

# EDE5011

## SERVICE PIT ARRANGEMENT

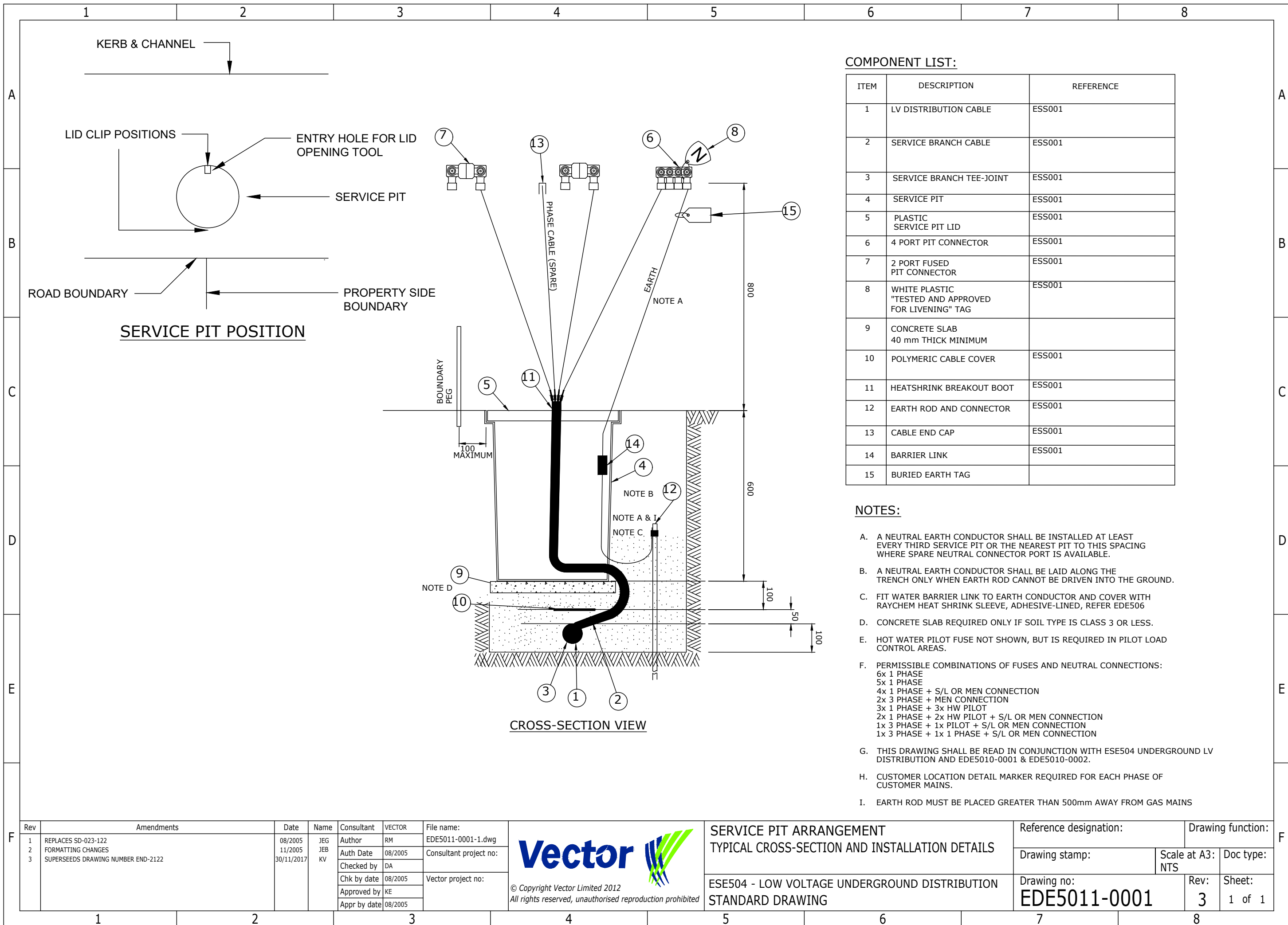
DRAWING No.	TITLE	REVISION									
EDE5011-0000-1	TITLE PAGE AND REVISION HISTORY	1									
EDE5011-0001-1	SERVICE PIT ARRANGEMENT TYPICAL CROSS-SECTION AND INSTALLATION DETAILS	1	2	3							
EDE5011-0002-1	UP TO THREE SINGLE PHASE CUSTOMER CONNECTIONS PLUS EARTH	1	2	3							
EDE5011-0003-1	THREE PHASE CUSTOMER CONNECTION PLUS EARTH	1	2	3							
EDE5011-0004-1	DETAILS OF EARTH CONDUCTOR	1	2	3							
EDE5011-0005-1	DETAILS OF NEUTRAL SCREEN CABLE BREAKOUT	1	2	3	4						
EDE5011-0006-1	THREE PHASE PLUS SINGLE PHASE CUSTOMER CONNECTIONS PLUS EARTH	1	2	3							
EDE5011-0007-1	UNDERGROUND SERVICE CABLE - JOINTING OF TAILS FOR CONNECTION TO OVERHEAD LINE	1	2	3	4						
EDE5011-0008-1	FOUR TO SIX SINGLE PHASE CUSTOMER CONNECTIONS	1	2								
EDE5011-0009-1	TYPICAL DETAILS OF PILOT FUSES	1	2	3							
EDE5011-0010-1	DETAILS OF TYPICAL CONNECTIONS TO OVERHEAD LINE	1	2	3							

REVISION HISTORY		
DATE	REVISION	DESCRIPTION
08/2005	1	FIRST ISSUE
11/2005	2	FORMATTING CHANGES
1/12/2017	4	DRAWING NUMBER CHANGED

TO BE READ IN CONJUNCTION WITH VECTOR STANDARD ESE504 - LOW VOLTAGE UNDERGROUND DISTRIBUTION

Rev	Amendments		Date	Name	Consultant	VECTOR	File name:	SERVICE PIT ARRANGEMENT TITLE PAGE & REVISION HISTORY	Reference designation:		Drawing function:		
	1	FIRST ISSUE	18/09/2017	SC	Author	SC	EDE5011-0000-1.dwg		ESE504 - LOW VOLTAGE UNDERGROUND DISTRIBUTION STANDARD DRAWING	Drawing stamp:		Scale at A3:	Doc type:
					Checked by	HR	Consultant project no:			NTS			
					Chk by date	18/09/2017	Vector project no:			Drawing no:		Rev:	Sheet:
					Approved by	AP				EDE5011-0000		1	1 of 1
				Appr by date	18/09/2017								





**COMPONENT LIST:**

ITEM	DESCRIPTION	REFERENCE
1	LV DISTRIBUTION CABLE	ESS001
2	SERVICE BRANCH CABLE	ESS001
3	SERVICE BRANCH TEE-JOINT	ESS001
4	SERVICE PIT	ESS001
5	PLASTIC SERVICE PIT LID	ESS001
6	4 PORT PIT CONNECTOR	ESS001
7	2 PORT FUSED PIT CONNECTOR	ESS001
8	WHITE PLASTIC "TESTED AND APPROVED FOR LIVENING" TAG	ESS001
9	CONCRETE SLAB 40 mm THICK MINIMUM	
10	POLYMERIC CABLE COVER	ESS001
11	HEATSHRINK BREAKOUT BOOT	ESS001
12	EARTH ROD AND CONNECTOR	ESS001
13	CABLE END CAP	ESS001
14	BARRIER LINK	ESS001
15	BURIED EARTH TAG	

**NOTES:**

- A. A NEUTRAL EARTH CONDUCTOR SHALL BE INSTALLED AT LEAST EVERY THIRD SERVICE PIT OR THE NEAREST PIT TO THIS SPACING WHERE SPARE NEUTRAL CONNECTOR PORT IS AVAILABLE.
- B. A NEUTRAL EARTH CONDUCTOR SHALL BE LAID ALONG THE TRENCH ONLY WHEN EARTH ROD CANNOT BE DRIVEN INTO THE GROUND.
- C. FIT WATER BARRIER LINK TO EARTH CONDUCTOR AND COVER WITH RAYCHEM HEAT SHRINK SLEEVE, ADHESIVE-LINED, REFER EDE506
- D. CONCRETE SLAB REQUIRED ONLY IF SOIL TYPE IS CLASS 3 OR LESS.
- E. HOT WATER PILOT FUSE NOT SHOWN, BUT IS REQUIRED IN PILOT LOAD CONTROL AREAS.
- F. PERMISSIBLE COMBINATIONS OF FUSES AND NEUTRAL CONNECTIONS:  
 6x 1 PHASE  
 5x 1 PHASE  
 4x 1 PHASE + S/L OR MEN CONNECTION  
 2x 3 PHASE + MEN CONNECTION  
 3x 1 PHASE + 3x HW PILOT  
 2x 1 PHASE + 2x HW PILOT + S/L OR MEN CONNECTION  
 1x 3 PHASE + 1x PILOT + S/L OR MEN CONNECTION  
 1x 3 PHASE + 1x 1 PHASE + S/L OR MEN CONNECTION
- G. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ESE504 UNDERGROUND LV DISTRIBUTION AND EDE5010-0001 & EDE5010-0002.
- H. CUSTOMER LOCATION DETAIL MARKER REQUIRED FOR EACH PHASE OF CUSTOMER MAINS.
- I. EARTH ROD MUST BE PLACED GREATER THAN 500mm AWAY FROM GAS MAINS

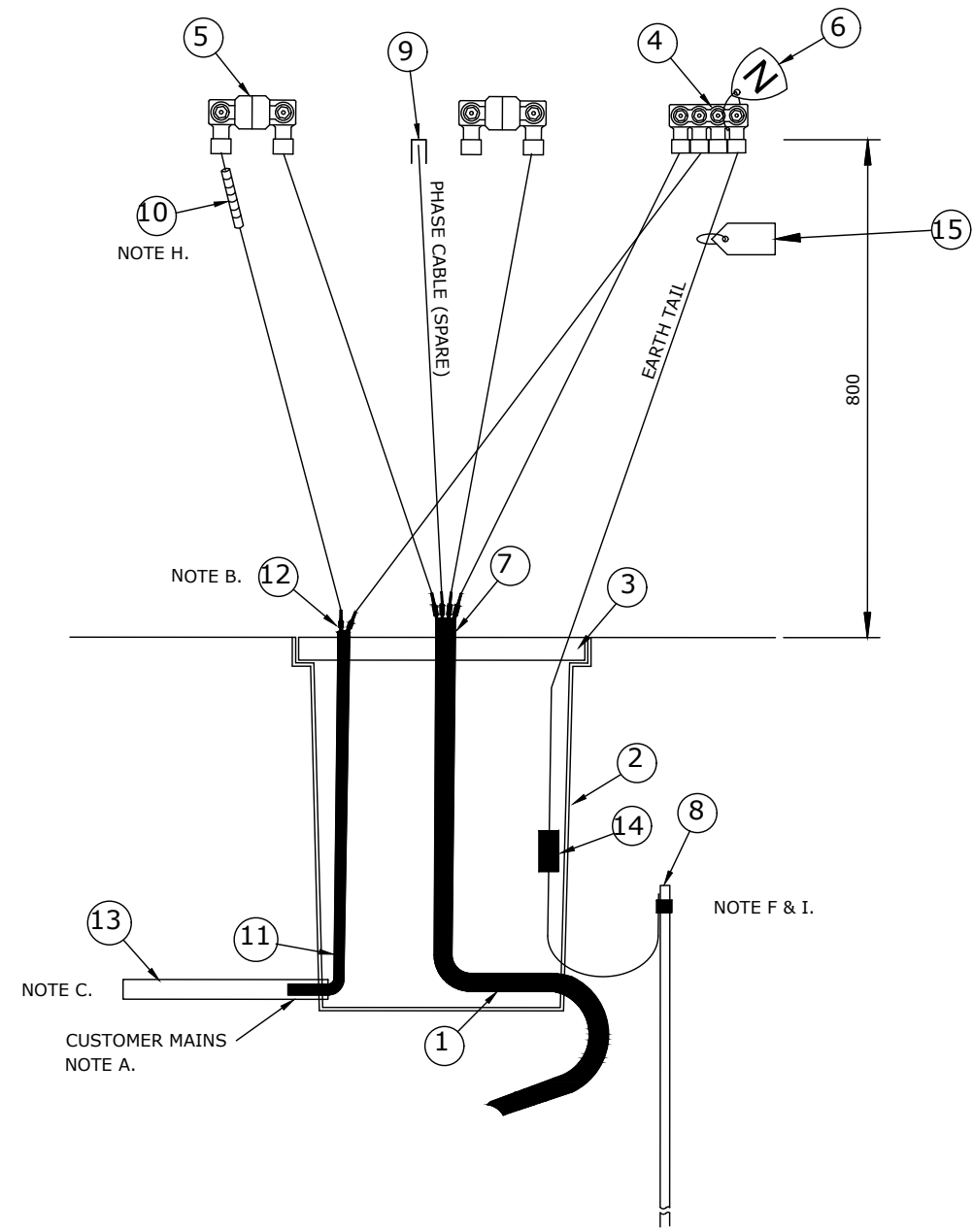
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Rev	Amendments	Date	Name	Consultant	VECTOR	File name:
1	REPLACES SD-023-122	08/2005	JEG	Author	RM	EDE5011-0001-1.dwg
2	FORMATTING CHANGES	11/2005	JEB	Auth Date	08/2005	Consultant project no:
3	SUPERSEEDS DRAWING NUMBER END-2122	30/11/2017	KV	Checked by	DA	Vector project no:
				Chk by date	08/2005	
				Approved by	KE	
				Appr by date	08/2005	

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<b>SERVICE PIT ARRANGEMENT TYPICAL CROSS-SECTION AND INSTALLATION DETAILS</b>		Reference designation:		Drawing function:	
ESE504 - LOW VOLTAGE UNDERGROUND DISTRIBUTION STANDARD DRAWING		Drawing stamp:	Scale at A3: NTS	Rev: 3	Doc type: Sheet: 1 of 1
		Drawing no: <b>EDE5011-0001</b>			



**CROSS-SECTION VIEW**

ONLY ONE SINGLE PHASE CUSTOMER SERVICE CABLE IS SHOWN FOR CLARITY

**COMPONENT LIST:**

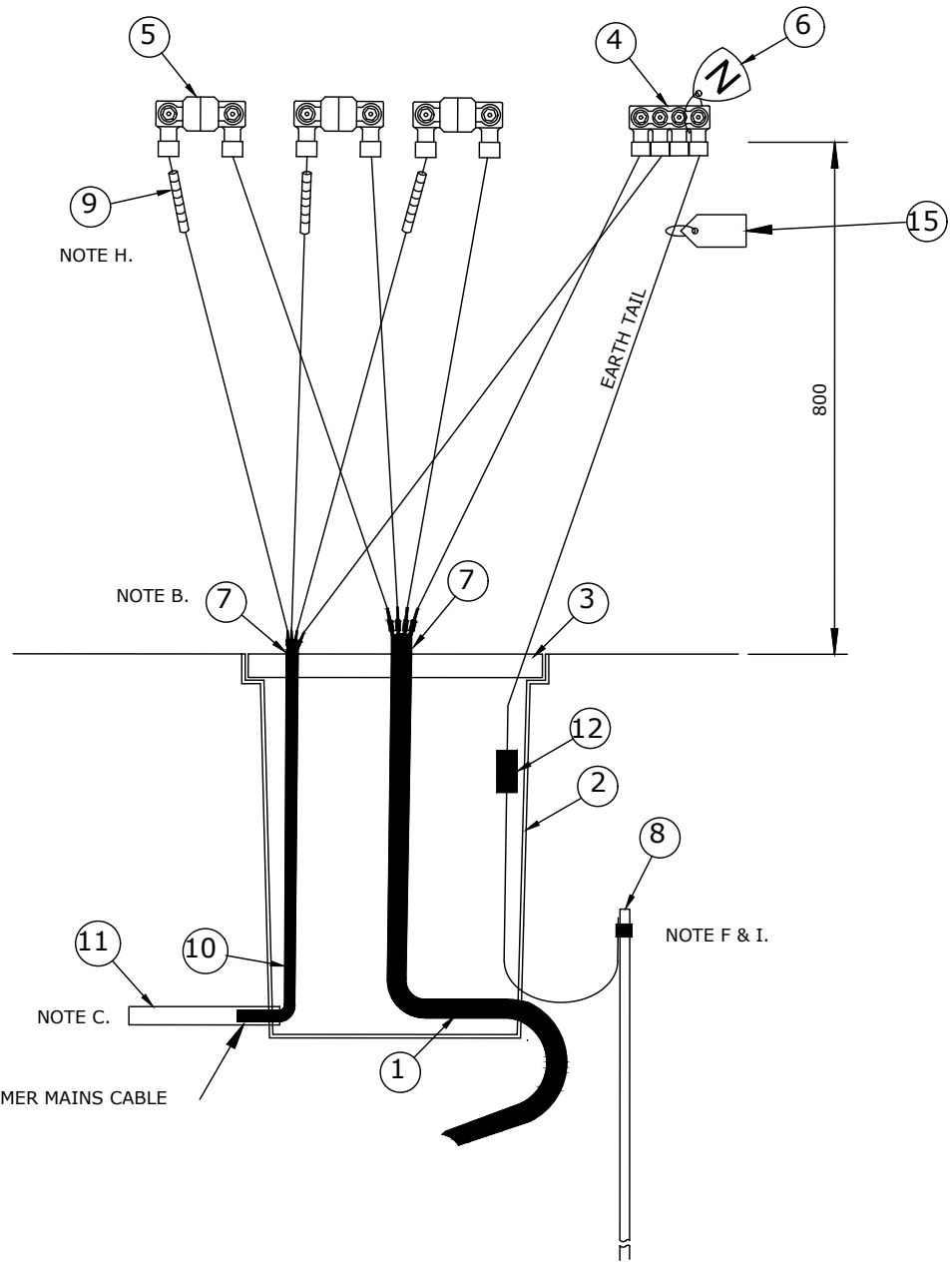
	DESCRIPTION	REFERENCE
1	SERVICE BRANCH CABLE	ESS001
2	SERVICE PIT	ESS001
3	PLASTIC SERVICE PIT LID	ESS001
4	4 PORT PIT CONNECTOR	ESS001
5	2 PORT FUSED PIT CONNECTOR	ESS001
6	WHITE PLASTIC "TESTED AND APPROVED FOR LIVENING" TAG	ESS001
7	HEATSHRINK BREAKOUT BOOT	ESS001
8	EARTH ROD AND CONNECTOR	ESS001
9	CABLE END CAP	ESS001
10	CUSTOMER LOCATION DETAIL MARKER	ESS001
11	CUSTOMER MAINS CABLE	ESS001
12	HEATSHRINK BREAKOUT BOOT	ESS001
13	50 mm DUCT	ESS001
14	BARRIER LINK	ESS001
15	BURIED EARTH TAG	

**NOTES:**

- A. 1800 mm OF CUSTOMER MAINS CABLE SHALL BE COILED AT THE PIT FOR CONNECTION BY OTHERS.
- B. FOR CABLE BREAKOUT DETAIL REFER TO FOLLOWING DRAWINGS
- C. INSTALL DUCT TO JUST INSIDE BOUNDARY.
- D. HOT WATER PILOT NOT SHOWN, BUT IS REQUIRED IN ALL PILOT LOAD CONTROL AREAS.
- E. PERMISSIBLE COMBINATIONS OF FUSES AND NEUTRAL CONNECTIONS:  
 6x 1 PHASE  
 5x 1 PHASE  
 4x 1 PHASE + S/L OR MEN CONNECTION  
 2x 3 PHASE + MEN CONNECTION  
 3x 1 PHASE + 3x HW PILOT  
 2x 1 PHASE + 2x HW PILOT + S/L OR MEN CONNECTION  
 1x 3 PHASE + 1x PILOT + S/L OR MEN CONNECTION  
 1x 3 PHASE + 1x 1 PHASE + S/L OR MEN CONNECTION
- F. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ESS001 UNDERGROUND LV DISTRIBUTION AND EDE5010-0001 & EDE5010-0002.
- G. A NEUTRAL EARTH SHALL BE INSTALLED AT APPROXIMATELY EVERY THIRD SERVICE PIT OR THE NEAREST PIT TO THIS SPACING WHERE A SPARE NEUTRAL CONNECTOR PORT IS AVAILABLE.
- H. CUSTOMER LOCATION DETAIL MARKER REQUIRED FOR EACH PHASE OF ALL CUSTOMER MAINS.
- I. EARTH ROD MUST BE PLACED GREATER THAN 500mm AWAY FROM GAS MAINS

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Rev	Amendments		Date	Name	Consultant	VECTOR	File name:	 <p>© Copyright Vector Limited 2012 All rights reserved, unauthorised reproduction prohibited</p>	SERVICE PIT ARRANGEMENT UP TO THREE SINGLE PHASE CUSTOMER CONNECTIONS PLUS EARTH		Reference designation:		Drawing function:	
	1	REPLACES SD-023-123	02/2005	JEG	Author	RC	EDE5011-0002-1.dwg		ESE504 - LOW VOLTAGE UNDERGROUND DISTRIBUTION		Drawing stamp:		Scale at A3:	Doc type:
	2	FORMATTING CHANGES, ITEM 15 ADDED.	07/2007	JEB	Auth Date	02/2005	Consultant project no:		STANDARD DRAWING		NTS			
	3	SUPERSEEDS DRAWING NUMBER END-2123	30/11/2017	KV	Checked by	DA	Vector project no:				Drawing no:		Rev:	Sheet:
				Chk by date	02/2005					EDE5011-0002		3	1 of 1	
				Approved by	KE									
				Appr by date	02/2005									



CROSS-SECTION VIEW

COMPONENT LIST:

	DESCRIPTION	REFERENCE
1	SERVICE BRANCH CABLE	ESS001
2	SERVICE PIT	ESS001
3	PLASTIC SERVICE PIT LID	ESS001
4	4 PORT PIT CONNECTOR	ESS001
5	2 PORT FUSED PIT CONNECTOR	ESS001
6	WHITE PLASTIC "TESTED AND APPROVED FOR LIVENING" TAG	ESS001
7	HEATSHRINK BREAKOUT BOOT	ESS001
8	EARTH ROD AND CONNECTOR	ESS001
9	CUSTOMER LOCATION DETAIL MARKER	ESS001
10	CUSTOMER MAINS CABLE	ESS001
11	50 mm DUCT	ESS001
12	BARRIER LINK	ESS001
13	BURIED EARTH TAG	

NOTES:

- A. 1800 mm OF CUSTOMER MAINS CABLE SHALL BE COILED AT THE PIT FOR CONNECTION BY OTHERS.
- B. FOR CABLE BREAKOUT DETAIL REFER TO FOLLOWING DRAWINGS.
- C. INSTALL DUCT TO JUST INSIDE BOUNDARY.
- D. HOT WATER PILOT NOT SHOWN, BUT IS REQUIRED IN ALL PILOT LOAD CONTROL AREAS.
- E. PERMISSIBLE COMBINATIONS OF FUSES AND NEUTRAL CONNECTIONS:  
 6x 1 PHASE  
 5x 1 PHASE  
 4x 1 PHASE + S/L OR MEN CONNECTION  
 3x 1 PHASE + 3x HW PILOT  
 2x 1 PHASE + 2x HW PILOT + S/L OR MEN CONNECTION  
 2x 3 PHASE + MEN CONNECTION  
 1x 3 PHASE + 1x PILOT + S/L OR MEN CONNECTION  
 1x 3 PHASE + 1x 1 PHASE + S/L OR MEN CONNECTION
- F. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ESS001 UNDERGROUND LV DISTRIBUTION AND EDE5010-0001 & EDE5010-0002.
- G. A NEUTRAL EARTH SHALL BE INSTALLED AT APPROXIMATELY EVERY THIRD SERVICE PIT OR THE NEAREST PIT TO THIS SPACING WHERE A SPARE NEUTRAL CONNECTOR PORT IS AVAILABLE.
- H. CUSTOMER LOCATION DETAIL MARKER REQUIRED FOR EACH PHASE OF ALL CUSTOMER MAINS.
- I. EARTH ROD MUST BE PLACED GREATER THAN 500mm AWAY FROM GAS MAINS

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Rev	Amendments		Date	Name	Consultant	VECTOR	File name:	SERVICE PIT ARRANGEMENT		Reference designation:		Drawing function:	
	1	REPLACES SD-023-124	02/2005	JEG	Author	RC	EDE5011-0003-1.dwg	THREE PHASE CUSTOMER CONNECTION PLUS EARTH		Drawing stamp:		Scale at A3:	Doc type:
	2	FORMATTING CHANGES, ITEM 13 ADDED.	07/2007	JEB	Auth Date	02/2005	Consultant project no:	ESE504 - LOW VOLTAGE UNDERGROUND DISTRIBUTION		NTS		Rev:	Sheet:
	3	SUPERSEEDS DRAWING NUMBER END-2124	30/11/2017	KV	Checked by	DA	Vector project no:	STANDARD DRAWING		Drawing no:		3	1 of 1
				Chk by date	02/2005			© Copyright Vector Limited 2012					
				Approved by	KE			All rights reserved, unauthorised reproduction prohibited					
				Appr by date	02/2005								

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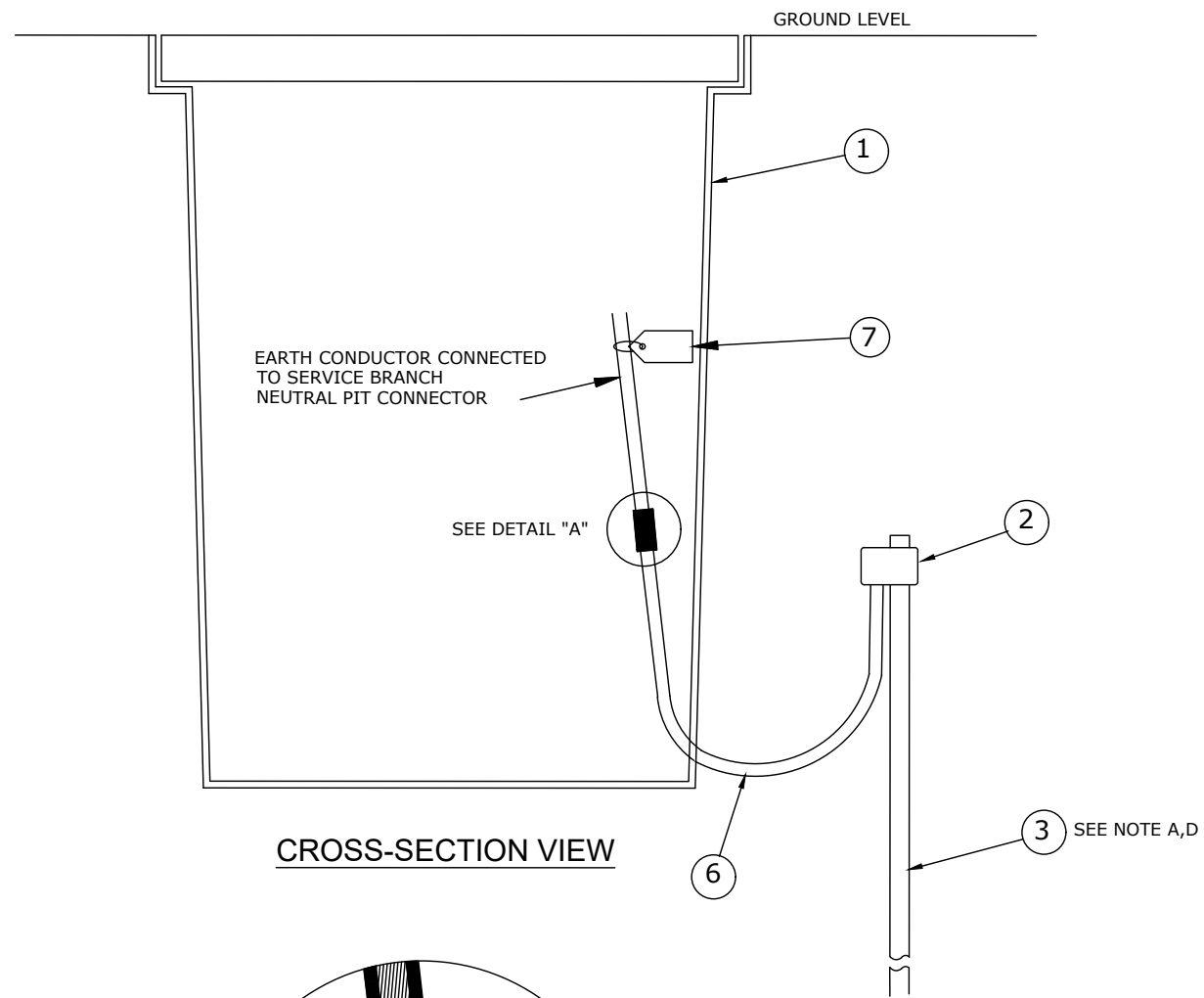
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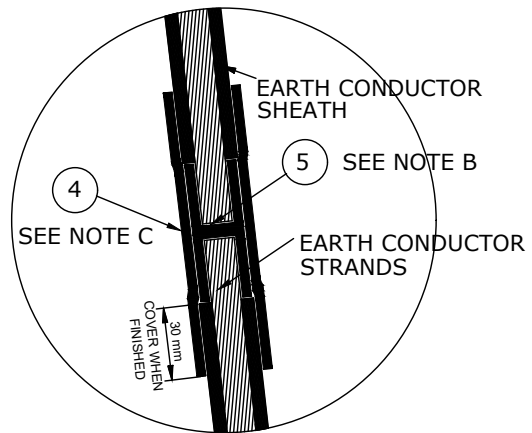
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**CROSS-SECTION VIEW**



**DETAIL "A"**

**COMPONENT LIST:**

ITEM	DESCRIPTION	REFERENCE
1	SERVICE PIT	ESS001
2	EXOTHERMIC WELD OR AMPACT WEDGE TYPE EARTHING CONNECTOR	ESS001
3	EARTH ROD	ESS001
4	HEAT SHRINK SLEEVE, ADHESIVE-LINED	ESS001
5	WATER BARRIER LINK	ESS001
6	GREEN/YELLOW PVC SHEATHED EARTH CONDUCTOR (25 mm %%178)	ESS001
7	BURIED EARTH TAG	

**NOTES:**

- A. 13 mm Ø COPPER BONDED HT STEEL ROD AT LEAST 1.8m LONG DRIVEN VERTICALLY IN BOTTOM OF TRENCH, OR 25 mm (MINIMUM) BARE STRANDED COPPER CONDUCTOR LAID IN BOTTOM OF THE CABLE TRENCH FOR 15 m (MINIMUM)
- B. CUT EARTH CONDUCTOR AND FIT CRIMP TYPE WATER BARRIER LINK
- C. HEAT SHRINK SLEEVE TO OVERLAP WATER BARRIER LINK BY AT LEAST 30 mm.
- D. EARTH ROD MUST BE GREATER THAN 500mm FROM GAS MAINS

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Rev	Amendments	Date	Name	Consultant	VECTOR	File name:
1	REPLACES SD-023-125	08/2005	JEG	Author	RM	EDE5011-0004-1.dwg
2	FORMATTING CHANGES, ITEM 7 ADDED.	07/2007	JEB	Auth Date	08/2005	Consultant project no:
3	SUPERSEEDS DRAWING NUMBER END-2125	30/11/2017	KV	Checked by	DA	Vector project no:
				Chk by date	08/2005	
				Approved by	KE	
				Appr by date	08/2005	

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**SERVICE PIT ARRANGEMENT  
DETAILS OF EARTH CONDUCTOR**

ESE504 - LOW VOLTAGE UNDERGROUND DISTRIBUTION  
STANDARD DRAWING

Reference designation:	Drawing function:	
Drawing stamp:	Scale at A3: NTS	Doc type:
Drawing no: <b>EDE5011-0004</b>	Rev: <b>3</b>	Sheet: 1 of 1

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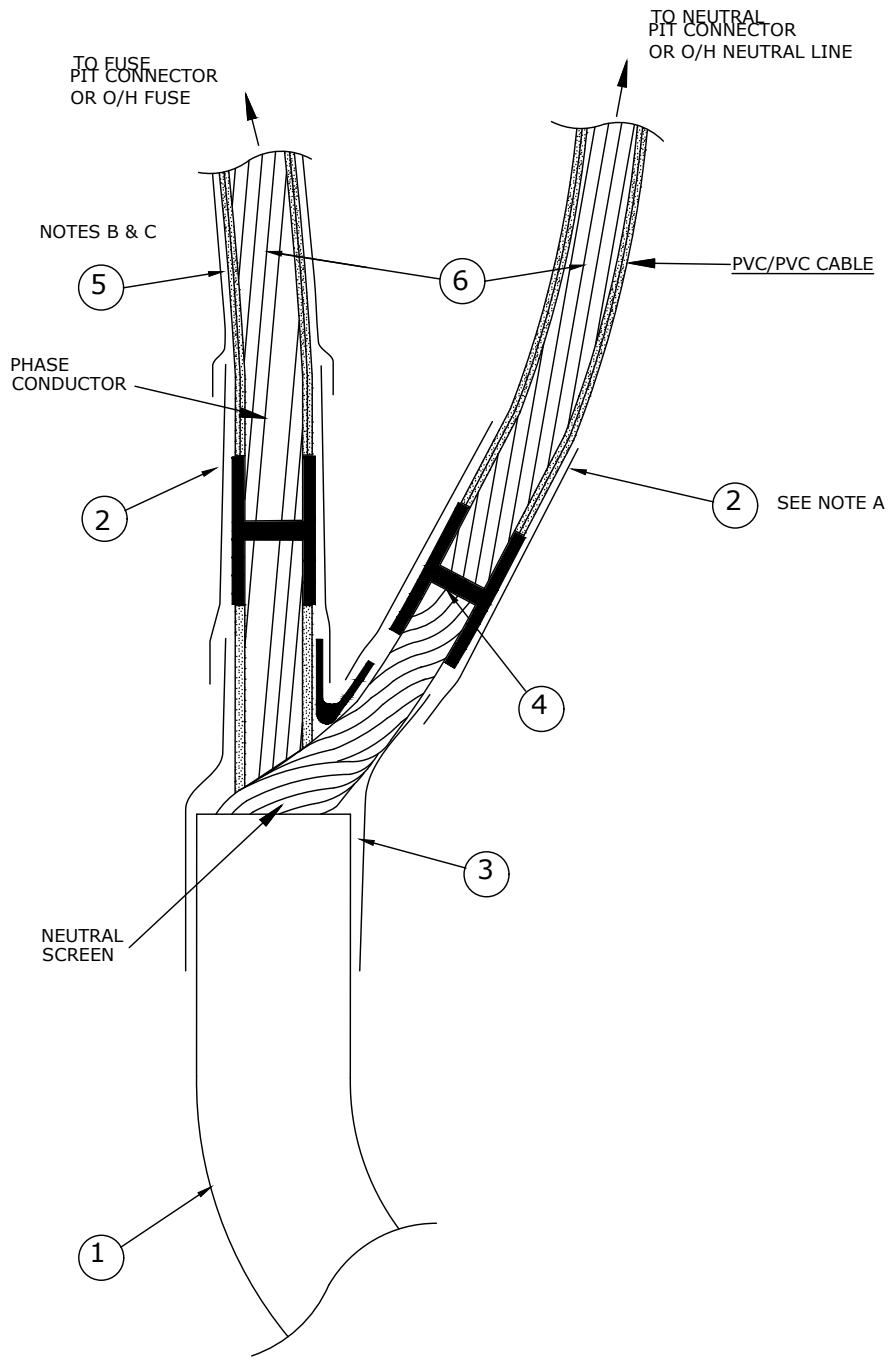
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**COMPONENT LIST**

	DESCRIPTION	REFERENCE
1	NEUTRAL SCREEN CABLE CUSTOMER CABLE	
2	HEAT SHRINK SLEEVE ADHESIVE-LINED	ESS001
3	HEAT SHRINK BREAKOUT BOOT, ADHESIVE-LINED	ESS001
4	WATER BARRIER LINK	ESS001
5	COLOURED HEAT SHRINK, TO SUIT CUSTOMER CABLE CONDUCTORS	ESS001
6	WATER BLOCKED SINGLE CORE EXTENSION TO CUSTOMER CABLE	ESS001

**NOTES:**

- A. HEAT SHRINK SLEEVE TO OVERLAP WATER BARRIER LINK BY 30 mm (minimum)
- B. COLOURED HEATSHRINK REQUIRED IF THE OUTER COLOUR OF (6) DOES NOT MATCH THE COLOUR OF THE SERVICE CABLE CORE OR IF (6) IS UNSHEATHED
- C. STOP COLOURED HEAT SHRINK JUST SHORT OF FUSE PIT CONNECTOR; DO NOT TAKE COLOURED HEAT SHRINK INSIDE FUSE PIT CONNECTOR
- D. ALL NEUTRAL SCREEN TRANSITION JOINTS TO BE INSTALLED BY VECTOR
  
- E. ALSO TO BE USED FOR CABLE RISER UP POLE

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Rev	Amendments			Date	Name	Consultant	VECTOR	File name:	<b>Service Pit Arrangement</b> <b>Details of Neutral Screen Cable Breakout</b>  Reference designation: Drawing function:
	1	REPLACES SD-023-126	08/2005	JEG	Author	RM	EDE5011-0005-1.dwg		
	2	FORMATTING CHANGES	11/2005	JEB	Auth Date	08/2005	Consultant project no:		
	3	PLACEMENT OF SHRINK TUBE CHANGED	03/2007	JEB	Checked by	DA	Vector project no:		
4	SUPERSEEDS DRAWING NUMBER END-2126	30/11/2017	KV	Chk by date	08/2005	Approved by	KE	Appr by date	08/2005



SERVICE PIT ARRANGEMENT DETAILS OF NEUTRAL SCREEN CABLE BREAKOUT		Reference designation:	Drawing function:
ESE504 - LOW VOLTAGE UNDERGROUND DISTRIBUTION STANDARD DRAWING		Drawing stamp:	Scale at A3: NTS
		Drawing no: <b>EDE5011-0005</b>	Rev: <b>4</b>
		Sheet: 1 of 1	Doc type:

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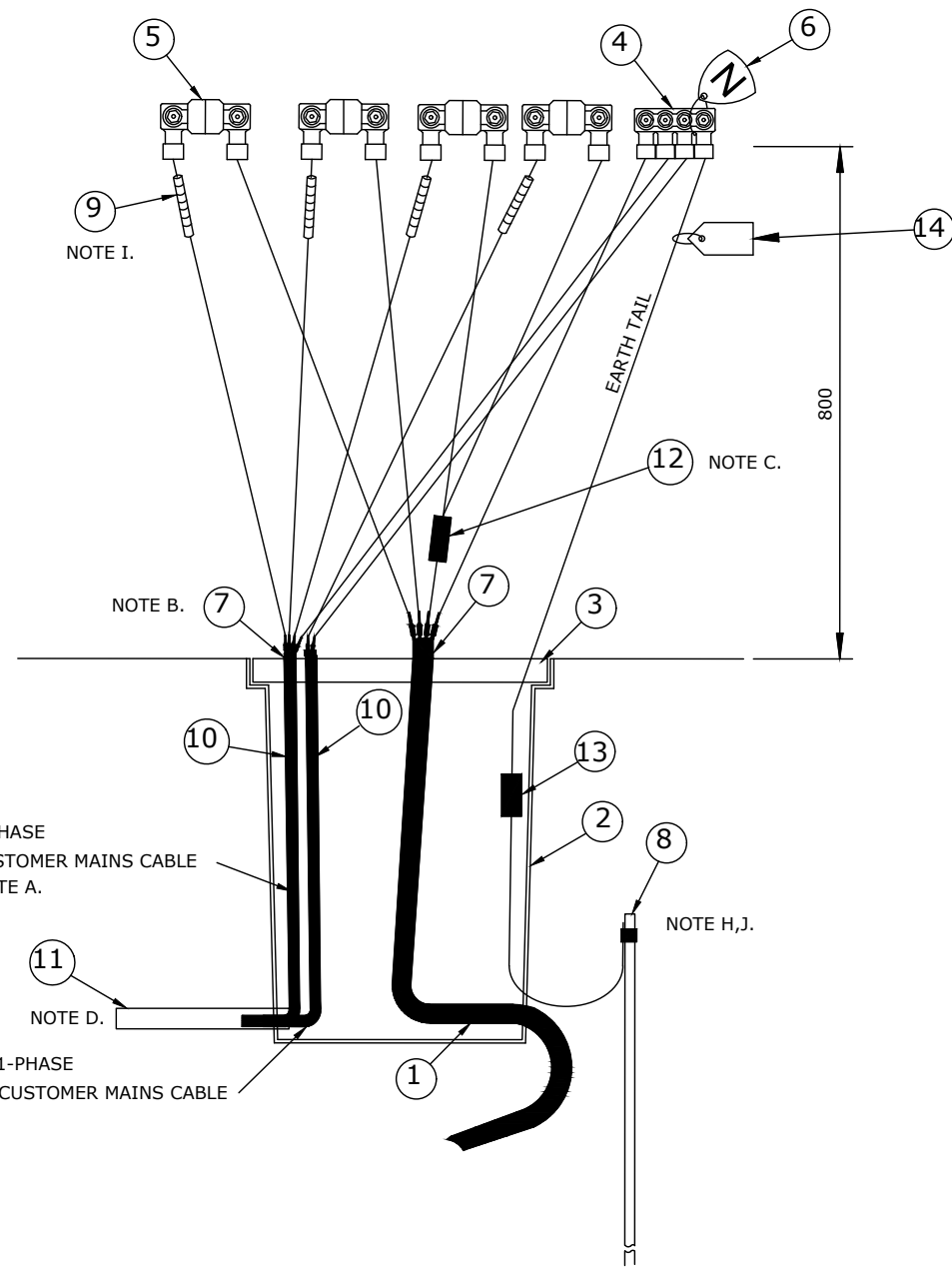
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**COMPONENT LIST:**

	DESCRIPTION	REFERENCE
1	SERVICE BRANCH CABLE	ESS001
2	SERVICE PIT	ESS001
3	PLASTIC SERVICE PIT LID	ESS001
4	4 PORT PIT CONNECTOR	ESS001
5	2 PORT FUSED PIT CONNECTOR	ESS001
6	WHITE PLASTIC "TESTED AND APPROVED FOR LIVENING" TAG	ESS001
7	HEATSHRINK BREAKOUT BOOT	ESS001
8	EARTH ROD OR CONDUCTOR	ESS001
9	CUSTOMER LOCATION DETAIL MARKER	ESS001
10	CUSTOMER MAINS CABLE	ESS001
11	50 mm DUCT	ESS001
12	GEL BOX	ESS001
13	BARRIER LINK	ESS001
14	BURIED EARTH TAG	

**NOTES:**

- A. 1800 mm OF CUSTOMER MAINS CABLE SHALL BE COILED AT THE PIT FOR CONNECTION BY OTHERS.
- B. FOR CABLE BREAKOUT DETAIL REFER TO FOLLOWING DRAWINGS
- C. PHASE CONDUCTOR OF 1-PHASE CUSTOMER MAINS CABLE TO BE CONNECTED TO ONE OF THE PHASE CONDUCTORS OF THE SERVICE BRANCH CABLE VIA A MINI-WEDGE CONNECTOR SEALED IN A GEL BOX.
- D. INSTALL DUCT TO JUST INSIDE BOUNDARY.
- E. HOT WATER PILOT NOT SHOWN, BUT IS REQUIRED IN ALL PILOT LOAD CONTROL AREAS.
- F. PERMISSIBLE COMBINATIONS OF FUSES AND NEUTRAL CONNECTIONS:  
 6x 1 PHASE  
 5x 1 PHASE  
 4x 1 PHASE + S/L OR MEN CONNECTION  
 2x 3 PHASE + MEN CONNECTION  
 3x 1 PHASE + 3x HW PILOT  
 2x 1 PHASE + 2x HW PILOT + S/L OR MEN CONNECTION  
 1x 3 PHASE + 1x HW PILOT + S/L OR MEN CONNECTION  
 1x 3 PHASE + 1x 1 PHASE + S/L OR MEN CONNECTION
- G. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ESE504 UNDERGROUND LV DISTRIBUTION AND EDE5010-0001 & EDE5010-0002.
- H. A NEUTRAL EARTH SHALL BE INSTALLED AT APPROXIMATELY EVERY THIRD SERVICE PIT OR THE NEAREST PIT TO THIS SPACING WHERE A SPARE NEUTRAL PORT IS AVAILABLE.
- I. CUSTOMER LOCATION DETAIL MARKER REQUIRED FOR EACH PHASE OF ALL CUSTOMER MAINS.
- J. EARTH ROD MUST BE PLACED GREATER THAN 500mm AWAY FROM GAS MAINS



**CROSS-SECTION VIEW**

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Rev	Amendments	Date	Name	Consultant	VECTOR	File name:
1	REPLACES SD-023-127	02/2005	JEG	Author	RM	EDE5011-0006-1.dwg
2	FORMATTING CHANGES, ITEM 14 ADDED.	07/2007	JEB	Auth Date	01/02/2005	Consultant project no:
3	SUPERSEEDS DRAWING NUMBER END-2127	01/12/2017	KV	Checked by	DA	Vector project no:
				Chk by date	01/02/2005	
				Approved by	KE	
				Appr by date	01/02/2005	

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**SERVICE PIT ARRANGEMENT  
THREE PHASE PLUS SINGLE PHASE CUSTOMER  
CONNECTIONS PLUS EARTH**

ESE504 - LOW VOLTAGE UNDERGROUND DISTRIBUTION  
STANDARD DRAWING

Reference designation:		Drawing function:	
Drawing stamp:	Scale at A3: NTS	Rev:	Doc type:
Drawing no: <b>EDE5011-0006</b>	3	Sheet:	1 of 1

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1 2 3 4 5 6 7 8

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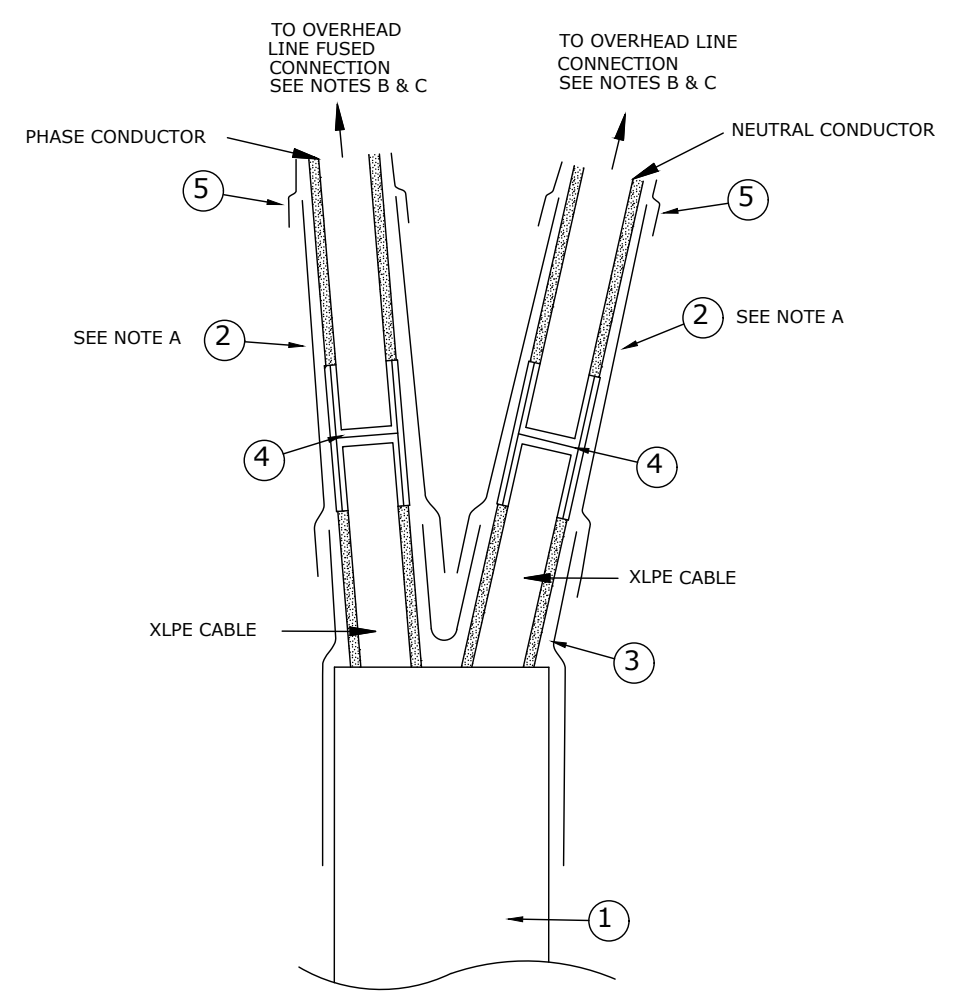
B

C

D

E

F



**COMPONENT LIST:**

ITEM	DESCRIPTION	REFERENCE
1	XLPE/PVC CABLE	ESS001
2	HEAT SHRINK SLEEVE, ADHESIVE-LINED	ESS001
3	HEAT SHRINK BREAKOUT BOOT, ADHESIVE-LINED	ESS001
4	WATER BARRIER LINK	ESS001
5	COLOURED HEAT SHRINK, RED/BLACK TO SUIT CONDUCTORS	ESS001

**NOTES:**

- A. HEAT SHRINK SLEEVE TO OVERLAP WATER BARRIER LINK BY 30 mm (MINIMUM)
- B. ALL LV CONNECTIONS GREATER THAN 35 mm<sup>2</sup> SHALL BE AMPACT CONNECTIONS - THESE SHALL NOT BE TAPED, BUT WHERE REQUIRED FOR SAFETY CLEARANCES PLASTIC AMPACT COVERS SHALL BE FITTED
- C. ALL CONNECTIONS TO OVERHEAD LINE LESS THAN 35 mm<sup>2</sup> SHALL BE IPC CONNECTIONS - THESE SHALL NOT BE TAPED

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Rev	Amendments	Date	Name	Consultant	VECTOR	File name:
1	REPLACES SD-023-128	02/2005	JEG	Author	RM	EDE5011-0007-1.dwg
2	FORMATTING CHANGES	11/2005	JEB	Auth Date	08/2005	Consultant project no:
3	PLACEMENT OF SHRINK TUBE CHANGED	03/2007	JEB	Checked by	DA	Vector project no:
4	SUPERSEEDS DRAWING NUMBER END-2128	01/12/2017	KV	Chk by date	08/2005	
				Approved by	KE	
				Appr by date	08/2005	

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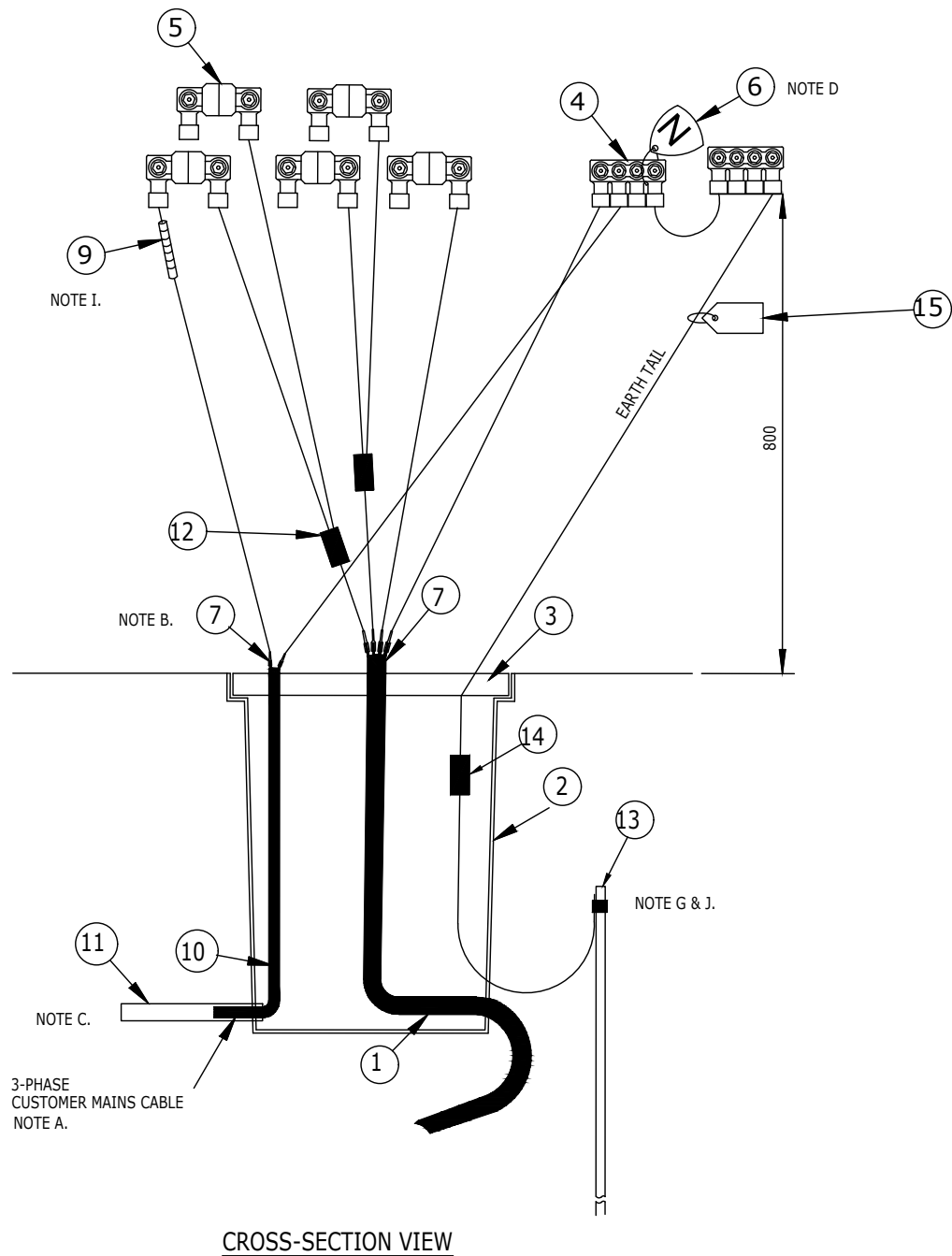
**SERVICE PIT ARRANGEMENT  
UNDERGROUND SERVICE CABLE -  
JOINTING OF TAILS FOR CONNECTION TO OVERHEAD LINE**

ESE504 - LOW VOLTAGE UNDERGROUND DISTRIBUTION  
STANDARD DRAWING

Reference designation:		Drawing function:	
Drawing stamp:	Scale at A3: NTS	Doc type:	
Drawing no: <b>EDE5011-0007</b>	Rev: <b>4</b>	Sheet: 1 of 1	

1 2 3 4 5 6 7 8





**COMPONENT LIST:**

	DESCRIPTION	REFERENCE
1	SERVICE BRANCH CABLE	ESS001
2	SERVICE PIT	ESS001
3	PLASTIC SERVICE PIT LTD	ESS001
4	4 PORT PIT CONNECTOR	ESS001
5	2 PORT FUSED PIT CONNECTOR	ESS001
6	WHITE PLASTIC "TESTED AND APPROVED FOR LIVENING" TAG	ESS001
7	HEAT SHRINK BREAKOUT BOOT	ESS001
8	EARTH ROD OR CONDUCTOR	ESS001
9	CUSTOMER LOCATION DETAIL MARKER	ESS001
10	CUSTOMER MAINS CABLE	ESS001
11	50 mm DUCT	ESS001
12	GEL BOX	ESS001
13	EARTH ROD AND CONNECTOR	ESS001
14	BARRIER LINK	ESS001
15	BURIED EARTH TAG	

**NOTES:**

- A. 1800 mm OF CUSTOMER MAINS CABLE SHALL BE COILED AT THE PIT FOR CONNECTION BY OTHERS.
- B. FOR CABLE BREAKOUT DETAIL REFER TO EDE5011-0005 (NEUTRAL SCREEN) AND EDE5011-0007 (MULTICORE UNSCREENED)
- C. INSTALL DUCT TO JUST INSIDE THE BOUNDARY.
- D. NEUTRAL BLOCKS SHALL BE TIED TOGETHER WITH PLASTIC ZIP TIES
- E. HOT WATER PILOT NOT SHOWN, BUT IS REQUIRED IN ALL PILOT LOAD CONTROL AREAS.
- F. PERMISSIBLE COMBINATIONS OF FUSES AND NEUTRAL CONNECTIONS:  
 6x 1 PHASE  
 5x 1 PHASE  
 4x 1 PHASE + S/L OR MEN CONNECTION  
 2x 3 PHASE + MEN CONNECTION  
 3x 1 PHASE + 3x HW PILOT  
 2x 1 PHASE + 2x HW PILOT + S/L OR MEN CONNECTION  
 1x 3 PHASE + 1x HW PILOT + S/L OR MEN CONNECTION  
 1x 3 PHASE + 1x 1 PHASE + S/L OR MEN CONNECTION
- G. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ESS001 UNDERGROUND LV DISTRIBUTION AND EDE5010-0001 & EDE5010-0002.
- H. A NEUTRAL EARTH SHALL BE INSTALLED AT APPROXIMATELY EVERY THIRD SERVICE PIT OR THE NEAREST PIT TO THIS SPACING WHERE A SPARE NEUTRAL CONNECTOR PORT IS AVAILABLE.
- I. CUSTOMER LOCATION DETAIL MARKER REQUIRED FOR EACH PHASE OF ALL CUSTOMER MAINS.
- J. EARTH RODS MUST BE PLACED GREATER THAN 500mm FROM GAS MAINS

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Rev	Amendments	Date	Name	Consultant	VECTOR	File name:
1	ITEM 15 NOT SHOWN ON DRAWING	10/2007	JB	Author	RM	EDE5011-0008-1.dwg
2	SUPERSEEDS DRAWING NUMBER END-2129	01/12/2017	KV	Auth Date	10/2007	Consultant project no:
				Checked by	DA	Vector project no:
				Chk by date	10/2007	
				Approved by	KE	
				Appr by date	10/2007	



**SERVICE PIT ARRANGEMENT**  
**FOUR TO SIX SINGLE PHASE CUSTOMER CONNECTIONS**

ESE504 - LOW VOLTAGE UNDERGROUND DISTRIBUTION  
 STANDARD DRAWING

Reference designation:		Drawing function:	
Drawing stamp:	Scale at A3: NTS	Rev:	Doc type:
Drawing no: <b>EDE5011-0008</b>		2	Sheet: 1 of 1

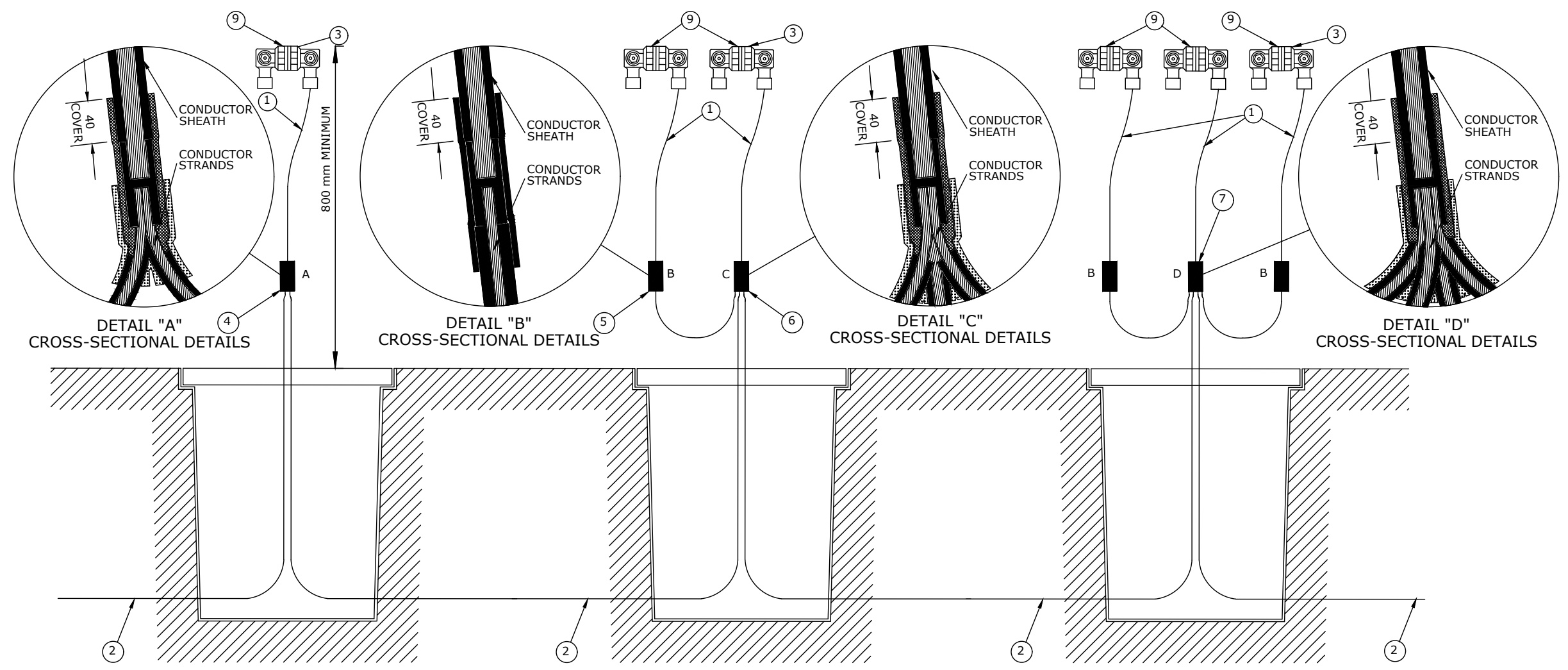
**NOTES:**

A. PILOT FUSES SHARE PIT WITH SERVICE CONNECTIONS

B. PERMISSIBLE COMBINATIONS OF FUSES AND NEUTRAL CONNECTIONS:

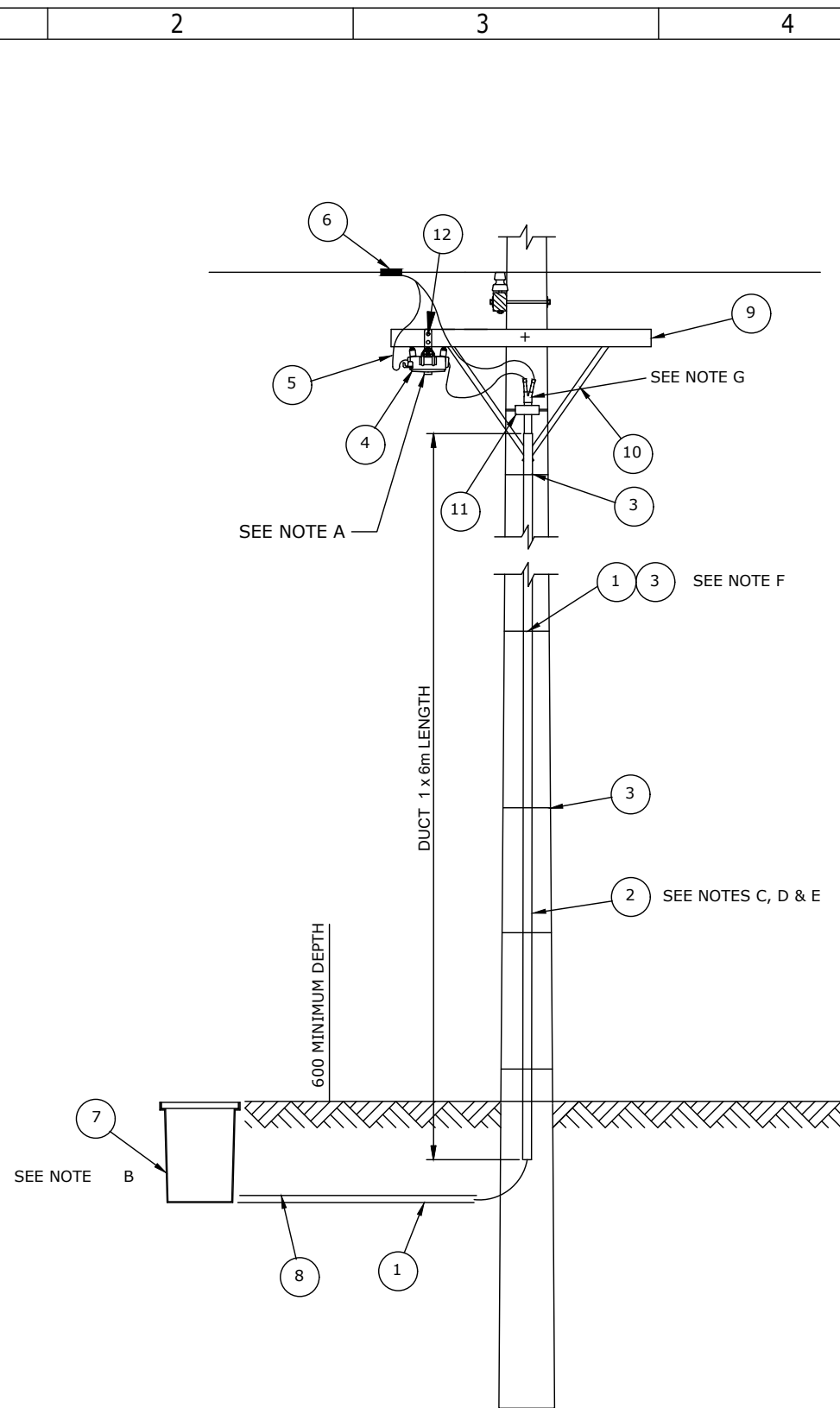
- 6x 1 PHASE
- 5x 1 PHASE
- 4x 1 PHASE + S/L OR MEN CONNECTION
- 2x 3 PHASE + MEN CONNECTION
- 3x 1 PHASE + 3x HW PILOT
- 2x 1 PHASE + 2x HW PILOT + S/L OR MEN CONNECTION
- 1x 3 PHASE + 1x HW PILOT + S/L OR MEN CONNECTION
- 1x 3 PHASE + 1x 1 PHASE + S/L OR MEN CONNECTION

COMPONENT LIST:		REFERENCE
1	CABLE 1c 16 mm <sup>2</sup> COPPER XLPE	ESS001
2	PILOT CABLE 1c 4 mm <sup>2</sup> COPPER PVC/PVC ORANGE	ESS001
3	PIT FUSE AND 10 A FUSE LINK	ESS001
4	BREAKOUT KIT 2w 4-16 mm <sup>2</sup>	ESS001
5	ADEHESIVE LINED SHRINK TUBE AND CONNECTOR 4-16 mm <sup>2</sup> Cu	ESS001
6	BREAKOUT KIT 3w 4-16 mm <sup>2</sup>	ESS001
7	BREAKOUT KIT 4w 4-16 mm <sup>2</sup>	ESS001
8	BREAKOUT KIT 4w 4-16 mm <sup>2</sup>	ESS001
9	LABEL "PILOT"	ESS001



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Rev	Amendments		Date	Name	Consultant	VECTOR	File name:	SERVICE PIT ARRANGEMENT		Reference designation:		Drawing function:	
	1	REPLACES SD-023-130	08/2005	JEG	Author	RSM	EDE5011-0009-1.dwg	TYPICAL DETAILS OF PILOT FUSES		Drawing stamp:		Scale at A3:	Doc type:
	2	FORMATTING CHANGES	11/2005	JEB	Auth Date	18/08/2004	Consultant project no:	ESE504 - LOW VOLTAGE UNDERGROUND DISTRIBUTION		Drawing no:		NTS	
	3	SUPERSEEDS DRAWING NUMBER END-2130	01/12/2017	KV	Checked by	DA	Vector project no:	STANDARD DRAWING		EDE5011-0009		Rev:	Sheet:
				Chk by date	18/08/2004			© Copyright Vector Limited 2012		3		1 of 1	
				Approved by	RM			All rights reserved, unauthorised reproduction prohibited					
				Appr by date	18/08/2004								



**COMPONENT LIST:**

ITEM	DESCRIPTION	REFERENCE
1	SERVICE CABLE	ESS001
2	CABLE DUCT (DIAMETER TO SUIT CABLE x 6m LENGTH)	ESS001
3	STAINLESS STEEL BANDING (FOR ITEMS 1 & 2)	ESS001
4	SERVICE FUSE	ESS001
5	PVC COPPER (SIZE TO SUIT)	ESS001
6	INSULATION PIERCING CONNECTOR (SIZE TO SUIT)	ESS001
7	SERVICE PIT	ESS001
8	POLYMERIC CABLE COVER	ESS001
9	SERVICE ARM	ESS001
10	ARM STRAPS	ESS001
11	CABLE CLEAT	ESS001
12	COACH SCREW M10 x 65 (1)	ESS001

**NOTES:**

- A. FOR UP TO 6 SERVICES INSTALL 100 AMP FUSES
- B. FOR NEW UNDERGROUND SERVICE CONNECTIONS IN AREAS SUPPLIED BY OVERHEAD LV MAINS:  
 (1) WHERE THERE IS A FORMED KERB AND CHANNEL, ALL NEW CONNECTIONS MUST BE VIA AN UNDERGROUND SERVICE PIT.  
 (2) WHERE THERE IS NO FORMED KERB AND CHANNEL, THE CUSTOMER HAS THE OPTION OF AN UNDERGROUND SERVICE PIT ON THE BOUNDARY OR A POLE-TOP TERMINATION.
- C. DUCT TO COMPLY WITH ESS001.
- D. EXTEND DUCT TO 200 mm BELOW GROUND LEVEL AND SECURE TO POLE WITH STAINLESS STEEL BANDING AT 1000 mm INTERVALS MINIMUM OR ON WOODEN POLE SERVICE DUCT MAY BE ATTACHED WITH SADDLES AND 30MM SCREWS AT NOT MORE THAN 1000mm CENTRES.
- E. SECURE DUCT ON FACE OF POLE AWAY FROM DIRECTION OF TRAFFIC FLOW; ON LATTICE TYPE CONCRETE POLES USE LIMB FURTHEST FROM KERB.
- F. POSITION SERVICE CABLE CLEAR OF ALL BOLT HOLES.
- G. ADJUSTABLE "SARDINE CAN" STYLE CLEATS ARE ACCEPTABLE BUT MUST BE PADDED BETWEEN THE CLEAT AND CABLE AT CHANGES IN THE CABLE DIRECTION.

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Rev	Amendments	Date	Name	Consultant	VECTOR	File name:
1	REPLACES SD-009-102	02/2005	JEG	Author	DK	EDE5011-0010-1.dwg
2	FORMATTING CHANGES	11/2005	JEB	Auth Date	07/10/2002	Consultant project no:
3	SUPERSEEDS DRAWING NUMBER END-1102	01/12/2017	KV	Checked by	DA	Vector project no:
				Chk by date	07/10/2002	
				Approved by	KE	
				Appr by date	07/10/2002	



<b>SERVICE PIT ARRANGEMENT DETAILS OF TYPICAL CONNECTIONS TO OVERHEAD LINE</b>		Reference designation:		Drawing function:	
ESE504 - LOW VOLTAGE UNDERGROUND DISTRIBUTION STANDARD DRAWING		Drawing stamp:	Scale at A3: NTS	Doc type:	
		Drawing no: <b>EDE5011-0010</b>	Rev: <b>3</b>	Sheet: 1 of 1	