PROJECT: SIKH GRAMMAR SCHOOL

PLANSET: CONCEPT CIVIL DESIGN

CLIENT: SIKH GRAMMAR SCHOOL AUSTRALIA

LOCALITY PLAN
N.T.S.

DRAWING LIST		
DWG NO.	REV	DWG TITLE
GENERAL		
PS05-A000	E	COVER SHEET
PS05-A050	D	DEVELOPMENT OVERVIEW PLAN (FINAL STAGE)
CONSTRUCTION MANAGEMENT WORKS		
PS05-B300	D	SEDIMENT & EROSION CONTROL PLAN (STAGE 1)
PS05-B301	C	SEDIMENT & EROSION CONTROL PLAN (FINAL STAGE)
PS05-B310	C	SEDIMENT & EROSION CONTROL DETAILS
EARTHWORKS		
PS05-C100	E	EARTHWORKS GRADING PLAN (STAGE 1)
PS05-C101	D	EARTHWORKS GRADING PLAN (FINAL STAGE)
PS05-C500	C	EARTHWORKS CUT-FILL PLAN (STAGE 1)
PS05-C501	D	EARTHWORKS CUT-FILL PLAN (FINAL STAGE)
ROADWORKS		
PS05-D100	E	ROADWORKS PLAN (STAGE 1) - TALLAWONG ROAD
PS05-D200	E	TALLAWONG ROAD (22-MRC05) LONGITUDINAL SECTION & TYPICAL CROSS SECTION
DRAINAGE WORKS		
PS05-E100	E	DRAINAGE PLAN (STAGE 1)
PS05-E101	D	DRAINAGE PLAN (FINAL STAGE)
PS05-E200	B	DRAINAGE DETAILS (SHEET 1)
PS05-E201	E	DRAINAGE DETAILS (SHEET 2)
PS05-E202	A	DRAINAGE DETAILS (SHEET 3)
PS05-E203	A	DRAINAGE DETAILS (SHEET 4)
PS05-E204	A	DRAINAGE DETAILS (SHEET 5)
PS05-E205	A	DRAINAGE DETAILS (SHEET 6)
PS05-E206	A	DRAINAGE DETAILS (SHEET 7)
PS05-E207	A	DRAINAGE DETAILS (SHEET 8)
PS05-E300	B	DRAINAGE LONGITUDINAL SECTIONS - STAGE 1 - SHEET 1
PS05-E301	B	DRAINAGE LONGITUDINAL SECTIONS - STAGE 1 - SHEET 2
PS05-E310	A	DRAINAGE LONGITUDINAL SECTIONS - FINAL STAGE - SHEET 1
PS05-E311	A	DRAINAGE LONGITUDINAL SECTIONS - FINAL STAGE - SHEET 2
PS05-E312	A	DRAINAGE LONGITUDINAL SECTIONS - FINAL STAGE - SHEET 3
PS05-E313	A	DRAINAGE LONGITUDINAL SECTIONS - FINAL STAGE - SHEET 4
PS05-E314	A	DRAINAGE LONGITUDINAL SECTIONS - FINAL STAGE - SHEET 5
PS05-E500	A	PIT SCHEDULE - STAGE 1
PS05-E501	A	PIT SCHEDULE - FINAL STAGE - SHEET 1
PS05-E502	A	PIT SCHEDULE - FINAL STAGE - SHEET 2
PS05-E600	A	OSD CATCHMENT PLAN - MODEL & RESULTS (STAGE 1)
PS05-E601	D	OSD CATCHMENT PLAN - MODEL & RESUTLS (FINAL STAGE)
PS05-E701	D	WATER QUALITY CATCHMENT PLAN - MODEL & RESULTS (FINAL STAGE)

NOTES:
1. THIS PLAN IS FOR STATE SIGNIFICANT DEVELOPMENT APPLICATION PURPOSE AND NOT FOR CONSTRUCTION. DESIGN TO BE REVIEWED AND UPDATED FOR CONSTRUCTION CERTIFICATE.
2. ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH, AND THESE NOTES ARE TO BE READ IN CONJUNCTION WITH THE RELEVANT AUSTRALIAN STANDARDS, COUNCIL SPECIFICATIONS, AND ALL PROJECT CONSULTANT'S PLANS AND REPORTS.
3. INTERNAL SURVEY INFORMATION SHOWN BASED ON SURVEY INFORMATION PROVIDED BY PROJECT SURVEYOR.
4. LEVELS ARE TO AUSTRALIAN HEIGHT DATUM (AHD).
5. FINAL SURFACE CONTOURS ARE BASED ON PROPOSED AND EXISTING AND LIDAR SURFACE.

NSW DEPARTMENT OF PLANNING, INFRASTRUCTURE AND ENVIRONMENT

LGA: BLACKTOWN CITY COUNCIL

150-161 TALLAWONG ROAD, ROUSE HILL, NSW

LOT 42 & 43, DP 30186

STATE SIGNIFICANT DEVELOPMENT APPLICATION SSDA 9210

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E	**MINOR AMENDMENTS**	**21/08/2020**	**JS**	**AVG**	**SL**	**TH**
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A	INITIAL RELEASE	19/03/2019	CG/GM	CG/AVG	SL	TH

SCALE

GRID: ---
DATUM: ---
PROJECT MANAGER: TH

CLIENT: SIKH GRAMMAR SCHOOL AUSTRALIA

PROJECT NAME/PLANSET TITLE
SIKH GRAMMAR SCHOOL
CONCEPT CIVIL DESIGN
150-161 TALLAWONG ROAD, ROUSE HILL, NSW
LOT 42 & 43, DP 30186

martens & Associates Pty Ltd
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Geotechnical
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Email: mail@martens.com.au Internet: www.martens.com.au

DRAWING TITLE: COVER SHEET

PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1806439	PS05	R06	PS05-A000	E

DRAWING ID: P1806439-PS05-R06-A000

PRINTED: ---- USER: JSUAREZ

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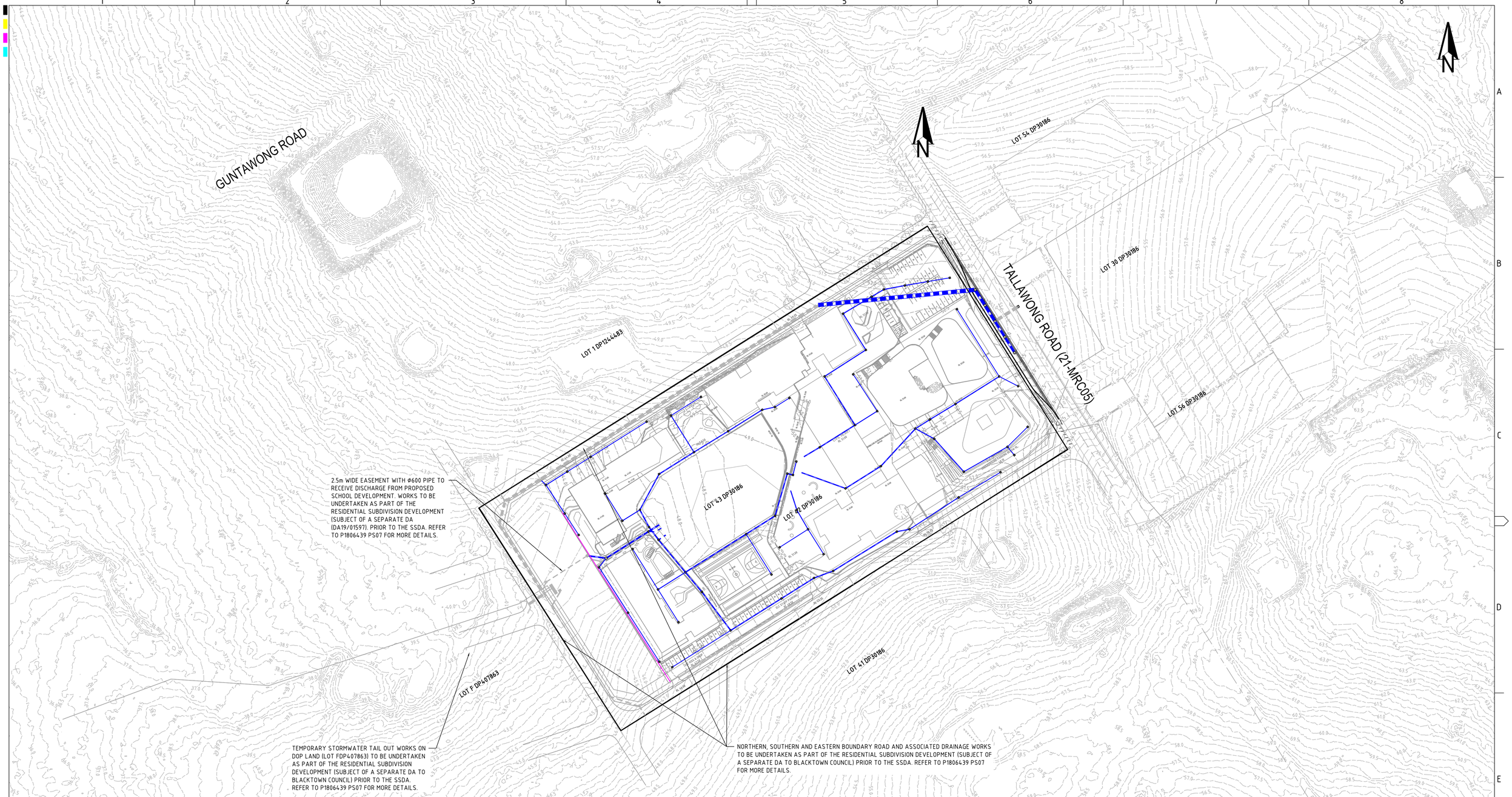

STATE SIGNIFICANT DEVELOPMENT APPLICATION SSDA 9210

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GRID	DATUM	PROJECT MANAGER
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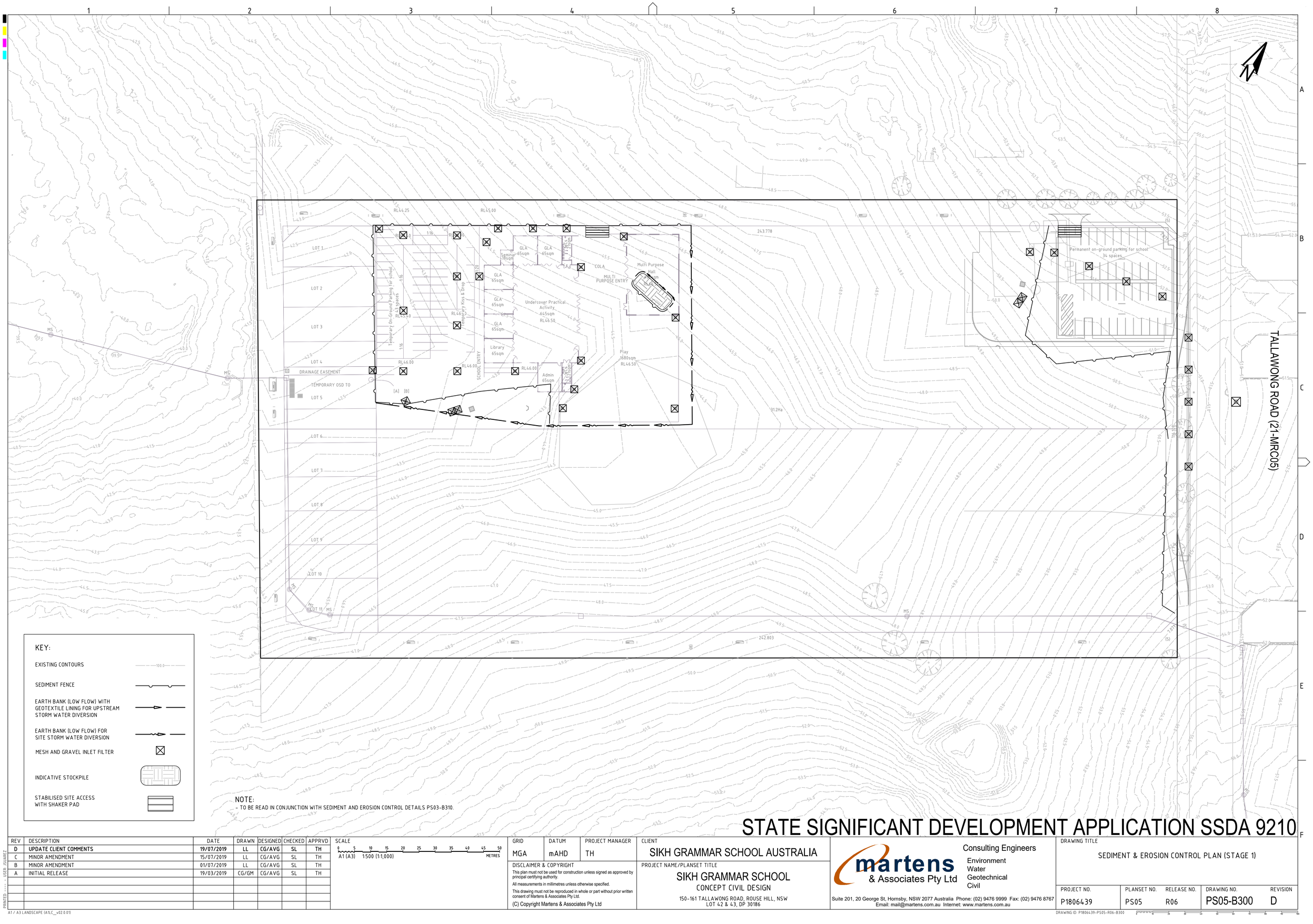
DRAWING TITLE
DEVELOPMENT OVERVIEW PLAN (FINAL STAGE)

PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1806439	PS05	R06	PS05-A050	D

PRINTED ---- USER: JSUAREZ
A1 / A3 LANDSCAPE (A1LC_v02.0.01)
DRAWING ID: P1806439-PS05-R06-A050



KEY:

- EXISTING CONTOURS
- SEDIMENT FENCE
- EARTH BANK (LOW FLOW) WITH GEOTEXTILE LINING FOR UPSTREAM STORM WATER DIVERSION
- EARTH BANK (LOW FLOW) FOR SITE STORM WATER DIVERSION
- MESH AND GRAVEL INLET FILTER
- INDICATIVE STOCKPILE
- STABILISED SITE ACCESS WITH SHAKER PAD

NOTE:
- TO BE READ IN CONJUNCTION WITH SEDIMENT AND EROSION CONTROL DETAILS PS03-B310.

STATE SIGNIFICANT DEVELOPMENT APPLICATION SSDA 9210

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GRID	DATUM	PROJECT MANAGER
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CLIENT
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DRAWING TITLE
SEDIMENT & EROSION CONTROL PLAN (STAGE 1)

PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1806439	PS05	R06	PS05-B300	D

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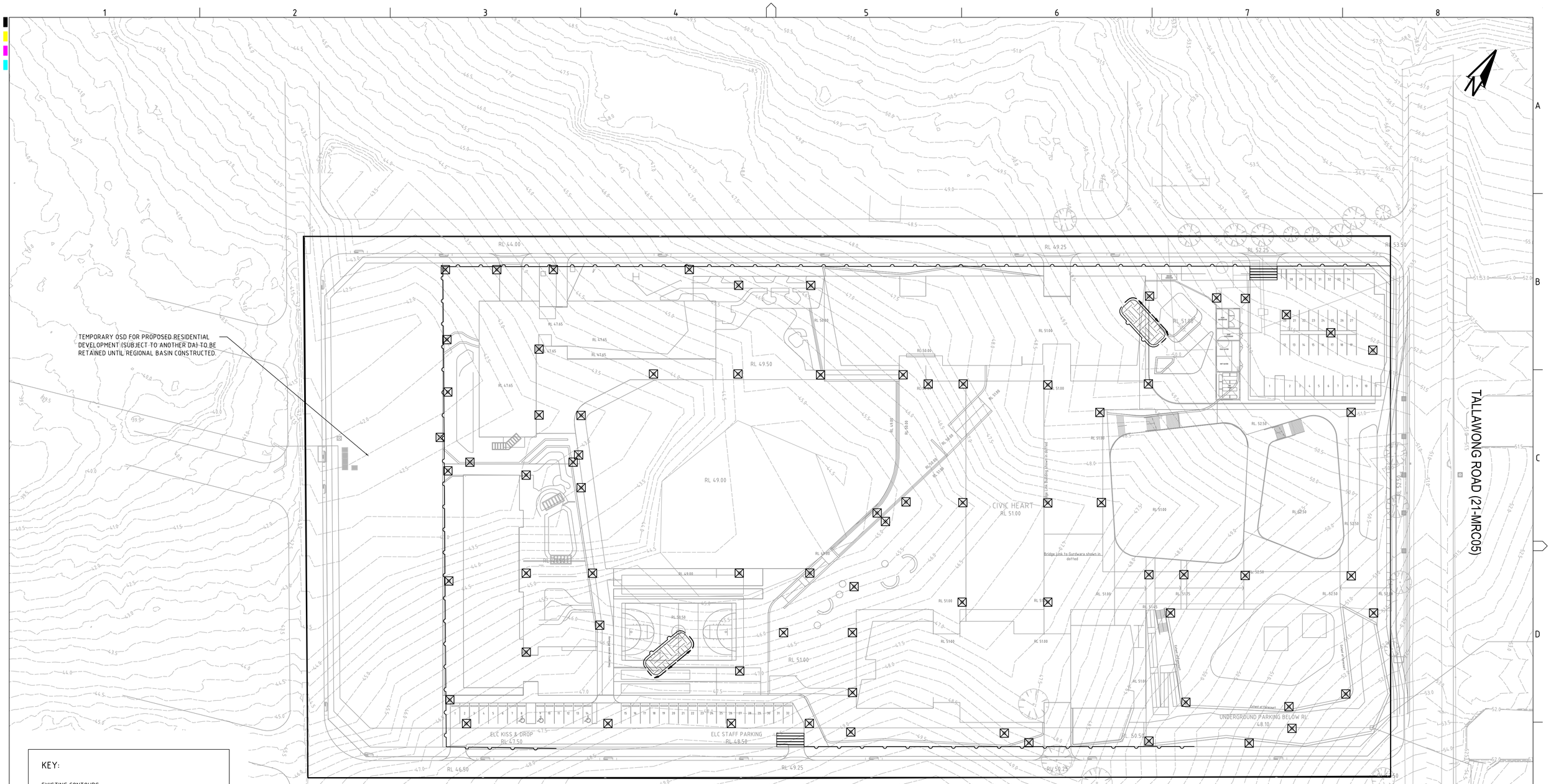
DRAWING ID: P1806439-PS05-R06-B300



KEY:

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- SEDIMENT FENCE
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- EARTH BANK (LOW FLOW) FOR SITE STORM WATER DIVERSION
- MESH AND GRAVEL INLET FILTER
- INDICATIVE STOCKPILE
- STABILISED SITE ACCESS WITH SHAKER PAD

NOTE:
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STATE SIGNIFICANT DEVELOPMENT APPLICATION SSDA 9210

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SCALE
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DRAWING TITLE
SEDIMENT & EROSION CONTROL PLAN (FINAL STAGE)

PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1806439	PS05	R06	PS05-B301	C

DRAWING ID: P1806439-PS05-R06-B301

PRINTED ---- USER: JSUAREZ
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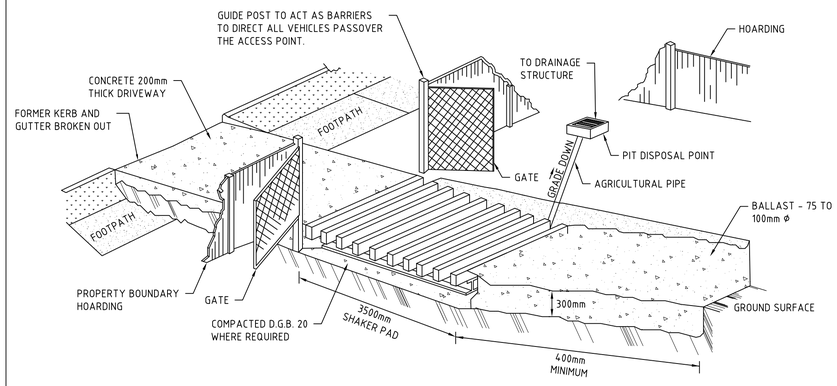
STABILISED ACCESS POINT

TYPE II SAP

THE TYPE II SAP DESIGN IS MORE DEFINED IN THAT IT REQUIRES AN AREA OF BALLAST WITHIN THE SITE COMBINED WITH A SHAKER PAD; ADJACENT THE SHAKER PAD AND IN THE PUBLIC WAY IS A TEMPORARY (CONCRETE) VEHICULAR CROSSING. (SEE DIAGRAM)

STABILISED ACCESS POINT - TYPE 2



IN BOTH TYPE I AND TYPE II SAP'S, THE TEMPORARY VEHICULAR CROSSING MUST:
CONNECT TO AN EXISTING GUTTER LAYBACK (WHERE THE KERB AND GUTTER EXIST) . IF A GUTTER LAYBACK DOES NOT EXIST THEN THE CONNECTION MUST BE MADE TO THE GUTTER BY REMOVING THE ADJCENT KERB SECTION ONLY.
CONNECT TO A DISH CROSSING (WHERE KERB AND GUTTER DOES NOT EXIST). IF A DISH CROSSING DOES NOT EXIST, THEN IT MUST BE CONSTRUCTED IN ACCORDANCE WITH DETAILS CONTAINED IN COUNCIL'S ISSUED FOOTPATH CROSSING LEVELS.

IT SHOULD BE NOTED THAT THESE TYPES OF SAPS ARE CONSIDERED TO BE APPLICABLE FOR THE MAJORITY OF ACTIVITIES HOWEVER SOME SITES MAY REQUIRE SPECIAL CONSIDERATION.

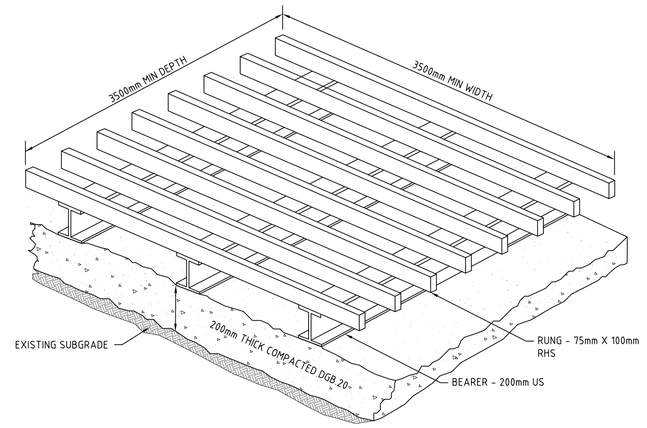
SHAKER PAD (CATTLE GRID)

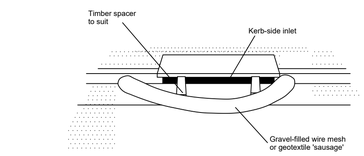
A CORRECTLY DESIGNED AND INSTALLED SHAKER PAD WILL ASSIST IN PREVENTING SEDIMENT TRANSFERE FROM A SITE. ANY STABILISED ACCESS POINT (SAP) CAN BE DESIGNED WITH A SHAKER PAD (COMPULSOPRY IN TYPE II SAP'S)

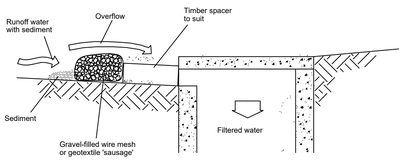
SHAKER PADS CAN BE DESIGNED AND CONSTRUCTED TO ENABLE RE-USE ON FUTURE PROJECTS.
THE SHAKER PAD:

-MUST BE DESIGNED AND CERTIFIED BY A PRACTICING STRUCTURAL ENGINEER. THE CERTIFIED DESIGN SHOULD BE SUBMITTED WITH THE RELEVENT APPLICATION.
-CAN BE CONSTRUCTED FROM ANY SUITABLE MATERIAL.
-MUST BE LOCATED ON A SUITABLY PREPARED AND COMPACTED SUB-GRADE/BASE MATERIAL.
-MUST BE SITUATED SUCH THAT THE RUNGS OF THE SHAKER PAD ARE LEVEL WITH THE ADJOINING NATURAL SURFACE.
-MUST BE A MINIMUM OF 3.5M IN LENGTH.
-MUST BE A MINIMUN OF 3.5M IN WIDTH.
-MUST HAVE CLEAR SPACING BETWEEN RUNGS OF 200 - 250mm.
-RUNGS MUST HAVE A MAXIMUM WIDTH (BEARING AREA) OF 75mm.
-MUST HAVE A MINIMUM CLEAR DEPTH OF 300mm IE FORM THE ROP OF THE RUNG TO THE FINISHED SUB-GRADE/BASE LEVEL

THE SHAKER PAD MUST BE PROVIDED WITH SUITABLE BARRIERS AT THE SIDES TO ENSURE THAT ALL TYERS OF VEHICLES LEAVING THE SITE TRAVERSE THE DEVICE.





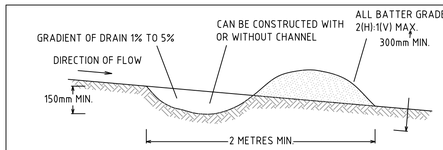


NOTE: This practice only to be used where specified in an approved SWMP/ESCP.

Construction Notes

1. Install filters to kerb inlets only at sag points.
2. Fabricate a sleeve made from geotextile or wire mesh longer than the length of the inlet pit and fill it with 25 mm to 50 mm gravel.
3. Form an elliptical cross-section about 150 mm high x 400 mm wide.
4. Place the filter at the opening leaving at least a 100-mm space between it and the kerb inlet. Maintain the opening with spacer blocks.
5. Form a seal with the kerb to prevent sediment bypassing the filter.
6. Sandbags filled with gravel can substitute for the mesh or geotextile providing they are placed so that they firmly abut each other and sediment-laden waters cannot pass between.

MESH AND GRAVEL INLET FILTER ☒ SD 6-11

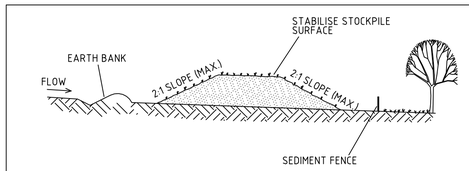


NOTE: ONLY TO BE USED AS TEMPORARY BANK WHERE MAXIMUM UPSLOPE LENGTH IS 80 METRES.

CONSTRUCTION NOTES

1. BUILD WITH GRADIENTS BETWEEN 1 PERCENT AND 5 PERCENT.
2. AVOID REMOVING TREES AND SHRUBS IF POSSIBLE - WORK AROUND THEM.
3. ENSURE THE STRUCTURES ARE FREE OF PROJECTIONS OR OTHER IRREGULARITIES THAT COULD IMPEDE WATER FLOW.
4. BUILD THE DRAINS WITH CIRCULAR, PARABOLIC OR TRAPEZOIDAL CROSS SECTIONS, NOT V SHAPED.
5. ENSURE THE BANKS ARE PROPERLY COMPACTED TO PREVENT FAILURE.
6. COMPLETE PERMANENT OR TEMPORARY STABILISATION WITHIN 10 DAYS OF CONSTRUCTION.

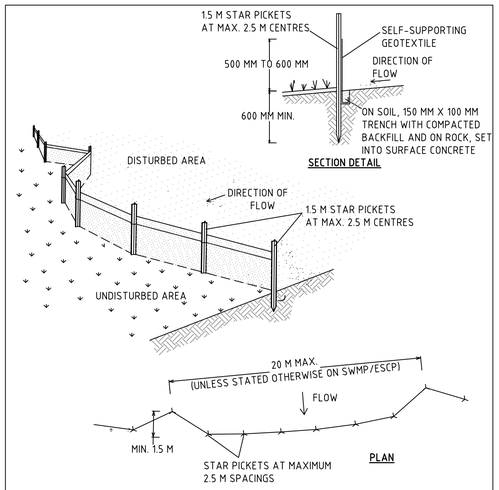
EARTH BANK (LOW FLOW) SD 5-5



CONSTRUCTION NOTES

1. PLACE STOCKPILES MORE THAN 2 (PREFERABLY 5) METRES FROM EXISTING VEGETATION, CONCENTRATED WATER FLOW, ROADS AND HAZARD AREAS.
2. CONSTRUCT ON THE CONTOUR AS LOW, FLAT, ELONGATED MOUNDS.
3. WHERE THERE IS SUFFICIENT AREA, TOPSOIL STOCKPILES SHALL BE LESS THAN 2 METRES IN HEIGHT.
4. WHERE THEY ARE TO BE IN PLACE FOR MORE THAN 10 DAYS, STABILISE FOLLOWING THE APPROVED ESCP OR SWMP TO REDUCE THE C-FACTOR TO LESS THAN 0.10.
5. CONSTRUCT EARTH BANKS (STANDARD DRAWING 5-5) ON THE UPSLOPE SIDE TO DIVERT WATER AROUND STOCKPILES AND SEDIMENT FENCES (STANDARD DRAWING 6-8) 1 TO 2 METRES DOWNSLOPE.

STOCKPILES SD 4-1



CONSTRUCTION NOTES

1. CONSTRUCT SEDIMENT FENCES AS CLOSE AS POSSIBLE TO BEING PARALLEL TO THE CONTOURS OF THE SITE, BUT WITH SMALL RETURNS AS SHOWN IN THE DRAWING TO LIMIT THE CATCHMENT AREA OF ANY ONE SECTION.THE CATCHMENT AREA SHOULD BE SMALL ENOUGH TO LIMIT WATER FLOW IF CONCENTRATED AT ONE POINT TO 50 LITRES PER SECOND IN THE DESIGN STORM EVENT, USUALLY THE 10-YEAR EVENT.
2. CUT A 150-MM DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
3. DRIVE 1.5 METRE LONG STAR PICKETS INTO GROUND AT 2.5 METRE INTERVALS (MAX) AT THE DOWNSLOP EDGE OF THE TRENCH. ENSURE ANY STAR PICKETS ARE FITTED WITH SAFETY CAPS.
4. FIX SELF-SUPPORTING GEOTEXTILE TO THE UPSLOPE SIDE OF THE POSTS ENSURING IT GOES TO THE BASE OF THE TRENCH. FIX THE GEOTEXTILE WITH WIRE TIES OR AS RECOMMENDED BY THE MANUFACTURER. ONLY USE GEOTEXTILE SPECIFICALLY PRODUCED FOR SEDIMENT FENCING. THE USE OF SHADE CLOTH FOR THIS PURPOSE IS NOT SATISFACTORY.
5. JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150-MM OVERLAP.
6. BACKFILL THE TRENCH OVER THE BASE OF THE FABRIC AND COMPACT IT THOROUGHLY OVER THE GEOTEXTILE.

SEDIMENT FENCE SD 6-8

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SCALE

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CLIENT: SIKH GRAMMAR SCHOOL AUSTRALIA

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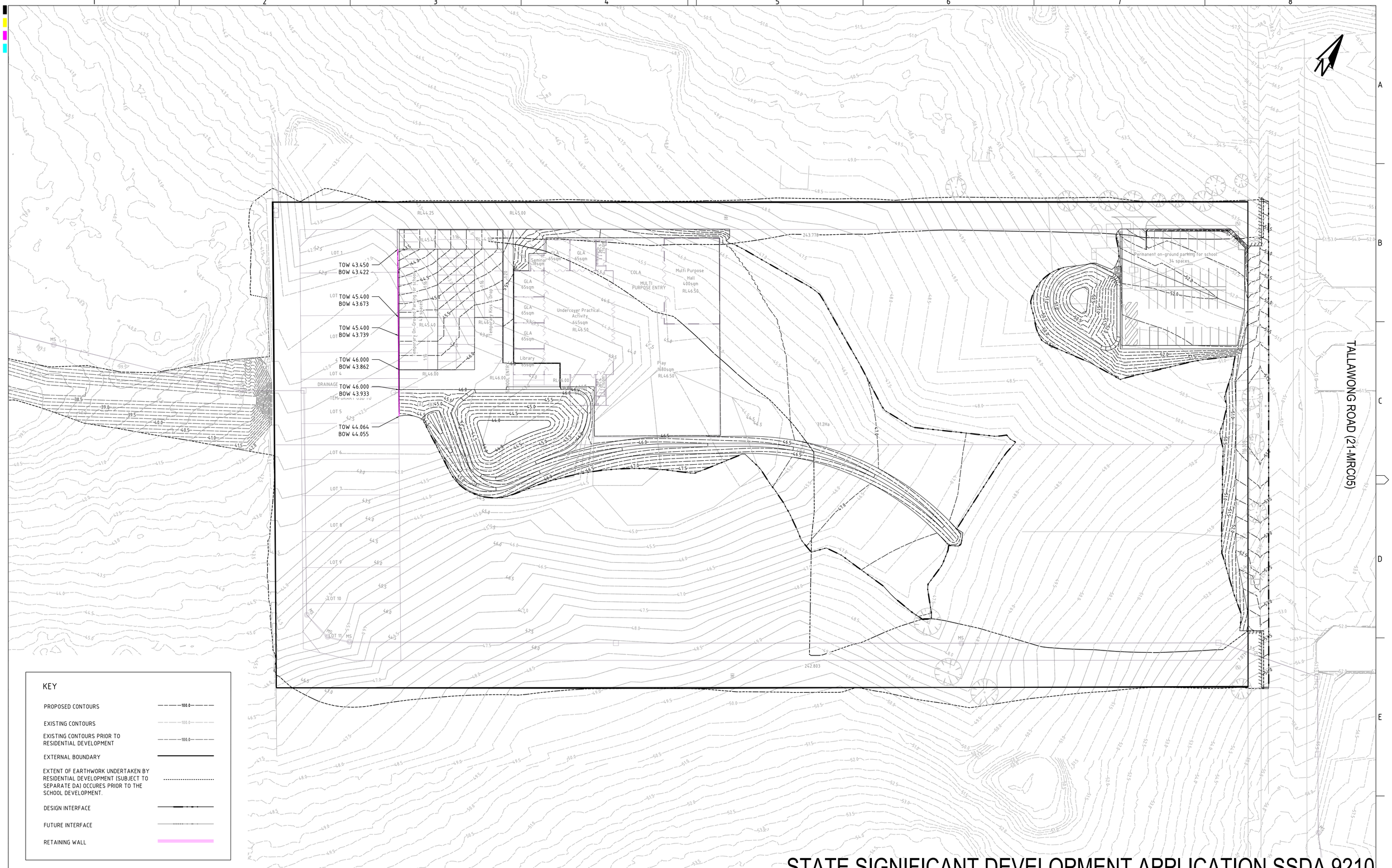
DRAWING TITLE
SEDIMENT & EROSION CONTROL DETAILS

PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1806439	PS05	R06	PS05-B310	C

DRAWING ID: P1806439-PS05-R06-B310

PRINTED: --- - USER: ASAMEZ
A1 / A3 LANDSCAPE (A1LC_v02.0.01)



KEY

- PROPOSED CONTOURS
- EXISTING CONTOURS
- EXISTING CONTOURS PRIOR TO RESIDENTIAL DEVELOPMENT
- EXTERNAL BOUNDARY
- EXTENT OF EARTHWORK UNDERTAKEN BY RESIDENTIAL DEVELOPMENT (SUBJECT TO SEPARATE DA) OCCURES PRIOR TO THE SCHOOL DEVELOPMENT.
- DESIGN INTERFACE
- FUTURE INTERFACE
- RETAINING WALL

STATE SIGNIFICANT DEVELOPMENT APPLICATION SSDA 9210

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SCALE
0 5 10 15 20 25 30 35 40 45 50 METRES
A1 (A3) 1:500 (1:1,000)

GRID	DATUM	PROJECT MANAGER
MGA	mAHD	TH

CLIENT
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PROJECT NAME/PLANSET TITLE
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CONCEPT CIVIL DESIGN
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DRAWING TITLE
EARTHWORKS GRADING PLAN (STAGE 1)

PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1806439	PS05	R06	PS05-C100	E

DRAWING ID: P1806439-PS05-R06-C100

PRINTED ---- USED: JUAREZ

A1 / A3 LANDSCAPE (A1LC_v02.0.01)

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SCALE
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A1 (A3) 1:500 (1:1,000)

GRID: MGA
DATUM: mAHD
PROJECT MANAGER: TH

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All measurements in millimetres unless otherwise specified.

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CLIENT: SIKH GRAMMAR SCHOOL AUSTRALIA

PROJECT NAME/PLANSET TITLE:
SIKH GRAMMAR SCHOOL
CONCEPT CIVIL DESIGN
150-161 TALLAWONG ROAD, ROUSE HILL, NSW
LOT 42 & 43, DP 30186

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Suite 201, 20 George St, Hornsby, NSW 2077 Australia Phone: (02) 9476 9999 Fax: (02) 9476 8767
Email: mail@martens.com.au Internet: www.martens.com.au

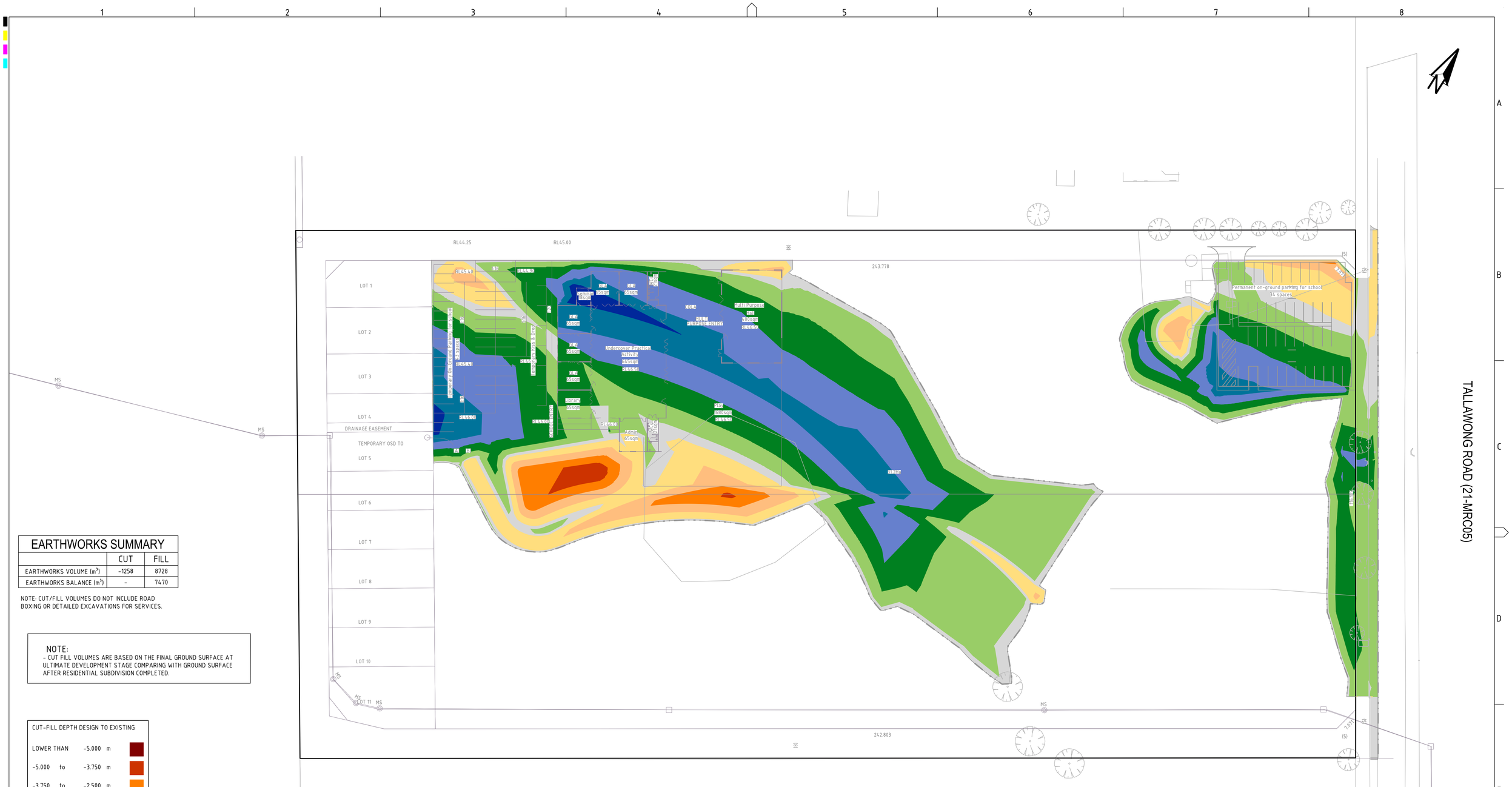
DRAWING TITLE: EARTHWORKS GRADING PLAN (FINAL STAGE)

PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1806439	PS05	R06	PS05-C101	D

DRAWING ID: P1806439-PS05-R06-C101

PRINTED: ---- - USER: JSUAREZ

A1 / A3 LANDSCAPE (A1LC_v02.0.01)



EARTHWORKS SUMMARY		
	CUT	FILL
EARTHWORKS VOLUME (m^3)	-1258	8728
EARTHWORKS BALANCE (m^3)	-	7470

NOTE: CUT/FILL VOLUMES DO NOT INCLUDE ROAD BOXING OR DETAILED EXCAVATIONS FOR SERVICES.

NOTE:
- CUT FILL VOLUMES ARE BASED ON THE FINAL GROUND SURFACE AT ULTIMATE DEVELOPMENT STAGE COMPARING WITH GROUND SURFACE AFTER RESIDENTIAL SUBDIVISION COMPLETED.

CUT-FILL DEPTH DESIGN TO EXISTING

LOWER THAN	-5.000	m	
-5.000	to -3.750	m	
-3.750	to -2.500	m	
-2.500	to -1.250	m	
-1.250	to -0.250	m	
-0.250	to 0.250	m	
0.250	to 1.250	m	
1.250	to 2.500	m	
2.500	to 3.750	m	
3.750	to 5.000	m	
5.000	m AND HIGHER		

TALLAWONG ROAD (21-MRC05)

STATE SIGNIFICANT DEVELOPMENT APPLICATION SSDA 9210

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD
C	**MINOR AMENDMENTS**	**21/08/2020**	**JS**	**AVG**	**SL**	**TH**
B	MINOR AMENDMENT	01/07/2019	LL	CG/AVG	SL	TH
A	INITIAL RELEASE	19/03/2019	CG/GM	CG/AVG	SL	TH

SCALE
0 5 10 15 20 25 30 35 40 45 50 METRES
A1 (A3) 1:500 (1:1,000)

GRID	DATUM	PROJECT MANAGER
MGA	mAHD	TH

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CLIENT
SIKH GRAMMAR SCHOOL AUSTRALIA

PROJECT NAME/PLANSET TITLE
SIKH GRAMMAR SCHOOL
CONCEPT CIVIL DESIGN
150-161 TALLAWONG ROAD, ROUSE HILL, NSW
LOT 42 & 43, DP 30186

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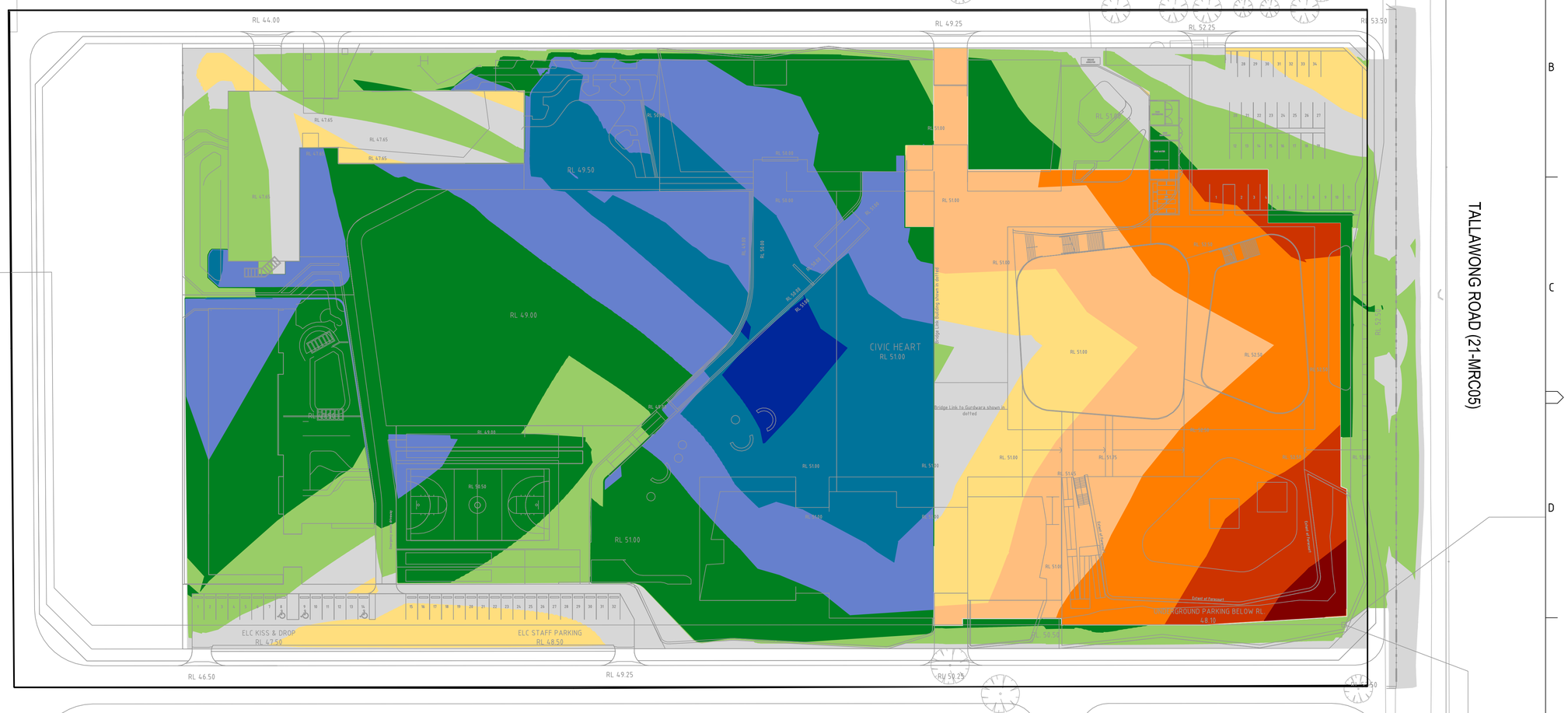
DRAWING TITLE
EARTHWORKS CUT-FILL PLAN (STAGE 1)

PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1806439	PS05	R06	PS05-C500	C

PRINTED: --- USER: JSUAREZ
A1 / A3 LANDSCAPE (A1LC_v02.0.01)
DRAWING ID: P1806439-PS05-R06-C500



TALLAWONG ROAD (21-MRC05)

EARTHWORKS SUMMARY

	CUT	FILL
EARTHWORKS VOLUME (m^3)	19581	46022
EARTHWORKS BALANCE (m^3)	-	26441

NOTE: CUT/FILL VOLUMES DO NOT INCLUDE ROAD BOXING OR DETAILED EXCAVATIONS FOR SERVICES.

NOTE:
- CUT FILL VOLUMES ARE BASED ON THE FINAL GROUND SURFACE AT ULTIMATE DEVELOPMENT STAGE COMPARING WITH GROUND SURFACE AFTER RESIDENTIAL SUBDIVISION COMPLETED.

CUT-FILL DEPTH DESIGN TO EXISTING

LOWER THAN	-5.000	m		
-5.000	to	-3.750	m	
-3.750	to	-2.500	m	
-2.500	to	-1.250	m	
-1.250	to	-0.250	m	
-0.250	to	0.250	m	
0.250	to	1.250	m	
1.250	to	2.500	m	
2.500	to	3.750	m	
3.750	to	5.000	m	
5.000	m AND HIGHER			

STATE SIGNIFICANT DEVELOPMENT APPLICATION SSDA 9210

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD
D	**MINOR AMENDMENTS**	**21/08/2020**	**JS**	**AVG**	**SL**	**TH**
C	UPDATE CLIENT COMMENTS	19/07/2019	LL	CG/AVG	SL	TH
B	MINOR AMENDMENT	15/07/2019	LL	CG/AVG	SL	TH
A	INITIAL RELEASE	01/07/2019	LL	CG/AVG	SL	TH

SCALE
0 5 10 15 20 25 30 35 40 45 50 METRES
A1 (A3) 1:500 (1:1,000)

GRID	DATUM	PROJECT MANAGER
MGA	mAHD	TH

CLIENT
SIKH GRAMMAR SCHOOL AUSTRALIA

PROJECT NAME/PLANSET TITLE
SIKH GRAMMAR SCHOOL
CONCEPT CIVIL DESIGN
150-161 TALLAWONG ROAD, ROUSE HILL, NSW
LOT 42 & 43, DP 30186

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Email: mail@martens.com.au Internet: www.martens.com.au

DRAWING TITLE
EARTHWORKS CUT-FILL PLAN (FINAL STAGE)

PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1806439	PS05	R06	PS05-C501	D

DRAWING ID: P1806439-PS05-R06-C501

KEY

FINAL SURFACE CONTOURS	72.0
DRIVEWAY / CARPARK AISLE ALIGNMENT	
KERB & GUTTER	KG
DISH DRAIN	DD
KERB ONLY	KO
LIMIT OF WORK	
SITE BOUNDARY	

NOTE:
- FINAL SURFACE CONTOURS ARE BASED ON PROPOSED, EXISTING AND LIDAR SURFACES.

STATE SIGNIFICANT DEVELOPMENT APPLICATION SSDA 9210

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD
E	**MINOR AMENDMENTS**	**21/08/2020**	**JS**	**AVG**	**SL**	**TH**
D	UPDATE CLIENT COMMENTS	19/07/2019	LL	CG/AVG	SL	TH
C	MINOR AMENDMENT	15/07/2019	LL	CG/AVG	SL	TH
B	MINOR AMENDMENT	01/07/2019	LL	CG/AVG	SL	TH
A	INITIAL RELEASE	19/03/2019	CG/GM	CG/AVG	SL	TH

PRINTED: 29.02.2016 - USER: JSUAREZ

A1 / A3 LANDSCAPE (A1LC__v02.0.01)

SCALE 0 5 10 15 20 25 30 35 40 45 50 METRES
A1 (A3) 1:500 (1:1,000)

GRID: MGA
DATUM: mAHD
PROJECT MANAGER: TH

CLIENT: SIKH GRAMMAR SCHOOL AUSTRALIA

PROJECT NAME/PLANSET TITLE
SIKH GRAMMAR SCHOOL
CONCEPT CIVIL DESIGN
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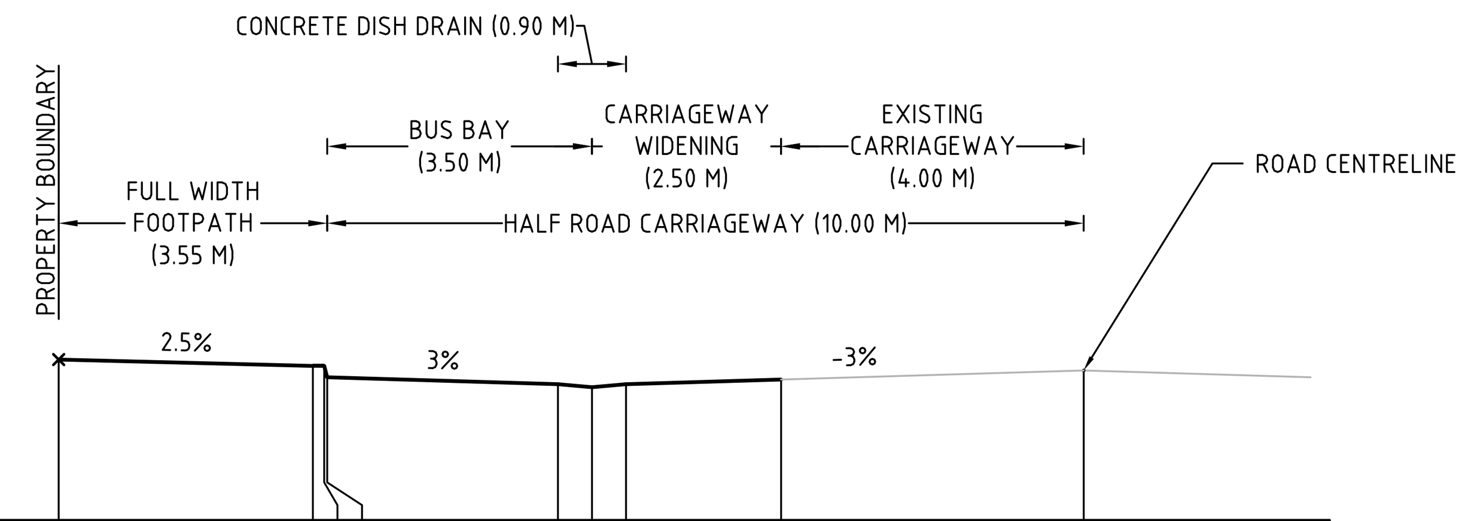
DRAWING TITLE
ROADWORKS PLAN (STAGE 1)
- TALLAWONG ROAD

PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1806439	PS05	R06	PS05-D100	E

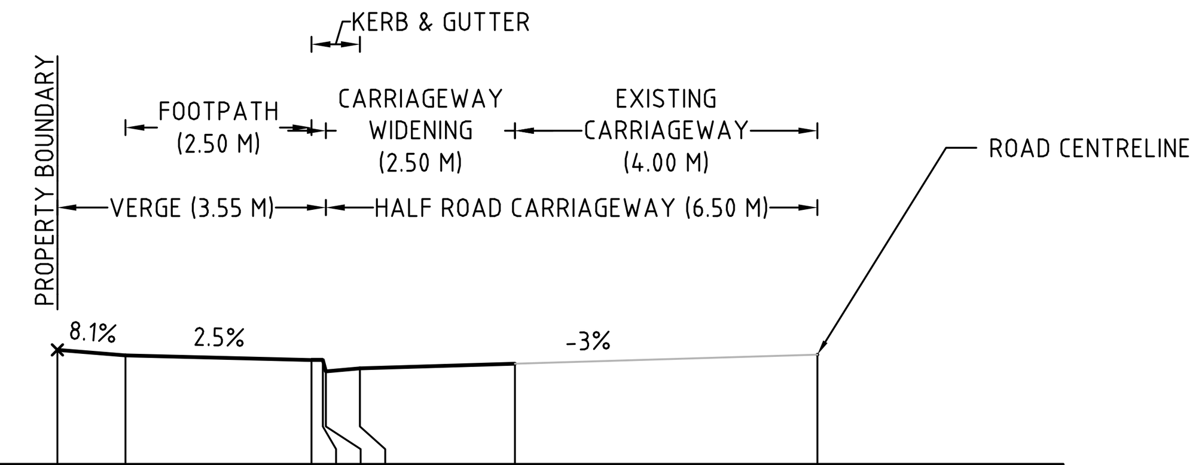
DRAWING ID: P1806439-PS05-R06-D100



DESIGN ELEVATION	0.144	0.060	0.060	-0.090	-0.181	-0.221	-0.181	-0.120	0.000
OFFSET	-13.550	-10.190	-10.040	-10.000	-6.950	-6.500	-6.050	-4.000	0.000

TALLAWONG ROAD (21-MRC05) BUS BAY TYPICAL CROSS SECTION (HALF ROAD) CH 1521-1579

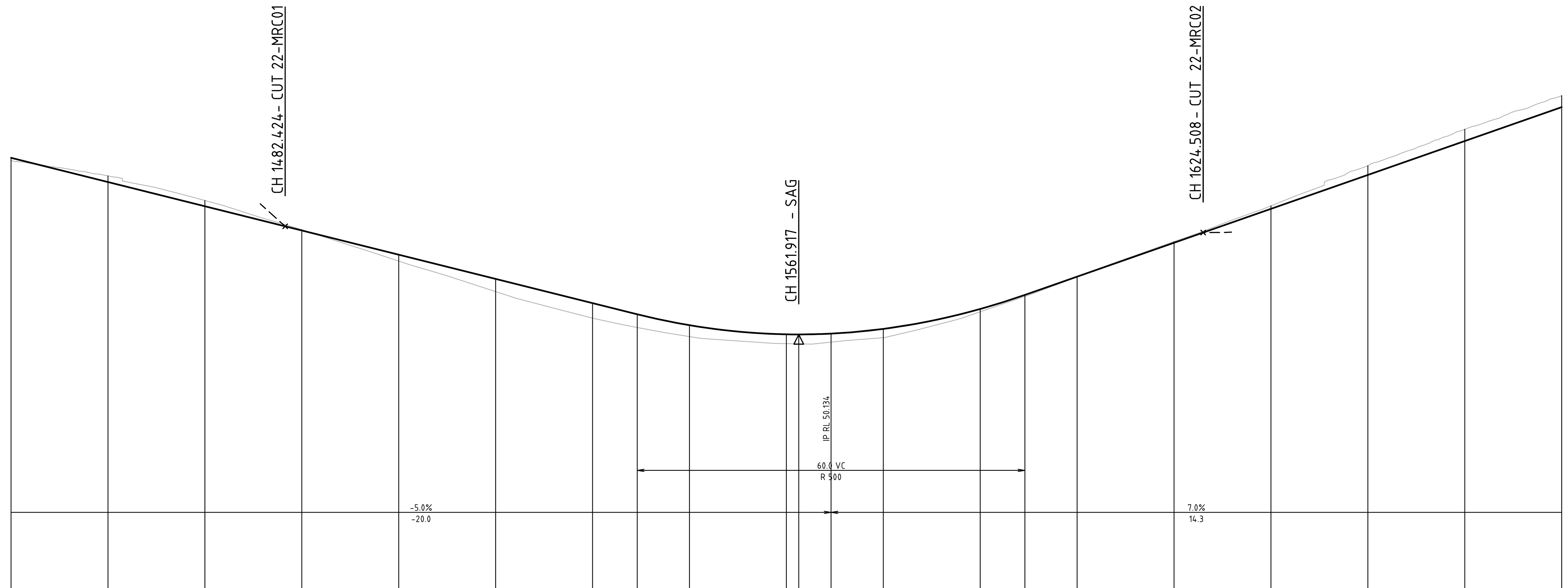
SCALE - 1:100



DESIGN ELEVATION	0.063	0.010	-0.071	-0.071	-0.221	-0.181	-0.120	0.000
OFFSET	-10.050	-9.150	-6.690	-6.540	-6.500	-6.050	-4.000	0.000

TALLAWONG ROAD (21-MRC05) TYPICAL CROSS SECTION (HALF ROAD)

SCALE - 1:100



VERTICAL CURVE LENGTH (m)
VERTICAL CURVE RADIUS (m)
VERTICAL GRADE (%)
VERTICAL GRADE (1 IN ...)
HORIZONTAL CURVE RADIUS (m)

DATUM RL 43.000

DESIGN SURFACE LEVELS	56.480	55.730	54.980	54.230	53.480	52.730	51.980	51.634	51.295	51.013	51.009
EXISTING SURFACE LEVELS	56.405	55.921	55.159	54.255	53.282	52.337	51.515	51.225	50.944	50.725	50.719
CUT / FILL DEPTH	0.075	-0.191	-0.179	-0.025	0.198	0.393	0.465	0.409	0.351	0.287	0.291
CHAINAGE	1440.000	1455.000	1470.000	1485.000	1500.000	1515.000	1530.000	1536.917	1545.000	1560.000	1561.917

DESIGN SURFACE LEVELS	51.034	51.180	51.798	52.234	52.800	53.850	54.900	55.950	57.000	58.050
EXISTING SURFACE LEVELS	50.772	50.911	51.712	52.187	52.792	53.885	54.992	56.236	57.365	58.407
CUT / FILL DEPTH	0.262	0.270	0.085	0.047	0.008	-0.035	-0.092	-0.286	-0.365	-0.357
CHAINAGE	1566.917	1575.000	1590.000	1596.917	1605.000	1620.000	1635.000	1650.000	1665.000	1680.000

TALLAWONG ROAD (22-MRC05) LONG. SECTION

SCALE: HORIZONTAL - 1:500
VERTICAL - 1:100

STATE SIGNIFICANT DEVELOPMENT APPLICATION SSDA 9210

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD
E	**MINOR AMENDMENTS**	**21/08/2020**	**JS**	**AVG**	**SL**	**TH**
D	UPDATE CLIENT COMMENTS	19/07/2019	LL	CG/AVG	SL	TH
C	MINOR AMENDMENT	15/07/2019	LL	CG/AVG	SL	TH
B	MINOR AMENDMENT	01/07/2019	LL	CG/AVG	SL	TH
A	INITIAL RELEASE	19/03/2019	CG/GM	CG/AVG	SL	TH

SCALE
A1 (A3) 1:500 (1:1,000) — 0 5 10 15 20 25 30 35 40 45 50 METRES
A1 (A3) 1:100 (1:200) — 0 1 2 3 4 5 6 7 8 9 10 METRES

GRID	DATUM	PROJECT MANAGER
MGA	mAHD	TH

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CLIENT
SIKH GRAMMAR SCHOOL AUSTRALIA

PROJECT NAME/PLANSET TITLE
SIKH GRAMMAR SCHOOL
CONCEPT CIVIL DESIGN
150-161 TALLAWONG ROAD, ROUSE HILL, NSW
LOT 42 & 43, DP 30186

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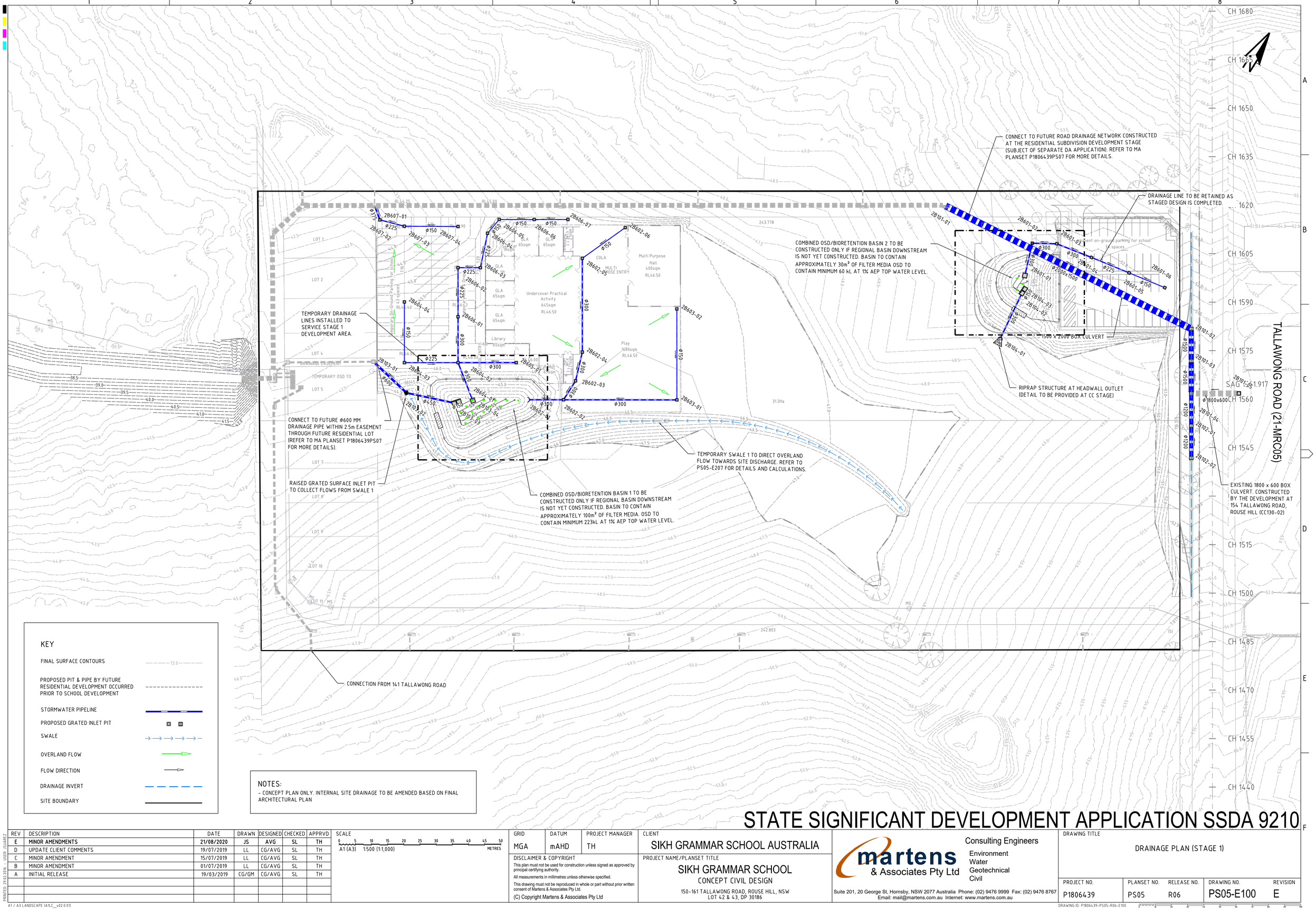
DRAWING TITLE
TALLAWONG ROAD (22-MRC05) LONGITUDINAL SECTION & TYPICAL CROSS SECTION

PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1806439	PS05	R06	PS05-D200	E

DRAWING ID: P1806439-PS05-R06-D200



KEY

- FINAL SURFACE CONTOURS
- PROPOSED PIT & PIPE BY FUTURE RESIDENTIAL DEVELOPMENT OCCURRED PRIOR TO SCHOOL DEVELOPMENT
- STORMWATER PIPELINE
- PROPOSED GRATED INLET PIT
- SWALE
- OVERLAND FLOW
- FLOW DIRECTION
- DRAINAGE INVERT
- SITE BOUNDARY

NOTES:

- CONCEPT PLAN ONLY. INTERNAL SITE DRAINAGE TO BE AMENDED BASED ON FINAL ARCHITECTURAL PLAN

STATE SIGNIFICANT DEVELOPMENT APPLICATION SSDA 9210

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD
E	**MINOR AMENDMENTS**	**21/08/2020**	**JS**	**AVG**	**SL**	**TH**
D	UPDATE CLIENT COMMENTS	19/07/2019	LL	CG/AVG	SL	TH
C	MINOR AMENDMENT	15/07/2019	LL	CG/AVG	SL	TH
B	MINOR AMENDMENT	01/07/2019	LL	CG/AVG	SL	TH
A	INITIAL RELEASE	19/03/2019	CG/GM	CG/AVG	SL	TH

SCALE: 0 5 10 15 20 25 30 35 40 45 50 METRES
A1 (A3) 1:500 (1:1,000)

GRID	DATUM	PROJECT MANAGER
MGA	mAHD	TH

CLIENT: SIKH GRAMMAR SCHOOL AUSTRALIA

PROJECT NAME/PLANSET TITLE: SIKH GRAMMAR SCHOOL
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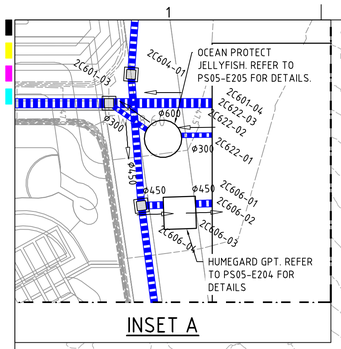
DRAWING TITLE: DRAINAGE PLAN (STAGE 1)

PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1806439	PS05	R06	PS05-E100	E

DRAWING ID: P1806439-PS05-R06-E100

PRINTED: 29/07/2016 - USER: JSUAREZ
A1 / A3 LANDSCAPE (A1LC_v02.0.01)



TEMPORARY OSD FOR PROPOSED RESIDENTIAL DEVELOPMENT (SUBJECT TO A SEPARATE DA (DA19/01597).TO BE RETAINED UNTIL REGIONAL BASIN CONSTRUCTED).

CONNECT TO FUTURE Φ600 DRAINAGE PIPE WITHIN 2.5m EASEMENT THROUGH FUTURE RESIDENTIAL LOT (REFER TO MA PLANSET P1806439PS07 FOR MORE DETAILS).

SEE INSET A

TEMPORARY OSD TANK TO BE CONSTRUCTED ONLY IF REGIONAL BASIN DOWNSTREAM IS NOT YET CONSTRUCTED. TANK TO CONTAIN MINIMUM 141.2kL AT 1% AEP TOP WATER LEVEL. REFER TO PS05-E201 FOR DETAILS.

100m² RAINGARDEN PROVIDED TO ASSIST ACHIEVEMENT OF ADOPTED WATER QUALITY TARGETS FOR THE FINAL STAGE. REFER TO P1806439 PS05-E202 FOR DETAILS.

FITS TO BE FITTED WITH SPEL STORMSACKS COLLECTING SURFACE FLOWS. REFER TO PS05-E206 FOR DETAILS.

1500 x 2000 BOX CULVERT

EXISTING 1800 x 600 BOX CULVERT. CONSTRUCTED BY THE DEVELOPMENT AT 154 TALLAWONG ROAD, ROUSE HILL (CC130-02)

CONNECTION FROM 141 TALLAWONG ROAD

PITS TO BE FITTED WITH SPEL STORMSACKS COLLECTING SURFACE FLOWS. REFER TO PS05-E206 FOR DETAILS

TALLAWONG ROAD (21-MR005)

SAG 1561917

CH 1680 CH 1665 CH 1650 CH 1620 CH 1605 CH 1590 CH 1575 CH 1560 CH 1545 CH 1515 CH 1500 CH 1485 CH 1470 CH 1455 CH 1440

KEY

- FINAL SURFACE CONTOURS (72.0)
- PROPOSED PIT & PIPE BY FUTURE RESIDENTIAL DEVELOPMENT OCCURRED PRIOR TO SCHOOL DEVELOPMENT
- STORMWATER PIPELINE
- PROPOSED GRATED INLET PIT
- OVERLAND FLOW
- FLOW DIRECTION
- DRAINAGE INVERT
- SITE BOUNDARY

NOTES:
- CONCEPT PLAN ONLY. INTERNAL SITE DRAINAGE TO BE AMENDED BASED ON FINAL ARCHITECTURAL PLAN

STATE SIGNIFICANT DEVELOPMENT APPLICATION SSDA 9210

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD
D	**MINOR AMENDMENTS**	**21/08/2020**	**JS**	**AVG**	**SL**	**TH**
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SCALE: 0 5 10 15 20 25 30 35 40 45 50 METRES
A1 (A3) 1:500 (1:1,000)

PRINTED: 29.07.2016 - USER: GJUAREZ

A1 / A3 LANDSCAPE (A1LC_v02.0.01)

GRID	DATUM	PROJECT MANAGER
MGA	mAHD	TH

CLIENT: SIKH GRAMMAR SCHOOL AUSTRALIA

PROJECT NAME/PLANSET TITLE
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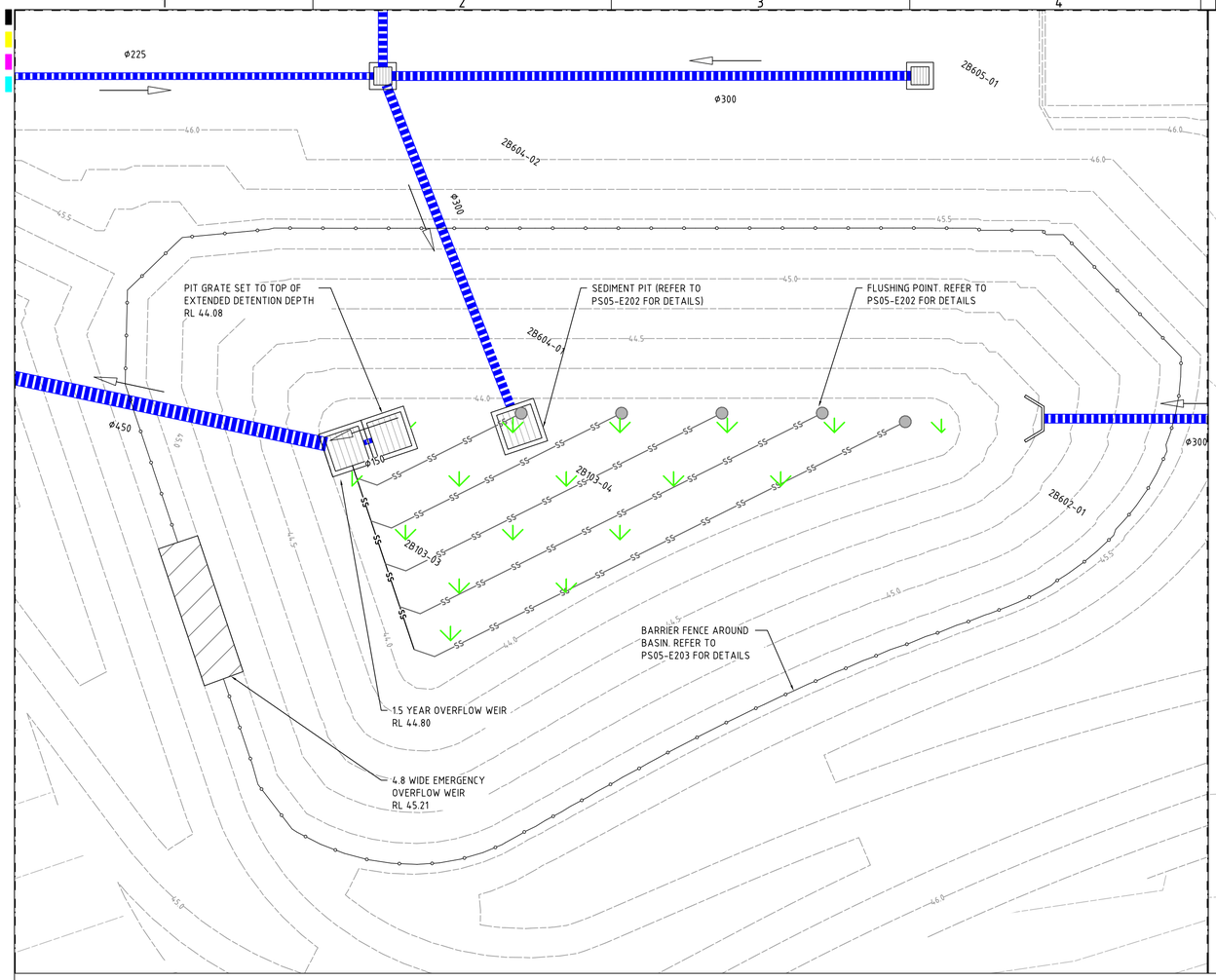
DRAWING TITLE: DRAINAGE PLAN (FINAL STAGE)

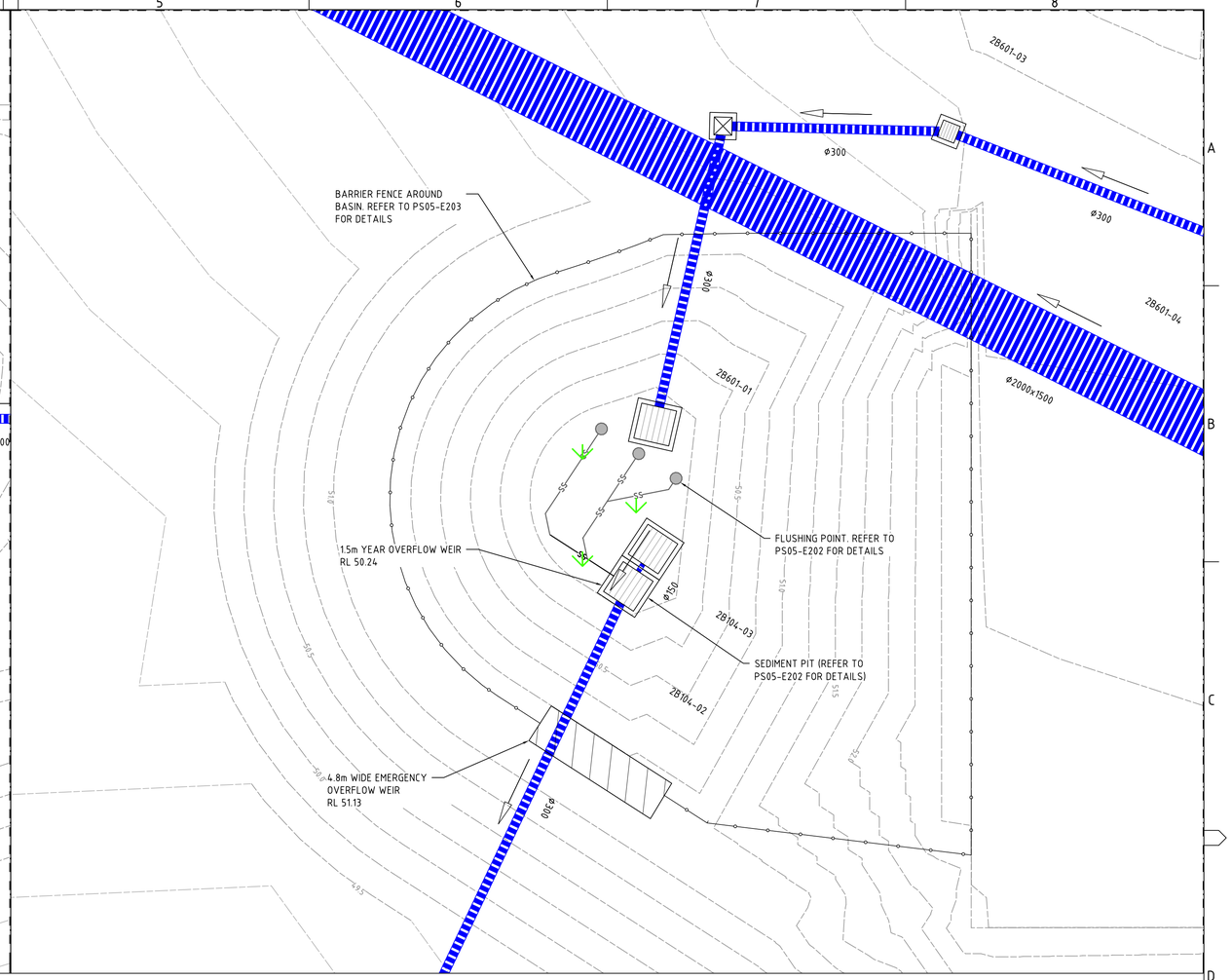
PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1806439	PS05	R06	PS05-E101	D

DRAWING ID: P1806439-PS05-R06-E101



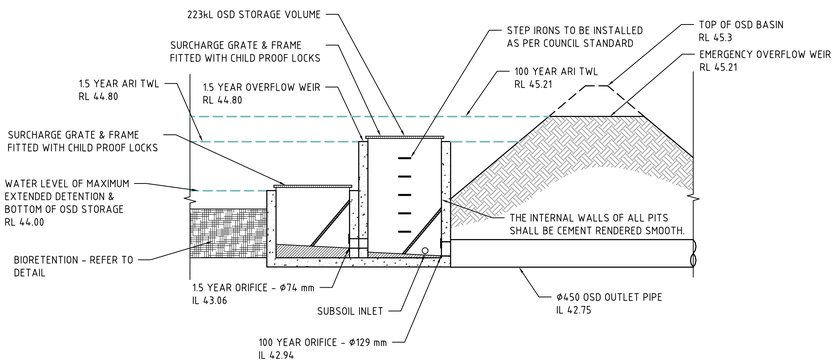
TEMPORARY OSD / BIORETENTION BASIN 1 PLAN

SCALE 1:100



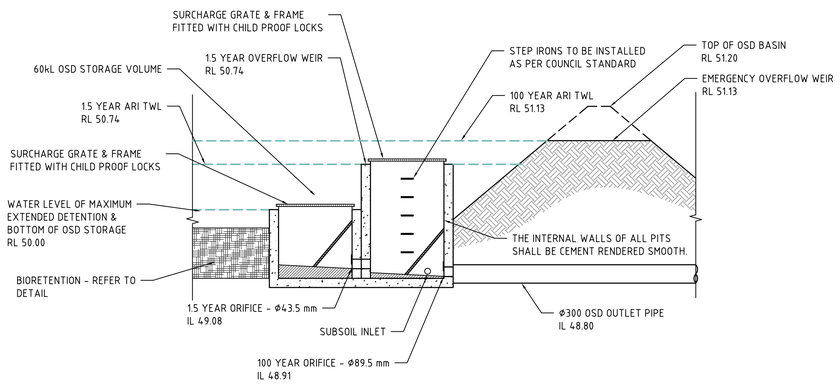
TEMPORARY OSD / BIORETENTION BASIN 2 PLAN

SCALE 1:100



TEMPORARY OSD / BIORETENTION BASIN 1 DETAIL

NOT TO SCALE



TEMPORARY OSD / BIORETENTION BASIN 2 OUTLET DETAIL

NOT TO SCALE

STATE SIGNIFICANT DEVELOPMENT APPLICATION SSDA 9210

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD
B	MINOR AMENDMENTS	21/08/2020	JS	AVG	SL	TH
A	INITIAL RELEASE	19/03/2019	CG/GM	CG/AVG	SL	TH

SCALE

GRID	DATUM	PROJECT MANAGER
---	---	TH

CLIENT
SIKH GRAMMAR SCHOOL AUSTRALIA

PROJECT NAME/PLANSET TITLE
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CONCEPT CIVIL DESIGN
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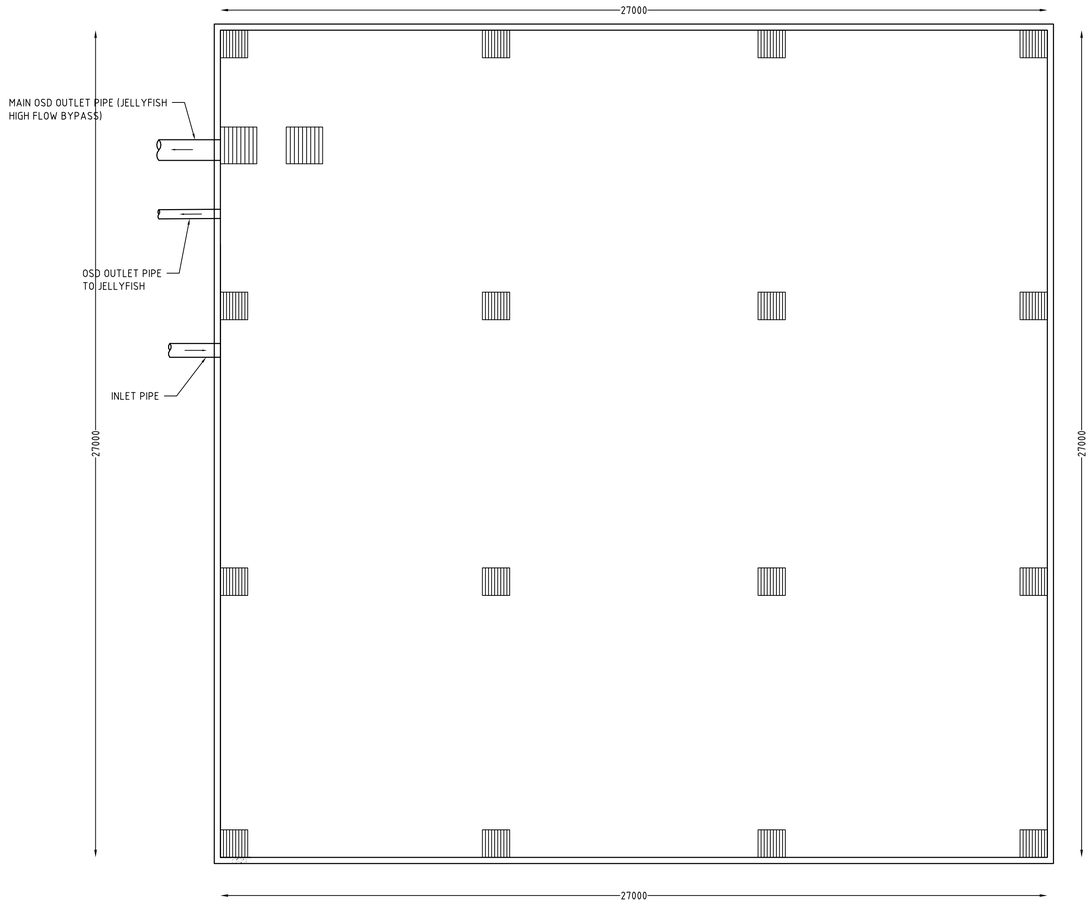
DRAWING TITLE
DRAINAGE DETAILS (SHEET 1)

PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1806439	PS05	R06	PS05-E200	B

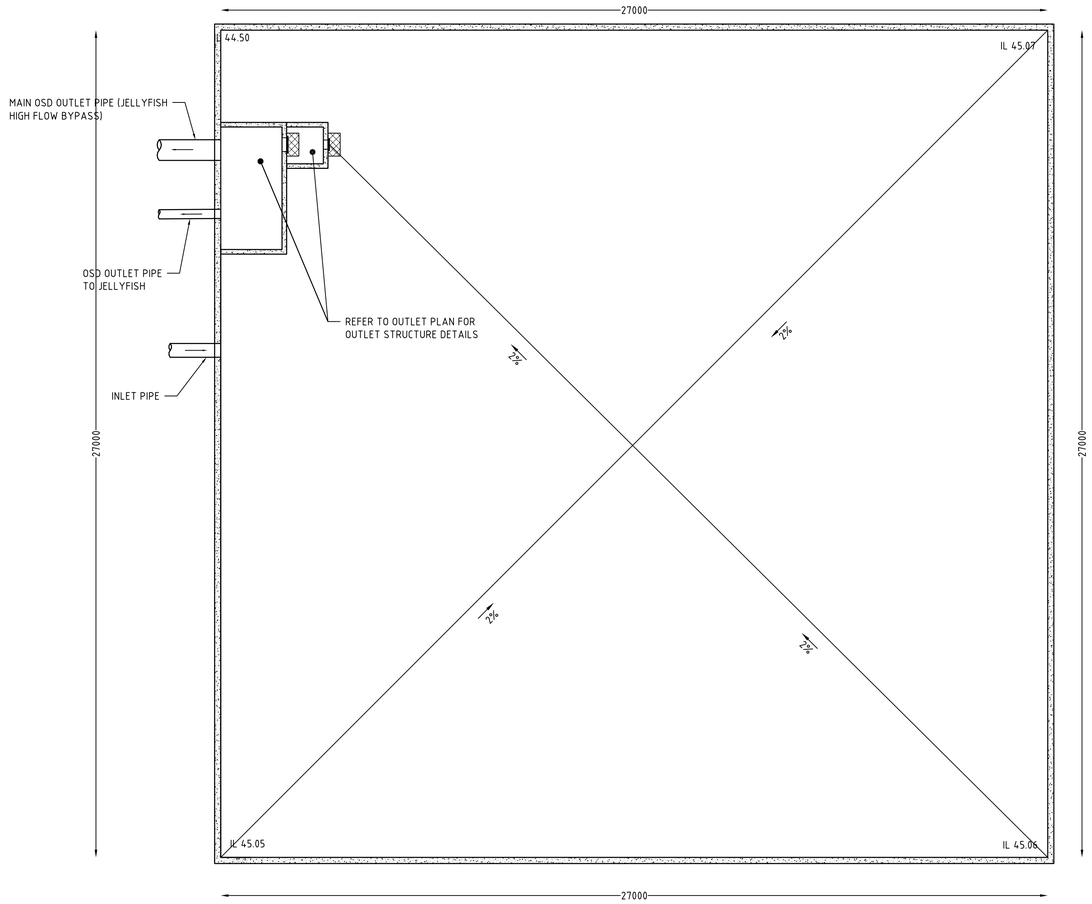
DRAWING ID: P1806439-PS05-R06-E200



OSD TANK LID PLAN

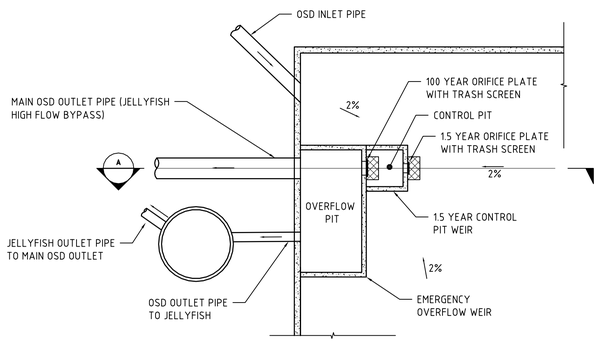
NOT TO SCALE

NOTES:
1. ACCESS GRATES TO BE MINIMUM 900x900, CONTROL PIT AND OVERFLOW PIT ACCESS GRATES TO BE MINIMUM 1200x1200
2. CONTROL PIT AND OVERFLOW PIT TO HAVE MINIMUM 5% GRADE TO OUTLETS
3. ALL GRATES TO BE FITTED WITH MOSQUITO PROOF MESH WELDED TO THE UNDERSIDE OF THE ACCESS GRATE.



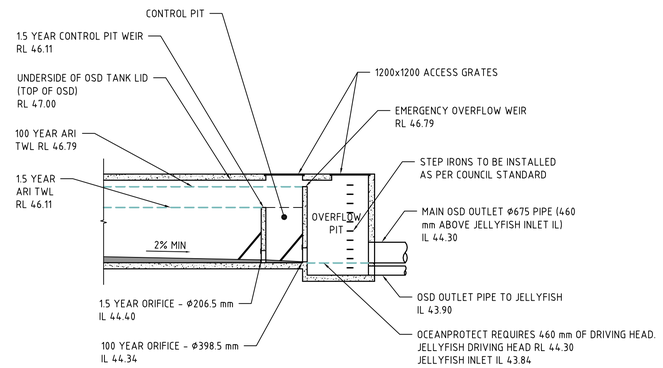
OSD TANK BASE PLAN

NOT TO SCALE



ON-SITE DETENTION OUTLET PLAN

NOT TO SCALE



ON-SITE DETENTION TANK OUTLET - SECTION A

NOT TO SCALE

STATE SIGNIFICANT DEVELOPMENT APPLICATION SSDA 9210

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD
E	**MINOR AMENDMENTS**	**21/08/2020**	**JS**	**AVG**	**SL**	**TH**
D	UPDATE CLIENT COMMENTS	19/07/2019	LL	CG/AVG	SL	TH
C	MINOR AMENDMENT	15/07/2019	LL	CG/AVG	SL	TH
B	MINOR AMENDMENT	01/07/2019	LL	CG/AVG	SL	TH
A	INITIAL RELEASE	19/03/2019	CG/GM	CG/AVG	SL	TH

SCALE

GRID	DATUM	PROJECT MANAGER
---	---	TH

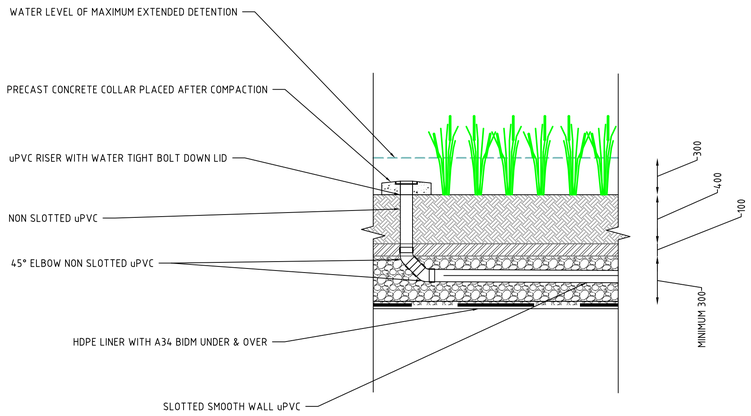
CLIENT
SIKH GRAMMAR SCHOOL AUSTRALIA

PROJECT NAME/PLANSET TITLE
SIKH GRAMMAR SCHOOL
CONCEPT CIVIL DESIGN
150-161 TALLAWONG ROAD, ROUSE HILL, NSW
LOT 42 & 43, DP 30186

martens & Associates Pty Ltd
Consulting Engineers
Environment
Water
Geotechnical
Civil
Suite 201, 20 George St, Hornsby, NSW 2077 Australia Phone: (02) 9476 9999 Fax: (02) 9476 8767
Email: mail@martens.com.au Internet: www.martens.com.au

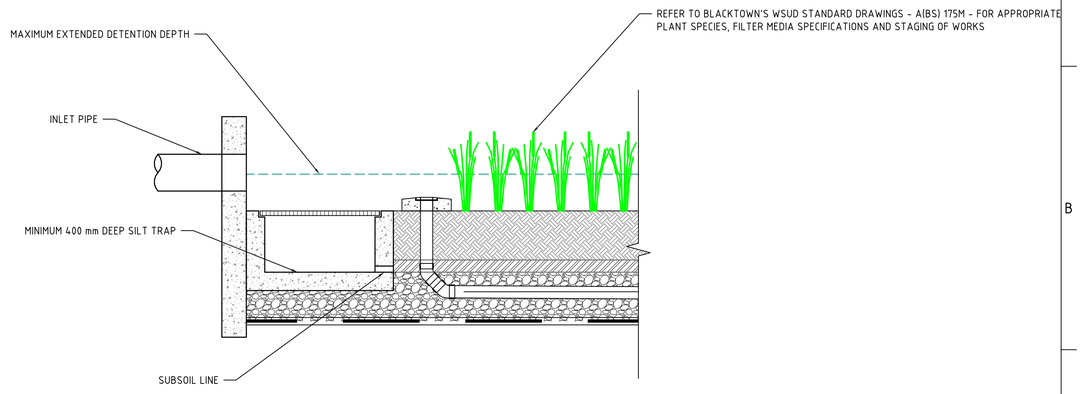
DRAWING TITLE
DRAINAGE DETAILS (SHEET 2)

PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1806439	PS05	R06	PS05-E201	E



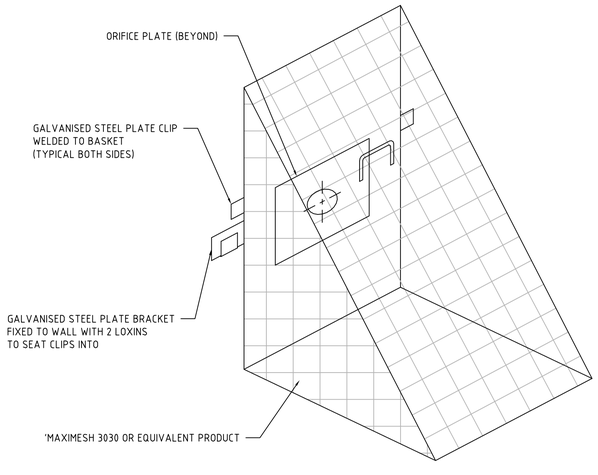
TYPICAL BIORETENTION BASIN PROFILE AND FLUSHING POINT

NOT TO SCALE



TYPICAL BIORETENTION BASIN PROFILE AND SEDIMENT PIT DETAIL

NOT TO SCALE

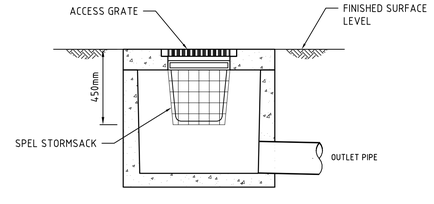


TRASH SCREEN DETAIL

NOT TO SCALE

CONFINED SPACE WARNING SIGN

NOT TO SCALE



TYPICAL SPEL STORMSACK CONFIGURATION

NOT TO SCALE

OSD WARNING SIGN

NOT TO SCALE

STATE SIGNIFICANT DEVELOPMENT APPLICATION SSDA 9210

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD
A	MINOR AMENDMENTS	21/08/2020	JS	AVG	SL	TH

SCALE

GRID | DATUM | PROJECT MANAGER: TH

CLIENT: SIKH GRAMMAR SCHOOL AUSTRALIA

PROJECT NAME/PLANSET TITLE
SIKH GRAMMAR SCHOOL
CONCEPT CIVIL DESIGN
150-161 TALLAWONG ROAD, ROUSE HILL, NSW
LOT 42 & 43, DP 30186

martens & Associates Pty Ltd
Consulting Engineers
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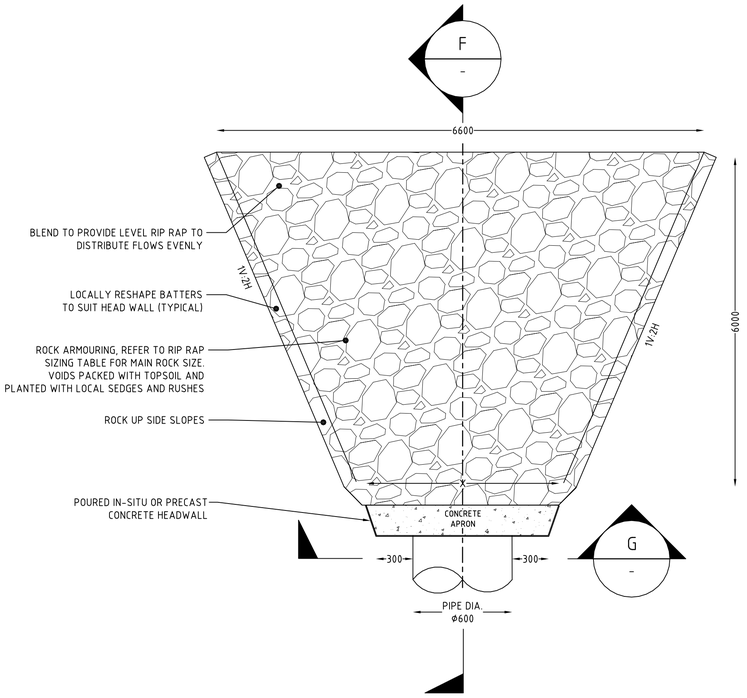
DRAWING TITLE: DRAINAGE DETAILS (SHEET 3)

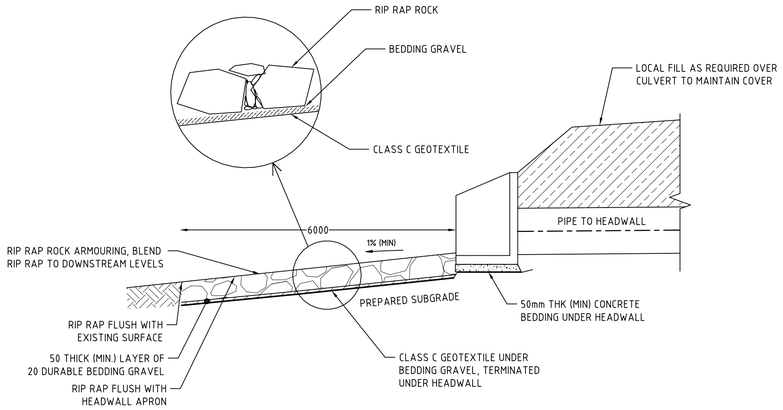
PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1806439	PS05	R06	PS05-E202	A

DRAWING ID: P1806439-PS05-R06-E202



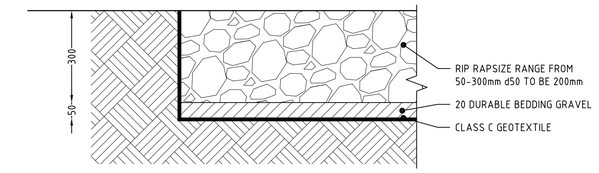
HEAD WALL OUTLET AND RIP RAP PLAN

NOT TO SCALE



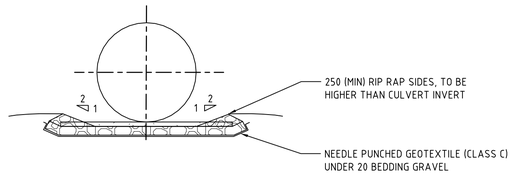
SECTION F

NOT TO SCALE



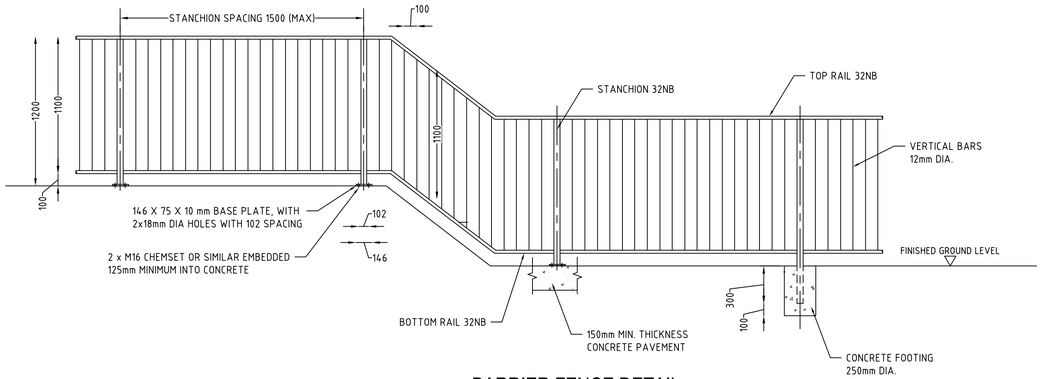
RIP RAP DETAIL

SCALE 1:25



SECTION G

NOT TO SCALE



BARRIER FENCE DETAIL

SCALE: NTS

NOTES:

1. THIS STANDARD IS INTENDED FOR USE IN AREA OF PUBLIC ACCESS NOT COVERED BY THE BCA (BUILDING CODE OF AUSTRALIA). FOR ALL INSTALLATIONS IN ASSOCIATION WITH A BUILDING REFER TO THE BCA.
2. FOR USE WHERE PATHWAY ADJOINS THE FOLLOWING:
   - DROP EXCEEDS 1.0m AND WITH BATTER SLOPES STEEPER THAN 1:1 AND WITH A PATHWAY GRADIENT LESS THAN 1:20, OR
   - DROP EXCEEDS 865mm WITH A PATHWAY GRADIENT EXCEEDING 1:20, OR
   - WHERE ADJOINING WATER DEPTH IS GREATER THAN 300mm.
3. HEIGHT TO BE 1200mm. (REF: AS1926 MINIMUM HEIGHT 1200mm; AR&R MAX. HEIGHT 1200mm TO ALLOW EMERGENCY PERSONNEL ACCESS)
4. ALL FENCING TO COMPLY WITH AS1926 "SWIMMING POOL SAFETY", AS1170 AND AS1657.
5. PANELS ARE TO BE RAKED FOR SLOPES UP TO 1 IN 5.
6. STANCHIONS, TOP AND BOTTOM RAILS, TO BE MANUFACTURED FROM 32NB X 3.2mm STEEL PIPE. VERTICAL BARS TO BE 12mm MILD STEEL ROUND.
7. STANCHIONS AND VERTICAL BARS TO BE WELDED OR SWAGED TO TOP AND BOTTOM RAILS. APPROVED PROPRIETARY CONNECTORS CAN BE USED FOR STANCHIONS AND TOP AND BOTTOM RAILS. NUTS WHERE USED ARE TO BE SPOT WELDED TO BOLTS.
8. THERE ARE TO BE NO PROTRUSIONS ABOVE THE TOP RAIL. CONTACT SURFACES TO BE SMOOTH AND FREE OF BURRS AND SHARP CORNERS.
9. ALL COMPONENTS TO BE HOT DIP GALVANISED TO AS4680.
10. SITE WELDS ARE TO BE PAINTED WITH ZINC-RICH PAINT.
11. WHERE SPECIFIED FENCE PANELS AND STANCHIONS TO BE POWDER COATED TO AS4506. POWDER COAT COLOUR TO BE BRUNSWICK GREEN OR AS SPECIFIED.

HEADWALL AND RIP RAP NOTES:

1. COMPACT THE SUBGRADE FILL TO THE DENSITY OF THE SURROUNDING UNDISTURBED MATERIAL.
2. PREPARE A SMOOTH, EVEN FOUNDATION FOR THE STRUCTURE THAT WILL ENSURE THAT GEOTEXTILE DOES NOT SUSTAIN SERIOUS DAMAGE WHEN COVERED WITH ROCK.
3. SHOULD ANY MINOR DAMAGE TO THE GEOTEXTILE OCCUR, REPAIR IT BEFORE SPREADING ANY AGGREGATE. FOR REPAIRS, PATCH ONE PIECE OF FABRIC OVER THE DAMAGE,WITH ALL JOINTS AND PATCHES OVERLAPPING 300mm (MIN).
4. RIP-RAP MEAN SIZE (Ø50) TO BE PROVIDED AS BLENDED RANGE OF DIAMETERS BEDDED ON 50mm LAYER OF 20mm AGGREGATE OVER CLASS C GEOTEXTILE.
5. A 50mm (MIN.) LAYER OF 20mm GRAVEL IS TO BE USED FOR BEDDING, UNLESS SPECIFIED OTHERWISE ON THE PLAN.
6. BEDDING GRAVEL IS TO BE UNDERLAIN BY CLASS C GEOTEXTILE, UNLESS SPECIFIED OTHERWISE ON THE PLAN.
7. RIP-RAP KEYED INTO BANKS & BED 300mm (MIN.).
8. ALL ROCK PLACED IN DRAINAGE LINES AND AT OUTLETS IS TO BE UNWEATHERED SOUND ROCK AND TO BE UNDERLAIN BY BEDDING GRAVEL AND GEOTEXTILE.
9. RIP RAP AND CHANNEL ROCK MATERIAL (OTHER THAN ROCK STEPS AND DROP STRUCTURES) IS SPECIFIED IN TERMS OF Ø50 ROCK SIZE, MEASURED ALONG THE B-AXIS DIMENSION. THIS IS THE MEDUM SIZE OF ROCK WITHIN THE LAYER. THE LARGEST AND SMALLEST ROCK SHALL NOT DIFFER FROM THIS FIGURE BY MORE THAN 50%.
10. ALL ROCK IS TO BE HAND PLACED TO ENSURE GOOD BEDDING OF INDIVIDUAL ROCKS AND TIGHT INTERLOCKING OF ADJACENT ROCKS.
11. ALL ROCK IS TO BE APPROVED BY THE SUPERINTENDENT PRIOR TO USE. UNWEATHERED SANDSTONE IS PREFERRABLE, OTHER NATURAL ROCK SHALL BE CONSIDERED ON RECEIPT OF SAMPLES.
12. RECYCLED AGGREGATES MAY BE USED FOR BEDDING GRAVEL AND BURIED ROCK ELEMENTS FOLLOWING APPROVAL BY THE SUPERINTENDENT.

STATE SIGNIFICANT DEVELOPMENT APPLICATION SSDA 9210

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD
A	MINOR AMENDMENTS	21/08/2020	JS	AVG	SL	TH

SCALE

GRID	DATUM	PROJECT MANAGER
		TH

CLIENT: SIKH GRAMMAR SCHOOL AUSTRALIA

PROJECT NAME/PLANSET TITLE
SIKH GRAMMAR SCHOOL
CONCEPT CIVIL DESIGN
150-161 TALLAWONG ROAD, ROUSE HILL, NSW
LOT 42 & 43, DP 30186

martens & Associates Pty Ltd
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Environment
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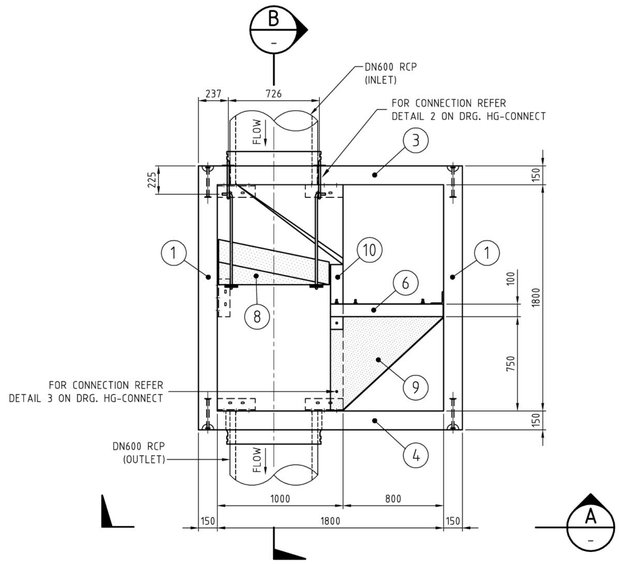
Suite 201, 20 George St, Hornsby, NSW 2077 Australia Phone: (02) 9476 9999 Fax: (02) 9476 8767
Email: mail@martens.com.au Internet: www.martens.com.au

DRAWING TITLE
DRAINAGE DETAILS (SHEET 4)

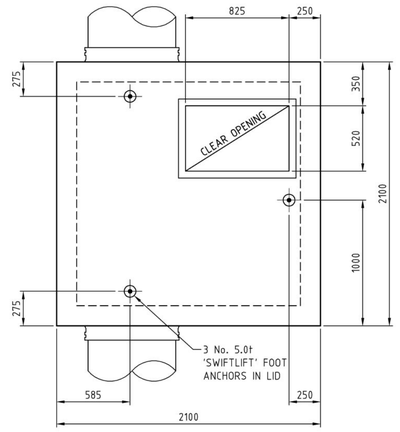
PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1806439	PS05	R06	PS05-E203	A

DRAWING ID: P1806439-PS05-R06-E203



PLAN VIEW (LID REMOVED)

SCALE 1:25



PLAN ON LID

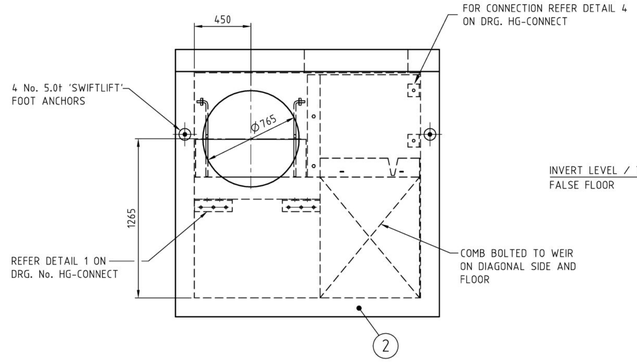
SCALE 1:25

ISSUE	DETAILS OF ALTERATIONS	DWN	DATE	CKD
3	REFERENCE DWG No. REVISED - REISSUED FOR MANUFACTURE	MZ	24-11-10	RM

ITEM No	DRAWING DESCRIPTION	DWG No
1	END WALL	HG18-02
2	BASE SLAB	3 HG18-03
3, 4	SIDE WALL	HG18-04
5	FALSE FLOOR	HG18/L-05
6	CONCRETE BAFFLE WALL	HG18/L-05
7	PRECAST LID	HG18/L-06
8	FLOATING BOOM	HG18/L-07
9	WEIR	HG18/L-08
10	BAFFLE SIDE WALL	HG18/L-09
11	COMB	HG18/L-10

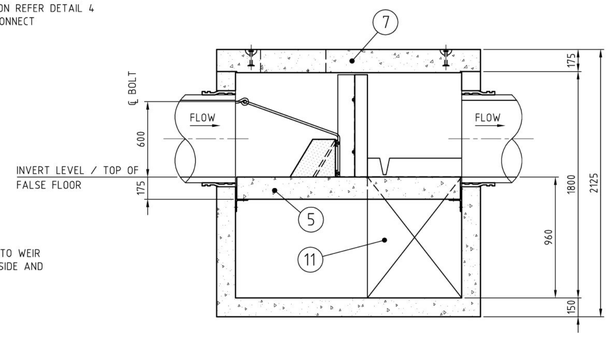
NOTES:

1. WHEN LIFTING ENTIRE UNIT FROM FOOT ANCHORS, SPREADER BEAM MUST BE USED TO ENSURE 4 POINT LIFT.
2. ALL METAL COMPONENTS ARE TO BE MADE FROM 304-GRADE STAINLESS STEEL.
3. SEE DRAWING HG-CAST FOR CASTING SEQUENCE.
4. SEE DRAWING HG-CONNECT FOR ALL CONNECTION DETAILS.
5. MASS OF COMPLETE UNIT = 7.8 t (WITHOUT LID).
   MASS OF LID = 1.9 t
6. KOR-N-SEAL BOOT CONNECTOR P/N = S206-30L (INLET & OUTLET)



VIEW A

SCALE 1:25



SECTION B

SCALE 1:25

DESIGN BASIS

1. DESIGN SPECIFICATION AS3600 CONCRETE STRUCTURES.
2. DESIGN LOADS 0-2m FILL WITH SM1600 VEHICLE LOAD TO AS5100 BRIDGE DESIGN.
3. DESIGN FOR UP TO B2 EXPOSURE CLASSIFICATION TO AS3600 CONCRETE STRUCTURES.

Humes TECHNICAL SERVICES BRISBANE, QUEENSLAND

DSN.	WST	24-11-10
DWN.	MZ	24-11-10
CKD.	RM	24-11-10
APP.	WST	24-11-10

HUMES WATER SOLUTIONS
STANDARD HUMEGARD
HUMEGARD HG18/L DN600/DN600 RCP
GENERAL ASSEMBLY

SUPERSEDES	PLOT SCALE	SIZE	DRG. NO.	ISSUE
HG18/L-01 REV. 2	1:1	A2	HG18/L-01	3

STATE SIGNIFICANT DEVELOPMENT APPLICATION SSDA 9210

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD
A	MINOR AMENDMENTS	21/08/2020	JS	AVG	SL	TH

SCALE

GRID | DATUM | PROJECT MANAGER: TH

CLIENT: SIKH GRAMMAR SCHOOL AUSTRALIA

PROJECT NAME/PLANSET TITLE
SIKH GRAMMAR SCHOOL
CONCEPT CIVIL DESIGN
150-161 TALLAWONG ROAD, ROUSE HILL, NSW
LOT 42 & 43, DP 30186

martens & Associates Pty Ltd
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Environment
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Suite 201, 20 George St, Hornsby, NSW 2077 Australia Phone: (02) 9476 9999 Fax: (02) 9476 8767
Email: mail@martens.com.au Internet: www.martens.com.au

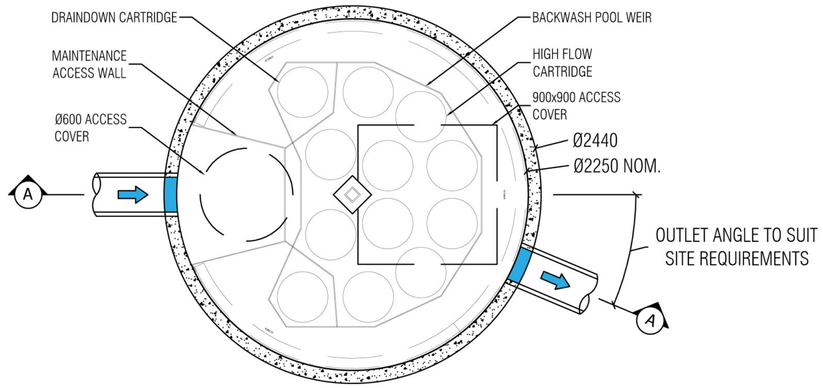
DRAWING TITLE: DRAINAGE DETAILS (SHEET 5)

PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1806439	PS05	R06	PS05-E204	A

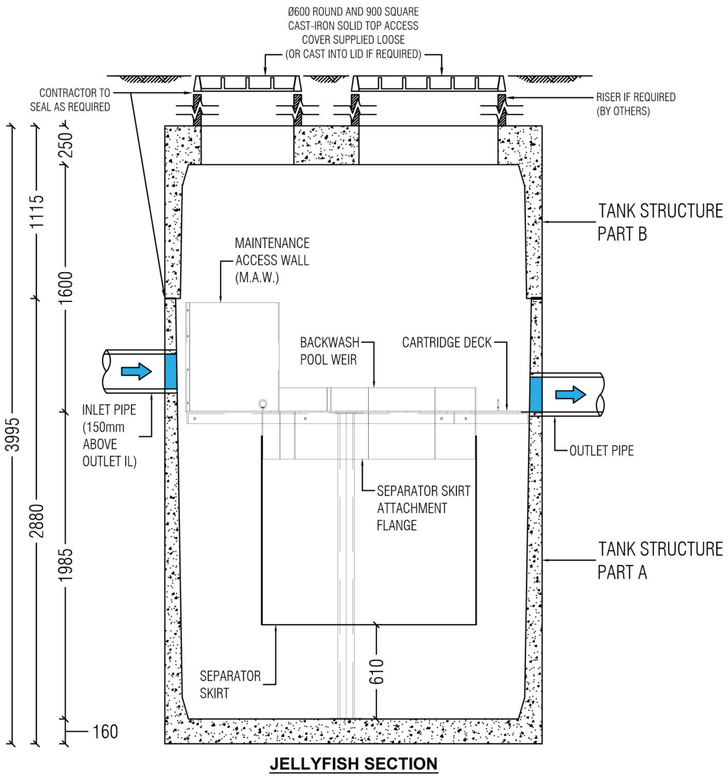
DRAWING ID: P1806439-PS05-R06-E204

PRINTED: --- USER: JSUAREZ
A1 / A3 LANDSCAPE (A1LC_v02.0.01)

NOT FOR CONSTRUCTION



JELLYFISH PLAN



JELLYFISH SECTION

LAST MODIFIED: 25-02-19

JELLYFISH DESIGN TABLE

JELLYFISH TREATMENT FLOW IS A FUNCTION OF THE NUMBER OF CARTRIDGES AND THE DEVICE TOTAL HEAD DIFFERENTIAL. IF THE PIPE FLOW EXCEEDS THE TREATMENT FLOW THEN AN UPSTREAM BYPASS STRUCTURE IS REQUIRED.

REQUIRED DEVICE TOTAL HEAD DIFFERENTIAL [mm]	460	230
CARTRIDGE FLOW RATE FOR HIGH-FLOW / DRAINDOWN [L/s]	5 / 2.5	2.5 / 1.25
CARTRIDGE LENGTH [mm]	1375	1375
OUTLET INVERT TO STRUCTURE INVERT [mm])	1985	1985

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID	[ ]
WATER QUALITY FLOW RATE (L/S)	[ ]
# OF CARTRIDGES REQUIRED (HF - DD)	[-]
CARTRIDGE SIZE	1375

PIPE DATA:	I.L.	MATERIAL	DIAMETER
INLET PIPE	[ ]	[ ]	[ ]
OUTLET PIPE	[ ]	[ ]	[ ]

UPPER TANK WEIGHT	4,050kg
LOWER TANK WEIGHT	6,350kg

NOTE: TANK SUPPLIED IN TWO PARTS; PARTS A & B TO BE JOINED ON SITE

GENERAL NOTES

1. JELLYFISH WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF THE PROJECT.
2. PRECAST STRUCTURE SUPPLIED WITH CORE HOLES TO SUIT OUTER DIAMETER OF NOMINATED PIPE SIZE / MATERIAL.
3. PRECAST STRUCTURE SHALL MEET W80 WHEEL LOAD RATING ASSUMING A MAXIMUM EARTH COVER OF 2.0m AND A GROUND WATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER TO CONFIRM ACTUAL GROUNDWATER ELEVATION.PRECAST STRUCTURE SHALL BE IN ACCORDANCE WITH AS3600.
4. IF THE PEAK FLOW RATE, AS DETERMINED BY THE SITE CIVIL ENGINEER, EXCEEDS THE TREATMENT FLOW RATE OF THE SYSTEM, AN UPSTREAM BYPASS STRUCTURE IS REQUIRE.
5. ALL WATER QUALITY TREATMENT DEVICES REQUIRE PERIODIC MAINTENANCE. REFER TO OPERATION AND MAINTENANCE MANUAL FOR GUIDELINES AND ACCESS REQUIREMENTS.
6. SITE SPECIFIC PRODUCTION DRAWING WILL BE PROVIDED ON PLACEMENT OF ORDER.
7. DRAWING NOT TO SCALE.

INSTALLATION NOTES

A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE SPECIFIC DESIGN CONSIDERATION AND SHALL BE SPECIFIED BY THE SITE CIVIL ENGINEER.

B. CONTRACTOR TO PROVIDE ALL EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STRUCTURE (LIFTING DETAIL PROVIDED SEPARATELY).

C. CONTRACTOR TO INSTALL AND LEVEL THE STRUCTURE, APPLY SEALANT TO ALL JOINTS AND TO PROVIDE, INSTALL AND GROUT INLET AND OUTLET PIPES.

D. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.

E. CARTRIDGE INSTALLATION, BY OCEANPROTECT, SHALL OCCUR ONLY AFTER SITE HAS BEEN STABILIZED AND THE JELLYFISH UNIT IS CLEAN AND FREE OF DEBRIS. CONTACT OCEAN PROTECT TO COORDINATE CARTRIDGE INSTALLATION WITH SITE COMPLETION.

OCEAN PROTECT
PHONE: 1300 354 722 www.oceanprotect.com.au

OCEAN PROTECT
JELLYFISH 2250
STANDARD PRODUCT DRAWING

STATE SIGNIFICANT DEVELOPMENT APPLICATION SSDA 9210

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD
A	MINOR AMENDMENTS	21/08/2020	JS	AVG	SL	TH

SCALE

GRID | DATUM | PROJECT MANAGER: TH

CLIENT: SIKH GRAMMAR SCHOOL AUSTRALIA

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CONCEPT CIVIL DESIGN
150-161 TALLAWONG ROAD, ROUSE HILL, NSW
LOT 42 & 43, DP 30186

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DRAWING TITLE
DRAINAGE DETAILS (SHEET 6)

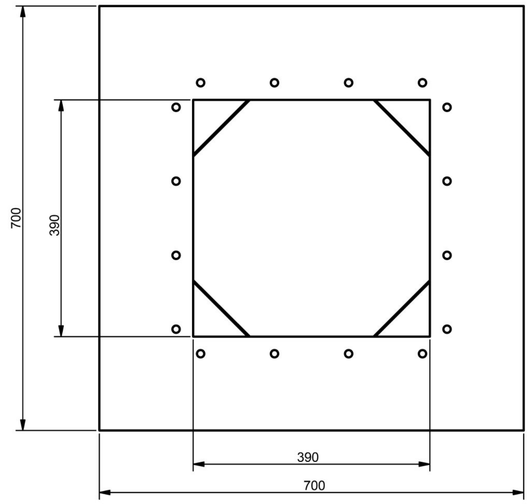
PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1806439	PS05	R06	PS05-E205	A

DRAWING ID: P1806439-PS05-R06-E205

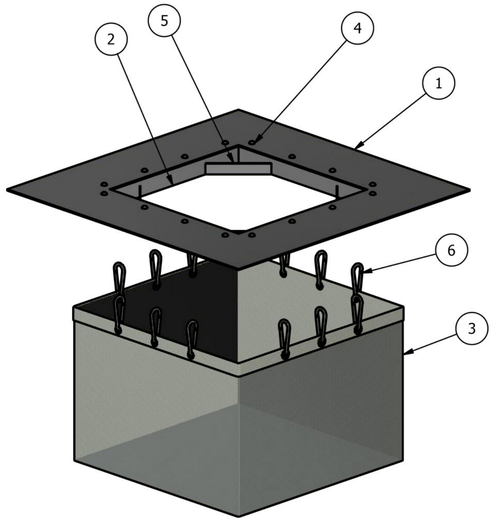
PRINTED: --- - USER ISSUED

A1 / A3 LANDSCAPE (A1LC_v02.0.01)

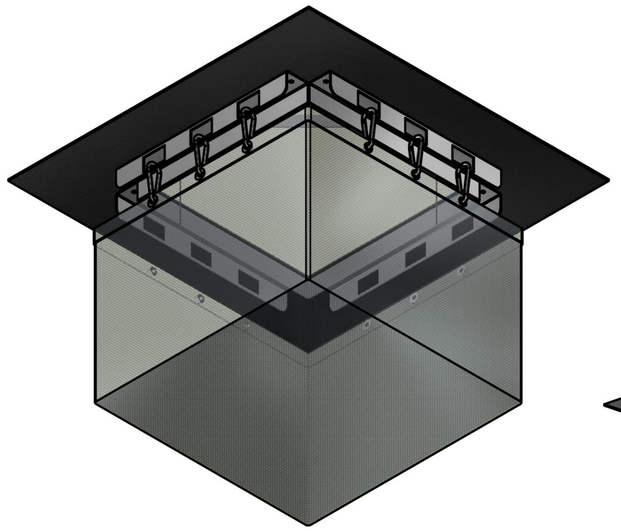
REVISION HISTORY				
REV	DESCRIPTION	DESIGNER	DATE	CHECKED BY
1	INITIAL RELEASE	M.M	25/03/2015	



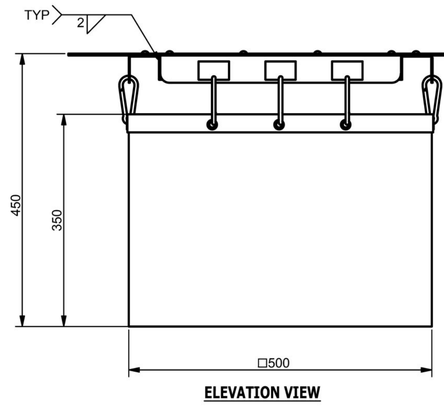
PLAN VIEW



ISOMETRIC VIEW
EXPLOSION



ISOMETRIC VIEW
BOTTOM VIEW



ELEVATION VIEW

PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	PLASTIC SHEETING	HDPE
2	4	SHEET METAL BENDING	STAINLESS STEEL 304
3	1	TEXTILE FABRIC & MESH LINER	HDPE
4	16	BLIND RIVIT 7 DIA.	STAINLESS STEEL 304
5	4	CORNER ESTIFFENER - FLAT BAR 25 x 2 - 141 LG	STAINLESS STEEL 304
6	12	CARABINER CLIP 6	ALUMINIUM

CLIENT:

DISTRIBUTOR

Drawn	M.M	Date 25/03/2015
CHECKED BY		Date
Verified		Date
Approved		Date
Customer Code :		

SPEL ENVIRONMENTAL INTEGRATED WATER SOLUTIONS
100 Silverwater Road Silverwater NSW 2128
PH: 1300 773 500 | E: sales@spel.com.au
www.spel.com.au

TITLE
SPEL STOMSACK
FRAME 600 x 600
BASKET MOUNTING ASSEMBLY DRAWING

REQUEST No.	SIZE	SHEET	REV
D20194	A3	1	1

SCALE	DWG No.
N.T.S	SP15-BB4610-S

STATE SIGNIFICANT DEVELOPMENT APPLICATION SSDA 9210

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD	SCALE
A	MINOR AMENDMENTS	21/08/2020	JS	AVG	SL	TH	

GRID	DATUM	PROJECT MANAGER
		TH

CLIENT
SIKH GRAMMAR SCHOOL AUSTRALIA

PROJECT NAME/PLANSET TITLE
SIKH GRAMMAR SCHOOL
CONCEPT CIVIL DESIGN
150-161 TALLAWONG ROAD, ROUSE HILL, NSW
LOT 42 & 43, DP 30186

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Email: mail@martens.com.au Internet: www.martens.com.au

DRAWING TITLE
DRAINAGE DETAILS (SHEET 7)

PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1806439	PS05	R06	PS05-E206	A

DRAWING ID: P1806439-PS05-R06-E206

Open Channel Flow Worksheet - Trapezoidal Form

Method based on Mannings equation

Method ST-01 Revised 4.10.2010

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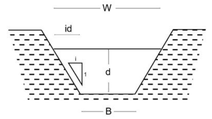
PROJECT DETAILS

Project	150 - 161 Tallawong Road, Rouse Hill, NSW			Ref. No.	P1806439JS09V01
Author	AVG	Reviewed	SL	Date Created	14/08/2020

STEP 1 : ENTER CHANNEL DATA

FACTOR	Enter Data	Unit
s - Bed Grade	0.010	m/m
Batter grade 1 in	4.000	(i)
B - Base Width	1.000	m
d - Water Depth	0.310	m
n - roughness	0.032	-
Q_d - Design Flow	0.730	m^3/s



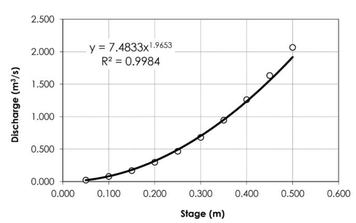
STEP 2 : CALCULATE AND SOLVE DATA

FACTOR	Calculated	Unit	
W - Top Flow Width	3.480	m	=(B + 2id)
A - Channel Area	0.694	m^2	=(Bd + id^2)
P - Wetted Perimeter	3.556	m	=B + 2(d^2+(id)^2)$^{0.5}$
R - Hydraulic Radius	0.195	m	=(A/P)
V - Velocity	1.051	m/s	
Q_d - Calculated Flow	0.730	m^3/s	
Q Difference	0.000	m^3/s	
VD Product	0.326	m^2/s	SAFE

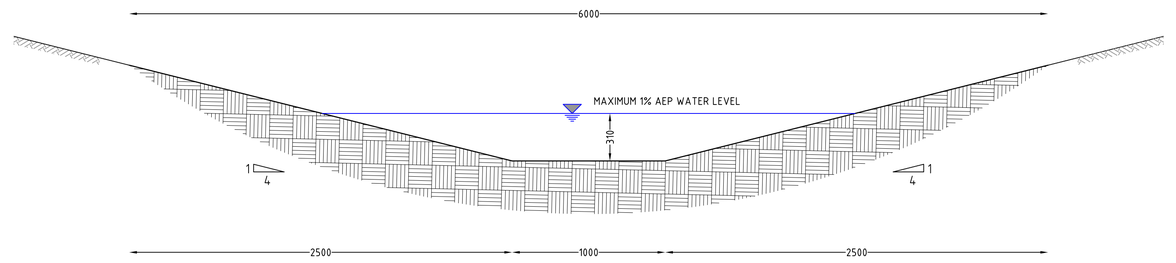
STEP 3 : FLOW RATING TABLE

FACTOR	Enter Data	Unit
Maximum Height	0.500	m

Stage (m)	R (m)	V (m/s)	Q (m^3)
0.050	0.042	0.380	0.023
0.100	0.077	0.564	0.079
0.150	0.107	0.705	0.169
0.200	0.136	0.825	0.297
0.250	0.163	0.933	0.467
0.300	0.190	1.032	0.681
0.350	0.216	1.125	0.945
0.400	0.242	1.213	1.261
0.450	0.267	1.297	1.634
0.500	0.293	1.377	2.066



TEMPORARY SWALE 1 - CALCULATIONS



TEMPORARY SWALE 1 - TYPICAL SECTION

SCALE: 1:20

STATE SIGNIFICANT DEVELOPMENT APPLICATION SSDA 9210

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD
A	MINOR AMENDMENTS	21/08/2020	JS	AVG	SL	TH

SCALE: A1 (A3) 1:20 (1:40) METRES

GRID | DATUM | PROJECT MANAGER: TH

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PROJECT NAME/PLANSET TITLE: SIKH GRAMMAR SCHOOL
CONCEPT CIVIL DESIGN
150-161 TALLAWONG ROAD, ROUSE HILL, NSW
LOT 42 & 43, DP 30186

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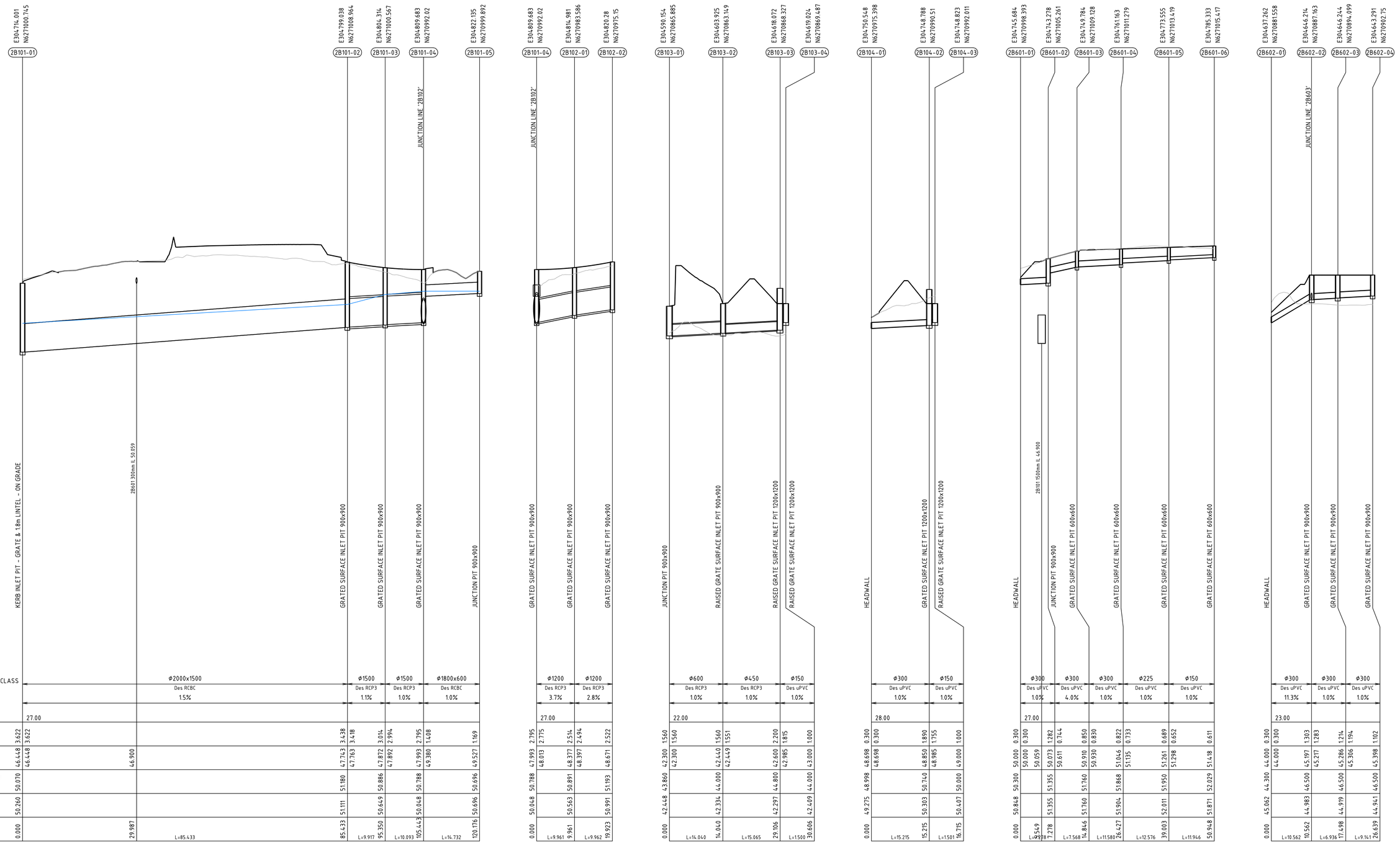
DRAWING TITLE: DRAINAGE DETAILS (SHEET 8)

PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1806439	PS05	R06	PS05-E207	A

DRAWING ID: P1806439-PS05-R06-E207

PRINTED ---- USER (SAMPLE)

A1 / A3 LANDSCAPE (A1LC_v02.0.01)



LINE 2B101 LINE 2B102 LINE 2B103 LINE 2B104 LINE 2B601 LINE 2B602

NOTE:
- 100 YR HGL OBTAINED FROM TUFLOW RESULTS.

STATE SIGNIFICANT DEVELOPMENT APPLICATION SSDA 9210

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD
B	MINOR AMENDMENTS	21/08/2020	JS	AVG	SL	TH
A	INITIAL RELEASE	19/03/2019	CG/GM	CG/AVG	SL	TH

SCALE
A1 (A3) 1:500 (1:1,000) 0 5 10 15 20 25 30 35 40 45 50 METRES
A1 (A3) 1:100 (1:200) 0 1 2 3 4 5 6 7 8 9 10 METRES

GRID	DATUM	PROJECT MANAGER
MGA	mAHD	TH

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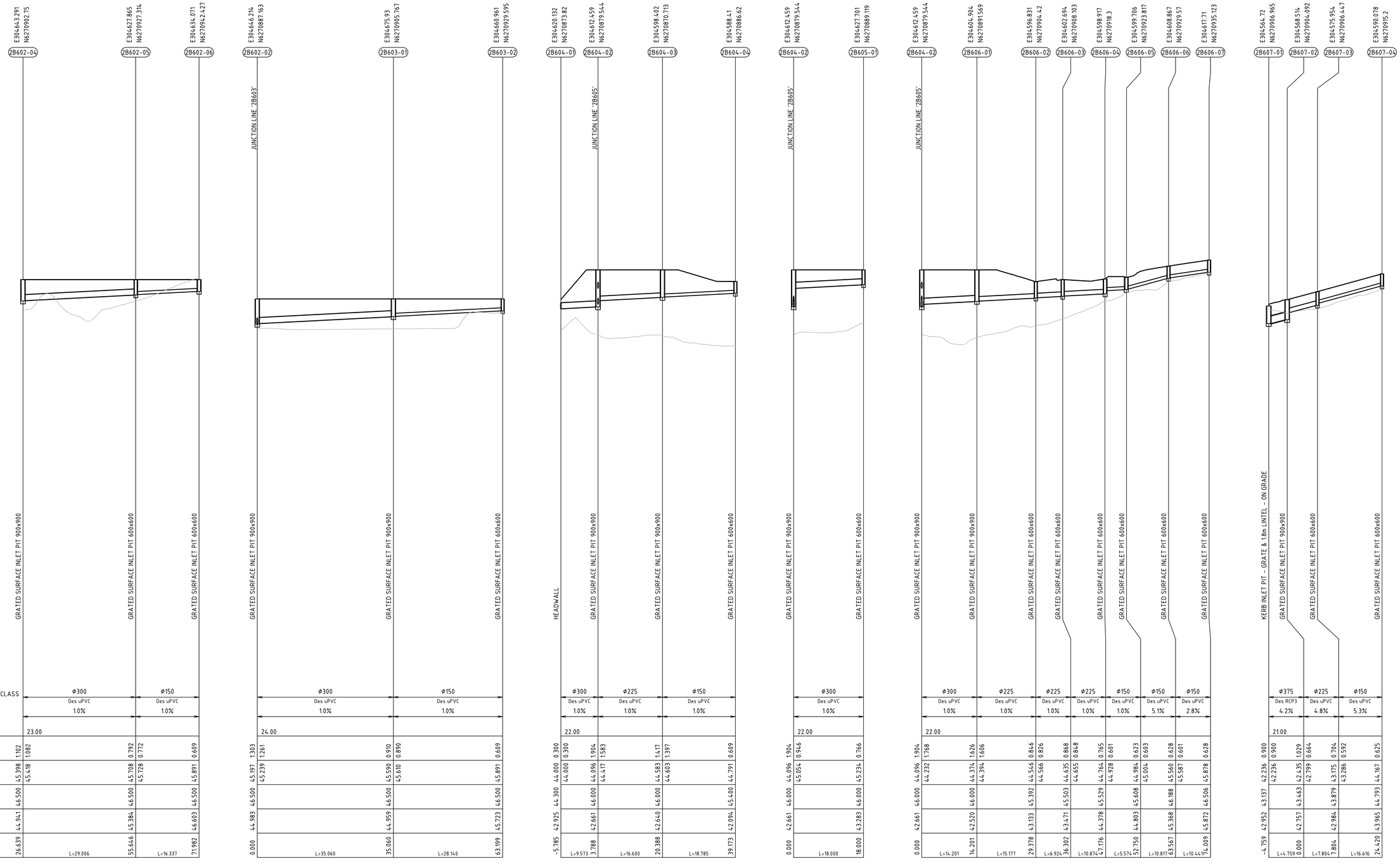
DRAWING TITLE
DRAINAGE LONGITUDINAL SECTIONS
STAGE 1
SHEET 1

PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1806439	PS05	R06	PS05-E300	B

DRAWING ID: P1806439-PS05-R06-E300

PRINTED: 29.12.2016 - USER: JSUAREZ
A1 / A3 LANDSCAPE (A1LC_v02.0.011)



STATE SIGNIFICANT DEVELOPMENT APPLICATION SSDA 9210

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD
B	MINOR AMENDMENTS	21/08/2020	JS	AVG	SL	TH
A	INITIAL RELEASE	19/03/2019	CG/GM	CG/AVG	SL	TH

SCALE
A1 (A3) 1:500 (1:1,000) METRES
A1 (A3) 1:100 (1:200) METRES

GRID	DATUM	PROJECT MANAGER
MGA	mAHD	TH

CLIENT
SIKH GRAMMAR SCHOOL AUSTRALIA

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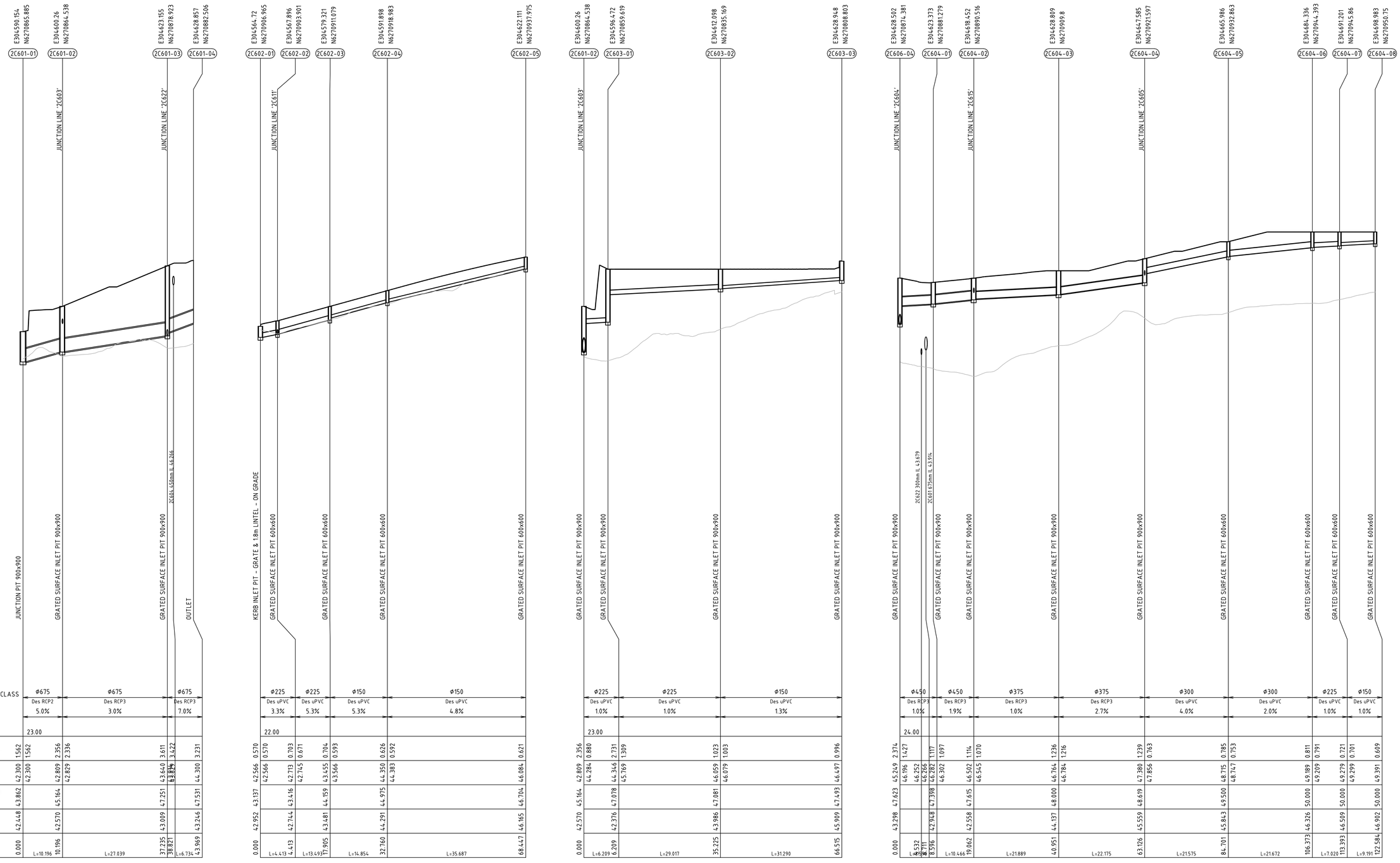
DRAWING TITLE
DRAINAGE LONGITUDINAL SECTIONS
STAGE 1
SHEET 2

PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1806439	PS05	R06	PS05-E301	B

DRAWING ID: P1806439-PS05-R06-E301

PRINTED: 29.12.2016 - USER: JSUAREZ
A1 / A3 LANDSCAPE (A1LC_v02.0.01)



LINE 2C601

LINE 2C602

LINE 2C603

LINE 2C604

STATE SIGNIFICANT DEVELOPMENT APPLICATION SSDA 9210

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD
A	INITIAL RELEASE	21/08/2020	JS	AVG	SL	TH

SCALE
A1 (A3) 1:500 (1:1,000) METRES
A1 (A3) 1:100 (1:200) METRES

GRID	DATUM	PROJECT MANAGER
		TH

CLIENT
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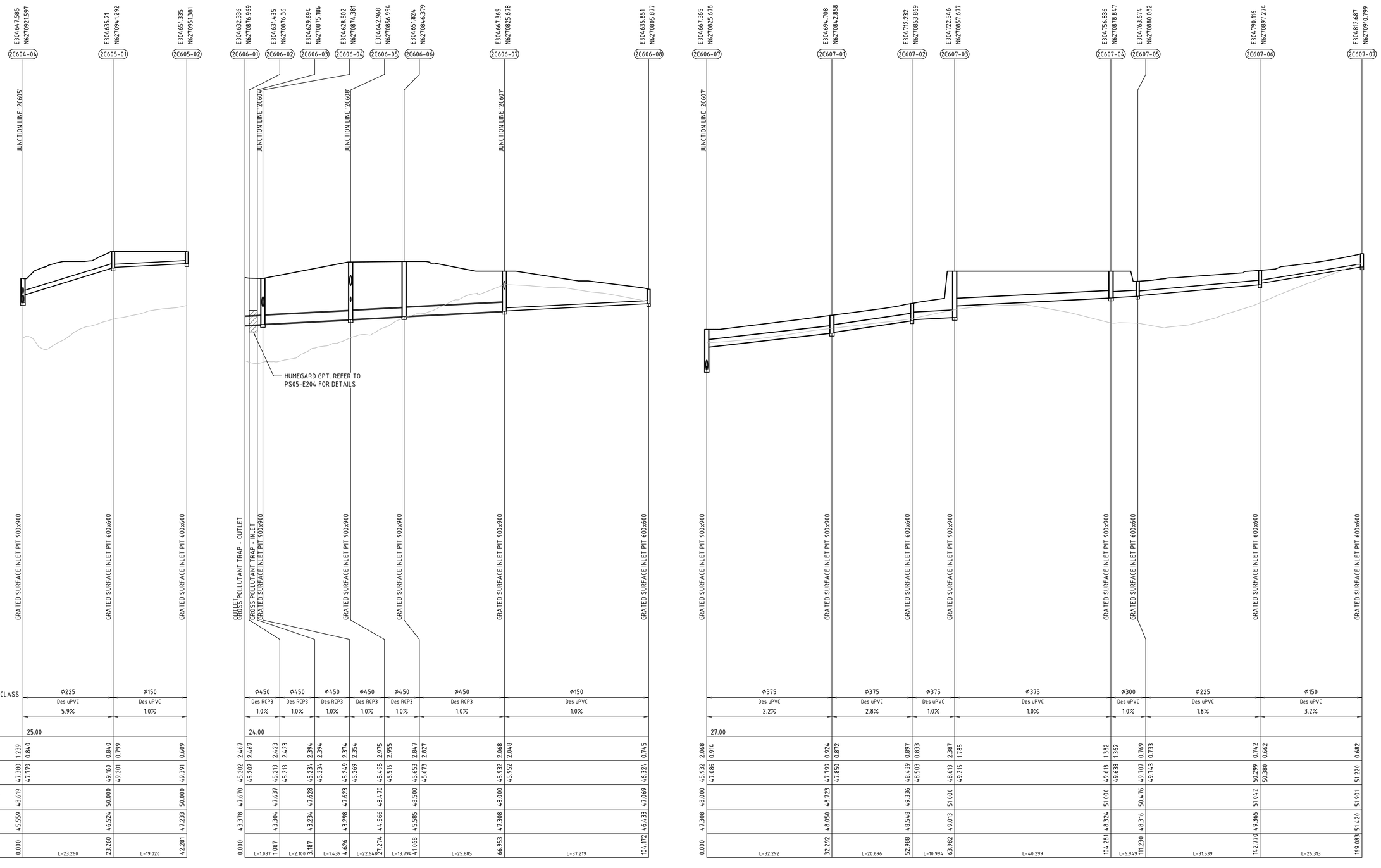
DRAWING TITLE
DRAINAGE LONGITUDINAL SECTIONS
FINAL STAGE
SHEET 1

PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1806439	PS05	R06	PS05-E310	A



	2C604-04	2C605-01	2C605-02
E	304647.585	304635.211	304651.335
N	6270921.597	6270941.292	6270951.381
PIPE SIZE & CLASS		ϕ225 Des uPVC	ϕ150 Des uPVC
GRADE (%)		5.9%	1.0%
Datum R.L	25.00		
DEPTH TO INVERT	1.239	0.840	0.840 / 0.799
INVERT LEVEL	47.380	47.719	49.160 / 49.201
PROPOSED LEVEL	48.619		50.000
EXISTING LEVEL	45.559	46.524	47.233
CHAINAGE	0.000	L=23.260	23.260 / L=19.020 42.281

	2C606-01	2C606-02	2C606-03	2C606-04	2C606-05	2C606-06	2C606-07	2C606-08
E	304632.336	304631.35	304629.694	304628.502	304642.968	304651.824	304667.365	304635.851
N	6270876.969	6270876.36	6270875.186	6270874.381	6270856.954	6270846.379	6270825.678	6270805.877
PIPE SIZE & CLASS	ϕ450 Des RCP3	ϕ450 Des RCP3	ϕ450 Des RCP3	ϕ450 Des RCP3	ϕ450 Des RCP3	ϕ450 Des RCP3	ϕ450 Des RCP3	ϕ150 Des uPVC
GRADE (%)	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Datum R.L	24.00							
DEPTH TO INVERT	2.467	2.423	2.394	2.374	2.975 / 2.955	2.847	2.068	0.745
INVERT LEVEL	45.202	45.213	45.234	45.249	45.495 / 45.515	45.653	45.932	46.324
PROPOSED LEVEL	47.670	47.637	47.628	47.623	48.470	48.500	48.000	47.069
EXISTING LEVEL	43.378	43.304	43.234	43.298	44.566	45.585	47.308	46.433
CHAINAGE	0.000	L=1.087 1.087	L=2.100 3.187	L=1.439 4.626	L=22.648 27.274	L=13.794 41.068	L=25.885 66.953	L=37.219 104.172

	2C606-07	2C607-01	2C607-02	2C607-03	2C607-04	2C607-05	2C607-06	2C607-07
E	304667.365	304694.708	304712.232	304722.546	304756.836	304763.674	304790.116	304812.687
N	6270825.678	6270842.858	6270853.869	6270857.677	6270878.847	6270880.082	6270897.274	6270910.799
PIPE SIZE & CLASS	ϕ375 Des uPVC	ϕ375 Des uPVC	ϕ375 Des uPVC	ϕ375 Des uPVC	ϕ300 Des uPVC	ϕ225 Des uPVC	ϕ150 Des uPVC	
GRADE (%)	2.2%	2.8%	1.0%	1.0%	1.0%	1.8%	3.2%	
Datum R.L	27.00							
DEPTH TO INVERT	2.068	0.924	0.897	2.387	1.382	0.769	0.742	0.682
INVERT LEVEL	45.932 / 47.086	47.799 / 47.850	48.439 / 48.503	48.613 / 49.215	49.618 / 49.638	49.707 / 49.743	50.299 / 50.380	51.220
PROPOSED LEVEL	48.000	48.723	49.336	51.000	51.000	50.476	51.042	51.901
EXISTING LEVEL	47.308	48.050	48.548	49.013	48.324	48.316	49.365	51.420
CHAINAGE	0.000	L=32.292	32.292	L=20.696	52.988	L=10.994	63.982	L=40.299 104.281	L=6.949 111.230	L=31.539 142.770	L=26.313 169.083

STATE SIGNIFICANT DEVELOPMENT APPLICATION SSDA 9210

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD
A	INITIAL RELEASE	21/08/2020	JS	AVG	SL	TH

SCALE
A1 (A3) 1:500 (1:1,000) METRES
A1 (A3) 1:100 (1:200) METRES

GRID	DATUM	PROJECT MANAGER
		TH

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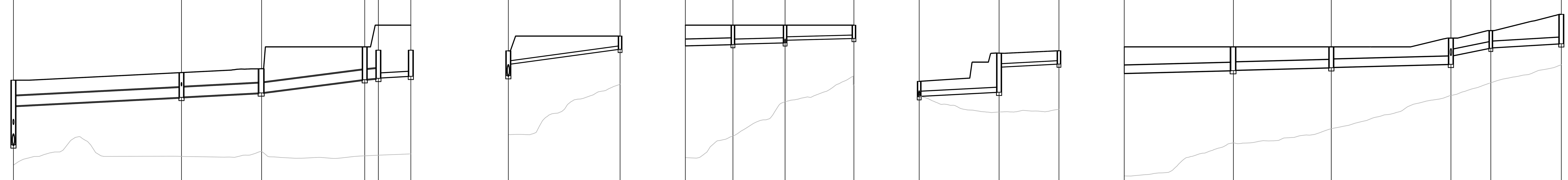
DRAWING TITLE
DRAINAGE LONGITUDINAL SECTIONS
FINAL STAGE
SHEET 2

PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1806439	PS05	R06	PS05-E311	A

DRAWING ID: P1806439-PS05-R06-E311

PRINTED: 20.12.2016 - USER: JSUAREZ
A1 / A3 LANDSCAPE (A1LC_v02.0.01)

1	2	3	4	5	6	7	8



LINE 2C608

Pit	2C606-05	2C608-01	2C608-02	2C608-03	2C608-04	2C608-05
Coordinates	E304642.968 N6270856.954	E304675.669 N6270877.498	E304691.261 N6270887.293	E304697.84 N6270910.062	E304700.886 N6270909.321	E304702.713 N6270916.553
Note	JUNCTION LINE '2C608'	JUNCTION LINE '2C609'				
Pit type	GRATED SURFACE INLET PIT 900x900	GRATED SURFACE INLET PIT 900x900	GRATED SURFACE INLET PIT 900x900	GRATED SURFACE INLET PIT 900x900	GRATED SURFACE INLET PIT 900x900	GRATED SURFACE INLET PIT 900x900
DEPTH TO INVERT	2.975 / 1.175	1.139 / 1.119	1.112 / 1.092	1.506 / 1.486	1.295 / 1.275	1.200
INVERT LEVEL	45.495 / 47.295	47.681 / 47.701	47.885 / 47.905	48.494 / 48.514	48.555 / 48.575	48.650
PROPOSED LEVEL	48.470	48.821	48.998	50.000	49.850	49.850
EXISTING LEVEL	44.566	44.965	45.198	44.991	45.021	45.080
CHAINAGE	0.000	38.618	57.032	80.732	83.867	91.326

Datum R.L 26.00

Segment	PIPE SIZE & CLASS	GRADE (%)	Length
2C606-05 – 2C608-01	Ø450 Des RCP3	1.0%	L=38.618
2C608-01 – 2C608-02	Ø450 Des RCP3	1.0%	L=18.413
2C608-02 – 2C608-03	Ø450 Des RCP3	2.5%	L=23.700
2C608-03 – 2C608-04	Ø450 Des RCP3	1.3%	L=3.135
2C608-04 – 2C608-05	Ø225 Des uPVC	1.0%	L=7.459

LINE 2C609

Pit	2C608-01	2C609-01
Coordinates	E304675.669 N6270877.498	E304689.333 N6270855.751
Note	JUNCTION LINE '2C609'	
Pit type	GRATED SURFACE INLET PIT 900x900	GRATED SURFACE INLET PIT 600x600
DEPTH TO INVERT	1.139 / 0.609	0.609
INVERT LEVEL	47.681 / 48.211	48.891
PROPOSED LEVEL	48.821	49.500
EXISTING LEVEL	44.965	47.293
CHAINAGE	0.000	25.683

Datum R.L 25.00

Segment	PIPE SIZE & CLASS	GRADE (%)	Length
2C608-01 – 2C609-01	Ø150 Des uPVC	2.6%	L=25.683

LINE 2C610

Pit	2C610-01	2C610-02	2C610-03	2C610-04
Coordinates	E304699.658 N6270900.874	E304702.994 N6270890.458	E304709.009 N6270880.096	E304717.426 N6270866.7
Note			JUNCTION LINE '2C621'	
Pit type	OUTLET	GRATED SURFACE INLET PIT 600x600	GRATED SURFACE INLET PIT 600x600	GRATED SURFACE INLET PIT 600x600
DEPTH TO INVERT	0.944 / 0.944	0.890 / 0.870	0.810 / 0.688	0.609
INVERT LEVEL	50.056 / 50.056	50.110 / 50.130	50.190 / 50.312	50.391
PROPOSED LEVEL	51.000	51.000	51.000	51.000
EXISTING LEVEL	44.908	45.904	47.483	48.252
CHAINAGE	0.000	10.937	22.918	38.739

Datum R.L 26.00

Segment	PIPE SIZE & CLASS	GRADE (%)	Length
2C610-01 – 2C610-02	Ø300 Des uPVC	0.5%	L=10.937
2C610-02 – 2C610-03	Ø225 Des uPVC	0.5%	L=11.981
2C610-03 – 2C610-04	Ø150 Des uPVC	0.5%	L=15.821

LINE 2C611

Pit	2C602-02	2C611-01	2C611-02
Coordinates	E304567.896 N6270903.901	E304577.993 N6270888.565	E304585.5 N6270877.035
Note	JUNCTION LINE '2C611'		
Pit type	GRATED SURFACE INLET PIT 600x600	GRATED SURFACE INLET PIT 900x900	GRATED SURFACE INLET PIT 600x600
DEPTH TO INVERT	0.703 / 0.683	1.798 / 0.639	0.612
INVERT LEVEL	42.713 / 42.733	42.916 / 44.075	44.213
PROPOSED LEVEL	43.416	44.715	44.825
EXISTING LEVEL	42.744	42.006	42.131
CHAINAGE	0.000	18.362	32.121

Datum R.L 21.00

Segment	PIPE SIZE & CLASS	GRADE (%)	Length
2C602-02 – 2C611-01	Ø225 Des uPVC	1.0%	L=18.362
2C611-01 – 2C611-02	Ø150 Des uPVC	1.0%	L=13.759

LINE 2C612

Pit	2C612-01	2C612-02	2C612-03	2C612-04	2C612-05	2C612-06
Coordinates	E304705.581 N6270910.58	E304729.191 N6270902.079	E304748.234 N6270914.045	E304766.874 N6270934.264	E304774.636 N6270939.141	E304788.48 N6270947.557
Note				JUNCTION LINE '2C613'		
Pit type	OUTLET	GRATED SURFACE INLET PIT 900x900	GRATED SURFACE INLET PIT 900x900	GRATED SURFACE INLET PIT 900x900	GRATED SURFACE INLET PIT 600x600	GRATED SURFACE INLET PIT 900x900
DEPTH TO INVERT	1.214 / 1.214	1.089 / 1.069	0.956 / 0.936	1.207 / 0.812	0.812 / 0.787	1.354
INVERT LEVEL	49.786 / 49.786	49.911 / 49.931	50.044 / 50.064	50.201 / 50.597	50.938 / 50.963	51.146
PROPOSED LEVEL	51.000	51.000	51.000	51.408	51.750	52.500
EXISTING LEVEL	45.069	46.590	47.243	48.763	49.352	50.183
CHAINAGE	0.000	25.094	47.584	75.085	84.251	100.453

Datum R.L 27.00

Segment	PIPE SIZE & CLASS	GRADE (%)	Length
2C612-01 – 2C612-02	Ø375 Des uPVC	0.5%	L=25.094
2C612-02 – 2C612-03	Ø375 Des uPVC	0.5%	L=22.490
2C612-03 – 2C612-04	Ø375 Des uPVC	0.5%	L=27.501
2C612-04 – 2C612-05	Ø300 Des uPVC	3.7%	L=9.166
2C612-05 – 2C612-06	Ø300 Des uPVC	1.1%	L=16.202

STATE SIGNIFICANT DEVELOPMENT APPLICATION SSDA 9210

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SCALE
A1 (A3) 1:500 (1:1,000) — 0 5 10 15 20 25 30 35 40 45 50 METRES
A1 (A3) 1:100 (1:200) — 0 1 2 3 4 5 6 7 8 9 10 METRES

GRID | DATUM | PROJECT MANAGER: TH

CLIENT: SIKH GRAMMAR SCHOOL AUSTRALIA

PROJECT NAME/PLANSET TITLE: SIKH GRAMMAR SCHOOL
CONCEPT CIVIL DESIGN
150-161 TALLAWONG ROAD, ROUSE HILL, NSW
LOT 42 & 43, DP 30186

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Civil
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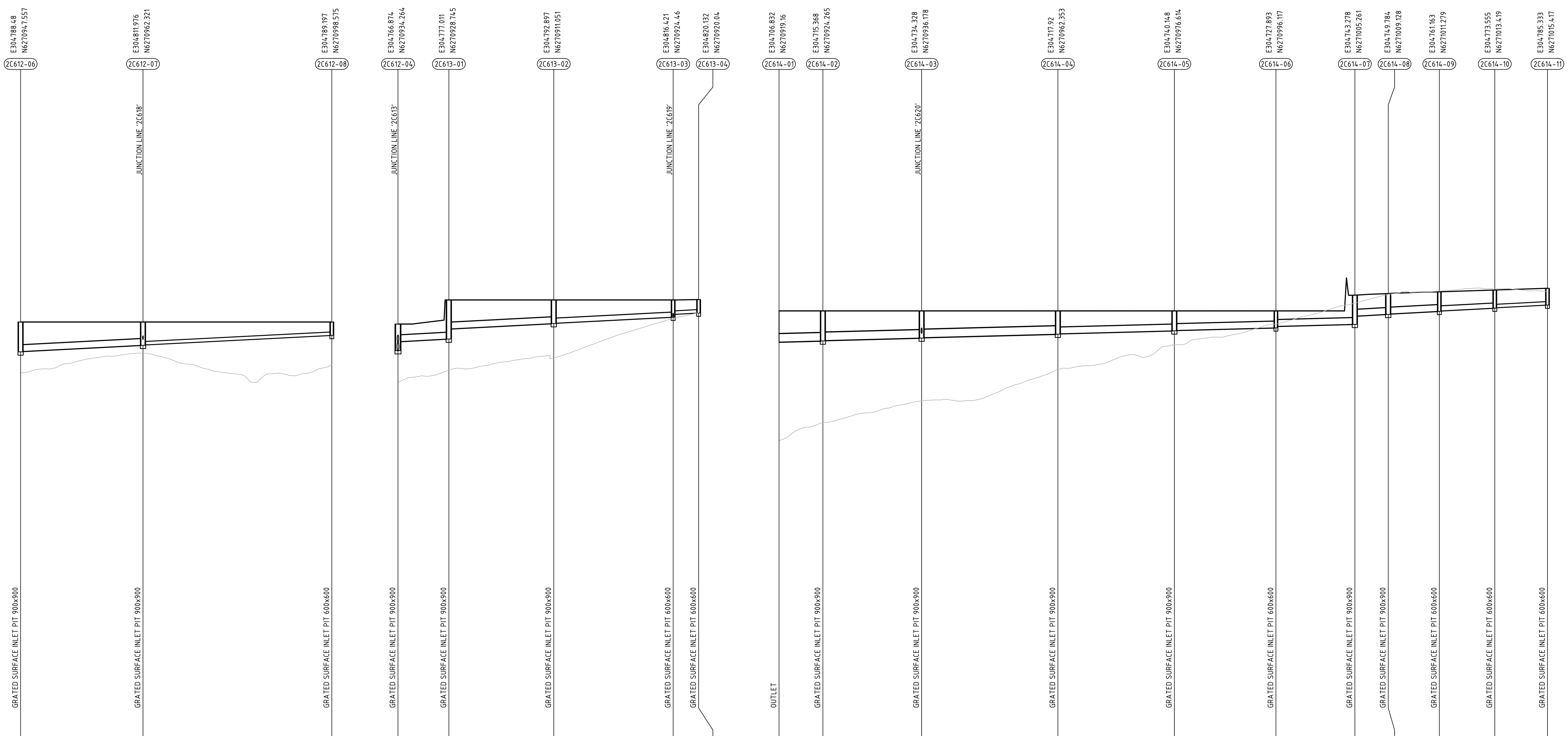
DRAWING TITLE: DRAINAGE LONGITUDINAL SECTIONS
FINAL STAGE
SHEET 3

PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1806439	PS05	R06	PS05-E312	A



	2C612-06		2C612-07		2C612-08
PIPE SIZE & CLASS		Ø300 Des uPVC		Ø150 Des uPVC	
GRADE (%)		1.0%		1.0%	
Datum R.L	29.00				
DEPTH TO INVERT	1.354 / 1.334		1.057 / 1.037		0.609
INVERT LEVEL	51.146 / 51.166		51.443 / 51.463		51.891
PROPOSED LEVEL	52.500		52.500		52.500
EXISTING LEVEL	50.183		51.086		50.585
CHAINAGE	100.453	L=27.750	128.203	L=42.817	171.020

LINE 2C612

	2C612-04		2C613-01		2C613-02		2C613-03		2C613-04
PIPE SIZE & CLASS		Ø300 Des uPVC		Ø300 Des uPVC		Ø225 Des uPVC		Ø150 Des uPVC	
GRADE (%)		1.0%		1.0%		1.0%		1.0%	
Datum R.L	28.00								
DEPTH TO INVERT	1.207 / 0.795		1.771 / 1.310		1.073 / 1.053		0.782 / 0.650		0.610
INVERT LEVEL	50.201 / 50.613		50.729 / 51.190		51.427 / 51.447		51.718 / 51.850		51.908
PROPOSED LEVEL	51.408		52.500		52.500		52.500		52.517
EXISTING LEVEL	48.763		49.320		49.865		51.668		51.922
CHAINAGE	0.000	L=11.542	11.542	L=23.778	35.321	L=27.077	62.398	L=5.772	68.170

LINE 2C613

	2C614-01		2C614-02		2C614-03		2C614-04		2C614-05		2C614-06
PIPE SIZE & CLASS		Ø375 Des uPVC		Ø375 Des uPVC		Ø375 Des uPVC		Ø300 Des uPVC		Ø300 Des uPVC	
GRADE (%)		0.5%		0.5%		0.5%		0.5%		0.5%	
Datum R.L	27.00										
DEPTH TO INVERT	1.409 / 1.409		1.359 / 1.339		1.227 / 1.207		1.053 / 1.033		0.901 / 0.881		0.766 / 0.695
INVERT LEVEL	49.591 / 49.591		49.641 / 49.661		49.773 / 49.793		49.947 / 49.967		50.099 / 50.119		50.234 / 50.305
PROPOSED LEVEL	51.000		51.000		51.000		51.000		51.000		51.000
EXISTING LEVEL	45.133		45.929		46.941		48.338		49.485		50.400
CHAINAGE	0.000	L=9.946	9.946	L=22.391	32.337	L=30.892	63.230	L=26.409	89.639	L=23.033	112.672

	2C614-06		2C614-07		2C614-08		2C614-09		2C614-10		2C614-11
PIPE SIZE & CLASS		Ø300 Des uPVC		Ø300 Des uPVC		Ø300 Des uPVC		Ø225 Des uPVC		Ø150 Des uPVC	
GRADE (%)		0.5%		1.0%		1.0%		1.0%		1.0%	
DEPTH TO INVERT			1.324 / 0.947		0.941 / 0.921		0.886 / 0.866		0.822 / 0.802		0.761
INVERT LEVEL			50.394 / 50.771		50.847 / 50.867		50.983 / 51.003		51.128 / 51.148		51.268
PROPOSED LEVEL			51.718		51.788		51.868		51.950		52.029
EXISTING LEVEL			51.355		51.760		51.904		52.011		51.871
CHAINAGE		L=17.897	130.569	L=7.568	138.138	L=11.580	149.718	L=12.576	162.294	L=11.946	174.240

LINE 2C614

STATE SIGNIFICANT DEVELOPMENT APPLICATION SSDA 9210

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD
A	INITIAL RELEASE	21/08/2020	JS	AVG	SL	TH

SCALE
A1 (A3) 1:500 (1:1,000) METRES
A1 (A3) 1:100 (1:200) METRES

GRID | DATUM | PROJECT MANAGER: TH

CLIENT
SIKH GRAMMAR SCHOOL AUSTRALIA

PROJECT NAME/PLANSET TITLE
SIKH GRAMMAR SCHOOL
CONCEPT CIVIL DESIGN
150-161 TALLAWONG ROAD, ROUSE HILL, NSW
LOT 42 & 43, DP 30186

martens & Associates Pty Ltd
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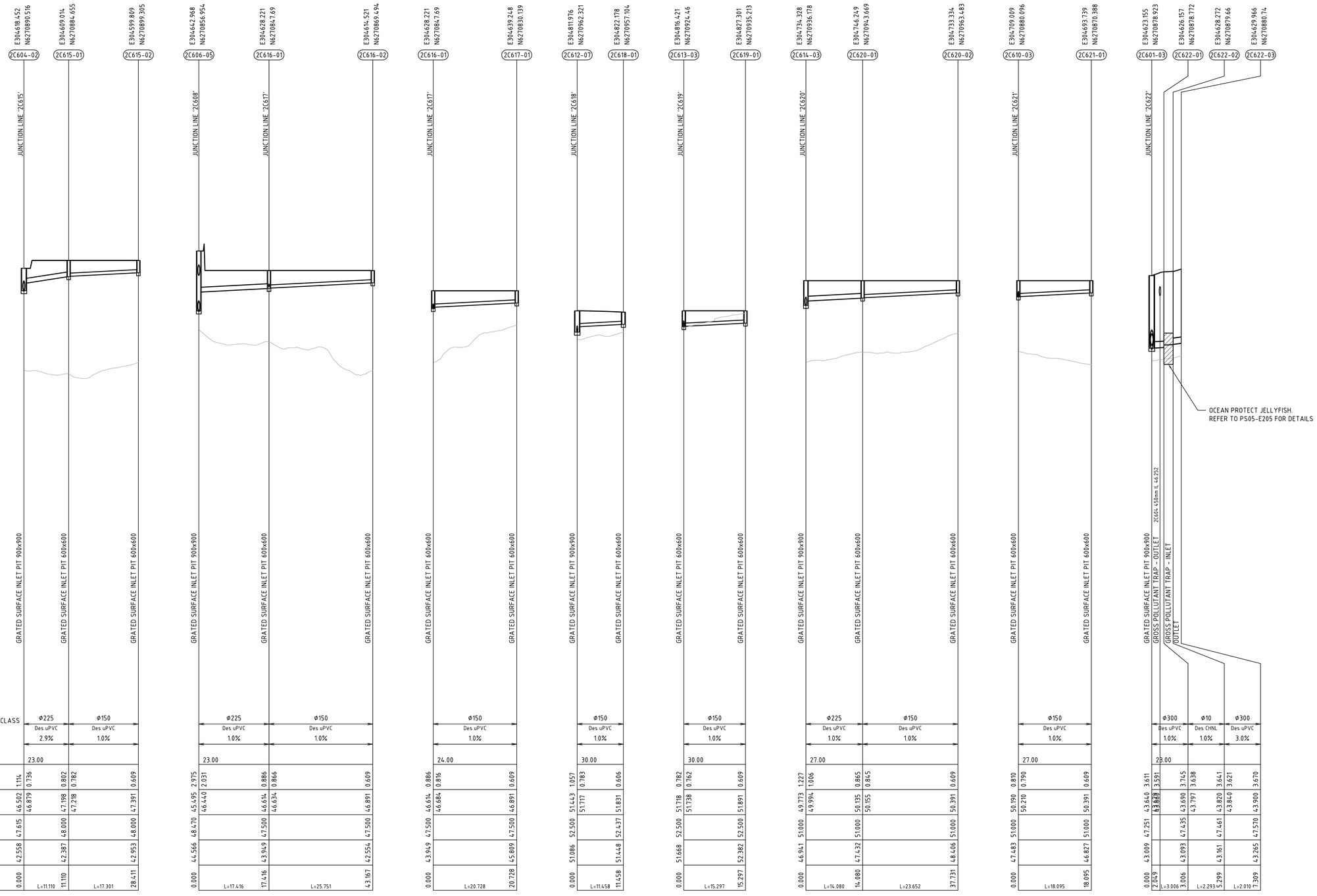
DRAWING TITLE
DRAINAGE LONGITUDINAL SECTIONS
FINAL STAGE
SHEET 4

PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1806439	PS05	R06	PS05-E313	A

DRAWING ID: P1806439-PS05-R06-E313
PRINTED: 29.02.2016 - USER: JSUAREZ
A1 / A3 LANDSCAPE (A1LC_v02.0.01)



STATE SIGNIFICANT DEVELOPMENT APPLICATION SSDA 9210

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD
A	INITIAL RELEASE	21/08/2020	JS	AVG	SL	TH

SCALE
A1 (A3) 1:500 (1:1,000) METRES
A1 (A3) 1:100 (1:200) METRES

GRID	DATUM	PROJECT MANAGER
		TH

CLIENT
SIKH GRAMMAR SCHOOL AUSTRALIA

PROJECT NAME/PLANSET TITLE
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DRAWING TITLE
DRAINAGE LONGITUDINAL SECTIONS
FINAL STAGE
SHEET 5

PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1806439	PS05	R06	PS05-E314	A

DRAWING ID: P1806439-PS05-R06-E314

PRINTED: 20.12.2016 - USER: JSUAREZ
A1 / A3 LANDSCAPE (A1LC_v02.0.01)

PIT SCHEDULE

Pit				INTERNAL		INLET		OUTLET		PIT		
Name	TYPE	EASTING	NORTHING	WD	LEN	DIA	INV LEV	DIA	INV LEV	SETOUT RL	DEPTH	REMARKS
2B101-05	JUNCTION PIT 900x900	304822.135	6270999.892	0.90	0.90	-	-	1800x600	49.527	50.696	1.169	
2B101-04	GRATED SURFACE INLET PIT 900x900	304809.683	6270992.020	0.90	0.90	1800x600	49.380	1500	47.993	50.788	2.795	
2B101-03	GRATED SURFACE INLET PIT 900x900	304804.314	6271000.567	0.90	0.90	1500	47.892	1500	47.872	50.886	3.014	
2B101-02	GRATED SURFACE INLET PIT 900x900	304799.038	6271008.964	0.90	0.90	1500	47.763	2000x1500	47.743	51.180	3.438	
2B101-01	KERB INLET PIT - GRATE & 1.8m LINTEL - ON GRADE	304714.001	6271000.745	0.90	0.90	2000x1500	46.448	-	-	50.070	3.622	xy setout to setout string

Pit				INTERNAL		INLET		OUTLET		PIT		
Name	TYPE	EASTING	NORTHING	WD	LEN	DIA	INV LEV	DIA	INV LEV	SETOUT RL	DEPTH	REMARKS
2B102-02	GRATED SURFACE INLET PIT 900x900	304820.280	6270975.150	0.90	0.90	-	-	1200	48.671	51.193	2.522	
2B102-01	GRATED SURFACE INLET PIT 900x900	304814.981	6270983.586	0.90	0.90	1200	48.397	1200	48.377	50.891	2.514	
2B101-04	GRATED SURFACE INLET PIT 900x900	304809.683	6270992.020	0.90	0.90	1200	48.013	-	-	50.788	2.795	

Pit				INTERNAL		INLET		OUTLET		PIT		
Name	TYPE	EASTING	NORTHING	WD	LEN	DIA	INV LEV	DIA	INV LEV	SETOUT RL	DEPTH	REMARKS
2B103-04	RAISED GRATE SURFACE INLET PIT 1200x1200	304619.024	6270869.487	1.20	1.20	-	-	150	43.000	44.000	1.000	
2B103-03	RAISED GRATE SURFACE INLET PIT 1200x1200	304618.072	6270868.327	1.20	1.20	150	42.985	450	42.600	44.800	2.200	
2B103-02	RAISED GRATE SURFACE INLET PIT 900x900	304603.925	6270863.149	0.90	0.90	450	42.449	600	42.440	44.000	1.560	
2B103-01	JUNCTION PIT 900x900	304590.154	6270865.885	0.90	0.90	600	42.300	-	-	43.860	1.560	

Pit				INTERNAL		INLET		OUTLET		PIT		
Name	TYPE	EASTING	NORTHING	WD	LEN	DIA	INV LEV	DIA	INV LEV	SETOUT RL	DEPTH	REMARKS
2B104-03	RAISED GRATE SURFACE INLET PIT 1200x1200	304748.823	6270992.011	1.20	1.20	-	-	150	49.000	50.000	1.000	
2B104-02	GRATED SURFACE INLET PIT 1200x1200	304748.788	6270990.510	1.20	1.20	150	48.985	300	48.850	50.740	1.890	
2B104-01	HEADWALL	304750.548	6270975.398	0.00	0.00	300	48.698	-	-	48.998	0.300	setout level to maximum pipe obvert

Pit				INTERNAL		INLET		OUTLET		PIT		
Name	TYPE	EASTING	NORTHING	WD	LEN	DIA	INV LEV	DIA	INV LEV	SETOUT RL	DEPTH	REMARKS
2B601-06	GRATED SURFACE INLET PIT 600x600	304785.333	6271015.417	0.60	0.60	-	-	150	51.418	52.029	0.611	
2B601-05	GRATED SURFACE INLET PIT 600x600	304773.555	6271013.419	0.60	0.60	150	51.298	225	51.261	51.950	0.689	
2B601-04	GRATED SURFACE INLET PIT 600x600	304761.163	6271011.279	0.60	0.60	225	51.135	300	51.046	51.868	0.822	
2B601-03	GRATED SURFACE INLET PIT 600x600	304749.784	6271009.128	0.60	0.60	300	50.930	300	50.910	51.760	0.850	
2B601-02	JUNCTION PIT 900x900	304743.278	6271005.261	0.60	0.60	300	50.603	300	50.073	51.355	1.282	
2B601-01	HEADWALL	304745.684	6270998.393	0.00	0.00	300	50.000	-	-	50.300	0.300	setout level to maximum pipe obvert

Pit				INTERNAL		INLET		OUTLET		PIT		
Name	TYPE	EASTING	NORTHING	WD	LEN	DIA	INV LEV	DIA	INV LEV	SETOUT RL	DEPTH	REMARKS
2B602-06	GRATED SURFACE INLET PIT 600x600	304634.071	6270942.427	0.60	0.60	-	-	150	45.891	46.500	0.609	
2B602-05	GRATED SURFACE INLET PIT 600x600	304627.865	6270927.314	0.60	0.60	150	45.728	300	45.708	46.500	0.792	
2B602-04	GRATED SURFACE INLET PIT 900x900	304643.291	6270902.750	0.60	0.60	300	45.418	300	45.398	46.500	1.102	
2B602-03	GRATED SURFACE INLET PIT 900x900	304646.244	6270894.099	0.60	0.60	300	45.306	300	45.286	46.500	1.214	
2B602-02	GRATED SURFACE INLET PIT 900x900	304646.214	6270887.163	0.60	0.60	300	45.217	300	45.197	46.500	1.303	
2B602-01	HEADWALL	304637.262	6270881.558	0.00	0.00	300	44.000	-	-	44.300	0.300	setout level to maximum pipe obvert

Pit				INTERNAL		INLET		OUTLET		PIT		
Name	TYPE	EASTING	NORTHING	WD	LEN	DIA	INV LEV	DIA	INV LEV	SETOUT RL	DEPTH	REMARKS
2B603-02	GRATED SURFACE INLET PIT 600x600	304660.961	6270929.595	0.60	0.60	-	-	150	45.891	46.500	0.609	
2B603-01	GRATED SURFACE INLET PIT 900x900	304675.930	6270905.767	0.60	0.60	150	45.610	300	45.590	46.500	0.910	
2B602-02	GRATED SURFACE INLET PIT 900x900	304646.214	6270887.163	0.60	0.60	300	45.239	-	-	46.500	1.303	

Pit				INTERNAL		INLET		OUTLET		PIT		
Name	TYPE	EASTING	NORTHING	WD	LEN	DIA	INV LEV	DIA	INV LEV	SETOUT RL	DEPTH	REMARKS
2B604-04	GRATED SURFACE INLET PIT 600x600	304588.410	6270886.620	0.60	0.60	-	-	150	44.791	45.400	0.609	
2B604-03	GRATED SURFACE INLET PIT 900x900	304598.402	6270870.713	0.60	0.60	150	44.603	225	44.583	46.000	1.417	
2B604-02	GRATED SURFACE INLET PIT 900x900	304612.459	6270879.544	0.60	0.60	225	44.417	300	44.096	46.000	1.904	
2B604-01	HEADWALL	304620.132	6270873.820	0.00	0.00	300	44.000	-	-	44.300	0.300	setout level to maximum pipe obvert

Pit				INTERNAL		INLET		OUTLET		PIT		
Name	TYPE	EASTING	NORTHING	WD	LEN	DIA	INV LEV	DIA	INV LEV	SETOUT RL	DEPTH	REMARKS
2B605-01	GRATED SURFACE INLET PIT 600x600	304627.701	6270889.119	0.60	0.60	-	-	300	45.234	46.000	0.766	
2B604-02	GRATED SURFACE INLET PIT 900x900	304612.459	6270879.544	0.60	0.60	300	45.054	-	-	46.000	1.904	

Pit				INTERNAL		INLET		OUTLET		PIT		
Name	TYPE	EASTING	NORTHING	WD	LEN	DIA	INV LEV	DIA	INV LEV	SETOUT RL	DEPTH	REMARKS
2B606-07	GRATED SURFACE INLET PIT 600x600	304617.710	6270935.123	0.60	0.60	-	-	150	45.878	46.506	0.628	
2B606-06	GRATED SURFACE INLET PIT 600x600	304608.867	6270929.570	0.60	0.60	150	45.587	150	45.560	46.188	0.628	
2B606-05	GRATED SURFACE INLET PIT 600x600	304599.706	6270923.817	0.60	0.60	150	45.004	150	44.984	45.608	0.623	
2B606-04	GRATED SURFACE INLET PIT 600x600	304598.917	6270918.300	0.60	0.60	150	44.928	225	44.764	45.529	0.765	
2B606-03	GRATED SURFACE INLET PIT 600x600	304602.694	6270908.103	0.60	0.60	225	44.655	225	44.635	45.503	0.868	
2B606-02	GRATED SURFACE INLET PIT 600x600	304596.831	6270904.420	0.60	0.60	225	44.566	225	44.546	45.392	0.846	
2B606-01	GRATED SURFACE INLET PIT 900x900	304604.904	6270891.569	0.60	0.60	225	44.394	300	44.374	46.000	1.626	
2B604-02	GRATED SURFACE INLET PIT 900x900	304612.459	6270879.544	0.60	0.60	300	44.232	-	-	46.000	1.904	

Pit				INTERNAL		INLET		OUTLET		PIT		
Name	TYPE	EASTING	NORTHING	WD	LEN	DIA	INV LEV	DIA	INV LEV	SETOUT RL	DEPTH	REMARKS
2B607-04	GRATED SURFACE INLET PIT 600x600	304590.078	6270915.200	0.60	0.60	-	-	150	44.167	44.793	0.625	
2B607-03	GRATED SURFACE INLET PIT 600x600	304575.954	6270906.447	0.60	0.60	150	43.286	225	43.175	43.879	0.704	
2B607-02	GRATED SURFACE INLET PIT 900x900	304568.514	6270904.092	0.60	0.60	225	42.791	375	42.441	43.463	1.023	
2B607-01	KERB INLET PIT - GRATE & 1.8m LINTEL - ON GRADE	304564.720	6270906.965	0.90	0.90	375	42.239	-	-	43.137	0.897	xy setout to setout string

NOTE:
1. xy setout to pit centre
2. setout level to pit cover level
3. some setout xy or z levels have special setout data. See individual manhole remarks

STATE SIGNIFICANT DEVELOPMENT APPLICATION SSDA 9210

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD
A	MINOR AMENDMENTS	21/08/2020	JS	AVG	SL	TH

SCALE

GRID | DATUM | PROJECT MANAGER: TH

CLIENT: SIKH GRAMMAR SCHOOL AUSTRALIA

PROJECT NAME/PLANSET TITLE
SIKH GRAMMAR SCHOOL
CONCEPT CIVIL DESIGN
150-161 TALLAWONG ROAD, ROUSE HILL, NSW
LOT 42 & 43, DP 30186

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DRAWING TITLE
PIT SCHEDULE
STAGE 1

PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1806439	PS05	R06	PS05-E500	A

DRAWING ID: P1806439-PS05-R06-E500

PIT SCHEDULE

Pit				INTERNAL		INLET		OUTLET		PIT		
Name	TYPE	EASTING	NORTHING	WD	LEN	DIA	INV LEV	DIA	INV LEV	SETOUT RL	DEPTH	REMARKS
2C601-04	OUTLET	304628.857	6270882.506	0.00	0.00	-	-	675	44.300	47.531	3.231	
2C601-03	GRATED SURFACE INLET PIT 900x900	304623.155	6270878.923	0.60	0.60	675	43.829	675	43.640	47.251	3.611	
2C601-02	GRATED SURFACE INLET PIT 900x900	304600.260	6270864.538	0.90	0.90	675	42.829	675	42.809	45.164	2.356	
2C601-01	JUNCTION PIT 900x900	304590.154	6270865.885	0.90	0.90	675	42.300	-	-	43.862	1.562	
Pit				INTERNAL		INLET		OUTLET		PIT		
Name	TYPE	EASTING	NORTHING	WD	LEN	DIA	INV LEV	DIA	INV LEV	SETOUT RL	DEPTH	REMARKS
2C602-05	GRATED SURFACE INLET PIT 600x600	304622.111	6270937.975	0.60	0.60	-	-	150	46.084	46.704	0.621	
2C602-04	GRATED SURFACE INLET PIT 600x600	304591.898	6270918.983	0.60	0.60	150	44.383	150	44.350	44.975	0.626	
2C602-03	GRATED SURFACE INLET PIT 600x600	304579.321	6270911.079	0.60	0.60	150	43.566	225	43.455	44.159	0.704	
2C602-02	GRATED SURFACE INLET PIT 600x600	304567.896	6270903.901	0.60	0.60	225	42.745	225	42.713	43.416	0.703	
2C602-01	KERB INLET PIT - GRATE & 1.8m LINTEL - ON GRADE	304564.720	6270906.965	0.90	0.90	225	42.566	-	-	43.137	0.570	xy setout to setout string
Pit				INTERNAL		INLET		OUTLET		PIT		
Name	TYPE	EASTING	NORTHING	WD	LEN	DIA	INV LEV	DIA	INV LEV	SETOUT RL	DEPTH	REMARKS
2C603-03	GRATED SURFACE INLET PIT 900x900	304628.948	6270808.803	0.60	0.60	-	-	150	46.499	47.493	0.994	
2C603-02	GRATED SURFACE INLET PIT 900x900	304612.098	6270835.169	0.60	0.60	150	46.081	225	46.061	47.081	1.021	
2C603-01	GRATED SURFACE INLET PIT 900x900	304596.472	6270859.619	0.60	0.60	225	45.770	225	44.347	47.078	2.731	
2C601-02	GRATED SURFACE INLET PIT 900x900	304600.260	6270864.538	0.90	0.90	225	44.285	-	-	45.164	2.356	
Pit				INTERNAL		INLET		OUTLET		PIT		
Name	TYPE	EASTING	NORTHING	WD	LEN	DIA	INV LEV	DIA	INV LEV	SETOUT RL	DEPTH	REMARKS
2C604-08	GRATED SURFACE INLET PIT 600x600	304698.983	6270950.750	0.60	0.60	-	-	150	49.391	50.000	0.609	
2C604-07	GRATED SURFACE INLET PIT 600x600	304691.201	6270945.860	0.60	0.60	150	49.299	225	49.279	50.000	0.721	
2C604-06	GRATED SURFACE INLET PIT 600x600	304684.336	6270944.393	0.60	0.60	225	49.209	300	49.189	50.000	0.811	
2C604-05	GRATED SURFACE INLET PIT 600x600	304665.986	6270932.863	0.60	0.60	300	48.747	300	48.716	49.500	0.784	
2C604-04	GRATED SURFACE INLET PIT 900x900	304647.585	6270921.597	0.60	0.60	300	47.849	375	47.384	48.619	1.235	
2C604-03	GRATED SURFACE INLET PIT 900x900	304628.809	6270909.800	0.60	0.60	375	46.780	375	46.760	48.000	1.240	
2C604-02	GRATED SURFACE INLET PIT 900x900	304618.452	6270890.516	0.60	0.60	375	46.541	450	46.505	47.615	1.110	
2C604-01	GRATED SURFACE INLET PIT 900x900	304623.373	6270881.279	0.60	0.60	450	46.300	450	46.280	47.398	1.119	
2C606-04	GRATED SURFACE INLET PIT 900x900	304628.502	6270874.381	0.60	0.60	450	46.194	-	-	47.623	2.374	
Pit				INTERNAL		INLET		OUTLET		PIT		
Name	TYPE	EASTING	NORTHING	WD	LEN	DIA	INV LEV	DIA	INV LEV	SETOUT RL	DEPTH	REMARKS
2C605-02	GRATED SURFACE INLET PIT 600x600	304651.335	6270951.381	0.60	0.60	-	-	150	49.391	50.000	0.609	
2C605-01	GRATED SURFACE INLET PIT 600x600	304635.210	6270941.292	0.60	0.60	150	49.201	225	49.158	50.000	0.842	
2C604-04	GRATED SURFACE INLET PIT 900x900	304647.585	6270921.597	0.60	0.60	225	47.777	-	-	48.619	1.235	
Pit				INTERNAL		INLET		OUTLET		PIT		
Name	TYPE	EASTING	NORTHING	WD	LEN	DIA	INV LEV	DIA	INV LEV	SETOUT RL	DEPTH	REMARKS
2C606-08	GRATED SURFACE INLET PIT 600x600	304635.851	6270805.877	0.60	0.60	-	-	150	46.324	47.069	0.745	
2C606-07	GRATED SURFACE INLET PIT 900x900	304667.365	6270825.678	0.60	0.60	150	45.952	450	45.932	48.000	2.068	
2C606-06	GRATED SURFACE INLET PIT 900x900	304651.824	6270846.379	0.60	0.60	450	45.673	450	45.653	48.500	2.847	
2C606-05	GRATED SURFACE INLET PIT 900x900	304642.968	6270856.954	0.60	0.60	450	45.515	450	45.495	48.470	2.975	
2C606-04	GRATED SURFACE INLET PIT 900x900	304628.502	6270874.381	0.60	0.60	450	45.269	450	45.249	47.623	2.374	
2C606-03	GROSS POLLUTANT TRAP - INLET	304629.694	6270875.186	0.00	0.00	450	45.234	450	45.234	47.628	2.394	
2C606-02	GROSS POLLUTANT TRAP - OUTLET	304631.435	6270876.360	0.00	0.00	450	45.213	450	45.213	47.637	2.423	
2C606-01	OUTLET	304632.336	6270876.969	0.00	0.00	450	45.202	-	-	47.670	2.467	
Pit				INTERNAL		INLET		OUTLET		PIT		
Name	TYPE	EASTING	NORTHING	WD	LEN	DIA	INV LEV	DIA	INV LEV	SETOUT RL	DEPTH	REMARKS
2C607-07	GRATED SURFACE INLET PIT 600x600	304812.687	6270910.799	0.60	0.60	-	-	150	51.220	51.901	0.682	
2C607-06	GRATED SURFACE INLET PIT 600x600	304790.116	6270897.274	0.60	0.60	150	50.380	225	50.299	51.042	0.742	
2C607-05	GRATED SURFACE INLET PIT 600x600	304763.674	6270880.082	0.60	0.60	225	49.743	300	49.707	50.476	0.769	
2C607-04	GRATED SURFACE INLET PIT 900x900	304756.836	6270878.847	0.60	0.60	300	49.638	375	49.618	51.000	1.382	
2C607-03	GRATED SURFACE INLET PIT 900x900	304722.546	6270857.677	0.60	0.60	375	49.215	375	48.613	51.000	2.387	
2C607-02	GRATED SURFACE INLET PIT 600x600	304712.232	6270853.869	0.60	0.60	375	48.503	375	48.439	49.336	0.897	
2C607-01	GRATED SURFACE INLET PIT 900x900	304694.708	6270842.858	0.60	0.60	375	47.846	375	47.799	48.723	0.924	
2C606-07	GRATED SURFACE INLET PIT 900x900	304667.365	6270825.678	0.60	0.60	375	47.083	-	-	48.000	2.068	
Pit				INTERNAL		INLET		OUTLET		PIT		
Name	TYPE	EASTING	NORTHING	WD	LEN	DIA	INV LEV	DIA	INV LEV	SETOUT RL	DEPTH	REMARKS
2C608-05	GRATED SURFACE INLET PIT 900x900	304702.713	6270916.553	0.60	0.60	-	-	225	48.650	49.850	1.200	
2C608-04	GRATED SURFACE INLET PIT 900x900	304700.886	6270909.321	0.60	0.60	225	48.575	450	48.555	49.850	1.295	
2C608-03	GRATED SURFACE INLET PIT 900x900	304697.840	6270910.062	0.60	0.60	450	48.501	450	48.481	50.000	1.519	
2C608-02	GRATED SURFACE INLET PIT 900x900	304691.261	6270887.293	0.60	0.60	450	47.899	450	47.879	48.998	1.119	
2C608-01	GRATED SURFACE INLET PIT 900x900	304675.669	6270877.498	0.60	0.60	450	47.695	450	47.675	48.821	1.146	
2C606-05	GRATED SURFACE INLET PIT 900x900	304642.968	6270856.954	0.60	0.60	450	47.289	-	-	48.470	2.975	
Pit				INTERNAL		INLET		OUTLET		PIT		
Name	TYPE	EASTING	NORTHING	WD	LEN	DIA	INV LEV	DIA	INV LEV	SETOUT RL	DEPTH	REMARKS
2C609-01	GRATED SURFACE INLET PIT 600x600	304689.333	6270855.751	0.60	0.60	-	-	150	48.887	49.500	0.613	
2C608-01	GRATED SURFACE INLET PIT 900x900	304675.669	6270877.498	0.60	0.60	150	48.207	-	-	48.821	1.146	
Pit				INTERNAL		INLET		OUTLET		PIT		
Name	TYPE	EASTING	NORTHING	WD	LEN	DIA	INV LEV	DIA	INV LEV	SETOUT RL	DEPTH	REMARKS
2C610-04	GRATED SURFACE INLET PIT 600x600	304717.426	6270866.700	0.60	0.60	-	-	150	50.391	51.000	0.609	
2C610-03	GRATED SURFACE INLET PIT 600x600	304709.009	6270880.096	0.60	0.60	150	50.312	225	50.190	51.000	0.810	
2C610-02	GRATED SURFACE INLET PIT 600x600	304702.994	6270890.458	0.60	0.60	225	50.130	300	50.110	51.000	0.890	
2C610-01	OUTLET	304699.658	6270900.874	0.00	0.00	300	50.056	-	-	51.000	0.944	
Pit				INTERNAL		INLET		OUTLET		PIT		
Name	TYPE	EASTING	NORTHING	WD	LEN	DIA	INV LEV	DIA	INV LEV	SETOUT RL	DEPTH	REMARKS
2C611-02	GRATED SURFACE INLET PIT 600x600	304585.500	6270877.035	0.60	0.60	-	-	150	44.213	44.825	0.612	
2C611-01	GRATED SURFACE INLET PIT 900x900	304577.993	6270888.565	0.60	0.60	150	44.075	225	42.916	44.715	1.798	
2C602-02	GRATED SURFACE INLET PIT 600x600	304567.896	6270903.901	0.60	0.60	225	42.733	-	-	43.416	0.703	

NOTE:
1. xy setout to pit centre
2. setout level to pit cover level
3. some setout xy or z levels have special setout data. See individual manhole remarks

STATE SIGNIFICANT DEVELOPMENT APPLICATION SSDA 9210

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD
A	MINOR AMENDMENTS	21/08/2020	JS	AVG	SL	TH

SCALE

GRID | DATUM | PROJECT MANAGER: TH

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CLIENT: SIKH GRAMMAR SCHOOL AUSTRALIA

PROJECT NAME/PLANSET TITLE
SIKH GRAMMAR SCHOOL
CONCEPT CIVIL DESIGN
150-161 TALLAWONG ROAD, ROUSE HILL, NSW
LOT 42 & 43, DP 30186

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DRAWING TITLE
PIT SCHEDULE
FINAL STAGE
SHEET 1

PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1806439	PS05	R06	PS05-E501	A

DRAWING ID: P1806439-PS05-R06-E501

PRINTED: --- USER: JSUAREZ

A1 / A3 LANDSCAPE (A1LC_v02.0.01)

PIT SCHEDULE

Pit				INTERNAL		INLET		OUTLET		PIT		
Name	TYPE	EASTING	NORTHING	WD	LEN	DIA	INV LEV	DIA	INV LEV	SETOUT RL	DEPTH	REMARKS
2C612-08	GRATED SURFACE INLET PIT 600x600	304789.197	6270998.575	0.60	0.60	-	-	150	51.891	52.500	0.609	
2C612-07	GRATED SURFACE INLET PIT 900x900	304811.976	6270962.321	0.60	0.60	150	51.463	300	51.443	52.500	1.057	
2C612-06	GRATED SURFACE INLET PIT 900x900	304788.480	6270947.557	0.60	0.60	300	51.166	300	51.146	52.500	1.354	
2C612-05	GRATED SURFACE INLET PIT 600x600	304774.636	6270939.141	0.60	0.60	300	50.963	300	50.933	51.750	0.817	
2C612-04	GRATED SURFACE INLET PIT 900x900	304766.874	6270934.264	0.60	0.60	300	50.592	375	50.202	51.408	1.207	
2C612-03	GRATED SURFACE INLET PIT 900x900	304748.234	6270914.045	0.60	0.60	375	50.064	375	50.044	51.000	0.956	
2C612-02	GRATED SURFACE INLET PIT 900x900	304729.191	6270902.079	0.60	0.60	375	49.932	375	49.912	51.000	1.088	
2C612-01	OUTLET	304705.581	6270910.580	0.00	0.00	375	49.786	-	-	51.000	1.214	
Pit				INTERNAL		INLET		OUTLET		PIT		
Name	TYPE	EASTING	NORTHING	WD	LEN	DIA	INV LEV	DIA	INV LEV	SETOUT RL	DEPTH	REMARKS
2C613-04	GRATED SURFACE INLET PIT 600x600	304820.132	6270920.040	0.60	0.60	-	-	150	51.908	52.517	0.610	
2C613-03	GRATED SURFACE INLET PIT 600x600	304816.421	6270924.460	0.60	0.60	150	51.850	225	51.718	52.500	0.782	
2C613-02	GRATED SURFACE INLET PIT 900x900	304792.897	6270911.051	0.60	0.60	225	51.447	300	51.427	52.500	1.073	
2C613-01	GRATED SURFACE INLET PIT 900x900	304777.011	6270928.745	0.60	0.60	300	51.190	300	50.728	52.500	1.772	
2C612-04	GRATED SURFACE INLET PIT 900x900	304766.874	6270934.264	0.60	0.60	300	50.612	-	-	51.408	1.207	
Pit				INTERNAL		INLET		OUTLET		PIT		
Name	TYPE	EASTING	NORTHING	WD	LEN	DIA	INV LEV	DIA	INV LEV	SETOUT RL	DEPTH	REMARKS
2C614-11	GRATED SURFACE INLET PIT 600x600	304785.333	6271015.417	0.60	0.60	-	-	150	51.268	52.029	0.761	
2C614-10	GRATED SURFACE INLET PIT 600x600	304773.555	6271013.419	0.60	0.60	150	51.148	225	51.128	51.950	0.822	
2C614-09	GRATED SURFACE INLET PIT 600x600	304761.163	6271011.279	0.60	0.60	225	51.003	300	50.983	51.868	0.886	
2C614-08	GRATED SURFACE INLET PIT 900x900	304749.784	6271009.128	0.60	0.60	300	50.867	300	50.847	51.788	0.941	
2C614-07	GRATED SURFACE INLET PIT 900x900	304743.278	6271005.261	0.60	0.60	300	50.771	300	50.395	51.718	1.323	
2C614-06	GRATED SURFACE INLET PIT 600x600	304727.893	6270996.117	0.60	0.60	300	50.306	300	50.234	51.000	0.766	
2C614-05	GRATED SURFACE INLET PIT 900x900	304740.148	6270976.614	0.60	0.60	300	50.119	300	50.099	51.000	0.901	
2C614-04	GRATED SURFACE INLET PIT 900x900	304717.920	6270962.353	0.60	0.60	300	49.967	375	49.947	51.000	1.053	
2C614-03	GRATED SURFACE INLET PIT 900x900	304734.328	6270936.178	0.60	0.60	375	49.793	375	49.773	51.000	1.227	
2C614-02	GRATED SURFACE INLET PIT 900x900	304715.368	6270924.265	0.60	0.60	375	49.661	375	49.641	51.000	1.359	
2C614-01	OUTLET	304706.832	6270919.160	0.00	0.00	375	49.591	-	-	51.000	1.409	
Pit				INTERNAL		INLET		OUTLET		PIT		
Name	TYPE	EASTING	NORTHING	WD	LEN	DIA	INV LEV	DIA	INV LEV	SETOUT RL	DEPTH	REMARKS
2C615-02	GRATED SURFACE INLET PIT 600x600	304599.809	6270899.305	0.60	0.60	-	-	150	47.391	48.000	0.609	
2C615-01	GRATED SURFACE INLET PIT 600x600	304609.014	6270884.655	0.60	0.60	150	47.218	225	47.198	48.000	0.802	
2C604-02	GRATED SURFACE INLET PIT 900x900	304618.452	6270890.516	0.60	0.60	225	46.873	-	-	47.615	1.110	
Pit				INTERNAL		INLET		OUTLET		PIT		
Name	TYPE	EASTING	NORTHING	WD	LEN	DIA	INV LEV	DIA	INV LEV	SETOUT RL	DEPTH	REMARKS
2C616-02	GRATED SURFACE INLET PIT 600x600	304614.521	6270869.494	0.60	0.60	-	-	150	46.891	47.500	0.609	
2C616-01	GRATED SURFACE INLET PIT 600x600	304628.221	6270847.690	0.60	0.60	150	46.634	225	46.614	47.500	0.886	
2C606-05	GRATED SURFACE INLET PIT 900x900	304642.968	6270856.954	0.60	0.60	225	46.440	-	-	48.470	2.975	
Pit				INTERNAL		INLET		OUTLET		PIT		
Name	TYPE	EASTING	NORTHING	WD	LEN	DIA	INV LEV	DIA	INV LEV	SETOUT RL	DEPTH	REMARKS
2C617-01	GRATED SURFACE INLET PIT 600x600	304639.248	6270830.139	0.60	0.60	-	-	150	46.891	47.500	0.609	
2C616-01	GRATED SURFACE INLET PIT 600x600	304628.221	6270847.690	0.60	0.60	150	46.684	-	-	47.500	0.886	
Pit				INTERNAL		INLET		OUTLET		PIT		
Name	TYPE	EASTING	NORTHING	WD	LEN	DIA	INV LEV	DIA	INV LEV	SETOUT RL	DEPTH	REMARKS
2C618-01	GRATED SURFACE INLET PIT 600x600	304822.178	6270957.104	0.60	0.60	-	-	150	51.831	52.437	0.606	
2C612-07	GRATED SURFACE INLET PIT 900x900	304811.976	6270962.321	0.60	0.60	150	51.717	-	-	52.500	1.057	
Pit				INTERNAL		INLET		OUTLET		PIT		
Name	TYPE	EASTING	NORTHING	WD	LEN	DIA	INV LEV	DIA	INV LEV	SETOUT RL	DEPTH	REMARKS
2C619-01	GRATED SURFACE INLET PIT 600x600	304827.301	6270935.213	0.60	0.60	-	-	150	51.891	52.500	0.609	
2C613-03	GRATED SURFACE INLET PIT 600x600	304816.421	6270924.460	0.60	0.60	150	51.738	-	-	52.500	0.782	
Pit				INTERNAL		INLET		OUTLET		PIT		
Name	TYPE	EASTING	NORTHING	WD	LEN	DIA	INV LEV	DIA	INV LEV	SETOUT RL	DEPTH	REMARKS
2C620-02	GRATED SURFACE INLET PIT 600x600	304733.334	6270963.483	0.60	0.60	-	-	150	50.391	51.000	0.609	
2C620-01	GRATED SURFACE INLET PIT 600x600	304746.249	6270943.669	0.60	0.60	150	50.155	225	50.135	51.000	0.865	
2C614-03	GRATED SURFACE INLET PIT 900x900	304734.328	6270936.178	0.60	0.60	225	49.994	-	-	51.000	1.227	
Pit				INTERNAL		INLET		OUTLET		PIT		
Name	TYPE	EASTING	NORTHING	WD	LEN	DIA	INV LEV	DIA	INV LEV	SETOUT RL	DEPTH	REMARKS
2C621-01	GRATED SURFACE INLET PIT 600x600	304693.739	6270870.388	0.60	0.60	-	-	150	50.391	51.000	0.609	
2C610-03	GRATED SURFACE INLET PIT 600x600	304709.009	6270880.096	0.60	0.60	150	50.210	-	-	51.000	0.810	
Pit				INTERNAL		INLET		OUTLET		PIT		
Name	TYPE	EASTING	NORTHING	WD	LEN	DIA	INV LEV	DIA	INV LEV	SETOUT RL	DEPTH	REMARKS
2C622-03	OUTLET	304629.966	6270880.740	0.00	0.00	-	-	300	43.900	47.570	3.670	
2C622-02	GROSS POLLUTANT TRAP - INLET	304628.272	6270879.660	0.00	0.00	300	43.840	10	43.820	47.461	3.641	
2C622-01	GROSS POLLUTANT TRAP - OUTLET	304626.157	6270878.772	0.00	0.00	10	43.797	300	43.690	47.435	3.745	
2C601-03	GRATED SURFACE INLET PIT 900x900	304623.155	6270878.923	0.60	0.60	300	43.660	-	-	47.251	3.611	

NOTE:
1. xy setout to pit centre
2. setout level to pit cover level
3. some setout xy or z levels have special setout data. See individual manhole remarks

STATE SIGNIFICANT DEVELOPMENT APPLICATION SSDA 9210

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD
A	MINOR AMENDMENTS	21/08/2020	JS	AVG	SL	TH

SCALE

GRID | DATUM | PROJECT MANAGER: TH

CLIENT: SIKH GRAMMAR SCHOOL AUSTRALIA

PROJECT NAME/PLANSET TITLE
SIKH GRAMMAR SCHOOL
CONCEPT CIVIL DESIGN
150-161 TALLAWONG ROAD, ROUSE HILL, NSW
LOT 42 & 43, DP 30186

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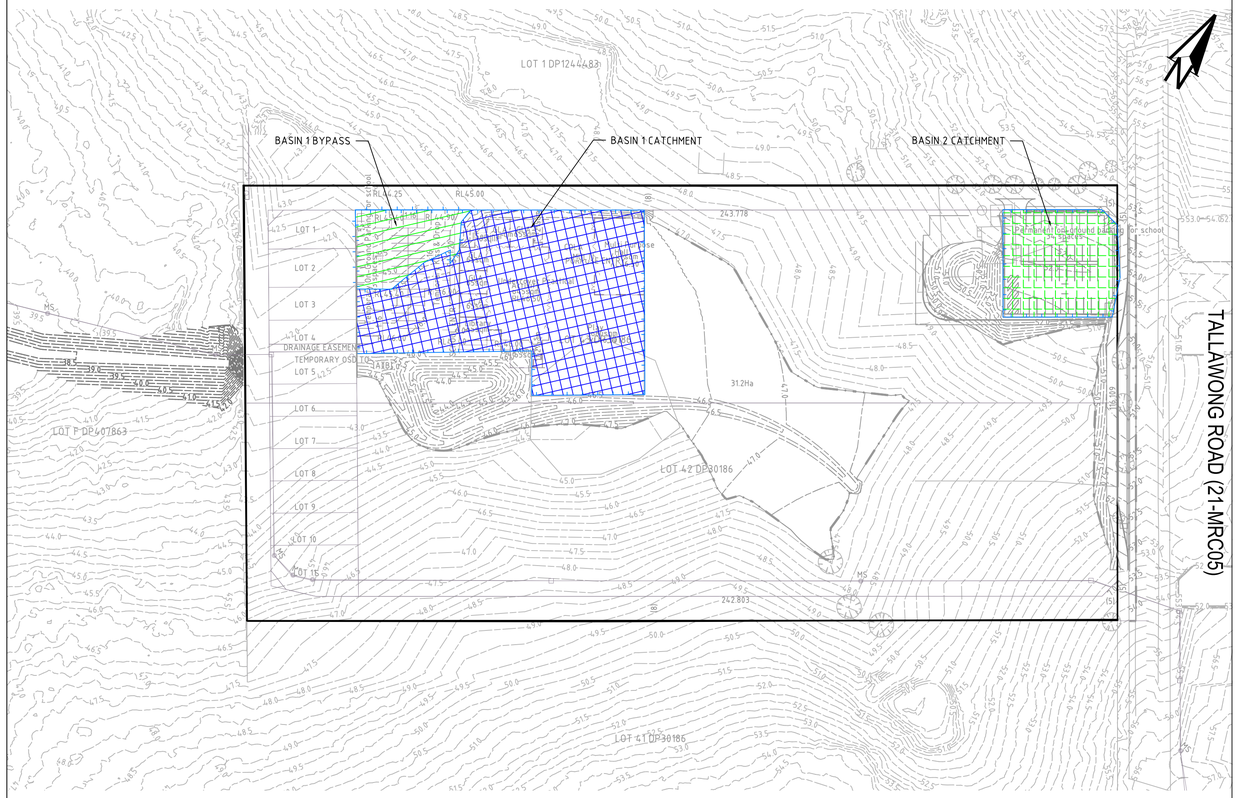
DRAWING TITLE
PIT SCHEDULE
FINAL STAGE
SHEET 2

PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1806439	PS05	R06	PS05-E502	A

DRAWING ID: P1806439-PS05-R06-E502



POST-DEVELOPMENT CATCHMENT

SCALE: 1:1000

NOTE:

1. BASIN 1 PROPOSED 100m² AND BASIN 2 30m² BIORETENTION SATISFIES BLAKCTOWN CITY COUNCIL'S DEEMED TO COMPLY CONTROL FOR STORMWATER QUALITY OF GREATER THAN 2% OF DEVELOPMENT AREA TO BE BIORETENTION.

Project Details:	
Project Title	School
Address	151-161 Tallawong Road
Reference Number	6439
General Site Data:	
Site Area (m²)	4886 m²
Area Draining to OSD (m²)	4169 m²
On-Site Detention Data:	
OSD Location	Above Ground
OSD Discharge Location	
RL of Bottom of OSD Storage Area	44.000
RL of Top of OSD Storage Area	45.300
Length of Emergency Overflow Weir (m)	4.80 m
Filter Cartridges:	
Will filter cartridges be used to manage water	No
Discharge Data:	
RL of 1.5 Year ARI Orifice Centreline	43.100
Number of Orifices	1
RL of 100 Year ARI Orifice Centreline	43.000
Number of Orifices	1
RL of Invert of Discharge to Council Drainage Pit	43.650

BCC DEVELOPER'S TOOL INPUTS - BASIN 1

Above Ground OSD Summary with calculated values	
Site:	
Site Area	4886 m²
Site Area NOT Draining to OSD	717 m²
Reduced Levels (AHD):	
RL of Top of Tank	45.3
RL of Bottom of OSD Tank	44
RL of 1.5 Year ARI Overflow Weir	44.8
RL of Emergency Overflow Weir	45.21
RL of 1.5 Year ARI Orifice Centerline	43.1
RL of 100 Year ARI Orifice Centreline	43
RL of Invert of Discharge to Council Drainage Pit	43.65
	0
Minium RL of Garage Floor	45.39
Minium RL of House Floor	45.49
OSD Volume:	
Required Storage BELOW 1.5 Year ARI Overflow Weir	146.6 m³
Required Storage BELOW Emergency Overflow Weir	222.3 m³
Discharge Details:	
Using Filter Cartridges to Manage Water Quality	No
Discharge Location	
Length of Emergency Overflow Weir	4.80 m
Maximum 1.5 Year ARI Site Discharge	15.24 L/s
1.5 Year ARI Orifice Discharge	15.24 L/s
Maximum 100 Year ARI Site Discharge	52.68 L/s
100 Year ARI Orifice Discharge	52.68 L/s
Orifice Details:	
Number of 1.5 Year ARI Orifices	1
Number of 100 Year ARI Orifices	1
1.5 Year ARI Orifice Size (mm)	74.0 mm
100 Year ARI Orifice Size (mm)	129.0 mm
Notifications:	

BCC DEVELOPER'S TOOL OUTPUTS - BASIN 1

Project Details:	
Project Title	School
Address	151-161 Tallawong Road
Reference Number	6439
General Site Data:	
Site Area (m²)	1300 m²
Area Draining to OSD (m²)	1300 m²
On-Site Detention Data:	
OSD Location	Above Ground
OSD Discharge Location	
RL of Bottom of OSD Storage Area	50.000
RL of Top of OSD Storage Area	51.200
Length of Emergency Overflow Weir (m)	4.80 m
Filter Cartridges:	
Will filter cartridges be used to manage water	No
Discharge Data:	
RL of 1.5 Year ARI Orifice Centreline	49.100
Number of Orifices	1
RL of 100 Year ARI Orifice Centreline	49.000
Number of Orifices	1
RL of Invert of Discharge to Council Drainage Pit	43.650

BCC DEVELOPER'S TOOL INPUTS - BASIN 2

Above Ground OSD Summary with calculated values	
Site:	
Site Area	1300 m²
Site Area NOT Draining to OSD	0 m²
Reduced Levels (AHD):	
RL of Top of Tank	51.2
RL of Bottom of OSD Tank	50
RL of 1.5 Year ARI Overflow Weir	50.74
RL of Emergency Overflow Weir	51.125
RL of 1.5 Year ARI Orifice Centerline	49.1
RL of 100 Year ARI Orifice Centreline	49
RL of Invert of Discharge to Council Drainage Pit	43.65
	0
Minium RL of Garage Floor	51.29
Minium RL of House Floor	51.39
OSD Volume:	
Required Storage BELOW 1.5 Year ARI Overflow Weir	39.0 m³
Required Storage BELOW Emergency Overflow Weir	59.2 m³
Discharge Details:	
Using Filter Cartridges to Manage Water Quality	No
Discharge Location	
Length of Emergency Overflow Weir	4.80 m
Maximum 1.5 Year ARI Site Discharge	5.20 L/s
1.5 Year ARI Orifice Discharge	5.20 L/s
Maximum 100 Year ARI Site Discharge	24.70 L/s
100 Year ARI Orifice Discharge	24.70 L/s
Orifice Details:	
Number of 1.5 Year ARI Orifices	1
Number of 100 Year ARI Orifices	1
1.5 Year ARI Orifice Size (mm)	43.5 mm
100 Year ARI Orifice Size (mm)	89.5 mm
Notifications:	

BCC DEVELOPER'S TOOL OUTPUTS - BASIN 2

STATE SIGNIFICANT DEVELOPMENT APPLICATION SSDA 9210

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD
A	MINOR AMENDMENTS	21/08/2020	JS	AVG	SL	TH

SCALE: A1 (A3) 1:1,000 (1:2,000) METRES

GRID | DATUM | PROJECT MANAGER: TH

CLIENT: SIKH GRAMMAR SCHOOL AUSTRALIA

PROJECT NAME/PLANSET TITLE: SIKH GRAMMAR SCHOOL
CONCEPT CIVIL DESIGN
150-161 TALLAWONG ROAD, ROUSE HILL, NSW
LOT 42 & 43, DP 30186

martens & Associates Pty Ltd
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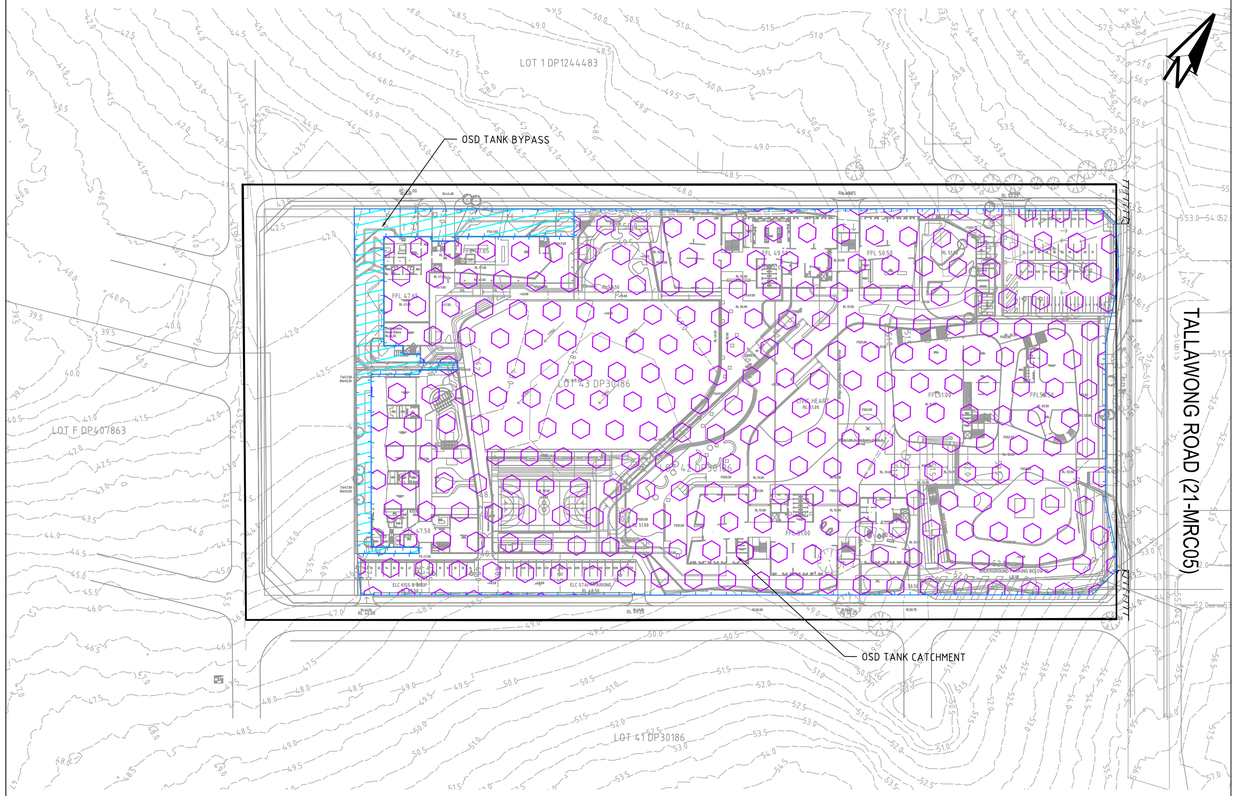
Environment
Water
Geotechnical
Civil
Suite 201, 20 George St, Hornsby, NSW 2077 Australia Phone: (02) 9476 9999 Fax: (02) 9476 8767
Email: mail@martens.com.au Internet: www.martens.com.au

DRAWING TITLE: OSD CATCHMENT PLAN
MODEL & RESULTS (STAGE 1)

PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1806439	PS05	R06	PS05-E600	A

DRAWING ID: P1806439-PS05-R06-E600



POST-DEVELOPMENT CATCHMENT

SCALE: 1:1000

Project Details:

Project Title	School
Address	151-161 Tallawong Road
Reference Number	6439

General Site Data:

Site Area (m^2)	31026 m^2
Area Draining to OSD (m^2)	29517 m^2

On-Site Detention Data:

OSD Location	Below Ground
OSD Discharge Location	Council Drainage Pit
RL of Bottom of OSD Storage Area	44.800
RL of Top of OSD Storage Area	47.000
Length of Emergency Overflow Weir (m)	8.00 m

Filter Cartridges:

Will filter cartridges be used to manage water	No

Discharge Data:

RL of 1.5 Year ARI Orifice Centreline	44.500
Number of Orifices	1
RL of 100 Year ARI Orifice Centreline	44.540
Number of Orifices	1
RL of Invert of Discharge to Council Drainage Pit	43.590
RL of obvert of Pit outlet pipe	44.260

BCC DEVELOPER'S TOOL INPUTS

Below Ground OSD Summary with calculated values

Site:	
Site Area	31026 m^2
Site Area NOT Draining to OSD	1509 m^2
Reduced Levels (AHD):	
RL of Top of Tank	47
RL of Bottom of OSD Tank	44.8
RL of 1.5 Year ARI Overflow Weir	46.11
RL of Emergency Overflow Weir	46.79
RL of 1.5 Year ARI Orifice Centerline	44.5
RL of 100 Year ARI Orifice Centreline	44.54
RL of Invert of Discharge to Council Drainage Pit	43.59
RL of obvert of Pit outlet pipe	44.26
Minium RL of Garage Floor	47.09
Minium RL of House Floor	47.19
OSD Volume:	
Required Storage BELOW 1.5 Year ARI Overflow Weir	930.8 m^3
Required Storage BELOW Emergency Overflow Weir	1411.7 m^3
Discharge Details:	
Using Filter Cartridges to Manage Water Quality	No
Discharge Location	Council Drainage Pit
Length of Emergency Overflow Weir	8.00 m
Maximum 1.5 Year ARI Site Discharge	115.05 L/s
1.5 Year ARI Orifice Discharge	115.05 L/s
Maximum 100 Year ARI Site Discharge	504.99 L/s
100 Year ARI Orifice Discharge	504.99 L/s
Orifice Details:	
Number of 1.5 Year ARI Orifices	1
Number of 100 Year ARI Orifices	1
1.5 Year ARI Orifice Size (mm)	206.5 mm
100 Year ARI Orifice Size (mm)	398.5 mm
Notifications:	
Access grates to be provided such that the maximum reach from any point in the tank to the neaest grate is 4.0m.	

BCC DEVELOPER'S TOOL OUTPUTS

STATE SIGNIFICANT DEVELOPMENT APPLICATION SSDA 9210

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD
D	MINOR AMENDMENTS	21/08/2020	JS	AVG	SL	TH
C	UPDATE CLIENT COMMENTS	19/07/2019	LL	CG/AVG	SL	TH
B	MINOR AMENDMENT	15/07/2019	LL	CG/AVG	SL	TH
A	INITIAL RELEASE	01/07/2019	LL	CG/AVG	SL	TH

SCALE: A1 (A3) 1:1,000 (1:2,000) METRES

GRID: MGA | DATUM: mAHD | PROJECT MANAGER: TH

CLIENT: SIKH GRAMMAR SCHOOL AUSTRALIA

PROJECT NAME/PLANSET TITLE: SIKH GRAMMAR SCHOOL
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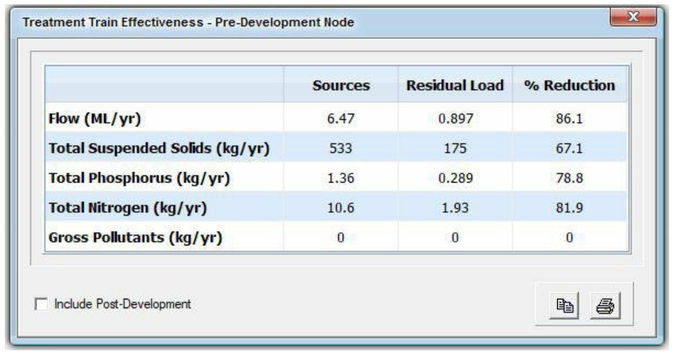
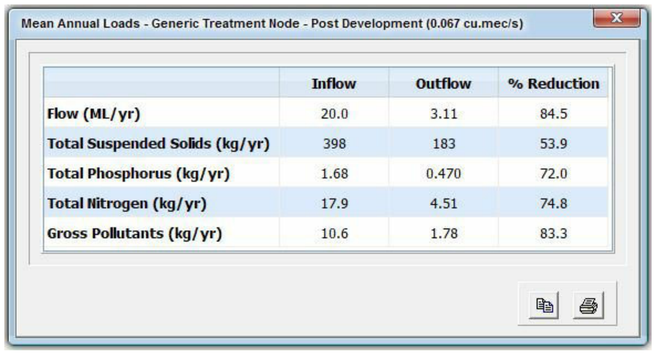
DRAWING TITLE: OSD CATCHMENT PLAN, MODEL & RESULTS (FINAL STAGE)

PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1806439	PS05	R06	PS05-E601	D

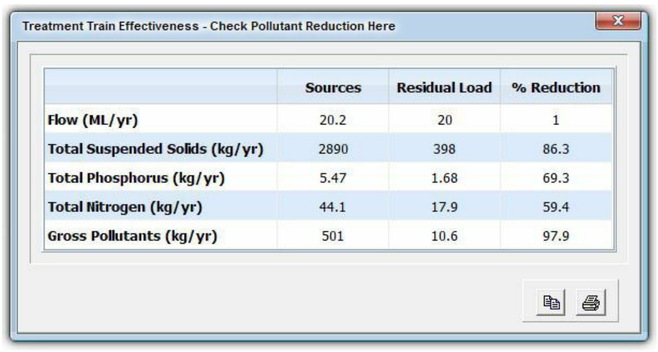
DRAWING ID: P1806439-PS05-R06-E601



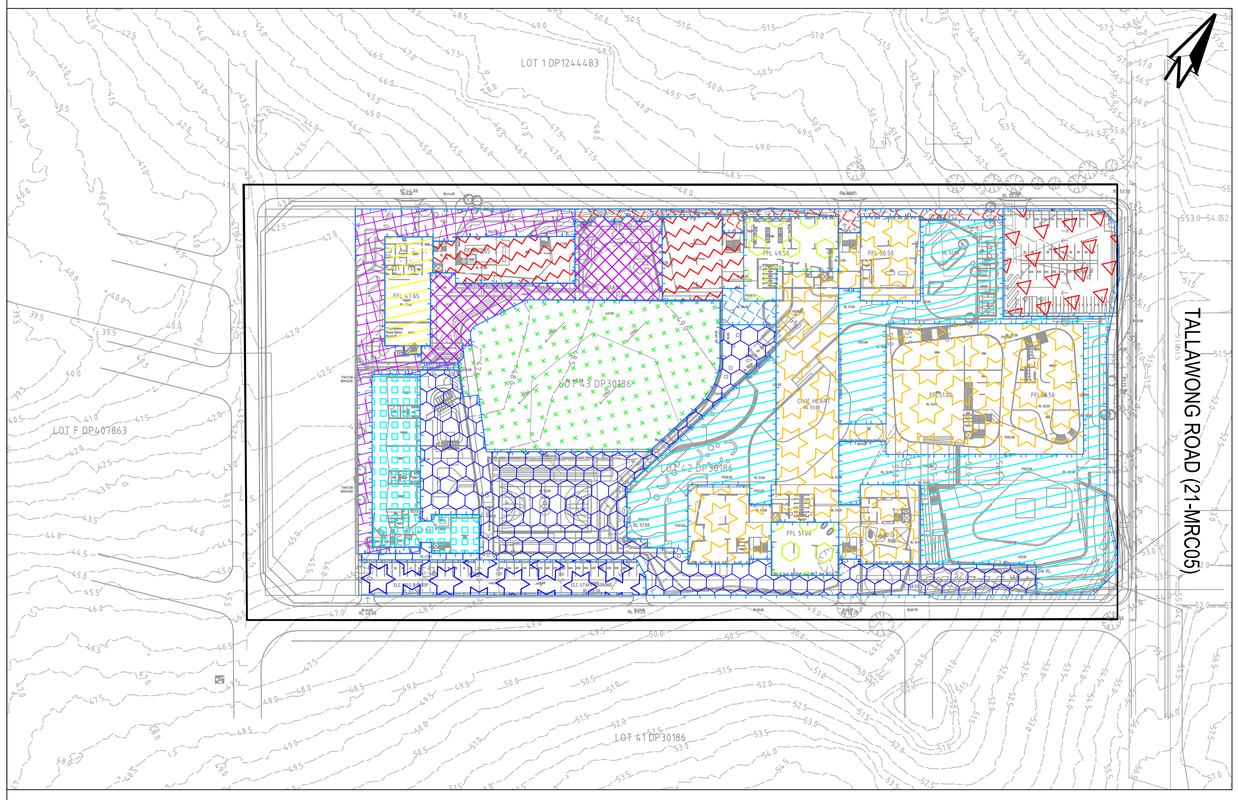
(PRE) MUSIC MODEL SEI RESULT (P1806439MUS04V04)



(POST) MUSIC MODEL SEI RESULT (P1806439MUS04V04)

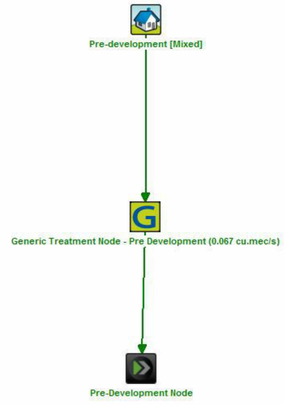


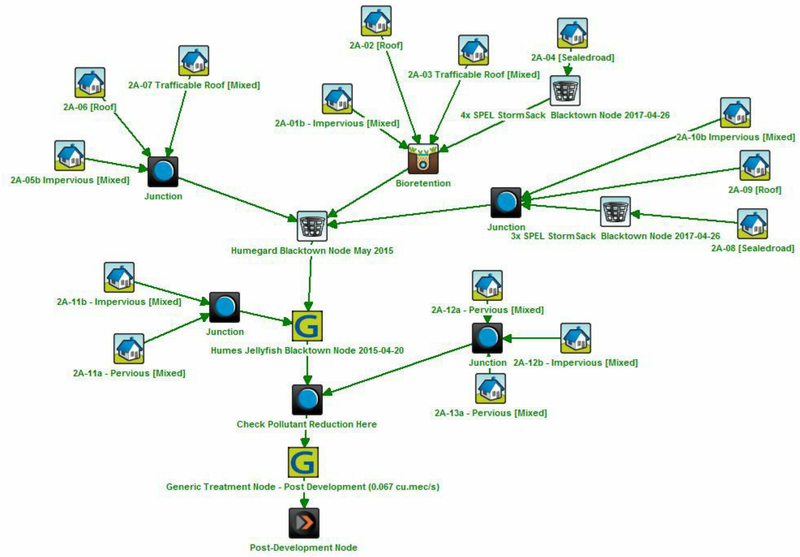
TTE RESULT (P1806439MUS04V04)



MUSIC CATCHMENT PLAN (P1806439MUS04V02)

SCALE: 1:1000





MUSIC MODEL LAYOUT (P1806439MUS04V04)

MUSIC CATCHMENTS (P1806439MUS04V04)

KEY	MUSIC NODE		AREA (ha)	% PAVED
	2A-01		0.64	100%
	2A-02		0.65	100%
	2A-03		0.1	100%
	2A-04		0.13	100%
	2A-05		0.16	100%
	2A-06		0.13	100%
	2A-07		0.06	100%
	2A-08		0.11	100%
	2A-09		0.11	100%
	2A-10		0.45	100%
	2A-11		0.37	20%
	2A-12		0.15	15%
	2A-13		0.05	0%
		TOTAL AREA	3.1	= 100% OF TOTAL AREA
		TOTAL IMPERVIOUS AREA	2.63	= %85 OF TOTAL AREA

STATE SIGNIFICANT DEVELOPMENT APPLICATION SSDA 9210

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD
D	**MINOR AMENDMENTS**	**21/08/2020**	**JS**	**AVG**	**SL**	**TH**
C	UPDATE CLIENT COMMENTS	19/07/2019	LL	CG/AVG	SL	TH
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SCALE: A1 (A3) 1:1,000 (1:2,000) METRES

GRID: MGA | DATUM: mAHD | PROJECT MANAGER: TH

CLIENT: SIKH GRAMMAR SCHOOL AUSTRALIA

PROJECT NAME/PLANSET TITLE: SIKH GRAMMAR SCHOOL
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DRAWING TITLE: WATER QUALITY CATCHMENT PLAN, MODELS & RESULTS (FINAL STAGE)

PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION
P1806439	PS05	R06	PS05-E701	D

DRAWING ID: P1806439-PS05-R06-E701