

5.2 Drawing Set

- J. Context plan and site sections
- K. Masterplan and site sections
- L. Storm water drainage plan
- M. Storm water drainage sections
- N. Material and furniture plan
- O. Hardscape and furniture sections
- P. Plantation plan
- Q. Plantation sections
- R. Eco-STP drawing

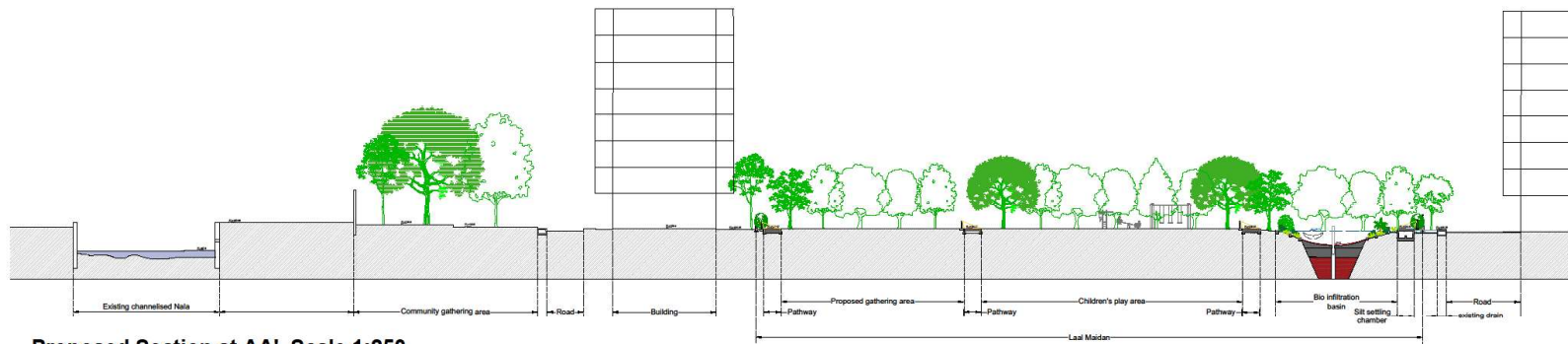
Refer to folder 5 for the A1 drawing set

Plant palette presentation:

https://drive.google.com/file/d/115CG1RwdXvAlgpRzsvxZA7_swzPtATRD/view



Proposed Landscape Master Plan with context of Nala Scale 1:250



Proposed Section at AA' Scale 1:250

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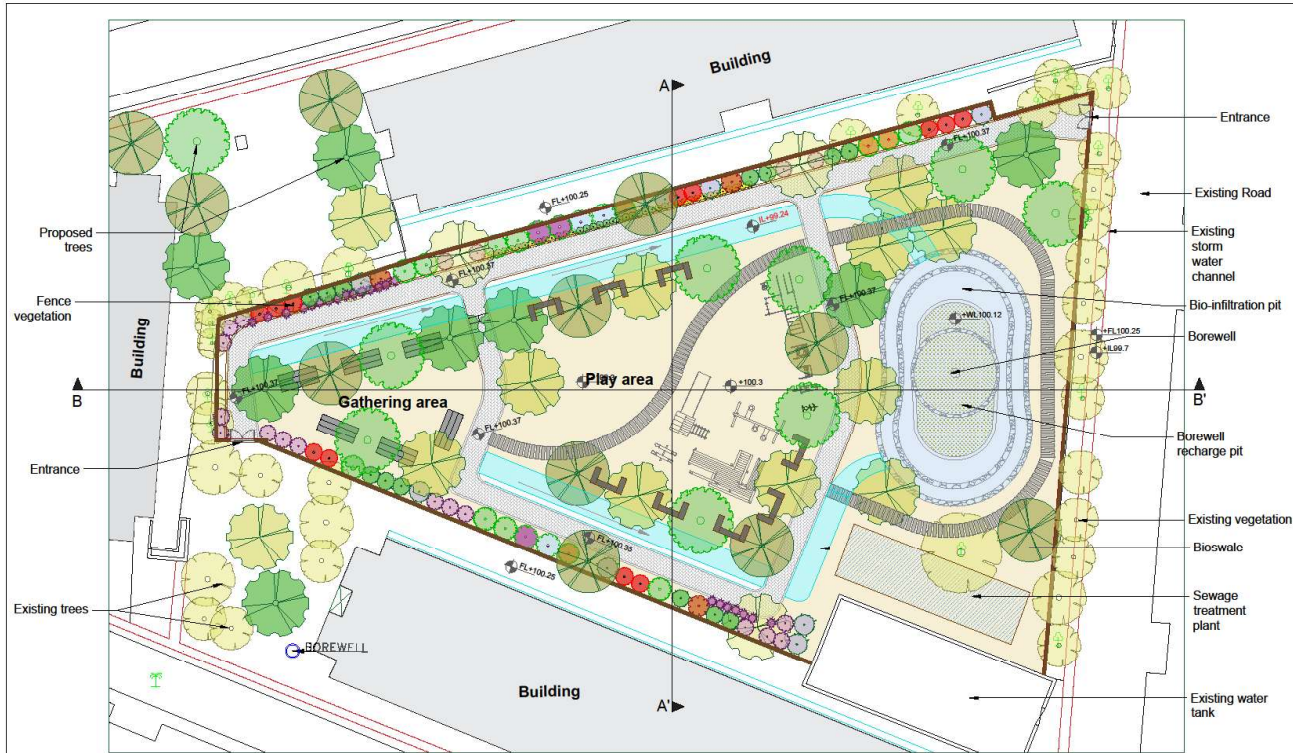
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CONTEXT PLAN AND SITE SECTIONS

SITE AREA : 2500 SQ MT
SCALE :As mentioned below drawings
DRG NO: CT-01
DATE :02-12-2023
DEALT BY: Ar. Anuradha
PROJECT: Landscape planning proposal for Lal maidan at Lalubhai compound
CLIENT: WRI, India



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Proposed Landscape Master Plan Scale 1:200

LEGEND		
No	SYMBOL	DESCRIPTION
		Main pathway
		Secondary pathway
		Fence
		C type seating
		Double side seating
		STP
		Bioswale
		Bio infiltration basin / Rain garden
		Borewell recharge pit
		Borewell
		Bunds in bio infiltration basin
		Existing trees
		Existing sewer drain

Notes :
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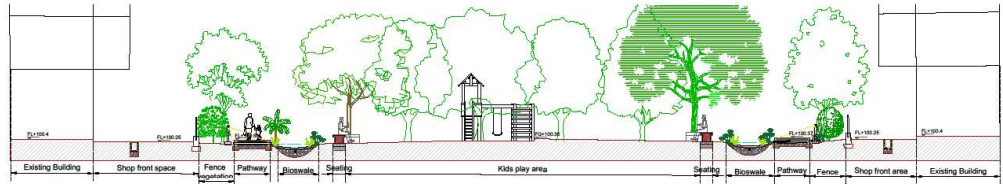
MASTER PLAN AND SITE SECTIONS

SITE AREA : 2500 SQ MT
 SCALE : As mentioned below drawing
 DRG NO: MA-01
 DATE : 02-12-2023
 DEALT BY :
 Ar. Anuradha

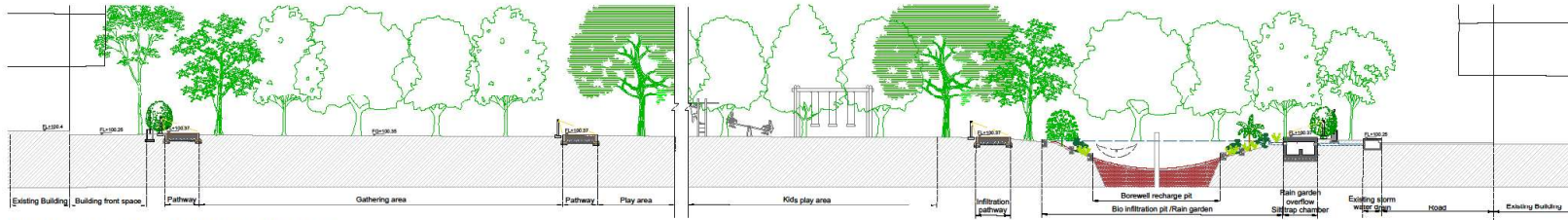
CLIENT:
 WRJ, India



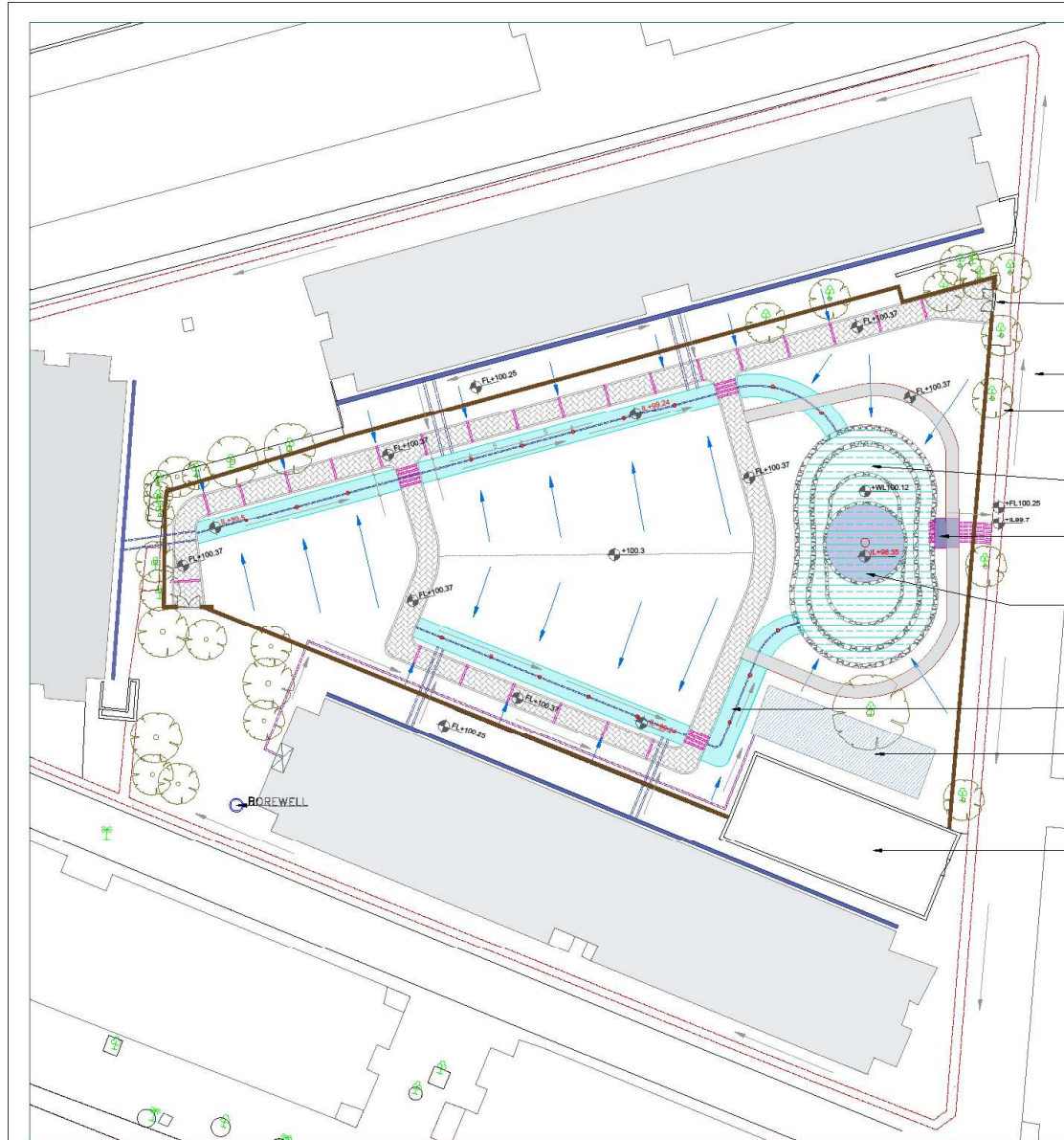
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Proposed Section at AA' Scale 1:125



Proposed Section at BB' Scale 1:125



LEGEND		
No	SYMBOL	DESCRIPTION
		Bioswale
		Bioswale overflow pipe
		Bioswale overflow vertical pipe at 5m c/c
		Bio infiltration basin
		Borewell recharge pit
		Borewell
		Bunds at slope of rain garden
		Roof top storm water collecting channel
		Proposed drain pipe from collection drain pipe to bioswale
		Proposed cross drain pipes below pathway
		Existing sewer drain
		Proposed grey water inlet for STP
		Sewage/grey water treatment plant
		Chamber connecting overflow of Bioinfiltration pit to existing storm water drain
		Surface Run - off
		Drain channel water flow
	IL	Invert levels
	WL	Maximum Water level
	FL	Finished level

DRAWING NOTES :
BOREWELL ,BOREWELL RECHARGE PIT AND BIO-INFILTRATION BASIN :

- Storm water from rooftop of adjacent 3 buildings and surface water of maidan is directed to Bio-infiltration pit through bioswales.
- Mentioned location of borewell recharge has been decided based upon the hydrogeological survey done by Universal geotechnica, where there is a mention of present underground aquifer at the given location. (as mentioned in the report in North- south 100 meter scan at scan number 7).
- Before construction of this system it is important to reconfirm the location of borewell also feasibility of Borewell recharge system through required tests. As during pit tests done by WRI It was observed that water saturation at 0.9 m to 1.2m during the dry spell of monsoon of august month hence there is a possibility of presence of water saturation during other months too due to presence of creek channels adjacent to site which can create issues in proposed borewell system.
- Mentioned borewell recharge system and its details is as per the suggestion from water expert Astwin Paranjape. Few dimensions of recharges system is modified to fit the design.

BIOSWALE : Both the bioswales on site flow and drain water towards bio-infiltration basin. The dimensions and slope of bioswale is as per the guidelines given by water expert.

WATER LEVEL AND INVERT LEVELS :

- Invert levels of existing storm water drain and proposed storm water channels have been calculated based on total station survey and depth of gutter is considered as per BMC SWD drawings.
- Maximum Water level is decided based on the invert level of existing storm water drain channel on east side of maidan.

GREY WATER / SEWAGE TREATMENT PLANT : The location of grey water inlet pipe mentioned is indicative it should be decided based on nearby distance of duct or grey water source and as per ease of construction.

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STORM WATER DRAINAGE PLAN

SITE AREA : 2500 SQ MT
 SCALE : As mentioned below drawings
 DRG NO: DR-01
 DATE : 02-12-2023
 DEALT BY :
 Ar. Anuradha

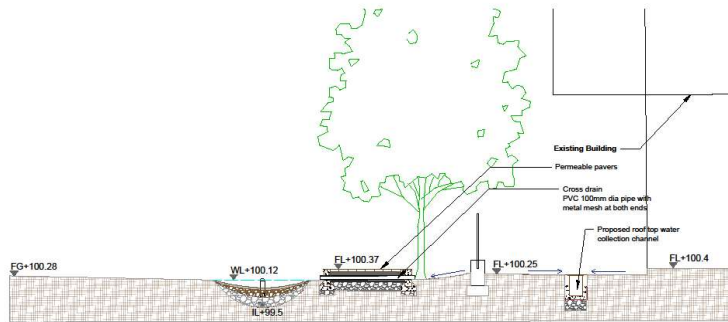
PROJECT:
 Landscape design proposal for Laal maidan at Lalubhai compound

CLIENT:
 WRJ, India

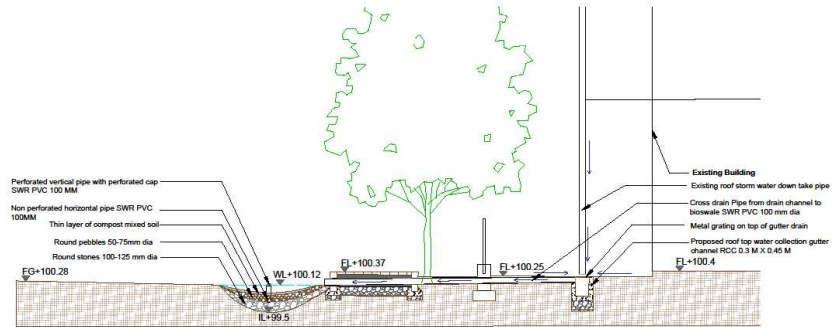

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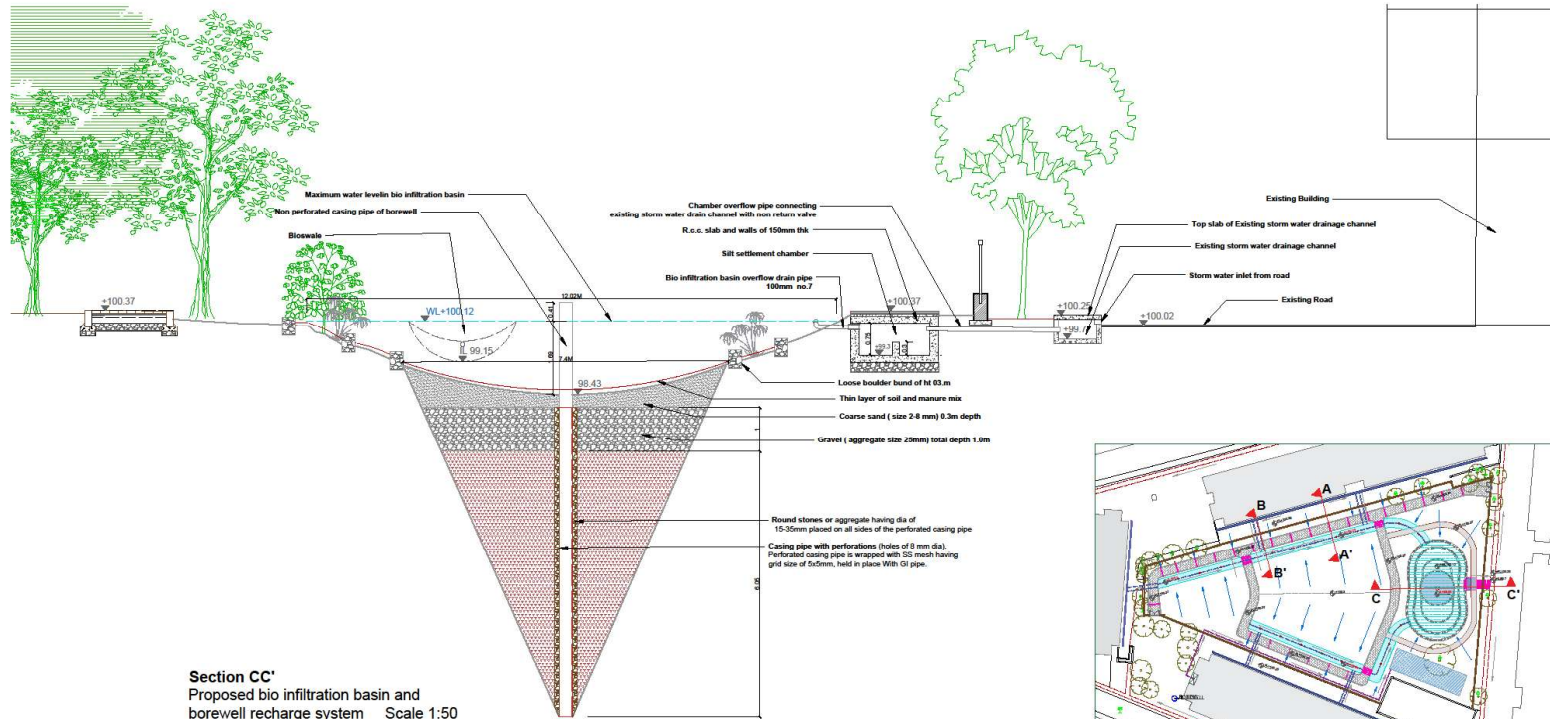
Proposed storm water drainage and Grey water treatment Plan Scale 1:200



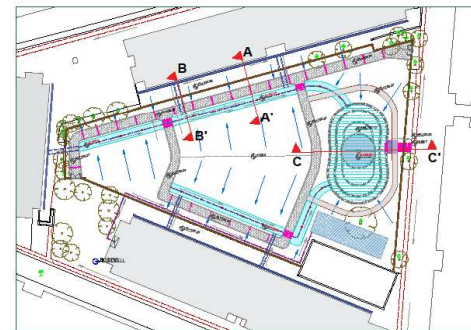
Section AA' showing bioswale and cross drain pipe detail scale 1:50



Section BB' showing bioswale and cross drain pipe detail scale 1:50



Section CC' Proposed bio infiltration basin and borewell recharge system Scale 1:50



Key Plan

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STORM WATER DRAINAGE SECTIONS

SITE AREA : 2500 SQ MT

SCALE : As mentioned below drawings

DRG NO: DR-02

DATE : 02-12-23

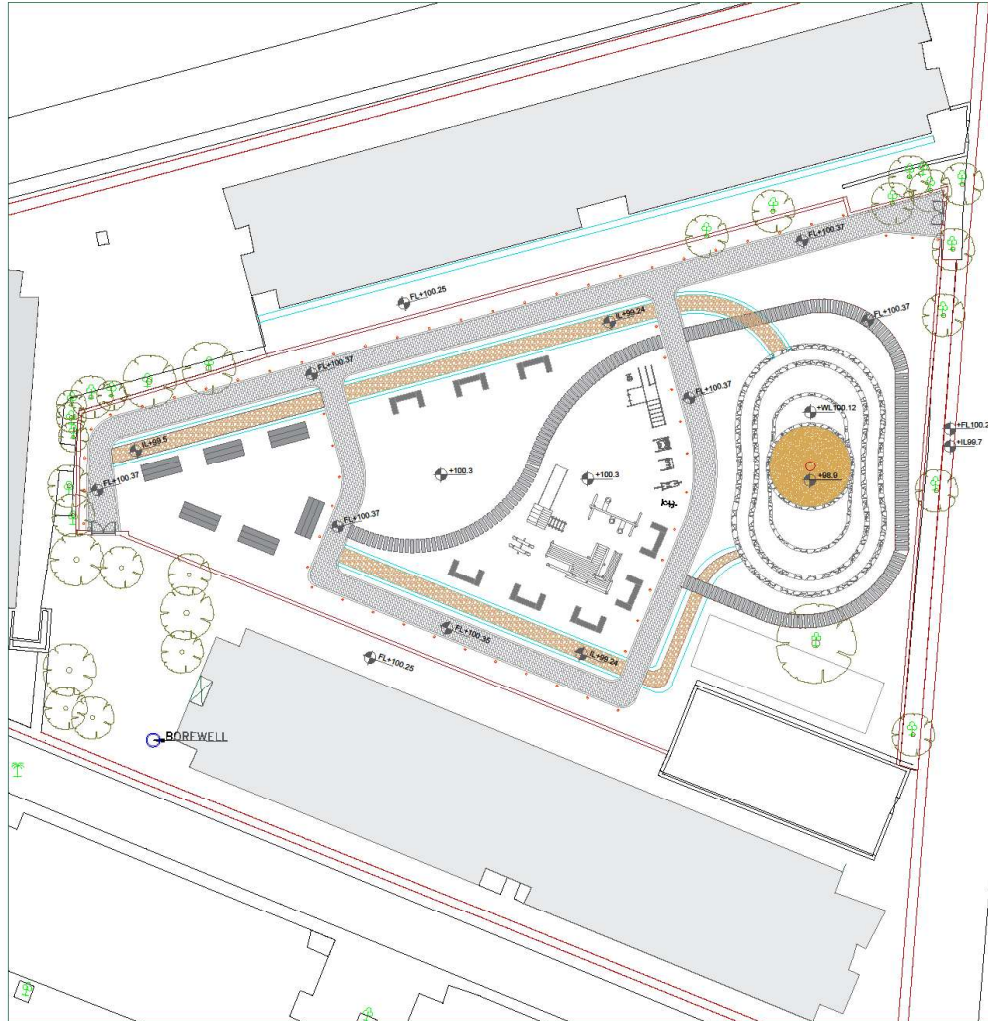
DEALT BY:
Ar. Anuradha

PROJECT:
Landscape design proposal for Lalulbhai compound at Lalulbhai compound

CLIENT:
WRJ, India



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Proposed Furniture and Material Plan Scale 1:200

LEGEND				
No	DESCRIPTION	MATERIAL	MATERIAL DESCRIPTION	QUANTITY
1	Main pathway		Interlocking Paver blocks with 60 mm thickness	340 Sq.M.
2	Secondary pathway		Rough polished shahabad stone 300 x 1200x 30 mm	125 Sqm
3	Kerb stone		Concrete kerb 300x150x450MM	350 M
4	C TYPE seating		Polished kadappah 25 mm thk Top	40 Sq M
5	2 way stepped seating		Polished kadappah 25 mm thk Top	40 Sqm
6	Bollard pathway lights		180 degree one side throw warm yellow low intensity light ht 3'	60
7	Chain link Fence		M.S. chain link	240 M
8	M.S Gate		2.5M x 2M	2
9	Bio infiltration basin bund walls		Random rubble dry stack masonry of ht 0.45m width 0.3 m	200 M
10	Bioswale pebbles 1		1.Round stones 100 mm - 150mm thk 2.Round pebbles 50mm 75 mm thk	1.40 Cum 2.20 Cum
11	Borewell recharge pit material		Filling Material for borewell recharge pit refer to sections	
12	Kids Slide		As per availability	1
13	Chain swing		As per availability	1
14	Kids see - saw double		As per availability	1
15	Kids jungle gym		As per availability	1
16	Street Workout		As per availability	1
17	Cross trainer		As per availability	1
18	Air Walker		As per availability	1
19	Leg press		As per availability	1
20	Leg Twister		As per availability	1
21	Exercise cycle		As per availability	1

DRAWING NOTES :

DE-CONCRETISING : Existing 1300 Sqm of concrete covered area of 150 mm depth to be completely demolished and this concrete to be used for soling purpose as a base of proposed pathways.

PATHWAY :

- 410 Sqm of existing pathway to be completely demolished and the base material to be reused as a base of proposed pathways.
- Interlocking pavers of this pathway if in good condition can be reused as a surface material for proposed pathways.
- 300 Sqm of pathway is proposed on current pathway so if possible and if base is good, same base can be used for proposed pathway.
- The width of the proposed pathway is 1.7M internal and 2M with kerb. This width is proposed for easy accessibility for Wheelchair, cycle and two way movement.

LIGHTING :

- Proposed garden lights are selected by keeping low impact on fauna. Hence 900MM height 180 degree throw light which will just illuminate the pathways and wont put any light on backsides i.e. on plants.
- Also selected light will be in hues of warm yellow, warm white with as low intensity as possible to maintain visibility but not impact faunal activity. Solar powered low intensity lights work best.

PLAY EQUIPMENTS :

- Proposed play equipments can be made and experimented with waste material available around the vicinity.
- The decision will be depending upon the communities response towards this idea of experimentation.
- Current proposed Play equipments are indicative and can be modified as per communities requirements.

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MATERIAL AND FURNITURE PLAN

SITE AREA : 2500 SQ MT

SCALE : As mentioned below drawings

DRG NO: MF-01

DATE : 02-12-23

DEALT BY:

Ar. Anuradha

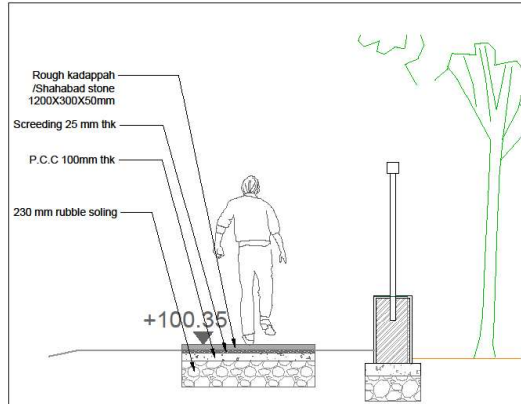


PROJECT:
Landscape design proposal for Laxi mandari at lalubhai compound

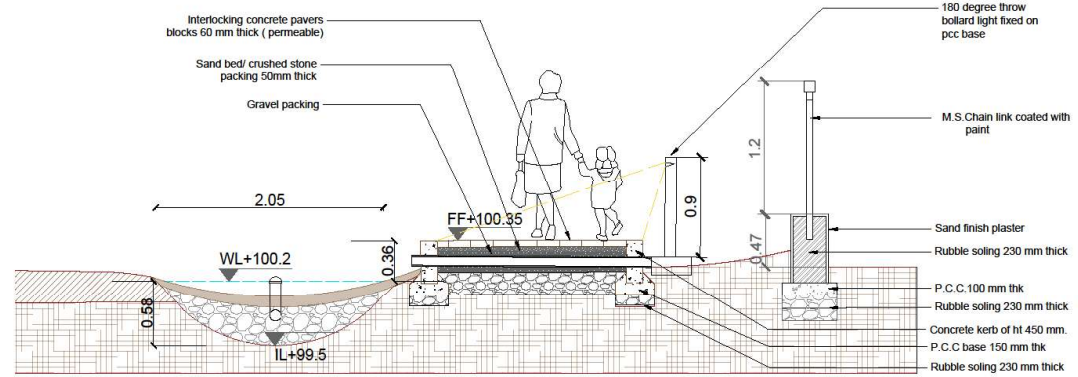
CLIENT:
WRJ, India



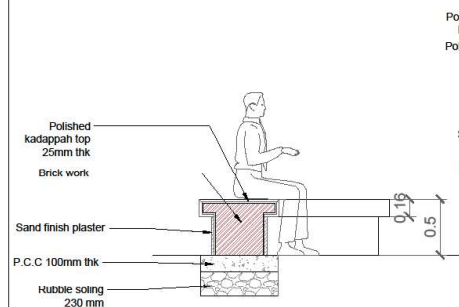
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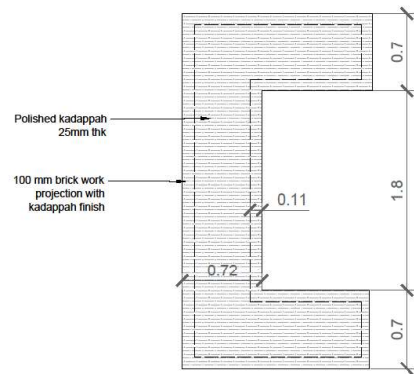
Section AA' detail section of stepping stone pathway scale 1:50



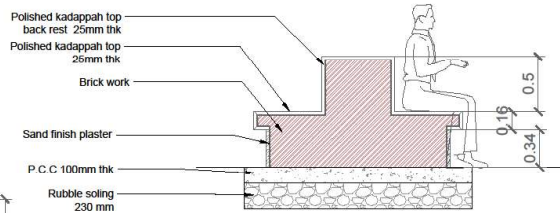
Section BB' showing Pathway and Fence detail scale 1:50



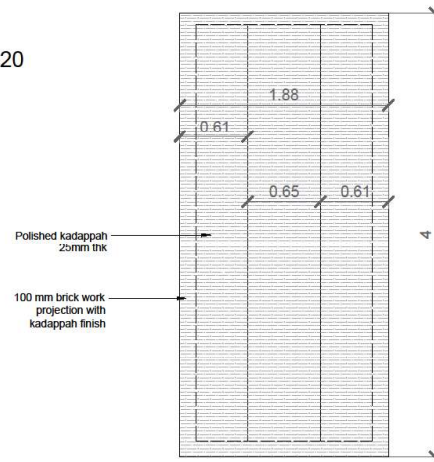
Detail Section of 'C' Type seating Scale 1:20



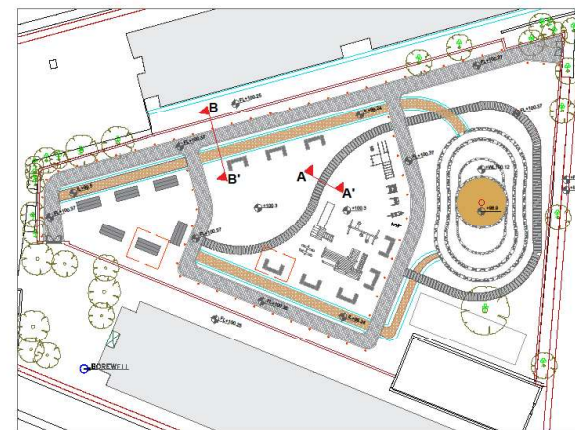
Detail plan of 'C' Type seating scale 1:20



Detail Section double side seating scale 1:20



Detail Plan of double side seating scale 1:20



Key Plan

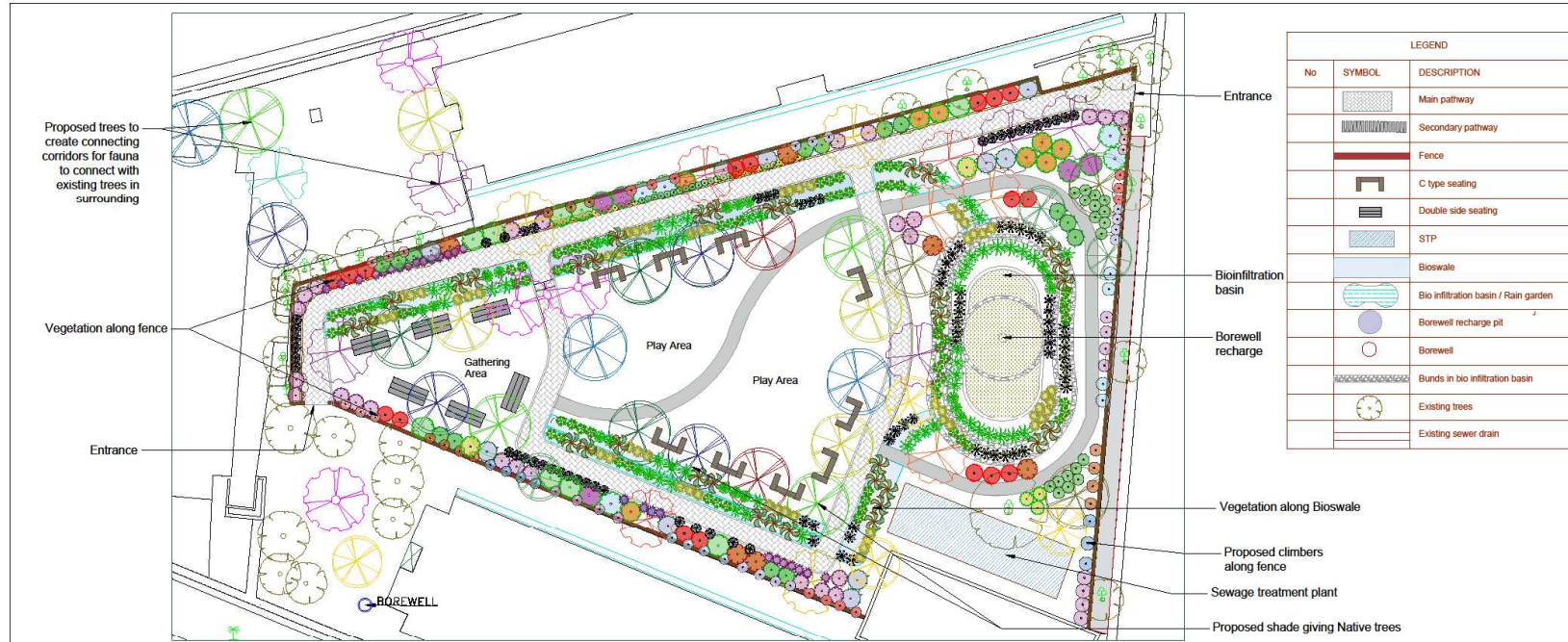
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HARDSCAPE AND FURNITURE SECTIONS

SITE AREA : 2500 SQ MT
 SCALE : As mentioned below drawings
 DRG NO. MF-02
 DATE : 02-12-23
 DEALT BY :
 Ar. Anuradha
 PROJECT :
 Landscape design proposal for Lal maidan at Lalubhai compound
 CLIENT :
 WRJ, India



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Proposed Plantation Plan Scale 1:200

PLANTS ALONG THE FENCE				
No	SYMBOL	SCIENTIFIC NAME	COMMON NAME	HABIT
1		<i>Justicia adhatoda</i>	Adulasa	Shrub
2		<i>Murraya paniculata</i>	Kuntli	Shrub
3		<i>Helicteres isora</i>	Murudsheng	Shrub
4		<i>Clerodendrum serratum</i>	Bharangi	Shrub
5		<i>Calotropis procera</i>	Ruil	Shrub
6		<i>Vitex negundo</i>	Nirgudi	Shrub
7		<i>Woodfordia fruticosa</i>	Dhayati	Shrub
8		<i>Ziziphus rugosa</i>	Toran	Shrub
9		<i>Nerium oleander</i>	Kaner	Shrub
10		<i>Hibiscus rosa-sinensis</i>	Jaswand	Shrub
11		<i>Plumbago zeylanica</i>	Chitrak	Shrub
12		<i>Stochytarpheta indica</i>	Srukshewari	Shrub
13		<i>Hymenocallis littoris</i>	Spider lily	Shrub
14		<i>Crotalaria retusa</i>	Dingala	Shrub
15		<i>Holarthema pubescens</i>	Kuda	Shrub

ALONG THE FENCE				
No	SYMBOL	SCIENTIFIC NAME	COMMON NAME	HABIT
1		<i>Lantana camara</i>	Dwarf lantana yellow	Shrub
2		<i>Tagetes erecta</i>	Zendu	Shrub
3		<i>Ocimum tenuiflorum</i>	Tulasi	Shrub
4		<i>Tabernaemontana divaricata</i>	Tagar	Shrub
5		<i>Combretum indicum</i>	Madhumalati	Climber
6		<i>Abrus precatorius</i>	Gunj	Climber
7		<i>Clematis heynei</i>	Ranaji	Climber
8		<i>Clitorea tematea</i>	Gokarna	Climber
9		<i>Jasminum officinale</i>	Jai	Climber
10		<i>Jasminum auriculatum</i>	Juli	Climber
11		<i>Passiflora incarnata</i>	Krishnakamal	Climber

Trees				
No	SYMBOL	SCIENTIFIC NAME	COMMON NAME	HABIT
1		<i>Lagerstroemia speciosa</i>	Tamhan	Trees
2		<i>Bauhinia purpurea</i>	Kanchan	Trees
3		<i>Saraca asoca</i>	Seeta Ashok	Trees
4		<i>Magnolia champaca</i>	Sonchafa	Trees
5		<i>Cassia testua</i>	Hahava	Trees
6		<i>Nyctanthes arbor-tristis</i>	Panjatak	Trees
7		<i>Pongamia pinnata</i>	Karanj	Trees
8		<i>Putranjiva roxburghii</i>	Putranjiva	Trees
9		<i>Aphanamixis polystachya</i>	Rohitak	Trees
10		<i>Bauhinia racemosa</i>	Aapla	Trees
11		<i>Aegle marmelos</i>	Bel	Trees
12		<i>Pteropermum acentifolium</i>	Muchkunda	Trees
13		<i>Mesua ferrea</i>	Nagchapha	Trees
14		<i>Neolamarckia cadamba</i>	Kadamb	Trees
15		<i>Citrus limon</i>	Lemon	Trees
16		<i>Murraya koenigii</i>	Kadipatta	Trees

BIOSWALE AND RAIN GARDEN				
No	SYMBOL	SCIENTIFIC NAME	COMMON NAME	HABIT
1		<i>Chyrsopogon zizanioides</i>	Wala	Grass
2		<i>Phragmites karka</i>	Boru	Grass
3		<i>Thysanolaena latifolia</i>	Broome grass	Grass
4		<i>Canna indica</i>	Kardal	Herb
5		<i>Cymbopogon citratus</i>	Lemon grass	Grass
6		<i>Colocasia</i>	Alu	Herb
7		<i>Musa paradisiaca</i>	Banana	Tree
8		<i>Cymbopogon nardus</i>	Citronela	Grass
9		<i>Hygrophila auriculata</i>	Talimkhana	Herb
10		<i>Hedychium coronarium</i>	Sontakka	Herb
11		<i>Cynodon dactylon</i>	Durva	Grass
12		<i>Cyperus spp</i>	Umbrella palm	Grass

SEWAGE TREATMENT PLANT				
No	SYMBOL	SCIENTIFIC NAME	COMMON NAME	HABIT
13		<i>Canna indica</i>	Kardal	Herb
14		<i>Cyperus spp</i>	Umbrella palm	Grass
13		<i>Colocasia</i>	AAlu	Herb
14		<i>Phragmites karka</i>	Boru	Grass

LEGEND		
No	SYMBOL	DESCRIPTION
		Main pathway
		Secondary pathway
		Fence
		C type seating
		Double side seating
		STP
		Bioswale
		Bio infiltration basin / Rain garden
		Borewell recharge pit
		Borewell
		Bunds in bio infiltration basin
		Existing trees
		Existing sewer drain

Notes :
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PLANTATION PLAN

SITE AREA : 2500 SQ MT

SCALE : As mentioned below drawings

DRG NO: PL- 01

DATE : 25-10-23

DEALT BY:

Ar. Anuradha

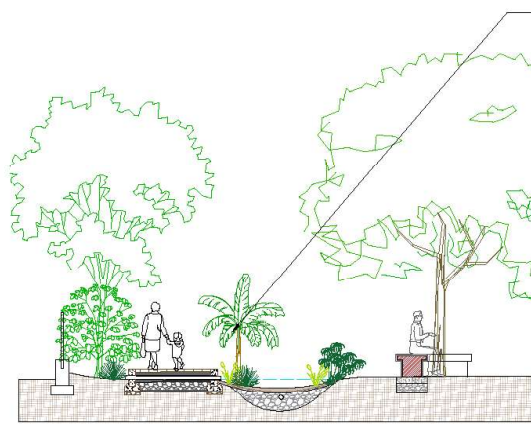


PROJECT:
Landscape design proposal for Laxi maidan at Lalubhai compound

CLIENT:
WRI, Mumbai



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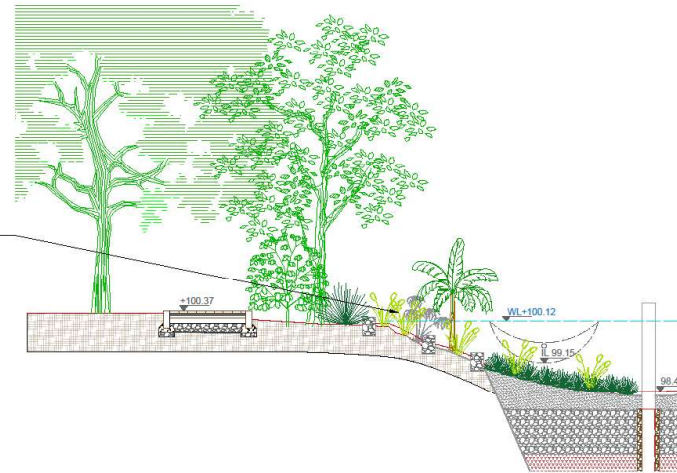


BIOSWALE VEGETATION

1. Proposed plants in bioswale are native and suitable for wet condition.
2. These plants help in **infiltration of water** in the ground adding to **ground water recharge**.
3. Bioswale vegetation acts as a **filtration medium** and **reduces pollutants** from surface water
4. Bioswale native vegetation creates habitat for wildlife.

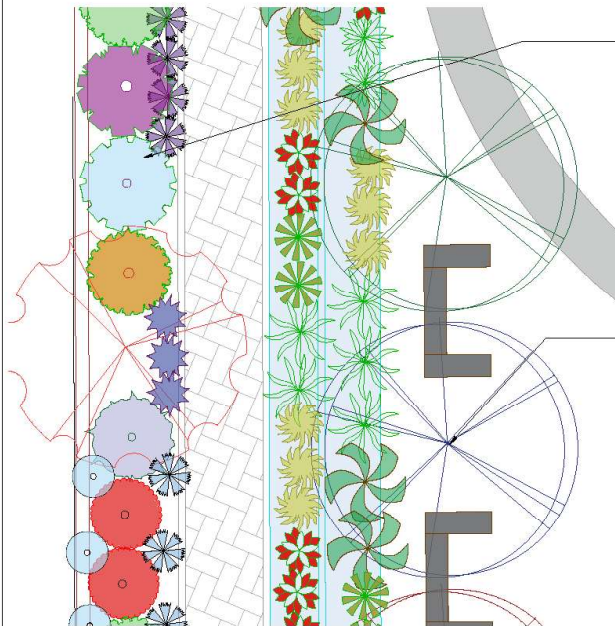
BIO INFILTRATION BASIN VEGETATION

1. Proposed plants in bio infiltration basin are native and suitable to grow in wet and dry condition.
2. These plants help in filtering pollutants.
3. The root system of the plants selected continuously loosens the soil and creates macropores which maintain the long term infiltration capacity.



Section showing vegetation at fence, and bioswale Scale 1:50

Section showing vegetation at bio-infiltration basin Scale 1:50



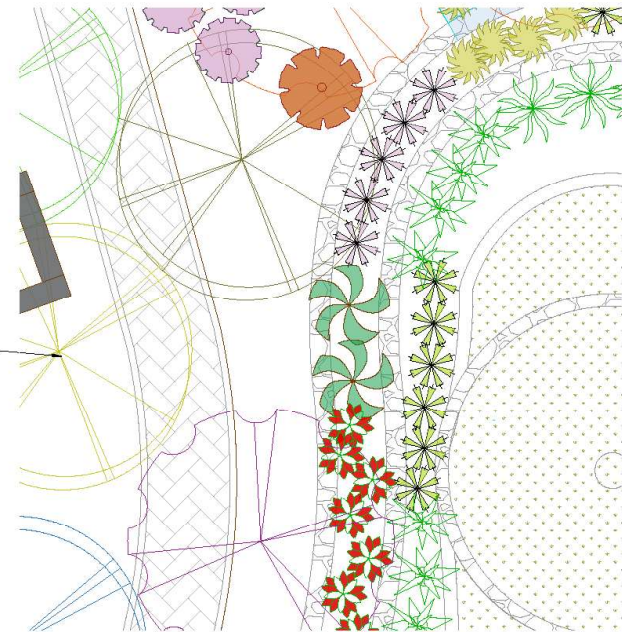
FENCE VEGETATION

1. As per discussion with locals fence will be proposed to create a physical barrier and safety.
2. To maintain the visual connection wire mesh fence is proposed which supports climber and creeper like vegetation also allows movement of smaller fauna such as birds, reptiles etc.
3. Clusters of shrubs, herbs and grasses up to height of human eyelevel are proposed at the edge of fence.
4. These dense edges will be habitat for smaller birds and butterflies also it will allow safe movement of fauna throughout maidan.

Proposed native Trees

1. Trees on site has been proposed to reduce the heat gain and create shade to allow human activities in maidan throughout day.
2. For creating shade most of the trees has been planned along pathway, near seating, gathering and play areas.
3. Trees proposed are mostly evergreen and some are moist deciduous to maintain the diversity.
4. Native trees with seasonal flowering and fruiting are proposed to create food and nesting habitat for fauna.
5. Trees having Religious and festival importance are used.

Plan showing vegetation at fence, and bioswale Scale 1:50



Plan showing vegetation of bio infiltration basin Scale 1:50

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PLANTATION DETAILS

SITE AREA : 2500 SQ MT

SCALE : As mentioned below drawings

DRG NO: PL- 02

DATE : 02-12-23

DEALT BY :
Ar. Anuradha

PROJECT:
Landscape design proposal for Lal maidan at Lalubhai compound

CLIENT:
WRI, India



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FOR ECOLOGICAL SERVICES

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ECO-STP- For a high resolution version of the drawing please see folder 5

