Network Rail

King's Cross Station Redevelopment Programme

Package 6

GRIP5 CCRF UPDATE

Volume III - Section B4

PA/VA Field Equipment Schedule

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ISSUE/REVISION SCHEDULE

Prepared By Rufus Potter Author

Date: 21/04/11

Checked by Richard Osborne

Checker

Date: 21/04/11

2.2

Approved by Alastair Knights

Approver Date: 21/04/11

Alastor Knight

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1 PAVA SYSTEM FIELD EQUIPMENT SCHEDULE

1.1 SPEAKERS AND SPEAKER PRESENTATION JUNCTION BOXES

Ref No	Location	Level	Building	Speaker Circuit	Tapped At (W)	Amp Time Delay (ms)	I/Vox Delay Time (ms)	Total Delay (ms)	Build	Fixed to	Bracket details	Fixing Height AFFL (mm) (Note 10)	Layout Drawing	Manufacturer		Wire Drawing	Colour Ref.	Weight
001	Footbridge Gridline W19/20 Plat 1	Bridge	MTS	M2/2A	0.1	0.0	240.0	240.0	S4-5	Totem	By Totem designer (5)	2400	KX6-CCP0-1602	Duran Audio	Intellivox DS115 Amp at Bottom	KX6-CCD-2900	RAL 7016 Anthracite Grey	/ 13Kg
002	Footbridge Gridline W19/20 Plat 2&3	Bridge	MTS	M2/2B	0.1	0.0	240.0	240.0	S4-5	Totem	By Totem designer (5)	2400	KX6-CCP0-1602	Duran Audio	Intellivox DS115 Amp at Bottom	KX6-CCD-2900	RAL 7016 Anthracite Grey	/ 13Kg
003	Footbridge Gridline W19/20 Plat 5	Bridge	MTS	M2/5A	0.1	0.0	240.0	240.0	S4-5	Totem	By Totem designer (5)	2400	KX6-CCP0-1602	Duran Audio	Intellivox DS115 Amp at Bottom	KX6-CCD-2900	RAL 7016 Anthracite Grey	/ 13Kg
004	Footbridge Gridline W19/20 Plat 6&7	Bridge	MTS	M2/5B	0.1	0.0	240.0	240.0	S4-5	Totem	By Totem designer (5)	2400	KX6-CCP0-1601	Duran Audio	Intellivox DS115 Amp at Bottom	KX6-CCD-2900	RAL 7016 Anthracite Grey	
102	WCR between C/L & r8 Perimeter Walkway	Ground	WCR	M1/1A	0.1	0.0	103.0	103.0	S2-1	Totem	By Totem designer (5)	2400	WRB-CCP0-2110	Duran Audio	Intellivox DSX280 Amp at Top	KX6-CCD-2900		37Kg
103	WCR at r3/r6 Perimeter Walkway	Ground	WCR	M1/1B	0.1	0.0	66.8	66.8	S2-1	Totem	By Totem designer (5)	2400	WRB-CCP0-2110	Duran Audio	Intellivox DSX280 Amp at Top	KX6-CCD-2900		37Kg
104	WCR at r4 Perimeter Walkway	Ground	WCR	M1/1A	0.1	0.0	51.4	51.4	S2-1	Totem	By Totem designer (5)	2400	WRB-CCP0-2110	Duran Audio	Intellivox DSX280 Amp at Top	KX6-CCD-2900		37Kg
105	Gridline W2/W3	Ground	WCR	M1/1A	3.0	0.0	n/a	0.0	S5-2	Steel Ceiling Panels CLG-54	n/a	3800	WRB-CCPO-2108	Penton	RCS6FTS	KX6-CCD-2901		2Kg
106	Gridline W2/W3	Ground	WCR	M1/1B	3.0	0.0	n/a	0.0	S5-2	Steel Ceiling Panels CLG-54	n/a	3800	WRB-CCPO-2108	Penton	RCS6FTS	KX6-CCD-2901	RAL 9006 (15% Gloss) RAL 9006	2Kg
107	Gridline W3/W4	Ground	WCR	M1/1B	3.0	0.0	n/a	0.0	S5-2	Steel Ceiling Panels CLG-54 Steel Ceiling	n/a	3800	WRB-CCPO-2108	Penton	RCS6FTS	KX6-CCD-2901		2Kg
108	Gridline W3/W4	Ground	WCR	M1/1A	3.0	0.0	n/a	0.0	S5-2	Panels CLG-54 Steel Ceiling	n/a	3800	WRB-CCPO-2108	Penton	RCS6FTS	KX6-CCD-2901		2Kg
109	Gridline W4/W5	Ground	WCR	M1/1A	3.0	0.0	n/a	0.0	S5-2	Panels CLG-54 Steel Ceiling	n/a	3800	WRB-CCPO-2108	Penton	RCS6FTS	KX6-CCD-2901		2Kg
110	Gridline W4/W5	Ground	WCR	M1/1B	3.0	0.0	n/a	0.0	S5-2	Panels CLG-54 Steel Ceiling	n/a	3800	WRB-CCPO-2108	Penton	RCS6FTS	KX6-CCD-2901		2Kg
111	Gridline W5/W6	Ground	WCR	M1/1B	3.0	0.0	n/a	0.0	S5-2	Panels CLG-54 Steel Ceiling	n/a	3800	WRB-CCPO-2108	Penton	RCS6FTS	KX6-CCD-2901		2Kg
112	Gridline W5/W6	Ground	WCR	M1/1A	3.0	0.0	n/a	0.0	S5-2		n/a	3800	WRB-CCPO-2108	Penton	RCS6FTS	KX6-CCD-2901		2Kg
113	Gridline W6/W7	Ground	WCR	M1/1A	3.0	0.0	n/a	0.0	S5-2		n/a	3800	WRB-CCPO-2108	Penton	RCS6FTS	KX6-CCD-2901		2Kg
114	Gridline W6/W7	Ground	WCR	M1/1B	3.0	0.0	n/a	0.0	S5-2	Panels CLG-54 Steel Ceiling	n/a	3800	WRB-CCPO-2108	Penton	RCS6FTS	KX6-CCD-2901		2Kg
115	Gridline W2/W3	Ground	WCR	M1/1B	3.0	0.0	n/a	0.0	S5-2	Panels CLG-54 Steel Ceiling	n/a	3800	WRB-CCPO-2108	Penton	RCS6FTS	KX6-CCD-2901		2Kg
116	Gridline W2/W3	Ground	WCR	M1/1A	3.0	0.0	n/a	0.0	S5-2	Panels CLG-54 Ceiling (Metal	n/a	3800	WRB-CCPO-2108	Penton	RCS6FTS	KX6-CCD-2901		2Kg
123	Gridline W21-W22 (Room 1/33b)) Mezz	WCR	M1/2A	3.0	0.0	n/a	0.0	S5-2	Mesh CLG14) Ceiling (Metal	n/a	4330	WRB-CCP0-2206	Penton	RCS6FTS	KX6-CCD-2901		2Kg
124	Gridline W21-W22 (Room 1/33b)) Mezz	WCR	M1/2B	3.0	0.0	n/a	0.0	S5-2	Mesh CLG14)	n/a	4330	WRB-CCP0-2206	Penton	RCS6FTS	KX6-CCD-2901		2Kg



Ref No	Location	Level	Building	Speaker Circuit	Tapped At (W)	I/Vox Delay Time (ms) Amp Time Delay (ms)	Total Delay (ms)	Build	Fixed to	Bracket details	Fixing Height AFFL (mm) (Note 10)	Layout Drawing	Manufacturer	Model	Wire Drawing	Colour Ref.	Weight
125	Gridline W21-W22 (Room 1/33a)	Mezz	WCR	M1/2A	3.0	0.0 n/a	0.0	S5-2	Ceiling (Metal Mesh CLG14)	n/a	4330	WRB-CCP0-2206	Penton	RCS6FTS	KX6-CCD-2901	RAL 9006 (15% Gloss)	2Kg
126	Above Mezz ground seating area. Row 1 r5/r6	Ground	WCR	M1/4A	5.0	90.6 n/a	90.6	S5-3	Ceiling	n/a	3070	WRB-CCP0-2109	Penton	RCS5FTSCOAX	KX6-CCD-2901	RAL 9010 (30% Gloss)	2Kg
120	Above Mezz ground seating	Ground	VVCIX	IVI I/+/\	3.0	30.0 II/a	30.0	00-0	Centrig	II/a	3070	WIND-CCI 0-2109	i enton	NOODI 1000AX	100-00D-2901	RAL 9010	ZING
127	area. Row 1 r8/r9 Above Mezz ground seating	Ground	WCR	M1/4A	5.0	90.6 n/a	90.6	S5-3	Ceiling	n/a	3070	WRB-CCP0-2110	Penton	RCS5FTSCOAX	KX6-CCD-2901	(30% Gloss) RAL 9010	2Kg
128	area. Row 1 r8/r9	Ground	WCR	M1/4A	5.0	90.6 n/a	90.6	S5-3	Ceiling	n/a	3070	WRB-CCP0-2110	Penton	RCS5FTSCOAX	KX6-CCD-2901	(30% Gloss) RAL 9010	2Kg
129	Above Mezz ground seating area. Row 1 r7/r8	Ground	WCR	M1/4A	5.0	90.6 n/a	90.6	S5-3	Ceiling	n/a	3070	WRB-CCP0-2110	Penton	RCS5FTSCOAX	KX6-CCD-2901	(30% Gloss)	2Kg
130	Above Mezz ground seating area. Row 2 r9/r10	Ground	WCR	M1/4B	5.0	91.4 n/a	91.4	S5-3	Ceiling	n/a	3070	WRB-CCP0-2109	Penton	RCS5FTSCOAX	KX6-CCD-2901	RAL 9010 (30% Gloss)	2Kg
131	Above Mezz ground seating area. Row 2 r8/r9	Ground	WCR	M1/4B	5.0	91.4 n/a	91.4	S5-3	Ceiling	n/a	3070	WRB-CCP0-2110	Penton	RCS5FTSCOAX	KX6-CCD-2901	RAL 9010 (30% Gloss)	2Kg
132	Above Mezz ground seating area. Row 2 r8/r9	Ground	WCR	M1/4B	5.0	91.4 n/a	91.4	S5-3	Ceiling	n/a	3070	WRB-CCP0-2110	Penton	RCS5FTSCOAX	KX6-CCD-2901	RAL 9010 (30% Gloss)	2Kg
133	Above Mezz ground seating area. Row 2 r7/r8	Ground	WCR	M1/4B	5.0	91.4 n/a	91.4	S5-3	Ceiling	n/a	3070	WRB-CCP0-2110	Penton	RCS5FTSCOAX	KX6-CCD-2901	RAL 9010 (30% Gloss)	2Kg
134	Above Mezz ground seating area. Row 3 r9/r10	Ground	WCR	M1/5A	5.0	93.9 n/a	93.9	S5-3	Ceiling	n/a	3070	WRB-CCP0-2109	Penton	RCS5FTSCOAX	KX6-CCD-2901	RAL 9010 (30% Gloss)	2Kg
135	Above Mezz ground seating area. Row 3 r8/r9	Ground	WCR	M1/5A	5.0	93.9 n/a	93.9	S5-3	Ceiling	n/a	3070	WRB-CCP0-2110	Penton	RCS5FTSCOAX	KX6-CCD-2901	RAL 9010 (30% Gloss)	2Kg
136	Above Mezz ground seating area. Row 3 r8/r9	Ground	WCR	M1/5A	5.0	93.9 n/a	93.9	S5-3	Ceiling	n/a	3070	WRB-CCP0-2110	Penton	RCS5FTSCOAX	KX6-CCD-2901	RAL 9010 (30% Gloss)	2Kg
137	Above Mezz ground seating area. Row 3 r8/r9	Ground	WCR	M1/5A	5.0	93.9 n/a	93.9	S5-3	Ceiling	n/a	3070	WRB-CCP0-2110	Penton	RCS5FTSCOAX	KX6-CCD-2901	RAL 9010 (30% Gloss)	2Kg
138	Mezz Balcony, Gridline r4, next to escalator	Mezz	WCR	M1/3A	0.1	106.0 0.0	106.0	0 S4-4	Totem	By Totem designer (5)	2400	WRB-CCP0-2210	Duran Audio	Intellivox DS115 Amp at Top	KX6-CCD-2900	RAL9005 (15% Gloss)	6 13Kg
139	Mezz Balcony, Gridline r5, escalator signage	Mezz	WCR	M1/3B	0.1	106.0 0.0	106 (0 S4-2	Built into Directional signage	Assumed Standard (13)	2400	WRB-CCP0-2210		Intellivox DS115 Amp at Bottom	KX6-CCD-2900	RAL 9006 15% Gloss	6 13Kg
140	Mezz Balcony, Gridline r5/r6, within retail signage	Mezz		M1/3A	0.1			0 S4-2	Built into Retail	Assumed (13) Standard (13)		WRB-CCP0-2210		Intellivox DS115 Amp at Bottom	KX6-CCD-2900	RAL 9006 15% Gloss	
	Mezz Balcony, Gridline r7, within								signage Built into Retail	Assumed				Intellivox DS115		RAL 9006 15%	٥/
141	retail signage Mezz Balcony,Gridline r8, within	Mezz		M1/3B				0 S4-2	signage Built into Retail	Standard (13) Assumed		WRB-CCP0-2210		Amp at Bottom Intellivox DS115	KX6-CCD-2900	Gloss RAL 9006 15%	
142	retail signage Mezz Balcony,Gridline r9, within	Mezz		M1/3A				0 S4-2	signage Built into Retail	Standard (13) Assumed		WRB-CCP0-2210		Amp at Bottom Intellivox DS115	KX6-CCD-2900	Gloss RAL 9006 15%	
143	retail signage Mezz Balcony,Gridline r10,	Mezz		M1/3B		106.0 0.0		0 S4-2	signage Built into Retail	Standard (13) Assumed		WRB-CCP0-2209		Amp at Bottom Intellivox DS115	KX6-CCD-2900	Gloss RAL 9006 15%	
144	within retail signage Mezz Balcony,Gridline r11,	Mezz	WCR	M1/3A	0.1	106.0 0.0	106.0	0 S4-2	signage Built into Retail	Standard (13) Assumed) 2400	WRB-CCP0-2209	Duran Audio	Amp at Bottom Intellivox DS115	KX6-CCD-2900	Gloss RAL 9006 15%	13Kg
145	within retail signage	Mezz	WCR	M1/3B	0.1	106.0 0.0	106.0	0 S4-2	signage Built into	Standard (13)	2400	WRB-CCP0-2209	Duran Audio	Amp at Bottom	KX6-CCD-2900	Gloss	13Kg
146	Mezz Balcony, Gridline r12, escalator signage	Mezz	WCR	M1/3A	0.1	106.0 0.0	106 (0 S4-2	Directional signage	Assumed Standard (13)	2400	WRB-CCP0-2209	Duran Audio	Intellivox DS115 Amp at Bottom	KX6-CCD-2900	RAL 9006 15% Gloss	6 13Kg
	Mezz Bridge Gridline r13, next to									By Totem				Intellivox DSX280		RAL9005 (15%	6
147 148	escalator Mez r/6 above stairs	Mezz Mezz		M1/3B M1/3B				0 S2-1 0 S5-1	Totem Ceiling	designer (5) n/a	2400 2500	WRB-CCP0-2209 WRB-CCP0-2210		Amp at Top RCS6FTS	KX6-CCD-2900 KX6-CCD-2901	Gloss) TBA	37Kg 2Kg



Ref No	Location	Level	Building	Speaker Circuit	Tapped At (W)	Amp Time Delay (ms)	I/Vox Delay Time (ms)	Total Delay (ms)	Build	Fixed to	Bracket details	Fixing Height AFFL (mm) (Note 10)	Layout Drawing	Manufacturer	Model	Wire Drawing	Colour Ref.	Weight
149	Mez r/6 above stairs	Mezz	WCR			106.0		106.0		Ceiling	n/a	2500	WRB-CCP0-2210		RCS6FTS	KX6-CCD-2901		2Kg
150	Mez r/11 above stairs	Mezz	WCR			106.0		106.0			n/a	2500	WRB-CCP0-2209		RCS6FTS	KX6-CCD-2901		2Kg
151	Mez r/11 above stairs	Mezz	WCR			106.0		106.0		Ceiling	n/a	2500	WRB-CCP0-2209		RCS6FTS	KX6-CCD-2901		2Kg
152	Mez r/11 above stairs	Mezz	WCR	M1/3A	3.0	106.0	n/a	106.0	S5-1	Ceiling	n/a	2500	WRB-CCP0-2209	Penton	RCS6FTS	KX6-CCD-2901	TBA	2Kg
160	Gridline W25 G/30 Corridor to public WC Gridline W26 G/30 Corridor to	Ground	WCR	M1/2A	3.0	0.0	n/a	0.0	S5-1	Ceiling	n/a	2350	WRB-CCP0-2105	Penton	RCS6FTS	KX6-CCD-2901	ТВА	2Kg
161	public WC Gridline W27 G/30 Corridor to	Ground	WCR	M1/2B	3.0	0.0	n/a	0.0	S5-1	Ceiling	n/a	2350	WRB-CCP0-2105	Penton	RCS6FTS	KX6-CCD-2901	TBA	2Kg
162	public WC	Ground	WCR	M1/2A	3.0	0.0	n/a	0.0	S5-1	Ceiling	n/a	2350	WRB-CCP0-2105	Penton	RCS6FTS	KX6-CCD-2901	ТВА	2Kg
163	Gridline W27 Room G/30c Baby Change	Ground	WCR	M1/2B	3.0	0.0	n/a	0.0	S5-1	Ceiling	n/a	2350	WRB-CCP0-2105	Penton	RCS6FTS	KX6-CCD-2901	ТВА	2Kg
164	Gridline W25 on outside of STS wall	Ground	WCR	M1/2A	50.0	0.0	0.0	0.0	S8-1	Cladding panel around steel columns	Standard bracket (17)	2350	WRB-CCP0-2106	Duran Audio	Intellivox ADC V90	See Note (16)	TBD	13Kg
170	Gridline R5	Mezz	WCR			106.0		106.0		Ceiling	n/a	2500	WRB-CCP0-2210		RCS6FTS	KX6-CCD-2901	TBA	2Kg
171	Gridline R5	Mezz	WCR			106.0		106.0		Ceiling	n/a	2500	WRB-CCP0-2210		RCS6FTS	KX6-CCD-2901	TBA	2Kg
172 173	Gridline R4 Gridline R5	Mezz Mezz	WCR WCR			106.0 106.0		106.0 106.0		Ceiling Ceiling	n/a n/a	2500 2500	WRB-CCP0-2210 WRB-CCP0-2210		RCS6FTS RCS6FTS	KX6-CCD-2901 KX6-CCD-2901		2Kg 2Kg
174	Gridline R5	Mezz	WCR			106.0		106.0			n/a	2500	WRB-CCP0-2210		RCS6FTS	KX6-CCD-2901		2Kg
175	Gridline R5	Mezz	WCR	M1/3B	3.0	106.0	n/a	106.0	S5-1	Ceiling	n/a	2500	WRB-CCP0-2210	Penton	RCS6FTS	KX6-CCD-2901		2Kg
176	Mez Corridor between C/L & r/8	Mezz	WCR			106.0		106.0			n/a	2500	WRB-CCP0-2210		RCS6FTS	KX6-CCD-2901		2Kg
177	Mez Corridor between C/L & r/8		WCR			106.0		106.0			n/a	2500	WRB-CCP0-2210		RCS6FTS	KX6-CCD-2901		2Kg
178	Mez Corridor between C/L & r/8	Mezz	WCR	M1/3B	3.0	106.0	n/a	106.0	S5-1	Ceiling Totem, 600mm in	n/a By Totem	2500	WRB-CCP0-2210	Penton	RCS6FTS Intellivox DSX280	KX6-CCD-2901	TBA RAL9005 (15%	2Kg
180	Gridline W4, front of G/00b	Ground	WCR	M1/1A	0.1	0.0	0.0	0.0	S2-1	front of wall	designer (5)	2400	WRB-CCP0-2108	Duran Audio	Amp at Top	KX6-CCD-2900	Gloss)	37Kg
181	Gridline W6, front of G/00b	Ground	WCR	M1/1B	0.1	0.0	0.0	0.0	S2-1	Totem, 600mm in front of wall Totem, 600mm in	designer (5)	2400	WRB-CCP0-2108	Duran Audio	Intellivox DSX280 Amp at Top Intellivox DSX280	KX6-CCD-2900	RAL9005 (15% Gloss) RAL9005 (15%	37Kg
182	Gridline W8, front of G/01	Ground	WCR	M1/1A	0.1	0.0	8.4	8.4	S2-1	front of wall	designer (5)	2400	WRB-CCP0-2107	Duran Audio	Amp at Top	KX6-CCD-2900	Gloss)	37Kg
183	Gridline W11, front of G/11	Ground	WCR	M1/1B	0.1	0.0	27.5	27.5	S2-1	Totem, 600mm in front of wall Totem, 600mm in	designer (5)	2400	WRB-CCP0-2107	Duran Audio	Intellivox DSX280 Amp at Top Intellivox DSX280	KX6-CCD-2900	RAL9005 (15% Gloss) RAL9005 (15%	37Kg
184	Gridline W14, front of G/11	Ground	WCR	M1/1A	0.1	0.0	29.9	29.9	S2-1		designer (5)	2400	WRB-CCP0-2107	Duran Audio	Amp at Top Intellivox DSX280	KX6-CCD-2900		37Kg
185	Gridline W17, front of G/16	Ground	WCR	M1/1B	0.1	0.0	12.4	12.4	S2-1	1	designer (5)	2400	WRB-CCP0-2107	Duran Audio		KX6-CCD-2900		37Kg
186	Gridline W19, front of G/16a	Ground	WCR	M1/1A	0.1	0.0	0.0	0.0	S2-1		designer (5)	2400	WRB-CCP0-2106	Duran Audio	Amp at Top Intellivox DSX280	KX6-CCD-2900		37Kg
187	Gridline W21, front of G/21	Ground	WCR	M1/1B	0.1	0.0	0.0	0.0	S2-1	front of wall	designer (5) By Totem	2400	WRB-CCP0-2106	Duran Audio	Amp at Top Intellivox DSX280	KX6-CCD-2900		37Kg
188	Gridline W23, front of G/24 Gridline W24, on steel column at	t			0.1	0.0			S2-1	front of wall	designer (5) By Totem		WRB-CCP0-2106	Duran Audio	Amp at Top Intellivox DS115	KX6-CCD-2900		37Kg
189	r16 Gridline W25-W26 at W end of		WCR	M1/2B	0.1	0.0	0.0	0.0	S4-3	Totem	designer (5)	2400	WRB-CCP0-2106	Duran Audio	Amp at Top Intellivox DS115	KX6-CCD-2900	Gloss) -tbc	13Kg
190	Pub Balcony	First	WCR	M1/2A	0.1	0.0	0.0	0.0	S4-3	Totem	By Totem designer (5)	2400	WRB-CCP0-2206	Duran Audio	Amp at Top Intellivox DS115	KX6-CCD-2900	RAL9005 (15% Gloss) -tbc RAL9005 (15%	13Kg
191	Totem in front of GNH at R3	Ground	WCR	M1/1B	0.1	0.0	40.0	40.0	S4-7	Totem	By Totem designer (5)	2400	WRB-CCP0-2206	Duran Audio		KX6-CCD-2900	Gloss)	13Kg



P8 West Wall @ gridline 26 Ground MTS M2/58 D.1 D.0 32-D	RAL7016 (30% Gloss) RAL7016 (30% Gloss) RAL7016 (30% Gloss) RAL 7016 (30% Anthracite Grey RAL 7016 (30% Gloss) RAL7016 (30% Gloss) RAL7016 (30% Gloss) RAL7016 (30% Gloss) RAL7016 (30% Gloss)	19Kg % 19Kg % 19Kg % 19Kg ey 13Kg ey 13Kg % 19Kg % 44Kg
P5 Spine Wall @ Gridline 29 Ground MTS M2/5A O.1 O.0 367	RAL7016 (30% Gloss) RAL7016 (30% Gloss) RAL7016 (30% Gloss) RAL 7016 (30% Anthracite Grey RAL 7016 (30% Gloss) RAL7016 (30% Gloss) RAL7016 (30% Gloss) RAL7016 (30% Gloss) RAL7016 (30% Gloss)	% 19Kg % 19Kg % 19Kg ey 13Kg ey 13Kg % 19Kg % 44Kg
P5 Spine Wall @ Gridline 29 Ground MTS M2/5A O.1 O.0 367.0 367.0 367.0 367.0 367.0 367.0 367.0 367.0 367.0 367.0 367.0 367.0 367.0 367.0 367.0 368	Gloss) RAL7016 (30% Gloss) RAL7016 (30% Gloss) RAL 7016 Anthracite Grey RAL 7016 Anthracite Grey RAL7016 (30% Gloss) RAL7016 (30% Gloss) RAL7016 (30% Gloss) RAL7016 (30%	19Kg 19Kg 19Kg 19Kg ey 13Kg 19Kg 19Kg 44Kg
203 P4 Spine Wall @ Gridline 29 Ground MTS M2/2A 0.1 0.0 368.0	Gloss RAL7016 (30% Gloss RAL 7016 (30% Anthracite Grey RAL 7016 Anthracite Grey RAL7016 (30% Gloss RAL7016 (30% Gloss RAL7016 (30% RAL7016 (30% RAL7016 (30% RAL7016 (30% RAL7016 (30% RAL7016 (30%	19Kg 19Kg ey 13Kg ey 13Kg % 19Kg 44Kg
P1 East Wall @ Gridline 26 Ground MTS M2/2B D.1 D.0 324.0 324.0 S3-2 Wall Assumed Standard (6) 2400 KX6-CCP0-2506 Duran Audio Amp at rear KX6-CCD-290 Intellivox DS180 Amp at rear KX6-CCD-290 Nature of the purple	RAL7016 (30%) Gloss) RAL 7016 Anthracite Grey RAL 7016 Anthracite Grey RAL7016 (30%) Gloss) RAL7016 (30%) Gloss) RAL7016 (30%) RAL7016 (30%)	% 19Kg ey 13Kg ey 13Kg % 19Kg % 44Kg
P1 East Wall @ Gridline 26	RAL 7016 Anthracite Grey RAL 7016 Anthracite Grey RAL 7016 Anthracite Grey RAL7016 (30% Gloss) RAL7016 (30% Gloss) RAL7016 (30%	19Kg ey 13Kg ey 13Kg % 19Kg % 44Kg
Cop. P2 track bed Gridline 0, South Façade. Operation	Anthracite Grey RAL 7016 Anthracite Grey RAL7016 (30% Gloss) RAL7016 (30% Gloss) RAL7016 (30% RAL7016 (30%	ey 13Kg ey 13Kg % 19Kg % 44Kg
Opp. P7 track bed Gridline 0, South Façade. Ground MTS M2/4B 0.1 0.0 0.0 0.0 S4-6 Southern Facade Standard (6) 2400 KX6-CCP0-2506 Duran Audio Amp at Back KX6-CCD-290 Intellivox DS180 Amp at Top KX6-CCD-290 Intellivox DS180 Intellivox DS180 Intellivox DS180 Intellivox DS180 Intellivox DS180 Intellivox	RAL 7016 Anthracite Grey RAL7016 (30% Gloss) RAL7016 (30% Gloss) RAL7016 (30%	ey 13Kg % 19Kg % 44Kg
206 South Façade. Ground MTS M2/4B 0.1 0.0 0	Anthracite Grey RAL7016 (30% Gloss) RAL7016 (30% Gloss) RAL7016 (30% RAL7016 (30%	% 19Kg % 44Kg
210 P8 West Wall @ gridline6 Ground MTS M2/4B 0.1 0.0 60.0 60.0 53-2 Wall Assumed Standard (6) 2400 KX6-CCP0-2506 Duran Audio Amp at Top KX6-CCD-290 Intellivox DS500 Amp at rear KX6-CCD-290 Intellivox DS500 M7 M2/4B	RAL7016 (30%) Gloss) RAL7016 (30%) Gloss) RAL7016 (30%)	% 19Kg % 44Kg
P8 West Wall @ gridline 6	Gloss) RAL7016 (30% Gloss) RAL7016 (30%	19Kg % 44Kg
P1 Gridline 0, South Façade, buffer end Ground MTS M2/1B 0.1 0.0 0.0 0.0 0.0 S1-1 Wall Standard (6) 2400 KX6-CCP0-2500 Duran Audio Amp at rear KX6-CCD-290 MTS M2/1B MTS M	RAL7016 (30%) Gloss) RAL7016 (30%)	% 44Kg
211 buffer end Ground MTS M2/1B 0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.1 Wall Standard (6) 2400 KX6-CCP0-2500 Duran Audio Amp at rear KX6-CCD-2900 Intellivox DS500 Inte	Gloss) RAL7016 (30%	44Kg
P2/3 Gridline 0, South Façade, buffer end Duran Audio Duran Audio Amp at rear KX6-CCD-290 Assumed Standard (6) 2400 KX6-CCP0-2500 Duran Audio Amp at rear KX6-CCD-290 Assumed Standard (6) 2400 KX6-CCP0-2500 Duran Audio Amp at rear KX6-CCD-290 Assumed Assumed Standard (6) 2400 KX6-CCP0-2500 Duran Audio Amp at rear KX6-CCD-290 And Amp at rear KX6-CCD-290 Duran Audio Amp at rear Assumed As	RAL7016 (30%	
Duran Audio Amp at rear KX6-CCD-290 Assumed Amp at rear KX6-CCD-290 Assumed Amp at rear KX6-CCD-290 Amp at rear KX6-CCD-290 Amp at rear KX6-CCD-290 Amp at rear Amp at r		
P4 Gridline 0, South Façade, buffer end Ground MTS M2/1A 0.1 0.0 0.0 0.0 0.0 S1-1 Wall Standard (6) 2400 KX6-CCP0-2500 Duran Audio Amp at rear KX6-CCD-2900 Intellivox DS500 Amp at rear KX6-CCD-2900 Intellivox DS500 Intellivox DS500 Intellivox DS500 MTS M2/4A 0.1 0.0 0.0 0.0 S1-1 Wall Standard (6) 2400 KX6-CCP0-2506 Duran Audio Amp at rear KX6-CCD-2900 Intellivox DS500 I		44Kg
213 buffer end Ground MTS M2/1A 0.1 0.0	RAL7016 (30%	
214		44Kg
P6/7 Gridline 0, South Façade, Duran Audio Duran Audio Duran Audio Duran Audio Amp at rear KX6-CCD-290	RAL7016 (30%	
215		44Kg
P8 Gridline 0, South Façade, buffer end Ground MTS M2/4A 0.1 0.0 0.0 0.0 S1-1 Wall Standard (6) 2400 KX6-CCP0-2506 Duran Audio Amp at rear KX6-CCD-290 Assumed Intellivox DS500 Assumed Intellivox DS500 Assumed Standard (6) 2400 KX6-CCP0-2507 Duran Audio Amp at rear KX6-CCD-290 Assumed Intellivox DS500 Intellivox DS500 Assumed Intellivox DS500 Intellivox DS500 Assumed Intellivox DS500 Inte	RAL7016 (30%	
216 buffer end Ground MTS M2/4A 0.1 0.0 0.0 0.0 0.0 0.0 S1-1 Wall Standard (6) 2400 KX6-CCP0-2506 Duran Audio Amp at rear KX6-CCD-2900	Gloss) RAL7016 (30%	44Kg
217 P8 West wall Gridline 10 Ground MTS M2/4A 0.1 0.0 109.0 109.0 S1-1 Wall Standard (6) 2400 KX6-CCP0-2507 Duran Audio Amp at rear KX6-CCD-290 Assumed Intellivox DS500		44Kg
217 P8 West wall Gridline 10 Ground MTS M2/4A 0.1 0.0 109.0 109.0 S1-1 Wall Standard (6) 2400 KX6-CCP0-2507 Duran Audio Amp at rear KX6-CCD-290 Assumed Intellivox DS500	RAL7016 (30%	
Assumed Intellivox DS500		44Kg
	RAL7016 (30%	
218 P5 Spine wall Gridline 9 Ground MTS M2/4B 0.1 0.0 85.0 85.0 S1-1 Wall Standard (6) 2400 KX6-CCP0-2501 Duran Audio Amp at rear KX6-CCD-290		44Kg
Assumed Intellivox DS500	RAL7016 (30%	
219 P4 Spine wall Gridline 9 Ground MTS M2/1A 0.1 0.0 84.0 84.0 S1-1 Wall Standard (6) 2400 KX6-CCP0-2501 Duran Audio Amp at rear KX6-CCD-290		44Kg
Assumed Intellivox DS500 Intellivox Intellivox DS500 Intellivox DS500 Intellivox In	RAL7016 (30%	
220 P1 East wall Gridline 10 Ground MTS M2/1A 0.1 0.0 104.0 104.0 S1-1 Wall Standard (6) 2400 KX6-CCP0-2501 Duran Audio Amp at rear KX6-CCD-290 Assumed Intellivox DS500	Gloss) RAL7016 (30%)	44Kg
221 P1 East Wall at gridline 22 Ground MTS M2/2A 0.1 0.0 262.0 262.0 S1-1 Wall Standard (6) 2400 KX6-CCP0-2502 Duran Audio Amp at rear KX6-CCD-290	Gloss)	44Kg
Assumed Intellivox DS500	RAL7016 (30%	%
222 P4 Spine wall at gridline 24 Ground MTS M2/2B 0.1 0.0 290.0 290.0 S1-1 Wall Standard (6) 2400 KX6-CCP0-2502 Duran Audio Amp at rear KX6-CCD-290		44Kg
Assumed Intellivox DS500	RAL7016 (30%	
223 P5 Spine wall at gridline 24 Ground MTS M2/5B 0.1 0.0 290.0 290.0 S1-1 Wall Standard (6) 2400 KX6-CCP0-2502 Duran Audio Amp at rear KX6-CCD-290		44Kg
Assumed Intellivox DS500	RAL7016 (30%	
224 P8 West wall at gridline 22 Ground MTS M2/4A 0.1 0.0 263.0 263.0 S1-1 Wall Standard (6) 2400 KX6-CCP0-2508 Duran Audio Amp at rear KX6-CCD-290) Gloss)	44Kg
225 Gridline W28 Male WC Ground WRB M2/7B 3.0 0.0 n/a 0.0 S5-1 Ceiling n/a 2350 WRB-CCP0-2105 Penton RCS6FTS KX6-CCD-290		2Kg
226 Gridline W29 Male WC Ground WRB M2/7A 3.0 0.0 n/a 0.0 S5-1 Ceiling n/a 2350 WRB-CCP0-2105 Penton RCS6FTS KX6-CCD-290	TBA	2Kg
227 Gridline W29 Male WC Ground WRB M2/7B 3.0 0.0 n/a 0.0 S5-1 Ceiling n/a 2350 WRB-CCP0-2105 Penton RCS6FTS KX6-CCD-290 Gridline W30 Male WC Ground WRB M2/7A 3.0 0.0 n/a 0.0 S5-1 Ceiling n/a 2350 WRB-CCP0-2105 Penton RCS6FTS KX6-CCD-290 KX6-CCD-290 M28 Gridline W30 Male WC Ground WRB M2/7A 3.0 0.0 n/a 0.0 S5-1 Ceiling n/a 2350 WRB-CCP0-2105 Penton RCS6FTS KX6-CCD-290 M28 M2/7A M290 M290 M290 M290 M290 M290 M290 M290	TBA TBA	
228 Gridline W30 Male WC Ground WRB M2/7A 3.0 0.0 n/a 0.0 S5-1 Ceiling n/a 2350 WRB-CCP0-2105 Penton RCS6FTS KX6-CCD-290 Assumed Intellivox DS500	TBA TBA TBA	2Kg
229 P1 East wall at Gridline 30 Ground MTS M2/2A 0.1 0.0 368.0 368.0 S1-1 Wall Standard (6) 2400 KX6-CCP0-2503 Duran Audio Amp at rear KX6-CCD-290	TBA TBA TBA	2Kg 2Kg



Ref No	Location	Level	Building	Speaker Circuit	Tapped At (W)	Amp Time Delay (ms)	I/Vox Delay Time (ms)	Total Delay (ms)	Build	Fixed to	Bracket details	Fixing Height AFFL (mm) (Note 10)	Layout Drawing	Manufacturer	Model	Wire Drawing	Colour Ref.	Weight
230	Gridline W28 WC Entrance Room G/29	Ground	WCR	M2/7A	3.0	0.0	n/a	0.0	S5-1	Ceiling	n/a	2350	WRB-CCP0-2105	Penton	RCS6FTS	KX6-CCD-2901	ТВА	2Kg
200	1.100 9,20	O COUNTRY OF THE PROPERTY OF T	11011	1012,777	0.0	0.0	1.,, 0	0.0	00 .	Johning	Assumed	2000	11112 001 02100	1 011.011	Intellivox DS500	10.0000000	RAL7016 (30%	
231	P4 Spine wall at Gridline 32	Ground	MTS	M2/2B	0.1	0.0	402.0	402.0	0 S1-1	Wall	Standard (6) Assumed	2400	KX6-CCP0-2503	Duran Audio	Amp at rear Intellivox DS500	KX6-CCD-2900	Gloss) RAL7016 (30%	44Kg
232	P5 Spine wall at Gridline 32	Ground	MTS	M2/5B	0.1	0.0	403.0	403.0	0 S1-1	Wall	Standard (6)	2400	KX6-CCP0-2503	Duran Audio	Amp at rear	KX6-CCD-2900	Gloss)	44Kg
	Gridline W28 WC Entrance			1112,02		0.0	100.0		<u> </u>	11.0	(0)		1.0.10 00.10 2000	2 0.0	r imp at roa.	1 4 6 6 6 2 2 6 6 6	0.000)	
233	Room G/29	Ground	WCR	M2/7B	3.0	0.0	n/a	0.0	S5-1	Ceiling	n/a	2350	WRB-CCP0-2105	Penton	RCS6FTS	KX6-CCD-2901	TBA	2Kg
											Assumed				Intellivox DS500		RAL7016 (30%	
234	P8 West wall at Gridline 30	Ground	MTS	M2/5A	0.1	0.0	369.0	369.0	0 S1-1	Wall	Standard (6)	2400	KX6-CCP0-2509	Duran Audio	Amp at rear	KX6-CCD-2900	Gloss)	44Kg
005	D4 Factorally at October 200	0	NATO	N 40 /0 A	0.4	0.0	540.0	E40.	0000) A / - II	Assumed	0.400	16V0 00D0 0504	D A .!'.	Intellivox DS180	14V0 00D 0000	RAL7016 (30%	
235	P1 East wall at Gridline 38	Ground	MTS	M2/2A	0.1	0.0	518.0	518.0	0 S3-2	Wall	Standard (6)	2400	KX6-CCP0-2504	Duran Audio	Amp at Top	KX6-CCD-2900	Gloss)	19Kg
236	Gridline W28 Disabled WC Room G/29	Ground	WCR	M2/7A	3.0	0.0	n/a	0.0	S5-1	Ceiling	n/a	2350	WRB-CCP0-2105	Penton	RCS6FTS	KX6-CCD-2901	ТВА	2Kg
200	Room G/25	Oround	VVOIX	IVIZ/TA	0.0	0.0	TI/A	0.0	00 1	Ocining	Assumed	2000	WIND COLUZIOS	1 CHIOH	Intellivox DS180	1000 000 2001	RAL7016 (30%	
237	P4 Spine wall Gridline 38	Ground	MTS	M2/2A	0.1	0.0	488.0	488.0	0 S3-2	Wall	Standard (6)	2400	KX6-CCP0-2504	Duran Audio	Amp at Top	KX6-CCD-2900	Gloss)	19Kg
											Assumed				Intellivox DS180		RAL7016 (30%	
238	P5 Spine wall Gridline 38	Ground	MTS	M2/5A	0.1	0.0	487.0	487.0	0 S3-2	Wall	Standard (6)	2400	KX6-CCP0-2510	Duran Audio	Amp at Top	KX6-CCD-2900	Gloss)	19Kg
											Assumed				Intellivox DS180		RAL7016 (30%	
239	P8 West Wall @ gridline 35	Ground	MTS	M2/5B	0.1	0.0	470.0	470.0	0 S3-2	Wall	Standard (6)	2400	KX6-CCP0-2509	Duran Audio	Amp at Top	KX6-CCD-2900	Gloss)	19Kg
0.40	D0.144			N 40 /5 A	0.4	0.0	504.0	504	000		Assumed	0.400	14)/0.0000.0540		Intellivox DS180	10/0 000 0000	RAL7016 (30%	
240	P8 West Wall Gridline 39	Ground	MTS WRB	M2/5A M2/7A		0.0			0 S3-2	Wall Ceiling	Standard (6)	2400	KX6-CCP0-2510		Amp at Top RCS6FTS	KX6-CCD-2900	Gloss) TBA	19Kg
241 242	Gridline W28 Female WC Gridline W29 Female WC	Ground Ground		M2/7A M2/7A		0.0		0.0	S5-1 S5-1	Ceiling	n/a n/a	2350 2350	WRB-CCP0-2105 WRB-CCP0-2105	Penton Penton	RCS6FTS	KX6-CCD-2901 KX6-CCD-2901	TBA	2Kg 2Kg
243	Gridline W29 Female WC	Ground	WRB	M2/7B		0.0		0.0	S5-1	Ceiling	n/a	2350	WRB-CCP0-2105	Penton	RCS6FTS	KX6-CCD-2901	TBA	2Kg
244	Gridline W30 Female WC	Ground	WRB	M2/7A		0.0		0.0	S5-1	Ceiling	n/a	2350	WRB-CCP0-2105	Penton	RCS6FTS	KX6-CCD-2901	TBA	2Kg
	Gridline W28 Disabled WC	O. Garra	11112	1012///	0.0	0.0	1,,,,	0.0		Johning	11,4	2000	11112 001 02100	1 011.011	1.000110	1010 002 2001	1.57.	
246	Room G/29	Ground	WRB	M2/7B	3.0	0.0	n/a	0.0	S5-1	Ceiling	n/a	2350	WRB-CCP0-2105	Penton	RCS6FTS	KX6-CCD-2901	TBA	2Kg
											By Totem				Intellivox DS180		RAL 7016	
247	P2/3, Gridline7, Column	Ground	MTS	M2/1A	0.1	0.0	78.0	78.0	S3-4	Totem	designer (5)	2400	KX6-CCP0-2500	Duran Audio		KX6-CCD-2900	(30% Gloss)	19Kg
											By Totem				Intellivox DS180		RAL 7016	
248	P2/3 Gridline11, Column	Ground	MTS	M2/1B	0.1	0.0	139.0	139.0	0 S3-4	Totem	designer (5)	2400	KX6-CCP0-2501	Duran Audio		KX6-CCD-2900	(30% Gloss)	19Kg
240	D2/2 Cridling 14 Column	Cround	MTC	MO/4 A	0.1	0.0	177.0	177 (0 62 4	Totom	By Totem	2400	KVG CCD0 2504	Duran Audia	Intellivox DS180	KAC CCD 3000	RAL 7016	101/0
249	P2/3 Gridline14, Column	Ground	MTS	M2/1A	0.1	0.0	177.0	1//.0	0 S3-4	Totem Lift MIP4 - North	designer (5)	2400	KX6-CCP0-2501	Duran Audio	Amp at 10p	KX6-CCD-2900	(30% Gloss)	19Kg
										face, Eastern	Assumed				Intellivox DS180			
250	P2 Gridline 18, East Side of lift	Ground	MTS	M2/2B	0.1	0.0	241.0	241.0	0 S3-3	edge	Standard (11)	2400	KX6-CCP0-2502	Duran Audio	Amp at Top	KX6-CCD-2900	TBA	19Kg
	, , , , , , , , , , , , , , , , , , , ,					1				Lift MIP4 - North			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		тин тор			100.0
										face, Western	Assumed				Intellivox DS180			
251	P3, Gridline 18, West Side of lift	Ground	MTS	M2/1A	0.1	0.0	239.0	239.0	0 S3-3	edge	Standard (11)	2400	KX6-CCP0-2502	Duran Audio	Amp at Top	KX6-CCD-2900	TBA	19Kg
050	D0/0 0 : #: 05 0 :			140/05		0.0	040 -	0.4.0	000 1	- .	By Totem	0.400	10/0 0050 050		Intellivox DS180	10/0 005 005	RAL 7016	4016
252	P2/3 Gridline25, Column	Ground	MTS	M2/2B	0.1	0.0	319.0	319.0	0 S3-4	Totem	designer (5)	2400	KX6-CCP0-2502	Duran Audio		KX6-CCD-2900	(30% Gloss)	19Kg
252	D2/2 Cridling 28 Column	Cround	MTC	M2/2 A	0.4	0.0	255.0	255 (0 62 4	Totom	By Totem	2400	KV6 CCD0 2502	Duran Audia	Intellivox DS180	KA8 CCD 3000	RAL 7016	101/~
253	P2/3 Gridline28, Column	Ground	MTS	M2/2A	0.1	0.0	JJJ.U	JJJ.(0 S3-4	Totem	designer (5) By Totem	2400	KX6-CCP0-2502	Duran Audio	Intellivox DS180	KX6-CCD-2900	(30% Gloss) RAL 7016	19Kg
254	P2/3 Gridline31, Column	Ground	MTS	M2/2B	0.1	0.0	397 0	397 (0 S3-4	Totem	designer (5)	2400	KX6-CCP0-2503	Duran Audio		KX6-CCD-2900	(30% Gloss)	19Kg
	. 270 Gramico I, Column	Siouria	10110	1712/20	0.1	0.0	557.0	001.0	0 00 4	100011	By Totem	2-700	100000102000	Daran Addio	Intellivox DS180	1000 000-2000	RAL 7016	Torky
255	P2/3 Gridline34, Column	Ground	MTS	M2/2A	0.1	0.0	444.0	444.0	0 S3-4	Totem	designer (5)	2400	KX6-CCP0-2503	Duran Audio	Amp at Top	KX6-CCD-2900	(30% Gloss)	19Kg



Ref No	Location	Level	Building	Speaker Circuit	Tapped At (W)	Amp Time Delay (ms)	I/Vox Delay Time (ms)	Total Delay (ms)	Build	Fixed to	Bracket details	Fixing Height AFFL (mm) (Note 10)	Layout Drawing	Manufacturer	Model	Wire Drawing	Colour Ref.	Weight
256	P2/3 Gridline37, Column	Ground	MTS	M2/2B	0.1	0.0	495.0	495 (S3-4	Totem	By Totem designer (5)	2400	KX6-CCP0-2503	Duran Audio	Intellivox DS180 Amp at Top	KX6-CCD-2900	RAL 7016 (30% Gloss)	19Kg
200	1 2/0 Gridinioo7, Goldinii	Ground	10110	IVIZ/ZB	0.1	0.0	100.0	100.0	, 00 1	Totom	By Totem	2 100	1000 001 0 2000	Daran Madio	Intellivox DS180	10.00 000 2000	RAL 7016	Tortg
257	P6/7 Gridline7, Column	Ground	MTS	M2/4A	0.1	0.0	77.0	77.0	S3-4	Totem	designer (5)	2400	KX6-CCP0-2506	Duran Audio	Amp at Top	KX6-CCD-2900	(30% Gloss)	19Kg
	50/5 0 : 111 44 0 1			140/45							By Totem	0.400	10/0 0000 0000		Intellivox DS180	10/0 000 0000	RAL 7016	4016
258	P6/7 Gridline11, Column	Ground	MTS	M2/4B	0.1	0.0	144.0	144.0) S3-4	Totem	designer (5)	2400	KX6-CCP0-2507	Duran Audio	Amp at Top	KX6-CCD-2900	(30% Gloss)	19Kg
259	P6/7 Gridline14, Column	Ground	MTS	M2/4A	0.1	0.0	180 0	180 (S3-4	Totem	By Totem designer (5)	2400	KX6-CCP0-2507	Duran Audio	Intellivox DS180	KX6-CCD-2900	RAL 7016 (30% Gloss)	19Kg
200	1 6/1 Gridine 14, Column	Ground	IVITO	IVIZ/4/\	0.1	0.0	103.0	103.0	700-4	Lift MIP6 - North	designer (5)	2400	100-001 0-2301	Duran Addio	Amp at 10p	100-00D-2300	(30 / 00033)	1310
										face, Eastern	Assumed				Intellivox DS180			
260	P6, Gridline 18, East Side of lift	Ground	MTS	M2/5B	0.1	0.0	242.0	242.0	S3-3	edge	Standard (11)	2400	KX6-CCP0-2508	Duran Audio	Amp at Top	KX6-CCD-2900	TBA	19Kg
										Lift MIP6 - North								
004	DZ Oridlin a 40 Maat Cida at lift	0	NATO	N40/4A	0.4	0.0	0440	0446	000	face, Western	Assumed	0.400	I/VC CCD0 0500	D A	Intellivox DS180	KVC CCD 2000	TD 4	4016-
261	P7 Gridline 18, West Side of lift	Ground	MTS	M2/4A	0.1	0.0	244.0	244.0	0 53-3	edge	Standard (11) By Totem	2400	KX6-CCP0-2508	Duran Audio	Amp at Top Intellivox DS180	KX6-CCD-2900	TBA RAL 7016	19Kg
262	P6/7 Gridline25, Column	Ground	MTS	M2/5B	0.1	0.0	320.0	320 (S3-4	Totem	designer (5)	2400	KX6-CCP0-2508	Duran Audio	Amp at Top	KX6-CCD-2900	(30% Gloss)	19Kg
202	i e, r eriamieze, eeiariii	Ground		14.2,02	0	0.0	020.0	020.0		Totom	By Totem	2.00	10.00 00.0 2000	Daran / taalo	Intellivox DS180	1.0.0000 2000	RAL 7016	10119
263	P6/7 Gridline28, Column	Ground	MTS	M2/5A	0.1	0.0	353.0	353.0	S3-4	Totem	designer (5)	2400	KX6-CCP0-2508	Duran Audio	Amp at Top	KX6-CCD-2900	(30% Gloss)	19Kg
											By Totem				Intellivox DS180		RAL 7016	
264	P6/7 Gridline31, Column	Ground	MTS	M2/5B	0.1	0.0	398.0	398.0) S3-4	Totem	designer (5)	2400	KX6-CCP0-2509	Duran Audio	Amp at Top	KX6-CCD-2900	(30% Gloss)	19Kg
265	D6/7 Cridling 24 Column	Cround	MTS	M2/5A	0.1	0.0	443.0	112 (0 62 4	Totom	By Totem	2400	KX6-CCP0-2509	Duran Audio	Intellivox DS180	KX6-CCD-2900	RAL 7016 (30% Gloss)	19Kg
265	P6/7 Gridline34, Column	Ground	IVIIS	IVIZ/3A	0.1	0.0	443.0	443.0	33-4	Totem	designer (5) By Totem	2400	KA6-CCP0-2509	Duran Audio	Intellivox DS180	KA6-CCD-2900	RAL 7016	Taky
266	P6/7 Gridline37, Column	Ground	MTS	M2/5B	0.1	0.0	495.0	495.0	S3-4	Totem	designer (5)	2400	KX6-CCP0-2509	Duran Audio	Amp at Top	KX6-CCD-2900	(30% Gloss)	19Kg
	,										Assumed				'			
267	Gridline W31 G/32c Access Way	Ground	MTS	M2/7B	10.0	0.0	n/a	0.0	S7-1	Wall		2400	WRB-CCP0-2105	Penton	MCS20	KX6-CCD-2902	TBA	3Kg
					400		,		0- 4		Assumed	0.400	WDD 00D0 0405	_		10/0 000 0000		014
268	Gridline W31 G/32c Access Way	Ground	MTS	M2/7A	10.0	0.0	n/a	0.0	S7-1	Wall	Standard (6)	2400	WRB-CCP0-2105		MCS20	KX6-CCD-2902	TBA	3Kg
269	P1 East Wall @ Gridline 35	Ground	MTS	M2/2B	0.1	0.0	476.0	476 C	153-2	Wall	Assumed Standard (6)	2400	KX6-CCP0-2503	Duran Audio	Intellivox DS180	KX6-CCD-2900	RAL7016 (30% Gloss)	/o 19Kg
200	1 1 Edst Wall & Challing 60	Ground	IVITO	IVIZ/ZD	0.1	0.0	470.0	770.0	002	vvan	Assumed	2400	1000 001 0 2000	Daran Addio	Timp at Top	10.00 000 2000	0.000)	Tortg
270	P1 Lighting column 2	Ground	MTS	M2/3B	10.0	680.0	n/a	680.0	S6-1	Lamp Post	Standard	3000	KX6-CCP0-2504	DNH	CAP-15 WT	KX6-CCD-2903	RAL 7016	2Kg
											Assumed							
271	P1 Lighting column 3	Ground	MTS	M2/3A	10.0	680.0	n/a	680.0	S6-1	Lamp Post	Standard	3000	KX6-CCP0-2504	DNH	CAP-15 WT	KX6-CCD-2903	RAL 7016	2Kg
070	D4 Lighting a sharps 4	0	NATO	MO/OD	40.0	000.0	/	000	0004	Laman Dant	Assumed	2000	KVC 0000 0504	DALL	OAD 45 W/T	KVC CCD 2002	DAL 7040	017-
272	P1 Lighting column 4	Ground	MTS	M2/3B	10.0	680.0	n/a	080.0) S6-1	Lamp Post	Standard Assumed	3000	KX6-CCP0-2504	DNH	CAP-15 WT	KX6-CCD-2903	RAL 7016	2Kg
273	P1 Lighting column 5	Ground	MTS	M2/3A	10.0	680.0	n/a	680 C	S6-1	Lamp Post	Standard	3000	KX6-CCP0-2504	DNH	CAP-15 WT	KX6-CCD-2903	RAL 7016	2Kg
,	P2/3 Lighting column on island	2.00110	1		1.0.0	233.0	~	233.0			Assumed					1.0.0 000 2000		۳۰۰,۶
274	platform tip	Ground	MTS	M2/3A	10.0	680.0	n/a	680.0	S6-1	Lamp Post	Standard	3000	KX6-CCP0-2504	DNH	CAP-15 WT	KX6-CCD-2903	RAL 7016	2Kg
	P2/3 Lighting column on island										Assumed							
275	platform tip	Ground	MTS	M2/3B	10.0	680.0	n/a	680.0	S6-1	Lamp Post	Standard	3000	KX6-CCP0-2504	DNH	CAP-15 WT	KX6-CCD-2903	RAL 7016	2Kg
276	P2/3 Lighting column on island platform tip	Ground	MTS	M2/3A	10.0	680.0	n/a	680 C	S6-1	Lamp Post	Assumed Standard	3000	KX6-CCP0-2504	DNH	CAP-15 WT	KX6-CCD-2903	RAL 7016	2Kg
210	P2/3 Lighting column on island	Ground	IVIIO	IVIZ/3A	10.0	000.0	11/a	000.0	1-00-1	Lamp FUSI	Assumed	3000	11/10-00FU-20U4	ואוט	OAF-13 WI	NAU-CCD-2803	INAL /UID	ZNY
277	platform tip	Ground	MTS	M2/3B	10.0	680.0	n/a	680.0	S6-1	Lamp Post	Standard	3000	KX6-CCP0-2504	DNH	CAP-15 WT	KX6-CCD-2903	RAL 7016	2Kg
	P4/5 Lighting column on island									'	Assumed							
278	platform tip	Ground	MTS	M2/3B	10.0	680.0	n/a	680.0	S6-1	Lamp Post	Standard	3000	KX6-CCP0-2503	DNH	CAP-15 WT	KX6-CCD-2903	RAL 7016	2Kg



Ref No	Location	Level	Building	Speaker Circuit	Tapped At (W)	I/Vox Delay Time (ms) Amp Time Delay (ms)	Total Delay (ms)	Fixed to	Bracket details	Fixing Height AFFL (mm) (Note 10)	Layout Drawing	Manufacturer	Model	Wire Drawing	Colour Ref.	Weight
279	P4/5 Lighting column on island platform tip	Ground	MTS	M2/6A	10.0	680.0 n/a	680.0 S6-1	Lamp Post	Assumed Standard	3000	KX6-CCP0-2503	DNH	CAP-15 WT	KX6-CCD-2903	RAL 7016	2Kg
280	P4/5 Lighting column on island platform tip	Ground	MTS	M2/3B	10.0	680.0 n/a	680.0 S6-1	Lamp Post	Assumed Standard	3000	KX6-CCP0-2503	DNH	CAP-15 WT	KX6-CCD-2903	RAL 7016	2Kg
281	P4/5 Lighting column on island platform tip	Ground	MTS	M2/6A	10.0	680.0 n/a	680.0 S6-1	Lamp Post	Assumed Standard	3000	KX6-CCP0-2511	DNH	CAP-15 WT	KX6-CCD-2903		2Kg
282	P4/5 Lighting column on island platform tip	Ground	MTS	M2/3B	10.0	680.0 n/a	680.0 S6-1	Lamp Post	Assumed Standard	3000	KX6-CCP0-2511	DNH	CAP-15 WT	KX6-CCD-2903	RAL 7016	2Kg
283	P6/7 Lighting column on island platform tip	Ground	MTS	M2/6A	10.0	680.0 n/a	680.0 S6-1	Lamp Post	Assumed Standard	3000	KX6-CCP0-2510	DNH	CAP-15 WT	KX6-CCD-2903	RAL 7016	2Kg
284	P6/7 Lighting column on island platform tip	Ground	MTS	M2/6B	10.0	680.0 n/a	680.0 S6-1	Lamp Post	Assumed Standard	3000	KX6-CCP0-2510	DNH	CAP-15 WT	KX6-CCD-2903	RAL 7016	2Kg
285	P6/7 Lighting column on island platform tip	Ground	MTS	M2/6A	10.0	680.0 n/a	680.0 S6-1	Lamp Post	Assumed Standard	3000	KX6-CCP0-2510	DNH	CAP-15 WT	KX6-CCD-2903	RAL 7016	2Kg
286	P6/7 Lighting column on island platform tip	Ground	MTS	M2/6B	10.0	680.0 n/a	680.0 S6-1	Lamp Post	Assumed Standard	3000	KX6-CCP0-2510	DNH	CAP-15 WT	KX6-CCD-2903	RAL 7016	2Kg
287	P6/7 Lighting column on island platform tip	Ground	MTS	M2/6A	10.0	680.0 n/a	680.0 S6-1	Lamp Post	Assumed Standard	3000	KX6-CCP0-2511	DNH	CAP-15 WT	KX6-CCD-2903	RAL 7016	2Kg
288	P8 island platform tip	Ground	MTS	M2/6B	10.0	680.0 n/a	680.0 S6-1	TBA (20)	Assumed Standard	3000	KX6-CCP0-2510	DNH	CAP-15 WT	KX6-CCD-2903	RAL 7016	2Kg
289	P8 island platform tip	Ground	MTS	M2/6A	10.0	680.0 n/a	680.0 S6-1	TBA (20)	Assumed Standard	3000	KX6-CCP0-2510	DNH	CAP-15 WT	KX6-CCD-2903	RAL 7016	2Kg
290	P8 island platform tip	Ground	MTS	M2/6B	10.0	680.0 n/a	680.0 S6-1	TBA (20)	Assumed Standard	3000	KX6-CCP0-2510	DNH	CAP-15 WT	KX6-CCD-2903		2Kg
291	P5 Spine Wall @ Gridline 5	Ground	MTS	M2/4A	0.1	0.0 52.0	52.0 S3-2	Wall	Assumed Standard (6) Assumed	2400	KX6-CCP0-2500	Duran Audio	Intellivox DS180 Amp at Top Intellivox DS180	KX6-CCD-2900		19Kg
292	P4 Spine Wall @ Gridline 5	Ground	MTS	M2/1B	0.1	0.0 51.0	51.0 S3-2	Wall	Standard (6) Assumed	2400	KX6-CCP0-2500		Amp at Top Intellivox DS180	KX6-CCD-2900	RAL7016 (30% Gloss) RAL7016 (30%	19Kg
293	P1 East Wall @ Gridline 6	Ground	MTS	M2/1B	0.1	0.0 65.0	65.0 S3-2	Wall Lift MIP7 - North	Standard (6)	2400	KX6-CCP0-2500	Duran Audio		KX6-CCD-2900		19Kg
294	P8 West Wall @ gridline 18	Ground	MTS	M2/5B	0.1	0.0 242.0	242.0 S3-3	face, Eastern edge	Assumed Standard (11)	2400	KX6-CCP0-2508	Duran Audio	Intellivox DS180 Amp at Top	KX6-CCD-2900	TBA	19Kg
295	P5 Spine Wall @ Gridline 16						194.0 S3-2	Wall	Assumed Standard (6)		KX6-CCP0-2501		Intellivox DS180 Amp at Top	KX6-CCD-2900	RAL7016 (30%	
296	P4 Spine Wall @ Gridline 16						190.0 S3-2	Wall	Assumed Standard (6)		KX6-CCP0-2501		Intellivox DS180 Amp at Top	KX6-CCD-2900	RAL7016 (30%	
	.,							Lift MIP3 - North face, Western	Assumed				Intellivox DS180		,	
297	P1 East Wall @ Gridline 18-19	Ground	MTS	M2/1B	0.1	0.0 242.0	242.0 S3-3	edge Lift MIP5 - North	Standard (11)	2400	KX6-CCP0-2502	Duran Audio	Amp at Top	KX6-CCD-2900	TBA	19Kg
298	P5 Spine Wall @ Gridline 19	Ground	MTS	M2/1A	0.1	0.0 242.0	242.0 S3-3	face, Western edge	Assumed Standard (11)	2400	KX6-CCP0-2502	Duran Audio	Intellivox DS180 Amp at Top	KX6-CCD-2900	TBA	19Kg
				N 6 (0 :			0.40.6	Lift MIP5 - North face, Eastern	Assumed	0.422	10/0 0050 5===		Intellivox DS180	W/0 00D ====		4017
299	P4 Spine Wall @ Gridline 19						242.0 S3-3	edge	Standard (11)		KX6-CCP0-2502		Amp at Top Intellivox DS500	KX6-CCD-2900	RAL7016 (30%	
302	P9 South-East corner	Ground	STS	M3/1B	0.1	67.0 0.0	67.0 S1-1	TBC	TBA (20)	2400	KX6-CCP0-2512	Duran Audio	Amp at rear	KX6-CCD-2900	Gloss)	44Kg



Ref No	Location	Level	Building	Speaker Circuit	Tapped At (W)	Amp Time Delay (ms)	I/Vox Delay Time (ms)	Total Delay (ms)	Build	Fixed to	Bracket details	Fixing Height AFFL (mm) (Note 10)	Layout Drawing	Manufacturer	Model	Wire Drawing	Colour Ref.	Weight
303	P10/11 Southern end	Ground	STS	M3/1A	0.1	67.0	0.0	67.0	C1 1	TBC	TBA (20)	2400	KX6-CCP0-2512	Duran Audio	Intellivox DS500	KX6-CCD-2900	RAL7016 (30% Gloss)	44Kg
303	P10/11 Southern end P10/11 Mid-platform, aligned	Ground	313	IVIS/ IA	0.1	67.0	0.0	67.0	31-1	IBC	TDA (20)	2400	KA6-CCP0-2312	Duran Audio	Amp at rear Intellivox DS500	KA6-CCD-2900	RAL7016 (30%	
304	305	Ground	STS	M3/1B	0.1	67.0	154.0	221 0	S1-1	TBC	TBA (20)	2400	KX6-CCP0-2513	Duran Audio	Amp at rear	KX6-CCD-2900		, 44Kg
	P9 Mid-platform, near cross-	0.00	1			0					(=0)			2 4.1 4.1 7 14.4.1	Intellivox DS500		RAL7016 (30%	
305	passage	Ground	STS	M3/1A	0.1	67.0	154.0	221.0	S1-1	TBC	TBA (20)	2400	KX6-CCP0-2513	Duran Audio	Amp at rear	KX6-CCD-2900		44Kg
											,				Intellivox DS500		RAL7016 (30%	
306	P10/11 North end	Ground	STS	M3/1A	0.1	67.0	282.0	349.0	S1-1	TBC	TBA (20)	2400	KX6-CCP0-2513	Duran Audio	Amp at rear	KX6-CCD-2900	Gloss)	44Kg
															Intellivox DS500		RAL7016 (30%	
307	P9 North end	Ground	STS	M3/1B	0.1	67.0	282.0	349.0	S1-1	TBC	TBA (20)	2400	KX6-CCP0-2513	Duran Audio	Amp at rear	KX6-CCD-2900	Gloss)	44Kg
0.40	P10/11 Lighting column on		ото	140/0D	400	4.45.0	,	445.0	00.4	. 5 .	Assumed	0000	10/0 0000 0544	DA !! !	0.45.45.45	10/0 000 0000	DAI 7040	014
310	island platform tip	Ground	STS	M3/2B	10.0	445.0	n/a	445.0	S6-1	Lamp Post	Standard	3000	KX6-CCP0-2514	DNH	CAP-15 WT	KX6-CCD-2903	RAL 7016	2Kg
311	P10/11 Lighting column on island platform tip	Ground	STS	M3/2A	10.0	115 O	n/o	445.0	S6 1	Lamp Post	Assumed Standard	3000	KX6-CCP0-2514	DNH	CAP-15 WT	KX6-CCD-2903	RAL 7016	2Kg
311	P10/11 Lighting column on	Ground	313	IVI3/ZA	10.0	445.0	II/a	445.0	30-1	Lamp Fost	Assumed	3000	KA0-CCF0-2514	DINIT	CAF-15 WI	KX0-CCD-2903	KAL 7010	ZNY
312	island platform tip	Ground	STS	M3/2B	10.0	445 0	n/a	445.0	S6-1	Lamp Post	Standard	3000	KX6-CCP0-2514	DNH	CAP-15 WT	KX6-CCD-2903	RAL 7016	2Kg
012	P10/11 Lighting column on	Cround	0.0	IVIO/ZB	10.0	1 10.0	11/4	110.0	00 1	Lamp 1 oot	Assumed	0000	1000 001 0 2011	Bittii	07 ti 10 W i	1010 000 2000	10.12.7010	2119
313	island platform tip	Ground	STS	M3/2A	10.0	445.0	n/a	445.0	S6-1	Lamp Post	Standard	3000	KX6-CCP0-2514	DNH	CAP-15 WT	KX6-CCD-2903	RAL 7016	2Kg
	P9 Lighting column on platform										Assumed							
314	tip	Ground	STS	M3/2A	10.0	445.0	n/a	445.0	S6-1	Lamp Post	Standard	3000	KX6-CCP0-2510	DNH	CAP-15 WT	KX6-CCD-2903	RAL 7016	2Kg
	P9 Lighting column on platform								_		Assumed							
315	tip	Ground	STS	M3/2B	10.0	445.0	n/a	445.0	S6-1	Lamp Post	Standard	3000	KX6-CCP0-2510	DNH	CAP-15 WT	KX6-CCD-2903	RAL 7016	2Kg
040	P9 Lighting column on platform	0	СТС	NAO /O A	400	445.0	/	445.0	00.4	Larra Dant	Assumed	2000	KV0 0000 0540	DAILL	CAD 45 W/T	KVC CCD 0000	DAL 7040	016-
316	P9 Lighting column on platform	Ground	STS	M3/2A	10.0	445.0	n/a	445.0	56-1	Lamp Post	Standard	3000	KX6-CCP0-2510	DNH	CAP-15 WT	KX6-CCD-2903	RAL 7016	2Kg
317	tin	Ground	STS	M3/2B	10.0	115 N	n/a	445.0	S6-1	Lamp Post	Assumed Standard	3000	KX6-CCP0-2511	DNH	CAP-15 WT	KX6-CCD-2903	RAL 7016	2Kg
317	Gridline T2, in ceiling above	Ground	515	1013/20	10.0	445.0	II/a	445.0	30-1	Ceiling (Metal	Staridard	3000	100-001 0-2311	DIVIT	OAI -13 WI	IXX0-CCD-2303	IXAL 7010	ZNG
320	gateline	Ground	STS	M3/1B	3.0	67.0	n/a	67.0	S5-1	Plank CLG54)	n/a	In ceiling	KX6-CCP0-2512	Penton	RCS6FTS	KX6-CCD-2901	TBA	2Kg
	Gridline T1, between gateline									Ceiling (Metal								
321	and buffers	Ground	STS	M3/1A	3.0	67.0	n/a	67.0	S5-1	Plank CLG54)	n/a	In ceiling	KX6-CCP0-2512	Penton	RCS6FTS	KX6-CCD-2901	TBA	2Kg
	Gridline T1, between gateline									Ceiling (Metal								
322	and buffers	Ground	STS	M3/1B	3.0	67.0	n/a	67.0	S5-1	Plank CLG54)	n/a	In ceiling	KX6-CCP0-2512	Penton	RCS6FTS	KX6-CCD-2901	TBA	2Kg
000	Gridline T2, in ceiling above	0	ото	NAO /4 A		07.0	- 1-	07.0	05.4	Ceiling (Metal	- 1-	1	W/0 00D0 0540	Destes	DOOGETO	KV0 00D 0004	TDA	014
323	gateline Gridline T2, in ceiling above	Ground	STS	M3/1A	3.0	67.0	n/a	67.0	55-1	Plank CLG54)	n/a	In ceiling	KX6-CCP0-2512	Penton	RCS6FTS	KX6-CCD-2901	TBA	2Kg
324	gateline	Ground	STS	M3/1B	3.0	67 N	n/a	67.0	S5 ₋ 1	Ceiling (Metal Plank CLG54)	n/a	In ceiling	KX6-CCP0-2512	Penton	RCS6FTS	KX6-CCD-2901	ТВА	2Kg
324	Gridline T1, between gateline	Ground	313	IVIO/ ID	3.0	07.0	II/a	07.0	33-1	Ceiling (Metal	II/a	in cening	NA0-CCF 0-2312	Ferilon	1000110		IDA	ZNY
325	and buffers	Ground	STS	M3/1A	3.0	67.0	n/a	67.0	S5-1	Plank CLG54)	n/a	In ceiling	KX6-CCP0-2512	Penton	RCS6FTS	KX6-CCD-2901	ТВА	2Kg
0_0	Gridline T1, between gateline	0.00	1		0.0	01.0		00		Ceiling (Metal	,			- Cinton		10.0000000		1=1.19
326	and buffers	Ground	STS	M3/1B	3.0	67.0	n/a	67.0	S5-1	Plank CLG54)	n/a	In ceiling	KX6-CCP0-2512	Penton	RCS6FTS	KX6-CCD-2901	TBA	2Kg
	Gridline T1, between gateline									Ceiling (Metal								
327	and buffers	Ground	STS		3.0		n/a	67.0	S5-1	Plank CLG54)	n/a		KX6-CCP0-2512		RCS6FTS	KX6-CCD-2901	TBA	2Kg
328	Escape Corridor at r11	Ground	WCR			106.0		106.0		Ceiling	n/a		WRB-CCP0-2109		RCS6FTS	KX6-CCD-2901	TBA	2Kg
329	Escape Corridor at r11	Ground	WCR	M1/3A	3.0	106.0	n/a	106.0	S5-1	Ceiling	n/a	3070	WRB-CCP0-2109	Penton	RCS6FTS	KX6-CCD-2901	TBA	2Kg
222	Above Mezz ground seating	0	MOD	N 4 4 / 5 A		00.0	/-	00.0	05.0	O a illina ar	- 1-	0070	WDD 0000 0440	Dantas	DOOFFTOOOAY	KV0 00D 0001	RAL 9010	014
330	area. Row 3 r7/r8	Ground	WCR	M1/5A	5.0	93.9	n/a	93.9	S5-3	Ceiling	n/a	3070	WRB-CCP0-2110	Penton	RCS5FTSCOAX	KX6-CCD-2901	(30% Gloss)	2Kg
331	Above Mezz ground seating area. Row 4 r9/r10	Ground	WCP	M1/5B	5.0	100 0	n/a	100.0	S5-3	Ceiling	n/a	3070	WRB-CCP0-2109	Penton	RCS5FTSCOAX	KX6-CCD-2901	RAL 9010 (30% Gloss)	2Kg
33 I	aica. NUW 4 13/110	Jordana	WUK	INI I/OD	J.U	100.0	ıı/a	100.0	30-3	Joennig	ji/a	3070	VVIND-00F0-2109	IL GUIOU	INCOSETSCOAN	NAU-CCD-2901	[(30 /0 G1055)	ızry



Ref No	Location	Level	Building	Speaker Circuit	Tapped At (W)	Amp Time Delay (ms)	I/Vox Delay Time (ms)	Total Delay (ms)	Build	Fixed to	Bracket details	Fixing Height AFFL (mm) (Note 10)	Layout Drawing	Manufacturer	Model	Wire Drawing	Colour Ref.	Weight
332	Above Mezz ground seating area. Row 4 r9	Ground	WCR	M1/5B	5.0	100.0) n/a	100.0	S5-3	Ceiling	n/a	3070	WRB-CCP0-2110	Penton	RCS5FTSCOAX	KX6-CCD-2901	RAL 9010 (30% Gloss)	2Kg
002	Above Mezz ground seating	1	11011	, 62	0.0			100.0		Jesuing .	.,,	00.0				1.0.10 002 2001	RAL 9010	1 19
333	area. Row 4 r8/r9	Ground	WCR	M1/5B	5.0	100.0	n/a	100.0	S5-3	Ceiling	n/a	3070	WRB-CCP0-2110	Penton	RCS5FTSCOAX	KX6-CCD-2901	(30% Gloss)	2Kg
334	Above Mezz ground seating area. Row 4 r8/r9	Ground	WCR	M1/5B	5.0	100.0	n/a	100.0	S5-3	Ceiling	n/a	3070	WRB-CCP0-2110	Penton	RCS5FTSCOAX	KX6-CCD-2901	RAL 9010 (30% Gloss)	2Kg
335	Above Mezz ground seating area. Row 4 r7/r8	Ground	WCR	M1/5B	5.0	100.0	n/a	100.0	S5-3	Ceiling	n/a	3070	WRB-CCP0-2110	Penton	RCS5FTSCOAX	KX6-CCD-2901	RAL 9010 (30% Gloss)	2Kg
336	Above Mezz ground seating area. Row 4 r7/r8	Ground	WCR	M1/5B	5.0	100.0	n/a	100.0	S5-3	Ceiling	n/a	3070	WRB-CCP0-2110	Penton	RCS5FTSCOAX	KX6-CCD-2901	RAL 9010 (30% Gloss)	2Kg
337	Above Mezz ground seating area. Row 5 r9/r10	Ground	WCR	M1/6A	5.0	106.1	n/a	106.1	S5-3	Ceiling	n/a	3070	WRB-CCP0-2109	Penton	RCS5FTSCOAX	KX6-CCD-2901	RAL 9010 (30% Gloss)	2Kg
338	Above Mezz ground seating area. Row 5 r9 Above Mezz ground seating	Ground	WCR	M1/6A	5.0	106.1	n/a	106.1	S5-3	Ceiling	n/a	3070	WRB-CCP0-2110	Penton	RCS5FTSCOAX	KX6-CCD-2901	RAL 9010 (30% Gloss) RAL 9010	2Kg
339	area. Row 5 r8/r9 Above Mezz ground seating	Ground	WCR	M1/6B	5.0	112.8	n/a	112.8	S5-3	Ceiling	n/a	3070	WRB-CCP0-2110	Penton	RCS5FTSCOAX	KX6-CCD-2901	(30% Gloss) RAL 9010	2Kg
340	area. Row 5 r7/r8 Above Mezz ground seating	Ground	WCR	M1/6B	5.0	112.8	n/a	112.8	S5-3	Ceiling	n/a	3070	WRB-CCP0-2110	Penton	RCS5FTSCOAX	KX6-CCD-2901	(30% Gloss) RAL 9010	2Kg
341	area. Row 5 r7/r8	Ground	WCR	M1/6A	5.0	106.1	n/a	106.1	S5-3	Ceiling	n/a	3070	WRB-CCP0-2110	Penton	RCS5FTSCOAX	KX6-CCD-2901	(30% Gloss)	2Kg
342	Above Mezz ground seating area. Row 5 r7	Ground	WCR	M1/6A	5.0	106.1	n/a	106.1	S5-3	Ceiling	n/a	3070	WRB-CCP0-2110	Penton	RCS5FTSCOAX	KX6-CCD-2901	RAL 9010 (30% Gloss) RAL 9010	2Kg
343	Above Mezz ground seating area. Row 6 r7/r8	Ground	WCR	M1/6B	5.5	112.8	n/a	112.8	S5-3	Ceiling	n/a	3070	WRB-CCP0-2110	Penton	RCS5FTSCOAX	KX6-CCD-2901	(30% Gloss)	2Kg
344	Above Mezz ground seating area. Row 6 r7	Ground	WCR	M1/6B	5.0	112.8	n/a	112.8	S5-3	Ceiling	n/a	3070	WRB-CCP0-2110	Penton	RCS5FTSCOAX	KX6-CCD-2901	RAL 9010 (30% Gloss)	2Kg
345	Above Mezz ground seating area. Row 6 r9	Ground	WCR	M1/6B	5.0	112.8	n/a	112.8	S5-3	Ceiling	n/a	3070	WRB-CCP0-2109	Penton	RCS5FTSCOAX	KX6-CCD-2901	RAL 9010 (30% Gloss)	2Kg
346	Above Mezz ground seating area. Row 6 r9/r10	Ground				112.8		112.8		Ceiling	n/a		WRB-CCP0-2109		RCS5FTSCOAX	KX6-CCD-2901		2Kg
347 348	Mezz First Floor Public Toilet r4 Mezz First Floor Public Toilet r4					106.0 106.0		106.0 106.0		Ceiling Ceiling	n/a n/a		WRB-CCP0-2210 WRB-CCP0-2210		RCS6FTS RCS6FTS	KX6-CCD-2901 KX6-CCD-2901	TBA TBA	2Kg 2Kg
349	Gridline W28 Male WC	Ground	WRB						S5-1		n/a		WRB-CCP0-2105		RCS6FTS	KX6-CCD-2901		2Kg
350	Gridline W28 Male WC	Ground	WRB		3.0				S5-1	Ceiling	n/a		WRB-CCP0-2105		RCS6FTS	KX6-CCD-2901		2Kg
Z01	South end Plat 0 @ Gridline 3	Ground	MTS		0.1				S3-6	Existing Column	Swivel Bracket 90 (806608) x 2		KX6-CCP0-2500	Duran Audio	Intellivox DS180	KX6-CCD-2900	RAL 7016 Anthracite Grey	
Z02	South end Plat 0 @ Gridline 6	Ground	MTS				39.0			Existing Column	Swivel Bracket 90 (806608) x 2		KX6-CCP0-2500		Intellivox DS180	KX6-CCD-2900	RAL 7016 Anthracite Grey	
Z03	South end Plat 0 @ Gridline 9		MTS				85.0			Existing Column	Swivel Bracket 90 (806608) x 2		KX6-CCP0-2501	Duran Audio	Intellivox DS180	KX6-CCD-2900	RAL 7016 Anthracite Grey	
Z04	Plat 0 @ Gridline 12	Ground	MTS		0.1		132.0			Existing Column	Swivel Bracket 90 (806608) x 2		KX6-CCP0-2501	Duran Audio	Intellivox DS180 Amp at Back	KX6-CCD-2900	RAL 7016 Anthracite Grey	
Z05	Plat 0 @ Gridline 15	Ground	MTS	M2/ZB	0.1	0.0	183.0	183.0	S3-6	Existing Column	Swivel Bracket 90 (806608) x 2	2300 (4)	KX6-CCP0-2501	Duran Audio	Intellivox DS180 Amp at Back	KX6-CCD-2900	RAL 7016 Anthracite Grey	y 19Kg



Ref No	Location	Level	Building	Speaker Circuit	Tapped At (W)	(ms) Amp Time Delay (ms)	l otal Delay (ms)	Build	Fixed to	Bracket details	Fixing Height AFFL (mm) (Note 10)	Layout Drawing	Manufacturer	Model	Wire Drawing	Colour Ref.	Weight
700	Diet 0 @ Cridine 40	Crownd	MTC	N40/7A	0.4	0.0 222	0.000	0.62.6	Eviatia a Caluma	Swivel Bracket 90	2200 (4)	KX6-CCP0-2502	Duman Audia	Intellivox DS180	KX6-CCD-2900	RAL 7016	101/2
Z06 Z07	Plat 0 @ Gridline 18 Plat 0 @ Gridline 22	Ground Ground		M2/ZA M2/ZB				.0 S3-6	Existing Column Existing Column	(806608) x 2 Swivel Bracket 90 (806608) x 2	2300 (4)	KX6-CCP0-2502		Amp at Back Intellivox DS180 Amp at Back	KX6-CCD-2900	Anthracite Gre RAL 7016 Anthracite Gre	
Z 08	Plat 0 @ Gridline 25	Ground	MTS	M2/ZA	0.1	0.0 349	0 349	.0 S3-6	Existing Column	Swivel Bracket 90 (806608) x 2	2300 (4)	KX6-CCP0-2502	Duran Audio	Intellivox DS180 Amp at Back	KX6-CCD-2900	RAL 7016 Anthracite Gre	ey 19Kg
Z 09	Plat 0 @ Gridline 28	Ground	MTS	M2/ZB	0.1	0.0 397	0 397	7.0 S3-6	Existing Column	Swivel Bracket 90 (806608) x 2 Swivel	2300 (4)	KX6-CCP0-2502	Duran Audio	Intellivox DS180 Amp at Back	KX6-CCD-2900	RAL 7016 Anthracite Gre	ey 19Kg
Z10	Plat 0 @ Gridline 31	Ground	MTS	M2/ZA	0.1	0.0 446	0 446	5.0 S3-1	Existing Column	Bracket 90 (806608) x 2 Swivel	2300 (4)	KX6-CCP0-2503	Duran Audio	Intellivox DS180 Amp at Top	KX6-CCD-2900	RAL 7016 Anthracite Gre	эу 19Кg
Z11	Plat 0 @ Gridline 34	Ground	MTS	M2/ZB	0.1	0.0 497	0 497	7.0 S3-1	Existing Column	Bracket 90 (806608) x 2	2300 (4)	KX6-CCP0-2503	Duran Audio	Intellivox DS180 Amp at Top	KX6-CCD-2900	RAL 7016 Anthracite Gre	∍y 19Kg
Z12	Plat 0 @ Gridline 37	Ground	MTS	M2/ZA	0.1	0.0 547	0 547	7.0 S3-1	Existing Column	Swivel Bracket 90 (806608) x 2	2300 (4)	KX6-CCP0-2503	Duran Audio	Intellivox DS180 Amp at Top	KX6-CCD-2900	RAL 7016 Anthracite Gre	ey 19Kg
Z13	Lighting column 2 - Plat 0/1 tip	Ground	MTS	M2/3B	10.0	680.0 n/a	680	.0 S6-1	Lamp Post	Assumed Standard	3000	KX6-CCP0-2504	DNH	CAP-15 WT	KX6-CCD-2903	RAL 7016	2Kg
Z14	Lighting column 3 - Plat 0/1 tip	Ground	MTS	M2/3A	10.0	680.0 n/a	680	.0 S6-1	Lamp Post	Assumed Standard	3000	KX6-CCP0-2504	DNH	CAP-15 WT	KX6-CCD-2903	RAL 7016	2Kg
Z15	Lighting column 4 - Plat 0/1 tip	Ground	MTS	M2/3B	10.0	680.0 n/a	680	.0 S6-1	Lamp Post	Assumed Standard	3000	KX6-CCP0-2504	DNH	CAP-15 WT	KX6-CCD-2903	RAL 7016	2Kg
Z16	Lighting column 5 - Plat 0/1 tip	Ground	MTS	M2/3A	10.0	680.0 n/a	680	.0 S6-1	Lamp Post	Assumed Standard	3000	KX6-CCP0-2504	DNH	CAP-15 WT	KX6-CCD-2903	RAL 7016	2Kg
2001	Western Barrel Colonade Ceiling	Ground	MTS	M2/4A	15.0	0.0 n/a	0.0	S9-1	Ceiling	n/a		KX6-CCP0-2500	Bosch	LC-PC60G-8H	See Note(18)	RAL 9010 (White)	6.0Kg
2002	Western Barrel Colonade Ceiling	Ground	MTS	M2/4B	15.0	0.0 n/a	0.0	S9-1	Ceiling	n/a		KX6-CCP0-2500	Bosch	LC-PC60G-8H	See Note(18)	RAL 9010 (White)	6.0Kg
2003	Western Barrel Colonade Ceiling	Ground	MTS	M2/4A	15.0	0.0 n/a	0.0	S9-1	Ceiling	n/a		KX6-CCP0-2500	Bosch	LC-PC60G-8H	See Note(18)	RAL 9010 (White)	6.0Kg
2004	Western Barrel Colonade Ceiling	Ground	MTS	M2/4B	15.0	0.0 n/a	0.0	S9-1	Ceiling	n/a		KX6-CCP0-2500	Bosch	LC-PC60G-8H	See Note(18)	RAL 9010 (White)	6.0Kg
2005	Eastern side of Colonade ceiling	Ground	MTS	M2/1A	15.0	0.0 n/a	0.0	S9-1	Ceiling	n/a		KX6-CCP0-2500	Bosch	LC-PC60G-8H	See Note(18)	RAL 9010 (White)	6.0Kg
2006	Eastern side of Colonade ceiling	Ground	MTS	M2/1B	15.0	0.0 n/a	0.0	S9-1	Ceiling	n/a		KX6-CCP0-2500	Bosch	LC-PC60G-8H	See Note(18)	RAL 9010 (White)	6.0Kg
2007	Eastern side of Colonade ceiling	Ground	MTS	M2/1A	15.0	0.0 n/a	0.0	S9-1	Ceiling	n/a		KX6-CCP0-2500	Bosch	LC-PC60G-8H	See Note(18)	RAL 9010 (White)	6.0Kg
2008	Eastern side of Colonade ceiling	Ground	MTS	M2/1B	15.0	0.0 n/a	0.0	S9-1	Ceiling	n/a		KX6-CCP0-2500	Bosch	LC-PC60G-8H	See Note(18)	RAL 9010 (White)	6.0Kg
2009	Eastern side of Colonade ceiling	Ground	MTS	M2/1A	15.0	0.0 n/a	0.0	S9-1	Ceiling	n/a		KX6-CCP0-2500	Bosch	LC-PC60G-8H	See Note(18)	RAL 9010 (White)	6.0Kg
145A	Riser D Second Floor	Second	WRB	M5/4A	64.0	0.0 n/a	0.0	JB1	Within Ceiling Void	n/a	Above Ceiling	WRB-CC00-1303		Mid-Chain Audio Presentation JB	KX6-CCD-2929	N/A	2Kg



Ref No	Location	Level	Building	Speaker Circuit	Tapped At (W)	I/Vox Delay Time (ms) Amp Time Delay (ms)	Total Delay (ms)	Build	Fixed to	Bracket details	Fixing Height AFFL (mm) (Note 10)	Layout Drawing	Manufacturer	Model	Wire Drawing	Colour Ref.	Weight
4.450	Riser D Second Floor	0	WDD	NAC/AD	20.0	0.0/-	0.0	ID4	Within Ceiling	- /-	Above	WDD 0000 4000		Mid-Chain Audio	KVC CCD 2000	NI/A	014-
145B	WRB at gridline W18 Room	Second	WRB	M5/4B	32.0	0.0 n/a	0.0	JB1	Void Within Ceiling	n/a	Ceiling Above	WRB-CC00-1303		Presentation JB Mid-Chain Audio	KX6-CCD-2929	N/A	2Kg
150A	G/16a	Ground	WRB	M1/1A	0.0	0.0 n/a	0.0	JB1	Void	n/a	Ceiling	WRB-CCP0-2106		Presentation JB	KX6-CCD-2929	N/A	2Kg
	WRB at gridline W18 Room	1		, ., .	0.0	1,70	0.0		Within Ceiling		Above			Mid-Chain Audio		1 4,7 1	
150B	G/16a	Ground	WRB	M1/1B	3.0	0.0 n/a	0.0	JB1	Void	n/a	Ceiling	WRB-CCP0-2106		Presentation JB	KX6-CCD-2929	N/A	2Kg
									Within Ceiling		Above			Mid-Chain Audio			
501A	Gridline r12 Room CG/04a r11	Ground	WCR	M5/1A	7.5	120.0 n/a	120.0	0 JB1	Void	n/a	Ceiling	WRB-CCP0-2109		Presentation JB	KX6-CCD-2929	N/A	2Kg
E01B	Gridline r12 Room CG/04a r11	Cround	WCD	ME/AD	7.5	120.015/2	120 /	0 104	Within Ceiling	2/0	Above	WRB-CCP0-2109		Mid-Chain Audio	KAC CCD 3030	NI/A	21/2
501B	Glidillie 112 Rooffi CG/04a 111	Ground	WCR	M5/1B	7.5	120.0 n/a	120.0	0 JB1	Void Within Ceiling	n/a	Ceiling Above	WRB-CCP0-2109		Presentation JB End Chain Audio Presentation JB with	KX6-CCD-2929	N/A	2Kg
502A	Gridline r11 Room CG/04b r10	Ground	WCR	M5/1A	1.5	120.0 n/a	120.0	0 JB6	Void	n/a	Ceiling	WRB-CCP0-2109	N/A	EOL	KX6-CCD-2929	N/A	2Kg
502B	Gridline r11 Room CG/04b r10	Ground	WCR	M5/1B	1.5	120.0 n/a	120.0	0 JB6	Within Ceiling Void	n/a	Above Ceiling	WRB-CCP0-2109	N/A	End Chain Audio Presentation JB with EOL	KX6-CCD-2929	N/A	2Kg
3026	Glidille III Room CG/04b III	Ground			1.5				Within Ceiling	II/a	Above			End Chain Audio Presentation JB with			
503A	Gridline r10 Room CG/04c	Ground	WCR	M5/1A	1.5	120.0 n/a	120.0	0 JB6	Void Within Ceiling	n/a	Ceiling Above	WRB-CCP0-2109		EOL End Chain Audio Presentation JB with	KX6-CCD-2929	N/A	2Kg
503B	Gridline r10 Room CG/04c	Ground	WCR	M5/1B	1.5	120.0 n/a	120.0	0 JB6	Void	n/a	Ceiling	WRB-CCP0-2109	N/A		KX6-CCD-2929	N/A	2Kg
504A	Gridline r10 Room CG/04d	Ground		M5/1A			120.0	0 JB1	Within Ceiling Void	n/a	Above Ceiling	WRB-CCP0-2109		Mid-Chain Audio Presentation JB	KX6-CCD-2929	N/A	2Kg
									Within Ceiling		Above			Mid-Chain Audio			
504B	Gridline r10 Room CG/04d	Ground	WCR	M5/1B	4.5	120.0 n/a	120.0	0 JB1	Void	n/a	Ceiling	WRB-CCP0-2109		Presentation JB	KX6-CCD-2929	N/A	2Kg
505A	Gridline r10 Room CG/04e	Ground	WCR	M5/1A	10.5	120.0 n/a	120 (0 JB1	Within Ceiling Void	n/a	Above Ceiling	WRB-CCP0-2109		Mid-Chain Audio Presentation JB	KX6-CCD-2929	N/A	2Kg
505A 505B	Gridline r10 Room CG/04e	Ground		M5/1B				0 JB1	Within Ceiling Void	n/a	Above	WRB-CCP0-2109		Mid-Chain Audio	KX6-CCD-2929		2Kg
									Within Ceiling		Above			End Chain Audio Presentation JB with			
506A	Gridline r13 Room CG/05 r12	Ground	WCR	M5/1A	3.0	120.0 n/a	120.0	0 JB6	Void Within Ceiling	n/a	Ceiling Above	WRB-CCP0-2109		EOL End Chain Audio Presentation JB with	KX6-CCD-2929	N/A	2Kg
506B	Gridline r13 Room CG/05 r12	Ground	WCR	M5/1B	3.0	120.0 n/a	120.0	0 JB6	Void	n/a		WRB-CCP0-2109	N/A		KX6-CCD-2929	N/A	2Kg
507A	Gridline r7 Room CG/10a	Ground	WCR	M5/1A	4.5	120.0 n/a	120.0	0 JB6	Within Ceiling Void	n/a	Above Ceiling	WRB-CCP0-2110		Presentation JB with EOL	KX6-CCD-2929	N/A	2Kg
507B	Gridline r7 Room CG/10a	Ground	WCR	M5/1B	4.5	120.0 n/a	120.0	0 JB6	Within Ceiling Void	n/a	Above Ceiling	WRB-CCP0-2110		End Chain Audio Presentation JB with EOL	KX6-CCD-2929	N/A	2Kg
30.2		3.55.16							Within Ceiling		Above			Mid-Chain Audio			_
508A	Gridline r7 Room CG/10b	Ground	WCR	M5/1A	3.0	120.0 n/a	120.0	0 JB1	Void	n/a	Ceiling	WRB-CCP0-2110		Presentation JB	KX6-CCD-2929	N/A	2Kg
508B	Gridline r7 Room CG/10b	Ground	WCR	M5/1B	3.0	120.0 n/a	120.0	0 JB1	Within Ceiling Void	n/a	Above Ceiling	WRB-CCP0-2110	N/A	Mid-Chain Audio Presentation JB	KX6-CCD-2929	N/A	2Kg
509A	Gridline r7 Room CG/10c	Ground	WCR	M5/1A	3.0	120.0 n/a	120.0	0 JB1	Within Ceiling Void	n/a	Above Ceiling	WRB-CCP0-2110		Mid-Chain Audio Presentation JB	KX6-CCD-2929	N/A	2Kg



Ref No	Location	Level	Building	Speaker Circuit	Tapped At (W)	Amp Time Delay (ms)	I/Vox Delay Time (ms)	Total Delay (ms)	Build	Fixed to	Bracket details	Fixing Height AFFL (mm) (Note 10)	Layout Drawing	Manufacturer	Model	Wire Drawing	Colour Ref.	Weight
509B	Gridline r7 Room CG/10c	Ground	WCR	M5/1B	3.0		n/a	120.0	JB1	Within Ceiling Void	n/a	Above Ceiling	WRB-CCP0-2110		Mid-Chain Audio Presentation JB	KX6-CCD-2929	N/A	2Kg
										Within Ceiling		Above			Mid-Chain Audio			
511A	Gridline W9 Room G/03	Ground	WRB	M5/3A	10.5	0.0	n/a	0.0	JB1	Void	n/a		WRB-CCP0-2107			KX6-CCD-2929	N/A	2Kg
544D	Cridling MO Doors C/02	C was see al	WIDD	ME/OD	40.5	0.0	/-	0.0	ID4	Within Ceiling	- /-	Above	WDD CCD0 2407		Mid-Chain Audio	KYC CCD 2020	NI/A	01/~
511B	Gridline W9 Room G/03 Gridline W19 Room G/12 (Nort	Ground h)	WRB	M5/3B	10.5	0.0	n/a	0.0	JB1	Void Within Ceiling	n/a	Ceiling Above	WRB-CCP0-2107		Presentation JB Mid-Chain Audio	KX6-CCD-2929	N/A	2Kg
512A	(Retail)	Ground	WRB	M5/3A	7.5	0.0	n/a	0.0	JB1	Void	n/a	Ceiling	WRB-CCP0-2106			KX6-CCD-2929	N/A	2Kg
	Gridline W19 Room G/12 (Nort									Within Ceiling		Above			Mid-Chain Audio			
512B	(Retail)	Ground	WRB	M5/3B	7.5	0.0	n/a	0.0	JB1	Void	n/a	Ceiling	WRB-CCP0-2106	N/A	Presentation JB	KX6-CCD-2929	N/A	2Kg
5404	0:11: 5.0 00/44		W/05	3.45/4.0		400.0	,	400.0	15.4	Within Ceiling	,	Above	W/DD 00D0 0440		Mid-Chain Audio	10/0 000 0000		014
513A	Gridline r5 Room CG/11a	Ground	WCR	M5/1A	3.0	120.0	n/a	120.0	JB1	Void Within Ceiling	n/a	Ceiling Above	WRB-CCP0-2110		Presentation JB Mid-Chain Audio	KX6-CCD-2929	N/A	2Kg
513B	Gridline r5 Room CG/11a	Ground	WCR	M5/1B	3.0	120 0	n/a	120.0	JB1	Void	n/a		WRB-CCP0-2110			KX6-CCD-2929	N/A	2Kg
514A	Gridline r6 Room CG/11b r5	Ground			4.5			120.0		Within Ceiling Void	n/a	Above	WRB-CCP0-2110		End Chain Audio Presentation JB with	KX6-CCD-2929		2Kg
514B	Gridline r6 Room CG/11b r5	Ground	WCR	M5/1B	4.5	120.0	n/a	120.0	JB6	Within Ceiling Void	n/a		WRB-CCP0-2110	N/A		KX6-CCD-2929	N/A	2Kg
516A	Gridline R11 M1/02	Mezz	WCR	M5/2A	3.0	106.0	n/a	106.0	JB1	Within Ceiling Void	n/a	Above Ceiling	WRB-CCP0-2209	N/A		KX6-CCD-2929	N/A	2Kg
516B	Gridline R11 M1/02	Mezz	WCR	M5/2B	3.0	106.0	n/a	106.0	JB1	Within Ceiling Void	n/a	Above Ceiling	WRB-CCP0-2209		Mid-Chain Audio Presentation JB	KX6-CCD-2929	N/A	2Kg
517A	Gridline r6 Room CG/11c r5	Ground	WCR	M5/1A	9.0	120.0	n/a	120.0	JB1	Within Ceiling Void	n/a		WRB-CCP0-2110	N/A	Mid-Chain Audio Presentation JB	KX6-CCD-2929	N/A	2Kg
517B	Gridline r6 Room CG/11c r5	Ground	WCR	M5/1B	9.0	120.0	n/a	120.0	JB1	Within Ceiling Void	n/a	Above Ceiling	WRB-CCP0-2110		Mid-Chain Audio Presentation JB	KX6-CCD-2929	N/A	2Kg
										Within Ceiling		Above			Mid-Chain Audio			
518A	Gridline R10 M1/08a	Mezz	WCR	M5/2A	4.5	106.0	n/a	106.0	JB1	Void	n/a		WRB-CCP0-2209			KX6-CCD-2929	N/A	2Kg
518B	Gridline R10 M1/08a	Mezz	WCR	M5/2B	4.5	106.0	n/a	106.0	JB1	Within Ceiling Void	n/a	Above Ceiling	WRB-CCP0-2209	N/A		KX6-CCD-2929	N/A	2Kg
E10A	Cridling BO M1/09b	Mozz	WCB	ME/2A	7.5	106.0	10/0	106.0	ID4	Within Ceiling Void	n/o	Above	WRB-CCP0-2209		Mid-Chain Audio	KX6-CCD-2929	NI/A	21/0
519A	Gridline R9 M1/08b	Mezz	WCK	M5/2A	7.5	106.0	n/a	106.0	JDI	Within Ceiling	n/a	Ceiling Above	WKB-CCP0-2209		Presentation JB Mid-Chain Audio	KA6-CCD-2929	N/A	2Kg
519B	Gridline R9 M1/08b	Mezz	WCR	M5/2B	7.5	106.0	n/a	106.0	JB1	Void	n/a	Ceiling	WRB-CCP0-2209	N/A	Presentation JB	KX6-CCD-2929	N/A	2Kg
520A	Gridline R8 M1/11a	Mezz	WCR	M5/2A	7.5	106.0	n/a	106.0	.IR1	Within Ceiling Void	n/a	Above Ceiling	WRB-CCP0-2210		Mid-Chain Audio Presentation JB	KX6-CCD-2929	N/A	2Kg
320A	Chaine No Will Ta	IVICEE	WOIX	IVIO/Z/A	7.5	100.0	II/a	100.0	001	Within Ceiling	II/U	Above	WIND OOF 0 22 TO		Mid-Chain Audio	1000 00D 2020	IN//X	Zitg
520B	Gridline R8 M1/11a	Mezz	WCR	M5/2B	7.5	106.0	n/a	106.0	JB1	Void	n/a		WRB-CCP0-2210			KX6-CCD-2929	N/A	2Kg
521A	Gridline R7 M1/11b	Mezz	WCR	M5/2A	4.5	106.0	n/a	106.0	JB1	Within Ceiling Void	n/a	Above Ceiling	WRB-CCP0-2210		Mid-Chain Audio Presentation JB	KX6-CCD-2929	N/A	2Kg
521B	Gridline R7 M1/11b	Mezz			4.5			106.0		Within Ceiling Void	n/a	Above	WRB-CCP0-2210		Mid-Chain Audio	KX6-CCD-2929		2Kg
										Within Ceiling		Above			End Chain Audio Presentation JB with			
522A	Gridline R6 M1/12	Mezz	IVVCR	M5/2A	1.5	106.0	n/a	106.0	1R0	Void	n/a	Ceiling	WRB-CCP0-2210	N/A	EOL	KX6-CCD-2929	IN/A	2Kg



Ref No	Location	Level	Building	Speaker Circuit	Tapped At (W)	Amp Time Delay (ms)	I/Vox Delay Time (ms)		Build	Fixed to	Bracket details	Fixing Height AFFL (mm) (Note 10)	Layout Drawing	Manufacturer	Model	Wire Drawing	Colour Ref.	Weight
										Within Ceiling		Above			End Chain Audio Presentation JB with			
522B	Gridline R6 M1/12	Mezz	WCR	M5/2B	1.5	106.0	n/a	106.0	JB6	Void	n/a	Ceiling	WRB-CCP0-2210	N/A	EOL	KX6-CCD-2929	N/A	2Kg
0222	Gridline W19 Room G/17		1	1110,22	1		1		1	Within Ceiling	.,,	Above		. 4,7 1	Mid-Chain Audio			
523A	(Retail)	Ground	WRB	M5/3A	1.5	0.0	n/a	0.0	JB1	Void	n/a	Ceiling	WRB-CCP0-2106	N/A	Presentation JB	KX6-CCD-2929	N/A	2Kg
	Gridline W19 Room G/17									Within Ceiling		Above			Mid-Chain Audio			
523B	(Retail)	Ground	WRB	M5/3B	1.5	0.0	n/a	0.0	JB1	Void	n/a		WRB-CCP0-2106	N/A	Presentation JB	KX6-CCD-2929	N/A	2Kg
	Gridline W22 Room G/25									Within Ceiling		Above			Mid-Chain Audio			
524A	(Retail)	Ground	WRB	M5/3A	7.5	0.0	n/a	0.0	JB1	Void	n/a	Ceiling	WRB-CCP0-2106	N/A	Presentation JB	KX6-CCD-2929	N/A	2Kg
	Gridline W22 Room G/25									Within Ceiling		Above			Mid-Chain Audio			
524B	(Retail)	Ground	WRB	M5/3B	7.5	0.0	n/a	0.0	JB1	Void	n/a	Ceiling	WRB-CCP0-2106	N/A	Presentation JB	KX6-CCD-2929	N/A	2Kg
	Gridline W23 Room G/27i									Within Ceiling		Above			Mid-Chain Audio			
525A	(Retail)	Ground	WRB	M5/3A	4.5	0.0	n/a	0.0	JB1	Void	n/a	Ceiling	WRB-CCP0-2106	N/A	Presentation JB	KX6-CCD-2929	N/A	2Kg
	Gridline W23 Room G/27i									Within Ceiling		Above			Mid-Chain Audio			
525B	(Retail)	Ground	WRB	M5/3B	4.5	0.0	n/a	0.0	JB1	Void	n/a	Ceiling	WRB-CCP0-2106	N/A	Presentation JB	KX6-CCD-2929	N/A	2Kg
	Gridline W26 Room G/31a									Within Ceiling		Above			Mid-Chain Audio			
526A	(Retail)	Ground	WRB	M5/3A	6.0	0.0	n/a	0.0	JB1	Void	n/a	Ceiling	WRB-CCP0-2105		Presentation JB	KX6-CCD-2929	N/A	2Kg
500D	Gridline W26 Room G/31a		W/DD	NAE (OD	0.0	0.0	- 1-	0.0	ID4	Within Ceiling	- 1-	Above	WDD 0000 0405		Mid-Chain Audio	14)/0 OOD 0000	N 1 / A	017
526B	(Retail)	Ground	WRB	M5/3B	6.0	0.0	n/a	0.0	JB1	Void	n/a	Ceiling	WRB-CCP0-2105		Presentation JB	KX6-CCD-2929	N/A	2Kg
E074	Gridline W26 Room G27d (Left	Cravinal	WDD	NAE /O A	4 5	0.0	/	0.0	ID4	Within Ceiling	n / n	Above	WDD CCD0 0405		Mid-Chain Audio	KYC CCD 2020	NI/A	01/ ~
527A	Luggage)	Ground	WRB	M5/3A	1.5	0.0	n/a	0.0	JB1	Void	n/a	Ceiling	WRB-CCP0-2105		Presentation JB Mid-Chain Audio	KX6-CCD-2929	N/A	2Kg
527B	Gridline W26 Room G/27d (Left Luggage)	Ground	WRB	M5/3B	1.5	0.0	n/a	0.0	JB1	Within Ceiling Void	n/a	Above Ceiling	WRB-CCP0-2105		Presentation JB	KX6-CCD-2929	N/A	2Kg
327 B	Gridline W16 Room G/12	Ground	VVKD	1013/30	1.5	0.0	II/a	0.0	JDT	Within Ceiling	II/a	Above	WKB-CCF0-2103		Mid-Chain Audio	KX0-CCD-2929	IN/A	ZNY
528A	(South)(Retail)	Ground	WRB	M5/3A	12.0	0.0	n/a	0.0	JB1	Void	n/a	Ceiling	WRB-CCP0-2107		Presentation JB	KX6-CCD-2929	N/A	2Kg
320A	Gridline W16 Room G/12	Orouna	VVIND	IVIO/O/A	12.0	0.0	I I/ G	0.0	001	Within Ceiling	11/α	Above	WIND 001 0 2107		Mid-Chain Audio	100 OOD 2020	14/73	Zitg
528B	(South)(Retail)	Ground	WRB	M5/3B	12.0	0.0	n/a	0.0	JB1	Void	n/a		WRB-CCP0-2107	N/A	Presentation JB	KX6-CCD-2929	N/A	2Kg
0202	Gridline W26 Room G27d (Left	0.00	111112	1110,02	12.0	0.0		0.0		Within Ceiling	, 🔾	J J J J J J J J J J J J J J J J J J J			Mid-Chain Audio		,,,	
529A	Luggage - P8 side)	Ground	WRB	M5/3A	6.0	0.0	n/a	0.0	JB1	Void	n/a		WRB-CCP0-2105	N/A	Presentation JB	KX6-CCD-2929	N/A	2Kg
	Gridline W26 Room G27d (Left									Within Ceiling					Mid-Chain Audio			
529B	Luggage - P8 side)	Ground	WRB	M5/3B	6.0	0.0	n/a	0.0	JB1	Void	n/a		WRB-CCP0-2105		Presentation JB	KX6-CCD-2929	N/A	2Kg
	,									Within Ceiling		Above			Mid-Chain Audio			
801A	Gridline W23 Room 1/36 (Pub)	1st Floor	WRB	M8/1A	60.0	0.0	n/a	0.0	JB1	Void	n/a	Ceiling	WRB-CCP0-2206		Presentation JB	KX6-CCD-2929	N/A	2Kg
										Within Ceiling		Above			Mid-Chain Audio			
801B	Gridline W23 Room 1/36 (Pub)	1st Floor	WRB	M8/1B	60.0	0.0	n/a	0.0	JB1	Void	n/a	Ceiling	WRB-CCP0-2206		Presentation JB	KX6-CCD-2929	N/A	2Kg
	Gridline W16 Room 1/26 1st									Within Ceiling		Above			Mid-Chain Audio			
802A	Class Lounge	1st Floor	WRB	M8/1A	27.0	0.0	n/a	0.0	JB1	Void	n/a	Ceiling	WRB-CCP0-2206		Presentation JB	KX6-CCD-2929	N/A	2Kg
	Gridline W16 Room 1/26 1st									Within Ceiling		Above			Mid-Chain Audio			
802B	Class Lounge	1st Floor	WRB	M8/1B	27.0	0.0	n/a	0.0	JB1	Void	n/a	Ceiling	WRB-CCP0-2206	N/A	Presentation JB	KX6-CCD-2929	N/A	2Kg



- Note (1) Existing Column, fixed to rear of cladding
- Note (2) Monolith designer to design or select bracket to suit Monolith design
- Note (3) Installed in an IP-rated Access Floor Box
- Note (4) Height previously identified as 2400mm to the acoustic centre. All heights now specified to lower edge for ease of identification
- Note (5) Totem designer to design or select bracket to suit Totem design
- Note (6) The suitability of standard brackets for actual wall surfaces will need to be assessed by survey when exact mounting locations have been established.
- Note (7) The exact location for this microphone within the room will have to be determined when the room layout is known.
- Note (8) The wall location for the Fire Microphone will have to be determined when the room layout is known, but will, in any case, need to be coordinated with the location of the local Fire Panel.
- Note (9) The ANS should be mounted to the rear of the cladding, with the microphone port of the ANS offered through a hole in the cladding. A layer of silicone rubber sheet should be installed between mic and panel to minimise vibration coupling.
- Note (10) All heights now specified to lower edge for ease of identification
- Note (11) Detailed design of the bridge and the MIP lifts should take account of the need to mount the speakers in these locations
- Note (12) Speaker 101 has been deleted from the design
- Note (13) Speaker mounting integrated into the Retail or Way-finding Signage on the first floor Mezz. Fixing/mounting design subject to design and coordination with Arup and JMP, the location of the power supplies and junction boxes to be determined, refer to Arup drawing WCC-CAD-5331.
- Note (14) The details of the AFIL loops and the ceiling speakers in the Ticket Hall are given in the separate Ticket Hall Comms design. JB145 and the loop output terminals of AFILA1/1A and AFILA1/1B constitute the demarcation point between this design and that one.
- Note (15) The cavity wall to which this speaker is mounted may resonate at one or more frequencies, degrading the audio performance significantly. The comms installation contractor is advised to insert rockwool or similar sound-absorbing material into the cavity in the vicinity of the loudspeaker.
- Note (16) The speaker should be cabled via a local JB concealed behind a cladding panel. The LJB should be constructed in a similar manner to a JB1. The tail from the JB should be shrouded by the Adaptaflex, and should terminate on the speaker as shown on the data sheet.
- Note (17) The Comms installation contractor shall select a suitable bracket from the types specified in the installation data sheet to suit the specifics of the mounting surface. The speaker shall be vertical and aimed parallel to the STS wall against which it mounts.
- Note (18) These ceiling speakers should be cabled directly in a manner similar to the Penton RCS6-FTS speakers, as shown on drawing KX6-CCD-2901. Note that there is no glanded cable entry hole so the flexible secondary containment should stop just short of the speaker terminal block.
- Note (19) For AFIL loops 1/1A and 1/1B please see ticket hall design.
- Note (20) The Comms Installation contractor shall seek further information from the client regarding the installation of these speakers



1.2 SPUR AND DOUBLE SPUR JUNCTION BOXES

Reference	Location	Level	Building	Speaker Circuit	Build	Fixed to	Layout Drawing	Model	Wire Drawing	Weight
JBM11A-1	Service corridor B/15e between W15/16	Basement	WRB	M1/1A	JB2	Wall	WRB-CCP0-2003	Audio Spur JB	KX6-CCD-2904	2Kg
JBM11A-2	Riser D Ground Floor	Ground	WRB	M1/1A	JB2	Wall	WRB-CCP0-2107	Audio Spur JB	KX6-CCD-2904	2Kg
JBM11A-4	Service corridor B/15e between W15/16	Basement	WRB	M1/1A	JB2	Wall	WRB-CCP0-2003	Audio Spur JB	KX6-CCD-2904	2Kg
JBM11A-5	Riser in CG/06	Ground	WCR	M1/1A	JB2	Wall	WRB-CCP0-2109	Audio Spur JB	KX6-CCD-2904	2Kg
JBM11A-6	Service corridor B/15c between W9/10	Basement	WRB	M1/1A	JB2	Wall	WRB-CCP0-2003	Audio Spur JB	KX6-CCD-2904	2Kg
JBM11B-1	Service corridor B/15e between W15/16	Basement	WRB	M1/1B	JB2	Wall	WRB-CCP0-2003	Audio Spur JB	KX6-CCD-2904	2Kg
JBM11B-3	Service corridor B/15c between W9/10	Basement	WRB	M1/1B	JB2	Wall	WRB-CCP0-2003	Audio Spur JB	KX6-CCD-2904	2Kg
JBM11B-4	Service corridor B/15c between W9/10	Basement	WRB	M1/1B	JB2	Wall	WRB-CCP0-2003	Audio Spur JB	KX6-CCD-2904	2Kg
JBM12A-1	Riser A, Gnd Level	Ground	WRB	M1/2A	JB3	Wall	WRB-CCP0-2106	Audio Double Spur JB	KX6-CCD-2904	2Kg
JBM12B-1	Riser A, Gnd Level	Ground	WRB	M1/2B	JB2	Wall	WRB-CCP0-2106	Audio Spur JB	KX6-CCD-2904	2Kg
JBM13A-1	Riser @ Lift AB @ Mezz first floor	First	WCR	M1/3A	JB2	Wall	WRB-CCP0-2209	Audio Spur JB	KX6-CCD-2904	2Kg
JBM13B-1	Riser @ Lift AB @ Mezz first floor	First	WCR	M1/3B	JB3	Wall	WRB-CCP0-2209	Audio Double Spur JB	KX6-CCD-2904	2Kg
JBM21A-1	OBS Subway Under Platform 4	Basement	MTS	M2/1A	JB2	Wall	WRB-CCP0-2005	Audio Spur JB	KX6-CCD-2904	2Kg
JBM21A-2	OBS Subway Under Platform 2&3	Basement	MTS	M2/1A	JB2	Wall	WRB-CCP0-2005	Audio Spur JB	KX6-CCD-2904	2Kg
JBM21A-3	Clock Tower Riser	Basement	MTS	M2/1A	JB2	Wall	WRB-CCP0-2005	Audio Spur JB	KX6-CCD-2904	2Kg
JBM21B-1	OBS Subway Under Platform 4	Basement	MTS	M2/1B	JB2	Wall	WRB-CCP0-2005	Audio Spur JB	KX6-CCD-2904	2Kg
JBM21B-2	OBS Subway Under Platform 2&3	Basement	MTS	M2/1B	JB2	Wall	WRB-CCP0-2005	Audio Spur JB	KX6-CCD-2904	2Kg
JBM21B-3	Clock Tower Riser	Basement	MTS	M2/1B	JB3	Wall	WRB-CCP0-2005	Audio Double Spur JB	KX6-CCD-2904	2Kg
JBM22A-1	OBS Subway Under Platform 4	Basement	MTS	M2/2A	JB2	Wall	WRB-CCP0-2005	Audio Spur JB	KX6-CCD-2904	2Kg
JBM22A-2	OBS Subway Under Platform 2&3	Basement	MTS	M2/2A	JB2	Wall	WRB-CCP0-2005	Audio Spur JB	KX6-CCD-2904	2Kg
JBM22A-3	OBS Subway Under Platform 1	Basement	MTS	M2/2A	JB2	Wall	WRB-CCP0-2006	Audio Spur JB	KX6-CCD-2904	2Kg
JBM22A-4	Gridline 28	Ground	MTS	M2/2A	JB2	Wall	KX6-CCP0-2502	Audio Spur JB	KX6-CCD-2904	2Kg
JBM22A-5	Gridline 28	Ground	MTS	M2/2A	JB2	Wall	KX6-CCP0-2502	Audio Spur JB	KX6-CCD-2904	2Kg
JBM22B-1	OBS Subway Under Platform 4	Basement	MTS	M2/2B	JB2	Wall	WRB-CCP0-2005	Audio Spur JB	KX6-CCD-2904	2Kg
JBM22B-2	OBS Subway Under Platform 2&3	Basement	MTS	M2/2B	JB3	Wall	WRB-CCP0-2005	Audio Double Spur JB	KX6-CCD-2904	2Kg
JBM22B-3	Gridline 28	Ground	MTS	M2/2B	JB2	Wall	KX6-CCP0-2502	Audio Spur JB	KX6-CCD-2904	2Kg
JBM23A-1	OBS Subway Under Platform 2&3	Basement	MTS	M2/3A	JB2	Wall	WRB-CCP0-2005	Audio Spur JB	KX6-CCD-2904	2Kg
JBM23B-1	OBS Subway Under Platform 4	Basement	MTS	M2/3B	JB2	Wall	WRB-CCP0-2005	Audio Spur JB	KX6-CCD-2904	2Kg
JBM23B-2	OBS Subway Under Platform 2&3	Basement	MTS	M2/3B	JB2	Wall	WRB-CCP0-2005	Audio Spur JB	KX6-CCD-2904	2Kg
JBM24A-1	OBS Subway Under Platform 8	Basement	MTS	M2/4A	JB2	Wall	WRB-CCP0-2005	Audio Spur JB	KX6-CCD-2904	2Kg
JBM24A-2	OBS Subway Under Platform 6&7	Basement	MTS	M2/4A	JB3	Wall	WRB-CCP0-2005	Audio Double Spur JB	KX6-CCD-2904	2Kg
JBM24A-3	Gridline 2	Ground	MTS	M2/4A	JB2	Wall	KX6-CCP0-2506	Audio Spur JB	KX6-CCD-2904	2Kg
JBM24A-4	Gridline 3 AFIL2/4 Monolith	Ground	MTS	M2/4A	JB2	Within Monolith	KX6-CCP0-2506	Audio Spur JB	KX6-CCD-2904	2Kg
JBM24B-2	OBS Subway Under Platform 6&7	Basement	MTS	M2/4B	JB2	Wall	WRB-CCP0-2005	Audio Spur JB	KX6-CCD-2904	2Kg
JBM24B-3	Gridline 2	Ground	MTS	M2/4B	JB2	Wall	KX6-CCP0-2506	Audio Spur JB	KX6-CCD-2904	2Kg
JBM24B-4	Gridline 3 AFIL2/4 Monolith	Ground	MTS	M2/4B	JB2	Within Monolith	KX6-CCP0-2506	Audio Spur JB	KX6-CCD-2904	2Kg
JBM25A-1	OBS Subway Under Platform 8	Basement	MTS	M2/5A	JB2	Wall	WRB-CCP0-2005	Audio Spur JB	KX6-CCD-2904	2Kg
JBM25A-2	OBS Subway Under Platform 6&7	Basement	MTS	M2/5A	JB2	Wall	WRB-CCP0-2005	Audio Spur JB	KX6-CCD-2904	2Kg
JBM25A-3	OBS Subway Under Platform 5	Basement	MTS	M2/5A	JB2	Wall	WRB-CCP0-2005	Audio Spur JB	KX6-CCD-2904	2Kg
JBM25A-4	Gridline 28	Ground	MTS	M2/5A	JB2	Wall	KX6-CCP0-2508	Audio Spur JB	KX6-CCD-2904	2Kg
JBM25B-1	OBS Subway Under Platform 8	Basement	MTS	M2/5B	JB2	Wall	WRB-CCP0-2005	Audio Spur JB	KX6-CCD-2904	2Kg
JBM25B-2	OBS Subway Under Platform 6&7	Basement	MTS	M2/5B	JB3	Wall	WRB-CCP0-2005	Audio Double Spur JB	KX6-CCD-2904	2Kg
JBM25B-3	Gridline 28	Ground	MTS	M2/5B	JB2	Wall	KX6-CCP0-2508	Audio Spur JB	KX6-CCD-2904	2Kg
JBM26A-1	OBS Subway Under Platform 8	Basement	MTS	M2/6A	JB2	Wall	WRB-CCP0-2005	Audio Spur JB	KX6-CCD-2904	2Kg



JBM26A-2	OBS Subway Under Platform 6&7	Basement	MTS	M2/6A	JB2	Wall	WRB-CCP0-2005	Audio Spur JB	KX6-CCD-2904	2Kg
JBM26B-1	OBS Subway Under Platform 8	Basement	MTS	M2/6B	JB2	Wall	WRB-CCP0-2005	Audio Spur JB	KX6-CCD-2904	2Kg
JBM27A-1	Gridline W28 WC Entrance Room G/29	Ground	WCR	M2/7A	JB2	Within Ceiling Void	WRB-CCP0-2105	Audio Spur JB	KX6-CCD-2904	2Kg
JBM27B-1	Gridline W28 WC Entrance Room G/29	Ground	WCR	M2/7B	JB2	Within Ceiling Void	WRB-CCP0-2105	Audio Spur JB	KX6-CCD-2904	2Kg
JBM2ZA-1	Node 2 - E end of OBS Subway	Basement	MTS	M2/ZA	JB2	Wall	WRB-CCP0-2006	Audio Spur JB	KX6-CCD-2904	2Kg
JBM2ZB-1	Node 2 - E end of OBS Subway	Basement	MTS	M2/ZB	JB2	Wall	WRB-CCP0-2006	Audio Spur JB	KX6-CCD-2904	2Kg
JBM2ZB-2	P0 Gridline 22	Ground	MTS	M2/ZB	JB2	Existing Column	KX6-CCP0-2502	Audio Spur JB	KX6-CCD-2904	2Kg
JBM2ZANS-1	Node 2 - E end of OBS Subway	Basement	MTS		JB4	Wall	WRB-CCP0-2006	In-Line Cat5e JB	KX6-CCD-2929	2Kg
JBM31A-1	P11 Buffer Stops	Ground	STS	M3/1A	JB3	Within Monolith M-04.12	KX6-CCP0-2512	Audio Double Spur JB	KX6-CCD-2904	2Kg
JBM31A-2	P9 Gridline W29	Ground	STS	M3/1A	JB2	Wall	KX6-CCP0-2512	Audio Spur JB	KX6-CCD-2904	2Kg
JBM31B-1	P9/P10 Buffer Stops	Ground	STS	M3/1B	JB2	Within Monolith M-04.10	KX6-CCP0-2512	Audio Spur JB	KX6-CCD-2904	2Kg
JBM31B-2	P11 Gridline W29	Ground	STS	M3/1B	JB2	Wall	KX6-CCP0-2512	Audio Spur JB	KX6-CCD-2904	2Kg
JBM51A-1	Riser @ Lift AB @ Mezz first floor	First	WCR	M5/1A	JB3	Within riser	WRB-CCP0-2209	Audio Double Spur JB	KX6-CCD-2904	2Kg
JBM51A-2	Mezz first floor service corridor	First	WCR	M5/1A	JB2	At H/L in access corridor	WRB-CCP0-2209	Audio Spur JB	KX6-CCD-2904	2Kg
JBM51A-3	Mezz first floor service corridor	First	WCR	M5/1A	JB2	At H/L in access corridor	WRB-CCP0-2209	Audio Spur JB	KX6-CCD-2904	2Kg
JBM51A-4	Mezz first floor service corridor	First	WCR	M5/1A	JB2	At H/L in access corridor	WRB-CCP0-2210	Audio Spur JB	KX6-CCD-2904	2Kg
JBM51B-1	Riser @ Lift AB @ Mezz first floor	First	WCR	M5/1B	JB3	Within riser	WRB-CCP0-2209	Audio Double Spur JB	KX6-CCD-2904	2Kg
JBM51B-2	Mezz first floor service corridor	First	WCR	M5/1B	JB2	At H/L in access corridor	WRB-CCP0-2209	Audio Spur JB	KX6-CCD-2904	2Kg
JBM51B-3	Mezz first floor service corridor	First	WCR	M5/1B	JB2	At H/L in access corridor	WRB-CCP0-2209	Audio Spur JB	KX6-CCD-2904	2Kg
JBM51B-4	Mezz first floor service corridor	First	WCR	M5/1B	JB2	At H/L in access corridor	WRB-CCP0-2210	Audio Spur JB	KX6-CCD-2904	2Kg
JBM53A-1	Back of room B/21 @ containment intersect	Basement	WRB	M5/3A	JB2	Wall	WRB-CCP0-2002	Audio Spur JB	KX6-CCD-2904	2Kg
JBM53A-2	Riser B, Gnd Level	Ground	WRB	M5/3A	JB2	Wall	WRB-CCP0-2106	Audio Spur JB	KX6-CCD-2904	2Kg
JBM53A-3	B-16 Fork	Basement	WRB	M5/3A	JB2	Wall	WRB-CCP0-2002	Audio Spur JB	KX6-CCD-2904	2Kg
JBM53A-4	Riser A, Gnd Level	Ground	WRB	M5/3A	JB2	Wall	WRB-CCP0-2106	Audio Spur JB	KX6-CCD-2904	2Kg
JBM53B-1	Back of room B/21 @ containment intersect	Basement	WRB	M5/3B	JB2	Wall	WRB-CCP0-2002	Audio Spur JB	KX6-CCD-2904	2Kg
JBM53B-2	Riser B, Gnd Level	Ground	WRB	M5/3B	JB2	Wall	WRB-CCP0-2106	Audio Spur JB	KX6-CCD-2904	2Kg
JBM53B-3	B-16 Fork	Basement	WRB	M5/3B	JB2	Wall	WRB-CCP0-2002	Audio Spur JB	KX6-CCD-2904	2Kg
JBM53B-4	Riser A, Gnd Level	Ground	WRB	M5/3B	JB2	Wall	WRB-CCP0-2106	Audio Spur JB	KX6-CCD-2904	2Kg
JBM81A-1	B-16 Fork	Basement	WRB	M8/1A	JB3	Wall	WRB-CCP0-2002	Audio Double Spur JB	KX6-CCD-2904	2Kg
JBM81B-1	B-16 Fork	Basement	WRB	M8/1B	JB3	Wall	WRB-CCP0-2106	Audio Double Spur JB	KX6-CCD-2904	2Kg
Spur Junction Bo	oxes - Intellivox Data Cables									
JBM11A-4D	Service corridor B/15e between W15/16	Basement	WRB	PDAT1/1	JB5	Wall	WRB-CCP0-2003	RS485 Spur JB	KX6-CCD-2929	2Kg
JBM13A-1D	Riser @ Lift AB @ Mezz first floor	First	WCR	PDAT1/2	JB5	Wall		RS485 Spur JB	KX6-CCD-2929	2Kg
JBM21A-2D		Basement		PDAT2/3	JB5		WRB-CCP0-2005		KX6-CCD-2929	2Kg
JBM21B-2D	OBS Subway Under Platform 2&3	Basement	MTS	PDAT2/4	JB5	Wall	WRB-CCP0-2005	RS485 Spur JB	KX6-CCD-2929	2Kg
JBM23A-1D	OBS Subway Under Platform 2&3	Basement	MTS	PDAT2/1	JB5	Wall	WRB-CCP0-2005	RS485 Spur JB	KX6-CCD-2929	2Kg
JBM23A-2D	Clock Tower Riser	Basement	MTS	PDAT2/1	JB5	Wall	WRB-CCP0-2005	RS485 Spur JB	KX6-CCD-2929	2Kg
JBM23B-1D	OBS Subway Under Platform 4	Basement	MTS	PDAT2/2	JB5	Wall	WRB-CCP0-2005	RS485 Spur JB	KX6-CCD-2929	2Kg
JBM24A-2D	OBS Subway Under Platform 6&7	Basement	MTS	PDAT2/3	JB5	Wall	WRB-CCP0-2005	RS485 Spur JB	KX6-CCD-2929	2Kg
JBM24B-2D	OBS Subway Under Platform 6&7	Basement	MTS	PDAT2/4	JB5	Wall	WRB-CCP0-2005	RS485 Spur JB	KX6-CCD-2929	2Kg
JBM2ZD-1	Node 2 - E end of OBS Subway	Basement	MTS	PDAT2/Z	JB5	Wall	WRB-CCP0-2006	RS485 Spur JB	KX6-CCD-2929	2Kg
	 	Ground	STS	PDAT3/1	JB5	Within Monolith M-04.12	KX6-CCP0-2512	RS485 Spur JB	KX6-CCD-2929	2Kg
JBM31A-1D	P11 Buffer Stops	IGIOUIIU	010							



- Note (1) Existing Column, fixed to rear of cladding
- Note (2) Monolith designer to design or select bracket to suit Monolith design
- Note (3) Installed in an IP-rated Access Floor Box
- Note (4) Height previously identified as 2400mm to the acoustic centre. All heights now specified to lower edge for ease of identification
- Note (5) Totem designer to design or select bracket to suit Totem design
- Note (6) The suitability of standard brackets for actual wall surfaces will need to be assessed by survey when exact mounting locations have been established.
- Note (7) The exact location for this microphone within the room will have to be determined when the room layout is known.
- Note (8) The wall location for the Fire Microphone will have to be determined when the room layout is known, but will, in any case, need to be coordinated with the location of the local Fire Panel.
- Note (9) The ANS should be mounted to the rear of the cladding, with the microphone port of the ANS offered through a hole in the cladding. A layer of silicone rubber sheet should be installed between mic and panel to minimise vibration coupling.
- Note (10) All heights now specified to lower edge for ease of identification
- Note (11) Detailed design of the bridge and the MIP lifts should take account of the need to mount the speakers in these locations
- Note (12) Speaker 101 has been deleted from the design
- Note (13) Speaker mounting integrated into the Retail or Way-finding Signage on the first floor Mezz. Fixing/mounting design subject to design and coordination with Arup and JMP, the location of the power supplies and junction boxes to be determined, refer to Arup drawing WCC-CAD-5331.
- Note (14) The details of the AFIL loops and the ceiling speakers in the Ticket Hall are given in the separate Ticket Hall Comms design. JB145 and the loop output terminals of AFILA1/1A and AFILA1/1B constitute the demarcation point between this design and that one.
- Note (15) The cavity wall to which this speaker is mounted may resonate at one or more frequencies, degrading the audio performance significantly. The comms installation contractor is advised to insert rockwool or similar sound-absorbing material into the cavity in the vicinity of the loudspeaker.
- Note (16) The speaker should be cabled via a local JB concealed behind a cladding panel. The LJB should be constructed in a similar manner to a JB1. The tail from the JB should be shrouded by the Adaptaflex, and should terminate on the speaker as shown on the data sheet.
- Note (17) The Comms installation contractor shall select a suitable bracket from the types specified in the installation data sheet to suit the specifics of the mounting surface. The speaker shall be vertical and aimed parallel to the STS wall against which it mounts.
- Note (18) These ceiling speakers should be cabled directly in a manner similar to the Penton RCS6-FTS speakers, as shown on drawing KX6-CCD-2901. Note that there is no glanded cable entry hole so the flexible secondary containment should stop just short of the speaker terminal block.
- Note (19) For AFIL loops 1/1A and 1/1B please see ticket hall design.
- Note (20) The Comms Installation contractor shall seek further information from the client regarding the installation of these speakers



1.3 AFIL AMPLIFIERS AND LOOPS

Ref No	Location	Level	Building	Speaker Circuit	Tapped At (W)	Amp Time Delay	I/Vox Delay Time	Total Delay	Build Fixed to	Bracket details	Layout Drawing	Manufacturer	Model	Wire Drawing	Weight
AFILA1/1A	Riser D Ground Floor	Ground	WRB	Μ1/1Δ	0.1	24ms	n/a	n/a	AF2 Wall, in 9U 19" wall-box	n/a	WRB-CCP0-2107	Current Thinking	ET300 plus ETHVP 100V Input Module	KX6-CC00-2934	2Kg
												Current		100-0000-2934	
	Riser D Ground Floor		WRB				n/a	n/a	AF3 Wall, in 9U 19" wall-box	n/a	WRB-CCP0-2107	Current	ET Phase ET300 plus ETHVP 100V Input		2Kg
AFILA1/1B	Riser D Ground Floor	Ground	WRB	M1/1A	0.1	24ms	n/a	n/a	AF2 Wall, in 9U 19" wall-box	n/a	WRB-CCP0-2107	_	Module	KX6-CCO0-2934	2Kg
AFILA1/2	Corridor B15/h Gridline W9-W10	Basement	t WRB	M1/1B	0.1	26ms	n/a	n/a	AF2 Wall, in 6U 19" wall-box	n/a	WRB-CCP0-2003		ET300 plus ETHVP 100V Input Module	KX6-CCO0-2934	2Kg
AFILA1/3	Corridor B15/e Gridline W15-W16	Basement	t WRB	M1/1A	0.1	24ms	n/a	n/a	AF2 Wall, in 6U 19" wall-box	n/a	WRB-CCP0-2003	Current Thinking	ET300 plus ETHVP 100V Input Module	KX6-CCO0-2934	2Kg
AFILA2/1	P1/2 Buffer Stops Gridline 1	Ground	MTS	M2/1B	0.1	36ms	n/a	n/a	AF1 Within Monolith M-04.08	By Monolith designer. (2)	KX6-CCP0-2500	Current Thinking	ET60 AFIL Amplifier	KX6-CCO0-2934	1Kg
	•								AF1 Within Monolith M-04.06			Current Thinking	ET60 AFIL Amplifier		
AFILA2/2	P3/4 Buffer Stops Gridline 1	Ground	INITS	M2/1B	0.1	361118	n/a	n/a	AFT Within Monolith M-04.06	By Monolith designer. (2)	KX6-CCP0-2500	Current	E 160 AFIL Ampliner	KX6-CCO0-2934	1Kg
AFILA2/3	P5/6 Buffer Stops Gridline 2	Ground	MTS	M2/4B	0.1	34ms	n/a	n/a	AF1 Within Monolith M-04.04	By Monolith designer. (2)	KX6-CCP0-2506	Thinking	ET60 AFIL Amplifier	KX6-CCO0-2934	1Kg
AFILA2/4	P7/8 Buffer Stops Gridline 2	Ground	MTS	M2/4A	0.1	36ms	n/a	n/a	AF1 Within Monolith M-04.02	By Monolith designer. (2)	KX6-CCP0-2506	Current Thinking	ET60 AFIL Amplifier	KX6-CCO0-2934	1Kg
AFILA2/5	P1 Gridline 28	Ground	MTS	M2/2B	0.1	5ms	n/a	n/a	AF1 Within Monolith M-05.01	By Monolith designer. (2)	KX6-CCP0-2502	Current Thinking	ET60 AFIL Amplifier	KX6-CCO0-2934	1Kg
AFILA2/6	P2/3 Gridline 28	Ground	MTS	Μ2/2Δ		6ms	n/a	n/a	AF1 Within Monolith M-05.02	By Monolith designer. (2)		Current Thinking	ET60 AFIL Amplifier	KX6-CCO0-2934	1Kg
												Current			
AFILA2/7	P4/5 Gridline 28	Ground	MTS	M2/2A	0.1	6ms	n/a	n/a	AF1 Within Monolith M-05.03	By Monolith designer. (2)	KX6-CCP0-2508	Thinking Current	ET60 AFIL Amplifier	KX6-CCO0-2934	1Kg
AFILA2/8	P6/7 Gridline 28	Ground	MTS	M2/5A	0.1	5ms	n/a	n/a	AF1 Within Monolith M-05.04	By Monolith designer. (2)	KX6-CCP0-2508	Thinking	ET60 AFIL Amplifier	KX6-CCO0-2934	1Kg
AFILA2/9	P8 Gridline 28	Ground	MTS	M2/5B	0.1	4ms	n/a	n/a	AF1 Within Monolith M-05.05	By Monolith designer. (2)	KX6-CCP0-2508	Current Thinking	ET60 AFIL Amplifier	KX6-CCO0-2934	1Kg
AFILA3/1	P9/P10 Buffer Stops	Ground	STS	M3/1B	0.1	16ms	n/a	n/a	AF1 Within Monolith M-04.10	By Monolith designer. (2)	KX6-CCP0-2512	Current Thinking	ET60 AFIL Amplifier	KX6-CCO0-2934	1Kg
	·											Current	·		
AFILA3/2	P11 Buffer Stops	Ground	SIS	M3/1A	0.1	16ms	n/a	n/a	AF1 Within Monolith M-04.11	By Monolith designer. (2)	KX6-CCP0-2512	Thinking Current	ET60 AFIL Amplifier	KX6-CCO0-2934	1Kg
AFILA3/3	P9 Gridline W29	Ground	STS	M3/1A	0.1	16ms	n/a	n/a	AF1 Within access floor box (3)	n/a	KX6-CCP0-2512	Thinking	ET60 AFIL Amplifier	KX6-CCO0-2934	1Kg
AFILA3/4	P10/P11 Gridline W29	Ground	STS	M3/1B	0.1	16ms	n/a	n/a	AF1 Within access floor box (3)	n/a	KX6-CCP0-2512	Current Thinking	ET60 AFIL Amplifier	KX6-CCO0-2934	1Kg
AFILA3/5	P9 Gridline W40	Ground	272	M3/1B	0.1	16me	n/a	n/a	AF1 Within access floor box (3)	n/a	KX6-CCP0-2513	Current	ET60 AFIL Amplifier	KX6-CCO0-2934	1Kg
												Current	·		
AFILA3/6	P10/P11 Gridline W40	Ground	STS	M3/1A	0.1	16ms	n/a	n/a	AF1 Within access floor box (3)	n/a	KX6-CCP0-2513	Thinking Current	ET60 AFIL Amplifier	KX6-CCO0-2934	1Kg
AFILAZ/1	P0 Gridline 6	Ground	MTS	M2/ZA	0.1	3ms	n/a	n/a	AF1 Column 6	n/a	KX6-CCP0-2500	Thinking	ET60 AFIL Amplifier	KX6-CCO0-2934	1Kg
AFILAZ/2	P0 Gridline 22	Ground	MTS	M2/ZB	0.1	3ms	n/a	n/a	AF1 Column 22	n/a	KX6-CCP0-2502	Current Thinking	ET60 AFIL Amplifier	KX6-CCO0-2934	1Kg
AFIL Loops															
AFIL1/1A	Gridline W10 to W15	Ground	WCR	M1/1A	0.1				Below Floor Level	n/a	Note (19)		See Ticket Hall Comms Design for details		
													See Ticket Hall Comms Design for		
AFIL1/1B	Gridline W10 to W15	Ground	WCR	M1/1A	0.1				Below Floor Level	n/a	Note (19)		details Four loops, 4.0m x 31.4m; 2.5mm	 	
AFIL1/2	Gridline W4 to W9	Ground	WCR	M1/1B	0.1				AFL3 Below Floor Level	n/a	WRB-CCP0-2107	n/a	copper	KX6-CCO0-2935	n/a
AFIL1/3	Gridline W15 to W20	Ground	WCR	M1/1A	0.1				AFL3 Below Floor Level	n/a	WRB-CCP0-2106	n/a	Four loops, 4.0m x 31.4m; 2.5mm copper	KX6-CCO0-2935	n/a



Ref No	Location	Level	Building	Speaker Circuit	Delay Tapped At	I/Vox Delay Time	Total Delay	Build Fixed to	Bracket details	Layout Drawing	Manufacturer	Model	Wire Drawing	Weight
AFIL2/1	P1/2 Buffer Stops Gridline 1	Ground	MTS	M2/1B	0.1			AFL4 Below Floor Level	n/a	KX6-CCP0-2500	n/a	Four loops, 3.6m x 6.4m; 1.0mm copper	KX6-CCO0-2935	n/a
AFIL2/2	P3/4 Buffer Stops Gridline 1	Ground	MTS	M2/1B	0.1			AFL4 Below Floor Level	n/a	KX6-CCP0-2500		Four loops, 3.6m x 6.4m; 1.0mm copper	KX6-CCO0-2935	n/a
AFIL2/3	P5/6 Buffer Stops Gridline 2	Ground	MTS	M2/4B	0.1			AFL4 Below Floor Level	n/a	KX6-CCP0-2506		Four loops, 3.6m x 6.4m; 1.0mm copper	KX6-CCO0-2935	n/a
AFIL2/4	P7/8 Buffer Stops Gridline 2	Ground	MTS	M2/4A	0.1			AFL4 Below Floor Level	n/a	KX6-CCP0-2506	n/a	Four loops, 3.6m x 6.4m; 1.0mm copper	KX6-CCO0-2935	n/a
AFIL2/5	P1 Gridline 28	Ground	MTS	M2/2B	0.1			AFL5 Below Floor Level	n/a	KX6-CCP0-2502		Four loops, 2.8m x 2.6m; 1.0mm copper	KX6-CCO0-2935	n/a
AFIL2/6	P2/3 Gridline 28	Ground	MTS	M2/2A	0.1			AFL6 Below Floor Level	n/a	KX6-CCP0-2502		Four loops, 2.8m x 4.8m; 1.0mm copper	KX6-CCO0-2935	n/a
AFIL2/7	P4/5 Gridline 28	Ground	MTS	M2/2A	0.1			AFL6 Below Floor Level	n/a	KX6-CCP0-2508	n/a	Four loops, 2.8m x 4.8m; 1.0mm copper	KX6-CCO0-2935	n/a
AFIL2/8	P6/7 Gridline 28	Ground	MTS	M2/5A	0.1			AFL6 Below Floor Level	n/a	KX6-CCP0-2508		Four loops, 2.8m x 4.8m; 1.0mm copper	KX6-CCO0-2935	n/a
AFIL2/9	P8 Gridline 28	Ground	MTS	M2/5B	0.1			AFL5 Below Floor Level	n/a	KX6-CCP0-2508	n/a	Four loops, 2.8m x 2.6m; 1.0mm copper	KX6-CCO0-2935	n/a
AFIL3/1	P9/P10 Buffer Stops	Ground	STS	M3/1B	0.1			AFL4 Below Floor Level	n/a	KX6-CCP0-2512	n/a	Four loops, 3.6m x 6.4m; 1.0mm copper Four loops, 3.8m x 3.6m; 1.0mm	KX6-CCO0-2935	n/a
AFIL3/2	P11 Buffer Stops	Ground	STS	M3/1A	0.1			AFL7 Below Floor Level	n/a	KX6-CCP0-2512	n/a	copper Four loops, 2.8m x 2.4m; 1.0mm	KX6-CCO0-2935	n/a
AFIL3/3	P9 Gridline W29	Ground	STS	M3/1A	0.1			AFL8 Below Floor Level	n/a	KX6-CCP0-2512		copper Four loops, 2.8m x 4.0m; 1.0mm	KX6-CCO0-2935	n/a
AFIL3/4	P10/P11 Gridline W29	Ground	STS	M3/1B	0.1			AFL9 Below Floor Level	n/a	KX6-CCP0-2512	n/a	copper Four loops, 3.8m x 3.6m; 1.0mm	KX6-CCO0-2935	n/a
AFIL3/5	P9 Gridline W40	Ground	STS	M3/1B	0.1			AFL7 Below Floor Level	n/a	KX6-CCP0-2513	n/a	copper Four loops, 2.8m x 3.6m; 1.0mm	KX6-CCO0-2935	n/a
AFIL3/6	P10/P11 Gridline W40	Ground	STS	M3/1A	0.1			AFL10 Below Floor Level	n/a	KX6-CCP0-2513		copper Four loops, 6.0m x 3.0m; 1.0mm	KX6-CCO0-2935	n/a
AFILZ/1	P0 Gridline 6	Ground	MTS	M2/ZA	0.1			AFL1 Below Floor Level		KX6-CCP0-2500	n/a	copper Four loops, 6.0m x 3.0m; 1.0mm	KX6-CCO0-2935	n/a
AFILZ/2	P0 Gridline 22	Ground	MTS	M2/ZB	0.1			AFL1 Below Floor Level		KX6-CCP0-2502		copper	KX6-CCO0-2935	n/a



- Note (1) Existing Column, fixed to rear of cladding
- Note (2) Monolith designer to design or select bracket to suit Monolith design
- Note (3) Installed in an IP-rated Access Floor Box
- Note (4) Height previously identified as 2400mm to the acoustic centre. All heights now specified to lower edge for ease of identification
- Note (5) Totem designer to design or select bracket to suit Totem design
- Note (6) The suitability of standard brackets for actual wall surfaces will need to be assessed by survey when exact mounting locations have been established.
- Note (7) The exact location for this microphone within the room will have to be determined when the room layout is known.
- Note (8) The wall location for the Fire Microphone will have to be determined when the room layout is known, but will, in any case, need to be coordinated with the location of the local Fire Panel.
- Note (9) The ANS should be mounted to the rear of the cladding, with the microphone port of the ANS offered through a hole in the cladding. A layer of silicone rubber sheet should be installed between mic and panel to minimise vibration coupling.
- Note (10) All heights now specified to lower edge for ease of identification
- Note (11) Detailed design of the bridge and the MIP lifts should take account of the need to mount the speakers in these locations
- Note (12) Speaker 101 has been deleted from the design
- Note (13) Speaker mounting integrated into the Retail or Way-finding Signage on the first floor Mezz. Fixing/mounting design subject to design and coordination with Arup and JMP, the location of the power supplies and junction boxes to be determined, refer to Arup drawing WCC-CAD-5331.
- Note (14) The details of the AFIL loops and the ceiling speakers in the Ticket Hall are given in the separate Ticket Hall Comms design. JB145 and the loop output terminals of AFILA1/1A and AFILA1/1B constitute the demarcation point between this design and that one.
- Note (15) The cavity wall to which this speaker is mounted may resonate at one or more frequencies, degrading the audio performance significantly. The comms installation contractor is advised to insert rockwool or similar sound-absorbing material into the cavity in the vicinity of the loudspeaker.
- Note (16) The speaker should be cabled via a local JB concealed behind a cladding panel. The LJB should be constructed in a similar manner to a JB1. The tail from the JB should be shrouded by the Adaptaflex, and should terminate on the speaker as shown on the data sheet.
- Note (17) The Comms installation contractor shall select a suitable bracket from the types specified in the installation data sheet to suit the specifics of the mounting surface. The speaker shall be vertical and aimed parallel to the STS wall against which it mounts.
- Note (18) These ceiling speakers should be cabled directly in a manner similar to the Penton RCS6-FTS speakers, as shown on drawing KX6-CCD-2901. Note that there is no glanded cable entry hole so the flexible secondary containment should stop just short of the speaker terminal block.
- Note (19) For AFIL loops 1/1A and 1/1B please see ticket hall design.



1.4 MICROPHONES

Ref No	Location	Level	Building	Build	Fixed to	Bracket details	Layout Drawing	Manufacturer	Model	Wire Drawing	Weight
ANS1/1	Gridline C/L, front of CG/08b	Ground	WCR	ANS	Cladding above Retail unit CG/08b	To suit cladding	WRB-CCP0-2110	Ateis	PABFMP24 ANS Mic.	KX6-CCX-2933	2Kg
ANS2/1	P2/3, Gridline 7	Ground	MTS	ANS	Totem, above DS180, facing north	By Totem designer (5)	KX6-CCP0-2500	Ateis	PABFMP24 ANS Mic.	KX6-CCX-2933	2Kg
ANS2/2	P6/7, Gridline 7	Ground	MTS	ANS	Totem, above DS180, facing north	By Totem designer (5)	KX6-CCP0-2506	Ateis	PABFMP24 ANS Mic.	KX6-CCX-2933	2Kg
ANS3/1	P10/11, Gridline W25, Near buffer stops	Ground	STS	ANS	Totem, above DS500, facing north	By Totem designer (5)	KX6-CCP0-2512	Ateis	PABFMP24 ANS Mic.	KX6-CCX-2933	2Kg
ANSZ/1	P0, Gridline 8	Ground	MTS	ANS	Existing Column, fixed to rear of cladding (9)	To suit cladding	KX6-CCP0-2500	Ateis	PABFMP24 ANS Mic.	KX6-CCX-2933	2Kg
FMIC01	Control Room 1/01	1st Floor	WRB	FMIC	Wall (8)	Fastened directly to wall		Ateis	PSS24FM Fire Mic.	None	10Kg
FMIC02	NR Reception (G/01)	Ground	WRB	FMIC	Wall (8)	Fastened directly to wall		Ateis	PSS24FM Fire Mic.	None	10Kg
SMC01	Control Room 1/01	1st Floor	WRB	SMC	On desk (7)	On desk		Ateis	PSS24DT Paging Mic.	None	2Kg
SMC02	Control Room 1/01	1st Floor	WRB	SMC	On desk (7)	On desk	_	Ateis	PSS24DT Paging Mic.	None	2Kg
SMC03	Control Room 1/01	1st Floor	WRB	SMC	On desk (7)	On desk		Ateis	PSS24DT Paging Mic.	None	2Kg

- Note (1) Existing Column, fixed to rear of cladding
- Note (2) Monolith designer to design or select bracket to suit Monolith design
- Note (3) Installed in an IP-rated Access Floor Box
- Note (4) Height previously identified as 2400mm to the acoustic centre. All heights now specified to lower edge for ease of identification
- Note (5) Totem designer to design or select bracket to suit Totem design
- Note (6) The suitability of standard brackets for actual wall surfaces will need to be assessed by survey when exact mounting locations have been established.
- Note (7) The exact location for this microphone within the room will have to be determined when the room layout is known.
- Note (8) The wall location for the Fire Microphone will have to be determined when the room layout is known, but will, in any case, need to be coordinated with the location of the local Fire Panel.
- Note (9) The ANS should be mounted to the rear of the cladding, with the microphone port of the ANS offered through a hole in the cladding. A layer of silicone rubber sheet should be installed between mic and panel to minimise vibration coupling.
- Note (10) All heights now specified to lower edge for ease of identification
- Note (11) Detailed design of the bridge and the MIP lifts should take account of the need to mount the speakers in these locations
- Note (12) Speaker 101 has been deleted from the design
- Note (13) Speaker mounting integrated into the Retail or Way-finding Signage on the first floor Mezz. Fixing/mounting design subject to design and coordination with Arup and JMP, the location of the power supplies and junction boxes to be determined, refer to Arup drawing WCC-CAD-5331.
- Note (14) The details of the AFIL loops and the ceiling speakers in the Ticket Hall are given in the separate Ticket Hall Comms design. JB145 and the loop output terminals of AFILA1/1A and AFILA1/1B constitute the demarcation point between this design and that one.
- Note (15) The cavity wall to which this speaker is mounted may resonate at one or more frequencies, degrading the audio performance significantly. The comms installation contractor is advised to insert rockwool or similar sound-absorbing material into the cavity in the vicinity of the loudspeaker.
- Note (16) The speaker should be cabled via a local JB concealed behind a cladding panel. The LJB should be constructed in a similar manner to a JB1. The tail from the JB should be shrouded by the Adaptaflex, and should terminate on the speaker as shown on the data sheet.
- Note (17) The Comms installation contractor shall select a suitable bracket from the types specified in the installation data sheet to suit the specifics of the mounting surface. The speaker shall be vertical and aimed parallel to the STS wall against which it mounts.
- Note (18) These ceiling speakers should be cabled directly in a manner similar to the Penton RCS6-FTS speakers, as shown on drawing KX6-CCD-2901. Note that there is no glanded cable entry hole so the flexible secondary containment should stop just short of the speaker terminal block.
- Note (19) For AFIL loops 1/1A and 1/1B please see ticket hall design.



2 PAVA SPEAKER PRE-BUILD SCHEDULES

2.1 BUILD S1-1

Speakers designated Build S1-1 should be procured and prebuilt according to the following details.

The lengths given in the table below are only indicative. The installation contractor will need to choose the actual pre-wire lengths to suit the locations of the speaker local junction boxes.

Speaker Type	Intellivox DS500 – Amp at rear
Speaker Colour	RAL 7016 30% Gloss
Special Speaker Options	100V line Input Card P/N 381003
Cable Entry Plate	Not required
Wire Drawing for Speaker Termination	KX6-CCD-2900

25mm Entry Hole - Qty 2	Conduit Type, Length	Cable	Cable Type	Length
		Audio Cable	FP Plus (Enhanced), 2 Core, 1.5mm	Length 2m.
Hole 1	Adaptaflex SPB25, 1.5m	Earth Cable	Gn/Yw 16mm sq	Length 2m.
	·	Mains Cable	Standard stranded cable, LSOH	Length 2m
Holo 2	Adoptoflox SDD25 1 5m	Fault Loop Cable	FP Plus (Enhanced), 2 Core, 1.5mm	Length 2m.
Hole 2	Adaptaflex SPB25, 1.5m	RS-485 Data	Belden 89729	Length 2m.

2.2 BUILD S2-1

Speakers designated Build S2-1 should be procured and prebuilt according to the following details.

Speaker Type	Intellivox DSX280 Amp at Top
Speaker Colour	RAL9005 15% Gloss
Special Speaker Options	100V line Input Card P/N 381003
Cable Entry Plate	Cover Plate (802110)
Wire Drawing for Speaker Termination	KX6-CCD-2900

25mm Entry Hole - Qty 2	Conduit Type, Length	Cable	Cable Type	Length
		Audio Cable	FP Plus (Enhanced), 2 Core, 1.5mm	Length 2m.
Hole 1	Adaptaflex SPB25, 1.5m	Earth Cable	Gn/Yw 16mm sq	Length 2m.
	-	Mains Cable	Standard stranded cable, LSOH	Length 2m
Hole 2	Adaptaflex SPB25, 1.5m	Fault Loop Cable	FP Plus (Enhanced), 2 Core, 1.5mm	Length 2m.
Hole 2	Adaptallex SPB25, 1.5III	RS-485 Data	Belden 89729	Length 2m.



2.3 BUILD S3-1

Speakers designated Build S3-1 should be procured and prebuilt according to the following details.

The lengths given in the table below are only indicative. The installation contractor will need to choose the actual pre-wire lengths to suit the locations of the speaker local junction boxes.

Speaker Type	Intellivox DS180 Amp at Top
Speaker Colour	RAL 7016 Anthracite Grey
Special Speaker Options	100V line Input Card P/N 381003
Cable Entry Plate	Cover Box 58mm (802100)
Wire Drawing for Speaker Termination	KX6-CCD-2900

25mm Entry Hole - Qty 2	Conduit Type, Length	Cable	Cable Type	Length
	Audio Cable	FP Plus (Enhanced), 2 Core, 1.5mm	Length 2m.	
Hole 1	Hole 1 Adaptaflex SPB25, 1.5m	Earth Cable	Gn/Yw 16mm sq	Length 2m.
		Mains Cable	Standard stranded cable, LSOH	Length 2m
Holo 2	Adaptaflay CDB2E 1 Em	Fault Loop Cable	FP Plus (Enhanced), 2 Core, 1.5mm	Length 2m.
Hole 2	Adaptaflex SPB25, 1.5m	RS-485 Data	Belden 89729	Length 2m.

2.4 BUILD S3-2

Speakers designated Build S3-2 should be procured and prebuilt according to the following details.

Speaker Type	Intellivox DS180 Amp at Top
Speaker Colour	RAL 7016 30% Gloss
Special Speaker Options	100V line Input Card P/N 381003
Cable Entry Plate	Cover Box 58mm (802100)
Wire Drawing for Speaker Termination	KX6-CCD-2900

25mm Entry Hole - Qty 2	Conduit Type, Length	Cable	Cable Type	Length
	Audio Cable	FP Plus (Enhanced), 2 Core, 1.5mm	Length 2m.	
Hole 1	Hole 1 Adaptaflex SPB25, 1.5m	Earth Cable	Gn/Yw 16mm sq	Length 2m.
·	Mains Cable	Standard stranded cable, LSOH	Length 2m	
Holo 2	Adoptofloy CDB2F 1 Fm	Fault Loop Cable	FP Plus (Enhanced), 2 Core, 1.5mm	Length 2m.
Hole 2 Adaptaflex SPB25, 1.5m	RS-485 Data	Belden 89729	Length 2m.	



2.5 BUILD S3-3

Speakers designated Build S3-3 should be procured and prebuilt according to the following details.

The lengths given in the table below are only indicative. The installation contractor will need to choose the actual pre-wire lengths to suit the locations of the speaker local junction boxes.

Speaker Type	Intellivox DS180 Amp at Top
Speaker Colour	TBA
Special Speaker Options	100V line Input Card P/N 381003
Cable Entry Plate	Cover Box 58mm (802100)
Wire Drawing for Speaker Termination	KX6-CCD-2900

25mm Entry Hole - Qty 2	Conduit Type, Length	Cable	Cable Type	Length
	Audio Cable	FP Plus (Enhanced), 2 Core, 1.5mm	Length 2m.	
Hole 1	Hole 1 Adaptaflex SPB25, 1.5m	Earth Cable	Gn/Yw 16mm sq	Length 2m.
		Mains Cable	Standard stranded cable, LSOH	Length 2m
Halo 2	Adoptoflox CDB2F 1 Fm	Fault Loop Cable	FP Plus (Enhanced), 2 Core, 1.5mm	Length 2m.
Hole 2 Adaptaflex SPB25, 1.5m	RS-485 Data	Belden 89729	Length 2m.	

2.6 BUILD S3-4

Speakers designated Build S3-4 should be procured and prebuilt according to the following details.

The lengths given in the table below are only indicative. The installation contractor will need to choose the actual pre-wire lengths to suit the locations of the speaker local junction boxes.

Speaker Type	Intellivox DS180 Amp at Top
Speaker Colour	RAL 7016 30% Gloss
Special Speaker Options	100V line Input Card P/N 381003
Cable Entry Plate	Cover Plate (802110)
Wire Drawing for Speaker Termination	KX6-CCD-2900

25mm Entry Hole - Qty 2	Conduit Type, Length	Cable	Cable Type	Length
	Audio Cable	FP Plus (Enhanced), 2 Core, 1.5mm	Length 2m.	
Hole 1	Hole 1 Adaptaflex SPB25, 1.5m	Earth Cable	Gn/Yw 16mm sq	Length 2m.
		Mains Cable	Standard stranded cable, LSOH	Length 2m
Hole 2 Adaptaflex SPB25, 1.5m	Fault Loop Cable	FP Plus (Enhanced), 2 Core, 1.5mm	Length 2m.	
	RS-485 Data	Belden 89729	Length 2m.	

2.7 BUILD S3-5

Speaker Build S3-5 is not used.



2.8 BUILD S3-6

Speakers designated Build S3-6 should be procured and prebuilt according to the following details.

The lengths given in the table below are only indicative. The installation contractor will need to choose the actual pre-wire lengths to suit the locations of the speaker local junction boxes.

0 1 =	1 / III DO100 A / I I
Speaker Type	Intellivox DS180 Amp at back
Speaker Colour	RAL 7016 30% Gloss
Special Speaker Options	100V line Input Card P/N 381003
Cable Entry Plate	Cover Plate (802110)
Wire Drawing for Speaker Termination	KX6-CCD-2900

25mm Entry Hole - Qty 2	Conduit Type, Length	Cable	Cable Type	Length
	Audio Cable	FP Plus (Enhanced), 2 Core, 1.5mm	Length 2m.	
Hole 1	Hole 1 Adaptaflex SPB25, 1.5m	Earth Cable	Gn/Yw 16mm sq	Length 2m.
· ·	Mains Cable	Standard stranded cable, LSOH	Length 2m	
Hole 2 Adaptaflex SPB25, 1.5m	Fault Loop Cable	FP Plus (Enhanced), 2 Core, 1.5mm	Length 2m.	
	RS-485 Data	Belden 89729	Length 2m.	

2.9 BUILD \$4-2

Speakers designated Build S4-2 should be procured and prebuilt according to the following details.

Speaker Type	Intellivox DS115 Amp at Bottom
Speaker Colour	RAL9006 15% Gloss
Special Speaker Options	100V line Input Card P/N 381003
Cable Entry Plate	Cover Box 58mm (802100)
Wire Drawing for Speaker Termination	KX6-CCD-2900

25mm Entry Hole - Qty 2	Conduit Type, Length	Cable	Cable Type	Length
	Audio Cable	FP Plus (Enhanced), 2 Core, 1.5mm	Length 2m.	
Hole 1	Hole 1 Adaptaflex SPB25, 2.0m	Earth Cable	Gn/Yw 16mm sq	Length 2m.
	Mains Cable	Standard stranded cable, LSOH	Length 2m	
Hole 2 Adaptaflex SPB25, 2.0m	Fault Loop Cable	FP Plus (Enhanced), 2 Core, 1.5mm	Length 2m.	
	Adaptanex SPB25, 2.0m	RS-485 Data	Belden 89729	Length 2m.



2.10 BUILD S4-3

Speakers designated Build S4-3 should be procured and prebuilt according to the following details.

The lengths given in the table below are only indicative. The installation contractor will need to choose the actual pre-wire lengths to suit the locations of the speaker local junction boxes.

Speaker Type	Intellivox DS115 Amp at Top
Speaker Colour	RAL9005 15% Gloss
Special Speaker Options	100V line Input Card P/N 381003
Cable Entry Plate	Cover Box 58mm (802100)
Wire Drawing for Speaker Termination	KX6-CCD-2900

25mm Entry Hole - Qty 2	Conduit Type, Length	Cable	Cable Type	Length
		Audio Cable	FP Plus (Enhanced), 2 Core, 1.5mm	Length 2m.
Hole 1	Hole 1 Adaptaflex SPB25, 1.5m	Earth Cable	Gn/Yw 16mm sq	Length 2m.
	Mains Cable	Standard stranded cable, LSOH	Length 2m	
Holo 2	Adoptoflay CDD2E 1 Em	Fault Loop Cable	FP Plus (Enhanced), 2 Core, 1.5mm	Length 2m.
Hole 2	Hole 2 Adaptaflex SPB25, 1.5m	RS-485 Data	Belden 89729	Length 2m.

2.11 BUILD \$4-4

Speakers designated Build S4-4 should be procured and prebuilt according to the following details.

Speaker Type	Intellivox DS115 Amp at Top
Speaker Colour	RAL9005 15% Gloss
Special Speaker Options	100V line Input Card P/N 381003
Cable Entry Plate	Cover Plate (802110)
Wire Drawing for Speaker Termination	KX6-CCD-2900

25mm Entry Hole - Qty 2	Conduit Type, Length	Cable	Cable Type	Length
	Audio Cable	FP Plus (Enhanced), 2 Core, 1.5mm	Length 2m.	
Hole 1	Hole 1 Adaptaflex SPB25, 2.0m	Earth Cable	Gn/Yw 16mm sq	Length 2m.
		Mains Cable	Standard stranded cable, LSOH	Length 2m
Hole 2	Adaptaflex SPB25, 2.0m	Fault Loop Cable	FP Plus (Enhanced), 2 Core, 1.5mm	Length 2m.
Hole 2	Adaptatiex 3FB25, 2.011	RS-485 Data	Belden 89729	Length 2m.



2.12 BUILD \$4-5

Speakers designated Build S4-5 should be procured and prebuilt according to the following details.

The lengths given in the table below are only indicative. The installation contractor will need to choose the actual pre-wire lengths to suit the locations of the speaker local junction boxes.

Speaker Type	Intellivox DS115 Amp at Bottom
Speaker Colour	RAL 7016 Anthracite Grey
Special Speaker Options	100V line Input Card P/N 381003
Cable Entry Plate	Cover Box 58mm (802100)
Wire Drawing for Speaker Termination	KX6-CCD-2900

25mm Entry Hole - Qty 2	Conduit Type, Length	Cable	Cable Type	Length
		Audio Cable	FP Plus (Enhanced), 2 Core, 1.5mm	Length 2m.
Hole 1	Hole 1 Adaptaflex SPB25, 2.0m	Earth Cable	Gn/Yw 16mm sq	Length 2m.
	Mains Cable	Standard stranded cable, LSOH	Length 2m	
Hala 2	Adaptaflay CDD25 2.0m	Fault Loop Cable	FP Plus (Enhanced), 2 Core, 1.5mm	Length 2m.
Hole 2 Adaptaflex SPB25, 2.0m	RS-485 Data	Belden 89729	Length 2m.	

2.13 BUILD \$4-6

Speakers designated Build S4-6 should be procured and prebuilt according to the following details.

Speaker Type	Intellivox DS115 Amp at Back
Speaker Colour	RAL 7016 Anthracite Grey
Special Speaker Options	100V line Input Card P/N 381003
Cable Entry Plate	Cover Box 58mm (802100)
Wire Drawing for Speaker Termination	KX6-CCD-2900

25mm Entry Hole - Qty 2	Conduit Type, Length	Cable	Cable Type	Length
	Audio Cable	FP Plus (Enhanced), 2 Core, 1.5mm	Length 2m.	
Hole 1	Adaptaflex SPB25, 2.0m	Earth Cable	Gn/Yw 16mm sq	Length 2m.
	Mains Cable	Standard stranded cable, LSOH	Length 2m	
Holo 2	Adaptaflex SPB25, 2.0m	Fault Loop Cable	FP Plus (Enhanced), 2 Core, 1.5mm	Length 2m.
Hole 2	Nuapiallex SPB25, 2.0111	RS-485 Data	Belden 89729	Length 2m.



2.14 BUILD \$4-7

Speakers designated Build S4-7 should be procured and prebuilt according to the following details.

The lengths given in the table below are only indicative. The installation contractor will need to choose the actual pre-wire lengths to suit the locations of the speaker local junction boxes.

Speaker Type	Intellivox DS115 Amp at Top
Speaker Colour	RAL9005 15% Gloss
Special Speaker Options	100V line Input Card P/N 381003
Cable Entry Plate	Cover Plate (802110)
Wire Drawing for Speaker Termination	KX6-CCD-2900

25mm Entry Hole - Qty 2	Conduit Type, Length	Cable	Cable Type	Length
		Audio Cable	FP Plus (Enhanced), 2 Core, 1.5mm	Length 2m.
Hole 1	Adaptaflex SPB25, 2.0m	Earth Cable	Gn/Yw 16mm sq	Length 2m.
	Mains Cable	Standard stranded cable, LSOH	Length 2m	
Hole 2	Adaptaflex SPB25, 2.0m	Fault Loop Cable	FP Plus (Enhanced), 2 Core, 1.5mm	Length 2m.
Hole 2	Auapianex SPB25, 2.0m	RS-485 Data	Belden 89729	Length 2m.

2.15 BUILD S5-1

Speakers designated Build S5-1 should be procured and prebuilt according to the following details.

Speaker Type	Penton RCS6FTS
Speaker Colour	TBA
Special Speaker Options	none
Cable Entry	2 x 20mm Gland
Wire Drawing for Speaker Termination	KX6-CCD-2901

2.16 BUILD S5-2

Speakers designated Build S5-2 should be procured and prebuilt according to the following details.

Speaker Type	Penton RCS6FTS
Speaker Colour	RAL9006 15% Gloss
Special Speaker Options	none
Cable Entry	2 x 20mm Gland
Wire Drawing for Speaker Termination	KX6-CCD-2901

2.17 BUILD S5-3

Speakers designated Build S5-2 should be procured and prebuilt according to the following details.

Speaker Type	Penton RCS5FTSCOAX
Speaker Colour	RAL9010 30% Gloss
Special Speaker Options	none
Cable Entry	2 x 20mm Gland
Wire Drawing for Speaker Termination	KX6-CCD-2901



2.18 BUILD S6-1

Speakers designated Build S6-1 should be procured and prebuilt according to the following details.

The lengths given in the table below are only indicative. The installation contractor will need to choose the actual pre-wire lengths to suit the locations of the speaker local junction boxes.

Speaker Type	DNH CAP-15 WT
Speaker Colour	RAL7016
Special Speaker Options	W signifies Weather option (IP)
Cable Entry	1 x 20mm Gland
Wire Drawing for Speaker Termination	KX6-CCD-2903

20mm Entry Hole - Qty 1	Conduit Type, Length	Cable	Cable Type	Length
Hole 1	Adaptaflex SPB20, 1.5m	Tail Cable	FP Plus (Enhanced), 4 Core, 1.0mm	Length 2m.

2.19 BUILD S7-1

Speakers designated Build S7-1 should be procured and prebuilt according to the following details.

The lengths given in the table below are only indicative. The installation contractor will need to choose the actual pre-wire lengths to suit the locations of the speaker local junction boxes.

Speaker Type	Penton MCS20
Speaker Colour	TBA
Special Speaker Options	none
Cable Entry	1 x 20mm Gland
Wire Drawing for Speaker Termination	KX6-CCD-2902

20mm Entry Hole - Qty 1	Conduit Type, Length	Cable	Cable Type	Length
Hole 1	Adaptaflex SPB20, 1.5m	Tail Cable	FP Plus (Enhanced), 4 Core, 1.0mm	Length 2m.

2.20 BUILD S8-1

Speakers designated Build S8-1 should be procured and prebuilt according to the following details.

Speaker Type	Intellivox ADC V90
Speaker Colour	TBD
Special Speaker Options	none
Cable Entry	1 x PG13.5 Gland
Wire Drawing for Speaker Termination	See Note (16)

PG13.5 Gland - Qty 1	Conduit Type, Length	Cable	Cable Type	Length
Hole 1	Adaptaflex SPB25, 2.0m, x 1	Tail Cable	FP Plus (Enhanced), 4 Core, 1.0mm	Length 2m.



2.21 BUILD S9-1

Speakers designated Build S9-1 should be procured and prebuilt according to the following details.

Speaker Type	Bosch LC-PC60G-8H
Speaker Colour	RAL 9010 (White)
Special Speaker Options	none
Cable Entry	None – wired direct
Wire Drawing for Speaker Termination	See Note(18)