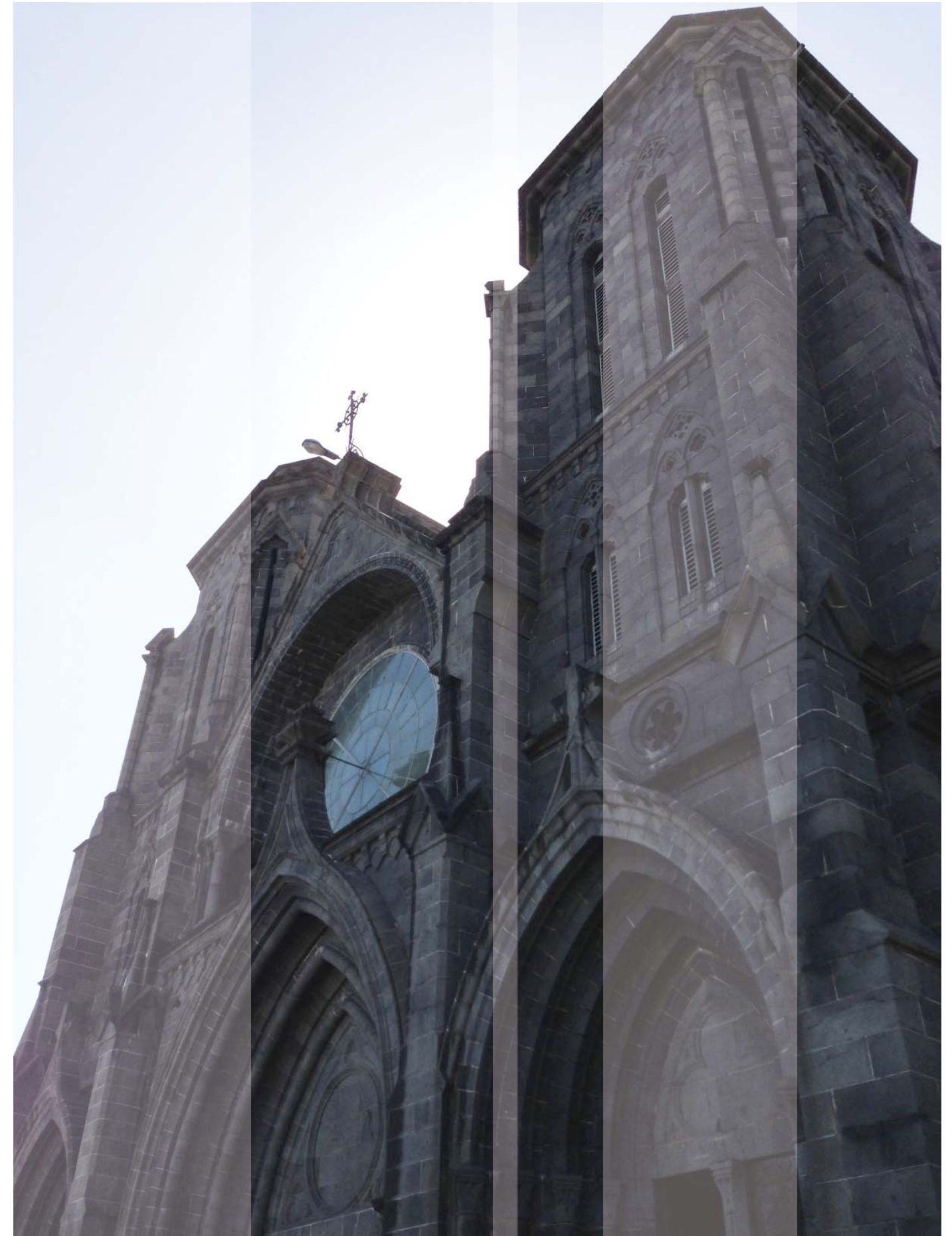


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TEAM LEADER: Ashween Ramhotar  
MEMBERS: Arkam Gunness; Avish Mungur

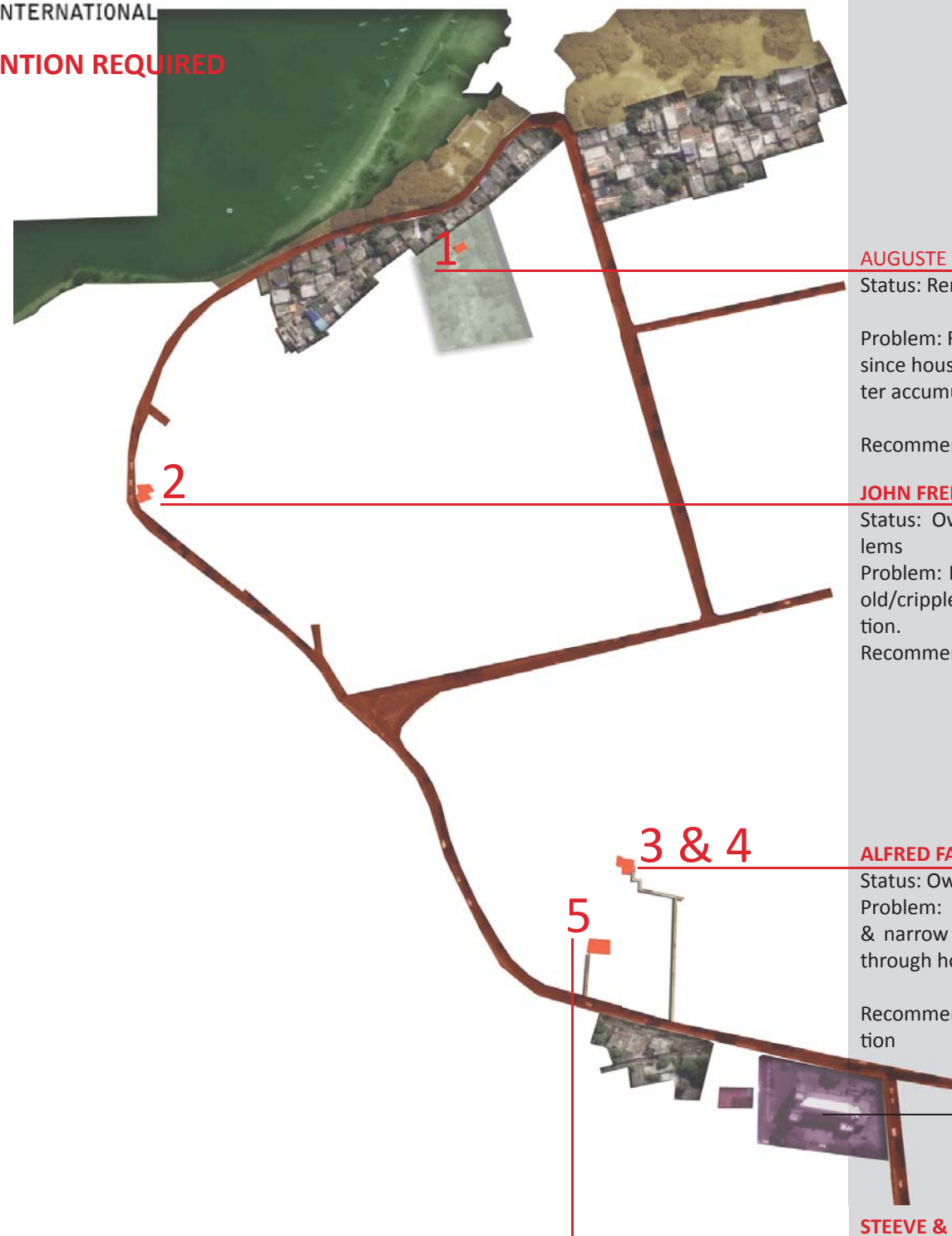


**URGENT ATTENTION REQUIRED**

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CLUSTER: No 3 / CASSIS / 26.04.13 / REPORT 03  
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**AUGUSTE**

Status: Renting

Problem: Requires immediate attention since house is in very bad state and water accumulates on site all the time.

Recommendation: **URGENT RELOCTION**

**JOHN FREDERIQUE**

Status: Owner with inheritance problems

Problem: House in very bad state. One old/crippled person staying. No sanitation.

Recommendation: **URGENT RELOCTION**

**ALFRED FAMILY**

Status: Owner

Problem: House at the end of a long & narrow 'cul de sac'. Rainwater goes through house when there is rainfall.

Recommendation: Find drainage solution

**STEEVE & PATRICK GENAVE**

Status: Renting

Problem: House at the end of a narrow 'cul de sac'. Rainwater accumulates when there is rainfall. House in very poor condition with lack of sanitation. Dangerous for children.

Recommendation: **URGENT RELOCTION**

Cassis Church

**MAURITIUS - FLASH FLOODS - MARCH 2013**  
**EMERGENCY RECONSTRUCTION/ACTION PLAN**  
 SITES & BUILDINGS SURVEY / Ref FF-003

**PHOTO REPORT**



CLUSTER: No 3 / CASSIS / 26.04.13 / REPORT 03  
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**FACT SHEET**

**1 AUGUSTE FAMILY**

HUSBAND - Gerard AUGUSTE  
AGE - 41 yrs  
OCCUPATION - Fabricant de casier  
SALARY - around Rs 5,500 per month

WIFE - Natacha AUGUSTE  
AGE - 31 yrs  
OCCUPATION - maid  
SALARY - around Rs 5,000 per month

- Total monthly income - around Rs 10,500
- 2 DEPENDENT CHILDREN

DAUGHTER - Tessa AUGUSTE  
AGE - 14 yrs  
SCHOOL - Form 4,sss Tour Koenig  
SON - Jerzy AUGUSTE  
AGE - 5 yrs  
SCHOOL - Pre primary

- Renting House

ABILITY TO PAY RENT - yes

**2 FREDERIQUE FAMILY**

HUSBAND - John FREDERIC  
AGE - 85 yrs  
OCCUPATION - Retired  
DISABILITY - yes

WIFE - Francoise FREDERIC  
AGE - 80 yrs  
OCCUPATION - Retired  
DISABILITY - medical problem

- Total monthly income - to be confirmed

DAUGHTER - Joyce FREDERIC  
AGE - 48 yrs  
OCCUPATION - to be confirmed

SON - Paul FREDERIC  
AGE - 50 yrs  
OCCUPATION - Scavenger  
SALARY - to be confirmed

NEPHEW - Eric LINDOR  
AGE - 36 yrs  
OCCUPATION - Tolier  
SALARY - to be confirmed

- Owner with inheritance problems

ABILITY TO PAY RENT - yes

**3 GENAVE FAMILY**

**HUSBAND - Steve GENAVE**  
AGE - 45 yrs  
OCCUPATION - fisherman  
SALARY - around Rs 7000 per month

**WIFE - Jamie GENAVE**  
AGE - 26 yrs  
OCCUPATION - Housewife  
SALARY - none

- Total monthly income - to be confirmed

**SON - Ashley ESPLACATOU**  
AGE - 20 yrs  
OCCUPATION - unemployed

**SON - Ludovic GENAVE**  
AGE - 18 yrs  
OCCUPATION - Macon  
SALARY - to be confirmed

**SON - Steven JAUNE**  
AGE - 17 yrs  
OCCUPATION - Unemployed

- 3 DEPENDENT CHILDREN

**DAUGHTER - Mary Jane GENAVE**  
AGE - 17 yrs  
SCHOOL - Medco Cassis (prevoc)  
**DAUGHTER - Naomi GENAVE**  
AGE - 12 yrs  
SCHOOL - Medco Cassis form 1 (prevoc)

**SON - Rick GENAVE**  
AGE - 10 yrs  
SCHOOL - std 6 at Cite Vallejee primary school

ABILITY TO PAY RENT - to be confirmed

The two GENAVE families, a total of 18 persons, are currently staying in one small house in very bad condition. The site is situated at the end of a sloping down alley where water accumulates during rainfall. Very bad sanitary condition and small children are exposed to various diseases.

**4 GENAVE FAMILY**

**HUSBAND - Patrick GENAVE**  
AGE - 48 yrs  
OCCUPATION - mechanic  
SALARY - to be confirmed

**WIFE - Euridith GENAVE**  
AGE - 48 yrs  
OCCUPATION - Housewife  
SALARY - none

- Total monthly income - to be confirmed

**SON - Kevin ADRIEN**  
AGE - 29 yrs  
OCCUPATION - macon  
SALARY - To be confirmed

**SON - Kenny Adrien**  
AGE - 27 yrs  
OCCUPATION - Unemployed

**SON - Gerald ADRIEN**  
AGE - 25 yrs  
OCCUPATION - Macon  
SALARY - to be confirmed

**SON - Kurt GENAVE**  
AGE - 21 yrs  
OCCUPATION - Unemployed

- 5 DEPENDENT PERSONS

**SON - Kimberley GENAVE**  
AGE - 18 yrs  
SCHOOL - Upper Six - Bartholemy  
**CONCUBINE - Marguerite LAURENT**  
AGE - 25 yrs  
OCCUPATION - Housewife

**DAUGHTER - Anaelle Jhurrua**  
AGE - 4 yrs  
SCHOOL - Cite Vallejee School

**DAUGHTER - Alise LAURENT**  
AGE - 3 yrs

SCHOOL - Eveil de Cassis

**SON - Kane ADRIEN**  
AGE - 2 yrs

CLUSTER: No 3 / CASSIS / 26.04.13 / REPORT 03

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## **MEDIUM & LONG TERM ATTENTION REQUIRED**

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Regions where water accumulates

The topography of the land is such a way that water drains towards the sea but gets trapped to a certain extent since land along shoreline is higher than the level of most houses in the same area.

**Drainage network**

Drains along main road are narrow and most inhabitants have covered same with RC creating bottlenecks and flooding.

**Caritas Headquarters at Cassis**

**Church**

The Church and Caritas are actively working in the region to help those in need and have identified regions with problems as well as specific families that need immediate assistance with their houses.

**Water accumulation region**

Water from drains behind drycleaning and main road gets trapped in region due to lack of drains causing flooding.



## VARIOUS SOURCE OF PROBLEM IDENTIFIED & POSSIBLE SOLUTIONS

### Problems caused by Topography, geographic location of Cassis

- Region is surrounded by the Moka Range Mountains creating an encave
- Flat with a gentle slope towards the sea with several pockets of low level.
- Poor absorption ability due to saturated soil, dry soil in the area and sea level.
- At Bain Des Dames, shore is at a higher level than the road level, thus preventing rainwater to dissipate.
- During high tide, sea level raises up to drains, with no water evacuation possibilities.

#### Possible solutions

- Land at Regions marked B on plan to be Lowered through either Government initiative or a series of Private micro projects.



Region B indicated on plan

### Problems caused by lack of planning & maintenance

- Lack of proper planning of infrastructure for whole region.
- No proper drainage network. Narrow roads donot have drains and slope to dead ends. Little to no maintenance
- Runoff in larger streams located at upper land become narrower along coastal region, thus overload the drainage network.
- Buildings on boundary line and immediately next to drainage network, setbacks have not been respected.
- No proper means for collecting larger waste items such as discarded furniture/appliances. Tend to get accumulated.

#### Possible solutions

- Drain building projects in Regions marked A on plan through either Government initiative or a series of Private micro projects.
- Cleaning day/s to be organised by local social NGO involving people of the area for a general cleaning/maintenance of drains and waste lands. This can be used as sensitisation campagne.
- Municipality to be approached for pickup of heavier waste at least once a year.



### Problems caused by Residents

- People in Cassis lack the awareness of consequences if rubbish is thrown in drains or blocking drains.
- Need to find other means to discard major waste in a proper location rather than just throwing it around the corner.
- No proper drainage system for roof rain water run-off, discharge directly on roads/laneways.
- Some tenants are keen and volunteer for upgrading the rented property but landlord are not willing to cope.

#### Possible solutions

- Cleaning day/s to be organised by local social NGO involving people of the area for a general cleaning/maintenance of drains and waste lands. This can be used as sensitisation campagne.
- Other means of sensitisation process to be identified (ex in schools, social projects involving residents) to help keep area clean and to avoid problems related to unawareness of people.
- Relocate critical families to other housing accomodation offered by Government (ex NHDC houses).



Region A indicated on plan

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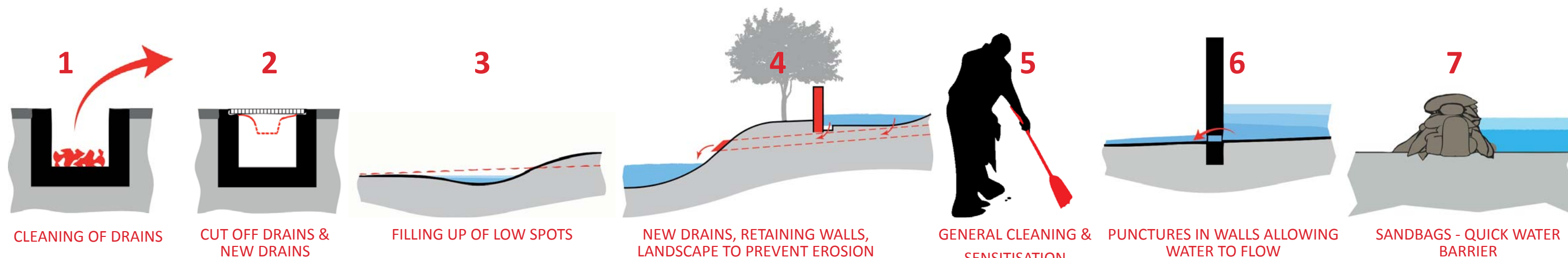




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## MICRO PROJECTS



LOCATION REFERENCE	PROJECT NAME	ACTION TYPE	ACTION AGENT	ESTIMATE (MUR)	SPONSORS
MC1	Menagerie ROAD project	1, 2, 5, 7, C, D, E	CARITAS/ASF/CSR/GOVT/LOCALS		
MC2	Menagerie LANES project	1, 2, 5, 6, 7, C, D, E	CARITAS/ASF/CSR/LOCALS		
MC3	Menagerie drain rehabilitation	1, 2, 3, 5, C, D, E	CARITAS/ASF/CSR/GOVT/LOCALS		
MC4	Bain des dames COASTAL ROAD project	1, 2, 3, 5, A, C, D, E	CARITAS/ASF/CSR/GOVT/LOCALS		
MC5	Bain des dames SHORELINE project	1, 2, 3, 4, 5, A, B, C, D, E	ASF/CSR/GOVT/LOCALS		
MC6	Bain des dames STREET project	1, 2, 5, 7, C, D, E	CARITAS/CSR/ASF/GOVT/LOCALS		
MC7	Bain des dames STATE LAND project	2, 3, 4, 5, 7, A, B, C, D, E	CARITAS/CSR/ASF/GOVT/LOCALS		
MC8	Stevenson street project	1, 2, 3, 5, 6, 7, C, D, E	CARITAS/CSR/ASF/GOVT/LOCALS		
MC9	Marie street project	1, 2, 3, 5, 6, 7, C, D, E	CARITAS/CSR/ASF/GOVT/LOCALS		
MC10	Les Salines project	1, 2, 3, 5, 6, 7, C, D, E	CARITAS/CSR/ASF/GOVT/LOCALS		

## AESTHETIC ADDITION TO ENHANCE QUALITY OF SPACE

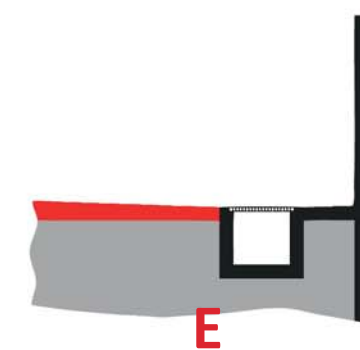
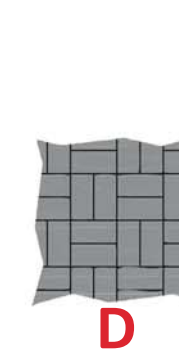
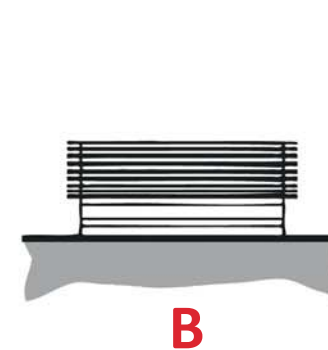
A - LANDSCAPE ELEMENTS

B - BENCHES, BINS AND OTHERS

C - LAMP POSTS

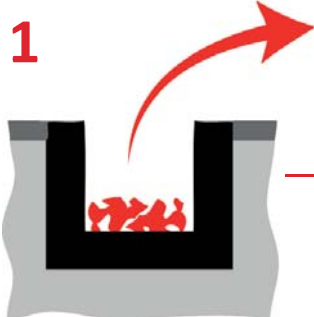
D - NEW & DESIGNED PAVEMENT FINISHES

E - NEW ASPHALT SLOPING TOWARDS DRAINS



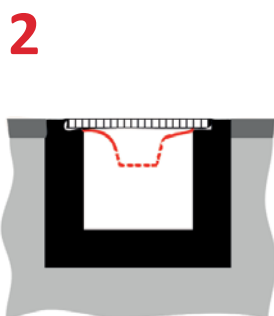
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## BREAKDOWN OF ACTIONS



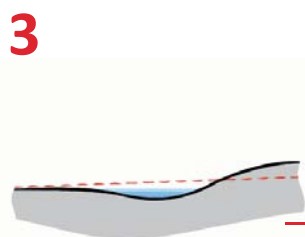
CLEANING OF DRAINS

- Identify zones where obstructions occur
- Remove drain covers
- Clean up drains as necessary
- Repair any loose portion which may cause blockages
- Repair drains & Cover up where necessary. Provide Grating where needed
- Make good to neighbouring surfaces affected during this process
- **Aesthetic addition to enhance quality of space**



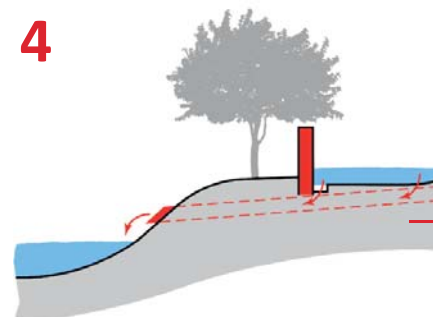
CUT OFF DRAINS & NEW DRAINS

- Identify zones where water accumulates and requires drainage system
- Identify possible drainage line and design accordingly
- Liaise with necessary authorities to get the required enforcement and right to act
- Excavate and make good to subsoil strata and prepare to receive new drains
- **Aesthetic addition to enhance quality of space**
- Install new drains as per Civil Engr's specs
- Make good to neighbouring surfaces affected during this process
- Identify areas where illegal construction/obstructions have been made to drains or drains inlet
- Demolish and cart away obstructive pieces to drains and drain inlets.
- Cover up with GMS cut off drain covers built to Engr's specs
- Make good to neighbouring surfaces affected during this process



FILLING UP OF LOW SPOTS

- Identify zones where water accumulates due to topographical issues
- Carry out basic soil tests
- Liaise with necessary authorities to get the required enforcement and right to act
- Excavate as instructed by Engr and fill up with selected backfill and compact to required specs
- Landscape as required



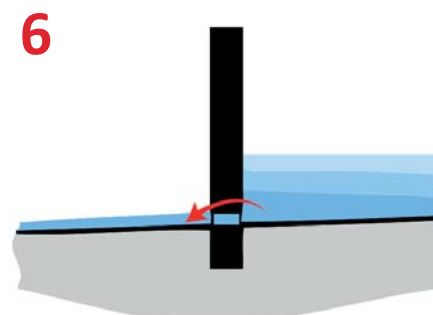
NEW DRAINS, RETAINING WALLS, LANDSCAPE TO PREVENT EROSION



GENERAL CLEANING & SENSITISATION

- Identify zones where such an action is required
- Carry out basic soil tests
- Design a proposed drainage system or retaining wall with necessary culverts and weep holes. Design hard and soft landscapes for these areas. Allow for provision of street and outdoor furniture
- Liaise with necessary authorities to obtain necessary clearances to carry out such a project
- Carry out the micro project as required and under supervision of consultants
- Sensitize people about the reason behind such a micro project and the potential problems which may arise if not properly maintained.
- **Aesthetic addition to enhance quality of space**

- Set out an action plan identifying the possible cleaning operations and the necessary logistics which may be required.
- Liaise with authorities to obtain necessary clearances if required
- Liaise with other bodies which can provide/assist with logistics
- Carry out sensitisation/cleaning operations with locals
- Sensitize people through talks, posters, enforcing paradigm shifts and school level activities to inculcate a sense of belonging and necessity to keep clean



PUNCTURES IN WALLS ALLOWING WATER TO FLOW

- Identify zones/sites requiring such an intervention
- Liaise with neighbours to have a written accord de principe
- Puncture walls as may be required without compromising the structural integrity



SANDBAGS - QUICK WATER BARRIER

- Identify regions which can still be subject to a sudden/unpredicted rise in water level inspite of providing drains or similar water evacuation facilities
- **Prepare emergency kit and distribute to vulnerable locals**
- Liaise with the residents to have them involved findin solutions to their problem & in the fabrication of flood gates/water barriers under consultant's guidance