

General information:

The purpose of this contract is to obtain **108** drops throughout the embassy compound in Chancery, Annex, warehouse, and CACs. The exact placement of the drops is as follows:

- Chancery Basement: 8
- Chancery First floor: 27
- Chancery Second floor: 21
- Chancery Third floor: 20
- Chancery Fourth floor: 1
- Warehouse: 12
- Annex 1st floor: 7
- Annex 2nd floor: 7
- CAC: 5

The cables must be pulled from terminal rooms (TRs) in each building/floor to the end points located on the plan (will be provided to the contracted vendor). The estimated total length of cabling is **5015** meters. The vendor must provide the cable, patch panels, tools, all associated materials (e.g., cable hooks, runways, fasteners, RJ45 connectors etc.), and perform the work to lay the cables according to the industry standards and best practices. The price for the materials should be included in the proposal. A site visit would be required to adequately estimate the amount and price of the work needed to be done.

Requirements for bidding companies (prospective quoters):

1. Professional field of activity/expertise – Information Technology or Telecom.
2. Subcontracting is allowed only if subcontractor's field of activity/expertise is Information Technology or Telecom and it can provide reference of previous jobs of similar scale.
3. Contractor must have experience in performing similar tasks and must be able to provide reference of previous jobs.
4. Corresponding licenses and certificates may be presented by contractor and would be considered in quote selection process.

Timeframes and number of workers:

1. Work must be completed in **4 calendar weeks** from the date of contract award.
2. Maximum number of workers on site is **5**.
3. Contractor should avoid changing workers during the project.
4. Maximum work hours are from **8:00 to 18:00** up to **7** days a week.

Cable and patch panel requirements:

1. The cable must be certified **Category 6/6A Plenum Rated (CMP) Ethernet patch cable**. If plenum rated cable is not available, **LSZH** cable can be used instead.
2. Patch panels must be **Horizontal Rack Mount** and must correspond to the cable type used (**Category 6/6A**).
3. The color of the cable **must not be orange, blue or green**. Preferred color of the cable is **yellow**.

4. Full characteristics of the cable and patch panels to be used, including cable color, must be submitted along with the proposal to confirm the technical acceptability of the offer.

Installation requirements:

1. Each drop will consist of RJ-45 terminated connection at the distant end, with TR end terminated into patch panel.
2. All cables shall be bundled using plenum rated hook and loop fasteners ties, loosely tied so as not to deform cable, at each 2m length of the cable.
3. All cabling shall be installed in accordance with manufacturers' written bend radius and pulling tensions. Bend radius of a single 4-pair copper unshielded twisted pair cable shall not exceed 4 times the diameter of the cable.
4. All conduits and conduit sleeves shall have bushings or grommets and shall be installed prior to the installation of communications cables to avoid damage and abrasions to cable sheathing and insulation.
5. Splices are not permitted in any cable.
6. Avoid placing copper cables near sources of extreme heat (i.e. boilers, radiators, heat coils).
7. Maintain cable twists for all UTP cables to no more than 1.2 cm back from termination point for all Category 6 cables.
8. All cables shall be supported by cable tray, cable runway, or J-hooks. When cables leave trays or runways, cables shall be supported by drop-outs or cable support hardware manufactured specifically for the purpose of supporting cables. J-hooks shall be installed a minimum of every 1.5 m and cabling shall maintain minimal deflection and strain (less than 30 cm deflection). Cables shall not be supported from ceiling grid wires. Cables shall not run above iron joists.
9. All cables shall be neatly bundled throughout the ceiling space.
10. Service loop shall be provided at both ends of installed cabling. 2 m (6 ft) of service loop shall be provided in TRs to allow for future equipment rack relocations without the need to re-terminate patch panels; the 4 m (12 ft) service loop at the distant end shall be neatly bundled and secured in ceiling space with large j-hooks or placed in cable trays. Service loops must be created in a figure-8 or staggered oval loops.
11. Any cabling installed in equipment rooms shall be neatly placed in cabling trays, cabling runways, or horizontal and vertical rack/cabinet cable managers. When tray, runways, or cable managers are not specified, cable shall be neatly installed with j-hooks. Cables shall always be installed vertically/horizontally or at right angles to structure.
12. All low voltage cables shall be run parallel or at right angles to building structural framework. Do not run cables diagonally across ceiling space without written authorization by the ISC System Administrator.
13. All cabling that has been shipped or stored in an environment outside the manufacturer's recommended installation temperature range shall be conditioned per the manufacturer's recommendations immediately prior to installation.
14. All drops must be clearly and professionally labeled with matching labels at the distant end and at the patch panel. Handwritten labels are not acceptable. The labeling scheme will be given to the contractor by the ISC System Administrator.

Cable Testing

1. Each permanent link or channel in the network must be field tested in accordance with the TIA-568 series industry standard. The installed permanent links and channels will be verified by cable testing equipment before signing off a project completion.