

IDA ANNOTATION – 13 DECEMBER 2000

SINGTEL RESPONSE – 11 JANUARY 2001

SCHEDULE 8
ATTACHMENTS

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ATTACHMENT A

CO-LOCATION EQUIPMENT INSTALLATION AND MAINTENANCE PROCEDURES

CLAUSE 1 – MODIFICATION REQUIRED**1. INSTALLATION OF EQUIPMENT AT CO-LOCATION SPACE****1.1 Installation of Co-Location Equipment*****CLAUSE 1.1.1 – CONDITIONAL APPROVAL***

1.1.1 Prior to commencing installation of its Co-Location Equipment, the Requesting Licensee must submit detailed installation plans and installation timetable no less than ten (10) Working Days before commencement of works for SingTel's approval. The Requesting Licensee shall not commence installation of its Co-Location Equipment until it has received SingTel's approval.

CLAUSE 1.1.2 – MODIFICATION REQUIRED

1.1.2 The Requesting Licensee must ensure that the floor loading of its Co-Located Equipment shall be limited to a maximum 5 kN per sqm or otherwise as specified by SingTel. The Requesting Licensee shall engage a Professional Structural Engineer licensed by the Republic of Singapore ~~approved by SingTel~~ to compute the actual floor loading to certify that the floor loading limit is not exceeded prior to the installation of its Co-Location Equipment. The Requesting Licensee shall not commence installation of its Co-Location Equipment until it has provided SingTel, with five (5) Working Days advance notice, of a copy of the certification of compliance issued by the licensed ~~approved~~ Professional Structural Engineer.

SingTel has a right to protect the structural integrity of its Co-Location Space. However, SingTel may not access this right in a manner that imposes unnecessary costs on the Requesting Licensees. In certain cases, Requesting Licensees will co-locate equipment that is too small to raise any possible risk of excessive weight. Requiring the use of a Professional Structural Engineer in such cases is unnecessary and burdensome. SingTel may only require the Requesting Licensee to engage a licensed Professional Structural Engineer if SingTel has reasonable grounds to believe that the Co-Located Equipment may exceed the floor loading limit. If required, the Requesting Licensee should be permitted to engage any Professional Structural Engineer licensed by the Republic of Singapore.

SingTel comments : Partly agreed. SingTel has amended the clause to allow the Requesting Licensee to engage any Professional Structural Engineer licensed by the Republic of Singapore, however, SingTel does not believe that it would be safe to remove the absolute requirement to employ an engineer as SingTel is not qualified to assess whether Co-Located Equipment may exceed a floor loading limit and should not be required to do so. This certification is critical as a failure to do so could cause significant physical and technical harm.

CLAUSE 1.2 – MODIFICATION REQUIRED

1.2 The Requesting Licensee must install its Co-Location Equipment in the Co-Location Space within thirty (30) Business Days after the final site inspection. If the Requesting Licensee’s failure to complete installation is attributable to circumstances beyond the Requesting Licensee’s reasonable control, SingTel will grant a reasonable extension of time for installation to the Requesting Licensee at the Requesting Licensee’s request. A Requesting Licensee’s request under this clause must describe the circumstances beyond the Requesting Licensee’s control and such request must be received prior to the expiry of the aforementioned thirty (30) Business Day period.

SingTel must modify Clause 1.2 to provide that where any delay by the Requesting Licensee in installing its Co-Location Equipment is attributable to the act or omission of SingTel, or circumstances beyond the reasonable control of the Requesting Licensee, SingTel must give the Requesting Licensee a reasonable period of extension to complete the installation.

SingTel comments : Generally agreed, subject to the Requesting Licensee requesting an extension as described above. SingTel believes that there is no need to refer to “an act or omission of SingTel”.

CLAUSE 1.3 – CONDITIONAL APPROVAL

1.3 The Requesting Licensee must not locate equipment other than Co-Location Equipment in the Co-Location Space.

CLAUSE 1.4 – MODIFICATION REQUIRED

SingTel must justify the limitation imposed in relation to the number of fibre cables and fibre strands in Clauses 1.4.1 to 1.4.3, which appear to be unreasonable.

SingTel comments : SingTel believes that these provisions already cater adequately for Interconnection, Access and redundancy. One optical fibre cable is enough to cater for the number of lines required for Interconnection or Access. The provision of two optical fibre cable caters for redundancy. Additional fibre cables raise the issue of the purpose of Co-Location and whether those fibres cables are being used for permitted or non-permitted purposes. The number of cables and fibres currently specified in the RIO should be sufficient for the Requesting Licensee's intended use at the Co-Location space. Unless the Requesting Licensee can demonstrate to SingTel that it requires more than the limits provided, the limits should be maintained.

1.4 Optical Fibre Cable

1.4.1 Unless otherwise agreed by the Parties, The Requesting Licensee must not install more than two physical optical fibre cables in the Co-Location Space.

1.4.2 Unless otherwise agreed by the Parties, ~~Unless otherwise agreed by SingTel,~~ the Requesting Licensee shall only be permitted to terminate eight (8) fibre strands per fibre cable at the Co-Location Space.

1.4.3 Unless otherwise agreed by the Parties, The Requesting Licensee shall install no more than two (2) optical fibre cable(s) up to the designated manhole outside the Co-Location Site.

CLAUSE 1.5 – MODIFICATION REQUIRED

1.5 Cable Pulling and Tie Cables

CLAUSE 1.5.1 – CONDITIONAL APPROVAL

1.5.1 The Requesting Licensee shall provide SingTel with no less than five (5) Business Days of cable pulling between the designated manhole and the Co-Location Space.

CLAUSE 1.5.2 – MODIFICATION REQUIRED

1.5.2 Unless otherwise agreed by the Parties, SingTel shall pull not more than two (2) fibre cable(s) from the designated manhole to the Co-Location Space. The Requesting Licensee shall pay SingTel the charges in accordance with Schedule 9 for undertaking this activity. The Requesting Licensee must not undertake any cable pulling between the designated manhole and the Co-Location Space.

SingTel must justify the limitation imposed in relation to the number of fibre cables in Clauses 1.5.2, which appear to be unreasonable.

SingTel comments : See comments in relation to clause 1.4 above

CLAUSE 1.5.3 – CONDITIONAL APPROVAL

1.5.3 SingTel shall install and terminate tie cables from the Requesting Licensee’s termination frame to SingTel’s Distribution Frame (MDF/DDF/Patch Panel).

CLAUSE 1.5.4 – CONDITIONAL APPROVAL

1.5.4 The Requesting Licensee shall terminate the end of a tie cable at the Requesting Licensee’s termination frame or Equipment in the Co-Location Space.

CLAUSE 1.6 – MODIFICATION REQUIRED

1.6 Power & Earth

CLAUSE 1.6.1 – CONDITIONAL APPROVAL

1.6.1 SingTel shall designate and provide the communication earth and Power Distribution Point for the Requesting Licensee’s Co-Location Equipment. The Requesting Licensee shall pay SingTel the charges for the provision of the communication earth and Power installation and termination in accordance with Schedule 9.

CLAUSE 1.6.2 – MODIFICATION REQUIRED

1.6.2 SingTel shall provide power of:

(a) a minimum of 20 fused Amps and multiples thereof where the Requesting Licensee requires direct current

(b) a minimum of 13 fused Amps and multiples thereof where the Requesting Licensee requires alternating current

up to a maximum of 200 fused Amps per Co-Location Space.

As required by sub-section 4.2.1.4 of Appendix Two of the Code, SingTel must modify Clause 1.6.2 to substitute the number “13” in place of “20” in the first line.

SingTel comments : Generally agreed, SingTel currently cannot offer lower than 20 Amps for DC power and notes that this is a standard for DC power.

CLAUSE 1.7 – MODIFICATION REQUIRED

1.7 Interference

CLAUSE 1.7.1 – MODIFICATION REQUIRED

1.7.1 ~~The Requesting Licensee~~ Each Party shall ensure that its Co-Location Equipment does not cause any interference to SingTel's ~~the other Party's~~ Equipment Plant, Facilities, Networks and the Equipment of other occupying Requesting Licensees in the Co-Location Space, including when installing ~~the Requesting Licensee's~~ Equipment. In the event of any interference, the ~~Requesting Licensee~~ Parties shall take good faith, reasonable measures to resolve the problem promptly ~~resolve the interference and~~ Where the Requesting Licensee's equipment is causing interference to existing Equipment and the interference cannot be resolved, the Requesting Licensee shall remove the source of interference immediately.

SingTel must modify Clause 1.7.1 to impose a mutual obligation on the two Licensees to take reasonable measures to avoid interfering with each other's networks. In the event of any interference, both Licensees must take good faith, reasonable measures to resolve the problem promptly.

SingTel comments : Agreed, but existing equipment should take precedence.

CLAUSE 1.7.2 – MODIFICATION REQUIRED

1.7.2 If SingTel determines that the interference poses an immediate risk of personal injury or significant property damage, it may, withdraw physical access and at the Requesting Licensee's cost, take measures necessary to prevent such injury or damage. Otherwise, SingTel may provide the Requesting Licensee with ~~two~~ five (25) Business Days notice to rectify the interference. After such time, if the interference continues, SingTel may withdraw physical access and at the Requesting Licensee's cost, take measures to prevent the interference.

A period of 2 Business Days for the Requesting Licensee to rectify the interference is unreasonable. Instead, IDA considers a period of 5 Business Days as reasonable. SingTel must modify Clause 1.7.2 to provide for a reasonable period.

SingTel comments : Agreed

CLAUSE 1.8 – MODIFICATION REQUIRED

1.8 Standard Operating Procedures and Safety

CLAUSE 1.8.1 – CONDITIONAL APPROVAL

1.8.1 In relation to the installation, operation and maintenance of its Co-Located Equipment located in the Co-Location Space, the Requesting Licensee must comply with the Standard Operating Procedures for Co-Location Space in Attachment B of this Schedule as amended from time to time, and any written instructions which are provided to the Requesting Licensee by SingTel.

CLAUSE 1.8.2 – CONDITIONAL APPROVAL

1.8.2 In relation to physical access to the Co-Location Space, the Requesting Licensee shall comply with the Physical Access Procedures in Attachment C as amended from time to time and any written instructions which are provided to the Requesting Licensee by SingTel.

CLAUSE 1.8.3 – CONDITIONAL APPROVAL

1.8.3 Any rubbish/debris created in the course of installation or maintenance shall be removed daily by the Requesting Licensee.

CLAUSE 1.8.4 – CONDITIONAL APPROVAL

1.8.4 SingTel may attend the Co-Location Space to which access has been approved for the installation, modification, replacement or addition of the Equipment to verify that the Requesting Licensee is undertaking the installation, modification, maintenance, operation, replacement or addition of the Equipment in accordance with the approved request, the installation plans, the Standard Operating Procedures in Attachment B and such other written instructions provided to the Requesting Licensee. The costs of such attendance shall be borne by the Requesting Licensee.

CLAUSE 1.8.5 – MODIFICATION REQUIRED

1.8.5 Where, as a result of an attendance under sub-clause 1.8.4, SingTel notifies the Requesting Licensee that its installation is not in accordance with the approved request, the installation plans, the Standard Operating Procedures in Annex A of this

Schedule or such other written instructions provided to the Requesting Licensee, the Requesting Licensee must take appropriate corrective action within 5 Working Days of notice. If the Requesting Licensee fails to do so, SingTel may withdraw physical access or undertake the appropriate corrective action and recover the reasonable cost from the Requesting Licensee accordingly.

SingTel must modify Clause 1.8.5 to insert the word “reasonable” before the phrase “cost from the Requesting Licensee” in the seventh line.

SingTel comments : **Agreed.**

CLAUSE 1.8.6 – CONDITIONAL APPROVAL

1.8.6 The Requesting Licensee shall consult with and obtain the consent of SingTel before carrying out any hacking or drilling work on the floor, wall and ceiling slabs.

CLAUSE 1.8.7 – CONDITIONAL APPROVAL

1.8.7 No hot works shall be carried out by the Requesting Licensee without prior approval from SingTel and any such works must be performed in accordance with SingTel’s safety procedures. Hot work means any work involving riveting, welding, flame cutting, burning, gouging or any other work involving the use of heat for producing sparks.

CLAUSE 1.8.8 – CONDITIONAL APPROVAL

1.8.8 No work shall be performed by the Requesting Licensee on any of SingTel’s Equipment Facilities, Plant or Networks including, but not limited to earth bars and power distribution points/boards.

CLAUSE 1.8.9 – CONDITIONAL APPROVAL

1.8.9 No flammable or hazardous materials shall be used by the Requesting Licensee, whether on a permanent or temporary basis, during and after the installation period. No smoking is allowed. No food or drinks are allowed in the Co-Location Space.

CLAUSE 1.8.10 – CONDITIONAL APPROVAL

1.8.10 All the connection of the Requesting Licensee’s Co-Location Equipment to SingTel’s earth bars and power distribution points/boards shall be carried out by

SingTel's staff. Charges for the work shall be borne by the Requesting Licensee as set out in Schedule 9.

CLAUSE 1.8.11 – CONDITIONAL APPROVAL

1.8.11 Where, during the course of installation, operation, maintenance, replacement or repair of its Co-Located Equipment the Requesting Licensee causes any damage to SingTel's Co-Location Site, Plant, Network, Equipment or Facilities, the Requesting Licensee must report the damage immediately to SingTel. SingTel shall rectify any damage in any way it deems fit, the cost and expense in connection with the damage including for the repair thereof shall be borne by the Requesting Licensee.

CLAUSE 1.8.12 – CONDITIONAL APPROVAL

1.8.12 The Requesting Licensee shall report immediately any incident, injury, harm, fatal or otherwise that occurs at the Co-Location Site to SingTel. For fatal or serious accidents, the accident site shall be let undisturbed to facilitate the relevant authority to investigate the circumstance leading to the accident. The Requesting Licensee shall report immediately to the Ministry of Manpower, police and insurance company of any fatal accident having occurred at the Co-Location Site. The Requesting Licensee shall be liable for and shall indemnify and keep indemnified SingTel against all losses, claims, proceedings, damages, liabilities, costs and expenses for injuries or death to any person whomsoever or any loss or damage to any property whatsoever which arise out of or in consequence of any act or omission of the Requesting Licensee's employees and contracts in relation to the Co-Location Site and against all claims, demands, proceedings, damages, costs, charges and expenses whatsoever in respect thereof.

CLAUSE 1.9 – MODIFICATION REQUIRED

1.9 Final Inspection

CLAUSE 1.9.1 – CONDITIONAL APPROVAL

1.9.1 Upon completion of the installation of the Co-Location Equipment in the Co-Location Space, the Requesting Licensee shall advise SingTel and request SingTel to conduct a final inspection and confirm that the installation conforms with the approved detailed installation plans.

CLAUSE 1.9.2 – MODIFICATION REQUIRED

1.9.2 Where the final inspection reveals that the installation does not materially conform with the approved detailed installation plans, SingTel shall notify the Requesting Licensee. The Requesting Licensee must reinstall or take other appropriate corrective action within ten (10) Working Days of notification, or such other time as is otherwise agreed. The Requesting Licensee shall bear the reasonable costs that SingTel incurs for the inspection of the reinstallation or other appropriate corrective action. SingTel may still inform and require the Requesting Licensee to make adjustments to its installation where the installation does not conform with the installation plan in a non-material way, but this notification will not delay the approval process under this Schedule.

SingTel must revise Clause 1.9.2 as follows:

(a) SingTel has the right to ensure that the Requesting Licensee complies with its construction commitments. However, SingTel must exercise its right in a reasonable manner. Clause 1.9.2 must make clear that SingTel may not require the Requesting Licensee to redo work where the deviation from the agreed upon plan is clearly minor and would not have any operational impact.

SingTel comments : Agreed, although SingTel prefers the use of the term “materially”. Also, the Requesting Licensee should still be required to make all changes necessary to conform to the original plan, although minor non-conformity will not delay approvals under this Schedule.

(b) SingTel must modify Clause 1.9.2 to insert the word “reasonable” before the phrase “costs that SingTel incurs” in the fifth line.

SingTel comments : Agreed

CLAUSE 1.9.3 – CONDITIONAL APPROVAL

1.9.3 If the Requesting Licensee fails to reinstall or take the appropriate corrective action referred to in clause 1.9.2, SingTel may take appropriate corrective action including removal of the Requesting Licensee’s Co-Location Equipment. The reasonable costs for the corrective action shall be borne by the Requesting Licensee.

CLAUSE 2 – MODIFICATION REQUIRED**2. MAINTENANCE OF CO-LOCATION EQUIPMENT IN CO-LOCATION SPACE*****CLAUSES 2.1 TO 2.4 – CONDITIONAL APPROVAL***

- 2.1** The Requesting Licensee shall be responsible for the operation and maintenance of its Co-Location Equipment.
- 2.2** In the operation and maintenance of the Co-Location Equipment, the Requesting Licensee must:
- (a) take such other action as a reasonably prudent Requesting Licensee would; and
 - (b) keep the Co-Location Space in a tidy and safe condition at all times; and
 - (c) ensure that flammable or toxic material is not left in or around the Co-Location Space following maintenance or other operations.
- 2.3** If a fault, defect or problem with the Co-Location Equipment of the Requesting Licensee causes or may cause damage to the Co-Location Space or SingTel's facilities, the Requesting Licensee must:
- (a) notify SingTel as soon as practicable; and
 - (b) repair the fault, defect or problem or take other appropriate corrective action immediately.
- 2.4** Where SingTel determines that the Requesting Licensee's Co-Location Equipment pose an immediate risk of personal injury or significant property damage, it may, at the Requesting Licensee's cost, take interim measures necessary to prevent such injury or damage, pending attendance by the Requesting Licensee to perform corrective work.

CLAUSE 2.5 – MODIFICATION REQUIRED

- 2.5** The Co-Location Equipment must only be used by the Requesting Licensee for the purpose of connecting the Requesting Licensee's Network to ~~the~~ a POI, POA, Satellite Earth Station, or a Cable Landing Station under Schedule 8.

Clause 2.5 does not comply with the Co-Location requirements set out in Appendix 2 of the Code. SingTel must modify Clause 2.5 to include the following additional purposes: co-location for purposes of access to UNEs, UNSs and ESFs.

SingTel comments : **Agreed. (Co-Location for all these services is covered under Schedule 8)**

CLAUSE 2.6 – CONDITIONAL APPROVAL

2.6 If the Requesting Licensee detects a fault, defect or problem in a Co-Location Space, it must notify SingTel as soon as possible.

CLAUSE 2.7 – CONDITIONAL APPROVAL

2.7 **Compliance**

CLAUSE 2.7.1 – MODIFICATION REQUIRED

2.7.1 The Requesting Licensee must ensure that its employees, agents and approved subcontractors comply with the provisions of this Schedule including all reasonable procedures and directions of SingTel notified from time to time.

SingTel must modify Clause 2.7.1 by inserting the word “reasonable” before the word “procedures” in the second line.

SingTel comments : **Agreed**

CLAUSE 2.7.2 – CONDITIONAL APPROVAL

2.7.2 The Requesting Licensee must comply with all laws, codes, standards, authorisations and licences when performing works under this Schedule.

CLAUSE 2.7.3 – MODIFICATION REQUIRED

2.7.3 The Requesting Licensee must ensure that it has all necessary permits, approvals and licences from any person, governmental, regulatory or relevant authority in order to perform works under this Schedule. Where requested to do so, SingTel will reasonably assist the Requesting Licensee to obtain any such necessary permit, approval or licence.

SingTel must modify Clause 2.7.3 to provide that it will reasonably assist the Requesting Licensee to obtain any such necessary licence, permit or approval.

SingTel comments : **Agreed**

CLAUSE 2.7.4 – CONDITIONAL APPROVAL

2.7.4 Nothing in this Schedule vests in the Requesting Licensee any right, title or proprietary interest in the Co-Location Site.

CLAUSE 2.8 – CONDITIONAL APPROVAL

2.8 Marking of Equipment

2.8.1 The Co-Location Equipment must be marked by the Requesting Licensee to clearly indicate that it is owned by the Requesting Licensee and in such manner as SingTel may reasonably direct from time to time.

ATTACHMENT B – CONDITIONAL APPROVAL

ATTACHMENT B

SINGAPORE TELECOM

**STANDARD OPERATING PROCEDURES
FOR CO-LOCATION SPACE**

1. ROLES AND DUTIES

1.1 Supervisor

- 1.1.1** The Supervisor shall provide guidance and advice to his workers on the general safety requirements and any other particular safety measures required at a specific site and/or project.
- 1.1.2** The Supervisor must ensure that compliance with safety requirements is strictly observed.
- 1.1.3** The Supervisor must be familiar with all safety practices and procedures.
- 1.1.4** Proper personal protective equipment such as safety helmets, safety belts, etc. must be issued when necessary for use.
- 1.1.5** Every accident/injury should be reported immediately to Singapore Telecom Site Supervisor.
- 1.1.6** For minor injuries, ensure that the injured receives first aid attention, even for the smallest wound.
- 1.1.7** For serious injuries, identify and isolate the cause of accident immediately, and render first aid treatment by trained first aider. Notify the Singapore Telecom Site Supervisor immediately for the necessary follow-up action.

2. INSTRUCTIONS TO BE STRICTLY ADHERED TO

- 2.1 Personnel working at the hoist area, especially the contractor's worker-in-charge of Securing equipment must wear safety belt (to be supplied by their own contractor).
- 2.2 During lunch break, no contract workers shall remain on top of the frame on the cable trough and there will be no hoisting but contractor's workers are free to carry out other work eg. packing in the work area.
- 2.3 All contract workers shall adhere to strict instructions from staff of Singapore Telecom on work as deem fit.
- 2.4 No materials are to be temporarily stored at the Hoist area and passage ways.
- 2.5 All debris must be removed Daily.

3. GENERAL EXCHANGE REGULATION

3.1 Every Worker is expected to:-

- (a) comply with instruction, both verbal and written
- (b) follow safety, housekeeping and other rules
- (c) be courteous
- (d) be punctual
- (e) have a decent haircut

3.2 It is an offence to:-

- (a) listen into or interfere with telephone conversations or tamper with circuitry or any other equipment in the Exchange
- (b) disclose official documents or information
- (c) remove Singapore Telecom property without proper authorisation
- (d) smoke within prohibited areas

- (e) gamble, sleep or be engaged in any other unauthorised activity in the Exchange
- (f) commit any act of vandalism
- (g) be within Exchange premises and prohibited areas (eg. Power Room, MDF Room) after duty hours
- (h) be within Exchange premises and prohibited areas (eg. MDF Room) when not required to go there to work
- (i) consume food and drinks within prohibited areas
- (j) bring any unauthorised receivers, transmitters and tape recorders into Exchange or any prohibited areas.

4. GENERAL SAFETY WORK PROCEDURES

4.1 Housekeeping

- 4.1.1 All workers must clean up their work place at the end of each Business Day.

4.2 Proper Attire

- 4.2.1 Female workers are advised to refrain from wearing loose clothing for example skirts or baju kurong, etc.

4.3 Personal Protective Equipment

- 4.3.1 Wear safety helmets during the recovery of ironworks, racks, cutting of cables and hoisting work.
- 4.3.2 When handling rough or sharp materials wear gloves.

4.4 Working with Ladder

- 4.4.1 Ladders shall be securely fixed or stand on level ground so as to prevent slipping or falling.
- 4.4.2 Do not stand on the top two steps of a ladder exceeding 3m height (standing on top of a ladder is dangerous).

- 4.4.3 Do not leave tools on the ladder. Use tool bags or pockets where appropriate.
 - 4.4.4 Do not overreach from a ladder or lean too far out. Move the ladder close to the work.
 - 4.4.5 Do not repair damage or worn-out ladders. Any such ladders should be returned to store for replacement.
 - 4.4.6 Do not place boxes on top of ladders and/or platforms for doing work.
 - 4.4.7 Ensure that travelling ladders are securely locked before stepping onto the ladder steps.
 - 4.4.8 Do not jam the locking device of travelling ladder with wedges.
 - 4.4.9 Always face a ladder when climbing or descending.
 - 4.4.10 In positioning the ladder, make sure that electric power lines are not in the way.
 - 4.4.11 When working atop a ladder placed in front of the door ensure that it is locked.
 - 4.4.12 Refrain from working under ladders.
- 4.5 Handling of Equipment and Tools**
- 4.5.1 Be thoroughly familiar with the operational procedures of electrical appliances before use.
 - 4.5.2 Inspect tools before you use them – broken, cracked or worn out tools are unsafe.
 - 4.5.3 Use the correct tool intended for a particular job.
 - 4.5.4 After the usage of any tool, it must be returned to the tool box in its original position.
 - 4.5.5 Inspect all electrical tools/equipment for damaged insulation, loose wires and proper connections before use.
 - 4.5.6 Electrical supply to the electrical tools/equipment must be switched off and the plugs disconnected when not in use.

- 4.5.7 If any work is to be carried out on live electrical parts, disconnect the power supply.
- 4.5.8 Never throw tools from one person to another especially when working at heights.
- 4.5.9 Do not run or leave electrical wire/cable across passageways, wet surfaces and on sharp edges.

5. DOS AND DON'T FOR FIRE PREVENTION

5.1 DO

- 5.1.1 DO familiarise yourself with the location of fire alarm buttons, fire extinguishers and hose reels in your work area and the operation of the extinguishing system eg. halon gas.
- 5.1.2 DO familiarise yourself with the Fire Evacuation Routes in your work area.
- 5.1.3 DO ensure that all electrical appliances and equipment are in good working condition and are maintained by authorised personnel.
- 5.1.4 DO mop spilt oil, solvent, varnish or flux off the floor.
- 5.1.5 DO dispose waste into the dust bins or other receptacles provided and empty them regularly.
- 5.1.6 DO remove combustibles away from the work areas when they are not in use.
- 5.1.7 DO attack the fire from the windward side with the fire fighting aid. By so doing, the wind will carry the flame with smoke and fumes away from the fire fighters and at the same time, carry the extinguishing agent into the fire.
- 5.1.8 DO familiarise yourself with the use of safety breathing apparatus.

5.2 DON'T

- 5.2.1 DON'T smoke in any exchange/workshop areas and any other areas designated "No Smoking".
- 5.2.2 DON'T empty the waste from an ash tray into any receptacle containing combustible materials.

- 5.2.3** DON'T overload any power point with electrical appliances or equipment.
- 5.2.4** DON'T replace any blown fuse with one of more than the specified rating.
- 5.2.5** DON'T store any flammable material/liquid (varnish or solvent) below or near any main electrical switch box or heat source.
- 5.2.6** DON'T accumulate waste and packing materials at the work areas.
- 5.2.7** DON'T leave solvent, varnish, flux, alcohol or other flammable liquids in the open without any lid on the container.
- 5.2.8** DON'T open or break windows or doors when an area is filled with smoke due to combustion except to avoid suffocation.
- 5.2.9** DON'T walk upright in a room filled with smoke due to combustion. Crawl out of the affected area through the nearest exit.
- 5.2.10** DON'T use water or any soda acid extinguisher to put out electrical, oil or liquid fires as these will not put out the fire but help to spread the fire and pose electrocution risks.
- 5.2.11** DON'T discard solvent, thinner or alcohol into the waste bin. Use proper containers with lid for its disposal.
- 5.2.12** DON'T leave unattended any hot soldering iron or other 'live' electrical appliances.
- 5.2.13** DON'T obstruct the passage ways, walk ways, corridors and fire exit door, fire fighting and fire detection equipment/installation.

ATTACHMENT C – MODIFICATION REQUIRED

Sub-section 4.2.1.6 of Appendix Two of the Code requires SingTel to offer the Requesting Licensee access to its co-located equipment on a 7 days a week, 24 hours a day basis. SingTel must modify Attachment C to clearly provide for the right of the Requesting Licensee to do so.

SingTel comments : **Agreed. See clause 1.8.9.**

ATTACHMENT C

PHYSICAL ACCESS PROCEDURES

1. General

1.1 The Requesting Licensee shall provide to SingTel a master list of persons nominated by it to have physical access to the Co-Location Space in accordance with the prescribed form in Attachment D. The master list shall contain, without limitation, for each person, the following details:

- (a) Full name;
- (b) Company name/Requesting Licensee’s Contractor name;
- (c) NRIC/Passport no.;
- (d) Contact no.; and
- (e) Fax no.

1.2 The master list provided under subclause 1.1 shall be maintained and updated by the Requesting Licensee and a new master list provided to SingTel whenever any amendments are made to the master list.

1.3 The Requesting Licensee shall ensure that its workmen listed in the master list are either Singaporeans or holders of valid work permits.

1.4 No person will be permitted physical access to the Co-Location Exchange Building without being nominated on the master list under subclause 1.1 and without a current valid Letter of Authorisation as in Attachment F.

1.5 Physical Access Request

1.5.1 Subject to clause 1.6, where the Requesting Licensee wishes to obtain physical access to the Co-Location Space, it must submit a request in writing in accordance with the prescribed form in Attachment E to the designated contact points of the Co-Location space, not less than 24 hours before the requested physical access date. The request must contain, without limitation:

- (a) the purpose for which physical access is requested;
- (b) the identity of the senior person who will be present and who will be responsible for the persons who will be physically accessing the facility;
- (c) a complete list of the persons (limited to a maximum of 4) who will be physically accessing the facility; and
- (d) an estimate of the time during which, physical access is requested.

1.5.2 SingTel shall upon receipt of the request under subclause 1.5.1, advise the Requesting Licensee of whether the request for physical access has been approved in accordance with the prescribed form in Attachment E. The approval shall be the Letter of Authorisation as in Attachment F.

1.5.3 Upon approval under subclause 1.5.2, SingTel shall provide escort service to the Requesting Licensee to physically access the Co-Location Space within twenty-four (24) hours. The Requesting Licensee shall pay to SingTel the charges for escort service as provided in Schedule 9.

1.5.4 Where SingTel approves a request for physical access, the Requesting Licensee will comply with the terms and conditions set out in clause 1.8.

1.6 Emergency Physical Access Request

1.6.1 The Requesting Licensee shall submit to SingTel for approval, a list of designated senior personnel contained on the master list who are authorised to request emergency physical access.

1.6.2 In the event of an emergency where physical access is required by the Requesting Licensee to address the emergency situation, the Requesting Licensee must first request

via facsimile and then contact via a telephone call to the designated contact point of the Co-Location Space.

- 1.6.3** The emergency physical access request under subclause 1.6.2 must specify, without limitation:
- (a) the full name of the requesting party; and
 - (b) NRIC/Passport number; and
 - (c) contact number; and
 - (d) details of the emergency situation (whether it is service affecting or non-service affecting); and
 - (e) the identity of the senior person who will be present and who will be responsible for the persons who will be accessing the Co-Location Space; and
 - (f) a complete list of the persons who will be accessing the Co-Location Space; and
 - (g) an estimate of the time during which, physical access is requested.
- 1.6.4** SingTel shall upon receipt of the request shall advise the Requesting Licensee of whether the request for physical access has been approved.
- 1.6.5** Upon approval under subclause 1.6.4, SingTel shall provide escort service to physically access the Co-Location space within one (1) hour for a service affecting emergency or within four (4) hours for a non-service affecting emergency. This access shall be permitted on an interim basis only. Physical access shall be for a maximum period of 8 hours unless otherwise agreed. The Requesting Licensee shall pay to SingTel the charges for escort service as provided in Schedule 9.
- 1.6.6** Where SingTel approves a request for physical access the Requesting Licensee will comply with the terms and conditions set out in clause 1.8.
- 1.6.7** Where, in an emergency situation, both SingTel and the Requesting Licensee require physical access to undertake corrective action, SingTel shall have priority.

1.7 Rejection Of Physical Access Request

1.7.1 SingTel may reject a request for physical access or emergency physical access, or revoke an approval for physical access where:

- (a) the request is not in the prescribed form and does not contain all the required information; or
- (b) the persons listed on the request do not appear on the master list or SingTel has advised that the person(s) listed have been barred either by SingTel or the relevant authorities; or
- (c) SingTel has scheduled work for the time specified by the Requesting Licensee in the request; or
- (d) SingTel determines that the physical access or work to be performed by the Requesting Licensee as specified in the request may breach subclause 1.8.2 of this Schedule; or
- (e) SingTel determines that the physical access may jeopardise or interfere with the integrity of SingTel's Network, Facilities, Equipment or Plant or create a security risk; or
- (f) SingTel determines that the area is unsafe; or
- (g) the Requesting Licensee is in breach of this Schedule.

1.8 Conditions Of Physical Access

1.8.1 SingTel may refuse any person physical access to, or require that person to be removed from a Co-Location Site where:

- (a) that person cannot, upon request, produce a current valid Letter of Authorisation and any identification card which is issued by SingTel; or
- (b) SingTel has previously notified the Requesting Licensee of problems with that person (e.g. the person has breached safety requirements or Standard Operating Procedures); or
- (c) the person has been barred under subclause 1.8.6; or
- (d) where in the opinion of SingTel, the person's action may cause damage to SingTel's properties or may compromise or threaten safety; or

- (e) the person loiters around SingTel premises other than the Co-Location Space for which physical access is granted for permitted works to be carried out.

1.8.2 The Requesting Licensee must not do or omit to do anything in connection with gaining physical access to the Co-Location Site which may:

- (a) threaten the safety of SingTel's employees, customers or third persons; or
- (b) interfere physically or electrically with the delivery of Telecommunications Services supplied or to be supplied by SingTel; or
- (c) jeopardise the integrity or confidentiality of Communications within SingTel's Network; or
- (d) threaten the security of the Co-Location Site; or
- (e) cause damage to the Co-Location Site.

1.8.3 The Requesting Licensee must ensure that:

- (a) physical access is gained through the specified entry; and
- (b) only persons with a current and valid Letter of Authorisation can gain physical access; and
- (c) physical access is gained only to the Co-Location Site or part thereof for which approval has been granted; and
- (d) each person gaining physical access shall comply with all the check-in procedures such as exchange their identity cards or work permits for the "V" or "C" identification cards or such as may be implemented by SingTel from time to time and sign a log book at the security post in which is recorded the full name of the person, IC/Passport no., contact no., date and time of entry and departure from the facility; and
- (e) the applicable Standard Operating Procedures and any written instructions are followed; and
- (f) the Co-Location Space is left in a safe and tidy condition; and

(g) the Requesting Licensee's senior person informs SingTel when work has been completed and all Requesting Licensee personnel have left the facility.

1.8.4 A representative of SingTel may attend and specify an entry to the Co-Location Space and verify that the Requesting Licensee complies with the conditions of physical access. The cost of such attendance shall be borne by the Requesting Licensee.

1.8.5 No still, motion or digital cameras, film, negatives, tape or digital recorders, explosives, inflammables, cigarettes, lighters and equipment with electromagnetic emissions or radiation are allowed in the Co-Location Site.

1.8.6 Where, for whatever reason, the Requesting Licensee decides that a person nominated by it under clause 1.5.2 should no longer be permitted physical access it must immediately notify SingTel and provide an updated master list.

1.8.7 Without prejudice to any other rights SingTel may have (whether under contract, at law, or in equity), where the Requesting Licensee:

(a) gains unauthorised entry to the Co-Location Site or part thereof; or

(b) uses, or attempts to use, the Letter of Authorisation for any purpose other than the purpose for which approval was granted,

physical access may be immediately terminated and the person(s) will henceforth be barred from entering any facilities of SingTel.

1.8.8 The Requesting Licensee must not grant a third person physical access to the Co-Location Site.

1.8.9 For non-emergency physical access requests, tThe Requesting Licensee access for works to be carried out inside the Co-Location Space shall be limited to weekdays during office hours, from Monday - Friday 9.00 a.m. – 5.00 p.m., 1 hour lunch break, unless prior arrangement has been made with SingTel. In the case of emergency access, SingTel shall provide 24 hour access 7 days a week.

1.8.10 The Requesting Licensee shall report to the Police and SingTel for any loss of identification card and bear the cost and expense for the replacement of card.

ATTACHMENT D

MASTER LIST FOR PHYSICAL ACCESS TO CO-LOCATION SPACE

S/n	Name	Company Name / Requesting Licensee A's Contactor Name	IC / Passport No.	Contact Tel No.	Fax No.
1	Richard Tan	Requesting Licensee A	1234567C	8888999	2899848
2	Yeh Sing Ping	Pipe Construction Pte Ltd	3333444A	7777788	2885678
	Two examples for reference.				

REQUEST FOR PHYSICAL ACCESS TO CO-LOCATION SPACE			
The Requesting Operator			
Date of Application	<input type="text" value="[Date]"/>	Application Reference Number	<input type="text" value="[Number]"/>
Approval for Physical Access is sought for the purpose of:			
<input type="text" value="[Emergency [Service Affecting / Non-Service Affecting] Normal]"/>			
Address of Co-location space	<input type="text" value="[Address / Building Name]"/>		
Requested Date / Time of Access	<input type="text" value="[Date & Time]"/>		
Estimated Duration of Access	<input type="text" value="[Hours]"/>		
Name of Person(s) for which Physical Access is requested.			
1	<input type="text" value="[Name of Senior Person & NRIC No / Passport No]"/>		
2	<input type="text" value="[Name & NRIC No / Passport No]"/>		
3	<input type="text" value="[Name & NRIC No / Passport No]"/>		
4	<input type="text" value="[Name & NRIC No / Passport No]"/>		
5	<input type="text" value="[Name & NRIC No / Passport No]"/>		
On Behalf of the Requesting Licensee			
Sign	_____		
Name	<input type="text" value="[Name]"/>	Name of Requesting Licensee	<input type="text" value="[Company Name]"/>
Designation	<input type="text" value="[Designation]"/>		
Department	<input type="text" value="[Department Name]"/>		
Contact Number	<input type="text" value="[Telephone Number]"/>	Company Stamp	_____
Fax Number	<input type="text" value="[Fax Number]"/>		
SingTel's Reply to the Requesting Operator			
<input type="checkbox"/> Application returned - incomplete/illegible			
<input type="checkbox"/> Not Approved		Reason for Rejection	<input type="text" value="[Reason]"/>
<input type="checkbox"/> Approved subject to details and conditions given in the attached Letter of Authorisation			
<input type="checkbox"/> Alternative Date and Time		SingTel Approval Code	<input type="text" value="[Approval Code]"/>
On behalf of SingTel			
Sign	_____		Contact Number
Name	<input type="text" value="[Name]"/>	Fax Number	<input type="text" value="[Fax Number]"/>
Processing Status			
Received Date	<input type="text" value="[Date]"/>	Queue Status	<input type="text" value="[Queue No]"/>
		Processed Date	<input type="text" value="[Date]"/>

**LETTER OF AUTHORISATION
FOR PHYSICAL ACCESS TO CO-LOCATION SPACE**

This Letter of Authorisation is issued in conjunction with the final approval given to the request application via reference _____ date _____

It must be carried in the possession of the senior person at all time during the duration of access granted to the Co-Location Space as indicated below.

Location of Co-Location Space granted for access:

1

2

3

4

5

Approved Date of Access:

Approved Time of Access:

Approved Duration of Access:

On behalf of SingTel

Sign Contact Number

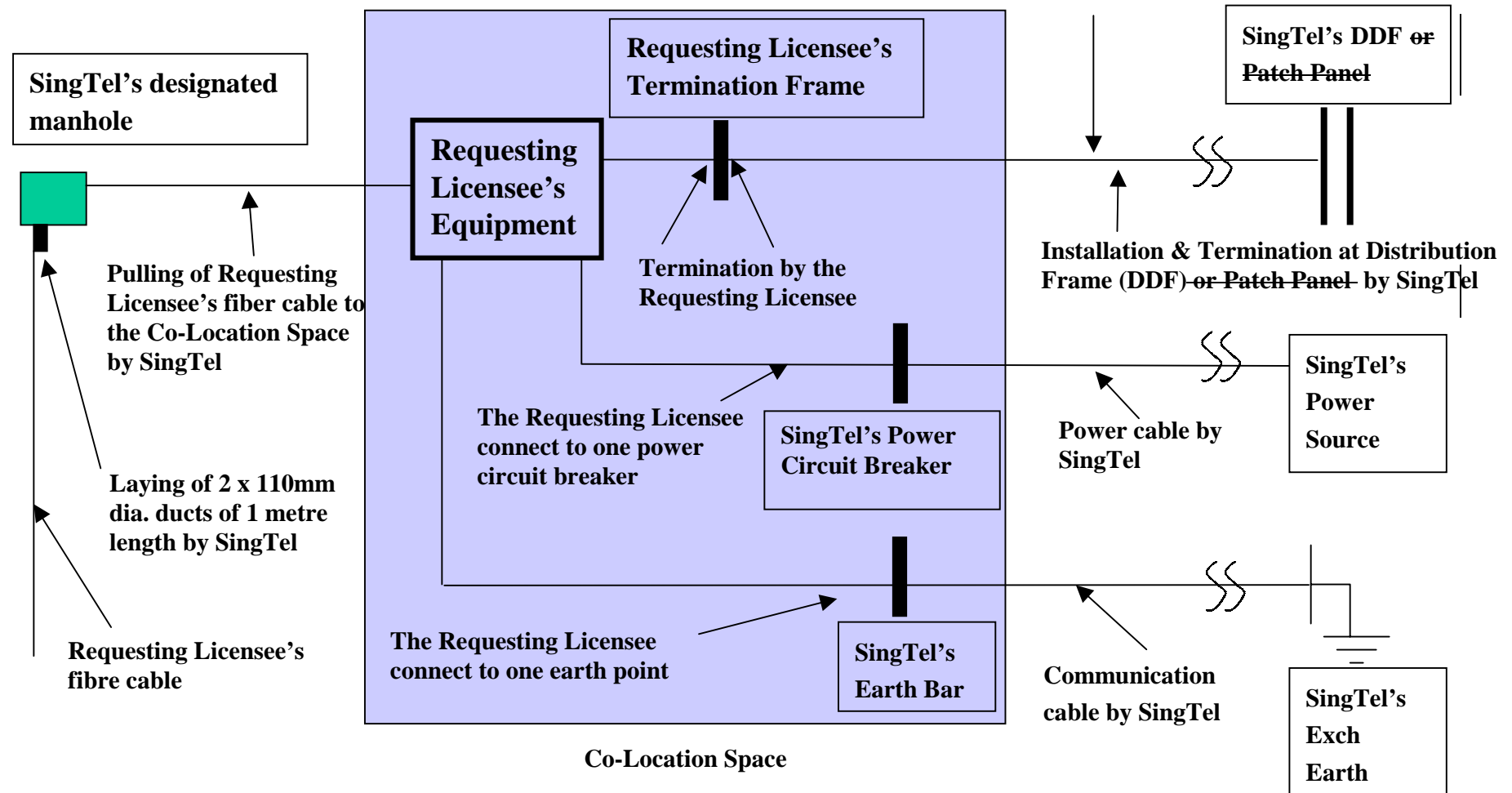
Name Fax Number

REQUEST FOR CO-LOCATION SPACE			
The Requesting Operator			
Date of Application	<input type="text" value="[Date]"/>	Application Reference Number	<input type="text" value="[Number]"/>
Request for Physical Co-Location is sought for the purpose of:			
<input type="text" value="[POI / POA / SATELLITE EARTH STATION / SUBMARINE CABLE STATION]"/>			
Address of Co-location site	<input type="text" value="[Address / Building Name]"/>		
Type of Equipment to be Installed	<input type="text" value="[Description / Manufacturer / Dimensions]"/>		
Co-Location Space Required	<input type="text" value="[Dimensions and floor area to be occupied]"/>		
Power Requirements	<input type="text" value="[Power Consumption]"/>		
Floor Loading of Equipment	<input type="text" value="[Weight of Equipment Fully Installed]"/>		
Capacity of Transmission / Sub Loop Tie-cable	<input type="text" value="[Size & Pair of Tie Cable]"/>		
Type of Fibre and its Diameter	<input type="text" value="[Number of Fiber Strand & Cable Diameter]"/>		
On Behalf of the Requesting Licensee			
Sign	_____		
Name	<input type="text" value="[Name]"/>	Name of Requesting Licensee	<input type="text" value="[Company Name]"/>
Designation	<input type="text" value="[Designation]"/>		
Department	<input type="text" value="[Department Name]"/>		
Contact Number	<input type="text" value="[Telephone Number]"/>	Company Stamp	_____
Fax Number	<input type="text" value="[Fax Number]"/>		
SingTel's Reply to the Requesting Operator			
<input type="checkbox"/> Application returned - incomplete/illegible			
<input type="checkbox"/> Not Approved			
Reason for Rejection		<input type="text" value="[Reason]"/>	
<input type="checkbox"/> Approved			
SingTel Approval Code		<input type="text" value="[Approval Code]"/>	
On behalf of SingTel			
Sign	_____		Contact Number
Name	<input type="text" value="[Name]"/>	Fax Number	<input type="text" value="[Fax Number]"/>
Processing Status			
Received Date	<input type="text" value="[Date]"/>	Queue Status	<input type="text" value="[Queue No]"/>
Processed Date		<input type="text" value="[Date]"/>	

INSTALLATION OF CO-LOCATION EQUIPMENT
AT POINT OF INTERCONNECT (POI) /SATELLITE EARTH STATION/
SUBMARINE CABLE STATIONS

The diagram below depicts the arrangement for installation of a
Requesting Licensee's Equipment at SingTel's Exchange.

Transmission Tie cable provided by
Requesting Licensee



INSTALLATION OF CO-LOCATION EQUIPMENT
AT POINT OF ACCESS (POA)

The diagram below depicts the arrangement for installation of a Requesting Licensee's Equipment at SingTel's Exchange.

