

MEADOWBANK EDUCATION AND EMPLOYMENT PRECINCT SCHOOLS PROJECT

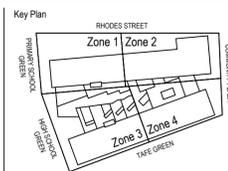
enstruct CIVIL ENGINEERING WORKS

CIVIL ENGINEERING DRAWING LIST:

SHEET NUMBER	SHEET NAME
MSP-ENS-CV-00001	COVER SHEET - DRAWING LIST
MSP-ENS-CV-00002	GENERAL NOTES
MSP-ENS-CV-00101	GENERAL ARRANGEMENT PLAN
MSP-ENS-CV-00121	GRADING PLAN - SHEET 1
MSP-ENS-CV-00122	GRADING PLAN - SHEET 2
MSP-ENS-CV-00123	GRADING PLAN - SHEET 3
MSP-ENS-CV-00124	GRADING PLAN - SHEET 4
MSP-ENS-CV-00201	STORMWATER PLAN - SHEET 1
MSP-ENS-CV-00202	STORMWATER PLAN - SHEET 2
MSP-ENS-CV-00203	STORMWATER PLAN - SHEET 3
MSP-ENS-CV-00204	STORMWATER PLAN - SHEET 4
MSP-ENS-CV-00205	STORMWATER PLAN - SHEET 5
MSP-ENS-CV-00301	BULK EARTHWORKS PLAN - SITE
MSP-ENS-CV-00311	BULK EARTHWORKS PLAN - BUILDINGS
MSP-ENS-CV-00401	SEDIMENT AND EROSION CONTROL PLAN
MSP-ENS-CV-00451	SEDIMENT AND EROSION CONTROL DETAILS
MSP-ENS-CV-00501	PAVEMENT PLAN
MSP-ENS-CV-00511	ROAD LAYOUT PLAN
MSP-ENS-CV-00521	DRIVEWAY
MSP-ENS-CV-00531	ROAD LONG SECTIONS
MSP-ENS-CV-00541	ROAD CROSS SECTIONS
MSP-ENS-CV-00560	SIGNAGE PLAN
MSP-ENS-CV-00851	STORMWATER DETAILS - SHEET 1
MSP-ENS-CV-00852	STORMWATER DETAILS - SHEET 2
MSP-ENS-CV-00853	STORMWATER DETAILS - SHEET 3
MSP-ENS-CV-00861	ROAD DETAILS - SHEET 1
MSP-ENS-CV-00901	REMEDIATION PLAN
MSP-ENS-CV-00902	REMEDIATION DETAILS



Recent revision history	Description	Date	Notes
01	ISSUE FOR INFORMATION	06/07/18	Copyright © Woods Bagot 2018 All Rights Reserved
02	50% SD ISSUE	13/07/18	No material may be reproduced without prior permission
03	80% SD ISSUE	31/08/18	
04	FOR COSTING	25/03/19	Contractor must verify all dimensions on site before commencing work or preparing shop drawings.
05	SSDA ISSUE	15/05/19	
06	DRAFT 90% SD	23/05/19	
07	SD ISSUE	14/06/19	Do not scale drawings.
08	SD ISSUE	08/07/19	
09	ISSUED FOR APPROVAL	02/10/19	
10	50% ISSUE	01/06/20	
11	75% ISSUE	08/07/20	
12	FOR CROWN CERTIFICATE	23/07/20	



Contractor



Project
MEADOWBANK EDUCATION AND EMPLOYMENT PRECINCT SCHOOLS PROJECT



Issuer
enstruct
enstruct group pty ltd
Level 4, 2 Chen Street, Milsers Point NSW 2061
Telephone (02) 8904 1444
http://www.enstruct.com.au

Project number
5645

Size check
25mm

Checked
TAH

Approved
TAH

Sheet size
A1

Scale
NTS

Sheet title
COVER SHEET - DRAWING LIST

Sheet number
MSP-EN-CV-00001

Revision
12

Status
FOR CROWN CERTIFICATE

GENERAL

- ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH CITY OF RYDE COUNCIL DESIGN GUIDELINES AND SPECIFICATIONS. WHERE DISCREPANCIES OCCUR THE MORE STRINGENT SPECIFICATION WILL TAKE PREFERENCE.
- COORDINATES AND REDUCED LEVELS ARE GIVEN IN METRES UNO.
- REDUCED LEVELS ARE TO AUSTRALIAN HEIGHT DATUM (AHD).
- ALL COORDINATES ARE TO MAP GRID OF AUSTRALIA (MGA) UNO.
- DIMENSIONS ARE IN MILLIMETRES UNO.
- WORKMANSHIP MUST BE IN ACCORDANCE WITH THE DRAWINGS, RELEVANT AUSTRALIAN STANDARDS AND CODES OF PRACTICE.
- DO NOT SCALE OFF FROM DRAWINGS. WRITTEN DIMENSIONS SHALL ALWAYS TAKE PRECEDENCE OVER SCALED DIMENSIONS.
- WHERE REFERENCE IS MADE TO PROPRIETARY COMPONENT NAMES ON THE DRAWINGS, THE CONTRACTOR MAY PROPOSE ALTERNATIVES FOR APPROVAL BY THE ENGINEER IN ADVANCE, AS LONG AS THEY ARE EQUIVALENT OR BETTER.
- SERVICES SHOWN ON THE DRAWINGS ARE FOR INFORMATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CHECK THE EXISTENCE AND LOCATION OF SERVICES PRIOR TO COMMENCING CONSTRUCTION.
- ON COMPLETION OF THE WORKS, THE CONTRACTOR MUST RESTORE AREAS DISTURBED FOR HIS OWN CONVENIENCE TO THE ORIGINAL CONDITION AND LEAVE THE SITE NEAT AND TIDY.
- ALL NEW WORKS SHALL MAKE SMOOTH JUNCTION WITH EXISTING CONDITIONS. WHERE DETAILS DO NOT EXIST, CONTACT THE ENGINEER.
- SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED PRIOR TO SOIL DISTURBANCE IN KEEPING WITH THE "MANAGING STORMWATER MANUAL", 2004 BY LANDCOM AND TO COUNCIL'S SOIL EROSION AND SEDIMENT CONTROL POLICY.
- CONTRACTOR SHALL MAINTAINED DUST CONTROL THROUGHOUT THE DURATION OF THE PROJECT.
- ALL PITS DEEPER THAN 1.2m SHALL HAVE STEP IRONS PROVIDED IN ACCORDANCE WITH COUNCIL'S STANDARDS.
- ALL DRAINAGE LINES THROUGH LOTS SHALL BE CONTAINED WITH THEIR EASEMENT AND CONFORM WITH COUNCIL'S STANDARDS.
- SUBSOIL DRAINS SHALL BE CONSTRUCTED TO THE SATISFACTION OF THE COUNCIL.
- MINIMUM 100mm THICK TOPSOIL SHALL BE SPREAD ON ALL FOOTPATHS, BERMS, BATTERS AND SITE REGRADING AREAS. EXCESS TOPSOIL SHALL BE DISPOSED OF AS DIRECTED BY THE ENGINEER.
- THE CONTRACTOR SHALL PROVIDE MINIMUM 48 HOURS NOTICE TO THE ENGINEER FOR ALL INSPECTIONS.
- THE CONTRACTOR SHALL MAINTAIN SERVICES AND ALL WEATHER ACCESS AT ALL TIMES TO THE ADJOINING PROPERTIES.
- THE CONTRACTOR SHALL UNDERTAKE TRAFFIC CONTROL MEASURES TO ENGINEERS SATISFACTION AND SHALL DISPLAY APPROPRIATE WARNING SIGNS THROUGHOUT THE DURATION OF CONSTRUCTION.
- ALL NATURAL SURFACE DATA HAS BEEN DETERMINED BY TERRAIN MODELLING. ALL SITE WORKS MUST BE CARRIED OUT USING THE BENCH MARKS NOTED ON THIS DRAWING.
- 100 YEAR FLOW PATHS TO BE FORMED AT TIME OF CONSTRUCTION.
- ABBREVIATIONS:

ALT - ALTERNATE	LV - LENGTH VARIES
T - TOP	AB - ALTERNATE BARS REVERSED
B - BOTTOM	NSOE - NOT SHOWN ON ELEVATION
NF - NEAR FACE	NSOP - NOT SHOWN ON PLAN
FF - FAR FACE	NTS - NOT TO SCALE
EF - EACH FACE	ADD - ADDITIONAL BARS
C - CENTRALLY LOCATED	TSB - THREADED STARTER BAR
ES - EQUAL SPACES	UNO - UNLESS NOTED OTHERWISE
EW - EACH WAY	MC - MASS CONCRETE
GL - GROUND LEVEL	C/S - BRICKWORK COURSES
RL - REDUCED LEVEL	U/S - UNDERSIDE
FFL - FINISHED FLOOR LEVEL	PL - PLATE
SSL - STRUCTURAL SLAB LEVEL	BW - BOTH WAYS
RC - REINFORCED CONCRETE	FW - FILLET WELD
IL - INVERT LEVEL	KO - KERB ONLY
TYP - TYPICAL	RK - ROLL KERB
CL - CENTRE LINE	KT - KERB WITH TOE
STA - STAGGERED BARS	FK - FLUSH KERB
NOM - NOMINAL	K&G - KERB AND GUTTER
MAX - MAXIMUM	A.H.D - AUSTRALIAN HEIGHT DATUM
MIN - MINIMUM	ha - HECTARE
CJ - CONSTRUCTION JOINT	BDY - BOUNDARY
LJ - LONGITUDINAL JOINT	DD - DISH DRAIN
CT - CONTRACTION JOINT	

TEMPORARY WORKS

- THE CONTRACTOR MUST MAKE ALL ARRANGEMENTS TO CONTROL PEDESTRIAN AND VEHICULAR TRAFFIC ON FOOTPATHS AND PUBLIC ROADS AROUND THE SITE AND MUST INSTALL AND MAINTAIN WARNING SIGNS AND SAFETY DEVICES IN ACCORDANCE WITH AS1742.3 AND RTA TRAFFIC MANAGEMENT GUIDELINES.
- UPON COMPLETION OF THE WORKS, ALL TEMPORARY WORKS MUST BE REMOVED AND AFFECTED AREAS REINSTATED TO MATCH EXISTING.

SURVEY

- DETAILED GROUND SURVEY WITHIN THE SITE AND BOUNDARIES WERE SUPPLIED BY CMS SURVEYORS Pty LIMITED, DRAWING NUMBER 17314DETAIL, DATED 04/07/2018.
- THE INFORMATION IS SHOWN TO PROVIDE A BASIS FOR DESIGN. ENSTRUCT GROUP DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THE SURVEY BASE.
- SURVEY MARKS SHALL BE MAINTAINED AT ALL TIMES. WHERE RETENTION IS NOT POSSIBLE THE ENGINEER SHALL BE NOTIFIED AND CONSENT PRIOR TO THEIR REMOVAL.
- SHOULD DISCREPANCIES BE ENCOUNTERED DURING CONSTRUCTION BETWEEN THE SURVEY DATA AND ACTUAL FIELD DATA, CONTACT ENSTRUCT GROUP.
- ALL WORKS TO BE SET OUT BY A REGISTERED SURVEYOR.

DEMOLITION

- DEMOLITION WORKS MUST COMPLY WITH THE REQUIREMENTS OF AS2601.
- EXISTING STRUCTURES MUST BE DEMOLISHED AS NECESSARY WITHIN THE EXTENTS OF THE NEW WORKS. THIS INCLUDES FOUNDATIONS TO EXISTING STRUCTURES. DEMOLITION MATERIAL MUST BE REMOVED OFF-SITE OR AS DIRECTED BY THE PROJECT MANAGER.

STORMWATER DRAINAGE

- ALL PIPES LARGER THAN 225Ø, SUBJECT TO VEHICLE LOADING, MUST BE REINFORCED CONCRETE CLASS 3' RUBBER RING JOINT TO AS1342 UNO.
- THE CONTRACTOR IS TO ORGANISE AND STAGE CONSTRUCTION WORK AND UNDERTAKE ANY DIVERSION WORKS TO ENSURE THE EXISTING DRAINAGE IS ABLE TO CONVEY ALL STORMWATER FLOWS THAT MAY OCCUR DURING THE PERIOD OF THE CONSTRUCTION WORKS.
- THE CONTRACTOR IS TO PROVIDE DIVERSION WORKS ETC TO PROTECT WORKS IN PROGRESS UNTIL SUCH A TIME AS THE WORKS ARE IN A FINISHED AND STABLE CONDITION.
- ANY DAMAGE TO THE WORKS DUE TO STORMWATER FLOWS OR FLOODING DURING THE CONSTRUCTION PERIOD IS AT THE CONTRACTOR'S RISK.
- SETOUT POINTS FOR STORMWATER STRUCTURES ARE AS INDICATED IN THE DRAWINGS UNLESS OTHERWISE NOTED.
- ALL PAVED SURFACE LEVELS AND GRADES TO BE COORDINATED WITH GULLY PIT LEVELS TO ENSURE NO UNDRAINED AREAS OCCUR.
- THE SIDES OF ALL PIPE TRENCH EXCAVATIONS DEEPER THAN 1.0m SHALL BE FULLY SUPPORTED AT ALL TIMES AND HAVE APPROPRIATE EDGE PROTECTION.
- ALL NEW PIPES TO BE LAID IN AN UPSTREAM DIRECTION. THE LINE, LEVEL AND LOCATION OF EXISTING SERVICES CROSSING THE LINE OF THE PROPOSED STORMWATER PIPE SHALL BE DETERMINED BY EXCAVATION PRIOR TO THE LAYING OF THE PIPE. IF CONFLICT IS APPARENT, THE ENGINEER SHALL BE NOTIFIED AND INSTRUCTIONS AS TO WHETHER THE EXISTING SERVICE IS TO BE ADJUSTED OR THE PROPOSED PIPE INVERT ALTERED WILL BE ISSUED.
- PIPE BEDDING, HAUNCH AND BACKFILL TO BE AS SHOWN ON THE CIVIL DETAILS DRAWINGS AND THE CIVIL SPECIFICATION.
- SUBSOIL DRAINAGE PIPES TO BE SLOTTED PIPE AND FILTER SOCK CLASS 1000 TO AS2439 PART 1 LAID AT PREFERABLE MINIMUM GRADE 1 IN 100 OR ABSOLUTE MINIMUM 1 IN 200 WHERE LIMITED BY OUTFALL LEVELS.
- STORMWATER STRUCTURES ARE TO BE CONSTRUCTED PERPENDICULAR TO THE INCOMING PIPEWORK UNLESS OTHERWISE NOTED.
- PRECAST COMPONENTS SHALL BE CONNECTED BY MEANS OF EPOXY OR CHEMICAL GROUTED BARS OF THE SAME DIAMETER AND SPACING AS THE SMALLER BARS IN THE RESPECTIVE COMPONENTS.
- PRE-CAST PITS MUST HAVE LIFTING ANCHORS.
- WORKING LOADS ARE THOSE DUE TO FILL MATERIAL AND STANDARD HIGHWAY VEHICLES AS PER AS3725. CONSTRUCTION LOADS HAVE NOT BEEN ALLOWED FOR.
- ALL EXPOSED EDGES ON STORMWATER PITS TO BE ROUNDED TO 5mm RAD. UNO.

EARTHWORKS

- ALL TREES AND SHRUBS (UNLESS NOTED TO BE PROTECTED ON THE LANDSCAPE PLANS), RUBBLE, EXISTING PAVEMENT AND EXISTING STRUCTURES WITHIN THE SITE SHALL BE REMOVED AND REUSED OR RECYCLED WHERE POSSIBLE. WHERE NOT POSSIBLE, THIS MATERIAL SHALL BE REMOVED FROM SITE AND DISPOSED OF AS PART OF THE CONTRACT.
- ANY TREES WITHIN THE WORKS AREA WHICH, IN THE OPINION OF THE CONTRACT ADMINISTRATOR, ARE UNSOUND OR WOULD CONSTITUTE A DANGER, SHALL BE CUT DOWN AND REMOVED (EXCEPT THOSE IDENTIFIED AS BEING PROTECTED). ALL STUMPS OF TREES CUT DOWN WITHIN THE BOUNDS OF THE CONSTRUCTION AREA WHICH ARE LARGER THAN 250mm IN GIRTH, SHALL BE COMPLETELY REMOVED.
- ALL ROOTS SHALL BE REMOVED FOR A DEPTH OF 1m. CAVITIES FORMED BY THE REMOVAL OF ROOTS SHALL BE BACKFILLED AND COMPACTED.
- AFTER CLEARING AND GRUBBING ARE COMPLETE, THE CONTRACTOR SHALL STRIP AND STOCKPILE TOPSOIL FROM THE CLEARED AREA (INCLUDING AREAS THAT HAVE BEEN CLEARED AND GRUBBED). REMOVAL OF TOPSOIL FROM ANY SECTION OF THE WORKS SHALL ONLY COMMENCE AFTER SEDIMENT AND EROSION CONTROLS HAVE BEEN IMPLEMENTED.
- TOPSOIL SHALL BE STRIPPED FROM WITHIN THE FORMATION AREAS OF ROADS, PATHWAYS, BUILDING PADS AND MISCELLANEOUS PAVEMENTS, INCLUSIVE OF BATTERS, AND IS TO BE CONSERVED FOR THE TOP-DRESSING OF FORMED FOOTWAYS, BERMS AND BATTERS TO THE SPECIFIED DEPTH, OR WHERE NO DEPTH IS SPECIFIED TO A MINIMUM DEPTH OF 150mm, OR AS DETERMINED ON-SITE.
- EXCAVATED FILL MATERIAL NOT SUITABLE FOR REUSE ON-SITE MUST BE REMOVED OFF-SITE OR OTHERWISE USED IN LANDSCAPING AREAS WHERE AGREED IN ADVANCE WITH ENGINEER.
- EROSION AND SEDIMENT CONTROL MUST BE PROVIDED IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL CITY COUNCIL DCP, DA AND CC CONDITIONS, AND BE INSTALLED TO THE SATISFACTION OF THE ENGINEER.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY STEPS TO LIMIT THE CREATION OF DUST NUISANCE, WHICH MIGHT ARISE DURING THE EXECUTION OF THE WORKS.
- FILL MATERIAL MUST BE PLACED IN MAXIMUM LAYERS OF 200mm (LOOSE) OR AS OTHERWISE GIVEN IN THE SPECIFICATION AND COMPACTED TO THE LEVELS AS SPECIFIED ON THE DRAWINGS.
- COMPACTED FILL MUST BE TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF AS3798 AND AS GIVEN IN THE CIVIL SPECIFICATION.
- BEFORE PLACING FILL, PROOF ROLL EXPOSED SUBGRADE WITH AN 12 TONNE (MIN) DEADWEIGHT SMOOTH DRUM VIBRATORY ROLLER TO DIRECT THEN REMOVE SOFT SPOTS (AREAS WITH MORE THAN 2mm MOVEMENT UNDER ROLLER. PROOF ROLLING SHALL COMPRISE 6 PASSES OF A MINIMUM.
- FREQUENCY OF COMPACTION TESTING SHALL BE NOT LESS THAN :
(A) 1 TEST PER 200m² OF FILL PLACED PER 200mm THICK LAYER OF FILL
(B) 3 TESTS PER LAYER
(C) 1 TEST PER 2000m³ OF EXPOSED SUBGRADE
TESTING SHALL BE "LEVEL1" TESTING IN ACCORDANCE WITH AS 3798 (2007) AT CONTRACTOR EXPENSE.
- NO FILLING SHALL TAKE PLACE TO EXPOSED SUBGRADE UNTIL THE AREA HAS BEEN PROOF ROLLED IN THE PRESENCE OF GEOTECHNICAL ENGINEER AND APPROVAL GIVEN IN WRITING THAT FILLING CAN PROCEED.
- THE CONTRACTOR SHALL ALLOW FOR AND COORDINATE ALL MONITORING AND MAINTENANCE REQUIREMENTS IN RELATION TO SOIL AND GROUNDWATER CONDITIONS DURING CONSTRUCTION.
- ALL LAND DISTRIBUTED BY EARTHWORKS SHALL BE HYDROMULCHED, OR SIMILARLY TREATED TO ESTABLISH GRASS COVER, SEED MIXTURES ARE TO BE APPROVED BY COUNCIL PRIOR TO SPRAYING ALL GRASSED AREAS SHALL BE REGULARLY WATERED AND MAINTAINED UNTIL EXPIRATION OF THE MAINTENANCE PERIOD.

LOCATION	STANDARD DRY DENSITY (AS (1289 E 5.1.1.)
UNDER BUILDING SLABS ON GROUND	98-102%
UNDER PADS, FOOTWAYS AND CARPARKS	98-102%
LANDSCAPED AREAS UNLESS NOTED OTHERWISE	95-102%

UTILITIES

- LOCATE ALL PIPES, DUCTS, CABLES, RETAINING WALLS AND EXCAVATIONS OUTSIDE A 1:2 (VERTICAL: HORIZONTAL) ZONE OF INFLUENCE FROM THE BOTTOM EDGE OF THE FOOTING.
- THE CONTRACTOR MUST TAKE EVERY PRECAUTION TO PROTECT EXISTING GAS, WATER, STORMWATER, SEWERAGE, ELECTRICITY, TELEPHONE CONDUITS AND OTHER EXISTING WORKS AND SERVICES.
- CIVIL WORKS REQUIRED TO PROTECT EXISTING SERVICES IS TO BE AT THE FULL COST OF THE CONTRACTOR.
- THE LOCATION OF UNDERGROUND SERVICES SHOWN IN THIS SET OF DRAWINGS HAVE BEEN PLOTTED FROM SURVEY INFORMATION AND SERVICE AUTHORITY INFORMATION. THE SERVICE INFORMATION HAS BEEN PREPARED ONLY TO SHOW THE APPROXIMATE POSITION OF ANY KNOWN SERVICES AND MAY NOT BE AS CONSTRUCTED OR ACCURATE.

- ENSTRUCT GROUP CAN NOT GUARANTEE THAT THE SERVICES INFORMATION SHOWN ON THESE DRAWINGS ACCURATELY INDICATES THE PRESENCE OR ABSENCE OF SERVICES OR THEIR LOCATION AND WILL ACCEPT NO LIABILITY FOR INACCURACIES IN THE SERVICES INFORMATION SHOWN FROM ANY CAUSE WHATSOEVER.
- CONTRACTOR SHALL TAKE DUE CARE WHEN EXCAVATING ONSITE INCLUDING HAND EXCAVATION WHERE NECESSARY.
- CONTRACTORS ARE TO CONTACT THE RELEVANT SERVICE AUTHORITY PRIOR TO COMMENCEMENT OF EXCAVATION WORKS.
- CONTRACTORS ARE TO UNDERTAKE A SERVICE SEARCH, PRIOR TO COMMENCEMENT OF WORKS ON SITE. SEARCH RESULT ARE TO BE KEPT ON SITE AT ALL TIMES.

CONCRETE

- THE MINIMUM CONCRETE GRADE MUST BE 25MPa UNO. THE GRADE DESIGNATION SPECIFIES THE REQUIRED CHARACTERISTIC CYLINDER STRENGTH (MPa) AT 28 DAYS.
- EXCEPT WHERE OTHERWISE NOTED ON THE DRAWINGS, THE FOLLOWING CLASSES OF FORMWORK MUST BE USED ALL IN ACCORDANCE WITH AS3610; SURFACES THAT WILL BE RENDERED-CLASS 4, CONCEALED FROM VIEW BELOW GROUND-CLASS 5, ALL OTHER SURFACES-CLASS 3.
- PROVIDE 10mm WIDE EXPANSION JOINTS BETWEEN BUILDINGS AND ALL CONCRETE OR UNIT PAVEMENTS.
- IN-SITU CONCRETE KERB AND GUTTERING MUST BE PROVIDED WITH JOINTS AT 4m INTERVALS. JOINTS MUST BE FORMED BY CUTTING THE NEWLY PLACED CONCRETE COMPLETELY THROUGH NORMAL TO THE LINE OF KERB AND RADIIALLY ON CURVES. EVERY FOURTH JOINT IS TO BE FORMED AS AN EXPANSION JOINT.
- KERBS AND GUTTERS MUST BE COVERED AND KEPT DAMP FOR NOT LESS THAN THREE DAYS.
- ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS3600 CURRENT ADDITION WITH AMENDMENTS, AS3735 AND WS-SPEC (WATER SERVICES SPECIFICATION).
- COVER TO REINFORCEMENT SHALL BE OBTAINED BY THE USE OF CONCRETE OR PLASTIC BAR CHAIRS FOR BOTTOM REINFORCEMENT, AND PLASTIC TIPPED WIRE BAR CHAIRS FOR TOP REINFORCEMENT. ALL CHAIRS TO BE SPACED 750 CRS. MAXIMUM.
- FABRIC LAP DETAIL:

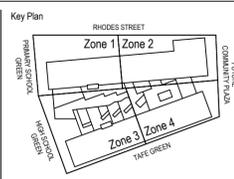


- REINFORCEMENT SHALL NOT BE BENT OR HEATED ON-SITE WITHOUT THE ENGINEER'S PRIOR APPROVAL.
- CONCRETE TO BE MECHANICALLY VIBRATED TO ACHIEVE A DENSE HOMOGENOUS MASS COMPLETELY FILLING THE FORMWORK, THOROUGHLY EMBEDDING THE REINFORCEMENT AND FREE OF STONE POCKETS.
- SURFACE FINISH TO BE BROOMED UNLESS SHOWN OTHERWISE.
- DECORATIVE FINISHES, COLORS OR PATTERNS TO BE APPLIED AS SHOWN ON THE ARCHITECT'S PLAN.

RETAINING WALLS

- DRAINAGE SHALL BE PROVIDED AS SHOWN ON THE DRAINAGE DRAWINGS.
- BACKFILLING SHALL BE CARRIED OUT AFTER GROUT OR CONCRETE HAS REACHED A MINIMUM STRENGTH OF 0.85 F.C. BACKFILLING SHALL BE APPROVED GRANULAR MATERIAL COMPACTED IN LAYERS NOT EXCEEDING 200MM TO 95% STANDARD COMPACTION UNLESS NOTED OTHERWISE.
- PROVIDE WATERPROOFING TO BACK OF WALLS AS SPECIFIED OR NOTED.
- WHERE RETAINING WALLS RELY ON CONNECTING STRUCTURAL ELEMENTS FOR STABILITY, DO NOT BACKFILL AGAINST THE WALL UNLESS IT IS ADEQUATELY PROPPED OR THE ELEMENTS HAVE BEEN CONSTRUCTED AND HAVE SUFFICIENT STRENGTH TO WITHSTAND THE LOADS.
- FOR ALL TEMPORARY BATTERS OBTAIN GEOTECHNICAL ENGINEERS RECOMMENDATIONS.

#	Status	Description	Date	Notes
01		50% SD ISSUE	13/07/18	Copyright © Woods Bagot 2018
02		80% SD ISSUE	31/08/18	All Rights Reserved
03		FOR COSTING	25/03/19	No material may be reproduced without prior permission
04		SSDA ISSUE	15/05/19	Contractor must verify all dimensions on site before commencing work or preparing shop drawings.
05		DRAFT 90% SD	29/05/19	
06		SD ISSUE	14/06/19	
07		50% ISSUE	01/06/20	Do not scale drawings.
08		75% ISSUE	08/07/20	
09		FOR CROWN CERTIFICATE	23/07/20	



Contractor



Project
MEADOWBANK EDUCATION AND EMPLOYMENT PRECINCT SCHOOLS PROJECT



Issuer
enstruct
enstruct group pty ltd
Level 4, 2 Glen Street, Milstons Point NSW 2061
Telephone (02) 8904 1444
http://www.enstruct.com.au

Project number
5645

Size check
25mm

Checked
TAH

Approved
TAH

Sheet size
A1

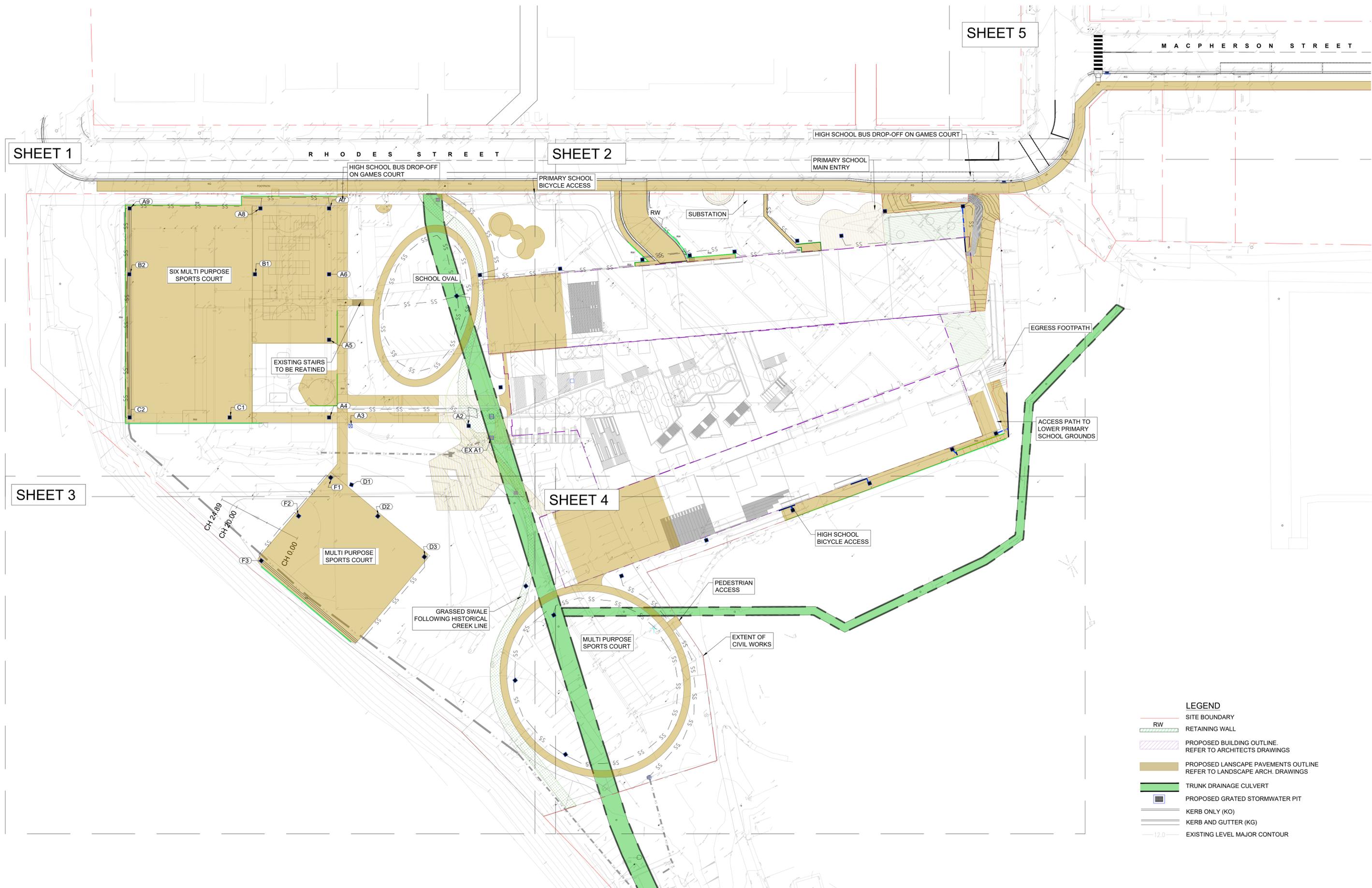
Scale
N.T.S.

Sheet title
GENERAL NOTES

Sheet number
MSP-EN-CV-00002

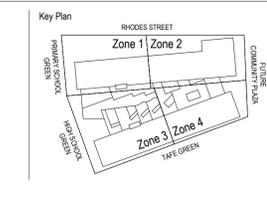
Revision
09

Status
FOR CROWN CERTIFICATE



#	Status	Description	Date
01	50% SD ISSUE		13/07/18
02	80% SD ISSUE		31/08/18
03	FOR COSTING		25/03/19
04	SSDA ISSUE		10/04/19
05	SSDA ISSUE		15/04/19
06	SSDA ISSUE		15/05/19
07	DRAFT 90% SD		29/05/19
08	SD ISSUE		14/06/19
09	DD ISSUE		06/04/20
10	50% ISSUE		06/01/20
11	75% ISSUE		08/07/20
12	FOR CROWN CERTIFICATE		23/07/20

Notes
 Copyright © Woods Bagot 2018
 All Rights Reserved
 No material may be reproduced without prior permission
 Contractor must verify all dimensions on site before commencing work or preparing shop drawings.
 Do not scale drawings.



Project
MEADOWBANK EDUCATION AND EMPLOYMENT PRECINCT SCHOOLS PROJECT

Client
 Education School Infrastructure

Issuer
enstruct
 enstruct group pty ltd
 Level 4-2 Glen Street, Milsom's Point NSW 2061
 Telephone: (02) 8504 1444
 http://www.enstruct.com.au

Project number
5645

Checked
 TAH

Approved
 TAH

Sheet size
 A1

Scale
 1:500

Sheet title
GENERAL ARRANGEMENT PLAN

Sheet number
 MSP-EN-CV-00101

Revision
 12

Status
 FOR CROWN CERTIFICATE

R H O D E S S T R E E T

PRIMARY SCHOOL BUS DROP-OFF

LEGEND

- SITE BOUNDARY
- 57.0 DESIGN CONTOUR MAJOR
- 56.7 DESIGN CONTOUR MINOR
- 12.0 EXISTING CONTOUR
- 14.28 DESIGN SPOT LEVEL
- 13.93 EXISTING SPOT LEVEL
- 1.0% DESIGN SLOPE
- ▨ BUILDING LAYOUT. REFER TO ARCHITECTS DRAWINGS
- ▨ REFER TO PAVEMENT PLAN MSP-EN-CV-00501 AND LANDSCAPE ARCHITECTS DRAWINGS
- RW RETAINING WALL

STORMWATER AND PAVEMENT SUBJECT TO CHANGES ON LANDSCAPE AND ARCHITECTURAL PLANS



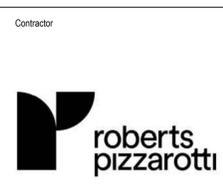
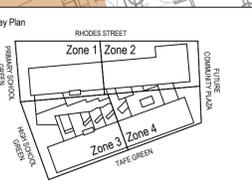
- SUSPENDED STRUCTURE
- EXISTING LEVELS
- STAIRS BY OTHERS

LEVELS IN THIS AREA TO BE KEPT AS EXISTING

NOTES
TIMBER DECK TO ADJACENT GROUND TO HAVE A MAXIMUM LEVEL CHANGE OF 300mm

Recent revision history	Description	Date
01	50% ISSUE	01/06/20
02	75% ISSUE	08/07/20
03	FOR CROWN CERTIFICATE	23/07/20

Notes
Copyright © Woods Bagot 2018
All Rights Reserved
No material may be reproduced without prior permission
Contractor must verify all dimensions on site before commencing work or preparing shop drawings.
Do not scale drawings.



Project
MEADOWBANK EDUCATION AND EMPLOYMENT PRECINCT SCHOOLS PROJECT

Client
NSW GOVERNMENT Education School Infrastructure

Issuer
enstruct
enstruct group Pty Ltd
Level 4, 2 Glen Street, Milsions Point NSW 2061
Telephone (02) 8904 1444
http://www.enstruct.com.au

Project number
5645

Size check
25mm

Checked
TAH

Approved
TAH

Sheet size
A1

Scale
1:200

Sheet title
GRADING PLAN SHEET 2

Sheet number
MSP-EN-CV-00122

Revision
03

Status
FOR CROWN CERTIFICATE

CLOUDED AREA TO REMAIN WITH EXISTING LEVELS

MATCH EXISTING CONTOUR

MATCH EXISTING CONTOURS ALONG BATTER

MATCH EXISTING 7.00 CONTOUR

GRASSED SWALE FOLLOWING HISTORICAL CREEK LINE

MULTI PURPOSE SPORTS COURT RW

RETAINING WALL ALONG WESTERN SIDE OF COURTS

CLOUDED AREA TO REMAIN WITH EXISTING LEVELS

MATCH EXISTING 7.00 CONTOUR

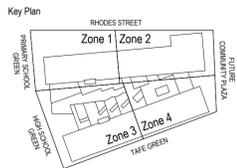
MATCH EXISTING CONTOURS

LEGEND

- SITE BOUNDARY
- 57.0 DESIGN CONTOUR MAJOR
- 56.7 DESIGN CONTOUR MINOR
- 12.0 EXISTING CONTOUR
- × 14.28 DESIGN SPOT LEVEL
- × 13.93 EXISTING SPOT LEVEL
- -1.0% DESIGN SLOPE
- ▨ BUILDING LAYOUT. REFER TO ARCHITECTS DRAWINGS
- ▨ REFER TO PAVEMENT PLAN MSP-EN-CV-00501 AND LANDSCAPE ARCHITECTS DRAWINGS
- RW RETAINING WALL

STORMWATER AND PAVEMENT SUBJECT TO CHANGES ON LANDSCAPE AND ARCHITECTURAL PLANS

Recent revision history	#	Status	Description	Date	Notes
	01		50% ISSUE	01/06/20	Copyright © Woods Bagot 2018 All Rights Reserved
	02		75% ISSUE	08/07/20	No material may be reproduced without prior permission
	03		FOR CROWN CERTIFICATE	23/07/20	Contractor must verify all dimensions on site before commencing work or preparing shop drawings. Do not scale drawings.



Project
MEADOWBANK EDUCATION AND EMPLOYMENT PRECINCT SCHOOLS PROJECT

Client
NSW GOVERNMENT Education School Infrastructure

Issuer
enstruct
enstruct group pty ltd
Level 4, 2 Glen Street, Milsoms Point NSW 2061
Telephone (02) 8904 1444
http://www.enstruct.com.au

Project number
5645

Size check
25mm

Checked
TAH

Approved
TAH

Sheet size
A1

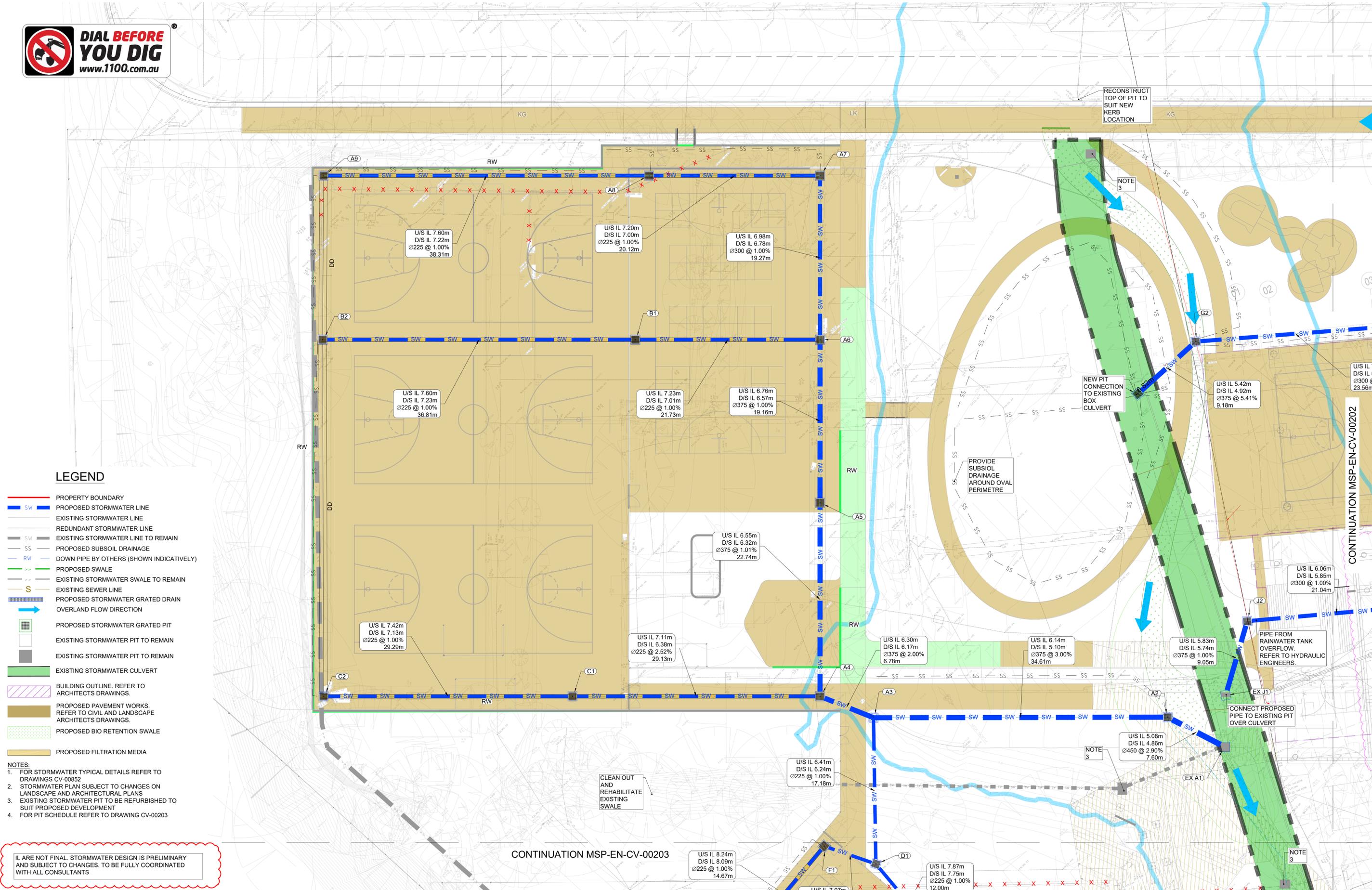
Scale
1:200

Sheet title
GRADING PLAN SHEET 3

Sheet number
MSP-EN-CV-00123

Revision
03

Status
FOR CROWN CERTIFICATE

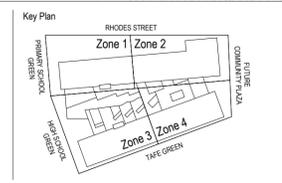


Recent revision history

#	Status	Description	Date
01	ISSUE FOR INFORMATION	08/07/18	
02	50% SD ISSUE	13/07/18	
03	80% SD ISSUE	31/08/18	
04	FOR COSTING	25/03/19	
05	SSDA ISSUE	10/04/19	
06	SSDA ISSUE	15/04/19	
07	SSDA ISSUE	15/05/19	
08	DRAFT 90% SD	29/05/19	
09	SD ISSUE	14/06/19	
10	DD ISSUE	08/04/20	
11	50% ISSUE	01/06/20	
12	75% ISSUE	08/07/20	
13	FOR CROWN CERTIFICATE	23/07/20	

Notes

Copyright © Woods Bagot 2018
All Rights Reserved
No material may be reproduced without prior permission
Contractor must verify all dimensions on site before commencing work or preparing shop drawings.
Do not scale drawings.



CONTINUATION MSP-EN-CV-00203

Contractor

Project
MEADOWBANK EDUCATION AND EMPLOYMENT PRECINCT SCHOOLS PROJECT

Client
NSW GOVERNMENT Education School Infrastructure

Issue
enstruct
enstruct group Pty Ltd
Level 4, 2 Glen Street, Milsers Point NSW 2061
Telephone (02) 8904 1444
http://www.enstruct.com.au

Project number
5645

Size check
25mm

Checked
TAH

Approved
TAH

Sheet size
A1

Scale
1:200

Sheet title
STORMWATER PLAN SHEET 1

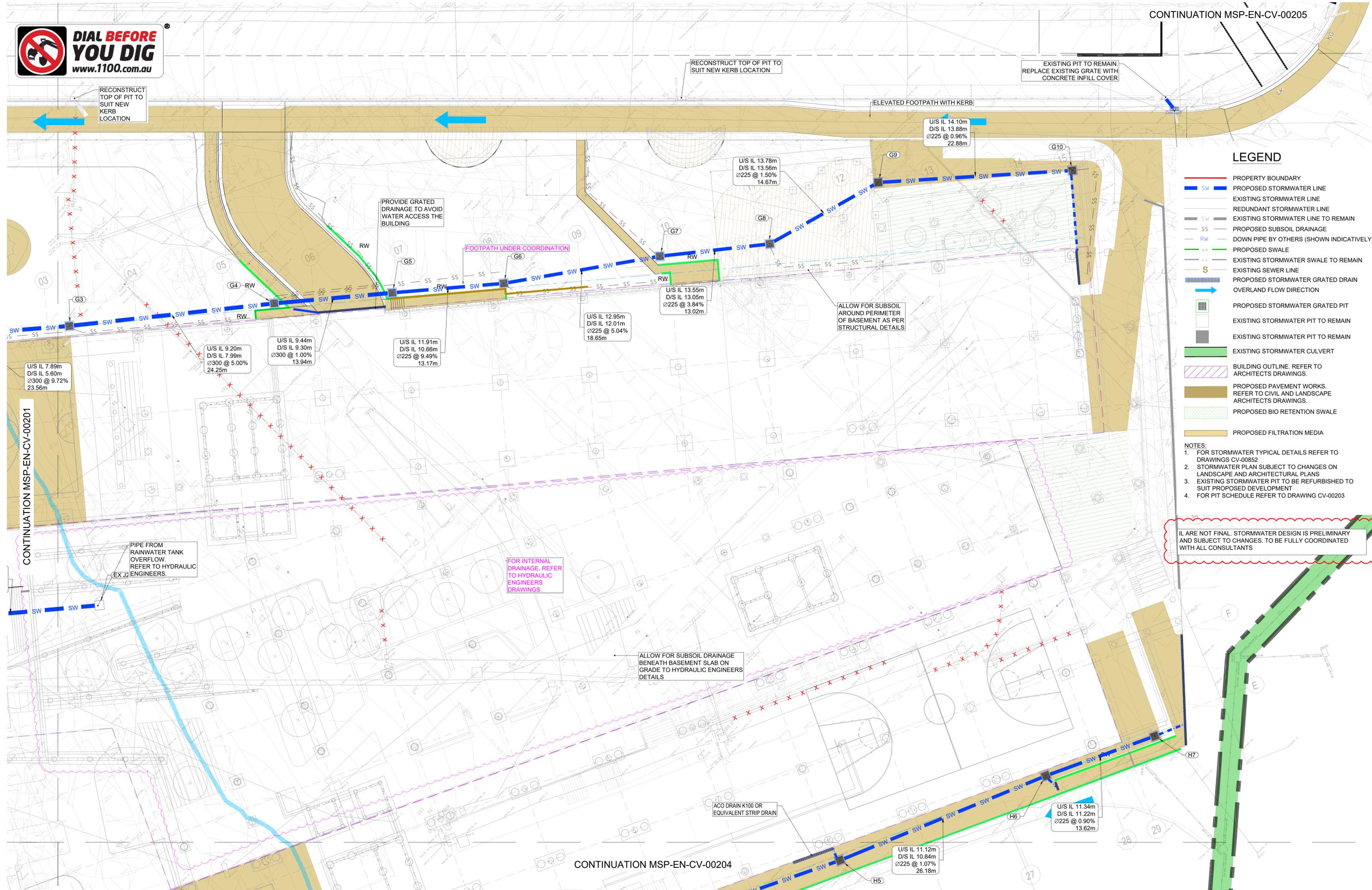
Sheet number
MSP-EN-CV-00201

Revision
13

Status
FOR CROWN CERTIFICATE



CONTINUATION MSP-EN-CV-00205



LEGEND

- PROPERTY BOUNDARY
- PROPOSED STORMWATER LINE
- EXISTING STORMWATER LINE
- REDUNDANT STORMWATER LINE
- EXISTING STORMWATER LINE TO REMAIN
- PROPOSED SUBSOIL DRAINAGE
- DOWN PIPE BY OTHERS (SHOWN INDICATIVELY)
- PROPOSED SWALE
- EXISTING STORMWATER SWALE TO REMAIN
- EXISTING SEWER LINE
- PROPOSED STORMWATER GRATED DRAIN
- OVERLAND FLOW DIRECTION
- PROPOSED STORMWATER GRATED PIT
- EXISTING STORMWATER PIT TO REMAIN
- EXISTING STORMWATER PIT TO REMAIN
- EXISTING STORMWATER CULVERT
- BUILDING OUTLINE. REFER TO ARCHITECTS DRAWINGS.
- PROPOSED PAVEMENT WORKS. REFER TO CIVIL AND LANDSCAPE ARCHITECTS DRAWINGS.
- PROPOSED BIO RETENTION SWALE
- PROPOSED FILTRATION MEDIA

- NOTES:
- FOR STORMWATER TYPICAL DETAILS REFER TO DRAWINGS CV-00852
 - STORMWATER PLAN SUBJECT TO CHANGES ON LANDSCAPE AND ARCHITECTURAL PLANS
 - EXISTING STORMWATER PIT TO BE REFURBISHED TO SUIT PROPOSED DEVELOPMENT
 - FOR PIT SCHEDULE REFER TO DRAWING CV-00203

IL ARE NOT FINAL. STORMWATER DESIGN IS PRELIMINARY AND SUBJECT TO CHANGES. TO BE FULLY COORDINATED WITH ALL CONSULTANTS

CONTINUATION MSP-EN-CV-00201

CONTINUATION MSP-EN-CV-00204

Recent revision history

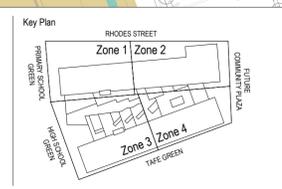
#	Status	Description	Date
01	50% ISSUE		01/06/20
02	75% ISSUE		08/07/20
03		FOR CROWN CERTIFICATE 23/07/20	

Notes

Copyright © Woods Bagot 2018
All Rights Reserved
No material may be reproduced without prior permission

Contractor must verify all dimensions on site before commencing work or preparing shop drawings.

Do not scale drawings.



Project
MEADOWBANK EDUCATION AND EMPLOYMENT PRECINCT SCHOOLS PROJECT

Client
NSW GOVERNMENT Education School Infrastructure

Issuer
enstruct
enstruct group pty ltd
Level 4, 2 Glen Street, Millers Point NSW 2061
Telephone (02) 8904 1444
http://www.enstruct.com.au

Project number
5645

Checked
TAH

Approved
TAH

Size check
25mm

Sheet size
A1

Scale
1:200

Sheet title
STORMWATER PLAN SHEET 2

Sheet number
MSP-EN-CV-00202

Revision
03

Status
FOR CROWN CERTIFICATE



CONTINUATION MSP-EN-CV-00201

PIT SCHEDULE			
PIT NAME	PIT INTERNAL SIZE (mm)	LID TYPE	COVER LEVEL (mAHD)
A2	900 X 900	GALVANISED MILD STEEL GRATE HINGED TO FRAME	6.21
A3	900 X 900	CAST IRON COVER WITH CONCRETE INFILL	7.63
A4	900 X 900	GALVANISED MILD STEEL GRATE HINGED TO FRAME	7.78
A5	900 X 900	GALVANISED MILD STEEL GRATE HINGED TO FRAME	8.41
A6	900 X 900	GALVANISED MILD STEEL GRATE HINGED TO FRAME	8.42
A7	900 X 900	GALVANISED MILD STEEL GRATE HINGED TO FRAME	8.41
A8	900 X 900	GALVANISED MILD STEEL GRATE HINGED TO FRAME	8.40
A9	900 X 900	GALVANISED MILD STEEL GRATE HINGED TO FRAME	8.40
B1	900 X 900	GALVANISED MILD STEEL GRATE HINGED TO FRAME	8.41
B2	900 X 900	GALVANISED MILD STEEL GRATE HINGED TO FRAME	8.40
C1	900 X 900	GALVANISED MILD STEEL GRATE HINGED TO FRAME	8.43
C2	900 X 900	GALVANISED MILD STEEL GRATE HINGED TO FRAME	8.41
D1	900 X 900	GALVANISED MILD STEEL GRATE HINGED TO FRAME	8.56
D2	900 X 900	GALVANISED MILD STEEL GRATE HINGED TO FRAME	8.64
D3	900 X 900	GALVANISED MILD STEEL GRATE HINGED TO FRAME	8.77
F1	900 X 900	GALVANISED MILD STEEL GRATE HINGED TO FRAME	8.59
F2	900 X 900	GALVANISED MILD STEEL GRATE HINGED TO FRAME	8.73
F3	900 X 900	GALVANISED MILD STEEL GRATE HINGED TO FRAME	8.90
G1	900 X 900	GALVANISED MILD STEEL GRATE HINGED TO FRAME	6.56
G2	900 X 900	GALVANISED MILD STEEL GRATE HINGED TO FRAME	6.73
G3	900 X 900	GALVANISED MILD STEEL GRATE HINGED TO FRAME	9.43
G4	900 X 900	GALVANISED MILD STEEL GRATE HINGED TO FRAME	10.79
G5	900 X 900	GALVANISED MILD STEEL GRATE HINGED TO FRAME	11.58
G6	900 X 900	GALVANISED MILD STEEL GRATE HINGED TO FRAME	14.28
G7	900 X 900	GALVANISED MILD STEEL GRATE HINGED TO FRAME	14.10
G8	900 X 900	GALVANISED MILD STEEL GRATE HINGED TO FRAME	15.51
G9	900 X 900	GALVANISED MILD STEEL GRATE HINGED TO FRAME	15.66
G10	900 X 900	GALVANISED MILD STEEL GRATE HINGED TO FRAME	15.90
H0	900 X 900	GALVANISED MILD STEEL GRATE HINGED TO FRAME	6.49
H1	900 X 900	GALVANISED MILD STEEL GRATE HINGED TO FRAME	6.77
H2	900 X 900	GALVANISED MILD STEEL GRATE HINGED TO FRAME	7.00
H3	900 X 900	GALVANISED MILD STEEL GRATE HINGED TO FRAME	7.00
H4	900 X 900	GALVANISED MILD STEEL GRATE HINGED TO FRAME	9.19
H5	900 X 900	GALVANISED MILD STEEL GRATE HINGED TO FRAME	11.44
H6	900 X 900	GALVANISED MILD STEEL GRATE HINGED TO FRAME	11.82
H7	900 X 900	GALVANISED MILD STEEL GRATE HINGED TO FRAME	12.15
J2	900 X 900	GALVANISED MILD STEEL GRATE HINGED TO FRAME	6.56
K1	900 X 900	GALVANISED MILD STEEL GRATE HINGED TO FRAME	5.98
K2	900 X 900	GALVANISED MILD STEEL GRATE HINGED TO FRAME	6.42

ALL LID LOAD CLASS WILL BE CLASS 'C'

LEGEND

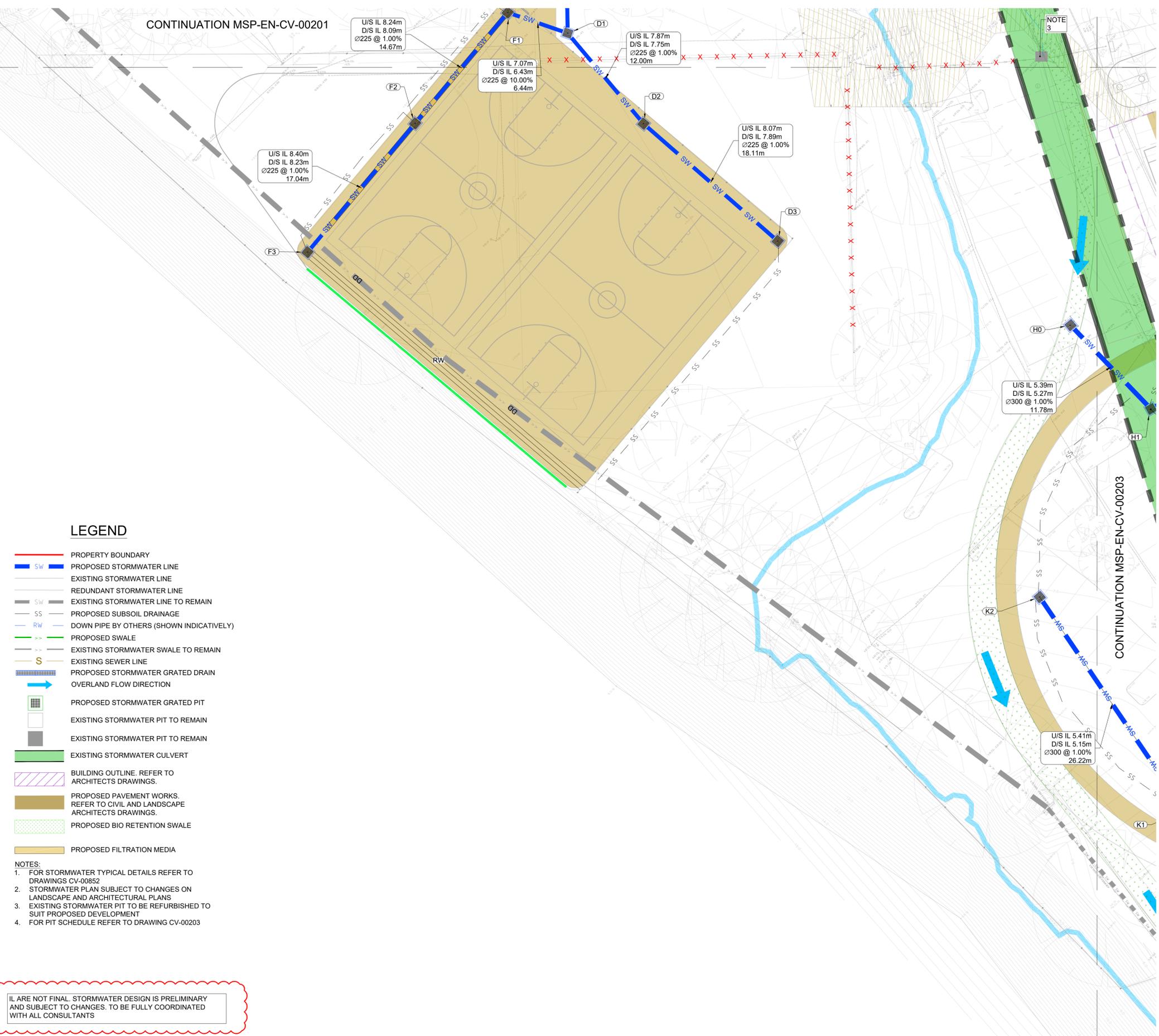
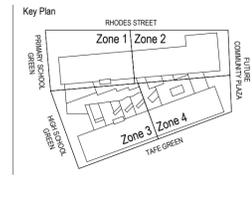
- PROPERTY BOUNDARY
- PROPOSED STORMWATER LINE
- EXISTING STORMWATER LINE
- REDUNDANT STORMWATER LINE
- EXISTING STORMWATER LINE TO REMAIN
- PROPOSED SUBSOIL DRAINAGE
- DOWN PIPE BY OTHERS (SHOWN INDICATIVELY)
- PROPOSED SWALE
- EXISTING STORMWATER SWALE TO REMAIN
- EXISTING SEWER LINE
- PROPOSED STORMWATER GRATED DRAIN
- OVERLAND FLOW DIRECTION
- PROPOSED STORMWATER GRATED PIT
- EXISTING STORMWATER PIT TO REMAIN
- EXISTING STORMWATER PIT TO REMAIN
- EXISTING STORMWATER CULVERT
- BUILDING OUTLINE. REFER TO ARCHITECTS DRAWINGS.
- PROPOSED PAVEMENT WORKS. REFER TO CIVIL AND LANDSCAPE ARCHITECTS DRAWINGS.
- PROPOSED BIO RETENTION SWALE
- PROPOSED FILTRATION MEDIA

- NOTES:**
- FOR STORMWATER TYPICAL DETAILS REFER TO DRAWINGS CV-00852
 - STORMWATER PLAN SUBJECT TO CHANGES ON LANDSCAPE AND ARCHITECTURAL PLANS
 - EXISTING STORMWATER PIT TO BE REFURBISHED TO SUIT PROPOSED DEVELOPMENT
 - FOR PIT SCHEDULE REFER TO DRAWING CV-00203

IL ARE NOT FINAL. STORMWATER DESIGN IS PRELIMINARY AND SUBJECT TO CHANGES. TO BE FULLY COORDINATED WITH ALL CONSULTANTS

Recent revision history	Description	Date	Notes
01	50% ISSUE	01/06/20	Copyright © Woods Bagot 2018. All Rights Reserved. No material may be reproduced without prior permission.
02	75% ISSUE	08/07/20	
03	FOR CROWN CERTIFICATE 23/07/20		Contractor must verify all dimensions on site before commencing work or preparing shop drawings. Do not scale drawings.

Notes:
Copyright © Woods Bagot 2018
All Rights Reserved
No material may be reproduced without prior permission
Contractor must verify all dimensions on site before commencing work or preparing shop drawings.
Do not scale drawings.



Project
MEADOWBANK EDUCATION AND EMPLOYMENT PRECINCT SCHOOLS PROJECT

Client
NSW GOVERNMENT Education School Infrastructure

Issuer
enstruct
enstruct group Pty Ltd
Level 4, 2 Glen Street, Milsans Point NSW 2061
Telephone (02) 8904 1444
http://www.enstruct.com.au

Project number
5645

Size check
25mm

Checked
TAH

Approved
TAH

Sheet size
A1

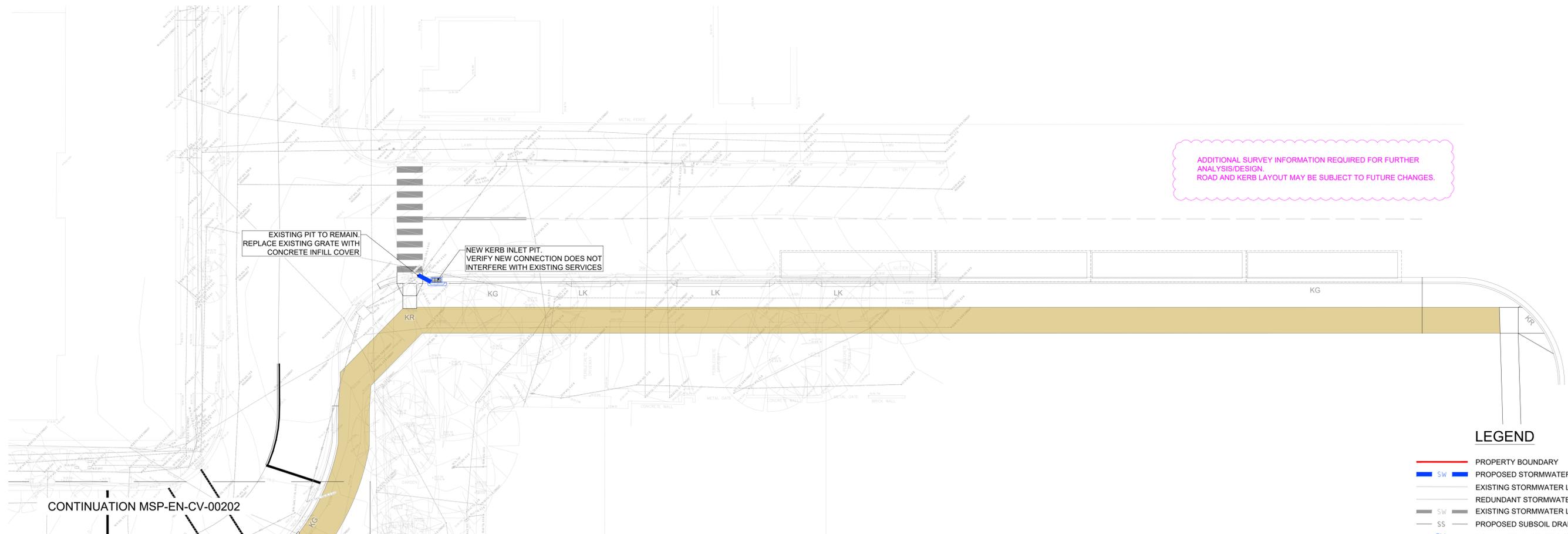
Scale
1:200

Sheet title
STORMWATER PLAN SHEET 3

Sheet number
MSP-EN-CV-00203

Revision
03

Status
FOR CROWN CERTIFICATE



ADDITIONAL SURVEY INFORMATION REQUIRED FOR FURTHER ANALYSIS/DESIGN. ROAD AND KERB LAYOUT MAY BE SUBJECT TO FUTURE CHANGES.

LEGEND

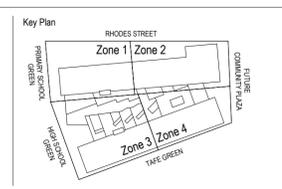
- PROPERTY BOUNDARY
- PROPOSED STORMWATER LINE
- EXISTING STORMWATER LINE
- REDUNDANT STORMWATER LINE
- EXISTING STORMWATER LINE TO REMAIN
- PROPOSED SUBSOIL DRAINAGE
- DOWN PIPE BY OTHERS (SHOWN INDICATIVELY)
- PROPOSED SWALE
- EXISTING STORMWATER SWALE TO REMAIN
- EXISTING SEWER LINE
- PROPOSED STORMWATER GRATED DRAIN
- OVERLAND FLOW DIRECTION
- PROPOSED STORMWATER GRATED PIT
- EXISTING STORMWATER PIT TO REMAIN
- EXISTING STORMWATER PIT TO REMAIN
- EXISTING STORMWATER CULVERT
- BUILDING OUTLINE. REFER TO ARCHITECTS DRAWINGS.
- PROPOSED PAVEMENT WORKS. REFER TO CIVIL AND LANDSCAPE ARCHITECTS DRAWINGS.
- PROPOSED BIO RETENTION SWALE
- PROPOSED FILTRATION MEDIA

- NOTES:**
- FOR STORMWATER TYPICAL DETAILS REFER TO DRAWINGS CV-00852
 - STORMWATER PLAN SUBJECT TO CHANGES ON LANDSCAPE AND ARCHITECTURAL PLANS
 - EXISTING STORMWATER PIT TO BE REFURBISHED TO SUIT PROPOSED DEVELOPMENT
 - FOR PIT SCHEDULE REFER TO DRAWING CV-00203

IL ARE NOT FINAL. STORMWATER DESIGN IS PRELIMINARY AND SUBJECT TO CHANGES. TO BE FULLY COORDINATED WITH ALL CONSULTANTS

Recent revision history		
#	Status	Description
01		50% ISSUE
02		FOR CROWN CERTIFICATE 23/07/20

Date generated: 8/07/2020 1:30:35 PM P:\U1-5600\5645\00 - ENSTRUCT DOCUMENTS\0.1 - CAD\CIVIL\AUTOCAD\MSP-EN-CV-00201



Notes
 Copyright © Woods Bagot 2018
 All Rights Reserved
 No material may be reproduced without prior permission
 Contractor must verify all dimensions on site before commencing work or preparing shop drawings.
 Do not scale drawings.



Project: MEADOWBANK EDUCATION AND EMPLOYMENT PRECINCT SCHOOLS PROJECT
 Client: NSW GOVERNMENT Education School Infrastructure

Issuer: **enstruct**
 enstruct group pty ltd
 Level 4, 2 Glen Street, Milsions Point NSW 2061
 Telephone (02) 8904 1444
 http://www.enstruct.com.au

Project number: 5645
 Checked: TAH
 Approved: TAH
 Size check: 25mm
 Sheet size: A1
 Scale: 1:200

Sheet title: STORMWATER PLAN SHEET 5
 Sheet number: MSP-EN-CV-00205
 Status: FOR CROWN CERTIFICATE
 Revision: 02



Surface Analysis: Elevation Ranges

Number	Color	Minimum Elevation (m)	Maximum Elevation (m)
1	Red	-5.000	-4.000
2	Dark Red	-4.000	-3.000
3	Orange	-3.000	-2.000
4	Light Orange	-2.000	-1.000
5	Yellow	-1.000	0.000
6	Light Green	0.000	1.000
7	Green	1.000	2.000

Cut/Fill Summary

Name	Cut Factor	Fill Factor	2D Area	Cut	Fill
Bulk excavation: Landscape	1.000	1.000	15488.264sq.m	7159.405 Cu. M.	1125.210 Cu. M.

NOTES

- BULK EARTHWORKS AND SITE LEVELS ARE PROVISIONAL ONLY AND WILL BE MODIFIED TO SUIT FINAL LANDSCAPE ARCHITECT, STRUCTURAL AND ARCHITECTS DESIGN.
- THIS DRAWING IS AN ESTIMATE FOR INFORMATION ONLY WHICH SHOULD NOT BE TAKEN AS AN ACCURATE MEASUREMENT AND SHOULD NOT BE USED FOR CONSTRUCTION.
- NO ALLOWANCE HAS BEEN CONSIDERED FOR SERVICE TRENCHES, IN GROUND TANKS, STRUCTURAL FOOTINGS, FLOOR SLABS OR LIFT PITS
- NO BULKING FACTOR OR COMPACTION FACTOR HAS BEEN APPLIED TO THIS ESTIMATED EXCAVATION VOLUME.
- THIS ESTIMATE DOES NOT INCLUDE EXCAVATION FOR ANY BELOW GROUND SERVICES INCLUDING STORMWATER INFRASTRUCTURE.
- IT HAS BEEN ASSUMED THAT ALL EXCAVATED MATERIAL IS NOT CONTAMINATED AND CAN BE USED AS FILL MATERIAL ON SITE (NOT INCLUDING EXISTING PAVEMENT MATERIAL) BACKFILL VOLUME FOR BATTERS IS NOT PROVIDED NOR INCLUDED IN THE FINAL FILL VOLUME.
- BULK EARTHWORKS VOLUME DOES NOT INCLUDE MATERIAL REMOVED UNDER EXISTING SLABS ON GROUND AND CAR PARKS AND PAVEMENTS. THIS MATERIAL WILL BE DISPOSED OFF FROM THE SITE
- THE BULK EARTHWORKS PLAN HAS BEEN ONLY CONSIDERED FOR THE BULK EXCAVATION WORKS FOR THE PROPOSED BUILDING AND NOT DETAILED EARTHWORKS WHICH INCLUDES: LANDSCAPING, PAVEMENT, TRENCHING, LIFT PITS, BACKFILL BEHIND WALLS, ETC
- IT HAS BEEN ALLOW 300 mm OF EXCAVATION UNDER PROPOSED FINISH FLOOR LEVELS

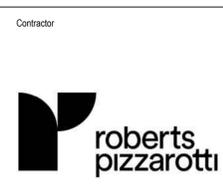
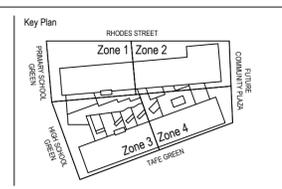
LEGEND

- Red dashed line: SITE BOUNDARY
- Black line: DESIGN BULK LEVEL CONTOUR
- Grey line: EXISTING LEVEL CONTOUR

Recent revision history

#	Status	Description	Date
01		ISSUE FOR INFORMATION	06/07/18
02		50% SD ISSUE	13/07/18
03		80% SD ISSUE	31/08/18
04		ISSUE FOR COSTING	25/03/18
05		SSDA ISSUE	15/05/19
06		DRAFT 90% SD	29/05/19
07		SD ISSUE	14/06/19
08		SD REISSUE	04/12/19
09		50% ISSUE	01/06/20
10		REVISED AS CLOUDED	08/07/20
11		FOR CROWN CERTIFICATE	23/07/20

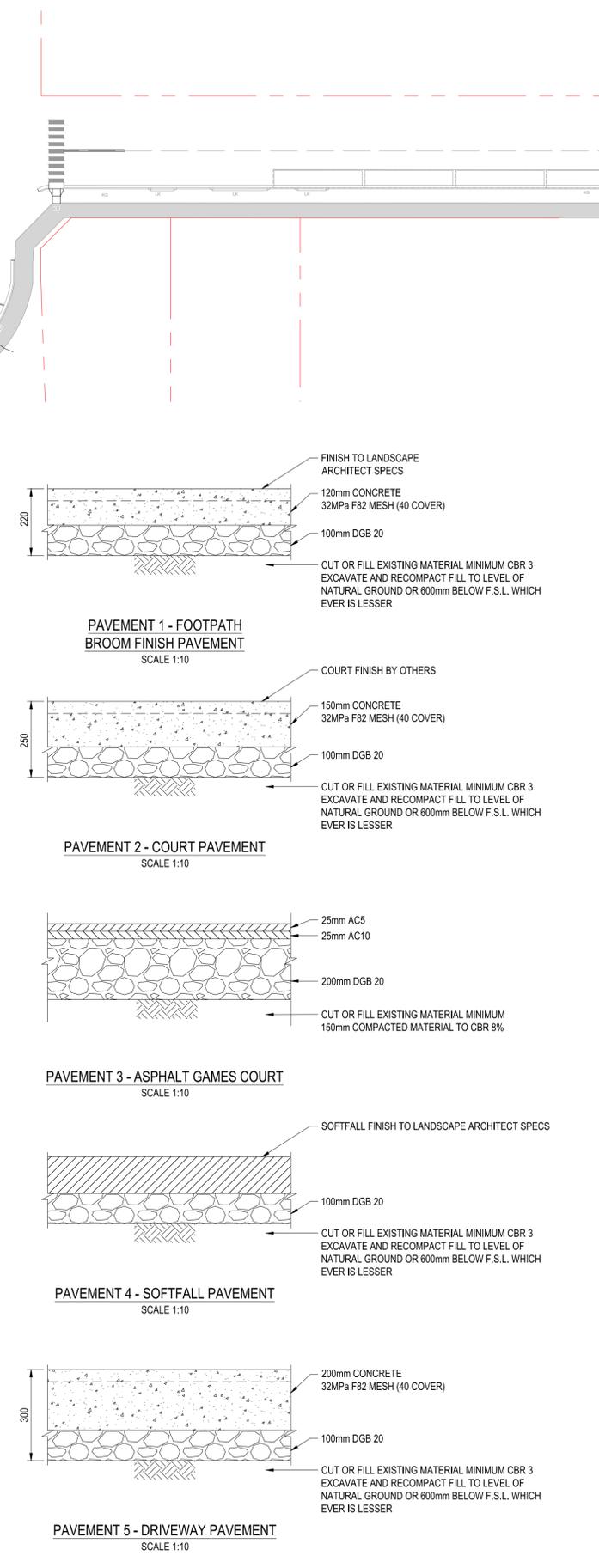
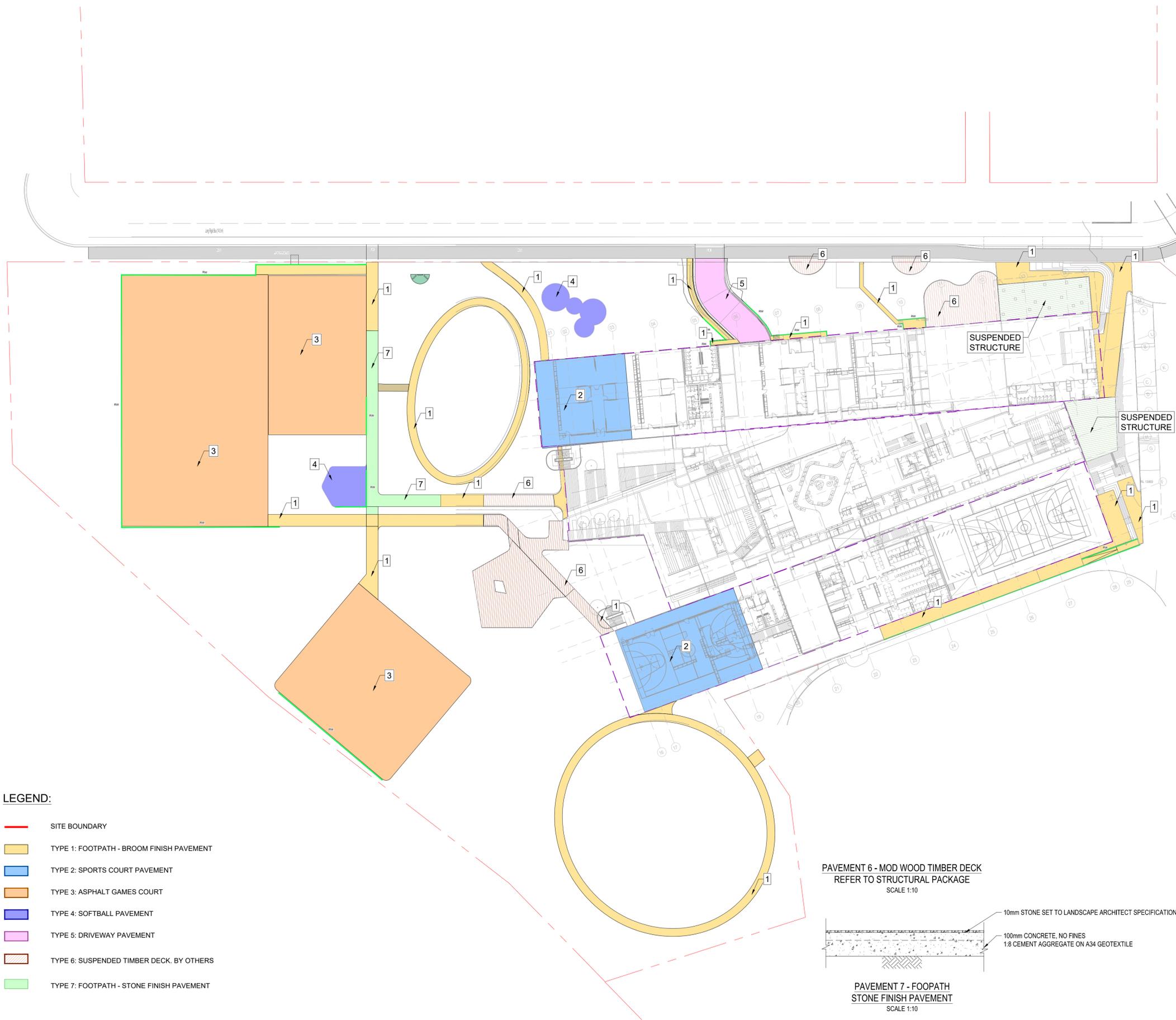
Notes
Copyright © Woods Bagot 2018
All Rights Reserved
No material may be reproduced without prior permission
Contractor must verify all dimensions on site before commencing work or preparing shop drawings.
Do not scale drawings.



Project
MEADOWBANK EDUCATION AND EMPLOYMENT PRECINCT SCHOOLS PROJECT
Client
NSW GOVERNMENT Education School Infrastructure

Issuer
enstruct
enstruct group pty ltd
Level 4, 2 Glen Street, Milsions Point NSW 2061
Telephone (02) 8504 1444
http://www.enstruct.com.au
Project number
5645
Checked
TAH
Approved
TAH
Size check
25mm
Sheet size
A1
Scale
1:500

Sheet title
BULK EARTHWORKS PLAN - SITE
Sheet number
MSP-EN-CV-00301
Revision
11
Status
FOR CROWN CERTIFICATE

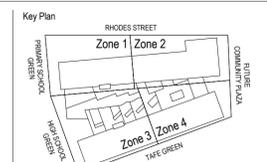


LEGEND:

- SITE BOUNDARY
- TYPE 1: FOOTPATH - BROOM FINISH PAVEMENT
- TYPE 2: SPORTS COURT PAVEMENT
- TYPE 3: ASPHALT GAMES COURT
- TYPE 4: SOFTBALL PAVEMENT
- TYPE 5: DRIVEWAY PAVEMENT
- TYPE 6: SUSPENDED TIMBER DECK, BY OTHERS
- TYPE 7: FOOTPATH - STONE FINISH PAVEMENT

Recent revision history	#	Status	Description	Date	Notes
01	50% SD ISSUE	13/07/18	Copyright © Woods Bagot 2018 All Rights Reserved		
02	80% SD ISSUE	31/08/18	No material may be reproduced without prior permission		
03	FOR COSTING	25/03/19			
04	DRAFT 90% SD	29/05/19	Contractor must verify all dimensions on site before commencing work or preparing shop drawings.		
05	SD ISSUE	14/06/19			
06	SD ISSUE	06/04/20			
07	50% ISSUE	01/06/20			
08	75% ISSUE	08/07/20			
09	FOR CROWN CERTIFICATE	23/07/20			

Notes
 Copyright © Woods Bagot 2018
 All Rights Reserved
 No material may be reproduced without prior permission
 Contractor must verify all dimensions on site before commencing work or preparing shop drawings.
 Do not scale drawings.



Project
MEADOWBANK EDUCATION AND EMPLOYMENT PRECINCT SCHOOLS PROJECT

Client
 Education School Infrastructure

Issuer
enstruct
 enstruct group pty ltd
 Level 4, 2 Chen Street, Milsoms Point NSW 2061
 Telephone (02) 8904 1444
 http://www.enstruct.com.au

Project number
5645

Size check
 25mm

Checked
 TAH

Approved
 TAH

Sheet size
 A1

Scale
 1:500

Sheet title
PAVEMENT PLAN

Sheet number
MSP-EN-CV-00501

Revision
09

Status
FOR CROWN CERTIFICATE

