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## Digital file submittal requirements to DTIG

Massport consultants are required to submit digital files for both vertical and horizontal construction to DTIG. This includes everything associated with creating construction documents, including updated As-Builts/record drawings in the form of BIM, CAD (Site Civil) and PDF. This data is to be submitted to DTIG at final design and at project closeout. In addition PDF's are to be submitted at project closeout to PMWeb in order to close out the contract record.

Deliverables cannot be in the form of an email attachment or any upload/download site (ftp, Dropbox, etc). They must be manually delivered on a DVD, thumb drive or external hard drive with attention to the appropriate MPA Project Manager. Project name and number must also be noted somewhere on the deliverable either as a label on the DVD or DVD case or at a minimum printed out and attached with a rubber band to the external hard drive or thumb drive.

Please see below for what is required on all vertical or horizontal project submissions:

### **BIM**

#### **Consultants must refer to MPA BIM Guidelines for additional detailed information**

The following is required:

- A completed and up to date BIMxP with records of LOD and BIM Uses for each phase / milestone – pdf and native excel file

*Revit: .rvt*

- Arch
- Struc
- MEP
- FP
- All other disciplines

*Navis: .nwd, .nwc, .nwf*

- Federated model .nwd
- Clash Reports pdf – printable and legible
- Associated files .nwc / .nwf

*Point Clouds: (Native files & Autodesk compatible)*

- Pre-Con existing conditions
- Post construction As-builts
- Registered point cloud in non-vendor specific format (ascii text or las) with XYZI (plus RGB if applicable).
- Register point cloud in Autodesk RCS/RCP format

*CAD/Civil 3D: .dwg*

- Any related CAD
- Any Civil 3D

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- Site Civil data geo referenced to MPA state plane cords

*All supporting linked files:*

- CAD
- PDF
- Revit
- Sketchup
- Jpegs
- Etc...

*All supporting trade files:*

- CAD
- PDF
- Revit
- Sketchup
- Jpegs
- Etc...

## **SITE CIVIL**

For all site / civil design & construction at Massport, MPA DTIG requires the following file types submitted complying to all MPA standards:

**Consultants must refer to MPA Site Civil CAD Standard guide 2019 for additional detailed information**

*AutoCAD & Civil 3D file Standards:*

- MPA CAD files shall be individual files per drawing sheet; named (MPA Project No.-Sheet No.dwg)
- Follow MPA standards for all layer naming
- AutoCAD file units must be set to: Decimal, Insertion set to “Unitless”, angle precision set to “0.0000”
- UCS set to “World”
- All objects must be in MA State Plane Coordinates
- Horizontal Coordinates: NAD83, EPSG Code is 2249
- Vertical Coordinates: NAD88, EPSG Code is 6360

*AutoCAD eTransmit: (always utilize to submit CAD to MPA)*

- eTransmit to package all CAD & linked files
- Include all xrefs and associated files used to create CAD files
- Never bind xrefs to their parent files. Xref files shall be attached as ‘overlays’ and the path types shall be set to ‘relative path’. Xrefs shall be uniquely named and prefaced with an ‘X’ for Xref.
- In “settings” – be sure to package everything into one (1) parent folder with no sub folders

*Point Clouds: (Native files & Autodesk compatible)*

- Pre-Con existing conditions

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- Post construction As-builts (prior to back-filling or slab pouring)
- Registered point cloud in non-vendor specific format (ascii text or las) with XYZI (plus RGB if applicable).
- Register point cloud in Autodesk RCS/RCP format

**PDF Drawing Sets:**

**Design / Bid**

- One (1) pdf file of conformed set (MPA Project No.-Entire Design Set.pdf)
- Individual pdf files of said set; named correctly (MPA Project No.-Sheet No.pdf) XXXX-A101.pdf

**As-Built / Record**

- One (1) pdf file of conformed set (MPA Project No.-Entire Record Set.pdf)
- Individual pdf files of said set; named correctly (MPA Project No.-Sheet No.pdf) XXXX-A101.pdf
- Along with all submissions, a log / list of which technical files above created which set of construction documents in the event they are created from multiple sources.
- The Primary party will also be issued an excel file in which they are required to populate the title block information from each PDF file.