

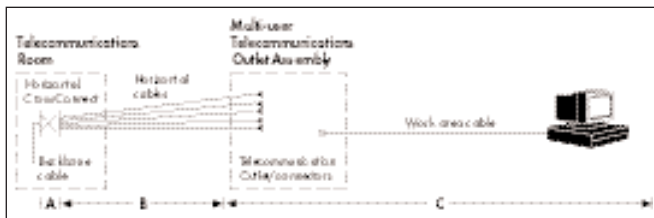
## ADDITIONAL HORIZONTAL CABLING PRACTICES FOR OPEN OFFICES

### Horizontal Cabling for Open Offices

A horizontal cabling termination point (multi-user telecommunications outlet assembly) and/or intermediate horizontal cabling interconnection point (consolidation point) provide more flexibility in open office layouts with modular furniture, where frequent office rearrangements are performed. Both the multi-user telecommunications outlet assembly and the consolidation point shall be located in a fully accessible, permanent location.

### Multi-User Telecommunications Outlet Assembly

The multi-user telecommunications outlet assembly (MUTOA) is a termination point for the horizontal cabling, consisting of several telecommunications outlets in a common location. The modular line cord extends from the MUTOA to the terminal equipment without any additional intermediate connections. This configuration allows the open office plan to change without affecting the horizontal cabling.



Multi-user Telecommunications Outlet Assembly

The following guidelines shall be followed when installing a MUTOA;

- The MUTOA shall not be installed in a ceiling
- The maximum modular cords length shall be 20 m (66 ft).
- The modular cord connecting the MUTOA to the terminal equipment shall be labeled on both ends with a unique identifier
- The MUTOA shall be marked with the maximum allowable work area cabling (modular cord) length calculated by the following formula;

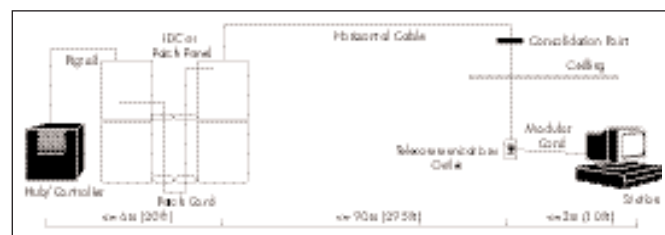
$$C = (93.6 - B)/1.2$$

A m (ft)	B m (ft)	C m (ft)	Total Channel Length m (ft)
7 (23)	90 (295)	3 (10)	100 (328)
7 (23)	85 (279)	7 (23)	99 (325)
7 (23)	80 (262)	11 (36)	98 (322)
7 (23)	75 (246)	15 (49)	97 (319)
7 (23)	70 (230)	20 (66)	97 (319)

Horizontal and Work Area Cabling Lengths

### Consolidation Point

The consolidation point is an interconnection point within the horizontal cabling. The consolidation point performs a "straight-through" intermediate interconnection between the horizontal cabling coming from the horizontal cross-connect and the horizontal cabling going to a MUTOA or the telecommunications outlet in the work area. Cross-connection between these cables is not allowed. A consolidation point may be useful when reconfiguration is frequent, but not so frequent as to require the flexibility of a MUTOA.



Consolidation Point

*ADDITIONAL HORIZONTAL CABLING PRACTICES  
FOR OPEN OFFICES*

The following guidelines shall be followed when installing a consolidation point;

- Ensure that the total channel distance is 100 meters or less
- The cables to and from the consolidation point should be securely attached without violating the cables' minimum bending radius requirements
- The BIX mounts should be in enclosures to prevent dust accumulation and also to provide strain relief and mechanical protection for the in-coming and out-going cables
- Ensure there is about 15 cm (6 inches) of cable slack in the BIX enclosure for future reconnections
- Special care shall be taken to ensure that the BIX enclosures are installed according to applicable codes
- It is recommended that the consolidation point be located at least 15 m (49 ft) from the telecommunications room in order to avoid additional NEXT due to short link resonance of multiple connections in close proximity
- No more than one consolidation point and one MUTOA shall be used within the same horizontal run.