

CIVIL ENGINEERING WORKS



LOCALITY PLAN
SCALE 1:1000

DRAWING REGISTRY	
DRAWING NUMBER	DRAWING TITLE
CI-000-01	COVER SHEET
CI-007-01	GENERAL NOTES
CI-070-01	EROSION AND SEDIMENT CONTROL PLAN
CI-076-01	EROSION AND SEDIMENT CONTROL DETAILS
CI-400-01	ROAD CONCEPT PLAN
CI-402-01	REAR LANE - SECTIONS
CI-520-01	STORMWATER MANAGEMENT PLAN
CI-526-01	STORMWATER DRAINAGE - DETAILS - SHEET 1
CI-526-02	STORMWATER DRAINAGE - DETAILS - SHEET 2

GENERAL NOTES

- 1. ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH COUNCIL / RELEVANT AUTHORITY SPECIFICATIONS AND DETAILS.
- 2. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH OTHER CONSULTANTS' DRAWINGS AND SPECIFICATIONS AND WITH OTHER SUCH WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. ANY DISCREPANCY SHALL BE REFERRED TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
- 3. ALL DIMENSIONS ARE IN MILLIMETRES & ALL LEVELS ARE IN METRES, UNO (UNLESS NOTED OTHERWISE).
- 4. NO DIMENSION SHALL BE OBTAINED BY SCALING THE DRAWINGS.
- 5. ALL LEVELS AND SETTING OUT DIMENSIONS SHOWN ON THE DRAWINGS SHALL BE CHECKED ON SITE PRIOR TO COMMENCEMENT OF WORKS.
- 6. EXISTING SERVICES WHERE SHOWN HAVE BEEN PLOTTED FROM SUPPLIED DATA AND SUCH THEIR ACCURACY CAN NOT BE GUARANTEED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH THE LEVEL OF ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF WORK.
- 7. CAD FILES / DTM FILES TO BE SUPPLIED IN AUTOCAD FORMAT FOR SETOUT PURPOSES (UPON REQUEST).

SITEWORKS NOTES

- 1. ORIGIN OF LEVELS:- REFER SURVEY NOTES.
- 2. CONTRACTOR MUST VERIFY ALL DIMENSIONS AND EXISTING LEVELS ON SITE PRIOR TO COMMENCEMENT OF WORK. ANY DISCREPANCIES TO BE REPORTED TO STANTEC.
- 3. CONTRACTOR TO CONFIRM ALL CBR VALUES PRIOR TO COMMENCEMENT OF WORKS.
- 4. MAKE SMOOTH CONNECTION WITH EXISTING WORKS.
- 5. ALL TRENCH BACKFILL MATERIAL SHALL BE COMPACTED TO THE SAME DENSITY AS THE ADJACENT MATERIAL.
- 6. ALL SERVICE TRENCHES UNDER VEHICULAR PAVEMENTS SHALL BE BACKFILLED WITH SAND TO 300mm ABOVE PIPE. WHERE PIPE IS UNDER PAVEMENTS BACKFILL REMAINDER OF TRENCH TO UNDERSIDE OF PAVEMENT WITH SAND OR APPROVED GRANULAR MATERIAL COMPACTED IN 150mm LAYERS TO MINIMUM 98% MODIFIED MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS 1289 5.2.1. (OR A DENSITY INDEX OF NOT LESS THAN 75)
- 7. PROVIDE 10mm WIDE EXPANSION JOINTS BETWEEN BUILDINGS AND ALL CONCRETE OR UNIT PAVEMENTS.
- 8. ASPHALTIC CONCRETE SHALL CONFORM TO RMS. SPECIFICATION R116.
- 9. ALL BASECOURSE MATERIAL SHALL BE IGNEOUS ROCK QUARRIED MATERIAL TO COMPLY WITH RMS. FORM 3051 (UNBOUND), RMS. FORM 3052 (BOUND) COMPACTED TO MINIMUM 98% MODIFIED DENSITY IN ACCORDANCE WITH AS 1289 5.2.1. FREQUENCY OF COMPACTION TESTING SHALL NOT BE LESS THAN 1 TEST PER 50m² BASECOURSE MATERIAL PLACED.
- 10. ALL SUB-BASE COURSE MATERIAL SHALL BE IGNEOUS ROCK QUARRIED MATERIAL TO COMPLY WITH RMS. FORM 3051, 3051.1 AND COMPACTED TO MINIMUM 95% MODIFIED DENSITY IN ACCORDANCE WITH AS 1289 5.2.1. FREQUENCY OF COMPACTION TESTING SHALL NOT BE LESS THAN 1 TEST PER 50m² OF SUB-BASE COURSE MATERIAL PLACED.
- 11. AS AN ALTERNATIVE TO THE USE OF IGNEOUS ROCK AS A SUB-BASE MATERIAL IN (9) A CERTIFIED RECYCLED CONCRETE MATERIAL COMPLYING WITH RMS. FORM 3051 AND 3051.1 WILL BE CONSIDERED. SUBJECT TO MATERIAL SAMPLES AND APPROPRIATE CERTIFICATIONS BEING PROVIDED TO THE SATISFACTION OF STANTEC.
- 12. SHOULD THE CONTRACTOR WISH TO USE A RECYCLED PRODUCT THIS SHALL BE CLEARLY INDICATED IN THEIR TENDER AND THE PRICE DIFFERENCE BETWEEN AN IGNEOUS PRODUCT AND A RECYCLED PRODUCT SHALL BE CLEARLY INDICATED.
- 13. WHERE NOTED ON THE DRAWINGS THAT WORKS ARE TO BE CARRIED BY OTHERS. (eg. ADJUSTMENT OF SERVICES), THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CO-ORDINATION OF THESE WORKS.

SURVEY NOTES

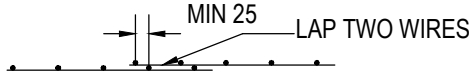
THE EXISTING SITE CONDITIONS SHOWN ON THE FOLLOWING DRAWINGS HAVE BEEN SHOWN AS PER THE TOPOGRAPHIC SURVEY RECEIVED ON 04/03/2020 FILE 40144DT, AS INVESTIGATED BY LTS LOCKLEY. THE INFORMATION IS SHOWN TO PROVIDE A BASIS FOR DESIGN. STANTEC DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THE SURVEY BASE OR ITS SUITABILITY AS A BASIS FOR CONSTRUCTION DRAWINGS. SHOULD DISCREPANCIES BE ENCOUNTERED DURING CONSTRUCTION BETWEEN THE SURVEY DATA AND ACTUAL FIELD DATA, CONTACT STANTEC.

CONCRETE NOTES

- 1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3800 CURRENT EDITION WITH AMENDMENTS, EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.
- 2. CONCRETE QUALITY ALL REQUIREMENTS OF THE CURRENT ACSE CONCRETE SPECIFICATION DOCUMENT 1 SHALL APPLY TO THE FORMWORK, REINFORCEMENT AND CONCRETE UNLESS NOTED OTHERWISE.

ELEMENT	AS 3800 F _c MPa AT 28 DAYS	SPECIFIED SLUMP	NOMINAL AGG. SIZE
VEHICULAR BASE	32	60	20
KERBS, PATHS, AND PITS	25	80	20

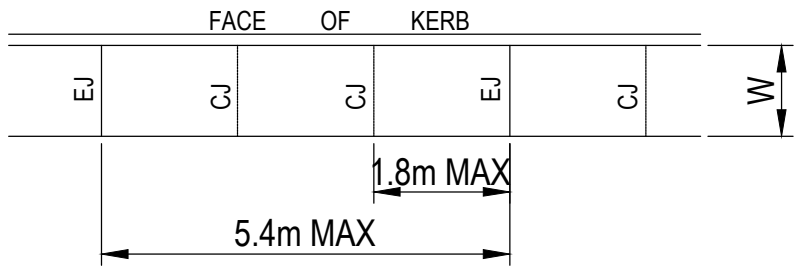
- CEMENT TYPE SHALL BE (ACSE SPECIFICATION) TYPE SL
- PROJECT CONTROL TESTING SHALL BE CARRIED OUT IN ACCORDANCE WITH AS 1379.
- 3. NO ADMIXTURES SHALL BE USED IN CONCRETE UNLESS APPROVED IN WRITING BY STANTEC.
- 4. CLEAR CONCRETE COVER TO ALL REINFORCEMENT FOR DURABILITY SHALL BE 40mm TOP AND 70mm FOR EXTERNAL EDGES UNLESS NOTED OTHERWISE.
- 5. ALL REINFORCEMENT SHALL BE FIRMLY SUPPORTED ON MILD STEEL PLASTIC TIPPED CHAIRS, PLASTIC CHAIRS OR CONCRETE CHAIRS AT NOT GREATER THAN 1m CENTRES BOTH WAYS. BARS SHALL BE TIED AT ALTERNATE INTERSECTIONS.
- 6. THE FINISHED CONCRETE SHALL BE A DENSE HOMOGENEOUS MASS, COMPLETELY FILLING THE FORMWORK, THOROUGHLY EMBEDDING THE REINFORCEMENT AND FREE OF STONE POCKETS. ALL CONCRETE INCLUDING SLABS ON GROUND AND FOOTINGS SHALL BE COMPACTED AND CURED IN ACCORDANCE WITH R.M.S. SPECIFICATION R83.
- 7. REINFORCEMENT SYMBOLS:
N DENOTES GRADE 450 N BARS TO AS/NZS 4671 GRADE N
R DENOTES 230 R HOT ROLLED PLAIN BARS TO AS/NZS 4671
SL DENOTES HARD-DRAWN WIRE REINFORCING FABRIC TO AS/NZS 4671
NUMBER OF BARS IN GROUP BAR GRADE AND TYPE
17 N 20 250
NOMINAL BAR SIZE IN mm SPACING IN mm
THE FIGURE FOLLOWING THE FABRIC SYMBOL SL IS THE REFERENCE NUMBER FOR FABRIC TO AS/NZS 4671.
- 8. FABRIC SHALL BE LAPPED IN ACCORDANCE WITH THE FOLLOWING DETAIL:



JOINTING NOTES

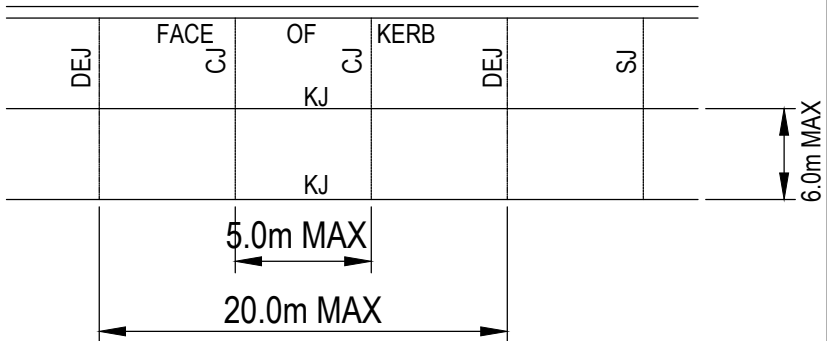
PEDESTRIAN PAVEMENT JOINTS

- 1. ALL PEDESTRIAN PAVEMENTS ARE TO BE JOINTED AS FOLLOWS. (U.N.O)
- 2. EXPANSION JOINTS ARE TO BE LOCATED WHERE POSSIBLE AT TANGENT POINTS OF CURVES AND ELSEWHERE AT MAX. 5.4m CENTRES.
- 3. CONTRACTION JOINTS ARE TO BE LOCATED AT A MAX. SPACING OF 1.8m
- 4. WHERE POSSIBLE JOINTS SHOULD BE LOCATED TO MATCH KERBING AND OR ADJACENT PAVEMENT JOINTS.
- 5. PEDESTRIAN PAVEMENT JOINT DETAIL:



VEHICULAR PAVEMENT JOINTS

- 6. ALL VEHICULAR PAVEMENTS TO BE JOINTED AS FOLLOWS. (U.N.O)
- 7. CONTRACTION JOINTS SHOULD GENERALLY BE LOCATED AT A MAX OF 5.0m CENTRES WITH DOWELED EXPANSION JOINTS AT MAX 20.0m CENTRES
- 8. VEHICULAR PAVEMENT JOINT DETAIL.



KERBING NOTES

- 1. ALL CONCRETE TO HAVE A MINIMUM COMPRESSIVE STRENGTH OF 25 MPa U.N.O IN REINFORCED CONCRETE NOTES.
- 2. ALL KERBS, GUTTERS, DISH DRAINS AND CROSSINGS TO BE CONSTRUCTED ON 100mm GRANULAR BASECOURSE COMPACTED TO MINIMUM 95% MODIFIED DRY DENSITY (AS 1289 5.2.1).
- 3. EXPANSION JOINTS (E/J) TO BE FORMED FROM 10mm COMPRESSIBLE CORK FILLER BOARD FOR THE FULL DEPTH OF THE SECTION AND CUT TO PROFILE. EXPANSION JOINTS TO BE LOCATED AT DRAINAGE PITS, ON TANGENT POINTS OF CURVES AND ELSEWHERE AT MAX 12m CENTRES EXCEPT FOR INTEGRAL KERBS WHERE THE EXPANSION JOINTS ARE TO MATCH THE JOINT LOCATIONS IN THE SLABS.
- 4. WEAKENED PLANE JOINTS TO BE MIN 3mm WIDE AND LOCATED AT 3m CENTRES EXCEPT FOR INTEGRAL KERBS WHERE THE WEAKENED PLANE JOINTS ARE TO MATCH THE JOINT LOCATIONS IN THE SLABS.
- 5. BROOMED FINISH TO ALL RAMPED AND VEHICULAR CROSSINGS. ALL OTHER KERBING OR DISH DRAINS TO BE STEEL FLOAT FINISHED.
- 6. IN THE REPLACEMENT OF KERB AND GUTTER :- EXISTING ROAD PAVEMENT IS TO BE SAWCUT 900mm U.N.O FROM THE LIP OF GUTTER. UPON COMPLETION OF THE NEW KERB AND GUTTER NEW BASECOURSE AND SURFACE TO BE LAID 600mm WIDE U.N.O.
- 7. EXISTING ALLOTMENT DRAINAGE PIPES ARE TO BE BUILT INTO THE NEW KERB AND GUTTER WITH 100mm DIA HOLE.
- 8. EXISTING KERB AND GUTTER IS TO BE COMPLETELY REMOVED WHERE NEW KERB AND GUTTER IS SHOWN.

PROPOSED SERVICES NOTES

- 1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH RELEVANT SERVICE AUTHORITY DOCUMENTATION AND CURRENT NSW STREETS OPENING CONFERENCE GUIDE TO CODES AND PRACTICES FOR STREETS OPENING LITERATURE
- 2. THE CONTRACTOR SHALL ATTEND, MANAGE & SUPERVISE THE PROVISION OF PUBLIC UTILITY SERVICES TO THE WORKS GENERALLY AS INDICATED ON THE SERVICES PLANS, NOTING THAT PRIOR & DURING CONSTRUCTION THE PUBLIC UTILITY AUTHORITIES WILL FINALISE THEIR DOCUMENTATION TO CONSTRUCTION ISSUE STANDARD.
- 3. THE CIVIL CONTRACTOR (TRENCH PROVIDER) IS TO ARRANGE ON SITE MEETING WITH ALL SERVICE AUTHORITIES PRIOR TO THE INSTALLATION OF CONDUITS.
- 4. THE CIVIL CONTRACTOR TO CO-ORDINATE INSTALLATION OF ELECTRICITY, GAS, TELECOMMUNICATION, WATER AND SEWER SERVICES.
- 5. ELECTRICITY, GAS AND TELECOMMUNICATION SERVICES ARE TO BE LAID FOLLOWING THE INSTALLATION OF STORMWATER, SEWER AND WATER SERVICES AND KERB AND GUTTER.
- 6. ALL UTILITY AUTHORITY REPRESENTATIVES TO INSPECT ROAD CROSSINGS PRIOR TO SEALING.
- 7. ALL ELECTRICAL ROAD CROSSINGS TO BE CLASS 6 (ORANGE) uPVC CONDUITS.
- 8. ALL GAS ROAD CROSSINGS TO BE uPVC GREY SEWER GRADE CONDUITS.
- 9. ALL STREET POLES TO BE POSITIONED THE APPROPRIATE DISTANCE FROM FACE OF KERB TO FACE OF POLE ACCORDING TO THE CURRENT NSW STREETS OPENING CONFERENCE GUIDE TO CODES AND PRACTICES FOR STREETS OPENING LITERATURE. CONTRACTOR TO ALLOW TO EXCAVATE AND BACKFILL TRENCH GENERALLY IN ACCORDANCE WITH NOTE 2.
- 10. ALL SERVICE PIT COVERS AND MARKERS ARE TO BE LAID WHOLLY WITHIN THE CONCRETE FOOTPATH. CONTACT SUPERINTENDANT SHOULD DIFFICULTIES ARISE.

TELSTRA - DUTY OF CARE NOTE

TELSTRA'S PLANS SHOW ONLY THE PRESENCE OF CABLES AND PLANT. THEY ONLY SHOW THEIR POSITION RELATIVE TO ROAD BOUNDARIES, PROPERTY FENCES ETC. AT THE TIME OF INSTALLATION AND TELSTRA DOES NOT WARRANT OR HOLD OUT THAT SUCH PLANS ARE ACCURATE THEREAFTER DUE TO CHANGES THAT MAY OCCUR OVER TIME. DO NOT ASSUME DEPTH OR ALIGNMENT OF CABLES OR PLANT AS THESE VARY SIGNIFICANTLY. THE CONTRACTOR HAS A DUTY OF CARE WHEN EXCAVATING NEAR TELSTRA CABLES AND PLANT. BEFORE USING MACHINE EXCAVATORS TELSTRA PLANT MUST FIRST BE PHYSICALLY EXPOSED BY SOFT DIG POTHOLING TO IDENTIFY ITS LOCATION TELSTRA WILL SEEK COMPENSATION FOR DAMAGES CAUSED TO ITS PROPERTY AND LOSSES CAUSED TO TELSTRA AND ITS CUSTOMERS.

EROSION AND SEDIMENT CONTROL NOTES

GENERAL INSTRUCTIONS

- 1. THE SITE SUPERINTENDENT/ENGINEER WILL ENSURE THAT ALL SOIL AND WATER MANAGEMENT WORKS ARE LOCATED AS DOCUMENTED.
- 2. ALL WORK SHALL BE GENERALLY CARRIED OUT IN ACCORDANCE WITH
 - 2.1. LOCAL AUTHORITY REQUIREMENTS
 - 2.2. EPA REQUIREMENTS
 - 2.3. NSW DEPARTMENT OF HOUSING MANUAL "MANAGING URBAN STORMWATER, SOILS AND CONSTRUCTION", 4th EDITION, MARCH 2004.
- 3. MAINTAIN THE EROSION CONTROL DEVICES TO THE SATISFACTION OF THE SUPERINTENDENT AND THE LOCAL AUTHORITY.
- 4. WHEN STORMWATER PITS ARE CONSTRUCTED, PREVENT SITE RUNOFF ENTERING UNLESS SEDIMENT FENCES ARE ERECTED AROUND PITS.
- 5. CONTRACTOR IS TO ENSURE ALL EROSION & SEDIMENT CONTROL DEVICES ARE MAINTAINED IN GOOD WORKING ORDER AND OPERATE EFFECTIVELY. REPAIRS AND OR MAINTENANCE SHALL BE UNDERTAKEN AS REQUIRED, PARTICULARLY FOLLOWING STORM EVENTS.

LAND DISTURBANCE

- 6. WHERE PRACTICAL, THE SOIL EROSION HAZARD ON THE SITE WILL BE KEPT AS LOW AS POSSIBLE. TO THIS END, WORKS SHOULD BE UNDERTAKEN IN THE FOLLOWING SEQUENCE:
 - 6.1. INSTALL A SEDIMENT FENCE ALONG THE BOUNDARIES AS SHOWN ON PLAN. REFER DETAIL.
 - 6.2. CONSTRUCT STABILISED CONSTRUCTION ENTRANCE TO LOCATION AS DETERMINED BY SUPERINTENDENT/ENGINEER. REFER DETAIL.
 - 6.3. INSTALL SEDIMENT BASIN AS SHOWN ON PLAN
 - 6.4. INSTALL SEDIMENT TRAPS AS SHOWN ON PLAN.
 - 6.7. UNDERTAKE SITE DEVELOPMENT WORKS IN ACCORDANCE WITH THE ENGINEERING PLANS. WHERE POSSIBLE, PHASE DEVELOPMENT SO THAT LAND DISTURBANCE IS CONFINED TO AREAS OF WORKABLE SIZE.

EROSION CONTROL

- 8. DURING WINDY WEATHER, LARGE, UNPROTECTED AREAS WILL BE KEPT MOIST (NOT WET) BY SPRINKLING WITH WATER TO KEEP DUST UNDER CONTROL.
- 9. FINAL SITE LANDSCAPING WILL BE UNDERTAKEN AS SOON AS POSSIBLE AND WITHIN 20 WORKING DAYS FROM COMPLETION OF CONSTRUCTION ACTIVITIES.

SEDIMENT CONTROL

- 10. STOCKPILES WILL NOT BE LOCATED WITHIN 2 METRES OF HAZARD AREAS, INCLUDING LIKELY AREAS OF CONCENTRATED OR HIGH VELOCITY FLOWS SUCH AS WATERWAYS. WHERE THEY ARE BETWEEN 2 AND 5 METRES FROM SUCH AREAS, SPECIAL SEDIMENT CONTROL MEASURES SHOULD BE TAKEN TO MINIMISE POSSIBLE POLLUTION TO DOWNSLOPE WATERS, E.G. THROUGH INSTALLATION OF SEDIMENT FENCING.
- 11. ANY SAND USED IN THE CONCRETE CURING PROCESS (SPREAD OVER THE SURFACE) WILL BE REMOVED AS SOON AS POSSIBLE AND WITHIN 10 WORKING DAYS FROM PLACEMENT.
- 12. WATER WILL BE PREVENTED FROM ENTERING THE PERMANENT DRAINAGE SYSTEM UNLESS IT IS RELATIVELY SEDIMENT FREE, I.E. THE CATCHMENT AREA HAS BEEN PERMANENTLY LANDSCAPED AND/OR ANY LIKELY SEDIMENT HAS BEEN FILTERED THROUGH AN APPROVED STRUCTURE.
- 13. TEMPORARY SOIL AND WATER MANAGEMENT STRUCTURES WILL BE REMOVED ONLY AFTER THE LANDS THEY ARE PROTECTING ARE REHABILITATED.

OTHER MATTERS

- 13. ACCEPTABLE RECEPTORS WILL BE PROVIDED FOR CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHINGS, LIGHT-WEIGHT WASTE MATERIALS AND LITTER.
- 14. ANY EXISTING TREES WHICH FORM PART OF THE FINAL LANDSCAPING PLAN WILL BE PROTECTED FROM CONSTRUCTION ACTIVITIES BY:
 - 14.1. PROTECTING THEM WITH BARRIER FENCING OR SIMILAR MATERIALS INSTALLED OUTSIDE THE DRIP LINE
 - 14.2. ENSURING THAT NOTHING IS NAILED TO THEM
 - 14.3. PROHIBITING PAVING, GRADING, SEDIMENT WASH OR PLACING OF STOCKPILES WITHIN THE DRIP LINE EXCEPT UNDER THE FOLLOWING CONDITIONS.
 - 14.4. ENCROACHMENT ONLY OCCURS ON ONE SIDE AND NO CLOSER TO THE TRUNK THAN EITHER 1.5 METRES OR HALF THE DISTANCE BETWEEN THE OUTER EDGE OF THE DRIP LINE AND THE TRUNK, WHICH EVER IS THE GREATER.
 - 14.5. A DRAINAGE SYSTEM THAT ALLOWS AIR AND WATER TO CIRCULATE THROUGH THE ROOT ZONE (E.G. A GRAVEL BED) IS PLACED UNDER ALL FILL LAYERS OF MORE THAN 300 MILLIMETRES DEPTH
 - 14.6. CARE IS TAKEN NOT TO CUT ROOTS UNNECESSARILY NOR TO COMPACT THE SOIL AROUND THEM.

STORMWATER DRAINAGE NOTES

- 1. ON COMPLETION OF STORMWATER INSTALLATION, ALL DISTURBED AREAS MUST BE RESTORED TO ORIGINAL CONDITION, INCLUDING KERBS, FOOTPATHS, CONCRETE AREAS, GRAVEL AND GRASSED AREAS AND ROAD PAVEMENTS, UNLESS DIRECTED OTHERWISE.
- 2. PIPES 300 DIA. AND LARGER TO BE REINFORCED CONCRETE CLASS '3' APPROVED SPIGOT AND SOCKET WITH RUBBER RING JOINTS. U.N.O.
- 3. PIPES UP TO 300 DIA SHALL BE SEWER GRADE uPVC WITH SOLVENT WELDED JOINTS.
- 4. EQUIVALENT STRENGTH VCP OR FRC PIPES MAY BE USED.
- 5. ALL STORMWATER DRAINAGE LINES UNDER PROPOSED BUILDING SLABS TO BE uPVC PRESSURE PIPE GRADE 6. ENSURE ALL VERTICALS AND DOWNPIPES ARE uPVC PRESSURE PIPE, GRADE 6 FOR A MIN OF 3.0m IN HEIGHT.
- 6. PIPES TO BE INSTALLED TO TYPE HS3 (ROAD) HS2 (LOTS) SUPPORT IN ACCORDANCE WITH AS 3725 (2007) IN ALL CASES BACKFILL TRENCH WITH SAND TO 300mm ABOVE PIPE. WHERE PIPE IS UNDER PAVEMENTS BACKFILL REMAINDER OF TRENCH TO UNDERSIDE OF PAVEMENT WITH SAND OR APPROVED GRANULAR MATERIAL COMPACTED IN 150mm LAYERS TO MINIMUM 98% STANDARD MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS 1289 5.2.1. (OR A DENSITY INDEX OF NOT LESS THAN 75)
- 7. ALL INTERNAL WORKS WITHIN PROPERTY BOUNDARIES ARE TO COMPLY WITH THE REQUIREMENTS OF AS 3500 3.1 (2006) AND AS/NZS 3500 3.2 (2010).
- 8. PRECAST PITS MAY BE USED EXTERNAL TO THE BUILDING SUBJECT TO APPROVAL BY STANTEC.
- 9. ENLARGERS, CONNECTIONS AND JUNCTIONS TO BE PREFABRICATED FITTINGS WHERE PIPES ARE LESS THAN 300 DIA.
- 10. WHERE SUBSOIL DRAINS PASS UNDER FLOOR SLABS AND VEHICULAR PAVEMENTS, UNSLOTTED uPVC SEWER GRADE PIPE IS TO BE USED.
- 11. CARE IS TO BE TAKEN WITH LEVELS OF STORMWATER LINES. GRADES SHOWN ARE NOT TO BE REDUCED WITHOUT APPROVAL.
- 12. GRATES AND COVERS SHALL CONFORM TO AS 3996.
- 13. ALL INTERNAL PIT DIMENSIONS TO CONFORM TO AS3500.3 TABLE 7.5.2.1
- 14. AT ALL TIMES DURING CONSTRUCTION OF STORMWATER PITS, ADEQUATE SAFETY PROCEDURES SHALL BE TAKEN TO ENSURE AGAINST THE POSSIBILITY OF PERSONNEL FALLING DOWN PITS.
- 15. ALL EXISTING STORMWATER DRAINAGE LINES AND PITS THAT ARE TO REMAIN ARE TO BE INSPECTED AND CLEANED. DURING THIS PROCESS ANY PART OF THE STORMWATER DRAINAGE SYSTEM THAT WARRANTS REPAIR SHALL BE REPORTED TO THE SUPERINTENDENT/ENGINEER FOR FURTHER DIRECTIONS.
- 16. 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.
- 17. ANY DAMAGE TO THE WORKS DUE TO STORMWATER FLOWS OR FLOODING DURING THE CONSTRUCTION PERIOD IS AT THE CONTRACTOR'S RISK.
- 18. SETOUT POINTS FOR STORMWATER STRUCTURES ARE AS INDICATED IN THE DRAWINGS UNLESS OTHERWISE NOTED.
- 19. ALL PAVED SURFACE LEVELS AND GRADES TO BE COORDINATED WITH GULLY PIT LEVELS TO ENSURE NO UNDRAINED AREAS OCCUR.
- 20. THE SIDES OF ALL PIPE TRENCH EXCAVATIONS DEEPER THAN 1.0m SHALL BE FULLY SUPPORTED AT ALL TIMES AND HAVE APPROPRIATE EDGE PROTECTION.
- 21. 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.
- 22. PIPE BEDDING, HAUNCH AND BACKFILL TO BE AS SHOWN ON THE CIVIL DETAILS DRAWINGS AND THE CIVIL SPECIFICATION.
- 23. 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.
- 24. STORMWATER STRUCTURES ARE TO BE CONSTRUCTED PERPENDICULAR TO THE INCOMING PIPEWORK UNLESS OTHERWISE NOTED.
- 25. 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.
- 26. PRE-CAST PITS MUST HAVE LIFTING ANCHORS.
- 27. WORKING LOADS ARE THOSE DUE TO FILL MATERIAL AND STANDARD HIGHWAY VEHICLES AS PER AS3725. CONSTRUCTION LOADS HAVE NOT BEEN ALLOWED FOR.
- 28. ALL EXPOSED EDGES ON STORMWATER PITS TO BE ROUNDED TO 5mm RAD. UNO.

EARTHWORKS

- 1. LEVELS
 - 1.1 THE PROPOSED EARTHWORKS DEPICTED ON STANTEC PLANS IS INDICATIVE ONLY AND SHOULD NOT BE USED FOR DETAILED LEVELS. THE ARCHITECT'S PLANS AND THE LANDSCAPE ARCHITECT'S PLANS TAKE PRECEDENCE IN THE EVENT OF ANY DISCREPANCY.
 - 1.2 PROPOSED LEVELS SHOW THE FINISHED SURFACE INCLUDING TOPSOIL, PAVEMENTS AND THE LIKE, UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS.
 - 1.3 BULK EARTHWORKS PLANS SHOW EARTHWORKS TO SUIT THE 'BOTTOM OF STRUCTURAL PAD' LEVEL. THIS IS BASED ON THE ARCHITECT'S FINISHED FLOOR LEVELS AND AN ASSUMED SLAB THICKNESS. REFERENCE SHOULD BE MADE TO THE ARCHITECTURAL PLANS AND STRUCTURAL PLANS FOR ACTUAL LEVELS.
- 2. GEOTECHNICAL VERIFICATION
 - 2.1 THE CONTRACTOR SHALL ENGAGE A QUALIFIED GEOTECHNICAL INSPECTION AND TESTING AUTHORITY TO PERFORM LEVEL 2 INSPECTION AND TESTING SERVICES AS DEFINED BY AS3798. PRIOR TO PRACTICAL COMPLETION THE LEVEL 2 CONSULTANT SHALL PROVIDE A REPORT THAT VALIDATES EARTHWORKS (INCLUDING ROADWORKS AND TRENCH EXCAVATION AND BACKFILL) HAVE BEEN PERFORMED IN ACCORDANCE AND COMPLY WITH COUNCIL STANDARDS.
- 3. CLEARING
 - 3.1 CLEARING MUST BE SUPERVISED BY A SUITABLY QUALIFIED ECOLOGIST ENGAGED BY THE CONTRACTOR, WHO SHOULD ADVISE ON BEST PRACTICE CLEARING PROTOCOLS FOR THE MANAGEMENT OF ANY HOLLOW BEARING TREES.
 - 3.2 THE CONTRACTOR SHALL CLEAR VEGETATION AND DEBRIS FROM WITHIN THE SITE BOUNDARY TO THE SATISFACTION OF THE LEVEL 2 CONSULTANT, EXCEPT FOR VEGETATION SHOWN AS RETAINED.
- 4. TOPSOIL
 - 4.1 TOPSOIL SHALL BE STRIPPED FROM THE SITE TO THE SATISFACTION OF THE LEVEL 2 CONSULTANT.
 - 4.2 TOPSOIL SHALL BE SCREENED AND STOCKPILED ON SITE FOR RESPREADING.
 - 4.3 TOPSOIL SHALL BE RESPREAD TO A DEPTH OF 150MM TO ALL VERGES, BERMS, BATTERS AND REGRADED AREAS.
 - 4.4 SHOULD THERE BE A SHORTAGE OF TOPSOIL ON SITE, THE CONTRACTOR SHALL ALLOW FOR A REDUCED TOPSOIL THICKNESS TO ENSURE THAT THERE IS NO FUTURE REQUIREMENT TO IMPORT TOPSOIL.
 - 4.5 THE CONTRACTOR SHALL DISPOSE EXCESS TOPSOIL OFF SITE.
- 5. GENERAL EARTHWORKS
 - 5.1 THE CONTRACTOR SHALL IMPORT FILL WHERE THERE IS A SHORTFALL OF MATERIAL ON SITE. EXCESS CUT SHALL BE DISPOSED OFF SITE.
- 6. TOLERANCES
 - 6.1 COMPLETED EARTHWORKS LEVELS SHALL BE WITHIN +50MM TO -0MM OF THE DESIGN LEVELS.

B	ISSUED FOR DA	MMM	RET	26/07/21
A	DRAFT DA	MMM	RET	16/07/21
REV	DESCRIPTION	DRAWN	APP'D	DATE

DRAWN:	MDR
DESIGNED:	MMM
VERIFIED:	RET
APPROVED FOR TENDER:	
APPROVED FOR CONSTRUCTION:	



ARCHITECT/CLIENT

ILLOURA PLACE,
28 ELIZABETH STREET,
LIVERPOOL

PROJECT

GENERAL NOTES

TITLE



MGA

mAHD



APPROVAL
NOT FOR CONSTRUCTION

1:1000

301350263

CI-007-01

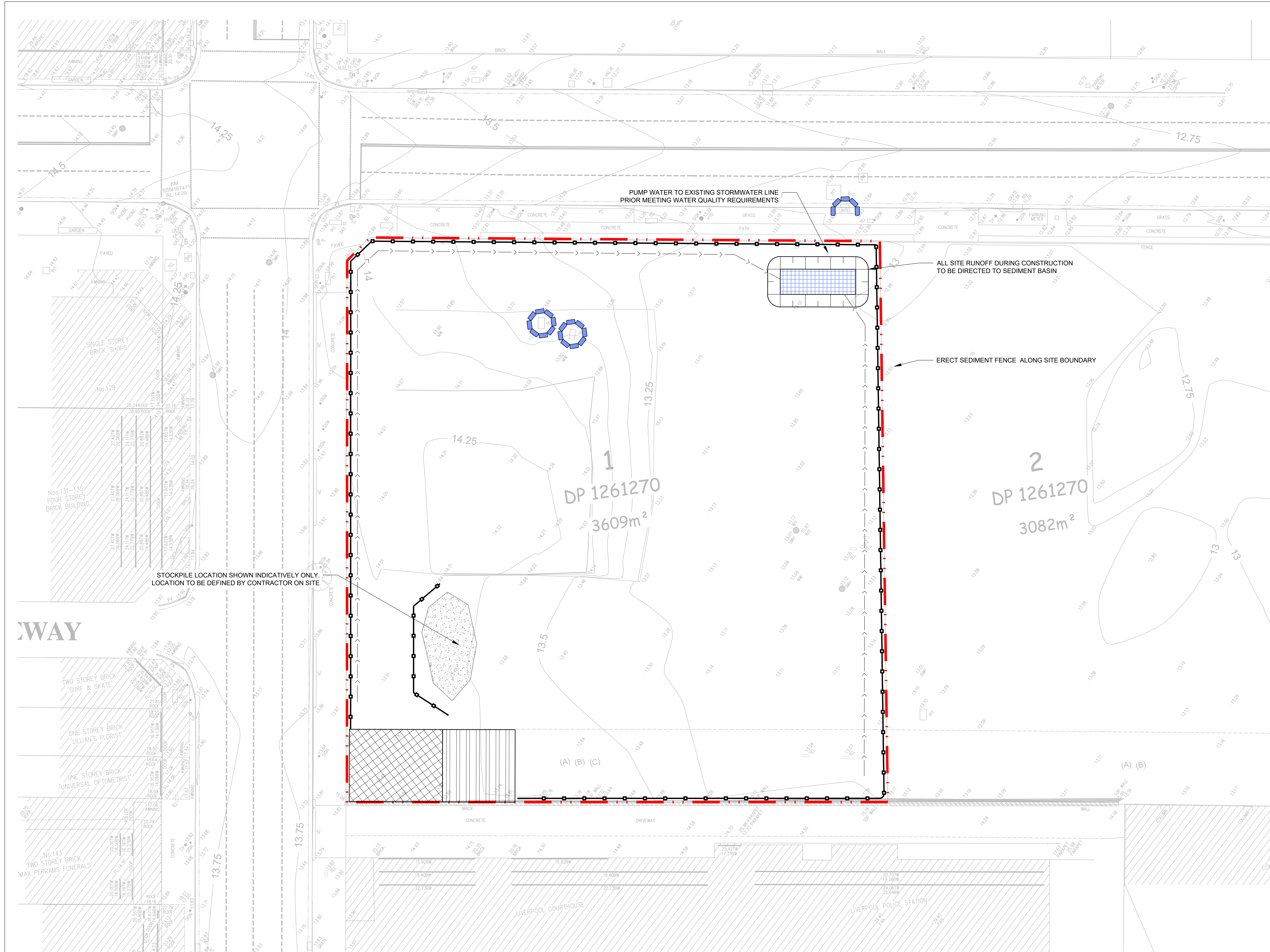
B

SCALE @ A1

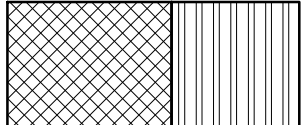
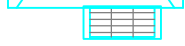
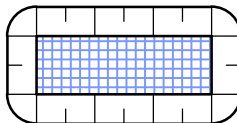
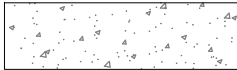
PROJECT No

DRAWING No

REV



LEGEND

	PROPOSED SITE BOUNDARY
	VEHICLE SHAKEDOWN DEVICE
	PROPOSED SILT FENCE
	SANDBAG PIT PROTECTION
	PROPOSED JUNCTION PIT
	EXISTING JUNCTION PIT
	PROPOSED GRATED PIT
	EXISTING GRATED PIT
	PROPOSED KERB INLET PIT
	EXISTING KERB INLET PIT
	SEDIMENT BASIN
	INDICATIVE STOCKPILE LOCATION

NOTE:
REFER DRAWING CI-076-01 FOR EROSION AND SEDIMENT CONTROL DETAILS



B	ISSUED FOR DA	MMM	RET	26/07/21
A	DRAFT DA	MMM	RET	15/07/21
REV	DESCRIPTION	DRAWN	APPD	DATE

DRAWN:	MDR
DESIGNED:	MMM
VERIFIED:	RET
APPROVED FOR TENDER:	
APPROVED FOR CONSTRUCTION:	

ALTIS
PROPERTY PARTNERS

ILLOURA PLACE,
28 ELIZABETH STREET,
LIVERPOOL

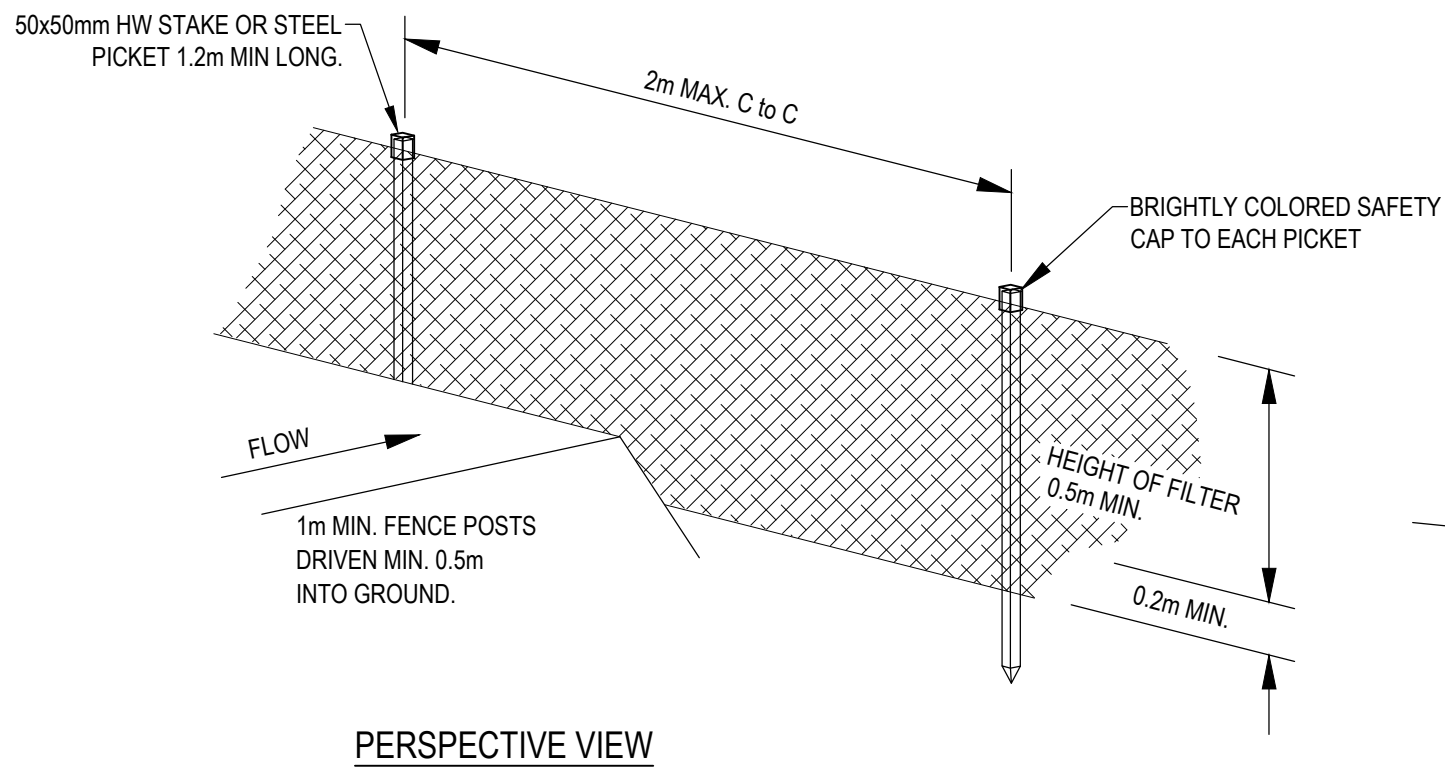
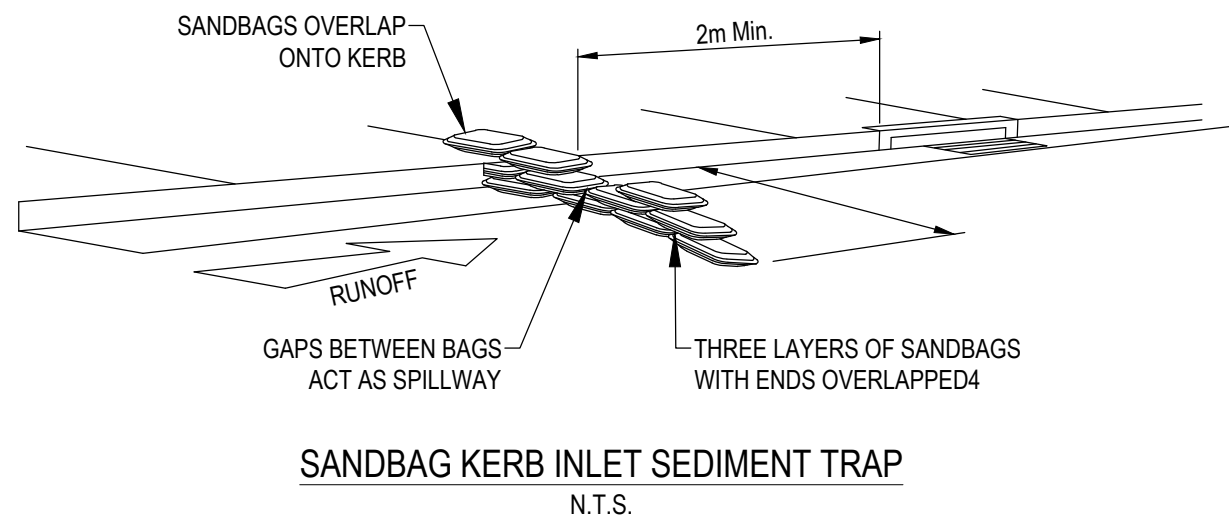
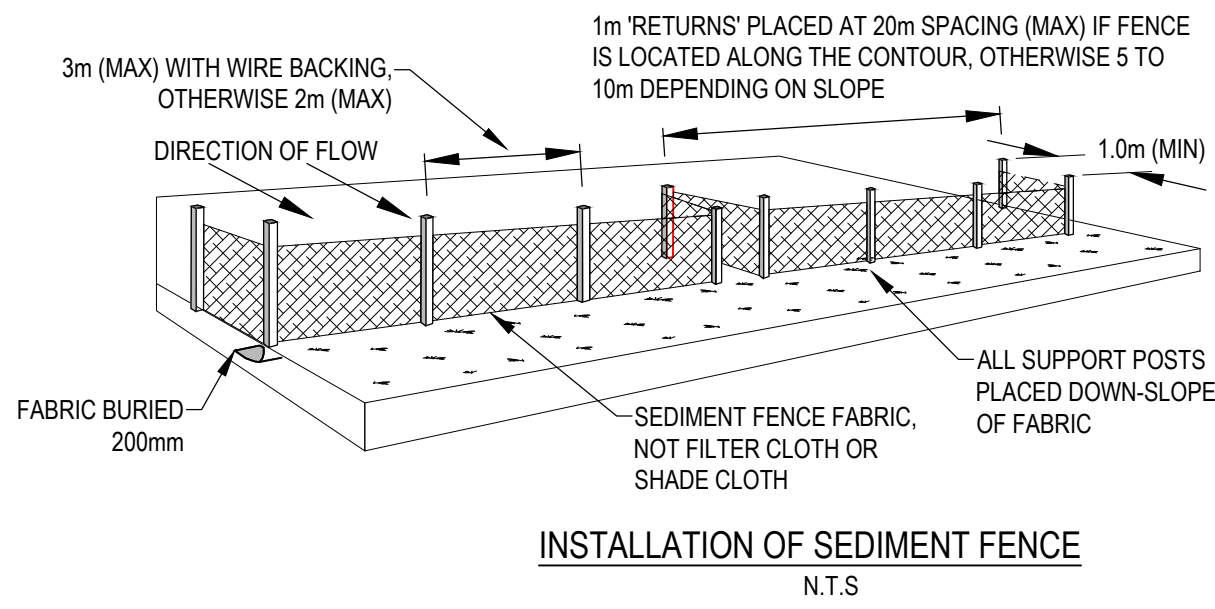
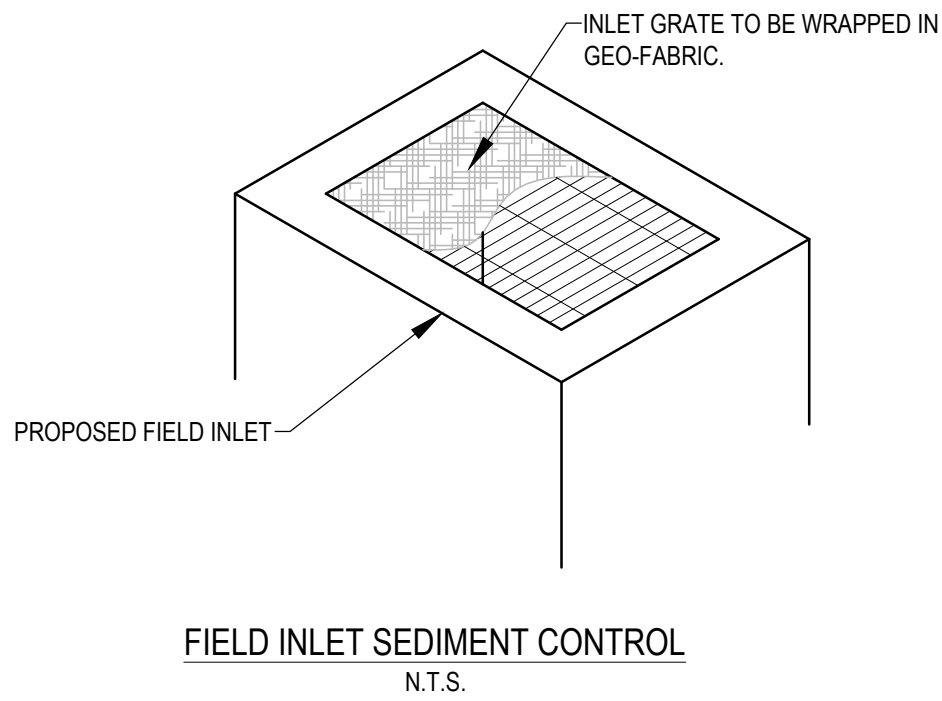
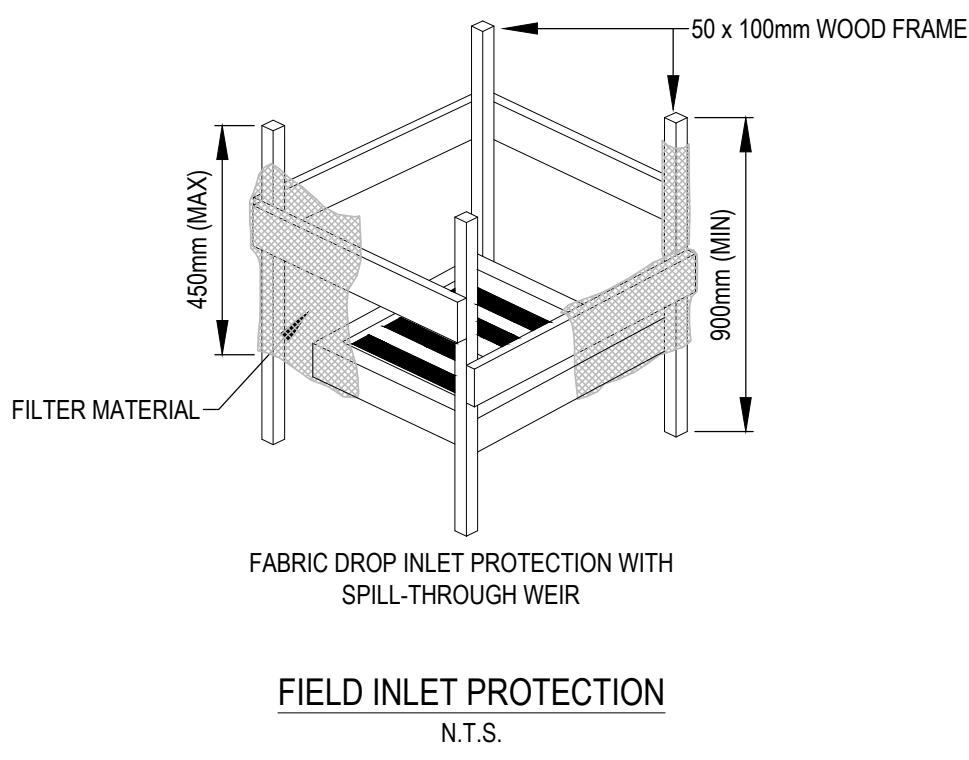
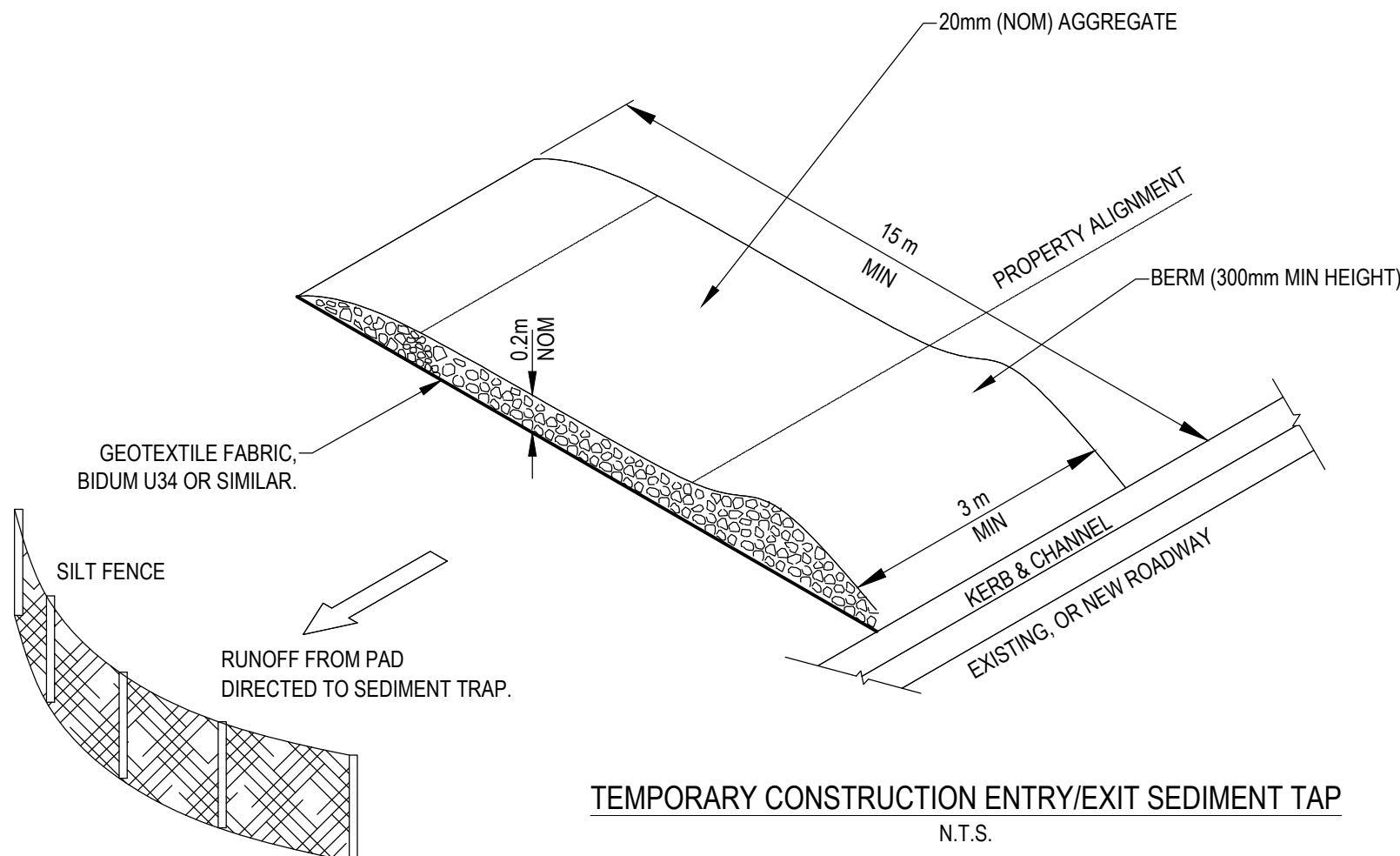
EROSION AND SEDIMENT CONTROL PLAN

PROJECT	TITLE
---------	-------

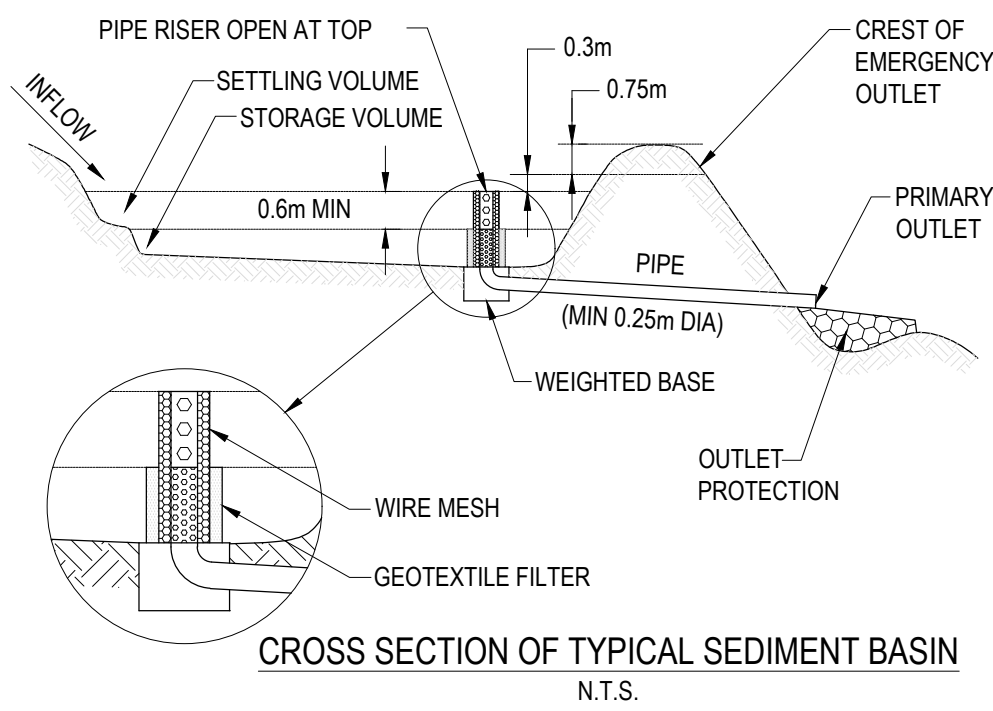
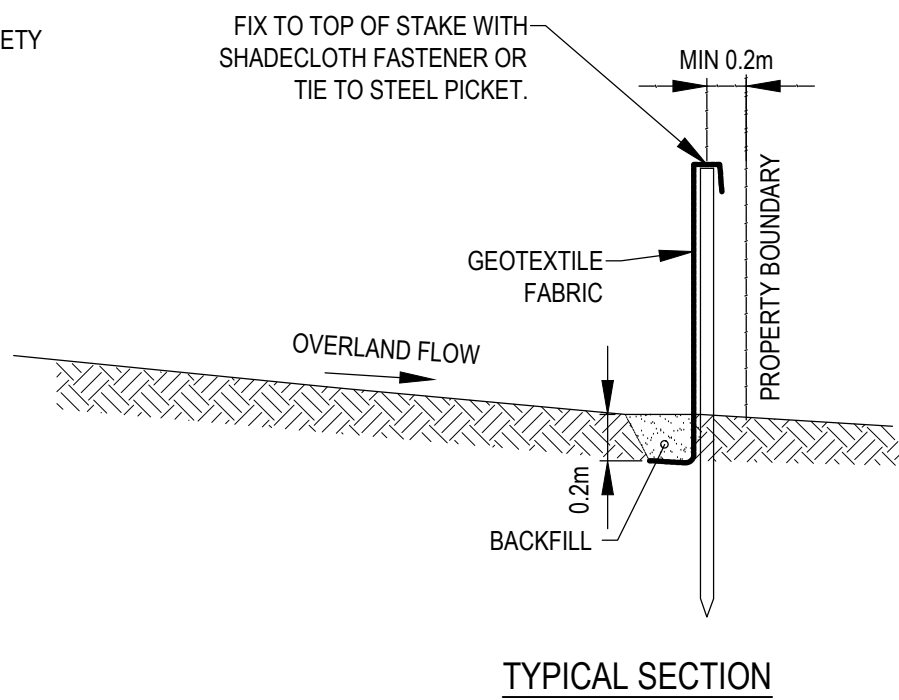


APPROVAL
NOT FOR CONSTRUCTION

1:200	301350263	CI-070-01	B
SCALE @ A1	PROJECT No	DRAWING No	REV



SEDIMENT FENCE DETAIL
N.T.S.



REV	DESCRIPTION	DRAWN	APPD	DATE
B	ISSUED FOR DA	MMM	RET	26/07/21
A	DRAFT DA	MMM	RET	16/07/21

DRAWN:	MDR
DESIGNED:	MMM
VERIFIED:	RET
APPROVED FOR TENDER:	
APPROVED FOR CONSTRUCTION:	

ALTIS
PROPERTY PARTNERS

ARCHITECT/CLIENT

ILLOURA PLACE,
28 ELIZABETH STREET,
LIVERPOOL

EROSION AND SEDIMENT
CONTROL DETAILS

PROJECT

TITLE

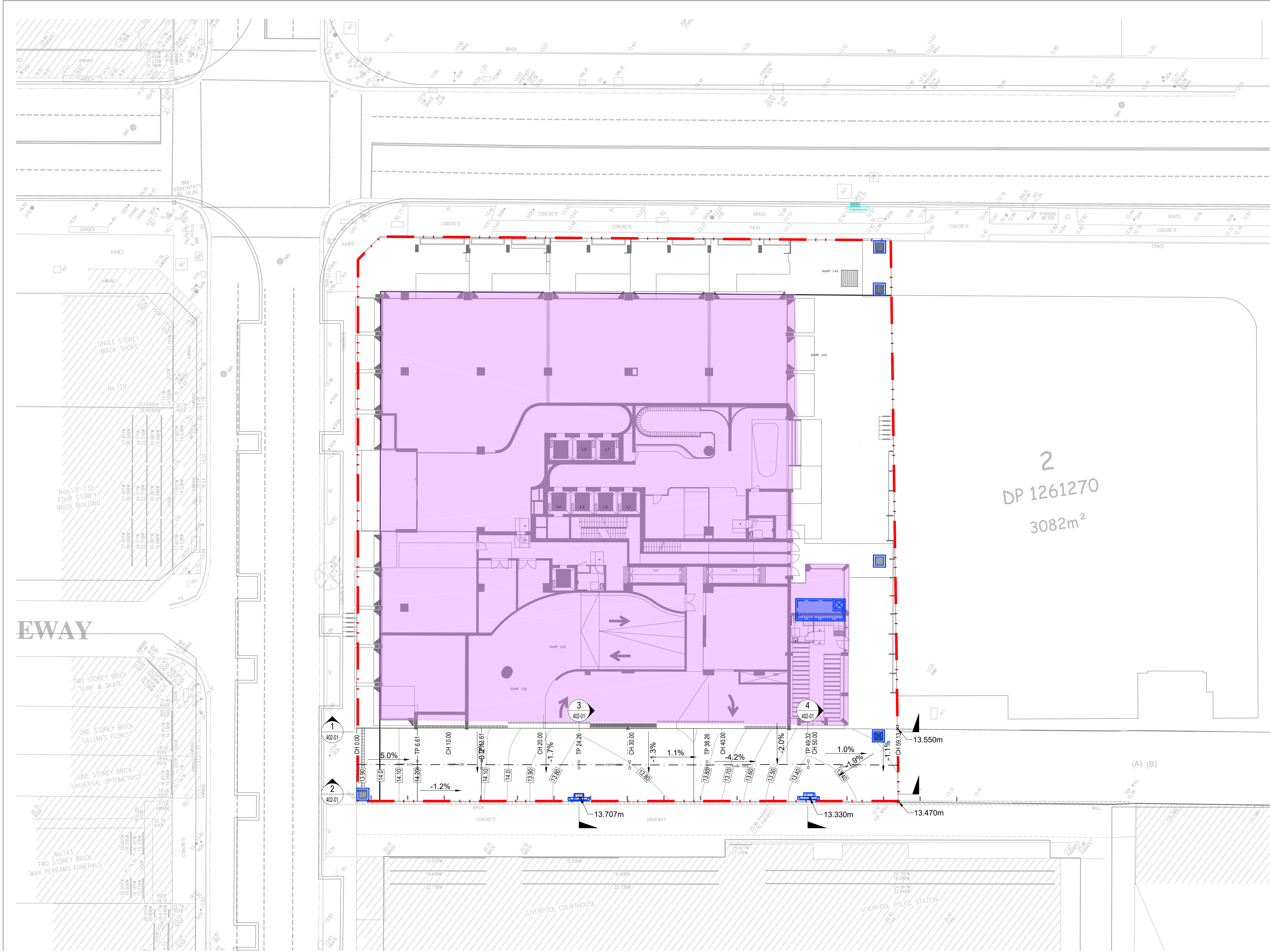
Stantec
MGA mAHD



APPROVAL
NOT FOR CONSTRUCTION

1:100	301350263	CI-076-01	B
SCALE @ A1	PROJECT No	DRAWING No	REV

DATE PLOTTED: 27/10/2021 3:16:17 PM BY: MORENO, MOQUEAS



LEGEND

PROPOSED SITE BOUNDARY

PROPOSED BUILDING

PROPOSED JUNCTION PIT

EXISTING JUNCTION PIT

PROPOSED GRATED PIT

EXISTING GRATED PIT

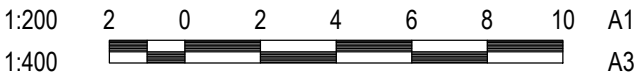
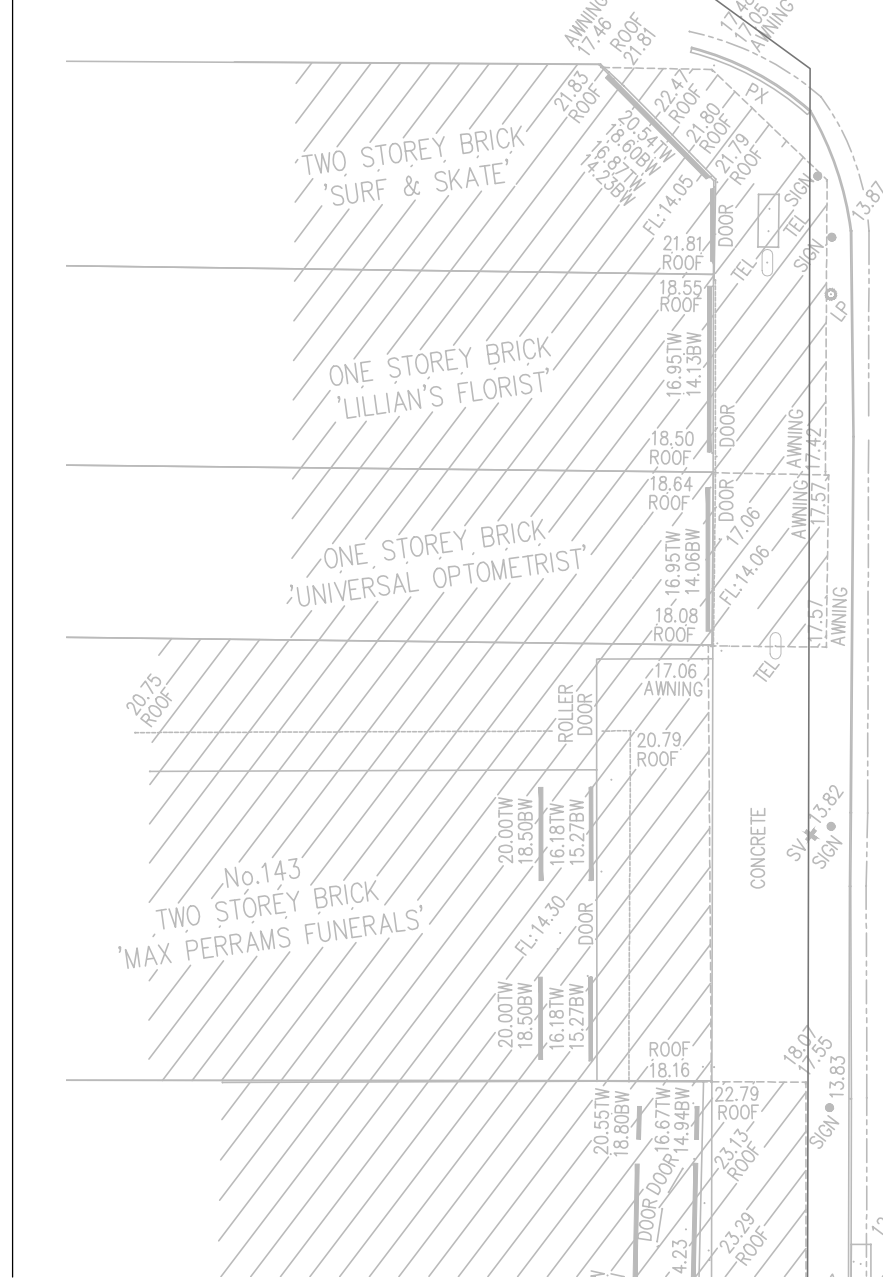
PROPOSED KERB INLET PIT

EXISTING KERB INLET PIT

ON SITE DETENTION TANK FOR
DETAIL REFER TO CI-526-02

PROPOSED GRATED DRAIN

VEWAY



C	ISSUED FOR COORDINATION	HAL	RET	27/10/21	
B	ISSUED FOR COORDINATION	MMM	RET	13/10/21	
A	ISSUE FOR DA	COP	RET	10/08/21	
REV	DESCRIPTION	DRAWN	APP'D	DATE	

DRAWN:	MDR
DESIGNED:	MMM
VERIFIED:	RET
APPROVED FOR TENDER:	
APPROVED FOR CONSTRUCTION:	

ALTIS
PROPERTY PARTNERS

ARCHITECT/CLIENT

ILLOURA PLACE,
28 ELIZABETH STREET,
LIVERPOOL

PROJECT

ROAD CONCEPT
PLAN

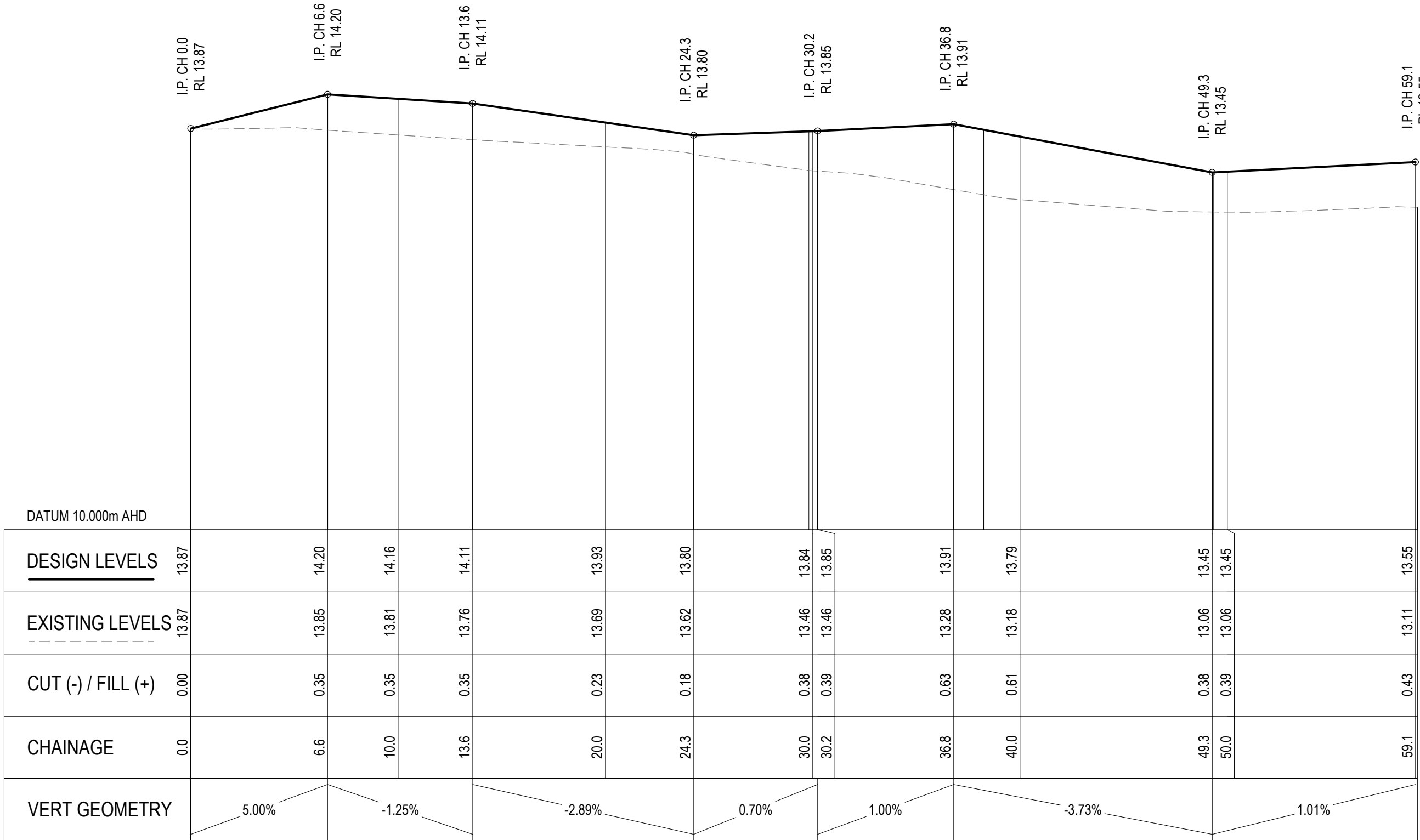
TITLE

Stantec
MGA mAHD

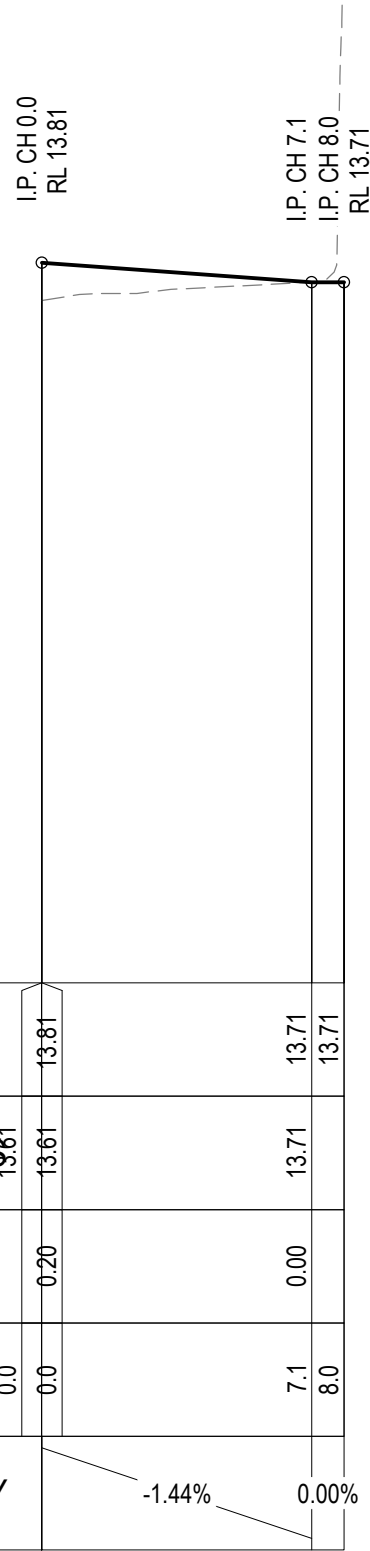


APPROVAL
NOT FOR CONSTRUCTION

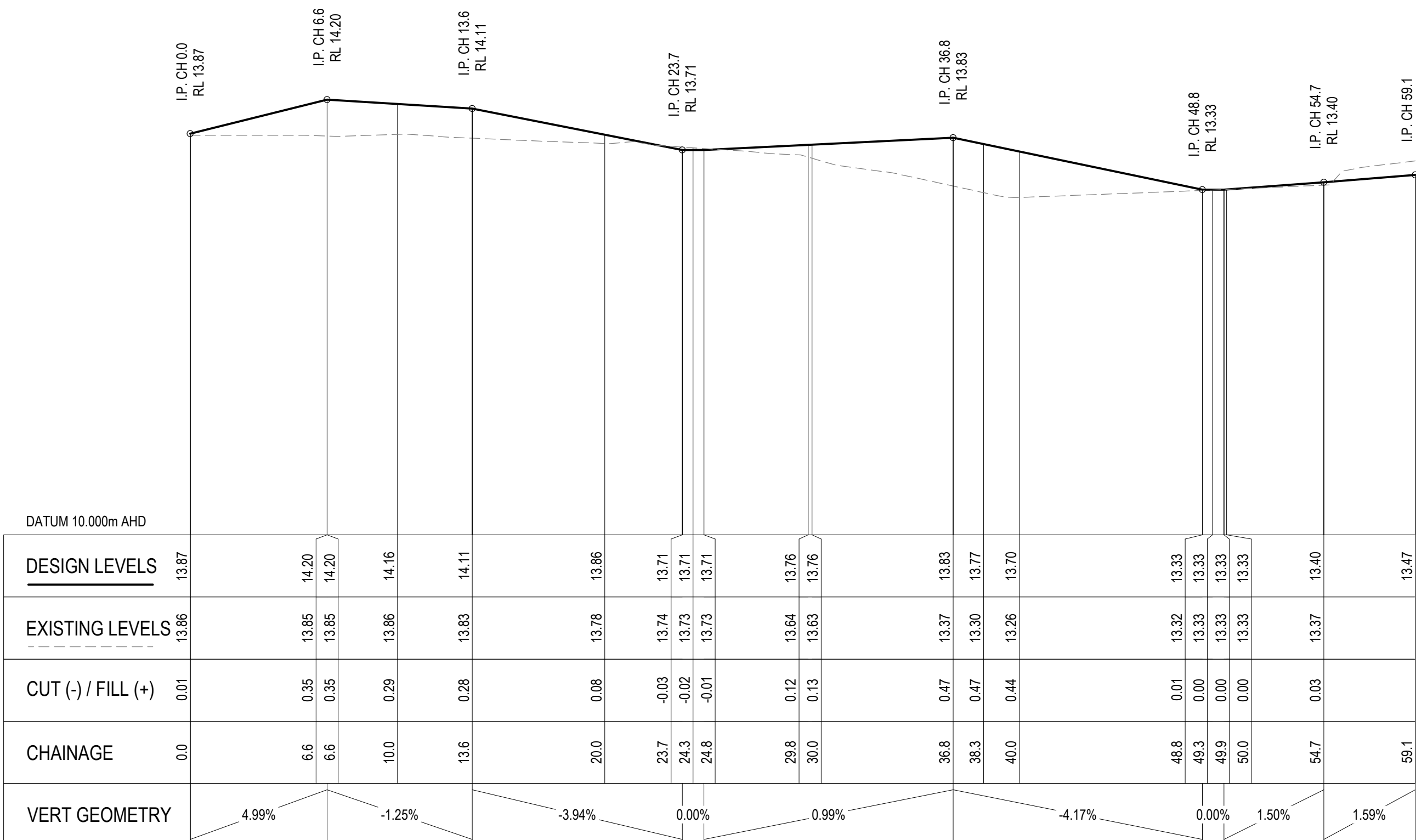
1:200	301350263	CI-400-01	C
SCALE @ A1	PROJECT No	DRAWING No	REV



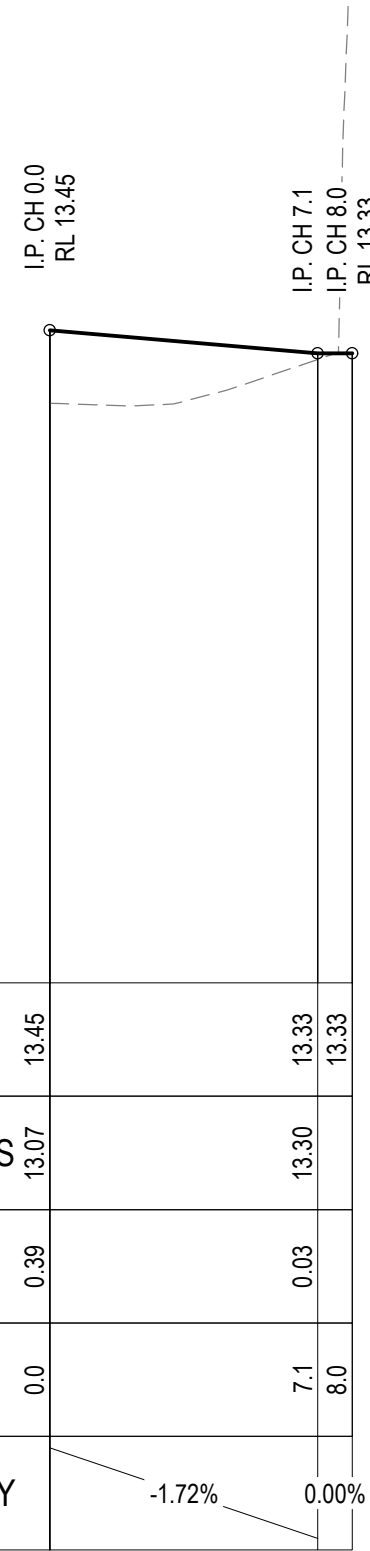
HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:40



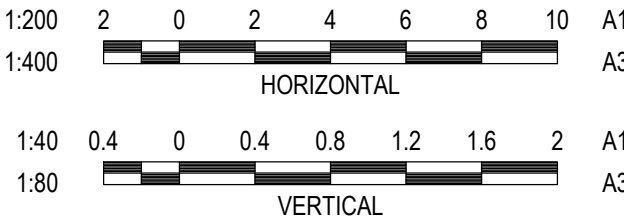
HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:40



HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:40



HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:40



C	ISSUED FOR COORDINATION	HAL	RET	27/10/21
B	ISSUED FOR COORDINATION	MMM	RET	13/10/21
A	ISSUE FOR DA	COP	RET	11/08/21
REV	DESCRIPTION	DRAWN	APP'D	DATE

DRAWN:	MDR
DESIGNED:	MMM
VERIFIED:	RET
APPROVED FOR TENDER:	
APPROVED FOR CONSTRUCTION:	

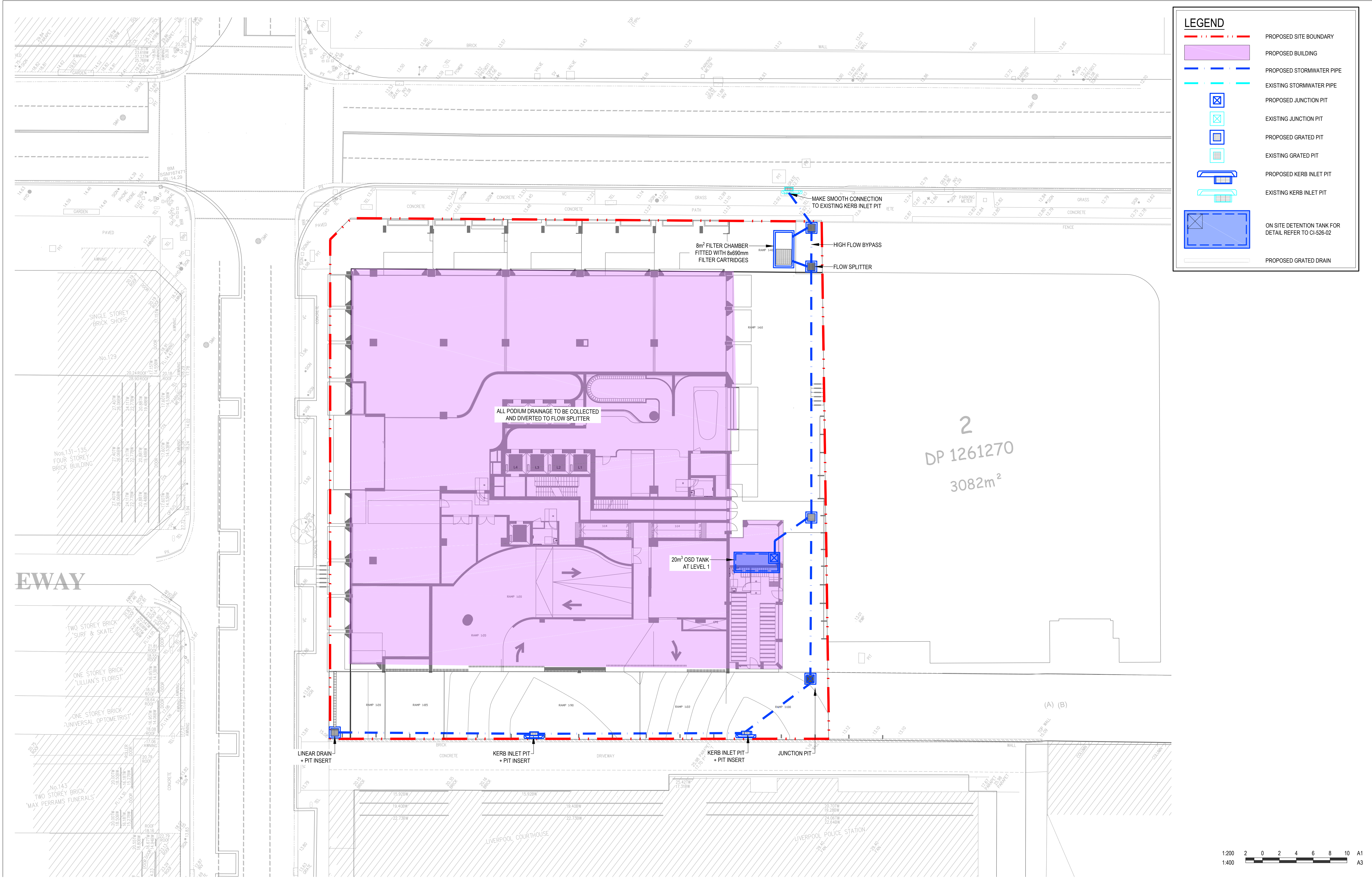
ARCHITECT/CLIENT



ILLOURA PLACE, 28 ELIZABETH STREET, LIVERPOOL	REAR LANE - SECTIONS
PROJECT	TITLE

APPROVAL NOT FOR CONSTRUCTION				
	MGA	mAHD	1:200	301350263
SCALE @ A1	PROJECT No	DRAWING No	CI-402-01	C
				REV

DATE PLOTTED: 27/10/2023 13:18:02 PM BY: MORENO, MOQUEAS



C	ISSUED FOR COORDINATION	HAL	RET	27/10/21	
B	ISSUED FOR DA	MMM	RET	26/07/21	
A	DRAFT DA	MMM	RET	16/07/21	
REV	DESCRIPTION	DRAWN	APP'D	DATE	

DRAWN:	MDR
DESIGNED:	MMM
VERIFIED:	RET
APPROVED FOR TENDER:	
APPROVED FOR CONSTRUCTION:	

ARCHITECT/CLIENT

ILLOURA PLACE,
28 ELIZABETH STREET,
LIVERPOOL

STORMWATER MANAGEMENT
PLAN

PROJECTTITLE

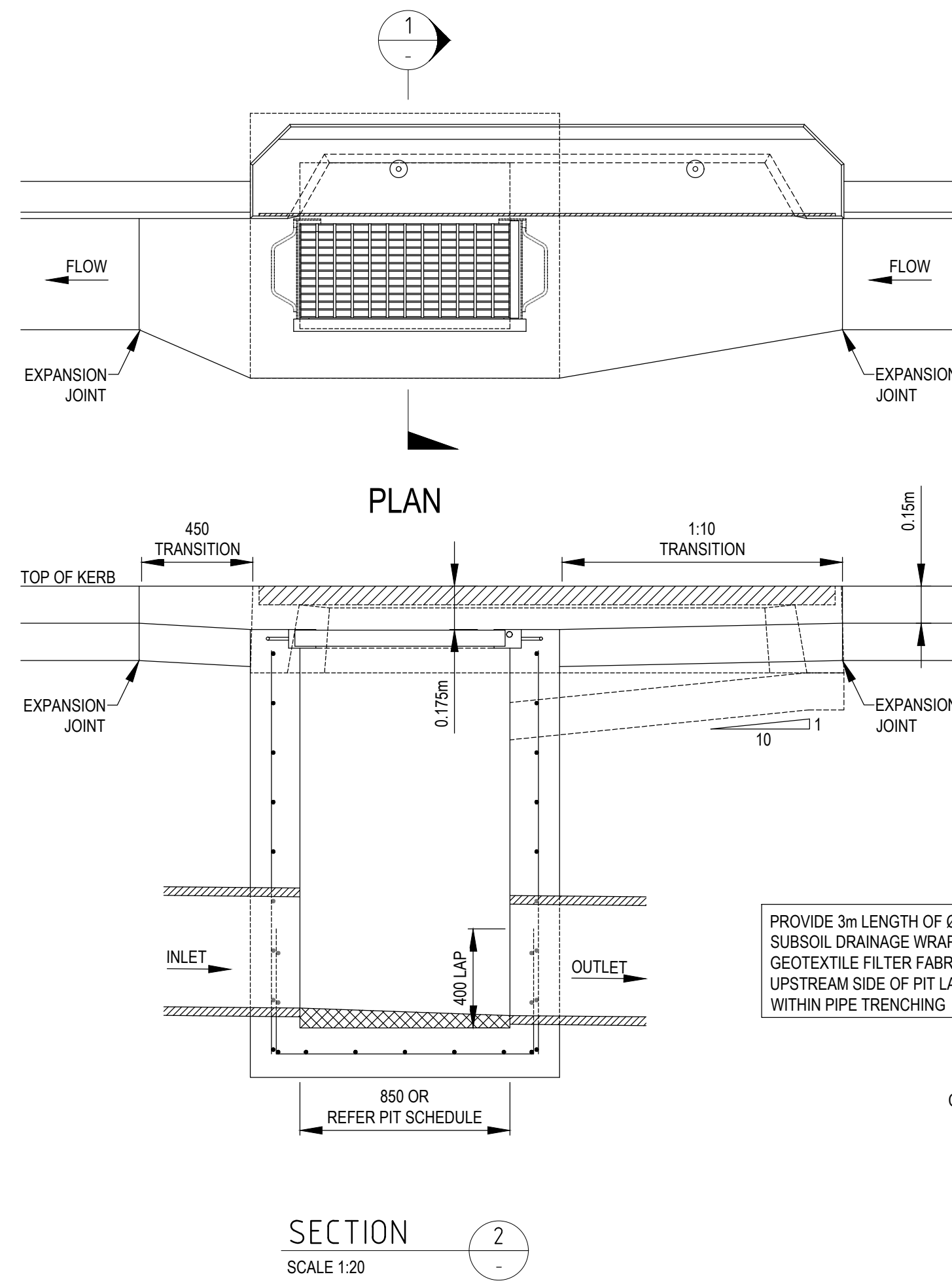
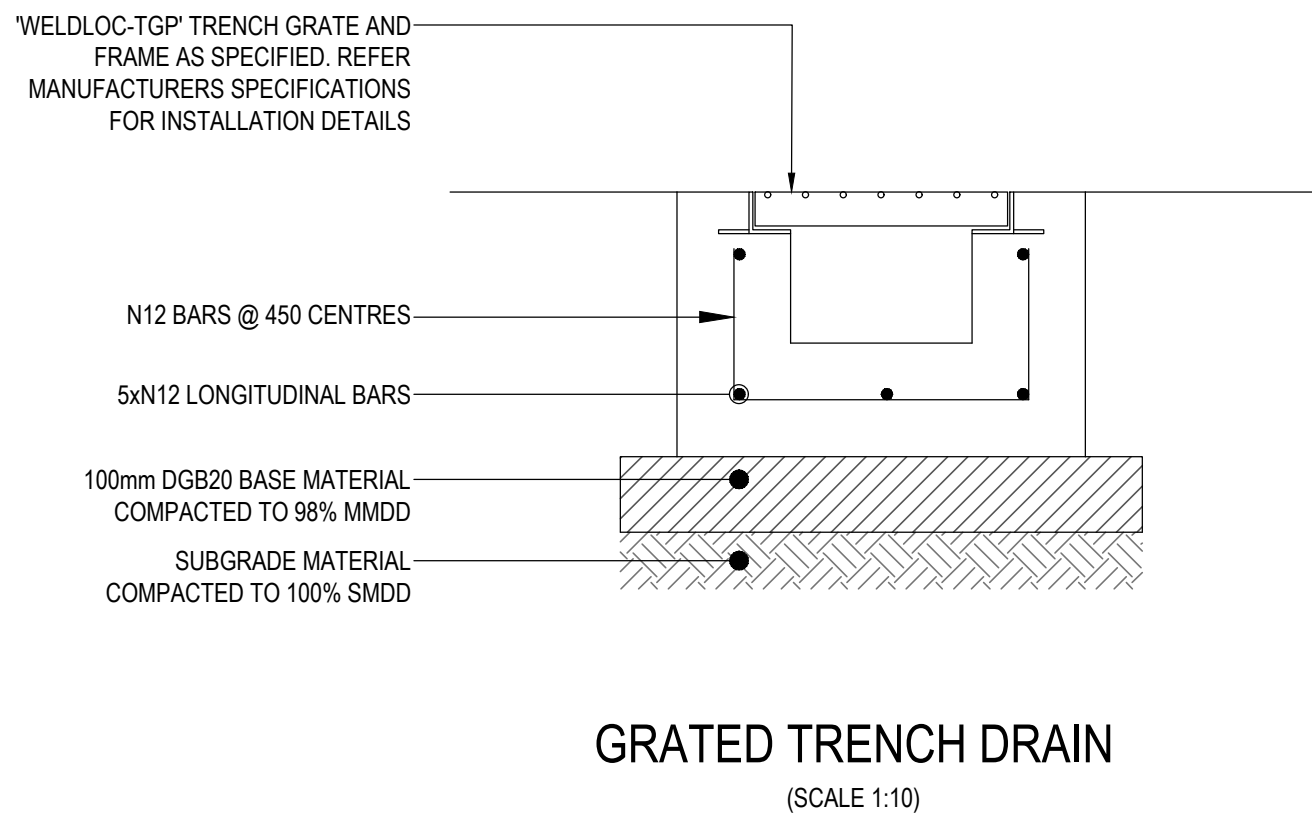
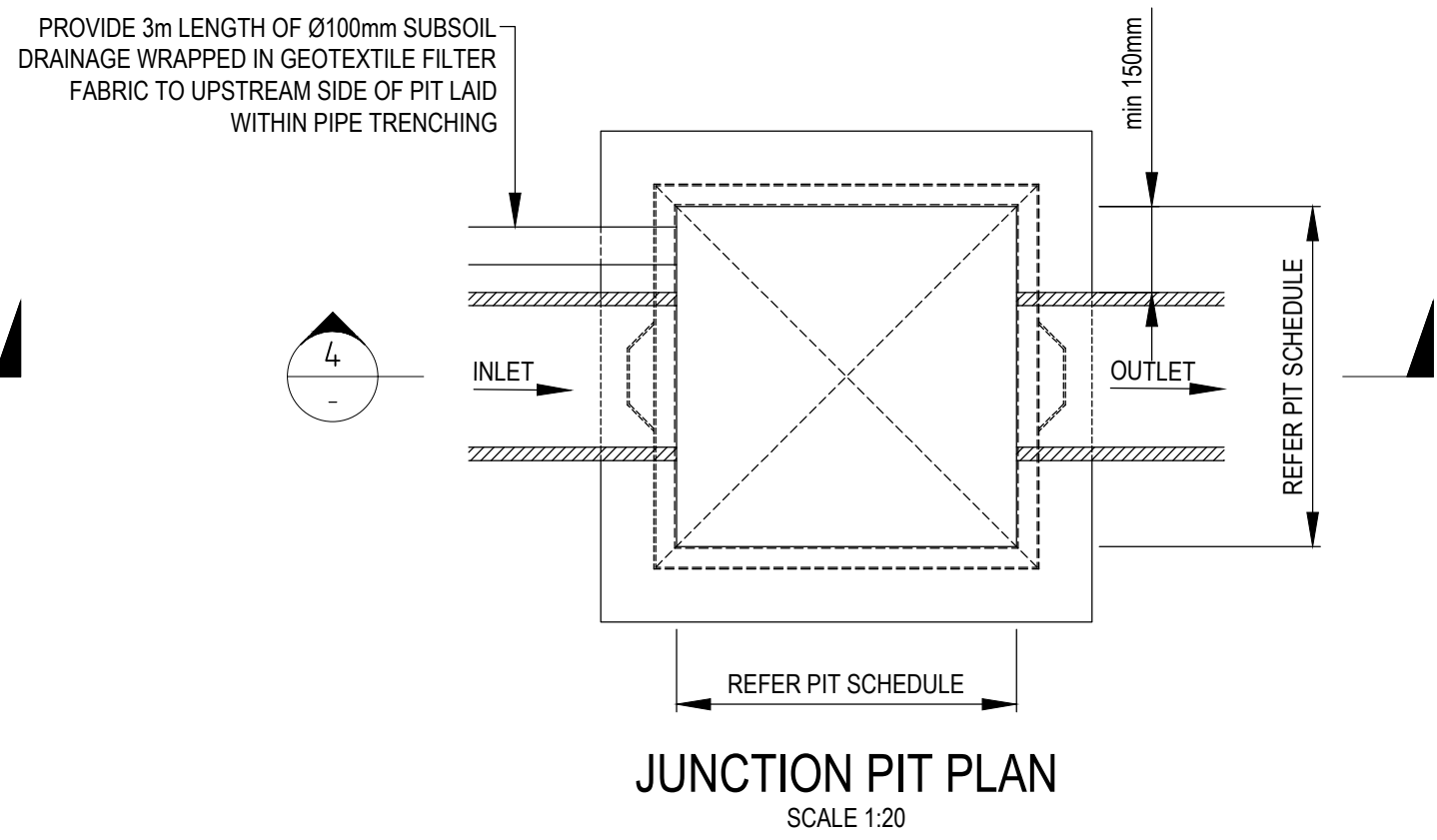
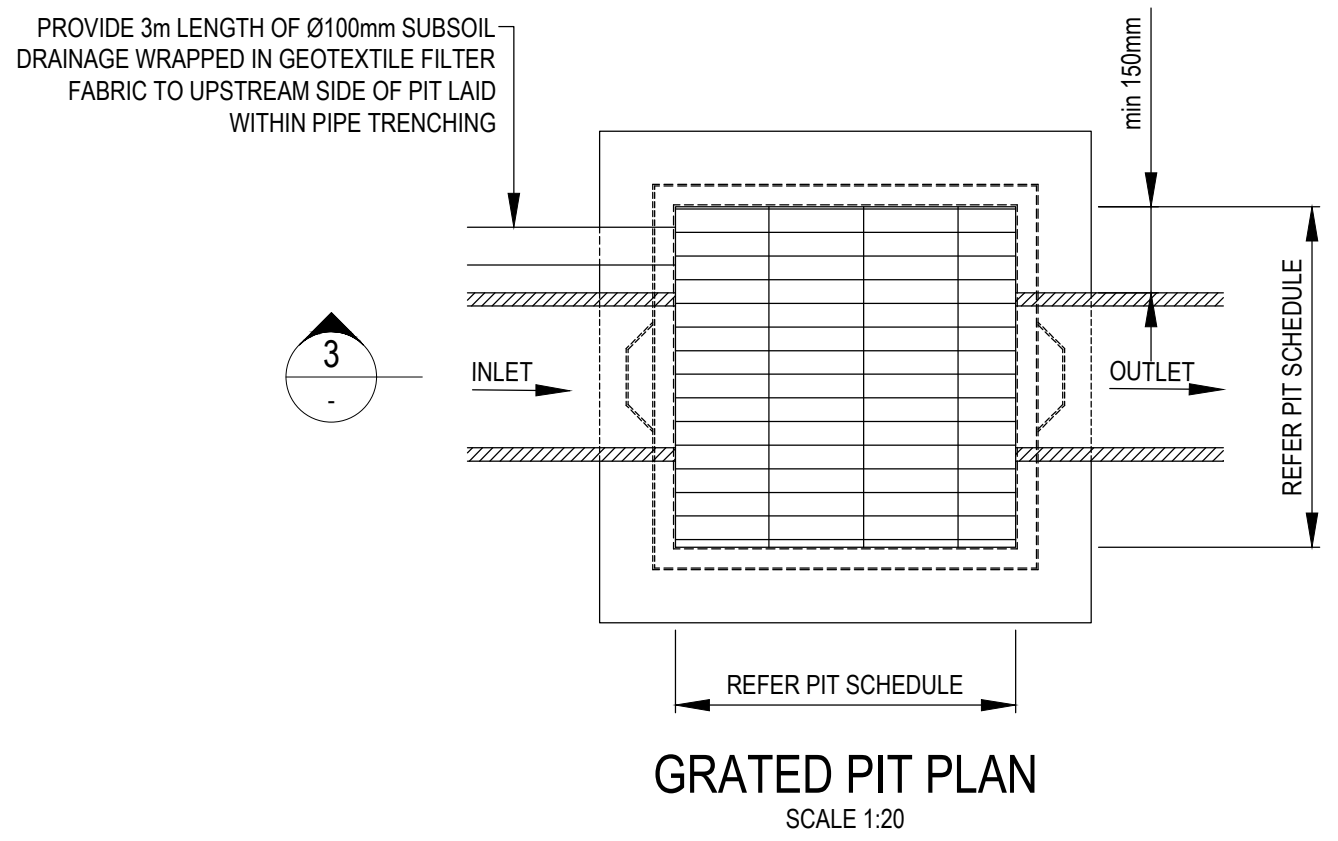
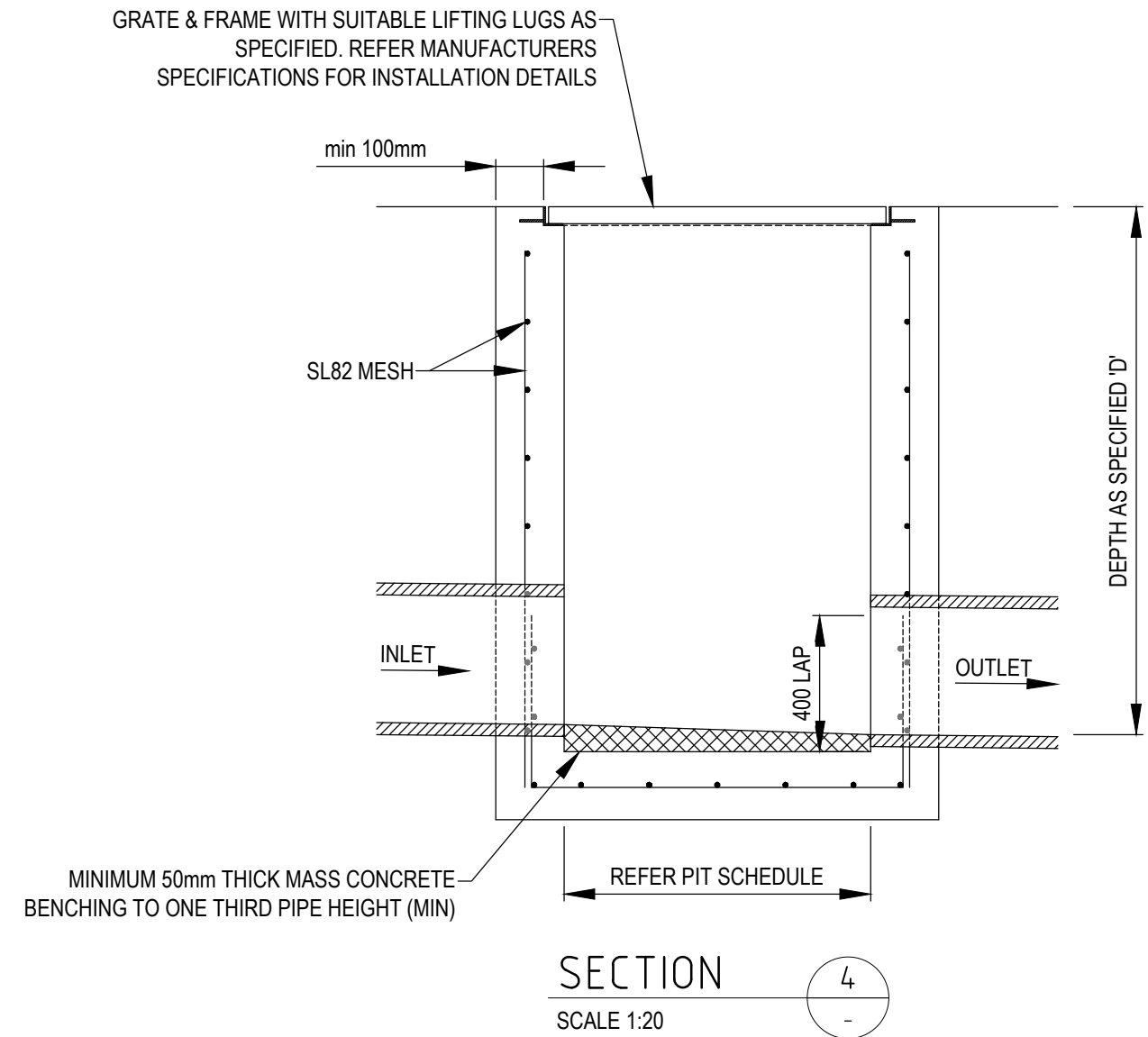
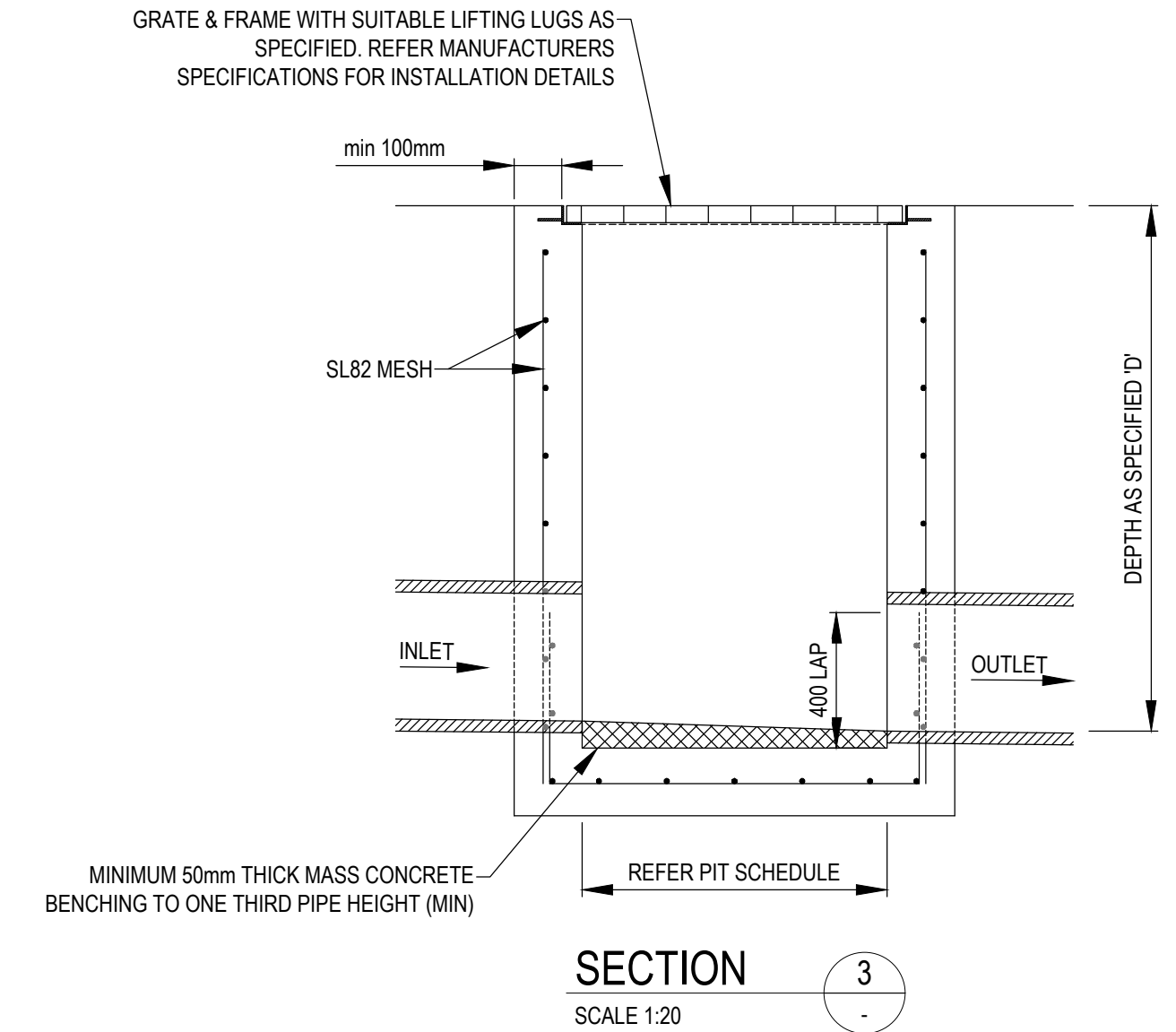
MGA mAHD

APPROVAL
NOT FOR CONSTRUCTION

1:200301350263CI-520-01C

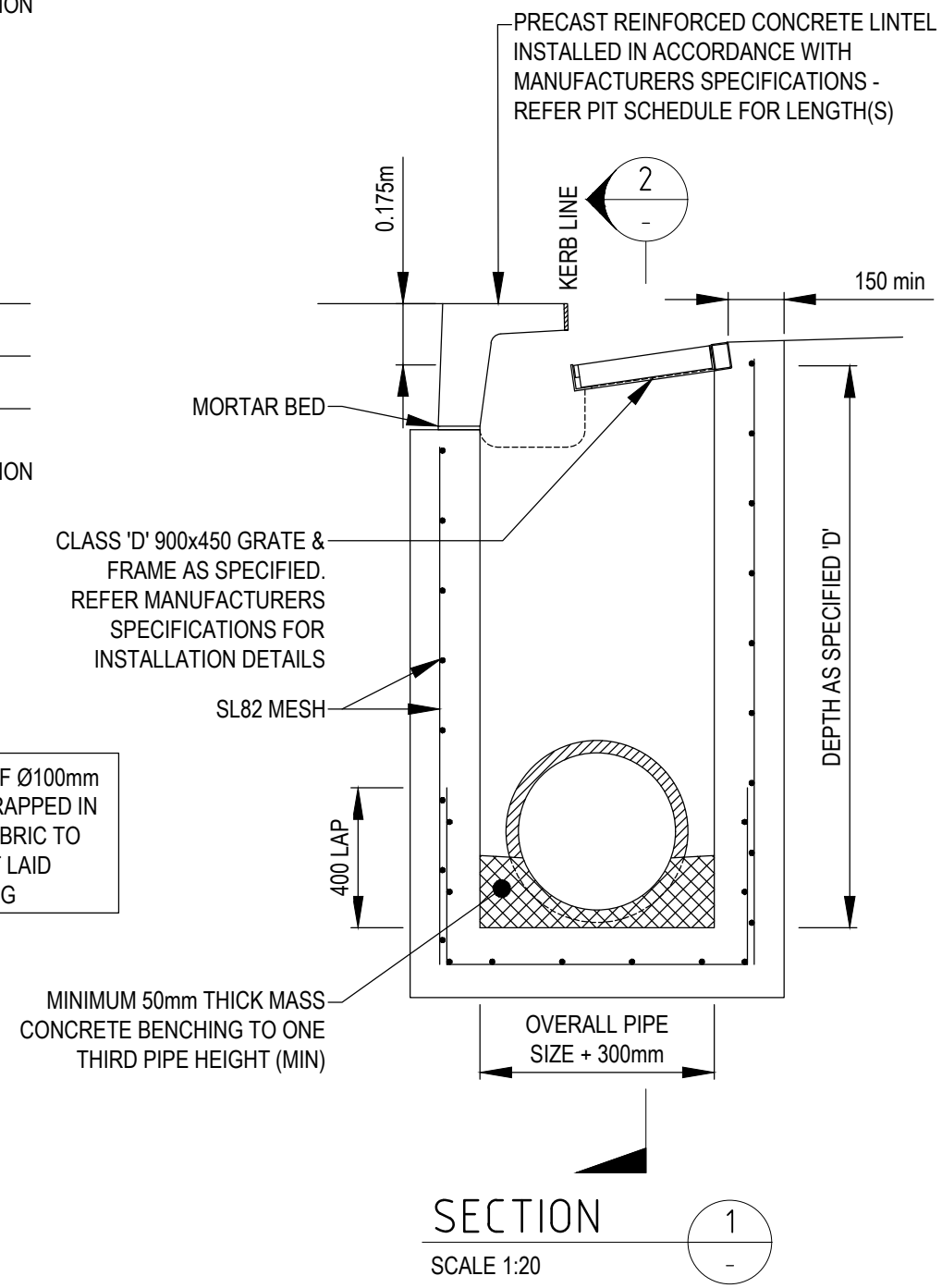
SCALE @ A1PROJECT NoDRAWING NoREV

DATE PLOTTED: 27/02/2021 3:19:26 PM BY: MORENO, MIGUELAS



KERB INLET PIT

SCALE 1:20



CAD FILE: 301350263-CI-526-01.DWG

REV	DESCRIPTION	DRAWN	APP'D	DATE
B	ISSUED FOR DA	MMM	RET	26/07/21
A	DRAFT DA	MMM	RET	16/07/21

DRAWN:	MDR
DESIGNED:	MMM
VERIFIED:	RET
APPROVED FOR TENDER:	
APPROVED FOR CONSTRUCTION:	

ALTIS
PROPERTY PARTNERS

ARCHITECT/CLIENT

ILLOURA PLACE,
28 ELIZABETH STREET,
LIVERPOOL

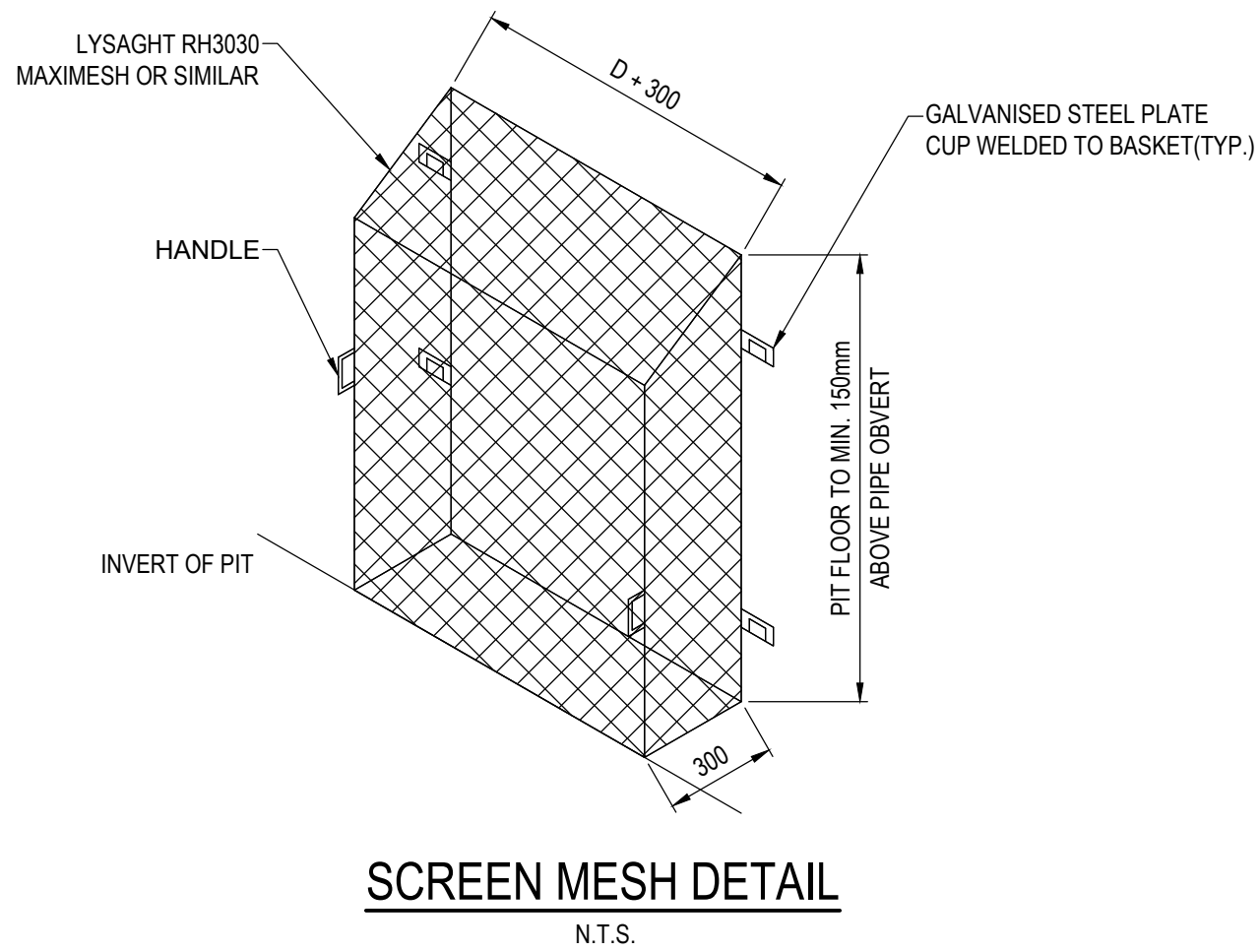
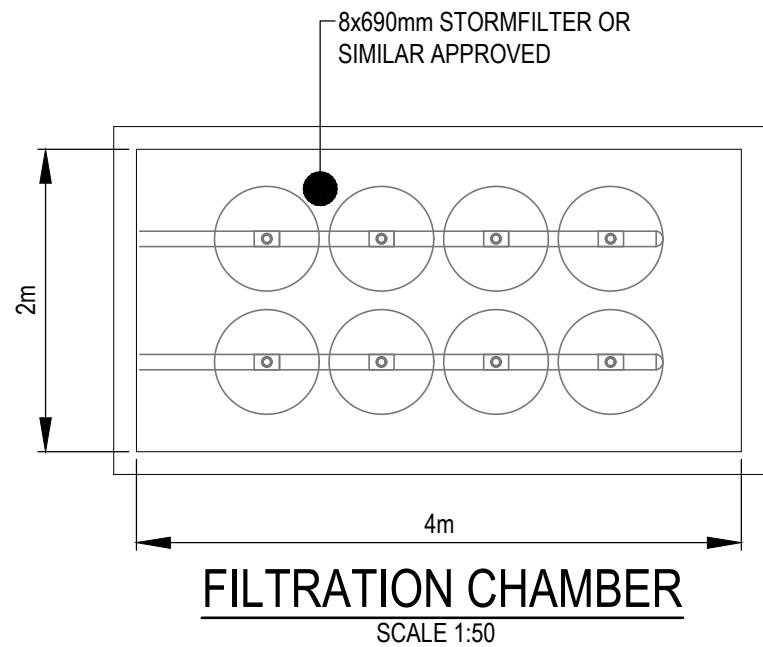
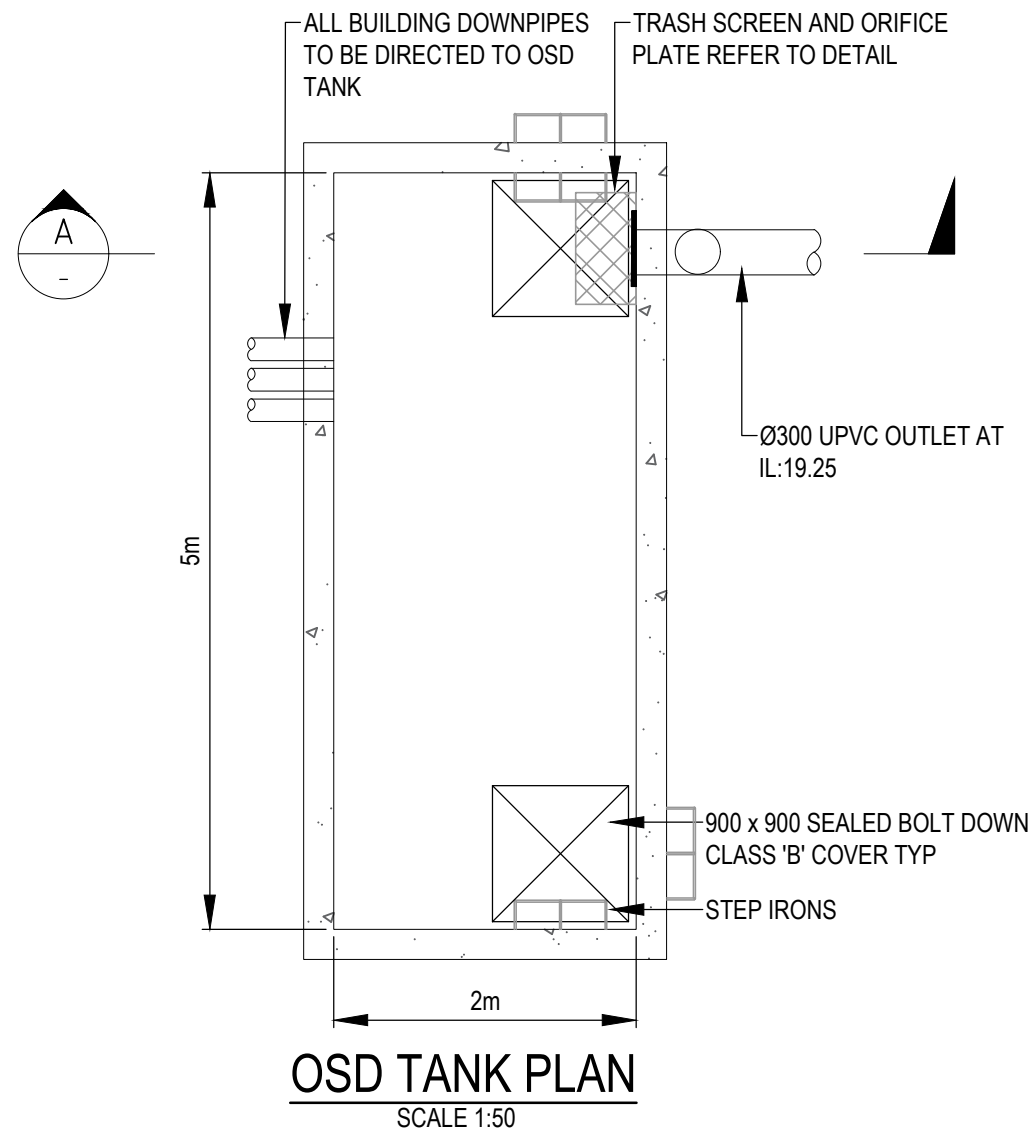
STORMWATER DRAINAGE -
DETAILS -
SHEET 1

PROJECT TITLE

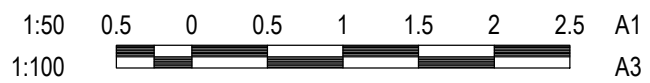
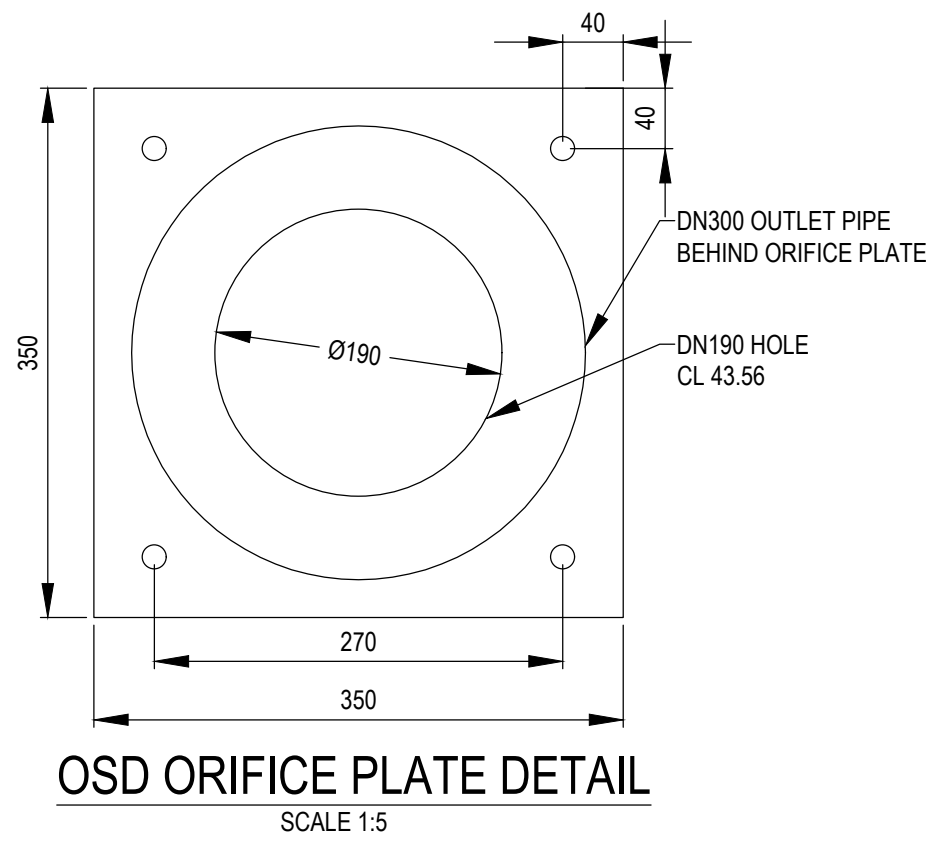
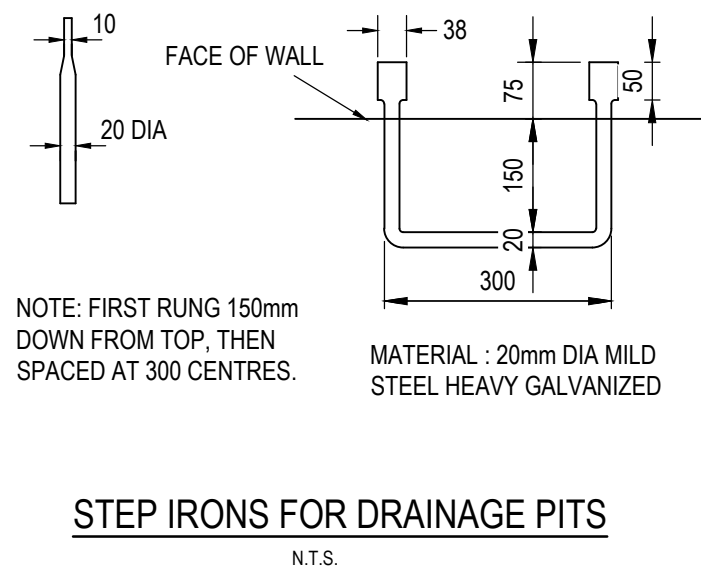
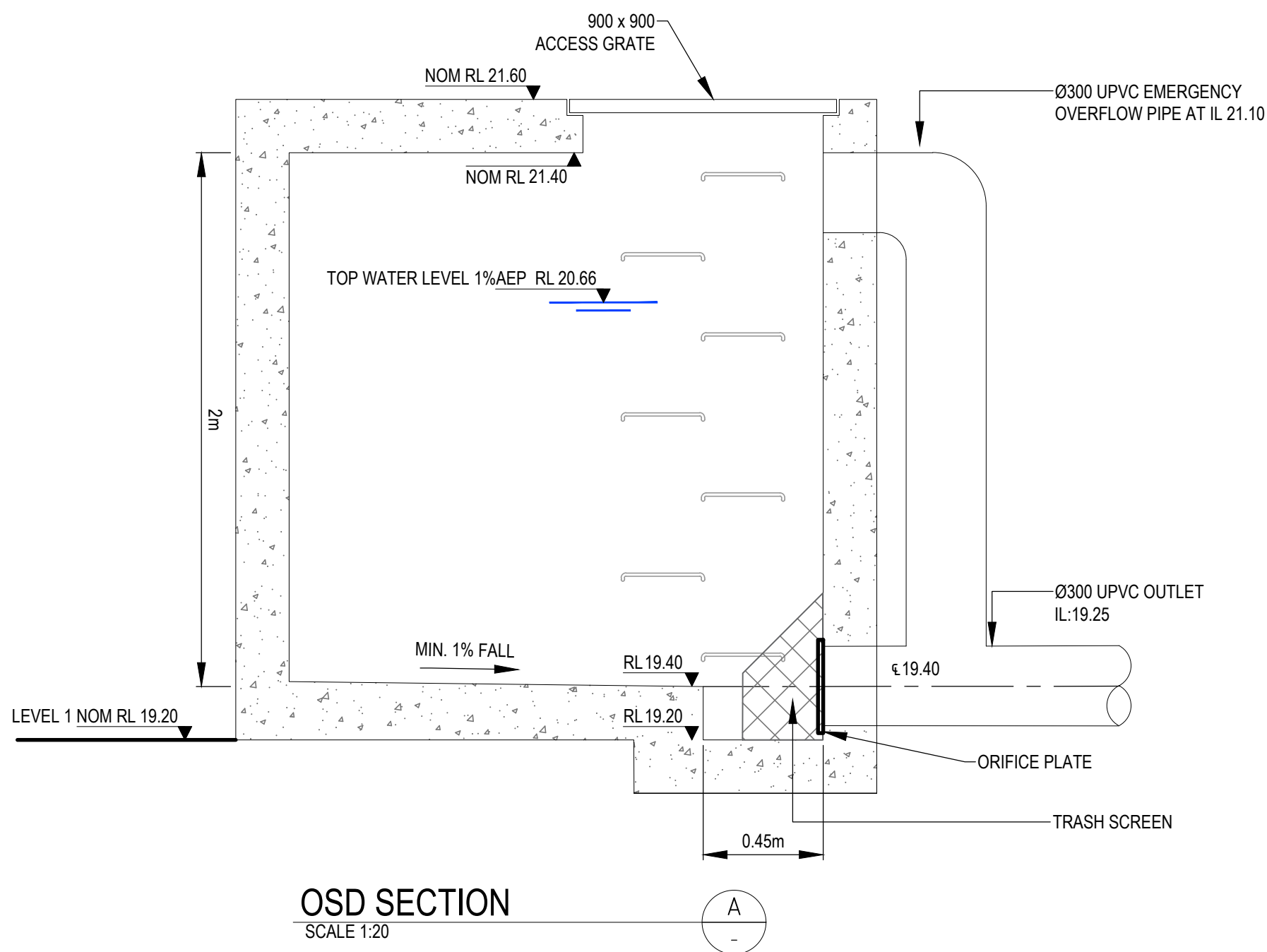
Stantec
MGA mAHD

APPROVAL
NOT FOR CONSTRUCTION

1:20	301350263	CI-526-01	B
SCALE @ A1	PROJECT No	DRAWING No	REV



LEVEL 2 NOM RL 23.00



REV	DESCRIPTION	DRAWN	APP'D	DATE
B	ISSUED FOR DA	MMM	RET	26/07/21
A	DRAFT DA	MMM	RET	16/07/21

DRAWN:	MDR
DESIGNED:	MMM
VERIFIED:	RET
APPROVED FOR TENDER:	
APPROVED FOR CONSTRUCTION:	

ALTIS
PROPERTY PARTNERS

ARCHITECT/CLIENT

ILLOURA PLACE,
28 ELIZABETH STREET,
LIVERPOOL

STORMWATER DRAINAGE -
DETAILS -
SHEET 2

PROJECT

TITLE



APPROVAL
NOT FOR CONSTRUCTION

1:50	301350263	CI-526-02	B
SCALE @ A1	PROJECT No	DRAWING No	REV