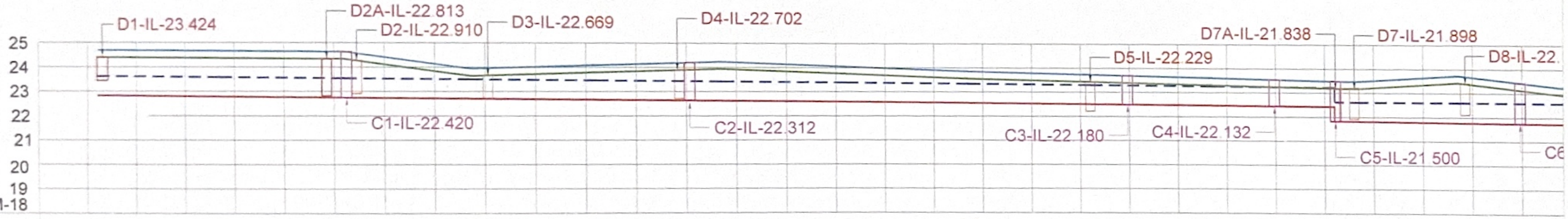
डॉ. अरिन्दम सरकार / Dr. Arindam Sarkar
सह - प्राध्यापक / Associate Professor
आधारिक संरचना विद्यापीठ / School of Infrastructure
भा.प्रौ.सं.भुवनेश्वर / IIT Bhubaneswar





DRAIN TOP LEVEL	24.369	24.34	24.31	23.619	23.766	23.912	23.721	23.529	23.406	23.284	23.161	23.16	23.41
GROUND LEVEL	24.069	24.04	24.01	23.319	23.466	23.612	23.421	23.229	23.106	22.984	22.861	22.86	23.11
MWL (M)	23.3	23.26	23.22	23.18	23.14	23.1	23.06	23.02	22.98	22.94	22.9 / 22.3	22.29	22.29
INVERT LVL (M)	22.5	22.46	22.42	22.38	22.34	22.3	22.26	22.22	22.18	22.14	22.1 / 21.5	21.49	21.45
CHAINAGE (M)	0	50	100	150	200	250	300	350	400	450	500	510	550
SIZE (M) CELLxWxD	1x1.25x1.5							1x1.5x1.5					
ROAD ACCESSIBILITY	ACCESSIBLE			NO ACCESSIBLE				ACCESSIBLE			ACCI		

LEGEND

1)	SUB DRAIN LINE	
2)	TERTIARY DRAIN LINE	

LEGEND

1)	INVERT LEVEL	
2)	MWL	
3)	GROUND LVL	
4)	DRAIN TOP LEVEL	
5)	TERTIARY DRAIN	D
6)	CULVERT	C

DETAILS OF LATERAL DRAIN

SUB DRAIN NO.	SIDE	CHAINAGE	Width	Height
DRAIN-1	Left	0+002	0.51	0.95
DRAIN-2A	Left	0+093	0.80	1.50
DRAIN-2	Left	0+104	0.90	1.40
DRAIN-3	Left	0+156	0.90	0.95
DRAIN-4	Left	0+235	0.90	1.06
DRAIN-5	Left	0+395	0.62	1.18
DRAIN-7A	Left	0+500	0.90	1.32
DRAIN-7	Right	0+508	0.90	1.26

DETAILS OF ROAD

CHAINAGE	ROAD_WIDTH_M
0+000	8.45
0+025	
0+050	
0+075	8.43
0+100	
0+125	
0+150	7.66
0+175	
0+200	5.87
0+225	
0+250	7.60
0+275	
0+300	6.56
0+325	
0+350	8.20
0+375	
0+400	7.14
0+425	
0+450	8.18
0+475	
0+500	6.33
0+525	

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REV NO | DESCRIPTION | DATE | DESIGNED | DRAWN | CHECKED | APPD

CLIENT: WATCO

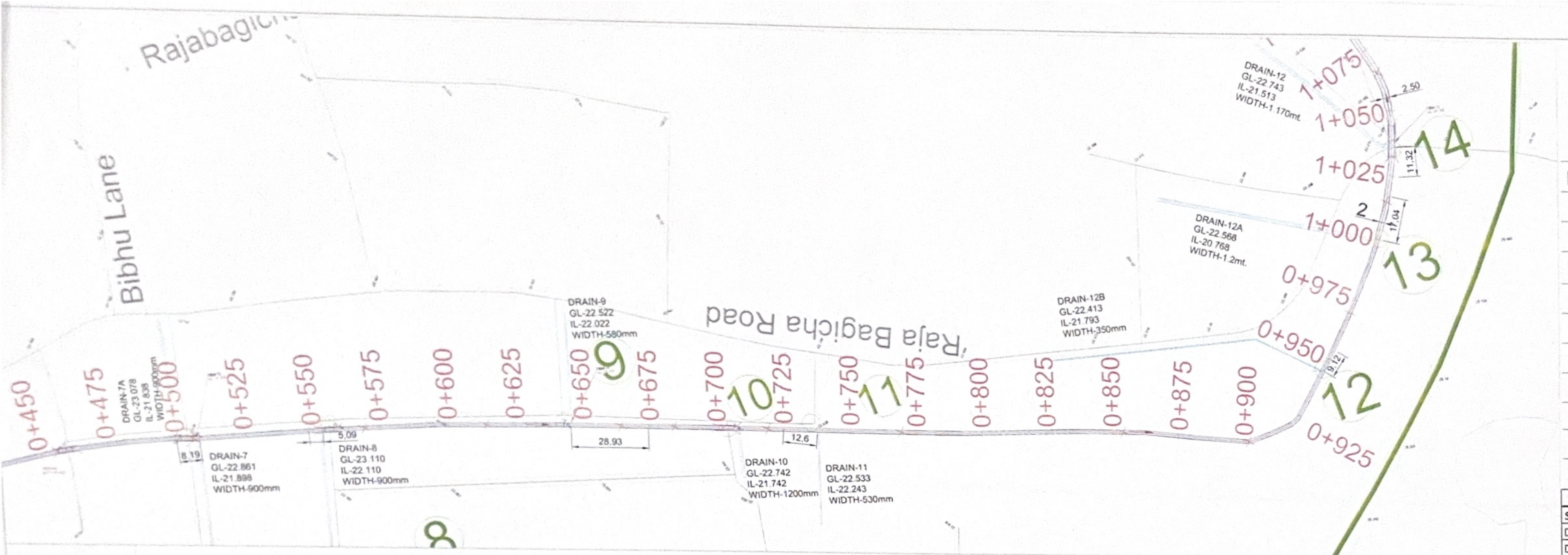
ECOMETRIX CONSULTANTS PVT LTD

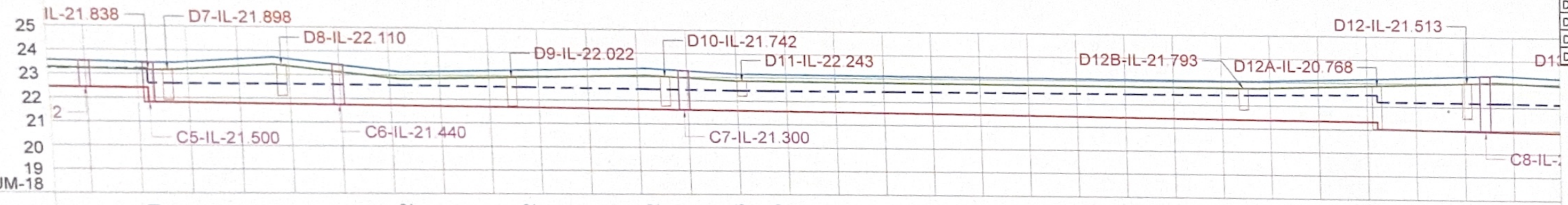
PROJECT: Consultancy Services for Detailed Project Report for Construction of Sub-Drain-SR of MD-1 Cuttack city, Odisha (Starting from the back side of Trisha, Hospital, Queens Mary High School, Road Begeecha Colony, Badambadi, Dolamoundai Chowk, Bayabari Road)

JOB No. | TITLE: L-SECTION FOR DRAIN SD-SR FROM CHN 0+000 TO CHN 0+508 | SCALE: AS SHOWN

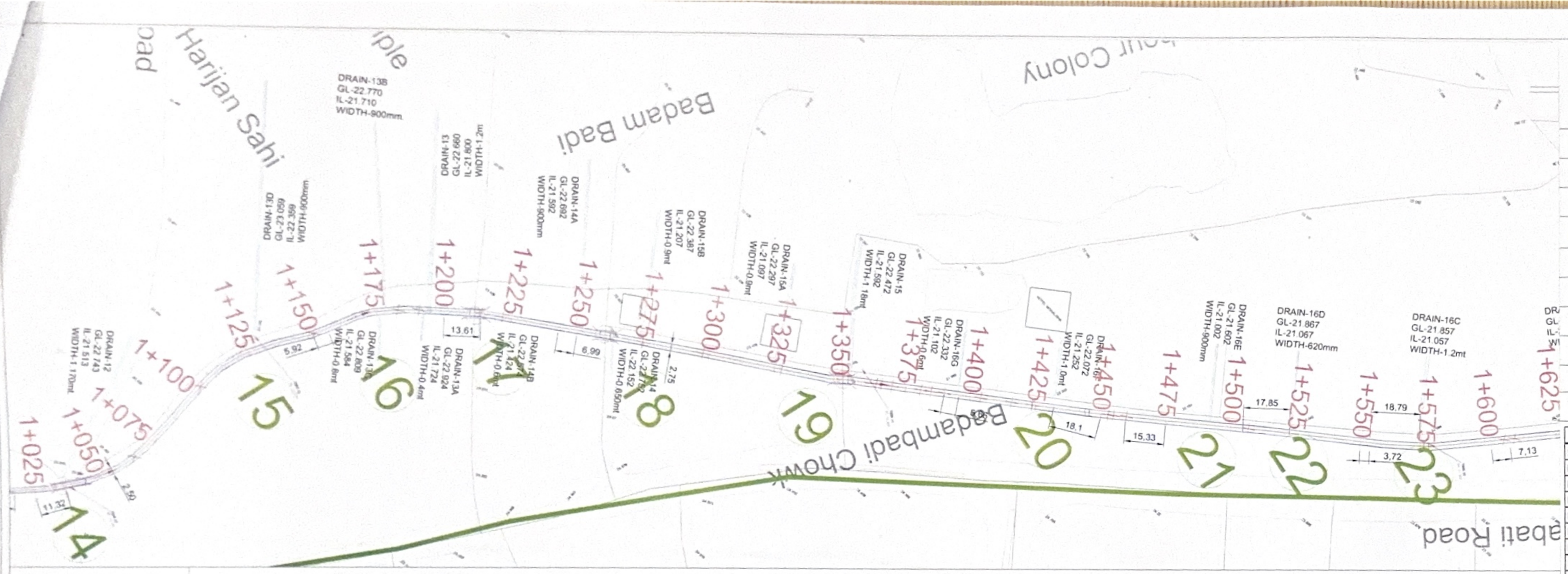
DRAWING No. | SIZE: A3 | REV: R0

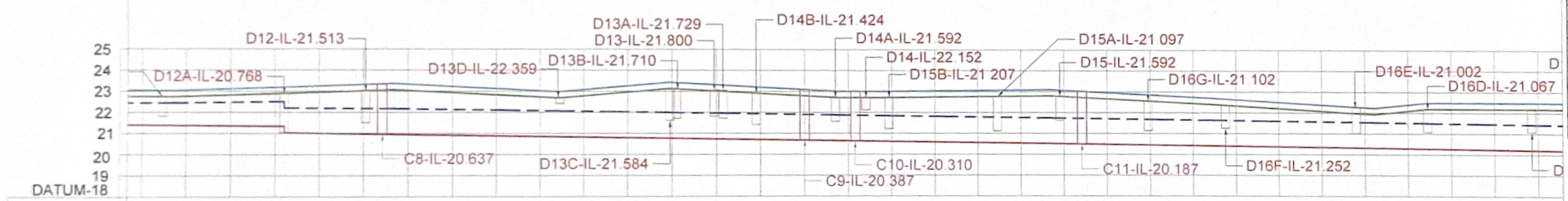
RELEASED FOR: ☐ PRELIMINARY ■ TENDER ☐ INFORMATION ☐ APPROVAL ☐ CONSTRUCTION


Rajabagicha
Bibhu Lane
Raja Bagicha Road
0+450
0+475
0+500
0+525
0+550
0+575
0+600
0+625
0+650
0+675
0+700
0+725
0+750
0+775
0+800
0+825
0+850
0+875
0+900
0+925
0+950
0+975
1+000
1+025
1+050
1+075
DRAIN-7A
GL-23.078
IL-21.838
WIDTH-900mm
DRAIN-7
GL-22.861
IL-21.898
WIDTH-900mm
DRAIN-8
GL-23.110
IL-22.110
WIDTH-900mm
DRAIN-9
GL-22.522
IL-22.022
WIDTH-580mm
DRAIN-10
GL-22.742
IL-21.742
WIDTH-1200mm
DRAIN-11
GL-22.533
IL-22.243
WIDTH-530mm
DRAIN-12B
GL-22.413
IL-21.793
WIDTH-350mm
DRAIN-12A
GL-22.568
IL-20.768
WIDTH-1.2mt.
DRAIN-12
GL-22.743
IL-21.513
WIDTH-1.170mt.
8.19
5.09
28.93
12.6
2.50
11.32
17.04
9.12
8
9
10
11
12
13
14
2


IL-21.838
D7-IL-21.898
D8-IL-22.110
D9-IL-22.022
D10-IL-21.742
D11-IL-22.243
D12B-IL-21.793
D12A-IL-20.768
D12-IL-21.513
C5-IL-21.500
C6-IL-21.440
C7-IL-21.300
C8-IL-
25
24
23
22
21
20
19
2
DATUM-18

| | | |





DRAIN TOP LEVEL	22.713		22.868		23.043		22.787	22.659	22.884	23.109	22.968		22.687	22.687	22.715		22.772		22.505	22.372	22.215		21.902	22.167	22.162	22.157
GROUND LEVEL	22.413		22.568		22.743		22.487	22.359	22.584	22.809	22.668		22.387	22.387	22.415		22.472		22.205	22.072	21.915		21.602	21.867	21.862	21.857
MWL (M)	22.12		22.18 21.88		21.849		21.778	21.742	21.706	21.671	21.632		21.555	21.517	21.483		21.417		21.35	21.317	21.283		21.217	21.182	21.147	21.113
INVERT LVL (M)	21.05		21.01 20.71		20.619		20.548	20.512	20.476	20.441	20.402		20.325	20.287	20.253		20.187		20.12	20.087	20.053		19.987	19.952	19.917	19.883
CHAINAGE (M)	950		1000		1050		1100	1125	1150	1175	1200		1250	1275	1300		1350		1400	1425	1450		1500	1525	1550	1575
SIZE (M) CELLxWxD			1x2.0x2.0				1x2.5x2.0				1x2.5x2.5						1x2.75x2.0									
ROAD ACCESSIBILITY	NO ESSIBLE						NO ACCESSIBLE										NO ACCESSIBLE									

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LEGEND

1)	SUB DRAIN LINE	
2)	TERTIARY DRAIN LINE	

LEGEND

1)	INVERT LEVEL	
2)	MWL	
3)	GROUND LVL	
4)	DRAIN TOP LEVEL	
5)	TERTIARY DRAIN	D
6)	CULVERT	C

DETAILS OF LATERAL DRAIN

SUB DRAIN NO.	SIDE	CHAINAGE	Width	Height
DRAIN-13D	Left	1+126	0.90	0.30
DRAIN-13C	Right	1+176	0.80	1.53
DRAIN-13B	Left	1+178	0.90	1.40
DRAIN-13A	Right	1+192	0.40	1.24
DRAIN-13	Left	1+195	1.20	1.17
DRAIN-14B	Right	1+213	0.60	1.54
DRAIN-14A	Left	1+248	0.90	1.10
DRAIN-14	Right	1+260	0.65	0.54
DRAIN-15B	Left	1+275	0.90	1.48
DRAIN-15A	Left	1+325	0.90	1.62
DRAIN-15	Left	1+354	1.18	1.18
DRAIN-16G	Left	1+395	0.60	1.40
DRAIN-16F	Left	1+433	1.00	0.96
DRAIN-16E	Left	1+492	0.90	0.90
DRAIN-16D	Left	1+523	0.62	1.10
DRAIN-16C	Left	1+572	1.20	1.10

DETAILS OF ROAD

CHAINAGE	ROAD_WIDTH_M
1+075	6.55
1+100	6.05
1+125	
1+150	4.79
1+175	
1+200	5.29
1+225	
1+250	4.79
1+275	
1+300	4.71
1+325	
1+350	4.21
1+375	
1+400	7.42
1+425	
1+450	7.65
1+475	
1+500	6.46
1+525	

REVISIONS

CLIENT: WATCO

ECOMETRIX CONSULTANTS PVT LTD

PROJECT: Consultancy Services for Detailed Project Report for Construction of Sub-Drain-5R of MD-1 Cuttack city, Odisha (Starting from the back side of Trisha Hospital, Queens Mary High School, Rajabagicecha Colony, Badambadi, Dolamoundai Chowk, Barabati Road).

JOB No.

TITLE: L-SECTION FOR DRAIN SD-5R FROM CHN 1+000 TO CHN 1+500

SCALE: AS SHOWN

DRAWING No.

RELEASED FOR: ☐ PRELIMINARY ■ TENDER ☐ INFORMATION ☐ APPROVAL ☐ CONSTRUCTION

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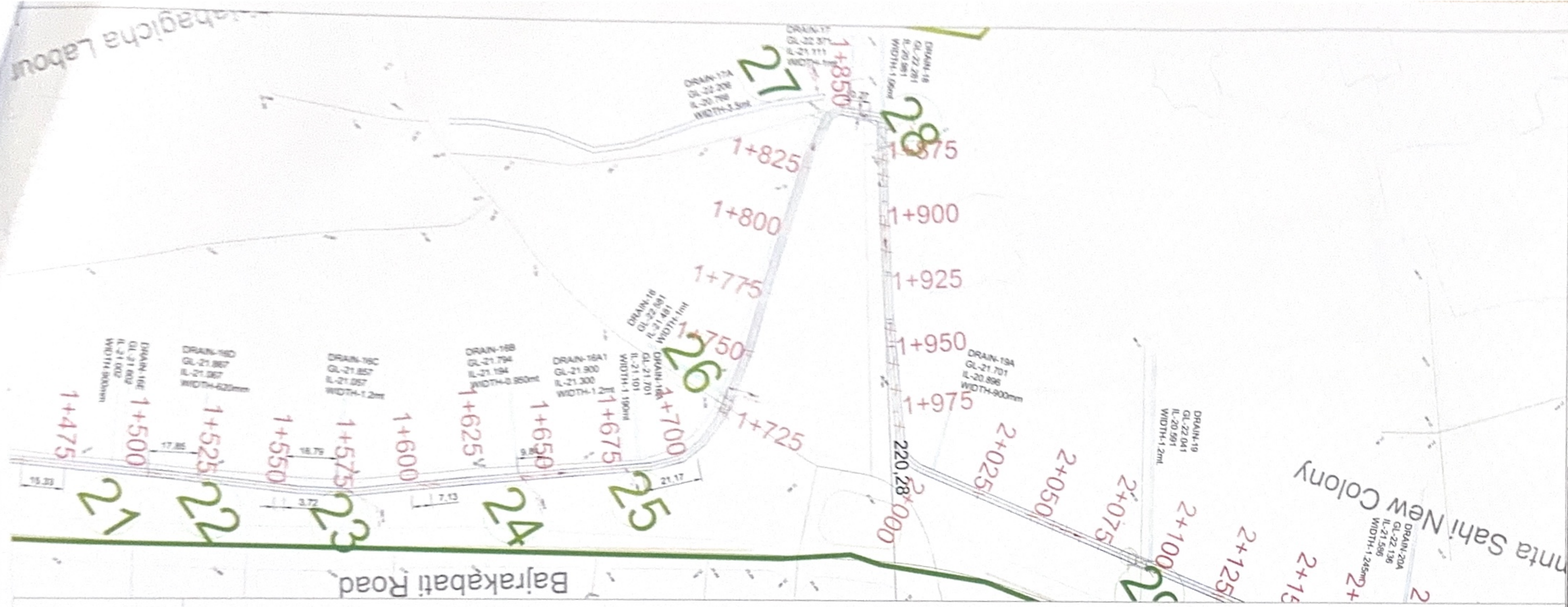
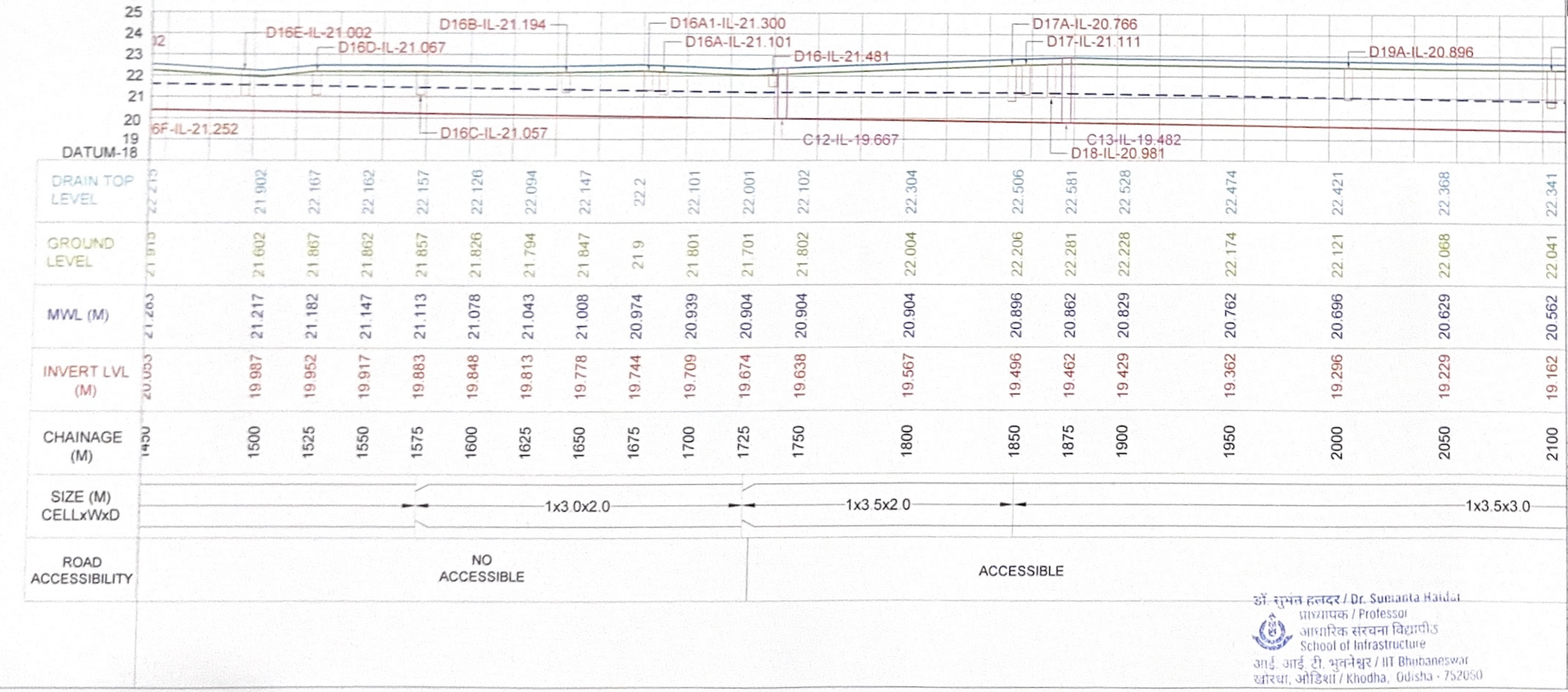
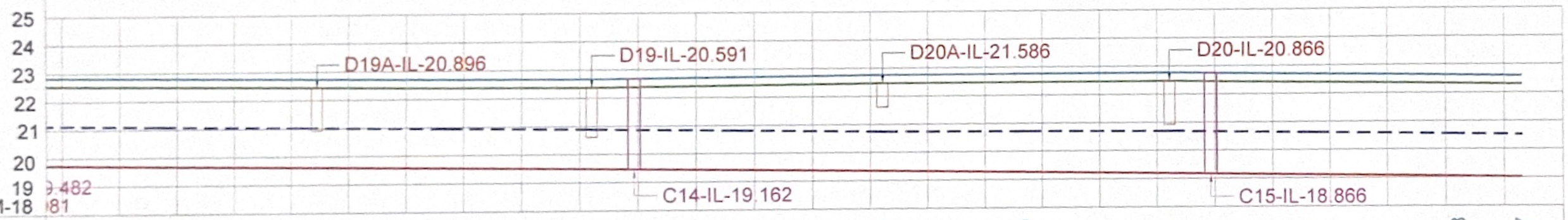

Balrakabati Road
DRAIN-16E GL-21.802 IL-21.002 WIDTH-900mm
DRAIN-16D GL-21.867 IL-21.067 WIDTH-625mm
DRAIN-16C GL-21.857 IL-21.057 WIDTH-1.2mt
DRAIN-16B GL-21.794 IL-21.194 WIDTH-0.950mt
DRAIN-16A1 GL-21.900 IL-21.300 WIDTH-1.2mt
DRAIN-16A GL-21.701 IL-21.101 WIDTH-1.190mt
DRAIN-16 GL-22.481 IL-21.481 WIDTH-1mt
DRAIN-17A GL-22.371 IL-21.111 WIDTH-1.5mt
DRAIN-17 GL-22.219 IL-20.766 WIDTH-3.5mt
DRAIN-18 GL-22.291 IL-20.981 WIDTH-1.5mt
DRAIN-19A GL-21.701 IL-20.896 WIDTH-900mm
DRAIN-19 GL-22.041 IL-20.991 WIDTH-1.2mt
DRAIN-20A GL-22.136 IL-21.596 WIDTH-1.245mt
1+475
1+500
1+525
1+550
1+575
1+600
1+625
1+650
1+675
1+700
1+725
1+750
1+775
1+800
1+825
1+850
1+875
1+900
1+925
1+950
1+975
2+000
2+025
2+050
2+075
2+100
2+125
220.28
17.85
16.79
9.82
21.17
15.33
3.72
7.13
Sahi New Colony


D16E-IL-21.002
D16D-IL-21.067
D16B-IL-21.194
D16A1-IL-21.300
D16A-IL-21.101
D16-IL-21.481
D17A-IL-20.766
D17-IL-21.111
D19A-IL-20.896
D16F-IL-21.252
D16C-IL-21.057
C12-IL-19.667
C13-IL-19.482
D18-IL-20.981
DATUM-18
DRAIN TOP LEVEL
GROUND LEVEL
MWL (M)
INVERT LVL (M)
CHAINAGE (M)
SIZE (M) CELLxWxD
ROAD ACCESSIBILITY
1x3.0x2.0
1x3.5x2.0
1x3.5x3.0
NO ACCESSIBLE
ACCESSIBLE

| | | |



DRAIN TOP LEVEL	22.474	22.421	22.368	22.341	22.389	22.436	22.439	22.441	22.37	22.298	22.267
GROUND LEVEL	22.174	22.121	22.068	22.041	22.089	22.136	22.139	22.141	22.07	21.998	21.967
MWL (M)	20.762	20.696	20.629	20.562	20.491	20.419	20.392	20.366	20.294	20.223	20.191
INVERT LVL (M)	19.362	19.296	19.229	19.162	19.091	19.019	18.942	18.866	18.794	18.723	18.691
CHAINAGE (M)	1950	2000	2050	2100	2150	2200	2250	2300	2350	2400	2422
SIZE (M) CELLxWxD	1x3.5x3.0								1x3.5x3.5		
ROAD ACCESSIBILITY	ACCESSIBLE								NO ACCESSIBLE		

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LEGEND

1)	SUB DRAIN LINE	
2)	TERTIARY DRAIN LINE	

LEGEND

1)	INVERT LEVEL	
2)	MWL	
3)	GROUND LVL	
4)	DRAIN TOP LEVEL	
5)	TERTIARY DRAIN	D
6)	CULVERT	C

DETAILS OF LATERAL DRAIN

SUB DRAIN NO.	SIDE	CHAINAGE	Width	Height
DRAIN-20A	Left	2+197	1.24	0.85
DRAIN-20	Left	2+303	1.00	1.58

DETAILS OF ROAD

CHAINAGE	ROAD_WIDTH_M
2+025	7.66
2+050	6.58
2+075	
2+100	6.64
2+125	
2+150	8.55
2+175	
2+200	6.18
2+225	
2+250	7.49
2+275	
2+300	9.46
2+325	
2+350	8.14
2+375	
2+400	8.74
2+420	

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REV NO	DESCRIPTION	DATE	DESIGNED	DRAWN	CHECKED	APPROVED

REVISIONS

CLIENT: WATCO

ECOMETRIX CONSULTANTS PVT LTD

PROJECT: Consultancy Services for Detailed Project Report for Construction of Sub-Drain-SR of MD-1 Cuttack city, Odisha (Starting from the back side of Trisha, Hospital, Queens Mary High School, Raja Bageecha Colony, Badambadi, Dolamoundai Chowk, Bayrakbati Road).

JOB No.:

	NAME	SIGN.	DATE
DSGN			04-04-2026
DRWN			04-04-2026
CHKD			04-04-2026
APPD			

TITLE: L-SECTION FOR DRAIN SD-SR FROM CHN 2+000 TO CHN 2+422

SCALE: AS SHOWN

PROJECTION

DRAWING No.:

SIZE: A3 REV: 00

RELEASED FOR: ☐ PRELIMINARY ■ TENDER ☐ INFORMATION ☐ APPROVAL ☐ CONSTRUCTION