

## **Attachment H**

# **Installation Requirements**

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This section provides further detail on the steps required for the installation of WHTI RFID/LPR systems.

**1) Site Survey/Conference:** The Contractor shall co-host, with the Government, a site survey conference at each CBP facility where a site survey is necessary, to include all applicable CBP Program Officials, Government Port Officials, General Services Administration (GSA) and all other parities having jurisdictional oversight on the site requirements for the installation of all WHTI RFID/LPR systems. The purpose of this conference is to brief the facility personnel on the WHTI RFID/LPR system and to identify any unique problems.

A site survey shall be conducted in conjunction with the conference. A detailed study of the site shall be made of both inbound and outbound processing areas, unless otherwise specified by CBP. The study shall include dimensional measurements, review of traffic patterns, signal conduit paths, and power source locations and requirements. The survey data will then be used to customize the installation design for that facility. Whenever possible, site surveys at facilities located in the same geographic location shall be conducted concurrently, upon CBP request.

Prior to the site survey conference, if available, CBP will provide the Contractor with the following:

- As-built drawings of existing RFID systems
- Current plan drawings of the facility with detail of the proposed RFID installation location;
- Number of lanes indicating which will have RFID equipment installed/modified;
- Any pertinent safety requirements.

During the site survey conference, the following information must be provided/determined:

- Property owner;
- Determination of permit requirements and responsibilities;
- (b) (7)(E) requirements;
- Site contact person for CBP, GSA, and other local authorities, including state Department of Transportation (DOT) if applicable;
- Recommended Contractors, including contact person, address, phone, and fax;
- Traffic volume, type, and any information specific to site;
- Determine the best “downtime/off peak hours” for site implementation
- Proposed equipment/communications location in building;
- (b) (7)(E)
- Power availability and capacity;
- Type of walls and floor if penetration is required;
- Barrier type

Lane information requirements include:

- Location of RIFD system hardware;
- Lane electronics to reside in booth or beside roadway, if required;
- Path of conduit from lanes to equipment room, if required;
- Power availability and capacity;
- Underground utilities that may pose an interference with equipment mounting, etc., for both inbound and outbound lanes;
- Site construction type;
- Concrete or asphalt;
- Canopy, open, closed, none;
- Type of booth;
- Other considerations, such as U-turn lane, sidewalks, barriers, lane markings, safety/protective equipment, directional signs, etc.;
- Department of Transportation (DOT) issues;
- Impact of installation, landscaping, asbestos, safety hazards, etc.;
- Preferences not required for RIFD functionality, e.g., painting of conduits, other aesthetics, etc.

These items shall be incorporated into a preliminary site survey checklist agreed upon by all parties and in accordance with the master schedule.

For large sites additional meetings may be required. Only one (1) site meeting shall be included in the master schedule.

Upon the completion of the survey, the Contractor shall submit a Site Survey Report to include all survey data to the CBP COTR within ten (10) business days after the survey is conducted.

**2) Design Drawings:** The Contractor shall provide customized technical draft and final installation drawings for each site, allowing for three (3) possible revisions (if necessary) based on site survey results and/or any other CBP approved and provided document i.e., GSA drawings, previous CBP drawings, etc. These design drawings shall be delivered to the CBP COTR for approval in accordance with the master schedule.

These drawings shall reflect the proposed RIFD infrastructure and equipment installation including: conduit and wiring runs, equipment location, power source (room, panel, and circuit number), communication interface connections, mounting posts, lane markings, protective bollards, safety devices (i.e. Lights/directional signs/etc.) and trench details.

The drawings shall be dimensioned, using a surveyor's reference point to guarantee that all dimensions/measurements are taken from on location/point.

The Contractor shall ensure that all drawing designs include a statement that all WHTI RFID/LPR installations shall be conducted in accordance with all National Electric Code (NEC), Facilities Standard for Public Building Service (PBS-100), state/local and specific General Service Administration (GSA) standards.

With regard to conduit depths and specifications, the Contractor shall ensure that the drawings state that all conduits shall be installed at a minimum of (b) (7)(E). If Federal, State and local codes require the depth to be deeper than (b) (7)(E) the conduit shall be installed in accordance with the deepest code requirement/specification.

The Contractor shall also ensure that the drawing designs include a statement that the marking of conduit with magnetic marking tape and the use of Compacted Density Fill (CDF) dyed brick red to (b) (7)(E) around conduit is required.

The Contractor shall submit the Drawing designs to the CBP COTR ten (10) business days after the site survey has been conducted or ten (10) business days after supplemental drawings have been provided to the Contractor i.e., GSA or CBP drawings. The CBP COTR shall provide the Contracting Officer with all of the appropriate data/design drawings, along with a recommendation as to whether or not the installation design should be approved. Within fifteen (15) business days of receipt of the package the Contracting Officer shall respond with either an approval of the package or a request for drawing revision. In the event that a revision is required, the Contractor shall incorporate changes to the drawings and submit the revisions to the CBP COTR within ten (10) business days after changes are requested. The Contracting Officer shall approve the drawings/revisions within ten (10) business days of receipt of the final drawing package. The Contractor shall not start work at any site until approval has been received from the GovWorks Contracting Officer.

CBP will be responsible for obtaining all appropriate drawing approvals (GSA, State and Local, Port Authorities, etc).

**3) Site Specific Project Plan:** Upon CBP and Contracting Officer drawing design approval, the Contractor shall provide the CBP COTR with a site specific Project Plan reflecting the projected site schedule to include all major milestones taking place from the beginning through the end of each installation effort.

**4) Approval of Bid Proposals (subcontracting by Contractor):** In the event that CBP elects to have the Contractor oversee infrastructure/construction efforts, the Contractor shall solicit a minimum of three (3) bid packages. Upon receipt of these packages the Contractor shall provide the Contracting Officer and the CBP COTR (cc: copy) with the most credible bid proposal for the site preparation/construction work at each site. The COTR shall provide the Contracting Officer with a recommendation as to which bid should be approved. The Contracting Officer shall communicate approval to the Contractor within ten (10) business days of receipt of the bid package. The Contractor shall not start work at any site until approval has been received by the Contracting Officer.

If underlying circumstances occur that prohibits the Contractor from receiving three (3) bids, CBP will direct Contractor accordingly.

**5) Pre-Bid Meeting (subcontracting by Contractor):** In the event that CBP elects to have the Contractor oversee infrastructure/construction efforts the Contractor shall hold a Pre-Bid Meeting with all prospective Sub-Contractors in order to answer any questions that they may have.

**6) Pre-Construction Meeting (subcontracting by Contractor):** In the event that CBP elects to have the Contractor oversee infrastructure/construction efforts and once the Contracting Officer has approved a bid for the site preparation construction work, the Contractor shall hold a pre-construction meeting. This meeting shall be held at the site and will require the presence of all CBP Site Officials, associated parties, and the selected contracting company to discuss construction plans, logistics and any other issues that may impact the construction process (i.e. potential problem areas). Points of contacts, equipment drop-off locations and all site preparation logistics, site dimensions, etc. must be established at this time.

The Contractor shall provide the CBP COTR with meeting minutes (E-Mail Format) from the Pre-Construction Meeting five (5) business days after the meeting was conducted. These minutes shall include: topics discussed (i.e. potential problem areas, etc.), date, time, place, and attendees.

**7) Site Verification:** The Contractor shall coordinate all site verification efforts with all applicable parties (i.e. the Program Office, GSA, Other CBP Applicable Projects, etc.), to insure that the RFID infrastructure/construction work is being performed satisfactorily (i.e. ensuring code compliance) and that the site will be ready for installation in accordance with the project schedule.

The Contractor shall allow for up to three (3) on-site/major milestone inspections. These milestones are as follows:

1. Layout inspection and approval prior to commencement of work.
2. WHTI RFID/LPR infrastructure inspection prior to initial concrete pour.
3. Final inspection/site verification.

As a result of Milestone #2:

- The Contractor shall provide the CBP COTR with images/pictures verifying the depth of the conduit prior to concrete being poured. These images shall include the use of some type of measurement device reflecting/depicting actual conduit depth.
- The Contractor shall also provide the CBP COTR with a report (e-mail format) three (3) business days after the site verification is conducted. This report shall note whether or not the WHTI RFID/LPR infrastructure has been installed correctly. In the event that the Contractor sees/notes any discrepancies the Contractor shall contact the CBP COTR immediately, while still on-site.
- The Contractor shall provide the CBP COTR with an itemized site site-verification checklist signed off on by the appointed CBP site point of contact. (This checklist will detail exact conduit depths.)

The Contractor shall also conduct a final Site Verification within two (2) weeks after the Site Preparation/Construction work has been completed.

As a result of Milestone #3:

- The Contractor shall provide the CBP COTR with a report (e-mail format) three (3) business days after the site verification has been conducted. This report shall note whether or not this site is ready for WHTI RFID/LPR installation. In the event that the site does not pass the final inspection, this report shall provide the CBP COTR with a

detailed description of all discrepancies. In the event that the site does pass the final inspection, this report shall provide CBP with a projected WHTI RFID/LPR installation and completion date for this site.

In the event that the Contractor requires more than three (3) on-site inspections, they shall notify CBP immediately, requesting approval. If CBP elects for the Contractor to oversee the WHTI RFID/LPR infrastructure/construction effort at a site, the Contractor shall ensure/verify that all site preparation/construction work completed by their sub-Contractor is completed in accordance with ALL applicable NEC, PBS-100, state/local and GSA code standards.

**8) Site Visit Request/Authorization:** A "Site Visit Letter" shall be requested from CBP for all site verification, installation, data collection and software upgrades that occur. This request shall be provided to CBP no later than seven (7) business days prior to Contractor being on site at any site. If underlying circumstances should arise, not allowing the Contractor to give CBP seven (7) business days of notice, CBP will instruct the Contractor accordingly. CBP will notify all appropriate CBP site officials of site visit.

The "Site Visit Letter" request shall provide the first and last names of employee(s), dates that the employee(s) will be on site and specific reasons for being at the site. The request shall be as detailed as possible in regards to times and dates, especially when the Contractor is visiting more than one site during the visitation period.

**9) "As Built" Drawings:** "As Built" Drawings shall be provided to CBP by the party (GSA or Contractor) responsible for overseeing the infrastructure/construction process.

Upon WHTI RFID/LPR installation at each site, three (3) complete sets, one (1) AutoCAD file format, and one (1) PDF format of commercial grade quality "As Built" drawings shall be delivered to the CBP COTR no later than thirty (30) days after WHTI RFID/LPR installation has been completed. These drawings shall reflect the actual installation including: actual conduit and wiring runs and actual depths, equipment location, power source (room, panel and circuit number), communication interface connections, lane markings, safety signs/devices, protective bollards and posts, in addition to all other requirements concerning drawings identified in the WHTI RFID SOW (i.e. conduit codes and depths, magnetic marking tape and CDF requirements, etc.) These drawings shall also be dimensioned, using a surveyor's reference point to guarantee that all dimensions are taken from one location/point.

**10) Inventory Checklist:** The contractor shall provide CBP with all associated serial numbers and model numbers of each equipment component within thirty (30) days of the WHTI RFID/LPR system being accepted by CBP. The contractor shall provide the information in an officially signed electronic format suitable for upload into CBP Asset management system. An Interface Control Document will be established to specify format of electronic file.