



## **Accessible Pedestrian Signals**

### **Program Status Report**

December 2019

## **Program Overview**

The New York City Department of Transportation (NYC DOT) installs Accessible Pedestrian Signals (APSS) to assist pedestrians who are blind or have low vision in crossing the street. These devices provide information in non-visual formats, such as audible tones, speech messages, and vibrating surfaces, to alert vision-impaired pedestrians when the “walk” phase is available at a given intersection.

As of December 31, 2019, there were APS units installed at 548 intersections citywide. A list of these locations is included in this report and is available on NYC DOT’s website at [www.nyc.gov/dot](http://www.nyc.gov/dot).

Pursuant to Local Law 21 of 2012 (as codified in NYC Administrative Code Section 19-188), NYC DOT was installing APS units at each corner of 25 intersections each year. Effective January 1, 2016, Local Law 60 of 2014 required NYC DOT to install APS units at 75 intersections each year. Starting in 2019, DOT has worked to double the Local Law commitment to 150 intersections annually. The agency works closely with the Mayor’s Office for People with Disabilities (MOPD) and the visually impaired community, such as the group Pedestrians for Accessible and Safe Streets (PASS), to identify intersections which present a crossing difficulty for persons with visual impairments, such as intersections with Leading Pedestrian Intervals (LPI), delayed turns (split LPI) and Exclusive Pedestrian Phases (EPP) such as Barnes Dance and mid-block locations. NYC DOT also considers all applicable accessibility laws and regulations as well as locations that are recommended by constituents and elected officials.

NYC DOT establishes a ranked priority list of intersections for the installation of APSs based on established criteria, including but not limited to off-peak traffic presence, current traffic-signal patterns and the complexity of the intersection’s geometry, including crossing distance. These criteria are set forth by the National Cooperative Highway Research Program (NCHRP) and the most recent version of the federal Manual on Uniform Traffic Control Devices (MUTCD). Final scores are based on the individual crosswalk and intersection scores for each location, and ultimately determine priority for installation. This report includes the list of the one hundred fifty (150) top-ranked intersections as of December 31, 2019.

## **Cost and Funding Sources**

The cost per intersection averages approximately \$64,500. For the 150 intersections where APS were installed over the past year, the total cost was \$9,675,000.

The baseline estimated cost to furnish and install an APS unit on an existing pole is about \$1,100. A standard four-legged intersection would require eight units (2 per corner quadrant), meaning that the minimum estimated cost per intersection is at least \$8,800. In actuality, however, an intersection typically requires additional work that increases the cost of the installation, bringing the average cost to approximately \$64,500 per location. For example, most intersections do not have pedestrian signal poles at the location required for APS installation

(i.e., adjacent to a pedestrian ramp) requiring the construction of new poles at additional cost. Other factors, such as utilities located underneath the intersection, additional conduit runs, fire alarm posts to be relocated, stricter roadway restoration requirements, protected street segments or intersections that have been resurfaced or reconstructed within the last five years, and distinctive sidewalk material may add to the total cost of installation. Overall, the costs for each intersection varies depending on the number of additional poles needed, geometry and complexity of the intersection.

City funding is used to procure contracts for the installation of all APS devices.

### **Recommendations for Improvements and Availability of New Technology**

NYC DOT is continuously researching new technologies and instituting updates to enhance the APS program. The agency in recent years replaced the last remaining older types of APSs, which provided “birdcalls” from overhead speakers mounted on the pedestrian signal to alert visually impaired pedestrians when it is safe to cross. These older devices were louder, emitted a noise with every walk display regardless of pedestrian demand, and used a different bird call for each crossing, which confused the user. In addition, the older devices did not provide crossing information as new types of APS units do.

The new type of APS unit used by NYC DOT was tested and approved for use in New York City in 2011, and features a distinct rapid ticking tone that can be adjusted based on the needs of a specific intersection. They also feature a raised vibrating tactile arrow at the pedestrian pushbutton location, which a user can find by a locator tone. These units are installed in close proximity to each pedestrian crossing ramp so that there is no confusion which APS unit is for which crossing. Upon pushing the button, the arrow will vibrate and there will be a rapid percussive tone or audible message when the “walk” signal is displayed.

NYC DOT is constantly evaluating new technologies for use in the APS program. We currently have a contract with the University Transportation Research Center (UTRC). This multi-year contract provides NYC DOT ongoing research and development programs pertaining to urban Intelligent Transportation Systems (ITS) deployment. One of the tasks under this contract is to research “**Pedestrians and Cyclists Safety Using ITS Technologies in NYC**”. The purpose of this task is to gather knowledge about all new and innovative technologies and methodologies and determine the most useful countermeasures that could be used in NYC to reduce pedestrian/cyclist injuries, conflicts, crashes and fatalities to meet the goals of the Mayor’s “Vision Zero” Action Plan.

Specific attention will be given to the smartphone technologies associated with APS units. Research will be conducted to determine the latest and most innovative technologies currently being implemented nationally and internationally and under what conditions these new technologies are most beneficial for New York City.

The final outcome of this task will be a report providing a method to objectively look at each potential measure and come up with a recommendation to decide under what conditions each

countermeasure should be used. NYC DOT will continue to evaluate the potential uses of new technologies on the market to assist blind and low vision individuals in navigating the city's roadways.

NYCDOT is also working with three companies in an initiative titled "Call to Innovation" to develop technologies that provide mobility guidance for the visually impaired and make it easier and safer for them to navigate the streets of New York City. The objective of the project is to create a solution that will guide blind and low vision pedestrians through an intersection utilizing an intelligent transportation system (ITS) solution. NYCDOT will first test the solution on the intersection of West 25<sup>th</sup> Street and 6<sup>th</sup> Avenue, in Manhattan. This intersection was chosen due to its diverse street geometrics and proximity to several facilities that work with the blind and low-vision community. The goals of the project are listed below:

- Provide information on street geography, including obstacles, street names, number of lanes, and presence of bus and bicycle lanes.
- Sync in real-time and with 100% accuracy to the signal timing of the pedestrian signal head.
- Operate at sub-meter geographic precision.
- Operate properly in the direction of travel. The technology must operate correctly in the intended direction of travel and must clearly announce the name of the street being crossed.

Some recommendations for enhancing NYC DOT's APS program include, but are not limited to:

- Continued evaluation of the structure of the APS program for possible improvements to staffing and funding levels and sources.
- Further research of new technologies to enhance the APS program.
- Continued dialogue with blind and low vision advocacy groups.
- Participation in any future USDOT Vehicle-to-Infrastructure testing opportunities that will offer positioning and computing capabilities to a traveler and the ability to interact with infrastructure, utilizing systems that communicate with roadside equipment using many tools, including dedicated short range communications (DSRC), 3G, 4G, Wi-Fi and Bluetooth.

## Accessible Pedestrian Signals Locations in New York City

As of December 31, 2019

No.	Location	Borough
1	14th Avenue and 36th Street (New York Industries for the Blind)	Brooklyn
2	3rd Avenue and 33rd Street	
3	4th Avenue and 240' South of 3rd Street (mid-block)	
4	4th Avenue and 36th Street	
5	4th Avenue and 39th Street	
6	4th Avenue and 44th Street	
7	4th Avenue and 45th Street	
8	4th Avenue and 54th Street	
9	4th Avenue and 55th Street	
10	4th Avenue and 59th Street	
11	4th Avenue and 60th Street	
12	4th Avenue and 9th Street	
13	4th Avenue and Union Street	
14	5th Avenue and 89th Street	
15	86th Street and 19th Avenue	
16	86th Street and Battery Avenue	
17	86th Street and Bay 22nd Street	
18	86th Street and Fort Hamilton Parkway	
19	86th Street between 4th Avenue and 5th Avenue	
20	86th Street between West 8th Street and West 9th Street (mid-block)	
21	87th Street between 4th Avenue and 5th Avenue (mid-block)	
22	Adams Street between Fulton Street and Johnson Street (mid-block)	
23	Adams Street/Boerum Place and Fulton Street	
24	Adams Street/Boerum Place and Livingston Street	
25	Atlantic Avenue and 3rd Avenue	
26	Atlantic Avenue and Boerum Place	
27	Atlantic Avenue and Bond Street	
28	Atlantic Avenue and Brooklyn Avenue	
29	Atlantic Avenue and Classon Avenue	
30	Atlantic Avenue and Clermont Avenue	
31	Atlantic Avenue and Hoyt Street	
32	Atlantic Avenue and Kingston Avenue	
33	Atlantic Avenue and Nevins Street	
34	Atlantic Avenue and Nostrand Avenue	
35	Atlantic Avenue and Smith Street	

36	Atlantic Avenue with East New York Avenue and Williams Place	Brooklyn
37	Avenue I and East 13th Street	
38	Avenue I and East 52nd Street	
39	Avenue J and East 27th Street	
40	Avenue K and East 29th Street	
41	Avenue K at East 32nd Street	
42	Avenue U and Ocean Avenue	
43	Avenue X and Brown Street	
44	Avenue Y and East 26th Street	
45	Avenue Y and East 29th Street	
46	Avenue Z and East 6th Street	
47	Bedford Avenue and Lafayette Avenue	
48	Bedford Avenue between Avenue I and Campus Road (mid-block)	
49	Boerum Place and Schermerhorn Street	
50	Boerum Place and State Street	
51	Brighton Beach Avenue and Coney Island Avenue	
52	Cadman Plaza West and Montague Street	
53	Caton Avenue and East 8th Street	
54	Church Avenue and Dahill Avenue (New York Industries for the Blind)	
55	Church Avenue and McDonald Avenue (New York Industries for the Blind)	
56	Coney Island Avenue and Avenue N	
57	Court Street and Atlantic Avenue	
58	Court Street and Livingston Street	
59	Court Street and Schermerhorn Street	
60	Court Street and State Street	
61	Court Street with Remsen and Joralemon Street	
62	Cropsey Avenue and Bay 32nd Street	
63	Cropsey Avenue and Bay 35th / 24th Avenue	
64	Cropsey Avenue and Bay 49th Street	
65	DeKalb Avenue and Hudson Avenue	
66	Dekalb Avenue and S Portland Avenue	
67	Ditmas Avenue and East 5th Street	
68	Driggs Avenue and Union Avenue (mid-block)	
69	East New York Avenue at Dean Street and Sackman Street	
70	Flatbush Avenue and Atlantic Avenue	
71	Flatbush Avenue and Beekman Place with Maple Street	
72	Flatbush Avenue and Church Avenue	
73	Flatbush Avenue and Dekalb Avenue	
74	Flatbush Avenue and Glenwood Road (west leg)	
75	Flatbush Avenue and Lafayette Avenue	

76	Flatbush Avenue and Prospect Park Zoo (mid-block)	Brooklyn
77	Flatbush Avenue and Willoughby Street	
78	Flatbush Avenue at Fulton Street and Nevins Street	
79	Flatbush Avenue between Avenue U and Avenue V (mid-block)	
80	Flatbush Avenue with Brooklyn Avenue and Avenue J	
81	Flatbush Avenue with Glenwood Road and East 29th Street (east leg)	
82	Flatbush Avenue with Nostrand Avenue and Hillel Place	
83	Flatlands Avenue and East 107th Street	
84	Flatlands Avenue and East 76th Street	
85	Flushing Avenue and Bogart Street	
86	Flushing Avenue and Skillman Street	
87	Flushing Avenue and Warsoff Place	
88	Fort Hamilton Parkway and 92nd Street	
89	Fort Hamilton Parkway with 6th Avenue and 84th Street	
90	Franklin Avenue and Lafayette Avenue	
91	Fulton Street and Brooklyn Avenue	
92	Fulton Street and Crescent Street	
93	Fulton Street with Lafayette Avenue and Fort Greene Place	
94	Graham Avenue and Maujer Street (500' South)	
95	Grand Army Plaza (North) and Pedestrian Crossing (mid-block)	
96	Hanson Place and St. Felix Street	
97	Hillel Place and Campus Road (North Side)	
98	Jay Street and Metrotech Roadway (North Leg)	
99	Jay Street and Metrotech Roadway (South Leg)	
100	Jay Street and Willoughby Street	
101	Jay Street/Smith Street and Fulton Street	
102	Lafayette Avenue and Emerson Place (mid-block)	
103	Lenox Road and East 42nd Street	
104	Linden Boulevard and Christopher Avenue (mid-block)	
105	Livingston Street and Bond Street	
106	Livingston Street and Hoyt Street	
107	Livingston Street at Nevins Street	
108	McDonald Avenue and Ditmas Avenue	
109	Myrtle Avenue and Pedestrian Crossing (Hudson Walk) (mid-block)	
110	Myrtle Avenue and Stanhope Street	
111	Neptune Avenue and Shore Boulevard	
112	Nevins Street and State Street	
113	New Lots Avenue and Powell Street	
114	New Utrecht Avenue and 62nd Street	
115	Nostrand Avenue and Erasmus Street	

116	Nostrand Avenue and Glenwood Road	Brooklyn
117	Ocean Avenue and Prospect Park North Entrance (mid-block)	
118	Ocean Avenue and Prospect Park South Entrance (mid-block)	
119	Ocean Parkway and Church Avenue	
120	Pennsylvania Avenue and Freeport Loop (North Leg)	
121	Ralph Avenue between Avenue K and Avenue L (mid-block)	
122	Rochester Avenue and Dean Street	
123	Rockaway Pkwy at Brookdale Hospital entrance (w of Linden Blvd)	
124	Rogers Avenue and St Johns Place	
125	Rutland Road with East 52nd Street and Remsen Avenue	
126	Schermerhorn Street and Nevins Street	
127	Smith Street and Livingston Street	
128	Surf Avenue and West 29th Street	
129	Utica Avenue and Avenue M	
130	Voorhies Avenue and East 18th Street	
131	West 12th Street between Surf Avenue and Neptune Avenue (mid-block)	Manhattan
132	10th Avenue and West 55th Street	
133	12th Avenue and West 23rd Street	
134	1st Avenue and East 122nd Street	
135	1st Avenue and East 14th Street	
136	1st Avenue and East 15th Street	
137	1st Avenue and East 16th Street	
138	1st Avenue and East 17th Street	
139	1st Avenue and East 18th Street	
140	1st Avenue and East 19th Street	
141	1st Avenue and East 20th Street	
142	1st Avenue and East 21st Street	
143	1st Avenue and East 22nd Street	
144	1st Avenue and East 23rd Street	
145	1st Avenue and East 28th Street	
146	1st Avenue between E 30th Street and E 33rd Street	
147	2nd Avenue and East 23rd Street	
148	2nd Avenue and East 96th Street	
149	2nd Avenue and East 98th Street	
150	2nd Avenue and Pedestrian Crossing (East 107th Street)	
151	2nd Avenue and Pedestrian Crossing (East 114th Street)	
152	2nd Avenue and Stuyvesant Square (East 16th Street)	
153	3rd Avenue and East 23rd Street	
154	3rd Avenue and East 59th Street (Lighthouse)	
155	3rd Avenue and East 72nd Street	



156	3rd Avenue and Pedestrian Crossing at East 113th Street	Manhattan
157	3rd Avenue and Pedestrian Crossing at East 114th Street	
158	5th Avenue and 125th Street	
159	5th Avenue and 58th Street and Grand Army Plaza	
160	5th Avenue and East 23rd Street	
161	5th Avenue at Pedestrian Crossing (West/East 113th Street)	
162	5th Avenue with East 124th and West 124th Streets	
163	5th Avenue with East and West 8th Street	
164	6th Avenue / Avenue of The Americas and West 9th Street	
165	7th Avenue and West 17th Street	
166	7th Avenue and West 23rd Street	
167	7th Avenue and West 32nd Street	
168	7th Avenue and West 47th Street	
169	7th Avenue South and Leroy Street	
170	8th Avenue and West 130th Street	
171	8th Avenue and West 23rd Street	
172	8th Avenue and West 25th Street	
173	8th Avenue and West 55th Street	
174	8th Avenue between West 31st and West 32nd Streets	
175	9th Avenue and West 23rd Street	
176	9th Avenue and West 27th Street	
177	9th Avenue and West 43rd Street	
178	Amsterdam Avenue and Pedestrian crossing 200' North of West 62nd Street	
179	Amsterdam Avenue and West 113th Street	
180	Amsterdam Avenue and West 114th Street	
181	Amsterdam Avenue and West 73rd Street	
182	Amsterdam Avenue and West 79th Street	
183	Amsterdam Avenue at Pedestrian Crossing (West 117th Street)	
184	Amsterdam Avenue pedestrian crossing (btwn West 123rd and La Salle Sts)	
185	Avenue C and East 16th Street	
186	Avenue D and East 11th Street	
187	Avenue D and East 3rd Street	
188	Avenue of the Americas and 23rd Street (Selis Manor)	
189	Avenue of the Americas and West 16th Street	
190	Avenue of the Americas with Dominick Street and Clark Street	
191	Battery Place and Washington Street	
192	Beekman Street and Nassau Street	
193	Beekman Street and Williams Street	
194	Broadway and 5th Avenue between 23rd Street and 24th Street	
195	Broadway and 7th Avenue with West 43rd Street	

196	Broadway and 7th Avenue with West 44th Street	Manhattan
197	Broadway and 7th Avenue with West 45th Street	
198	Broadway and 7th Avenue with West 46th Street	
199	Broadway and Astor Place	
200	Broadway and Bowling Green	
201	Broadway and East 96th Street	
202	Broadway and Sherman Avenue	
203	Broadway and West 117th Street (midblock crossing)	
204	Broadway and West 133th Street	
205	Broadway and West 152nd Street	
206	Broadway and West 153rd Street	
207	Broadway and West 160th Street	
208	Broadway and West 164th Street	
209	Broadway and West 173rd Street	
210	Broadway and West 175th Street	
211	Broadway and West 23rd Street	
212	Broadway and West 64th Street	
213	Broadway and West 65th Street	
214	Broadway and West 66th Street	
215	Broadway and West 78th Street	
216	Broadway and West 79th Street	
217	Broadway and West 86th Street	
218	Broadway with Dyckman Street and Riverside Drive	
219	Broadway with West 218th Street and 10th Avenue	
220	Central Park West and Pedestrian Crossing (West 79th Street)	
221	Central Park West and West 100th Street	
222	Central Park West and West 65th Street (North/East/West Legs-Phase II)	
223	Central Park West and West 65th Street (South Leg-Phase I)	
224	Central Park West and West 72nd Street	
225	Central Park West and West 97th Street	
226	Centre Street and Brooklyn Bridge Exit	
227	Centre Street and Franklin Walk	
228	Cherry Street and Rutgers Street	
229	Clinton Street and Henry Street	
230	Clinton Street between East Broadway and Grand Street	
231	Columbus Avenue and West 64th Street	
232	Columbus Avenue and West 65th Street	
233	Columbus Avenue and West 66th Street	
234	Columbus Avenue and West 97th Street	
235	Columbus Avenue and West 98th Street Pedestrian Crossing	

236	Columbus Avenue midblock crossing between West 100th Street and West 104th Street (West 102nd Street)	Manhattan
237	Columbus Avenue midblock crossing between West 100th Street and West 104th Street (West 103rd Street)	
238	Columbus Avenue midblock crossing between West 97th Street and West 100th Street (West 99th Street)	
239	Delancey Street and Essex Street	
240	East 37th Street and FDR Drive	
241	East Broadway between Catherine Street and Market Street	
242	East End Avenue and East 85th Street	
243	East Houston Street and Pitt Street	
244	East Houston Street with Clinton Street and Avenue B	
245	East Houston Street with Essex Street and Avenue A	
246	Edgecombe Avenue and West 164th Street	
247	Eighth Avenue and West 52nd Street	
248	Eighth Avenue and West 53rd Street	
249	Fifth Avenue and West 99th Street (pedestrian crossing)	
250	Fifth Avenue pedestrian crossing (btwn East 132nd and East 135th Streets)	
251	Frederick Douglass Boulevard (8th Avenue) and West 125th Street	
252	Frederick Douglass Boulevard and West 156th Street	
253	Gold Street and Beekman Street	
254	Gold Street and Fulton Street	
255	Gold Street and Spruce Street	
256	Grand Street and Ridge Street	
257	Greenwich Street and Barclay Street	
258	Greenwich Street and Cortlandt Way (mid-block)	
259	Lafayette Street and Pedestrian crossing (Pearl Street)	
260	Lexington Avenue and 125th Street	
261	Lexington Avenue and East 113th Street (Pedestrian Crossing)	
262	Lexington Avenue and East 114th Street (Pedestrian Crossing)	
263	Lexington Avenue and East 23rd Street	
264	Lexington Avenue and East 25th Street	
265	Lexington Avenue and East 42nd Street	
266	Lexington Avenue and East 43rd Street	
267	Lexington Avenue and East 52nd Street	
268	Lexington Avenue and East 59th Street (Lighthouse)	
269	Madison Avenue and East 100th Street pedestrian crossing (mid-block)	
270	Madison Avenue and East 113th Street pedestrian crossing (mid-block)	

271	Madison Avenue and East 114th Street pedestrian crossing (mid-block)	Manhattan
272	Madison Avenue and East 133rd Street	
273	Madison Avenue and East 134th Street	
274	Madison Avenue and East 23rd Street	
275	Madison Street and 300' west of Jackson Street	
276	Madison Street and Jefferson Street	
277	Maiden Lane at Front Street	
278	Malcolm X Boulevard (Lenox Avenue) and West 145th Street	
279	Murray Street and 270' West of West Street	
280	Park Avenue and East 113th Street pedestrian crossing (mid-block)	
281	Park Avenue and East 59th Street (Lighthouse)	
282	Park Avenue South and East 23rd Street	
283	Pearl Street and Beekman Street	
284	Riverside Drive (Northbound) and Grant's Tomb (450' North of West 122nd Street (mid-block)	
285	Riverside Drive (Southbound) and 450' North of West 122nd Street (mid-block)	
286	Riverside Drive and 200' North of West 181st Street (mid-block)	
287	Riverside Drive and West 94th Street	
288	Riverside Drive and West 101st Street (mid-block)	
289	Riverside Drive and West 103rd Street	
290	Riverside Drive and West 106th Street	
291	Riverside Drive and West 112th Street (midblock crossing)	
292	Riverside Drive and West 138th Street	
293	Riverside Drive and West 151st Street	
294	Riverside Drive and West 163rd Street	
295	Riverside Drive and West 95th Street	
296	Riverside Drive and West 99th Street (mid-block)	
297	Riverside Drive East and Grants Tomb (North of 122nd St)	
298	Riverside Drive North Triangle (Tiemann Stairs)	
299	Second Avenue and East 72nd Street	
300	St James Place and James Street	
301	St Nicholas Avenue and Pedestrian Crossing between West 130th and West 133rd Streets	
302	St Nicholas Avenue and West 125th Street	
303	St Nicholas Avenue and West 156th Street	
304	Stone Street and Broad Street	
305	Stone Street and Whitehall Street	
306	Sutton Place and East 57th Street	
307	Third Avenue and East 42nd Street	

308	Vesey Street between North End Avenue and West Street	Manhattan	
309	Washington Square South and Thompson Street		
310	Water Street and Fulton Street		
311	West 112th Street between Lenox Avenue and 5th Avenue (mid-block)		
312	West 125th Street at 400' east of Frederick Douglass Boulevard		
313	West 125th Street at 400' west of Lenox Avenue		
314	West 125th Street at 450' west of 5th Avenue		
315	West 155th Street with Edgecomb Avenue and HRD / St Nicholas Place		
316	West 23rd Street between 5th Avenue and 6th Avenue (Mid-block)		
317	West 34th Street between 7th and 8th Avenues		
318	West 34th Street between 8th Avenue and 9th Avenue (mid-block)		
319	West 34th Street between Broadway, 6th and 7th Avenues		
320	West 42nd Street between 5th Avenue and 6th Avenue		
321	West 42nd Street between 7th Avenue and 8th Avenue		
322	West 42nd Street between 8th Avenue and 9th Avenue		
323	West 53rd Street between 5th and 6th Avenues		
324	West 57th Street between 5th Avenue and 6th Avenue		
325	West 57th Street between 6th Avenue and 7th Avenue (Mid-block)		
326	West 57th Street between 8th Avenue and 9th Avenue (Mid-block)		
327	West End Avenue and Pedestrian Crossing (120' north of West 67th Street)		
328	West End Avenue and Pedestrian Crossing (West 69th Street)		
329	West End Avenue and West 63rd Street		
330	West End Avenue and West 64th Street		
331	West End Avenue and West 65 <sup>th</sup> Street		
332	West End Avenue and West 97th Street		
333	West Street and Horatio Street (mid-block)		
334	York Avenue and East 62nd Street		
335	York Avenue and East 68th Street		
336	York Avenue with FDR Drive Entrance/Exit Ramps and East 63rd Street		
337	108th Street and 63rd Drive		Queens
338	108 <sup>th</sup> Street and Van Doren Street		
339	110th Avenue and Sutphin Boulevard		
340	137th Avenue and 172nd Street		
341	145th Avenue and Springfield Boulevard		
342	150th Street and 15th Drive		
343	20th Avenue and Whitestone Expressway (NorthBound Service Road)		

344	20th Avenue and Whitestone Expressway (Southbound Service Road)	Queens
345	21st Street and 31st Avenue	
346	21st Street and 31st Drive	
347	21st Street and 31st Road	
348	21st Street and 38th Avenue	
349	21st Street and 41st Avenue	
350	27th Avenue and 8th Street (Goodwill Industries)	
351	30th Avenue and 30th Street	
352	36th Avenue and 23rd Street	
353	37th Avenue and 78th Street	
354	44 <sup>th</sup> Drive and Hunter Street	
355	45th Avenue and Union Street	
356	47th Avenue and 192nd Street	
357	47th Street and 48th Avenue	
358	48th Avenue and 211th Street	
359	Archer Avenue and Parsons Boulevard	
360	Atlantic Avenue and 84th Street	
361	Austin Street with 71st Avenue and Continental Avenue	
362	Beach 102nd Street and Rockaway Beach Blvd West Leg	
363	Booth Memorial Avenue and 160th Road	
364	Clintonville Street and Locke Avenue	
365	Corona Avenue and 94th Street	
366	Corona Avenue with 108th Street and 53rd Avenue	
367	Eliot Avenue and 72nd Street	
368	Francis Lewis Boulevard and 35th Avenue	
369	Harper Street and Marina Road	
370	Hempstead Avenue and 221st Street	
371	Hillside Avenue and 175th Street	
372	Hillside Avenue and 178th Street/Edgerton Boulevard	
373	Hillside Avenue and 199th Street	
374	Hillside Avenue and 256th Street	
375	Hillside Avenue with Merrick Boulevard and 166th Street	
376	Hobart Street and 30th Avenue	
377	Horace Harding Expressway Eastbound and Cloverdale Boulevard	
378	Horace Harding Expressway Service Road North and 92nd Street	
379	Horace Harding Expressway Westbound and Fresh Meadow Lane	
380	Horace Harding Expressway Westbound Service Road and Cloverdale Boulevard	
381	Jackson Avenue and 21st Street	
382	Jamaica Avenue and 175th Street	

383	Jamaica Avenue and 190th Street	Queens
384	Jamaica Avenue and 196th Street	
385	Jamaica Avenue and 207th Street	
386	Jamaica Avenue and 222nd Street	
387	Jamaica Avenue and Springfield Boulevard	
388	Jamaica Avenue with 143rd Street and 144th Street	
389	Jamaica Avenue with Woodhull Avenue and 188th Street	
390	Kissena Boulevard and Elder Avenue	
391	Kissena Boulevard and Sanford Avenue	
392	Little Neck Parkway and 86th Avenue	
393	Main Street and 41st Road	
394	Main Street and Northern Boulevard	
395	Main Street and Pedestrian Crossing between 63rd Avenue & Gravett Road (mid-block)	
396	Marathon Parkway and 57th Avenue	
397	Merrick Boulevard and 231st Street	
398	Myrtle Avenue and 82nd Street	
399	Northern Boulevard and 103rd Street	
400	Northern Boulevard and 110th Street	
401	Northern Boulevard and 112th Street	
402	Northern Boulevard and 33rd Street	
403	Northern Boulevard and 89th Street	
404	Northern Boulevard and 90th Street	
405	Northern Boulevard and Alley Pond Environmental Center (750' East of Cross Island NB)	
406	Northern Boulevard at 211th Street	
407	Northern Boulevard with Roosevelt Avenue and 156th Street	
408	Queens Boulevard (eastbound) and Woodhaven Boulevard	
409	Queens Boulevard (westbound) and Woodhaven Boulevard	
410	Queens Boulevard and 37th Street	
411	Queens Boulevard and 39th Street	
412	Queens Boulevard and 41st Street	
413	Queens Boulevard and 42nd Street	
414	Queens Boulevard and 58th Street	
415	Queens Boulevard and Queens Borough Hall	
416	Queens Boulevard at 39th Place	
417	Queens Boulevard between 72nd and 73rd Streets	
418	Queens Plaza North and 28th Street	
419	Rockaway Boulevard and 110th Street	
420	Rockaway Boulevard and 123rd Street	
421	Rockaway Boulevard and 142nd Street	
422	Rockaway Boulevard and 98th Street	

423	Rockaway Boulevard with 101st Avenue and 88th Street	Queens	
424	Rockaway Boulevard with 84th Street and Digby Place		
425	Seneca Avenue and Cornelia Street		
426	Skillman Avenue and 54th Street		
427	Steinway Street and 440' north of 31st Avenue (midblock crossing)		
428	Steinway Street between 34th Avenue and Broadway (midblock)		
429	Steinway Street between Broadway and 31st Avenue (midblock)		
430	Sutphin Boulevard and Archer Avenue		
431	Union Turnpike and Francis Lewis Boulevard		
432	Union Turnpike and Springfield Boulevard		
433	Union Turnpike and Utopia Parkway		
434	Vernon Boulevard and 40th Avenue		
435	Woodhaven Boulevard (NB) and Long Island Expressway entrance ramp		
436	Woodhaven Boulevard and 64th Road		
437	Woodhaven Boulevard and 66th Avenue		
438	Woodhaven Boulevard and 86th Drive (East Leg)		
439	Woodhaven Boulevard and 86th Drive (West Leg)		
440	Woodhaven Boulevard and Forest Park Drive		
441	Woodhaven Boulevard and Metropolitan Avenue		
442	Woodhaven Boulevard East Service Road and 180' South of Jamaica Avenue		
443	Woodhaven Boulevard West Service Road and 147' South of Jamaica Avenue		
444	Yellowstone Boulevard and Austin Street		Staten Island
445	Yellowstone Boulevard and Queens Boulevard		
446	Brielle Avenue and Gansevoort Boulevard (Wagner High School)		
447	Castleton Avenue and Bard Avenue		
448	Castleton Avenue and Brighton Avenue (S.I. Center for Independent Living)		
449	Clove Road and Clove Lake Place		
450	Forest Avenue and Bement Avenue		
451	Forest Avenue and Davis Avenue		
452	Forest Avenue and Sanders Street		
453	Howard Avenue and Hillside Avenue		
454	Hylan Boulevard and Huegenot Avenue		
455	Hylan Boulevard at Tysens Lane		
456	Hylan Boulevard with Wendy Drive and St. Joseph's High School		
457	Innis Street and Trantor Place		
458	New Dorp Lane (mid-block) between Hylan Boulevard and Mill Road		



459	North Railroad Avenue and Fremont Avenue	Staten Island
460	Richmond Terrace and Sharpe Avenue	
461	South Railroad Avenue and Fremont Avenue	
462	Targee Street and Naples Street (235' North of Venice Street)	
463	Tompkins Avenue and Hill Street	
464	Vanderbilt Avenue and Targee Street	
465	Victory Boulevard and Clove Road	
466	Victory Boulevard and Eddy Street	
467	3rd Avenue and East 138th Street	The Bronx
468	3rd Avenue and East 178th Street	
469	3rd Avenue between East 169th Street and East 170th Street (mid-block)	
470	Alexander Avenue and East 137th Street	
471	Astor Avenue and Colden Avenue	
472	Bailey Avenue and West 234th Street and Bailey Place	
473	Bartow Avenue and Baychester Avenue	
474	Bartow Avenue and Co-Op City Boulevard and Bay Plaza Boulevard	
475	Baychester Avenue and 200' South of Donizetti Place (mid-block)	
476	Boston Road and Bivona Street	
477	Boston Road and East 212th Street/Pearsall Avenue	
478	Boston Road and Secor Avenue	
479	Broadway and Van Cortlandt Park (580' South of 251st Street)	
480	Bronxwood Avenue and 221st Street	
481	Bronxwood Avenue and East 213th Street	
482	Bronxwood Avenue and East 219th Street	
483	Bronxwood Avenue and East 220th Street	
484	Burke Avenue and Yates Avenue	
485	Co-Op City Boulevard and 550' North of Bellamy Loop North (mid-block)	
486	Co-Op City Boulevard and Carver Loop East	
487	Co-Op City Boulevard and Rombouts Avenue and Carver Loop West	
488	Crotona Avenue between East 181st and East 182nd Streets	
489	East 161st Street and Grant Avenue (mid-block)	
490	East 161 <sup>st</sup> Street and Pedestrian Crossing (400' West of River Avenue) (mid-block)	
491	East 163rd Street and Rogers Place	
492	East 163rd Street between Trinity Avenue and Tinton Avenue (mid-block)	
493	East 170th Street and 150' West of Grand Concourse	
494	East 175th Street and Townsend Avenue	

495	East 233rd Street and Carpenter Avenue	The Bronx
496	East Fordham Road and Bathgate Avenue	
497	East Gun Hill Road and Gunther Avenue	
498	East Gun Hill Road and Kings College Place	
499	East Gun Hill Road with Perry Ave and Reservoir Place	
500	East Tremont Avenue and Creston Avenue	
501	East Tremont Avenue and Jerome Avenue	
502	East Tremont Avenue and Lehman High School (mid-block)	
503	East Tremont Avenue with Hutchinson River Parkway and Ericson Place	
504	Edward L Grant Hwy and West 169 Street	
505	Goulden Avenue and Lehman College High School	
506	Grand Concourse and Fordham Road	
507	Jerome Avenue and Buchanan Place	
508	Jerome Avenue and East 169th Street	
509	Jerome Avenue and East 183rd Street	
510	Jerome Avenue and West 177th Street	
511	Jerome Avenue and West 195th Street	
512	Jerome Avenue between East 208th Street and East Gun Hill Road (mid-block)	
513	Kappock Street and Netherland Avenue	
514	Laconia Avenue and East 215 Street	
515	Mace Avenue and Colden Avenue	
516	Manhattan College Parkway and Waldo Avenue	
517	Morris Park Avenue and Albert Einstein College of Medicine (mid-block)	
518	Park Avenue and East 158th Street	
519	Pelham Parkway and Narragansett Avenue (mid-block)	
520	Pelham Parkway N/S Service Roads and Williams Bridge Road	
521	Pelham Parkway North and Laconia Avenue	
522	River Avenue and East 162nd Street	
523	Riverdale Avenue with West 231 <sup>st</sup> Street and Irwin Avenue	
524	Sedgewick Avenue with Dickenson Avenue and Goulden Avenue	
525	Sedgewick Avenue and West 229 <sup>th</sup> Street (mid-block)	
526	Sedgewick Avenue and West 230 <sup>th</sup> Street (mid-block)	
527	Soundview Avenue at Thieriot Avenue (mid-block)	
528	Southern Boulevard and East 189 <sup>th</sup> Street (mid-block)	
529	Southern Boulevard and Intervale Avenue	
530	Southern Boulevard with Crotona Parkway and East 176th Street	
531	Stillwell Avenue and Pelham Parkway South (Service Road)	

532	Story Avenue and Bruckner Plaza Mall Exit/Entrance (between Boynton & Morrison Avenues)	The Bronx
533	Unionport Road and Crosswalk East of Metropolitan Oval (mid-block)	
534	University Avenue and West 181st Street (mid-block)	
535	University Avenue with Featherbed Lane and West 174th Street (mid-block)	
536	Valentine Avenue and East 178th Street	
537	Valentine Avenue between East Tremont and East 178th Street	
538	Van Cortlandt Park East between East 239 <sup>th</sup> Street and Oneida Avenue (mid-block)	
539	Waring Avenue and Barker Avenue	
540	Watson Avenue and Colgate Avenue	
541	Webster Avenue 300' North of East 168th Street (mid-block)	
542	Webster Avenue between East 169th and East 170th Street (mid-block)	
543	Webster Avenue between East 170th Street and East 171st Street (mid-block)	
544	Webster Avenue between East Gun Hill Road and East 233rd Street (mid-block)	
545	Webster Avenue between East Tremont and East 178th Street	
546	Westchester Avenue with Crosby, Buhre and Edison Avenues	
547	White Plains Road and Lydig Avenue	
548	Williamsbridge Road and Astor Avenue	

## One hundred fifty top ranked intersections for new accessible pedestrian signals

As of December 31, 2019

Please note that the list of the one hundred fifty (150) top ranked intersections for new APS units will fluctuate as new locations are added and evaluated based on the prioritization criteria described above.

Rank	Location	Borough
1	Broadway and West 107th Street	Manhattan
2	Broadway and West 225th Street	Manhattan
3	Dyckman Street and Sherman Avenue	Manhattan
4	Main Street and 41st Avenue	Queens
5	Neptune Avenue and Shell Road	Brooklyn
6	Flushing Avenue and Navy Street	Brooklyn
7	Neptune Avenue and Stillwell Avenue	Brooklyn
8	Neptune Avenue and West 31st Street	Brooklyn
9	Essex Street and Canal Street	Manhattan
10	Fillmore Avenue and Gerritsen Avenue	Brooklyn
11	Old Fulton Street and Water Street	Brooklyn
12	West Brighton Avenue and West 5th Street	Brooklyn
13	Flushing Avenue and N Oxford Street	Brooklyn
14	Knickerbocker Avenue and Myrtle Avenue	Brooklyn
15	Vanderbilt Avenue and Fulton Street	Brooklyn
16	Empire Boulevard and Nostrand Avenue	Brooklyn
17	Central Park West and West 77th Street	Manhattan
18	Central Park West and West 82nd Street	Manhattan
19	Church Street and Franklin Street	Manhattan
20	Franklin Avenue and Sullivan Place	Brooklyn
21	Euclid Avenue and Fulton Street	Brooklyn
22	Stuyvesant Avenue and Fulton Street	Brooklyn
23	Neptune Avenue and East 11th Street	Brooklyn
24	Broadway and West 105th Street	Manhattan
25	Dyckman Street and Seaman Avenue	Manhattan
26	Broadway and West 125th Street	Manhattan
27	East New York Avenue and Rockaway Avenue	Brooklyn
28	Ralph Avenue and Fulton Street	Brooklyn
29	Neptune Avenue and West 24th Street	Brooklyn
30	Myrtle Avenue and Harman Street	Brooklyn
31	Broadway and West 94th Street	Manhattan
32	Foster Avenue and Rockaway Parkway	Brooklyn
33	Thomas Boyland Street and Fulton Street	Brooklyn
34	Parkside Avenue and Rogers Avenue	Brooklyn
35	1st Avenue and East 80th Street	Manhattan
36	Church Avenue and East 19th Street	Brooklyn

37	Flushing Avenue and North Portland Avenue	Brooklyn
38	Fort Hamilton Parkway and 62nd Street	Brooklyn
39	Fulton Street and Richmond Street	Brooklyn
40	Avenue V and Nostrand Avenue	Brooklyn
41	Nostrand Avenue and Kosciusko Street	Brooklyn
42	Troy Avenue and Fulton Street	Brooklyn
43	Prospect Park West and 9th Street	Brooklyn
44	Sutter Avenue and Fountain Avenue	Brooklyn
45	Broadway and West 101st Street	Manhattan
46	Broadway and West 102nd Street	Manhattan
47	Broadway and West 61st Street	Manhattan
48	Amboy Road and Richmond Avenue	Staten Island
49	East New York Avenue and Rockaway Avenue	Brooklyn
50	Stillwell Avenue and 25th Avenue	Brooklyn
51	Broadway and West 91st Street	Manhattan
52	Central Park West and West 61st Street	Manhattan
53	Central Park West and West 76th Street	Manhattan
54	Dyckman Street and Post Avenue	Manhattan
55	Central Park West and West 108th Street	Manhattan
56	Ditmas Avenue and Rockaway Avenue	Brooklyn
57	Troy Avenue and Maple Street	Brooklyn
58	Broadway Alley and East 26th Street	Manhattan
59	Broadway and West 98th Street	Manhattan
60	Broadway and West 103rd Street	Manhattan
61	Broadway and West 104th Street	Manhattan
62	Park Place and Troy Avenue	Brooklyn
63	Broadway and West 220th Street	Manhattan
64	Central Park West and West 64th Street	Manhattan
65	Foster Avenue and Rockaway Avenue	Brooklyn
66	Herkimer Street and Rockaway Avenue	Brooklyn
67	Bergen Street and Vanderbilt Avenue	Brooklyn
68	Broadway and West 92nd Street	Manhattan
69	Nostrand Avenue and Snyder Avenue	Brooklyn
70	Nostrand Avenue and Willoughby Avenue	Brooklyn
71	Chester Street and Pitkin Avenue	Brooklyn
72	Drew Street and Pitkin Avenue	Brooklyn
73	Forbell Street and Pitkin Avenue	Brooklyn
74	Pitkin Avenue and Watkins Street	Brooklyn
75	Dumont Avenue and Rockaway Avenue	Brooklyn
76	Lott Avenue and Rockaway Avenue	Brooklyn
77	Coney Island Avenue and Avenue J	Brooklyn
78	108th Street and 69th Avenue	Queens
79	108th Street and 62nd Drive	Queens
80	Hicks Street and Congress Street	Brooklyn
81	Hicks Street and Union Street	Brooklyn

82	Hicks Street and Sackett Street	Brooklyn
83	Hicks Street and Kane Street	Brooklyn
84	Morris Park Avenue and White Plains Rd	Bronx
85	7th Avenue and West 27th Street	Manhattan
86	2nd Avenue and East 53rd Street	Manhattan
87	Madison Avenue and East 59th Street	Manhattan
88	Division Street and Market Street	Manhattan
89	Union Sq West and University Pl	Manhattan
90	Union Sq West and East 16th Street	Manhattan
91	East 23rd Street and Foster Avenue	Brooklyn
92	Flatbush Avenue and Parkside Avenue	Brooklyn
93	10th Avenue and West 33rd Street	Manhattan
94	Forest Avenue and Manor Road	Staten Island
95	Forest Avenue and Elizabeth Street	Staten Island
96	Rochester Avenue and Carroll Street	Brooklyn
97	Jamaica Avenue and 150th Street	Queens
98	Forest Avenue and Broadway	Staten Island
99	Charles Street and 7th Avenue	Manhattan
100	2nd Avenue and East 35th Street	Manhattan
101	Madison Avenue and East 116th Street	Manhattan
102	Victory Boulevard and Cebra Avenue	Staten Island
103	9th Avenue and West 33rd Street	Manhattan
104	Crotona Parkway and East 179 Street	Bronx
105	Morris Park Avenue and Williamsbridge Road	Bronx
106	5th Avenue and 3rd Street	Brooklyn
107	Brook Avenue and Third Avenue	Bronx
108	Claremont Parkway and Third Avenue	Bronx
109	East 159th Street and Third Avenue	Bronx
110	Roosevelt Avenue and Union Street	Queens
111	1st Avenue and East 75th Street	Manhattan
112	Smith Street and 3rd Street	Brooklyn
113	Rockaway Boulevard and 107th Street	Queens
114	Rockaway Boulevard and 114th Street	Queens
115	Rockaway Boulevard and 133rd Street	Queens
116	Coney Island Avenue and Avenue L	Brooklyn
117	Merrick Boulevard and Ursina Road / 125th Street	Queens
118	Bronx River Avenue and Elder Avenue	Bronx
119	Roosevelt Avenue and 103rd Street	Queens
120	Roosevelt Avenue and 104th Street	Queens
121	Bay Street and Broad Street	Staten Island
122	Avenue L and Ralph Avenue	Brooklyn
123	Coop City Boulevard and Dreiser Loop East	Bronx
124	Manhattan Avenue and Broadway	Brooklyn
125	Broadway and Moore Street	Brooklyn

126	Broadway and Mother Gaston Boulevard	Brooklyn
127	Broadway and Walton Street	Brooklyn
128	Flatlands Avenue and Rockaway Parkway	Brooklyn
129	Patchen Avenue and Fulton Street	Brooklyn
130	Furman Street and Joralemon Street	Brooklyn
131	Bergen Street and Kingston Avenue	Brooklyn
132	Marcy Avenue and Park Avenue	Brooklyn
133	Clinton Avenue and Myrtle Avenue	Brooklyn
134	Nevins Street and Pacific Street	Brooklyn
135	Ocean Parkway and Avenue M	Brooklyn
136	Avenue O and Ocean Parkway	Brooklyn
137	Avenue R and Ocean Parkway	Brooklyn
138	Avenue K and Rockaway Parkway	Brooklyn
139	St Marks Avenue and Vanderbilt Avenue	Brooklyn
140	Park Place and Vanderbilt Avenue	Brooklyn
141	Central Park West and West 67th Street	Manhattan
142	Central Park West and West 68 Street	Manhattan
143	Central Park West and West 70th Street	Manhattan
144	Central Park West and West 74th Street	Manhattan
145	108th Street and 48th Avenue	Queens
146	101st Avenue and 104th Street	Queens
147	Church Street and Fulton Street	Manhattan
148	Kenmare Street and Lafayette Street	Manhattan
149	6th Avenue / Avenue Of The Americas and West 13th Street	Manhattan
150	6th Avenue / Avenue Of The Americas and West Washington Place	Manhattan