CONSTRUCTION ISSUE

PENSHURST PUBLIC SCHOOL UPGRADE

CIVIL ENGINEERING DRAWINGS

Thickness of pavement amended from 110mm to 125mm. WCE say they can go back to 110mm. Why did they change it in the first place?

GENERAL NOTES

G1 THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER CONSULTANTS DRAWINGS, SPECIFICATIONS AND AS1100 TECHNICAL DRAWING.

G2 ANY DISCREPANCIES SHALL BE REFERRED TO THE CONTRACT ADMINISTRATOR FOR DECISION BEFORE PROCEEDING WITH THE WORK.

G3 DIMENSIONS SHALL NOT BE OBTAINED BY SCALING THE DRAWINGS.

G4 ANY SET OUT DIMENSIONS SHOWN ON THE DRAWING SHALL BE VERIFIED BY THE BUILDER.

G5 DURING CONSTRUCTION THE CONTRACTOR SHALL MAINTAIN THE WORKS IN A STABLE CONDITION AND NO PART SHALL BE OVERSTRESSED.

G6 ALL WORK SHALL COMPLY WITH THE BUILDING CODE OF AUSTRALIA, CONDITIONS OF THE DEVELOPMENT CONSENT AND RELEVANT AUSTRALIAN STANDARD CODES.

COMPACTION DENSITY NOTES

CD1 FILLING 98% STANDARD (AS1289 TEST 5.1.1)

CD2 COHESIVE SUBGRADE 98% STANDARD (AS1289 TEST 5.1.1)
COHESIONLESS SUBGRADE 80% (AS1289 TEST 5.6.1)

CD3 SUB BASECOURSE 95% MODIFIED (AS1289 TEST 5.2.1)

CD4 BASECOURSE 98% MODIFIED (AS1289 TEST 5.2.1)

EROSION CONTROL NOTES

E1 INSTALL SILT FENCES ON LOW SIDE OF SITE AND AS REQUIRED BY LOCAL COUNCIL PRIOR TO COMMENCEMENT OF TOPSOIL STRIPPING.

E2 INSTALL DRAINAGE SYSTEM AND SILT FENCES AROUND PITS AS SOON AS PRACTICABLE.

E3 REINSTATE GRASS COVER AS SOON AS PRACTICABLE.

DRAINAGE NOTES

D1 ALL WORKS SHALL BE IN ACCORDANCE WITH AS3500.3

D2 FOR PIPE DIAMETERS NOT EXCEEDING 150mm, USE:
- VITRIFIED CLAY PIPE TO AS1741 OR
- SEWER GRADE UPVC TO AS1260 OR
- CLASS 2 FIBRE REINFORCED CONCRETE TO AS4139

D3 FOR PIPE DIAMETERS EXCEEDING 150mm, USE:
- CLASS 2 REINFORCED CONCRETE PIPE TO AS4058 OR
- CLASS 2 FIBRE REINFORCED CONCRETE PIPE TO AS4139
UNLESS NOTED OTHERWISE ON PLAN.

D4 PVC PIPES SHALL BE SOLVENT WELDED. ALL OTHER PIPES SHALL BE RUBBER RING JOINTED UNLESS NOTED OTHERWISE.

D5 UNLESS SPECIFIED OTHERWISE, BED & BACKFILL SHALL BE COMPACTED SAND TO 100mm ABOVE THE PIPE. REMAINDER OF BACKFILL SHALL BE COMPACTED EXCAVATED MATERIAL. WHEN UNDER VEHICULAR PAVEMENT, REMAINDER OF BACKFILL SHALL BE COMPACTED BASECOURSE.

D6 LOADS ON PIPES DURING CONSTRUCTION SHALL NOT EXCEED THE REQUIREMENT OF AS3725, OR THE RECOMMENDATIONS OF THE PIPE MANUFACTURER.

D7 TRENCH WIDTHS SHALL BE IN ACCORDANCE WITH AS3500, BUT NOMINALLY THE GREATER OF 1.5 PIPE DIAMETER OR PIPE DIAMETER PLUS 300.

D8 FOR ROOF DRAINAGE REFER HYDRAULIC ENGINEERS DRAWING.

D9 WSUD FEATURES
- ENVIROPOD INSERTS IN ALL PITS
- GROSS POLLUTANT TRAP VORTSENTRY MODEL H518 OR APPROVED EQUIVALENT.

CONCRETE NOTES

C1 ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS3600 CURRENT EDITION WITH AMENDMENTS, EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.

C2 CONCRETE QUALITY - AS NOTED BELOW.
PROJECT ASSESSMENT OF STRENGTH GRADE SHALL BE USED.

CONCRETE QUALITY				
ELEMENT	Strength Grade	Slump mm	Max. Agg. mm	Cement Type
KERBS AND FOOTINGS	N25	80	20	GP
VEHICULAR PAVEMENT	N40	80	20	GP
REMAINDER	N32	80	20	GP

C3 CLEAR COVER OF REINFORCEMENT SHALL BE AS NOTED ON THE DRAWINGS. REINFORCEMENT SHALL BE RIGIDLY SUPPORTED TO MAINTAIN SPECIFIED COVER DURING CONSTRUCTION.

C4 SIZES OF CONCRETE ELEMENTS DO NOT INCLUDE THICKNESS OF APPLIED FINISH.

C5 CONSTRUCTION JOINTS WHERE NOT SHOWN SHALL BE LOCATED TO THE APPROVAL OF THE CONTRACT ADMINISTRATOR.

C6 CONDUITS, PIPES ETC., SHALL ONLY BE LOCATED IN THE MIDDLE ONE THIRD OF SLAB DEPTH. (UNLESS NOTED OTHERWISE.)

C7 REINFORCEMENT SYMBOLS:
R - GRADE 250 PLAIN BAR IN ACCORDANCE WITH AS1302
N - GRADE 500 DEFORMED BAR DUCTILITY CLASS N (D500N) IN ACCORDANCE WITH AS/NZS4671 WITH A CARBON EQUIVALENT (CE) LIMIT OF 0.39 MAX.
SL - GRADE 500 SQUARE WELDED FABRIC, DEFORMED BARS DUCTILITY CLASS L (D500L) IN ACCORDANCE WITH AS/NZS4671.
RL - GRADE 500 RECTANGULAR WELDED FABRIC, DEFORMED BARS DUCTILITY CLASS L (D500L) IN ACCORDANCE WITH AS/NZS4671.

C8 REINFORCEMENT IS REPRESENTED DIAGRAMMATICALLY; IT IS NOT NECESSARILY SHOWN IN TRUE PROJECTION.

C9 SPLICES IN REINFORCEMENT SHALL BE MADE ONLY IN THE POSITIONS SHOWN. OBTAIN APPROVAL FROM THE CONTRACT ADMINISTRATOR FOR ANY OTHER SPLICES.

C10 WELDING OF REINFORCEMENT SHALL NOT BE PERMITTED UNLESS SHOWN ON THE STRUCTURAL DRAWINGS.

C11 FABRIC SHALL BE LAPPED 400 mm.

C12 BUNDLED BARS SHALL BE TIED TOGETHER AT 30 BAR DIAMETERS CENTRES WITH 3 WRAPS OF TIE WIRE.

C13 CURE CONCRETE IN ACCORDANCE WITH AS3600. METHOD OF CURING SHALL BE SUBMITTED TO THE CONTRACT ADMINISTRATOR FOR APPROVAL.

C14 WHERE SLABS OR BEAMS BEAR UPON MASONRY OTHER THAN REINFORCED BLOCK WALLS - THE TOP COURSE SHALL BE LEVEL, SMOOTH AND COVERED BY TWO LAYERS OF GALVANISED FLAT STEEL WITH GRAPHITE GREASE BETWEEN LAYERS.

ASPHALTIC CONCRETE PAVEMENT NOTES

AC1 SUB BASECOURSE MATERIAL SHALL BE DGS 40 MATERIAL COMPLYING WITH R.M.S. FORM QA3051.

AC2 BASECOURSE MATERIAL SHALL BE DGB 20 MATERIAL COMPLYING WITH R.M.S. FORM QA3051.

AC3 ASPHALTIC CONCRETE SURFACING SHALL BE SUPPLIED AND LAID IN ACCORDANCE WITH R.M.S. SPECIFICATION R116 & AS 2150 ASPHALTIC PAVING - GUIDE TO GOOD PRACTICE.

MASONRY NOTES

M1 ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS3700 CURRENT EDITION WITH AMENDMENTS, EXCEPT WHERE VARIED BY CONTRACT DOCUMENTS.

M2 MASONRY UNITS
MINIMUM CHARACTERISTIC UNCONFINED COMPRESSIVE STRENGTH (f'uc) = 15 MPa.

M3 MORTAR
MINIMUM MORTAR CLASSIFICATION M3

M4 UNLESS NOTED OTHERWISE MASONRY WALLS BUILT AGAINST STEEL OR CONCRETE COLUMNS, WALLS OR BEAMS SHALL BE FIXED TO THOSE ELEMENTS USING 50 mm WIDE x 1.5 mm THICK WITH 50 mm UPTURN GALVANISED STEEL BONDING TIES AT 600 mm MAXIMUM CENTRES, POWER FIXED WITH 3.8 DIA. DRIVE PINS. EMBED EACH TIE A MINIMUM OF 400 mm INTO COURSING OF HOLLOW BLOCKWORK, 300 INTO SOLID BLOCK WORK AND BRICKWORK.

M5 CAVITY AND VENEER TIES TO BE TYPE A, MEDIUM DUTY, SPACED AT 600mm MAX. CTS. (VERTICAL AND HORIZONTAL).
AT EACH SIDE OF COLUMNS AND CONTROL JOINTS, CROSS WALLS, AND AROUND THE PERIMETER OF OPENINGS, PROVIDE TIES AT 300mm MAX. CTS.

M6 CAVITIES IN MASONRY WALLS SHALL BE FILLED WITH MORTAR TO FINISH GROUND LEVEL PRIOR TO BACKFILLING AGAINST WALL. BACKFILLING AND COMPACTION OF FILL MATERIAL AGAINST BRICK WALLS SHALL BE CARRIED OUT SIMULTANEOUSLY ON EACH SIDE OF THE WALL.

M7 REINFORCED CONCRETE BLOCK WALLS SHALL COMPLY WITH THE FOLLOWING:

1. ALL BLOCKS SHALL BE DOUBLE "U" BLOCKS WITH SHALLOW TOP GROOVES FOR REINFORCEMENT.
2. ALL MORTAR DAGS SHALL BE REMOVED BEFORE FILLING CORES WITH GROUT. PROVIDE CLEAN OUT HOLES AT THE BASE OF ALL WALLS AND EACH POUR BREAK.
3. FILL ALL CORES WITH GROUT OF f'c 20 MPa SLUMP 230.
10 mm AGGREGATE SIZE. MINIMUM CEMENT CONTENT = 300kg/m^3.
4. ALL PERPENDS, EXCEPT WHERE REQUIRED FOR WEEPHOLES SHALL BE FULLY FILLED WITH MORTAR.
5. CORE GROUT IS TO BE COMPACTED TO ENSURE COMPLETE FILLING OF ALL CORES.
6. PROVIDE TEMPORARY PROPPING TO WALLS WHERE REQUIRED FOR STABILITY DURING CONSTRUCTION.
7. STARTER BARS SHALL BE ACCURATELY POSITIONED BY TEMPLATES OR SIMILAR MEANS.
8. STARTER BARS SHALL BE TIED TO VERTICAL WALL BARS THROUGH INSPECTION OPENINGS AT THE BASE OF THE WALL AND ALSO ACCURATELY FIXED IN POSITION AT THE TOP BY AN APPROPRIATE METHOD.
9. REINFORCEMENT SHALL BE ACCURATELY PLACED AND FIRMLY HELD IN POSITION TO A TOLERANCE OF ± 10 mm.

EXISTING SERVICES NOTES

ES1 AT START OF PROJECT, IDENTIFY THE LOCATION, TYPE, SIZE AND LEVEL OF ALL SERVICES. ADVISE THE SUPERINTENDENT IMMEDIATELY OF ANY POTENTIAL CLASHES WITH PROPOSED WORKS.

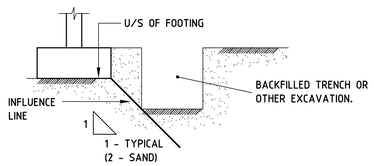
FOUNDATION NOTES

F1 UNLESS NOTED FOOTINGS SHALL BEAR UPON COMPACTED FILL OR VERY STIFF NATURAL CLAY WITH A MINIMUM ALLOWABLE BEARING CAPACITY OF 150KPa REFER TO GEOTECHNICAL REPORT No. 30104Srpt PREPARED BY JK GEOTECHNICS DATED 9TH OF FEBRUARY 2017

F2 FOUNDATION MATERIAL SHALL BE INSPECTED AND APPROVED BY A GEOTECHNICAL ENGINEER FOR THE NOMINATED ALLOWABLE BEARING CAPACITY PRIOR TO COMMENCING FOOTING CONSTRUCTION.

F3 FOOTINGS SHALL BE LOCATED CENTRAL UNDER WALLS AND COLUMNS UNLESS NOTED OTHERWISE.

F4 UNLESS OTHERWISE APPROVED, EXCAVATIONS NEAR NEW OR EXISTING FOOTINGS SHALL NOT BE WITHIN THE FOOTING INFLUENCE LINE.



LEGEND

CONCRETE FOOTPATH PAVEMENT:
110mm THICK N32 CONCRETE SLAB
REINFORCED WITH SL72 FABRIC (40 TOP COVER)
ON 100mm COMPACTED DGB20 BASECOURSE MATERIAL
ON COMPACTED SUBGRADE.
CONCRETE FINISH TO LANDSCAPE ARCHITECT'S DETAIL. 04

CONCRETE FOOTPATH PAVEMENT 2
125mm THICK N32 CONCRETE SLAB
REINFORCED WITH SL82 FABRIC (40 TOP COVER)
ON 100mm COMPACTED DGB20 BASECOURSE MATERIAL
ON COMPACTED SUBGRADE.
CONCRETE FINISH TO LANDSCAPE ARCHITECT'S DETAIL.

HEAVY DUTY CONCRETE PAVEMENT:
180mm THICK N40 CONCRETE SLAB
REINFORCED WITH SL102 FABRIC (40 TOP COVER) ON
100mm DGB20 BASECOURSE MATERIAL ON
COMPACTED SUBGRADE

ASPHALTIC CONCRETE CARPARK PAVEMENT:
40mm AC10 ON
200mm COMPACTED DGB20 BASECOURSE MATERIAL ON
200mm COMPACTED DGS40 SUB-BASECOURSE MATERIAL ON
COMPACTED SUBGRADE.

SYNTHETIC TURF:
50mm THICK SYTHETIC TURF TO LANDSCAPE ARCHITECT'S DETAIL
ON 150mm DGB20 BASECOURSE MATERIAL ON
COMPACTED SUBGRADE

SW	EXISTING STORMWATER PIPE
	NEW STORMWATER PIPE
	SWALE
KR	NEW KERB RAMP
K&G	NEW KERB & GUTTER
RK	ROLLED KERB
KO	KERB ONLY
DT	DOWNTURN
K&A	KERB AND APRON
FK	FLUSH KERB
KW	KERB RETAINING WALL
WS	WHEEL STOP
3.80	PROPOSED SPOT LEVEL
EX 3.80	EXISTING SPOT LEVEL
GD	GRATED DRAIN
TOW	TOP OF WALL
RW	RETAINING WALL
ET	EDGE THICKENING 04
	NEW GRATED PIT
	NEW COVER PIT
k	DOWELLED KEY JOINT
pd	PLATE DOWEL JOINT
c	COLOUR CHANGE JOINT. DRAWINGS TO BE READ IN CONJUNCTION WITH LANDSCAPE ARCHITECTS PLANS FOR ALL AREAS OF COLOUR CHANGE IN CONCRETE PAVEMENT.
(2E)	2 EXTRA N12 BARS
(2V)	2 EXTRA N12 BARS
CO	CLEAR OUT
DP	DOWNPIPE
FW	FLOOR WASTE
	PIPE ENLARGER
	DROPPER

DRAWING LIST

CIVIL WORKS

3199-CIV-DD-01_001	STANDARD NOTES & DRAWING LIST
3199-CIV-DD-01_002	CIVIL WORKS PLAN
3199-CIV-DD-01_003	LONG SECTION - SHEET 1
3199-CIV-DD-01_004	LONG SECTION - SHEET 2
3199-CIV-DD-01_005	CIVIL WORKS DETAILS - SHEET 1
3199-CIV-DD-01_006	CIVIL WORKS DETAILS - SHEET 2
3199-CIV-DD-01_007	CIVIL WORKS DETAILS - SHEET 3
3199-CIV-DD-01_008	SEDIMENT & EROSION CONTROL PLAN & DETAILS

AMMENDMENTS

REV	BY	DATE	DESCRIPTION
A	SETB	31.08.18	ISSUE FOR TENDER
B	SETB	05.04.19	DRAFT IFC
C	AP	18.04.19	GATEWAY 4 REVIEW - LEGEND UPDATED
01	A.P	10.05.19	ISSUE FOR CONSTRUCTION
02	A.P	21.06.19	CONCRETE PAVEMENT THICKNESS REVISED
03	A.P	16.10.19	DROPPER ADDED TO LEGEND
04	A.P	05.11.19	LEGEND UPDATED

Woolacotts. CONSULTING ENGINEERS
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Job Number	Approved	Verified	Prepared
16-242	SETB 10.05.19	AP 31.08.18	JK 31.08.18

NSW GOVERNMENT | Education

STRUCTURE, CIVIL & HYDRAULIC WOOLACOTTS ENGINEERS T: 02 8203 1500	PERUMAL PEDAVOLI ARCHITECTS T: 02 9291 0000 WEB: www.pp-a.com.au Nominated Architect: Vince Pedavoli NSW reg No.5045	PERUMAL PEDAVOLI ARCHITECTS
MECH, ELECT, IT, COMMS & SEC. JHA CONSULTING T: 02 9437 1000		
BCA GROUP DLA T: 02 8355 3160		
LANDSCAPE LORNA HARRISON P/L T: 02 9555 1147	STATUTORY PLANNER DON FOX PLANNING P/L T: 02 9473 4914	

PENSHURST PUBLIC SCHOOL
18 Arcadia Street, Penshurst

Drawing Name: STANDARD NOTES AND DRAWING LIST

CONTRACT NUMBER: SINSW-18-1257

PROJECT NORTH: NORTH

SCALE - @ A1

DRAWN	CHECKED	VERIFIED	Date
			10 MAY 2019

Drawing Number: 3199 - CIV- CD- 01_001 | Revision: 04

PROJECT CODE | DISCIPLINE | PHASE | SERIES NUMBER

CONSTRUCTION ISSUE

FOR CONTINUATION REFER INSET

FOR CONTINUATION REFER ABOVE

NEW BUILDING
FFL 51.00

NEW BUILDING
FFL 51.50

NEW BUILDING
FFL 50.50

NEW BUILDING
FFL 50.15

NEW BUILDING
FFL 50.85

750 DIA PIERS AT 2.5m CTS

NEW BORED PIER & SHOTCRETE RETAINING WALL.

WALL HEIGHT 2.4m

MASS PLANTED AREA.

200 DEEP SWALE

REGRADE AREA TO SUIT NEW LEVELS.

300 DEEP DOWNTURN TO ACCOMMODATE BALUSTRADE FIXING.

CONSTRUCT NEW STAIRS.
CONSTRUCT NEW RAMP.
GRATED DRAIN HIGH POINT.

CONSTRUCT NEW STAIRS.

GRATED DRAIN HIGH POINT.

CONSTRUCT NEW STAIRS.
NEW PIT 11
CL 51.35
IL 50.05

EDGE THICKENING TO BE FOUNDED ON TOP FOOTING LEVEL. TYPICAL.

REMOVABLE BOLLARD AND LINE MARKING TO AS 2890.6

NEW PIT 3
CL 50.80
IL 49.85

CONSTRUCT NEW STAIRS.

CONSTRUCT 300 WIDE CONCRETE DOWNTURN. REFER DETAIL.

NEW PIT 2
GL 51.40
IL 50.00

NEW PIT 1
GL 51.14
IL 50.50

300 DIA CLASS 4 PIPE

EXISTING STORMWATER TO BE DEMOLISHED.

PROVIDE 300 WIDE CONCRETE DOWNTURN. REFER DETAIL.
CONSTRUCT NEW RAMP.

CONSTRUCT CONCRETE CATCH DRAIN BETWEEN KERB AND RETAINING WALL. REFER DETAIL. CONNECT RETAINING WALL SUBSOIL DRAIN INTO KERB.

NEW GRATED DRAIN
GL 50.69
IL 50.20

REFER HYDRAULIC DRAWINGS FOR PUMP TEST PIT AND INTERNAL PIPEWORK.

PATH TO HAVE MIN 1% FALL AWAY FROM BUILDING.

CONSTRUCT NEW STAIRS.

NEW PIT 20
GL 49.43
IL 48.85

TANK OUTLET ACCESS GRATE.
GL 49.75

280 DIA ORIFICE ON OUTLET.
IL 48.55

ON-SITE DETENTION TANK
MIN VOLUME = 140m³
TWL 49.75
IL 48.75

RAINWATER TANK.
MIN VOL = 50KL

ACCESS GRATE
GL 50.12

ACCESS GRATE
GL 50.12

ACCESS GRATE
GL 50.05

GROSS POLLUTANT TRAP VORTSENTRY MODEL HS18 OR APPROVED EQUIVALENT.

NEW PIT 8
CL 50.08
IL 48.85

NEW PIT 7
CL 50.35
IL 49.05

NEW PIT 6
CL 50.37
IL 49.20
GRATED DRAIN HIGH POINT.

RETAINING WALL UNDER.

PROVIDE 300 WIDE CONCRETE DOWNTURN. REFER DETAIL.

CONSTRUCT NEW STAIRS.

RETAINING WALL UNDER.

BANK AT 1:4 MAX.

CHARGED PIPE TO BE CEMENT SOLVENT JOINT. CEMENT UP TO RL 49.75

RETAINING WALL SUBSOIL TO DISCHARGE INTO LANDSCAPE EMBANKMENT.

CONSTRUCT NEW RAMP. RECONSTRUCT/RAISE EXISTING PIT TO NEW LEVEL AND INSTALL COVER.

CONNECT RETAINING WALL SUBSOIL INTO EXISTING PIT.
EXISTING PIPEWORK TO REMAIN.

BRICK CLADDING TO ARCHITECT'S DETAIL. BRICK TIES TO BE PROVIDED AS PER STANDARD NOTES

DEMOLISH EXISTING PIPE.

NEW VEHICLE CROSSING AND DRIVEWAY TO REPLACE EXISTING.

REFER ARCHITECTURAL PLANS FOR SLIDING GATE DETAILS.

SYDNEY WATER SEWER MAIN.

NEW PIT 19 ON EXISTING PIPE.
GL 47.90
IL TO MATCH PIPE.

NEW PIT 18
GL 48.34
IL 46.45

CONTRACTOR TO LOCATE ALL SERVICES WITHIN ROAD RESERVE AND ADJUST NEW PIPE DEPTH TO AVOID EXISTING SERVICES NEW PIPE TO HAVE MIN 1% FALL.

INVERT LEVEL OF PIT TO BE CONFIRMED ONSITE PRIOR TO CONSTRUCTION.

CONNECT TO EXISTING PIT.
IL 46.30

EXISTING PIPE.

EXISTING COUNCIL PIT
GL 47.10
IL 46.33

EXISTING COUNCIL PIT.
GL 47.34
IL 44.17

NOTE: DRAWINGS TO BE READ IN CONJUNCTION WITH LANDSCAPE ARCHITECTS PLANS FOR ALL AREAS OF COLOUR CHANGE IN CONCRETE PAVEMENT.

NOTE: ALL EXISTING STORMWATER DRAINAGE STRUCTURES TO BE DEMOLISED. UNLESS NOTIFIED OTHERWISE.

NOTE:
A SUBSOIL DRAINAGE PIPE SHALL BE PROVIDED ADJACENT TO EVERY INLET STORMWATER PIPE AT EACH PIT FOR A DISTANCE UPSTREAM OF 3m. THE SUBSOIL PIPE SHALL BE FITTED WITH A FILTER SOCK TIED AT THE UPSTREAM END TO PRECLUDE THE ENTRY OF THE FILTER MATERIAL. THE SUBSOIL PIPE SHALL BE LAID AT THE SAME GRADE AS THE STORMWATER PIPELINE AT INVERT LEVEL OR 1 IN 20 MAX. PROVIDE FLAP VALVE AT CONNECTION TO PIT TO PREVENT BACKFLOW.

NOTE:
ALL RETAINING WALL SUBSOIL PIPES TO CONNECT INTO NEAREST STORMWATER PIT UNLESS NOTIFIED OTHERWISE. SUBSOIL LINE TO HAVE MIN. 0.5% GRADE.

NOTE:
DETAILED DILAPIDATION REPORTS INDICATING THE EXTENT OF EXISTING DAMAGE TO THE SURROUNDING EXISTING BUILDINGS ON NEIGHBOURING PROPERTIES ARE TO BE UNDERTAKEN BEFORE THE CONSTRUCTION OF THE BORED PIER RETAINING WALL AND BOUNDARY BLOCKWORK WALL.

REFERENCE DRAWINGS:

FOR STANDARD NOTES, DRAWING LIST AND LEGEND REFER TO DRG. No. CIV_01_001.

AMMENDMENTS

REV	BY	DATE	DESCRIPTION
03	A.P	26.06.19	OSD LOCATION REVISED
04	A.P	26.07.19	REVISED BIKE RAMP LAYOUT
05	A.P	29.08.19	EXTERNAL LIFT LEVELS REVISED
06	A.P	14.10.19	STAIR AND OUTDOOR AREA FOR CO-ORDINATION
07	A.P	16.10.19	NEW STAIR & OUTDOOR AREA AMMENDED
08	A.P	05.11.19	STAIR 1 AND 4 REVISED
09	A.P	29.04.20	STAIR AND DRIVEWAY REVISED
10	A.P	14.09.20	REVISED PATHWAY & JOINTING LAYOUT

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Job Number	Approved	Verified	Prepared
16-242	SETB 10.05.19	AP 31.08.18	JK 31.08.18

NSW GOVERNMENT | Education

STRUCTURE, CIVIL & HYDRAULIC
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BCA
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LANDSCAPE
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PERUMAL PEDAVOLI ARCHITECTS
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WEB: www.pp-a.com.au
Nominated Architect:
Vince Pedavoli NSW reg No.5045

STATUTORY PLANNER
DON FOX PLANNING P/L
T: 02 9473 4914

PERUMAL PEDAVOLI ARCHITECTS

PENSHURST PUBLIC SCHOOL
18 Arcadia Street, Penshurst

Drawing Name
CIVIL WORKS PLAN

CONTRACT NUMBER
SINSW-18-1257

PROJECT NORTH

SCALE 1:200 @ A1

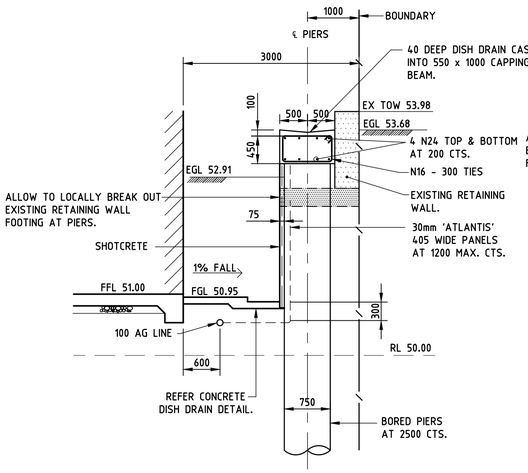
DRAWN	CHECKED	VERIFIED	Date
			SEPTEMBER 2020

Drawing Number | Revision

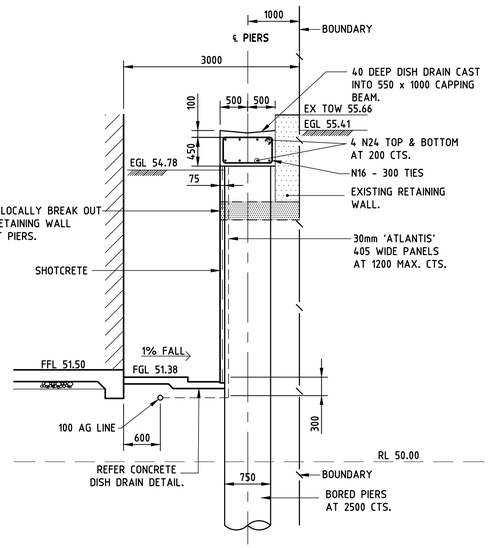
PROJECT CODE | DISCIPLINE | PHASE | SERIES NUMBER

3199 - CIV- CD- 01_002 | 10

CONSTRUCTION ISSUE

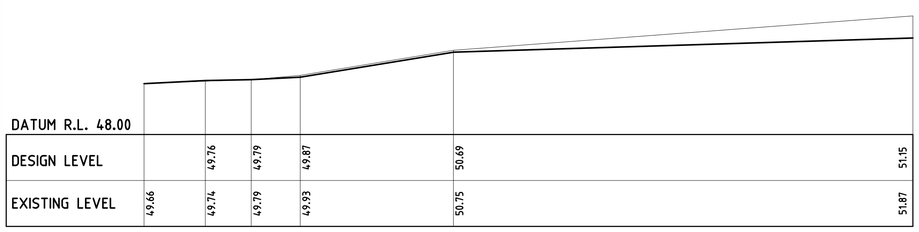


SECTION 1 / 002
SCALE 1:50



SECTION 2 / 002
SCALE 1:50

SECTION 3 / 002 SIMILAR



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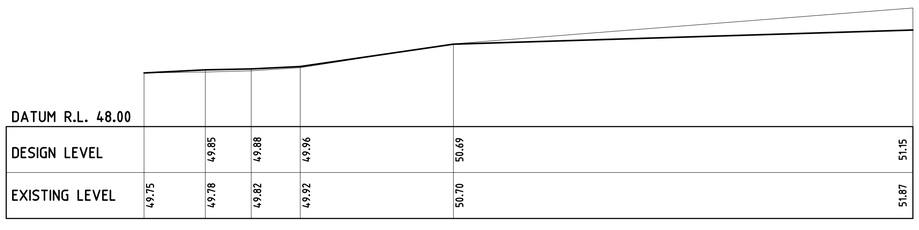

SECTION D / 002
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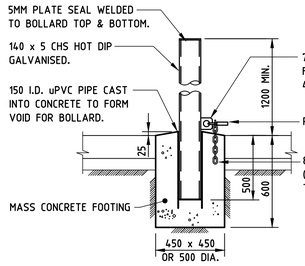
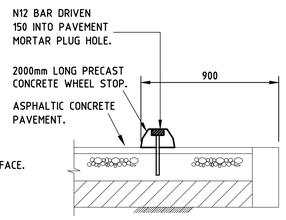


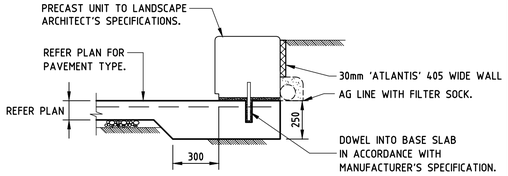
REMOVABLE BOLLARD (B)

ALL COMPONENETS TO BE HOT DIP GALVANISED.

REFER LANDSCAPE ARCHITECT'S PLANS FOR LOCATIONS.

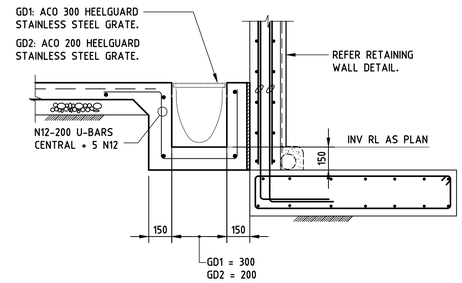


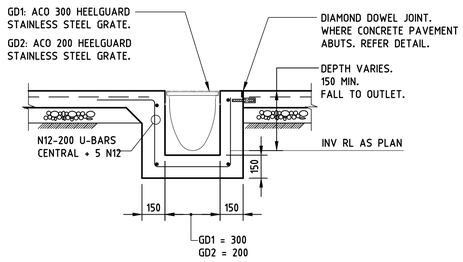
WHEEL STOP DETAIL (WS)



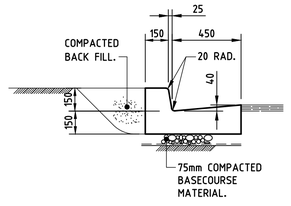
FOR ALL DIMENSIONS REFER LANDSCAPE ARCHITECT'S DETAILS.

PRECAST SEATING WALL DETAIL (CW)

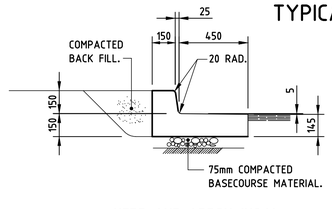




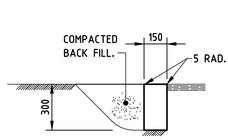
TYPICAL GRATED DRAIN DETAILS



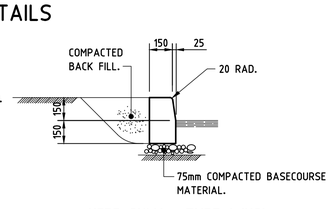
KERB & GUTTER (K&G)



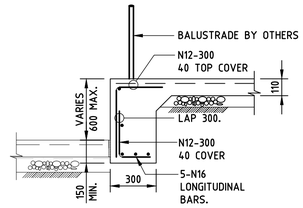
KERB AND APRON (K&A)



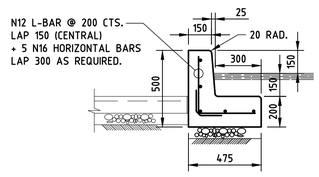
FLUSH KERB (FK)



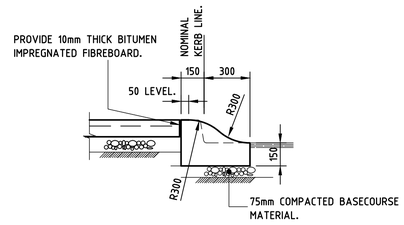
KERB ONLY - TYPE 1 (KO)



CONCRETE DOWNTURN (DT)



KERB ONLY - TYPE 2 (KO2)
DETAIL SIMILAR AT 300 HIGH KERB.

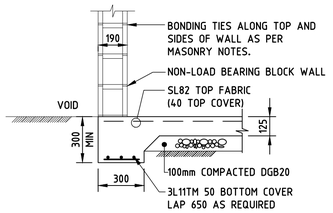


ROLL KERB ONLY (RK)

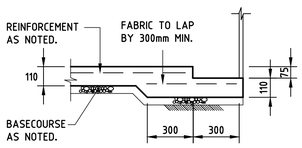
KERB AND GUTTER DETAILS

PROVIDE 10mm THICK BITUMEN IMPREGNATED FIBRE BOARD OR ABLEFLEX AT 9m CTS. AND TOOLED JOINT AT 3m CTS.

06

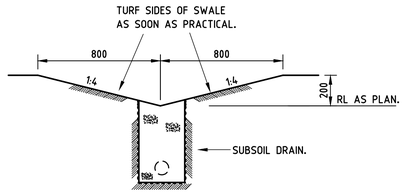


EDGE THICKENING (ET)



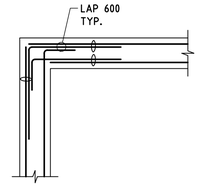
CONCRETE DISH DRAIN DETAIL

DISH DRAIN TO HAVE MIN 0.5% LONGITUDINAL FALL



TYPICAL SWALE DETAIL (WITH SUBSOIL DRAIN)

NOTE: SUBSOIL DRAINS ARE TO BE INSTALLED UNDER ALL NEW SWALES.



WALL CORNER DETAIL

VERTICAL BARS OMITTED FOR CLARITY.

REFERENCE DRAWINGS:

FOR STANDARD NOTES & DRAWING LIST REFER TO DRG. No. CIV_01_001.

AMMENDMENTS

REV	BY	DATE	DESCRIPTION
A	SETB	31.08.18	ISSUE FOR TENDER
B	SETB	05.04.19	DRAFT IFC
C	AP	18.04.19	GATEWAY 4 REVIEW
01	A.P	10.05.19	ISSUE FOR CONSTRUCTION
02	A.P	26.06.19	ORIFICE DETAIL MOVED - DWG 006
03	A.P	04.07.19	SECTIONS D & E REVISED
04	A.P	26.07.19	CONCRETE DISH DRAIN DETAIL ADDED
05	A.P	16.10.19	GRATED DRAIN DETAILS AMMENDED
06	A.P	05.11.19	EDGE THICKENING DETAIL ADDED

Woolacotts. CONSULTING ENGINEERS
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Ground Floor, 12a Brown Street, Chatswood, NSW 2067

Job Number	Approved	Verified	Prepared
16-242	SETB 10.05.19	AP 31.08.18	JK 31.08.18

NSW GOVERNMENT | Education

STRUCTURE, CIVIL & HYDRAULIC WOOLACOTTS ENGINEERS T: 02 8203 1500
MECH, ELECT, IT, COMMS & SEC. JHA CONSULTING T: 02 9437 1000
BCA GROUP DLA T: 02 8355 3160
LANDSCAPE LORNA HARRISON P/L T: 02 9555 1147
PERUMAL PEDAVOLI ARCHITECTS T: 02 9291 0000 WEB: www.pp-a.com.au Nominated Architect: Vince Pedavoli NSW reg No.5045
STATUTORY PLANNER DON FOX PLANNING P/L T: 02 9473 4914
PERUMAL PEDAVOLI ARCHITECTS

PENSHURST PUBLIC SCHOOL
18 Arcadia Street, Penshurst

Drawing Name: CIVIL WORKS DETAILS - SHEET 1

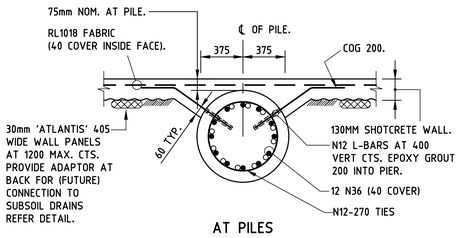
CONTRACT NUMBER: SINSW-18-1257
PROJECT NORTH: NORTH
SCALE 1:20 @ A1

DRAWN	CHECKED	VERIFIED	Date
			10 MAY 2019

Drawing Number | Revision

PROJECT CODE | DISCIPLINE | PHASE | SERIES NUMBER
3199 - CIV- CD- 01_005 | 06

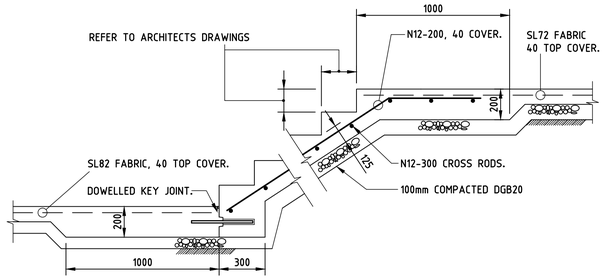
CONSTRUCTION ISSUE



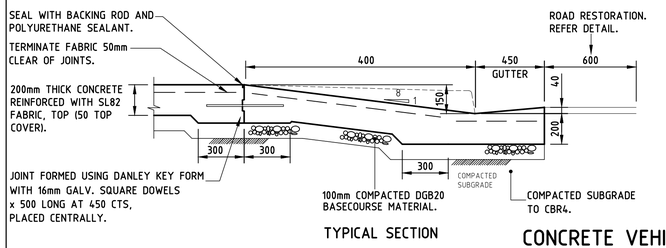
AT PILES

TYPICAL SHOTCRETE WALL DETAIL

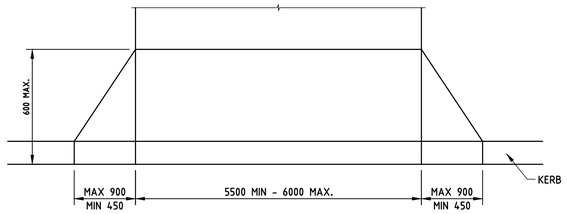
○ DENOTES SPLICE BARS



TYPICAL STAIR DETAIL



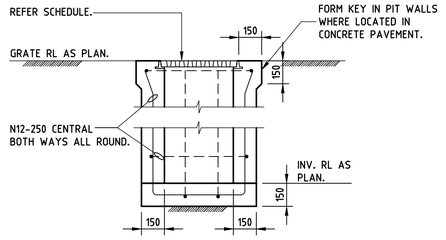
TYPICAL SECTION



PLAN

CONCRETE VEHICULAR CROSSING

NOTES:
1. DRIVEWAY TO BE GENERALLY PERPENDICULAR TO KERB LINE, UNLESS APPROVED OTHERWISE.
2. FOR NARROW FOOTPATH WIDTHS, LENGTH OF RAMP TO BE AS SHORT AS POSSIBLE, OR LAYBACK ONLY TO BE USED IN APPROVED APPLICATIONS.
3. FOR DRIVEWAYS WIDER THAN 6m, A TOOL JOINT SHALL BE PROVIDED ALONG THE CENTRE OF THE DRIVEWAY.
4. DRIVEWAY CONCRETE SHALL BE WOOD FLOAT FINISHED.



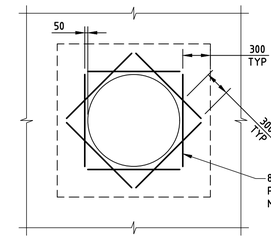
STANDARD PIT

PIT SCHEDULE

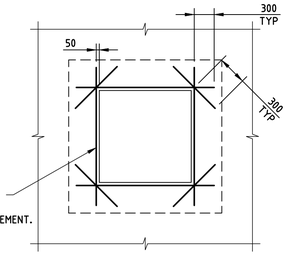
PIT No.	SIZE	GRATE/COVER & FRAME TYPE
1	600 x 600	CLASS 'A' GRATE AND FRAME
2	900 x 900	CLASS 'B' HEELGUARD STYLE GRATE AND FRAME
3	600 x 900	CLASS 'B' COVER AND FRAME
4	600 x 900	CLASS 'B' COVER AND FRAME
5	600 x 900	CLASS 'B' COVER AND FRAME
6	600 x 900	CLASS 'B' COVER AND FRAME
7	900 x 900	CLASS 'B' COVER AND FRAME
8	900 x 900	CLASS 'B' COVER AND FRAME
9	600 x 600	CLASS 'C' GRATE AND FRAME
10	600 x 600	CLASS 'B' HEELGUARD STYLE GRATE AND FRAME
11	900 x 900	CLASS 'B' COVER AND FRAME
12	600 x 900	CLASS 'B' HEELGUARD STYLE GRATE AND FRAME
15	600 x 900	CLASS 'B' HEELGUARD STYLE GRATE AND FRAME
16	600 x 600	CLASS 'B' HEELGUARD STYLE GRATE AND FRAME
18	900 x 900	CLASS 'B' GRATE AND FRAME
19	900 x 900	CLASS 'B' GRATE AND FRAME
20	600 x 600	CLASS 'B' GRATE AND FRAME

05

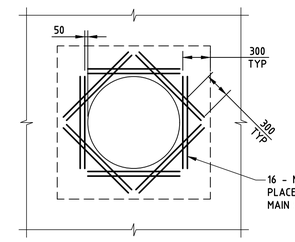
NOTE:
1. PROVIDE GALVANISED STEP IRONS AT PITS DEEPER THAN 1.2m IN ACCORDANCE WITH AS 3500.
2. PROVIDE ENVIROPOD INSERTS TO BE INSTALLED IN ALL GRATED INLET PITS.
3. ALL PITS TO HAVE LOCKABLE SECURE GRATES



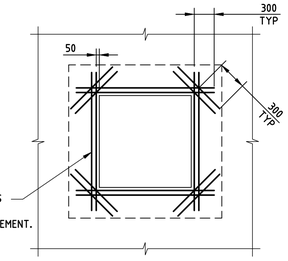
BASE SLAB - REINFORCING DETAIL
FOR PENETRATIONS = <1200mm



BASE SLAB - REINFORCING DETAIL
FOR PENETRATIONS = <1200mm IN BOTH DIRECTIONS

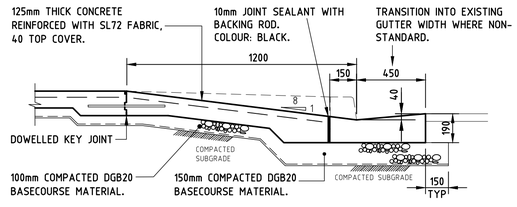


BASE SLAB - REINFORCING DETAIL
DETAIL FOR CIRCULAR PENETRATIONS



BASE SLAB - REINFORCING DETAIL
DETAIL FOR SQUARE PENETRATIONS

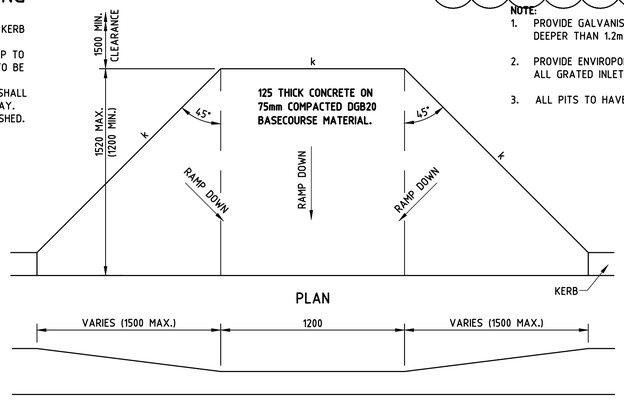
TYPICAL CONCRETE PAVEMENT PENETRATION DETAILS



SECTION

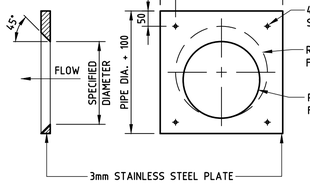
KERB RAMP (KR)

IN ACCORDANCE WITH AS 1428.1



PLAN

ELEVATION



ORIFICE DETAIL

NOT TO SCALE

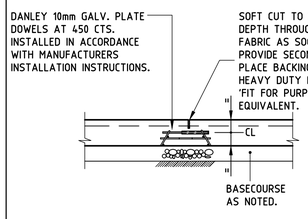
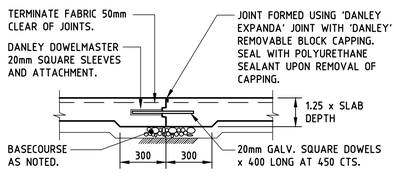
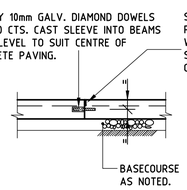


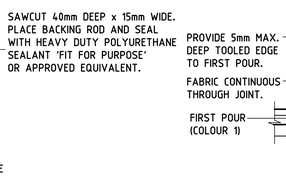
PLATE DOWEL JOINT
SHOWN 'pd' ON PLAN.



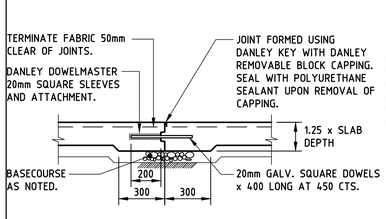
DOWELLED EXPANSION JOINT
SHOWN 'ej' ON PLAN.



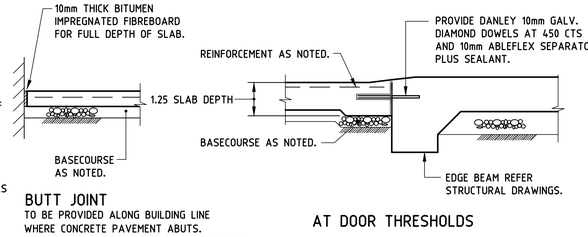
DIAMOND DOWEL JOINT
SHOWN AS 'dd' ON PLAN.



COLOUR CHANGE JOINT
SHOWN 'c' ON PLAN.

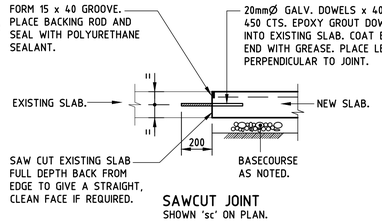


DOWELLED KEY JOINT
SHOWN 'k' ON PLAN.



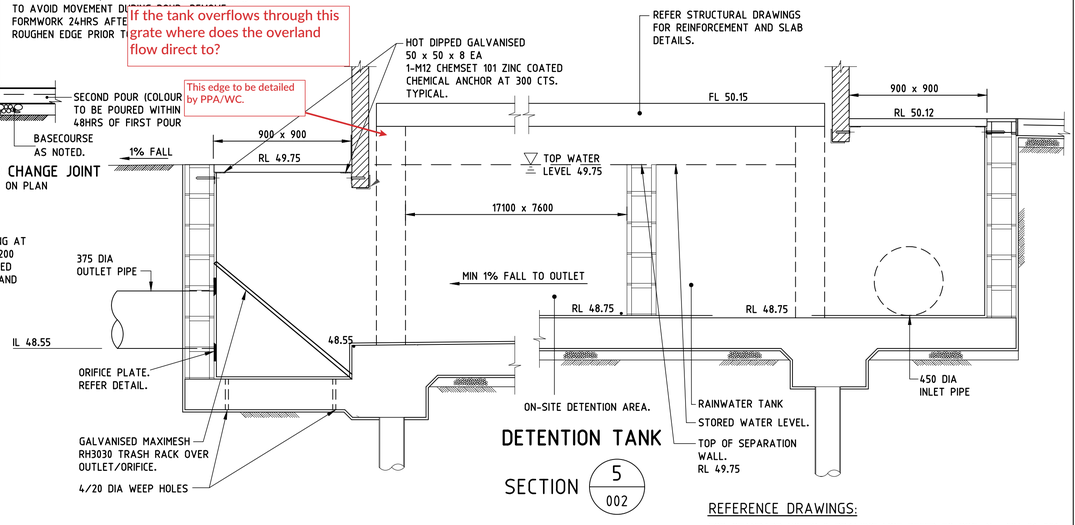
BUTT JOINT
TO BE PROVIDED ALONG BUILDING LINE
WHERE CONCRETE PAVEMENT ABUTS.
EXCEPT AT GRATED DRAINS AND DOORWAYS.
FOR JOINTS AT GRATED DRAINS AND DOORWAYS
REFER TO STRUCTURAL DRGS

AT DOOR THRESHOLDS



SAWCUT JOINT
SHOWN 'sc' ON PLAN.

CONCRETE JOINT DETAILS



DETENTION TANK

SECTION 5/002

REFERENCE DRAWINGS:
FOR STANDARD NOTES & DRAWING LIST REFER TO DRG. No. CIV_01_001.

AMMENDMENTS

REV	BY	DATE	DESCRIPTION
A	SETB	31.08.18	ISSUE FOR TENDER
B	SETB	05.04.19	DRAFT IFC
C	AP	18.04.19	GATEWAY 4 REVIEW-COLOUR CHANGE JOINT DETAIL
01	A.P	10.05.19	ISSUE FOR CONSTRUCTION
02	A.P	21.06.19	PAVEMENT PENETRATION DETAILS ADDED
03	A.P	26.06.19	OSD SECTION REVISED
04	A.P	16.10.19	PIT SCHEDULE AMMENDED
05	A.P	14.09.20	PIT SCHEDULE AMMENDED

Woolacotts. CONSULTING ENGINEERS
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Ground Floor, 12a Brown Street, Chatswood, NSW 2067

Job Number	Approved	Verified	Prepared
16-242	SETB 10.05.19	AP 10.05.19	JK 10.05.19

NSW GOVERNMENT Education

STRUCTURE, CIVIL & HYDRAULIC WOOLACOTTS ENGINEERS T: 02 8203 1500	PERUMAL PEDAVOLI ARCHITECTS T: 02 9291 0000 WEB: www.pp-a.com.au Nominated Architect: Vince Pedavoli NSW reg No.5045
MECH, ELECT, IT, COMMS & SEC. JHA CONSULTING T: 02 9437 1000	
BCA GROUP DLA T: 02 8355 3160	
LANDSCAPE LORNA HARRISON P/L T: 02 9555 1147	STATUTORY PLANNER DON FOX PLANNING P/L T: 02 9473 4914

PERUMAL PEDAVOLI ARCHITECTS

CONTRACT NUMBER: SINSW-18-1257

PENSHURST PUBLIC SCHOOL
18 Arcadia Street, Penshurst

Drawing Name: CIVIL WORKS DETAILS - SHEET 2

SCALE 1:20 @ A1

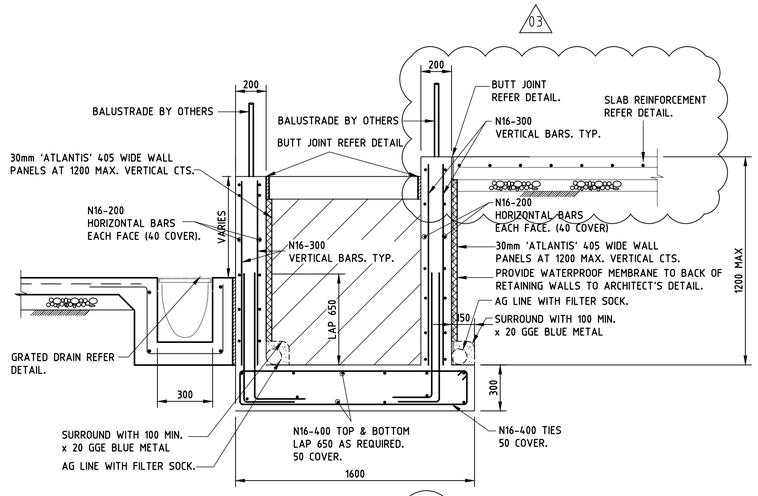
DRAWN	CHECKED	VERIFIED	Date
			SEPTEMBER 2020

PROJECT NORTH

Drawing Number: 3199 - CIV- CD- 01_006 — Revision: 05

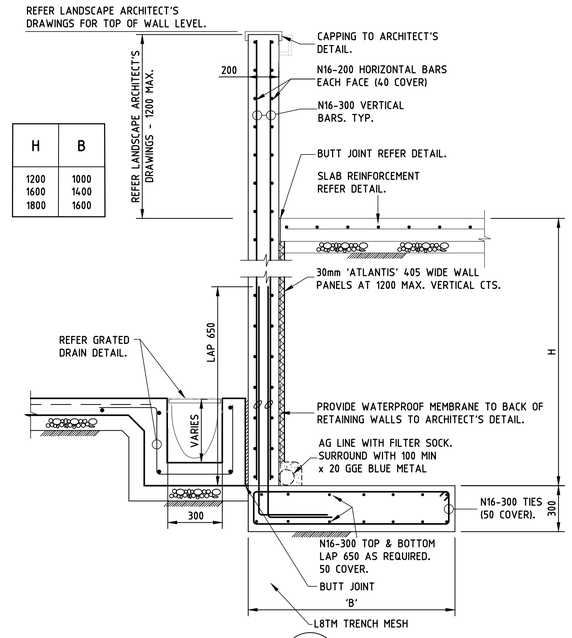
PROJECT CODE | DISCIPLINE | PHASE | SERIES NUMBER

CONSTRUCTION ISSUE



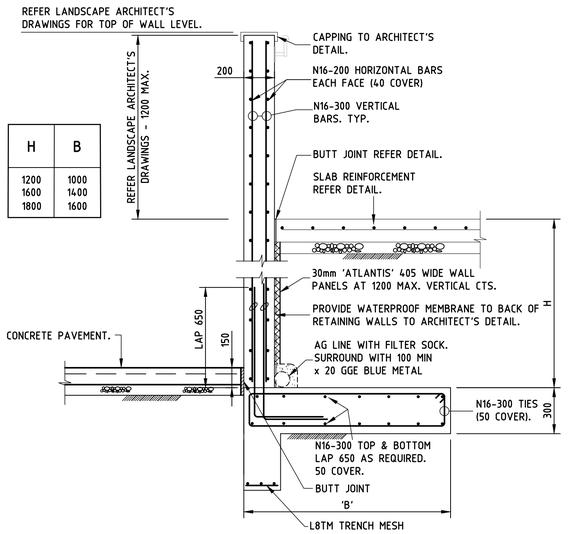
SECTION F / 002

RETAINING WALL TYPE 4 (RW4)

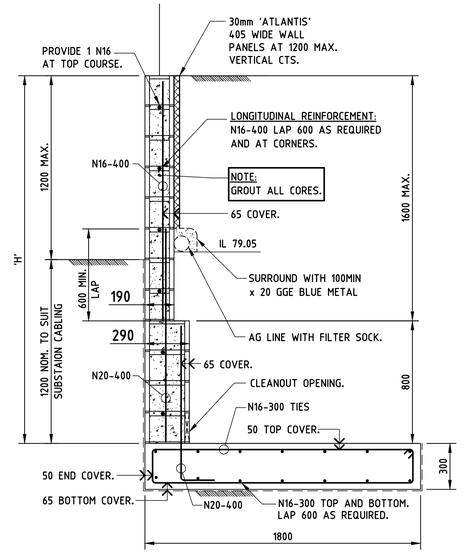


SECTION C / 002

CONCRETE RETAINING WALL (RW2)

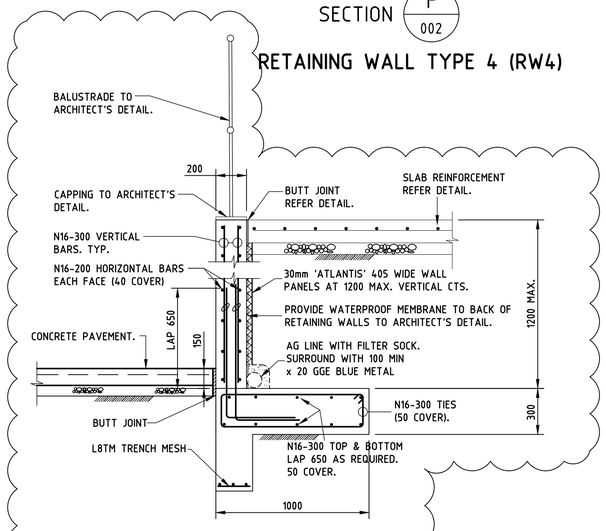


CONCRETE RETAINING WALL (RW3)

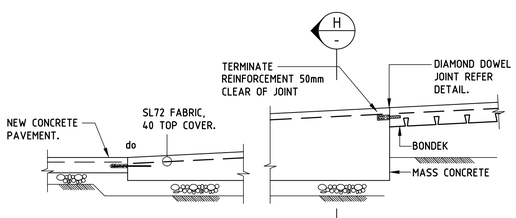


BLOCK RETAINING WALL 6 (RW6)

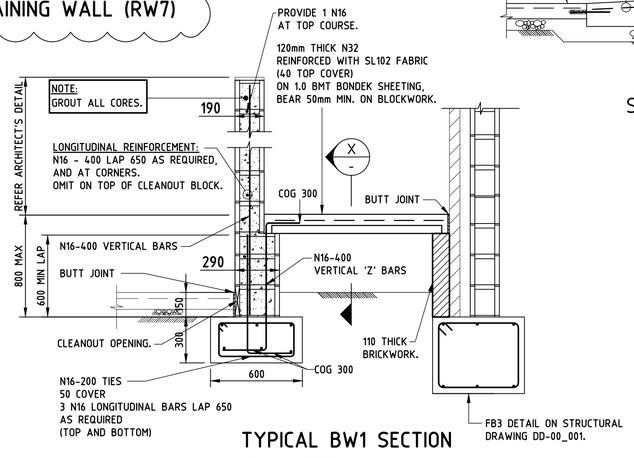
PROVIDE VERTICAL CONTROL JOINTS AT 12m MAX. CTS. (6m MAX FROM CORNERS) USING A 10mm BITUMEN IMPREGNATED FIBREBOARD SEPARATOR. TERMINATE HORIZONTAL REINFORCEMENT EACH SIDE OF JOINT. 50mm END COVER.



CONCRETE RETAINING WALL (RW7)

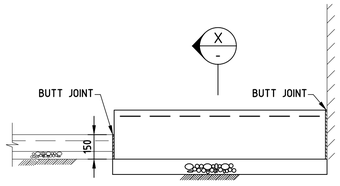


SECTION X / -



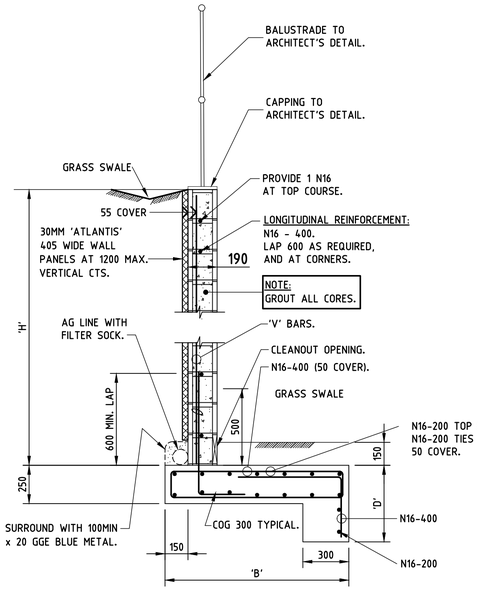
TYPICAL BW1 SECTION

AT BONDEK PORTION OF RAMP



SECTION H / -

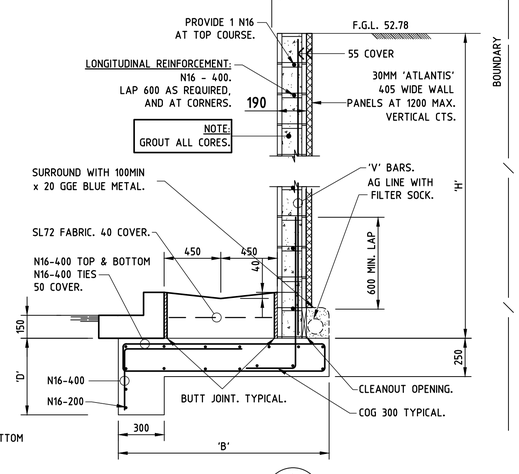
AT MASS CONCRETE PORTION OF RAMP.



BLOCK RETAINING WALL 5 (RW5)

H	B	D	V-BARS
1000	750	250	N16-400
1400	1000	250	N16-400
1800	1450	450	N16-400

PROVIDE VERTICAL CONTROL JOINTS AT 12m MAX. CTS. (6m MAX FROM CORNERS) USING A 10mm BITUMEN IMPREGNATED FIBREBOARD SEPARATOR. TERMINATE HORIZONTAL REINFORCEMENT EACH SIDE OF JOINT. 50mm END COVER.



SECTION 4 / 002
SCALE 1:20

RW1 RETAINING WALL TO 2.0M HEIGHT

H	B	D	V-BARS
800	750	250	N12-400
1000	750	250	N12-400
1200	800	250	N12-400
1400	1000	250	N16-400
1600	1200	350	N16-400
1800	1450	450	N16-400
2000	1700	550	N16-200

PROVIDE VERTICAL CONTROL JOINTS AT 12m MAX. CTS. (6m MAX FROM CORNERS) USING A 10mm BITUMEN IMPREGNATED FIBREBOARD SEPARATOR. TERMINATE HORIZONTAL REINFORCEMENT EACH SIDE OF JOINT. 50mm END COVER.

REFERENCE DRAWINGS:

FOR STANDARD NOTES & DRAWING LIST REFER TO DRG. No. CIV_01_001.

AMMENDMENTS

REV	BY	DATE	DESCRIPTION
A	AP	18.04.19	GATEWAY 4 REVIEW - RETAINING WALLS ADDED
01	A.P	10.05.19	ISSUE FOR CONSTRUCTION
02	A.P	26.07.19	BW1 DETAIL REVISED
03	A.P	16.10.19	RW7 ADDED, RW4 REVISED.

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Ground Floor, 12a Brown Street, Chatswood, NSW 2067

Job Number	Approved	Verified	Prepared
16-242	SETB 10.05.19	AP 10.05.19	JK 10.05.19

NSW GOVERNMENT | Education

STRUCTURE, CIVIL & HYDRAULIC WOOLACOTTS ENGINEERS T: 02 8203 1500	PERUMAL PEDAVOLI ARCHITECTS T: 02 9291 0000 WEB: www.pp-a.com.au Nominated Architect: Vince Pedavoli NSW reg No.5045
MECH, ELECT, IT, COMMS & SEC. JHA CONSULTING T: 02 9437 1000	
BCA GROUP DLA T: 02 8355 3160	
LANDSCAPE LORNA HARRISON P/L T: 02 9555 1147	STATUTORY PLANNER DON FOX PLANNING P/L T: 02 9473 4914

PERUMAL PEDAVOLI ARCHITECTS

PENSHURST PUBLIC SCHOOL
18 Arcadia Street, Penshurst

Drawing Name: CIVIL WORKS DETAILS - SHEET 3

CONTRACT NUMBER: SINSW-18-1257

PROJECT NORTH

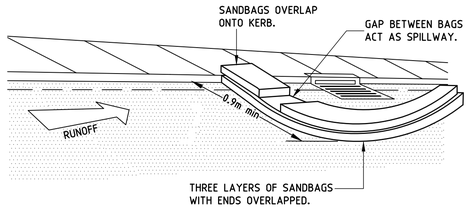
SCALE 1:20 @ A1

DRAWN	CHECKED	VERIFIED	Date
			10 MAY 2019

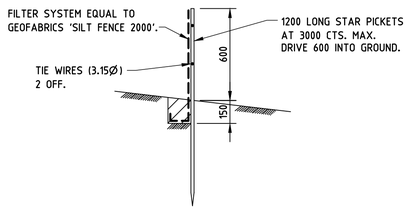
Drawing Number | Revision

PROJECT CODE	DISCIPLINE	PHASE	SERIES NUMBER	
3199	CIV	CD	01_007	03

CONSTRUCTION ISSUE

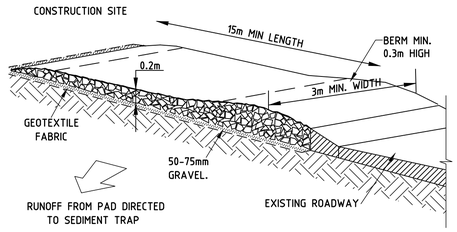


TYPICAL SANDBAG KERB INLET SEDIMENT TRAP



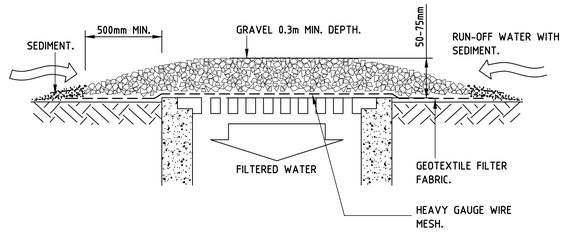
SILT FENCE DETAIL

TO BE PLACED AROUND LOW SIDE OF WORKS AND AS REQUIRED TO PREVENT SOIL WASHING OFF SITE.



TEMPORARY CONSTRUCTION EXIT

TO BE PROVIDED WHERE CONSTRUCTION VEHICLES LEAVE SITE.



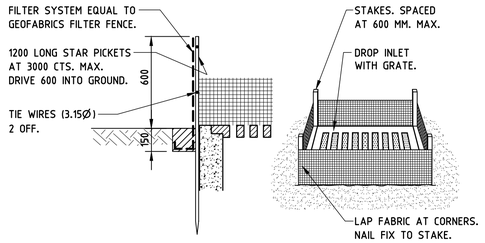
WIRE MESH AND GRAVEL DROP INLET SEDIMENT TRAP.

TO BE PROVIDED AT ALL NEW AND EXISTING GRATED PITS WITHIN IMPERVIOUS AREAS.

LEGEND

- TEMPORARY SITE EXIT
- DETENTION TANK
- RAINWATER TANK
- SW — EXISTING STORMWATER PIPE
- SILT FENCE
- SILT TRAP
- SWALE

NOTE.
- PROVIDE SILT TRAP AROUND ALL EXISTING GRATED INLET PITS UNTIL THEY ARE REMOVED/DEMOLISHED.
- PROVIDE SILT TRAPS AROUND ALL NEW PITS DURING CONSTRUCTION.

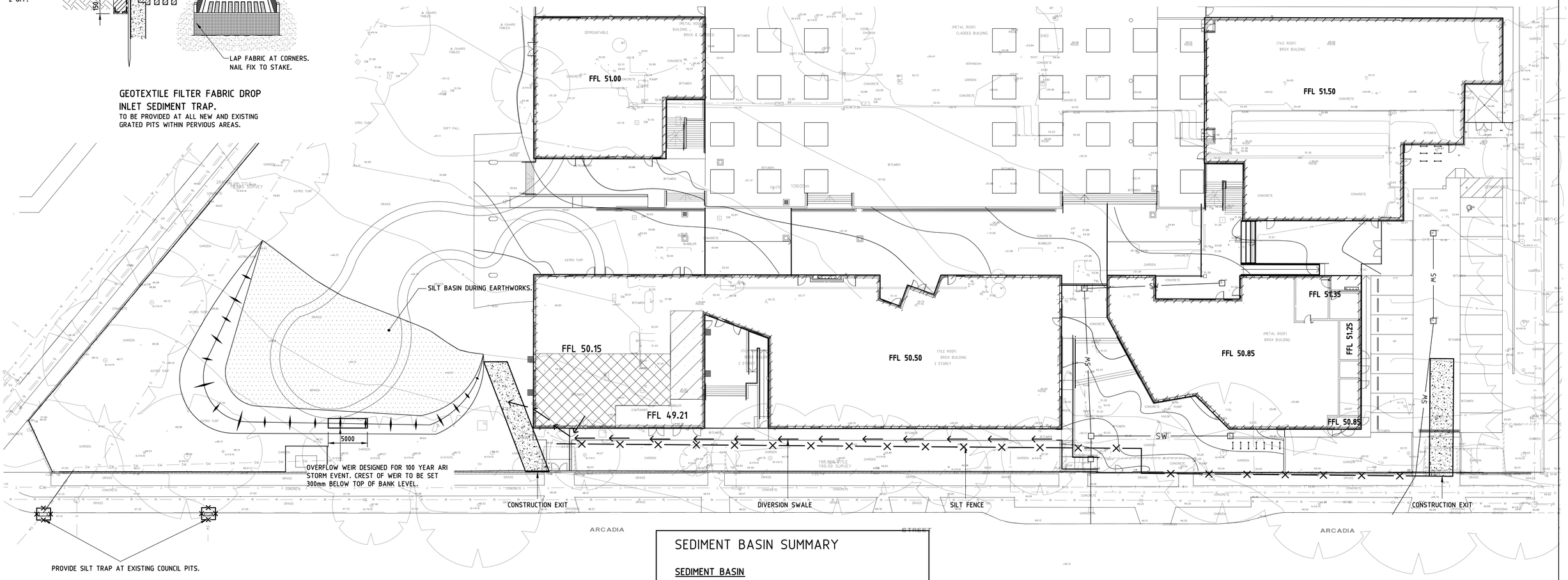


GEOTEXTILE FILTER FABRIC DROP INLET SEDIMENT TRAP.

TO BE PROVIDED AT ALL NEW AND EXISTING GRATED PITS WITHIN PERVIOUS AREAS.

EROSION AND SEDIMENT CONTROL DETAILS

PROVIDE AS REQUIRED TO PREVENT SILT FROM LEAVING THE SITE.



SEDIMENT BASIN SUMMARY

SEDIMENT BASIN

VOLUME CALCULATED IN ACCORDANCE WITH "MANAGING URBAN STORMWATER SOILS AND CONSTRUCTION VOLUME 1, 4TH EDITION 2004.".

TYPE D AND F SOILS	
DESIGN RAINFALL DEPTH (DAYS)	= 5 DAYS
DESIGN RAINFALL DEPTH (%)	= 85%
5DAY 85% RAINFALL EVENT (GRAFTON NSW)	= 31.5mm
RAINFALL INTENSITY 2YEAR, 6MIN STORM	= 9.82mm
RAINFALL EROSIVITY (R-FACTOR)	= 3557
VOLUMETRIC RUNOFF COEFFICIENT	= 0.64

BASIN VOLUMES

CATCHMENT AREA (ha)	= 1.051ha
SETTLING ZONE VOLUME (m^3)	= 212m^3
SEDIMENT STORAGE VOLUME (m^3)	= 106m^3
TOTAL BASIN VOLUME (m^3)	= 318m^3

SEDIMENT DETAIL TO BE CONSTRUCTED IN ACCORDANCE WITH DETAIL SD6-4 OF "MANAGING URBAN STORMATER-SOILS AND CONSTRUCTION, VOLUME 1, 4TH EDITION 2004"

AMMENDMENTS

REV	BY	DATE	DESCRIPTION
01	A.P	10.05.19	ISSUE FOR CONSTRUCTION

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16-242	SETB 10.05.19	AP 10.05.19	JK 10.05.19

NSW GOVERNMENT | Education

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STATUTORY PLANNER: DON FOX PLANNING P/L T: 02 9473 4914

PERUMAL PEDAVOLI ARCHITECTS

PENSHURST PUBLIC SCHOOL
18 Arcadia Street, Penshurst

Drawing Name: SEDIMENT & EROSION CONTROL PLAN & DETAILS

CONTRACT NUMBER: SINSW-18-1257

PROJECT NORTH: NORTH

SCALE 1:250 @ A1

DRAWN	CHECKED	VERIFIED	Date
			10 MAY 2019

Drawing Number: 3199 - CIV- CD- 01_008 | Revision: 01

PROJECT CODE | DISCIPLINE | PHASE | SERIES NUMBER