

Method Statements

Installation Method Statements

We are providing a schedule of Installation Method Statements as shown in Table 1. The second schedule shown in Table 3, lists Method Statements that we propose to use during Testing and Commissioning. We are providing target dates for completion. Please note that we expect to complete this activity by Jan 30, 2014. More detailed dates will be provided and tracked as per Document Control tracking sheets (see example in Fig. 1). We may have to revisit some of the dates based on the procurement and material submittal progress. For some of the specialty services we have projected that information will be released over the next 90 days or earlier. Emphasis has been given to first fix installations and any testing associated with it, such as water pressure tests.

As the Method Statements and materials according to the drawings and specifications are common, only one set of Method Statements will be developed covering the whole development. Should the need arise to modify a particular Method Statement for a particular Hotel we will add these to the schedules at request.

Commissioning Method Statements

We envisage to introduce Commissioning Planning and Method Statements as early as possible and these have been scheduled to start by April next year.

Table 1: List of Services and Projected Installation Method Statements.

Ref	Package	Method Statements	Target Date
2.0	Mechanical		
2.1	Piped Systems	MS-M-001 Piping Fabrication, Erection, Inspection & Testing	30 Sep 2013
		MS-M-002 Heat Exchangers	30 Nov 2013
		MS-M-003 Pumps	30 Nov 2013
2.2	Ducted Systems	MS-M-004 Installation of GI HVAC Duct Work	30 Sep 2013
		MS-M-005 Installation of HVAC Dampers & Accessories	30 Sep 2013
		MS-M-006 Air Leakage Testing of Duct Work	30 Sep 2013
2.3	HVAC Equipment	MS-M-007 Installation of Fans & Accessories	30 Oct 2013
		MS-M-008 Fan Coil Units (FCU)	30 Oct 2013
		MS-M-009 Air Handling Units (AHU)	30 Nov 2013
		MS-M-010 Split System Air Conditioning Units	30 Jan 2014
		MS-M-011 Installation of Refrigerant Piping	30 Jan 2014
		MS-M-012 Close Control Units	30 Jan 2014
		MS-M-013 Air Inlets & Outlets (All Type)	30 Oct 2013
		MS-M-014 Terminal Units (VAV & CAV Units)	30 Oct 2013
		MS-M-015 Duct Mounted Electric Heaters	30 Oct 2013
		MS-M-016 Seismic Bracing	30 Sep 2013
2.4	Insulation	MS-M-017 Insulation of Piping, Duct Work & Equipment	30 Sep 2013
2.5	Kitchen Extract System	MS-M-018 Installation Kitchen Exhaust Carbon Steel Ductwork	30 Oct 2013
		MS-M-019 Installation Stainless Steel Ductwork	30 Oct 2013
2.6	Car Park Ventilation	MS-M-020 Jet Fans and CO Monitoring System	30 Oct 2013
3	Public Health		
3.1	Domestic Water	MS-PL-001 Domestic Water Piping System (H&C) Installation & Testing	30 Oct 2013
3.2	Above Ground Drainage	MS-PL-002 Above Ground Drainage Installation & Testing	30 Oct 2013
3.3	Below Ground Drainage	MS-PL-003 Below Ground Drainage Installation & Testing	30 Sep 2013
		MS-PL-004 Sump Pumps	30 Oct 2013
		MS-PL-005 Water Storage Tank	30 Nov 2013
		MS-PL-006 Sanitary ware Installation	30 Jan 2014
		MS-PL-007 Pod Installation	30 Nov 2013
		MS-PL-008 Water Heaters/Calorifiers	30 Nov 2013
3.4	Water Features	MS-PL-009 Installation and Testing of Water Feature Systems	30 Jan 2014
3.5	Irrigation	MS-PL-010 Installation and Testing of Irrigation Systems	30 Jan 2014
3.6	Gas Supply Installations	MS-PL-011 Installation and Testing of Gas Supply Systems	30 Nov 2013
3.7	Gas Fired Boilers	MS-PL-012 Installation and Factory Testing Boilers	30 Nov 2013
3.8	Gray Water Treatment	MS-PL-013 Installation of Gray Water Treatment System	30 Nov 2013
4.0	Fire Defense		
4.1	FHC, FH and Sprinkler Installations.	MS-FP-001 FHC, FH and Sprinkler Installation & Testing	30 Oct 2013
4.2		MS-FP-002 Painting of Fire Protection Piping	30 Oct 2013
4.3		MS-FP-003 Identification and Tagging FP Services	30 Nov 2013
4.4	Smoke Exhaust	MS-FP-004 Installation of Smoke Extract Systems	30 Oct 2013
4.5	Staircase Pressurization	MS-FP-005 Installation of Staircase Pressurization Systems	30 Oct 2013
4.6	FM-200	MS-FP-006 Installation and Testing of FM-200 Systems	30 Nov 2013
4.7	ANSUL Kitchen Hoods	MS-FP-007 Installation of Kitchen Hood Ext. System	30 Nov 2013

Electrical			
5.1	General	MS-EL-001 Installation of Cable Tray, Trunking & Ladder	30 Sep 2013
		MS-EL-002 Installation Wires & Power Cables for Building (MV & LV)	30 Oct 2013
		MS-EL-003 Installation of Raceways & Boxes	30 Sep 2013
		MS-EL-004 ELV System Cable Pulling	30 Oct 2013
		MS-EL-005 Installation of Panel Boards	30 Oct 2013
		MS-EL-006 Busbar Assemblies	30 Nov 2013
		MS-EL-007 Installation of MV Switchgear	30 Oct 2013
		MS-EL-008 Installation of MCC (Motor Control System)	30 Oct 2013
		MS-EL-009 Installation of Main LV & MV Switchgear	30 Nov 2013
		MS-EL-010 Installation of Capacitor Bank	30 Nov 2013
		MS-EL-011 Installation of ATS	30 Nov 2013
5.2	Standby Generators	MS-EL-012 Installation and Factory Testing of Standby Generators	30 Nov 2013
5.3	Medium Voltage System		
5.4	Low Voltage System	MS-EL-013 Small Power & Interior Lighting System	30 Oct 2013
5.5	Earthing & Lightning Protection	MS-EL-014 Earthing & Bonding System	30 Oct 2013
		MS-EL-015 Lightning Protection System	30 Oct 2013
5.6	Lighting & Emergency Lighting	MS-EL-016 Lighting Control System	30 Nov 2013
		MS-EL-017 Emergency Lighting System	30 Nov 2013
		MS-EL-018 Emergency Exit System	30 Nov 2013
5.7	Aircraft Warning System	MS-EL-019 Installation of Aircraft Warning System	30 Nov 2013
5.8	UPS System	MS-EL-020 Installation of UPS System	30 Nov 2013
Specialist Services			
6.1	Building Management System	MS-ELV-001 Installation and Testing of BMS System	30 Oct 2013
6.2	Security Access Control & CCTV	MS-ELV-002 Installation and Testing of Security, ACS, CCTV Systems	30 Nov 2013
6.3	CO Monitoring	MS-ELV-003 Installation and Testing of CO Monitoring System	30 Nov 2013
6.4	Car Calling System	MS-ELV-004 Installation and Testing of Car Calling System	30 Jan 2014
6.5	Lighting Control	MS-ELV-005 Installation and Testing of Lighting Control System	30 Nov 2013
6.6	Structured Cabling	MS-ELV-006 Installation and Testing of Structured Cabling	30 Nov 2013
6.7	PA & Background Music System	MS-ELV-007 Installation and Testing of Music System	30 Nov 2013
6.8	IPTV & Satellite System	MS-ELV-008 Installation and Testing of IPTV Systems	30 Nov 2013
6.9	Room Management System	MS-ELV-009 Installation and Testing of Room Management System	30 Nov 2013
6.10	Master Clock	MS-ELV-010 Master Clock System Installation and Testing	30 Nov 2013
6.11	Audio/Video System	MS-ELV-011 Audio/Video Systems Installation and Testing	30 Dec 2013
6.12		MS-ELV-012 Car Parking Management Installation and Testing	30 Dec 2013
6.13	Wi-fi	MS-ELV-013 WI-FI	30 Dec 2013

Table 3: List of Services and Projected T&C Method Statements.

Ref	Package	Method Statements	Target Date
7.0	Mechanical		
7.1	HVAC Systems	MS-TC-M-001 Wild Air Methodology	30 Apr 2014
7.2		MS-TC-M-002 CHW System Flushing & Chemical Treatment	30 Apr 2014
		MS-TC-M-003 Heat Exchangers	30 Apr 2014
		MS-TC-M-004 Pumps	30 Apr 2014
		MS-TC-M-005 Pressurization Units	30 May 2014
		MS-TC-M-006 Air & CHW Balancing	30 May 2014
		MS-TC-M-007 T&C Fans	30 May 2014
		MS-TC-M-008 Fan Coil Units (FCU)	30 May 2014
		MS-TC-M-009 Air Handling Units (AHU)	30 May 2014
		MS-TC-M-010 Split System Air Conditioning Units	30 June 2014
		MS-TC-M-011 Close Control Units	30 June 2014
		MS-TC-M-012 Terminal Units (VAV & CAV Units)	30 June 2014
		MS-TC-M-013 Duct Mounted Electric Heaters	30 June 2014
7.3	Kitchen Extract System	MS-TC-M-014 T&C Kitchen Exhaust Systems	30 May 2014
	Laundry & Dish-washer	MS-TC-M-015 T&C Laundry & Dish-washer Exhaust Systems	30 May 2014
7.4	Car Park Ventilation	MS-TC-M-016 T&C Jet Fans and CO Monitoring System	30 June 2014
8	Public Health		
8.1	Domestic H&C Systems	MS-TC-PL-001 Disinfection of Domestic Water System	30 June 2014
		MS-TC-PL-002 Filtration and Chemical Treatment	30 June 2014
		MS-TC-PL-003 Domestic Water - System Operation	30 June 2014
		MS-TC-PL-004 LTHW Water Treatment	30 June 2014
		MS-TC-PL-005 Plumbing Transfer and Booster Pumps	30 July 2014
		MS-TC-PL-006 Water Heaters/Calorifiers	30 July 2014
8.2	Water Features	MS-TC-PL-007 Installation and Testing of Water Feature Systems	30 July 2014
8.3	Irrigation	MS-TC-PL-008 T&C Irrigation Systems	30 July 2014
8.4	Gas Supply Installations	MS-TC-PL-009 T&C Gas Supply Systems	15 Aug 2014
8.5	Gas Fired Boilers	MS-TC-PL-010 T&C Boilers	15 Aug 2014
8.6	Drainage	MS-TC-PL-011 T&C Sump Pumps	30 June 2014
8.7	Gray Water Treatment	MS-TC-PL-012 T&C Gray Water Treatment System	30 July 2014
9.0	Fire Defense		
9.1	Fire Protection	MS-TC-FP-001 T&C Fire Pumps	30 May 2014
9.2		MS-TC-FP-002 T&C FHC, FH and Sprinkler Installation & Testing	30 May 2014
9.3		MS-TC-FP-003 T&C Fire Panels (ATS)	30 May 2014
9.4	FM-200	MS-TC-FP-004 T&C FM-200 Systems	30 May 2014
9.5	FM-200	MS-TC-FP-005 Integrity Testing FM-200 Rooms	30 May 2014
9.6	Smoke Exhaust	MS-TC-FP-006 T&C Smoke Extract Systems	30 Apr 2014
9.7	Staircase Pressurization	MS-TC-FP-007 T&C Staircase Pressurization Systems	30 Apr 2014
9.8	ANSUL Kitchen Hoods	MS-TC-FP-008 T&C Kitchen Hood Fire. Ext. System	30 May 2014

Electrical			
10.1	General	MS-TC-EL-001 Energization and Lock and Key System	30 Apr 2014
		MS-TC-EL-002 T&C MCC Boards	30 Apr 2014
		MS-TC-EL-003 T&C SMDB and DBs	30 May 2014
		MS-TC-EL-004 T&C MV Switchgear	30 May 2014
		MS-TC-EL-005 T&C Capacitor Banks	30 May 2014
		MS-TC-EL-006 Installation of ATS	30 May 2014
10.2	Standby Generators	MS-TC-EL-007 T&C Standby Generators	30 July 2014
10.3	Low Voltage System	MS-TC-EL-008 T&C Small Power & Interior Lighting System	30 July 2014
10.4	Earthing & Lightning Protection	MS-TC-EL-009 T&C Earthing & Bonding System	30 July 2014
		MS-TC-EL-010 T&C Lightning Protection System	30 July 2014
10.5	Lighting & Emergency Lighting	MS-TC-EL-011 T&C Lighting Control System	30 July 2014
		MS-TC-EL-012 T&C Emergency Lighting System	30 July 2014
		MS-TC-EL-013 T&C Emergency Exit Light Systems	30 July 2014
		MS-TC-EL-014 T&C Facade Lighting	30 July 2014
10.6	Aircraft Warning System	MS-TC-EL-015 T&C Aircraft Warning System	15 Aug 2014
10.7	UPS System	MS-TC-EL-016 T&C UPS System	15 Aug 2014
Specialist Services			
11.1	Building Management System	MS-TC-ELV-001 T&C BMS System	15 Aug 2014
11.2	Security Access Control & CCTV	MS-TC-ELV-002 T&C Security and ACS System	15 Aug 2014
11.3	CO Monitoring	MS-TC-ELV-003 T&C CO Monitoring System	15 Aug 2014
11.4	Car Calling System	MS-TC-ELV-004 T&C Car Calling System	15 Aug 2014
11.5	Lighting Control	MS-TC-ELV-005 T&C Lighting Control System	15 Aug 2014
11.6	Structured Cabling	MS-TC-ELV-006 T&C Data and Telephone Systems	15 Aug 2014
11.7	PA & Background Music System	MS-TC-ELV-007 T&C Music System	15 Aug 2014
11.8	IPTV & Satellite System	MS-TC-ELV-008 T&C IPTV Systems	15 Aug 2014
11.9	Room Management System	MS-TC-ELV-009 T&C Room Management System	15 Aug 2014
11.10	Master Clock	MS-TC-ELV-010 T&C Master Clock System	15 Aug 2014
11.11	Audio/Video System	MS-TC-ELV-011 T&C Audio/Video Systems	15 Aug 2014
11.12	Car Parking	MS-TC-ELV-012 T&C Car Parking Management	30 June 2014
11.13	Wi-Fi	MS-TC-ELV-013 T&C WI-FI	30 June 2014