GEOTECHNICAL NOTES

1.0 GENERAL

1.1 GENERAL NOTES SHALL REFER TO DRAWING SE/2263/LP001.

1.2 ALL GEOTECHNICAL WORKS SHALL COMPLY WITH GS SECTION 26.

1.3 PERMANENT SOIL SLOPE SHALL BE HYDROSEEDED ARE SHOWN IN DRAWING.

1.4 PERMANENT DRAINAGE SYSTEM MAY BE REVISED AS REQUIRED TO SUIT THE ACTUAL SITE CONDITION.

1.5 PREVENTATIVE MEASURES SHALL BE TAKEN BY THE CONTRACTOR TO AVOID DISCHARGE OF EXCAVATED MATERIAL INTO PUBLIC STORMWATER DRAIN AND FLOWING OF SURFACE WATER FROM THE LOT ONTO THE ADJACENT ROAD.

1.6 EXTREME CARE SHALL BE TAKEN BY THE CONTRACTOR WHEN WORKING IN THE VICINITY OF THE DEVELOPMENT IN ORDER NOT TO DISTURB, INTERFERE WITH OR CAUSE DAMAGE TO THE ADJOINING PROPERTIES AND ULITITIES.

1.7 FILLING WORKS SHALL NOT BE COMMENCED UNTIL ALL DISCHARGES HAVE BEEN PROPERLY DIVERTED AWAY FROM THE FILL AREA.

1.8 ALL NON GRANULAR MATERIAL INCLUDING PLANTS, RUBBISH, ARTIFICAL MATERIAL AND ALLUVIAL CLAY SHALL BE REMOVED PRIOR TO FILLING WORKS.

2.0 PROTECTION OF EARTHWORKS AGAINST HEAVY RAINFALL

2.1 SURFACE WATER FLOWING INTO THE SITE FROM UPHILL SHALL BE INTERCEPTED AND CONDUCTED FROM THE SITE TO AN INDICATED SAFE DISCHARGE POINT. AT EACH INTERSECTION AND ABRUPT CHANGE IN DIRECTION OF SURFACE DRAINAGE CHANNELS AN ACCESSIBLE CATCHPIT SHALL BE PROVIDED. ALL DRAINAGE WORKS SHALL BE KEPT CLEAR OF DEBRIS.

2.2 WHERE PARTIALLY COMPLETED DRAINAGE WORKS DISCHARGE WITHIN THE SITE A TEMPORARY CONDUIT SHALL BE PROVIDED TO THE DISCHARGE POINT.

2.3 ALL EARTHWORKS PLATFORMS SHALL BE GRADED (FOR FILL, THE SURFACE SHOULD ALSO BE SEALED BY ROLLING OR OTHERWISE) TO ENSURE RUN-OFF AND TO AVOID PONDING.

2.4 DURING EXCAVATION A METHOD OF WORKING SHALL BE ADOPTED IN WHICH THE MINIMUM OF BARE SOIL IS EXPOSED AT ANY TIME. EXCAVATION TO FORM THE FINAL FACE SHALL BE FOLLOWED UP IMMEDIATELY WITH SURFACE PROTECTION AND DRAINAGE WORKS AND THE FACE PANEL SIZE SHALL BE SMALL ENOUGH TO PERMIT THIS.

2.5 TRENCHES ON OR ADJACENT TO SLOPES SHALL BE EXCAVATED WITH EXTREME CARE IN SHORT SECTIONS AT A TIME. PRECAUTIONS SHALL ALWAYS BE TAKEN TO PREVENT WATER ENTERING AND COLLECTING IN THE TRENCH.

2.6 SURFACE PROTECTION ON TEMPORARY BARE SOIL SLOPES WILL BE PROVIDED WHERE FOUND NECESSARY USING PLASTER SHEETS.

2.7 DRAINAGE WORKS SHALL BE KEPT CLEAR OF DEBRIS. EXCAVATION SHALL NOT BE LEFT OPEN ON OR ADJACENT TO A SLOPE.

2.8 A METHOD OF WORKING SHALL BE ADOPTED IN WHICH THE MINIMUM OF BARE SOIL IS EXPOSED AT ANY TIME. EARTHWORK TO FORM THE FINAL FACE SHALL BE FOLLOWED UP IMMEDIATELY WITH SURFACE PROTECTION AND DRAINAGE WORKS AND THE FACE PANEL SIZE SHALL BE SMALL ENOUGH TO PERMIT THIS.

2.9 WHERE TEMPORARY BARE EARTH SLOPE FACES ARE UNAVOIDABLE THEY SHALL BE PROTECTED WITH SHEETING WELL-SECURED AGAINST WIND. WHERE SLOPE FACES ARE TO BE TEMPORARY EXPOSED FOR MORE THAN TWO WEEKS. TEMPORARY HARD SURFACING SHALL BE PROVIDED AND TEMPORARY DRAINS SHALL BE INSTALLED.

2.10 IF TRENCHES OR ADJACENT TO SLOPES HAVE TO BE EXCAVATION DURING THE WET SEASON THIS SHALL BE DONE WITH EXTREME CARE IN SHORT SECTIONS AT A TIME. PRECAUTIONS MEASURES SHALL ALWAYS BE TAKEN TO PREVENT WATER ENTERING AND COLLECTING IN THE TRENCH.

3.0 COMPACTION OF FILL

3.1 ALL FILL SLOPES SHALL BE COMPACTED IN LAYERS NOT EXCEEDING 300mm THICK.

3.2 FOR FILLING OF SLOPE THE CONTRACTOR SHALL OVERFILL BEYOND THE SLOPE PROFILE AND TRIM TO THE DESIGN PROFILE WHEN COMPACTION HAS BEEN COMPLETED.

3.3 FILLING MATERIAL SHALL BE FREE FROM UNSUITABLE MATERIAL INCLUDING ORGANIC MATERIAL TOPSOIL (OR THE SURFACE LAYER OF SOIL WHICH CAN SUPPORT VEGETATION) SUPPLY, PERISHABLE MATERIALS, FROM MARSHES OR LOGS, STUMPS AND OTHER DELETERIOUS SUBSTANCES FILLING MATERIAL SHALL CONTAIN IN MATERIAL EXCEEDING 200mm IN SIZE.

3.4 THE CONTRACTOR SHALL PROVIDE AT HIS OWN EXPENCE A MEANS OF SCREENING THE MATERIAL TO ELIMINATE OVER-SIZED STONES.

3.5 UNLESS OTHERWISE SPECIFIED THE BACKFILLING MATERIAL SHALL BE GENERAL FILLING MATERIAL PLACED IN LAYERS NOT EXCEEDING 300mm THICK.

3.6 THE INSITU DENSITY OF COMPACTION MATERIAL FORMING THE FILL SHALL NOT BE LESS THAN 95% OF THE MAXIMUM DRY DENSITY.

3.7 ALL COMPACTION TESTS RESULTS AND LOCATION PLANS SHOWING THE ACTUAL LOCATION OF PROCTOR AND SAND REPLACEMENT TESTS PERFORMED SHALL BE SUBMITTED TO THE SATISFACTION OF THE ENGINEER.

3.8 LABORATORY TEST SHOULD BE CARRIED OUT ON THE GENERAL COMPACTED FILL AND CEMENT SOIL FILL TO VERIFY THE SHEAR STRENGTH PARAMETERS OF COMPACTED FILL NOT LESS THAN ϕ'=35° AND C'= 0 KPa AND CEMENT SOIL FILL NOT LESS THAN ϕ'=35° AND C'= 5 KPa.(MINIMUM 3 SAMPLES)

3.9 SOIL-CEMENT SHALL CONSIST OF ORDINARY PORTLAND CEMENT (OPC), SAND AND INORGANIC SOIL IN THE PORPORTIONS 1:3:12 BY MASS.

4.0 FILLING MATERIALS

4.1 THE CONTRACTOR SHALL PROVIDE AT HIS OWN EXPENSE A MEANS OF SCREENING THE MATERIAL TO ELIMINATE OVER-SIZED STONES.

5.0 FELLING / REPLACING OF TREES

5.1 NO TREES ARE TO BE UNNECESSARILY FELLED. PRIOR TO ANY TREE FELLING, APPROVAL SHALL BE OBTAINED FROM THE SO.

5.2 WHERE TREES ARE TO BE FELLED, REPLANTING AND/OR REPLACING THE FELLTREES SHALL BE IN ACCORDANCE WITH THE APPROVED APPLICATION TO THE GOVERNMENT DEPARTMENTS.

6.0 NOTES FOR HYDROSEEDING

6.1 THE SLOPE SURFACE TO BE HYDROSEEDED SHALL BE CLEANED BEFORE HYDROSEEDING.

6.2 THE CONTRACTOR SHALL SUBMIT THE MIX COMPONENT OF HYDROSEEDING AND INTENDED APPLICATION RATE FOR THE APPROVAL OF THE ENGINEER.

6.3 TO GUARD AGAINST EROSION, THE CONTRACTOR SHALL COVER THE HYDROSEEDED SURFACE WITH ADEQUATE EROSION CONTROL FABRIC, WHICH SHOULD NOT INHIBIT GROWTH.

6.4 THE APPLICATION OF FOLLOW-UP FERTILIZER MAY BE NECESSARY BUT THIS SHALL ONLY TAKE PLACE AT LEAST 2 MONTHS AFTER HYDROSEEDING AND WITHIN THE GROWING SEASON (MARCH TO SEPTEMBER).

7.0 NOTES ON PROTECTIOIN OF EXISTING DRAINAGE

7.1 ALL PUBLIC DRAINS SHALL NOT BE INTERFERRED DURING THE COURSE OF CONSTRUCTION.

7.2 NO SPOILS/ SLURRIES SHALL BE DISCHARGED INTO THE PUBLIC DRAINAGE DURING THE CONSTRUCTION PERIOD.

7.3 ANY UNSATISFACTORY CONDITION DURING/ FROM THE PROPOSED WORKS SHALL BE MADE GOOD TO THE SATISFACTION OF SCU/SO/GEO.

8.0 DESIGN GROUNDWATER TABLE

8.1 THE DESIGN GROUNDWATER TABLE IS TAKEN AS FOLLOWS:

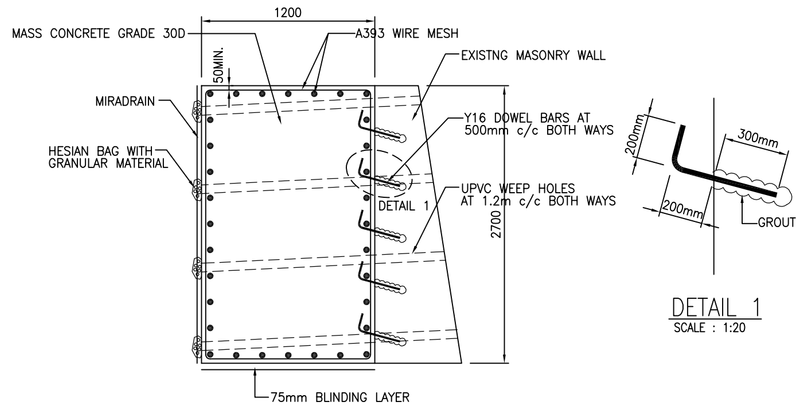
* 1m PERCHED WATER TABLE ABOVE INTERFACE OF FILL AND INSITU SOILS
* 1/3 RETAINING HEIGHT OF RETAINING STRUCTURES.
* 68 mPD AT BASE OF EXISTING KING'S PARK FRESH WATER SERVICE RESERVOIR.
* 1.5m RISE ABOVE THE HIGHEST OBSERVED GROUND WATER LEVEL.

9.0 DESIGN SURCHARGE

9.1 SITTING OUT AREA, ON BEAM, ON RAMP = 5 kPa

9.2 CURVED ARBOUR, CIRCULAR ARBOUR, SEAT WALL = 25 kPa

9.3 TEMPORARY LOAD = 10 kPa

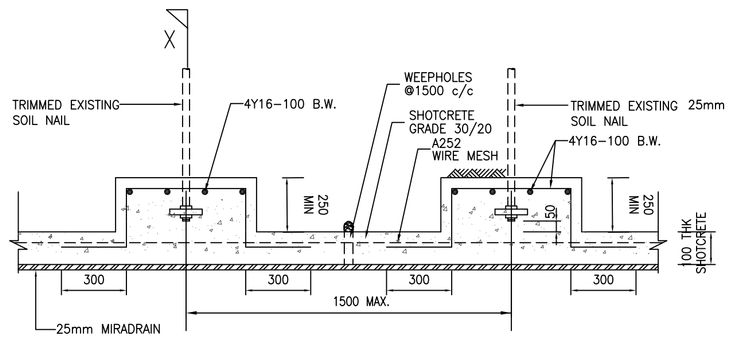


TYPICAL DETAIL OF MASS CONCRETE WALL BEHIND EXISTING MASONRY WALL

SCALE : 1:50

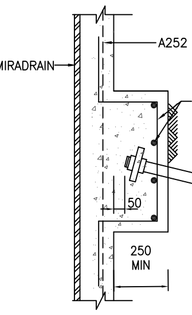
DETAIL 1

SCALE : 1:20



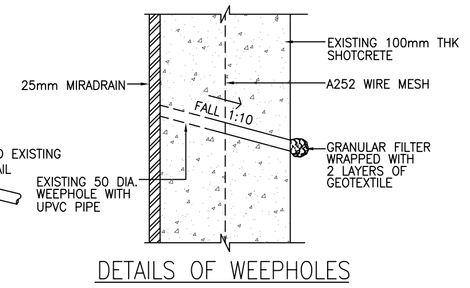
TYPICAL DETAIL OF TRIMMED EXISTING SOIL NAIL AND SHOTCRETE

SCALE : 1:20



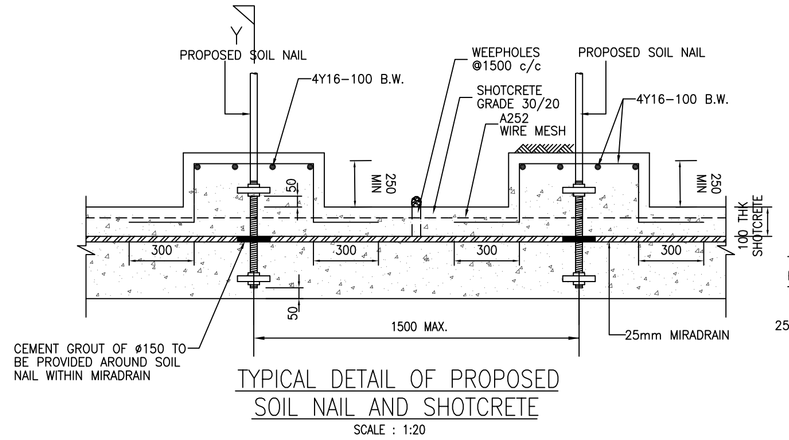
SECTION X - X

SCALE : 1:20



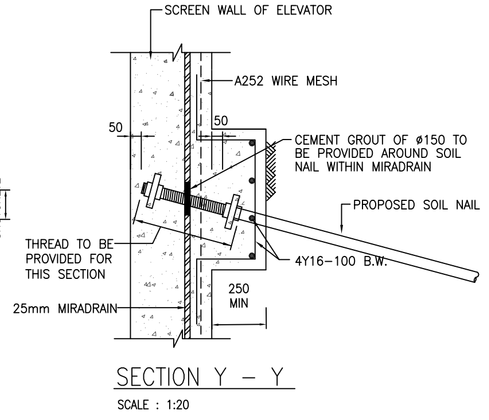
DETAILS OF WEEPHOLES IN 100 THICK SHOTCRETE

N.T.S.



TYPICAL DETAIL OF PROPOSED SOIL NAIL AND SHOTCRETE

SCALE : 1:20



SECTION Y - Y

SCALE : 1:20

Notes :

No.	Date	Description	Initial
	05/01/12	TENDER DRAWING	

Revision

Consultant Project No.
8165

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	Name	Signed	Date
Designed			
Drawn			
Checked			
Approved			

Contract No.

File No.

Project No.
420 RO

Consultant Agreement No.
9AS022

Contract
LOCAL OPEN SPACE AT CHUNG YEE STREET, KOWLOON CITY DISTRICT

Drawing Title
TYPICAL DETAILS AND NOTES

Drawing No.
SE/2263/NTSF008

Scale
AS SHOWN

(Date)

ARCHITECTURAL SERVICES DEPARTMENT