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1.0 GENERAL

This statement herein addresses the provision of a site stormwater drainage system for the proposed extensions to the Museum of Contemporary Art building at 140 George Street, Circular Quay.

The land to be developed is bounded by George Street to the west, Circular Quay to the east, a street to the north and the existing MCA building to the south. It is proposed to connect site stormwater drainage to the existing stormwater drainage system on west Circular Quay.

It is proposed to extend the MCA building to the north of the existing building as shown on the Architectural Drawings prepared by Architect Marshall.

Discussions took place between Warren Smith & Partners and Sydney City Council's Development Engineering Department, Mr Ray Masters at which is was ascertained that: -

- No on-site detention is required;
- Stormwater can be discharged to the existing west Circular Quay stormwater drainage system;
- Pre treatment of the stormwater drainage system shall be required prior to discharge into the existing stormwater system.
- Council records show that the area is not subjected to flooding.

2.0 PROPOSED WATER MANAGEMENT SYSTEM

The proposed water management system will consist of the collection, treatment and reuse of;

- Rainwater from roofs
- Rainwater from terraces
- Rainwater from decks

2.1 PROPOSED RAINWATER REUSE SYSTEM

Water will be collected from the new extensions to the MCA building from the roof, terrace and deck areas.

The water will pass through a first flush diverter and then be stored in a 50,000 litre concrete storage tank. The tank is to be located under the Level 1 slab as shown on the attached stormwater drainage concept plans.

Water from the rainwater tanks will be pressurised and pumped to the water closets in the new extension and irrigation areas.

An automatic backwash strainer located on the downstream side of the pump will ensure a pre-straining of 100 microns.

The tank has been optimized to cater for toilet flushing over the full year.

Overflow from the tank shall be drained to the existing stormwater drainage system.

2.1 PROPOSED SITE STORMWATER DRAINAGE SYSTEM

The site stormwater drainage has been designed to take into consideration the requirements of Sydney City Council:-

Stormwater intensities for the region have been referenced from Sydney City Council.

Stormwater drainage pipes and pits have been sized for a 1:100 / 1:20 Average Recurrence Interval (A.R.I.) storm frequency.

It is proposed to capture all roof, terrace and deck areas with gutters and rainwater outlets via downpipes dropping to Level 1 to a rainwater reuse tank and then discharging to the existing stormwater drainage system.

A stormwater filtration device will be installed in the stormwater drainage system for the extension portion of the development prior to discharge into the rainwater reuse system. The unit will be a "Humes - Hydrofilter" or equal and will have sufficient capacity to receive the stormwater emanating from the new development.

The roof areas of the existing Museum of Contemporary Art building are not being altered and therefore it is proposed to retain the existing stormwater drainage system including inground drainage, pits, downpipe etc as existing.

2.3 FLOODING

Discussions with the Sydney City Council's Development Engineering Department indicate that according to their records the area associated with the Museum of Contemporary Art is not subject to flooding.

3.0 STORMWATER DRAINAGE CONCEPT PLANS

Stormwater drainage concept plans, as listed below, are for the new extensions to the Museum of Contemporary Art and have been prepared by Warren Smith and Partners to outline the design concept of the stormwater drainage system from the collection of rainwater on the roofs of Levels 6, 7 & 8, the terraces and decks of Levels 3, 4 & 5, to the drainage system under Level 1including pipework, rainwater reuse system and connection to the existing stormwater drainage system.

STW-01 Level 1 Floor Plan – North – Stormwater Drainage Concept
STW -02 Level 2 Floor Plan – North – Stormwater Drainage Concept
STW -03 Level 3 Floor Plan – North – Stormwater Drainage Concept
STW -04 Level 4 Floor Plan – North – Stormwater Drainage Concept
STW -05 Level 5 Floor Plan – North – Stormwater Drainage Concept
STW -06 Level 6 Floor Plan – North – Stormwater Drainage Concept
STW -07 Level 7 Floor Plan – North – Stormwater Drainage Concept
STW -08 Level 8 Floor Plan – Stormwater Drainage Concept
STW -09 Erosion and sediment control concept plan
STW -10 Erosion and sediment details

4.0 SEDIMENT & EROSION CONTROL

The Contractor for the works is required to provide Erosion and Sedimentation Control in accordance with the following general requirements as provided below:-

- Ø All existing surface pits shall be protected as detailed below and all boundaries where there is potential for runoff to contaminate downstream property (private or public) shall be protected by use of erosion fencing and earth berms.

In addition the following measures shall be provided:-

SITE PROTECTION MEASURES

It is proposed to provide the following in order to inhibit the movement of sediment off the site during the demolition and construction phases.

Site Access

Construction vehicles leaving the site shall be required to pass over a Temporary Construction Vehicle Entry consisting of a 15m long by 3m wide 'cattle rack'.

Sediment Control

All exposed earth areas where it may be possible for runoff to transport silt down slope shall be protected with a sediment and erosion control silt fence generally installed along the boundaries of the site.

The fence will be constructed in accordance with details provided by the Department of Conservation and Land Management incorporating geotextile fabric which will not allow suspended particles greater than 50mg/l non filterable solids to pass through, and as such comply with the appropriate provisions of the Clean Waters Act 1970.
The construction of the silt fence will include the following:-

- Ø Geotextile fabric buried to a maximum of 100mm below the surface;
- Ø Overlapping any joins in the fabric;
- Ø Turning up on the ends for a length of 1 metre in order to prevent volumes of suspended solids escaping in a storm event;
- Ø Any Council owned road kerb entry and or gully pits will be protected by Atlantis Filter Bales and EcoSock. Additional protection will be provided by inserting Water Clean Filter Cartridges into the gully opening;
- Ø Internal site drainage pits shall be protected by Sediment Traps consisting of Hay Bales.

4.1 Temporary Stormwater Pump-Out System (Where required)

Site runoff within the zones of the excavation will be drained into a central holding well within the excavation. Runoff will be allowed to settle out suspended particles and debris and an acceptable water quality of 50mg per L of Non Filtrable Residues (NFR) is required to be achieved prior to discharge by pumping into the authority system.

Once the stormwater has been adequately treated and the quality has been verified on the site, it will be pumped to the Council Stormwater system at a maximum discharge rate of 2 - 4 L/s.

The proposed pumps will be one duty and one standby electro - submersible pumps which shall be mounted on a 300mm high concrete plinth.

The proposed stormwater rising mains to each of the excavation areas will be in the order of 65mm outside diameter polyethylene, PE80B 'Blueline', Class 12.5.

Dust Control

The following dust control procedures will be adhered to: -

- Ø Loose loads entering or leaving the site will be securely covered by a tarpaulin or like material in accordance with RTA and Council Guidelines
- Ø Soil transport vehicles will use the single main access to the site.
- Ø There will be no burning of any materials on site.
- Ø Water sprays will be used across the site to suppress dust- The water will be applied either by water sprinklers or water carts across ground surfaces whenever the surface has dried out and

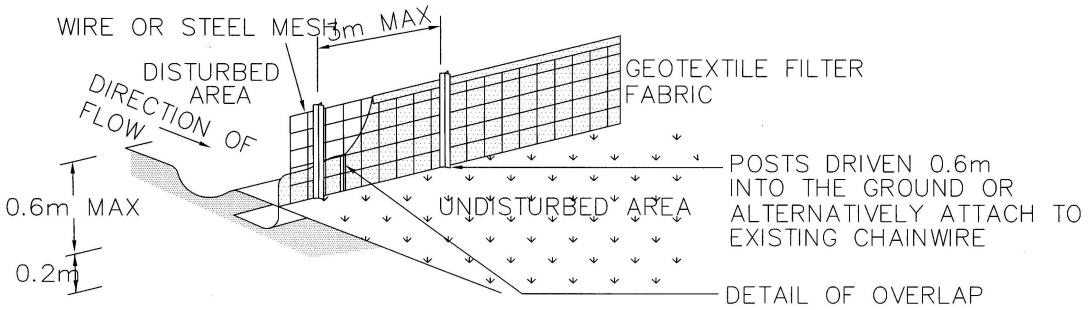
has the potential to generate visible levels of dust either by the operation of equipment over the surface or by wind. The watercraft will be equipped with a pump and sprays.

- Ø Spraying water at the rate of not less then three (3) L/s and not less then 700kPa pressure. The area covered will be small enough that surfaces are maintained in a damp condition and large enough that runoff is not generated. The water spray equipment will be kept on site during the construction of the works.
- Ø During excavation all trucks/machinery leaving the site will have their wheels washed and/or agitated prior to travelling on Council Roads.
- Ø Fences will have shade cloth or similar fabric fixed to the inside of the fence.

MAINTENANCE

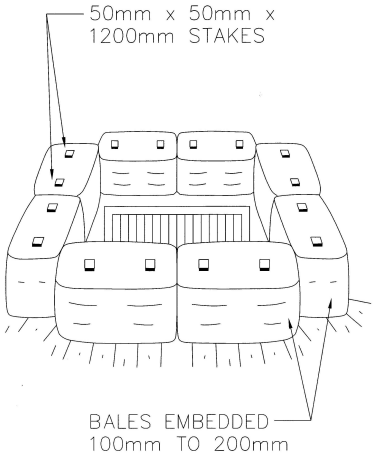
- Ø It will be the responsibility of the site foreman for the building contractor to ensure sediment and erosion control devices on site are maintained. The devices shall be checked daily and the appropriate maintenance undertaken as necessary.
- Ø Prior to the closing of the site each day, the rear laneway shall be swept and materials deposited back onto the site. Under no circumstances shall the laneway be washed down in order to clean or wash any materials deposited on the street.
- Ø Gutters and roadways will be kept clean regularly to maintain them free of sediment.
- Ø Appropriate covering techniques, such as the use of plastic sheeting will be used to cover excavation faces, stockpiles and any unsealed surfaces;-
  a) If dust is being generated from a given surface, and water sprays fail:
  b) If fugitive emissions have the potential to cause the ambient as quality to foul the ambient air quality:
- Ø The area of soils exposed at any one time will be minimised wherever possible by excavating in a localised progressive manner over the site-
- Ø Materials processing equipment suitable comply with regulatory requirements. The protection will include the covering of feed openings with rubber curtains or socks

It is considered that by complying with the above, appropriate levels of protection are afforded to the site and the adjacent public roads, footpaths and environment.



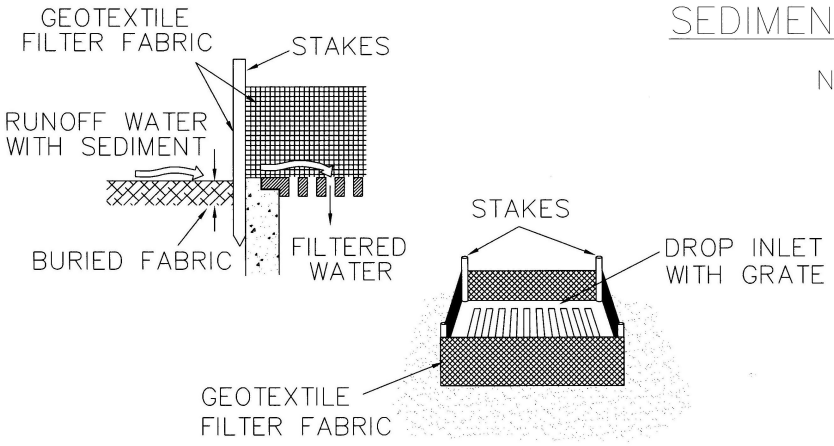
SEDIMENT CONTROL FENCE

NTS



STORMWATER PIT SEDIMENT TRAP

NTS



GEOTEXTILE FILTER FABRIC DROP INLET SEDIMENT TRAP

NTS

Atlantis Sediment Control Filter Bales

What are FilterBales?

Water Clean FilterBales are a unique new patented 7 stage sediment filter device developed to substantially reduce the migration of sediment and contaminants into drainage systems while allowing filtered water to easily pass through. FilterBales reduce customers' time and money by providing solutions to comply witht environmental and regulatory requirements.

Durable, Dependable, Reusable.
Replacing hay bales and other inadequate attempts to stop sediment run-off, FilterBales are durable and re-useable, effectively stopping your money from "pouring down the drain". They are also lightweight and easy to handle. Replaceable Water Clean Filter Cartridges guarantee peak performance is maintained.

Ask your local FilterBales stockist about replacement frequencies in your area. Cartridges and filter covers should be changed when the infiltration rate decreases. Water Clean FilterBales are suitable for a wide range of sediment and water management situations and can be easily secured in place for long term use. The unique multi-directional filter system allows you to position Water Clean FilterBales in any direction without reducing performance.
Water Clean FilterBales can be fixed to concrete or bitumen surfaces using an epoxy mortar-binder or fixed to earth surfaces using 6-10 mm pegs or stakes. When positioning, the side with the red reflective marker should be facing traffic.

www.atlantiscorp.com.au

1. FilterBales frames are a perforated plastic structure made from recycled wheelie bins, battery cases, milk bottles etc.

2. Filter medium (bio engineered soil media) used in the filter cartridges is made from a special blend of recycled organic (RO) materials from kerbside and vegetation drop off centres. The RO hosts enhanced naturally occurring micro-organisms. The blend also contains natural minerals to capture nutrients. The filter medium is as safe as normal soil.

3. FilterBales have a seven (7) stage filtration system:

1. In through the filter bag
2. Through the perforated plastic structure wall
3. In through the filter cartridge bag
4. Through the bio engineered filter medium
5. Out through the filter cartridge bag
6. Out through the perforated plastic structure wall
7. Out through the filter bag

4. The filter bag is made from 300-micron (one third of a millimetre) pore size geotextile. This is the first stage that filters much of the sediment and other suspended solids from the run-off water. The geotextile is designed to stop sediment and reduce clogging but allow water to pass through easily. The filter cartridge bags are made from a similar geotextile.

5. FilterBales work effectively up to "a one-in-one-year 48 hours, 100 mm "storm events". This is the largest storm event experienced since the commercialisation of FilterBales. Having handled this easily, Filter Bales are considered capable of handling much greater "storm events". During these storm events FilterBales were used inside gully pits in one application and on the ground surrounding the gully pit in another application.

6. EcoSocks are made from a similar geotextile to the filter cartridge bags and contain the same bio engineered soil media as the FilterBales. They appear able to stand up to as much wear and tear as a sandbag.

7. FilterBales are much lighter (at around 15 kgs dry weight) than hay bales. This reduces exposure to Occupational Health and Safety problems

Product Range

Item No.	Description	
HFB001	**High FilterBale,** suitable for high flow situations and higher retention time applications. Contains two standard size WaterClean Filter Cartridges in upright formation to treat contaminated waters. (605mm x 485mm x 460mm)	
LFB002	**Low FilterBale,** suitable for low flow situations and kerb & gutter applications. Multi-directional module containing two standard size WaterClean Filter Cartridges. (605mm x 485mm x 220mm)	
ESF004	**Directional EcoSock,** can be used in conjunction with FilterBales to direct water. Will also provide some sediment filtration from seepage through bio-remediating media contained within the EcoSock (1135mm x 160mm x 30mm)	

Accessories

Item No.	Description	
FCR004	**WaterClean Filter Cartridges** contain a unique blend of fixating and bio-remediating products that treat common pollutants. To achieve maximum performance, each FilterBale uses two WaterClean Filter Cartridges. (440mm x 400mm x 100mm)	
HBC005 (High bale)	**Replaceable FilterBale covers,** made from specially designed geotextile. FilterBale covers have a standard aperture of 300 microns.	
HBC006 (Low bale)	**Replaceable FilterBale covers,** made from specially designed geotextile. FilterBale covers have a standard aperture of 300 microns.	

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Atlantis Water Management

V3-20/06/01

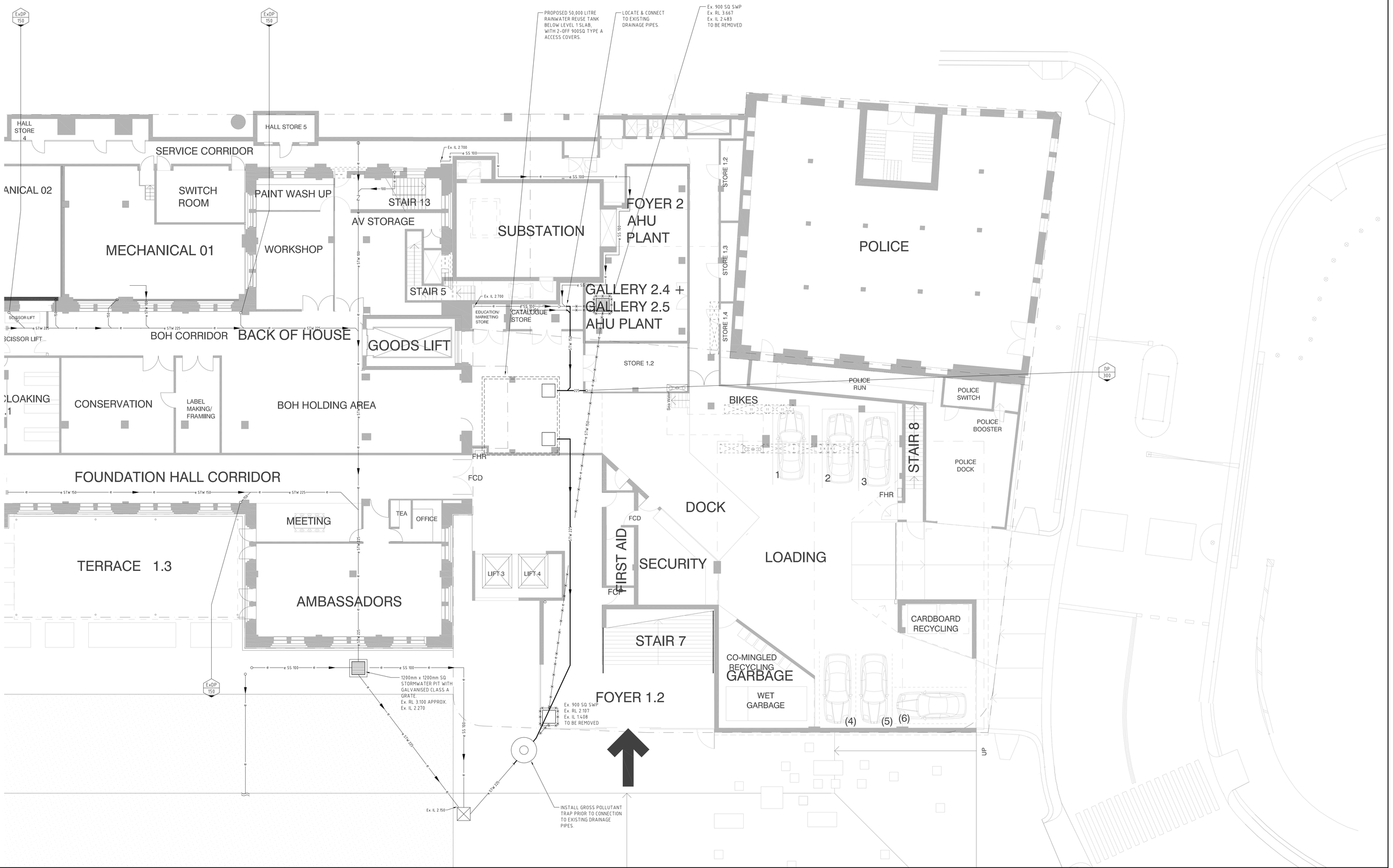
ATTACHMENTS

Drawings of:-

STW-01	*LEVEL 1 FLOOR PLAN – NORTH – STORMWATER DRAINAGE CONCEPT*
STW-02	*LEVEL 2 FLOOR PLAN – NORTH – STORMWATER DRAINAGE CONCEPT*
STW-03	*LEVEL 3 FLOOR PLAN – NORTH – STORMWATER DRAINAGE CONCEPT*
STW-04	*LEVEL 4 FLOOR PLAN – NORTH – STORMWATER DRAINAGE CONCEPT*
STW-05	*LEVEL 5 FLOOR PLAN – NORTH – STORMWATER DRAINAGE CONCEPT*
STW-06	*LEVEL 6 FLOOR PLAN – NORTH – STORMWATER DRAINAGE CONCEPT*
STW-07	*LEVEL 7 FLOOR PLAN – NORTH – STORMWATER DRAINAGE CONCEPT*
STW-08	*LEVEL 8 FLOOR PLAN – NORTH – STORMWATER DRAINAGE CONCEPT*
STW-09	*EROSION AND SEDIMENT CONTROL CONCEPT PLAN*
STW-10	*EROSION AND SEDIMENT DETAILS*

Stormwater Filtration Device - Humes - Hydrofilter

Gutter and downpipe sizing spreadsheet.



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Title.
LEVEL 1 FLOOR PLAN - NORTH STORMWATER DRAINAGE CONCEPT

Scale.	Drawn.	Designed.	Checked.	Approved.
1:100	C.A.	G.B.		

Date.	Drawing No.	Issue.
SEPT. 08	STW-01	A

Job No. 3333

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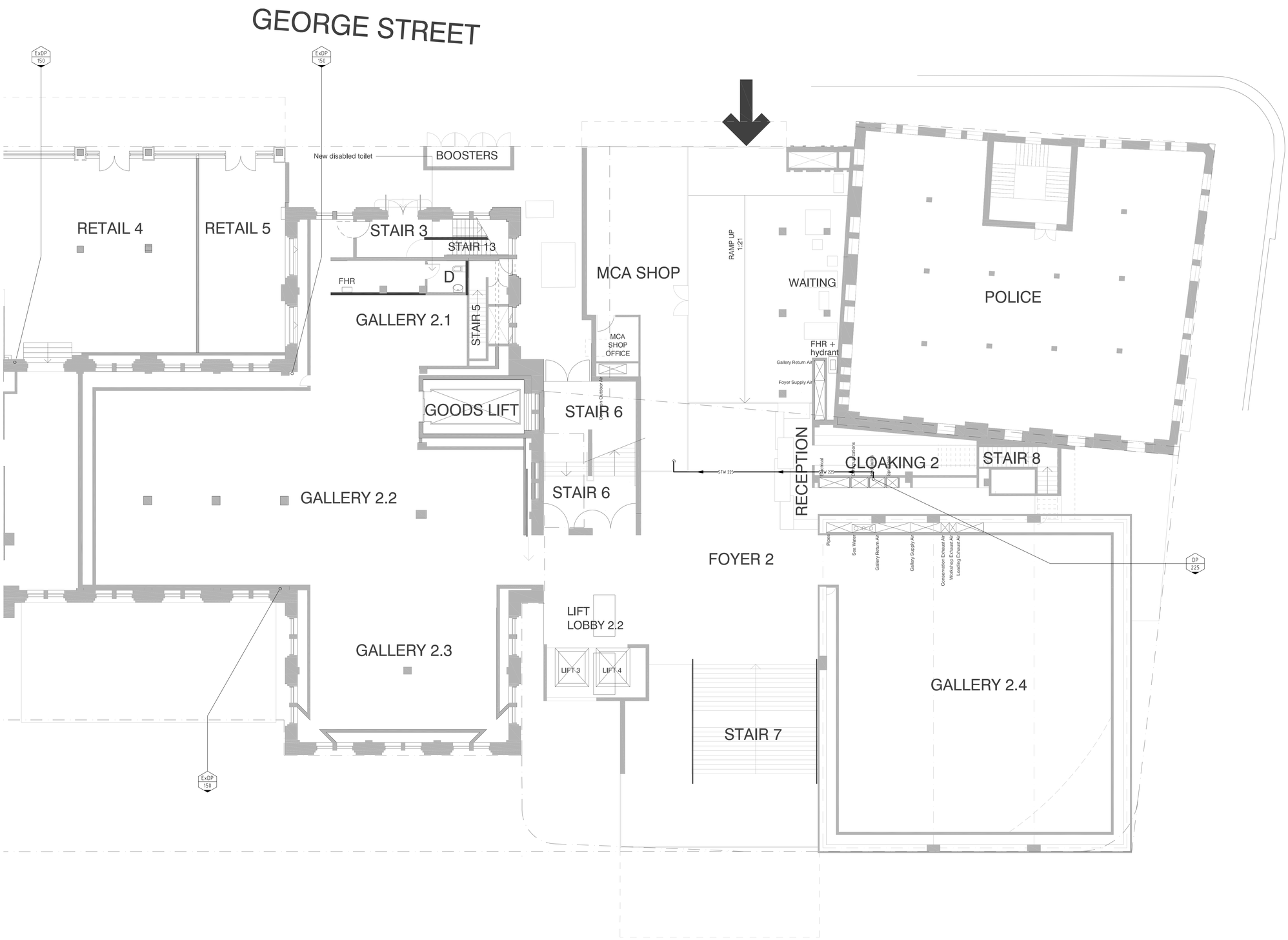

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Title.
LEVEL 2 FLOOR PLAN - NORTH STORMWATER DRAINAGE CONCEPT

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Date. SEPT. 08	Drawing No. STW-02		Issue. A	
Job No. 3333				

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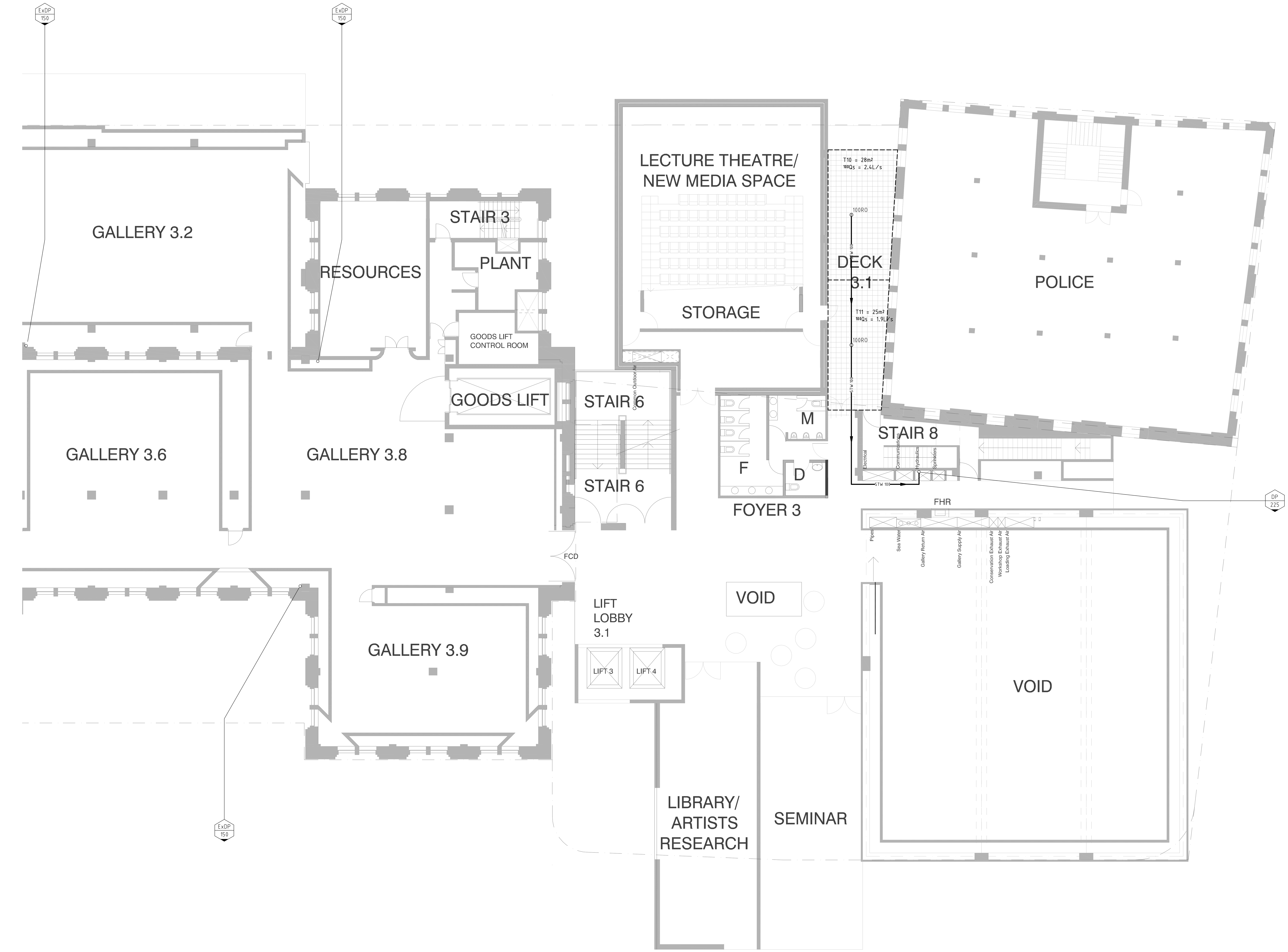

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Title.
LEVEL 3 FLOOR PLAN - NORTH STORMWATER DRAINAGE CONCEPT

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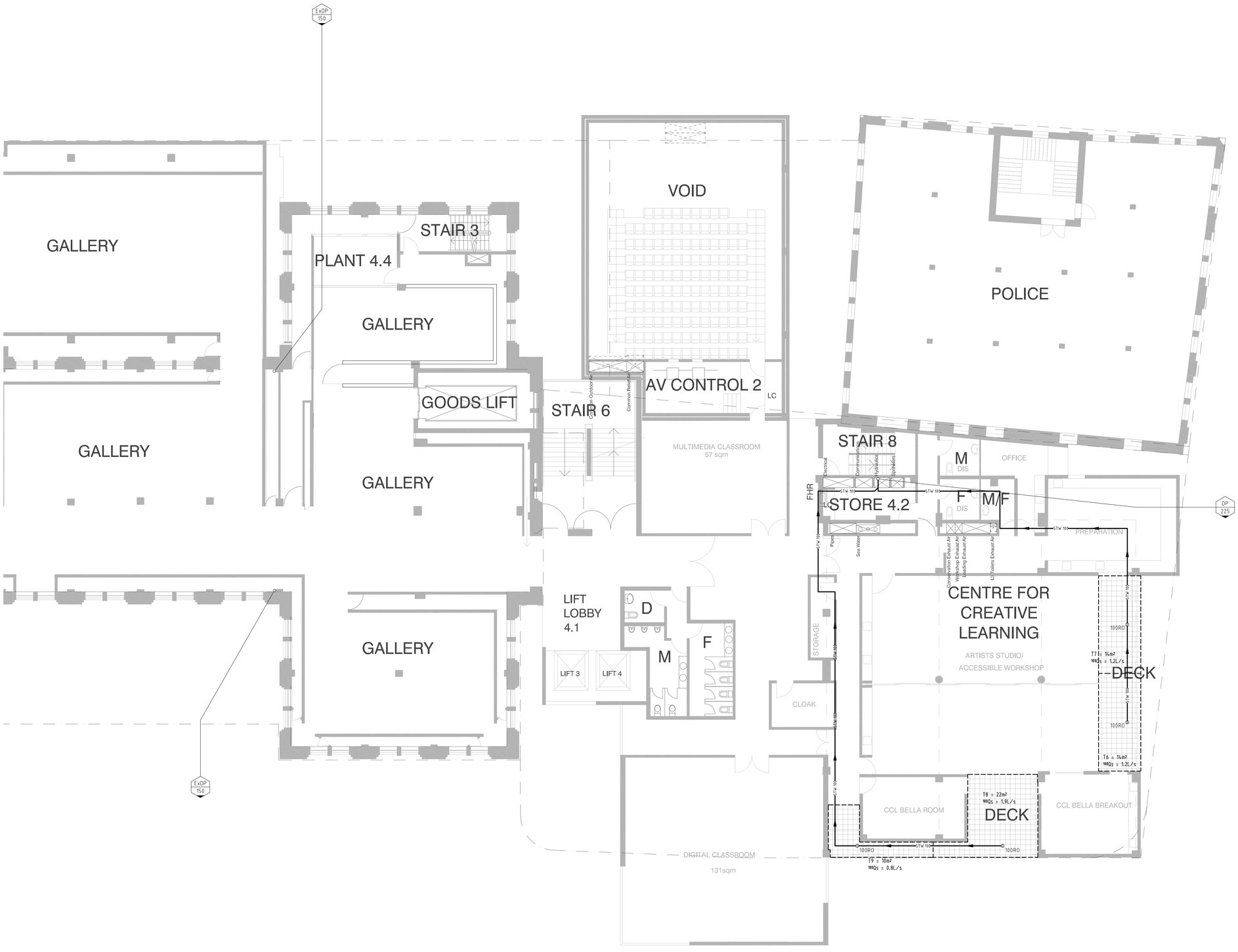

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Title.
LEVEL 4 FLOOR PLAN - NORTH STORMWATER DRAINAGE CONCEPT

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Job No. 3333				

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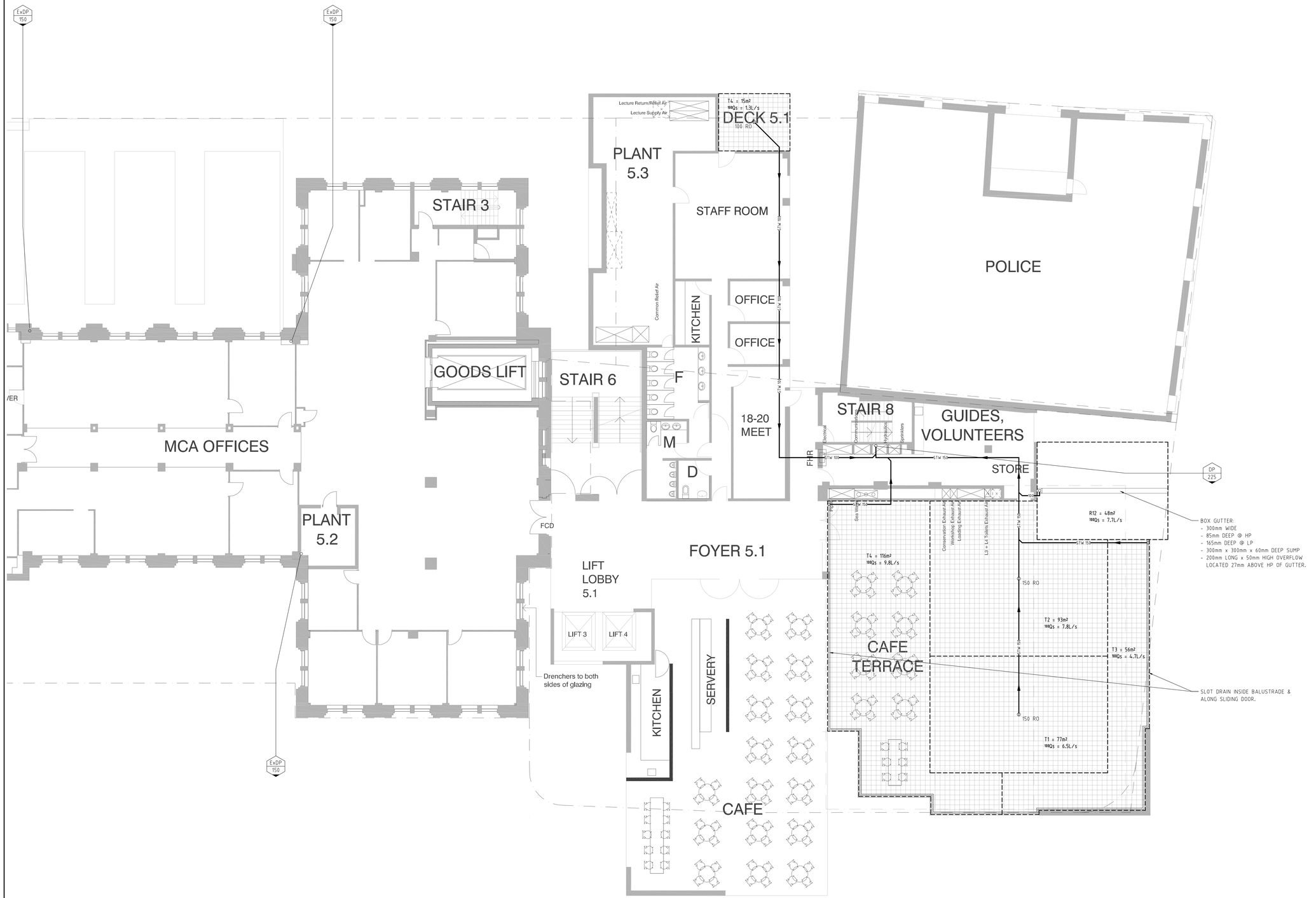

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Title.
LEVEL 5 FLOOR PLAN - NORTH STORMWATER DRAINAGE CONCEPT

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Date. SEPT. 08	Drawing No. STW-05		Issue. A	
Job No. 3333				

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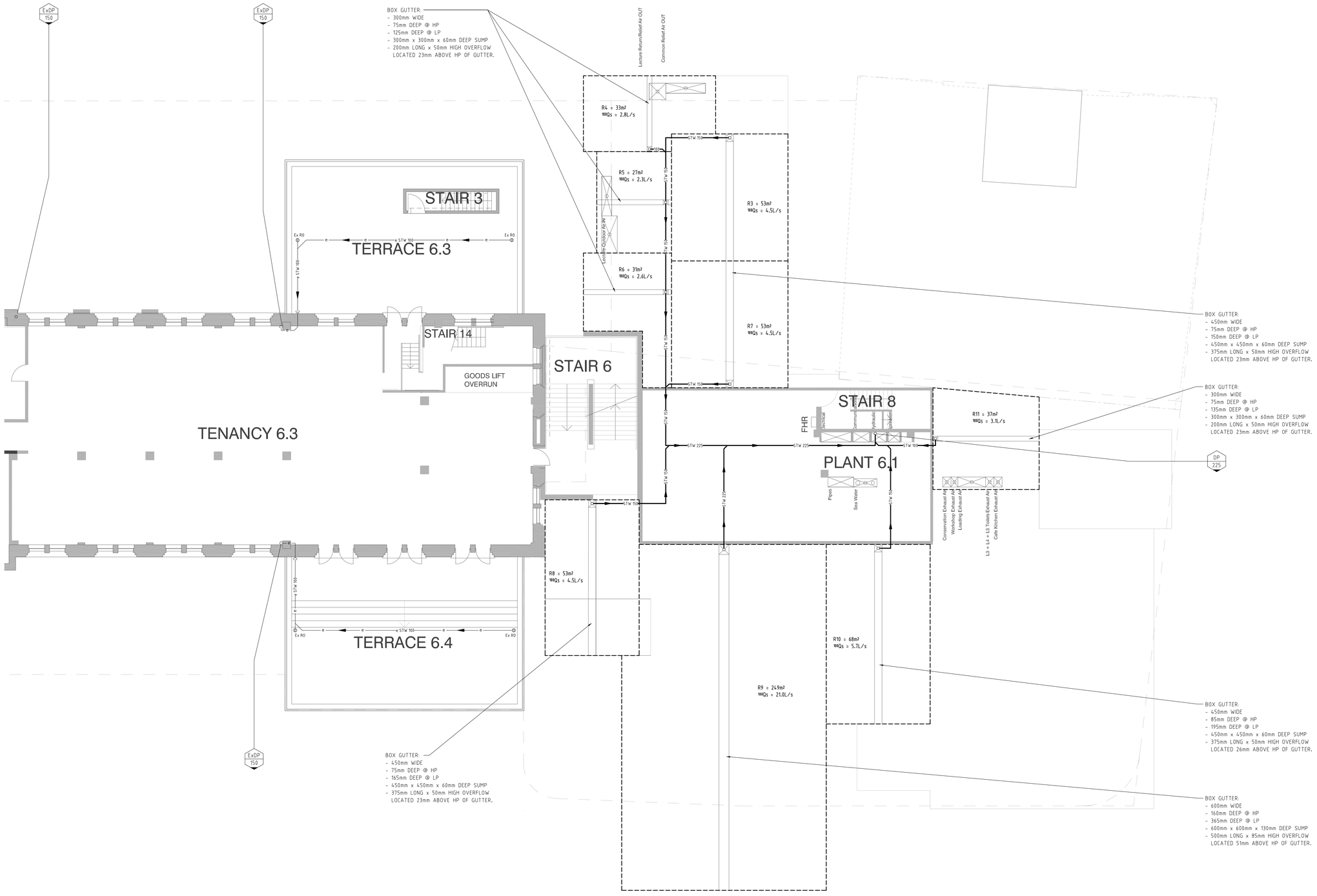

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Notes.

Issue.	Amendment.	Date.	Issue.	Amendment.	Date.
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LEVEL 6 FLOOR PLAN - NORTH STORMWATER DRAINAGE CONCEPT

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Date. SEPT. 08	Drawing No. STW-06		Issue. A	
Job No. 3333				

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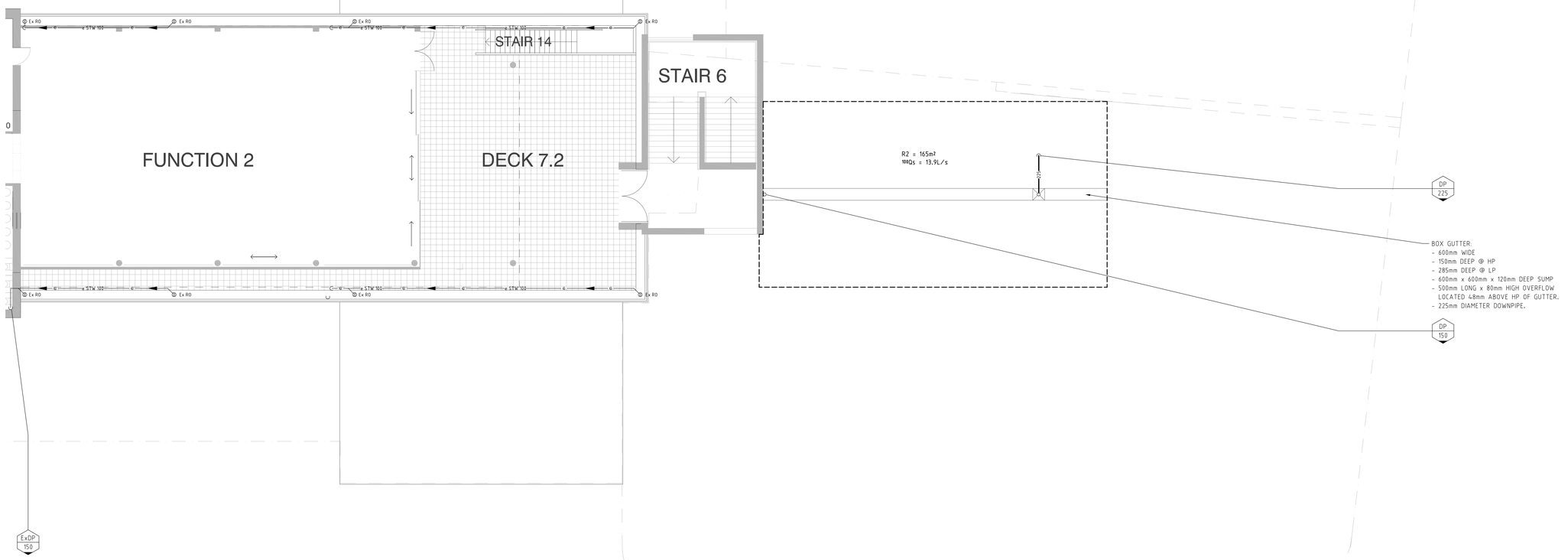

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Title.
LEVEL 7 FLOOR PLAN - NORTH STORMWATER DRAINAGE CONCEPT

Scale.	Drawn.	Designed.	Checked.	Approved.
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Date.	Drawing No.	Issue.
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Job No. 3333

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North Point.

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Title.
LEVEL 8 FLOOR PLAN
STORMWATER DRAINAGE CONCEPT

Scale.	Drawn.	Designed.	Checked.	Approved.
1:100	C.A.	G.B.		

Date.	Drawing No.	Issue.
SEPT. 08	STW-08	A

Job No. 3333

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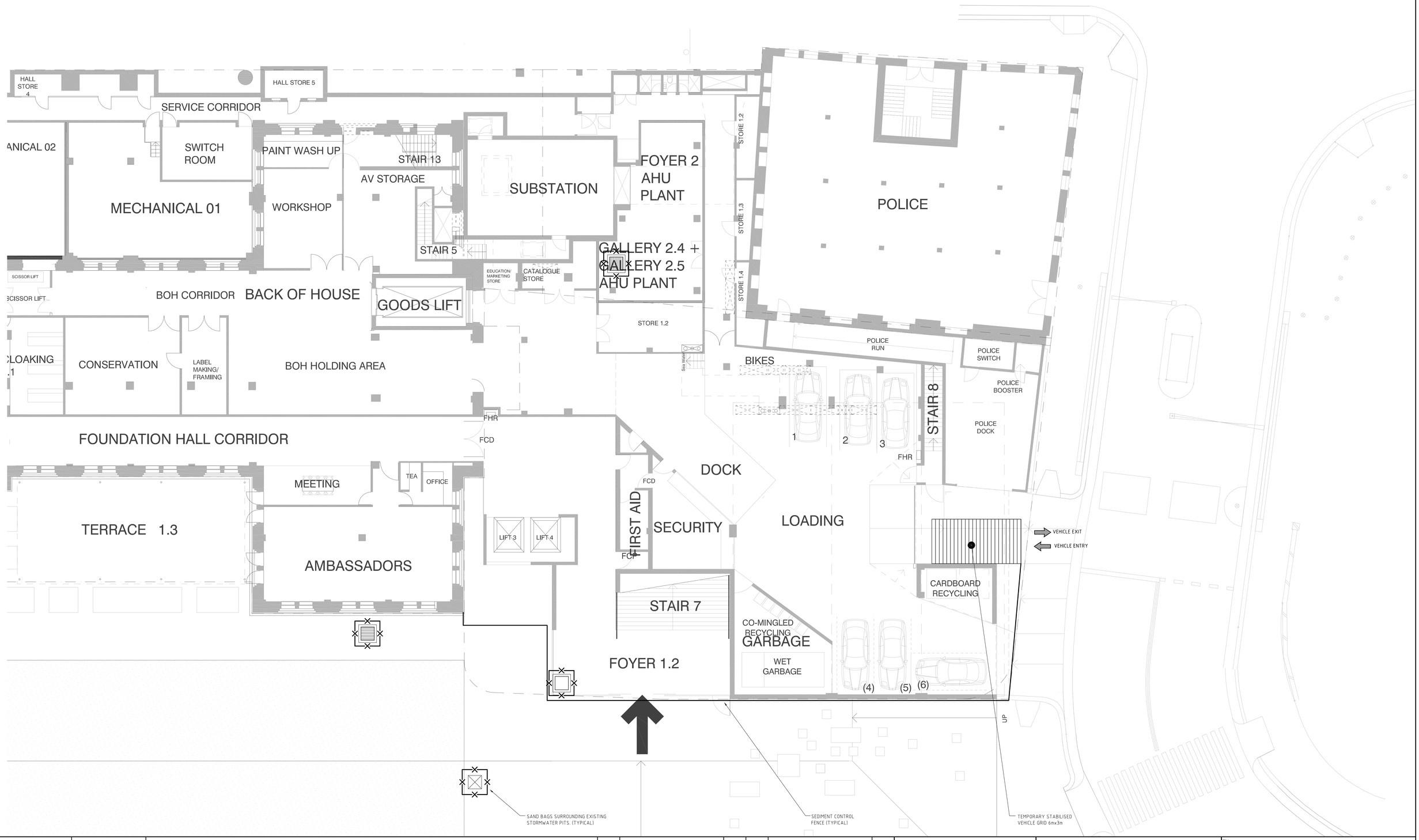

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North Point.

Notes.

Issue.	Amendment.	Date.	Issue.	Amendment.	Date.
A	ISSUE FOR REVIEW	17.10.08			

Client.
MUSEUM OF CONTEMPORARY ART

Project.
MCA EXTENSIONS
140 GEORGE STREET, CIRCULAR QUAY

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Title.
EROSION & SEDIMENT CONTROL CONCEPT PLAN

Scale.	Drawn.	Designed.	Checked.	Approved.
1:100	C.A.	G.B.		
Date. SEPT. 08	Drawing No. STW-09		Issue. A	
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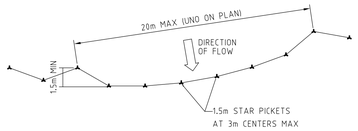
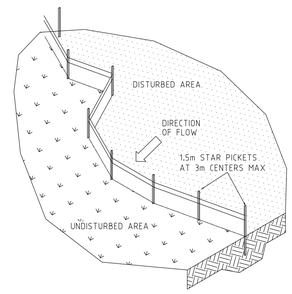
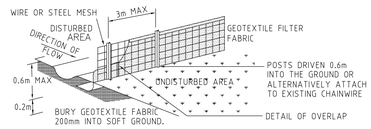


SEDIMENT FENCE LAYOUT PLAN
NTS





SEDIMENT CONTROL FENCE
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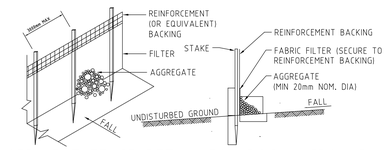
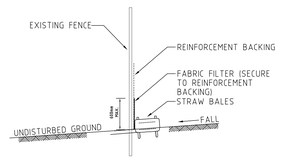


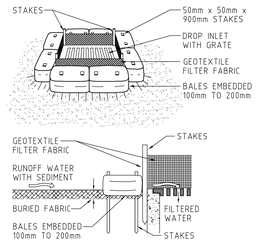
SEDIMENT FENCE DETAIL FOR ROCKY GROUND
NTS



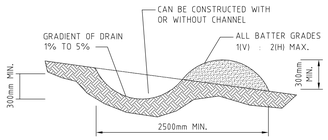
SEDIMENT FENCE DETAIL AT EXISTING FENCING
NTS

SEDEMENT FENCE NOTES:-

1. CONSTRUCT SEDIMENT FENCE AS CLOSE AS POSSIBLE TO PARALLEL TO THE CONTOURS OF THE SITE OR AT THE TOE OF A SLOPE.
2. DRIVE 1.5 METRE LONG STAR PICKETS INTO GROUND SUFFICIENT TO PROVIDE RIGID SUPPORT, 3 METERS APART. WHERE THERE IS INSUFFICIENT SOIL DEPTH OVER ROCK, HOLES ARE TO BE DRILLED INTO ROCK TO ACCEPT THE STAR PICKETS.
3. ON SOFT GROUND MATERIALS, DIG A 150mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
4. BACKFILL TRENCH OVER BASE OF FABRIC & COMPACT.
5. FIX SELF-SUPPORTING GEOTEXTILE TO UPSLOPE SIDE OF POSTS WITH WIRE TIES OR AS RECOMMENDED BY THE GEOTEXTILE MANUFACTURER. USE A REINFORCEMENT BACKING WITH NON SELF-SUPPORTING GEOTEXTILE FABRIC.
6. JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150mm OVERLAP.
7. ON HARD OR ROCKY GROUND, SMOOTH A 500mm WIDE STRIP UPSLOPE OF THE FENCE LINE. TURN THE BOTTOM 500mm OF THE FABRIC UPSLOPE AND ANCHOR IN PLACE WITH SUITABLE AGGREGATE.
8. WHERE A SEDIMENT FENCE IS CONSTRUCTED DOWN SLOPE FROM A DISTURBED BATTER THE FENCE SHOULD BE LOCATED 1.5 TO 2.0 METERS DOWN SLOPE FROM THE TOE OF THE BATTER.



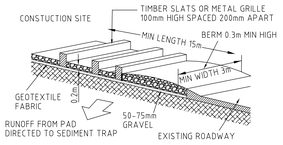
HAY BALE & GEOTEXTILE FILTER FABRIC SEDIMENT TRAP SURROUND TO DROP INLET PIT
NTS



DIVERSION DRAIN (LOW FLOW)
NTS

DIVERSION DRAIN NOTES:-

1. CONSTRUCT WITH GRADIENT OF 1 PER CENT TO 5 PER CENT.
2. AVOID REMOVING TREES AND SHRUBS IF POSSIBLE.
3. DRAINS TO BE OF CIRCULAR, PARABOLIC OR TRAPEZOIDAL CROSS SECTION NOT V-SHAPED.
4. EARTH BANKS TO BE ADEQUATELY COMPACTED IN ORDER TO PREVENT FAILURE.
5. PERMANENT OR TEMPORARY STABILISATION OF THE EARTH BANK TO BE COMPLETED WITHIN 10 DAYS OF CONSTRUCTION.
6. ALL OUTLETS FROM DISTURBED LANDS ARE TO FEED INTO A SEDIMENT BASIN OR SIMILAR.
7. DISCHARGE RUN OFF COLLECTED FROM UNDISTURBED LANDS ONTO EITHER A STABILISED OR AN UNDISTURBED DISPOSAL SITE WITHIN THE SAME SUBCATCHMENT AREA FROM WHICH THE WATER ORIGINATED.
8. COMPACT BANK WITH A SUITABLE IMPLEMENT IN SITUATIONS WHERE THEY ARE REQUIRED TO FUNCTION FOR MORE THAN FIVE DAYS.
9. EARTH BANKS TO BE FREE OF PROJECTIONS OR OTHER IRREGULARITIES THAT WILL IMPEDE NORMAL FLOW.



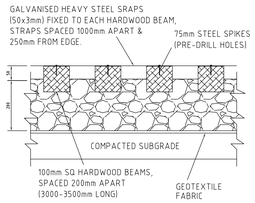
STABILISED CONSTRUCTION SITE VEHICLE ENTRY/EXIT
NTS

SITE ENTRY/EXIT CONSTRUCTION NOTES:-

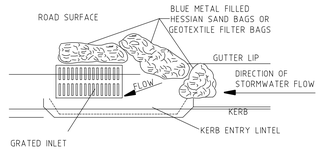
1. STRIP TOP SOIL & LEVEL SITE. PROVIDE CATCH DRAIN AT SIDES TO DIRECT RUNOFF WATER TO SEDIMENT TRAPS.
2. COMPACT SUBGRADE AND REMOVE ANY HIGH POINTS.
3. COVER AREA WITH GEOTEXTILE FABRIC. THIS MAY BE WOVEN OR NEEDLE PUNCHED PRODUCT WITH A MINIMUM CBR BURST STRENGTH (AS3706.4-90) OF 2500 N.
4. CONSTRUCT 200mm THICK RUBBLE PAD OVER GEOTEXTILE USING ROAD BASE OR 30-40mm AGGREGATE. MINIMUM LENGTH 15 METRES OR TO BUILDING ALIGNMENT, MINIMUM WIDTH 3 METRES. CONSTRUCT 300mm HIGH HUMP IMMEDIATELY WITHIN BOUNDARY TO DIVERT WATER TO A SEDIMENT TRAP.
5. WHERE GRIDS ARE USED FIRST CONSTRUCT A 150 THICK PAD OVER GEOTEXTILE FABRIC, LEVEL THIS IN BOTH DIRECTIONS, LOWER GRID ON TO THE PREPARED BASE AND ENSURE THAT NO PART IS SITTING ON ANY HIGH POINTS. BACKFILL THE SPACES BETWEEN THE GRIDS TO WITHIN 50mm OF THE TOP.
6. PROVIDE RAMPS AT ENDS AND SIDE OF GRIDS. IF DEPRESSIONS OCCUR IN THE RAMPS DURING USE. ADD ADDITIONAL MATERIAL.

SITE ENTRY/EXIT NOTES:-

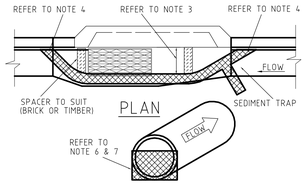
1. ALL VENICLE ENTRANCES & EXITS TO THE CONSTRUCTION SITE MUST BE STABILISED TO PREVENT THEM BECOMING A SOURCE OF SEDIMENT, BY PROVIDING A VEHICLE SHAKE AREA. THIS MAY CONSIST OF A TIMBER, CONCRETE OR STEEL SHAKER GRID OR RUBBLE AREA.
2. THE VEHICLE EXIT AREA IS TO BE MAINTAINED IN A CLEAN & SERVIVIBLE CONDITION DURING THE TOTAL TIME OF USAGE.
3. ANY UNSEALED ROAD BETWEEN THE DEVICE AND COUNCILS ROADWAY IS TO BE TOPPED WITH 100mm THICK, 40mm NOMINAL SIZE AGGREGATE.
4. PUBLIC ROADS MUST BE KEEPT FREE OF DIRT AND MUD. SEDIMENT TRACKED ONTO THE PUBLIC ROADWAY BY VEHICLES LEAVING THE CONSTRUCTION SITE IS TO BE SWEEPED UP IMMEDITATLY.
5. FENCES SHOULD BE ERECTED TO ENSURE VEHICLES CAN NOT BYPASS THE STABALISED ACCESS POINTS, UNLESS COMING FROM A STABALISED AREA.



VEHICLE SHAKER GRID
NTS



NEW/EXISTING GRATED KERB ENTRY PIT SEDIMENT CONTROL BARRIER
NTS



GEOTEXTILE FILTER BAGS
NTS

SEDIMENT BARRIER FOR PITS & PIPES, NOTES:-

1. SLEEVES OR SLEAVES ARE TO BE MADE FROM GEOTEXTILE FABRIC LONGER THEN THE LENGTH OF THE INLET PIT.
2. FILL SLEEVE WITH 5 OR 10mm CLEAN GRAVEL.
3. PLACE THE SLEVE AT THE OPENING OF THE KERB INLET LEAVING A 100mm GAP TO ACT AS AN EMERGENCY OVERFLOW.
4. SLEEVE MUST BE PLACED AGAINST THE KERB TO PREVENT BYPASS.
5. FIT SLEEVE TO ALL INLETS DOWNSTREAM OF THE WORKS.
6. FOR DRAINAGE WORKS FIT GEOTEXTILE FABRIC OR GEO BAGS TO UPSTREAM FACE OF ALL OPEN PIPES.
7. MAINTAIN AN OPENING AT THE TOP OF THE PIPE OF 1/3 OF THE PIPE DIAMETER.
8. THE FILTERS ARE TO BE CLEANED AND MAINTAINED DAILY.
9. ALL CARE SHOULD BE TAKEN TO MINIMISE SEDIMENT REACHING THE STORMWATER SYSTEM BY MINIMISING EXCAVATION WORKS AND PREVENTING EXCESS WATER FLOW THROUGH WORKS.

MAINTENANCE REQUIREMENTS

1. ACCUMULATED SILT & SEDIMENT MUST BE REMOVED AT REGULAR INTERVALES AND AFTER EACH MAJOR STORM.
2. SILT & SEDIMENT MUST BE REMOVED FROM OFF THE SITE OR TO A COUNCIL APPROVED LOCATION WITHIN THE SITE, WHERE IT WILL NOT ERODE.
3. THE SEDIMENT FENCES, BALES & TRAPS SHALL BE REGULARLY INSPECTED, ESPECIALLY AFTER RAIN AND KEPT IN GOOD REPAIR AND FUNCTIONING CONDITION AT ALL TIMES.
4. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT SEDIMENT, EROSION & WATER POLUTION SHALL BE MINIMISED.
5. THE SEDIMENT TRAPS SHALL BE REMOVED AND THE AREA STABILISED WHEN THE CONSTRUCTION AREA HAS BEEN PROPERLY STABILISED.

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EROSION & SEDIMENT DETAILS

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1:100	C.A.	G.B.		

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SEPT. 08	STW-10	

Job No. 3333

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SHEET SIZE: B1