Updated 12/05/2023

BUILDING FOOTPRINT Edit Protocols

Just to keep us all on the same page for our edits to building footprint data, we've prepared this list of practices we should all follow. We'll update this document as any changes to these protocols occur.

General Overview: At present we (OTI) are not doing any research of our own to identify building changes. Our main goal is to work with DCP to try to get the BIN information that is in Geosupport/PAD synchronized with the BINs in Building Footprints- they should be the same. To this end, we don't want to be performing our own research and possibly duplicating the work that DCP is doing. At present, DCP is working with DOB to try to clear up all the cases where obsolete BINs are being used for new construction and cases where we have used obsolete BINs because we had no better data. This is what is generating most of the tickets we are getting from DCP.

Ultimately, we would like to have other agencies able to create their own buildings edit tickets. The workflow we are trying to set up is this:

a. Agency creates a ticket and assigns to Manager DCP.
b. DCP makes all changes to their records as necessary and then reassigns the ticket to Manager OTI.
c. OTI completes the required feature edits and closes the ticket.

Image data sources

1. **OTI orthophoto WMTS:** (even-numbered years) You can have every year's imagery back to 2004 in your MXD. Ask if you need help accessing these WMTS.
2. **Pictometry/EagleView CONNECT web application and ArcMap Toolbar:** You can add this imagery to your ArcGIS Pro document and heads-up to digitize most buildings. If you don't know how to add this imagery, ask and we'll show you.
3. **Cyclomedia:** Don't forget that there are historical "cycloramas" you can switch to for imagery back to 2017 or earlier in 2018 in some cases. You can measure building heights in the StreetSmart web application.
4. 4. Google maps (Street view): You can go back on historical "Street views" as early as 2007.

Editing best practices (in no particular order)

1. **HEIGHT_ROOF:** Don't leave blank! Always add this, if at all possible. You can get it from plans in DOB BIS Zoning Diagram or make measurements on Cyclomedia or Pictometry imagery. **Use only whole numbers, no decimal places. Round up to the nearest foot.**
2. **GROUND_ELEVATION:** Don't leave blank! Use the ground elevation from a neighboring building or from a nearby Spot Elevation (from planimetrics ELEVATION feature class).
3. **CONSTRUCTION_YEAR/DEMOLITION_YEAR:** Use the year when the building is first visible (for CONSTRUCTION_YEAR) or is no longer visible in imagery (for DEMOLITION_YEAR). Use orthos to check for the even years and Pictometry for the odd years.
4. **BBLs: We now have two BBL columns. BASE_BBL and MAPPLUTO_BBL. You only need to edit the BASE_BBL. MAPPLUTO_BBL updates will be handled programmatically.** The BASE_BBL is the BBL of the tax lot the footprint is physically located within. The MAPPLUTO_BBL will be the

same as the BASE_BBL for any lot that's not a condo. The MAPPLUTO_BBL is there to join the data to DCP's MapPLUTO data.

5. **BINs:**
    - **a.** If you can't find a BIN number for a new footprint **or the DOB BIS record uses the same BIN as the demolished building**, add a million BIN temporarily and create a ticket for DCP to provide a BIN for the structure.
    - **b.** If DCP requests that we update a BIN just update it. Simple identifier changes do not need to be recorded in building_historic.
6. **Demolitions and building_historic**
    - **a.** Copy the footprint from building and paste special into building_historic
    - **b.** Update last_status_type and demolition years
    - **c.** Bad buildings/sheds/corrections: If a footprint existed long enough to have a BIN and DCP wants it gone, move it to building_historic and set last_status_type to "Correction." This is mainly to help us in future research, no one else cares but we do!
    - **d.** For building footprints that are demolished, you must also remember to delete the associated CSCL AddressPoint feature. **Delete the existing CSCL AddressPoint and if there is a new building, create a new address point.**
7. **New buildings:**
    - a. Only use triangles as a last resort or when start of construction is on hold. If you can make a good guess at the likely shape and location of the building footprint, draw it.
    - **b.** Try to capture the shape as accurately as possible. Ask about controls to create parallel lines and 90-degree angles if you don't know how to do this.
    - **c.** If no imagery exists, use DOB BIS Zoning diagram and do the best you can.
    - **d.** Try to keep the footprint inside the tax lot as much as possible, but only if it doesn't distort the shape too much. How much is too much? Let's start out with a maximum 2-foot deviation from the actual image building wall location. We may change that later…
    - **e. For all new building footprints we are deleting the old address point and adding a new one- this applies even if the house number does not change.**
8. **Type 1 Alterations:** Flag LAST_STATUS_TYPE = "Alteration" and add the ALTERATION_YEAR, copy the original footprint to BUILDING_HISTORIC, and modify the footprint in BUILDING. Set GEOM_SOURCE = "Other (Manual)" and change HEIGHT_ROOF, if necessary. This will allow the footprint to retain its DOITT_ID. The modified footprint will also retain the same BIN.
9. **Footprint Merges or Splits:**
    - a. **For Merge:** Set LAST_STATUS_TYPE to "Merged" for all footprints that will be merged. Copy all footprints that will be merged to BUILDING_HISTORIC. In BUILDING select all the footprints that will be merged. Merge them into the footprint with the BIN that will be retained. Set GEOM_SOURCE = "Other (Manual)." Check other attributes as necessary to see if they are still correct: e.g. BASE_BBL, FEATURE_CODE.
    - b. **For Split:** Set LAST_STATUS_TYPE to "Split" for the footprint that will be split. Copy the footprint that will be split to BUILDING_HISTORIC. In BUILDING select the footprint that will be split. Split the footprint and assign the BINs to the new footprints as indicated in the ticket. The BIN assignments should be confirmed with DCP. Set GEOM_SOURCE = "Other (Manual)" Check other attributes as necessary to see if they are still correct: e.g. BASE_BBL, FEATURE_CODE.
    - c. **For Merges and Splits, Notify FDNY:** Send email with a short explanation in the Subject Line (e.g. "Footprint was Split, DOITT_ID = ???????" or "Footprint was Merged, DOITT_ID = ??????") and include a screenshot with the BIN of the post-edit features in BUILDING feature class. See attached XLS and email for what info to include. <u>This will be</u>

a temporary thing until FDNY is sure they are not missing anything important when we make these changes. Send mail to: Michael.Brady@fdny.nyc.gov

10. **FEATURE_CODE domain values:**
    a. ***Building:*** The default. An addressable structure with a BIN.
    b. ***Building Under Construction:*** Use only for triangle placeholders where a building is planned but no footprint exists on the site. Once construction has begun a building under construction is a building.
    c. ***Garage:*** A non-addressable outbuilding with a BIN that is obviously a garage.
    d. ***Skybridge:*** An aerial structure connecting two buildings that has been assigned a BIN.
    e. ***Parking:*** Used for addressable parking lots that have been assigned a BIN.
    f. ***Gas Station Canopy****:* For cases where there is a booth that also has a BIN below the canopy footprint, we will create overlapping footprints. The booth will have a FEATURE_CODE of "Building".
    g. ***Storage Tank:*** For storage tanks (gas, liquids, grain, etc.) that are assigned a BIN.
    h. ***Placeholder:*** For the triangles we add when we have no data source available to add a new footprint. GEOM_SOURCE domain currently has a "Placeholder" value, but we decided it's more appropriate to FEATURE_CODE. We will transition the value to the FEATURE_CODE domain and remove it from GEOM_SOURCE.
    i. ***Auxiliary Structure:*** This is for a non-garage, non-addressable, permanent structures.
    j. ***Temporary Structure:*** This would be for structures that are more temporary, but still are assigned BINs and have addresses. An example would be trailers stationed temporarily for construction projects.
    k. ***Cantilevered Building:*** This is for buildings where some portion of the footprint overhangs another building footprint, but is not a Skybridge, which is typically narrow and serves solely as an aerial bridge between two structures.

Tickets

1. **Super Important!** If you demolish a building **that did not come from a DCP ticket edit request**, check to see if the BIN shows up in GOAT. If the BIN still shows up in GOAT, create a ticket for Manager DCP to inform them that the building was demolished. This is what I write in the ticket, feel free to copy it if you like. I keep it open in Notepad and just change the numbers as necessary.
   "Moved DOITT_ID/BIN 636668/3032880 to BUILDING_HISTORIC and deleted from BUILDING.
   Deleted ADDRESSPOINTID 5166316 with HOUSE_NUMBER 1550 BEDFORD AV.
   Please update DCP records as necessary and close this ticket."

2. Create a new ticket for anything that is required from DCP that is not part of the original edit request. Assign it to Manager DCP.

3. If you have to ask DCP for clarifications or questions for an edit ticket, use the Reassign option to do it. Reassign the ticket to the original creator or to Manager DCP, depending on your experience with the creator's likelihood of responding.

4. Try not to assign yourself more buildings tickets than you can work on in one day. This makes it easier to track what is getting done.

5. <u>For NEW Buildings found by OTI:</u> For any “new” buildings we find while performing our normal edits, **<u>before creating a ticket to DCP requesting a BIN, check DOB BIS to see if the building is a Type 1 Alteration (no BIN change).</u>** If it is a Type 1 Alteration, we do not need to notify DCP. Edit the footprint per instructions for **Type 1 Alterations** above or create a ticket and assign it to the CSCL manager.

6. On DCP tickets when the say "resize" or "reshape" a footprint, always check DOB on Jobs/Filings:
    a. If the building was demolished (DM), follow instructions above for Demolitions.
b. If the building was Altered, follow instructions above for Type 1 Alterations then make a copy of the footprint to BLDG_HISTORIC, reshape the original footprint on BLDG layer and check if Building Height changed and update on Attributes table.