

EXTERNAL INTERSECTION CIVIL WORKS

CHRISTENSEN ROAD & CHRISTENSEN ROAD SOUTH

FOR VANTAGE YATALA - STAGE 3

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STANDARD DRAWINGS			
DRAWING No.	REV No.	ASSOCIATION	DRAWING TITLE
DS-010	F	IPWEA	ACCESS CHAMBER - STORMWATER ACCESS CHAMBER DETAILS - 1050 TO 2100 DIA
DS-015	C	IPWEA	ACCESS CHAMBER - MANHOLE FRAME - ROADWAY AND NON ROADWAY - 1050 TO 2100 DIA
DS-018	C	IPWEA	ACCESS CHAMBER - MANHOLE RISER DETAILS
DS-019	C	IPWEA	ACCESS CHAMBER - MANHOLE COVER (ROADWAY)
DS-020	C	IPWEA	ACCESS CHAMBER - MANHOLE COVER (NON ROADWAY)
DS-021	C	IPWEA	ACCESS CHAMBER - MANHOLE COVER CONCRETE INFILL (PEDESTRIAN TRAFFIC) 1050 TO 2100 DIA
DS-030	F	IPWEA	EXCAVATION, BEDDING & BACKFILL - RIGID & FLEXIBLE DRAINAGE PIPES
DS-031	F	IPWEA	EXCAVATION, BEDDING & BACKFILL PRECAST - BOX CULVERTS
DS-040	E	IPWEA	SEDIMENT CONTROL - SEDIMENT CONTROL DEVICES - SEDIMENT FENCE, ENTRY/EXIT SEDIMENT TRAP
DS-041	E	IPWEA	SEDIMENT CONTROL - SEDIMENT CONTROL DEVICES - KERB AND FIELD INLET, CHECK DAMS & STRAW
DS-050	E	IPWEA	DRAINAGE PITS - FIELD INLET TYPE 1 AND TYPE 2
DS-061	B	IPWEA	DRAINAGE PITS - KERB INLET - PRECAST LINTEL
DS-062	D	IPWEA	DRAINAGE PITS - KERB INLET - GRATE AND FRAME
DS-063	C	IPWEA	DRAINAGE PITS - KERB INLET - LIP IN LINE - GENERAL ARRANGEMENT
DS-065	I	IPWEA	PATHWAYS - CONCRETE PATHWAY CONSTRUCTION DETAILS
RS-051	G	IPWEA	VEHICLE CROSSINGS HEAVY DUTY
RS-080	F	IPWEA	KERB AND CHANNEL - PROFILES AND DIMENSIONS - INCLUDING EDGE RESTRAINTS, MEDIAN & CHANNEL
RS-090	J	IPWEA	KERB RAMPS - RAMPED PEDESTRIAN
RS-091	F	IPWEA	KERB RAMPS - RAMPED AND CUT THROUGH TREATMENTS - FOR PEDESTRIAN CROSSINGS, SLIP LANES AND MEDIANS
RS-094	F	IPWEA	KERB RAMPS - LOCATIONS AND CONFIGURATIONS
RS-130	F	IPWEA	ROAD FURNITURE - STREET NAME SIGN AND LOCATION (FINGERBOARD)
RS-131	G	IPWEA	ROAD FURNITURE - TRAFFIC SIGN INSTALLATION DETAILS
RS-140	F	IPWEA	SUBSOIL DRAINS - DETAILS AND LOCATION
RS-142	F	IPWEA	SUBSOIL DRAINS - ACCESS POINTS
SD1033	K	DTMR	KERB AND CHANNEL
SD1304	N	DTMR	PIPE CULVERTS - WINGWALLS, HEADWALLS AND APRON FOR PIPE DIA 750 TO 2400
02-003	2	CoGC	TYPICAL CROSS SECTIONS - COLLECTOR STREETS - PLAN 2 OF 2
02-005	1	CoGC	PUBLIC UTILITY PLANT CORRIDOR ALLOCATIONS IN PUBLIC ROAD VERGES
02-601	1	CoGC	NEW ROADS - SERVICE CONDUIT CROSSINGS
02-602	1	CoGC	ROAD CROSSING - TRENCH RESTORATION - FLEXIBLE PAVEMENTS
03-008	1	CoGC	FIELD INLET AND INTER-ALLOTMENT DRAINAGE PIT
03-101	1	CoGC	STORMWATER ACCESS CHAMBER 1050 DIA TO 1500 DIA
03-102	1	CoGC	STORMWATER ACCESS CHAMBER 1050 DIA TO 1500 DIA ROOF SLABS
03-201	1	CoGC	EXCAVATION AND BEDDING OF CONCRETE STORMWATER PIPES



Source: qldglobe.information.qld.gov.au

LOCALITY PLAN
1:8000 (A1)

CLIENT



FPI QUEENSLAND
PTY. LTD.

VantageYatala

SITE ADDRESS

ROAD RESERVE

ISSUED FOR APPROVAL

DWG NO. 5941 ENG EXT3 001 - E

APRIL 2024

SURVEY CONTROL DETAILS	
LEVEL DATUM	AHD
MERIDIAN	IS260952
PSM	I72620
PSM COORDINATES	LOCAL GRID
RL (m)	–

GENERAL NOTES

1. **CONTRACT DOCUMENTATION**
ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE CONTRACT SPECIFICATION AND CoGC STANDARD DRAWINGS AND SPECIFICATIONS.
2. **DATUM**
LEVELS SHOWN ON THE PLANS ARE A.H.D.
3. **SURVEY SETOUT**
THE SURVEY SET OUT INFORMATION TO ALLOW THE CONTRACTOR TO ACCURATELY SET OUT THE WORKS HAS BEEN ESTABLISHED ON SITE BY THE PRINCIPAL'S SURVEYOR. THE CONTRACTOR IS NOT TO SCALE FROM THESE PLANS AS A MEANS OF OBTAINING SETOUT INFORMATION.
4. **EXISTING SURVEY CONTROL STATIONS**
IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT EXISTING SURVEY CONTROL STATIONS ARE NOT DISTURBED OR DAMAGED BY CONSTRUCTION ACTIVITIES. SHOULD THE CONTRACTOR IDENTIFY ANY CONFLICT BETWEEN EXISTING SURVEY CONTROL AND THE REQUIRED CONSTRUCTION ACTIVITIES THE SUPERINTENDENT IS TO BE NOTIFIED IMMEDIATELY.
5. **EXISTING SERVICES**
THE LOCATION OF EXISTING SERVICES WHERE SHOWN ON THE PLANS ARE INDICATIVE ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE RELEVANT SERVICE AUTHORITIES TO ASCERTAIN THE EXACT LOCATION OF ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF WORKS AND TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO THE EXISTING SERVICES.
6. **SITE ACCESS**
THE CONTRACTOR SHALL ONLY GAIN ACCESS TO THE SITE VIA ACCESS LOCATIONS APPROVED BY THE SUPERINTENDENT. FREEDOM OF ACCESS TO OTHER WORK AREAS ON THE SITE SHALL BE MAINTAINED AT ALL TIMES.
7. **PROVISION FOR TRAFFIC**
PROVISION FOR TRAFFIC ON LOCAL ROADS SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND CoGC COUNCIL REQUIREMENTS.
8. **WORK EXTENT**
THE CONTRACTOR IS TO RESTRICT ACTIVITIES TO THOSE AREAS DESIGNATED AS WORKS AREAS UNDER THE CONTRACT. AT NO TIME IS THE CONTRACTOR TO ENTER ADJOINING PROPERTIES OR CONTRACT AREAS WITHOUT THE WRITTEN AUTHORISATION OF THE SUPERINTENDENT.
9. **TESTING**
ALL TESTING IS TO BE CARRIED OUT BY AN APPROVED N.A.T.A TESTING AUTHORITY IN ACCORDANCE WITH THE PROJECT SPECIFICATION AND REQUIREMENTS OF CoGC COUNCIL.
10. **"AS CONSTRUCTED" SURVEY**
"AS CONSTRUCTED" SURVEY SHALL BE CARRIED OUT BY THE PRINCIPAL'S SURVEYOR AS WORK PROCEEDS. THE CONTRACTOR IS TO PROVIDE ADEQUATE NOTICE TO THE PRINCIPAL'S SURVEYOR ON WHEN THIS IS REQUIRED TO ENSURE COMPLIANCE WITH THE REQUIREMENTS OF CoGC COUNCIL.
11. **MAINTENANCE OF SITE CONDITION**
AT THE COMPLETION OF WORKS THE SITE IS TO BE LEFT IN A CLEAN AND TIDY CONDITION TO THE SATISFACTION OF THE SUPERINTENDENT AND CoGC.

EARTHWORKS

1. **PRECEDENCE**
EARTHWORKS SPECIFICATION PREPARED BY PROJECT GEOTECHNICAL ENGINEER TO TAKE PRECEDENCE OVER STANDARD COUNCIL EARTHWORKS NOTES.
2. **TOPSOIL STRIPPING**
TOPSOIL SHALL BE STRIPPED ACROSS THE ENTIRE LIMIT OF THE EARTHWORKS CUT AND FILL AREAS AND SHALL BE STOCKPILED IN A LOCATION APPROVED BY THE SUPERINTENDENT. THE EXISTING STRATA IS TO BE TREATED IN ACCORDANCE WITH THE SPECIFICATION PRIOR TO PLACING ANY FILL.
3. **EARTHWORKS LEVELS**
EARTHWORKS LEVELS SHOWN ON THE DRAWING ARE TO FINISHED SURFACE LEVELS AND INCLUDE 100mm OF TOPSOIL. THE CONTRACTOR SHALL VERIFY BENCH MARK LEVELS AND ADVISE THE SUPERINTENDENT OF ANY DISCREPANCY BEFORE COMMENCEMENT OF CONSTRUCTION.
4. **UNDESIRABLE MATERIAL**
THE ENTIRE SITE/WORK AREAS SHALL BE CLEARED OF ALL UNDESIRABLE MATTER. THIS SHALL INCLUDE DEAD TIMBER, GRASS, OLD FOUNDATIONS, CONCRETE, MASONRY REMAINS, GARBAGE, DEBRIS AND ALL OTHER OBSTRUCTIONS TO THE WORKS UNLESS NOTED OTHERWISE. HOLES LEFT BY THE REMOVAL OF ANY OF THE ABOVE SHALL BE FILLED WITH APPROVED COMPACTED MATERIAL WITH PROPERTIES AT LEAST SIMILAR TO INSITU SOILS.
5. **COMPACTION STANDARD**
FILL MATERIAL SHALL BE COMPACTED TO THE FOLLOWING STANDARD, WHERE DRY DENSITY RATIO IS DETERMINED IN ACCORDANCE WITH AS 1289 USING STANDARD COMPACTION METHODS.

a. 100% DRY DENSITY RATIO IN COHESIVE MATERIAL OR 80% IN COHESIONLESS MATERIAL FOR ROAD SUBGRADE.

b. 98% DRY DENSITY RATIO IN COHESIVE MATERIAL OR 65% IN COHESIONLESS MATERIAL FOR ALL AREAS OTHER THAN THE ROADWAY AND BUILDING PADS.

c. 98% DRY DENSITY RATIO IN COHESIVE MATERIAL OR 70% IN COHESIONLESS MATERIAL FOR BUILDING PADS.
6. **PAVEMENT DEPTHS**
EARTHWORKS VOLUMES DO NOT INCLUDE DESIGN PAVEMENT DEPTHS AS INDICATED ON THE TYPICAL BULK EARTHWORKS ROAD SECTION.
7. **TESTING**
ALL EARTHWORKS TO BE CARRIED OUT UNDER LEVEL 1 SUPERVISION IN ACCORDANCE WITH AUSTRALIAN STANDARDS AS 3798 UNLESS DIRECTED OTHERWISE BY THE SUPERINTENDENT. ALL COMPACTION TESTING SHALL BE CARRIED OUT BY AN APPROVED N.A.T.A TESTING AUTHORITY.
8. **ROCK**
THE CONTRACTOR IS TO INCLUDE ROCK EXCAVATION AS PART OF THEIR EARTHWORKS RATES UNLESS SCHEDULED OTHERWISE WITHIN THE CONTRACT DOCUMENT.

8. **DAMS AND PONDS**
WHERE POSSIBLE, WATER FROM DAMS AND PONDS SHALL BE MAINTAINED AND UTILISED FOR CONSTRUCTION PURPOSES AND DUST SUPPRESSION. DAMS AND PONDS NOT TO BE RETAINED SHALL BE DEWATERED, CLEARED OF ANY FOREIGN MATTER AND ORGANIC MATERIAL WITH THIS MATERIAL TO BE REMOVED OFF SITE.
9. **RETAINING STRUCTURES**
THE DESIGN AND STRUCTURAL CERTIFICATION OF RETAINING STRUCTURES SHALL BE UNDERTAKEN BY THE CONTRACTOR'S STRUCTURAL ENGINEER (RPEQ) IN CONSULTATION WITH THE PROJECT'S CIVIL ENGINEER AND LANDSCAPE CONSULTANT. THE CONTRACTOR IS RESPONSIBLE FOR THE SUBMISSION AND APPROVAL COORDINATION OF THE ASSOCIATED DRAWINGS AND CERTIFICATION TO GCCC. A COPY OF THIS SUBMISSION IS TO BE PROVIDED TO THE SUPERINTENDENT.
10. **TOPSOIL REPLACEMENT**
ALL BATTERS AND ALLOTMENT CUT & FILL AREAS SHALL BE TOP SOILED FROM ONSITE STOCKPILES. IF DIRECTED BY THE SUPERINTENDENT THE TOPSOIL SHALL BE SCREENED PRIOR TO PLACING. THE CONTRACTOR SHALL ALLOW IN THEIR RATE FOR SCREENING AND THE DISPOSAL OF REJECT MATERIAL TO TIP OFFSITE INCLUDING ALL FEES. THE CONTRACTOR MUST ENSURE THAT THE STRIPPING SHALL BE UNDERTAKEN IN SUCH A MANNER AS TO AVOID CONTAMINATION BY OVER CUTTING. IF TOPSOIL IS CONTAMINATED BY OVER CUTTING AND DETERMINED NOT SUITABLE FOR REUSE BY THE SUPERINTENDENT, THE CONTRACTOR SHALL BEAR THE COST OF REMOVAL FROM SITE OF ALL CONTAMINATED TOPSOIL AND THE COST TO SUPPLY AND IMPORT SUITABLE TOPSOIL FOR RE-SREADING.
11. **GRASSING / SEEDING**
ALL CUT & FILL AREAS AND DISTURBED AREAS SHALL BE GRASSED OR SEEDED TO THE SATISFACTION OF THE SUPERINTENDENT.
12. **STOCKPILES**
ALL MATERIAL/SPOIL ARISING FROM WORKS ON SITE SHALL BE COMPACTED TO AN APPROPRIATE STANDARD WITHIN THE FILL AREAS OF FUTURE STAGES AS NOMINATED BY THE SUPERINTENDENT. THE CONTRACTOR IS NOT TO CREATE STOCKPILES OF SURPLUS MATERIALS UNLESS WRITTEN AUTHORIZATION IS RECEIVED FROM THE SUPERINTENDENT.

SEDIMENT AND EROSION

1. THE OBJECTIVES OF THE EROSION AND SEDIMENT CONTROL PROGRAM ARE:

a. ALLOW STORMWATER TO PASS THROUGH THE SITE IN A CONTROLLED MANNER AT NON-EROSIVE FLOW VELOCITIES.

b. MINIMISE SOIL EROSION FROM WATER AND WIND

c. MINIMISE ADVERSE EFFECTS OF SEDIMENT RUNOFF.

d. MINIMISE OR PREVENT ENVIRONMENTAL HARM ASSOCIATED WITH DISCHARGE FROM THE CONSTRUCTED SITE.

e. ENSURE THAT THE VALUE AND USE OF RESIDENTIAL AND INDUSTRIAL PROPERTIES ADJACENT TO THE DEVELOPMENT ARE NOT DIMINISHED AS A RESULT OF THE MIGRATION OF SEDIMENT FROM THE DEVELOPMENT.
2. THE EROSION AND SEDIMENT CONTROL PROGRAM SHALL COMPLY WITH THE ENVIRONMENTAL BEST ENGINEERING GUIDELINES FOR QUEENSLAND CONSTRUCTION SITES, THE CURRENT INSTITUTION OF ENGINEERS AUSTRALIA AND LOCAL AUTHORITY GUIDELINES. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO CONTROL EROSION AND DOWNSTREAM SEDIMENTATION DURING ALL STAGES OF CONSTRUCTIONS INCLUDING THE MAINTENANCE PERIOD. NOTWITHSTANDING THE FINISHED EARTHWORK DESIGN SHOWN ON THE DRAWINGS THE CONTRACTOR IS RESPONSIBLE TO IMPLEMENT ADDITIONAL SEDIMENT CONTROL MEASURES AND DEVICES USING BEST PRACTICES AS NECESSARY TO MINIMISE THE QUANTITY LEAVING THE SITE DURING CONSTRUCTION AND UPON COMPLETION OF EARTHWORKS.
3. THE CONTRACTOR IS TO FOLLOW CONSTRUCTION PHASE AS OUTLINED IN THE CONSTRUCTION SEQUENCE/SILT MANAGEMENT PROGRAM. ALL SEDIMENT CONTROL DEVICES SHALL BE MONITORED, CLEANED AND/OR REPLACED WHENEVER THE ACCUMULATED SEDIMENT REDUCES THE CAPACITY BY 50%. ALL PERIMETER BANK/SWALES SHALL HAVE UNINTERRUPTED POSITIVE GRADE TO AN OUTLET. AT ALL TIMES THE CONTRACTOR SHALL MONITOR THE PREVAILING WEATHER CONDITIONS AND PROTECT ANY DOWNSTREAM CONSTRUCTION AND GULLY INLETS. INLETS TO HAVE SILT PROTECTION IN ACCORDANCE WITH KERB INLET PROTECTION DETAIL AT LOCATIONS SHOWN OR AS INDICATED BY THE ENGINEER.
4. PRIOR TO THE COMMENCEMENT OF EARTHWORKS, THE CONTRACTOR IS TO CARRY OUT SOIL TESTING (IF REQUIRED BY SUPERINTENDENT) TO DETERMINE THE DISPERSIVE CHARACTERISTICS OF THE SOIL AND RESULTS TO BE GIVEN TO THE ENGINEERS SO THE FINALIZATION OF THE EROSION AND SEDIMENT CONTROL PLAN CAN BE COMPLETE.
5. TOPSOIL SHALL BE STRIPPED AND STOCKPILED IN LOCATIONS AGREED WITH THE SUPERINTENDENT. CLEARING OF SITE AND STOCKPILE AREAS TO BE AS DIRECTED BY THE SUPERVISING ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROLLING DUST AT ALL TIMES INCLUDING WEEKENDS AND PUBLIC HOLIDAYS.
6. SUITABLE ACCESS SHALL BE PROVIDED TO ALLOW MAINTENANCE OF ALL SEDIMENT CONTROL DEVICES (IT IS TO BE NOTED THAT CLEARING SHALL ONLY OCCUR IN AREAS WHERE THERE IS NO OTHER ALTERNATIVE TO GAIN ACCESS TO THE LOCATION OF THE SEDIMENT CONTROL DEVICES). APPROVAL FOR REMOVAL OF PROTECTED SIZE VEGETATION MUST BE OBTAINED PRIOR TO CLEARING.
7. ROCK BUNDS TO BE PLACED AROUND ALL HEADWALLS DURING CONSTRUCTION.
8. 0.8m TURF IS TO BE PLACED BEHIND ON ALL BATTERS WITHIN PRIVATE OPEN SPACE STEEPER THAN 1:4 UNLESS OTHERWISE NOTED. THE EXTENT OF GRASSING SHALL BE DETERMINED BY THE ENGINEER AND SHALL BE SEEDED, AS SPECIFIED, WITHIN 7 DAYS OF FINAL TRIMMING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT GRASS STRIKE RATES ARE ACHIEVED AT ON AND OFF MAINTENANCE INSPECTION IN ACCORDANCE WITH COUNCIL REQUIREMENTS.
9. TURF IS TO BE PLACED FROM BACK OF KERB TO ROAD RESERVE BOUNDARY ON ALL ROADS AFTER EARTHWORKS ARE COMPLETE.
10. GEO-FABRIC LINING OF CHANNELS AND CHECK DAMS MAY BE REQUIRED SUBJECT TO THE SITE CONDITIONS.
11. FILLING AND OR MAINTENANCE OF EXISTING AND OR SEDIMENT BASINS MAY REQUIRE FLOCCULATION.
12. BATTERS WITHIN PUBLIC OPEN SPACE TO BE VEGETATED IN ACCORDANCE WITH THE APPROVED OPEN SPACE MANAGEMENT PLAN (OSMP).
13. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CLEAN OUT GPT'S, SEDIMENT FOREBAYS AND ALL OTHER SEDIMENT CONTROL DEVICES DURING CONSTRUCTION AND PRIOR BOTH ON AND OFF MAINTENANCE INSPECTIONS WITH CoGC. THE CONTRACTOR SHALL ALLOW FOR THE COST OF THESE WORKS WITHIN THEIR SUBMITTED TENDER PRICE.

CONSTRUCTION SEQUENCE/SILT MANAGEMENT PROGRAM

1. **PRE START**

a. ERECT SITE SIGNAGE, CONSTRUCT ENTRY AND EXIT POINT AS INDICATED CONSTRUCT VEHICLE WASH-DOWN AREA AND ASSOCIATED SILT MANAGEMENT DEVICES.

b. CONSTRUCT SITE OFFICE AND STORAGE COMPOUND AREA

c. ERECT SILT FENCE AT LOW POINTS OF THE SITE AS DEMONSTRATED

d. ERECT TEMPORARY TREE PROTECTION FENCING FOR VEGETATION TO BE RETAINED IN ACCORDANCE WITH AN OPW (TREE CLEARING) APPROVAL OR IN ACCORDANCE WITH AS4970 PROTECTION OF TREES ON DEVELOPMENT SITE.

e. CONSTRUCT ROCK CHECK DAMS AND SILT FENCE DOWN STREAM OF BASIN.

f. CONSTRUCT BASIN TO FULL DEPTH.

g. CONSTRUCT BALANCE OF BASIN IN CONJUNCTION WITH CLEARING AND BULK EARTHWORKS OPERATIONS.

h. BASIN TO BE UTILISED AS A TEMPORARY SEDIMENT BASIN. DO NOT FILL IN FILTRATION MATERIAL UNTIL CONSTRUCTION OF DEVELOPMENT IS COMPLETE.
2. **CLEARING AND BULK EARTHWORKS**
THERE SHALL BE NO CLEARING OF PROTECTED SITE VEGETATION WITHOUT AN APPROVED TREE CLEARING PLAN WHICH SHALL BE IN ACCORDANCE WITH AS4970. SILT FENCE, SAND BAGS AND EARTH RILLS WITHIN ROADS TO BE ERECTED AS INDICATED OR REQUIRED DURING CLEARING & EARTHWORKS. SUPERINTENDENT TO CONFIRM THE EXTENT OF CLEARING PRIOR TO COMMENCEMENT OF WORKS.
3. **CONSTRUCTION OF SEWER/ROOFWATER/STORMWATER/SERVICES**
EXCAVATED MATERIAL TO BE PLACED ON HIGH SIDE OF TRENCH AND TO PROTECT PIPE WORK AND DIRECT SURFACE MATERIAL AWAY FROM EXCAVATIONS. TOPSOIL AND GRASS SEED AREAS IN ALLOTMENTS IMMEDIATELY AFTER COMPLETING THE SEWER AND ROOFWATER DRAINAGE CONSTRUCTION. DEPRESS GROUND AROUND TEMPORARY FIELD INLETS TO CREATE SILT POND.
4. **CONSTRUCTION – SEDIMENT BASINS**
SEDIMENT BASIN TO BE CONSTRUCTED TO THE EARTHWORK PROFILES SHOWN. STORMWATER OUTLET PIPES TO BE TEMPORARY BLOCKED OFF UNTIL DECOMMISSIONING OF SEDIMENT BASIN (SUBSEQUENT TO CONSTRUCTION OF ALL STAGES). PLACE SPOIL FROM SEDIMENT BASIN INTO ALLOCATED AREAS AS ENGINEERED FILL IN ACCORDANCE WITH THE STAGING ORDER. SEDIMENT BASIN SHALL ONLY BE REMOVED AFTER APPROVAL BY SUPERINTENDENT AND COUNCIL.
5. **CONSTRUCTION – STOCKPILING**
TEMPORARY SILT FENCE TO BE ERECTED 5m FROM TOE OF BATTER ON LOW SIDE OF STOCKPILING. STOCKPILE SITE TO BE CLEARED OF ADJACENT PROPERTY BOUNDARIES SO AS NOT TO CAUSE NUISANCE TO ADJOINING PROPERTIES. NO STOCKPILES ARE TO BE LOCATED WITHIN THE DRIP ZONE OR STRUCTURAL ROOT ZONE OF ANY RETAINED VEGETATION.
6. **CONSTRUCTION – ROADWORKS**
SILT FENCES TO ALLOTMENTS TO BE ERECTED. KERB INLET PROTECTION TO BE PROVIDED TO ALL GULLIES.
7. **CONSTRUCTION – ALLOTMENTS**
TOPSOIL AND SEED ALLOTMENTS. SILT FENCES TO ALLOTMENTS TO BE RE-ERECTED. COVERS TO GULLY GRATES TO BE REMOVED IF THE SUPERINTENDENT INDICATE THE GRASS STRIKE IS SUFFICIENT (80% WITHIN 30 CALENDAR DAYS OF FINAL ALLOTMENT RIMMING).
8. **POST CONSTRUCTION – ALLOTMENTS**
TOPSOIL AND GRASS SEED ALL ALLOTMENTS. COVERS TO GULLY GRATES TO BE REMOVED IF THE SUPERINTENDENT INDICATES THE GRASS STRIKE IS SUFFICIENT (80% WITHIN 30 CALENDAR DAYS OF FINAL ALLOTMENT TRIMMING).
9. **POST CONSTRUCTION – BASIN**
BASIN TO CONTINUE ACTING AS SEDIMENT BASIN UNTIL COMPLETION OF ALL STAGES.
10. **POST CONSTRUCTION – ROAD RESERVES**
TOPSOIL AND TURFING IS TO BE PROVIDED BEHIND KERB.
11. **MAINTENANCE (PRE TO POST CONSTRUCTION)**
THE SILT FENCES ARE TO BE INSPECTED WEEKLY. ANY REPAIRS REQUIRED ARE TO BE EFFECTED IMMEDIATELY. SILT AFTER RAIN IS TO BE CLEANED FROM STREETS AND ALLOTMENTS IMMEDIATELY AND CORRECTIVE ACTION TAKEN TO AVOID A RE-OCCURRENCE OF THE FAILURE.
12. **BASIN CONSTRUCTION**
PRIOR TO COMMENCING CONSTRUCTION OF THE DETENTION BASIN THE DIVERSION OF SURFACE WATER FROM THE PROPOSED WORK AREAS, USING MEASURES SUCH AS OPEN DRAINS/SUMPS, ARE REQUIRED TO AID IN SITE DE-WATERING. BASIN TO CONTINUE ACTING AS SEDIMENT BASIN UNTIL 85% OF CATCHMENT CONSTRUCTION IS COMPLETE. THE CLAY FILLING FOR THE BASIN WALLS SHALL BE PLACED IN HORIZONTAL LAYERS OF 200mm THICKNESS AND COMPACTED TO DENSITY RATIO WITHIN THE RANGE 98%–102% STANDARD COMPACTION (AS 1289.5.1.1). PLACEMENT MOISTURE CONTENT SHOULD BE WITHIN THE RANGE OMC –1% TO OMC –2% (WHERE OMC = OPTIMUM MOISTURE CONTENT FOR STANDARD COMPACTION). CONTRACTOR TO PROVIDE SAFETY FENCING TO BASIN DURING CONSTRUCTION AND APPROPRIATE SIGNAGE (PERMANENT OR TEMPORARY).



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T: 9807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast | 78 Business Street, Yatala QLD | PO Box 392, Beerleigh 4207

Client:



FPI QUEENSLAND
PTY. LTD.

Project:

VANTAGE YATALA
STAGE 3
EXTERNAL INTERSECTION

Site Address:

LOT 504 HOMESTEAD
DRIVE, STAPYLTON
QLD, 4207

RPD:

Lot: 504
Plan: SP329485
Local Authority: CITY OF GOLD COAST

Level Datum: AHD
Meridian:
PSM:
RL:

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Drawing Title:

GENERAL NOTES
SHEET 1 OF 2

B	24/08/23	ISSUED FOR APPROVAL	JH	MG
A	16/08/23	ORIGINAL ISSUE	JH	MG
Rev	Date	Description	JH	CHK

DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE. A1 UNREDUCED
CULVERT AND PIPE SIZES IN MILLIMETRES A3 REDUCED

Scale:

NOT APPLICABLE

PROJECT NORTH POINT

Project No.	5941
Designed: JH	Drafted: TGP
Approved: MG	
RPEQ	16939
Signed:	
Date:	24/08/2023
Drawing No:	Revision
5941 ENG EXT3 002	B

G:\Projects\5941\ENGINEERING\Asad\EXTERNAL INTERSECTION STAGE 3\Current\5941 ENG EXT3 002.dwg

HES BASIN GENERAL NOTES

AUTO DOSER

1. PROVIDED AS EITHER 'FLOC BOX' OR 'IFOD-RAIN' DOSING UNIT OR APPROVED EQUIVALENT TO MANUFACTURERS SPECIFICATION.
2. DOSER AND SUPPLY OF FLOCCULANT TO BE PROVIDED ON LEVEL PAD 4mX4m WITHIN 10m OF DOSING POINT.
3. ALL-WEATHER ACCESS TRACK TO BE PROVIDED TO DOSER.
4. FLOCCULANT PROVIDED AS TURBICLEAR (ACH) OR APPROVED EQUIVALENT. IF ALTERNATIVE FLOCCULANT USED THEN THE BASIN SIZE IS TO BE INCREASED ACCORDING TO JAR SETTLEMENT TEST (REFER TO TABLE BELOW).

JAR SETTLEMENT AFTER 15 MINS	MULTIPLICATION FACTOR TO SETTLING ZONE
(mm)	VOLUME
50	x3.0
75	x2.0
100	x1.5
150	x1.0

BASIN CONSTRUCTION

MATERIALS

5. EARTH FILL: CLEAN SOIL WITH EMERSON CLASS 2(I), 3, 4 OR 5 AND FREE OF ROOTS, WOODY VEGETATION, ROCKS AND OTHER UNSUITABLE MATERIAL. SOIL WITH EMERSON CLASS 4 AND 5 MAY NOT BE SUITABLE DEPENDING ON PARTICLE SIZE DISTRIBUTION AND DEGREE OF DISPERSION. CLASS 2 (I) SHOULD ONLY BE USED UPON RECOMMENDATION FROM GEOTECHNICAL SPECIALIST.
6. SPILLWAY ROCK: HARD, ANGULAR, DURABLE, WEATHER RESISTANT AND EVENLY GRADED ROCK WITH 50% BY WEIGHT LARGER THAN THE SPECIFIED NOMINAL (D50) ROCK SIZE. LARGE ROCK SHOULD DOMINATE, WITH SUFFICIENT SMALL ROCK TO FILL THE VOIDS BETWEEN LARGER ROCK. THE DIAMETER OF THE LARGEST ROCK SHOULD BE NO LARGER THAN 1.5 TIMES THE NOMINAL ROCK SIZE. THE SPECIFIC GRAVITY SHOULD BE AT LEAST 2.5.
7. GEOTEXTILE FABRIC: HEAVY DUTY, NEEDLE-PUNCHED, NON-WOVEN CLOTH, MINIMUM 'BIDIM' A24 OR EQUIVALENT.

CONSTRUCTION

8. NOTWITHSTANDING ANY DESCRIPTION CONTAINED WITH APPROVED PLANS OR SPECIFICATIONS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR SATISFYING THEMSELVES AS TO THE NATURE AND EXTENT OF THE SPECIFIED WORKS AND THE PHYSICAL AND LEGAL CONDITIONS UNDER WHICH THE WORKS WILL BE CARRIED OUT. THIS SHALL INCLUDE MEANS OF ACCESS, EXTENT OF CLEARING, NATURE OF THE MATERIALS TO BE EXCAVATED, TYPE AND SIZE OF MECHANICAL PLANT REQUIRED, LOCATION AND SUITABILITY OF WATER SUPPLY FOR CONSTRUCTION AND TESTING PURPOSES, AND ANY OTHER LIKELY MATTERS AFFECTING THE CONSTRUCTION OF THE WORKS.
9. REFER TO APPROVED PLANS FOR LOCATION, DIMENSIONS, AND CONSTRUCTION DETAILS. IF THERE ARE QUESTIONS OR PROBLEMS WITH THE LOCATION, DIMENSIONS, OR METHOD OF INSTALLATION, CONTACT THE ENGINEER OR RESPONSIBLE ON-SITE OFFICER FOR ASSISTANCE.
10. BEFORE STARTING ANY CLEARING OR CONSTRUCTION, ENSURE ALL THE NECESSARY MATERIALS AND COMPONENTS ARE ON THE SITE TO AVOID DELAYS IN COMPLETING THE SEDIMENT BASIN ONCE WORKS BEGIN.
11. INSTALL REQUIRED SHORT TERM SEDIMENT CONTROL MEASURES DOWNSTREAM OF THE PROPOSED EARTHWORKS TO CONTROL SEDIMENT RUNOFF DURING CONSTRUCTION OF THE BASIN.
12. THE AREA TO BE COVERED BY THE EMBANKMENT, BORROW PITS AND INCIDENTAL WORKS, TOGETHER WITH AN AREA EXTENDING BEYOND THE LIMITS OF EACH FOR A DISTANCE NOT EXCEEDING FIVE (5) METRES ALL AROUND MUST BE CLEARED OF ALL TREES, SCRUB, STUMPS, ROOTS, DEAD TIMBER AND RUBBISH AND DISPOSED OF IN A SUITABLE MANNER. DELAY CLEARING THE MAIN BASIN AREA UNTIL THE EMBANKMENT IS COMPLETE.
13. ENSURE ALL HOLES MADE BY GRUBBING WITHIN THE EMBANKMENT FOOTPRINT ARE FILLED WITH SOUND MATERIAL, ADEQUATELY COMPACTED, AND FINISHED FLUSH WITH THE NATURAL SURFACE.
14. BEFORE CONSTRUCTION OF THE CUT-OFF TRENCH OR ANY ANCILLARY WORKS WITHIN THE EMBANKMENT FOOTPRINT, ALL GRASS GROWTH AND TOPSOIL MUST BE REMOVED FROM THE AREA TO BE OCCUPIED BY THE EMBANKMENT AND MUST BE DEPOSITED CLEAR OF THIS AREA AND RESERVED FOR TOPDRESSING THE COMPLETED EMBANKMENT.

CUT-OFF TRENCH

15. EXCAVATE A CUT-OFF TRENCH ALONG THE CENTRE LINE OF THE EARTH FILL EMBANKMENT. CUT THE TRENCH TO STABLE SOIL MATERIAL, BUT IN NO CASE MAKE IT LESS THAN 600mm DEEP. THE CUT-OFF TRENCH MUST EXTEND INTO BOTH ABUTMENTS TO AT LEAST THE ELEVATION OF THE OUTLET SPILLWAY CREST. MAKE THE MINIMUM BOTTOM WIDTH WIDE ENOUGH TO PERMIT OPERATION OF THE EXCAVATION AND COMPACTION EQUIPMENT, BUT IN NO CASE LESS THAN 600mm. MAKE THE SIDE SLOPES OF THE TRENCH NO STEEPER THAN 1:2 (H: V).
16. ENSURE ALL WATER, LOOSE SOIL, AND ROCK ARE REMOVED FROM THE TRENCH BEFORE BACKFILLING COMMENCES. THE CUT-OFF TRENCH MUST BE BACKFILLED WITH SELECT EARTH-FILL OF THE TYPE SPECIFIED FOR THE EMBANKMENT, AND THIS SOIL MUST HAVE A MOISTURE CONTENT AND DEGREE OF COMPACTION THE SAME AS SPECIFIED FOR THE CORE ZONE.
17. MATERIAL EXCAVATED FROM THE CUT-OFF TRENCH MAY BE USED IN THE CONSTRUCTION OF THE EMBANKMENT PROVIDED IT IS SUITABLE AND IT IS PLACED IN THE CORRECT ZONE ACCORDING TO ITS CLASSIFICATION.

EMBANKMENT

18. SCARIFY AREAS ON WHICH FILL IS TO BE PLACED BEFORE PLACING THE FILL.
19. ENSURE ALL FILL MATERIAL USED TO FORM THE EMBANKMENT MEETS THE SPECIFICATIONS CERTIFIED BY A SOIL SCIENTIST OF GEOTECHNICAL SPECIALIST.
20. THE FILL MATERIAL MUST CONTAIN SUFFICIENT MOISTURE SO IT CAN BE FORMED BY HAND INTO A BALL WITHOUT CRUMBLING. IF WATER CAN BE SQUEEZED OUT OF THE BALL, IT IS TOO WET FOR PROPER COMPACTION. PLACE FILL MATERIAL IN 150 TO 200mm CONTINUOUS LAYERS OVER THE ENTIRE LENGTH OF THE FILL AREA AND THEN COMPACT BEFORE PLACEMENT OF FURTHER FILL.
21. UNLESS SPECIFIED ON THE APPROVED PLANS, COMPACT THE SOIL AT ABOUT 1% TO 2% WET OPTIMUM AND TO 95% MODIFIED OR 100% STANDARD COMPACTION.
22. WHERE BOTH DISPERSIVE AND NON-DISPERSIVE CLASSIFIED EARTH-FILL MATERIALS ARE AVAILABLE, NON-DISPERSIVE EARTH-FILL MUST BE USED IN THE CORE ZONE. THE REMAINING CLASSIFIED EARTH-FILL MATERIALS MUST ONLY BE USED AS DIRECTED BY THE SITE SUPERINTENDENT.
23. WHERE SPECIFIED, CONSTRUCT THE EMBANKMENT TO AN ELEVATION 10% HIGHER THAN THE DESIGN HEIGHT TO ALLOW FOR SETTLING; OTHERWISE FINISHED DIMENSIONS OF THE EMBANKMENT AFTER SPREADING OF TOPSOIL MUST CONFORM TO THE DRAWING WITH A TOLERANCE OF 75mm FROM SPECIFIED DIMENSIONS.
24. ENSURE DEBRIS AND OTHER UNSUITABLE BUILDING WASTE IS NOT PLACED WITHIN THE EARTH EMBANKMENT.
25. AFTER COMPLETION OF THE EMBANKMENT ALL LOOSE UNCOMPACTED EARTH-FILL MATERIAL ON THE UPSTREAM AND DOWNSTREAM BATTER MUST BE REMOVED PRIOR TO SPREADING TOPSOIL.
26. TOPSOIL AND RE-VEGETATE/STABILISE ALL EXPOSED EARTH AS DIRECTED WITHIN THE APPROVED PLANS.
27. THE AREA TO BE COVERED BY THE STORED WATER OUTSIDE OF THE LIMITS OF THE BORROW PITS MUST BE CLEARED OF RUBBISH. TREES MUST BE CUT DOWN STUMP HIGH AND REMOVED FROM THE IMMEDIATE VICINITY OF THE WORK.
28. ESTABLISH ALL REQUIRED INFLOW CHUTES AND INLET BAFFLES IF SPECIFIED TO ENABLE WATER TO DISCHARGE INTO THE BASIN IN A MANNER THAT WILL NOT CAUSE SOIL EROSION OR THE RE-SUSPENSION OF SETTLED SEDIMENT.
29. INSTALL A SEDIMENT STORAGE LEVEL MARKER POST WITH A CROSS MEMBER SET JUST BELOW THE TOP OF THE SEDIMENT STORAGE ZONE (AS SPECIFIED ON THE APPROVED PLANS). USE AT LEAST A 75mm WIDE POST FIRMLY SET INTO THE BASIN FLOOR.
30. IF SPECIFIED, INSTALL INTERNAL SETTLING POND BAFFLES. ENSURE THE CREST OF THESE BAFFLES IS SET LEVEL WITH, OR JUST BELOW, THE ELEVATION OF THE EMERGENCY SPILLWAY.
31. INSTALL ALL APPROPRIATE MEASURES TO MINIMISE SAFETY RISK TO ON-SITE PERSONNEL AND THE PUBLIC CAUSED BY THE PRESENCE OF THE SETTLING POND. AVOID STEEP, SMOOTH INTERNAL SLOPES. APPROPRIATELY FENCE THE SETTLING POND AND POST WARNING SIGNS IF UNSUPERVISED PUBLIC ACCESS IS LIKELY OR THERE IS CONSIDERED TO BE AN UNACCEPTABLE RISK TO THE PUBLIC.

SPILLWAY CONSTRUCTION

32. THE SPILLWAY MUST BE EXCAVATED AS SHOWN ON THE PLANS, AND THE EXCAVATED MATERIAL IF CLASSIFIED AS SUITABLE, MUST BE USED IN THE EMBANKMENT, AND IF NOT SUITABLE IT MUST BE DISPOSED OF INTO SPOIL HEAPS.
33. ENSURE EXCAVATED DIMENSIONS ALLOW ADEQUATE BOXING-OUT SUCH THAT THE SPECIFIED ELEVATIONS, GRADES, CHUTE WIDTH, AND ENTRANCE AND EXIT SLOPES FOR THE EMERGENCY SPILLWAY WILL BE ACHIEVED AFTER PLACEMENT OF THE ROCK OR OTHER SCOUR PROTECTION MEASURES AS SPECIFIED IN THE PLANS.
34. PLACE SPECIFIED SCOUR PROTECTION MEASURES ON THE EMERGENCY SPILLWAY. ENSURE THE FINISHED GRADE BLENDS WITH THE SURROUNDING AREA TO ALLOW A SMOOTH FLOW TRANSITION FROM SPILLWAY TO DOWNSTREAM CHANNEL.
35. IF A SYNTHETIC FILTER FABRIC UNDERLAY IS SPECIFIED, PLACE THE FABRIC DIRECTLY ON THE PREPARED FOUNDATION. IF MORE THAN 1 SHEET OF FILTER FABRIC IS REQUIRED, OVERLAP THE EDGES BY AT LEAST 300mm AND PLACE ANCHOR PINS AT MINIMUM 1m SPACING ALONG THE OVERLAP. BURY THE UPSTREAM END OF THE FILTER FABRIC A MINIMUM 300mm BELOW GROUND AND WHERE NECESSARY, BURY THE LOWER END OF THE FABRIC OR OVERLAP A MINIMUM 300mm OVER THE NEXT DOWNSTREAM SECTION AS REQUIRED. ENSURE THE FILTER FABRIC EXTENDS AT LEAST 1000mm UPSTREAM OF THE SPILLWAY CREST.
36. TAKE CARE NOT TO DAMAGE THE FABRIC DURING OR AFTER PLACEMENT. IF DAMAGE OCCURS, REMOVE THE ROCK AND REPAIR THE SHEET BY ADDING ANOTHER LAYER OF FABRIC WITH A MINIMUM OVERLAP OF 300mm AROUND THE DAMAGED AREA. IF EXTENSIVE DAMAGE IS SUSPECTED, REMOVE AND REPLACE THE ENTIRE SHEET.
37. WHERE LARGE ROCK IS USED, OR MACHINE PLACEMENT IS DIFFICULT, A MINIMUM 100mm LAYER OF FINE GRAVEL, AGGREGATE, OR SAND MAY BE NEEDED TO PROTECT THE FABRIC.
38. PLACEMENT OF ROCK SHOULD FOLLOW IMMEDIATELY AFTER PLACEMENT OF THE FILTER FABRIC. PLACE ROCK SO THAT IT FORMS A DENSE, WELL GRADED MASS OF ROCK WITH A MINIMUM OF VOIDS. THE DESIRED DISTRIBUTION OF ROCK THROUGHOUT THE MASS MAY BE OBTAINED BY SELECTIVE LOADING AT THE QUARRY AND CONTROLLED DUMPING DURING FINAL PLACEMENT.
39. THE FINISHED SLOPE SHOULD BE FREE OF POCKETS OF SMALL ROCK OR CLUSTERS OF LARGE ROCKS. HAND PLACING MAY BE NECESSARY TO ACHIEVE THE PROPER DISTRIBUTION OF ROCK SIZES TO PRODUCE A RELATIVELY SMOOTH, UNIFORM SURFACE. THE FINISHED GRADE OF THE ROCK SHOULD BLEND WITH THE SURROUNDING AREA. NO OVER FALL OR PROTRUSION OF ROCK SHOULD BE APPARENT.
40. ENSURE THAT THE FINAL ARRANGEMENT OF THE SPILLWAY CREST WILL NOT PROMOTE EXCESSIVE FLOW THROUGH THE ROCK SUCH THAT THE WATER CAN BE RETAINED WITHIN THE SETTLING BASIN AT THE ELEVATION NO LESS THAN 50mm ABOVE OF BELOW THE NOMINATED SPILLWAY CREST ELEVATION.



planning | environment | landscape | engineering | survey
T: 9807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast | 78 Business Street, Yatala QLD | PO Box 392, Beerleigh 4207

Client:



FPI QUEENSLAND
PTY. LTD.

Project:

VANTAGE YATALA
STAGE 3
EXTERNAL INTERSECTION

Site Address:

LOT 504 HOMESTEAD
DRIVE, STAPYLTON
QLD, 4207

RPD:

Lot: 504
Plan: SP329485
Local Authority: CITY OF GOLD COAST

Level Datum: AHD
Meridian:
PSM:
RL:

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GENERAL NOTES
SHEET 2 OF 2

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CULVERT AND PIPE SIZES IN MILLIMETRES A3 REDUCED

Scale:

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PROJECT NORTH POINT

Project No. 5941	
Designed: JH	Drafted: TGP
Approved: MG	
RPEQ 16939	
Signed:	
Date: 24/08/2023	
Drawing No: 5941 ENG EXT3 003	Revision B

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FEATURE LEGEND

	OVERLAND FLOW PATH/SWALE
	CATCH DRAIN (NOT LINED)
	DIVERSION CHANNEL
	TABLE DRAIN
	STREAM INVERT
	CATCH DRAIN (CONCRETE LINED)
	SUBSOIL DRAINAGE
	SAWCUT
	SEDIMENT FENCE
	CHAINWIRE FENCE
	WOODEN FENCE
	BRIFEN WIRE SAFETY BARRIER
	GUARDRAIL (STANDARD)
	RETAINING WALL (PILED)
	RETAINING WALL (WITH FOOTINGS)
	RETAINING WALL
	ROCKBLOCK RETAINING WALL
	TOP OF BATTER / BERM
	NOISE WALL
	EDGE OF VEGETATION
	PROPERTY LINE
	PROPERTY LINE WITH FENCE
	PROPOSED KERB, FOOTPATH
	CONTROL LINE / CENTER OF ROAD
	RAILWAY (MAJOR)
	RAILWAY (MINOR)
	EXISTING PROPERTY LINE
	EXISTING PROPERTY LINE WITH FENCE
	EXISTING KERB, FOOTPATH
	EXISTING EDGE OF BITUMEN
	EXISTING RAILWAY (MAJOR)
	EXISTING RAILWAY (MINOR)
	LIMIT OF WORKS
	LIMIT OF SITE
	CATCHMENT BOUNDARY
	EXISTING CONTOURS
	DESIGN CONTOURS

SERVICES LEGEND

	PROPOSED RISING MAIN
	PROPOSED SEWER
	PROPOSED STORMWATER
	PROPOSED ROOFWATER
	PROPOSED ROOFWATER
	PROPOSED SUBSOIL
	PROPOSED WATER
	PROPOSED RECYCLED WATER
	PROPOSED OIL
	PROPOSED FUEL
	PROPOSED GAS
	PROPOSED PIPELINE
	PROPOSED HIGH VOLTAGE ELECTRICITY
	PROPOSED UNDERGROUND ELECTRICITY
	PROPOSED OVERHEAD ELECTRICITY
	PROPOSED LIGHTING
	PROPOSED TELSTRA
	PROPOSED COMMUNICATIONS
	PROPOSED GAS, ELECT
	PROPOSED GAS, TELSTRA
	PROPOSED ELECT, TELSTRA
	PROPOSED GAS, ELECTRICITY, TELSTRA
	EXISTING RISING MAIN
	EXISTING SEWER
	EXISTING STORMWATER
	EXISTING ROOFWATER
	EXISTING ROOFWATER
	EXISTING SUBSOIL
	EXISTING WATER
	EXISTING RECYCLED WATER
	EXISTING OIL
	EXISTING FUEL
	EXISTING GAS
	EXISTING PIPELINE
	EXISTING HIGH VOLTAGE ELECTRICITY
	EXISTING UNDERGROUND ELECTRICITY
	EXISTING OVERHEAD ELECTRICITY
	EXISTING LIGHTING
	EXISTING TELSTRA
	EXISTING COMMUNICATIONS
	EXISTING GAS, ELECT
	EXISTING GAS, TELSTRA
	EXISTING ELECT, TELSTRA
	EXISTING GAS, ELECTRICITY, TELSTRA
	DEMOLISH RISING MAIN
	DEMOLISH SEWER
	DEMOLISH STORMWATER
	DEMOLISH SUBSOIL
	DEMOLISH WATER
	DEMOLISH OIL
	DEMOLISH FUEL
	DEMOLISH HIGH VOLTAGE ELECTRICITY
	DEMOLISH UNDERGROUND ELECTRICITY
	DEMOLISH OVERHEAD ELECTRICITY
	DEMOLISH LIGHTING
	DEMOLISH GAS
	DEMOLISH PIPELINE
	DEMOLISH TELSTRA
	DEMOLISH COMMUNICATIONS

SYMBOLS

BK(A)	BARRIER KERB (A)
BK(B)	BARRIER KERB (B)
BK(G)	BARRIER KERB (G)
MK(D)	MOUNTABLE KERB (D)
SMK(C)	SEMI MOUNTABLE KERB (C)
ER(E)	EDGE RESTRAINT (E)
KER(F)	KERB EDGE RESTRAINT (F)
RK&C(H)	ROLL TOP KERB & CHANNEL (H)
BK&C(J)	BARRIER KERB & CHANNEL (J)
ERH	KERB EDGE RESTRAINT (HIGH)
ERL	KERB EDGE RESTRAINT (LOW)
CS(K/L)	CHANNEL SECTION (K/L)
PMB	PRECAST MOTOR BED
DD	DISH DRAIN
K&G	KERB AND GUTTER
K&T	KERB AND TOE
KO	KERB ONLY
MK	MOUNTABLE KERB
RK	ROLL KERB
	EXISTING SIGN
	PROPOSED SIGN
	PROPOSED ROAD EDGE GUIDE POST
	EXISTING BIN
	POST BOX
	TELEPHONE BOX
	TELSTRA PIT
	TELSTRA MARKER POST
	WATER METER
	WATER VALVE
	FIRE HYDRANT
	WATER TAP
	WATER HYDRANT
	WATER TEE
	WATER REDUCER
	WATER ENDCAP
	WATER CONNECTION
	WATER CROSSING
	WATER DIOL
	SEWER MAINTENANCE HOLE
	SEWER RODDING END
	SEWER BEND
	SEWER MAINTENANCE SHAFT
	SEWER 'T' END
	SEWER SLUICE VALVE
	SEWER PIT
	SEWER PUMP STATION
	TEMPORARY SEWER PUMP STATION
	SEWER / STORMWATER PIT NO/LINE
	SETOUT POINT
	OFFSET PIT WITH GRATE
	IN LINE PIT WITH GRATE
	JUNCTION PIT
	LETTERBOX PIT
	GRATED INLET PIT
	MANHOLE
	GULLY PIT (LIP INLINE) BARRIER KERB - GRADE
	GULLY PIT (LIP INLINE) BARRIER KERB - SAG
	GULLY PIT (LIP INLINE) ROLL TOP KERB - GRADE
	GULLY PIT (LIP INLINE) ROLL TOP KERB - SAG
	GULLY PIT (KERB INLINE) - GRADE
	GULLY PIT (KERB INLINE) - SAG
	INFILTRATION TRENCH
	HEADWALL
	GROSS POLLUTANT TRAP
	STORMWATER CHAMBER

	BUND
	POWER POLE
	POWER POLE WITH LIGHT
	LIGHT POLE
	STAY POLE
	LIGHT POLE WITH EXTENSION
	ELECTRICAL INSPECTION BOX
	ELECTRICAL POLE
	ELECTRICAL TURRET
	DISH DRAIN
	TRAFFIC SIGNAL
	MAIN ROADS PIT
	TANGENT POINT
	KERB RETURN NO.
	PRAM RAMP
	GRAVEL ROCK CHECK DAM
	MESH & GRAVEL INLET FILTER
	STORMWATER INLET FILTER
	DIRECTION OF OVERLAND FLOW
	VEHICLE SHAKEDOWN
	GATE
	NOT IN SCOPE OF WORKS
	DEMOLITION
	PROPOSED CONCRETE FOOTPATH
	SCOUR PROTECTION
	TREES
	TADPOLE

Client:



FPI QUEENSLAND
PTY. LTD.

Project:

VANTAGE YATALA
STAGE 3
EXTERNAL INTERSECTION

Site Address:

LOT 504 HOMESTEAD
DRIVE, STAPYLTON
QLD, 4207

RPD:

Lot: 504
Plan: SP329485
Local Authority: CITY OF GOLD COAST

Level Datum: AHD
Meridian:
PSM:
RL:

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LEGEND

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Scale:

NOT TO SCALE

PROJECT NORTH POINT



Project No. 5941	
Designed: JH	Drafted: TGP
Approved:	MG
RPEQ	16939
Signed:	
Date:	24/08/2023
Drawing No: 5941 ENG EXT3 004	Revision B



Project:

VANTAGE YATALA
STAGE 3
EXTERNAL INTERSECTION

RPD:	
Lot:	504
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D	27/03/24	VXO ADDED	JH	MG
C	23/02/24	LAYOUT UPDATED	ML	MG
B	24/08/23	ISSUED FOR APPROVAL	JH	MG
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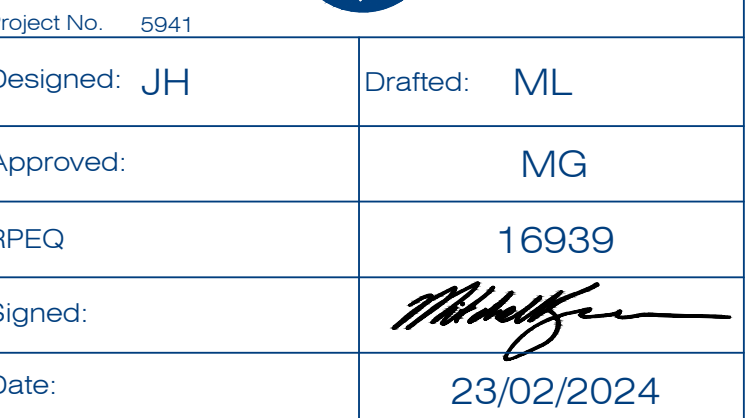
DIMENSIONS IN METRES EXCEPT WHERE
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A1 UNREDUCED

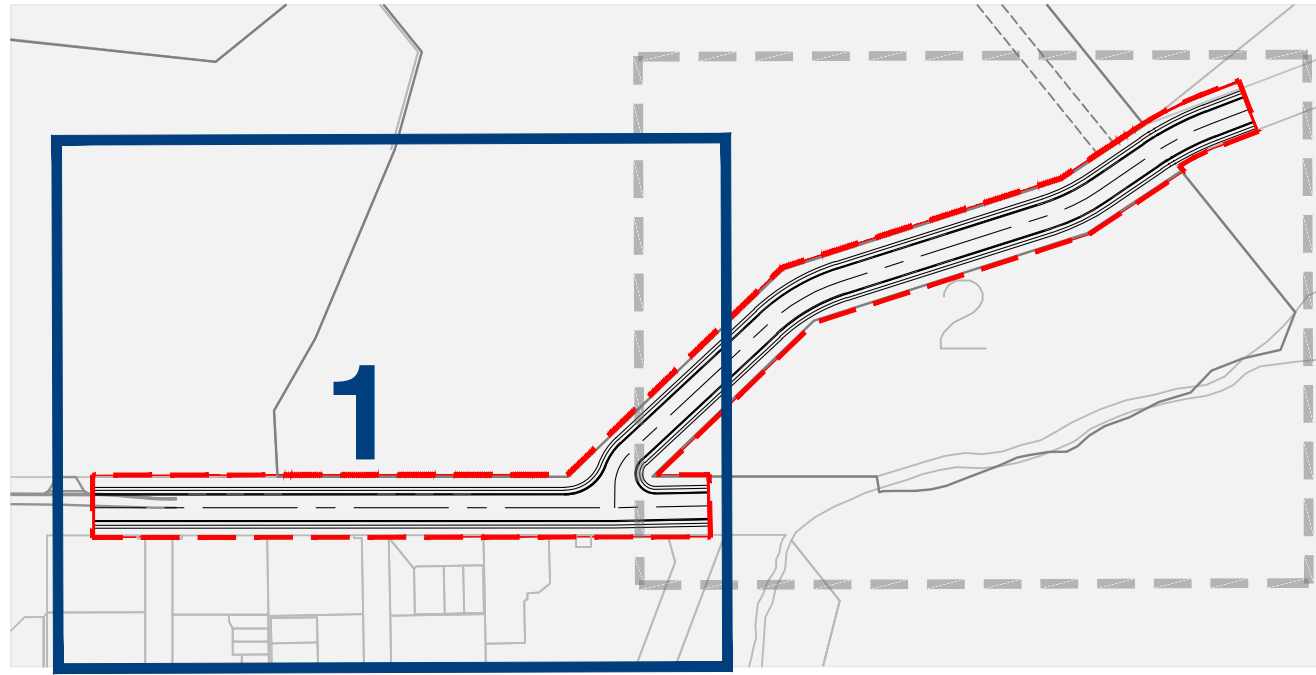
CULVERT AND PIPE SIZES IN MILLIMETRES

A3 REDUCED

PROJECT NORTH POINT



KEY LAYOUT PLAN

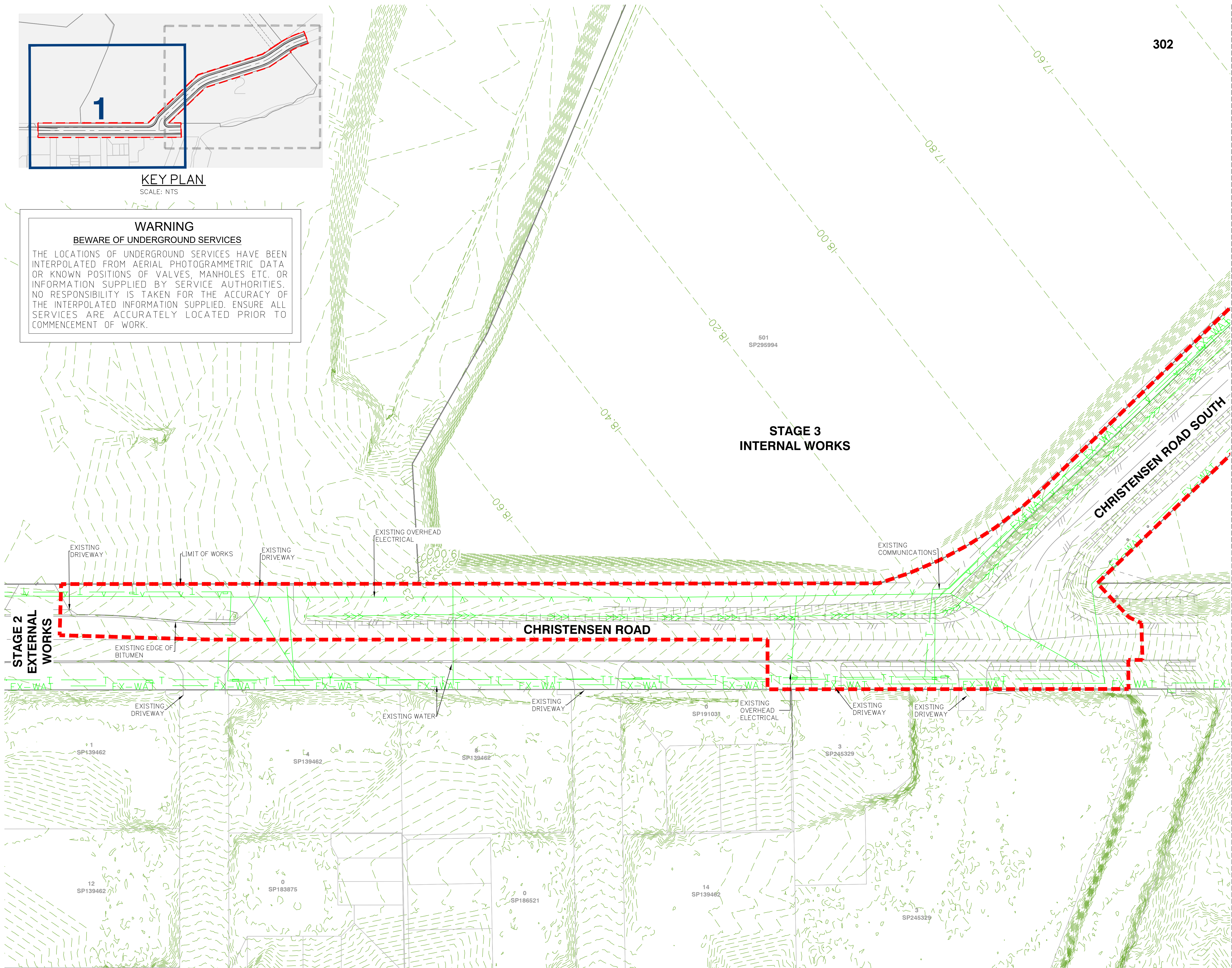


KEY PLAN
SCALE: NTS

WARNING

BEWARE OF UNDERGROUND SERVICES

THE LOCATIONS OF UNDERGROUND SERVICES HAVE BEEN INTERPOLATED FROM AERIAL PHOTOGRAMMETRIC DATA OR KNOWN POSITIONS OF VALVES, MANHOLES ETC. OR INFORMATION SUPPLIED BY SERVICE AUTHORITIES. NO RESPONSIBILITY IS TAKEN FOR THE ACCURACY OF THE INTERPOLATED INFORMATION SUPPLIED. ENSURE ALL SERVICES ARE ACCURATELY LOCATED PRIOR TO COMMENCEMENT OF WORK.



STAGE 3
INTERNAL WORKS

CHRISTENSEN ROAD SOUTH

CHRISTENSEN ROAD

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EXISTING SURFACE
LAYOUT PLAN
SHEET 1 OF 2

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DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE. CULVERT AND PIPE SIZES IN MILLIMETRES

Scale:
0 10 20 30 40m
1:500 (A1) 1:1000 (A3)

PROJECT NORTH POINT



Project No. 5941

Designed: JH

Drafted: ML

Approved:

MG

RPEQ

16939

Signed:

[Signature]

Date:

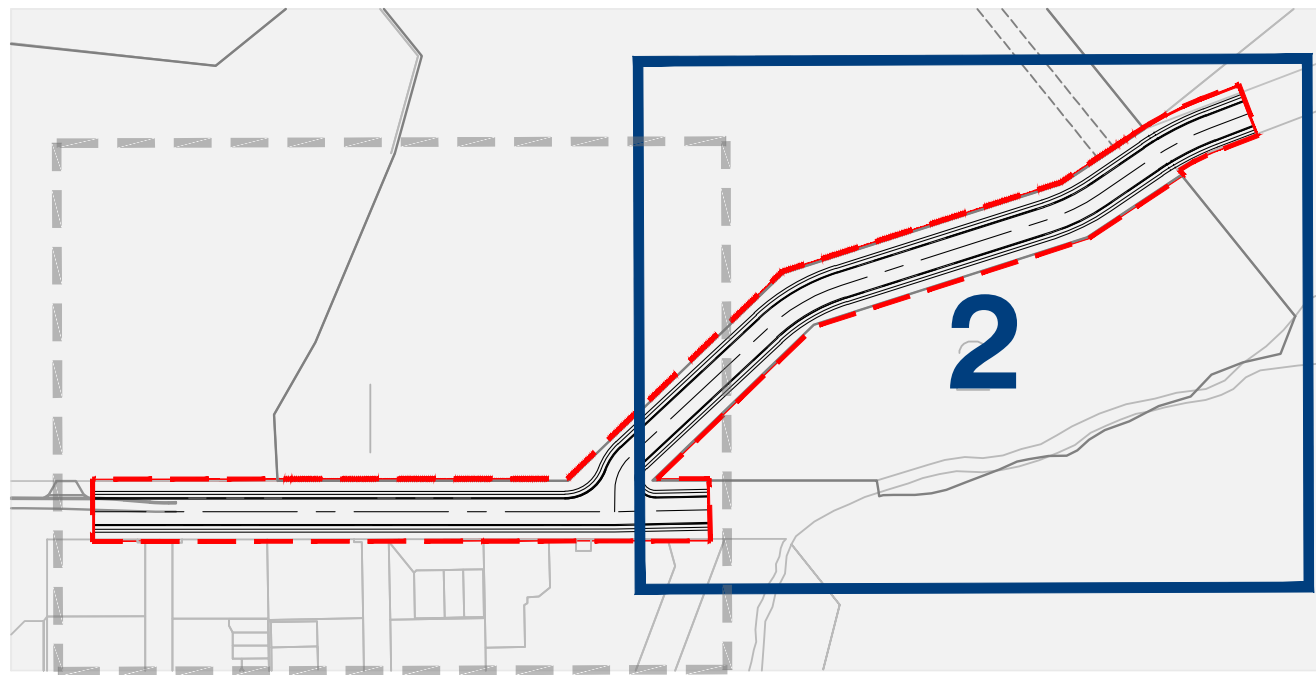
24/08/2023

Drawing No:

Revision

5941 ENG EXT3 010

B

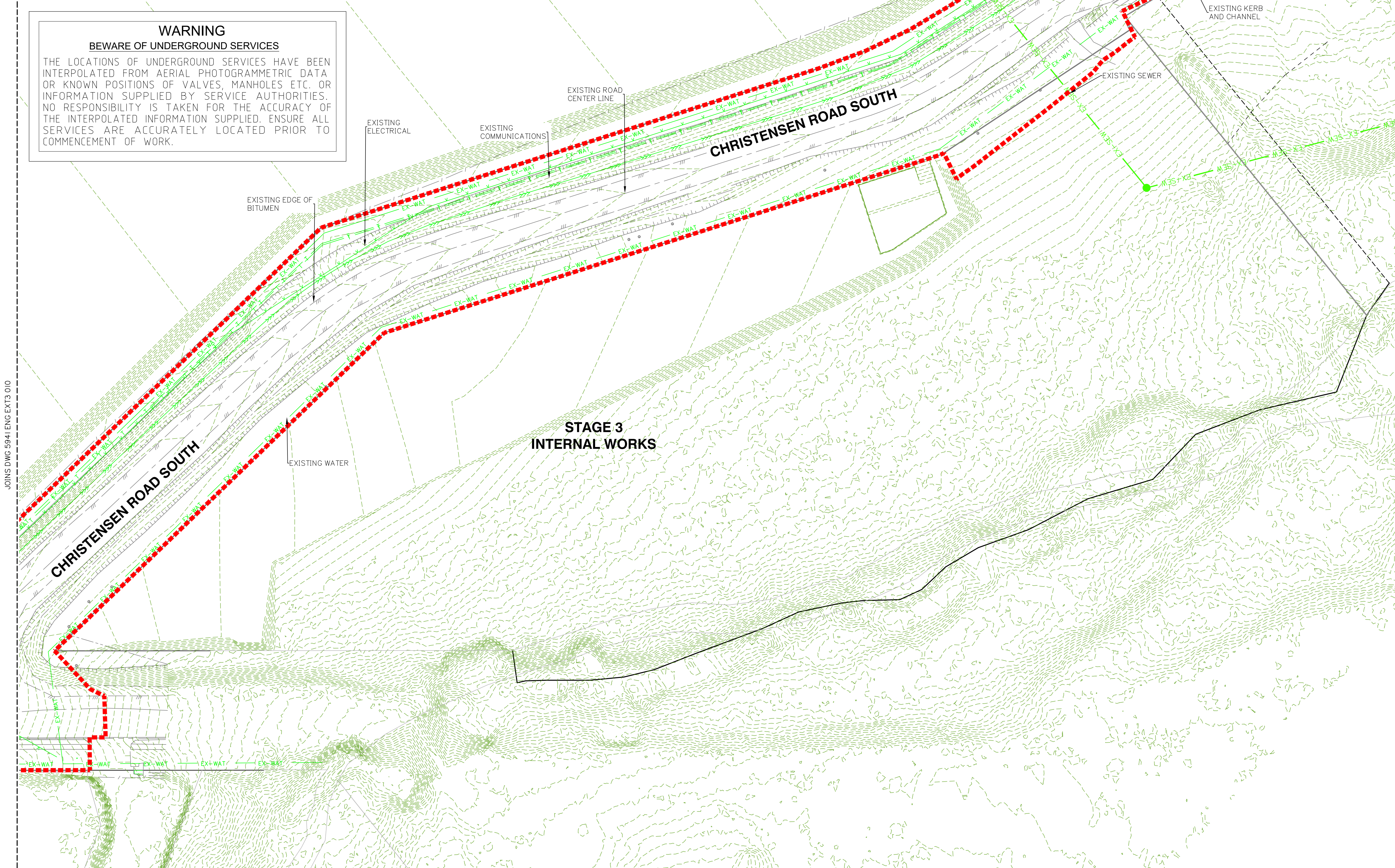


KEY PLAN
SCALE: NTS

WARNING

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Client:



FPI QUEENSLAND
PTY. LTD.

Project:

VANTAGE YATALA
STAGE 3
EXTERNAL INTERSECTION

Site Address:

LOT 504 HOMESTEAD
DRIVE, STAPYLTON
QLD, 4207

RPD:

Lot: 504
Plan: SP329485
Local Authority: CITY OF GOLD COAST

Level Datum: AHD
Meridian:
PSM:
RL:

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Drawing Title:

EXISTING SURFACE
LAYOUT PLAN
SHEET 2 OF 2

B	24/08/23	ISSUED FOR APPROVAL	JH	MG
A	16/08/23	ORIGINAL ISSUE	JH	MG
Rev	Date	Description	DRN	CHK

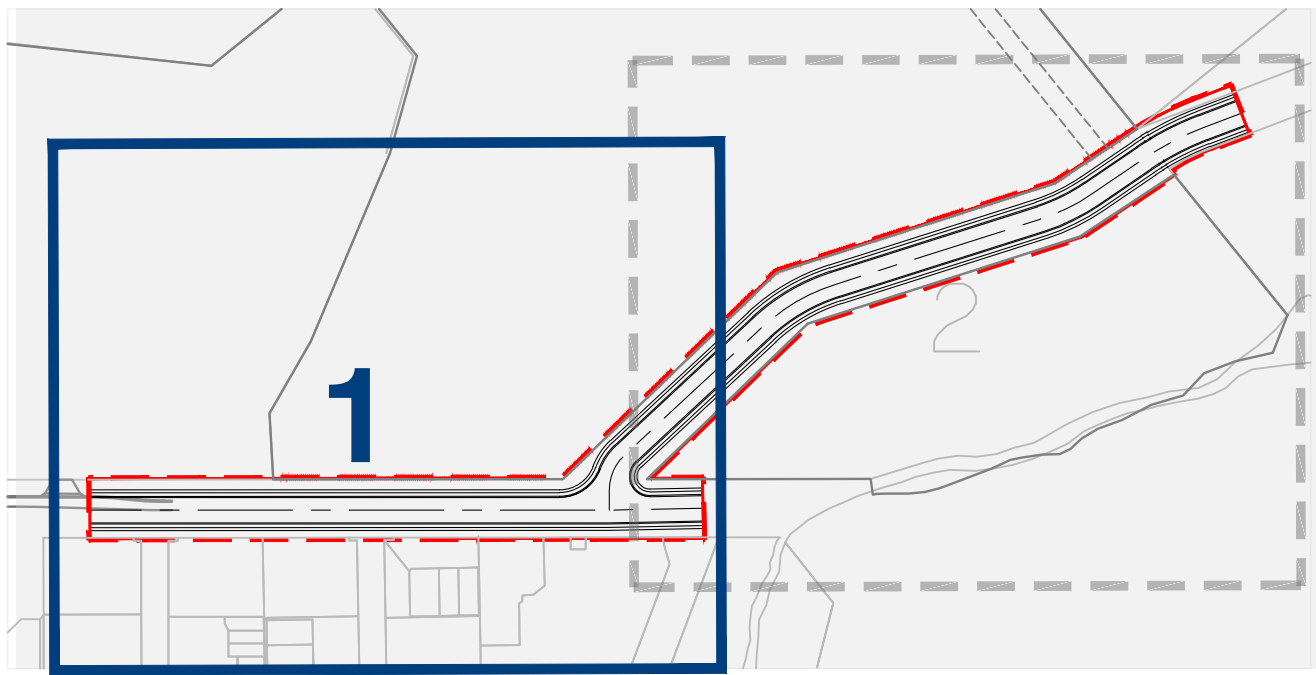
DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE. A1 UNREDUCED
CULVERT AND PIPE SIZES IN MILLIMETRES A3 REDUCED

Scale:
0 10 20 30 40m
1:500 (A1) 1:1000 (A3)

PROJECT NORTH POINT



Project No:	5941	
Designed:	JH	Drafted: ML
Approved:		MG
RPEQ		16939
Signed:		
Date:		24/08/2023
Drawing No:	5941 ENG EXT3 011	Revision B



KEY PLAN
SCALE: NTS

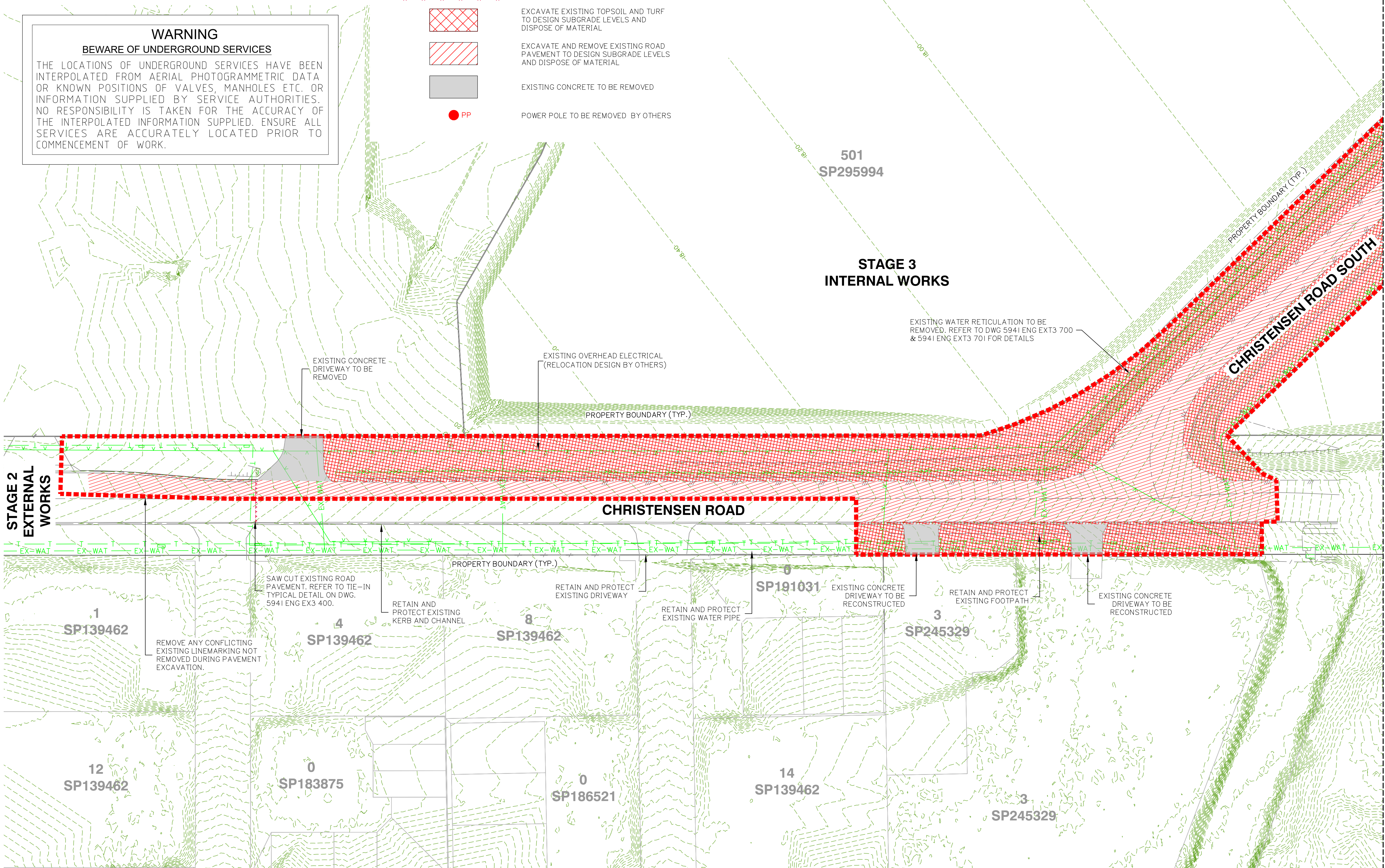
WARNING

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LEGEND

- PROPERTY BOUNDARY
- EXISTING FENCE LINE
- EXISTING CONTOURS (MINOR)
- EXISTING CONTOURS (MAJOR)
- 32.00
- LIMIT OF WORKS
- EXISTING UTILITY SERVICES TO BE RELOCATED BY OTHERS
- REMOVE EXISTING FENCE
- EXISTING COMMUNICATIONS (NBN, OPTUS, TELSTRA)
- EXISTING WATER MAIN
- EXISTING OVERHEAD ELECTRICITY
- SAWCUT EXISTING ROAD PAVEMENT
- EXCAVATE EXISTING TOPSOIL AND TURF TO DESIGN SUBGRADE LEVELS AND DISPOSE OF MATERIAL
- EXCAVATE AND REMOVE EXISTING ROAD PAVEMENT TO DESIGN SUBGRADE LEVELS AND DISPOSE OF MATERIAL
- EXISTING CONCRETE TO BE REMOVED
- PP POWER POLE TO BE REMOVED BY OTHERS



Client:



FPI QUEENSLAND
PTY. LTD.

Project:

VANTAGE YATALA
STAGE 3
EXTERNAL INTERSECTION

Site Address:

LOT 504 HOMESTEAD
DRIVE, STAPYLTON
QLD, 4207

RPD:

Lot: 504
Plan: SP329485
Local Authority: CITY OF GOLD COAST
Level Datum: AHD
Meridian:
PSM:
RL:

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Drawing Title:

DEMOLITION AND
PROTECTION LAYOUT
PLAN SHEET 1 OF 2

B	24/08/23	ISSUED FOR APPROVAL	JH	MG
A	16/08/23	ORIGINAL ISSUE	JH	MG
Rev	Date	Description	DRN	CHK

DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE. CULVERT AND PIPE SIZES IN MILLIMETRES

Scale:
0 10 20 30 40m
1:500 (A1) 1:1000 (A3)

PROJECT NORTH POINT



Project No. 5941	
Designed: JH	Drafted: ML
Approved:	MG
RPEQ	16939
Signed:	
Date:	24/08/2023
Drawing No. 5941 ENG EXT3 020	Revision B



KEY PLAN
SCALE: NTS

WARNING

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EXISTING WATER RETICULATION TO BE REMOVED. REFER TO DWG 5941 ENG EXT3 700 & 5941 ENG EXT3 701 FOR DETAILS

EXISTING WATER RETICULATION TO BE REMOVED. REFER TO DWG 5941 ENG EXT3 700 & 5941 ENG EXT3 701 FOR DETAILS

RETAIN AND PROTECT EXISTING SEWER PIPE

RETAIN AND PROTECT EXISTING WATER PIPE

PROPERTY BOUNDARY (TYP.)

PROPERTY BOUNDARY (TYP.)

CHRISTENSEN ROAD SOUTH

CHRISTENSEN ROAD SOUTH

STAGE 3
INTERNAL WORKS

LEGEND

- PROPERTY BOUNDARY
- EXISTING FENCE LINE
- EXISTING CONTOURS (MINOR)
- EXISTING CONTOURS (MAJOR)
- LIMIT OF WORKS
- EXISTING UTILITY SERVICES TO BE RELOCATED BY OTHERS
- REMOVE EXISTING FENCE
- EXISTING COMMUNICATIONS (NBN, OPTUS, TELSTRA)
- EXISTING WATER MAIN
- EXISTING OVERHEAD ELECTRICITY
- SAWCUT EXISTING ROAD PAVEMENT
- EXCAVATE EXISTING TOPSOIL AND TURF TO DESIGN SUBGRADE LEVELS AND DISPOSE OF MATERIAL
- EXCAVATE AND REMOVE EXISTING ROAD PAVEMENT TO DESIGN SUBGRADE LEVELS AND DISPOSE OF MATERIAL
- EXISTING CONCRETE TO BE REMOVED
- POWER POLE TO BE REMOVED BY OTHERS

Client:



FPI QUEENSLAND
PTY. LTD.

Project:

VANTAGE YATALA
STAGE 3
EXTERNAL INTERSECTION

Site Address:

LOT 504 HOMESTEAD
DRIVE, STAPYLTON
QLD, 4207

RPD:

Lot: 504
Plan: SP329485
Local Authority: CITY OF GOLD COAST

Level Datum: AHD
Meridian:
PSM:
RL:

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Drawing Title:

DEMOLITION AND
PROTECTION LAYOUT
PLAN SHEET 2 OF 2

B	24/08/23	ISSUED FOR APPROVAL	JH	MG
A	16/08/23	ORIGINAL ISSUE	JH	MG
Rev	Date	Description	DRN	CHK

DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE. CULVERT AND PIPE SIZES IN MILLIMETRES

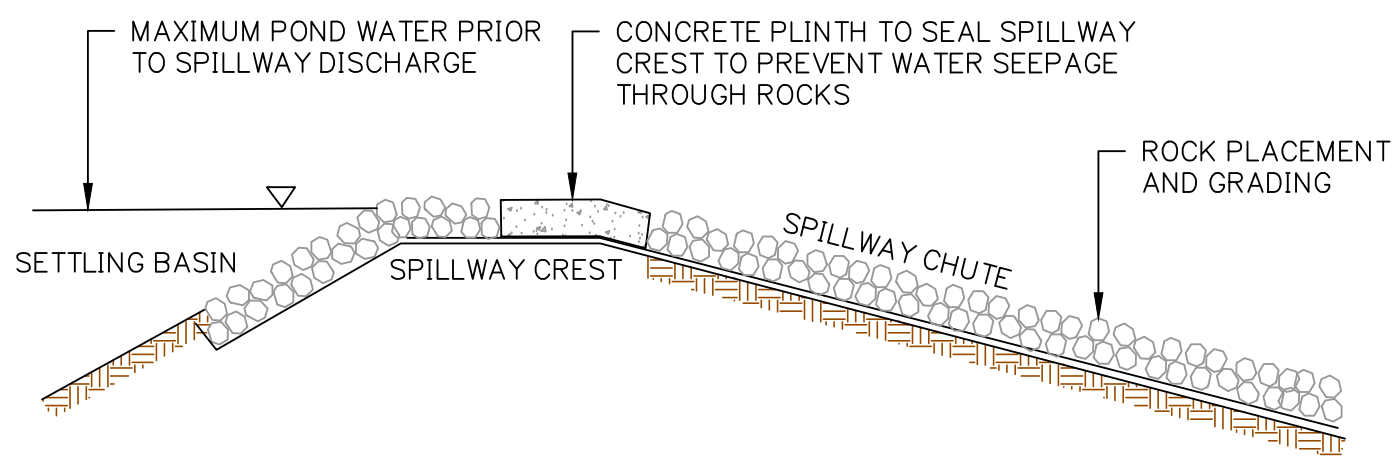
A1 UNREDUCED
A3 REDUCED

Scale:
0 10 20 30 40m
1:500 (A1) 1:1000 (A3)

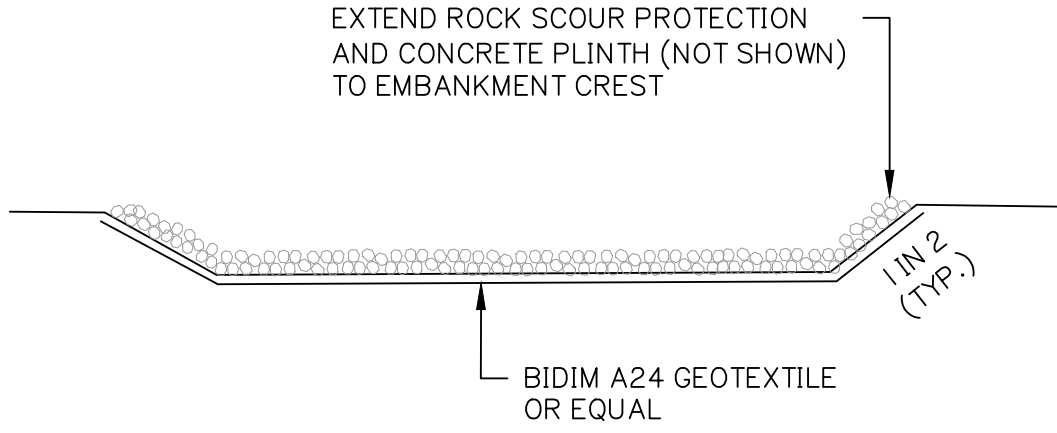
PROJECT NORTH POINT



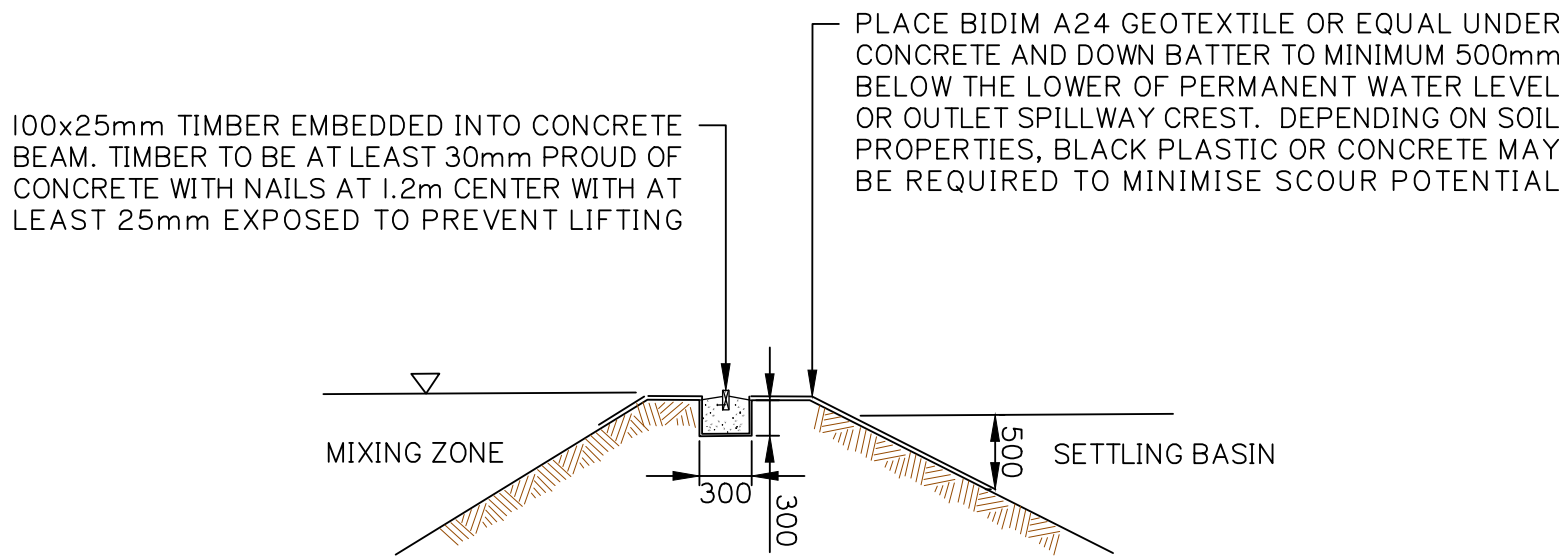
Project No. 5941	
Designed: JH	Drafted: ML
Approved:	MG
RPEQ	16939
Signed:	
Date:	24/08/2023
Drawing No. 5941 ENG EXT3 021	Revision B



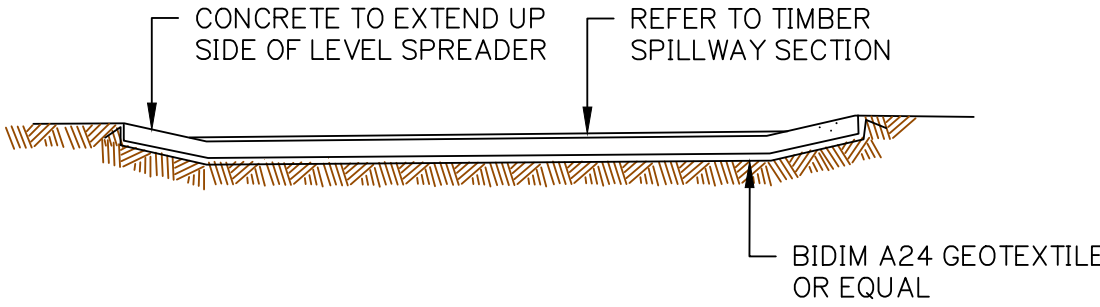
OUTLET SPILLWAY DETAILS
TYPICAL CROSS SECTION
NOT TO SCALE



OUTLET SPILLWAY DETAILS
TYPICAL LONGITUDINAL SECTION
NOT TO SCALE



LEVEL SPREADER DETAILS
TYPICAL CROSS SECTION
NOT TO SCALE



LEVEL SPREADER DETAILS
TYPICAL LONG SECTION
NOT TO SCALE

Client:



Project:

VANTAGE YATALA
STAGE 3
EXTERNAL INTERSECTION

Site Address:

LOT 504 HOMESTEAD
DRIVE, STAPYLTON
QLD, 4207

RPD:

Lot: 504
Plan: SP329485
Local Authority: CITY OF GOLD COAST
Level Datum: AHD
Meridian:
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Drawing Title:

SEDIMENT BASIN NOTES
AND DETAILS

B	24/08/23	ISSUED FOR APPROVAL	JH	MG
A	16/08/23	ORIGINAL ISSUE	JH	MG
Rev	Date	Description	DRN	CHK

DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE. A1 UNREDUCED
CULVERT AND PIPE SIZES IN MILLIMETRES A3 REDUCED

Scale:

NOT TO SCALE

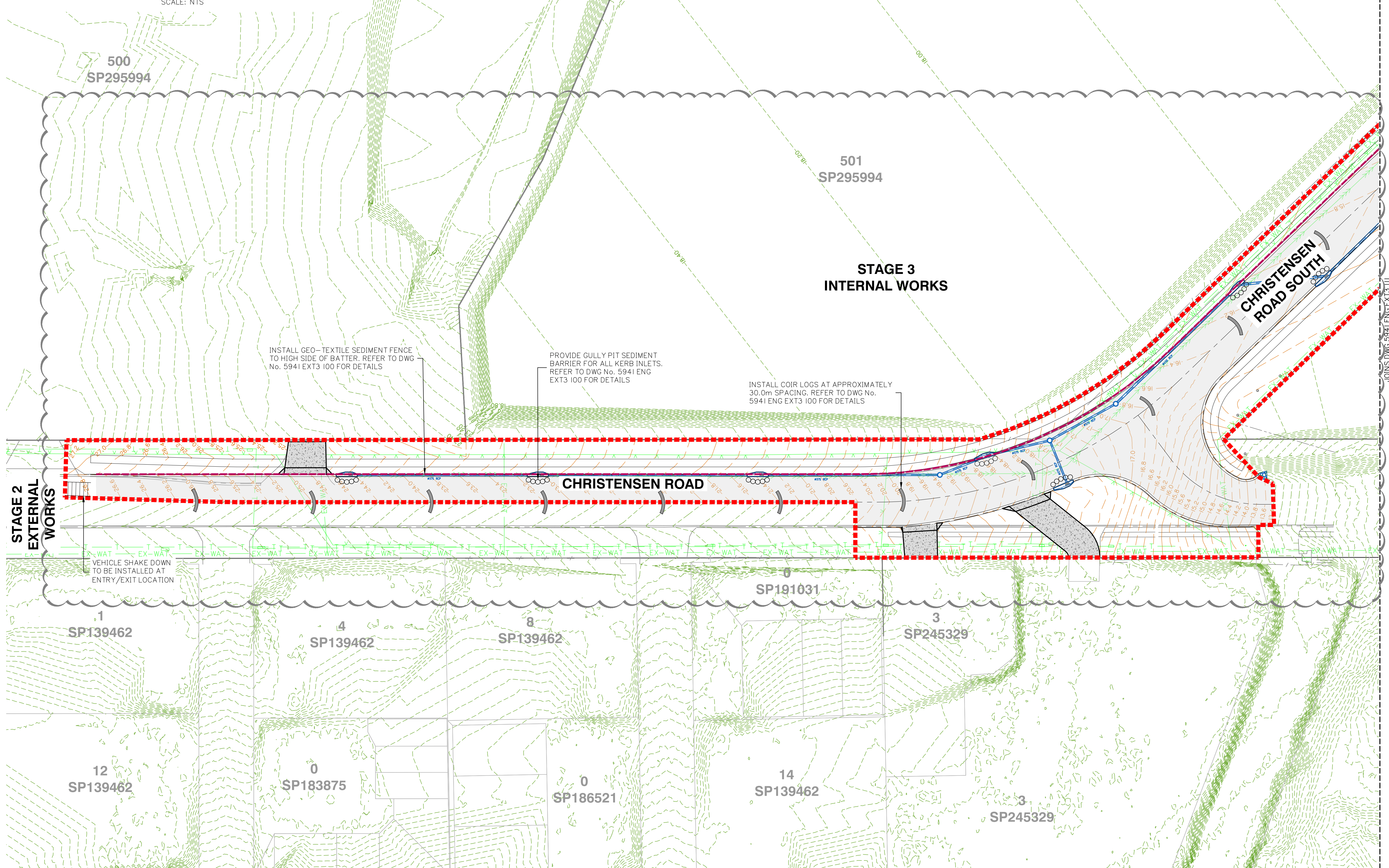
PROJECT NORTH POINT



Project No. 5941	
Designed: JH	Drafted: TGP
Approved: MG	
RPEQ	16939
Signed:	
Date:	24/08/2023
Drawing No: 5941 ENG EXT3 101	Revision: B



1. SEDIMENT AND EROSION CONTROL PLAN IS INDICATIVE ONLY. THE CONTRACTOR MUST TAKE ADDITIONAL MEASURES IF REQUIRED ONSITE DURING CONSTRUCTION AND MAINTENANCE PERIODS.
2. CONTRACTOR EROSION AND SEDIMENT CONTROL PLAN SHOULD COMPLY WITH ALL COUNCIL AND STATE REQUIREMENTS AND BE IN LINE WITH IECA BEST PRACTICE GUIDELINES.
3. CONTRACTOR TO OBTAIN SEDIMENT AND EROSION CONTROL PLAN APPROVAL FROM RELEVANT AUTHORITY BEFORE THE COMMENCEMENT OF WORKS.
4. CONTRACTOR TO CONSTRUCT CATCHMENT /VEE DRAINS TOWARDS THE PROPOSED SEDIMENT BASINS DURING EARTHWORKS PHASE.
5. CONTRACTOR TO STABILISE EXPOSED SURFACES UPON COMPLETION OF WORKS TO MINIMISE SEDIMENT RUN OFF AND DUST.



VANTAGE YATALA STAGE 3 EXTERNAL INTERSECTION

LOT 504 HOMESTEAD
DRIVE, STAPYLTON
QLD, 4207

Lot:	504
Plan:	SP329485
Local Authority:	CITY OF GOLD COAST

Level Datum: AHD
Meridian:
PSM:
RL:

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SEDIMENT AND EROSION CONTROL PLAN SHEET 1 OF 2

C	23/02/24	LAYOUT UPDATED	ML	MG
B	24/08/23	ISSUED FOR APPROVAL	JH	MG
A	16/08/23	ORIGINAL ISSUE	JH	MG
ev	Date	Description	DRN	CHK

DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE.	A1 UNREDUCED
CULVERT AND PIPE SIZES IN MILLIMETRES	A3 REDUCED

Scale	Length (m)
1:500 (A1)	10
1:1000 (A3)	20

PROJECT NORTH POINT



Revision



Project:

VANTAGE YATALA
STAGE 3
EXTERNAL INTERSECTION

RPD:	
Lot:	504
Plan:	SP329485
Local Authority:	CITY OF GOLD COAST
Level Datum:	AHD
Meridian:	
PSM:	
RL:	

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D	27/03/24	VXO ADDED	JH	MG
C	23/02/24	LAYOUT UPDATED	ML	MG
B	24/08/23	ISSUED FOR APPROVAL	JH	MG
A	16/08/23	ORIGINAL ISSUE	JH	MG
pv	Date	Description	DRN	CHK

DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE.	A1 UNREDUCED
CULVERT AND PIPE SIZES IN MILLIMETRES	A3 REDUCED

PROJECT NORTH POINT



Project No.	5941
Designed:	JH
Drafted:	ML
Approved:	MG
PEQ	16939
Signed:	
Date:	23/02/2024

Drawing No: 5941 ENG EXT3 111 Revision: D



302

- ## NOTES
1. SEDIMENT AND EROSION CONTROL PLAN IS INDICATIVE ONLY. THE CONTRACTOR MUST TAKE ADDITIONAL MEASURES IF REQUIRED ONSITE DURING CONSTRUCTION AND MAINTENANCE PERIODS.
 2. CONTRACTOR EROSION AND SEDIMENT CONTROL PLAN SHOULD COMPLY WITH ALL COUNCIL AND STATE REQUIREMENTS AND BE IN LINE WITH IECA BEST PRACTICE GUIDELINES.
 3. CONTRACTOR TO OBTAIN SEDIMENT AND EROSION CONTROL PLAN APPROVAL FROM RELEVANT AUTHORITY BEFORE THE COMMENCEMENT OF WORKS.
 4. CONTRACTOR TO CONSTRUCT CATCHMENT/VEE DRAINS TOWARDS THE PROPOSED SEDIMENT BASINS DURING EARTHWORKS PHASE.
 5. CONTRACTOR TO STABILISE EXPOSED SURFACES UPON COMPLETION OF WORKS TO MINIMISE SEDIMENT RUN OFF AND DUST.

INSTALL GEO-TEXTILE SEDIMENT FENCE
TO HIGH SIDE OF BATTER. REFER TO DWG
No. 5941 EXT3 100FOR DETAILS

STAGE 3 INTERNAL WORKS

PROVIDE GULLY PIT SEDIMENT
BARRIER FOR ALL KERB INLETS.
REFER TO DWG No. 5941 ENG
EXT3 100 FOR DETAILS

INSTALL COIR LOGS AT APPROXIMATELY
30.0m SPACING. REFER TO DWG No.
594I ENG EXT3 100 FOR DETAILS

VEHICLE SHAKE DOWN
TO BE INSTALLED AT
ENTRY/EXIT LOCATION

10.0M WIDE SEWER EASEMENT

JOINS DWG 5941 ENG EXT3 110

SEDIMENT AND EROSION CONTROL PLAN SHEET 2 OF 2



KEY PLAN
SCALE: NTS

EARTHWORKS DEPTH LEGEND

-2.0 to -1.9 m	
-1.9 to -1.8 m	
-1.8 to -1.7 m	
-1.7 to -1.6 m	
-1.6 to -1.5 m	
-1.5 to -1.4 m	
-1.4 to -1.3 m	
-1.3 to -1.2 m	
-1.2 to -1.1 m	
-1.1 to -1.0 m	
-1.0 to -0.9 m	
-0.9 to -0.8 m	
-0.8 to -0.7 m	
-0.7 to -0.6 m	
-0.6 to -0.5 m	
-0.5 to -0.4 m	

-0.4 to -0.3 m	
-0.3 to -0.2 m	
-0.2 to -0.1 m	
-0.1 to 0.0 m	
0.0 to 0.1 m	
0.1 to 0.2 m	
0.2 to 0.3 m	
0.3 to 0.4 m	
0.4 to 0.5 m	
0.5 to 0.6 m	

1. EARTHWORKS VOLUMES ARE CALCULATED TO AN ASSUMED PAVEMENT SUBGRADE LEVEL OF -0.410m BELOW FSL OF PAVEMENT.
2. THE VOLUMES ASSUME THAT THE EXISTING PAVEMENT LAYERS ARE REMOVED TO A DEPTH OF 0.410m ON CHRISTENSEN ROAD WITHIN THE LIMIT OF WORKS BOUNDARY.
3. THE DESIGN ROAD VERGE PROFILES ARE DESIGNED TO SUBGRADE LEVEL AT AN ASSUMED -0.10m BELOW FSL OF VERGE. THE EARTHWORKS VOLUMES REFLECT THIS.
4. IT IS ASSUMED THAT 100mm OF TOPSOIL IS STRIPPED IN EXISTING VERGES PRIOR TO EARTHWORKS ACTIVITIES COMMENCING. THEREFORE THE VOLUMES STATED ARE 'POST-STRIP' VOLUMES.
5. BULKING FACTORS HAVE NOT BEEN APPLIED.
6. BULK EARTHWORKS VOLUMES ARE CALCULATED TO THE PROPOSED LIMIT OF WORKS BOUNDARY SHOWN FOR CHRISTENSEN ROADSOUTH. THEY DO NOT INCLUDE STAGE 3.
7. SPOIL VOLUMES GENERATED FROM SERVICE TRENCHES ARE NOT REFLECTED IN THE CALCULATIONS.

EARTHWORKS VOLUME SUMMARY

CUT	-6393.045 m ³
FILL	1425.006 m ³
EXCESS OF CUT OVER FILL	4968.039 m ³

STAGE 3
INTERNAL WORKS

CHRISTENSEN ROAD SOUTH

CHRISTENSEN ROAD

STAGE 2
EXTERNAL WORKS

Client:



FPI QUEENSLAND
PTY. LTD.

Project:

VANTAGE YATALA
STAGE 3
EXTERNAL INTERSECTION

Site Address:

LOT 504 HOMESTEAD
DRIVE, STAPYLTON
QLD, 4207

RPD:

Lot: 504
Plan: SP329485
Local Authority: CITY OF GOLD COAST

Level Datum: AHD
Meridian:
PSM:
RL:

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GENERAL NOTES

Drawing Title:

EARTHWORKS
CUT AND FILL PLAN
SHEET 1 OF 2

Rev	Date	Description	DRN	CHK
C	23/02/24	DESIGN UPDATED	ML	MG
B	24/08/23	ISSUED FOR APPROVAL	JH	MG
A	16/08/23	ORIGINAL ISSUE	JH	MG

DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE.
CULVERT AND PIPE SIZES IN MILLIMETRES

Scale:
0 10 20 30 40m
1:500 (A1) 1:1000 (A3)

PROJECT NORTH POINT



Project No:	5941
Designed:	JH
Drafted:	ML
Approved:	MG
RPEQ	16939
Signed:	
Date:	23/02/2024
Drawing No:	5941 ENG EXT3 120
Revision	C



302

CHRISTENSEN ROAD SOUTH

STAGE 3 INTERNAL WORKS

1. EARTHWORKS VOLUMES ARE CALCULATED TO AN ASSUMED PAVEMENT SUBGRADE LEVEL OF -0.40m BELOW FSL OF PAVEMENT.
2. THE VOLUMES ASSUME THAT THE EXISTING PAVEMENT LAYERS ARE REMOVED TO A DEPTH OF 0.40m ON CHRISTENSEN ROAD WITHIN THE LIMIT OF WORKS BOUNDARY.
3. THE DESIGN ROAD VERGE PROFILES ARE DESIGNED TO SUBGRADE LEVEL AT AN ASSUMED -0.10m BELOW FSL OF VERGE. THE EARTHWORKS VOLUMES REFLECT THIS.
4. IT IS ASSUMED THAT 100mm OF TOPSOIL IS STRIPPED IN EXISTING VERGES PRIOR TO EARTHWORKS ACTIVITIES COMMENCING. THEREFORE THE VOLUMES STATED ARE 'POST-STRIP' VOLUMES.
5. BULKING FACTORS HAVE NOT BEEN APPLIED.
6. BULK EARTHWORKS VOLUMES ARE CALCULATED TO THE PROPOSED LIMIT OF WORKS BOUNDARY SHOWN FOR CHRISTENSEN ROADSOUTH. THEY DO NOT INCLUDE STAGE 3.
7. SPOIL VOLUMES GENERATED FROM SERVICE TRENCHES ARE NOT REFLECTED IN THE CALCULATIONS.

EARTHWORKS VOLUME SUMMARY	
CUT	-6393.045 m ³
FILL	1425.006 m ³
EXCESS OF CUT OVER FILL	4968.039 m ³

EARTHWORKS DEPTH LEGEND			
-2.0	to	-1.9 m	
-1.9	to	-1.8 m	
-1.8	to	-1.7 m	
-1.7	to	-1.6 m	
-1.6	to	-1.5 m	
-1.5	to	-1.4 m	
-1.4	to	-1.3 m	
-1.3	to	-1.2 m	
-1.2	to	-1.1 m	
-1.1	to	-1.0 m	
-1.0	to	-0.9 m	
-0.9	to	-0.8 m	
-0.8	to	-0.7 m	
-0.7	to	-0.6 m	
-0.6	to	-0.5 m	
-0.5	to	-0.4 m	
-0.4	to	-0.3 m	
-0.3	to	-0.2 m	
-0.2	to	-0.1 m	
-0.1	to	0.0 m	
0.0	to	0.1 m	
0.1	to	0.2 m	
0.2	to	0.3 m	
0.3	to	0.4 m	
0.4	to	0.5 m	
0.5	to	0.6 m	



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perspectives

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planning | environment | landscape | engineering | survey

T: 3807 3333 | F: 3287 5461 | www.gassman.com.au

Gold Coast | 76 Business Street, Yatala QLD | PO Box 392, Beenleigh 4207

Client:



FPI QUEENSLAND
PTY. LTD.

Project:

VANTAGE YATALA STAGE 3 EXTERNAL INTERSECTION

Site Address:

LOT 504 HOMESTEAD
DRIVE, STAPYLTON
QLD, 4207

RPD:

Lot:	504
Plan:	SP329485
Local Authority:	CITY OF GOLD COAST

Level Datum: AHD
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GENERAL NOTES.

Drawing Title:

EARTHWORKS
CUT AND FILL PLAN
SHEET 2 OF 2

D	27/03/24	VXO ADDED	JH	MC	
C	23/02/24	DESIGN UPDATED	ML	MC	
B	24/08/23	ISSUED FOR APPROVAL	JH	MC	
A	16/08/23	ORIGINAL ISSUE	JH	MC	
Rev	Date	Description	DRN	CHK	

DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE.	A1 UNREDUCED
CULVERT AND PIPE SIZES IN MILLIMETRES	A3 REDUCED

Scale:



0 10 20 30 40m

1:500 (A1) 1:1000 (A3)

PROJECT NORTH POINT



Project No. 594

Designed: JH

Drafted: ML

Approved

MG

RPEG

16939

Signec

Michelle

Date:

23/02/2024

Drawing No

Revision

5941 ENG EXT3 121

□

EARTHWORKS CUT AND FILL PLAN SHEET 2 OF 2

JOINS DWG 5941 ENG EXT3 120

\\Projects\5941\ENGINEERING\Acad\EXTERNAL INTERSECTION STAGE 3\Current\5941 ENG EXT3 120.dwg

Client:



FPI QUEENSLAND
PTY. LTD.

Project:

VANTAGE YATALA
STAGE 3
EXTERNAL INTERSECTION

Site Address:

LOT 504 HOMESTEAD
DRIVE, STAPYLTON
QLD, 4207

RPD:

Lot: 504
Plan: SP329485
Local Authority: CITY OF GOLD COAST

Level Datum: AHD
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Drawing Title:

ROADWORKS AND
DRAINAGE TYPICAL
DETAILS SHEET 3 OF 3

C	23/02/24	DESIGN UPDATED	ML	MG
B	24/08/23	ISSUED FOR APPROVAL	JH	MG
A	16/08/23	ORIGINAL ISSUE	JH	MG
Rev	Date	Description	DRN	CHK

DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE. A1 UNREDUCED
CULVERT AND PIPE SIZES IN MILLIMETRES A3 REDUCED

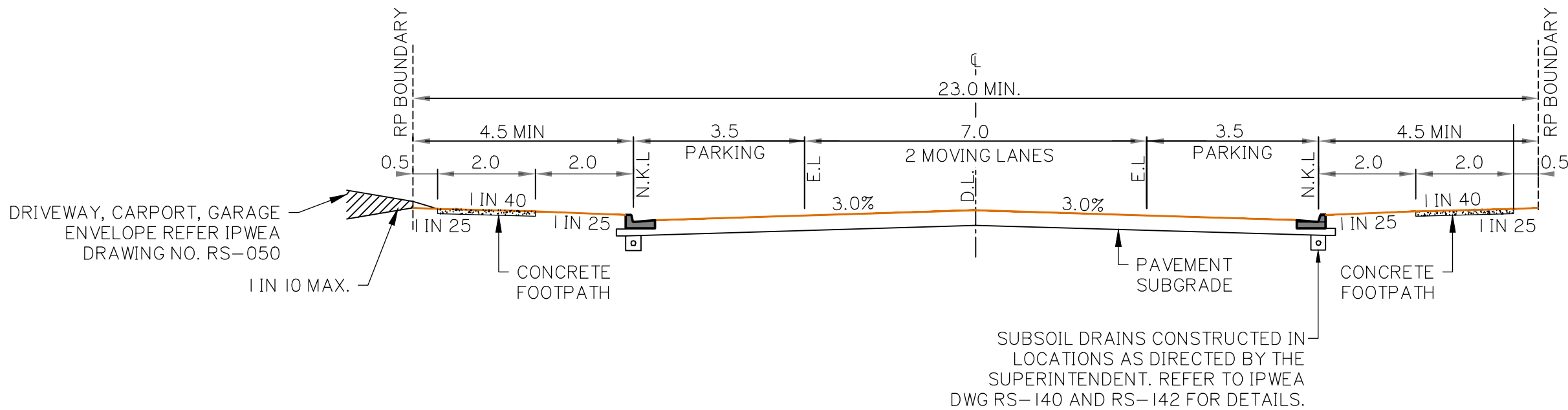
Scale:

NOT TO SCALE

PROJECT NORTH POINT



Project No.	5941	Revision	
Designed:	JH	Drafted:	TGP
Approved:			MG
RPEQ			16939
Signed:			
Date:			23/02/2024
Drawing No:	5941 ENG EXT3 402	Revision	C



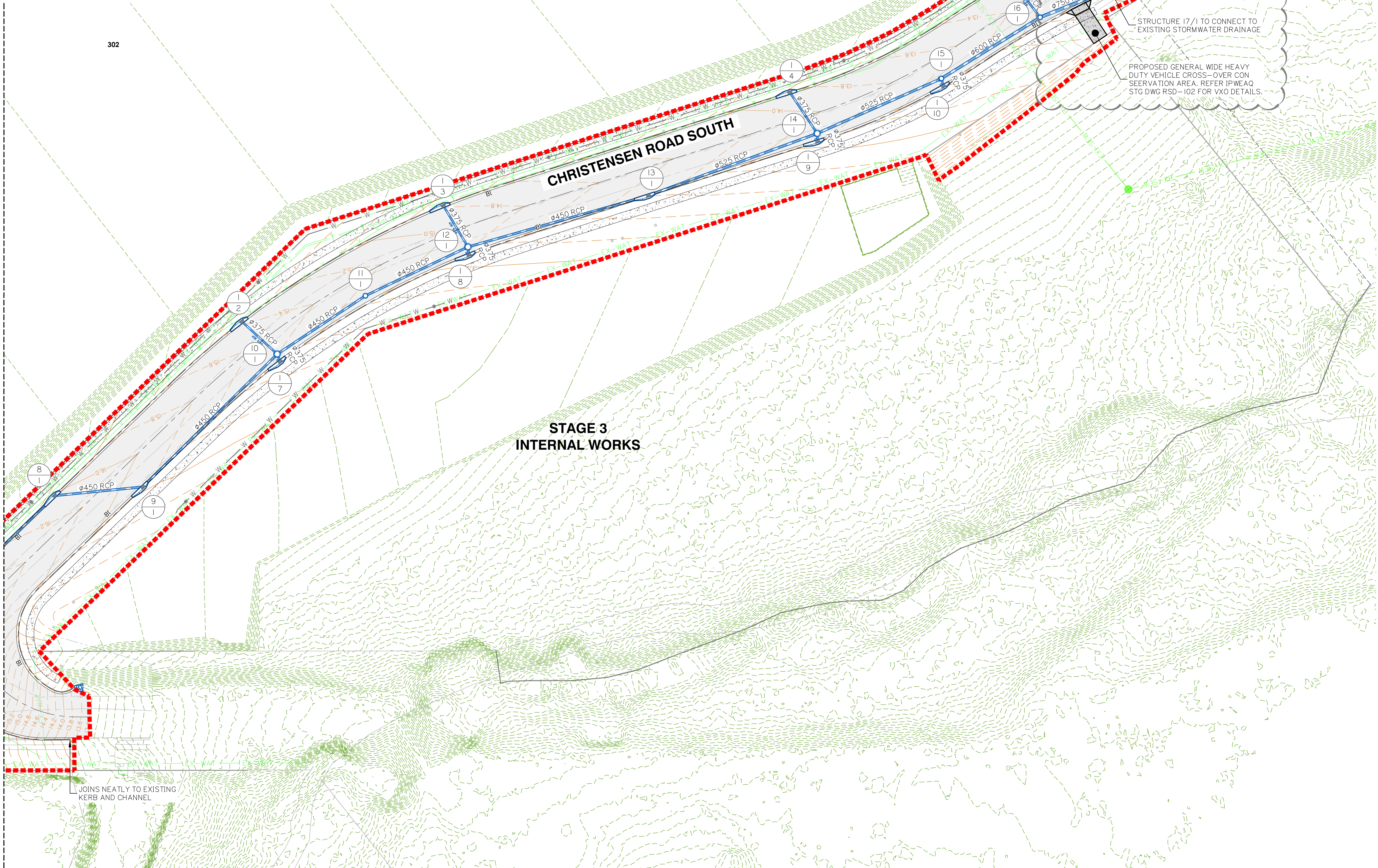
INDUSTRIAL COLLECTOR STREET (23.0m)
NTS



KEY PLAN
SCALE: NTS

WARNING
BEWARE OF UNDERGROUND SERVICES
THE LOCATIONS OF UNDERGROUND SERVICES HAVE BEEN INTERPOLATED FROM AERIAL PHOTOGRAMMETRIC DATA OR KNOWN POSITIONS OF VALVES, MANHOLES ETC. OR INFORMATION SUPPLIED BY SERVICE AUTHORITIES. NO RESPONSIBILITY IS TAKEN FOR THE ACCURACY OF THE INTERPOLATED INFORMATION SUPPLIED. ENSURE ALL SERVICES ARE ACCURATELY LOCATED PRIOR TO COMMENCEMENT OF WORK.

NOTE:
REFER TO DWG. NO. 5941 ENG EXT3
510 FOR STORMWATER STRUCTURE
DETAILS AND LEVELS



Client:



FPI QUEENSLAND
PTY. LTD.

Project:

VANTAGE YATALA
STAGE 3
EXTERNAL INTERSECTION

Site Address:

LOT 504 HOMESTEAD
DRIVE, STAPYLTON
QLD, 4207

RPD:

Lot: 504
Plan: SP329485
Local Authority: CITY OF GOLD COAST

Level Datum:

Meridian:

PSM:

RL:

ISSUED FOR APPROVAL

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GENERAL NOTES

Drawing Title:

ROADWORKS AND
DRAINAGE LAYOUT
PLAN SHEET 2 OF 2

Rev	Date	Description	DRN	CHK
D	27/03/24	VXO ADDED	JH	MG
C	23/02/24	DESIGN UPDATED	ML	MG
B	24/08/23	ISSUED FOR APPROVAL	JH	MG
A	16/08/23	ORIGINAL ISSUE	JH	MG

DIMENSIONS IN METRES EXCEPT WHERE
SHOWN OTHERWISE
CULVERT AND PIPE SIZES IN MILLIMETRES

A1 UNREDUCED
A3 REDUCED

Scale:
0 10 20 30 40m
1:500 (A1) 1:1000 (A3)

PROJECT NORTH POINT



Project No:	5941
Designed:	JH
Drafted:	ML
Approved:	MG
RPEQ	16939
Signed:	
Date:	23/02/2024
Drawing No:	5941 ENG EXT3 411
Revision	D



STAGE 2 EXTERNAL WORKS

CHRISTENSEN ROAD CONTROL LINE 01. REFER TO DWG 5941 ENG. EXT3 450 - 452 FOR LONGITUDINAL SECTION.

CHRISTENSEN ROAD

CHRISTENSEN CONTROL LINE 02. REFER TO DWG 5941 ENG. EXT3 452 FOR LONGITUDINAL SECTION.

0 SP191031

PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	2487.458	6278.376	26.957	139°50'35.97"			
	10.000	2493.907	6270.733	26.715	139°50'35.97"			
	20.000	2500.356	6263.090	26.448	139°50'35.97"			
	30.000	2506.805	6255.448	26.152	139°50'35.97"			
IP 2	39.455	2512.902	6248.221	25.845				
	40.000	2513.260	6247.810	25.827	139°01'02.10"			
IP 3	43.781	2515.739	6244.956	25.696				
	50.000	2519.879	6240.314	25.474	138°16'10.45"			
IP 4	50.018	2519.891	6240.301	25.474				
	60.000	2526.552	6232.867	25.116	138°08'13.32"			
	70.000	2533.226	6225.419	24.759	138°08'13.32"			
	80.000	2539.899	6217.972	24.405	138°08'13.32"			
	90.000	2546.573	6210.525	24.088	138°08'13.32"			
	100.000	2553.246	6203.077	23.821	138°08'13.32"			
	110.000	2559.920	6195.630	23.552	138°08'13.32"			
	120.000	2566.593	6188.182	23.269	138°08'13.32"			
	130.000	2573.267	6180.735	22.985	138°08'13.32"			
	140.000	2579.940	6173.287	22.674	138°08'13.32"			
	150.000	2586.614	6165.840	22.366	138°08'13.32"			
	160.000	2593.287	6158.393	22.089	138°08'13.32"			
	170.000	2599.961	6150.945	21.800	138°08'13.32"			
	180.000	2606.634	6143.498	21.489	138°08'13.32"			
	190.000	2613.308	6136.050	21.117	138°08'13.32"			
	200.000	2619.981	6128.603	20.703	138°08'13.32"			
TC	207.061	2624.694	6123.344	20.386	138°08'13.32"			
	210.000	2626.683	6121.181	20.230	136°38'00.66"			
	220.000	2633.865	6114.228	19.699	131°31'04.16"			
	230.000	2641.639	6107.942	19.169	126°24'07.66"			
	240.000	2649.941	6102.374	18.638	121°17'11.16"			
	250.000	2658.707	6097.569	18.107	116°10'14.66"			
IP 5	250.065	2654.891	6089.645	18.104		R = -112.000	86.008	43°59'56.32"
	260.000	2667.867	6093.565	17.604	111°03'18.16"			
	270.000	2677.347	6090.394	17.184	105°56'21.66"			
	280.000	2687.073	6088.080	16.850	100°49'25.16"			
	290.000	2696.966	6086.643	16.601	95°42'28.66"			
CT	293.069	2700.023	6086.380	16.542	94°08'17.00"			
	300.000	2706.936	6085.879	16.439	94°08'17.00"			
	310.000	2716.910	6085.158	16.335	94°08'17.00"			
	320.000	2726.884	6084.436	16.233	94°08'17.00"			
	330.000	2736.858	6083.715	16.131	94°08'17.00"			
	340.000	2746.832	6082.993	16.030	94°08'17.00"			
	350.000	2756.806	6082.271	15.928	94°08'17.00"			
	360.000	2766.780	6081.550	15.826	94°08'17.00"			
TC	362.505	2769.278	6081.369	15.800	94°08'17.00"			
	370.000	2776.742	6080.692	15.724	96°13'57.84"			
	380.000	2786.652	6079.364	15.622	99°01'39.54"			

	400.000	2806.220	6075.268	15.419	104°37'02.93"			
IP 6	409.466	2816.953	6077.920	15.322		R = 205.000	93.921	26°15'00.00"
	410.000	2815.831	6072.509	15.317	107°24'44.63"			
	420.000	2825.296	6069.285	15.215	110°12'26.33"			
	430.000	2834.593	6065.604	15.113	113°00'08.03"			
	440.000	2843.699	6061.473	15.012	115°47'49.72"			
	450.000	2852.593	6056.904	14.910	118°35'31.42"			
CT	456.426	2858.186	6053.740	14.844	120°23'17.00"			
	460.000	2861.269	6051.932	14.808	120°23'17.00"			
	470.000	2869.895	6046.874	14.706	120°23'17.00"			
	480.000	2878.521	6041.815	14.604	120°23'17.00"			
	490.000	2887.147	6036.757	14.503	120°23'17.00"			
	500.000	2895.774	6031.698	14.401	120°23'17.00"			
	510.000	2904.400	6026.640	14.299	120°23'17.00"			
	520.000	2913.026	6021.581	14.197	120°23'17.00"			
	530.000	2921.652	6016.523	14.095	120°23'17.00"			
TC	537.571	2928.183	6012.693	14.018	120°23'17.00"			
	540.000	2930.288	6011.481	13.994	119°27'37.35"			
	550.000	2939.153	6006.857	13.892	115°38'26.37"			
IP 7	558.188	2946.081	6002.197	13.808		R = -150.000	41.233	15°45'00.00"
	560.000	2948.305	6002.833	13.790	111°49'15.38"			
	570.000	2957.706	5999.428	13.687	108°00'04.39"			
CT	578.805	2966.155	5996.954	13.588	104°38'17.00"			
	580.000	2967.311	5996.652	13.573	104°38'17.00"			
TC	581.541	2968.802	5996.263	13.555	104°38'17.00"			
	590.000	2976.949	5993.987	13.446	106°34'35.91"			
	600.000	2986.474	5990.943	13.304	108°52'06.50"			
IP 8	609.068	2995.544	5989.278	13.164		R = 250.000	55.053	12°37'02.34"
	610.000	2995.869	5987.521	13.149	111°09'37.09"			
	620.000	3005.120	5983.726	12.980	113°27'07.69"			
	630.000	3014.212	5979.563	12.798	115°44'38.28"			
CT	636.595	3020.114	5976.621	12.670	117°15'19.34"			
	640.000	3023.141	5975.061	12.603	117°15'19.34"			
	650.000	3032.031	5970.482	12.405	117°15'19.34"			
	660.000	3040.920	5965.902	12.207	117°15'19.34"			
IP 9	660.858	3041.683	5965.509	12.190	117°15'19.34"			

PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	2685.872	6088.316	16.886	191°26'58.98"			
	10.000	2683.887	6078.515	16.490	191°26'58.98"			
TC	14.324	2683.029	6074.278	16.193	191°26'58.98"			
	20.000	2682.471	6068.639	15.683	179°50'04.03"			
IP 2	27.337	2680.242	6060.518	14.978		R = -28.000	26.027	53°15'28.15"
	30.000	2684.267	6058.855	14.723	159°22'18.03"			
	40.000	2689.369	6050.316	13.765	138°54'32.02"			
	40.350	2689.601	6050.054	13.732	138°11'30.84"			
CT	43.750	2691.867	6047.520	13.417	138°11'30.84"			



FPI QUEENSLAND
PTY. LTD.

Project:

VANTAGE YATALA
STAGE 3
EXTERNAL INTERSECTION

Site Address:
LOT 504 HOMESTEAD
DRIVE, STAPYLTON
QLD, 4207

RPD:	
Lot:	504
Plan:	SP329485
Local Authority:	CITY OF GOLD COAST
Level Datum:	AHD
Meridian:	
PSM:	
RL:	

ISSUED FOR APPROVAL

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GENERAL NOTES.

Drawing Title:

CONTROL LINE LAYOUT
PLAN AND SETOUT TABLE
SHEET 1 OF 2

[illegible]

C	23/02/24	DESIGN UPDATED	ML	MG
B	24/08/23	ISSUED FOR APPROVAL	JH	MG
A	16/08/23	ORIGINAL ISSUE	JH	MG
ev	Date	Description	DRN	CHK

ALL DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE.	A1 UNREDUCED
CULVERT AND PIPE SIZES IN MILLIMETRES	A3 REDUCED

Scale:



0 10 20 30 40m
1:500 (A1) 1:1000 (A3)

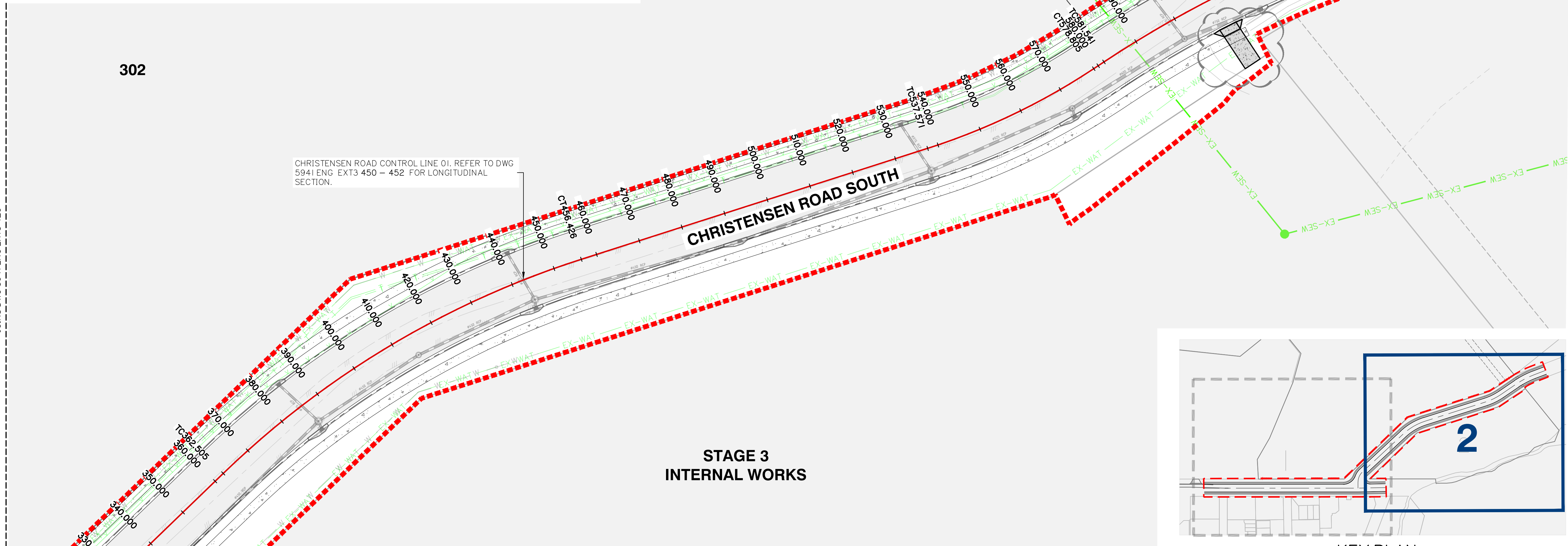
PROJECT NORTH POINT



Project No.	5941
Designed:	JH
Drafted:	ML
Approved:	MG
RPEQ	16939
Signed:	
Date:	23/02/2024
Drawing No:	Revision
5941 ENG EXT3 420	C

PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	2487.458	6278.376	26.957	139°50'35.97"			
	10.000	2493.907	6270.733	26.715	139°50'35.97"			
	20.000	2500.356	6263.090	26.448	139°50'35.97"			
	30.000	2506.805	6255.448	26.152	139°50'35.97"			
IP 2	39.455	2512.902	6248.221	25.845				
	40.000	2513.260	6247.810	25.827	139°01'02.10"			
IP 3	43.781	2515.739	6244.956	25.696				
	50.000	2519.879	6240.314	25.474	138°16'10.45"			
IP 4	50.018	2519.891	6240.301	25.474				
	60.000	2526.552	6232.867	25.116	138°08'13.32"			
	70.000	2533.226	6225.419	24.759	138°08'13.32"			
	80.000	2539.899	6217.972	24.405	138°08'13.32"			
	90.000	2546.573	6210.525	24.088	138°08'13.32"			
	100.000	2553.246	6203.077	23.821	138°08'13.32"			
	110.000	2559.920	6195.630	23.552	138°08'13.32"			
	120.000	2566.593	6188.182	23.269	138°08'13.32"			
	130.000	2573.267	6180.735	22.985	138°08'13.32"			
	140.000	2579.940	6173.287	22.674	138°08'13.32"			
	150.000	2586.614	6165.840	22.366	138°08'13.32"			
	160.000	2593.287	6158.393	22.089	138°08'13.32"			
	170.000	2599.961	6150.945	21.800	138°08'13.32"			
	180.000	2606.634	6143.498	21.489	138°08'13.32"			
	190.000	2613.308	6136.050	21.117	138°08'13.32"			
	200.000	2619.981	6128.603	20.703	138°08'13.32"			
TC	207.061	2624.694	6123.344	20.386	138°08'13.32"			
	210.000	2626.683	6121.181	20.230	136°38'00.66"			
	220.000	2633.865	6114.228	19.699	131°31'04.16"			
	230.000	2641.639	6107.942	19.169	126°24'07.66"			
	240.000	2649.941	6102.374	18.638	121°17'11.16"			
	250.000	2658.707	6097.569	18.107	116°10'14.66"			
IP 5	250.065	2654.891	6089.645	18.104		R = -112.000	86.008	43°59'56.32"
	260.000	2667.867	6093.565	17.604	111°03'18.16"			
	270.000	2677.347	6090.394	17.184	105°56'21.66"			
	280.000	2687.073	6088.080	16.850	100°49'25.16"			
CT	290.000	2696.966	6086.643	16.601	95°42'28.66"			
	293.069	2700.023	6086.380	16.542	94°08'17.00"			
	300.000	2706.936	6085.879	16.439	94°08'17.00"			
	310.000	2716.910	6085.158	16.335	94°08'17.00"			
	320.000	2726.884	6084.436	16.233	94°08'17.00"			
	330.000	2736.858	6083.715	16.131	94°08'17.00"			
	340.000	2746.832	6082.993	16.030	94°08'17.00"			
	350.000	2756.806	6082.271	15.928	94°08'17.00"			
TC	360.000	2766.780	6081.550	15.826	94°08'17.00"			
	362.505	2769.278	6081.369	15.800	94°08'17.00"			
	370.000	2776.742	6080.692	15.724	96°13'57.84"			
	380.000	2786.652	6079.364	15.622	99°01'39.54"			
	390.000	2796.486	6077.555	15.521				

	400.000	2806.220	6075.268	15.419	104°37'02.93"			
IP 6	409.466	2816.953	6077.920	15.322		R = 205.000	93.921	26°15'00.00"
	410.000	2815.831	6072.509	15.317	107°24'44.63"			
	420.000	2825.296	6069.285	15.215	110°12'26.33"			
	430.000	2834.593	6065.604	15.113	113°00'08.03"			
	440.000	2843.699	6061.473	15.012	115°47'49.72"			
	450.000	2852.593	6056.904	14.910	118°35'31.42"			
CT	456.426	2858.186	6053.740	14.844	120°23'17.00"			
	460.000	2861.269	6051.932	14.808	120°23'17.00"			
	470.000	2869.895	6046.874	14.706	120°23'17.00"			
	480.000	2878.521	6041.815	14.604	120°23'17.00"			
	490.000	2887.147	6036.757	14.503	120°23'17.00"			
	500.000	2895.774	6031.698	14.401	120°23'17.00"			
	510.000	2904.400	6026.640	14.299	120°23'17.00"			
	520.000	2913.026	6021.581	14.197	120°23'17.00"			
	530.000	2921.652	6016.523	14.095	120°23'17.00"			
TC	537.571	2928.183	6012.693	14.018	120°23'17.00"			
	540.000	2930.288	6011.481	13.994	119°27'37.35"			
	550.000	2939.153	6006.857	13.892	115°38'26.37"			
IP 7	558.188	2946.081	6002.197	13.808		R = -150.000	41.233	15°45'00.00"
	560.000	2948.305	6002.833	13.790	111°49'15.38"			
	570.000	2957.706	5999.428	13.687	108°00'04.39"			
CT	578.805	2966.155	5996.954	13.588	104°38'17.00"			
	580.000	2967.311	5996.652	13.573	104°38'17.00"			
TC	581.541	2968.802	5996.263	13.555	104°38'17.00"			
	590.000	2976.949	5993.987	13.446	106°34'35.91"			
	600.000	2986.474	5990.943	13.304	108°52'06.50"			
IP 8	609.068	2995.544	5989.278	13.164		R = 250.000	55.053	12°37'02.34"
	610.000	2995.869	5987.521	13.149	111°09'37.09"			
	620.000	3005.120	5983.726	12.980	113°27'07.69"			
	630.000	3014.212	5979.563	12.798	115°44'38.28"			
CT	636.595	3020.114	5976.621	12.670	117°15'19.34"			
	640.000	3023.141	5975.061	12.603	117°15'19.34"			
	650.000	3032.031	5970.482	12.405	117°15'19.34"			
	660.000	3040.920	5965.902	12.207	117°15'19.34"			
IP 9	660.858	3041.683	5965.509	12.190	117°15'19.34"			



2

KEY PLAN

SCALE: NTS



Site Address:
LOT 504 HOMESTEAD
DRIVE, STAPYLTON
QLD, 4207

RPD:	
Lot:	504
Plan:	SP329485
Local Authority:	CITY OF GOLD COAST
Level Datum:	AHD
Meridian:	
PSM:	
RL:	

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GENERAL NOTES.

Drawing Title:

CONTROL LINE LAYOUT
PLAN AND SETOUT TABLE
SHEET 2 OF 2

D	27/03/24	VXO ADDED	JH	MG
C	23/02/24	DESIGN UPDATED	ML	MG
B	24/08/23	ISSUED FOR APPROVAL	JH	MG
A	18/06/23	ORIGINAL ISSUE	JH	MG
N	Date	Description	DRN	CHK
MENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE.			A1 UNREDUCED	
SULVERT AND PIPE SIZES IN MILLIMETRES			A3 REDUCED	

scale:

0 10 20 30 40m

1:500 (A1) 1:1000 (A3)

PROJECT NORTH POINT	
	
Project No.	5941
Designed:	JH
Drafted:	ML
Approved:	MG
PEQ	16939
Designed:	
Date:	23/02/2024
Drawing No:	
5941 ENG EXT3 421	
	D

Client:



FPI QUEENSLAND
PTY. LTD.

Project:

VANTAGE YATALA
STAGE 3
EXTERNAL INTERSECTION

Site Address:

LOT 504 HOMESTEAD
DRIVE, STAPYLTON
QLD, 4207

RPD:

Lot: 504
Plan: SP329485
Local Authority: CITY OF GOLD COAST

Level Datum: AHD
Meridian:
PSM:
RL:

ISSUED FOR APPROVAL

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GENERAL NOTES.

Drawing Title:

CHRISTENSEN ROAD
LONGITUDINAL SECTION
SHEET 2 OF 3

C	23/02/24	SECTION UPDATED	ML	MG
B	24/08/23	ISSUED FOR APPROVAL	JH	MG
A	16/08/23	ORIGINAL ISSUE	JH	MG
Rev	Date	Description	DRN	CHK

DIMENSIONS IN METRES EXCEPT WHERE
SHOWN OTHERWISE
CULVERT AND PIPE SIZES IN MILLIMETRES

A1 UNREDUCED
A3 REDUCED

Scale:

0 10 20 30 40m
HORZ: 1:500 (A1) 1:1000 (A3)

0 1 2 3 4m
VERT: 1:50 (A1) 1:100 (A3)

PROJECT NORTH POINT



Project No. 5941

Designed: JH

Drafted: ML

Approved:

MG

RPEQ

16939

Signed:

Date:

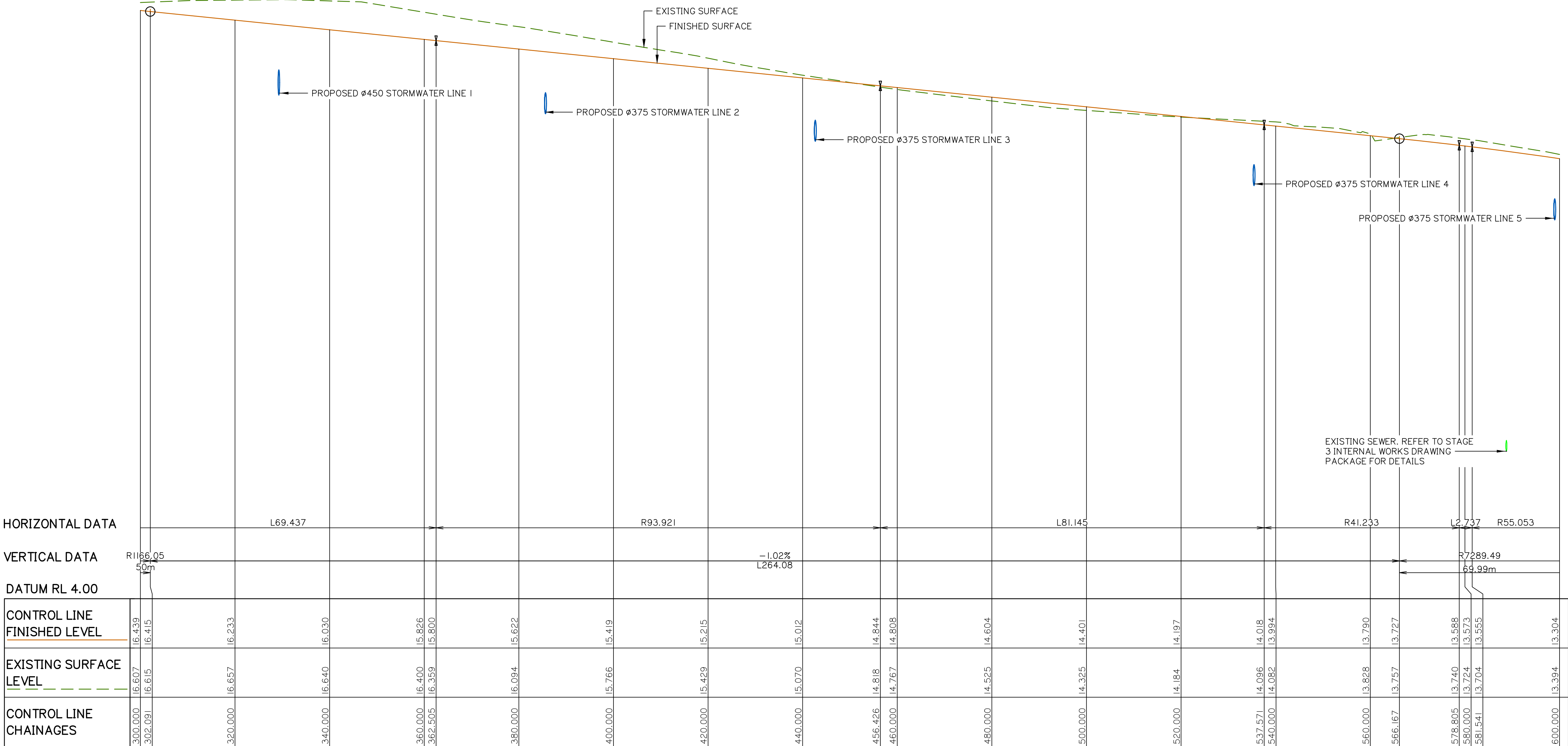
23/02/2024

Drawing No:

5941 ENG EXT3 451

Revision

C



CHRISTENSEN ROAD CLO1 – LONGITUDINAL SECTION

A1 HORZ SCALE 1:500
A1 VERT SCALE 1:50

Client:



FPI QUEENSLAND
PTY. LTD.

Project:

VANTAGE YATALA
STAGE 3
EXTERNAL INTERSECTION

Site Address:

LOT 504 HOMESTEAD
DRIVE, STAPYLTON
QLD, 4207

RPD:

Lot: 504
Plan: SP329485
Local Authority: CITY OF GOLD COAST

Level Datum: AHD
Meridian:
PSM:
RL:

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Drawing Title:

ROADWORKS
CROSS SECTIONS
SHEET 1 OF 10

C	23/02/24	SECTION UPDATED	ML	MG
B	24/08/23	ISSUED FOR APPROVAL	JH	MG
A	16/08/23	ORIGINAL ISSUE	JH	MG
Rev	Date	Description	DRN	CHK

DIMENSIONS IN METRES EXCEPT WHERE
SHOWN OTHERWISE
CULVERT AND PIPE SIZES IN MILLIMETRES

A1 UNREDUCED
A3 REDUCED

Scale:

0 2 4 6 8m

HORZ: 1:100 (A1) 1:200 (A3)

0 2 4 6 8m

VERT: 1:100 (A1) 1:200 (A3)

PROJECT NORTH POINT

Project No: 5941

Designed: JH

Drafted: ML

Approved:

MG

RPEQ

16939

Signed:

Date:

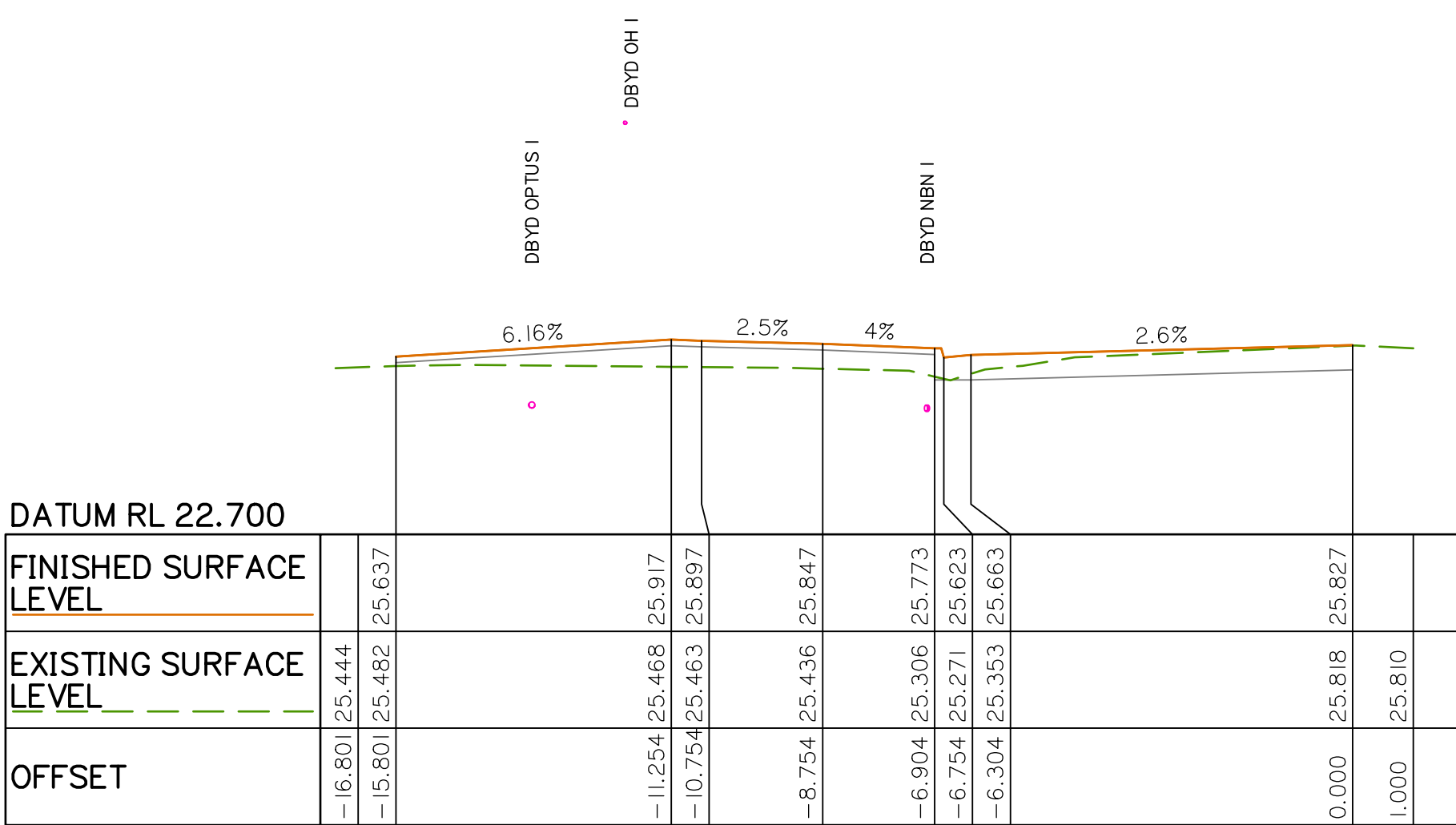
23/02/2024

Drawing No:

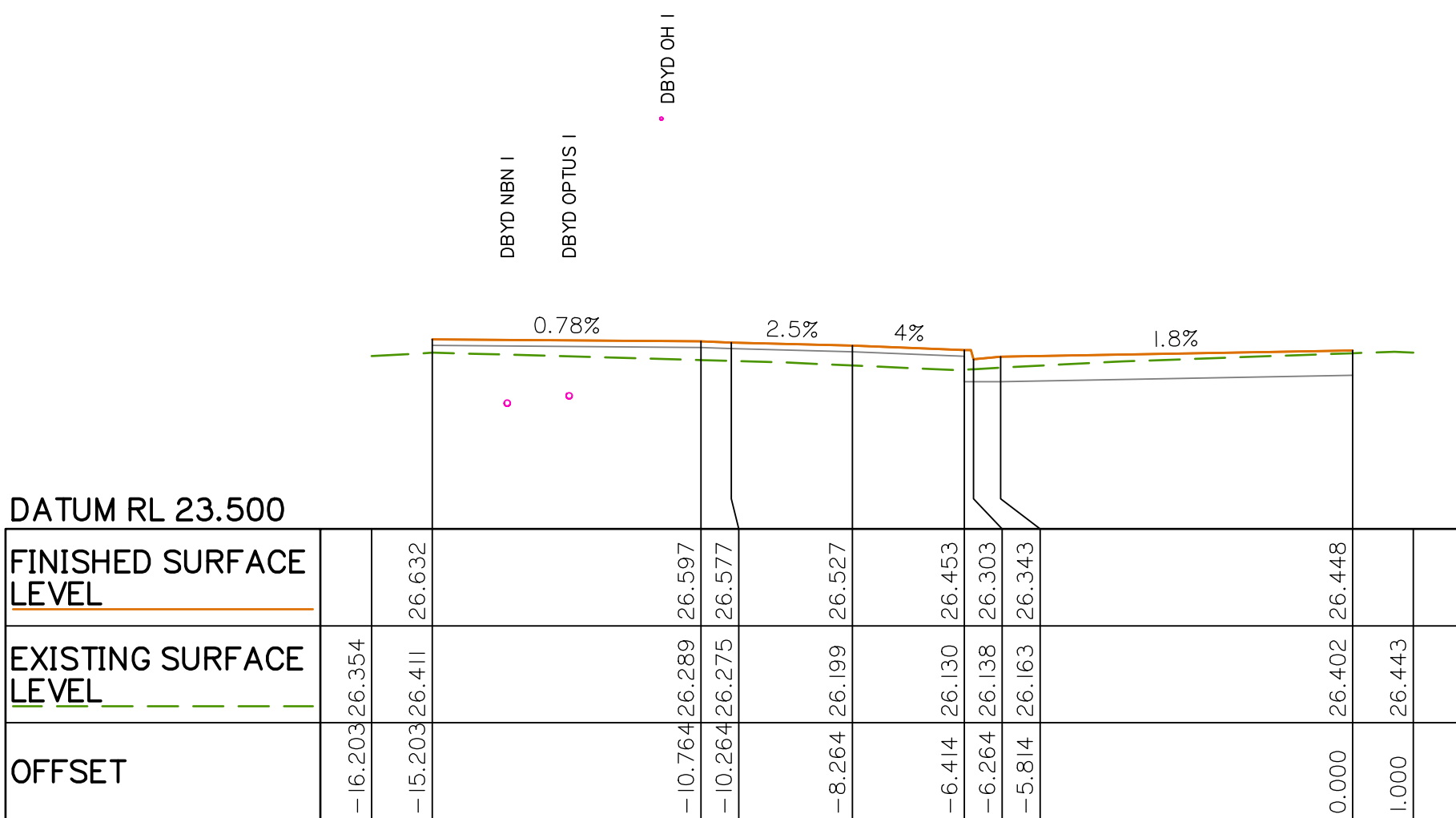
5941 ENG EXT3 470

Revision

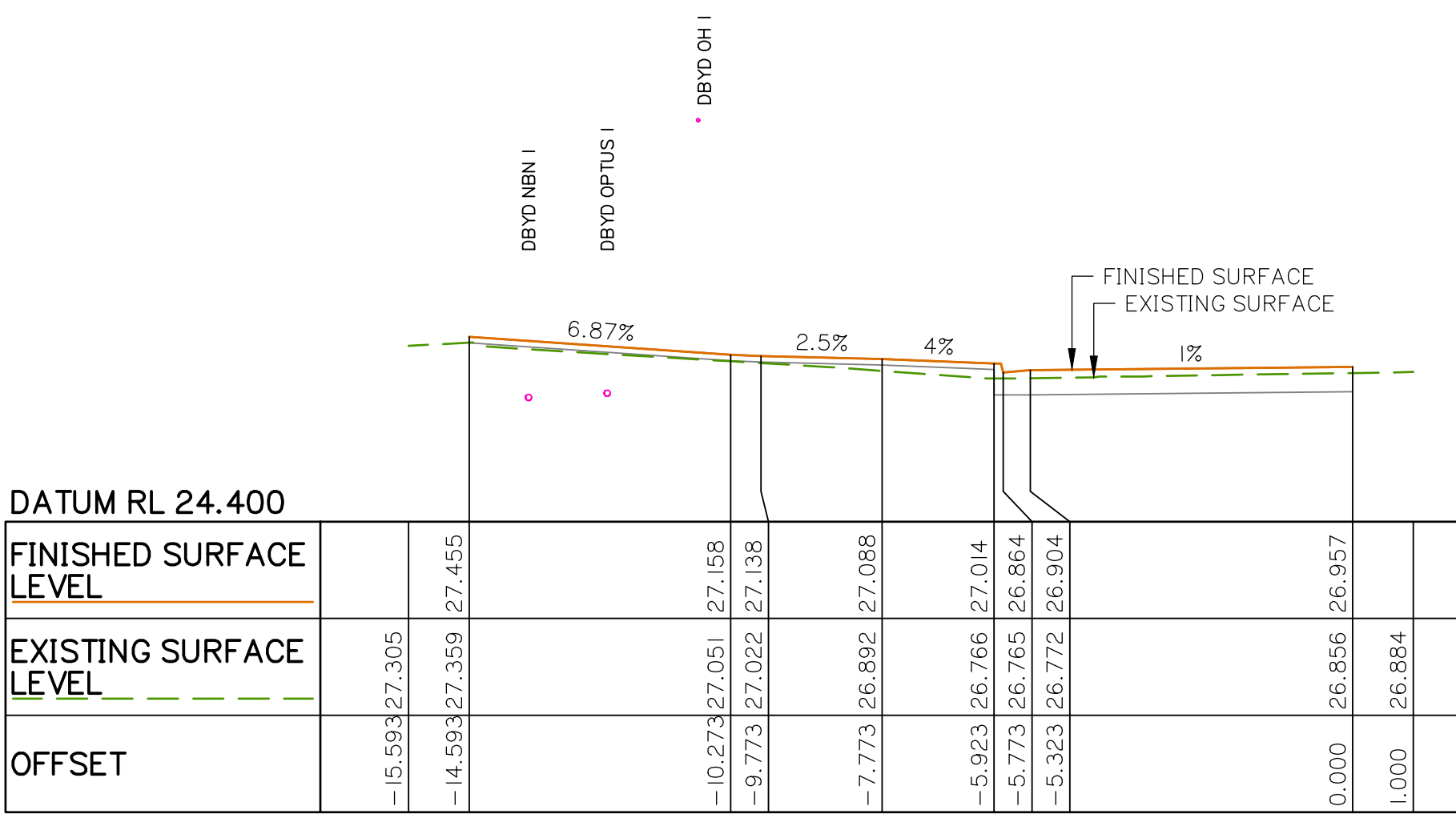
C



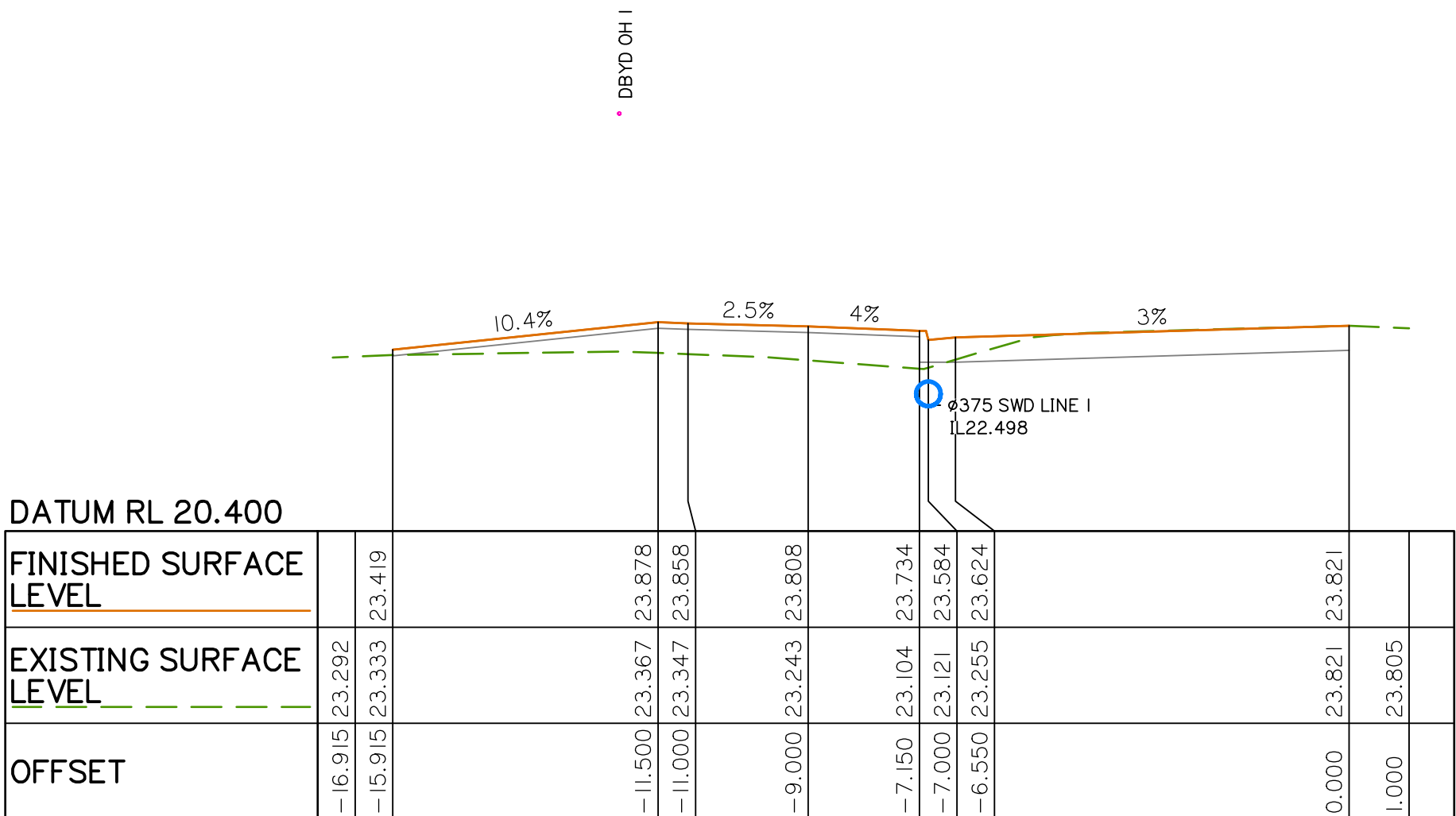
CH 40.000



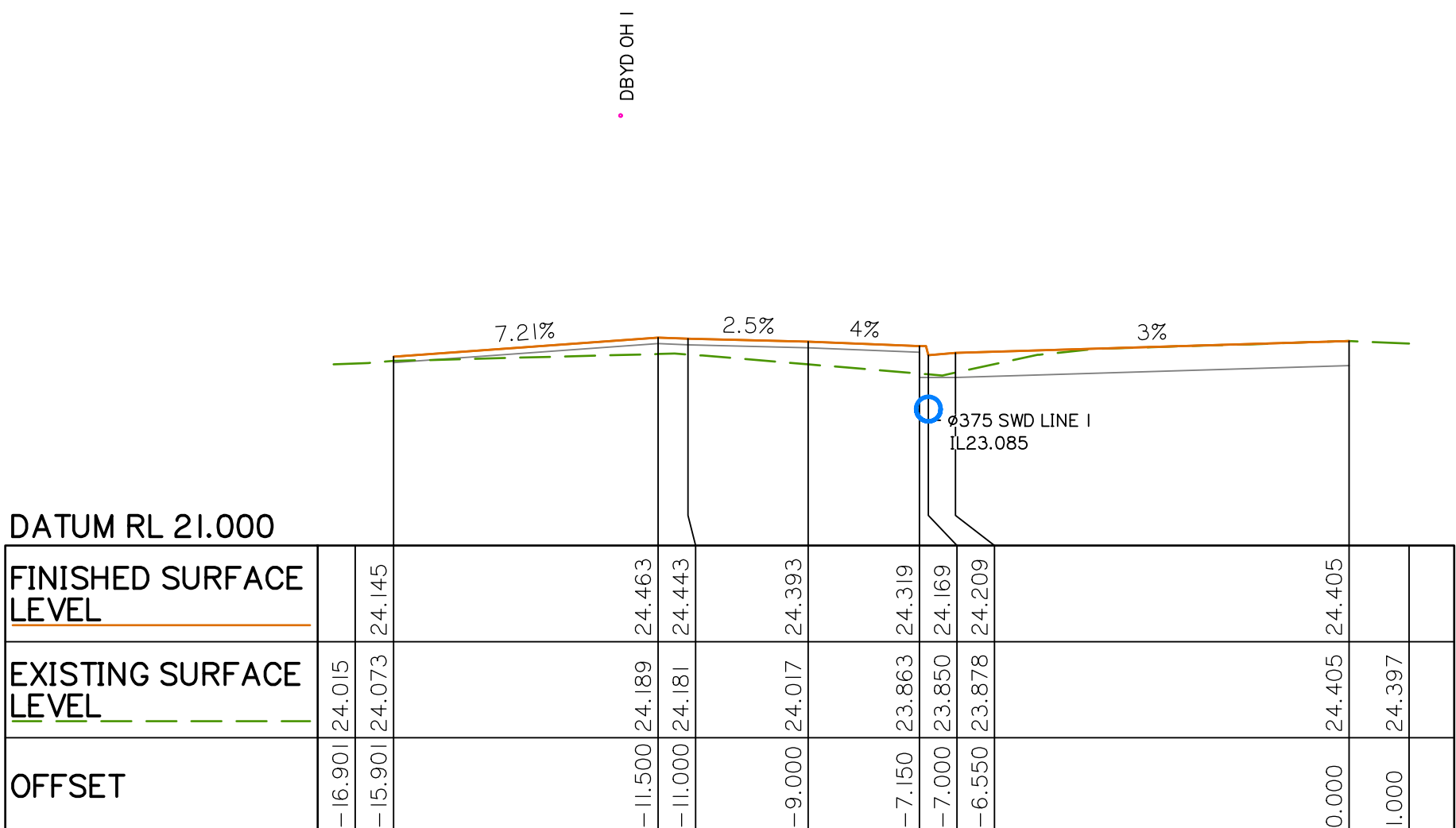
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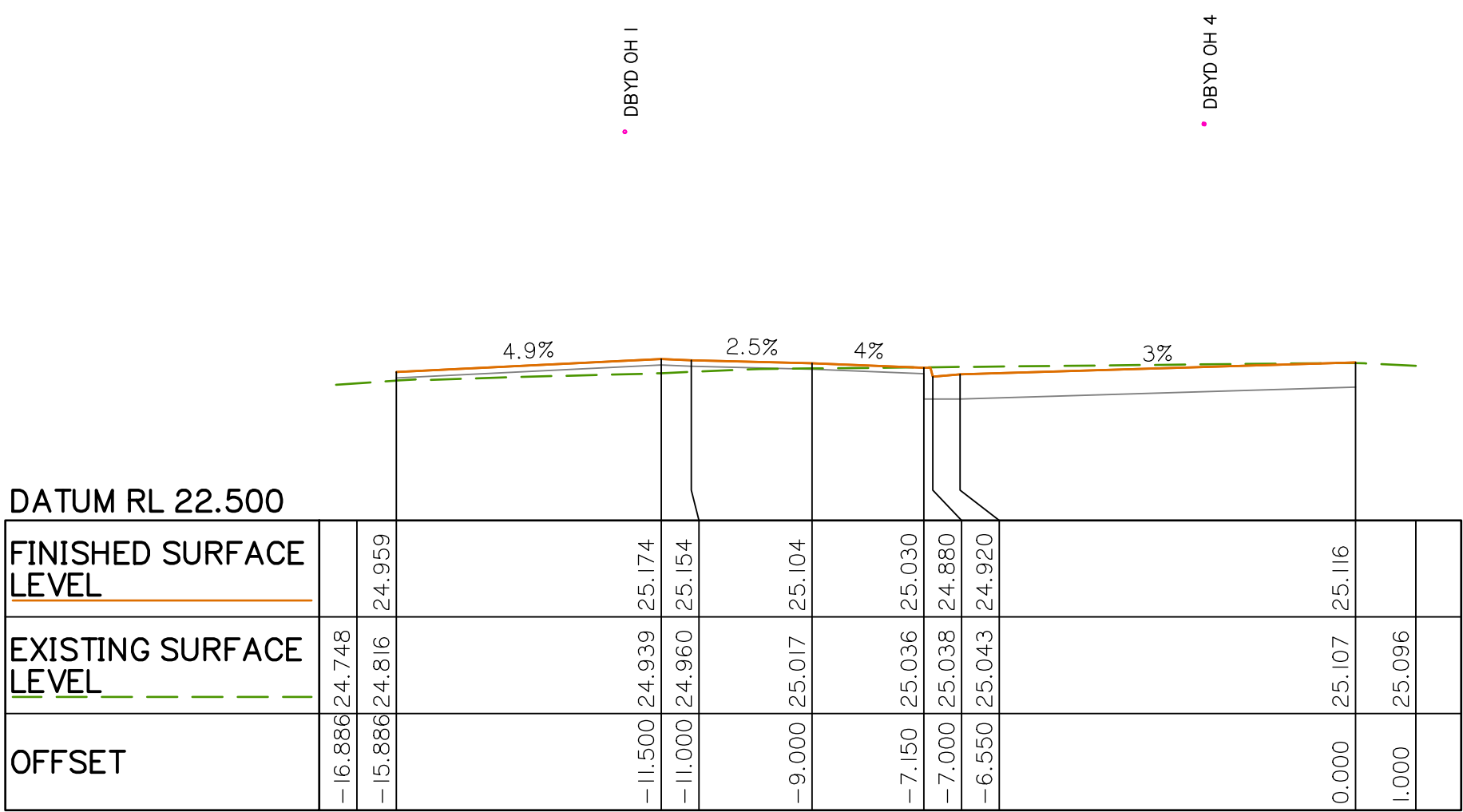
CH 0.000



CH 100.000



CH 80.000



CH 60.000

Client:



FPI QUEENSLAND
PTY. LTD.

Project:

VANTAGE YATALA
STAGE 3
EXTERNAL INTERSECTION

Site Address:

LOT 504 HOMESTEAD
DRIVE, STAPYLTON
QLD, 4207

RPD:

Lot: 504
Plan: SP329485
Local Authority: CITY OF GOLD COAST

Level Datum: AHD
Meridian:
PSM:
RL:

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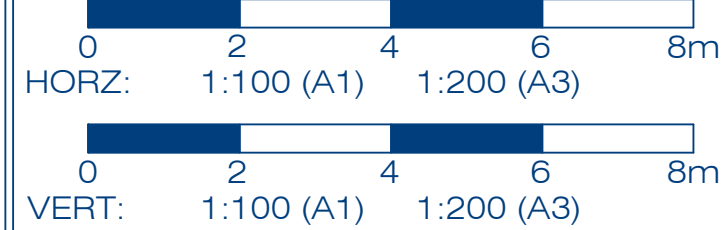
Drawing Title:

ROADWORKS
CROSS SECTIONS
SHEET 2 OF 10

C	23/02/24	SECTION UPDATED	ML	MG
B	24/08/23	ISSUED FOR APPROVAL	JH	MG
A	16/08/23	ORIGINAL ISSUE	JH	MG
Rev	Date	Description	DRN	CHK

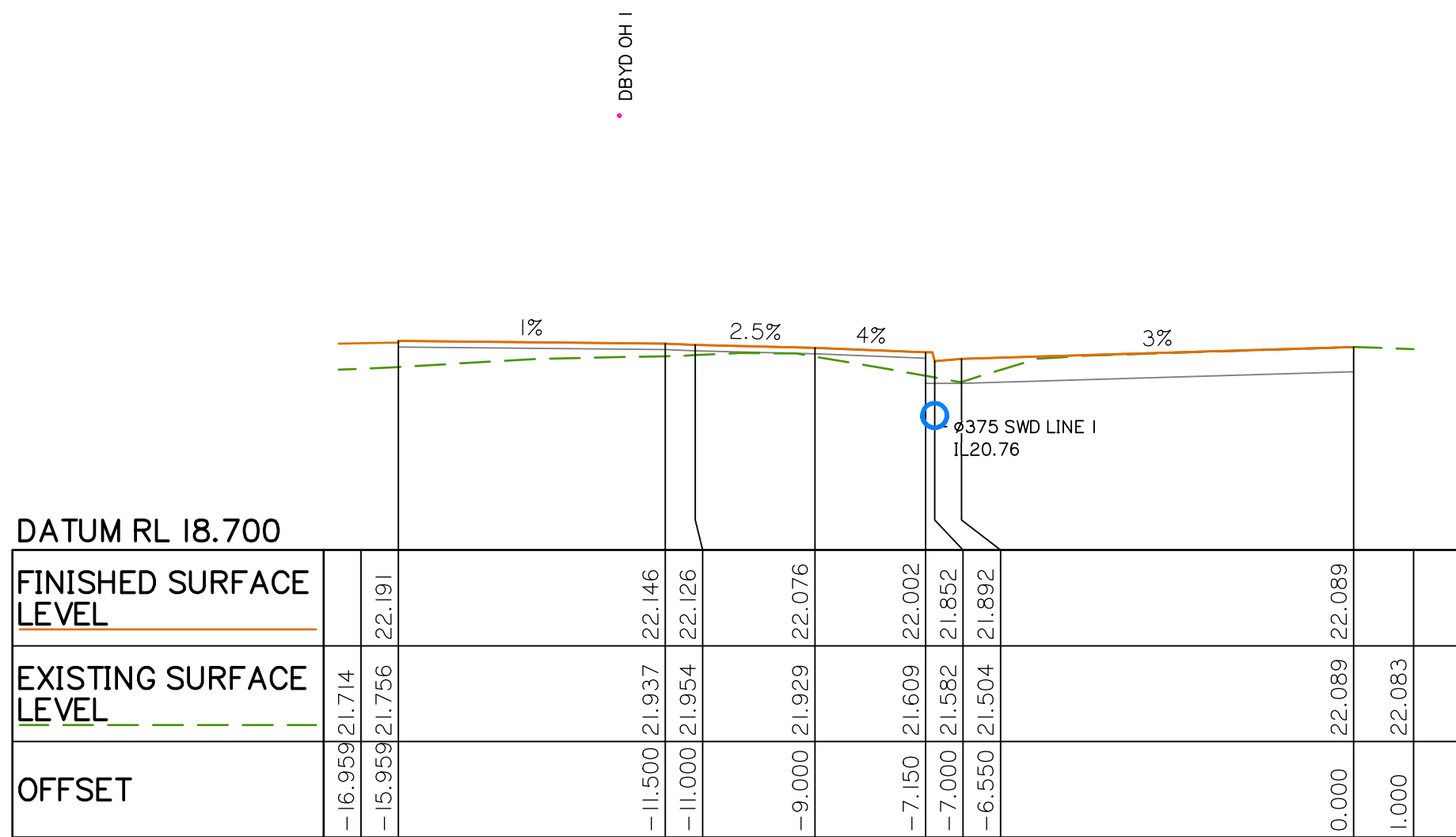
DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE. A1 UNREDUCED
CULVERT AND PIPE SIZES IN MILLIMETRES A3 REDUCED

Scale:

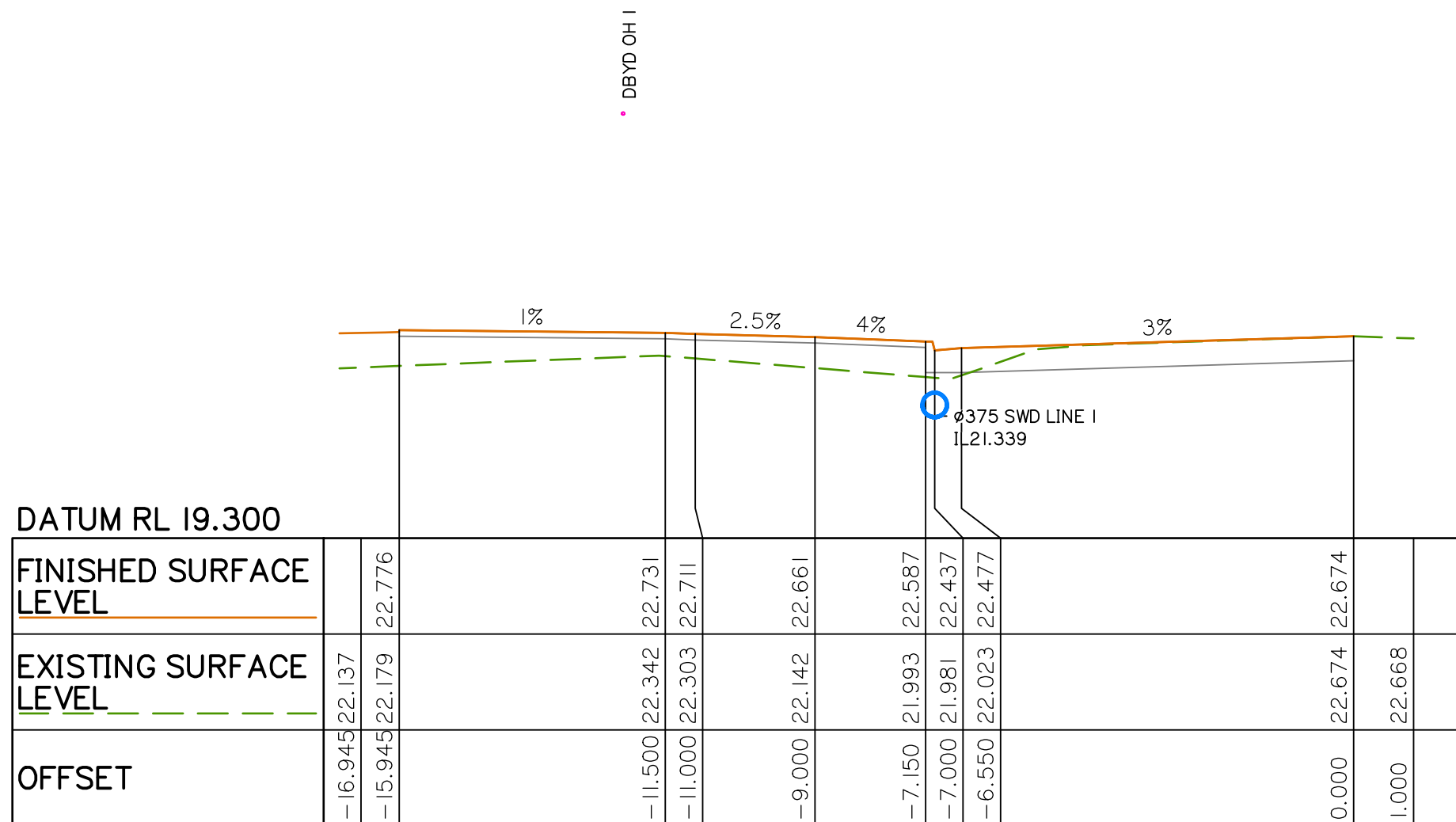


PROJECT NORTH POINT

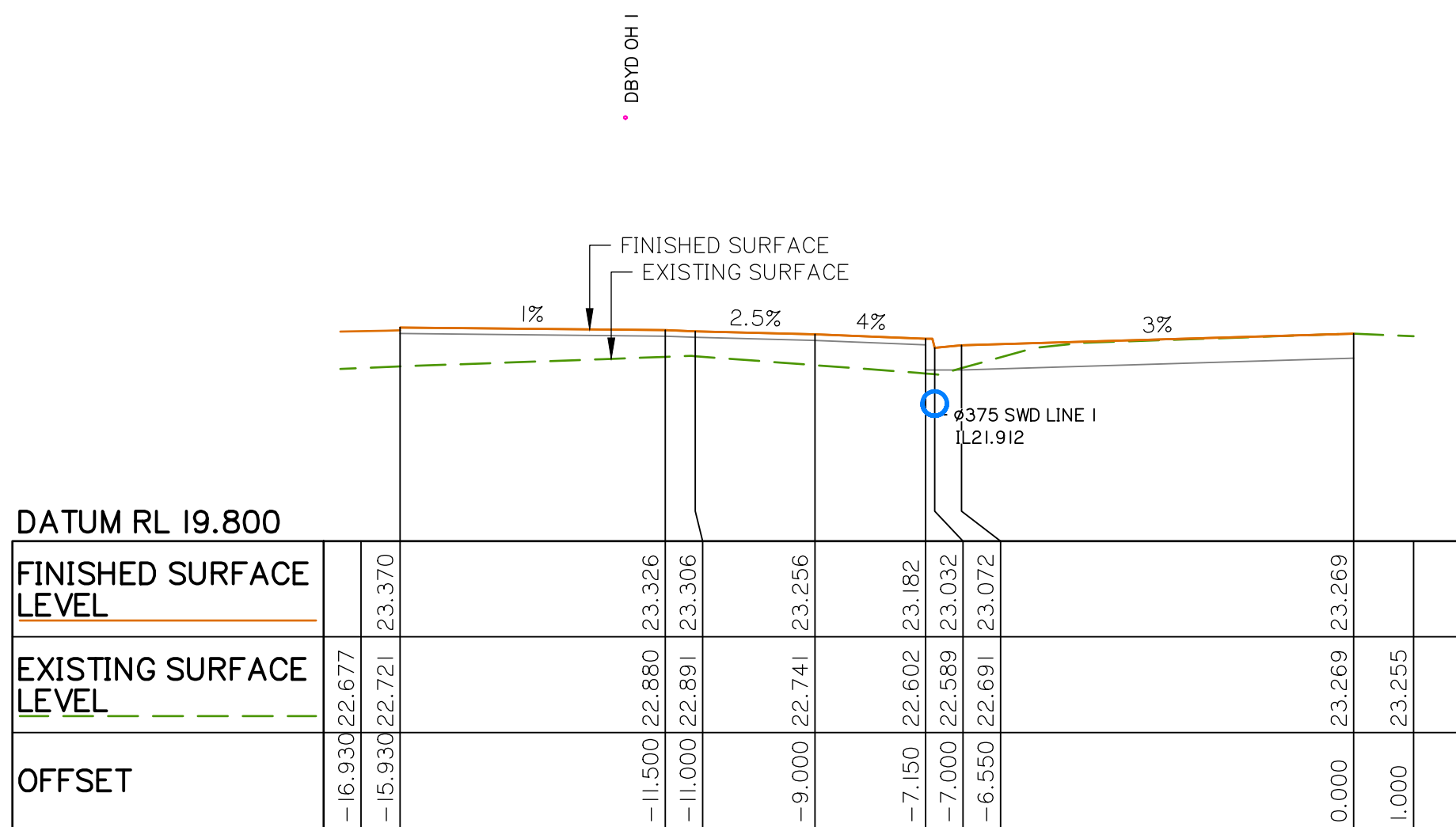
Project No. 5941	
Designed: JH	Drafted: ML
Approved:	MG
RPEQ	16939
Signed:	
Date:	23/02/2024
Drawing No: 5941 ENG EXT3 471	Revision: C



CH 160.000



CH 140.000



CH 120.000

Client:



FPI QUEENSLAND
PTY. LTD.

Project:

VANTAGE YATALA
STAGE 3
EXTERNAL INTERSECTION

Site Address:

LOT 504 HOMESTEAD
DRIVE, STAPYLTON
QLD, 4207

RPD:

Lot: 504
Plan: SP329485
Local Authority: CITY OF GOLD COAST

Level Datum: AHD
Meridian:
PSM:
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Drawing Title:

ROADWORKS
CROSS SECTIONS
SHEET 3 OF 10

C	23/02/24	SECTION UPDATED	ML	MG
B	24/08/23	ISSUED FOR APPROVAL	JH	MG
A	16/08/23	ORIGINAL ISSUE	JH	MG
Rev	Date	Description	DRN	CHK

DIMENSIONS IN METRES EXCEPT WHERE
SHOWN OTHERWISE
CULVERT AND PIPE SIZES IN MILLIMETRES

A1 UNREDUCED
A3 REDUCED

Scale:

0 2 4 6 8m
HORZ: 1:100 (A1) 1:200 (A3)

0 2 4 6 8m
VERT: 1:100 (A1) 1:200 (A3)

PROJECT NORTH POINT

Project No: 5941

Designed: JH Drafted: ML

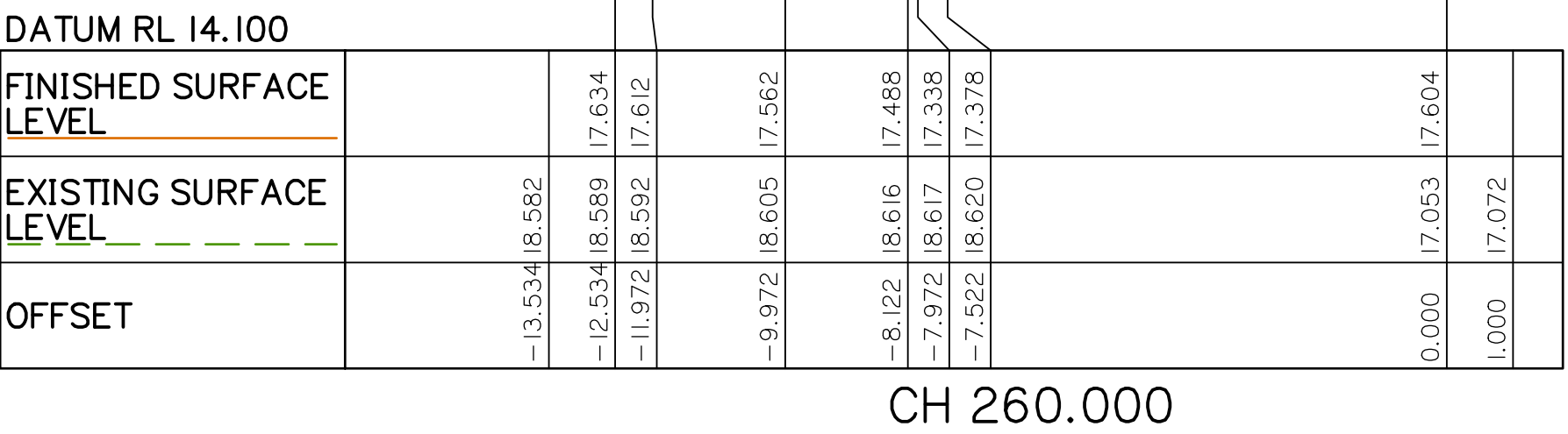
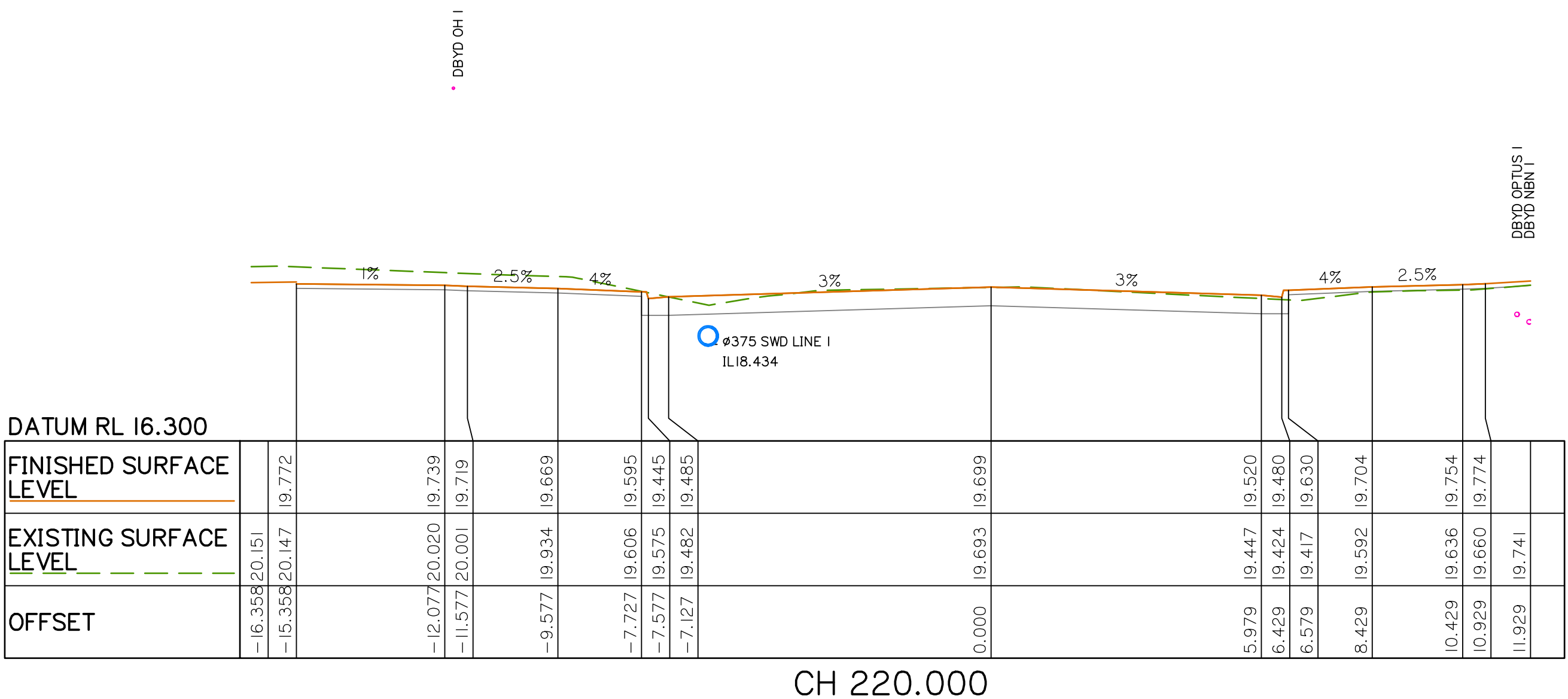
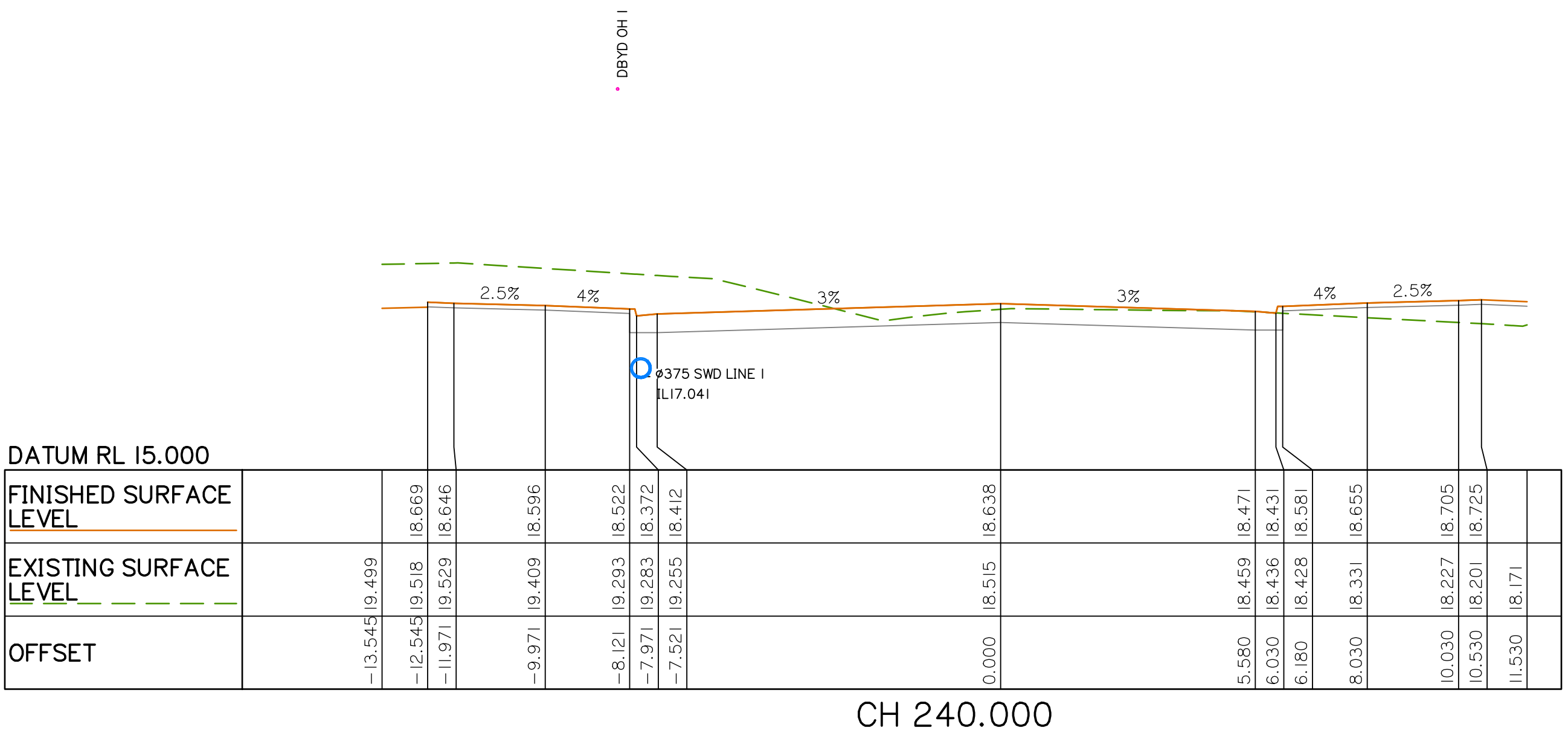
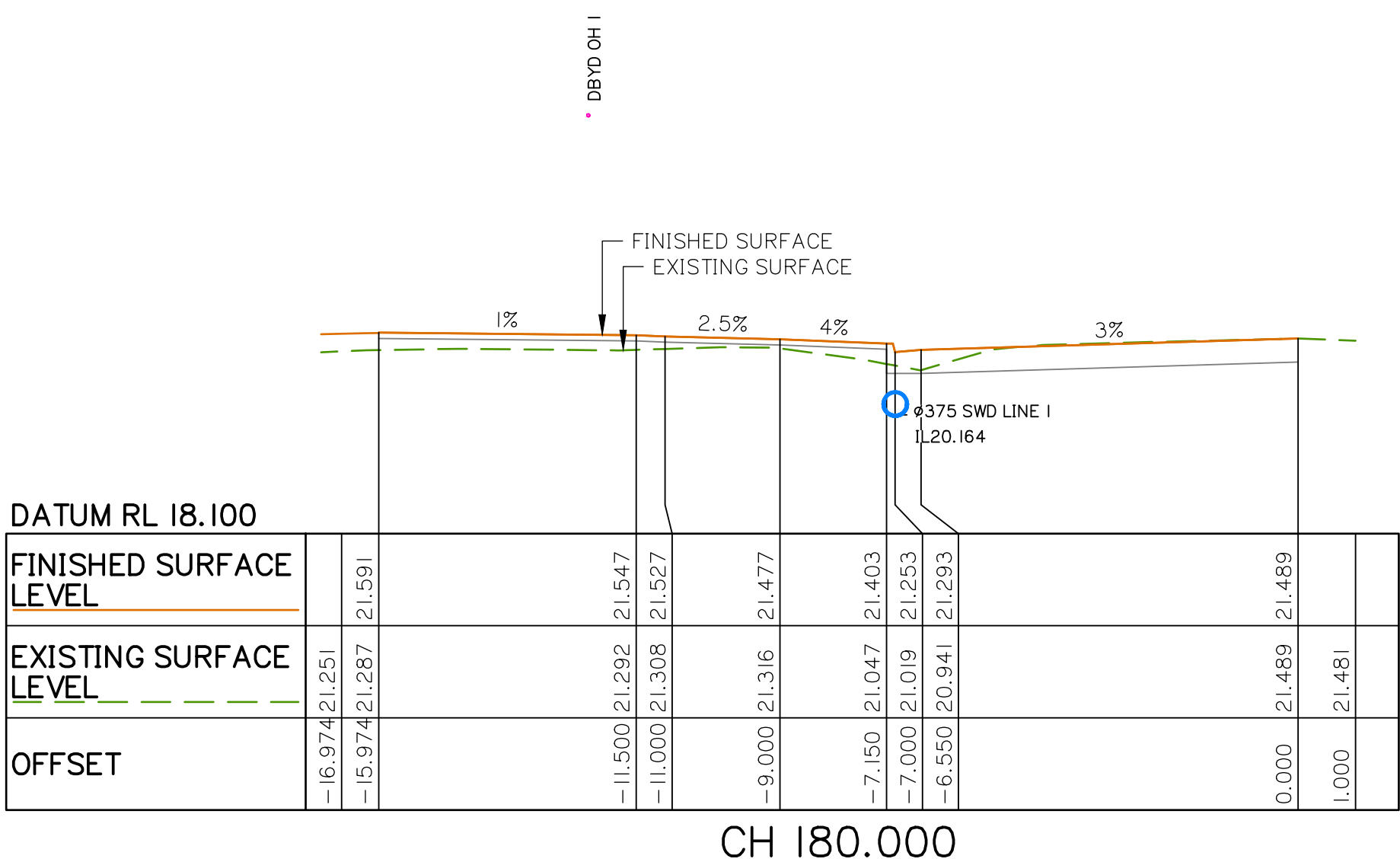
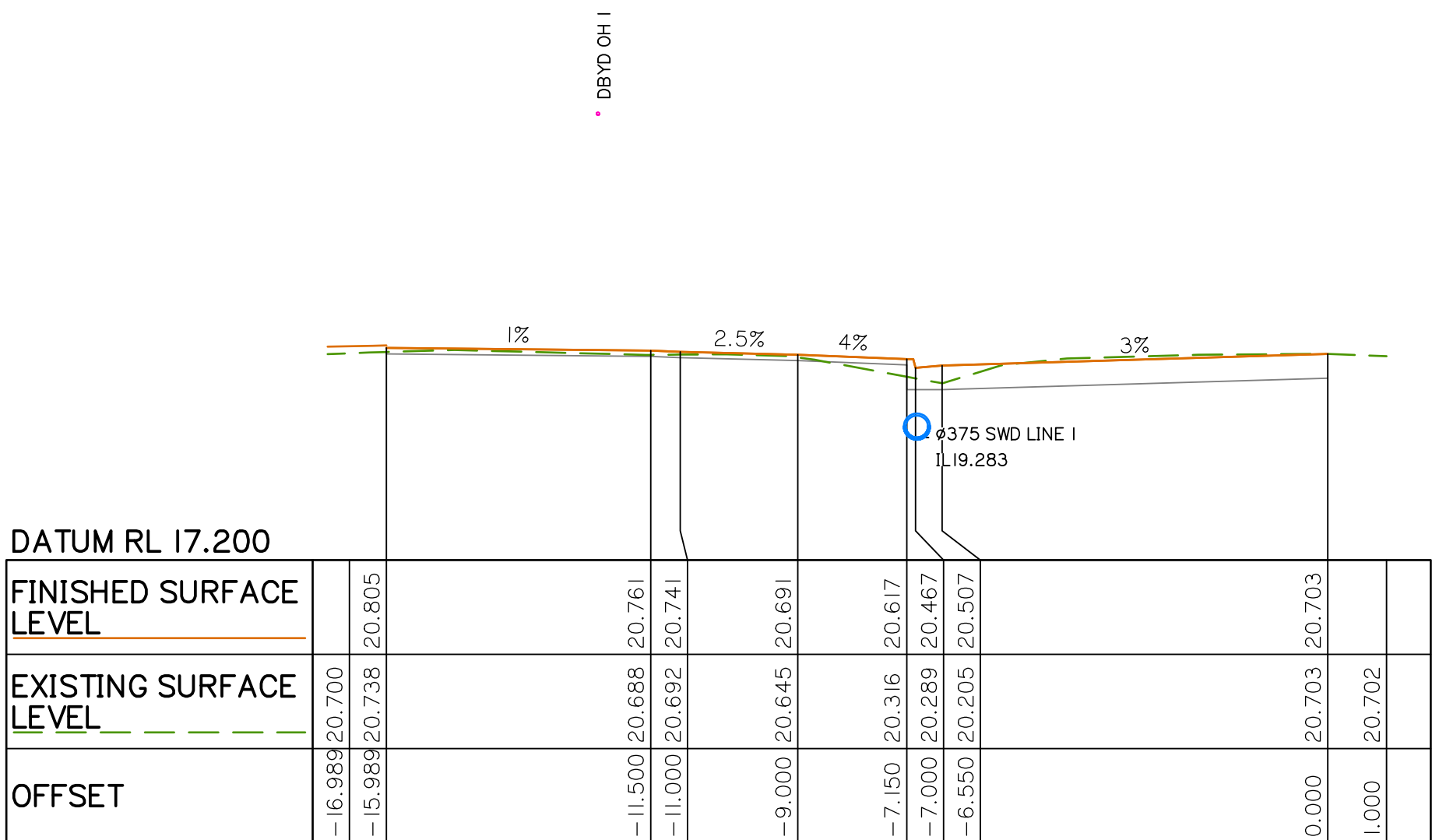
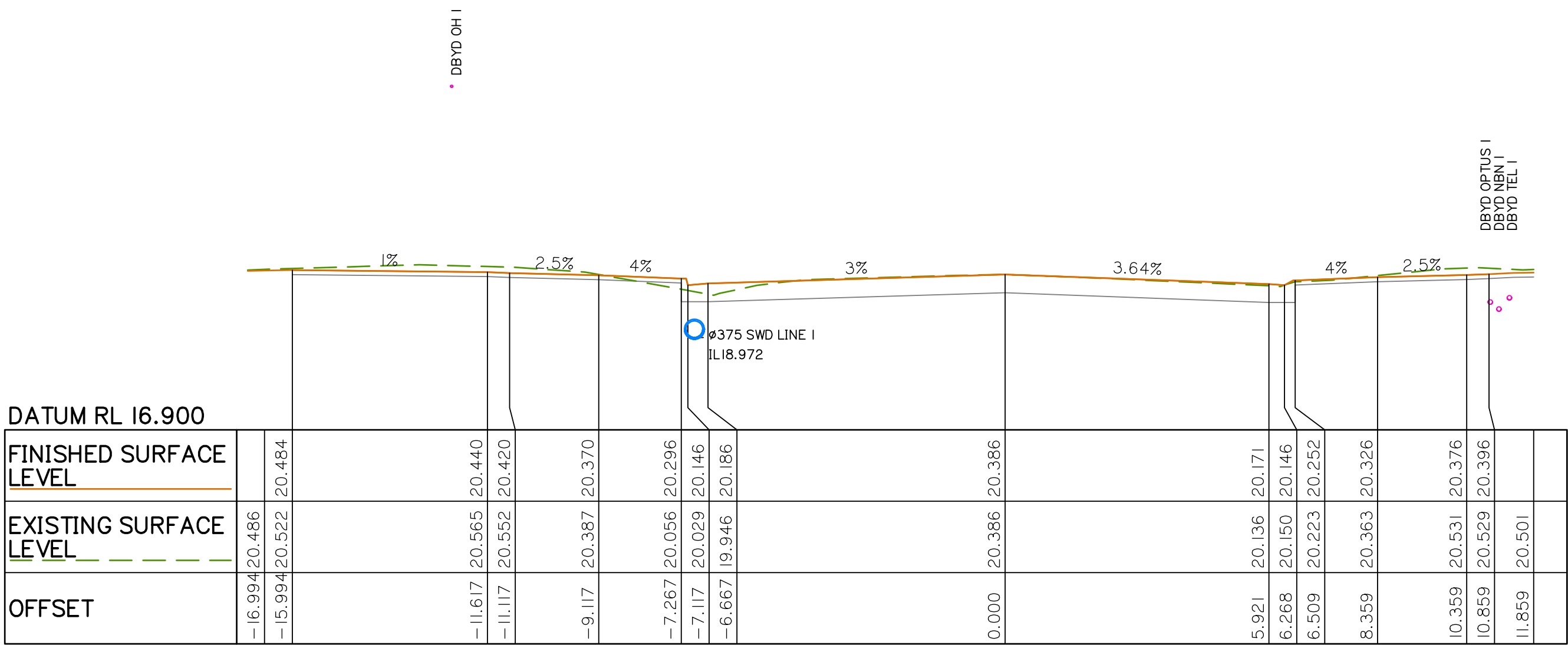
Approved: MG

RPEQ 16939

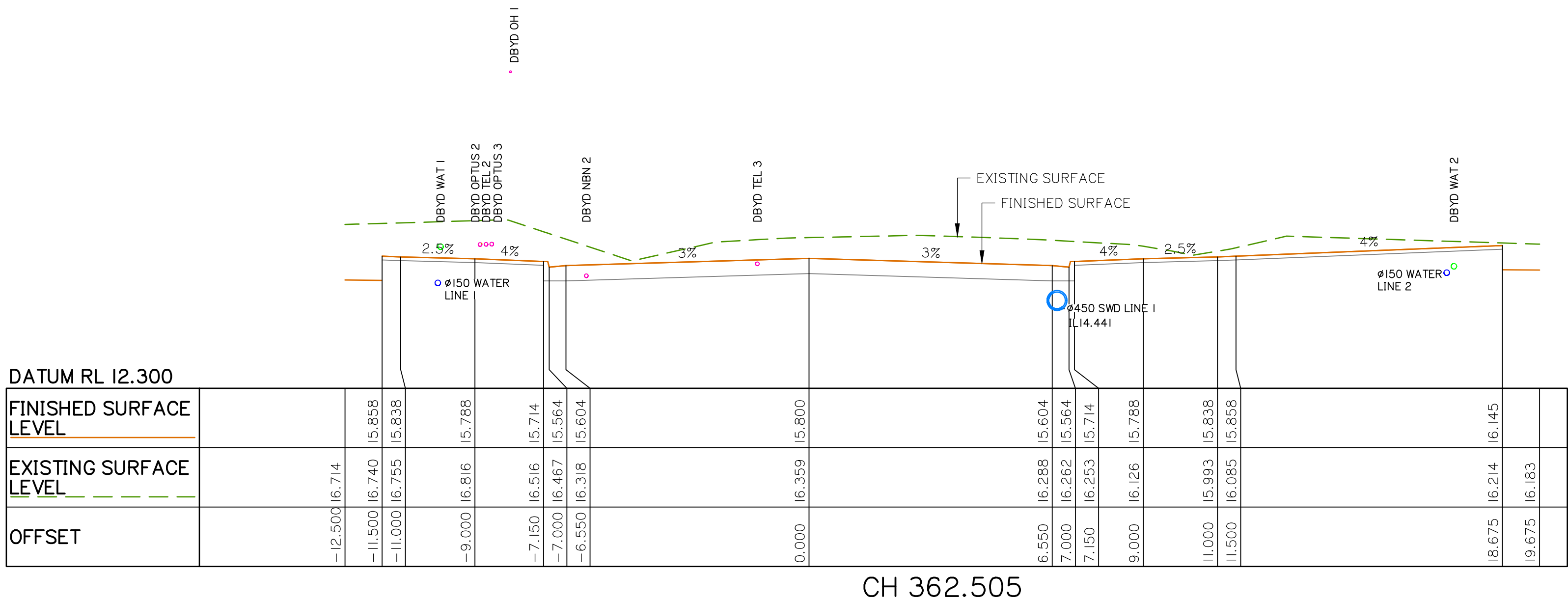
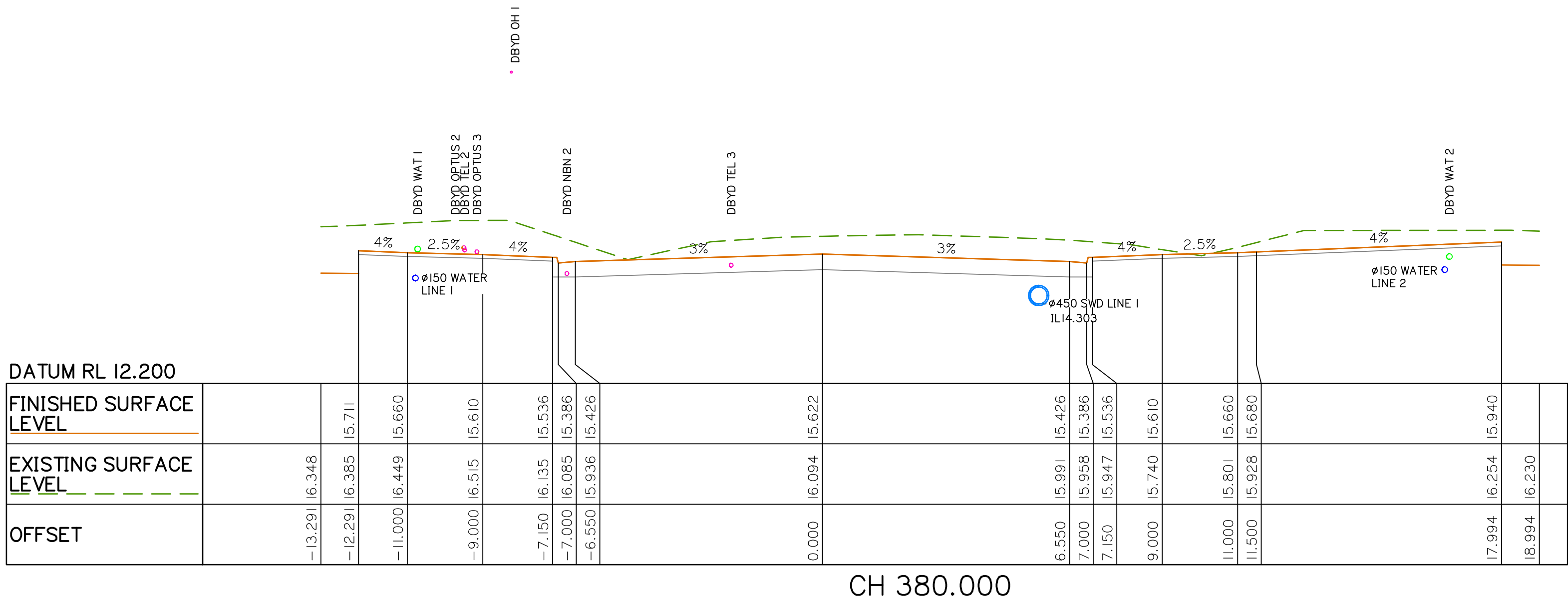
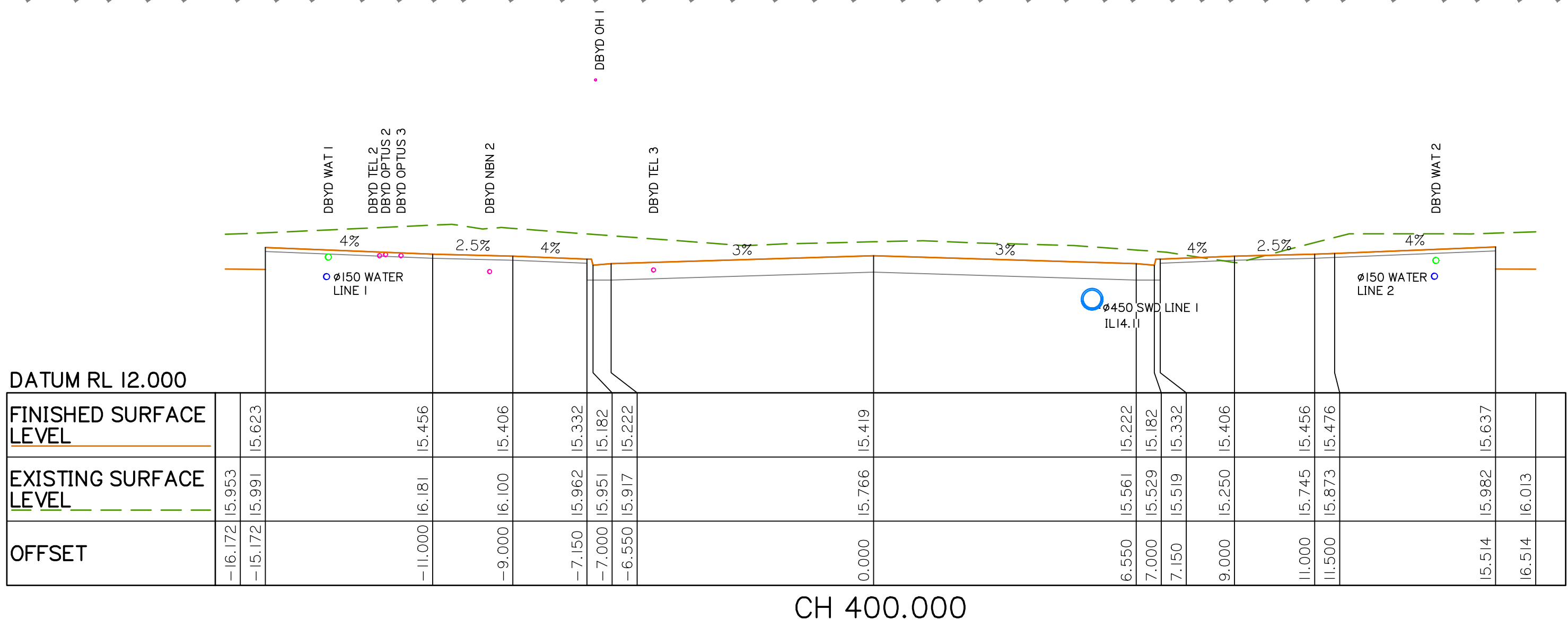
Signed:

Date: 23/02/2024

Drawing No: 5941 ENG EXT3 472 Revision: C



G:\Projects\5941\ENGINEERING\Asad\EXTERNAL INTERSECTION STAGE 3\Current\5941 ENG EXT3 470.dwg



Client:



FPI QUEENSLAND
PTY. LTD.

Project:

VANTAGE YATALA
STAGE 3
EXTERNAL INTERSECTION

Site Address:

LOT 504 HOMESTEAD
DRIVE, STAPYLTON
QLD, 4207

RPD:

Lot: 504
Plan: SP329485
Local Authority: CITY OF GOLD COAST

Level Datum: AHD
Meridian:
PSM:
RL:

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Drawing Title:

ROADWORKS
CROSS SECTIONS
SHEET 5 OF 10

C	23/02/24	SECTION UPDATED	ML	MG
B	24/08/23	ISSUED FOR APPROVAL	JH	MG
A	16/08/23	ORIGINAL ISSUE	JH	MG
Rev	Date	Description	DRN	CHK

DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE
CULVERT AND PIPE SIZES IN MILLIMETRES
A1 UNREDUCED
A3 REDUCED

Scale:

0 2 4 6 8m

HORZ: 1:100 (A1) 1:200 (A3)

0 2 4 6 8m

VERT: 1:100 (A1) 1:200 (A3)

PROJECT NORTH POINT

Project No: 5941

Designed: JH

Drafted: ML

Approved:

MG

RPEQ

16939

Signed:

Date:

23/02/2024

Drawing No:

Revision

5941 ENG EXT3 474

C

VANTAGE YATALA STAGE 3 EXTERNAL INTERSECTION

LOT 504 HOMESTEAD
DRIVE, STAPYLTON
QLD, 4207

Lot: 504
Plan: SP329485
Local Authority: CITY OF GOLD COAST

Level Datum: AHD
Meridian:
PSM:
RL:

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ROADWORKS
CROSS SECTIONS
SHEET 6 OF 10

C	23/02/24	SECTION UPDATED	ML	MG
B	24/08/23	ISSUED FOR APPROVAL	JH	MG
A	16/08/23	ORIGINAL ISSUE	JH	MG
ev	Date	Description	DRN	CHK

DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE. A1 UNREDUCED
CULVERT AND PIPE SIZES IN MILLIMETRES A3 REDUCED

--	--	--	--

VERT: 1:100 (A1) 1:200 (A3)

PROJECT NORTH POINT

Designed: JH	Drafted: ML
--------------	-------------

Approved:	MG
-----------	----

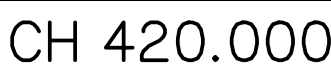
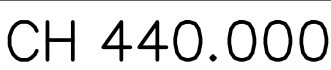
RPEQ	16939
------	-------

Signed:

Date: 23/02/2024

Drawing No: Revision

5941 ENG EXT3 475 C



Client:



FPI QUEENSLAND
PTY. LTD.

Project:

VANTAGE YATALA
STAGE 3
EXTERNAL INTERSECTION

Site Address:

LOT 504 HOMESTEAD
DRIVE, STAPYLTON
QLD, 4207

RPD:

Lot: 504
Plan: SP329485
Local Authority: CITY OF GOLD COAST

Level Datum: AHD
Meridian:
PSM:
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Drawing Title:

ROADWORKS
CROSS SECTIONS
SHEET 8 OF 10

C	23/02/24	SECTION UPDATED	ML	MG
B	24/08/23	ISSUED FOR APPROVAL	JH	MG
A	16/08/23	ORIGINAL ISSUE	JH	MG
Rev	Date	Description	DRN	CHK

DIMENSIONS IN METRES EXCEPT WHERE
SHOWN OTHERWISE
CULVERT AND PIPE SIZES IN MILLIMETRES

A1 UNREDUCED
A3 REDUCED

Scale:

0 2 4 6 8m

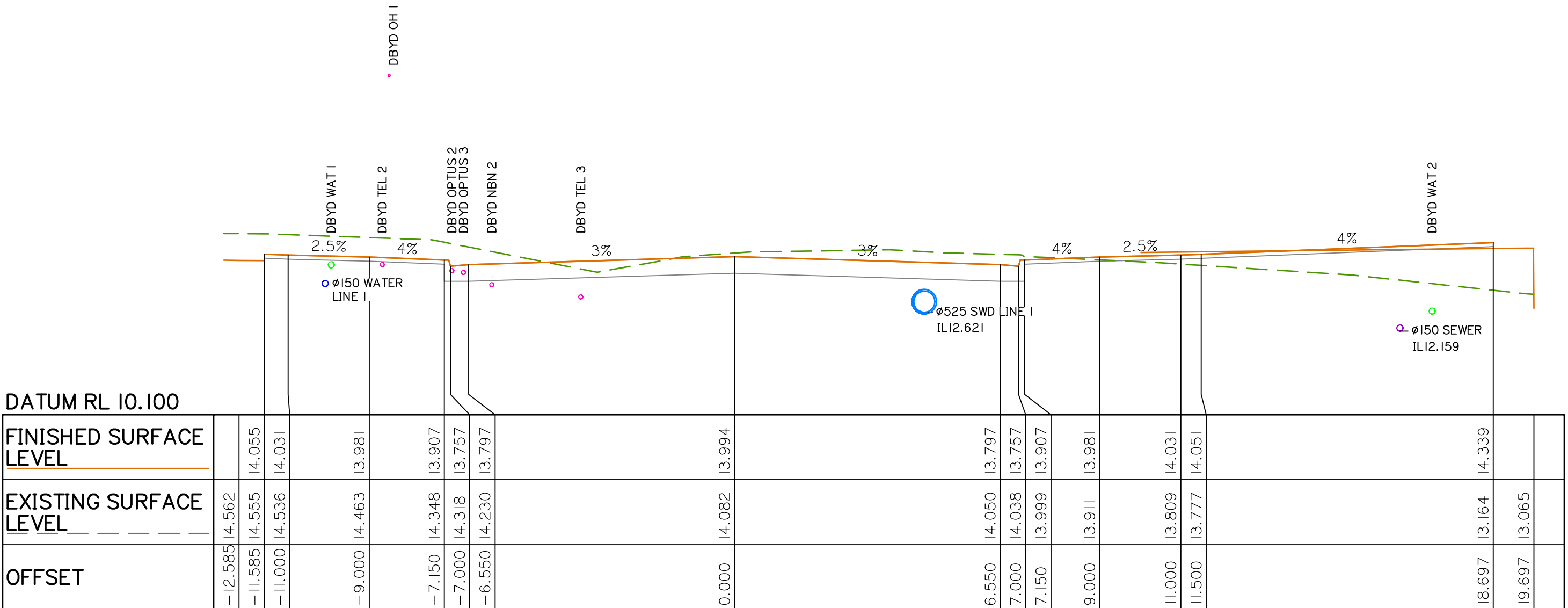
HORZ: 1:100 (A1) 1:200 (A3)

0 2 4 6 8m

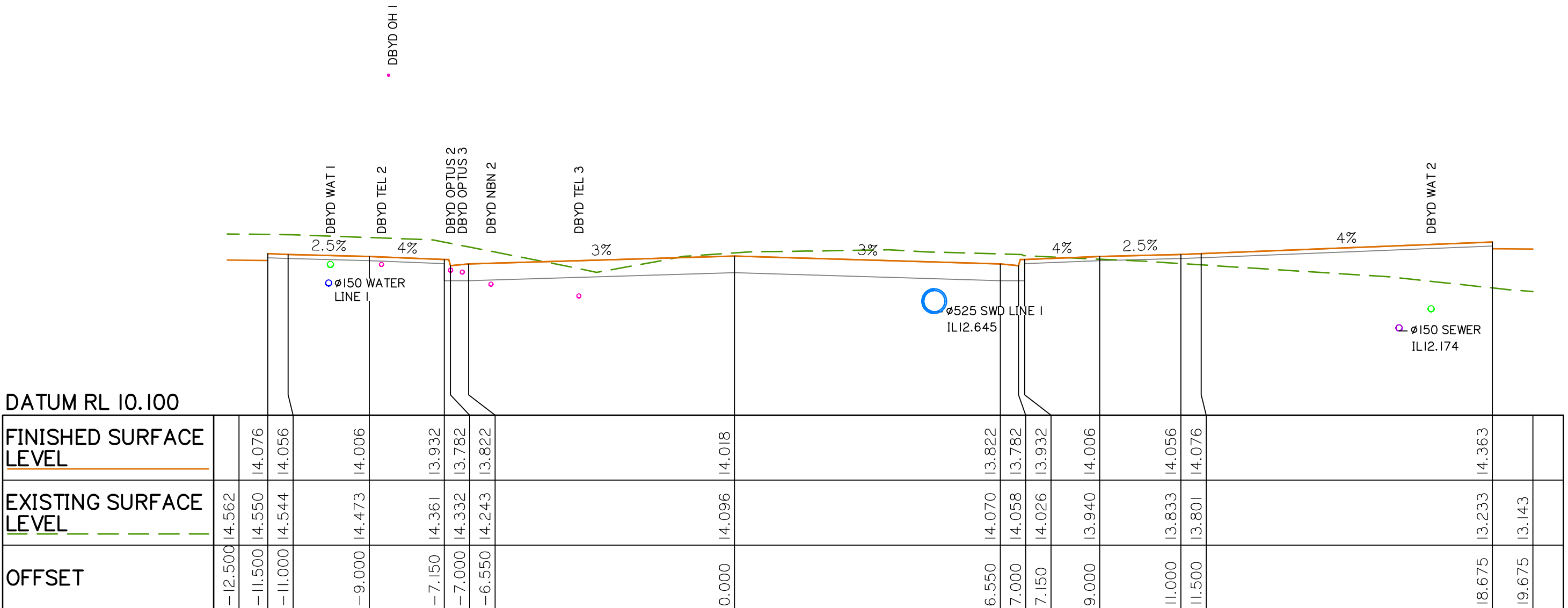
VERT: 1:100 (A1) 1:200 (A3)

PROJECT NORTH POINT

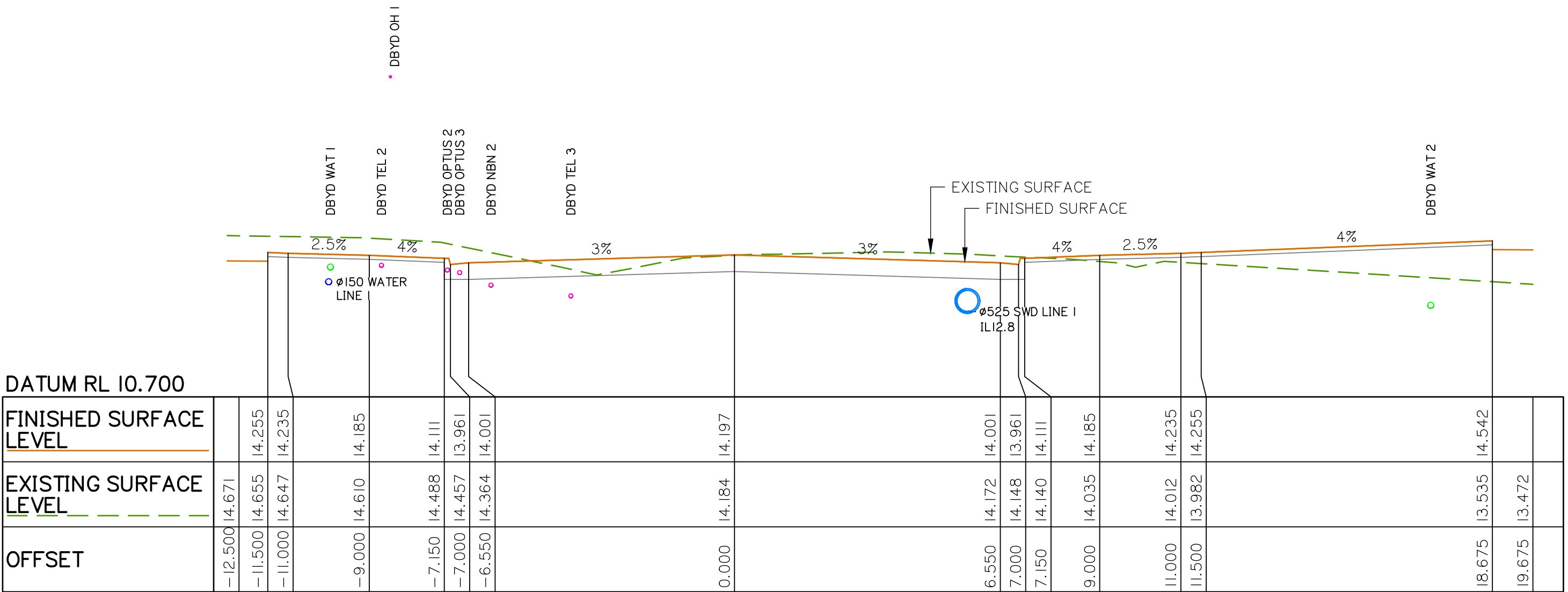
Project No. 5941	
Designed: JH	Drafted: ML
Approved:	MG
RPEQ	16939
Signed:	
Date:	23/02/2024
Drawing No: 5941 ENG EXT3 477	Revision C



CH 540.000



CH 537.571



CH 520.000

Client:



FPI QUEENSLAND
PTY. LTD.

Project:

VANTAGE YATALA
STAGE 3
EXTERNAL INTERSECTION

Site Address:

LOT 504 HOMESTEAD
DRIVE, STAPYLTON
QLD, 4207

RPD:

Lot: 504
Plan: SP329485
Local Authority: CITY OF GOLD COAST

Level Datum: AHD
Meridian:
PSM:
RL:

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Drawing Title:

ROADWORKS
CROSS SECTIONS
SHEET 9 OF 10

C	23/02/24	SECTION UPDATED	ML	MG
B	24/08/23	ISSUED FOR APPROVAL	JH	MG
A	16/08/23	ORIGINAL ISSUE	JH	MG
Rev	Date	Description	DRN	CHK

DIMENSIONS IN METRES EXCEPT WHERE
SHOWN OTHERWISE. A1 UNREDUCED
CULVERT AND PIPE SIZES IN MILLIMETRES A3 REDUCED

Scale:

0 2 4 6 8m
HORZ: 1:100 (A1) 1:200 (A3)

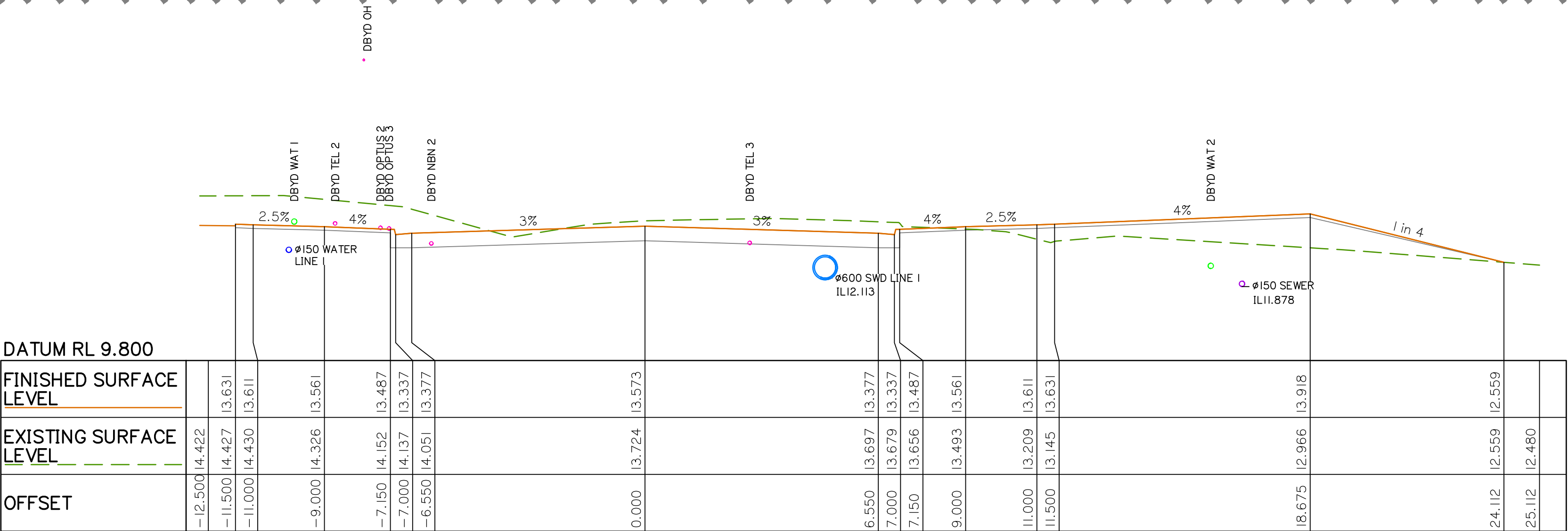
0 2 4 6 8m
VERT: 1:100 (A1) 1:200 (A3)

PROJECT NORTH POINT

Project No. 5941

Designed: JH	Drafted: ML
Approved:	MG
RPEQ	16939
Signed:	
Date:	23/02/2024

Drawing No: 5941 ENG EXT3 478 Revision: C



Client:



FPI QUEENSLAND
PTY. LTD.

Project:

VANTAGE YATALA
STAGE 3
EXTERNAL INTERSECTION

Site Address:

LOT 504 HOMESTEAD
DRIVE, STAPYLTON
QLD, 4207

RPD:

Lot: 504
Plan: SP329485
Local Authority: CITY OF GOLD COAST

Level Datum: AHD
Meridian:
PSM:
RL:

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Drawing Title:

ROADWORKS
CROSS SECTIONS
SHEET 10 OF 10

C	23/02/24	SECTION UPDATED	ML	MG
B	24/08/23	ISSUED FOR APPROVAL	JH	MG
A	16/08/23	ORIGINAL ISSUE	JH	MG
Rev	Date	Description	DRN	CHK

DIMENSIONS IN METRES EXCEPT WHERE
SHOWN OTHERWISE. A1 UNREDUCED
CULVERT AND PIPE SIZES IN MILLIMETRES A3 REDUCED

Scale:

0 2 4 6 8m

HORZ: 1:100 (A1) 1:200 (A3)

0 2 4 6 8m

VERT: 1:100 (A1) 1:200 (A3)

PROJECT NORTH POINT

Project No: 5941

Designed: JH Drafted: ML

Approved: MG

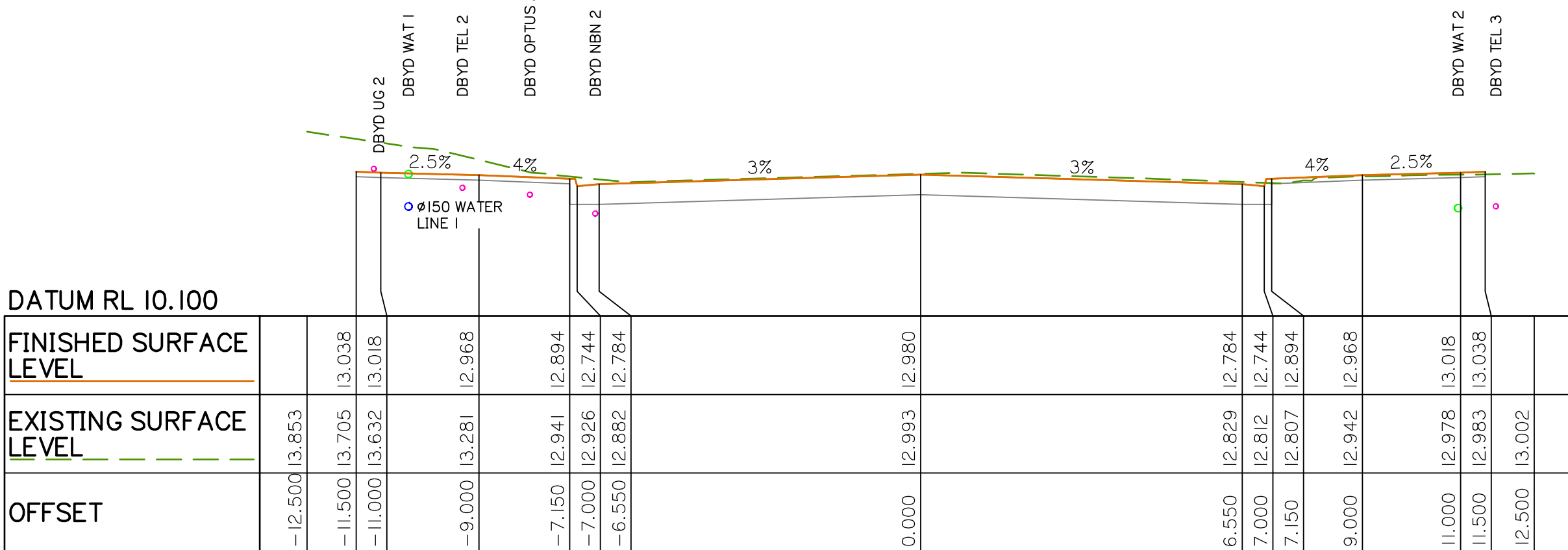
RPEQ 16939

Signed:

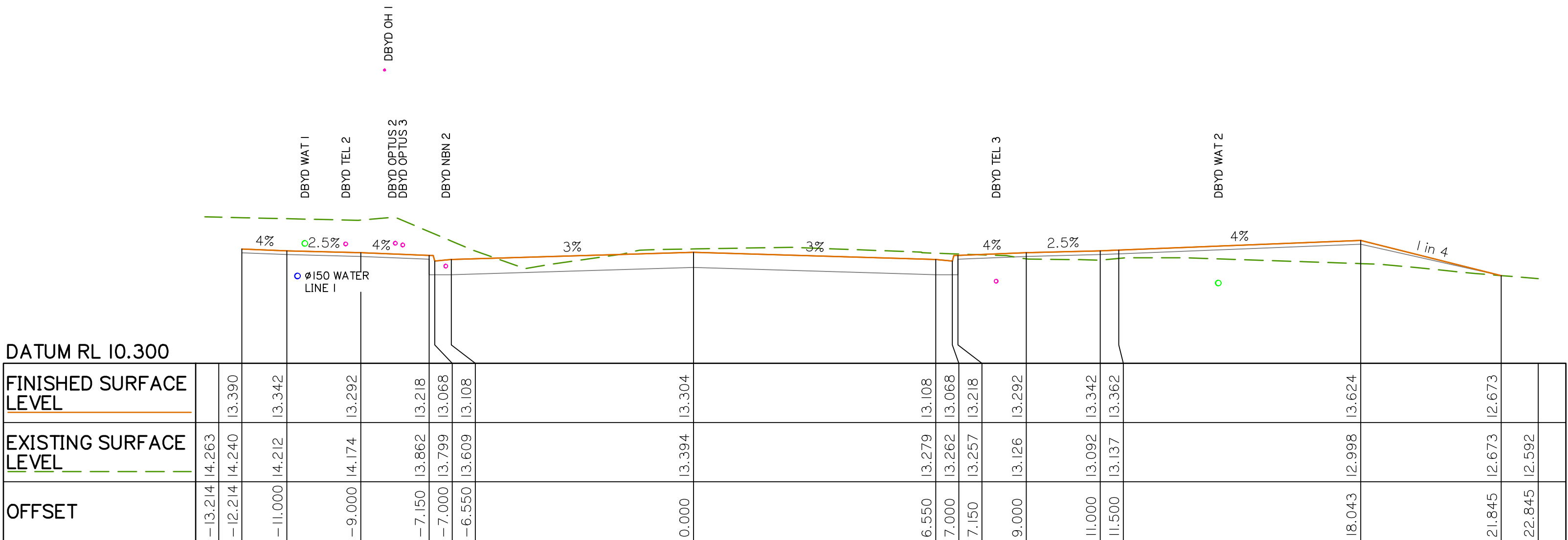
Date: 23/02/2024

Drawing No: Revision

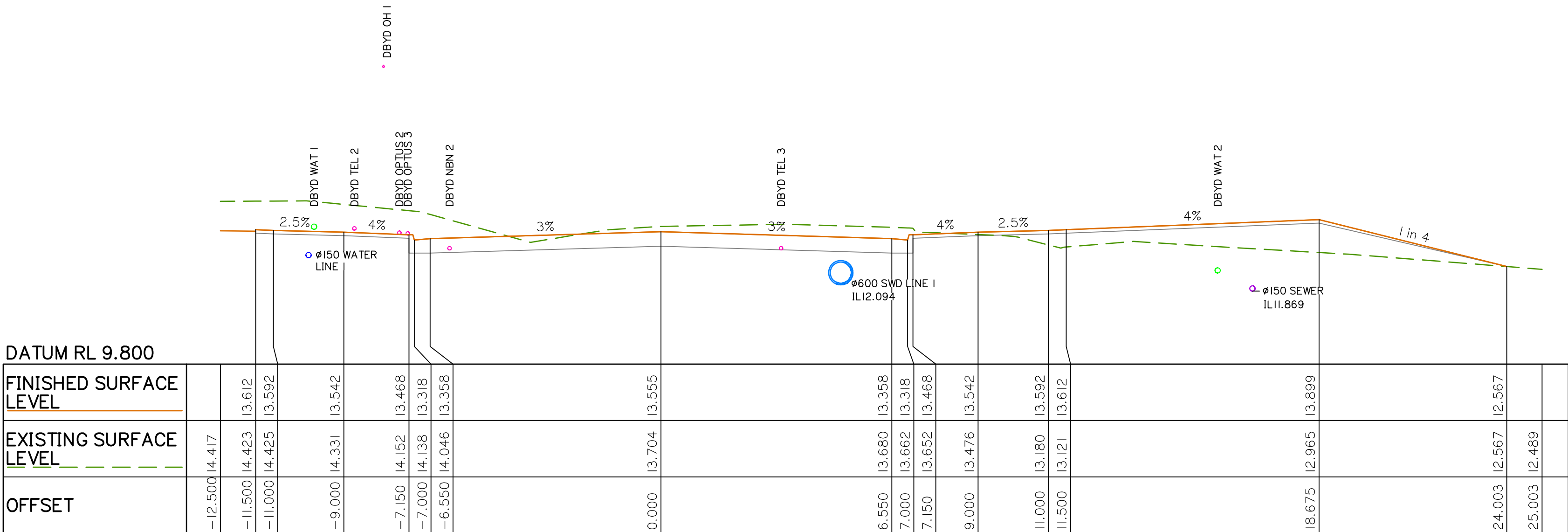
5941 ENG EXT3 479 C



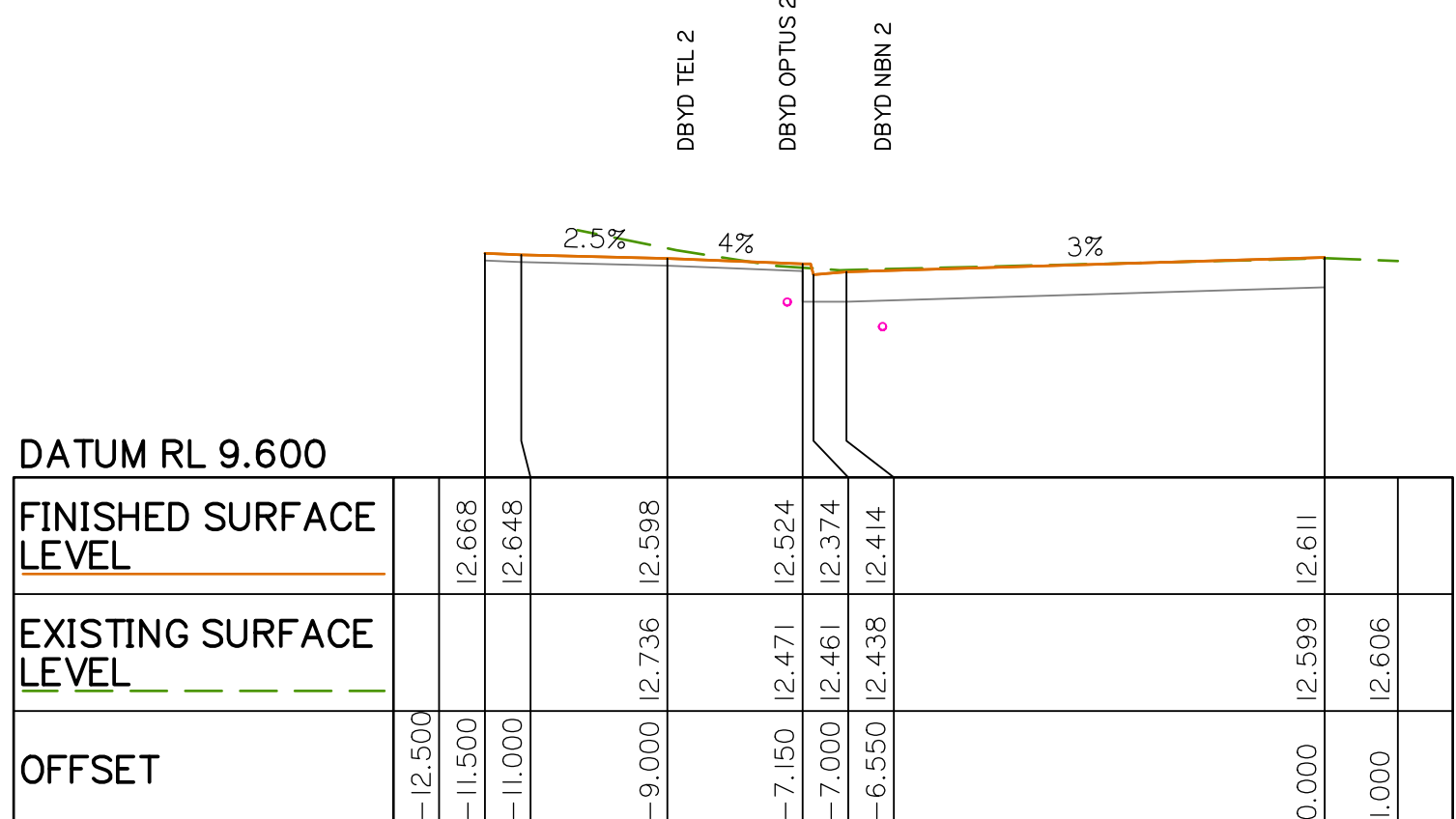
CH 620.000



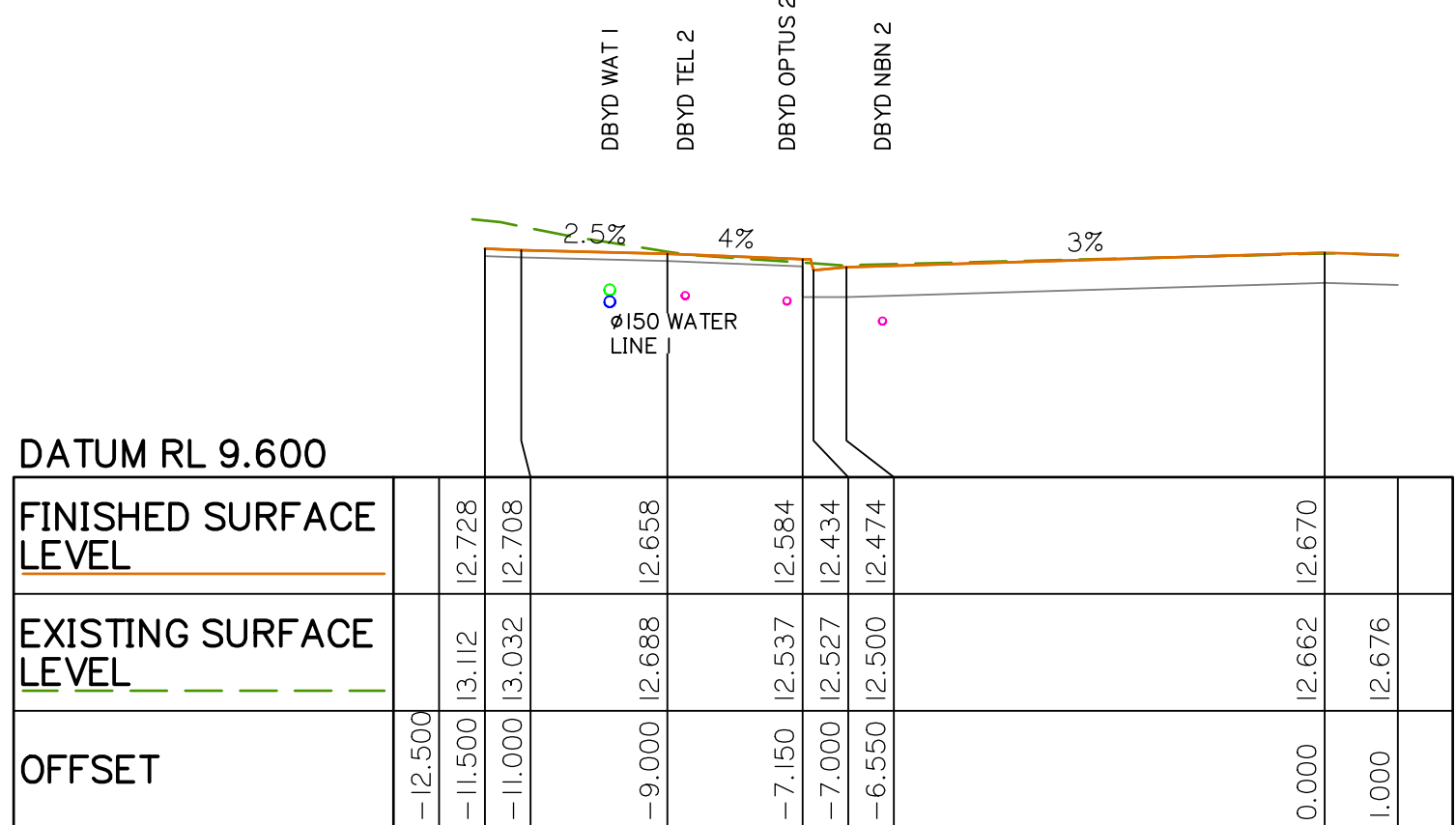
CH 600.000



CH 581.541



CH 639.600



CH 636.595

Client:



FPI QUEENSLAND
PTY. LTD.

Project:

VANTAGE YATALA
STAGE 3
EXTERNAL INTERSECTION

Site Address:

LOT 504 HOMESTEAD
DRIVE, STAPYLTON
QLD, 4207

RPD:

Lot: 504
Plan: SP329485
Local Authority: CITY OF GOLD COAST

Level Datum: AHD
Meridian:
PSM:
RL:

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Drawing Title:

KRET CONTROL LINE
LAYOUT, LONG SECTIONS
AND SETOUT TABLES

C	23/02/24	DESIGN UPDATED	ML	MG
B	24/08/23	ISSUED FOR APPROVAL	JH	MG
A	16/08/23	ORIGINAL ISSUE	JH	MG
Rev	Date	Description	DRN	CHK

DIMENSIONS IN METRES EXCEPT WHERE
SHOWN OTHERWISE
CULVERT AND PIPE SIZES IN MILLIMETRES

A1 UNREDUCED
A3 REDUCED

Scale:

0 4 8 12 16m
1:200 (A1) 1:400 (A3)

PROJECT NORTH POINT



Project No. 5941

Designed: JH

Drafted: ML

Approved:

MG

RPEQ

16939

Signed:

Date:

23/02/2024

Drawing No:

Revision

5941 ENG EXT3 490

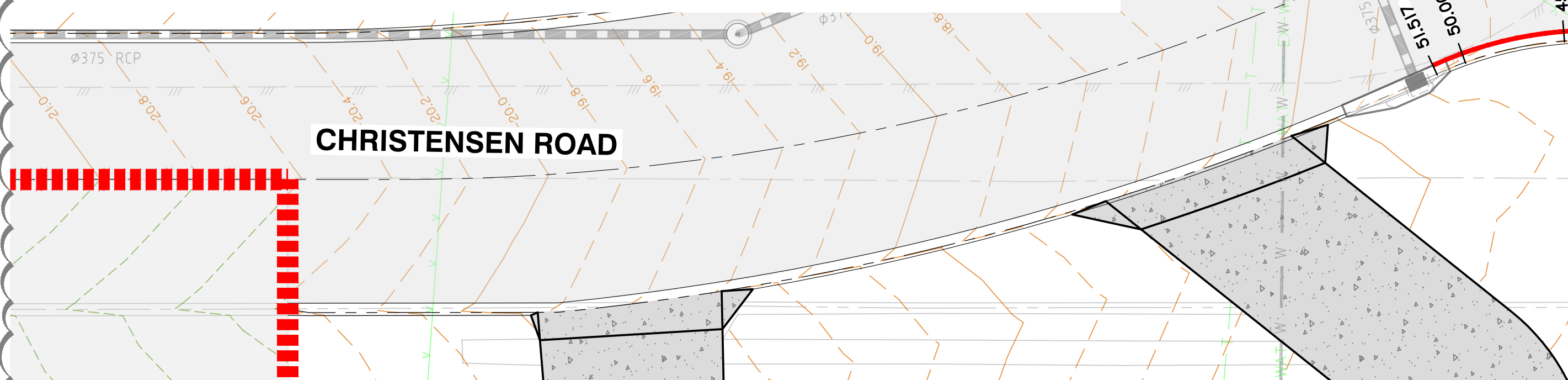
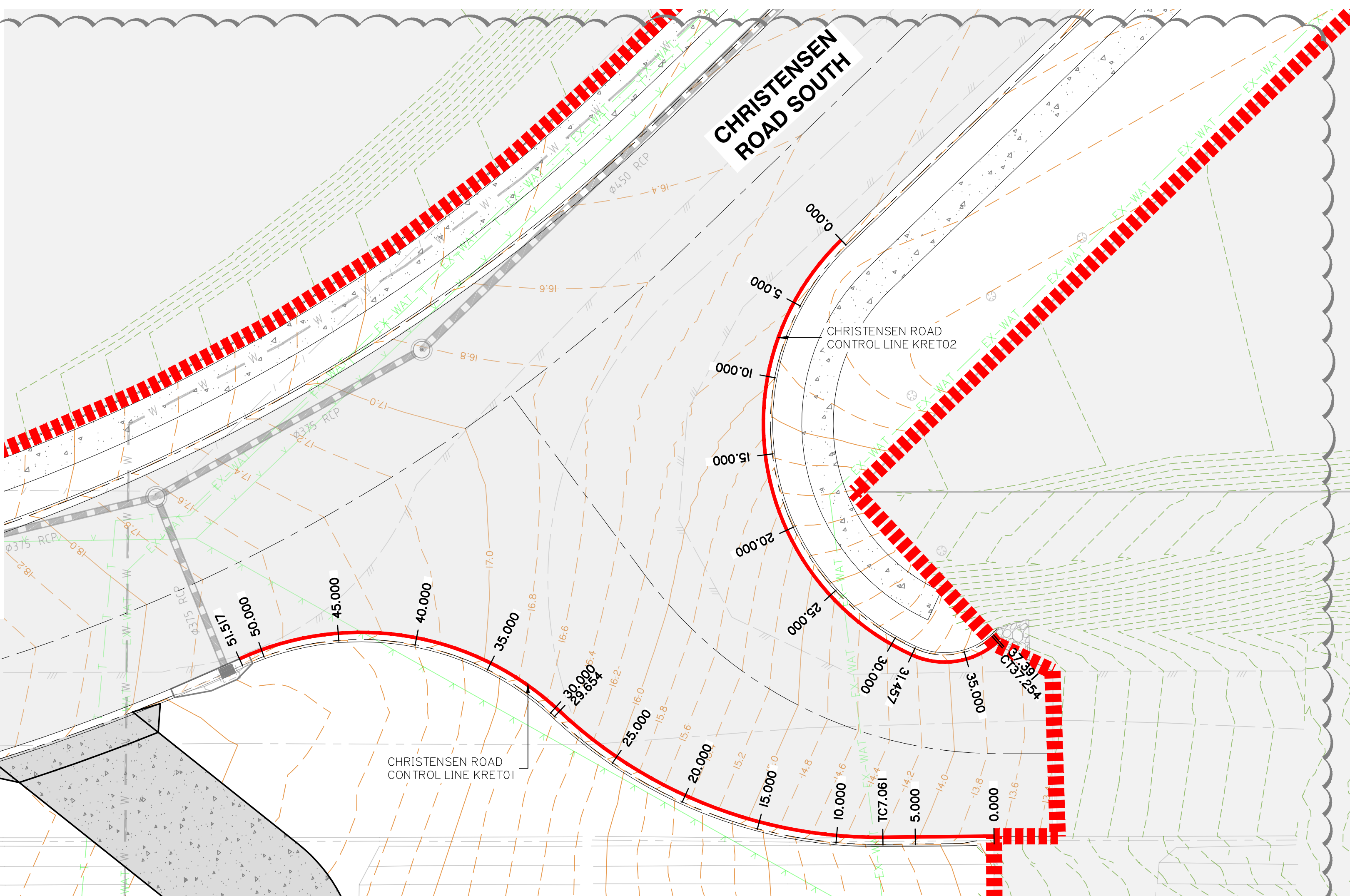
C

CHRISTENSEN ROAD KRETO1 SETOUT TABLE

PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	2685.494	6046.788	13.626	317°33'18.09"			
TC	7.061	2680.728	6051.999	14.195	317°33'18.09"			
	10.000	2678.856	6054.263	14.455	323°15'11.36"			
IP 2	18.357	2672.710	6060.766	15.269		R = 29.550	22.592	43°48'19.93"
	20.000	2674.329	6063.126	15.442	342°38'33.33"			
CT	29.654	2672.992	6072.643	16.498	1°21'38.02"			
TC	29.655	2672.992	6072.644	16.499	1°21'38.02"			
	30.000	2672.997	6072.990	16.532	0°17'15.60"			
	40.000	2670.401	6082.520	17.291	329°13'58.96"			
IP 3	40.586	2673.287	6085.060	17.323		R = -18.450	21.862	67°53'30.46"
	50.000	2663.260	6089.346	17.621	298°10'42.32"			
CT	51.517	2661.895	6090.006	17.634	293°28'07.56"			
IP 4	51.517	2661.895	6090.006	17.634	293°28'07.56"			

CHRISTENSEN ROAD KRETO2 SETOUT TABLE

PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	2707.222	6079.292	16.233	274°08'17.00"			
	10.000	2697.654	6076.985	16.041	238°44'54.40"			
IP 2	15.729	2683.583	6081.002	15.655		R = -16.190	31.457	111°19'31.98"
	20.000	2691.190	6069.563	15.286	203°21'31.80"			
	30.000	2690.219	6059.769	14.371	167°58'09.21"			
CC	31.457	2690.586	6058.360	14.232	162°48'45.02"			
IP 3	34.356	2691.554	6055.232	13.953		R = -5.000	5.797	66°25'55.68"
CT	37.254	2694.808	6054.868		96°22'49.34"			
IP 4	37.391	2694.943	6054.853		96°22'49.34"			



HORIZONTAL DATA

VERTICAL DATA

DATUM RL 11.00

CONTROL LINE FINISHED LEVEL	13.626	14.021	14.195	14.455	14.929	15.442	15.994	16.081	16.498	16.499	16.532	16.966	17.291	17.510	17.621	17.634	17.634
EXISTING SURFACE LEVEL	13.655	14.095	14.275	14.536	14.979	15.401	15.853	15.833	16.183	16.196	16.393	16.592	16.922	17.240	17.334	17.334	17.334
CONTROL LINE CHAINAGES	0.000	5.000	7.061	10.000	15.000	20.000	25.000	25.758	29.654	29.655	30.000	35.000	40.000	45.000	50.000	51.517	51.517

CHRISTENSEN ROAD KRETO1 – LONGITUDINAL SECTION

A1 HORIZ SCALE 1:200
A1 VERT SCALE 1:50

HORIZONTAL DATA

VERTICAL DATA

DATUM RL 11.00

CONTROL LINE FINISHED LEVEL	16.233	16.244	16.213	16.041	15.715	15.655	15.286	14.837	14.371	14.232	13.891	13.540	13.506
EXISTING SURFACE LEVEL	16.467	16.447	16.387	16.030	15.668	15.719	15.920	15.119	14.255	14.174	13.892	13.540	13.506
CONTROL LINE CHAINAGES	0.000	1.851	5.000	10.000	15.000	15.729	20.000	25.000	30.000	31.457	35.000	37.254	37.391

CHRISTENSEN ROAD KRETO2 – LONGITUDINAL SECTION

A1 HORIZ SCALE 1:200
A1 VERT SCALE 1:50

KRET CONTROL LINE LAYOUT, LONG SECTIONS AND SETOUT TABLES

Project:

VANTAGE YATALA
STAGE 3
EXTERNAL INTERSECTION

RPD:	
Lot:	504
Plan:	SP329485
Local Authority:	CITY OF GOLD COAST
Level Datum:	AHD
Meridian:	
PSM:	
RL:	

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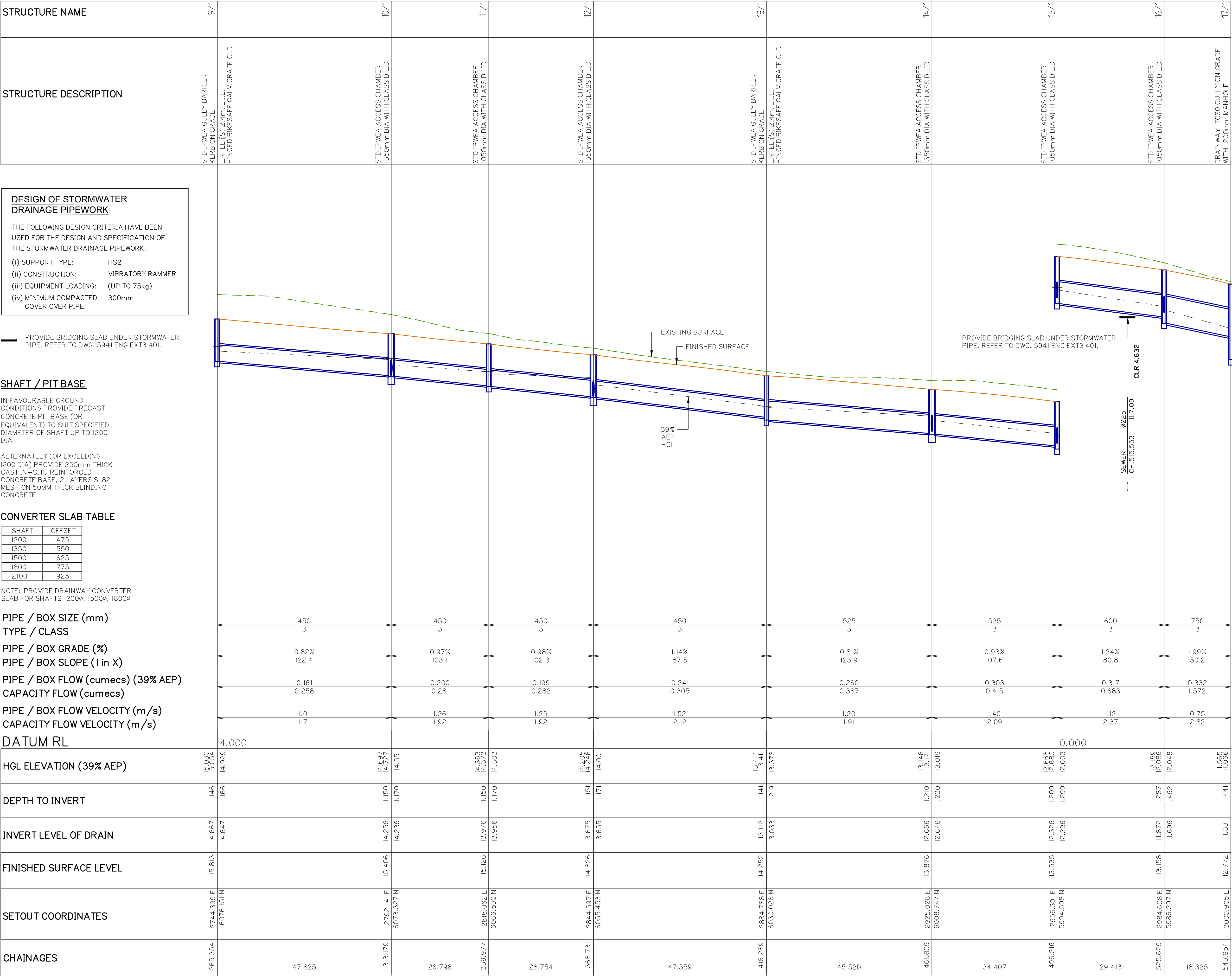
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GENERAL NOTES.

C	23/02/24	SECTION UPDATED		ML	MG
B	24/08/23	ISSUED FOR APPROVAL	JH	ML	MG
A	16/03/23	ORIGINAL ISSUE	JH	JH	MG
REV	Date	Description		DRN	CHK
DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE			A1 UNREDUCED		
CULVERT AND PIPE SIZES IN MILLIMETRES			A3 REDUCED		

Project No. 5941	
Designed: JH	Drafted: ML
Approved:	MG
PEQ	16939
Signed:	
Date:	23/02/2024
Drawing No:	Revision
5941 ENG EXT3 510	C

LINE 1

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C	23/02/24	SECTION UPDATED	ML	MG
B	24/08/23	ISSUED FOR APPROVAL	JH	MG
A	16/08/23	ORIGINAL ISSUE	JH	MG
Rev	Date	Description	DRN	CHK

DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE

CULVERT AND PIPE SIZES IN MILLIMETRES

A1 UNREDUCED

A3 REDUCED

Scale:

0 10 20 30 40m

HORZ: 1:500 (A1) 1:1000 (A3)

0 1 2 3 4m

VERT: 1:50 (A1) 1:100 (A3)

PROJECT NORTH POINT

Project No.	5941
Designed: JH	Drafted: ML
Approved:	MG
RPEQ	16939
Signed:	
Date:	23/02/2024
Drawing No:	Revision
5941 ENG EXT3 511	C

G:\Projects\5941\ENGINEERING\Asad\EXTERNAL INTERSECTION STAGE 3\Current\5941 ENG EXT3 510.dwg

STRUCTURE NAME	17/1	
STRUCTURE DESCRIPTION	DRAINWAY 17C50 GULLY ON GRADE WITH 1200mm MANHOLE LINTEL (S) 2.4m, L1-L1 HINGED BIKESAFE GALV GRATE CID	EX/HW

DESIGN OF STORMWATER DRAINAGE PIPEWORK

THE FOLLOWING DESIGN CRITERIA HAVE BEEN USED FOR THE DESIGN AND SPECIFICATION OF THE STORMWATER DRAINAGE PIPEWORK.

- (i) SUPPORT TYPE:HS2
- (ii) CONSTRUCTION:VIBRATORY RAMMER
- (iii) EQUIPMENT LOADING:(UP TO 75kg)
- (iv) MINIMUM COMPACTED COVER OVER PIPE:300mm

— PROVIDE BRIDGING SLAB UNDER STORMWATER PIPE. REFER TO DWG. 5941 ENG EXT3 401.

SHAFT / PIT BASE

IN FAVOURABLE GROUND CONDITIONS PROVIDE PRECAST CONCRETE PIT BASE (OR EQUIVALENT) TO SUIT SPECIFIED DIAMETER OF SHAFT UP TO 1200 DIA.

ALTERNATELY (OR EXCEEDING 1200 DIA) PROVIDE 250mm THICK CAST IN-SITU REINFORCED CONCRETE BASE, 2 LAYERS SL82 MESH ON 50MM THICK BLINDING CONCRETE

CONVERTER SLAB TABLE

SHAFT	OFFSET
1200	475
1350	550
1500	625
1800	775
2100	925

NOTE: PROVIDE DRAINWAY CONVERTER SLAB FOR SHAFTS 1200ø, 1500ø, 1800ø

PIPE / BOX SIZE (mm)
TYPE / CLASS

PIPE / BOX GRADE (%)
PIPE / BOX SLOPE (1 in X)

PIPE / BOX FLOW (cumecs) (39% AEP)
CAPACITY FLOW (cumecs)

PIPE / BOX FLOW VELOCITY (m/s)
CAPACITY FLOW VELOCITY (m/s)

DATUM RL

HGL ELEVATION (39% AEP)	11.565 11.066	11.027	2.000	10.855
DEPTH TO INVERT	1.441	2.076	0.900	0.900
INVERT LEVEL OF DRAIN	11.331	10.696	10.560	10.560
FINISHED SURFACE LEVEL	12.772		11.460	
SETOUT COORDINATES	3000.905 E 5977.918 N		2997.378 E 5955.884 N	
CHAINAGES	543.954 22.315		566.269	

LINE1

1/2	STD IPWEA GULLY BARRIER KERB ON GRADE LINTEL (S) 2.4m, L1-L1 HINGED BIKESAFE GALV GRATE CID STD IPWEA ACCESS CHAMBER 1350mm DIA WITH CLASS D LID	10/1
14.716	0.000	2792.318 E 6085.501 N
14.699	12.175	12.175
14.697		
14.727		

LINE2

1/3	STD IPWEA GULLY BARRIER KERB ON GRADE LINTEL (S) 2.4m, L1-L1 HINGED BIKESAFE GALV GRATE CID STD IPWEA ACCESS CHAMBER 1350mm DIA WITH CLASS D LID	12/1
14.229	0.000	2848.210 E 6067.060 N
14.207	12.157	12.157
14.205		
14.248		

LINE3

1/4	STD IPWEA GULLY BARRIER KERB ON GRADE LINTEL (S) 2.4m, L1-L1 HINGED BIKESAFE GALV GRATE CID STD IPWEA ACCESS CHAMBER 1350mm DIA WITH CLASS D LID	14/1
13.182	0.000	2928.160 E 6020.821 N
13.148	12.474	12.474
13.146		
13.171		

LINE4

1/5	STD IPWEA GULLY BARRIER KERB ON GRADE LINTEL (S) 2.4m, L1-L1 HINGED BIKESAFE GALV GRATE CID STD IPWEA ACCESS CHAMBER 1050mm DIA WITH CLASS D LID	16/1
12.199	0.000	2986.812 E 5998.216 N
12.182	12.122	12.122
12.182		
12.182		

LINE5

1/6	STD IPWEA GULLY BARRIER KERB ON GRADE LINTEL (S) 2.4m, L1-L1 HINGED BIKESAFE GALV GRATE CID STD IPWEA ACCESS CHAMBER 1050mm DIA WITH CLASS D LID	6/1
16.771	0.000	2660.828 E 6089.982 N
16.742	12.007	12.007
16.686		
16.634		

LINE6

1/7	STD IPWEA GULLY BARRIER KERB ON GRADE LINTEL (S) 2.4m, L1-L1 HINGED BIKESAFE GALV GRATE CID STD IPWEA ACCESS CHAMBER 1350mm DIA WITH CLASS D LID	10/1
14.720	0.000	2791.301 E 6071.451 N
14.698	2.055	2.055
14.697		
14.727		

LINE7

1/8	STD IPWEA GULLY BARRIER KERB ON GRADE LINTEL (S) 2.4m, L1-L1 HINGED BIKESAFE GALV GRATE CID STD IPWEA ACCESS CHAMBER 1350mm DIA WITH CLASS D LID	12/1
14.229	0.000	2843.263 E 6053.865 N
14.205	2.058	2.058
14.205		
14.246		

LINE8

1/9	STD IPWEA GULLY BARRIER KERB ON GRADE LINTEL (S) 2.4m, L1-L1 HINGED BIKESAFE GALV GRATE CID STD IPWEA ACCESS CHAMBER 1350mm DIA WITH CLASS D LID	14/1
13.167	0.000	2923.575 E 6007.280 N
13.146	2.064	2.064
13.146		
13.171		

LINE9

1/10	STD IPWEA GULLY BARRIER KERB ON GRADE LINTEL (S) 2.4m, L1-L1 HINGED BIKESAFE GALV GRATE CID STD IPWEA ACCESS CHAMBER 1050mm DIA WITH CLASS D LID	15/1
12.682	0.000	2955.278 E 5992.857 N
12.668	2.066	2.066
12.668		
12.680		

LINE10

STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 3 OF 3



planning | environment | landscape | engineering | survey
T: 9807 3333 | F: 3287 5461 | www.gassman.com.au
Gold Coast | 78 Business Street, Yatala QLD | PO Box 392, Beerleigh 4207

Client:



FPI QUEENSLAND
PTY. LTD.

Project:

VANTAGE YATALA
STAGE 3
EXTERNAL INTERSECTION

Site Address:

LOT 504 HOMESTEAD
DRIVE, STAPYLTON
QLD, 4207

RPD:

Lot: 504
Plan: SP329485
Local Authority: CITY OF GOLD COAST

Level Datum: AHD
Meridian:
PSM:
RL:

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Drawing Title:

STORMWATER DRAINAGE
LONGITUDINAL SECTIONS
SHEET 3 OF 3

C	23/02/24	SECTION UPDATED	ML	MG
B	24/08/23	ISSUED FOR APPROVAL	JH	MG
A	16/08/23	ORIGINAL ISSUE	JH	MG
Rev	Date	Description	DRN	CHK

DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE
CULVERT AND PIPE SIZES IN MILLIMETRES

A1 UNREDUCED
A3 REDUCED

Scale:

0 10 20 30 40m

HORZ: 1:500 (A1) 1:1000 (A3)

0 1 2 3 4m

VERT: 1:50 (A1) 1:100 (A3)

PROJECT NORTH POINT

Project No:	5941
Designed: JH	Drafted: ML
Approved:	MG
RPEQ	16939
Signed:	
Date:	23/02/2024
Drawing No:	Revision
5941 ENG EXT3 512	C

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Client:



FPI QUEENSLAND
PTY. LTD.

Project:

VANTAGE YATALA STAGE 3 EXTERNAL INTERSECTION

Site Address

LOT 504 HOMESTEAD
DRIVE, STAPYLTON
QLD, 4207

RPD:

Lot: 504
Plan: SP329485
Local Authority: CITY OF GOLD COAST

Level Datum: AHD
Meridian:
PSM:
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Drawing Title:

STORMWATER DRAINAGE
CALCULATION TABLE

D	27/03/24	CALC TABLE UPDATED	JH	MG
C	23/02/24	TABLE UPDATED	ML	MG
B	24/08/23	ISSUED FOR APPROVAL	JH	MG
A	16/08/23	ORIGINAL ISSUE	JH	MG
Rev	Date	Description	DRN	CHK

DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE.	A1 UNREDUCED
CULVERT AND PIPE SIZES IN MILLIMETRES	A3 REDUCED

Scale:

PROJECT NORTH POINT

Project No. 594

Designed: JH	Drafted: ML
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Approved:	MG
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RPEQ	16939
------	-------

Signed: 

Date:	23/02/2024
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Drawing No: Revision

5941 ENG EXT3 550 D



KEY PLAN
SCALE: NTS

WARNING
BEWARE OF UNDERGROUND SERVICES

THE LOCATIONS OF UNDERGROUND SERVICES HAVE BEEN INTERPOLATED FROM AERIAL PHOTOGRAMMETRIC DATA OR KNOWN POSITIONS OF VALVES, MANHOLES ETC. OR INFORMATION SUPPLIED BY SERVICE AUTHORITIES. NO RESPONSIBILITY IS TAKEN FOR THE ACCURACY OF THE INTERPOLATED INFORMATION SUPPLIED. ENSURE ALL SERVICES ARE ACCURATELY LOCATED PRIOR TO COMMENCEMENT OF WORK.

NOTES

- ALL UNRESTRAINED BENDS ARE TO BE CONSTRUCTED WITH THRUST BLOCKS. REFER TO DWG 705 & 706 FOR DETAILS
- ALL PIPE WORK AND FITTINGS TO BE 'RRJ' TRENCH BACKFILL TO BE TYPE C. REFER TO SEQ WATER SUPPLY CODE STD DWG's
- SEQ-WAT-1200-2 & SEQ-WAT-1201-1 FOR DETAILS

WATER FITTING SCHEDULE

No	DESCRIPTION
1	FIRE HYDRANT
2	DICL BEND 90°
3	DICL BEND 45°
4	DICL BEND 22.5°
5	DICL BEND 11.25°
6	SLUICE VALVE
7	150X150 TEE
8	DICL BEND 6°

501
SP295994

STAGE 3
INTERNAL WORKS

STAGE 2
EXTERNAL WORKS

CHRISTENSEN ROAD

SP191031

SP245329

SP139462

SP139462

SP139462

SP139462

SP183875

SP186521

SP139462

SP245329

Client:



FPI QUEENSLAND
PTY. LTD.

Project:

VANTAGE YATALA
STAGE 3
EXTERNAL INTERSECTION

Site Address:

LOT 504 HOMESTEAD
DRIVE, STAPYLTON
QLD, 4207

RPD:

Lot: 504
Plan: SP329485
Local Authority: CITY OF GOLD COAST

Level Datum: AHD
Meridian: PSM:
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Drawing Title:

WATER RETICULATION
LAYOUT PLAN
SHEET 1 OF 2

Rev	Date	Description	DRN	CHK
D	11/04/24	RFI COMMENTS	JH	MG
C	23/02/24	LAYOUT UPDATED	ML	MG
B	24/08/23	ISSUED FOR APPROVAL	JH	MG
A	16/08/23	ORIGINAL ISSUE	JH	MG

DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE. A1 UNREDUCED
CULVERT AND PIPE SIZES IN MILLIMETRES A3 REDUCED

Scale:
0 10 20 30 40m
1:500 (A1) 1:1000 (A3)

PROJECT NORTH POINT



Project No. 5941	Revision
Designed: JH	Drafted: ML
Approved: MG	
RPEQ	16939
Signed:	
Date: 23/02/2024	
Drawing No: 5941 ENG EXT3 700	Revision: D

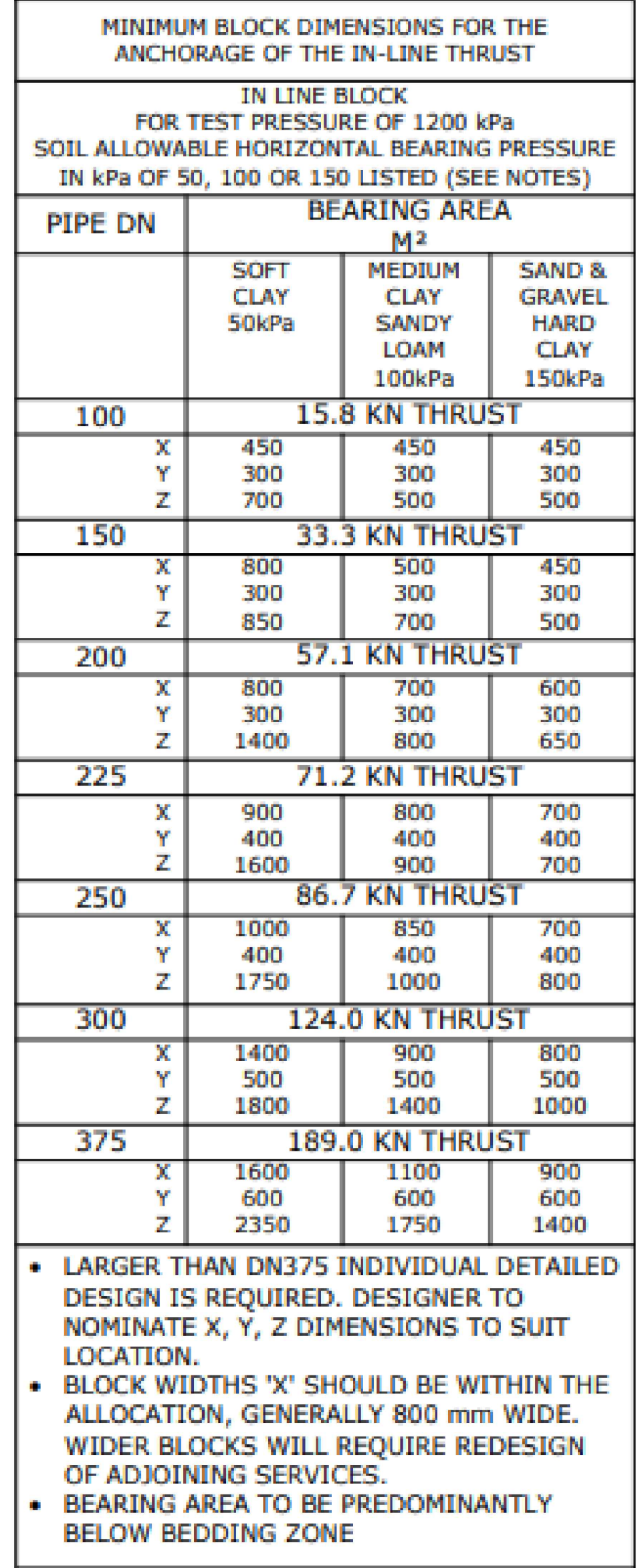
PIPE DN.	FITTING	MAX. THRUST IN KN	THRUST BLOCK HEIGHT	STIFF CLAY 50 kPa.	VERY STIFF CLAY SANDY LOAM 100kPa.	SAND & GRAVEL HARDCLAY 150kPa.	SAND & GRAVEL CEMENTED WITH CLAY 200kPa.	ROCK 240kPa
100	90° BEND	19.8	400	1000	●	●	●	●
	60° BEND	14.0		700	●	●	●	●
	45° BEND	10.7		●	●	●	●	●
	22.5° BEND	5.5		●	●	●	●	●
	11.25° BEND	2.7		●	●	●	●	●
	TEE OR CLOSED END	14.0		700	●	●	●	●
150	90° BEND	41.7	450	1860	930	●	●	●
	60° BEND	29.5		1320	660	●	●	●
	45° BEND	22.6		1000	●	●	●	●
	22.5° BEND	11.5		●	●	●	●	●
	11.25° BEND	5.8		●	●	●	●	●
	TEE OR CLOSED END	29.5		1320	660	●	●	●
200	90° BEND	71.7	550	*	1300	870	650	●
	60° BEND	50.7		1850	920	●	●	●
	45° BEND	38.8		1410	700	●	●	●
	22.5° BEND	19.8		720	●	●	●	●
	11.25° BEND	9.9		●	●	●	●	●
	TEE OR CLOSED END	50.7		1850	920	●	●	●
225	90° BEND	89.4	600	*	1500	1000	750	●
	60° BEND	63.2		2110	1060	700	●	●
	45° BEND	48.4		1620	810	●	●	●
	22.5° BEND	24.6		830	●	●	●	●
	11.25° BEND	12.4		●	●	●	●	●
	TEE OR CLOSED END	63.2		2110	1060	700	●	●
250	90° BEND	109.0	650	*	1700	1120	840	700
	60° BEND	77.1		2400	1200	800	●	●
	45° BEND	59.0		1820	910	●	●	●
	22.5° BEND	30.1		930	●	●	●	●
	11.25° BEND	15.1		●	●	●	●	●
	TEE OR CLOSED END	77.1		2400	1200	800	●	●
300	90° BEND	158.6	700	*	2270	1510	1140	950
	60° BEND	112.2		*	1600	1070	800	670
	45° BEND	85.9		2453	1230	820	●	●
	22.5° BEND	43.8		1250	630	●	●	●
	11.25° BEND	22.0		630	●	●	●	●
	TEE OR CLOSED END	112.2		*	1600	1070	800	750

PIPE DN.	FITTING	MAX. THRUST IN KN	THRUST BLOCK HEIGHT	STIFF CLAY 50 KPa.	VERY STIFF CLAY SANDY LOAM 100KPa.	SAND & GRAVEL HARDCLAY 150KPa.	SAND & GRAVEL CEMENTED WITH CLAY 200K Pa.	ROCK 240kPa
375	90° BEND	241.9	800	*	*	2220	1510	1260
	60° BEND	171.0		*	2140	1430	1070	890
	45° BEND	130.9		*	1640	1090	820	680
	22.5° BEND	66.7		1670	840	●	●	●
	11.25° BEND	33.5		840	●	●	●	●
	TEE OR CLOSED END	171.0		*	2140	1430	1070	890
450	90° BEND	342.6	900	*	*	2540	1900	1590
	60° BEND	242.3		*	2690	1800	1350	1120
	45° BEND	185.4		*	2060	1375	1030	860
	22.5° BEND	94.5		2100	1050	700	●	●
	11.25° BEND	47.5		1060	●	●	●	●
	TEE OR CLOSED END	242.3		*	2690	1800	1350	1120
500	90° BEND	418	1000	*	*	2790	2090	1740
	60° BEND	295.6		*	*	1970	1480	1230
	45° BEND	226.2		*	2260	1510	1130	940
	22.5° BEND	115.3		2310	1150	770	●	●
	11.25° BEND	58.0		1160	●	●	●	●
	TEE OR CLOSED END	295.5		*	*	1970	1480	1230
600	90° BEND	593	1100	*	*	*	2700	2250
	60° BEND	419		*	*	2540	1910	1590
	45° BEND	320		*	2920	1950	1460	1220
	22.5° BEND	164		2980	1490	990	750	620
	11.25° BEND	82.2		1500	750	●	●	●
	TEE OR CLOSED END	419		*	*	2540	1910	1590
750	90° BEND	909	1300	*	*	*	*	2920
	60° BEND	643		*	*	*	2480	2060
	45° BEND	492		*	*	2530	1890	1580
	22.5° BEND	251		*	1930	1290	970	810
	11.25° BEND	126.1		1940	970	650	●	●
	TEE OR CLOSED END	643		*	*	*	2480	2060
900 (Ø960 MSCL)	90° BEND	1.228	1500	*	*	*	*	3420
	60° BEND	868		*	*	*	2900	2420
	45° BEND	664		*	*	2960	2220	1850
	22.5° BEND	339		*	2260	1510	1130	940
	11.25° BEND	170		2270	1140	760	●	●
	TEE OR CLOSED END	868		*	*	*	3300	2650



- THRUST BLOCK DIMENSIONS - 1200kPa**
 ● INDICATES BLOCK LENGTH OF 600
 * = SPECIAL DESIGN

TYPICAL THRUST BLOCK DETAILS SHEET 1 OF 2



1. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE SHOWN.
2. ANCHOR BLOCKS IN THE TABLE ARE DESIGNED FOR A TEST PRESSURE OF 1200 kPa (122 m HEAD).
3. WHERE DI PIPES AND FITTINGS WITH RESTRAINED JOINTS ARE USED THRUST BLOCKS MAY NOT BE REQUIRED. SEE SEQ-WAT-1208.
4. THRUST BLOCK REINFORCEMENT AS SPECIFIED ABOVE OR AS IN DESIGN DRAWINGS.
5. PROVIDE CONCRETE THRUST BLOCKS FOR VALVES. THRUST AREA TO BE AS SHOWN WITH NUTS AND BOLTS TO BE ACCESSIBLE ON FLANGES.
6. INSTALL PUDDLE FLANGES ON FLANGE CLASS D1CL PIPE BY A MACHINED GROOVE.
7. SEE SEQ-WAT-1209-1 AND SEQ-WAT-1210-1 FOR TRENCH DRAINAGE DETAILS.
8. ALL VALVES SHALL BE RESTRAINED.

REFER TO SEQ WATER SUPPLY
CODE STANDARD DRAWING
SEQ-WAT-1206-1
FOR DETAILS

Client:



FPI QUEENSLAND
PTY. LTD.

Project:

VANTAGE YATALA STAGE 3 EXTERNAL INTERSECTION

Site Address:

LOT 504 HOMESTEAD
DRIVE, STAPYLTON
QLD, 4207

RPD:

Lot: 504
Plan: SP329485
Local Authority: CITY OF GOLD COAST

Level Datum: AHD
Meridian:
PSM:
RL:

ISSUED FOR APPROVAL

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THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR.
ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH
GENERAL NOTES.

Drawing Title:

TYPICAL THRUST
BLOCK DETAILS
SHEET 2 OF 2

[illegible]

A	11/04/24	ORIGINAL ISSUE	JH	MG
ev	Date	Description	DRN	CHK
DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE.			A1 UNREDUCED	
CULVERT AND PIPE SIZES IN MILLIMETERS			A3 REDUCED	

Scale:

NOT TO SCALE

PROJECT NORTH POINT



Project No. 5941

Designed: JH

Drafted: ML

Approved:

MG

RPEQ

16939

Signed:

Michael

Date:

11/04/2024

Drawing No:

Revision

5941 ENG EXT3 706

A

STANDARD SIGNS AND LINEMARKING NOTES

1. GENERAL

- 1.1. ALL SIGNS AND PAVEMENT MARKING IS TO BE IN ACCORDANCE WITH THE DTMR QUEENSLAND MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (QLD MUTCD) AND REFERENCES AS1742 MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES

2. SIGNS

- 2.1. ALL SIGNS TO BE REFLECTORISED CLASS 1 TO AS1906.1:2010 UNLESS NOTED OTHERWISE.
- 2.2. SIGNS ARE TO BE INSTALLED WITH THE FOLLOWING CLEARANCES TO EDGE OF SIGN. UNLESS MODIFIED BY LOCAL GOVERNMENT AUTHORITY. LOCATION:
- A) RURAL : AT LENGTH 600mm FROM
- i) OUTER EDGE OF ROAD SHOULDER
- ii) LINE OF GUIDE POSTS
- iii) FACE OF GUARD RAIL
- B) URBAN : KERBED ROADS
- i) 300mm FROM FACE OF KERB
- ii) 500mm TRAFFIC ISLANDS
- C) URBAN : UNKERBED , BIKE PATHS + JOINT - USE PATHS
- i) AT LEAST 600mm
- 2.3. SIGN ORIENTATION SHOULD BE IN ACCORDANCE WITH SECTION 1.12.3.4 (RURAL) OF THE QLD MUTCD.
- 2.4. MOUNTING HEIGHT TO BE IN ACCORDANCE WITH SECTIONS 1.12.3.5 (URBAN) & 1.12.3.5 OF THE QLD MUTCD.

3. SIGN SUPPORTS

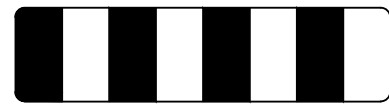
- 3.1. SLEEVED SIGNS SUPPORTS ARE TO BE PROVIDED IN ALL AREAS WHERE THEY ARE IN A PAVED SURFACE.

4. LINEMARKING

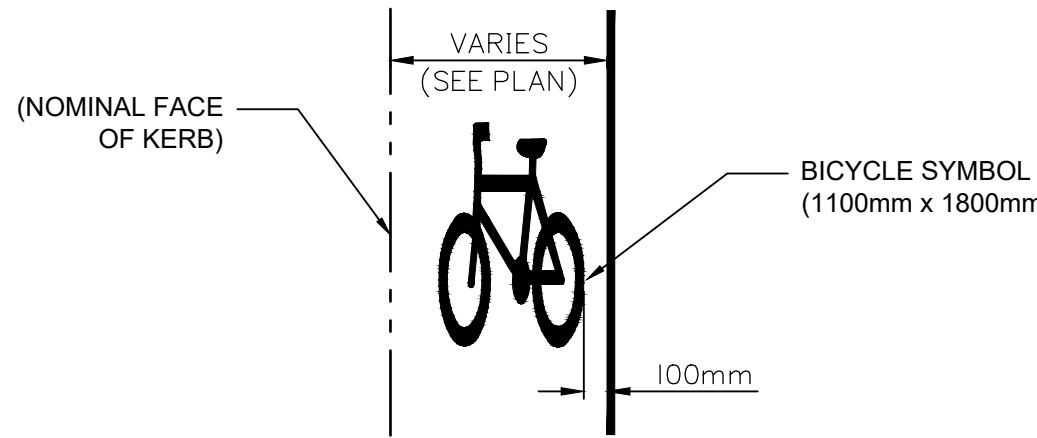
- 4.1. REDUNDANT LINEMARKING IS TO BE GROUND OFF.
- 4.2. THERMOPLASTIC LINE MARKING TO BE USED FOR ALL HARD SURFACES. PREPARATION AS PER MANUFACTURERS RECOMMENDATIONS AND IN ACCORDANCE WITH DTMR SPECIFICATION.
- 4.3. ALL MARKINGS TO BE INSTALLED WITH A HIGH SKID RESISTANCE MATERIAL (e.g. CALCINE BAUXITE)



R1-2



D4-5



CYCLE LANE DETAIL

1. PAINT BICYCLE PAVEMENT SYMBOLS AT NOT MORE THAN 100m (MAX.) SPACINGS.

LINEMARKING LEGEND

TYPE	DESCRIPTION	DIMENSIONS
BDL	DIVIDING LINE TWO - LANE ROADS	
MDL	MULTILANE DIVIDING ROADS	
SBL	SINGLE BARRIER LINE	
ODBL	ONE DIRECTION BARRIER LINE	
DBL	BOTH DIRECTION BARRIER LINE	
CLL	CONTINUOUS LANE LINE	
SBLL	SPECIAL PURPOSE BROKEN LINE	
EL	EDGE LINE LEFT AND RIGHT SIDE	
CL	CONTINUITY LINE	
TL	TURN LINE	
OM	OUTLINE MARKING	
SL	STOP LINE	
GWL	GIVE WAY LINE	
HL	HOLD LINE	
PC	PEDESTRIAN CROSSWALK LINES	
PS	PARKING SPACE	
NS	NO STANDING	 NOTE: LINE COLOUR TO BE YELLOW
SUP	SPECIAL USE PARKING SPACE	 NOTE: LINE COLOUR TO BE YELLOW

NOTES:

1. ALL DIMENSIONS ARE IN METRES.
2. REFER TO AS 1742.3-2009 'MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES' FOR APPLICATION OF LINE MARKING.
3. IF INDICATED ON THE DRAWINGS RRPM'S ARE TO BE INSTALLED IN ACCORDANCE WITH THE MUTCD.

RRPM LEGEND

- UNIDIRECTIONAL - WHITE
- ▷ UNIDIRECTIONAL - RED
- ◇ UNIDIRECTIONAL - YELLOW
- ◁ UNIDIRECTIONAL - GREEN
- BIDIRECTIONAL - WHITE
- ◇ BIDIRECTIONAL - YELLOW

*BLUE RETRO-REFLECTIVE PAVEMENT MARKERS ARE TO BE PLACED 100mm HYDRANT SIDE OF THE ROAD CENTERLINE MARKING, FOR ALL HYDRANT LOCATIONS.

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THIS DRAWING IS INTENDED TO BE PRINTED IN COLOUR. ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH GENERAL NOTES.

Drawing Title:

SIGNS AND LINEMARKING
NOTES AND DETAILS

B	24/08/23	ISSUED FOR APPROVAL	JH	MG
A	16/08/23	ORIGINAL ISSUE	JH	MG
Rev	Date	Description	DRN	CHK

DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE. A1 UNREDUCED
CULVERT AND PIPE SIZES IN MILLIMETRES A3 REDUCED

Scale:

PROJECT NORTH POINT

Project No. 5941	
Designed: JH	Drafted: TGP
Approved:	MG
RPEQ	16939
Signed:	
Date:	24/08/2023
Drawing No: 5941 ENG EXT3 800	Revision B



STAGE 2 EXTERNAL WORKS



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development
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est 1985

planning | environment | landscape | engineering | survey

T: 3607 3333 | F: 3287 5461 | www.gassman.com.au

Gold Coast | 76 Business Street, Yatala QLD | PO Box 392, Beerleigh 4207



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VANTAGE YATALA
STAGE 3
EXTERNAL INTERSECTION

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Drawing Title:

SIGNS AND LINEMARKING
LAYOUT PLAN
SHEET 1 OF 2

D	11/04/24	RFI COMMENTS	JH	MG	
C	23/02/24	LAYOUT UPDATED	ML	MG	
B	24/08/23	ISSUED FOR APPROVAL	JH	MG	
A	16/08/23	ORIGINAL ISSUE	JH	MG	
Rev	Date	Description	DRN	CHK	

DIMENSIONS IN METRES EXCEPT WHERE SHOWN OTHERWISE.	A1 UNREDUCED
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Scale:

0 10 20 30 40m
1:500 (A1) 1:1000 (A3)

5941 ENG EXT3 810 D



302

CHRISTENSEN ROAD SOUTH

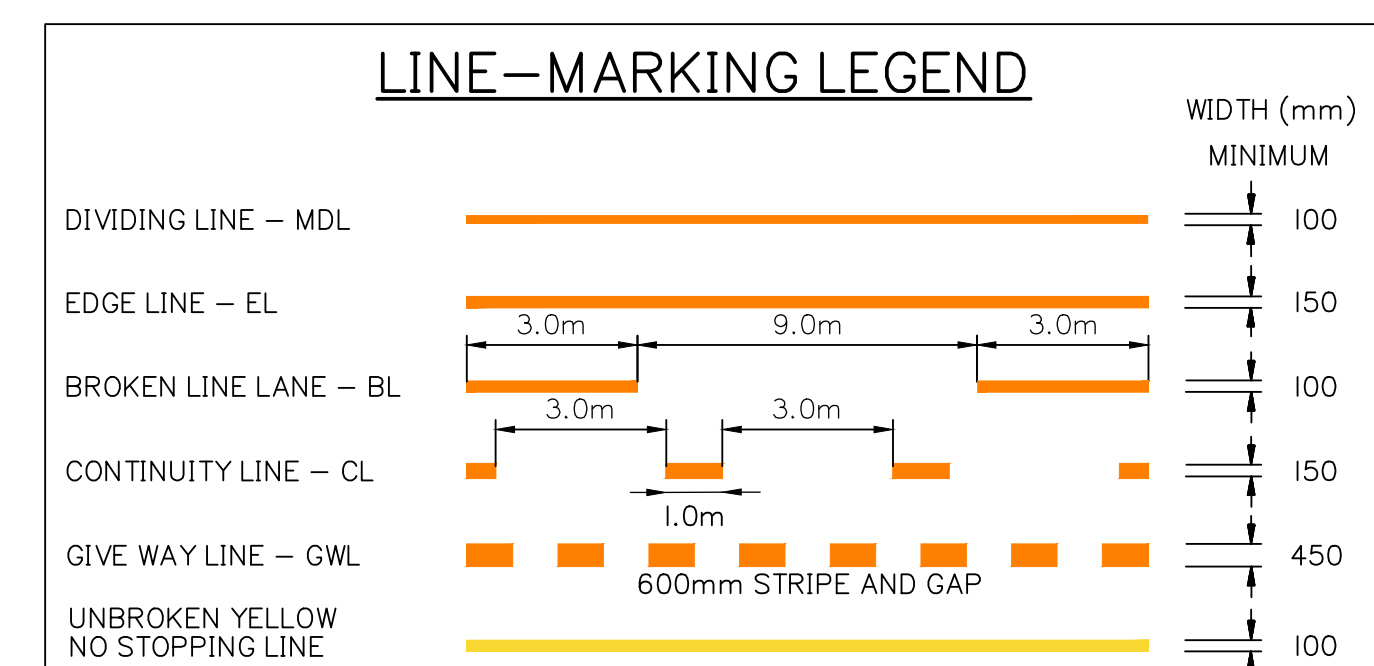
— EXACT LOCATION OF END OF
EDGE LINE TO BE DETERMINED
ON SITE. NO EXISTING EDGE
LINE TO CONNECT TO

STAGE 3 INTERNAL WORKS

The diagram illustrates the layout of Christensen Road South. It features a central section with two lanes in each direction, separated by a dashed white line. The left lane of this section is marked with a dashed white line and a solid white line. The right lane is marked with a solid white line and a dashed white line. The road is bordered by red dashed lines on both sides. The text "CHRISTENSEN ROAD SOUTH" is written diagonally across the center of the diagram.

CHRISTENSEN RD

SIGN STEM SETOUT
E: 2704.249
N: 6077.939



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Drawing Title:

SIGNS AND LINEMARKING
LAYOUT PLAN
SHEET 2 OF 2

E	11/04/24	RFI COMMENTS	JH	MG
D	27/03/24	VXO ADDED	JH	MG
C	23/02/24	LAYOUT UPDATED	ML	MG
B	24/08/23	ISSUED FOR APPROVAL	JH	MG
A	16/08/23	ORIGINAL ISSUE	JH	MG
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CULVERT AND PIPE SIZES IN MILLIMETRES	A3 REDUCED

Scale:



0 10 20 30 40m
1:500 (A1) 1:1000 (A3)

PROJECT NORTH POINT



Project No. 5941

Designed: JH

Drafted: ML

Approved:

16939

Signed:

Michelle K...

Date:

23/02/2024

Drawing No:

Revision

5941 ENG EXT3 811

1

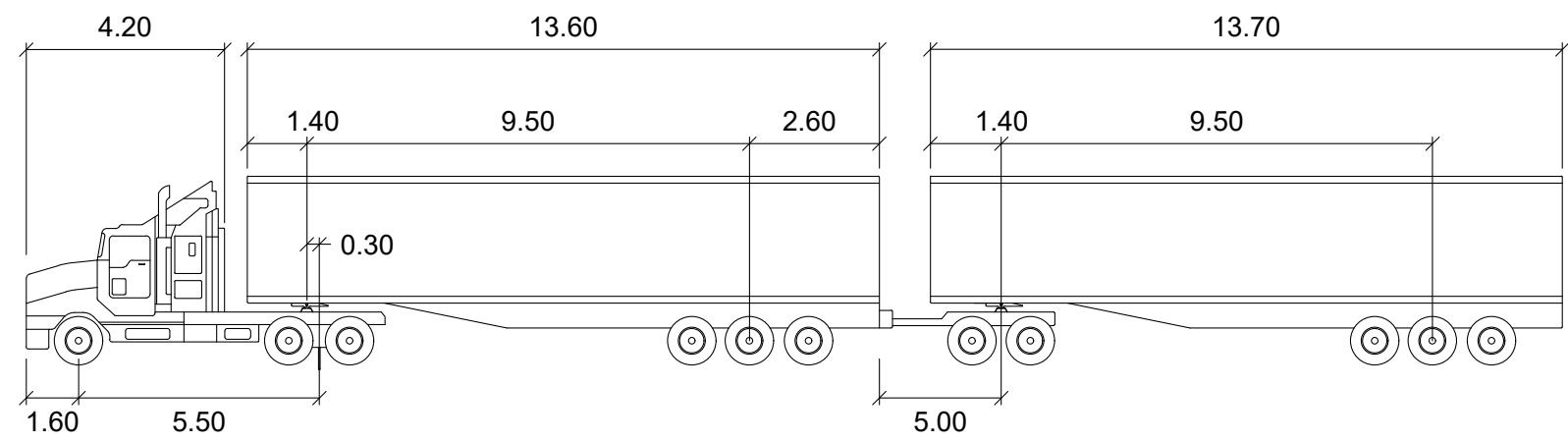


KEY PLAN
SCALE: NTS

302

CHRISTENSEN ROAD SOUTH

STAGE 3
INTERNAL WORKS



A-DOUBLE		metres	metres
Tractor Width	:	2.50	Lock to Lock Time : 6.0
Trailer Width	:	2.50	Steering Angle : 23.4
Tractor Track	:	2.50	Articulating Angle : 70.0
Trailer Track	:	2.50	

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Drawing Title:

SWEPT PATH ANALYSIS
PLAN
SHEET 2 OF 2

Rev	Date	Description	DRN	CHK
D	27/03/24	VXO ADDED	JH	MG
C	23/02/24	LAYOUT UPDATED	ML	MG
B	24/08/23	ISSUED FOR APPROVAL	JH	MG
A	16/08/23	ORIGINAL ISSUE	JH	MG

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CULVERT AND PIPE SIZES IN MILLIMETRES A3 REDUCED

Scale:
0 10 20 30 40m
1:500 (A1) 1:1000 (A3)

PROJECT NORTH POINT



Project No. 5941	
Designed: JH	Drafted: ML
Approved:	MG
RPEQ	16939
Signed:	
Date:	23/02/2024
Drawing No: 5941 ENG EXT3 901	Revision: D