ON-STREET PARKING

DCP Transportation Division

March 2020





Goal

- Map out DOT's parking regulation signs
- Create a block-face based visualization of parking regulations
- Calculate the number of free and metered parking spaces



Input Data



DOT Parking Regulation
Database

Signs Spreadsheet

Locations Spreadsheet

Parking Regulation Shapefile

DCP Single Line Street Base Map Dataset (LION)

NYC Planimetric DEP Hydrants Database





Signs Spreadsheet

Locations Spreadsheet

Parking Regulation Shapefile

Use LION to geocode the sign order locations and find the corresponding BlockfaceIDs

- Borough
- STATUS Order Number
- Main Street
- From Street
- To Street
- Side of Street

- Physical ID
- On Street
 Name/Code
- From NodelD
- To NodelD
- Left BlockfaceID
- Right BlockfaceID

DCP Single Line Street Base Map Dataset (LION)



DOT Parking Regulation Database

Signs Spreadsheet

Locations Spreadsheet

Parking Regulation Shapefile

For the sign orders that cannot be geocoded through locations file, use shapefile to identify BlockfaceID

- Borough
- STATUS Order Number
- Sign Sequence
 Number
- Sign Code/MUTCD
- Arrow points
- Sign Description
- Latitude/Longitude

Planimetric

- BlockfaceID
- Geometry



NYC

DOT Parking Regulation Database

Signs Spreadsheet

Locations Spreadsheet

Parking Regulation Shapefile

- Borough
- STATUS Order Number
- Sign Sequence
 Number
- Distance from curb line
- Arrow points
- Sign Description
- Sign
 Code/MUTCD

- Join BlockfaceID and geometry to sign orders
- Categorize MUTCD signs as Free Parking, Metered Parking, and No Parking
- Assign the regulations to each sign segment





Signs Spreadsheet

Locations Spreadsheet

Parking Regulation Shapefile

Add additional hydrant related regulations (no parking 15 feet from hydrants) to the sign segments

- STATUS Order Number
- Distance from curb line 1
- Distance from curb line 2
- Sign regulation

- UnitID
- Latitude/ Longitude

DEP Hydrants Database



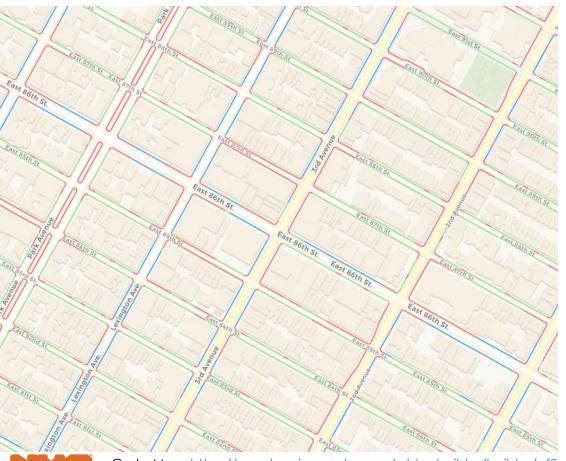
DCP Single Line Street Base Map Dataset (LION)

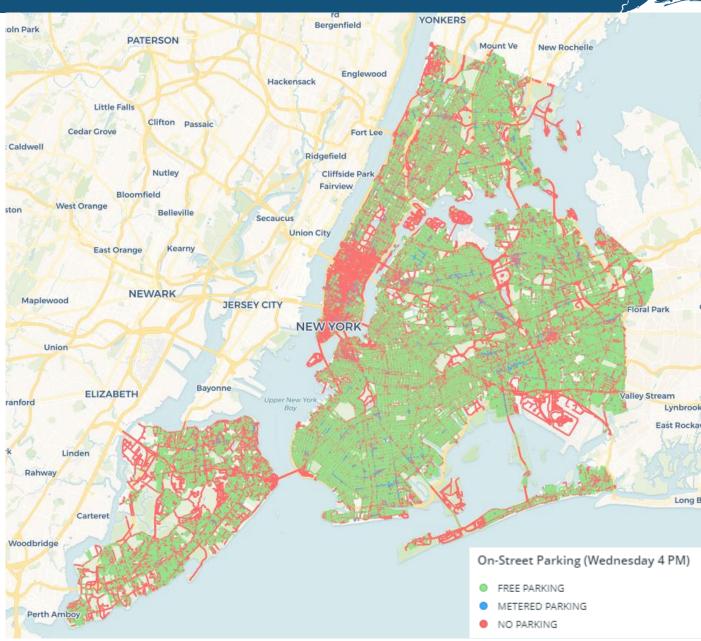
- Left BlockfaceID
- Right BlockfaceID
- Traffic Direction
- Number of Parking Lanes

- Use LION to identify block faces with parking lanes
- Remove block faces that have parking regulations but no parking lanes
- Add block faces with no signs but having parking lanes

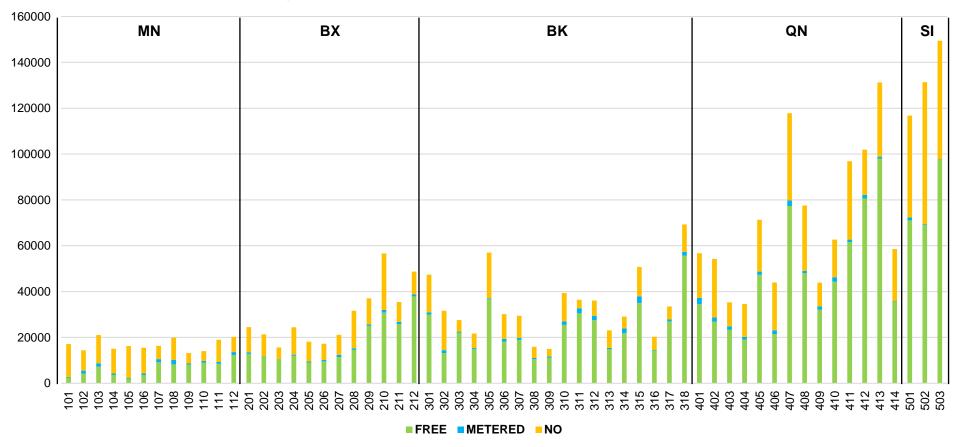


- Able to map out 80% of all the signs
- Created an interactive map for Wednesday 4 PM





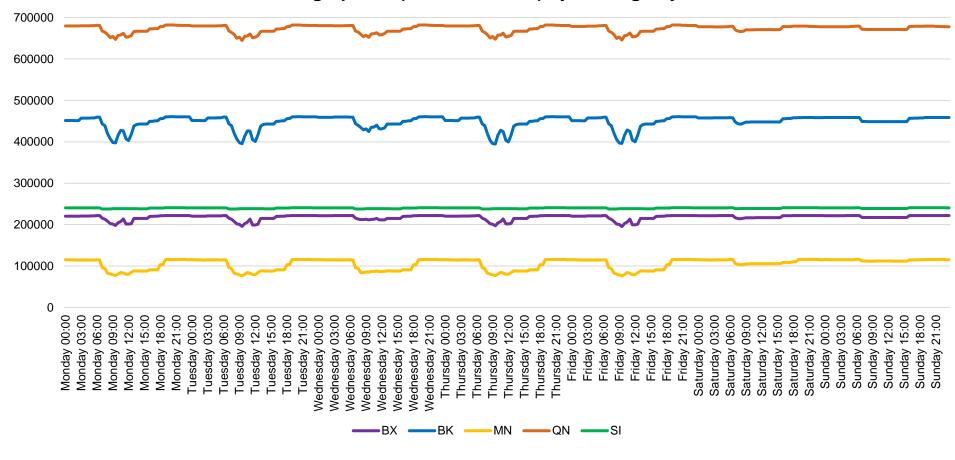
Parking Spaces by Community District (Wednesday 4 PM)





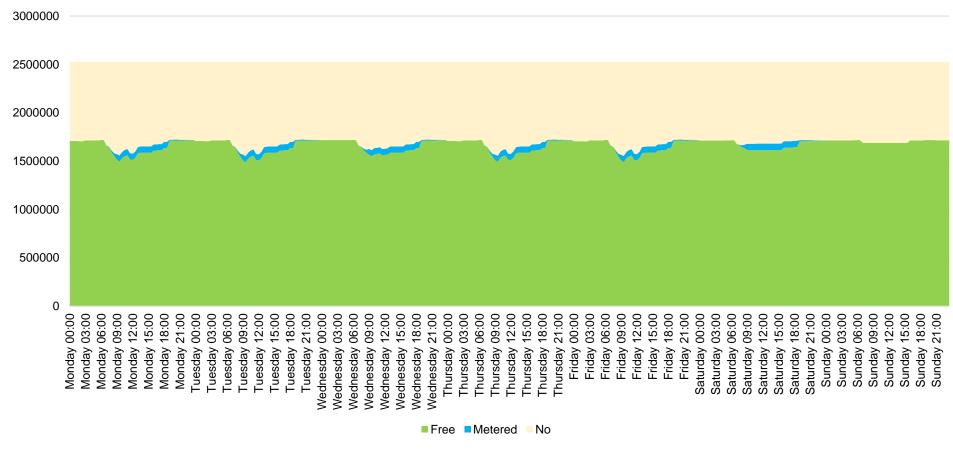
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Allowed Parking Spaces (Free + Metered) by Borough by Time Period



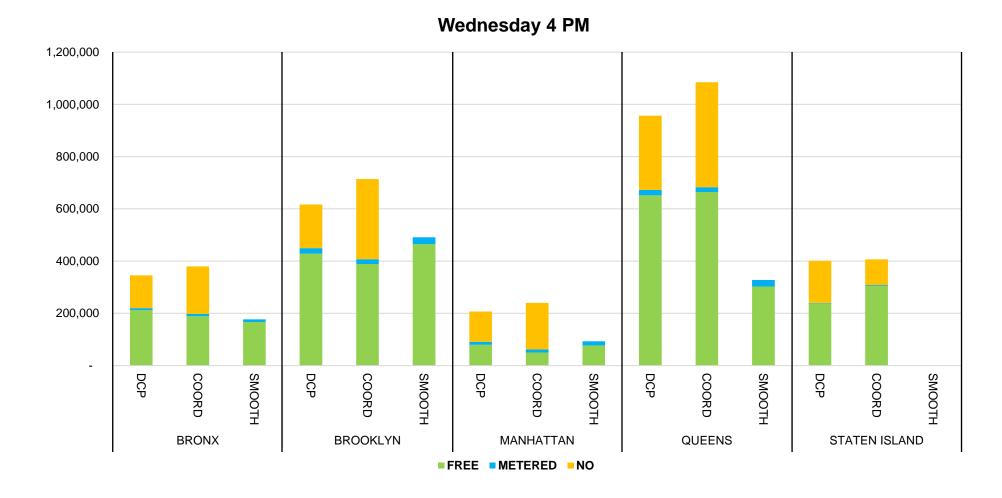


NYC Total Free and Meterd Parking Spaces by Time Period





Comparison





Future



DOT Parking Regulation Database

Signs Spreadsheet

Locations Spreadsheet

Parking Regulation Shapefile

DCP Single Line Street Base Map Dataset (LION)

NYC Planimetric (Including Curb cuts)

DEP Hydrants Database

