

PLANS AND DOCUMENTS
referred to in the PDA
DEVELOPMENT APPROVAL

Approval no: DEV2021/1206

Date: 13-Oct-2021



PROPOSED UNIT DEVELOPMENT

16-18 RESERVE DRIVE, FLAGSTONE 4285

P.A. No.
DATUM = AHD
FIXTURES = 65
FIXTURE UNITS = 155
RPD: LOT 1 ON SP243247

LEGEND

EXISTING SERVICES		
AS	EXISTING SEWER	
AW	EXISTING WATER	
SW	EXISTING STORMWATER	
CIVIL SERVICES		
EW	CIVIL WATER (BY CIVIL ENGINEER)	
ES	CIVIL SEWER (BY CIVIL ENGINEER)	
SW	CIVIL STORMWATER (BY CIVIL ENGINEER)	
HYDRAULIC SERVICES		
SH	SANITARY HOUSE DRAINAGE	
ED	ELEVATED SANITARY DRAIN	
EV	VENT	
PO	POTABLE WATER	
CO	COLD WATER	
HW	HOT WATER	
RM	RISING MAIN	

OTHER		
RS	REDUNDANT SERVICE	
HC	PROPERTY BOUNDARY	
EL	EASEMENT LINE	
HB	PROPOSED BUILDING	
BU	BUILDING LINE UNDER	
BO	BUILDING LINE OVER	
TO	TOP OF CUT BATTER	
FO	TOP OF FILL BATTER	
BE	BENCH PLATFORM EXTENT	
LT	CUTFILL EARTHWORKS LINE	
MA	MANHOLE	
ORG	OVERFLOW RELIEF GULLY	
PRV	PRESSURE REDUCING VALVE	
RPZ	REDUCED PRESSURE ZONE DEVICE	
RV	REFILL VALVE	
SB	SHOWER / BATH	
SEJ	COMBI SWIVEL & EXPANSION JOINT	
SD	SURFACE DRAIN	
SHR	SHOWER	
SJ	SWIVEL ARTICULATION JOINT	
SK	SINK	
SL	SURFACE LEVEL	
ST	STACK	
SW	STORMWATER	
TA	TEST ACCESS	
TMV	THERMOSTATIC MIXING VALVE	
TD	TUNDISH	
TTD	TRAPPED TUNDISH	
TV	TEMPERING VALVE	
TYP	TYPICAL	
US	UPSTREAM	
W	AUTHORITY WATER CONNECTION	
WC	WATER CLOSET PAN	
WM	CLOTHES WASHING MACHINE	
VP	VENT PIPE	
VPH	VANDAL PROOF HOSE TAP	

SYMBOLS

DI	DRAINAGE FIXTURE POINT/RISER	
SI	SWIVEL AND/OR EXPANSION JOINT	
WP	WATER FIXTURE POINT	
RIS	RISER / DROPPER	
TV	TEMPERING VALVE / TMV	
AWM	APPROVED WATER METER ASSEMBLY	
PRV	PRESSURE REDUCING VALVE	
SCV	SINGLE CHECK VALVE	
ISV	ISOLATION VALVE	
BPD	BACKFLOW PREVENTION DEVICE / RV	
P	PUMP	
S	SERVICE	
SI	SIZE / IDENTIFICATION	
AP	APPROXIMATE FOOTING PIER	
LP	LOCATION BY FOUNDATION ENGINEERS REPORT (TBC)	
U	EXTENT OF UNDER SLAB PERIMETER INFLUENCE ZONE	

ABBREVIATIONS

AAV	AIR ADMITTANCE VALVE
AFIL	ABOVE FINISHED FLOOR LEVEL
B	BASIN
BL	BENCH LEVEL
BT	BATH
C	CIVIL SERVICE OR FIXTURE
CO	CLEAR OUT
CSK	CLEANERS SINK
CTE	CONNECT TO EXISTING
CV	CHECK VALVE
CWD	COLD WATER DROPPER
CWR	COLD WATER RISER
DCV	DOUBLE CHECK VALVE
DIS	DISCONNECTER GULLY
DP	DOWNPIPE
DS	DOWNSIDE
DUCV	DUAL CHECK VALVE
DW	DISHWASHER
E	EXISTING SERVICE OR FIXTURE
ECV	EXPANSION CONTROL VALVE
EJ	EXPANSION JOINT
EPD	ELEVATED PIPEWORK DROPPER
FIL	FINISHED FLOOR LEVEL
FI	HYDRANT VALVE
FSL	FINISHED SURFACE LEVEL
FW	FLOOR WASTE
HC	AUTHORITY SEWER CONNECTION
HSTP	HOUSE SEWER TREATMENT PLANT
HT	HOSE TAP
HW	HOT WATER DROPPER
HW	HOT WATER RISER
HWU	HOT WATER UNIT
IL	INVERT LEVEL
IO	INSPECTION OPENING
IOS	INSPECTION OPENING TO SURFACE
IS	INSPECTION SHAFT
IV	ISOLATION VALVE
JU	JUMP UP
LT	LAUNDRY TUB
MA	MANHOLE
ORG	OVERFLOW RELIEF GULLY
PRV	PRESSURE REDUCING VALVE
RPZ	REDUCED PRESSURE ZONE DEVICE
RV	REFILL VALVE
SB	SHOWER / BATH
SEJ	COMBI SWIVEL & EXPANSION JOINT
SD	SURFACE DRAIN
SHR	SHOWER
SJ	SWIVEL ARTICULATION JOINT
SK	SINK
SL	SURFACE LEVEL
ST	STACK
SW	STORMWATER
TA	TEST ACCESS
TMV	THERMOSTATIC MIXING VALVE
TD	TUNDISH
TTD	TRAPPED TUNDISH
TV	TEMPERING VALVE
TYP	TYPICAL
US	UPSTREAM
W	AUTHORITY WATER CONNECTION
WC	WATER CLOSET PAN
WM	CLOTHES WASHING MACHINE
VP	VENT PIPE
VPH	VANDAL PROOF HOSE TAP

NOTES:

GENERAL NOTES

- THE WHOLE OF THE PLUMBING AND DRAINAGE SHALL BE INSTALLED IN ACCORDANCE WITH THE CURRENT PLUMBING & DRAINAGE ACT AND ITS AMENDMENTS AND ASS300. THESE DRAWINGS SHOW INTENT ONLY, AND DO NOT RELIEVE THE CONTRACTOR FROM CONFORMANCE WITH THE ACT REQUIREMENTS.
- ALL WORK TO BE UNDERTAKEN IN ACCORDANCE WITH THE WORKPLACE HEALTH AND SAFETY ACT.
- ALL EXISTING SERVICES ARE TAKEN FROM COUNCIL RECORDS OR SURVEY DATA. CONTRACTOR TO CONFIRM ALL LOCATIONS AND LEVELS ON SITE PRIOR TO COMMENCING ANY WORKS.
- CHECK ARCHITECTURAL DRAWINGS FOR FINAL LOCATION OF FLOOR DRAINS AND FIXTURES PRIOR TO LOCATING PIPEWORK.
- LOCATION OF FPMG IS DIAGRAMMATIC ONLY. CONTRACTOR TO CONFIRM EXACT LOCATION & LEVELS ON SITE.
- MATERIALS SHALL BE NEW AND OF FIRST QUALITY AND SHALL CONFORM WITH THE LATEST AUSTRALIAN STANDARDS.
- ALL MANUFACTURED COMPONENTS SHALL BE INSTALLED TO THE MANUFACTURER'S REQUIREMENTS AND BE WATERMARK APPROVED.
- SUSPENDED PIPEWORK SHALL BE SUPPORTED WITH 'UNISTRUT' CHANNEL, SUPPORT BRACKETS, HANGERS, PVC ISOLATING INSERTS OR EQUIVALENT. USE APPROVED MASONRY ANCHORS FOR BRACKET FIXINGS.
- CONTRACTOR TO LIAISE WITH LOCAL AUTHORITY CONCERNING SEAL OFF APPLICATIONS FOR ANY SERVICES BEING MADE REDUNDANT.
- CIVIL SERVICES SHOWN IN AN INDICATIVE LOCATION ONLY. EXACT DETAILS TO BE CONFIRMED WITH THE CIVIL ENGINEER & DOCUMENTATION.
- ALL PENETRATIONS BETWEEN FIRE COMPARTMENTS TO BE FIRE PROOFED WITH THE USE OF A FIRE COLLAR TO ENSURE THE INTEGRITY OF THE FIRE RATED WALLS/LAB.

SANITARY DRAINAGE

- ALL SANITARY DRAINAGE TO BE UPVC & INSTALLED TO THE FOLLOWING UNLESS NOTED OTHERWISE:
 - 1000 GRADED AT 1:80
 - 400, 500, 650 GRADED AT 1:40
- ALL PLUMBING AND DRAINAGE PENETRATIONS WITHIN OR UNDER THE BUILDINGS ARE TO HAVE AN APPROVED SLEEVE OR OPENING TO KEEP THE STRUCTURE A MINIMUM 60mm CLEAR OF PIPEWORK AND SEALED WITH AN APPROVED FLEXIBLE WATERPROOF SEALANT.
- ALL UNDERSLAB PIPEWORK INSTALLED IN FILL OR INSTALLED TO NEGATE VERTICAL PIPEWORK ARTICULATION REQUIREMENTS, MUST BE TIED TO THE STEEL REINFORCEMENT WITH STAINLESS STEEL STRAPPING IN ACCORDANCE WITH SPECIFICATIONS AND AT INTERVALS NO GREATER THAN:
 - PVC-U GRADED PIPES - DN > 100mm: 1.0m
 - PVC-U GRADED PIPES - DN 100mm < 150mm: 1.2m
- JOINTS BETWEEN P.V.C. PIPES AND FITTINGS SHALL BE COLD SOLVENT WELDED TO MANUFACTURER'S RECOMMENDATIONS.
- MINIMUM CLEAR COVER TO DRAINS SHALL BE:
 - SUBJECT TO VEHICULAR TRAFFIC: 500mm
 - ALL OTHER LOCATIONS: 300mm
 - UNDER BUILDING SLAB TO HAVE:
 - 25mm OVERLAY COVER
 - SUBJECT TO HEAVY VEHICULAR TRAFFIC: 100mm COVER UNDER 100mm THICK REINFORCED CONCRETE
- CONTRACTOR TO LOCATE ALL PIPEWORK CLEAR OF FOOTINGS, RETAINING STRUCTURES & FENCING.
- ALL INSPECTION OPENING TO SURFACES (IOS) IN TRAFFICABLE AREAS TO BE BRASS OR CAST IRON.
- ALL INSPECTION OPENING TO SURFACES (IOS) INTERNAL TO BUILDINGS TO BE CHROME PLATED BRASS.

WATER SERVICES

- INSTALL 500kPa PRESSURE REDUCTION VALVE TO LIMIT PRESSURE IN ALL INTERNAL FIXTURES WHERE REQUIRED.
- WATER METER SUB-TYPE, METER BOX AND WATER SUB-METER INSTALLATION AND LOCATION TO BE IN ACCORDANCE WITH RELEVANT LOCAL DISTRIBUTORS REQUIREMENTS. ALL VALVES TO METERS TO BE SUPPLIED AND INSTALLED AS PER LOCAL DISTRIBUTORS REQUIREMENTS.
- STOP VALVES TO BE STOP TAPS FOR 150 AND BALL VALVES FOR 200 AND ABOVE.
- DETAILED VALVING REQUIREMENTS INDICATED ON DIAGRAMMATIC DRAWINGS.
- WATER SUPPLY PIPEWORK UNDER SLAB AND IN BUILDING TO BE APPROVED MATERIALS IN ACCORDANCE WITH ASS300:
 - INTERNAL: COPPER PIPE TYPE 'P' OR CROSS LINKED POLYETHYLENE
 - EXTERNAL: COPPER TYPE 'P'
- PIPEWORK SIZES NOMINATED ON DRAWING ARE FOR COPPER ONLY. SIZES WILL NEED TO BE ALTERED TO SUIT IF ALTERNATIVE APPROVED PIPE MATERIALS ARE USED.
- MINIMUM COVER TO WATER SERVICE TO BE IN ACCORDANCE WITH ASS300.1 TABLE 5.9:
 - SUBJECT TO VEHICULAR TRAFFIC: 600mm SEALED CARRIAGEWAY
 - SUBJECT TO VEHICULAR TRAFFIC: 450mm NO CARRIAGEWAY
 - ALL OTHER LOCATIONS: 750mm
 - UNDER SLABS AND FOOTINGS: 75mm
 - NOT SUBJECT TO VEHICULAR LOADING: 300mm (EXCLUDING FIRE SERVICES)
 - ALL HOSE TAPS TO HAVE VACUUM BREAKERS INSTALLED.
 - GENERALLY WATER SERVICES TO BE RUN IN WALLS, CEILINGS, CAVITIES, ETC. TO CONCEAL FROM VIEW.

COLD WATER SERVICES

- COLD WATER SERVICE BRANCHES TO SINGLE FIXTURES SHALL BE 150 UNLESS NOTED OTHERWISE AND SHALL NOT EXCEED 3.0m IN LENGTH.

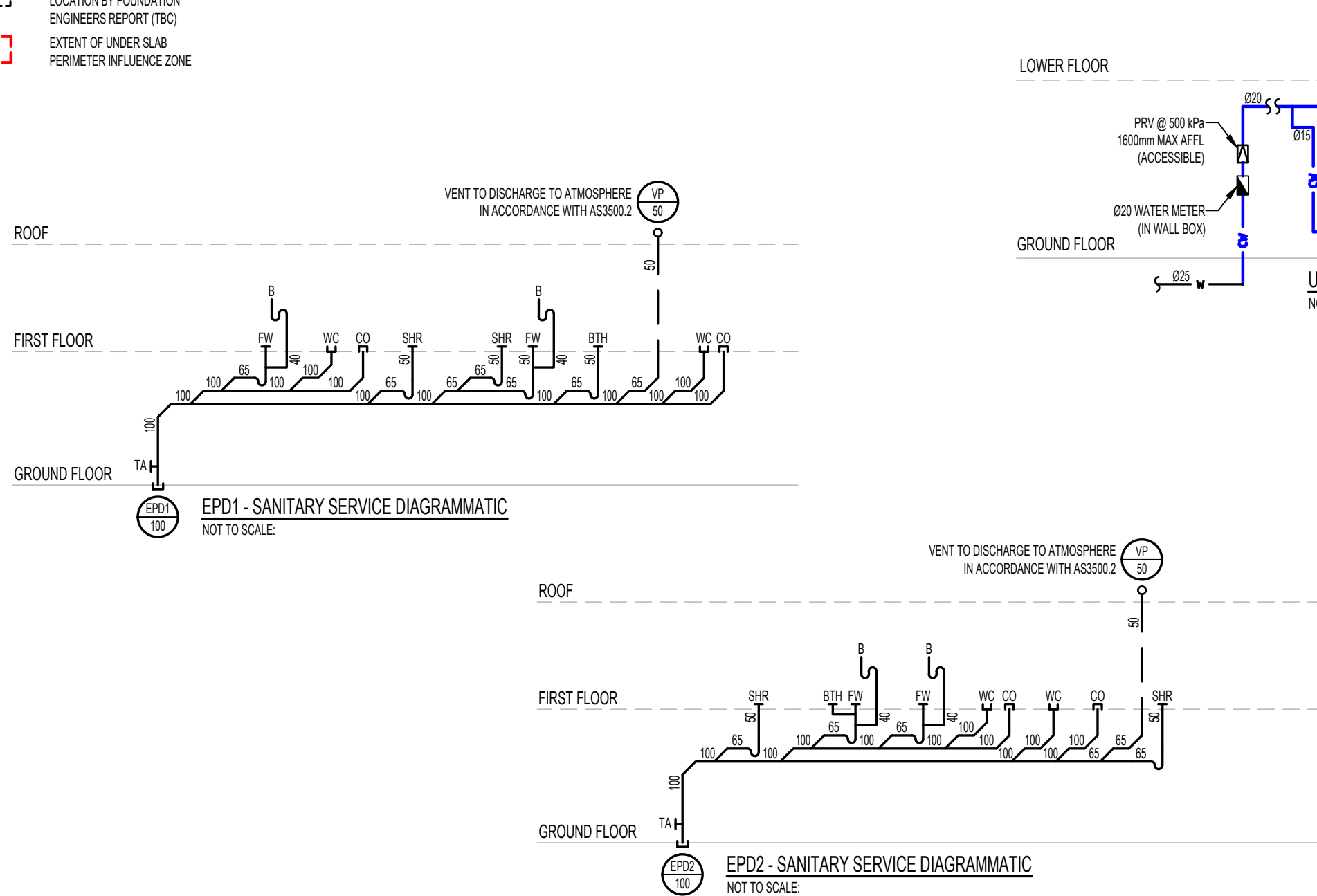
HOT AND TEMPERED WATER SERVICES

- HOT WATER UNIT SHALL BE COMPLETE WITH ALL REQUIRED VALVES AND PIPEWORK & IS TO BE LAGGED IN ACCORDANCE WITH ASS300.4 CLAUSE 8.2.
- HOT WATER SYSTEM PRESSURE RELIEF LINES TO DISCHARGE IN ACCORDANCE WITH ASS300.4 CLAUSE 5.12.
- HOT WATER PIPEWORK LAGGING TO BE IN ACCORDANCE WITH ASS300.4 & CURRENT BCA REQUIREMENTS (DEPENDING ON BUILDING CLASS).



LOCALITY PLAN

NOT TO SCALE



LOWER FLOOR

GROUND FLOOR

UNIT 1 & 5 HOT & COLD WATER RETICULATION DIAGRAMMATIC

NOT TO SCALE

LOWER FLOOR

GROUND FLOOR

UNIT 2 HOT & COLD WATER RETICULATION DIAGRAMMATIC

NOT TO SCALE

LOWER FLOOR

GROUND FLOOR

UNIT 3 & 4 HOT & COLD WATER RETICULATION DIAGRAMMATIC

NOT TO SCALE

REVISION	ISSUE	FOR PLUMBING APPROVAL	ISSUE DESCRIPTION	DATE	DWN	CHCK
A	CLIENT ISSUE			29/07/21	SS	AL

STA BUILDING HYDRAULICS SERVICES

STA CONSULTING ENGINEERS

ACN 153 047 566
Freeway Office Park, Building 3
2728 Logan Rd, Eight Mile Plains, QLD 4113
PHONE: (07) 3071 7444
EMAIL: hydraulics@staconsulting.com.au

CLIENT:
GOLDENGROVE BUILDING GROUP P/L

OWNER:
GOLDENGROVE BUILDING GROUP P/L

PROJECT:
UNIT DEVELOPMENT

**16-18 RESERVE DRIVE
FLAGSTONE 4285**

DRAWING TITLE:
**LEGEND, NOTES, LOCALITY PLAN
& DIAGRAMMATICS**

APPROXIMATE NORTH:

PROJECT No.:
HYD206215

DRAWING No.:
H0(1) of 06

REV:
A

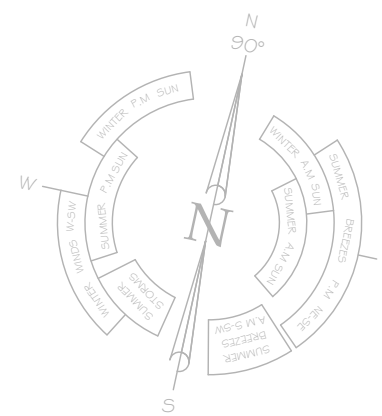
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SCALE @ A1 (UNO)
1:100 @ A1 = 1:200 @ A3

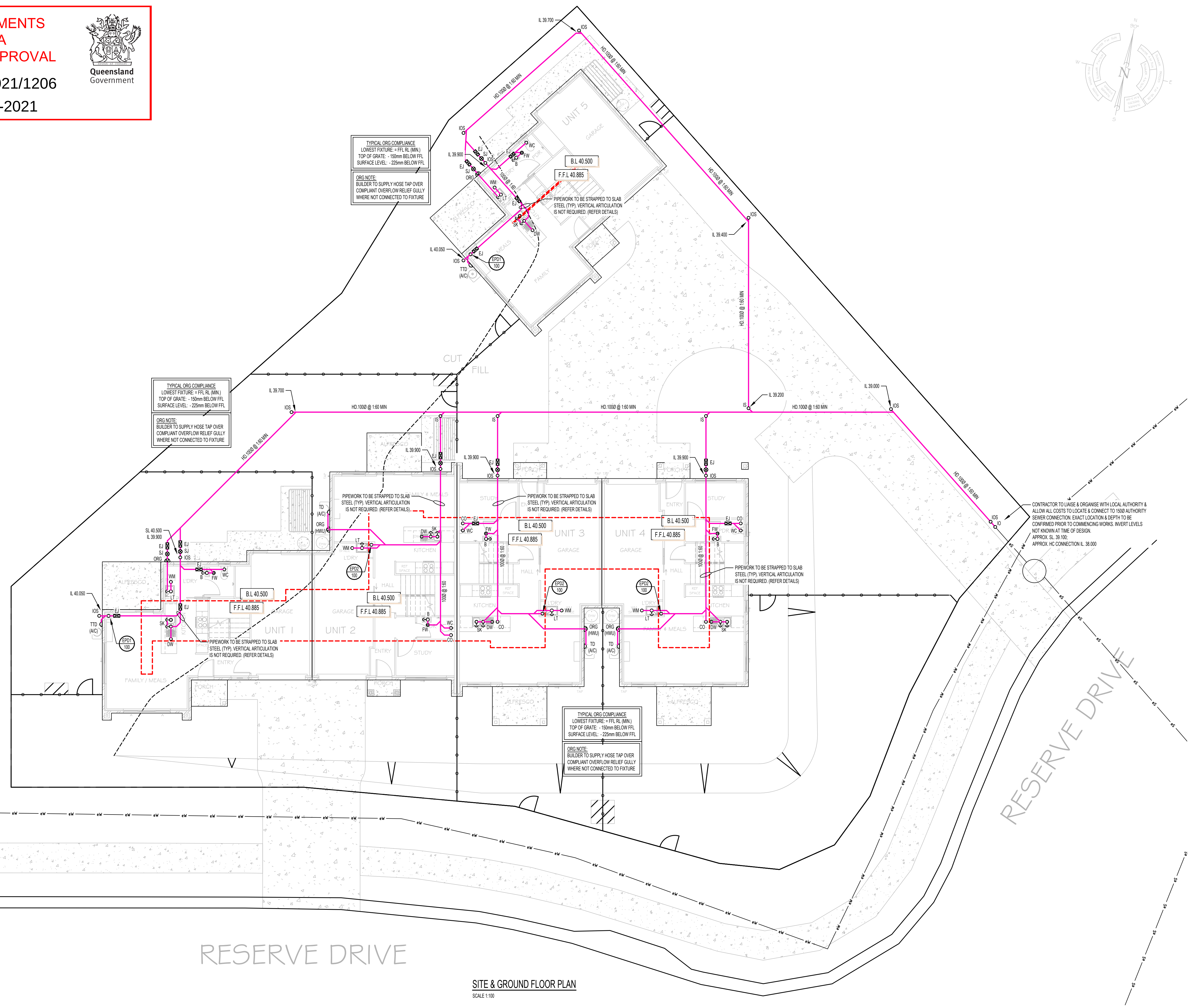
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P.A. No.
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FIXTURES = 65
FIXTURE UNITS = 155
RPD: LOT 1 ON SP243247



RESERVE DRIVE

RESERVE DRIVE

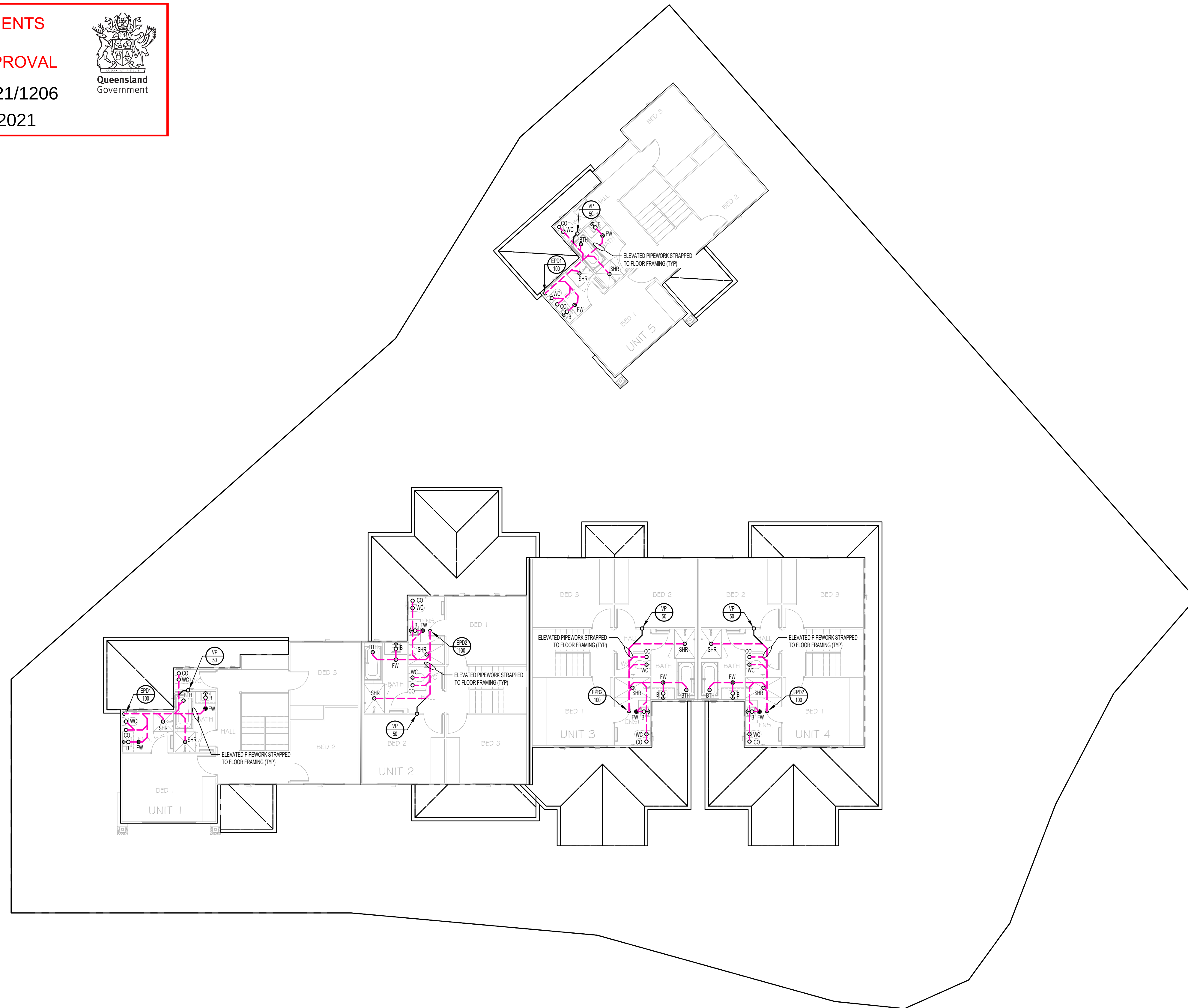
0 2.0 4.0 6.0 m
SCALE 1 : 100

SITE & GROUND FLOOR PLAN
SCALE 1:100



Date: 13-Oct-2021

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 RPD: LOT 1 ON SP243247



FIRST FLOOR PLAN

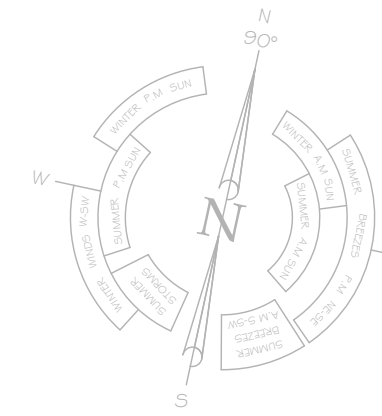
SCALE 1:100

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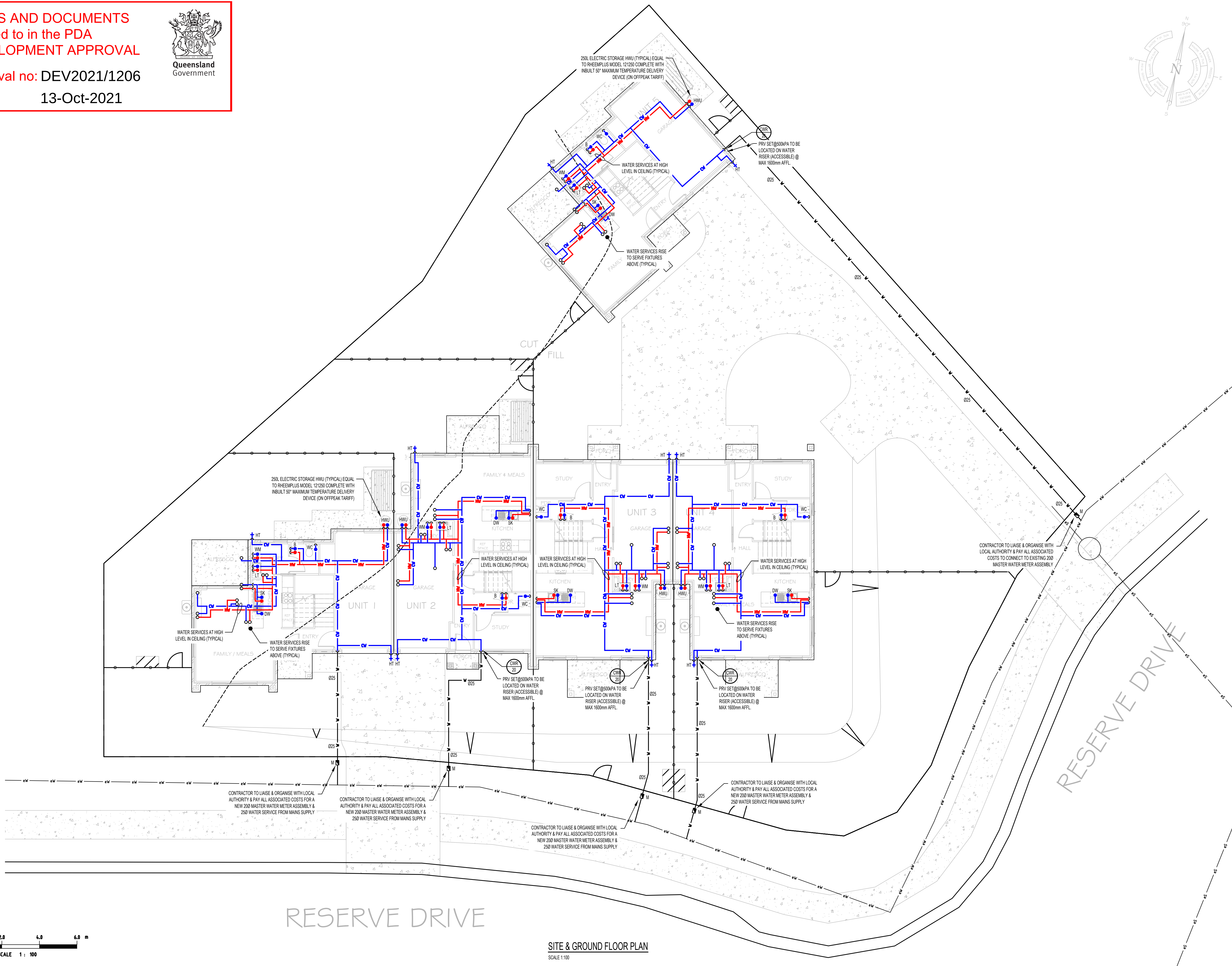
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RESERVE DRIVE

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SITE & GROUND FLOOR PLAN
SCALE 1:100

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Date: 13-Oct-2021

MENTS

ROVAL

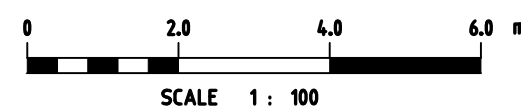
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021

The diagram is a detailed architectural floor plan of a residential building, showing five distinct units (UNIT 1 to UNIT 5) arranged in a cluster. Each unit is labeled with its respective room names and plumbing fixtures. The plan includes a north arrow pointing towards the top right. The units are as follows:

- UNIT 1:** Located at the bottom left, featuring a living area, kitchen, and two bedrooms (BED 1, BED 2).
- UNIT 2:** Located in the middle left, featuring a living area, kitchen, and two bedrooms (BED 1, BED 2).
- UNIT 3:** Located in the middle right, featuring a living area, kitchen, and two bedrooms (BED 1, BED 2).
- UNIT 4:** Located at the bottom right, featuring a living area, kitchen, and two bedrooms (BED 1, BED 2).
- UNIT 5:** Located at the top right, featuring a living area, kitchen, and two bedrooms (BED 1, BED 2).

The plan also shows common areas, including a central hallway and a staircase. Plumbing fixtures are indicated by symbols and labels, including sinks (S), toilets (T), showers (SHR), bathtubs (BTH), and water service risers (WATER SERVICES RISE TO FIXTURES FROM CEILING BELOW (TYPICAL)). The plan is oriented with a north arrow pointing towards the top right.



FIRST FLOOR PLAN

SCALE 1:100

[illegible]

P.A. No.
DATUM = AHD
FIXTURES = 65
FIXTURE UNITS = 155
RPD: LOT 1 ON SP243247

SANITARY DRAINAGE ARTICULATION NOTES
(TO BE READ IN CONJUNCTION WITH TYPICAL INFLUENCE ZONE PLAN & ARTICULATION PLANS)

- ALL ARTICULATION JOINTS ARE TO BE AN APPROVED PRODUCT EQUAL TO 'STORM PLASTICS SWIVEL/EXPANSION JOINT SERIES' OR 'PLASTICS FLEXIBLE JOINT RANGE'.
- HORIZONTAL EXPANSION ARTICULATION IS NOT REQUIRED WITHIN THE CENTRAL 'SOIL MOVEMENT SAFETY ZONE' OF A BUILDING.
- WHERE DRAINS PENETRATE A PERIMETER FOOTING, HORIZONTAL PIPEWORK ARTICULATION WILL ONLY BE REQUIRED WITHIN THE EXTERNAL PERIMETER ZONE AFTER EXITING THE BUILDING FOOTPRINT.
- SPECIFIED PIPE DEPTH REQUIREMENTS ARE MEASURED FROM THE INVERT OF THE PIPE TO THE UNDER-SIDE OF SLAB (INTERNAL) OR SURFACE LEVEL (EXTERNAL) TO THE BUILDING FOOTPRINT.
- FOR WAFFLE POD FOUNDATION SYSTEMS THE UNDER-SIDE OF SLAB IS CONSIDERED AS THE BASE OF THE PODS (B.L.).
- FOR CONVENTIONAL AND MONOLITHIC RAFT OR VOID SLAB FOUNDATION SYSTEMS IT IS THE UNDER-SIDE OF THE STRUCTURAL SLAB.

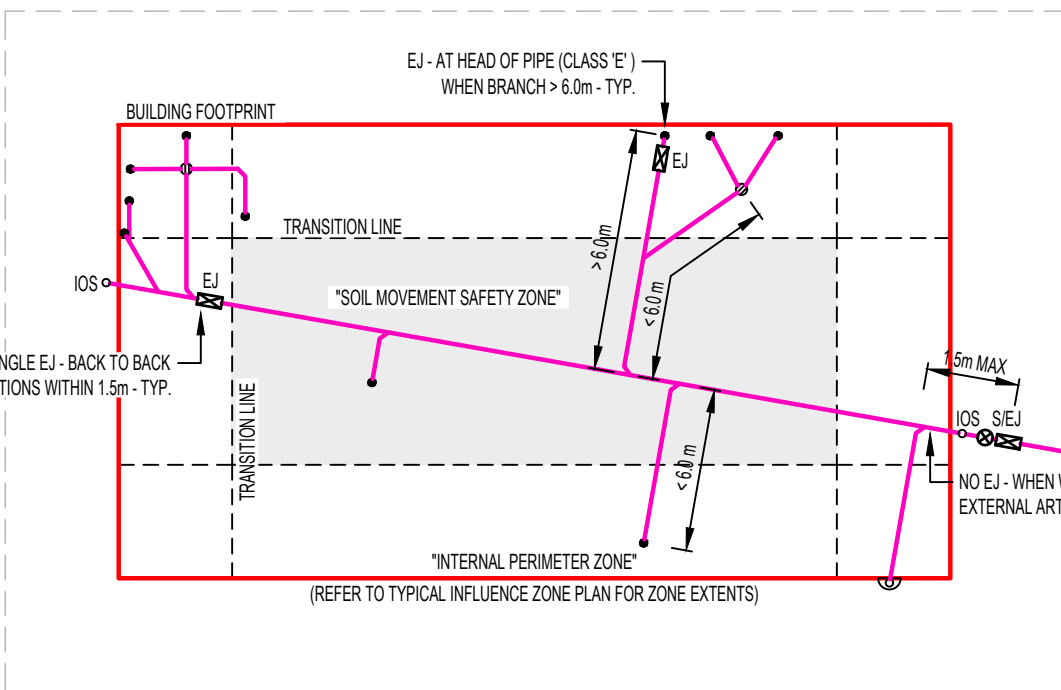
PIPEWORK ARTICULATION SPECIFICATIONS

- EXPANSION JOINTS TO HAVE A MINIMUM REQUIRED MOVEMENT RANGE FOR THE RELEVANT SITE CLASSIFICATION.
MINIMUM TRAVEL:
"H1" 60mm
"H2" 75mm
"E" 150mm
"P" 150mm
BASED ON UNDERLYING CLASSIFICATION (FOR PURPOSE OF PLUMBING & DRAINAGE)
- SWIVEL JOINTS ARE REQUIRED WHEN:
• CLASS "H1" & "P" WITHIN 1.0m OF EXITING THE BUILDING FOOTPRINT (CLASS "P" WHEN "P" IS FOR UNCONTROLLED FILL OR THE UNDERLYING SITE CLASSIFICATION IS "H1" / "H2" / "E")
• CLASS "E", AT THE TRANSITION LINE WHERE UNDER-SLAB PIPEWORK IS >800 DEEP & IS <4.0m IN LENGTH
• CLASS "E", ON A BRANCH DRAIN >800 DEEP IMMEDIATELY UPSTREAM OF THE MAIN DRAIN JUNCTION WHEN THE MAIN DRAIN >800 DEEP
- VERTICAL EXPANSION JOINTS ARE REQUIRED IN ALL ZONES ON PIPE DROPPERS WHEN:
• CLASS "P" WHERE UNDERLYING CLASS "E" AND PIPE DEPTH IS >400
• CLASS "E" WHERE PIPE DEPTH IS >800
- HORIZONTAL EXPANSION JOINTS ARE REQUIRED WHEN:
• CLASS "H1" OR CLASS "P" WHERE UNDERLYING SOIL CHARACTERISTICS ARE EQUAL TO CLASS "H1" / "H2" / "E"
• AND PIPEWORK / PIPEWORK JOINTS ARE LOCATED WITHIN THE PERIMETER ZONES.
WHEN REQUIRED HORIZONTAL EXPANSION JOINTS ARE THEN TO BE LOCATED:
• WITHIN 1.0m OF EXITING THE BUILDING FOOTPRINT ADJACENT A SWIVEL JOINT
• DOWNSTREAM OF A JUNCTION, UNLESS WITHIN 1.5m OF A DOWNSTREAM EXPANSION JOINT
• DOWNSTREAM OF A CHANGE IN DIRECTION >45° UNLESS WITHIN 1.5m OF A DOWNSTREAM EXPANSION JOINT (CLASS "E" ONLY)
• AT THE HEAD OF THE PIPE WHEN THE DRAIN IS <4.0m IN LENGTH TO THE MAIN DRAIN JUNCTION (CLASS "E" ONLY)
• ON MAIN DRAINS AT A MAXIMUM SPACING OF 6.0m FOR PIPEWORK WITH NO CONNECTIONS OR BENDS (CLASS "E" ONLY)
- PIPEWORK AND BASE OF PIPE TRENCH TO BE GRADED AT MINIMUM 1:30 FOR A MINIMUM DISTANCE OF 1.5m DOWNSTREAM OF THE POINT OF EXITING THE BUILDING FOOTPRINT TO PREVENT INGRESS OF WATER.
- ALL TRENCHING TO BE GRADED UNIFORMLY WITH DRAINAGE TO ENSURE ADEQUATE TRENCH DRAINAGE.
- STA CONSULTING ENGINEERS RECOMMENDS WRAPPING ALL EXPANSION JOINTS AS 'GOOD PRACTICE' IN A SUITABLE MATERIAL WHICH ALLOWS FULL MOVEMENT AND PREVENTS THE INGRESS OF FOREIGN MATTER AND TREE ROOTS.
- ALL PLUMBING (WITHIN AND BEYOND THE FOOTPRINT OF THE STRUCTURE) IS TO BE CONSTRUCTED IN ACCORDANCE WITH AS3500.2 AND THE PLUMBING CODE OF AUSTRALIA.
- FOR CLASS "E" SITES WITH A COMBINED "Y" + "Y" MOVEMENT RANGE EQUAL OR GREATER THAN 90mm, REFER BACK TO STA CONSULTING ENGINEERS FOR A SITE SPECIFIC ENGINEERED SOLUTION.

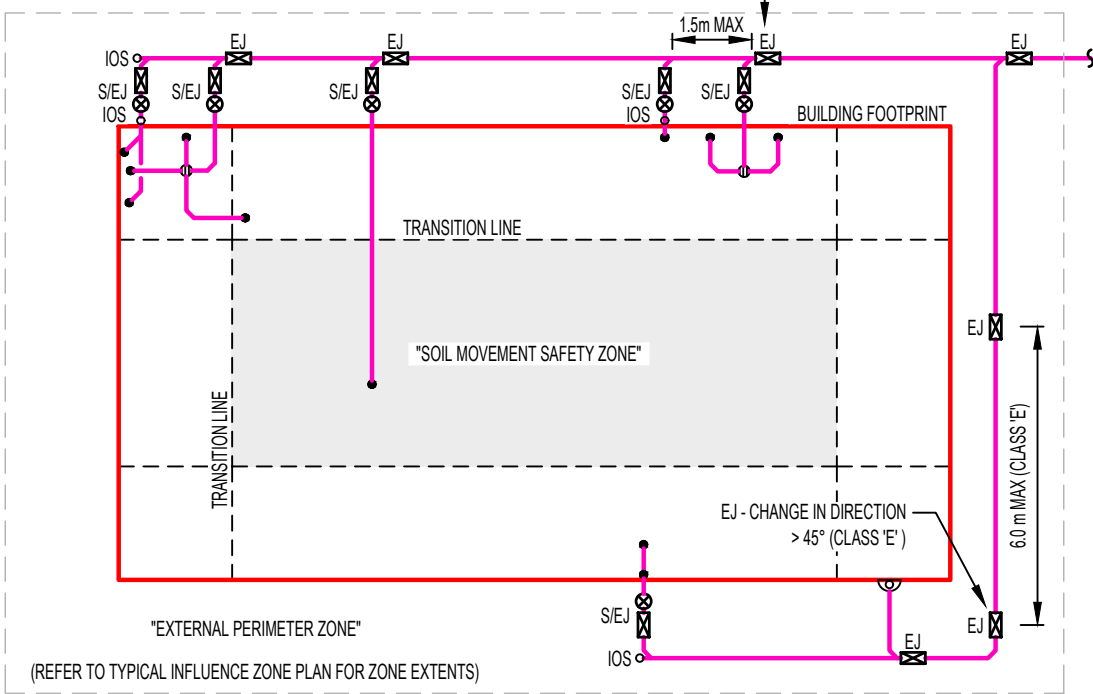
TYPICAL ARTICULATION PLAN NOTE:
THESE LAYOUT PLANS ARE OPTIMAL EXAMPLE PLANS OF SANITARY DRAINS LAID >800 DEEP FOR CLASS "H1" / "H2" & "E" SITES AND ARE TO BE READ IN CONJUNCTION WITH THE PROVIDED SANITARY DRAINAGE ARTICULATION NOTES, SPECIFICATIONS & WHERE APPLICABLE, THE SITE SPECIFIC SANITARY DRAINAGE PLAN PREPARED BY STA CONSULTING ENGINEERS.

LEGEND:
EJ - EXPANSION JOINT (REFER TO ARTICULATION NOTES)
SJ - SWIVEL JOINT (REFER TO ARTICULATION NOTES)
SEJ - COMBINATION OF EXPANSION & SWIVEL ARTICULATION

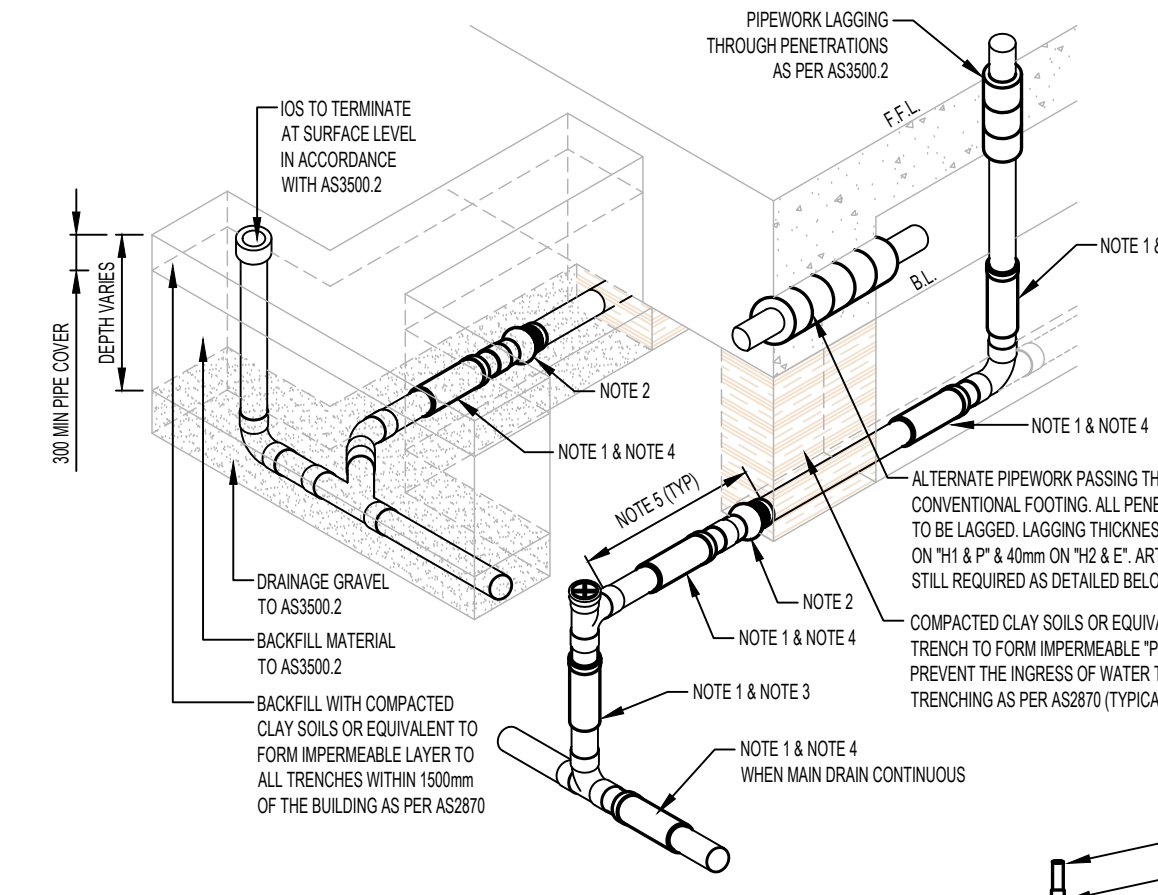
VERTICAL ARTICULATION NOTE:
VERTICAL ARTICULATION EXPANSION JOINTS ARE REQUIRED ON PIPE DROPPERS >800 DEEP FOR CLASS "E" SITES ONLY.



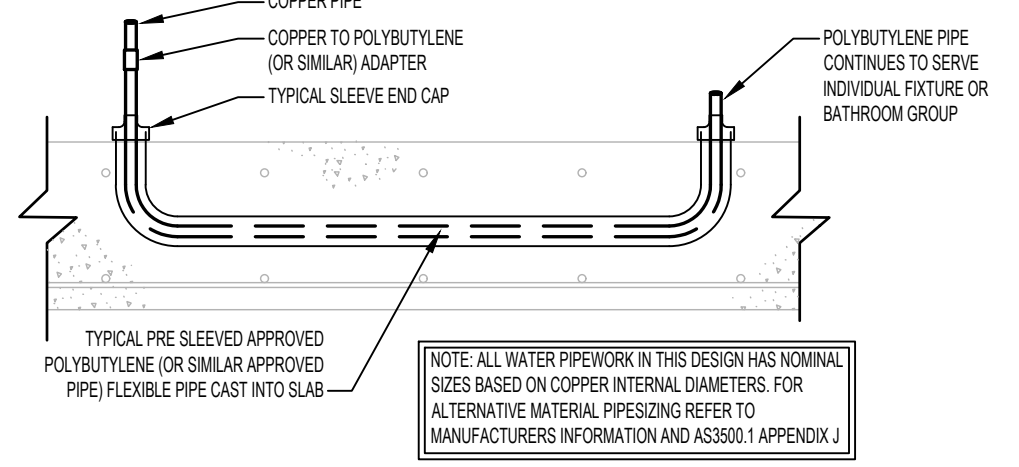
TYPICAL ARTICULATION PLAN - OPTIMAL UNDER-SLAB LAYOUT (CLASS "H1" / "H2" / "E")
(TO BE READ IN CONJUNCTION WITH SANITARY DRAINAGE ARTICULATION NOTES & SPECIFICATIONS)
NOT TO SCALE:



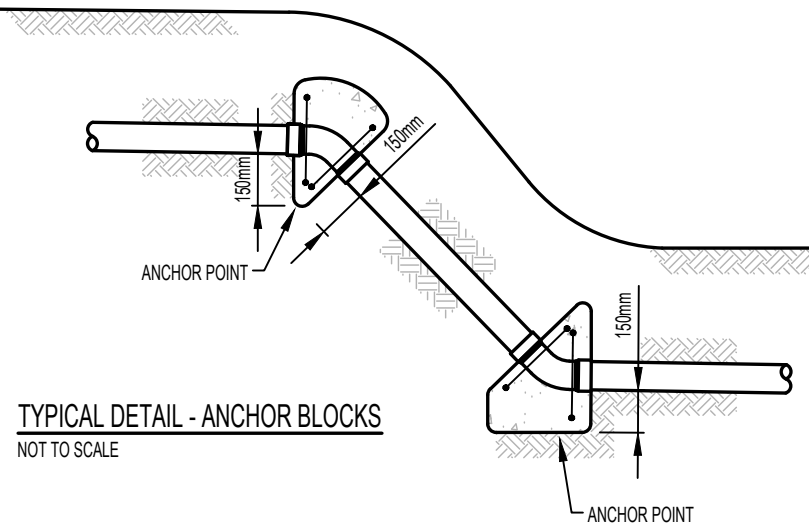
TYPICAL ARTICULATION PLAN - OPTIMAL PERIMETER LAYOUT (CLASS "H1" / "H2" / "E")
(TO BE READ IN CONJUNCTION WITH SANITARY DRAINAGE ARTICULATION NOTES & SPECIFICATIONS)
NOT TO SCALE:



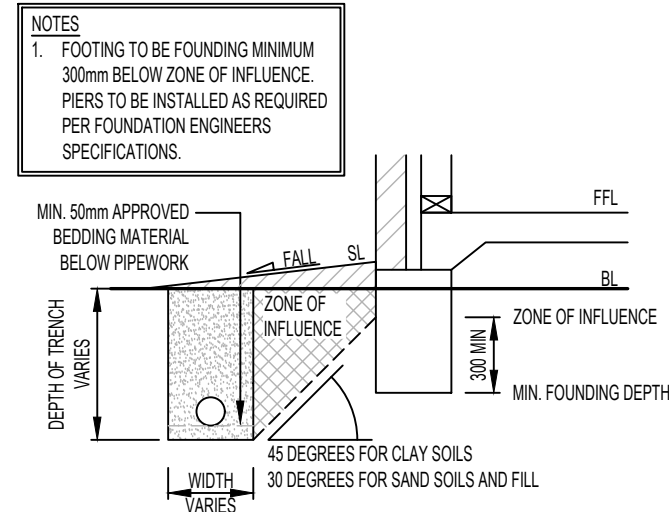
TYPICAL DETAIL - SANITARY DRAINAGE ARTICULATION
(TO BE READ IN CONJUNCTION WITH SANITARY DRAINAGE ARTICULATION NOTES & SPECIFICATIONS)
NOT TO SCALE:



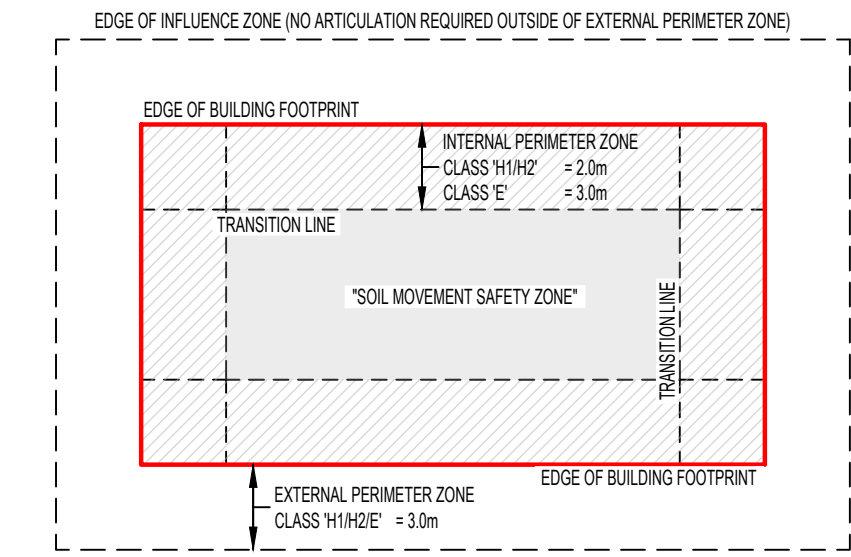
TYPICAL FLEXIBLE PIPE CAST IN SLAB DETAIL
NOT TO SCALE:



TYPICAL DETAIL - ANCHOR BLOCKS
NOT TO SCALE:



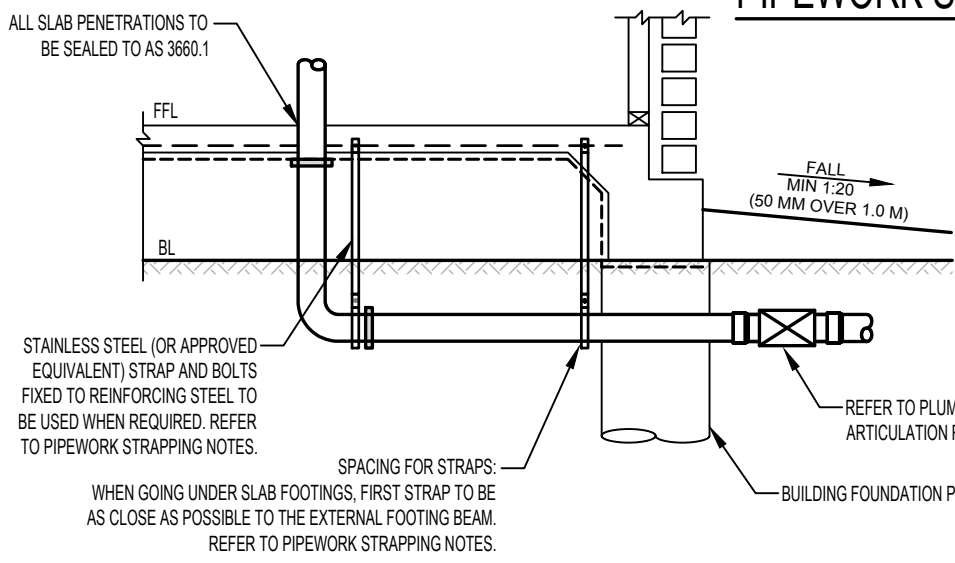
TYPICAL DETAIL - SERVICE TRENCHING NEAR FOOTINGS
NOT TO SCALE:



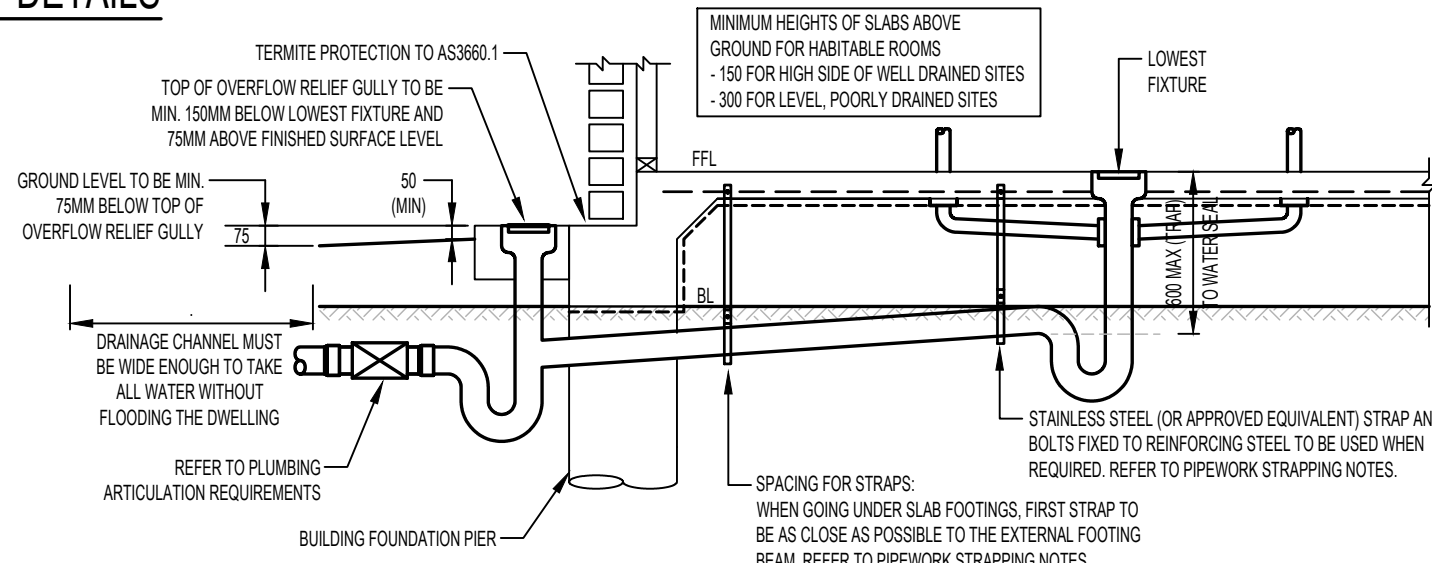
TYPICAL INFLUENCE ZONE PLAN - FOR PIPEWORK ARTICULATION
(TO BE READ IN CONJUNCTION WITH SANITARY DRAINAGE ARTICULATION NOTES & SPECIFICATIONS)
NOT TO SCALE:

PIPEWORK STRAPPING NOTES:

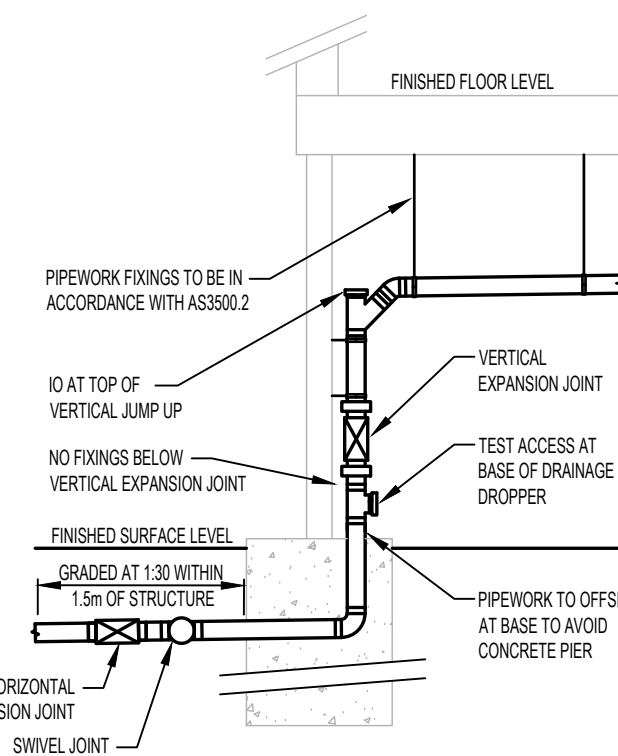
- STRAPPING OF UNDER SLAB PIPEWORK IS REQUIRED WHEN:
• CLASS "P" SITES WHERE UNCOMPACTED FILL HAS BEEN IDENTIFIED OR AS A RESULT OF CUT/FILL OPERATION IN THE CONSTRUCTION OF THE BUILDING PAD AND PIPEWORK IS NOT FOUND IN NATURAL MATERIAL UNCOMPACTED FILL BEING MATERIAL THAT WHICH IS NOT NATURAL GROUND OR SUCH HAVING HAD COMPACTION CERTIFICATION AS PER AS 3788 LEVEL ONE SUPERVISION)
• CLASS "H1" / "H2" SITES WHERE THE SLAB IS ENTIRELY SUPPORTED ON PIERS (INTERNAL SLAB PIERS PRESENT)
- STRAPPING SHALL BE PLACED AS FOLLOWS:
• FOR GRADED PVC-U DRAINS <100MM (EG SINK & FLOOR WASTE), STRAPPING TO BE PLACED AT THE HEAD AND THEN AT 100MM MAX. SPACING.
• FOR GRADED PVC-U DRAINS <100MM (EG SINK & FLOOR WASTE), STRAPPING TO BE PLACED AT THE HEAD AND THEN AT 100MM MAX. SPACING.
• FOR PIPEWORK PASSING UNDER THE FOOTING, PLACE STRAPPING AS CLOSE AS PRACTICABLE TO THE INSIDE EDGE OF THE FOOTING.
• FOR PIPEWORK PASSING THROUGH THE FOOTING, PLACE STRAPPING AT MAXIMUM SPACING SUITED TO THE PIPE SIZE ABOVE, FROM INSIDE EDGE OF THE FOOTING.
- STRAPPING WITHIN N.S.V.
• PIPEWORK LAID WITH UNCONTROLLED FILL, UNSTABLE OR WATER-CHARGED SOILS IS TO BE STRAPPED TO THE SLAB STEEL REINFORCEMENT USING AN APPROVED NON-CONDUCTIVE STRAP SYSTEM SIMILAR TO PLASTIC AUSTRALIA'S 'QUICK STICKS' (OR APPROVED ALTERNATIVE)
• WHEN STRAPPING IS PLACED IN ACCORDANCE WITH NOTE 2, STRAPPING IS DEEMED TO PROVIDE CONTINUOUS SUPPORT UNDER THE BARREL OF THE PIPEWORK UNDER THE BUILDING SLAB.
• PIPEWORK LAID OUTSIDE OF THE BUILDING SLAB IS TO BE LAID ON SUPPORT PIERS IN ACCORDANCE WITH SUPPLIED DETAILS TO BE DEEMED AS PROVIDING COMPLETE SUPPORT UNDER THE PIPEWORK BARREL.



TYPICAL DETAIL - SERVICE PIPE STRAPPING UNDER SLAB AND NEAR EXTERNAL FOOTING BEAMS
NOT TO SCALE:



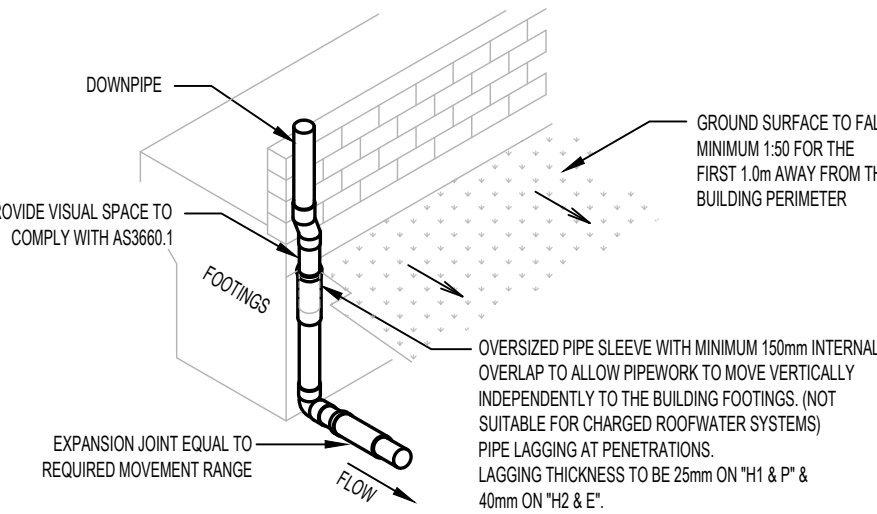
TYPICAL DETAIL - SERVICE PIPE STRAPPING UNDER SLAB FOR FIXTURE TRAPS AND CONNECTION TO OVERFLOW RELIEF GULLIES
NOT TO SCALE:



TYPICAL DETAIL - ELEVATED PIPEWORK / STACK DROPPER
NOT TO SCALE:

ELEVATED PIPEWORK ARTICULATION NOTES:

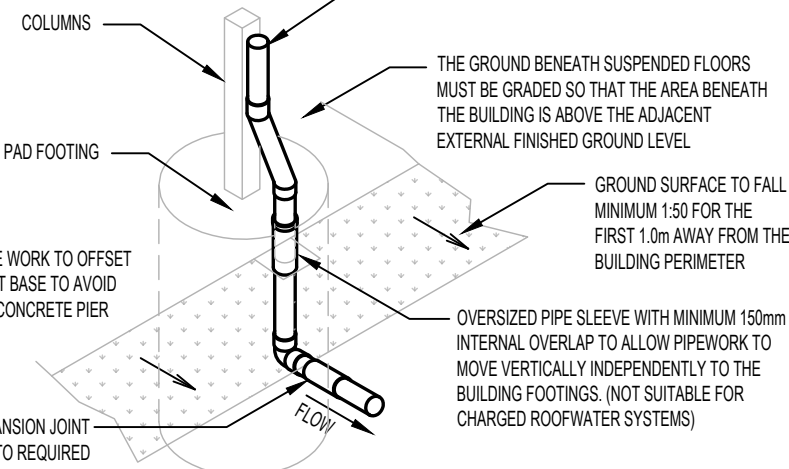
- EXPANSION JOINTS TO BE AN APPROVED PRODUCT EQUAL TO 'STORMPLASTICS DWY EXPANSION JOINT SERIES'.
MINIMUM TRAVEL:
"E" 150mm
"H1" & "H2" 75mm
"P" 150mm
BASED ON UNDERLYING CLASSIFICATION
• <150 FOR HIGH SIDE OF WELL DRAINED SITES
• >300 FOR LEVEL, POORLY DRAINED SITES
- SWIVEL JOINTS TO BE AN APPROVED PRODUCT EQUAL TO 'STORM PLASTICS SWIVEL JOINT SERIES' (NOT REQUIRED ON CLASS "E", CLASS "H" OR CLASS "P" SITES WITH UNDERLYING CLASS "S" OR "M" SOILS WHEN THE "P" CLASSIFICATION IS FOR REASONS OTHER THAN UNCONTROLLED FILL).
- VERTICAL EXPANSION JOINTS ARE REQUIRED ON PIPE DROPPERS WHEN:
• CLASS "E" & CLASS "P" (WHERE "P" CLASS RELATES TO UNCONTROLLED FILL OTHERWISE REFER TO UNDERLYING SOIL CHARACTERISTIC REQUIREMENTS)
• CLASS "H1", CLASS "H2", CLASS "E" & CLASS "P" (WHERE UNDERLYING SOIL CHARACTERISTICS ARE EQUAL TO CLASS "H1" / "H2" / "E")
• AND SHOULD BE LOCATED:
• WITHIN 1.5m OF EXITING THE BUILDING FOOTPRINT ADJACENT A SWIVEL JOINT
• AT EVERY CHANGE IN GRADE ADJACENT A SWIVEL JOINT
• DOWNSTREAM EVERY JUNCTION AND CHANGE IN DIRECTION
- PIPEWORK AND BASE OF PIPE TRENCH TO BE GRADED AT MINIMUM 1:30 FOR A MINIMUM DISTANCE OF 1.5m DOWNSTREAM OF EXITING THE BUILDING FOOTPRINT TO PREVENT INGRESS OF WATER.
- ALL TRENCHING TO BE GRADED UNIFORMLY WITH DRAINAGE TO ENSURE ADEQUATE TRENCH DRAINAGE.
- STA CONSULTING ENGINEERS RECOMMENDS WRAPPING ALL EXPANSION JOINTS AS 'GOOD PRACTICE' IN A SUITABLE MATERIAL WHICH ALLOWS FULL MOVEMENT AND PREVENTS THE INGRESS OF FOREIGN MATTER AND TREE ROOTS.
- ALL PLUMBING (WITHIN AND BEYOND THE FOOTPRINT OF THE STRUCTURE) IS TO BE CONSTRUCTED IN ACCORDANCE WITH AS3500.2 AND THE PLUMBING CODE OF AUSTRALIA.
- ARTICULATION JOINTS MAY BE OMITTED ON CLASS "P" SITES (FOR UNCONTROLLED FILL) WITH AN UNDERLYING CLASSIFICATION OF CLASS "S" OR "M" WHEN PIPEWORK IS LAID INTO NATURAL SOILS OR SUPPORTED ON PIERS FOUNDED TO NATURAL SOILS.
- FOR CLASS "E" SITES WITH A COMBINED "Y" + "Y" MOVEMENT RANGE EQUAL OR GREATER THAN 90mm, REFER BACK TO STA CONSULTING ENGINEERS FOR A SITE SPECIFIC ENGINEERED SOLUTION.



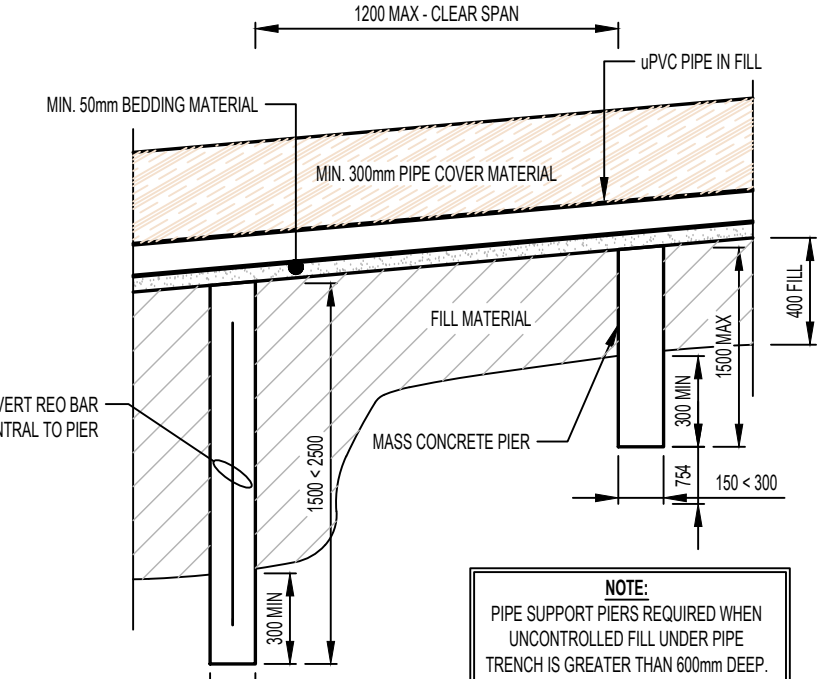
TYPICAL DETAIL - ROOFWATER DRAINAGE (CLASS "H" / "E" / "P")
NOT TO SCALE:

ROOFWATER ARTICULATION NOTE:
ARTICULATION JOINTS TO BE AN APPROVED PRODUCT EQUAL TO 'STORM PLASTICS DWY EXPANSION JOINT SERIES' OR 'PLASTICS FLEXI JOINT RANGE' AND ARE RECOMMENDED TO BE WRAPPED IN A SUITABLE MATERIAL TO ALLOW FULL MOVEMENT AND TO PREVENT THE INGRESS OF FOREIGN MATTER AND TREE ROOTS.

MINIMUM TRAVEL:
"H1" 60mm
"H2" 75mm
"E" 150mm
"P" 150mm
BASED ON UNDERLYING CLASSIFICATION (FOR CLASS "E" SITES WITH A COMBINED "Y" + "Y" MOVEMENT RANGE EQUAL OR GREATER THAN 90mm, REFER BACK TO STA CONSULTING ENGINEERS FOR A SITE SPECIFIC ENGINEERED SOLUTION)



TYPICAL DETAIL - ROOFWATER DRAINAGE (CLASS "H" / "E" / "P")
NOT TO SCALE:



TYPICAL DETAIL - PIPEWORK IN FILL SUPPORT PIERS
NOT TO SCALE:

PLANS AND DOCUMENTS referred to in the PDA DEVELOPMENT APPROVAL

Approval no: DEV2021/1206

Date: 13-Oct-2021



REVISION	ISSUE	FOR PLUMBING APPROVAL	DATE	SS	AL
A	CLIENT ISSUE	FOR PLUMBING APPROVAL	29/07/21	SS	AL
	ISSUE	ISSUE DESCRIPTION	DATE	DWN	CHCK

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OWNER:
GOLDENGROVE BUILDING GROUP P/L

PROJECT:
UNIT DEVELOPMENT
16-18 RESERVE DRIVE
FLAGSTONE 4285

DRAWING TITLE:
TYPICAL DETAILS

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