

STANDARD DESIGN NOTES:

- THERE ARE A TOTAL OF 63 LOTS, MADE UP OF 59 SINGLE RESIDENTIAL DWELLINGS AND 4 MULTI DWELLING UNITS.
- REFER TO SPA DRAWING 2926 E01-E06 FOR COORDINATION WITH THE ELECTRICAL DESIGN.

LEGEND

PIT-ID 2	NBN Co PIT TYPE 2 PLASTIC PIT OR SIMILAR		ZERO LOT PROPERTY BOUNDARY
PIT-ID 5	NBN Co PIT TYPE 5 PLASTIC PIT OR SIMILAR		SHARED TRENCH
PIT-ID 6	NBN Co PIT TYPE 6 PLASTIC PIT OR SIMILAR		TRANSFORMER / KIOSK / PAD MOUNT SUB-STATION / POLE MOUNT TRANSFORMER
PIT-ID 8	NBN Co PIT TYPE 8 PLASTIC PIT OR SIMILAR		END CAP CONDUIT WITH STATION NO.
5	EXISTING TELSTRA PIT (2,3,4,5,6,7,8,9)		CAP SERVICE CONDUIT (P50/P20) P20=P23 mm NBNC Co SERVICE CONDUIT
PIT-ID 8	EXISTING NBN Co PIT		LOCAL CONDUIT (P100/P50)
--	EXISTING CONDUIT		NBNC Co STAGE BOUNDARY

CONDUIT CONFIGURATION

CONDUITS AND DUCTS ARE IN LAYER:
< L460 NBN Support - Underground >
AND TERMINOLOGY CATEGORISED INTO TWO GROUPS IN
THE DRAWINGS AS PER BELOW:
1- DUCT USED WITH LOCAL NETWORK
2- CONDUIT USED WITH LEAD-IN DROPS
ATTRIBUTES ATTACHED TO CONDUITS ARE AS SHOWN

CONDUIT SIZE	CONDUIT LENGTH
PIT-ID 8 P100	26.5 PIT-ID 5
NOTE: • P100 HAS AN INTERNAL DIAMETER OF 104.9 mm AND A MINIMUM WALL THICKNESS OF 4.5 mm • P50 HAS AN INTERNAL DIAMETER OF 53 mm AND A MINIMUM WALL THICKNESS OF 3.1 mm • P20 HAS AN INTERNAL DIAMETER OF 23.3 mm AND A MINIMUM WALL THICKNESS OF 1.4 mm	

STANDARD CONSTRUCTION NOTES:

- REFER TO NBN Co DOCUMENT NO. NBN-TE-CTO-194 (DEPLOYMENT OF THE NBN Co CONDUIT AND PIT NETWORK - GUIDELINES FOR DEVELOPERS) FOR DETAILED CONSTRUCTION SPECIFICATION.
- MULTIPLE 15° CONDUIT BENDS TO BE USED TO SWING IN AND OUT OF THE STANDARD TRENCH ALIGNMENT AND ENTER THE NARROW ENDS OF THE PIT.
- PITS TO INCLUDE LID GASKET TO PREVENT DIRT ENTRY AND SPREADER BARS TO PREVENT PIT BUCKLING DURING BACKFILL / GROUND COMPACTION. PIT LIDS TO BE EMBOSSED WITH "NBN" AND COMPLY AS PER CLAUSE 5.3.2 OF THE ABOVE NBN Co DOCUMENT.
- SERVICE CONDUITS TO EXTEND 1m INSIDE THE FRONT PROPERTY BOUNDARY. REFER EXTENDED SERVICE CONDUIT DETAIL FOR DISTANCES FROM DIVIDING PROPERTY BOUNDARY FOR BOUNDARIES WITHOUT PIT. CONTRACTORS TO TIE TELECOMMUNICATIONS CAUTION TAPE TO END OF SERVICE CONDUITS AND EXTEND TO ABOVE GROUND LEVEL FOR FUTURE CONDUIT LOCATION.
- ALL CONDUITS TO ENTER AND EXIT AT NARROW ENDS OF PITS ONLY. LOCATE CONDUITS AS CENTRALLY IN PIT END WALLS AS POSSIBLE. CONDUITS SHALL NOT BE INSTALLED WITHIN 50 mm OF ANY CORNER OF THE PIT. MINIMUM SEPARATION BETWEEN CONDUITS TO BE 25 mm. INSTALL CONDUITS AND CONDUIT COLLARS (BUSHES) TO BE SQUARE AND FLUSH WITH THE PIT END WALL. REFER TO THE PIT END WALL DETAILS IN THIS DESIGN FOR ADDITIONAL REQUIREMENTS.
- MINIMUM COVER TO BE: 300 mm FOR SERVICE DROP CONDUITS, 450 mm IN VERGE, 600 mm UNDER LOCAL ROADS, AND 800 mm UNDER MAIN ROADS.
- CONDUITS ARE TO BE CLEANED AND PROVEN USING A MANDREL. AFTER TESTING INSTALL A SUITABLE DRAW ROPE TO ALL CONDUITS AND CAP CONDUIT ENDS. SEAL CONDUITS AT PITS TO PREVENT ENTRY OF DUST AND MOISTURE. SERVICE CONDUIT DRAW ROPES TO BE ADDITIONALLY FITTED WITH A PLASTIC LABEL AT PIT END, IDENTIFYING LOT NUMBER AND DISTANCE / DIRECTION FROM BOUNDARY.
- INSTALL NON CONDUCTIVE (METAL FREE) MARKER TAPE ABOVE ALL NBN Co CONDUITS, 300 mm BELOW FINISHED GROUND LEVEL. INSTALL METALLIC KERB MARKERS AT ROAD CROSSINGS.
- REFER TO ERGON ENERGY STANDARD DRAWINGS 5228 AND 5168 SHEETS 1 TO 3 FOR SHARED TRENCH CROSS SECTIONS.
- GRADE TOP OF PIT TO MATCH VERGE / FOOTPATH.
- WHERE REQUIRED, SUPPLY AND INSTALL SERVICE AND ROAD CROSSING CONDUITS SHOWN IN THE SITE PLAN.
- WHERE CONDUIT BURIAL DEPTH IS LESS THAN THAT SPECIFIED IN THE NBN Co DEPLOYMENT OF CONDUIT AND PIT NETWORK GUIDELINES, SUPPLY AND INSTALL CONCRETE COVER (FOR VERGE AND FOOTPATH) / CONCRETE ENCASEMENT (FOR ROADWAYS) ENSURE THAT MINIMUM SEPARATION TO ALL OTHER SERVICES ARE MAINTAINED.
- WHERE SPECIFIED ON THE SITE PLAN, NBN Co CONDUIT TO BE INSTALLED UNDERNEATH STORM WATER. REFER TO THE NBN Co DEPLOYMENT OF CONDUIT AND PIT NETWORK GUIDELINES FOR THE MINIMUM CLEARANCES REQUIRED.
- SUPPLY AND INSTALL ADDITIONAL DEVIATING CONDUIT BENDS TO ACHIEVE THE INCREASED / DECREASED BURIAL DEPTH REQUIRED TO AVOID CLASH WITH OTHER SERVICES.
- CONTRACTOR TO ENSURE MACKAY REGIONAL COUNCIL POLICY 063 AND 15.05 ARE ADHERED TO WITH RESPECT TO CLEARANCES BETWEEN ELECTRICAL OR COMMUNICATIONS INFRASTRUCTURE AND COUNCIL SERVICES.
- WHERE SPECIFIED, SERVICE CONDUIT LEADING INTO PROPERTY TO BE PLACED IN A NON-SHARED TRENCH ENSURING REQUIRED CLEARANCE TO WATER SERVICE AS PER COUNCIL POLICY.
- CONDUIT INSTALLED IN PREVIOUS STAGE. FIBRE TO BE RETICULATED IN THIS STAGE.

SDU Development Information

Development Name:	EAST POINT MACKAY
Developer Company:	EASTPOINT MACKAY PTY LTD
Development Address:	EAST POINT DRIVE, MACKAY HARBOUR, QLD 4740
Authorised Rep:	SPA Consulting Engineers (QLD)
Phone:	07 4032 3311
E-Mail:	admin@spaconsulting.com.au
nbn Reference Number:	STG-M000001694
Stage Number:	1A
Design Revision:	E

BILL OF MATERIAL

NO OF LOTS: 63

PITS		DUCTS		MTRS.
SIZE	QTY	SIZE	QTY	
2	1	P100	27	1065.8
5	22	P50	3	42.7
6	4	P20	60	563.7
8	0			
9	0			

TOTAL NUMBER OF PITS: 27
TOTAL NUMBER OF MANHOLES: 0
TOTAL NUMBER OF CONDUITS: 90
TOTAL LENGTH OF CONDUITS: 1672.2

STRICTLY CONFIDENTIAL

NBNC APPROVAL RECORD:

	SIGNATURE	DATE
<input type="checkbox"/> DD		
<input type="checkbox"/> WD		
<input type="checkbox"/> AB		

QUALITY RECORD:

NBNC DISCLAIMER

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I, Anthony Burke of BMD Urban hereby certify that the NBN Pit and Pipe works have been constructed in accordance with this drawing:
Signed: *AB*
Date: 08.06.2021

FOR CONSTRUCTION
SAFETY FIRST
SAFETY STARTS WITH YOU

STAFF WORKING ON THIS ESTIMATE PLEASE
NOTE: The location of other authorities services which may affect this work have not been obtained by the estimator. Constructor to obtain service information before commencing.



REV	DATE	DRAFTER	DESCRIPTION	APPROVED
-	-	-	-	-
E	18/08/20	MD	FOR CONSTRUCTION	NBNC Co
D	30/06/20	MD	UPDATED LAYOUT - FOR APPROVAL	
C	08/06/20	MD	UPDATED LAYOUT	
B	10/12/19	MD	UPDATED LAYOUT	
A	26/06/19	HK	FOR CONSTRUCTION	NBN
1	07/12/18	NT	FOR APPROVAL	JE

DRAWING TITLE: EAST POINT MACKAY STAGE 1A NBNC Co PIT AND PIPE DESIGN LAYOUT PLAN A			
ENABLE#:			
STATE:	QLD	REGION:	MK
FSA:		SAM:	ADA:
PROJECT No: STG-M000001694			
CADREF No: 2926-T01			
SCALE	SHEET No	OF	REV.
1:500@A1	1	3	E

LEGEND

PIT-ID 2	NBN Co PIT TYPE 2 PLASTIC PIT OR SIMILAR		ZERO LOT PROPERTY BOUNDARY
PIT-ID 5	NBN Co PIT TYPE 5 PLASTIC PIT OR SIMILAR		SHARED TRENCH
PIT-ID 6	NBN Co PIT TYPE 6 PLASTIC PIT OR SIMILAR		TRANSFORMER / KIOSK / PAD MOUNT SUB-STATION / POLE MOUNT TRANSFORMER
PIT-ID 8	NBN Co PIT TYPE 8 PLASTIC PIT OR SIMILAR		END CAP CONDUIT WITH STATION NO.
5	EXISTING TELSTRA PIT (2,3,4,5,6,7,8,9)		CAP SERVICE CONDUIT (P50/P20) P20=P23 mm NBNC Co SERVICE CONDUIT
PIT-ID 8	EXISTING NBN Co PIT		LOCAL CONDUIT (P100/P50)
---	EXISTING CONDUIT		NBNCo STAGE BOUNDARY

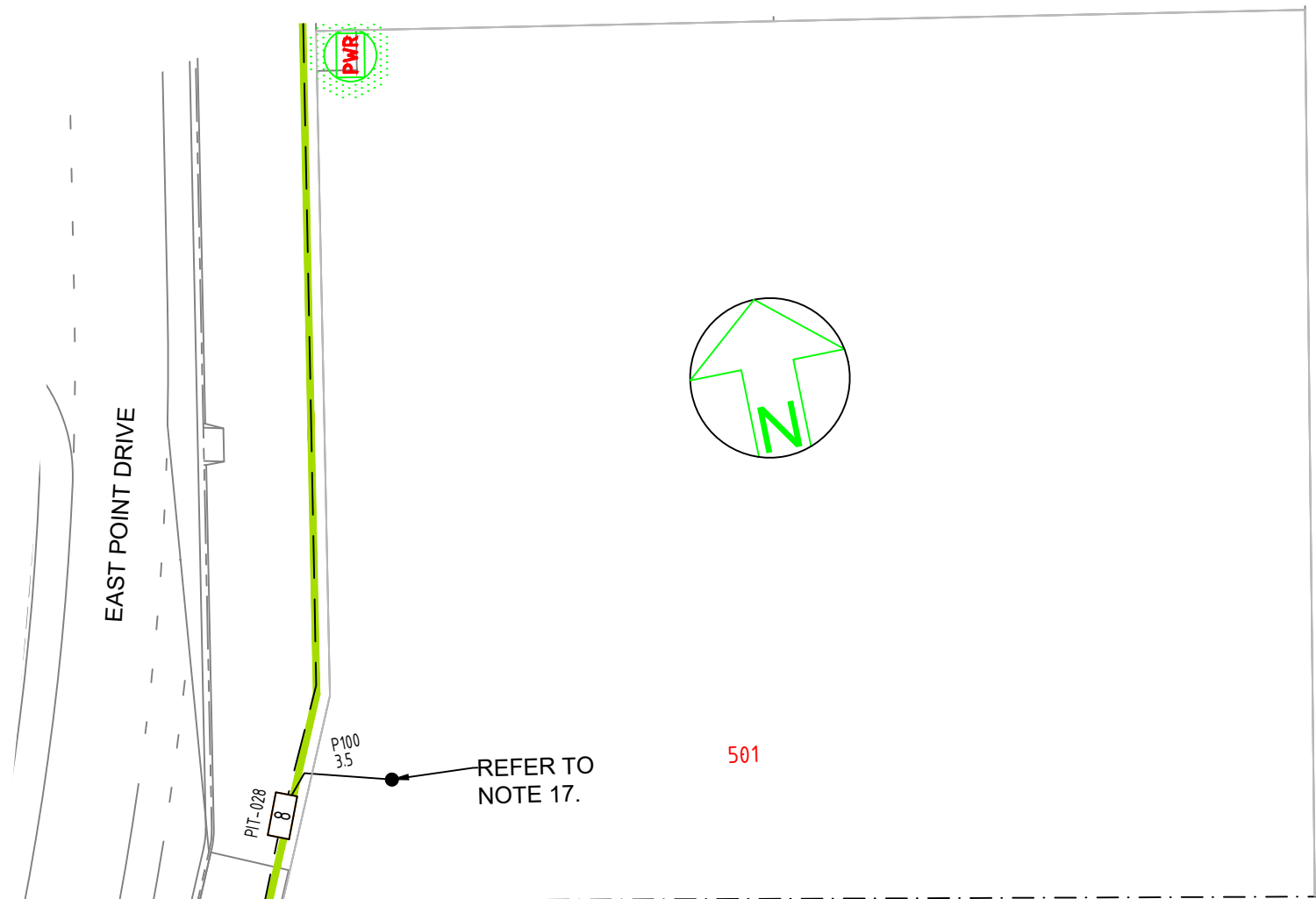
CONDUIT CONFIGURATION

CONDUITS AND DUCTS ARE IN LAYER:
< L460 NBN Support - Underground >
AND TERMINOLOGY CATEGORISED INTO TWO GROUPS IN
THE DRAWINGS AS PER BELOW:
1- DUCT USED WITH LOCAL NETWORK
2- CONDUIT USED WITH LEAD-IN DROPS
ATTRIBUTES ATTACHED TO CONDUITS ARE AS SHOWN



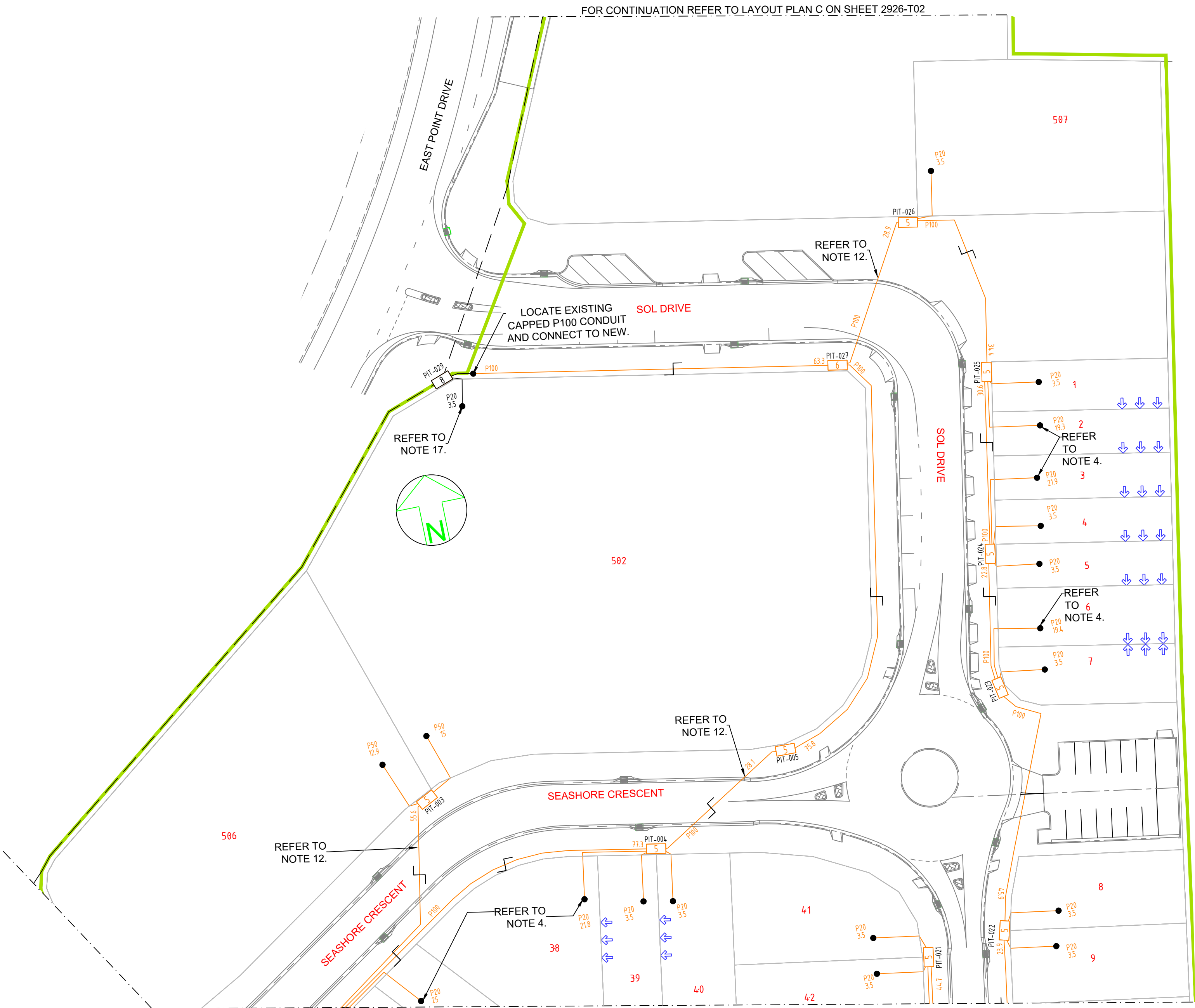
- NOTE:
- P100 HAS AN INTERNAL DIAMETER OF 104.9 mm AND A MINIMUM WALL THICKNESS OF 4.5 mm
 - P50 HAS AN INTERNAL DIAMETER OF 53 mm AND A MINIMUM WALL THICKNESS OF 3.1 mm
 - P20 HAS AN INTERNAL DIAMETER OF 23.3 mm AND A MINIMUM WALL THICKNESS OF 1.4 mm

LAYOUT PLAN C
SCALE 1:500 @ A1



FOR CONTINUATION REFER TO LAYOUT PLAN B ON SHEET 2926-T02

LAYOUT PLAN B
SCALE 1:500 @ A1



FOR CONTINUATION REFER TO LAYOUT PLAN A ON SHEET 2926-T01

FOR CONSTRUCTION

SAFETY FIRST
SAFETY STARTS WITH YOU

STAFF WORKING ON THIS ESTIMATE PLEASE
NOTE: The location of other authorities services
which may affect this work have not been obtained
by the estimator. Constructor to obtain service
information before commencing.

I, Anthony Burke of BMD Urban hereby
certify that the NBN Pit and Pipe works
have been constructed in accordance
with this drawing:

Signed:

Date: 08.06.2021

STRICTLY CONFIDENTIAL

NBNCO APPROVAL RECORD:

<input type="checkbox"/> DD	SIGNATURE	DATE
<input type="checkbox"/> WD		
<input type="checkbox"/> AB		

QUALITY RECORD:

NBNCO DISCLAIMER

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KEY PLAN

DRAWING TITLE:
EAST POINT MACKAY STAGE 1A
NBNCo PIT AND PIPE DESIGN
LAYOUT PLAN B & LAYOUT PLAN C

ENABLE#:

STATE: QLD REGION: MK

FSA: SAM: ADA:

PROJECT No: STG-M000001694

CADREF No: 2926-T02

SCALE 1:500@A1 SHEET No. 2 OF 3 REV. E

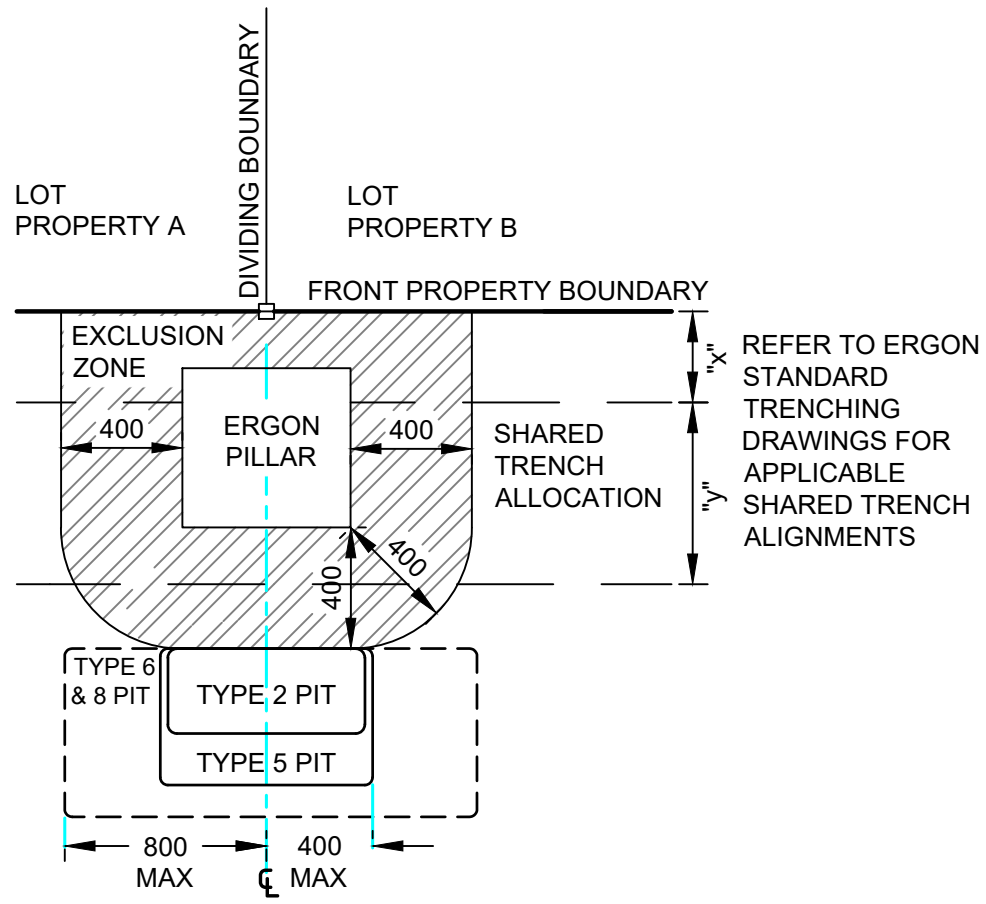


REV	DATE	DRAFTER	DESCRIPTION	APPROVED
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E	18/08/20	MD	FOR CONSTRUCTION	NBNCo
D	30/06/20	MD	UPDATED LAYOUT - FOR APPROVAL	
C	08/06/20	MD	UPDATED LAYOUT	
B	10/12/19	MD	UPDATED LAYOUT	
A	26/06/19	HK	FOR CONSTRUCTION	NBN
1	07/12/18	NT	FOR APPROVAL	JE

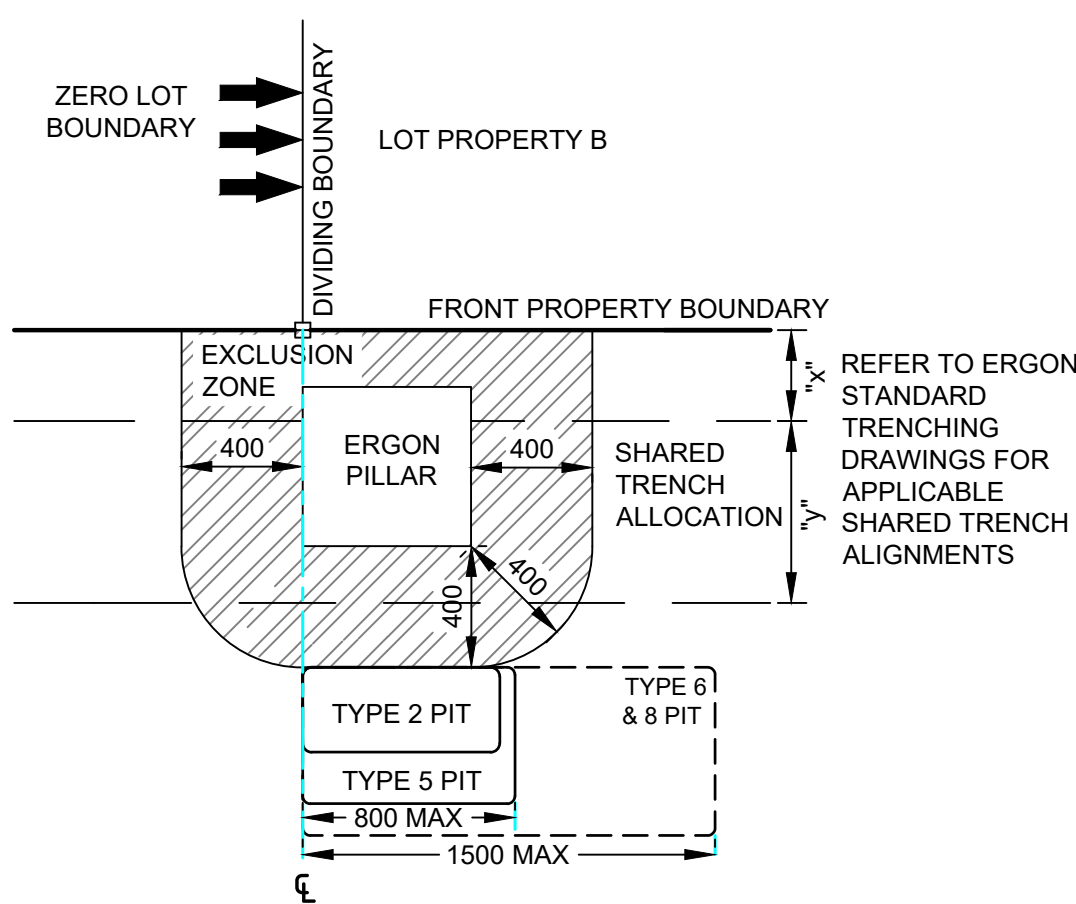
TYPICAL PIT DETAILS

NOTES:

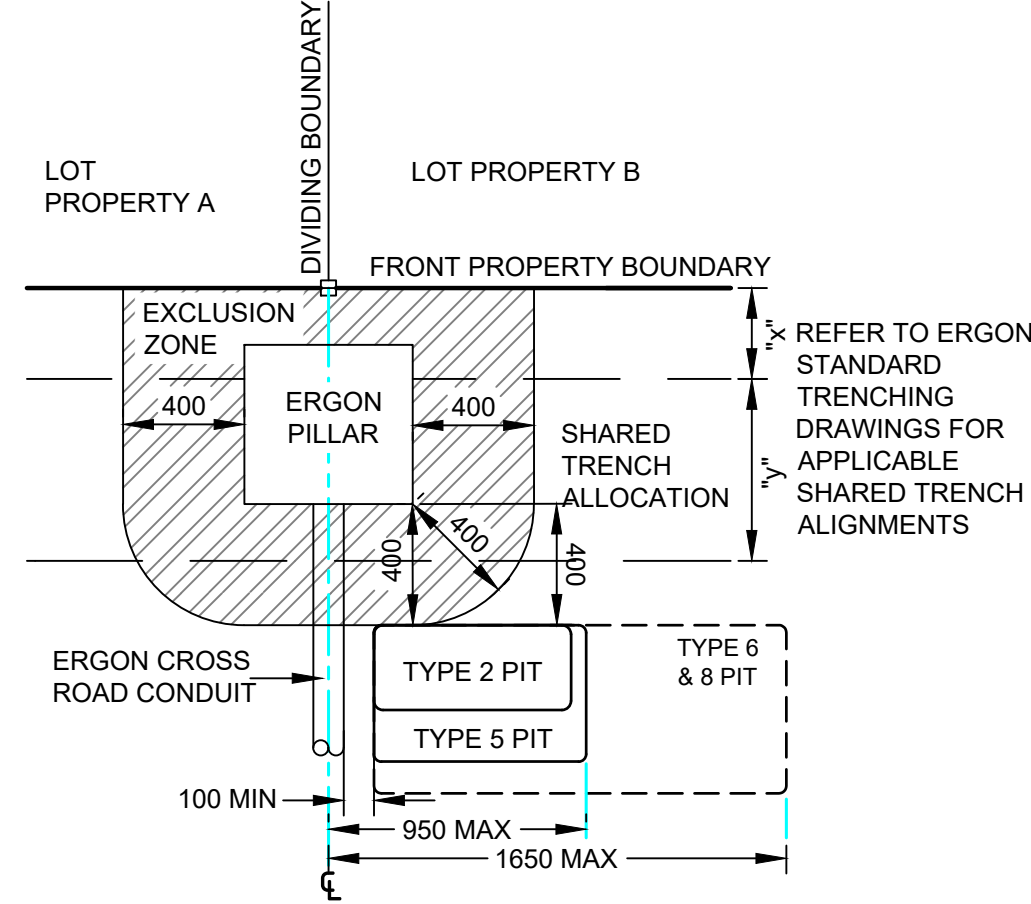
- THESE DETAILS REPRESENT TYPICAL PIT CONFIGURATIONS AND THE CONTRACTOR SHALL DETERMINE THE MOST SUITABLE DETAIL FOR EACH PARTICULAR APPLICATION, IGNORING REDUNDANT DETAILS.
- PITS SHALL BE INSTALLED CLEAR OF DRIVEWAYS AND FUTURE DRIVEWAY LOCATIONS. COORDINATE FINAL LOCATIONS WITH CIVIL DRAWINGS.
- ENSURE PITS ARE INSTALLED IN ACCORDANCE WITH NBN Co GUIDELINES AND THE FOLLOWING CLEARANCES:
 - 100 mm FROM LV / 300 mm FROM HV ELECTRICAL CONDUITS
 - 150 mm FROM WATER RETICULATION & 300mm FROM HIGH PRESSURE MAINS
 - 150 mm FROM SEWER RETICULATION & 300mm FROM MAINS
 - 150 mm FROM STORMWATER RETICULATION
 - 100mm FROM OTHER TELECOMMUNICATIONS CARRIERS
- MIRROR CONFIGURATION WHERE APPROPRIATE



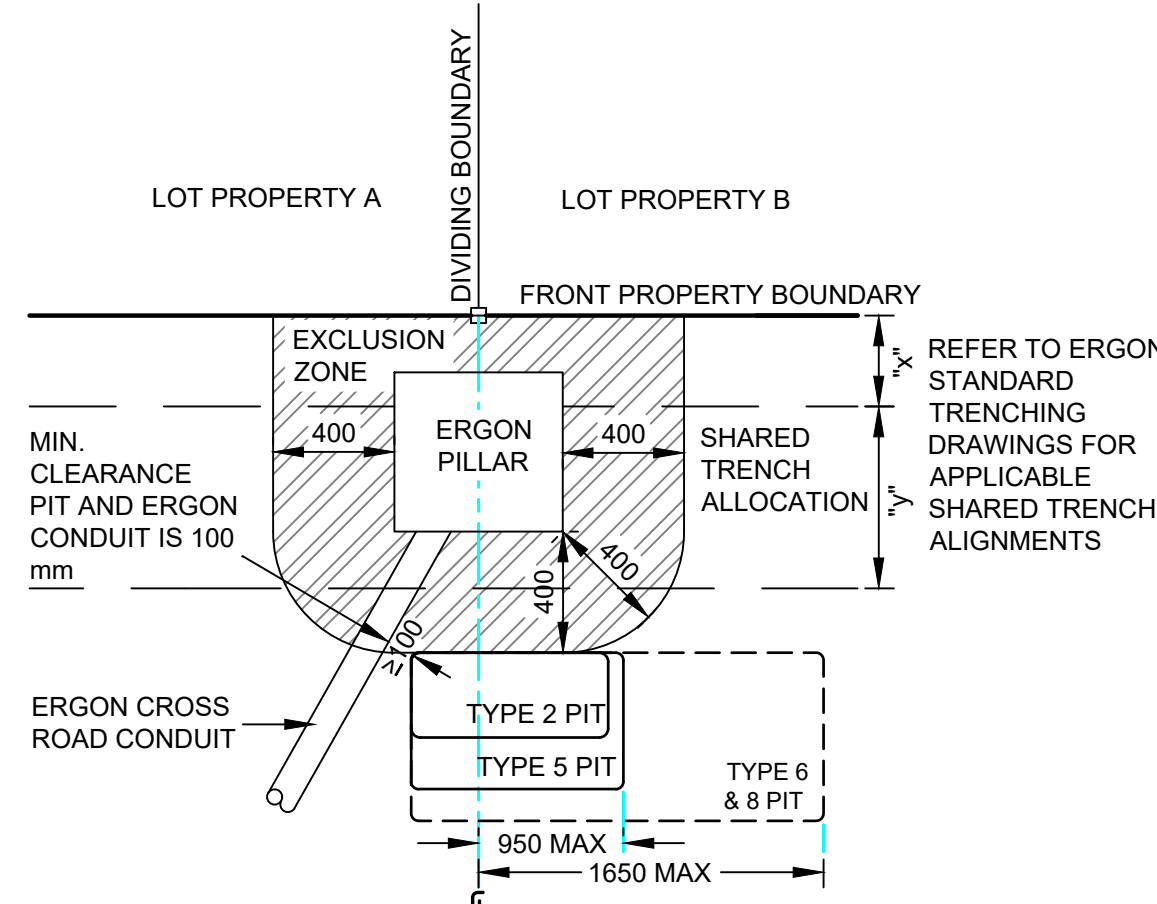
TYPICAL PIT DETAIL 1
PIT CENTRAL TO THE BOUNDARY WITH AN ERGON PILLAR.
- INSTALL CENTRE OF PIT IN LINE WITH PROLONGATION OF DIVIDING BOUNDARY.



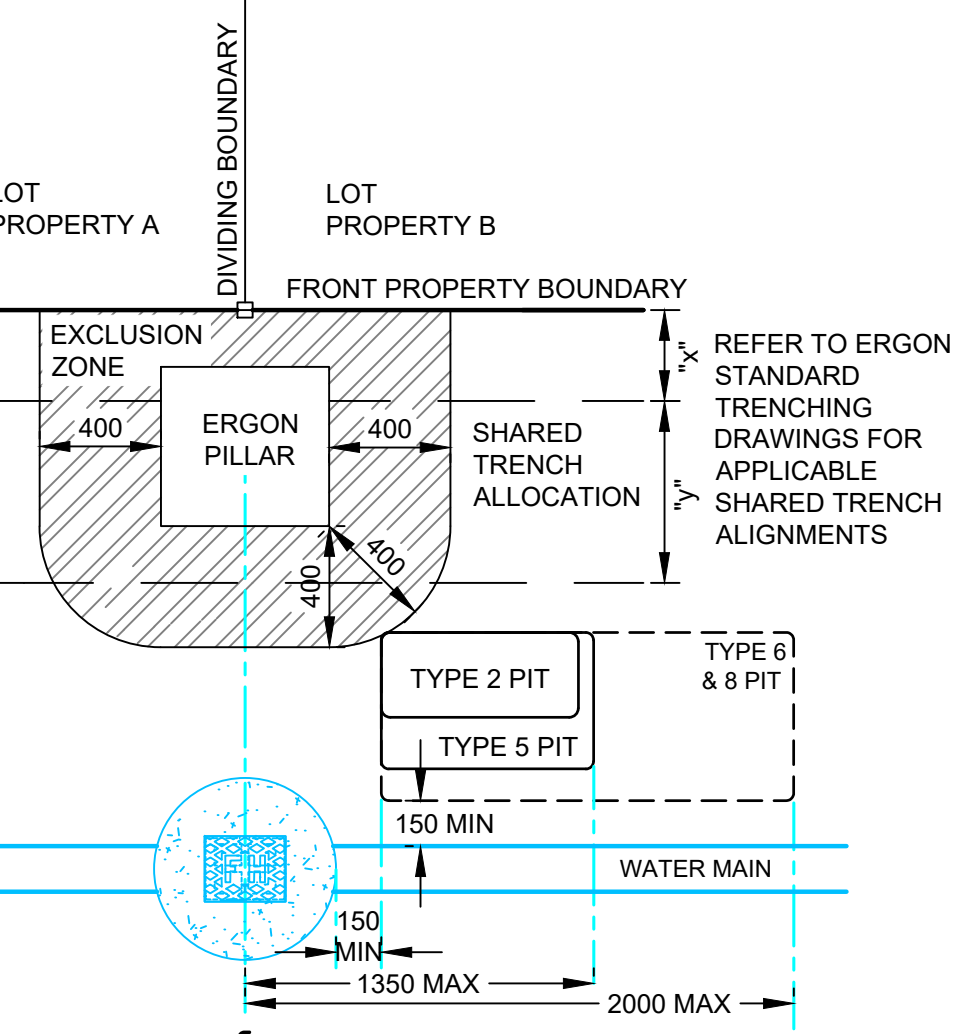
TYPICAL PIT DETAIL 2
PIT OFFSET FROM BOUNDARY WITH AN ERGON PILLAR (ZERO LOT BOUNDARY).
- ENSURE PIT TO BE CLEAR OF THE ZERO LOT BOUNDARY



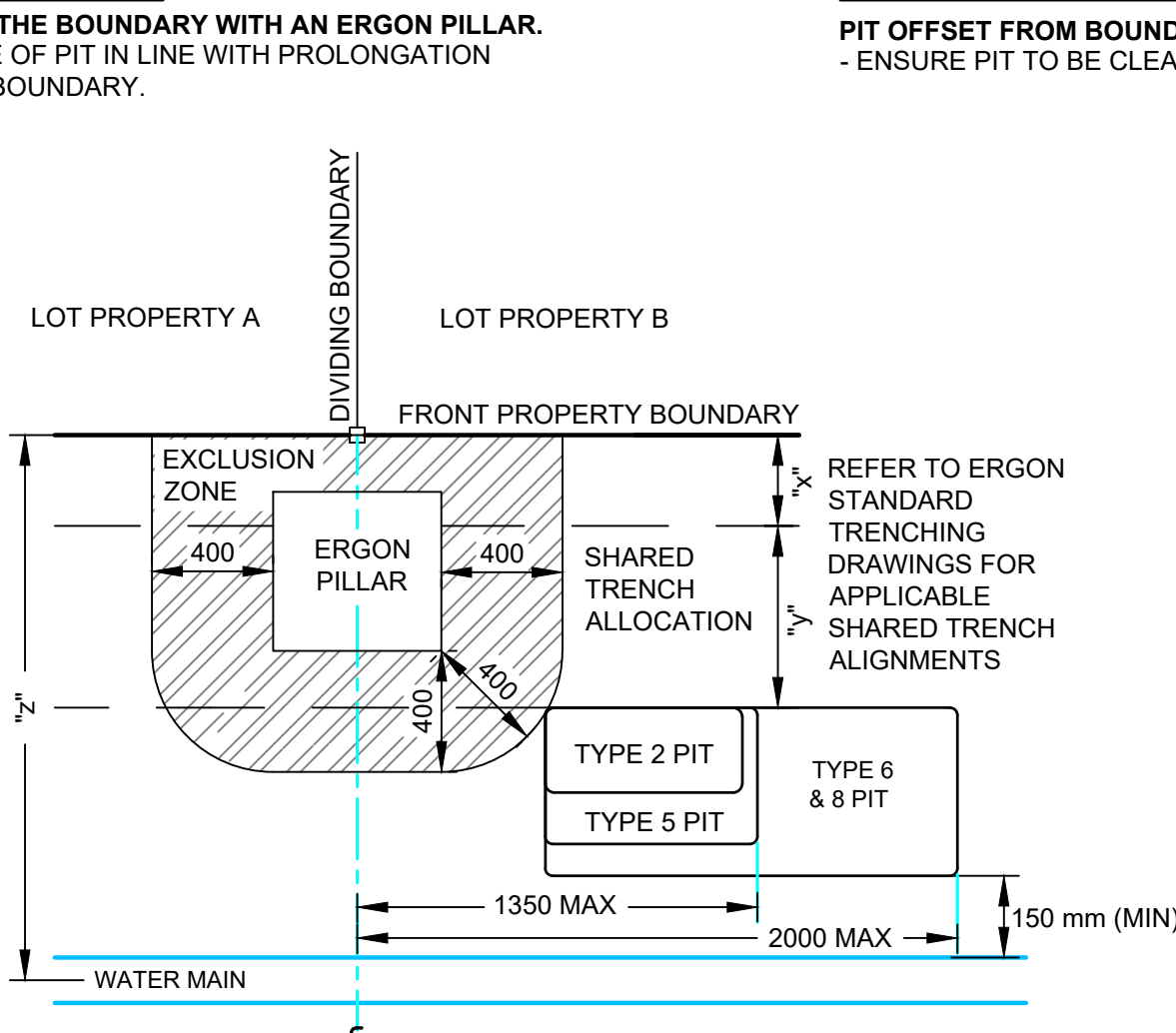
TYPICAL PIT DETAIL 3
PIT OFFSET FROM BOUNDARY WITH AN ERGON PILLAR AND 90° ERGON CONDUIT.
- ENSURE 100 mm MIN CLEARANCE TO ERGON CROSS ROAD CONDUIT



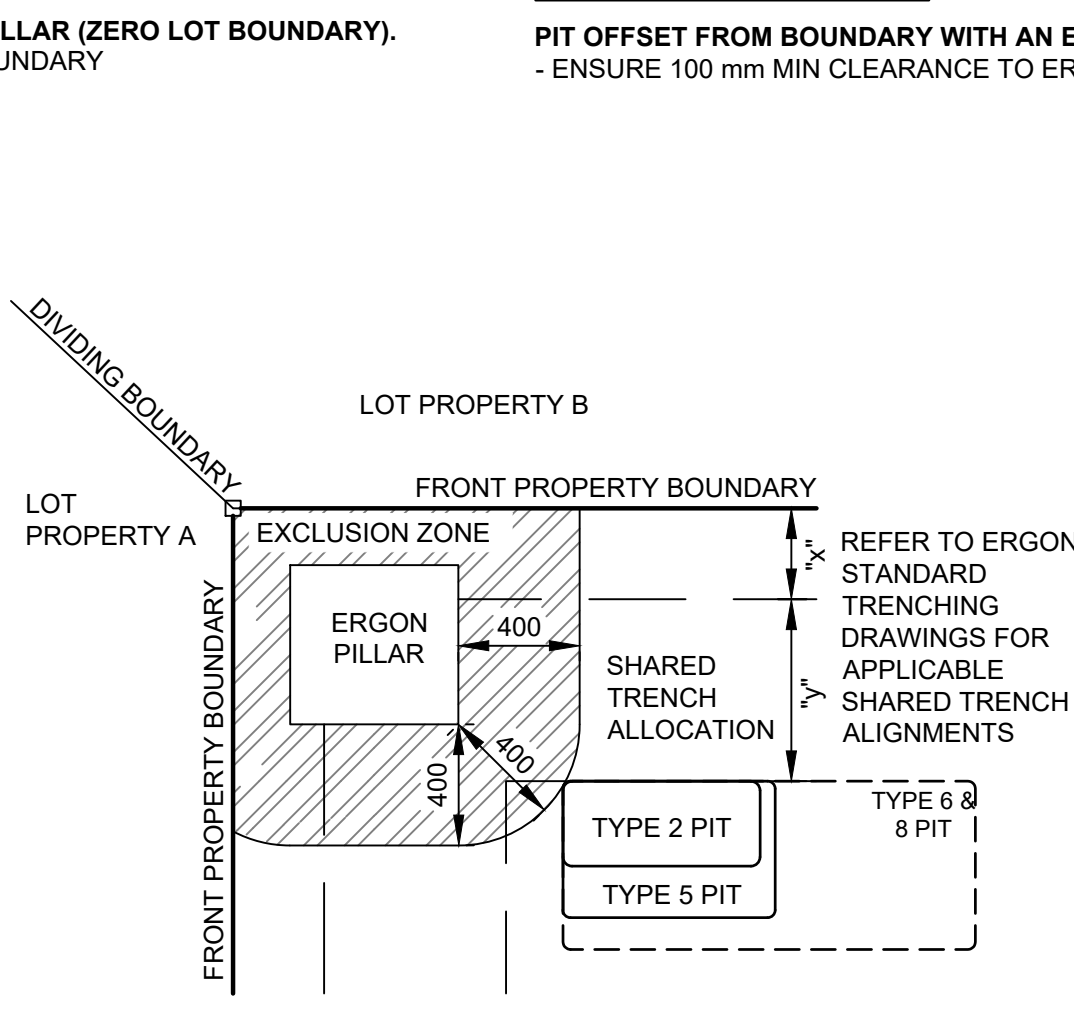
TYPICAL PIT DETAIL 4
PIT OFFSET FROM BOUNDARY WITH AN ERGON PILLAR AND ANGLED ERGON CONDUIT.
- LOCATE FAR END OF PIT AS CLOSE AS POSSIBLE TO THE PROLONGATION OF DIVIDING BOUNDARY WHILST MAINTAINING A MINIMUM OF 100 mm CLEARANCE FROM ERGON CONDUIT(S) TO MINIMISE DRIVEWAY INTRUSION.



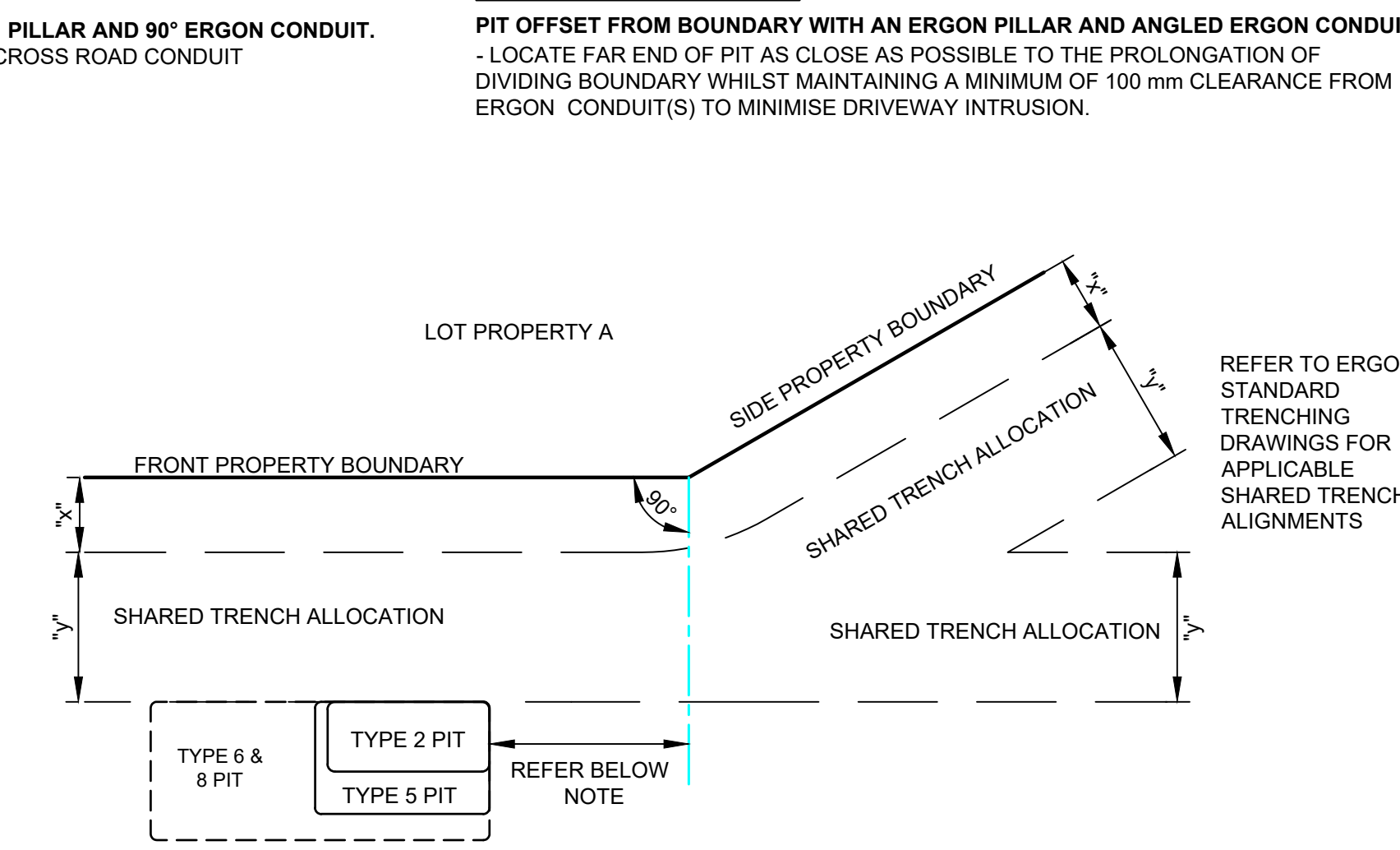
TYPICAL PIT DETAIL 5
PIT OFFSET FROM BOUNDARY WITH AN ERGON PILLAR AND FIRE HYDRANT.
- LOCATE END OF PIT AS CLOSE AS POSSIBLE TO THE PROLONGATION OF DIVIDING BOUNDARY WHILST MAINTAINING MINIMUM 150 mm CLEARANCE FROM FIRE HYDRANT AND MARGIN SETT TO MINIMISE DRIVEWAY INTRUSION.



TYPICAL PIT DETAIL 6
TYPE 8 PIT OFFSET FROM BOUNDARY WITH AN ERGON PILLAR AND CLASHING WITH WATER MAIN.
- LOCATE END OF PIT AS CLOSE AS POSSIBLE TO THE PROLONGATION OF DIVIDING BOUNDARY WHILST MAINTAINING MINIMUM 150 mm CLEARANCE FROM WATER MAIN TO MINIMISE DRIVEWAY INTRUSION.

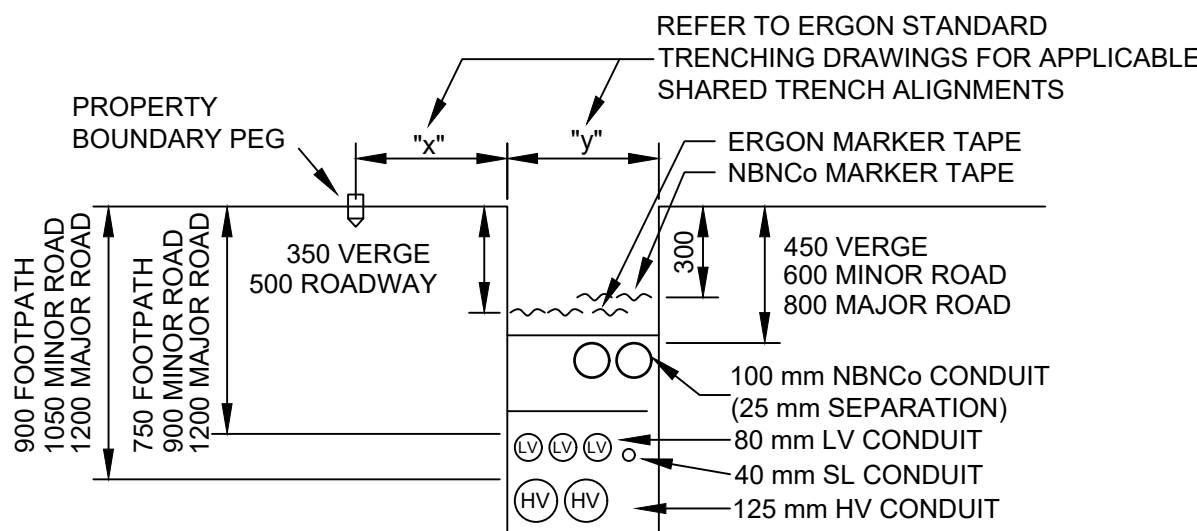


TYPICAL PIT DETAIL 7
PIT OFFSET FROM BOUNDARY WITH AN ERGON PILLAR ON CORNER LOT.
- LOCATE END OF PIT AS CLOSE AS PRACTICABLE TO THE INTERSECTING PROPERTY BOUNDARIES WHILST MAINTAINING CLEARANCE TO PILLAR EXCLUSION ZONE TO MINIMISE DRIVEWAY INTRUSION.



TYPICAL PIT DETAIL 8
PIT OFFSET FROM PROPERTY TRUNCATION POINT.
- LOCATE END OF PIT AS CLOSE AS PRACTICABLE TO THE TRUNCATION. WHERE APPLICABLE MAINTAIN REQUISITE COMPLIANCE TO FIGURE 13 IN THE NBN DEPLOYMENT GUIDELINES NBN-CTO-194.

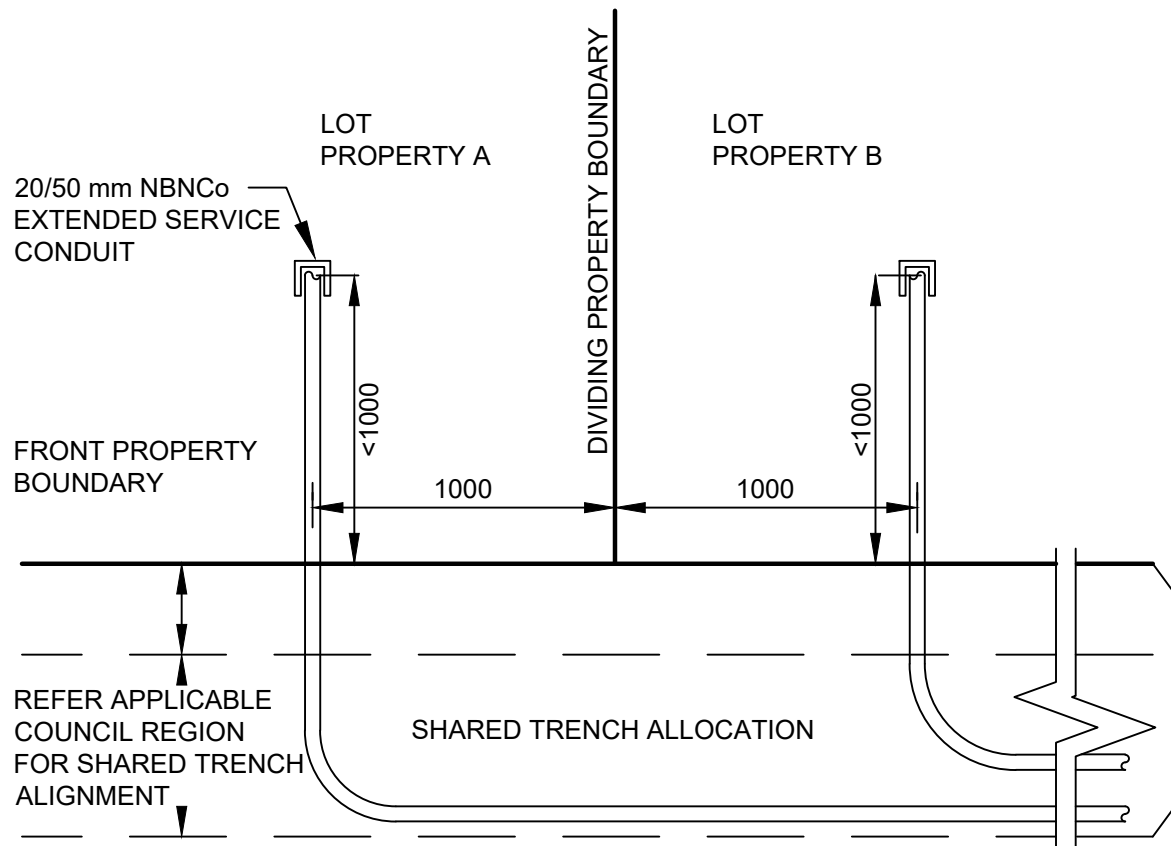
SEPARATION FROM ERGON CONDUITS		
ERGON CONDUIT TYPE	PARALLEL SEPARATION (mm)	CROSSING SEPARATION (mm)
LV/SL	100	100
HV	300	100



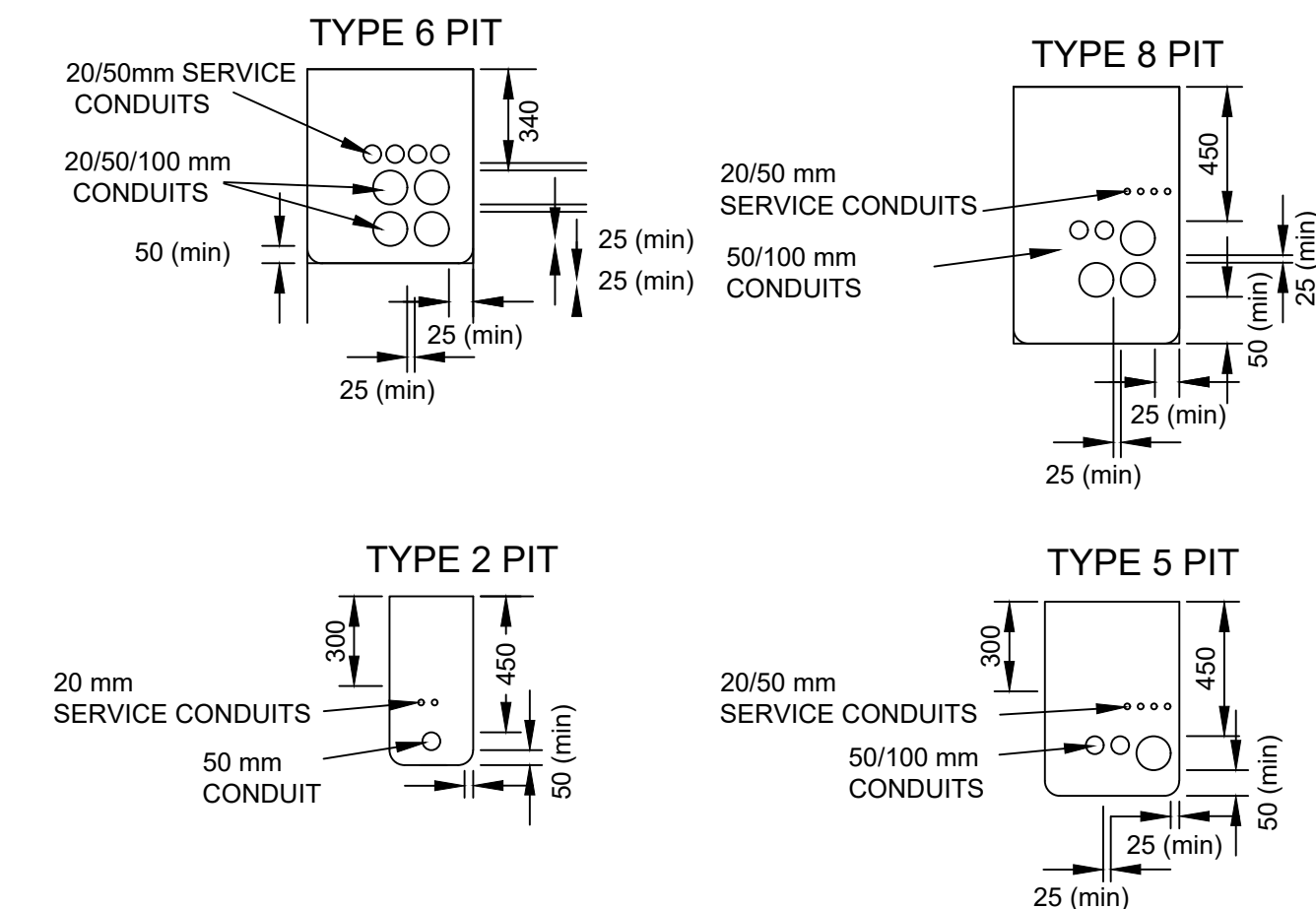
STANDARD TRENCH SECTION
SCALE 1:25 @ A1

NBN Co PIT SIZES							
PIT TYPE	NAME	NOMINAL EXTERNAL DIMENSIONS (mm)			MINIMUM INTERNAL DIMENSIONS (mm)		
		LENGTH	WIDTH	DEPTH	LENGTH	WIDTH	DEPTH
SERVICE DROP ACCESS PIT	TYPE 2	650	280	565	490	150	500
SERVICE DROP ACCESS PIT or BOUNDARY PIT or FJL PIT	TYPE 5	700	450	650	510	290	540
SERVICE DROP ACCESS PIT or LN PIT or FJL PIT	TYPE 6	1360	555	650	1130	340	600
DISTRIBUTION PIT or LN CONNECTION PIT	TYPE 8	1360	555	860	1130	390	820

I, Anthony Burke of BMD Urban hereby certify that the NBN Pit and Pipe works have been constructed in accordance with this drawing:
Signed: *Anthony Burke*
Date: 08.06.2021



EXTENDED SERVICE CONDUITS TO DISTANT PIT
SCALE 1:25 @ A1



TYPICAL PIT END WALL DETAILS
SCALE 1:25 @ A1

FOR CONSTRUCTION



REV	DATE	DRAFTER	DESCRIPTION	APPROVED
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1	07/12/18	NT	FOR APPROVAL	JE

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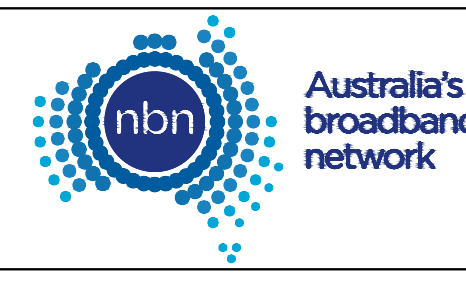
NBNC APPROVAL RECORD:

- ☐ DD
☐ WD
☐ AB

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KEY PLAN

DRAWING TITLE:
EAST POINT MACKAY STAGE 1A
NBNC Co PIT AND PIPE DESIGN
TYPICAL PIT LAYOUTS AND TRENCH DETAILS

ENABLE#:

STATE: QLD REGION: MK

FSA: SAM: ADA:

PROJECT No: STG-M000001694

CADREF No: 2926-T03

SCALE AS SHOWN SHEET No. 3 OF 3 REV. E