# Comments of the American Council of the Blind on the Notice of Proposed Amendments to the Manual on Uniform Traffic Control Devices for Streets and Highways

**Agency/Docket Number:** FHWA Docket No. FHWA-2020-0001

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1. **Interest of the American Council of the Blind**

the American Council of the Blind (ACB is a nationwide member-driven advocacy organization that strives to increase the security, independence, economic opportunity, and quality of life for people who are blind and experiencing vision loss. Eliminating barriers to mobility and transportation and enhancing independent travel are critical to ensuring people with disabilities are integrated in our communities and have equal opportunities to move freely.

1. **Executive Summary**
2. **MUTCD Provisions Specifically impacting Pedestrians who are Blind, Low Vision or DeafBlind.**

The Federal Highway Administration (FHWA) Notice of Proposed Amendments (NPA) to the Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD) endangers the safety of pedestrians who are blind, low vision and deaf-blind (hereafter “pedestrians who are blind” or “the blindness community”) by failing and refusing to require that an accessible pedestrian signal (APS) be installed and activated wherever a visual pedestrian signal currently exists.

The proposed 11th edition completely fails to ensure that pedestrians who are blind are offered the same opportunity to cross streets safely as are pedestrians who are sighted. If an engineering study analysis has determined that a pedestrian signal is necessary for a pedestrian who is sighted to safely cross a street, those identified factors that make crossing at a signalized location difficult for pedestrians who are sighted are the same for pedestrians who are blind. Therefore, the same pedestrian signal information must be effectively communicated to pedestrians who are blind to promote safety, avoid collisions, and reduce or eliminate pedestrian injury or death. For this reason, ACB offers comments on MUTCD provisions not included in FHWA’s proposed amendments.

What the blindness community needs and must be mandated in the MUTCD is:

* A standard must be created to require APS to be automatically provided and activated wherever and whenever new pedestrian signalization is installed in new construction or when a pedestrian signal is replaced at the end of its life cycle.
* A standard must be created to require an APS to be automatically installed and activated when an existing pedestrian signal is being altered in a way that could affect its usability such as by adding a Leading Pedestrian Interval or an Exclusive Pedestrian Phase.
* A standard must be created for requiring a community to have a transition plan for the replacement of all inaccessible pedestrian signals with APS within a reasonable period.
* A standard must be created for requiring, whenever prioritizing the installation of APS in a community’s transition plan, to give the number one priority to pedestrian crossings utilizing signalization such as Leading Pedestrian Intervals or Exclusive Pedestrian Phases which are planned for or in use.
* A standard must be created for requiring a community’s transition plan for the installation of APS to always be superseded by requests from pedestrians who are blind, and these requests to be immediately addressed by the local jurisdiction.
* The engineering study 4E.09 guidance 03 must be eliminated as a prerequisite consideration for the installation of an APS.
* A standard must be created prohibiting the requirement of an engineering study as a prerequisite for the installation and activation of an APS at a new or existing crossing equipped with pedestrian traffic signals.
  + Alternative traffic control devices including Rectangular Rapid Flashing Beacons and In-roadway warning lights should not be permitted because they discriminate against deafblind pedestrians, who, without a vibrotactile arrow, have no means of determining when it might be safe to cross the street. Moreover, such alternative forms of signalization do not create a pedestrian right-of-way causing increased risk of collision, injury or death for blind pedestrians for whom audible clues may not be effective.

1. **Summary of General Pedestrian Concerns.**

The MUTCD should be substantially refocused to promote greater pedestrian safety and walkability in general, instead of its apparent bias in favor of increasing motor vehicle flow and the reduction of traffic congestion as its primary policy goals.  Specifically, the FHWA should stop requiring satisfaction of a traffic control warrant as a necessary precondition for installing a traffic signal.

1. **Accessible Pedestrian Signals Should Be Installed and activated Wherever a Pedestrian Signal is Required.**

**A. Reality Check: Without APSs, Visual pedestrian signals Help Only the Sighted, Leaving the Blind to Cross at their Own Risk.**

In the beginning, before traffic signals, all pedestrians were at risk when crossing a city street. traffic control measures were attempted to provide rules for a right of way for conveyances to avoid collisions, injuries, and deaths. For a sighted pedestrian, crossing urban intersections absent such rules was surely a perilous Endeavor, necessitating a keen eye, quick wits, and fast feet. Moving forward to the time when some form of traffic signalization was available still left a would-be pedestrian in a quandary to figure out when it was safe to step into the street. At some point in a major city the decision must have been made to relieve a pedestrian of the need to figure out traffic patterns as a precondition to crossing streets safely on foot. While still needing to keep alert for on-coming traffic, pedestrian signalization relieved a sighted pedestrian from the burden of sizing up traffic flows to safely cross a roadway. Not so for the blind pedestrian. In most instances, a visual pedestrian signal effectively does not exist for a blind pedestrian. A sighted person gets a pedestrian signal when safety requires it but a blind pedestrian seeking to cross the same intersection gets no help at all. Moreover In this way, the blindness community is in a significantly worse position than the sighted pedestrian, who even without a pedestrian signal can still visually read traffic patterns. A pedestrian without sight must try to understand the traffic pattern using only hearing, a difficult enough proposition let alone an impossibility if the blind pedestrian is also hearing-impaired or deaf. Even the blind pedestrian with good hearing, however, is not in a comparable position as a sighted person who can more quickly and easily visually read traffic with little or no environmental interference. The blind pedestrian, in contrast, must cope with quiet cars, left and right turn on red signalization and environmental noise pollution which even a person with excellent hearing will have difficulty detecting. As will be explained in B, below, without APS, pedestrians with visual disabilities are at substantial risk of beginning their crossing at the wrong time, being delayed in beginning their crossings, not completing their crossing before the light turns green for cars on the street they are crossing and veering outside of the crosswalk. Absent a willingness to accept some greater risk of injury to cross a busy street lacking in APS signalization, the blind pedestrian frequently feels compelled to seek workarounds of multi-lane, complex intersections. Desirous of avoiding pedestrian-risky intersections, journeys to shop for groceries, purchase necessities or to attend community activities and social events are made unnecessarily lengthy, time-consuming, and burdensome for people with vision impairments as compared to their sighted peers.

**B. Understanding the Important Benefits Accessible Pedestrian Signals Provide for the Blindness Community**

An APS provides important orientation and mobility assistance to blind pedestrians beyond knowing when the Walk” signal is active. Janet M. Barlow, a Certified Orientation and Mobility Specialist (COMS) submitted an Amended Expert Report on behalf of Plaintiffs’ American Council of the Blind of New York, et al. vs. Defendants the City of New York, et al., No. 19 C 6322 SDNY 201), Explaining the importance of and the need for Accessible Pedestrian Signals for the safety of Blind Pedestrians when crossing streets in New York City. Ms. Barlow’s Amended Expert Report is incorporated by reference in ACB’s Comment and is attached as Exhibit “A” to this document.

Ms. Barlow summarized her findings regarding APS as follows:

Accessible Pedestrian Signals are audible and vibro-tactile signals that communicate to a blind or deafblind pedestrian when the walk signal is activated. The APS emits a "pushbutton locator tone," or audible signal that helps a blind pedestrian locate it. When the button, which has a raised arrow aligning with the crosswalk, is pressed, it will indicate audibly and by vibrating when the walk signal is on and it is the appropriate time to cross.

APS also compensates for many of the difficulties that blind pedestrians face when crossing streets.by helping with locating the intersection and crosswalk, orienting oneself properly in the direction of travel, knowing when to cross the street, and maintaining alignment while crossing.

Without APS, pedestrians with visual disabilities are at substantial risk of beginning their crossing at the wrong time, being delayed in beginning their crossings, not completing their crossing before the light turns green for cars on the street they are crossing and veering outside of the crosswalk. This risk is especially acute when signals include certain pedestrian safety measures, such as Leading Pedestrian Intervals ("LPIs") and Exclusive Pedestrian Phases ("EPPs")….

LPIs and EPPs do away with or confuse the auditory cues from moving vehicles that blind pedestrians rely on to cross the street, and often leave blind pedestrians with insufficient crossing time. This means they begin to cross after other pedestrians, when drivers are not expecting pedestrians to begin crossing, and have begun to tum across the crosswalk, putting them at serious risk of collisions. Amended Expert Report of Janet M. Barlow at p. 4 Ms. Barlow further explained the four actions a blind or low vision pedestrian must take to cross an intersection without an APS and the hazards which may result:

“Navigating a street crossing involves four tasks which are performed by all pedestrians but require specific attention and techniques for individuals who are blind or have low vision. The four tasks are: 1) locating the edge of the street and crossing point, 2) aligning to cross the street, 3) deciding when to begin crossing, and 4) maintaining alignment or proper heading while crossing. These tasks may be done in different ways depending on the vision and mobility aid (if any) used by the person. It should also be noted that in all these tasks, the pedestrian who is blind or has low vision will also be attending to the movements of other pedestrians, street traffic, the slope and crown of the street and gutter, and other environmental information.”

**1. Locating the Crossing Point**

The traditional technique or strategy for locating the street and crosswalk used by pedestrians who are blind is to stop when they encounter a curb or a detectable warning surface2 and assume that the crosswalk is at that location. This technique is not effective when the crosswalk is not in a direct line with the sidewalk approaching it, such as locations with offset crosswalks, rounded corners, angled streets, and some plazas. Some individuals search for the curb ramp and detectable warning surface, but most do not, because of the potential for disorientation. Some individuals with low vision may be able to see the crosswalk lines, depending on the contrast with the street and condition of the crosswalk line paint.

A detectable warning surface is a distinctive surface pattern of truncated domes detectable by cane or underfoot that alert people with vision impairments of their approach to street crossings and hazardous drop-offs. They are required to contrast with the surrounding surface, either light on dark or dark on light for low vision users. (U.S. Access Board, 2014).

Research has confirmed problems locating the crosswalk for blind pedestrians. In one research study, blind participants were permitted to start crossing from any location so long as they were in no immediate danger. Participants requested assistance in locating the crosswalk on 19% of street crossings. (Crandall, Bentzen, and Myers, 1999; Crandall, Brabyn, Bentzen, and Myers, 2001). On 30% of trials, subjects who located the crosswalk independently began crossing from outside the crosswalk, meaning they may have walked into traffic lanes. (Crandall, et al., 2001).

**2. Aligning to Cross**

To align to cross, individuals who are blind listen to traffic moving beside the crosswalk and align themselves to cross beside that traffic. With many traffic lanes, some with trucks and loud vehicles and others with almost silent cars, or bicycles, picking out the right audible cues and aligning correctly with the lanes of traffic is difficult for many pedestrians who are blind or have low vision. At best, there is the potential for a 10-degree error in aligning using hearing (Guth, et al., 2010), which means the blind pedestrian may be aligned 10 degrees to the right or left of the crosswalk. For a wide street, this kind of error can result in the pedestrian finishing their crossing outside the crosswalk, potentially in the traffic of the parallel street or in between waiting vehicles in the traffic lanes of the street they are crossing.

**3. Deciding When to Cross**

Deciding when to begin crossing is the traditional technique that has been most negatively affected by new signal timing and traffic management strategies. The traditional technique is to listen for vehicles to stop on the street being crossed and for cars to begin moving in the lanes closest to the crosswalk. This is often referred to as the surge of traffic on the parallel street. Pedestrians who are blind begin crossing as those vehicles enter the intersection. This technique relies on the assumption that vehicles in the closest parallel traffic lane have a green light and the WALK signal is being displayed for pedestrians walking on the crosswalk beside those lanes. Without an APS, pedestrians who are blind are essentially guessing that the walk signal is displayed when the traffic in the closest lane begins moving. With changes in signalization and traffic signal timing, that may not be a correct assumption. In some cases, there may not be traffic that begins moving just as the signal changes, particularly crossing a wide street at its intersection with a smaller street (at the intersection of a minor and major street). In research in San Francisco at relatively small urban intersections, Crandall, et al. (1999, 2001) found that participants began crossing during the walk interval on only 66% of crossings. Marston and Golledge (2000) found that at crossings without APS, almost half ( 48%) of the participants attempted to cross during the don't walk interval, when vehicles on the street being crossed had a green signal, which is unsafe and puts pedestrians at risk for a collision. Even without signal timing changes discussed below, pedestrians who are blind or have low vision using traditional techniques are typically delayed in beginning their crossing compared to sighted pedestrians, reducing the time they have to complete the crossing before the signal changes. Research has documented that listening for and confirming the traffic surge results in an average latency of 6.4 seconds in the amount of time it takes pedestrians who are blind or low vision to begin crossing. (Barlow, et al., 2006; Scott, Barlow, Bentzen, Bond, and Gubbe, 2008).

**4. Maintaining Alignment**

For maintaining alignment or heading while crossing, pedestrians who are blind listen to the traffic moving beside them as they cross and try to maintain a consistent distance from those lanes of traffic. If there is not consistent traffic on the street beside the crosswalk, or traffic is not in the closest lane, even very experienced blind pedestrians "exhibit variable error sufficient to result in veering into the parallel street when crossing at intersections." (Guth, et al. , 2010, pg 36). This means they may walk into traffic in lanes on the street beside the crosswalk and become disoriented, possibly missing their destination corner, and be out in traffic lanes when more vehicles arrive in those lanes Ms. Barlow also summarized the benefits that an APS provides a blind pedestrian: Accessible Pedestrian Signals….assist blind pedestrians with the four orientation and mobility tasks used to cross a street safely,… They provide audio and vibro-tactile information to the pedestrian that helps them locate the crossing location, orient themselves to walk in the correct direction, know when the WALK signal is on so they can begin crossing, and maintain alignment on their heading to the other side of the street.

**C.** **APS Are Required Under Title II of the Americans with Disabilities Act and Section 504 of the Rehabilitation Act.**

1. APS Are Required to Provide Blind Pedestrians with the Same Safety Information Provided to Sighted Pedestrians

On April 8, 2021, the United States moved to intervene in a private lawsuit on behalf of Plaintiffs American Council of the Blind of Metropolitan Chicago against the City of Chicago, challenging that City’s systemic failure to install accessible pedestrian signals (“APSs”) in violation of the Americans with Disabilities Act and Section 504 of the Rehabilitation Act. See Complaint in Intervention (Complaint), American Council of the Blind of Metropolitan Chicago, et. Al, vs. the City of Chicago et al.,No. 19 C 6322 (NDIll. 2019) (Attached and incorporated herein as Attachment “B”)

Paragraphs 3-5 of the United States’ Complaint provide:

1. Chicago has installed visual-only pedestrian signals that provide safe-crossing information at approximately 2,689 city intersections. Chicago has equipped only 15 of those intersections with signals that are accessible to people who are blind.  Thus, over 99 percent of the street intersections where Chicago deems it necessary to provide pedestrians with safe-crossing information are inaccessible to people who are blind.
2. Accessible pedestrian signals (“APSs”) convey safety information at intersections to people who are blind through sounds, audible speech, and vibrating tactile buttons, in much the same way that a visual signal reading “walk” or “don’t walk” conveys safety information to sighted pedestrians.
3. Chicago’s failure to install APSs at signalized intersections in the city endangers people who are blind by depriving them equal access to the same safe-crossing information that Chicago provides to sighted pedestrians.  This is unlawful discrimination under the ADA and Section 504.

Additional federal courts have found that APSs are required to be installed under the ADA and Rehabilitation Act. For example, on October 20, 2020, the U.S. District Court for the Southern District of New York granted in part Plaintiffs’ motion for partial summary judgment on liability and held that the City of New York’s failure to provide crossing information in an accessible format at more than 95% of intersections unlawfully denies blind and low vision pedestrians meaningful access to New York City’s signalized pedestrian street crossings in violation of Title II of the Americans with Disabilities Act,

42 U.S.C. § 12132 et seq., 28 C.F.R. § 35.150 (“ADA”) and Section 504 of the Rehabilitation Act of 1973, 29 U.S.C. § 794 et seq. (“Section 504”). Oct.

20, 2020 Op. & Order (hereinafter, the “Order”), ECF No. 126, p. 33.The Court’s Order is included as Attachment “C” and incorporated herein by reference.

Additionally, the Court held that the City’s failure to install Accessible Pedestrian Signals (“APS”) when it installs new signals violates the anti-discrimination mandates of both the ADA and Section 504 that require new and renovated facilities to be made accessible to the maximum extent feasible. Order, p. 42. The legal framework for Title II of the ADA provides that “no qualified individual with a disability shall, by reason of such disability, be excluded from participation in or be denied the benefits of the services, programs, or activities of a public entity, or be subjected to discrimination by any such entity.” 42 U.S.C. § 12132 [ADA]. See 29 U.S.C. § 794(a) [Section 504]. See also 28 C.F.R. § 35.130(a). ADA’s implementing regulations further require effective communication with people with disabilities and that aids, benefits, and services are not inferior to those provided to non-disabled people. 28 C.F.R. § 35.160(a)(1)–(b)(2) and 28 C.F.R. § 35.130(b)(1)(i)–(iii). Moreover, APS are required at all signalized intersections by the Draft Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way (“PROWAG”), the guidance created by the U.S. Access Board to interpret the ADA’s requirements to public rights-of-way, including crosswalks, and provide minimum standards for compliance. 76 Fed. Reg. 44663 at R209.1 (July 26, 2011) (to be codified at 36 C.F.R. 1190). Though PROWAG has not yet been adopted and promulgated as a final rule, “the ADA and Rehabilitation Act may nevertheless presently require the installation of APS.” Scharff v. Cnty. of Nassau, 2014 WL 2454639, at \*12 (E.D.N.Y. June 2, 2014). See also Robles v. Domino’s Pizza, LLC, 913 F.3d 898, 903, 907–08 (9th Cir. 2019), cert. denied, 140 S. Ct. 122 (2019) (holding that Court can order compliance with proposed, but not final, DOJ regulations on ADA obligations with respect to website accessibility, as remedy for violation of ADA’s effective communications requirement).

In the interim, the United States Department of Transportation has recognized PROWAG as “the current best practice in accessible pedestrian design under the Federal Highway Administration’s Federal-aid (504) regulation.” SOF 22–23. The ADA’s legislative history demonstrates that this obligation evolves over time and should adapt to include new technologies: The Committee wishes to make it clear that technological advances can be expected to further enhance options for making meaningful and effective opportunities available to individuals with disabilities. Such advances may require public accommodations to provide auxiliary aids and services in the future which today they would not be required because they would be held to impose undue burdens on such entities. Indeed, the Committee intends that the types of accommodations and services provided to individuals with disabilities, under all the titles of this bill, should keep pace with the rapidly changing technology of the times. H.R. Rep. 101–485(II), at 108 (1990), reprinted in 1990 U.S.C.C.A.N. 303, 391. Indeed, Courts have routinely applied the ADA to new technologies to ensure “an experience more akin to that of non-disabled [persons].” Cal. Council of the Blind v. Cty. of Alameda, 985 F. Supp. 2d 1229, 1241 (N.D. Cal. 2013) (quoting Baughman v. Walt Disney World Co., 685 F.3d 1131, 1135 (9th Cir. 2012)) (collecting cases where the Ninth Circuit held that accommodations must evolve with technology).

* + - 1. APS Are Required to Be Installed and Activated as Part of New Construction or Alterations.
      2. The ADA and Section 504 require that when existing facilities are altered, public entities must make the altered portion of the facilities readily accessible to and usable by persons with disabilities to the “maximum extent feasible.”
      3. Feasibility is defined as technical feasibility, not economic feasibility. See Roberts v. Royal Atlantic Corp., 542 F.3d 363, 371 (2d Cir. 2008) (holding that the ADA’s “‘maximum extent feasible’ requirement” under Title III “does not ask the court to make a judgment involving costs and benefits.... The statute and regulations require that such facilities be made accessible even if the cost of doing so—financial or otherwise—is high.”). See 28 C.F.R. § 35.151(b) [ADA]; 28 C.F.R. 42.522(a) [Section 504]. “New construction and alterations, however, present an immediate opportunity to provide full accessibility.” Civic Ass’n of the Deaf of N.Y.C., Inc. v. Giuliani, 970 F. Supp. 352, 359 (S.D.N.Y. 1997) (internal quotation and citation omitted). This requirement is triggered when there has been “a change that affects the usability of the facility involved.” Kinney v. Yerusalim, 9 F.3d 1067, 1072 (3rd Cir. 1993).

3. The phrase “affects usability” is defined broadly, i.e., “if an alteration renders a street more ‘usable’ to those presently using it, such increased utility must also be made fully accessible to the disabled ….” Kinney, 9 F.3d at 1072–73. Congressional intent confirms this expansive interpretation: “Usability should be broadly defined to include renovations which affect the use of [a] facility, and not simply changes which relate directly to access.” H.R. Rep. No. 101-485, pt. 3, 64 (1990), reprinted in 1990 U.S.C.C.A.N. 445, 487. Similarly, PROWAG defines an alteration as one that “affects or could affect pedestrian access, circulation, or useability. in Jones v. White, No. H-03-2286, slip op. at 47–54, (S.D. Tex. Sept. 29, 2004), almost twenty years ago. ECF No. 112-1. That court held that “[i]installing new traffic poles and making the physical changes necessary for central traffic control constitutes a ‘change’ to the physical and functional structure of such signal that affects usability.” Jones, at 49. The Court also held that “electrical improvements to an existing traffic signal pole” that included “electrical or fiber optic work” described as “improvements” to “modernize,” “enhance[e],” and “upgrad[e]” the system were similarly alterations. Id. at 50–52. Here, where Defendants make such “improvements,” “enhancements,”

IV. APSs are nowhere required by the MUTCD Notwithstanding FHWA’s explicit recognition Pedestrians with disabilities including people with Vision and hearing loss are frequent Road Users And Need to Be Accommodated Under Title II of the ADA

The MUTCD repeatedly recognizes the need to account for a wide variety of road users including blind pedestrians. For example, the MUTCD defines “Targeted Road Users to include “Pedestrians with disabilities [who] might be blind or vision-impaired, have mobility limitations, or other impairments. Likewise, Section 1A.03 (b)Section 1A control signals are important because traffic control signals need to attract the attention of a variety of road users, including those who are older, those with impaired vision, as well as those who are fatigued or distracted, or who are not expecting to encounter a signal at a particular location.“ (Section 4B.01 Support See also p. 365, lines)35-42)(elderly and persons with vision impairments and nearby facilities serving same)

Most glaringly, in its summary of major provisions, the FHWA recognizes the ADA’s requirement for “effective communication” but only in the context of detours due to sidewalk closures in work zones under Part VI of the MUTCD and not with regard to traffic control devices detailed in Part IV:

FHWA is proposing to revise several Guidance statements related to sidewalk closure during construction and accessible pedestrian access. Under Title II of the Americans with Disabilities Act (ADA), all State and local governments are required to take appropriate steps to ensure that their communications with people with disabilities are as effective as communications with others. [[28 CFR 35.160](https://www.federalregister.gov/select-citation/2020/12/14/28-CFR-35.160)(a)]. Effective communication means that whatever information is conveyed by or on behalf of a public entity must be as clear and understandable to people with disabilities as it is for people who do not have disabilities. The ADA requires public entities to furnish auxiliary aids and services—which include the acquisition or modification of equipment or devices—where necessary to afford individuals with disabilities an equal opportunity to participate in, and enjoy the benefits of, a service, program, or activity of a public entity. [[28 CFR 35.160](https://www.federalregister.gov/select-citation/2020/12/14/28-CFR-35.160)(b)(1)]. The provision of pedestrian facilities in the public right-of-way is generally recognized as a service provided by the public entity that owns such facilities. See, e.g., Barden v. City of Sacramento, 292 F.3d 1073 (9th Cir. 2002). When sidewalks are closed temporarily due to construction, it is important for the closure to be communicated to pedestrians in a manner that is accessible to pedestrians with vision loss. FHWA proposes to strengthen the language in Part 6 to address this need.

Under Title II of the ADA, all State and local governments must operate services, programs, and activities, including pedestrian facilities in public street rights-of-way, such that, when viewed in their entirety, they are readily accessible to and usable by individuals with disabilities. The ADA requires that a public entity's newly constructed facilities be made accessible to and usable by individuals with disabilities to the extent that it is not structurally impracticable to do so. The ADA also requires that, when an existing facility is altered, the altered facility be made accessible and usable by individuals with disabilities to the maximum extent feasible. Section 504 of the Rehabilitation Act of 1973, generally referred to as Section 504, includes similar requirements for public entities that receive Federal financial assistance. FHWA proposes to eliminate text that refers to a level of usage by pedestrians with disabilities as a basis for taking certain accessibility-related actions because the need to comply with the ADA does not depend on the frequency with which the facility is used by pedestrians with disabilities. FHWA also proposes to eliminate text suggesting that the accommodation of pedestrians with disabilities is sometimes unnecessary.

5 FR at Page 80956

This awareness is repeated later in its summary of major provisions:

FHWA proposes to clarify the language in the Guidance statement of paragraph 7 parts 3A and 3B pertaining to pedestrian accessibility in accordance with [28 CFR 35.160](https://www.federalregister.gov/select-citation/2020/12/14/28-CFR-35.160)(a)(1), which requires a public entity to take appropriate steps to ensure that communications with applicants, participants, members of the public, and companions with disabilities are as effective as communications with others.

**IV. Notwithstanding the FHWA’s recognition of what the ADA requires, it steadfastly refuses to require APS in any context.**

The Following are specific ADA violations which the MUTCD must correct:

**A. The FHWA unlawfully requires an engineering study in order to justify installation of an accessible pedestrian signal:**

*Accessible pedestrian signals (see Chapter 4K) that provide information in non-visual formats (such as audible tones, speech messages, and/or vibrating surfaces) should be provided based on the results of an engineering study considering the factors listed in Section 4K.*

*(* p. 437, Lines 33-34)This precondition violates the ADA, as discussed previously.

**B. The ADA’s “new construction” standard requiring full accessibility Is Not Complied with When an Inaccessible Pedestrian Signal Is Replaced.**

The MUTCD recognizes that traffic control devices will be replaced, either upon the required effective date of a specific MUTCD provision or at the end of a device’s life cycle but it fails to treat this as “new construction” under the ADA, requiring full accessibility without regard to cost, and thus requiring APSs installation. A Standard should be created requiring compliance with the ADA’s “new construction” mandate for each traffic control device identified in Part IV. The Standard should further require the installation and activation of an APS when this ADA obligation is triggered by new construction.

The MUTCD fails to acknowledge the draft Public Rights-of-Way Accessibility Guidelines(PROWAG) issued by the U.S. Access Board which are “recommended best practices, and can be considered the state of the practice that could be followed for areas not fully addressed by the present ADA standards” (FHWA Memo 1/23/06) Nor does the draft MUTCD include PROWAG in its additions to proposed Section1A.05 “Relationship to Other Publications”(( p.4, Lines 15 through p. 6, Line8. PROWAG should be expressly included as a “Related Publication” which a traffic engineer may refer to with approval. This omission is critical because PROWAG proposed Section R209 requires an APS in new construction and alterations’

**C. The MUTCD Does Not Comply with the ADA’s “alteration” standard, which requires that when an existing facility is altered in a way which affects useability the altered facility must be made accessible and usable by individuals with disabilities to the maximum extent feasible.**

A standard should be created to require compliance with the ADA’s “alteration” accessibility mandate in each traffic control device specified in Part IV. The Standard should further require the installation and activation of an APS when this ADA obligation is triggered by any alteration to the intersection or signalization.

Adding a Leading Pedestrian Interval (LPI) or an “Exclusive Pedestrian Phase (EPP) to an existing pedestrian signal is an alteration which affects usability” for the blind pedestrian and triggers an obligation to install and activate APSs. The same is also true for other alterations such as changing the pedestrian head.

**D. The Dangers to Blind Pedestrians posed By leading Pedestrian Intervals (LPIs) and Exclusive Pedestrian Phases (EPPs) Are Acknowledged by FHWA But Effective Communication Through Installation of APSs Is Not Required.**

The FHWA Acknowledges the Special Difficulties Presented by LPIs and EPPs as identified by Janet Barlow, above, but Leaves the Solution to the Discretion of Public Entities

FHWA acknowledges that the “use of a Leading Pedestrian Interval or an Exclusive Pedestrian Phase may result in confusion of blind pedestrians and that “consideration” of the use of APSs should be given.”

The Guidance goes on to state:

*If a leading pedestrian interval is used, the use of accessible pedestrian signals (see Chapter 4K) should be considered.* Support: If a leading pedestrian interval is used without accessible features, pedestrians with vision disabilities can be expected to begin crossing at the onset of the vehicular movement when drivers are not expecting them to begin crossing.

(p. 424, Lines 38-48)

The FHWA concedes that blind pedestrians are being denied effective communication of the visual information provided to sighted pedestrians in all situations when a visual-only pedestrian signal is provided, especially with regard to LPIs and EPPs. That a sighted person needs to be told when the walk signal is on, but a blind person does not need the same information is the absurd and indefensible logic of the FHWA’s position. A Standard should be created to require the installation and activation of an APS when an LPI or EPP is used.

**E. Other Pedestrian Control Devices**

Pedestrian Hybrid Beacons

Chapter 4Jp. 426, Line 1 to p. 429, Line 3

Should be Allowed Only if a Standard is Created to Require Installation and Activation of an APS.

A Pedestrian Hybrid Beacon is permitted to be installed instead of a pedestrian signal where all the elements of a traffic warrant justifying a traffic signal cannot be met. It appears the MUT provision expressly requires that an accessible pedestrian signal also must be installed.(p. 427, Line32)

Rectangular Rapid Flashing Beacons

(RRFB)(Chapter 4L(PP. 436, Line 1 to 438, Line 43))and In-Roadway Warning Lights (Chapter 4U)(PP. 456, Line 1 through 457, Line 44) Should Not Be Permitted

The accessibility shortcomings of these traffic control devices are several. These devices should not be allowed by the MUTCD. Neither drivers nor pedestrians are sufficiently familiar with the meaning and operation of these flashing light systems. Moreover, the current MUTCD language does not permit the installation of an APS but only an “audible device” which does not provide for a vibrotactile arrow. These devices do not create a pedestrian right-of-way when activated meaning that a blind pedestrian is expected to “look out” for oncoming traffic which has an equal right to cross the intersection. Moreover, these devices discriminate against persons with vision and hearing impairments because of the audible only message.

1. **Conclusion**

The MUTCD’ Proposed 11th edition Violate Federal Disability Law, Subject Blind Pedestrians to Discriminatory and Unsafe Conditions and Mislead Public Entities About their Legal Obligations Exposing Them to Risk of Legal Liability.

APSs are an essential safety feature, not a convenience. There is widespread consensus in the orientation and mobility expert community that the risk of injury and even death is significant, and the lack of APS deters many blind and low vision pedestrians. only some signalized intersections would require blind pedestrians to memorize travel areas, adding to the already heavy cognitive load for blind pedestrians, and likely lead to avoidance of unfamiliar areas—hardly the independence federal law guarantees them. Fourth, if blind or low vision pedestrians encounter an inaccessible intersection, they cannot easily reroute themselves. Unlike sighted pedestrians, who can visually scan intersections, they must approach each. intersection and be turned around, with attendant consequences of disorientation and confusion. Deafblind pedestrians are even more vulnerable to disorientation. Even if blind pedestrians navigated with absolute perfection each and every time, the logistics of rerouting lead to extremely lengthy detours.

For all of the foregoing reasons, the MUTCD needs to be substantially revised.

**Attachment “A”**

UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF NEW YORK

AMERICAN COUNCIL OF THE BLIND OF NEW YORK, INC., MICHAEL GOLFO, AND

CHRISTINA CURRY, on behalf of themselves and all others similarly situated,

Plaintiffs,

-against-

THE CITY OF NEW YORK, NEW YORK CITY DEPARTMENT OF TRANSPORTATION, BILL DEBLASIO, in

his official capacity as Mayor of the City of New York, and POLLY TROTTENBERG, in her official capacity as Commissioner of the New York City Department of Transportation,

Defendants.

No. 18-CV-5792 (PAE)

# AMENDED EXPERT REPORT OF JANET M. BARLOW

Janet M. Barlow, Certified Orientation and Mobility Specialist Principal

Accessible Design for the Blind Manila Street

Asheville, NC 28806

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# QUALIFICATIONS

I am Janet M. Barlow, a Certified Orientation and Mobility Specialist ("COMS") who worked for over 25 years at the Center for the Visually Impaired in Atlanta, Georgia, teaching independent travel skills to individuals who are blind or have low vision. My work with the Center for the Visually Impaired involved providing instruction to individuals who had recently lost their vision in use of a white cane, orientation and listening skills, sidewalk travel, street crossings, and bus and rapid transit travel skills and techniques.

In the early 1990s, I started working with traffic engineers as I began to understand the computerized functioning of traffic signals and realized that signal changes were fundamentally affecting the safety of the typical techniques used by blind pedestrians in crossing streets. I began researching accessibility of street crossings, moving full time into research work in 2001 with two projects on accessible pedestrian signals ("APS"): one as part of a National Eye Institute research project, *Blind Pedestrians' Access to Complex Intersections,* and the National Cooperative Highway Research Program ("NCHRP") Project 3-62, *Guidelines for Accessible Pedestrian Signals.*

I have continued to research street crossing techniques and treatments to provide access to pedestrians who are blind or have low vision with research on roundabouts, shared streets, and use of guidance surfaces. My projects have been sponsored by Federal Highway Administration, the NCHRP, Transit Cooperative Research Program, National Institute on Disability, Independent Living and Rehabilitation Research, and the National Eye Institute of the National Institutes of Health.

In addition, I've consulted with cities, including New York City, and traffic engineering firms on the design of street crossing facilities. As part of NCHRP Project 3-62, I co-led a training course about APS in New York City on October 4, 2011, jointly hosted by the New

York City Department of Transportation ("NYC DOT") and the Mayor's Office for People with Disabilities. Attendees ranged from NYC DOT employees, local orientation and mobility agencies, and local blind consumers. Because the majority of New York City's intersections are pre-timed with a large number of residences near busy intersections, it presented an opportunity to discuss some of those issues with individuals working on APS installations in New York City. Prior to the course, the project team took a tour of some of the recently installed APS units at several downtown intersections. Most recently, on October 23, 2015, I was part of a workshop in New York City titled "Panel Discussion and Q&A on Increasingly Complex Intersections with Environmental Accessibility Experts" sponsored by the Pedestrians for Accessible and Safe Streets ("PASS") Coalition.

In addition, I consulted with NYC DOT from August 2012 to June 2014 on the development of updated designs to enhance access to pedestrian plazas for people who are blind or have low vision. The tasks included providing expertise in issues and design concepts affecting this population and serving as a facilitator in meetings, workshops, and site visits for people who are blind or have low vision to develop design treatments to enhance the accessibility of plazas.

My C.V., attached as Exhibit A, includes the two cases in which I have testified as an expert witness at deposition and trial. It also includes research in which I have been involved related to standards for APS. Attached as Exhibit Bis a list of the documents and sources I consulted in preparing this report.

# SCOPE OF WORK

I have been retained by Plaintiffs' counsel, Disability Rights Advocates, in this litigation to explain the following:

* 1. how blind and low vision pedestrians navigate streets generally, by describing common street crossing techniques;
  2. how APS work, including identifying how blind pedestrians use APS in the context of common street crossing techniques;
  3. how the New York City environment and/or its policies and practices would affect the ability of blind pedestrians to navigate the city;
  4. the intended purpose of the NCHRP Prioritization Tool, which is the basis of the tool currently used by the NYC DOT in its APS program; and
  5. the availability and viability of future street-crossing technologies intended to aid blind pedestrians.

For my work on this matter, I am being compensated at an hourly rate of $150 per hour for reporting and consultation, $250 per hour for testimony for or during a deposition or trial, including preparation, plus reimbursement of expenses. I have no financial interest in the outcome of this matter.

## Ill. METHODOLOGY

In preparing this report, I relied on my knowledge gained over my more than 25 years of work on APS, information gleaned from participation in the numerous presentations I have delivered to groups such as the American Council of the Blind and Association for Education and Rehabilitation of the Blind and Visually Impaired, a literature review of relevant APS research as well as documents related to the NYC APS program. I also reviewed over 30 research studies spanning more than 20 years of APS research. In addition, I relied on information that I gained through interactions with Orientation and Mobility Specialists and blind and deafblind individuals from New York City as well as time I have spent examining APS installations in New York City.

# SUMMARY OF OPINIONS

Accessible Pedestrian Signals are audible and vibro-tactile signals that communicate to a blind or deafblind pedestrian when the walk signal is activated. The APS emits a "pushbutton locator tone," or audible signal that helps a blind pedestrian locate it. When the button, which has a raised arrow aligning with the crosswalk, is pressed, it will indicate audibly and by vibrating when the walk signal is on and it is the appropriate time to cross.

As I explain in more detail below, APS provides equivalent street-crossing information to pedestrians with visual disabilities to that provided to sighted pedestrians. The audio-tactile information that APS communicates provides pedestrians with visual disabilities notice when the WALK signal is on, which sighted pedestrians rely on to cross streets safely. APS also compensates for many of the difficulties that blind pedestrians face when crossing streets by helping with locating the intersection and crosswalk, orienting oneself properly in the direction of travel, knowing when to cross the street, and maintaining alignment while crossing.

Without APS, pedestrians with visual disabilities are at substantial risk of beginning their crossing at the wrong time, being delayed in beginning their crossings, not completing their crossing before the light turns green for cars on the street they are crossing, and veering outside of the crosswalk. This risk is especially acute when signals include certain pedestrian safety measures, such as Leading Pedestrian Intervals ("LPis") and Exclusive Pedestrian Phases ("EPPs"). LPIs and EPPs have been added to thousands of intersections in New York City for the benefit of sighted pedestrians despite the fact that blind pedestrians cannot benefit from these measures without APS, and they make inaccessible crossings more dangerous for blind pedestrians. LPis and EPPs do away with or confuse the auditory cues from moving vehicles that blind pedestrians rely on to cross the street, and often leave blind pedestrians with insufficient crossing time. This means they begin to cross after other pedestrians, when drivers are not

expecting pedestrians to begin crossing, and have begun to tum across the crosswalk, putting them at serious risk of collisions.

Finally, it is my opinion that there exist today no meaningful technological alternatives to APS. The various apps and Global Positioning System ("GPS") alternatives that are currently being developed have serious drawbacks when compared with APS because most require: a) owning and operating a smartphone device or accessory; b) maintaining and carrying a device that is always charged and getting a reliable signal; and c) holding the device in the hand and pointing accurately. For these reasons, it is my opinion that future technology would more appropriately complement than replace APS.

# STREET CROSSING TECHNIQUES OF BLIND AND LOW VISION PEDESTRIANS

In order to understand the importance of Accessible Pedestrian Signals, it is first necessary to understand how blind and low vision pedestrians navigate city streets.

## Who is a Blind or Low Vision Pedestrian

According to the report for the 2017 National Health Interview Survey ("NHIS"), 19.1 million American adults between the ages of 18 and 64 and 7.8 million American adults 65 years and older report experiencing significant vision loss. (American Foundation for the Blind, 2019a). Individuals are considered legally blind when they have visual acuity of 20/200 or less with best correction or a visual field of less than 20 degrees. (Social Security Act, 2019). A person with 20/200 vision is able to see an object at 20 feet that people with "normal" vision are able to see when 200 feet away. (Social Security Act, 2019). A restriction in the visual field to less than 20-degrees is often referred to as tunnel vision. Approximately 85% of people who are legally blind have some usable vision and may consider themselves low vision or partially

sighted rather than blind. (American Foundation for the Blind, 2019b).1 Individuals who are deafblind typically have some vision or some hearing, but the combination of hearing and visual losses causes communication and other developmental and educational needs. (National Center on Deafblindness, 2019). Approximately 35,000 to 40,000 adults are deafblind in the United States. (National Center on Deafblindness, 2019).

Those who are legally blind or have low vision may experience reduced visual acuity, reduced contrast sensitivity, and glare or other adverse consequences of environmental illumination which can prevent them when walking from being able to drive or see many details, including visual pedestrian signals. Most, but not all, blind and low vision individuals use a long white cane as a travel aid at least some of the time. Less than 5% of individuals who are blind or have low vision may travel with a dog guide. (Franck, L., Haneline, R., Brooks, A., and R. Whitstock, 2010). Dog guides do not make decisions about the route or when to cross the street; the handler has to make that decision and give the dog commands to direct their travel and movement. Individuals who are blind or who have low vision, including those who are deafblind, travel independently to unfamiliar destinations and cross streets to which they have not been oriented.

* 1. **How Blind Pedestrians Cross City Streets**

Navigating a street crossing involves four tasks which are performed by all pedestrians but require specific attention and techniques for individuals who are blind or have low vision. The four tasks are: 1) locating the edge of the street and crossing point, 2) aligning to cross the street, 3) deciding when to begin crossing, and 4) maintaining alignment or proper heading while

1 Low vision can be defined either by visual acuity, i.e. as "a condition caused by eye disease, in which visual acuity is 20/70 or poorer in the better-seeing eye and cannot be corrected or improved with regular eyeglasses," or in tenns

of functional ability: "uncorrectable vision loss that interferes with daily activities." (American Foundation for the Blind, 2019a) (internal citations omitted).

crossmg. These tasks may be done in different ways depending on the vision and mobility aid (if any) used by the person. It should also be noted that in all these tasks, the pedestrian who is blind or has low vision will also be attending to the movements of other pedestrians, street traffic, the slope and crown of the street and gutter, and other environmental information.

* + 1. *Locating the Crossing Point*

The traditional technique or strategy for locating the street and crosswalk used by pedestrians who are blind is to stop when they encounter a curb or a detectable warning surface2 and assume that the crosswalk is at that location. This technique is not effective when the crosswalk is not in a direct line with the sidewalk approaching it, such as locations with offset crosswalks, rounded comers, angled streets, and some plazas. Some individuals search for the curb ramp and detectable warning surface, but most do not, because of the potential for disorientation. Some individuals with low vision may be able to see the crosswalk lines, depending on the contrast with the street and condition of the crosswalk line paint.

Research has confirmed problems locating the crosswalk for blind pedestrians. In one research study, blind participants were permitted to start crossing from any location so long as they were in no immediate danger. Participants requested assistance in locating the crosswalk on 19% of street crossings. (Crandall, Bentzen, and Myers, 1999; Crandall, Brabyn, Bentzen, and Myers, 2001). On 30% of trials, subjects who located the crosswalk independently began crossing from outside the crosswalk, meaning they may have walked into traffic lanes. (Crandall, et al., 2001).

2 A detectable warning surface is a distinctive surface pattern of truncated domes detectable by cane or underfoot that alert people with vision impairments of their approach to street crossings and hazardous drop-offs. They are required to contrast with the surrounding surface, either light on dark or dark on light for low vision users. (U.S. Access Board, 2014).

* + 1. *Aligning to Cross*

To align to cross, individuals who are blind listen to traffic moving beside the crosswalk and align themselves to cross beside that traffic. With many traffic lanes, some with trucks and loud vehicles and others with almost silent cars, or bicycles, picking out the right audible cues and aligning correctly with the lanes of traffic is difficult for many pedestrians who are blind or have low vision. At best, there is the potential for a 10-degree error in aligning using hearing (Guth, *et al.,* 2010), which means the blind pedestrian may be aligned 10 degrees to the right or left of the crosswalk. For a wide street, this kind of error can result in the pedestrian finishing their crossing outside the crosswalk, potentially in the traffic of the parallel street or in between waiting vehicles in the traffic lanes of the street they are crossing.

* + 1. *Deciding When to Cross*

Deciding when to begin crossing is the traditional technique that has been most negatively affected by new signal timing and traffic management strategies. The traditional technique is to listen for vehicles to stop on the street being crossed and for cars to begin moving in the lanes closest to the crosswalk. This is often referred to as the surge of traffic on the parallel street. Pedestrians who are blind begin crossing as those vehicles enter the intersection. This technique relies on the assumption that vehicles in the closest parallel traffic lane have a green light and the WALK signal is being displayed for pedestrians walking on the crosswalk beside those lanes.

Without an APS, pedestrians who are blind are essentially guessing that the walk signal is displayed when the traffic in the closest lane begins moving. With changes in signalization and traffic signal timing, that may not be a correct assumption. In some cases, there may not be traffic that begins moving just as the signal changes, particularly crossing a wide street at its

intersection with a smaller street (at the intersection of a minor and major street). In research in San Francisco at relatively small urban intersections, Crandall, *et al.* (1999, 2001) found that participants began crossing during the walk interval on only 66% of crossings. Marston and Golledge (2000) found that at crossings without APS, almost half (48%) of the participants attempted to cross during the don't walk interval, when vehicles on the street being crossed had a green signal, which is unsafe and puts pedestrians at risk for a collision.

Even without signal timing changes discussed below, pedestrians who are blind or have low vision using traditional techniques are typically delayed in beginning their crossing compared to sighted pedestrians, reducing the time they have to complete the crossing before the signal changes. Research has documented that listening for and confirming the traffic surge results in an average latency of 6.4 seconds in the amount of time it takes pedestrians who are blind or low vision to begin crossing. (Barlow, *et al.,* 2006; Scott, Barlow, Bentzen, Bond, and Gubbe, 2008).

* + 1. *Maintaining Alignment*

For maintaining alignment or heading while crossing, pedestrians who are blind listen to the traffic moving beside them as they cross and try to maintain a consistent distance from those lanes of traffic. Ifthere is not consistent traffic on the street beside the crosswalk, or traffic is not in the closest lane, even very experienced blind pedestrians "exhibit variable error sufficient to result in veering into the parallel street when crossing at intersections." (Guth, *et al.,* 2010, pg 36). This means they may walk into traffic in lanes on the street beside the crosswalk and become disoriented, possibly missing their destination comer, and be out in traffic lanes when more vehicles arrive in those lanes.

# ACCESSIBLE PEDESTRIAN SIGNALS

A parking meter on a sidewalk

Description automatically generated with low confidenceAccessible Pedestrian Signals, featured in Figure 1, assist blind pedestrians with the four orientation and mobility tasks used to cross a street safely, which are described in Section (III). They provide audio and vibro-tactile information to the pedestrian that helps them locate the crossing location, orient themselves to walk in the correct direction, know when the WALK signal is on so

*Figure J: Accessible pedestrian signal (photo taken by* they can begin crossing, and maintain alignment on

*Raysonho* @ *Open Grid Scheduler I Grid Engine* -

*Own work, CCO (Public Domain))* their heading to the other side of the street.

Various types of audible signals have been installed in the United States since the 1930s. In 2000, some guidance and standards for APS were adopted in the Manual on Uniform Traffic Control Devices ("MUTCD"). Major changes in the standards and guidance for APS were adopted in the 2009 MUTCD after the completion of National Eye Institute and National Cooperative Highway Research Project research. The MUTCD is published by the Federal Highway Administration and was adopted by New York State in 2010 as the state standard for devices installed to control traffic, including signs, signals, and pavement markings.

APS devices installed at intersections must comply with the standards and guidance provided by the MUTCD, and traffic engineers refer to the MUTCD in making installation decisions. MUTCD standardizes APS pushbutton installation location, acceptable audible messages and volume, form of the APS device, and features of the APS device, such as extended press options to announce the street being crossed. MUTCD specifically highlights for traffic engineers the ways blind pedestrians are unable to safely cross streets without APS: "The

existing environment is often not sufficient to provide the information that pedestrians who have visual disabilities need to cross a roadway at a signalized location." (MUTCD 4E.09(02)).

## The APS Locator Tone Assists Blind Pedestrians in Locating the Crossing Point.

A properly positioned APS, with its pushbutton locator tone, provides information and certainty about the location of the street and beginning of the crosswalk. A pushbutton locator tone repeats constantly at one tone per second to let pedestrians who are blind know there is a crossing point there and to help them find the APS so they can use the other features, such as the tactile arrow. [Listen to pushbutton locator tone. **"4l))]** The pushbutton locator tone is supposed to be audible 6 to 12 feet from the pushbutton, or to the building line, whichever is less. This tone also responds to ambient sound, so it may be louder when traffic is heavy and quieter when traffic is light.

When the button is pressed, a verbal message stating "wait" sounds, which lets the pedestrian know that the button has been pressed. There is also a red light on the APS device that illuminates so sighted pedestrians can recognize that the button has been pressed. The red light goes out when the walk indication is displayed/sounded.

The APS is supposed to be positioned close to the edge of the crosswalk farthest from the center of the intersection, so the pedestrian who finds the APS/pushbutton and begins their crossing from that location is properly positioned within the crosswalk area and not too close to the traffic moving on the street beside their crossing. As noted above, typical techniques for finding the crosswalk do not work well if the crosswalk is slightly offset, angled, at a midblock location, at the "top of the T" at a T-intersection, or on a rounded comer. The APS pushbutton locator tone helps the blind pedestrian find the crosswalk and begin their crossing from the correct location.

For blind pedestrians, starting crossing from within the crosswalk increased from 70% to 97% with use of the APS. (Crandall, *et al.,* 1999, 2001). Research at complex intersections in Portland, Oregon found significant increases in the ability of blind participants to begin crossings from within the crosswalk with APS at locations where pushbutton locator tones were installed. Pre-installation, 77% of crossings began from within the crosswalk; post-installation, 97% of crossings began within the crosswalk, indicating that locating the crosswalk was significantly improved by the presence of pushbutton-integrated APS. (Barlow, Bentzen, Bond and Gubbe, 2006).

## The Location of the APS and Directional Arrow Assist Blind Pedestrians

in **Aligning with the Correct Crosswalk.**

A picture containing text, ground, outdoor, street

Description automatically generatedThe tactile arrow, which can be seen in Figure 2, on an APS provides an alignment cue since it is supposed to be aligned with the direction of travel on the crosswalk. This allows blind pedestrians to match the APS device with a crosswalk.

At some intersections, it can be difficult to determine

*Figure 2: Pushbutton with tactile* whether the pushbutton is for the desired crossing or the

*arrow aligned with crosswalk direction*

*(Photo taken by Janet Barlow)* crossing of the parallel street. The tactile arrow allows blind pedestrians to confirm that the APS is for the street they intend to cross. Research has shown that the presence of APS improved the task of aligning to cross, with 70% of independent crossings starting from an aligned position pre-installation and 84% post-installation. (Barlow, *et al.,* 2006).

## The Audible WALK Indication Assists Blind Pedestrians in Knowing When to Safely Begin Crossing.

When a visual pedestrian crosswalk signal changes to the WALK signal, an APS emits a rapidly repeating percussive tone (between 8 and 10 ticks per second) during the walk interval. [Listen to the repeating percussive tone. This percussive tone has been found to be

detectable in the presence of traffic sound, so pedestrians can hear when the pedestrian phase begins and start their crossing promptly. If APS devices cannot be separated by at least 10 feet, APS may announce the street and WALK signal with a speech message. The MUTCD requires that speech messages follow a prescribed format of "street name, walk sign is on to cross "street name," as in "Broadway, walk sign is on to cross Broadway." [Listen to a speech message. l)) ] A pushbutton information message, or audio message played when a pedestrian holds down the pushbutton for several seconds, is also required so the blind pedestrian knows

the street name and can make a correct decision. [Listen to a pushbutton information message. During the walk interval, in addition to the audible percussive signal, the pushbutton arrow vibrates so a person can put their hand on the pushbutton to detect the

WALK if they have difficulty hearing the APS. This can be very helpful in noisy traffic locations or for individuals who are deafblind.

As noted in previous discussion, without APS, pedestrians who are blind typically use traffic movement and sounds to decide when to cross, and their accuracy in starting their crossings during the walk interval is relatively poor. Starting crossing at the wrong time puts blind pedestrians at risk for a collision with a vehicle. APS improves the safety of crossing for pedestrians with visual disabilities by providing information about when the traffic engineer intended pedestrians to make their crossings and allowing them to cross at the same time as sighted pedestrians.

Research has documented that APS significantly improved the crossing safety of pedestrians who are blind. As I understand it, New York City's crossings are largely pre-timed, meaning a pedestrian need not push a button for the walk signal to come on, which functions essentially the same as some crossings studied that were "on recall." At crossings that are pre­ timed or on recall, there is a pedestrian phase (and adequate time for a pedestrian to cross) during every traffic cycle. Crandall, Bentzen, and Myers (1999) and Crandall, Brabyn, Bentzen, and Myers (2001) found that blind participants began crossing during the walk interval at pre­ timed intersections on only 66% of crossings without APS, but on 99% of crossings with APS. Marston and Golledge (2000) found that at crossings on recall without APS, almost half (48%) of the participants attempted to cross during the don't walk interval. With APS, no participant started crossing at an unsafe time. *Id.*

In Portland, Oregon, at locations where the signal was on recall and no APS were installed, 82.1% of the crossings started during the walk interval, but 5.7% still completed their crossing after the perpendicular traffic began moving against them (called the "perpendicular green"). (Barlow, *et al.,* 2005). In Charlotte, North Carolina, without APS, blind pedestrians began their crossings 58.1% of the time during WALK and 20.9% of crossings ended after the onset of perpendicular traffic, when cars on the street being crossed have the green light. *Id.* The installation of APS at all these crossings resulted in significant improvement, with 97% starting during WALK and 0% completing their crossing after perpendicular green in Portland and 85% starting during WALK and 5% ending after perpendicular green in Charlotte. (Scott, *et al.,* 2008).

With respect to the few NYC intersections that may be pedestrian actuated, blind pedestrians likely fare much worse in correctly guessing appropriate timing and safely crossing

streets. In research conducted in Portland, Oregon, without APS, the pedestrian-actuated crossings were highly problematic for pedestrians who are blind. Without APS at wide complex crossings, participants began crossing during WALK on only 25% of crossings. (Barlow, *et al.,* 2006). After APS installation, blind pedestrians properly initiated their crossings during the walk interval 84% of the time. *Id.* Similarly, without APS, participants completed 50% of crossings dangerously late, when the perpendicular vehicular traffic had the green light, compared to 12% of crossings after the installation of APS. *Id.* In research conducted in Charlotte, North Carolina, pedestrian-actuated crossings without APS resulted in 11.4% of the crossings starting during the walk interval, with 44% of the crossings ending after the onset of perpendicular traffic. (Scott, *et al.,* 2008). After APS installation, 68% of crossing began during WALK and 13% ended after traffic on the street being crossed had begun to move. *Id.* Williams, Van Houten, Ferraro, and Blasch (2005) found that mean latency in beginning crossing without APS was more than 5 seconds, which was reduced to 3.8 seconds with a pushbutton-integrated APS using speech messages.

The installation of APS can also improve crossing delay for sighted pedestrians. A San Francisco study found: "While primarily intended to serve visually impaired pedestrians, the devices also appear to benefit sighted pedestrians. The proportion of sighted pedestrians finishing on the solid Red Hand phase decreased from 27% to 17%, while the proportion starting on the Walk phase increased from 59% to 70%." (Federal Highway Administration, 2008). APS can make the streets safer for all pedestrians.

## Because APS is Installed at Both Corners of a Crosswalk, It Assists Blind

**Pedestrians** in **Maintaining Alignment During Their Crossing.**

The APS at the far end of the crosswalk emits a pushbutton locator tone during the flashing DON'T WALK portion of the pedestrian crossing phase. Pedestrians with visual

disabilities may be able to hear that locator tone and use it as a target to assist in completing their crossing within the crosswalk. The pushbutton locator tone of the APS at the far end can result in correction and improvement in ending within the crosswalk. (Scott, *et al.,* 2008; Barlow, Scott, Bentzen, and Graham, 2013).

# NEW YORK CITY ENVIRONMENT

New York City presents unique challenges to blind and low vision pedestrians attempting to navigate city streets, making APS especially important. First, New York City is one of the loudest cities in the country, making the soundscape particularly challenging for pedestrians who rely on their hearing. Second, New York City has implemented numerous traffic design choices, such as leading pedestrian intervals, exclusive pedestrian phases, protected intervals, and bike lanes, that render unreliable the traditional street-crossing techniques used by blind pedestrians. Combined, these factors make navigation in the absence of APS very difficult for blind, low vision, and deafblind New Yorkers.

## The New York City Soundscape

New York City has some of the loudest transportation and road noise in the country. (United States Department of Transportation, 2019). Cars, construction, buses, trains, food trucks, and other vendors add to the soundscape. In addition, some vehicles, such as hybrid or electric vehicles, and bicycles, are almost silent at lower speeds, meaning their movement and presence is undetectable by pedestrians relying on listening to car sounds to make their travel and street crossing decisions.

## Pedestrian Safety Measures for Sighted Pedestrians Can Make the Landscape Even More Challenging for Pedestrians with Visual Disabilities

As signal timing has become more sophisticated, and traffic patterns and vehicles have changed, the traditional techniques used by pedestrians with visual disabilities for determining

when to begin crossing the street no longer work reliably, making APS even more critical for safe navigation. Signal timing changes include changes in the order of phases (LPIs and EPPs), and protected intervals (left tum and right tum arrows).

* + 1. *Leading Pedestrian Intervals*

Leading pedestrian intervals are timing changes that have been widely installed by NYC DOT for the benefit of sighted pedestrians. Where an LPI is installed, the walk signal is displayed for approximately 5-10 seconds while vehicles still have a red light. LPis give pedestrians a "head start" on their crossing, ahead of cars that may be turning right on green across the crosswalk. This helps force the yield that is commonly not obeyed in the usual situation in which drivers in parallel traffic are allowed to tum right during WALK and are supposed to yield to pedestrians. This practice essentially forces the yield, by allowing pedestrians to be in the crosswalk before cars are given the light to proceed.

LPis have been installed at over 3900 locations in New York City. (NYC Open Data, 2019). Without an APS, pedestrians with visual disabilities are left waiting for the surge of traffic, which does not occur until after the LPI concludes, thus depriving them of any advantage the LPI offers to sighted pedestrians. In fact, LPis can result in even more dangerous intersections for pedestrians with visual disabilities, as LPis cause blind or low vision pedestrians to begin their crossing late, as the cars begin moving and when the drivers do not expect pedestrians to begin crossing. The MUTCD recognizes this concern and recommends the consideration of APS wherever LPIs are installed. (FHWA, 2009). Pedestrians with visual disabilities may begin their crossing just as cars begin turning, putting them at risk for a crash and leaving them with inadequate time to complete the crossing before the signal changes. (Bourquin and Bieder, 2018).

APS is necessary at the crossings with LPIs because of these dangers. APS sounds and vibrates when the walk interval begins and allows the pedestrian who is blind or has low vision to know that the WALK signal is being displayed and to start crossing at the beginning of the WALK. APS gives pedestrians who are blind the same information as a sighted pedestrian, giving them adequate time to complete their crossing and enabling them to cross with other pedestrians, when vehicles are expecting them to cross.

* + 1. *Exclusive Pedestrian Phases*

As of 2017, NYC DOT had installed Exclusive Pedestrian Phases at 635 intersections, including 86 All Pedestrian Phases, 386 Signalized "T-Away" intersections, and 163 Midblock signals, (New York City, 2017), and the NYC DOT has continued to install them since then. (Ferrari, 2019). EPPs are crossings where no vehicular traffic is moving (all lights are red) but pedestrians may cross. Where there is an EPP, the proper time for pedestrians to cross is when all vehicles have a red signal. However, there is no vehicle surge to cue the blind or low vision pedestrians that the walk signal has begun, nor can they use the traffic movement parallel to the crosswalk in maintaining alignment while crossing. Because no traffic is moving, maintaining a straight line of travel within the crosswalk can be difficult for pedestrians with visual disabilities.

Without an APS, pedestrians with visual disabilities are likely to begin crossing with movement of traffic parallel to their crosswalk, when the DON'T WALK signal is displayed and drivers are not expecting them to cross. This puts blind pedestrians in danger and APS is necessary at all EPPs to make those intersections safe for blind pedestrians. An APS helps by indicating when the walk interval starts, how to properly align for the crossing, and providing a target sound at the end of the crosswalk.

* + 1. *Protected Intervals*

Protected intervals are times when vehicular traffic is allowed to tum right or left with a signal display, usually a left tum or right tum arrow. The length of these tum intervals often changes each cycle, in response to the number of vehicles in the left or right tum lane. When vehicles have a left or right tum arrow, the pedestrian is not supposed to be crossing and the visual pedestrian signal displays an orange hand to show that the pedestrian should not cross.

For decades, pedestrians with visual disabilities have depended on listening to traffic and getting familiar with the intersection and order of traffic movement as an aid to their decisions, since they have been unable to see the visual pedestrian signals. With the newer computer control of intersections, the order and timing of traffic movement can change every cycle.

During some cycles, there may be no left tum arrow and at other times there may be a left tum arrow for several seconds. In the absence of an APS, pedestrians who are blind may not recognize the protected turns, when pedestrians are not supposed to be crossing. Instead, pedestrians with visual disabilities may think that the traffic turning left is the main surge of traffic on the street and begin crossing, which is a dangerous situation because drivers expect to have the right of way in making their turns.

With emergency preemption or transit priority systems, which shorten the time for one street in order to change the signal in favor of the emergency or transit vehicle, the signal timing may change at any time there are emergency or transit vehicles approaching the intersection.

These systems make intersections more unpredictable. Without APS, these signal timing changes are unknown to blind pedestrians and can make affected intersections unsafe to them.

* + 1. *Geometry Changes and Bike Lanes*

Some of the geometry and street redesign changes also affect crossings by pedestrians with visual disabilities. When there are separated bike lanes and/or parking between the parallel pedestrian crosswalk and the vehicle lanes, the vehicle movement is harder to hear or detect.

This may further delay pedestrians with visual disabilities in starting the pedestrian crossing or make them miss the light completely. The addition of plazas and bike lanes and other features can make it difficult to maintain orientation and accurately align for street crossings. Bike signals have been installed in some locations in New York City, so bicycles may begin moving at times when motorized vehicles are held. Bicycles are silent and blind pedestrians cannot detect the bicycle movement by listening and may not recognize that the bicyclist has the right of way, increasing chances of a crash with a bicycle. Without an APS, a blind pedestrian may decide the lack of other traffic movement indicates an EPP and start crossing during the bicycle phase. This puts blind pedestrians in danger of collisions with bicycles.

# LOCATION SELECTION AND INSTALLATION

Cities must address two issues in the development of their APS programs: 1) how to determine the order of intersections at which to install APS, and 2) how to install them in the correct location at the selected intersections.

## Prioritization Tool

To aid cities in the process of determining at which intersections to install APS, the NHCRP project I worked with developed a Prioritization Tool. The Prioritization Tool developed as part of NCHRP Project 3-62, *Guidelines for Accessible Pedestrian Signals,* was in response to questions from the oversight panel about: a) installations as part of an Americans with Disabilities Act ("ADA") transition plan, and b) cities' response to requests for APS installations when there were more APS requests than could be immediately installed. The

direction of the NCHRP panel, which included representatives from the Access Board and Federal Highway Administration, was that in developing the Prioritization Tool, cities should assume that all new or reconstructed intersections would have APS installed during the initial construction. This was based on the fact that the Access Board, which is the federal agency charged with developing minimum technical specifications for compliance with the ADA, had issued draft Public Rights-of-Way Guidelines ("PROW AG") that required APS at all new and reconstructed intersections. The NCHRP panel advised that, even without a finalized rule on Public Rights-of-Way, the ADA required equivalent communication and a city's project team should assume that new or reconstructed intersections with pedestrian signals would be equipped with APS. The NCHRP Guide developed in Project 3-62 states: "The information regarding prioritizing intersections for installation of APS is not intended for application to new or reconstructed intersections. In new construction or reconstruction projects, it is appropriate to consider the Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of­ Way (proposed PROW AG) or Draft PROW AG as the best guidance available at this time (Isler memo, 2006). In new construction, APS should be installed wherever pedestrian signals are installed." ([www.apsguide.org,](http://www.apsguide.org/) 2017 revision).

The NCHRP intended for the Prioritization Tool only to be used on existing intersections as part of a transition plan, in order to rank the installation order of APS and compare the difficulty of specific crosswalks, or to rank requests for intersection modifications. There is no minimum score that can be assigned through the Prioritization Tool below which APS is assumed not to be needed because the NCHRP panel, and thus the Prioritization Tool, assumed that APS would be installed at every intersection where pedestrian signals are installed. The

expectation was that the jurisdiction would recognize the waiting list in the next budget year and the budget would be increased to respond to requests that had been received.

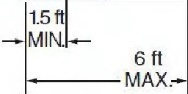
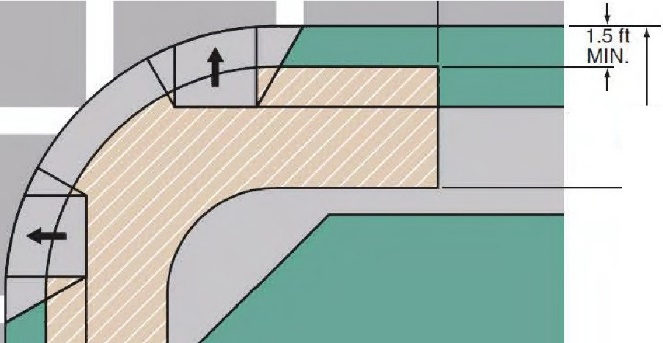
As I understand from the NYC DOT's 2018 APS Program Reports (NYC DOT 2018), the Prioritization Tool being used by NYC DOT in the evaluation and prioritization of intersections is based on the one we developed through the NCHRP. However, it appears that it is not being used as it was intended because the NYC DOT has used the prioritization tool for both new and altered intersections since the genesis of its APS program. The tool was never intended to be used with new or altered intersections, which are supposed to be outfitted with APS regardless of its worksheet score.

## APS Installation

APS are mounted on poles close to the crosswalk they control, on the side of the crosswalk that is farthest from the center of the intersection. The tactile arrow is aligned with the direction of travel on the crosswalk. To install APS at a typical intersection (4 crosswalks) requires 8 pushbutton units/devices and a control unit that is added to the controller cabinet or 8 pushbutton units and control units that are installed in each pedestrian signal head. The APS device has a wire or set of wires that needs to be connected either to the controller or the control unit in the pedestrian signal head.

Because New York City has traditionally had pedestrian signals that do not require pedestrians to push a button to call the WALK indication, pushbuttons and poles for pushbuttons have not been typically installed. In order to install APS, additional poles must be installed for the APS devices. Installing poles requires a base that is appropriate for the location, and wiring to the device, either from the signal controller or the pedestrian signal head. In general, the poles must have a stable foundation, usually requiring concrete footing or bolts to a depth of 12 inches.

The location of the APS devices on the corner is critical to their providing accurate information to pedestrians who are blind regarding the crossing. The sound of the APS must be audible from the beginning of the crossing and the tactile arrow and vibrotactile indication must be reachable from a level landing. The tactile arrow is supposed to be aligned with the direction of travel on the crosswalk. The device is supposed to be within 10 feet of the curb and no more than 5 feet from the crosswalk line farthest from the center of the intersection. The MUTCD provides recommendations for placement of the pushbuttons in Part 4, Section 4E.08, and the graphics below are the MUTCD illustrations of typical pushbutton location.



**Figure 4E-3. Pushbutton Location Area**

l- 5 ft MAX:-

6 ft

**MAX.**

j

5ft

T

MAX.

j

□Recommended area for

-+ Downward slope

pushbutton locations

Notes:

1. Where there are constraints that make it impractical to place the pedestrian pushbutton between 1.5 feet and 6 feet from the edge of the curb, shoulder, or pavement, it should not be further than 1O feet from the edge of curb, shoulder, or pavement.
2. Two pedestrian pushbuttons on a corner should be separated by 1O feet.
3. This figure is not drawn to scale.
4. Figure 4E-4 shows typical pushbutton locations.

Figure 4E-3 shows the recommended pushbutton location area. (Part 4, Section 4E.08, MUTCD, 2009). Additional graphics in Figure 4E- 4 provide examples of typical locations of pushbuttons with different widths of sidewalks and types of curb ramps. (Part 4, Section 4E.08, MUTCD, 2009).

**Figure 4E-4.** Typical Pushbutton **Locations** (Sheet 1 of 2)

Diagram

Description automatically generated**A - Parallel ramps with wide sidew,alk**

**C • Parallel ramp• with narrow**

sidewalk **and** tight comer radius

Diagram

Description automatically generated\_, **Downward slope**

* Pedestrian pus/1button 111111 Detectable warning

(perAOAAG)

fZilLanding 8188

(perAOAAG)

**B- Parallel ramps with narrow sidewalk**

Diagram

Description automatically generated

**D Perpendicularramps**

**with crouwalka far apart**

Diagram

Description automatically generatedNotes:

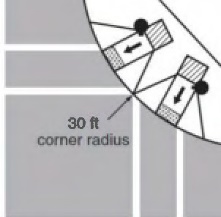
1. This figure Is not drawn to scale.
2. These drawings are Intended to daecribe the typical locations for pedestrian pushbutton lnstalallons.

**They are not intended to be a guide for the design of curb cut ramps.**

1. Figure 4E-3 shows the recommendad area for pushbutton locations.

**Figure 4E-4. Typical Pushbutton Locations (Sheet 2 of 2)**

**E - Perpendicular ramps with croaawalksclose together**



12 It

j

G • Perpendicular ramps with sidewalkset back

Diagram

Description automatically generated**from road with crosswalks close together**

* + Downward slope
    - Pedestrian pushbutton

mDetectable warning

(per ADAAG)

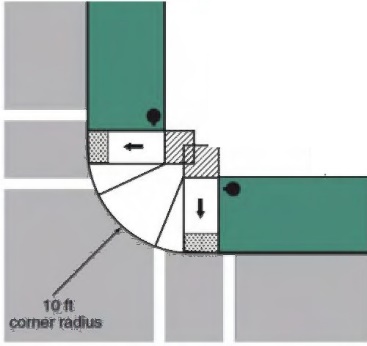
Landing area (perADAAG)

**F - Perpendicular ramps with sidewalk set back from road with crosswalks far apart**

Diagram

Description automatically generated

**H • Perpendicular ramps with sidewalk set**



**back from road with continuous**

**sidewalk between ramps**

L

5 It

I

**Notes:**

1. This figure Is not drawn to scale.
2. Tese drawings are intended to descrile the typical locations for pedestrian pushbutton installations.

**They are not intended to be a guide for the design of curb cut ramps.**

1. **Figure4E-3 shows the recommended area for pushbutton locations.**

# ALTERNATE TECHNOLOGIES

Any hope that technological advances could provide a less costly alternative to APS remains unfulfilled. Today there is no technological alternative to APS that provides the same kind of reliable information to blind and low vision pedestrians as **APS.**

Numerous developers are working on smart phone applications and other devices that may assist pedestrians with visual disabilities in navigating city streets. In reviewing the information and studies completed to date on devices attempting to provide walk signal information, there are numerous problems with such technology. There are many **GPS** devices that provide mapping information or information about nearby businesses, such as Sendero **GPS,** Wayfinder, SmartCane, Nearby Explorer, BlindSquare, Sunu Band, AIRA, and Trekker, but they do not (and at this time, cannot) provide the one feature hat blind pedestrians need most:

street crossing signal information. Additionally, most alternatives require: a) owning and operating a reliable, charged, and connected smartphone device or accessory; b) holding this device in one's hand, which is often in use, particularly for blind users with a cane or dog guide; and c) properly orienting and pointing the device, which can be difficult if a pedestrian becomes disoriented in any way.

Each of these three requirements presents problems. First, maintaining and carrying a device that is always charged and getting a reliable signal can be difficult in the best of times. Batteries die, and cell service can be lost in some locations or Bluetooth communication may not function effectively. Second, most prototype apps require holding the device in the hand and pointing accurately. Pedestrians with visual disabilities may already have a white cane or dog guide in one hand. They often need their other hand free for carrying objects and/or may not be able to point accurately across the street to the proper location on the end of the crosswalk. That could result in getting information for the diagonal crosswalk and potentially crossing at the wrong time. Third, while some devices use a type of headphone for GPS information or communicating with their phone on the street, that may interfere with pedestrians with visual disabilities hearing traffic and other cues needed to safely cross the street. These requirements, even if available, add to the cognitive demand people with visual disabilities experience when trying to cross a street.

It is also important to consider the demographics of the population of individuals who are blind or have low vision. Many are elderly and may not be familiar with or proficient in the use of technology. Moreover, 70% of individuals who are blind are not employed full time, meaning their earnings are limited and they may not have the funds to buy and maintain a smart phone or other smart device. (American Foundation of the Blind, 2019).

These issues must be considerations in any technology that is providing information about the traffic signal functioning and are quite challenging to resolve. In my opinion, there is no meaningful alternative to APS devices that provides the same information currently available or likely to become available in the near future.

# CONCLUSION

APS are essential for the navigation of pedestrians with visual disabilities to improve safety and convenience. Without APS, pedestrians who are blind, deafblind, or who have low vision are deciding to cross based on unreliable cues and essentially guessing when the traffic engineering department has designated as the appropriate and safe time for them to cross the street. They may be delayed in their crossing decisions or make decisions to cross at the wrong time when drivers are not expecting them to be in the crosswalk, which puts them at risk for collisions.

New York City has been installing LPis, EPPs, protected right and left tum arrows, and bicycle signals intended to make crossings safer for pedestrians but make the crossings more dangerous to pedestrians with visual disabilities. LPis and EPPs do away with the auditory cues that pedestrians with visual disabilities rely on to cross the street. Thus, pedestrians with visual disabilities are denied the benefit of these safety improvements, prompted to cross when pedestrians are not expected in the intersections but vehicles have begun to tum across the crosswalk, and often left with insufficient time to complete their crossing before traffic begins moving on the street they are crossing. Each of these increased risks can be reduced by the installation of APS.

There are not any technological alternatives that can replace APS. Future technology is more likely to complement than replace APS.

I certify that, to the best of my knowledge and belief:

1. The statements of fact in this report are true and correct.
2. The reported analyses, opinions, and conclusions are limited only by the reported assumptions and are my personal, unbiased and professional analyses, opinions and conclusions.
3. I have no personal interest or bias with respect to the parties involved.
4. My compensation is not contingent on an action or event resulting from the analyses, conclusions or opinions of this report.

I declare under penalty of perjury under the laws of the United States that the foregoing is true and correct, and that this Declaration was executed on the 7 of August, 2019, in

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Janet M. Barlow, COMS

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**Janet M. Barlow, COMS**

**Certified Orientation and Mobility Specialist 3 Manila Street**

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**Education**

MS, Special Education, December 1975, Florida State University, Tallahassee, Florida Concentration of degree program was mental retardation, hearing impairment, and other

disabilities in conjunction with vision loss

BS, Habilitative Sciences, Visual Disabilities, March 1973, Florida State University, Tallahassee, Florida;

Education of the visually impaired, with emphasis on orientation and mobility instruction

**Work Experience**

10/05-present President, Barlow Design, Inc., dba Accessible Design for the Blind 2017-2018 Adjunctfaculty, Salus University, Elkins Park, PA

3/08- 3/09 Adjunct faculty, Pennsylvania College of Optometry, Elkins Park, PA 5/99 - 10/05 Consultant/Research Associate, Accessible Design for the Blind

7/04-8/04 Part-time instructor, Department of Blindness and Low Vision Studies, Western Michigan University

10/95 - 6/01 Manager, Rehabilitation Services, Center for the Visually Impaired, Atlanta, Georgia 9/95 - 12/95 Part-time Instructor, Georgia State University, Atlanta, GA

9/94 - 12/94 Part-time Instructor, Georgia State University, Atlanta, GA

9/93 - 10/95 Manager of Independent Living Services, Center for the Visually Impaired, Atlanta, Georgia

10/92 - 3/93 Research Associate, contract with Boston College, *Cues Blind Travelers Use to*

*Detect Streets*

9/86 - 8/93 Orientation and Mobility Specialist, Center for the Visually Impaired, Atlanta, Georgia

9/77-8/86 Part-time contract Orientation and Mobility Specialist, Center for the Visually Impaired, Atlanta Georgia

**Expert Witness Cases**

Lori Scharff, Michael Godino, Edward Molloy, and Long Island Council of the Blind, Plaintiffs, v.

County of Nassau and Shila Shah-Gavnoudias, Commissioner of Nassau County Department of Public Works, in her official capacity, Defendents. Case No. 2:10-cv-04208- DRH-GRB in the United States District Court Eastern District of New York, 2014.

Mary Cuthbertson, Colen B.Cuthbertson-Holloway, Daryl R. Cuthbertson, Sharon E. Jemison, and the Estate of Cameron Cuthbertson, Plaintiffs vs. Los Angeles County Metropolitan Transportation Authority, Does 1 to 10, Defendants. Case No.: BC413070 in the Superior Court of the State of California for the County of Los Angeles, 2011

**Certifications**

Certification as Orientation and Mobility Specialist (COMS) by Academy for Certification of Vision

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Rehabilitation and Education Professionals, (ACVREP) 2015 - 2020

## Professional Affiliations

Asheville Bicycle and Pedestrian Task Force. Co-facilitator, 2016 to present, Member 2007 to present

Pedestrian Committee (ANF-10), Transportation Research Board, Member, 2014 - Present Environmental Access Committee, Orientation and Mobility Division, Association for Education and

Rehabilitation of the Blind and Visually Impaired (AERBVI), 1992 - present, Chair, 2002- 2012, 2013 - present

Committee on Roundabouts (ANB-75), Transportation Research Board, Member, 2012 - 2017 Task Force on Roundabouts (ANB-75T), Transportation Research Board, Member, 2007 - 2012 Public Rights-of-Way Access Advisory Committee, U.S. Access Board, Representative of Association

for Education and Rehabilitation of the Blind and Visually Impaired, Intersection Subcommittee and Editorial Subcommittee, 1999 -2007, Chair of Technical Assistance Manual subcommittee, 2001 - 2007

Pedestrian and Bicycle Council Executive Committee, Institute of Transportation Engineers, 2001 - 2011

Right Turn on Red Recommended Practice Committee, Institute of Transportation Engineers, 2004 Metropolitan Atlanta Rapid Transit Authority's Elderly & Disabled Access Advisory Committee, 1987

- 1997, Chairperson, 1990 - 1992

Association for Education and Rehabilitation of the Blind and Visually Impaired, member, 1987 - present

Institute of Transportation Engineers, Member, 1999 - present

Association of Pedestrian and Bicycle Professionals, Member 2001 - present

## Tributes and Honors

Pedestrian Committee Best Paper Award, Transportation Research Board, Washington, D.C., 2012

Lawrence E. Blaha Award from the Orientation and Mobility Division of the Association for Education and Rehabilitation of the Blind and Visually Impaired, July 2008

Pedestrian Committee Best Paper Award, Transportation Research Board, Washington, D.C., 2006

Access Award from the American Foundation for the Blind, 2004

Tribute for Advocacy in Environmental Access from the Orientation and Mobility Division of the Association for Education and Rehabilitation of the Blind and Visually Impaired, 2002

## Funded Projects:

Transit Cooperative Research Program Project B-46, *Tactile Wayfinding in Transportation Settings for Travelers Who Are Blind or Visually Impaired.* Subcontract to Accessible Design for the Blind from UNC Highway Safety Research Center, March 2019 - August 2021. The objective of this research is to produce guidance for transportation planners, engineers, and orientation and mobility specialists that will provide for consistency in the design, installation, and usability of TWSls in multimodal transportation in the United States. ADB will work with partners to plan and design research to test products and usability in a lab setting as well as in field settings.

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National Cooperative Highway Research Program Project 03-133, *Traffic Signal Design and Operations Strategies for Non-Motorized Users.* Subcontract to Accessible Design for the Blind from Kittelson and Associates, April 2018 to March 2020. ADB will provide input on all project tasks regarding accessibility issues and consideration of pedestrians with disabilities, particularly those who are blind or who have low vision.

National Cooperative Highway Research Program Project 03-130, *Guide for Roundabouts.*

Subcontract to Accessible Design for the Blind from Kittelson and Associates, June 2018 to November 2020. ADB will provide input on project tasks regarding accessibility issues and consideration of pedestrians with disabilities, particularly those who are blind or who have low vision, and lead the preparation of the research plan for any tasks involving wayfinding or other pedestrian related issues.

National Cooperative Highway Research Program Project 07-25 *Guide for pedestrian and bicycle safety at alternative intersections and interchanges (All)* Subcontract to Accessible Design for the Blind from Kittelson and Associates, March 2017 - February 2019. ADB will provide input in all project tasks regarding accessibility issues and consideration of pedestrians with disabilities, particularly those who are blind or who have low vision, in recommended designs for alternative intersections and interchanges.

National Cooperative Highway Research Program Project 3-78c, *Technology Transfer and Training, Guidelines for the Application of Crossing Solutions at Roundabouts and Channelized Turn Lanes for Pedestrians with Vision Disabilities.* Subcontract to Accessible Design for the Blind from Kittelson and Associates, January 2017 - January 2019. This project is developing and providing technical assistance and training on the guidebook developed in NCHRP 3-78b. Project team will provide webinars and in-person training sessions to engineers, administrators, and designers responsible for roundabout and CTL designs and installation.

National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR).

*Effect of Guidance Surfaces on Travelers with Vision and Mobility Impairments.* Subcontract to Accessible Design for the Blind from Western Michigan University, January 2017 - January 2020. ADB is major participant in this project which includes an international literature search and data collection with individuals with mobility impairments and with individuals who are blind or who have low vision regarding guidance surfaces and installation at street crossings. Project outputs include a guidance document that can be used by cities and municipalities to standardize their approach to using tactile guidance surfaces at street crossings for people who are blind.

Federal Highway Administration. *Innovative Street Design Practices and Accessibility.*

Subcontract to Accessible Design for the Blind from Cambridge Systematics, September 2016 - September 2017. Project focused on the extent to which new and emerging street designs and practices, such as shared streets, meet the needs of people with disabilities, specifically regarding navigation for pedestrians with vision disabilities. Produced a guide to shared streets.

National Cooperative Highway Research Program Project 15-60, *Update of the AASHTO Guide for the Development of Bicycle Facilities.* Subcontract to Accessible Design for the Blind from Toole Design Group, July 2015 - October 2018. Subject matter expert on accessibility and pedestrian and bicycle interaction issues for pedestrians with disabilities.

Ransom Engineering. Roundabout Design Project, Portland Maine. August 2014 - August 2015. Review 30% and 90% designs for roundabout, and work with City staff, consultants and individuals at local agency serving persons with disabilities to develop accessibility

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solutions.

National Cooperative Highway Research Program Project 3-78b, Guidelines for the Application of Crossing Solutions at Roundabouts and Channelized Turn Lanes for Pedestrians with Vision Disabilities. Subcontract to Accessible Design for the Blind from North Carolina State University, April 2013 - December 2015. Field research, and subsequent development of guidelines for the installation of pedestrian crossing solutions at roundabouts and channelized turn lanes that address accessibility for pedestrians with vision disabilities and consider multiple alternatives for a range of geometric and traffic operational conditions and solutions.

Federal Highway Administration *Project TOPR34, Accelerating Roundabout Implementation in the United States.* Subcontract to Accessible Design for the Blind from North Carolina State University, 2012 - 2015. Evaluation of effectiveness of rectangular rapid flashing beacon (RRFB) treatments at multilane pedestrian crossings at roundabouts.

New York City Department of Transportation. *Access to plazas for blind and low vision pedestrians.* August 2012 - June 2014. Consult in the development of updated designs to enhance access to pedestrian plazas for people who are blind or have low vision. Tasks included: Provide expertise in issues and design concepts that affect people who are blind or have low vision; Serve as a facilitator in meetings, workshops and site visits for people who are blind or have low vision to develop design treatments to enhance the accessibility of plazas.

Transit Cooperative Research Program Project A-38, *Guidebook for Pedestrian Crossings for Public Transit Rail Services.* Subcontract to Accessible Design for the Blind from Texas A&M Transportation Institute, February 2013 - August 2014. Identify literature and treatments related to safety mobility and accessibility concerns for pedestrians with disabilities at rail public transit crossings, participate in case study reviews, and preparation of the guide and final report.

Altamont Engineering. Design Services & Construction Documents for ART (Asheville Redefines Transit) Shelters. November 2012 - March 2013. Consultant on ADA and Public Rights-of-Way Accessibility Guidelines requirements at transit shelters in Asheville, NC.

VHB,Vanasse Hangen, Brustlin, Inc. Roundabout Design Project, Portland, ME. January­ March, 2013. Consult on best practices for accommodating visually impaired pedestrians at proposed roundabout, including communication with nearby facilities for visually impaired individuals.

National Cooperative Highway Research Program Project 20-07, *Recommendations for Update of the AASHTO Pedestrian Guide.* Subcontract to Accessible Design for the Blind from Toole Design Group. Feb -April 2009. Subject matter expert in developing and reviewing materials developed in this project, focusing on issues of ADA compliance and accessibility of facilities to pedestrians with disabilities.

VHB,Vanasse Hangen, Brustlin, *White Papers for: Toward Zero Deaths: A National Strategy on Highway Safety.* February 2010 - December 2010. Consultant on white paper on vulnerable users.

TY Lin and Monroe County DOT, New York. Audible/Tactile Device Study. November 2009 - February 2011. Accessible Design for the Blind worked with engineering firm TY Lin and Monroe County and an advisory group of blind and visually impaired individuals to inform parties about newer types of accessible pedestrian signals and prioritize intersections for installation of accessible pedestrian signals.

National Cooperative Highway Research Program Project 3-78A, *Crossing Solutions at*

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*Roundabouts and Channelized Turn Lanes for Pedestrians with Vision Disabilities;* Subcontract to Accessible Design for the Blind from North Carolina State University, February 2005 - March 2010. Field research on recommended practices for geometric designs, traffic control devices, and other treatments at roundabouts and channelized turn lanes that will enhance safety, wayfinding, and independence of pedestrians who are blind.

National Cooperative Highway Research Program Project 3-89, *Design Guidance for Channelized Right-Turn Lanes,* Consultant to Midwest Research Institute, 2008- 2011. Develop design guidance for construction of channelized right turn lanes, considering needs of all users, including pedestrians with disabilities.

Wisconsin Council of the Blind and Visually Impaired and Wisconsin DOT, *Roundabout Training Workshop,* April 2010. Workshop for orientation and mobility specialists on roundabout design and suggestions for information to be provided to clients regarding crossing at roundabouts

National Institute on Disability and Rehabilitation Research, *Fundamental issues in wayfinding technology.* Subcontract to Accessible Design for the Blind from Smith-Kettlewell Eye Research Institute, November 2006 - March 2010. Develop and validate methods and measures for evaluating assistive technologies for wayfinding.

US Access Board. *Common Problems Arising in the Installation of Accessible Pedestrian Signals.* January - June 2009. Develop guidance bulletin with simple explanation of typical problems in installation of accessible pedestrian signals and description of potential solutions.

Association of Pedestrian and Bicycle Professionals, May - February 2008. Work with team revising *Designing Pedestrian Facilities for Accessibility* course.

National Cooperative Highway Research Program *Project 15-35, Geometric Design of Driveways.* Subcontract to Accessible Design for the Blind from Urbitran (merged with AECOM), June 2006 - May 2009. The objective of the research is to develop

recommendations for geometric design of driveways. Accessible Design for the Blind's role

is to consult on issues related to the accessibility to pedestrians with disabilities of sidewalks crossing driveways.

Western Michigan University and University of California, Santa Barbara: National Institute on Disability and Rehabilitation Research, *Wayfinding Technologies for People with Visual Impairments: Research and Development of an Integrated Platform,* December 2001 - November 2007. Development and testing of features of wayfinding technology and identification of information needed by pedestrians who are blind or who have low vision.

National Cooperative Highway Research Program Project 3-72, *Lane Widths, Channelized Right Turns, and Right-turn Deceleration Lanes in Urban and Suburban Areas,* Subcontract to Accessible Design for the Blind from Midwest Research Institute, May 2003 - May 2005. Consultant on issues related to pedestrians with disabilities.

Institute of Transportation Engineers: Easter Seals Project ACTION project, *Online Training Course on Alteration of Pedestrian Facilities for Accessibility,* September 2003 - March 2005. Subject matter expert for Module 1, Pedestrian Accessibility and Module 4, Accessible Pedestrian Crossings.

Western Michigan University: Easter Seals Project ACTION, *Accessible Pedestrian Signals* -

*Curriculum Development,* February 2002 - December 2003

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**Exhibit B** - **Documents and sources consulted   
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* Eugene Bourquin, Certified Orientation and Mobility Specialist, New York, New York
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* Matt Baker, National Sales Manager, Polara Enterprises (who granted permission for use of all audio files)
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**Attachment “B”**

UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF NEW YORK

18 Civ. 5792 (PAE)

AMERICAN COUNCIL OF THE BLIND OF NEW YORK, INC., MICHAEL GOLFO, and

CHRISTINA CURRY, *on behalf of themselves and all others similarly situated*,

Plaintiffs,

v.

CITY OF NEW YORK, NEW YORK CITY DEPARTMENT OF TRANSPORTATION,

BILL DE BLASIO, *in his official capacity as Mayor of the City of New York*, and POLLY TROTTENBERG, *in her official capacity as Commissioner of the New York City Department of Transportation*,

Defendants.

OPINION & ORDER

PAUL A. ENGELMAYER, District Judge:

This case involves a challenge under the Americans with Disabilities Act of 1990 (“ADA”) and related statutes to the accessibility of New York City’s signalized crosswalks to blind and low-vision pedestrians.

On behalf of a certified class of blind and low-vision New York City pedestrians, plaintiffs—the American Council of the Blind of New York, Inc. (“ACBNY”), Michael Golfo, and Christina Curry—have sued the City of New York, the New York City Department of Transportation (“DOT”), Mayor Bill de Blasio, and DOT Commissioner Polly Trottenberg (collectively, the “City” or “defendants”). Plaintiffs allege that the City has long failed to provide non-visual crossing information at the vast majority of its signalized intersections, *i.e.*, those which provide visual crossing information to sighted pedestrians. Plaintiffs allege that the City’s failure to accommodate blind and low-vision pedestrians violates Title II of the ADA,

42 U.S.C. § 12132; section 504 of the Rehabilitation Act of 1973, 29 U.S.C. § 794(a) (“Rehabilitation Act”); and the New York City Human Rights Law, N.Y.C. Admin. Code

§ 8-107(4)(a) (“NYCHRL”).

With discovery complete, plaintiffs now move for summary judgment on all claims, but solely as to liability, without yet seeking a judicial remedy. Plaintiffs principally argue that

1. the absence of non-visual crossing information at the vast majority of the City’s signalized intersections denies blind and low-vision pedestrians meaningful access to those intersections and the pedestrian grid, in violation of the ADA, the Rehabilitation Act, and the NYCHRL; and
2. the City’s failure to add non-visual crossing information on occasions when it has done construction at, or upgraded aspects of, the same intersections is also unlawful.

For the following reasons, the Court grants plaintiffs’ summary judgment motion in principal part. Most significantly, the Court finds, on the undisputed facts, that the near-total absence at the City’s signalized intersections of crossing information accessible to blind and low- vision pedestrians denies such persons meaningful access to these intersections, in violation of all three statutes cited above. The Court also grants plaintiffs’ motion as to liability on their claim that the City’s failure to add non-visual street-crossing information at particular intersections at which it installed new traffic signals after June 27, 2015, violates the ADA and Rehabilitation Act. The Court otherwise denies plaintiffs’ motion for summary judgment. The case will now proceed promptly forward on two tracks: (1) to determine the remedy for the violations that have been established; and (2) to resolve plaintiffs’ open claims.

# Background

* 1. **Factual Background**1

According to the U.S. Census Bureau’s 2017 American Community Survey 1-Year Estimates, among New York City’s non-institutionalized population, 205,212 persons are blind or have other vision difficulties. Atkinson Decl., Ex. 1 (“Census Community Survey”) at 2.

That amounts to approximately 2.4% of the City’s population. *See id.*

# The Parties

Plaintiff ACBNY is a New York non-profit corporation. JSF ¶ 1. Its purpose is to “support and promote the educational, vocational and social advancement of people with vision disabilities.” *Id.* Its members include individuals with vision disabilities within the meaning of the ADA, Rehabilitation Act, and NYCHRL, including approximately 45 members in its Greater New York Chapter, which includes New York City. *Id.* ¶¶ 2, 20.

1 The Court draws its account of the underlying facts from the parties’ respective submissions on the motion for summary judgment, including: the parties’ joint statement of undisputed facts, Dkt. 91 (“JSF”); plaintiffs’ Local Rule 56.1 statement, Dkt. 93 (“Pl. 56.1”); defendants’ Local Rule 56.1 counter-statement, Dkt. 105 (“Def. 56.1”); the declaration of Lori Scharff, Dkt. 95 (“Scharff Decl.”); the declaration of Christina Curry, Dkt. 96 (“Curry Decl.”); the declaration of Michael Golfo, Dkt. 97 (“Golfo Decl.”); the declaration of Torie Atkinson, Esq., Dkt. 98 (“Atkinson Decl.”), and supporting exhibits; the corrected declaration of Joshua Benson,

Dkt. 107 (“Benson Decl.”), and supporting exhibits; the corrected declaration of James Celentano, Dkt. 108 (“Celentano Decl.”), and supporting exhibits; and the declaration of Pamela

1. Koplik, Esq., Dkt. 102 (“Koplik Decl.”), and supporting exhibits.

Citations to a party’s 56.1 statement incorporate the evidentiary materials cited therein. When facts stated in a party’s 56.1 statement are supported by testimonial, video, or documentary evidence and not denied by the other party, or denied by a party without citation to conflicting admissible evidence, the Court finds such facts to be true. *See* S.D.N.Y. Local Civil Rule 56.1(c) (“Each numbered paragraph in the statement of material facts set forth in the statement required to be served by the moving party will be deemed to be admitted for purposes of the motion unless specifically controverted by a correspondingly numbered paragraph in statement required to be served by the opposing party.”); *id.* Rule 56.1(d) (“Each statement by the movant or opponent . . . controverting any statement of material fact[] must be followed by citation to evidence which would be admissible, set forth as required by Fed. R. Civ. P. 56(c).”).

Plaintiff Christina Curry is deaf, legally blind, and uses a forearm crutch as a mobility aid. *Id.* ¶ 3. As a result, she cannot see traffic in intersections unless it is “very close,” and cannot rely on visual street signals to cross the street. *Id.* ¶ 31. Because of her visual and auditory disabilities, she requires “tactile information” to use pedestrian signals. *Id.* She lives in the Bronx and regularly walks on New York City sidewalks to commute and as a part of her job as Executive Director of the Harlem Independent Living Center. *Id.* ¶¶ 32–34, 36. She avers that during her frequent pedestrian travel throughout New York City, she risks being hit by vehicles, fears for her life, is often grabbed by well-meaning pedestrians, and uses circuitous, sometimes costly, alternatives to walking to avoid such incidents—all because she cannot use the visual traffic signals that are available to sighted pedestrians. *See id.* ¶ 60; Curry Decl. ¶¶ 9–13.

Plaintiff Michael Golfo is a blind resident of Tarrytown, New York, who previously commuted to Manhattan daily for work and now walks on New York City sidewalks about once per week to visit his doctors and friends. JSF ¶¶ 63–64. As a result of his disability, he relies on his hearing and guide dog to navigate the New York City streets. *Id.* ¶ 65. Even with these aids, Golfo finds it difficult to traverse the City; he has almost been hit by cars on many occasions while crossing the street. *Id.* ¶ 74. Like Curry, Golfo often must rely on sighted persons to help him make such crossings. *Id.* ¶¶ 75–76. He also often relies on expensive taxis or car services to navigate the City, or takes elongated routes to avoid difficult intersections. *Id.* ¶¶ 79–80.

Defendants the City of New York and the DOT are responsible for and have broad authority over the City’s streets, and oversee the installation, repair, and maintenance of its traffic signals, sidewalks, crosswalks, and roadways. *Id.* ¶ 6. Each receives federal funds, including from the Federal Highway Administration (“FHWA”). *Id.* ¶ 5.

Defendant Bill de Blasio, sued in his official capacity, is Mayor of the City of New York. *Id.* ¶ 7. Defendant Polly Trottenberg, also sued in her official capacity, is Commissioner of the DOT. *Id.* ¶ 8.

# New York City’s Pedestrian Landscape

New York City has the highest population density of any major American city. *Id.* ¶ 9. Walking “is a major form of transportation in the city, and access to sidewalks is an important component of city life.” *Id.*

To allow pedestrians safely to navigate its sidewalks and traffic intersections, the City has installed roughly 120,000 pedestrian control signals—*i.e.*, devices informing pedestrians when to cross the street and when to wait—at about 13,200 of its 45,000 intersections. *Id.* ¶¶ 11, 13. Of those 13,200 signalized intersections, all but 443 (roughly 96.6%) communicate crossing information exclusively in a visual format, *id.* ¶ 19, with an image of a mid-stride white stick figure indicating “walk,” and an upraised orange hand indicating “don’t walk,” *id.* ¶ 108. These visual signals are inaccessible to the blind. *Id.* ¶ 138.

# Difficulties Facing Blind Pedestrians

As the parties agree, any pedestrian attempting to cross a street must perform four tasks:

1. locate the edge of the street and crossing point; (2) align to cross the street; (3) decide when to begin crossing; and (4) maintain alignment (*i.e.*, the correct direction) while crossing the street. Pl. 56.1 ¶ 6. Those with a visual disability, however, have difficulty accomplishing each of these tasks. *Id.* ¶¶ 8–15.

Typically, a blind person traversing New York City sidewalks will stop when he or she encounters a curb or other detectable warning surface, and will assume that a crossing point is located there. *Id.* ¶ 8. However, without assistance, blind pedestrians begin crossing from outside the crosswalk (*i.e.*, in a traffic lane) nearly 30% of the time. *Id.* ¶ 9. And once blind

pedestrians locate a crossing point, they cannot receive the visual “walk” or “don’t walk” information communicated to sighted individuals by the standard pedestrian control signals described above. JSF ¶ 138. Instead, they generally must rely on other cues, such as fellow pedestrians’ movements or the sound of traffic parallel to the crosswalk, to ascertain when it is safe to walk. Pl. 56.1 ¶¶ 13–14. But picking the correct audible cues out of many traffic lanes can be difficult. *Id.* ¶¶ 11–12. That difficulty is often compounded, especially in the City, by idiosyncratic crosswalk architecture and quiet traffic such as hybrid cars and bicycles. *Id.* As a result, the assumption that a pedestrian has the “walk” signal when parallel traffic is moving is unreliable, leading blind pedestrians to attempt to cross the street against moving traffic up to half the time. *Id.* ¶ 14. Likewise, when following sighted pedestrians, a blind person might not realize that those pedestrians were in fact jaywalking until they hear onrushing traffic. *See* JSF

¶¶ 56, 76.

As a result, absent any accommodations, pedestrians with visual disabilities often encounter danger, inconvenience, and humiliation while attempting to use the City’s crosswalks. Unable to reliably locate crosswalks or time their crossing, they risk being hit by cars, JSF

¶¶ 25, 58, 73–74, and becoming stranded in the middle of intersections, *id.* ¶ 73, and may be unwillingly grabbed by strangers hoping to assist them, *id.* ¶¶ 26, 59, 77; *see also* Scharff Decl.

¶ 18 (“I feel that I and every other blind and deafblind pedestrian are taking our lives into our hands every time we walk out into the community.”). They are often forced to take longer, less convenient routes than they otherwise would to avoid troublesome intersections, JSF ¶¶ 27–28, 57, may wait up to 20 minutes at a single intersection to make sure they are crossing with other pedestrians, *id.* ¶¶ 24, 55, 75, and may forgo walking altogether in favor of more expensive, but safer, transit methods, such as taxis or car services, *id.* ¶¶ 27, 60, 79; Golfo Decl. ¶¶ 2, 9 (“These

experiences are inconvenient, frustrating, often humiliating, and deny me my dignity and independence.”). Alternatively, rather than undertaking such fraught excursions, they may simply decline to participate in activities or visit portions of the City at all. *See* Golfo Decl. ¶ 8.

# Accessible Pedestrian Signals

Accessible Pedestrian Signals (“APS”) are devices that communicate “walk” and “don’t walk” signals to pedestrians in a non-visual format, through audible tones, speech messages, and/or vibrating surfaces. JSF ¶ 14. According to plaintiffs’ expert, Janet M. Barlow, APS greatly increase blind pedestrians’ ability to safely cross intersections. Pl. 56.1 ¶¶ 14, 17.

Where installed in New York City, APS function as follows. At an intersection with APS, devices on each street corner emit a soft “locator tone” every second, which allows blind and low-vision pedestrians to locate them when they approach the intersection. JSF ¶ 16. Each device also has a pushbutton with a raised arrow pointing at the crossing with which it is associated. *Id.* ¶ 15. Because each APS device points to a specific crosswalk from each side of the street, a standard four-cornered intersection equipped with APS typically requires two devices per curb, and eight per intersection. *See id.*

When an APS button is pressed, the device responds with an audible speech message. *Id.*

¶ 17. If the visual “walk” signal is not on for the crosswalk associated with that APS device, the device audibly says “wait.” *Id.* If, on the other hand, pedestrians do have a “walk” signal for the relevant crosswalk, then the APS device either says “walk sign is on” or emits a rapid ticking sound. *Id.* ¶ 18. The pushbutton itself also vibrates, to alert pedestrians who are both deaf and blind that it is safe to walk. *Id.* APS thus inform blind individuals, solely through audio and tactile cues, both where and when to cross the street safely.

# New York City’s APS Program

The City installed its first APS device in 1957, but as of 2003 had only added about a dozen throughout the City. JSF ¶¶ 87–88. Around 2004, the DOT established an informal APS Program, pursuant to which it installed APS upon request, but only near organizations or programs that served large numbers of blind and low-vision persons. *Id.* ¶¶ 90, 93, 111.

Each year between 2004 and 2011, the DOT received more requests for APS than it installed. *Id.* ¶ 109. It chose among these requests without any formal ranking system. *Id.*

Beginning in 2011, however, the DOT developed a Prioritization Tool for ranking these requests. *Id.* ¶ 113. The Prioritization Tool is a “worksheet completed by traffic engineers,” which evaluates the characteristics of an intersection, including its “geometry, crossing width, the presence of bike lanes or signal timing changes, traffic volume, and proximity to high- pedestrian areas,” and determines that intersection’s priority for the installation of APS. *Id.*2 Each characteristic is assigned a numeric score, with features that make a crosswalk more challenging for blind pedestrians producing a higher score. *Id.* ¶ 117. Cost is not a factor in this ranking process. *Id.* ¶ 125. Once the DOT evaluates an intersection, it generally enters its ranking into the City’s database with other ranked locations, to determine how it compares with other intersections. *Id.* ¶ 118. Because newly ranked intersections may be ranked as higher priorities than ones already on the list, a ranked intersection may remain on the ranking list for years. *Id.* ¶¶ 127–128. The DOT does not appear to maintain a policy for deciding which intersections to rank at any given time, but today it evaluates and ranks at least all intersections for which it receives a new APS request. Pl. 56.1 ¶ 65; JSF ¶ 121. As of June 2019, the DOT had ranked approximately 1,600 intersections using the Prioritization Tool. JSF ¶ 129.

2 The Prioritization Tool was adapted from a similar tool developed by the National Cooperative Highway Research Program, overseen by the National Academy of Sciences. JSF ¶ 114.

In 2012, the New York City Council passed a law requiring the City to install APS at 25 locations per year. *Id.* ¶ 95. Between 2012 and 2015, the DOT installed APS at slightly more than 25 locations each year, bringing the total number of intersections with APS to 131 by November 1, 2015. *Id.* ¶¶ 97–100.

In 2014, the New York City Council passed a new law requiring the City to install APS at 75 intersections annually, effective January 1, 2016. *Id.* ¶ 101. Between 2016 and 2018, the DOT installed APS at slightly more than 75 intersections each year, raising the total number of the City’s intersections with APS to 371 by 2019. *Id.* ¶¶ 102–104.

Since 2019, the DOT has received appropriations to install more APS than are required under City law, with funding to install APS at 150 intersections per year in 2019–2020, 235 per year in 2020–2021, and 305 per year in 2021–2024. *Id.* ¶¶ 106–107. As of September 10, 2019, 443 intersections within New York City were equipped with APS. *Id.* ¶ 108.

Further, in November 2019, after plaintiffs had moved for summary judgment in this lawsuit, the New York City Council passed, and the Mayor signed, a law—the “Safe Streets Legislation”—mandating “master plans” for city streets, sidewalks, and pedestrian spaces. *See*

N.Y.C. Admin. Code § 19-199.1; Koplik Decl., Ex. B. That law requires the DOT to issue a five-year master plan every five years, beginning December 1, 2021, and by December 1 of every fifth year thereafter. N.Y.C. Admin. Code § 19-199.1(b)(2), (c). It further sets certain benchmarks that each master plan must include. *Id.* § 19-199.1(c)(2). For both the 2021

and 2026 master plans, the law requires the DOT to set, as a benchmark, the installation of APS at no fewer than 2,500 intersections within the next five years, with installation of such signals at no fewer than 500 intersections during each year of the plan. *Id.* § 19-199.1(c)(2)(vi), (3)(iii).

Thus, in sum, the 2019 Safe Streets Legislation requires the installation of APS at 5,000

intersections by 2031. The legislation does not, however, appear to allocate funding or resources to meet these goals. *See* Def. Mem. at 12 n.5.

On October 21, 2019—the day plaintiffs moved for partial summary judgment—the DOT also issued a memorandum entitled “Accessible Pedestrian Signals Policy.” Koplik Decl., Ex. A (“2019 APS Memo”). That memorandum purports to “clarify” the City’s existing policy regarding the installation of APS. *Id.* at 1. First, it states that “[e]ach newly approved signal will be designed and constructed with APS.” *Id.*3 Second, it provides that APS will be installed whenever either a Capital Street Project or Street Improvement Project [(“SIP”)4](#_bookmark0) involves the relocation or reconstruction of any traffic signal pole foundation. *Id.* at 2.

# Installing APS

Even at intersections that already have pedestrian control signals, the process of installing APS is more burdensome than merely affixing a pushbutton unit to the signal. Because most intersections do not have extant signals at all the locations necessary to effectively install APS, “[t]he vast majority of locations require at least one or two new poles per corner.” Celentano Decl. ¶ 6(f). Installing such poles requires the excavation of part of the sidewalk, cutting into the roadway to install conduits and signal cables, and the installation of new foundation poles, as well as restoration of the roadway, sidewalk, and roadway markings. *Id.* ¶ 6(e)–(k). As a result, according to the DOT’s 30(b)(6) witness, the average cost per intersection to install APS

3 As discussed below, that policy reverses the City’s historic practice, which was generally not to do so. Between 1990 and 2014, no new traffic-signal installations included APS. JSF ¶ 133.

Beginning in 2014, the DOT began *ranking* new traffic signals for the addition of APS, but continued to install new signals at a faster rate than it was adding APS. *Compare id.* ¶ 135 (between 100 and 120 new traffic signals each year), *with id.* ¶¶ 95–104 (between 26 and 83 new intersections equipped with APS each year since 2014).

4 These terms are defined and discussed more fully below.

averaged approximately $60,930 in 2018. Benson Decl. ¶ 17. For the 85 intersections that were equipped with APS in 2018, the total cost was $5.18 million. *Id.*

# Upgrades to Pedestrian Signals Other than APS

Over the years, the City has improved and modified various aspects of its streets, pedestrian signals, and crosswalks, while not simultaneously installing APS. As discussed more fully below, plaintiffs allege that making such improvements without also including APS violates the ADA and Rehabilitation Act. The Court briefly describes each type of modification.

* + - 1. *New Signal Installations*

In a typical year, the City installs between 100 and 120 traffic signals. JSF ¶ 135.

Between 1990 and 2014, none of these installations included APS. *Id.* ¶ 133. Between 2014 and 2019, the City ranked new traffic signals using the Prioritization Tool, but did not consistently include APS with newly constructed signals. *Id.* ¶ 132. As of July 2019, DOT purports to have adopted a policy requiring the installation of APS whenever a new traffic signal is installed. *See* 2019 APS Memo at 1.

* + - 1. *Capital Street Projects and SIPs*

Capital Street Projects, or “Capital Projects,” are major reconstruction projects, which can range from repaving to full reconstruction of a roadbed, sidewalks, and utilities, among other eclectic projects. JSF ¶ 178. They are planned, funded, and initiated by the DOT, but actually constructed by the Department of Design and Construction (“DDC”) on the DOT’s behalf. *Id.* ¶ 179.

A SIP is generally of a similar scale—and can include redesigning or reconfiguring intersection geometry, adding or removing lanes of traffic, adding or removing traffic and pedestrian control signals, and adding or removing bike lanes or crosswalks. *Id.* ¶ 171. They may also include “some level of signal work.” *Id.* ¶ 174. SIPs are carried out within the DOT, without the involvement of the DDC, *id.* ¶ 171, and, unlike Capital Projects, do not involve the

full reconstruction of a roadbed or the utility lines underneath, *see* Benson Decl. ¶ 13. Even though “a good majority” of all SIPs involve “some level of signal work,” Atkinson Decl., Ex. 3 (“Celentano Tr.”) at 48, only 14 of the 778 SIPs completed between 2009 and 2019 included the installation of APS at the intersection(s) affected, JSF ¶ 173.

In the 2019 APS Memo, the DOT purports to have clarified its policy that it will install APS whenever a Capital Project or SIP involves the relocation or reconstruction of any traffic signal pole foundation. *See* 2019 APS Memo at 2.

* + - 1. *Signal Lens Replacements*

Before 2000, New York City’s pedestrian crossing signals displayed textual messages reading “walk” and “don’t walk” to indicate whether pedestrians should or should not cross the street. JSF ¶ 137. Between 2000 and 2004, the DOT replaced the displays in every pedestrian signal in the City to instead show a mid-stride white stick figure, signaling “walk,” and an upraised orange hand, signaling “don’t walk.” *Id.* ¶¶ 137, 139. According to the DOT’s 30(b)(6) witness, the City undertook that project to improve the “clarity of communication” to pedestrians, especially for those who do not speak English, but did not also install APS at the same time. Pl. 56.1 ¶ 70; Atkinson Decl., Ex. 2 (“Benson Tr.”) at 63. The DOT has conceded that the clarity provided by such a display “is not available to pedestrians who cannot see the display.” Def. 56.1 ¶ 71; Benson Tr. at 64. Unlike APS installation, the replacement of a signal lens requires only the removal of one lens and the attachment of a new one. It does not involve any construction with regard to the sidewalk, roadway, or any electrical cables or conduits.

Celentano Decl. ¶¶ 21–22.

Similarly, between 2012 and 2014, the DOT replaced over half of the City’s pedestrian signal displays to include a “countdown clock” indicating how much time a pedestrian has to finish crossing the street. JSF ¶ 141. As with the signal lenses discussed above, the City did not

concurrently add APS. *Id.* ¶ 142. The benefit of a flashing visual countdown clock is not available to blind pedestrians. *Id.* ¶ 143. The installation of countdown clocks also involves only removing one lens from the crossing signal and attaching a new one. It does not involve any other physical alterations to the traffic signal or excavation of any roadway or sidewalk. Celentano Decl. ¶¶ 17–18.

* + - 1. *Leading Pedestrian Intervals and Exclusive Pedestrian Phases*

The City has also implemented two forms of timing changes at certain intersections, which give pedestrians additional time to cross the street without any vehicles entering the intersection.

First, a Leading Pedestrian Interval (“LPI”) is a “signal timing treatment” that gives pedestrians an advanced “walk” sign for about seven to 10 seconds before the parallel vehicular traffic signal turns green. JSF ¶ 145. This allows pedestrians to enter a crosswalk before turning vehicles have an opportunity to do so. It thereby “makes pedestrians more visible to drivers and discourages motorists from aggressively turning before pedestrians begin crossing.” Benson Decl. ¶ 22. The DOT’s 30(b)(6) witness avers that the safety benefits of LPIs inure to sighted and blind pedestrians alike because an LPI is a “training tool” that reminds motorists to “exercise greater caution when driving around pedestrians.” *Id.* However, he also testified at his deposition that LPIs “can make an intersection more challenging for a blind or low vision pedestrian[]” because, during an LPI, “the lack of sound of parallel traffic movement is, you know, mysterious and confusing to someone who is not able to see.” JSF ¶ 147; *see also id.*

¶ 149 (DOT received complaints that LPIs are “unsafe for the visually impaired”). By

August 2019, the City had implemented LPIs at 3,951 intersections, only 113 of which also have APS. *Id.* ¶¶ 158–159. The presence of an LPI increases an intersection’s ranking—*i.e.*, its priority for being upgraded with APS—under the DOT’s Prioritization Tool. *Id.* ¶ 162.

Second, an Exclusive Pedestrian Phase (“EPP”), or “Barnes Dance,” is a timing treatment in which pedestrians at all corners of an intersection have an exclusive interval during which to cross using any of the crosswalks within an intersection. *Id.* ¶ 163. In other words, all vehicular traffic has a red light, and all pedestrians at the intersection have a “walk” sign. Similar to LPIs, EPPs can cause confusion and disorientation to blind and low-vision pedestrians who, without APS, generally rely on the sound of parallel traffic to determine when it is safe to cross. *Id.*

¶ 164 (Benson: “My understanding of it is that a lot of people with vision impairments have either learned on their own or received training to use the sound of traffic movements to help navigate. So in the absence of those sounds, it becomes disorienting.”). As of June 2019, 98 intersections in New York City have EPPs, none of which also are equipped with APS. *Id.*

¶¶ 168–169. As with LPIs, the presence of an EPP increases an intersection’s ranking under the DOT’s Prioritization Tool. *Id.* ¶ 170.

“No physical alterations” are performed when implementing an LPI or EPP at a given intersection. Celentano Decl. ¶¶ 9, 14. Rather, each requires only that a new “phasing document” be uploaded to the intersection’s traffic controller via a flash drive with the new timing information. *Id.* ¶¶ 8, 13.

# Regulatory Guidance on the Installation of APS

The U.S. Department of Justice (“DOJ”) is responsible for promulgating regulations under the ADA. *See* 42 U.S.C. § 12134(a). However, Congress has also tasked a separate federal agency, the Architectural and Transportation Barriers Compliance Board (“Access Board”) with issuing “minimum guidelines” under the ADA, *id.* § 12204(a), with which the DOJ’s regulations “shall be consistent,” *id.* § 12134(c). These guidelines “do not have any binding effect on their own, but instead help shape the Attorney General’s regulations, which

must be ‘consistent’ with the Board’s guidelines.” *Paralyzed Veterans of Am. v. Ellerbe Becket Architects & Eng’rs, P.C.*, 950 F. Supp. 389, 390 (D.D.C. 1996).

In 1999, the Access Board began the rulemaking process for guidelines related to pedestrian facilities in “public rights-of-way,” and in 2002 and 2005 released proposed drafts of such guidelines. *See* Accessibility Guidelines for Pedestrian Facilities in the Public Right-of- Way, 76 Fed. Reg. 44664, 44667 (July 26, 2011) (notice of proposed rulemaking summarizing past draft guidelines and regulatory history).

On July 26, 2011, the Access Board published in the Federal Register a notice of proposed rulemaking, proposing its Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way, or “PROWAG.” *Id.*5 However, the Access Board has not formally promulgated a final rule adopting the PROWAG. And the DOJ has never taken action conforming its regulations to the PROWAG’s recommendation. *See, e.g.*, *Sarfaty v. City of Los Angeles*, No. 17 Civ. 3594 (SVW), 2020 WL 1078804, at \*5 (C.D. Cal. Feb. 7, 2020) (“The Court

declines to consider the PROWAG standards in its analysis, because (as noted by the City), they have not yet been adopted by the DOJ, the agency responsible for implementing ADA regulations.”); *Scharff v. County. of Nassau*, No. 10 Civ. 4208 (DRH), 2014 WL 2454639, at \*12 (E.D.N.Y. June 2, 2014) (noting that Access Board has “proposed, but not yet promulgated, standards for public rights-of-way”).

The PROWAG contains some guidance on the installation of APS. Relevant here, it states at R209.1 that “[w]here pedestrian signals are provided at pedestrian street crossings, they shall include accessible pedestrian signals and pedestrian pushbuttons.” 76 Fed. Reg. at 44690.

5 Although the Access Board’s guidelines do not use this language, the acronym PROWAG stands for “Proposed Right-of-Way Access Guidelines,” and reflects common usage. *See, e.g.*, Def. 56.1 ¶¶ 22–23.

That specification appears to relate only to newly installed pedestrian signals, because R209.2 further states that “[e]xisting pedestrian signals shall comply with R209.1 when the signal controller and software are altered, or the signal head is replaced.” *Id.*

# Procedural History

On June 27, 2018, plaintiffs filed their Complaint commencing this action. Dkt. 1 (“Compl.”). On September 12, 2018, the City answered. Dkt. 21 (“Answer”).

On July 12, 2019, after the close of fact discovery, plaintiffs filed a motion for class certification. *See* Dkts. 65-1, 71. On July 22, 2019, upon the stipulation of the parties, the Court certified a class comprising “all blind or low vision New York City pedestrians with disabilities as defined by the Americans with Disabilities Act, Section 504 of the Rehabilitation Act, and the New York City Human Rights Law, and who use signalized pedestrian street intersections in New York City.” Dkt. 81 at 2. Also on July 22, 2019, the Court held a pre-motion conference at which the parties discussed plaintiffs’ contemplated motion for partial summary judgment, limited to issues of liability.

On September 20, 2019, the parties filed a joint stipulation of undisputed facts. *See* JSF. On October 21, 2019, plaintiffs filed a motion for partial summary judgment, Dkt. 92; a Local Rule 56.1 Statement, *see* Pl. 56.1; a memorandum of law in support of their motion, Dkt. 94 (“Pl. Mem.”); and the declarations of Lori Scharff, Christina Curry, Michael Golfo, and Torie Atkinson, Esq. in support, *see* Dkts. 95–98. On November 18, 2019, the City sought leave to file a cross-motion for summary judgment, which the Court denied as out of time and inconsistent with the briefing schedule set at the July 22, 2019 pre-motion conference, at which the City had not indicated an interest in so moving. *See* Dkts. 100–01. On December 5, 2019, the City opposed plaintiffs’ motion for partial summary judgment, *see* Dkt. 106 (“Def. Mem.”), and submitted a counter-statement to plaintiffs’ Local Rule 56.1 Statement, *see* Def. 56.1, and the

declarations of Pamela A. Koplik, Esq., James Celentano, and Joshua Benson, *see* Dkts. 102–04, the latter two of which were corrected several days later, *see* Dkts. 107–08. On December 18, 2019, plaintiffs filed a reply in further support of their motion. *See* Dkt. 111 (“Pl. Reply”).

On January 16, 2020, plaintiffs notified the Court of an error in their memorandum of law in support of their motion, and of additional case authority they believed relevant. Dkt. 112.

The next day, the City responded, arguing that the authority cited was irrelevant. Dkt. 113. On May 29, 2020, plaintiffs again wrote to alert the Court to additional case authority. Dkt. 117.

On June 3, 2020, defendants responded, arguing that the authority cited was irrelevant. Dkt. 118. On October 2, 2020, the Court held argument. Following argument, the Court requested,

and the parties submitted, limited supplemental briefing on the issue of whether any applicable limitations period barred plaintiffs’ claims based on new construction or alterations the City had made at certain intersections, and whether the City had waived the right to defend against such claims on the basis of the applicable statutes of limitations. Dkts. 122–23, 125.

# Legal Standards Governing Motions for Summary Judgment

To prevail on a motion for summary judgment, the movant must “show[] that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law.” Fed. R. Civ. P. 56(a); *see Celotex Corp. v. Catrett*, 477 U.S. 317, 322–23 (1986). The movant bears the burden of demonstrating the absence of a question of material fact. In making this determination, the Court must view all facts “in the light most favorable” to the non-moving party. *Holcomb v. Iona Coll.*, 521 F.3d 130, 132 (2d Cir. 2008).

If the movant meets its burden, “the nonmoving party must come forward with admissible evidence sufficient to raise a genuine issue of fact for trial in order to avoid summary judgment.” *Jaramillo v. Weyerhaeuser Co.*, 536 F.3d 140, 145 (2d Cir. 2008). “[A] party may not rely on mere speculation or conjecture as to the true nature of the facts to overcome a motion

for summary judgment.” *Hicks v. Baines*, 593 F.3d 159, 166 (2d Cir. 2010) (citation omitted). Rather, to survive a summary judgment motion, the opposing party must establish a genuine issue of fact by “citing to particular parts of materials in the record.” Fed. R. Civ. P. 56(c)(1)(A); *see also Wright v. Goord*, 554 F.3d 255, 266 (2d Cir. 2009).

“Only disputes over facts that might affect the outcome of the suit under the governing law” will preclude a grant of summary judgment. *Anderson v. Liberty Lobby, Inc.*,

477 U.S. 242, 248 (1986). In determining whether there are genuine issues of material fact, a court is “required to resolve all ambiguities and draw all permissible factual inferences in favor of the party against whom summary judgment is sought.” *Johnson v. Killian*, 680 F.3d 234, 236 (2d Cir. 2012) (quoting *Terry v. Ashcroft*, 336 F.3d 128, 137 (2d Cir. 2003)). But if the material facts are not in dispute and establish that the moving party is entitled to judgment as a matter of law, summary judgment is appropriate. *Allianz Ins. Co. v. Lerner*, 416 F.3d 109, 113

(2d Cir. 2005).

# Discussion

Plaintiffs make three distinct arguments in support of their bid for entry of summary judgment in their favor as to liability. First, they argue, the paucity of APS in New York City denies those with vision impairments “meaningful access” to the City’s crosswalks and sidewalks, in violation of the ADA and Rehabilitation Act. Second, they argue, the City has violated the ADA and Rehabilitation Act each time it has upgraded crosswalks or pedestrian crossing signals, or installed new traffic signals, without also installing APS. The actions that it contends triggered a duty to add APS include the installation of new crossing signals, changes to the displays on existing crossing signals, and the alteration of the timing of crossing phases. Third, they argue, independent of the outcome under federal law, summary judgment is appropriate under the NYCHRL.

For the following reasons, the Court holds that the absence of non-visual crossing information at more than 95% of the City’s signalized intersections denies plaintiffs meaningful access to the City’s signalized intersections and the pedestrian grid, in violation of the ADA and Rehabilitation Act. The Court further holds that some, but not all, of the City’s projects with respect to traffic signals gave rise to a duty under these statutes to add APS—a duty that the City has largely breached. Finally, for substantially the same reasons, the Court holds that the City’s sparse implementation of APS has excluded plaintiffs from places of public accommodation, in violation of the NYCHRL.

# Meaningful Access to Services, Programs, or Activities Under the ADA and Rehabilitation Act

Under Title II of the ADA, “no qualified individual with a disability shall, by reason of such disability, be excluded from participation in or be denied the benefits of the services, programs, or activities of a public entity, or be subjected to discrimination by any such entity.” 42

U.S.C. § 12132. Section 504 of the Rehabilitation Act similarly provides that “[n]o otherwise qualified individual with a disability . . . shall, solely by reason of her or his disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.” 29 U.S.C. § 794(a). “As the ‘standards adopted by the two statutes are nearly identical, [courts] consider the merits of these claims together.’” *Disabled in Action v. Bd. of Elections in N.Y.*, 752 F.3d 189, 196

(2d Cir. 2014) (quoting *McElwee v. County of Orange*, 700 F.3d 635, 640 (2d Cir. 2012)).

To establish a violation of these provisions, a plaintiff must show that: (1) she is a qualified individual with a disability; (2) the defendant is “subject to one of the Acts”; and (3) the plaintiff was “denied the opportunity to participate in or benefit from the defendant’s services, programs, or activities, or was otherwise discriminated against by the defendant because of” her

disability. *Id.* at 196–97 (quoting *McElwee*, 700 F.3d at 640); *Henrietta D. v. Bloomberg*, 331 F.3d 261, 273 (2d Cir. 2003) (for purposes of Rehabilitation Act, to establish that a defendant is subject to the Act, plaintiffs must establish that the defendant is a recipient of

federal funds). A public entity, such as New York City, violates these provisions when it fails to provide “meaningful access” to the benefits of its services, programs, or activities. *Disabled in Action*, 752 F.3d at 197; *see McElwee*, 700 F.3d at 641; *Henrietta D.*, 331 F.3d at 273.

Here, the parties agree that the individual plaintiffs are “qualified individuals” and that the City, as a public entity and recipient of federal funds, is subject to both the ADA and Rehabilitation Act. *See* JSF ¶¶ 3–6. Accordingly, the dispute as to this claim turns on whether the City’s provision of crossing information exclusively in a visual format at more than 95% of the City’s signalized intersections denies plaintiffs, who are blind and otherwise visually impaired pedestrians, meaningful access to the benefits of a service, program, or activity of the City. *Disabled in Action*, 752 F.3d at 197. For the following reasons, it does. And while ADA regulations provide the City with potential defenses as to these violations, the City has not met— or even attempted to meet—its burden of showing that the installation of additional APS would constitute an undue financial or administrative burden or fundamentally alter the nature of any City service, program, or activity. Accordingly, the Court grants plaintiffs summary judgment as to liability on this claim.

# The Installation and Maintenance of the City’s Signalized Intersections and the Pedestrian Grid Is a “Service, Program, or Activity” of the City

Before determining whether plaintiffs have been deprived of meaningful access to the benefits of a service, program, or activity of the City, the Court must identify the service, program, or activity at issue. “The ADA does not explicitly define ‘services, programs, or activities.’” *Innovative Health Sys., Inc. v. City of White Plains*, 117 F.3d 37, 44 (2d Cir. 1997),

*superseded on other grounds as recognized in Zervos v. Verizon N.Y., Inc.*, 252 F.3d 163, 171 (2d Cir. 2001). The Rehabilitation Act, however, defines “program or activity” as “all of the operations” of any instrumentality of a state or local government. 29 U.S.C. § 794(b)(1)(A); *see Henrietta D.*, 331 F.3d at 272 (treating Title II and Rehabilitation Act claims “identically”). And the ADA’s legislative history confirms that its reach is similar: “Title II of the bill makes all activities of State and local governments subject to” the ADA’s prohibition on disability discrimination. H.R. Rep. No. 101-485, pt. 2, at 151 (1990), *reprinted in* 1990

U.S.C.C.A.N. 303, 434.

Consistent with this history, the Second Circuit has construed “services, programs, or activities” as a “catch-all phrase that prohibits all discrimination by a public entity, regardless of the context.” *Innovative Health*, 931 F.3d at 45. The Circuit has counseled against “hair- splitting arguments” as to what aspects of a city’s operations fall under the ADA’s broad protections. *Id.* Instead, it has instructed that any “normal function of a governmental entity” is properly treated to be a service, program, or activity under the ADA and Rehabilitation Act. *Id.* at 44 (“[B]oth the ADA and the Rehabilitation Act clearly encompass zoning decisions by the City because making such decisions is a normal function of a governmental entity.”); *see also Barden v. City of Sacramento*, 292 F.3d 1073, 1076 (9th Cir. 2002) (holding that Title II covers “anything a public entity does,” and collecting circuit cases holding similarly).

Apposite here, the two circuit courts to consider the question have held that the building, alteration, and maintenance of city sidewalks constitutes a service within the meaning of Title II. *See Frame v. City of Arlington*, 657 F.3d 215, 226 (5th Cir. 2011) (en banc) (“Building and altering city sidewalks unambiguously are ‘services’ of a public entity under any reasonable understanding of that term.”); *Barden*, 292 F.3d at 1076 (“[M]aintaining public sidewalks is a

normal function of a city and . . . therefore falls within the scope of Title II”). Even more closely on point, a district court within the Second Circuit has specifically held—in a case concerning APS—that “[t]he act of installing and maintaining pedestrian crossing signals at crosswalks is a normal function of the County, and therefore falls within the scope of Title II and the Rehabilitation Act.” *Scharff*, 2014 WL 2454639, at \*7.

Measured against these precedents, the parties’ debate as to the “service, program, or activity” at issue here is easily resolved. The City asserts that the Court must assess plaintiffs’ meaningful-access claim by inquiring whether plaintiffs have been denied meaningful access to New York City as a whole. It argues that plaintiffs, whatever the hazards and challenges they may encounter navigating pedestrian crossings, cannot make that showing. *See* Def. Mem. at 11. Plaintiffs counter that the proper point of reference is the City’s signalized street crossings, taken as a whole, on the ground that the City’s maintenance of such crossings is a cognizable service, program, or activity. *See* Pl. Mem. at 14. Plaintiffs contend that they have been denied meaningful access to these crossings, because, at the vast majority of signalized crossings, they are unable to access the visual information that the City conveys, for safety purposes, to sighted pedestrians. *Id.* at 14–16.

On this threshold methodological point, plaintiffs are, clearly, correct. The City’s maintenance of signalized intersections and the pedestrian grid plainly constitutes a service, program, or activity of a public entity. Constructing, altering, and maintaining such crossings is “a normal function or operation” of the City, *Innovative Health*, 117 F.3d at 44, every bit as much as is the construction and maintenance of city sidewalks, *Barden*, 292 F.3d at 1076. The City and the DOT “have broad authority for the City’s streets and oversee, among other things, the installation, repair, and maintenance of New York City traffic signals, sidewalks, crosswalks,

bicycle lanes, and roadways.” JSF ¶ 6. In this capacity, the City acknowledges, the DOT’s Traffic Operations Division oversees “the operation and maintenance of,” *inter alia*, “over 13,000 traffic signals in the City,” including “supervision over the installation of traffic signals.” Benson Decl. ¶ 1. The City’s day-to-day oversight of its street crossings and crossing signals leaves no room for serious argument that the installation and maintenance of pedestrian street crossings, like the installation and maintenance of sidewalks, is other than a service, program, or activity of the City. *See Scharff*, 2014 WL 2454639, at \*7. And, tellingly, the City cites—and the Court is aware of—no case authority for its improbable contrary notion that plaintiffs’ grievance may prevail only if they can show that they have been denied access to the metropolis as a whole.6

Accordingly, under the ADA and Rehabilitation Act, the City is required to ensure that it operates its signalized intersections and the pedestrian grid in a manner that, “when viewed in [their] entirety, [are] readily accessible to and usable by individuals with disabilities.” 28 C.F.R.

§ 35.150(a).

6 *Pascuiti v. New York Yankees*, 87 F. Supp. 2d 221, 223–24 (S.D.N.Y. 1999), the sole case on which the City relies for its claim that the Court must examine the accessibility to plaintiffs of New York City as a whole, rather than the accessibility of its pedestrian crossings, is inapposite. The issue there involved access to Yankee Stadium. The court held that assessing accessibility requires viewing a service, program, or activity—there, the ballpark—“as a whole, not at [its] individual elements.” 87 F. Supp. 2d at 223. This aspect of *Pascuiti* might have bearing here were plaintiffs’ claim directed to a particular intersection. But that is not plaintiffs’ focus. Instead, plaintiffs’ consistent allegation has been that the City’s pedestrian crossing signals are a “service, program, or activity” of the City, which must itself be viewed “as a whole.” *See* Pl. Mem. at 11, 14–16. *Pascuiti* is not contrary to that position. And notably, while the City does not so concede, it does admit that the “NYC DOT’s *APS Program*”—one aspect of the City’s crossing-signals operations—“constitutes a ‘service[], program[], or activit[y] of a public entity.” *See* Atkinson Decl., Ex. 20 (“Defs.’ Resp. to Pls.’ First Set of Requests for Admissions”) at 4 (emphasis added).

# The City Has Denied Blind Pedestrians Meaningful Access to its Signalized Intersections and the Pedestrian Grid

* 1. *Applicable Law*

A public entity discriminates against a qualified individual when it fails to provide “meaningful access” to the benefits of its services, programs, or activities. *Disabled in Action*, 752 F.3d at 197. Meaningful access does not mean equal access or equal results, *see Henrietta D.*, 331 F.3d at 277, but it may arise from a public entity’s “failure to modify existing facilities and practices,” *Disabled in Action*, 752 F.3d at 197. Indeed, the elimination of barriers to access was “one of the central aims of” both the Rehabilitation Act, *Alexander v. Choate*, 469 U.S. 287, 297 (1985), and the ADA, *see Tennessee v. Lane*, 541 U.S. 509, 531 (2004). As the Supreme Court has written of the ADA: “Recognizing that failure to accommodate persons with disabilities will often have the same practical effect as outright exclusion, Congress required the States to take reasonable measures to remove architectural and other barriers to accessibility.” *Id.*

The DOJ has promulgated regulations implementing these dictates. These prohibit public entities from leaving public services “inaccessible to or unusable by individuals with disabilities.” 28 C.F.R. § 35.149. They state that public entities “shall operate each service, program, or activity, so that the service, program, or activity, when viewed in its entirety, is readily accessible to and usable by individuals with disabilities.” *Id.* § 35.150(a); *see also id.*

§ 42.521(a) (similar for Rehabilitation Act). Relevant here, given plaintiffs’ claim that the City provides safety communications at signalized intersections to sighted pedestrians that are denied to the blind, the regulations also provide that “[a] public entity shall take appropriate steps to ensure that communications with . . . members of the public . . . with disabilities are as effective as communications with others,” and “shall furnish appropriate auxiliary aids and services where

necessary to afford individuals with disabilities . . . an equal opportunity to participate in, and enjoy the benefits of, a service, program, or activity of a public entity.” *Id.* § 35.160(a)(1), (b)(1).

To bring an entity into compliance with the ADA and Rehabilitation Act, “reasonable accommodations . . . may have to be made.” *Disabled in Action*, 752 F.3d at 197 (quoting *Henrietta D.*, 331 F.3d at 273). As the Second Circuit has put the point: “It is not enough to open the door for [those with disabilities]; a ramp must be built so the door can be reached.” *Dopico v. Goldschmidt*, 687 F.2d 644, 652 (2d Cir. 1982) (citation omitted). The public entity need not “employ any and all means” of making the denied service available; instead, the ADA and Rehabilitation Act require that the entity make “reasonable modifications.” *Lane*, 541 U.S. at 531–32; *see Wright v. Giuliani*, 230 F.3d 543, 548 (2d Cir. 2000). The accommodations need not (1) “fundamentally alter the nature of the service provided,” or (2) “impose an undue financial or administrative burden.” *Id.* (quoting 28 C.F.R. § 35.150(a)(3)).

However, the assertion of either of these circumstances is an affirmative defense on which the public entity defendant carries the ultimate burden. *See* 28 C.F.R. § 35.150(a)(3) (“[A] public entity has the burden of proving that compliance with § 35.150(a) would result in such alteration or burdens.”). And regulations promulgated under the ADA impose specific requirements on a public entity that seeks to invoke these defenses, and oblige an entity that successfully defends on these grounds still to take lesser corrective measures:

The decision that compliance would result in such alteration or burdens must be made by the head of a public entity or his or her designee after considering all resources available for use in the funding and operation of the service, program, or activity, and must be accompanied by a written statement of the reasons for reaching that conclusion. If an action would result in such an alteration or such burdens, a public entity shall take any other action that would not result in such an alteration or such burdens but would nevertheless ensure that individuals with disabilities receive the benefits or services provided by the public entity.

28 C.F.R. § 35.150(a)(3).

* 1. *Application*
     1. Plaintiffs Lack Meaningful Access to the City’s Signalized Crossings and the Pedestrian Grid

Plaintiffs have established that the City has deprived the class certified in this action of meaningful access to its signalized crossings and the pedestrian grid, in violation of the ADA and Rehabilitation Act. Plaintiffs are thus entitled to summary judgment as to liability on this claim.

It is undisputed that, as of the time the parties briefed the motion for summary judgment, the City had installed APS at only 443 out of its roughly 13,200 signalized intersections. JSF

¶¶ 11, 19. That amounts to 3.4% of the City’s intersections with visually accessible crossing information.7 It is also undisputed that blind pedestrians cannot access “crossing information from a pedestrian control signal unless it has been equipped with APS.” *Id.* ¶ 138. It follows that, at more than 95% of the City’s signalized intersections, the blind and visually impaired are unable to use the visual crossing signals that guide sighted pedestrians safely through those crossings. This high incidence of inaccessibility exceeds or matches those in other cases finding that other services in this City had been denied to classes of disabled persons. *See, e.g.*, *Disabled in Action v. City of New York*, 437 F. Supp. 3d 298, 308 (S.D.N.Y. 2020) (finding denial of meaningful access to police stations where “at least a third of stations, and likely more, have pervasive barriers to access.”); *United Spinal Ass’n v. Bd. of Elections in City of N.Y.*, 882 F. Supp. 2d 615, 624 (S.D.N.Y. 2012) (granting summary judgment where “pervasive and recurring barriers to accessibility” denied meaningful access to polling places), *aff’d sub nom. Disabled in*

7 At argument on October 2, 2020, counsel for the City represented that, since the close of the summary judgment record, the City has installed APS at additional intersections, bringing the total number of intersections equipped with APS to 700, or roughly 5% of all signalized intersections. Transcript of October 2, 2020 Oral Argument (“Arg. Tr.”) at 39. However, even treating this factual representation as correct and cognizable on this motion, the difference between 3.4% and 5% APS installations at signalized intersection would not affect the proceeding analysis or outcome.

*Action*, 752 F.3d at 199 (emphasizing barriers to access at “more than 80% of poll sites”); *see also Henrietta D.*, 331 F.3d at 268 (affirming district court’s finding of no meaningful access on the basis that, *inter alia*, 77% of cases analyzed showed City failing to timely provide disabled individuals services to which they were entitled under law); *Noel v. N.Y.C. Taxi & Limousine Comm’n*, 837 F. Supp. 2d 268, 278 (S.D.N.Y. 2011) (finding lack of meaningful access where “less than 2% of the city’s [taxi] fleet” was wheelchair accessible), *rev’d on other grounds*,

687 F.3d 63 (2d Cir. 2012).8

The City does not seriously dispute that this paucity of accessible crossing information deprives blind and vision-impaired persons of access to the benefits—the ability to safely traverse intersections—that the City’s maintenance and oversight of signalized pedestrian crossings presently affords to sighted pedestrians. Nor could it. New York City is the highest- density major city in the United States. JSF ¶ 9. “[A]ccess to [its] sidewalks is an important component” of urban life here. *Id.* But as the summary judgment record reflects, the City’s density also makes those walkways, and particularly the streets and avenues that separate them, unusually challenging for the blind and visually impaired to navigate. *See* Atkinson Decl., Ex. 4 (“Barlow Report”) at 16. Among these unique or heightened challenges are that New York City is one of the loudest cities in the country, limiting the availability of audible cues on which blind pedestrians can otherwise rely, and that the City has implemented various traffic design choices that “render unreliable the traditional street-crossing techniques used by blind pedestrians.” *Id.*; *see also* JSF ¶¶ 146–148, 164–166. Accordingly, absent non-visual crossing information such as

8 These cases further reinforce that the proper inquiry under the ADA and Rehabilitation Act is whether the blind have been denied meaningful access to a specific service of the City—not, as the City contends, to the City as whole. *See Brooklyn Ctr. for Indep. of Disabled v. Bloomberg*, 980 F. Supp. 2d 588, 646–52 (S.D.N.Y. 2013) (finding that disabled individuals were denied meaningful access to the City’s emergency-shelter service).

that provided by APS, navigating the City’s streets is “very difficult” for blind and low-vision New Yorkers. Barlow Report at 16. Such persons often have difficulty locating crosswalks, Pl. 56.1 ¶ 9, deciding when it is safe to cross the street, *id.* ¶¶ 13–14, and successfully crossing streets without veering into traffic, *id.* ¶¶ 11–12.

The evidence adduced in the summary judgment record documents the toll that these challenges work on those unable to see. Plaintiffs attest to the harrowing, dangerous, and life- threatening experiences that blind and low-vision pedestrians frequently experience. The parties have stipulated that, absent auxiliary aids, a blind New Yorker seeking to avail herself of the City’s street crossings must risk being hit by cars and bicycles and becoming stranded in the middle of intersections. *See, e.g.*, JSF ¶¶ 25, 58, 74; *id.* at 73 (describing plaintiff Golfo’s experience realizing, after reaching the middle of the street, that traffic was rushing past him, leading him to “run across the intersection with his guide dog,” merely “hop[ing] that they were not killed”); Curry Decl. ¶ 12 (“Without fail, at least once a day, I almost get hit by a

vehicle . . . .”). Often, too, blind pedestrians are grabbed by well-meaning pedestrians attempting to help. JSF ¶¶ 59, 77. Notwithstanding the good intentions of such Samaritans, plaintiffs describe these and other experiences as “disorienting,” “frightening,” “frustrating,” “stressful,” and “often humiliating.” Golfo Decl. ¶¶ 3, 9; Curry Decl. ¶¶ 10, 16.

These hazards have led plaintiffs, and presumably the class of individuals who all agree they adequately represent, to adopt inconvenient and sometimes costly workarounds. Plaintiff Golfo, for instance, relies on his guide dog, without which he states he would be incapable of traversing New York City’s streets. Golfo Decl. ¶ 4. Plaintiffs further aver that they may wait up to 20 minutes at an intersection for a sighted individual to appear, to help them safely cross the street or merely for an indication that the crossing signal has changed to “walk.” JSF

¶¶ 55, 75. Sometimes, however, the assumption that sighted pedestrians were crossing safely proves wrong. Plaintiffs recount instances in which they learned only once they had been stranded in the middle of an intersection that the sighted pedestrian whom they followed was jaywalking, thereby placing them in danger. *Id.* ¶¶ 56, 76. Plaintiffs also attest to often using taxi or car services “to avoid unknown or unsafe pedestrian street crossings,” even though these modes are more expensive than travel by foot. *Id.* ¶¶ 60, 79. In other instances, plaintiffs attest, they take longer, more arduous routes on foot, including going blocks out of their way or walking through subterranean subway passages. *Id.* ¶¶ 57, 61. Finally, plaintiffs attest, the inaccessibility of the City’s pedestrian street crossings, and/or concern about the dangers presented by foot travel, have led some to forgo entirely certain venues or aspects of City life.

*See, e.g.*, Golfo Decl. ¶ 8.

To be sure, plaintiffs cannot claim total exclusion from the City’s crossings and streets. As reflected above, many have found workarounds and alternate means of traversing the City’s pedestrian crossings; others have summoned the fortitude to cross busy intersections in spite of the risks presented; and a small fraction of intersections are equipped with APS. But complete exclusion is not the test of liability under the ADA and Rehabilitation Act. *See Disabled in Action*, 752 F.3d at 198 (“Plaintiffs need not, however, prove that they have been . . . ‘completely prevented from enjoying a service, program, or activity’ to establish discrimination under Section 504 or Title II.” (quoting *Shotz v. Cates*, 256 F.3d 1077, 1080 (11th Cir. 2001))). And as the case law reflects, conditioning access upon arduous or costly “coping mechanisms” and on the assistance of strangers is “anathema to the stated purpose of the Rehabilitation Act” and the ADA. *Am. Council of the Blind v. Paulson*, 525 F.3d 1256, 1269 (D.C. Cir. 2008) (rejecting, in case brought by blind plaintiffs, argument that plaintiffs had meaningful access to U.S. currency

based on aid from others, as akin to the discredited argument that “merely because the mobility impaired may be able either to rely on the assistance of strangers or to crawl on all fours in navigating architectural obstacles, they are not denied meaningful access to public buildings” (citation omitted)); *see also Disabled in Action*, 752 F.3d at 200 (“[T]he purpose of the Rehabilitation Act is ‘to empower individuals with disabilities to maximize employment, economic self-sufficiency, *independence*, and inclusion and integration into society.’” (quoting 29 U.S.C. § 701(b)(1) (emphasis in *Disabled in Action*))); *id.* (access to public services “should not be contingent on the happenstance that others are available to help”). In all events, at 19 out of every 20 signalized intersections, the visual assistance the City provides to sighted pedestrians is entirely unavailable to those who cannot see.

These undisputed facts make it unavoidably clear that the lack of non-visual crossing assistance at more than 95% of the intersections which New York City has outfitted with visual crossing assistance poses a major obstacle to the “smooth integration” of blind individuals into the “commerce of daily life.” *Kinney v. Yerusalim*, 9 F.3d 1067, 1069 (3d Cir. 1993). The City’s widespread failure to provide crossing information in any non-visual format effectively denies blind persons the ready and safe use of signalized intersections, which are a vital means of traversing the City. Because APS and their equivalents are overwhelmingly absent, for the blind the process of accessing places and events that require crossing busy intersections—quotidian parts of New York City life for those who can see—too often entails frustrating, dangerous, and humiliating ordeals, and deters many from venturing forth at all. In the parlance of the federal statutes at issue, the City has failed to provide the plaintiff class here with meaningful access to its signalized intersections and the pedestrian grid, within the meaning of the ADA and Rehabilitation Act.

In response to plaintiffs’ essentially uncontroverted factual showing as to liability, the City makes only minimal and anemic arguments. Tellingly, the City does not anywhere, in its brief or at argument, contend that the provision of APS at 3.4% of its signalized intersections affords the blind meaningful access to the pedestrian grid.9

Instead, the City touts its “steadily increasing commitment to installing APS in and around the City,” to wit, the recently enacted Safe Streets Legislation. This commitment, the City contends, meets its obligations under the ADA and Rehabilitation Act. *See* Def. Mem. at 11–12; Arg. Tr. at 40. The City, however, admits that “[i]t is not yet known” how or when

DOT will meet the benchmarks set out in this as-yet unfunded enactment. Def. Mem. at 12 n.5. Its commitment to rectifying the present lack of access is merely precatory.

In any event, even if the City had adopted a concrete and funded plan to install APS so as to meet the benchmarks set forth in the Safe Streets Legislation, that enactment, which the City only adopted after discovery was closed and plaintiffs here moved for summary judgment, would not affect the liability question on this motion: whether the City currently affords plaintiffs meaningful access to the City’s services. “Although [a] plan is a start, it is not evidence that creates a dispute of material fact regarding current accessibility of the programs and services” offered by the City. *Disabled in Action*, 437 F. Supp. 3d at 311.

And on the question whether the City *presently* affords the blind meaningful access to its signalized intersections, the City, revealingly, all but admitted at argument that the answer is

9 At argument, the Court posed a hypothetical in which, of the side streets crossing Broadway from West 10th Street up to West 90th Street, all crossings were equipped with crossing signals, but only one out of every 20 was outfitted with APS. *See* Argument Tr. at 39–40. City counsel did not contend that this circumstance—in which a blind pedestrian seeking to cross Broadway would either have to do so unaided or to venture potentially many blocks north or south to find a crossing with APS—was consistent with the principle of meaningful access. *See id.* at 40 (noting instead the “steadily increasing commitment to install APS in and around the City”).

“no.” *See, e.g.*, Arg. Tr. at 43–44 (The Court: “Three times I’ve asked you [whether the City has achieved meaningful access]. Each time I’ve gotten a non-answer. If I get a non-answer again, I’m going to take it as the City conceding that there is, as of the status quo, the snapshot of today, a lack of meaningful access. Last chance to answer that question.” The City: “I don’t know that there is a cohesive answer. The current state of affairs I do not believe rises to that, but there,

there may be people that disagree with me.”); *id.* at 44 (The Court: Is the City “admitting that there is a lack of meaningful access in some parts of the City?” The City: “That, that is probably accurate, yes.”).

The City’s only other argument against liability is to note that the meaningful-access inquiry is not to be made crossing by crossing—*i.e.*, whether “each individual intersection is equipped with APS”—but at the level of the overall service or program at issue. *See* Def. Mem. at 11–12. On that point, the City is, largely, correct. The DOJ’s implementing regulations provide that the ADA does not “[n]ecessarily require a public entity to make each of its existing facilities accessible to and usable by individuals with disabilities.” 28 C.F.R. § 35.150(a)(1).

And neither the ADA nor the Rehabilitation Act “require[s] perfection.” *United Spinal Ass’n*, 882 F. Supp. 2d at 624. But this argument avails the City only insofar as it rebuts a claim that plaintiffs have made and preserved, but do not seriously pursue: that the City could be held liable for a deprivation of meaningful access with respect to every single signalized crossing that lacks APS. It does not, however, contend with plaintiffs’ more fundamental claim, reviewed at length above: that, viewing signalized crossings *as a whole*, the scarcity of APS in New York City deprives the blind of meaningful access to the City’s signalized intersections and pedestrian grid.

Moreover, contrary to the City’s suggestion, the inquiry into the accessibility of a service of a public entity as a whole necessarily considers individual instances in which that service is

inaccessible. Even *Pascuiti*, on which the City principally relies, recognized: “While proving that particular barriers exist might not be sufficient to establish Title II liability, each barrier is a building block for a finding that the [service, program, or activity], viewed in its entirety, is not readily accessible.” 87 F. Supp. 2d at 224; *see also id.* (“[A]n important part of the program access requirement for the [service, program, or activity] is whether all services available for the use of non-disabled patrons also are available for [the] use of disabled patrons.”).

In sum, the City’s observation that the ADA and Rehabilitation Act may not require the installation of APS at each of its 13,200 signalized intersections does nothing to defend the status quo. Whatever the point would be at which the number (and dispersal) of APS at such crossings would afford blind and visually impaired persons meaningful access to the pedestrian grid within the meaning of these statutes, that standard is clearly not met today, with more than 95% of such crossings containing signals accessible only to sighted persons.

At the liability stage, the Court does not have occasion—and the nature of the summary judgment record would not enable it—to resolve the number and placement of additional APS that would bring the City into compliance with its statutory duty to provide meaningful access to blind pedestrians. Plaintiffs’ partial summary judgment motion on liability alone does not present that question, which the Court will take up at the ensuing remedy stage. *See Disabled in Action*, 437 F. Supp. 3d at 311–12 (reserving questions of compliance and cost for remedial stage); *Brooklyn Ctr. for Indep.*, 980 F. Supp. 2d at 658 (“Because, however, the trial was limited to the question of liability, the Court need not, and does not, address the reasonableness of any specific proposed modification at this time. Instead, at the remedy stage that will follow this Opinion, Plaintiffs will be given an opportunity to offer proposed accommodations, and Defendants will be given the opportunity to demonstrate that any such accommodations are

unreasonable or fundamentally alter the nature of the City’s emergency preparedness program.”); *United Spinal Ass’n*, 882 F. Supp. 2d at 627 (ruling only as to liability and reserving questions over scope, cost, and details of relief for remedial stage). If the parties are unable promptly to resolve this matter, the Court will set an expeditious schedule for any supplemental discovery, and briefing, on the question of [remedy.10](https://remedy.10/)

* + 1. The City Has Failed to Show an Undue Financial or Administrative Burden

In its memorandum opposing summary judgment, the City, while all but conceding that it has failed to furnish plaintiffs with meaningful access to signalized intersections, noted that the ADA permits an affirmative defense that providing such access would impose an undue financial or administrative burden on a public-entity defendant. *See* Def. Mem. at 12. The ADA allows such a defendant to forgo providing meaningful access to a service or program where “it can demonstrate [that doing so] would result in a fundamental alteration in the nature of a service, program, or activity or in undue financial and administrative burdens.” 28 C.F.R. § 35.150(a)(3).

Critically, however, the burden of establishing this defense falls on the public entity. It has “the burden of proving that compliance with § 35.150(a) of this part would result in such alteration or burdens.” *Id.* Further, for a public entity to do so, the determination that furnishing

10 At argument, plaintiffs properly acknowledged that at the remedy stage, the City—despite having forgone at the liability stage a defense that compliance with the ADA would cause it undue financial and administrative burdens, *see* discussion *infra* at pp. 34–40—may submit evidence as to these factors. *See* Arg. Tr. at 20 (“[I]t’s obviously relevant, when crafting a remedy, what resources are actually available and what makes sense.”); *see also Disabled in Action*, 437 F. Supp. 3d at 311–12 (considering burden on public entity at remedial stage);

*Brooklyn Ctr. for Indep.*, 980 F. Supp. 2d at 658 (same); *United Spinal Ass’n*, 882 F. Supp. 2d

at 627 (ruling only as to liability and reserving questions over scope, cost, and details of relief for remedial stage), *aff’d*, 752 F.3d at 203 (at remedial stage, approving balance struck in injunction between the City’s “obligations to modify facilities, policies, and procedures with its practical resource constraints”); *Am. Council of the Blind v. Mnuchin*, 878 F.3d 360, 367 (D.C. Cir. 2017) (holding that “financial burden is a relevant factor” in considering modifications to injunction).

meaningful access to the service or program in question would impose an undue financial or administrative burden must (1) “be made by the head of a public entity or his or her designee”;

1. “after considering all resources available for use” in administering the relevant service, program, or activity; and (3) be accompanied by a “written statement of the reasons for reaching that conclusion.” *Id.* And even where an officer of the public entity reaches that conclusion, such is not a complete defense. The entity must still “take any other action” to provide disabled individuals the benefit of the relevant service, program, or activity up to the point at which such action becomes an undue burden or fundamentally alters the nature of the service at issue. *Id.*

The City, despite a host of opportunities to pursue a defense along these lines, abandoned its opportunity to do so. The City did articulate this defense in its Answer. *See* Answer ¶ 135.

And, at argument, defense counsel represented that whether to pursue such a defense had been discussed in a complex, multi-agency process involving the Office of Management and Budget and the Mayor’s Office. Arg. Tr. at 50–51.

Nonetheless, for reasons unexplained, the City elected not to pursue this defense. It did not meet any of the requirements that § 35.150(a) imposes for such a defense. It did not obtain a decision from the head of the entity that furnishing meaningful access would impose an undue administrative or financial burden. It did not come forward with a “written statement of the reasons for reaching that conclusion.” It did not address this defense in its pre-motion letter, submitted in response to plaintiffs’ letter announcing their anticipated summary judgment motion. *See* Dkt. 78. And at the ensuing pre-motion conference, after plaintiffs’ counsel noted that the City had not created or submitted an analysis of any financial or administrative burden posed by compliance with the ADA, and the Court inquired whether the City was pursuing such a defense, counsel for the City demurred, stating: “I am not aware of a formal statement as to

that. It certainly is not something that I know how we will respond if they put that in their motion at this time.” Transcript of July 22, 2019 pre-motion conference (“PMC Tr.”) at 30. In connection with the ensuing summary judgment briefing, the parties stipulated that (1) “[t]he City has not issued a written statement that the installation of APS at every signalized intersection in the future would result in an undue financial and administrative burden,”

JSF ¶ 192; (2) “[t]he City has not performed a formal written evaluation into the possibility of installation of APS at every signalized intersection,” *id.* ¶ 194; and (3) “[t]he City has not made a formal written determination that installation of APS at every signalized intersection would result in a fundamental alteration of DOT’s APS program,” *id.* ¶ 195.11

And in its brief opposing summary judgment as to liability, the City paid only lip service to this defense. It stated only that “requiring the City to install APS at every signalized intersection . . . *may* constitute an undue financial or administrative burden based upon current market conditions and DOT’s current funding appropriations.” Def. Mem. at 12 (emphasis added).12 But the City again declined to address or establish the procedural prerequisites of this defense set out in 28 C.F.R. § 35.150(a)(3). At argument, the City conceded that “[t]here is no formal written statement,” and that the City had not complied with these requirements. This, it alternatively explained, was because of an “oversight,” Arg. Tr. at 50, because “the city was . . . relying on common sense,” *id.* at 48, and/or because the City, notwithstanding the text of the implementing regulations or the colloquy between Court and counsel about this issue at the pre-

11 The parties further stipulated that the New York City Council has called on the de Blasio Administration to include, in the 2020 City budget, funding sufficient to install “accessible pedestrian signals at every signal intersection.” *Id.* ¶ 193.

12 The City did not contend that a liability finding would require the “fundamental alteration in the nature” of any City service. 28 C.F.R. § 35.150(a)(3).

motion conference, had not understood the written statement to be an “out-and-out requirement to invoke the defense,” *id.* at 51; *but see* 28 C.F.R. § 35.150(a)(3) (“The decision . . . *must be made* by the head of a public entity or his or her designee . . . *and must be accompanied* by a written statement of the reasons for reaching that conclusion.” (emphasis added)); PMC Tr.

at 19–20 (plaintiffs’ counsel noting that the “ADA has very specific regulations regarding how a city must assert an undue burden defense, and that requires a high-level official within the Department of Transportation to sign a written statement that an analysis has been done and they have determined by looking at all funding sources available that it is an undue burden, and defendants have admitted that that has never taken place.”); *id.* at 30–31 (Court and defense counsel discussing mandatory nature of this requirement).

The Court is thus is constrained to find that the City, by its decision not to comply with the prerequisites that 28 C.F.R. § 35.150(a)(3) imposes on the pursuit of an undue burden defense, has elected to forgo that defense as to liability. *See, e.g.*, *Ewbank v. Gallatin County*, No. 03 Civ. 156 (DLB), 2006 WL 197076, at \*8 (E.D. Ky. Jan. 17, 2006) (rejecting undue burden defense where “[t]here is no evidence that Defendant has complied with these requirements”); *Armstrong v. Davis*, No. 94 Civ. 02307 (CW), 1999 WL 35799705, at \*36 (N.D. Cal. Dec. 22, 1999) (similar); *cf. Whitfield v. City of Salinas*, No. 05 Civ. 3230 (JF),

2006 WL 2529509, at \*5 (N.D. Cal. Aug. 31, 2006) (rejecting defendants’ undue burden defense because they “ha[d] not presented any evidence of a ‘a written statement of the reasons for’” concluding that ADA compliance would present undue burden). Whatever the evidence on this point might have shown had the City pursued it, the City may not argue, at the liability stage, that adding APS to signalized intersections to the degree necessary to achieve meaningful access would present an undue burden, administrative or financial. The record does not reveal the

reason(s) for the choice not to pursue that defense in earnest—including whether the City viewed its coffers as sufficient to fund the expansion of APS necessitated by a finding of liability, whether City leaders welcomed a court order compelling them to furnish such relief, or otherwise. But it is unavoidable that this litigation decision was deliberate, as the City was aware of, from the time of its Answer, the potential availability of this defense, and the question whether to pursue it was, as counsel acknowledged, taken up by ranking municipal decision- makers, including the Mayor’s Office. *See* Def. Mem. at 12.13

In any event, even if the City had satisfied the procedural prerequisites to this affirmative defense, the sparse data that the City has put before the Court at summary judgment would be inadequate to raise a triable issue of fact as to whether, on the present record, installation of additional APS in the City would constitute an undue financial or administrative burden. That is so for three reasons.

First, the City’s limited discussion of this point centers on the qualified assertion that “requiring the City to install APS at every signalized intersection . . . *may* constitute an undue financial or administrative burden.” *Id.* (emphasis added). That undertaking, the City stated, could cost it $870 million. *See* Benson Decl. ¶¶ 17–18 (extrapolating from average cost data from APS installations in 2018). But that proposition misapprehends, and likely overstates, the consequences of a finding of liability. As discussed, a finding that providing APS at 3.4% of the City’s signalized intersections fails to afford blind pedestrians meaningful access does not

13 After unsuccessfully seeking an explanation from counsel for the City’s decision to abandon this defense, the Court stated at argument that “[i]t looks to me like what’s happening here is [that] New York City wants to lose this case” and to be “ordered to pay money that there isn’t the political will to shell out.” Arg. Tr. at 41. City counsel, although not conceding this proposition, did not dispute it, either. *Id.* at 42.

necessarily require installing APS at every such intersection. The City’s invocation of this figure does not consider whether expansions of APS on a lesser scale might achieve meaningful access.

Second, the City’s method of calculating the costs of this undertaking is questionable. To reach its $870 million estimate, the City multiplied the average cost of its 2018 APS installations times 13,200, and added a 10% adjustment to cover miscellaneous additional costs. *See* Benson Decl. ¶¶ 17–18. But that back-of-the-envelope calculation leaves vital questions unaddressed.

For one, as plaintiffs note, the per-installation APS cost appears to have fluctuated substantially; as recently as 2015, the per unit installation cost was less than half the 2018 cost that the City used to reach the $870 million figure. *See* Pl. Reply at 10. For another, the City’s tabulation does not consider economies of scale that may inhere from a larger-scale expansion project. And the City’s assessment does not consider the period over which that installation would realistically occur. Perhaps most important, the City, in reciting its bottom-line cost figure, does not situate it in the context of the DOT’s, the City’s, or any other relevant budget, or address potential means by which the City could recoup such outlays. Such makes it difficult, if not impossible, to assess the burden it might impose on the City’s other activities. It is precisely to enable a thoughtful and studied assessment of a claim of an undue financial burden, which requires consideration of broader context and opportunity costs, that 28 C.F.R. § 35.150(a)(3) requires that this affirmative defense be developed comprehensively and accountably, and endorsed by those with ultimate decision-making authority within the public entity.

Third, under 28 C.F.R. § 35.150(a)(3), even where a specific remedy would constitute an undue financial or administrative burden, the public-entity defendant must still take “any other action that would not result in such an alteration or such burdens but would nevertheless ensure that individuals with disabilities receive the benefits or services provided by the public entity.”

The City’s discussion of the undue burden defense fails this command. It envisions only two options: installing APS at every single intersection or maintaining the status quo. The City has not demonstrated that there is no other remedial action between those two extremes (*e.g.*, installing substantially more APS than at present, but less than at every signalized intersection) that it could financially bear.

Accordingly, even assuming the City had preserved such a defense, on the summary judgment record, it has failed adduce sufficient evidence of an undue financial or administrative burden to raise a genuine dispute of triable fact on this point. Summary judgment is therefore warranted as to liability on plaintiffs’ claims that the City has denied them meaningful access under the ADA and Rehabilitation Act.

# New Construction and Alterations Under the ADA and Rehabilitation Act

In a separate claim independent of their “meaningful access” claim, plaintiffs argue that the City has violated the ADA and Rehabilitation Act when it installed new traffic signals and made alterations to existing street crossings without installing APS. *See* Pl. Mem. at 17–23.

Regulations promulgated under both statutes state that, when a covered entity alters any facility or part of a facility “in a manner that affects or could affect the usability of the facility or part of the facility,” it shall, “to the maximum extent feasible,” do so “in such manner that the altered portion of the facility is readily accessible to and usable by individuals with disabilities.” 28 C.F.R. § 35.151(b)(1) (ADA); *see id.* § 42.522(a) (Rehabilitation Act). Each also states that any facility “constructed by” a covered entity shall be “readily accessible to and usable by individuals with disabilities.” *Id.* § 35.151(a)(1) (ADA); *see id.* § 42.522(a). Plaintiffs argue that the City has breached these obligations in four circumstances: each time it (1) installs new pedestrian signals without APS; (2) undertakes capital projects or SIPs without adding APS to the renovated crossings; (3) upgrades pedestrian lenses to include a countdown clock or symbols

without also including APS; and (4) implements LPIs or EPPs without also including APS. Pl. Mem. at 17–23.

Defendants counter that the first and second of these claims have been mooted by a new City policy on APS. And they argue that the third and fourth claims are invalid because the changes at issue do not constitute “alterations” of a sort triggering a duty to install APS. Def.

Mem. at 13–21.

The Court also considers, at the threshold, the extent to which plaintiffs’ claims are barred by the statute of limitations. The parties did not address the issue in their summary judgment briefs, but the Court raised the issue at argument, *see* Arg. Tr. at 26–29, 52–55, 64–65, and thereafter solicited and received submissions from counsel on this question, *see* Dkts. 122–23,

125. Because many of the alleged alterations at issue took place between 2000 and 2014— outside the three-year statute of limitations that applies under Title II of the ADA and Rehabilitation Act—defendants now argue that claims arising from those actions are time-barred. The Court concludes that all alleged violations occurring before June 27, 2015—three years before this action was filed—are untimely.

Next, the Court addresses whether the remaining, timely claims are moot in light of the City’s newly adopted APS policy. The Court holds that they are not.

Last, as to the merits of plaintiffs’ timely claims, the Court holds that mere software updates such as those necessary to implement LPIs and EPPs do not rise to the level of an alteration under the ADA or Rehabilitation Act. The Court also denies, without prejudice to renewal, plaintiffs’ motion for summary judgment as to the SIPs and Capital Projects the City has completed, because the record presented is too factually sparse to enable the Court reliably to resolve—in either direction—whether and which of such completed projects qualify as or

include “alterations.” However, as to plaintiffs’ claim arising from the installation of new traffic signals, the Court enters summary judgment for plaintiffs, finding that when the City installs new such signals, the ADA and Rehabilitation Act require it to make the affected intersections readily accessible to the blind. The Court’s grant of summary judgment as to liability extends to all new traffic signals installed without APS since June 27, 2015.

# Statute of Limitations

* 1. *Applicable Law*

Claims under the ADA and Rehabilitation Act are subject to a three-year limitations period. *Purcell v. N.Y. Inst. of Tech. - Coll. of Osteopathic Med.*, 931 F.3d 59, 63 (2d Cir. 2019) (ADA); *Morse v. Univ. of Vt.*, 973 F.2d 122, 125 (2d Cir. 1992) (Rehabilitation Act). Neither statute contains an express statute of limitations, *see Purcell*, 931 F.3d at 62–63; *Morse*, 973 F.2d at 125, or is subject to the four-year federal catch-all statute of limitations, as such applies only to federal statutes enacted after December 1, 1990, *see* 28 U.S.C. § 1658.14 The applicable statute of limitations is therefore the “most appropriate or analogous state statute of limitations.” *Purcell*, 931 F.3d at 62–63 (citation omitted). For claims under both federal statutes, the Second Circuit has held that the three-year limitations period provided by N.Y. C.P.L.R. § 214(5) applies. *Maccharulo v. Gould*, 643 F. Supp. 2d 587, 592–93 (S.D.N.Y. 2009) (collecting cases).

Although the Second Circuit has not addressed when ADA alteration claims like those in this case accrue, a recent decision from this District provides persuasive guidance. In *Forsee v. Metropolitan Transportation Authority*, Judge Ramos considered the accrual date in connection with an analogous ADA provision concerning alterations to public-transportation facilities. *See* No. 19 Civ. 4406 (ER), 2020 WL 1547468, at \*9 (S.D.N.Y. Mar. 31, 2020); 42 U.S.C. § 12147(a)

14 The ADA, Pub. L. No. 101-336, 104 Stat. 327, was enacted July 26, 1990, and the

Rehabilitation Act, Pub. L. No. 93-112, 87 Stat. 355, was enacted September 26, 1973.

(addressing “alterations of an existing facility or part thereof used in the provision of designated public transportation services that affect or could affect the usability of the facility or part thereof”). On a review of relevant authority, Judge Ramos held that the ADA’s text required applying a “construction rule,” under which a public entity’s act of discrimination by failing to make the facility accessible to the disabled occurs, and a claim thus begins to accrue, “when the alteration is completed.” *Forsee*, 2020 WL 1547468, at \*9.

To be sure, § 12147(a) contains language not found in the regulations relevant here, and on which *Forsee* relies: “upon the completion of such alterations.” *Id.* at \*9. But the ADA and Rehabilitation Act regulations relevant to this case similarly speak in the past tense. The ADA rule requires that each facility “altered by” or “constructed by” a public entity be altered or constructed “in such manner that the altered portion of the facility is readily accessible to and usable by individuals with disabilities.” 28 C.F.R. § 35.150(a)(1), (b)(1). Similarly, the pertinent Rehabilitation Act rule states that any facility “constructed by” a recipient of federal funds must be constructed such that the facility is “readily accessible to and usable by” disabled individuals, and any alterations must “be made in an accessible manner.” 28 C.F.R. § 42.522(a).

And, as with § 12147(a), absent a construction rule along the lines found by Judge Ramos, public entities “would never have ‘the benefit of a statute of repose’ as they could be dragged into the courts decades later for non-compliant alterations.” *Forsee*, 2020 WL 1547468, at \*9 (quoting *De La Rosa v. Lewis Foods of 42nd St., LLC*, 124 F. Supp. 3d 290, 300 (S.D.N.Y. 2015)); *see also Griffin v. Oceanic Contractors, Inc.*, 458 U.S. 564, 575 (1982) (counseling against “interpretations of a statute which would produce absurd results”). The parties and case law do not offer any coherent alternative to such a rule, beyond plaintiffs’

suggestion that the limitations period never begins to run. And the one alternative that the Court

considered—a rule under which the onset, rather than the completion, of the alteration triggers the public entity’s duties under the ADA—is at odds with the regulatory text (which refers the facility’s having already been “altered’) and lacks support in case law. Accordingly, finding no reason to depart from *Forsee*’s persuasive analysis, the Court holds that the construction rule applies to plaintiffs’ alteration and new-construction claims, which accrue upon the completion of the challenged alteration.

* 1. *Application*

Although the City did not raise the statute of limitations as a defense in its opposition to plaintiffs’ motion for summary judgment, *see* Dkt. 125 at 1, that does not preclude the Court’s consideration of that issue in deciding whether to grant plaintiffs’ summary judgment motion. The City included the statute of limitations as an affirmative defense in its Answer to the plaintiffs’ Complaint, *see* Answer ¶ 133, which is sufficient to preserve the defense through trial, *see Colon v. Goord*, 115 F. App’x 469, 470 (2d Cir. 2004) (“Defendants have not waived their statute of limitations defense by failing to raise it in their motion under Rules 12(c) and 56. [The] [s]tatute of limitations is an affirmative defense that is preserved by assertion in a party's first responsive pleading.”); *Kulzer v. Pittsburgh-Corning Corp.*, 942 F.2d 122, 125 (2d Cir. 1991) (“bare assertion” of statute of limitations in answer preserved it to be raised again mid-trial, despite defendant’s failure to raise it in pretrial dispositive motions). And, so long as the parties are on notice that the statute of limitations is at issue and are permitted a “full and fair [] opportunity to present evidence as to the applicability of the defense,” the Court may even *grant*

summary judgment on that basis *sua sponte*. *In re 650 Fifth Ave. & Related Props.*, 830 F.3d 66, 97 (2d Cir. 2016); *see Celotex*, 477 U.S. at 326. Having given the parties notice and the opportunity to be heard on this issue, the Court now assesses its impact here.

Under the applicable statutes of limitations and the construction rule, plaintiffs’ claims are time-barred to the extent they arise from alterations completed before June 27, 2015—three years before the Complaint in this action was filed. Because plaintiffs challenge four distinct categories of alleged alterations, each of which took place during different periods, the Court assesses each in turn.

First, plaintiffs argue that the City violates 28 C.F.R. § 35.151(a) each time it installs new crossing signals without also including APS. Pl. Mem. at 18–19. The installation of new such signals has occurred both before and after June 27, 2015. The parties have stipulated that “New York City typically installs between 100 and 120 new traffic signals per year,” including since 2015. JSF ¶ 135. They have further stipulated that, “[f]rom 1990 to 2014, no intersections where a new traffic signal was installed included APS at the time the new traffic signal was installed.” *Id.*

¶ 133.

Second, plaintiffs argue that Capital Projects and SIPs constitute alterations giving rise to accessibility obligations under 28 C.F.R. § 35.151(b). Pl. Mem. at 20–21. The summary judgment record suggests that such projects, too, occurred and were completed both before and after June 27, 2015. *See* JSF ¶¶ 173, 178.

Third, plaintiffs argue that the replacement of all signal lenses throughout the City to show symbols instead of the words “walk” and “don’t walk,” and replacement of lenses at roughly 7,500 intersections to include countdown clocks, constitute alterations giving rise to accessibility obligations. Pl. Mem. at 19–20. However, the parties have stipulated that the former replacements all occurred “during the period from 2000 to 2004,” and that the latter took place “[b]etween 2012 and 2014.” JSF ¶¶ 137, 141. The summary judgment record does not reflect that any such replacements occurred after June 27, 2015.

Last, plaintiffs challenge the City’s implementation of signal timing changes—*i.e.*, LPIs and EPPs—as alterations that the City failed to make accessible under 28 C.F.R. §§ 35.151(b) and 42.522(a). According to the parties’ stipulations, the DOT implemented LPIs at 307 intersections before 2015, 414 intersections in 2015, and 3,230 intersections between 2016 and June 30, 2019. JSF ¶¶ 151–158. Only 113 of those intersections are currently equipped with APS. *Id.* ¶ 159. The parties’ submissions further indicate that, as of June 30, 2019, the City had implemented EPPs at 98 intersections, none including APS, although they do not disclose when those EPPs were implemented. *Id.* ¶¶ 168–169.

Accordingly, because at least some new signal installations, SIPs and Capital Projects, and implementations of LPIs and EPPs were completed on or after June 27, 2015, there is no dispute that claims arising in these areas are properly before the Court, and the Court will consider, *infra*, whether such projects constitute “alterations” or new construction triggering a duty to install APS. To the extent, however, that plaintiffs’ claims arise from projects completed before June 27, 2015, they are barred by the statute of limitations, and the Court denies plaintiffs’ motion for summary judgment as to them. The Court also denies plaintiffs’ motion for summary judgment on claims based on the City’s replacements of signal lenses because, on the record before the Court, these replacements occurred either between 2000 and 2004 or between 2012 and 2014, and such claims thus appear time-barred. Accordingly, there is no occasion to consider whether modifications of this nature rise to the level of “alterations” under the ADA and Rehabilitation Act.

Plaintiffs offer three reasons why the statute of limitations should not restrict their claims based on alterations and new construction. *See* Dkt. 125. First, they contend that requests for injunctive relief are not barred by any statute of limitations. But *Forsee* and the cases it cites

applied the construction rule to claims seeking exclusively injunctive and declaratory relief, and the reasoning discussed above applies equally to such claims. *See* 2020 WL 1547468, at \*9.

Second, plaintiffs argue that their claims arising from projects completed before June 27, 2015 can be rescued as timely under the “continuing violations doctrine.” Dkt. 125

at 3. “As a general matter, the continuing violation doctrine is heavily disfavored in the Second Circuit and courts have been loath to apply it absent a showing of compelling circumstances.” *Trinidad v. N.Y.C. Dep’t of Corr.*, 423 F. Supp. 2d 151, 165 n.11 (S.D.N.Y. 2006) (citation omitted). To establish a continuing violation, a plaintiff must allege “a series of separate acts, some of which occur within the applicable statute of limitations, that collectively constitute one unlawful act.” *Forsee*, 2020 WL 1547468, at \*10 (citing *Shomo v. City of New York*,

579 F.3d 176, 181 (2d Cir. 2009)). In such cases, “the commencement of the statute of limitations period may be delayed until the last discriminatory act in furtherance of” the continuing violation. *Fitzgerald v. Henderson*, 251 F.3d 345, 359 (2d Cir. 2002) (citation omitted). However, this doctrine does not apply when plaintiffs “challenges conduct that is a discrete unlawful act,” because such acts are “easy to identify” and thus separately actionable. *Shomo*, 579 F.3d at 181; *Nat’l R.R. Passenger Corp. v. Morgan*, 536 U.S. 101, 144 (2002).

Discrete unlawful acts contrast with the paradigmatic claims to which the continuing violations doctrine applies, such as claims of a hostile work environment, in which the unlawful conduct by nature “occurs over a series of days or perhaps years and, in direct contrast to discrete acts, a single act of harassment may not be actionable on its own.” *Morgan*, 536 U.S. at 115.

The continuing violations doctrine does not apply here because alterations of street crossings, pedestrian signals, and signal timing are, by nature, discrete acts. Each change is “easy to identify,” with a clear end date, as measured by the construction rule. And each

violation is separately actionable under the ADA and Rehabilitation. *See Forsee*,

2020 WL 1547468, at \*10 (continuing violations doctrine does not apply to ADA claims relating to subway alterations); *De La Rosa*, 124 F. Supp. 3d at 300 (continuing violations doctrine does not apply to claims under Title III of the ADA, concerning public accommodations). Plaintiffs were at liberty to challenge each allegedly noncompliant alteration when it was completed, and had three years from the completion date to do so; they are also at liberty to bring alteration claims based on contemporary projects. Finally, to the extent plaintiffs cast their alteration claims as triggered not by discrete projects but by an ongoing unlawful City policy of failing to abide by the ADA when making upgrades at intersections, Dkt. 125 at 3, that argument also fails. The Second Circuit, like each of its sister circuits to have considered the issue after *Morgan*, has squarely held that “an allegation of an ongoing discriminatory policy does not extend the statute of limitations where the individual effects of the policy that give rise to the claim are merely discrete acts.” *Chin v. Port Auth. of N.Y. & N.J.*, 685 F.3d 135, 157 (2d Cir. 2012).

In a final effort to salvage their claims based on alterations before June 27, 2015, plaintiffs argue that the NYCHRL does not apply a statute of limitations to alteration claims. But plaintiffs’ NYCHRL claim does not extend to such claims. Instead, tracking plaintiffs’ federal meaningful-access claims, plaintiffs’ Complaint and ensuing submissions have framed their NYCHRL claim as challenging the exclusion of blind and visually impaired plaintiffs from places of public accommodation, on account of the scarcity of APS throughout the City.

Consistent with this, plaintiffs’ summary judgment arguments as to alteration claims have not cited law under the NYCHRL, citing instead case law applying, and DOJ regulations implementing, the ADA and Rehabilitation Act. *See* Pl. Mem. at 17–23. Plaintiffs’ argument under the NYCHRL, by contrast, is only that “the lack of APS at the vast majority of New York City’s

intersections unlawfully excludes blind pedestrians from places of public accommodations”; in connection with that argument, they do not mention upgrades, new construction, or alterations. *Id.* at 23–25; *see also* Pl. Reply at 4–7, 9–10. Plaintiffs’ post-argument letter appears to be the first time that they have asserted that their NYCHRL claim extends to the failure to make accessibility upgrades at the time of alterations and new construction. The Court will not permit plaintiffs to constructively amend their city-law claim at this late date.

In any event, the lone case plaintiffs cite in support of their argument that the NYCHRL does not impose a time-bar on such claims does not address alterations or new construction, or explain how the New York State courts might assess such claims under state law, arising as they do from DOJ regulations. It instead addresses the discriminatory effects of “lack of access to the subway system” as a whole. *Ctr. for Indep. of the Disabled v. Metro. Transp. Auth.*, 184 A.D.3d 197, 201 (1st Dep’t 2020). That claim appears to echo plaintiffs’ meaningful-access claims—not their alteration and new-construction claims.

Accordingly, the Court holds that, on the present records, plaintiffs’ summary judgment motion cannot be granted with respect to claims arising from alterations and new construction that occurred before June 27, 2015.

# Mootness

As a separate threshold argument, the City contends that plaintiffs’ alteration and new- construction claims are largely moot because, as of plaintiffs’ motion for summary judgment, the City had adopted a policy that requires “all new pedestrian signal installations, and newly initiated capital projects and street improvement projects (‘SIPs’) involving existing signals at which signal poles are being relocated or replaced” to include APS. Def. Mem. at 3. The policy, the City argues, addresses plaintiffs’ grievances arising from its failure to install APS when it replaces or adds pedestrian signals, or undertakes either capital projects or SIPs involving work

on pedestrian crossing signals. *Id.* at 13–14. Plaintiffs disagree on the grounds that (1) as to past ADA violations, the City’s new policy does not provide a remedy; and (2) as to the future, the voluntary cessation exception to the mootness doctrine applies; and in any event, the new policy does not provide the full relief required by the ADA. *See* Pl. Reply at 4–9. For the reasons that follow, the Court rejects the City’s mootness defense.

* 1. *Applicable Law*

“It has long been settled that a federal court has no authority to give opinions upon moot questions or abstract propositions, or to declare principles or rules of law which cannot affect the matter in issue in the case before it.” *Dean v. Blumenthal,* 577 F.3d 60, 64 (2d Cir. 2009) (quoting *Church of Scientology of Cal. v. United States,* 506 U.S. 9, 12 (1992)). Accordingly, “[t]he requisite dispute must persist throughout the litigation.” *Russman v. Bd. of Educ. of Enlarged City Sch. Dist. of the City of Watervliet,* 260 F.3d 114, 118 (2d Cir. 2001). “[I]f the dispute should dissolve at any time due to a change in circumstances, the case becomes moot,” and the Court must dismiss the suit for lack of subject matter jurisdiction. *Id.* at 118–19. However, “a case becomes moot only when it is impossible for a court to grant *any* effectual relief *whatever* to the prevailing party.” *Chevron Corp. v. Donziger*, 833 F.3d 74, 124 (2d Cir. 2016) (emphasis in original) (quoting *Chafin v. Chafin*, 568 U.S. 165, 172 (2013)).

The Supreme Court has recognized numerous exceptions to the mootness doctrine. *See Comer v. Cisneros*, 37 F.3d 775, 798 (2d Cir. 1994) (“The mootness doctrine is riddled with exceptions . . . .”). Relevant here is the exception for instances in which a defendant has voluntarily ceased engaging in allegedly unlawful conduct. “The voluntary cessation of challenged conduct does not ordinarily render a case moot because a dismissal for mootness would permit a resumption of the challenged conduct as soon as the case is dismissed.” *Knox v. Serv. Emps. Int’l Union, Local 1000*, 567 U.S. 298, 307 (2012). Accordingly, when a defendant

cites its own voluntary compliance as the reason that no live controversy exists between the parties, the case is not considered moot unless “subsequent events ma[ke] it absolutely clear that the allegedly wrongful behavior could not reasonably be expected to recur.” *Friends of Earth, Inc. v. Laidlaw Envtl. Servs. (TOC), Inc.*, 528 U.S. 167, 189 (2000). In the Second Circuit, the voluntary cessation of a challenged activity renders a case moot only “if the defendant can demonstrate that (1) there is no reasonable expectation that the alleged violation will recur and

(2) interim relief or events have completely and irrevocably eradicated the effects of the alleged violation.” *Clear Channel Outdoor, Inc. v. City of New York*, 594 F.3d 94, 110 (2d Cir. 2010) (quoting *Campbell v. Greisberger*, 80 F.3d 703, 706 (2d Cir. 1996)). This is a “formidable burden.” *Seidemann v. Bowen*, 499 F.3d 119, 128 (2d Cir. 2007) (citation omitted).

* 1. *Application*

As to past ADA violations, plaintiffs are correct that the City’s new policy affords them no relief. Plaintiffs bring timely claims that the City has made alterations to its crosswalks and traffic signals that affected the usability of those crosswalks to sighted pedestrians without concurrently enhancing accessibility to the blind. Pl. Reply at 8–9. The City’s new policy, however, is entirely prospective in nature, and does nothing to rectify violations between

June 27, 2015 and its adoption. *See Gropper v. Fine Arts Hous., Inc.*, 12 F. Supp. 3d 664, 670 (S.D.N.Y. 2014) (“[B]ecause the [Compliance Agreement] consists largely of promises that [Defendant] will fulfill *in the future*, it cannot be contended that [Defendant] has completely and irrevocably eradicated the effects of the alleged ADA violations.” (citation omitted) (emphasis in original)). The City’s claim of mootness thus fails to the extent that plaintiffs seek relief for past violations. *See Chevron*, 833 F.3d at 124.

For multiple reasons, the policy also does not moot plaintiffs’ claims for prospective relief—an injunction obliging the City to install APS when, *inter alia*, a new traffic signal is

installed. First, the timing of the City’s policy change is suggestive, to say the least. *See United States v. N.Y.C. Transit Auth.*, 97 F.3d 672, 676 (2d Cir. 1996) (“[I]t is significant that the change of policy was instituted on the eve of the lawsuit.”). Until July 1, 2019, “the DOT did not have a consistent policy or practice of requiring the installation of APS when a new traffic signal was installed in tandem with the installation of that traffic signal.” JSF ¶ 132. As plaintiffs note, the City documented its new policy on October 21, 2019, the day that plaintiffs moved for summary judgment, and made it retroactive to July 1, 2019, the first business day after fact discovery closed. Pl. Reply at 7. As the Second Circuit has repeatedly held, the suspicious timing of a party’s voluntary cessation weighs against finding mootness. *See, e.g.*, *Mhany Mgmt., Inc. v.*

*County of Nassau*, 819 F.3d 581, 604 (2d Cir. 2016) (“[S]uspicious timing and circumstances pervade the County’s decision. [T]he County announced its decision to build a courthouse

on the Social Services Site only on the eve of summary judgment motions.”); *N.Y.C. Transit Auth.*, 97 F.3d at 676. That is because such timing suggests a litigation-driven motivation, as opposed to an authentic, durable commitment on the part of the defendant to mend its ways. Here, the City’s adoption of the new policy only when it was facing a formidable motion for summary judgment leaves it far from “absolutely clear” that the City would not abandon its newly announced commitment with respect to APS were plaintiffs’ claims denied as moot.

*Mhany*, 819 F.3d at 605.

Second, the manner of the City’s voluntary cessation counsels against finding plaintiffs’ claims moot. *See Tsombanidis v. W. Haven Fire Dep’t*, 352 F.3d 565, 574 (2d Cir. 2003), *superseded on other grounds as stated in Mhany*, 819 F.3d at 618–19. The City set forth its ostensible new policy in a two-page “Memorandum” with the stated purpose of “clarify[ing] the City’s policy regarding installation of Accessible Pedestrian Signals.” 2019 APS Memo at 1.

The City’s couching of its new policy as a mere “clarification” of its existing practices is problematic, insofar as the summary judgment record reflects that the City’s practice had not been to add APS when it newly installed or upgraded traffic signals. And even taking the new policy as announcing a change in that direction, the City has not pointed to any safeguards that would prevent the new policy from being changed, rescinded, or honored in the breach. *Cf.*

*Already, LLC v. Nike, Inc.*, 568 U.S. 85, 93 (2013) (finding case moot where the parties entered “unconditional and irrevocable” covenant that prevented allegedly unlawful activity from recurring). On the record before the Court, the City is at liberty to reverse or revise this policy through a superseding memorandum or by other means. The City has also not shown how and whether it has begun implementing the terms its new policy promises. *See Dunbar v. Empire Szechuan Noodle House Inc.*, No. 18 Civ. 9625, 2020 WL 2132339, at \*5 (S.D.N.Y. May 5, 2020) (“Defendant relies on its promise of voluntary compliance with the ADA to argue that Plaintiff’s federal claims are now moot. While it is true that the ADA violations Plaintiff complains of might be addressed in the renovation plans, Defendants have not presented evidence that there is no reasonable expectation that the alleged ADA violations will recur.”). The City therefore has failed to demonstrate that “there is no reasonable expectation that the alleged violation will recur,” much less that the policy has “completely and irrevocably eradicated the effects of the alleged violation.” *Clear Channel Outdoor, Inc.*, 594 F.3d at 110.

The Court therefore rejects the City’s claim of [mootness.15](https://mootness.15/)

15 The Second Circuit has stated that government entities are owed “some deference” in this mootness analysis, *Lamar Advert. of Penn, LLC v. Town of Orchard Park*, 356 F.3d 365, 377 (2d Cir. 2004). *But see City of Mesquite v. Aladdin’s Castle, Inc*., 455 U.S. 283, 289 (1982). “Some deference,” however, “does not equal unquestioned acceptance.” *Mhany*, 819 F.3d

at 604. Extending some deference to the City, the many factors weighing against finding of mootness here, chronicled above, overwhelmingly carry the day.

# Merits

The ADA and Rehabilitation Act require that, when a public entity newly constructs a “facility” or makes an “alteration” to an existing “facility” in a manner “that affects or could affect the usability of the facility,” it must ensure that any new facility is “readily accessible to and usable by individuals with disabilities,” and that any altered facility is “to the maximum extent feasible . . . readily accessible to and usable by individuals with disabilities.” 28 C.F.R.

§ 35.151(a)(1), (b)(1); *see* 28 C.F.R. § 42.522(a). “New construction and alterations . . . present an immediate opportunity to provide full accessibility” and it is therefore “discriminatory to the disabled to enhance or improve an existing facility without making it fully accessible to those previously excluded.” *Civic Ass’n of Deaf of N.Y.C. v. Giuliani*, 970 F. Supp. 352, 359 (S.D.N.Y. 1997) (quoting *Kinney*, 9 F.3d at 1073–74). As a result, these regulations are more stringent than those concerning existing facilities, and are not subject to an undue burden defense. *Kinney*, 9 F.3d at 1071, 1074–75.

* 1. *Facilities*

First, the Court must assess whether pedestrian crossing signals are “facilities” under the relevant regulations. The City’s summary judgment brief did not contest that crossing signals are “facilities” under the ADA and Rehabilitation Act, but at argument, it left that issue open.

*Compare* Def. Mem. at 14 (“Defendants are not arguing that pedestrian traffic signals and APS are not ‘facilities’ pursuant to the ADA ” (emphasis in original)), *with* Arg. Tr. at 57 (“We’re

not conceding that this is a facility ”), *and id.* at 58 (“[I]t was an alteration to a *service* that

was provided to the city, and the city should be looked at in the aggregate.” (emphasis added)).

In any event, ADA regulations make clear that traffic and pedestrian crossing signals are facilities under both statutes. Under the expansive definition provided in 28 C.F.R. § 35.104, a “facility” means “all or any portion of buildings, structures, sites, complexes, equipment, rolling

stock or other conveyances, roads, walks, passageways, parking lots, or other real or personal property, including the site where the building, property, structure, or equipment is located.” Crossing and traffic signals are, at the very least, “structures,” “equipment,” and “other real or personal property” and therefore qualify as “facilities.” The City does not offer a substantive argument to the contrary. Def. Mem. at 14–15. And the only other court to have considered this issue has found crossing signals to be “equipment provided by” a public entity sufficient to make them facilities under the ADA and Rehabilitation Act. *See Scharff*, 2014 WL 2454639, at \*10–11; *see also Civic Ass’n of Deaf*, 970 F. Supp. at 359 (finding emergency call boxes placed throughout the City to be facilities under 28 C.F.R. § 35.151(b)).

* 1. *Claims Arising from Alterations to Existing Facilities*
     1. Applicable Law

Neither the ADA nor the Rehabilitation Act defines “alteration” in connection with these provisions. *See Roberts v. Royal Atl. Corp.*, 542 F.3d 363, 369 (2d Cir. 2008). Some early cases took a very broad view of the term. *See, e.g.*, *Civic Ass’n of Deaf*, 970 F. Supp. at 359 (“The Court of Appeals held that an ‘alteration’ is a ‘change’ to a ‘facility.’” (quoting *Molloy v. Metro. Transp. Auth.*, 94 F.3d 808, 811–12 (2d Cir. 1996))); *Kinney*, 9 F.3d at 1072 (“alteration” defined as any “change that affects the usability of the facility involved”). But the Second Circuit’s more recent guidance in the context of cases brought under Title III is that not *any* change that affects usability qualifies as an “alteration.” *See Roberts*, 542 F.3d at 369–70.16

16 Although *Roberts* concerned the interpretation of “alteration” used in Title III, the provision at issue there was, in all relevant respects, coextensive with the Title II provision at issue here.

*Compare* 42 U.S.C. § 12183(a)(2) (defining discrimination as, “with respect to a *facility or part thereof* that is *altered* by, on behalf of, or for the use of an establishment in a manner *that affects or could affect the usability of the facility or part thereof*, a failure to make alterations in such a manner that, *to the maximum extent feasible*, the altered portions of the facility are *readily accessible* to and usable by individuals with disabilities, including individuals who use

Instead, *Roberts*—which plaintiffs treat as apposite, *see* Pl. Mem. at 17 n.5, 22—recognized that the ADA’s imposition of similar requirements on “alterations” and on “new construction” informs the meaning of the former, with “[t]he greater the change made by a modification to a facility or portion of a facility, the closer it is, in effect, to new construction.” *Roberts*, 542 F.3d at 369*.* Thus, the Second Circuit explained:

The concept of alteration seems generally to exclude from “alterations” those modifications that essentially preserve the status and condition of a facility, rather than rendering it materially “new” in some sense. As the cost, degree, or scope of a modification decreases, the likelihood that it approaches the equivalent of “new construction” or is therefore an alteration under the ADA also decreases.

*Id.* at 370. At the same time, the Circuit recognized, even a “relatively inexpensive or localized modification may, however, so fundamentally change the use of a facility that we would regard it as an alteration, particularly if it affects the purpose, function, or underlying structure of the facility.” *Id.*

To guide courts in determining whether a modification rises to the level of an alteration, the *Roberts* Court identified four non-exclusive factors, none individually necessary to consider:

(1) the “overall cost of the modification relative to the size (physical and financial) of the facility

wheelchairs” (emphasis added)), *with* 28 C.F.R. § 35.151(b) (“Each facility or part of a facility *altered* by, on behalf of, or for the use of a public entity in a manner that *affects or could affect the usability of the facility or part of the facility* shall, *to the maximum extent feasible*, be *altered* in such manner that the *altered* portion of the facility is *readily accessible* to and usable by individuals with disabilities” (emphasis added)). The Court is unaware of any difference between these provisions that would make the construction in *Roberts* inapplicable here. More generally, courts have found Title III’s alteration provisions instructive when interpreting 28

C.F.R. § 35.151(b), *see, e.g.*, *Kinney*, 9 F.3d at 1067 & n.6 (“the discussion of the parallel provision in Title III . . . is helpful in our analysis” of 28 C.F.R. § 35.151(b)), and have applied in Title II cases *Roberts*’s analysis of the term “alteration,” *see, e.g.*, *Bronx Indep. Living Servs. v. Metro. Transp. Auth.*, 358 F. Supp. 3d 324, 331 (S.D.N.Y. 2019) (discussing Title II transportation regulations, which plaintiffs here characterize as “analogous” to 28 C.F.R.

§ 35.151(b), *see* Pl. Mem. at 21, under *Roberts*.); *see also Kinney*, 9 F.3d at 1067 n.6 (“The Committee intends . . . that the forms of discrimination prohibited by [Title II] be identical to those set out in applicable provisions of Titles I and III of this legislation.” (quoting H.R. Rep. No. 101-485, pt. 2, at 84 (1990), *reprinted in* 1990 U.S.C.C.A.N. 267, 367)).

or relevant part thereof”; (2) the “scope of the modification (including what portion of the facility or relevant part thereof was modified)”; (3) the “reason for the modification (including whether the goal is maintenance or improvement, and whether it is to change the purpose or function of the facility)”; and (4) whether “the modification affects only the facility’s surfaces or also structural attachments and fixtures.” *Id.* The plaintiff bears the burden of making a “facially plausible demonstration” that a modification qualifies as an alteration under the ADA; on such a showing, the defendant then bears the burden of establishing that the modification “is in fact not an alteration.” *Id.* at 371.

If a modification rises to the level of an alteration and affects or could affect the facility’s usability, then the City must make that alteration in a manner that, “to the maximum extent feasible . . . is readily accessible to” those with disabilities. 28 C.F.R. § 35.151(b). In this context, feasibility refers to technical, not economic, feasibility. *Roberts*, 542 F.3d at 371.

* + 1. Application

Of the four sets of claims that plaintiffs bring asserting that City projects gave rise to obligations to simultaneously install APS, which it failed to do, two are both timely and arise from alleged alterations by the City of existing facilities: those involving (1) SIPs and Capital Projects; and (2) the implementation of signal timing changes, *i.e.*, LPIs and EPPs. A third set of claims, arising from lens replacements, appears untimely for the reasons reviewed above. *See supra* pp. 42–49. The fourth set of claims, arising from the City’s installation since June 27, 2015 of new signals, involves new construction, not alterations. The Court analyzes that set of claims below, under the legal framework applicable to new construction. *See infra* pp. 63–65.

For the following reasons, the Court, on the present record, cannot grant summary judgment to plaintiffs as to either of their timely alteration claims.

*SIPS and Capital Projects*: The summary judgment record does not permit the Court to determine, as a matter of undisputed fact, that any individual SIPs or Capital Projects involved alterations, let alone that such alterations affected usability. While evidence adduced but not presented to the Court may clarify these issues, the record as presented to the Court is too hazy and equivocal to permit this finding.

As to SIPs, the parties have stipulated that such projects “*can include* redesigning or reconfiguring intersection geometry, as well as adding or removing lanes of vehicle traffic, traffic signals and pedestrian control signals, bike lanes, crosswalks, and other sidewalk or road treatments,” and “*may involve* some level of signal work,” including the installation of new signals. JSF ¶¶ 171, 174–176 (emphasis added); Pl. 56.1 ¶ 74. According to one City deponent, “a good majority of SIPs that are churned out per year, do involve *some level of signal work*.” Celentano Tr. at 48–49 (emphasis added) (noting that there are “well over a hundred” SIPs completed each year); *see also* Pl. 56.1 ¶ 75. But nothing in the record discloses which SIPs involved such signal work, the concrete nature of the signal work involved at any particular SIP, the intersections implicated by those SIPs, or when each SIP was completed. *See* JSF

¶¶ 171–177; Pl. 56.1 ¶¶ 74–77; Pl. Mem. at 8–9, 20–21.

Similarly, on the record presented, Capital Projects encompass a diverse array of municipal activities, including the following: “milling and repaving to full reconstruction of the roadbed, sidewalks, sewer and water pipes, and other utilities[,] . . . traffic calming, school safety, pedestrian plazas, greenways, Select Bus Service, step streets, retaining walls, sea walls, and bulkheads.” JSF ¶ 178. Some such projects may entail work on intersections, crossing signals, or roadways. But the record is silent as to how many, which, and when; and it lacks specifics to the concrete nature and scale of such projects. *See id.* ¶¶ 178–186; Pl. 56.1 ¶ 74.

On the thinly sketched digest of the factual record presented on plaintiffs’ summary judgment motion, the Court cannot conclude that there are no genuine disputes of material fact regarding which of these diverse transportation projects were of a nature that gives rise to an obligation to install APS at an intersection. Plaintiffs imply that, given the scope of work that such projects often entail, *any* DOT project designated as a SIP or a Capital Project inherently rises to the level of an alteration requiring the installation of APS at all affected intersections. *See* Pl. Mem. at 21 (“Where a municipality invests large sums of money to replace or upgrade a facility, as is often the case with transportation facilities, it is obligated to make those alterations accessible.”). Many SIPs and Capital Projects do appear to involve new construction under the ADA and Rehabilitation Act. *See infra* pp. 63–65 (addressing new signal installations). But the record does not permit the Court confidently to so find, across the board. Plaintiffs’ non-specific evidentiary showing would permit only the unhelpful generalization that, among the SIPs and Capital Projects completed since June 27, 2015, some involved work that qualified as alterations or new construction, triggering obligations to enhance accessibility under the ADA. And although plaintiffs recite evidence that “a good majority” of SIPs involve signal work, *see* Celentano Tr. at 48–49, they do not describe which SIPs did so, the intersections those SIPs involved, which of those SIPs included the installation of APS (as some did), or what the nature of such “signal work” was. As to Capital Projects, the record presented does not reveal even the rough proportion of Capital Projects that involved work on roadways or intersections, let alone traffic signals. *See* JSF ¶¶ 178–186; Pl. 56.1 ¶¶ 74–77.

The Court therefore declines to grant plaintiffs summary judgment, even as to liability alone, on this claim on the evidence presented. The project-specific nature of SIPs and Capital Projects, the fact that APS were installed at some intersections incident to such work, and the

fact-intensive nature of the alteration framework combine to require that the City’s liability be determined on an intersection-specific basis. *See, e.g.*, *Roberts*, 542 F.3d at 375 (“[A] decision on this issue requires a fact-intensive determination that cannot be resolved on the existing record.”). The Court’s denial of summary judgment as to plaintiffs’ claims based on SIPs or Capital Projects is without prejudice to plaintiffs’ right, drawing on the existing record, to move anew for summary judgment, but with claims regarding such alterations brought at the level of individual intersections.

The cases on which plaintiffs rely in arguing to the contrary are easily distinguished.

Two involved, respectively, the renovation of three and one clearly identified subway stations. The records therefore permitted a close review of the precise renovations and costs associated with those particular projects. *See Disabled in Action of Penn. v. Se. Penn. Transp. Auth.*,

635 F.3d 87, 89–90 (3d Cir. 2011) (involving three subway stations); *Bronx Indep. Living Servs.*, 358 F. Supp. 3d at 330 (involving one subway station; defendant did not contest whether the renovation constituted an “alteration” under the ADA). Those cases do not support plaintiffs’ grapeshot bid here for a generalized finding of liability. A third case on which plaintiffs rely did involve a citywide initiative, and thus entailed claims on a scale akin to those here. *Civic Ass’n of Deaf*, 970 F. Supp. at 359–60. But the claims there arose from a discrete and repetitive activity—the replacement of one type of emergency call box with another throughout the City— that was easily identified and identical in application at all sites. *Id.* at 360. Not so with the variegated SIPs and Capital Projects at issue here. Similarly, *Kinney*, which plaintiffs also cite, concerned a specific type of municipal project, street resurfacing, whose status as an alteration within the meaning of the ADA was capable of being determined on an across-the-board basis.

9 F.3d at 1070. Here, by contrast, and as surveyed above, the clusters of projects that fall under the rubric of Capital Projects and SIPs are too diverse to permit such a generalization.

Given the mismatch between plaintiffs’ generalized motion for summary judgment as to SIPs and Capital Projects and the project-specific nature of the alteration inquiry, the Court accordingly must deny plaintiffs’ summary judgment motion arising from such projects. The Court authorizes plaintiffs, on a schedule to be set, to move anew for summary judgment as to such projects, with a renewed motion keyed to particular work at particular intersections.

*LPIs and EPPs*: For a separate reason, the Court cannot grant plaintiffs’ summary judgment motion with respect to LPIs and EPPs. That is because the evidence presented does not establish that the software changes required to implement LPIs and EPPs rise to the level of “alterations.” LPIs and EPPs are “signal timing treatment[s].” JSF ¶ 145. An LPI gives pedestrians a short head start before parallel vehicular traffic receives a green light, and an EPP gives all pedestrians at an intersection an exclusive opportunity to cross the street while all vehicular traffic has a red light. *Id.* ¶¶ 145, 163. To implement an LPI or EPP at an intersection, no physical changes are required. *See* Celentano Decl. ¶¶ 9, 14. To change the signal timing at an intersection, the City merely uploads new software to the intersection’s controller box. *See id.*

¶ 8 (to implement an LPI, a “phasing document is uploaded on-site into the intersection’s [traffic controller] via a flash drive containing the updated LPI phasing”); *id.* ¶ 13 (same for EPP).

In contrast, because APS installations generally involve the addition of new poles even at already signalized intersections, the City must do the following to install APS: (1) cut into the roadway to install electrical conduits; (2) excavate the portions of the sidewalk where new poles are needed; (3) fill the space with concrete to support the new poles; (4) install and bolt new poles to the ground; (5) add new APS devices to the new and existing poles, and connect to live

electrical wires; and (6) restore the roadway and roadway markings. *Id.* ¶ 6. While the cost of installing APS averaged roughly $61,000 per intersection in 2018, Benson Decl. ¶ 17, on the evidence presented, the cost of implementing an LPI or EPP appears to be no more than the labor cost of sending a person to upload software containing a new timing plan.

The factors identified in *Roberts* disfavor concluding that the implementation of LPIs or EPPs qualifies as an alteration. First, the cost and scope of implementing these timing changes is, essentially, *de minimis* relative to the overall size and cost of the facility. *Roberts*, 542 F.3d at 370; *see* Celentano Decl. ¶¶ 8, 13. Second, the goal of such modifications is more akin to a “modification or improvement” than a change in “the purpose or function” of the facility.

*Roberts*, 542 F.3d at 371. Giving pedestrians extra seconds in the crosswalk before vehicles begin to enter does not change the fundamental way that pedestrians navigate a crosswalk. The purpose and function of an intersection’s crossing signals, with or without LPIs or EPPs, remains to inform pedestrians when it is safe to cross the street. Changing the timing of crossing signals at an intersection “essentially preserve[s] the status and condition” of an intersection’s crossing signals, rather than rendering it “materially ‘new’ in some sense.” *Id.* at 370. Third, the steps needed to effectuate LPIs or EPPs do not make it “easier and cheaper” to integrate the features that facilitate ADA access, such as APS. The software modifications needed to install LPIs or EPPs are a far cry from the physical construction needed to support the installation of APS. *Id.* at 369; *see* Celentano Decl. ¶¶ 6, 8–9, 13–14. Requiring the installation of APS each time the City installs software to effect such timing changes is not consistent with the Second Circuit’s teaching that the more stringent requirements applicable to alterations should only apply to changes that render facilities “materially ‘new’ in some sense.” *Roberts*, 542 F.3d at 370.

Resisting this conclusion, plaintiffs note testimony—including from City employees— that LPIs and EPPs can have deleterious effects on blind pedestrians’ safety. *See* Pl. Mem. at 22; Pl. Reply at 5; JSF ¶¶ 147, 149, 164. These hazards are germane to the claim on which the Court has found the City liable: for failure to provide the blind with meaningful access to the City’s signalized intersections. The switch to LPIs and EPPs is a “traffic design choice . . . that render[s] unreliable the traditional street-crossing techniques used by blind pedestrians.” Barlow Report at 16. The remedy necessary to cure the City’s present denial of meaningful access may well entail installation of APS at, among others, street crossings where LPIs and EPPs present enhanced dangers to blind pedestrians. But the alteration inquiry is distinct. On the present record, the Court cannot find that these burdens transform otherwise minor modifications to the software controlling signal timing into alterations under the ADA or Rehabilitation Act.

The Court, accordingly, denies plaintiffs’ motion for summary judgment as to the claim that the implementation of LPIs and EPPs constitute alterations to an intersection requiring the simultaneous installation of APS.

* 1. *Claims Arising from New Signal Installations*
     1. Applicable Law

Finally, the Court addresses plaintiffs’ claims arising from new signal installations.

These claims implicate the regulations governing new construction promulgated under the ADA and Rehabilitation Act, to wit, that all newly constructed facilities must “be designed and constructed in such manner that the facility or part of the facility is readily accessible to and usable by individuals with disabilities.” 28 C.F.R. § 35.151(a)(1) (ADA); *see* 28 C.F.R. § 42.522(a) (similar under the Rehabilitation Act). Although neither provision defines “new construction” or “constructed,” and the parties do not dispute its significance, the plain meaning of the terms refers to instances in which the City installs a “facility” where one did not exist before.

* + 1. Application

The Court has held pedestrian crossing signals to be facilities under both the ADA and Rehabilitation Act. And, as the parties have stipulated, each year the DOT adds pedestrian crossing signals at between 100 and 120 intersections. JSF ¶ 135. Many of these installations, however, do not also include APS. *Id.* ¶ 133. As the parties have further stipulated, blind pedestrians cannot access the information provided by the crossing signals at a newly signalized intersection “unless it has been equipped with APS.” *Id.* ¶ 138.

It follows—as discussed in the context of plaintiffs’ meaningful-access claims—that such newly constructed facilities are not “readily accessible” to those who cannot see them. The City does not appear to dispute this aspect of plaintiffs’ [motion.17](https://motion.17/) *See* Def. Mem. at 20–21; 2019 APS Memo at 1 (“It is legally required that all newly signalized intersections containing a pedestrian signal also include APS.”). Therefore, to the extent that the City has installed new pedestrian crossing signals since June 27, 2015, without making those signals readily accessible to the blind, it has violated the ADA and Rehabilitation Act.18

The Court accordingly grants summary judgment to plaintiffs as to liability regarding all such installations. Because plaintiffs’ motion is limited to the liability phase, the Court does not have occasion presently to rule as the appropriate remedy. As above, however, on claims arising from the failure to make a facility accessible at the time of alterations or construction, a public- entity defendant does not have available the undue burden or fundamental alteration defenses

17 Nor does the City dispute that, given the work entailed, the installation of new traffic signals constitutes “new construction.” Unlike in the context of SIPs or Capital Projects, that determination applies across the board; it does not require a fact-intensive, site-specific inquiry.

18 Although not necessary to this conclusion, the PROWAG guidelines are consistent with it. They require that “[w]here pedestrian signals are provided at pedestrian street crossings, they shall include accessible pedestrian signals and pedestrian pushbuttons.” 76 Fed. Reg. at 44690.

that may be invoked in connection with claims of the denial of meaningful access. *See Kinney*, 9 F.3d at 1069.

# Claims Under the NYCHRL

The NYCHRL makes it an “unlawful discriminatory practice” for any “owner, lessee, proprietor, manager, superintendent, agent or employee of any place or provider of public accommodation, because of the actual or perceived . . . disability . . . of any person, directly or indirectly, to refuse, withhold from or deny to such person any of the accommodations, advantages, facilities or privileges thereof.” *Brooklyn Ctr. for Indep.*, 980 F. Supp. 2d at 642 (alterations in original) (quoting N.Y.C. Admin. Code § 8-107(4)(a)). It further requires that “any person prohibited by the [law] from discriminating on the basis of disability shall make reasonable accommodation to enable a person with a disability to . . . enjoy the right or rights in question provided that the disability is known or should have been known by the covered entity.” *Id.* (alterations in original) (quoting N.Y.C. Admin. Code § 8-107(15)(a)).

Although the ADA and the NYCHRL are similar in nature, they are not coextensive.

*Loeffler v. Staten Island Univ. Hosp.*, 582 F.3d 268, 278 (2d Cir. 2009). Under the Local Civil Rights Act Restoration Act of 2005, N.Y.C. Local Law No. 85 (2005) (“Restoration Act”), the NYCHRL is to be “construed liberally for the accomplishment of the uniquely broad and remedial purposes thereof, regardless of whether federal or New York State civil and human rights laws, including those with provisions comparably-worded to provisions of this title, have been so construed.” Restoration Act § 7. As the Second Circuit has recognized, this law imposes a “one-way ratchet”: Federal civil rights laws provide “a floor below which the City’s Human Rights Law cannot fall.” *Loeffler*, 582 F.3d at 278 (quoting Restoration Act § 1); *see also Brooklyn Ctr. for Indep.*, 980 F. Supp. 2d at 643 (because City’s actions “violate the ADA and the Rehabilitation Act, it follows that Defendants are liable under the NYCHRL as well.”).

Judgment for plaintiffs as to liability is required here to the same extent that the Court has entered judgment for plaintiffs on their federal claims relating to meaningful [access.19](https://access.19/) The City does not dispute that it is a “provider of public accommodations” or that the public streets, including signalized intersections, are places of public accommodations under the NYCHRL. *See* Pl. Mem. at 24–25; Def. Mem. at 21–22. And while the City disputes whether the

NYCHRL’s protections are any broader than the federal protections relevant here, *see* Def. Mem. at 21, it acknowledges that the NYCHRL’s protections are no less so. As a result, in light of the Court’s findings for plaintiffs under the ADA and Rehabilitation Act as to the denial of meaningful access, “it follows that Defendants are liable under the NYCHRL as well.” *Brooklyn Ctr. for Indep.*, 980 F. Supp. 2d at 643; *see also id.* (noting that NYCHRL has a “broader notion of which accommodations are reasonable” than the ADA and Rehabilitation Act). Accordingly, the Court enters summary judgment as to liability on plaintiffs’ NYCHRL claim.

# CONCLUSION

For the foregoing reasons, the Court grants in principal part, but not in its entirety, plaintiffs’ motion for summary judgment as to liability.

The Court grants plaintiffs’ motion for summary judgment as to liability on their claims under the ADA and Rehabilitation Act that the City—which has installed APS at fewer than 5% of signalized intersections—presently denies the certified class of blind and low-vision pedestrians meaningful access to a service, program, or activity of the City, to wit, the City’s signalized intersections and pedestrian grid.

19 As discussed above, the Court construes plaintiffs to have pled and pursued under the NYCHRL only the claim that the scarcity of APS throughout the City excludes them from the City streets. *See* Compl. ¶¶ 112–126; Pl. Mem. at 23–25 (arguing only that “the lack of APS at the vast majority of New York City’s intersections unlawfully excludes blind pedestrians from places of public accommodations,” without mentioning upgrades, new construction, or alterations).

The Court also grants plaintiffs’ motion for summary judgment as to liability on their claims under the ADA and Rehabilitation Act that the City’s failure to provide non-visual street- crossing information when it has installed new traffic signals after June 27, 2015, violates the ADA and Rehabilitation Act.

The Court grants plaintiffs’ motion for summary judgment as to liability, coextensive with that under the ADA and Rehabilitation Act, under the NYCHRL, as to the accessibility to the blind of the City’s signalized intersections and pedestrian grid as a whole.

The Court otherwise denies plaintiffs’ motion for summary judgment. As discussed above, this denial is without prejudice to plaintiffs’ right to move anew for summary judgment on their claims that the City has failed to make required alterations in the context of SIPs and Capital Projects. Any such renewed motion, however, must be keyed to particular intersections.

This litigation will now move promptly forward to a remedy stage, and to consideration of renewed motions, if any, for summary judgment as to liability on open claims. An order will issue shortly in which the Court will, *inter alia*, commission a joint letter from counsel addressing the timetable for next steps in this litigation.

The Clerk of Court is respectfully directed to terminate the motion pending at docket 92. SO ORDERED.

PAUL A. ENGELMAYER

United States District Judge

*PaJA.�*

Dated: October 20, 2020

New York, New York

AMERICAN COUNCIL OF THE BLIND OF NEW YORK, INC., MICHAEL GOLFO, and CHRISTINA CURRY, *on behalf of themselves and all others similarly situated*,

Plaintiffs,

v.

CITY OF NEW YORK, NEW YORK CITY DEPARTMENT OF TRANSPORTATION, BILL DE BLASIO, *in his official capacity as Mayor of the City of New York*, and POLLY TROTTENBERG, *in her official capacity as Commissioner of the New York City Department of Transportation*,

Defendants.

18 Civ. 5792 (PAE)

OPINION & ORDER

PAUL A. ENGELMAYER, District Judge:

This case involves a challenge under the Americans with Disabilities Act of 1990 (“ADA”) and related statutes to the accessibility of New York City’s signalized crosswalks to blind and low-vision pedestrians.

On behalf of a certified class of blind and low-vision New York City pedestrians, plaintiffs—the American Council of the Blind of New York, Inc. (“ACBNY”), Michael Golfo, and Christina Curry—have sued the City of New York, the New York City Department of Transportation (“DOT”), Mayor Bill de Blasio, and DOT Commissioner Polly Trottenberg (collectively, the “City” or “defendants”). Plaintiffs allege that the City has long failed to provide non-visual crossing information at the vast majority of its signalized intersections, *i.e.*, those which provide visual crossing information to sighted pedestrians. Plaintiffs allege that the City’s failure to accommodate blind and low-vision pedestrians violates Title II of the ADA

**Attachment “C”**

**To view this attachment online, visit:** [**https://www.ada.gov/acbmc/acbmc\_motion.html#Exhibit\_A**](https://www.ada.gov/acbmc/acbmc_motion.html#Exhibit_A)

## Exhibit A: COMPLAINT IN INTERVENTION OF THE UNITED STATES OF AMERICA

**UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF ILLINOIS  
EASTERN DIVISION**

AMERICAN COUNCIL OF THE BLIND OF METROPOLITAN CHICAGO, ANN BRASH, MAUREEN HENEGHAN, and RAY CAMPBELL, on behalf of themselves and all others similarly situated,

Plaintiffs,

  v.

CITY OF CHICAGO,

Defendant.

No. 19 C 6322

Judge Bucklo

UNITED STATES OF AMERICA,

Plaintiff-Intervenor,

v.

CITY OF CHICAGO,

Defendant.

## COMPLAINT IN INTERVENTION OF THE UNITED STATES OF AMERICA

The United States of America, having moved to intervene in this action and that motion having been granted, alleges as follows:

### Introduction

1. This is a disability rights enforcement action by the United States of America against the City of Chicago, seeking to remedy the city’s failure to provide people who are blind, including those who are deaf-blind or have low vision, equal access to pedestrian safety information at intersection crossings, which the city provides almost exclusively through visual-only pedestrian signals.  The United States seeks declaratory, injunctive, and compensatory relief for this violation of Title II of the Americans with Disabilities Act of 1990 (the “ADA”), 42 U.S.C. §§ 12131-12165, and its implementing regulations, 28 C.F.R. Part 35, and Section 504 of the Rehabilitation Act of 1973 (“Section 504”), 29 U.S.C. § 794, and its implementing regulations for recipients of federal funding from the U.S. Department of Transportation, 49 C.F.R. Part 27.
2. This complaint uses the term “blind” to encompass individuals who are entirely without sight, those who are legally blind or have low vision, and those who are “deaf-blind,” meaning that they have both little to no vision and little to no hearing.
3. Chicago has installed visual-only pedestrian signals that provide safe-crossing information at approximately 2,689 city intersections. Chicago has equipped only 15 of those intersections with signals that are accessible to people who are blind.  Thus, over 99 percent of the street intersections where Chicago deems it necessary to provide pedestrians with safe-crossing information are inaccessible to people who are blind.
4. Accessible pedestrian signals (“APSs”) convey safety information at intersections to people who are blind through sounds, audible speech, and vibrating tactile buttons, in much the same way that a visual signal reading “walk” or “don’t walk” conveys safety information to sighted pedestrians.
5. Chicago’s failure to install APSs at signalized intersections in the city endangers people who are blind by depriving them equal access to the same safe-crossing information that Chicago provides to sighted pedestrians.  This is unlawful discrimination under the ADA and Section 504.

### Jurisdiction and Venue

1. This Court has subject matter jurisdiction over this ADA and Section 504 action under 28 U.S.C. §§ 1331 and 1345.
2. The Court may grant the relief sought in this action pursuant to 42 U.S.C. § 12133, 29 U.S.C. § 794a, and 28 U.S.C. §§ 2201 and 2202.
3. Venue lies in this district pursuant to 28 U.S.C. § 1391(b), because the defendant resides in this district, and the acts or omissions set out herein occurred in this district.

### Parties

1. Plaintiff-intervenor is the United States of America.  The United States, through the Department of Justice, is authorized to enforce the ADA and Section 504.
2. Defendant City of Chicago is the largest municipality in the state of Illinois and the third largest city, by population, in the United States.  It is a “public entity” within the meaning of Title II of the ADA, and a recipient of federal funds, including funds from the United States Department of Transportation, making it subject to the accessibility requirements of Section 504.

### Facts

1. **Statutory and Regulatory Background**
   1. **The Americans with Disabilities Act**
      1. Congress enacted the ADA in 1990 to provide a clear and comprehensive national mandate for the elimination of discrimination against individuals with disabilities.  42 U.S.C. § 12101(b)(1).  In enacting the ADA, Congress found that “discrimination against individuals with disabilities persists in such critical areas as … transportation, communication, recreation … and access to public services[,]” and that the forms of discrimination encountered by individuals with disabilities include “the discriminatory effects of architectural … and communication barriers,” “failure to make modifications to existing facilities and practices,” and “relegation to lesser services, programs, activities, benefits, jobs, or other opportunities[.]”  Id. § 12101(a)(3), (5).
      2. Title II of the ADA requires that “no qualified individual with a disability shall, by reason of such disability, be excluded from participation in or be denied the benefits of the services, programs, or activities of a public entity, or be subjected to discrimination by any such entity.”  42 U.S.C. § 12132; see also 28 C.F.R. § 35.130(a).
      3. Chicago’s installation and maintenance of pedestrian signals that provide safe-crossing information at street intersections throughout the city constitute a service, program, or activity under the ADA.  See 42 U.S.C. § 12132; 28 C.F.R. § 35.130(a).
      4. People who are blind and who travel or seek to travel through Chicago’s signalized street intersections are qualified individuals with disabilities under the ADA.  See 42 U.S.C. § 12131(2); 28 C.F.R. §§ 35.104, 35.108.
   2. **Section 504 and Chicago’s Receipt of Federal Funds**
      1. Section 504 of the Rehabilitation Act prohibits a “qualified individual with a disability,” solely by reason of her or his disability, from being “denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.”  29 U.S.C. § 794(a).
      2. Chicago’s Department of Transportation (“CDOT”) is the agency within the City of Chicago that oversees installation, alteration, and maintenance of signalized intersections within Chicago, including pedestrian signals at those intersections.  It is a recipient of federal funds from the U.S. Department of Transportation.
2. **Chicago’s Widespread Lack of APSs Unlawfully Discriminates Against People Who Are Blind.**
   1. More than 2.7 million people reside in the City of Chicago.  According to a U.S. Census 2018 Community Survey cited by the Chicago Mayor’s Office for People with Disabilities, more than 111,000 Cook County, Illinois residents have a visual disability.  Beyond residents, many millions of commuters and visitors come to Chicago every year, including individuals who have visual disabilities.
   2. **Chicago Provides Safe Crossing Information at 2,689 Intersections Through Visual Signals.**
      1. Chicago has determined that it is necessary to provide safe-crossing information by installing pedestrian signal devices at 2,689 street intersections (hereinafter referred to as “signalized intersections,” i.e., intersections with electronic equipment to direct the flow of traffic and to signal safe-crossing information to pedestrians).
      2. All of those 2,689 intersections are equipped with visual pedestrian signals that employ textual or pictorial walk/don’t walk and/or countdown signals to communicate safe-crossing information to sighted pedestrians.
   3. **Chicago Fails to Provide Accessible Safe-Crossing Information to People Who Are Blind at Over 99 Percent of the Intersections Where It Has Installed Pedestrian Signals.**
      1. People who are blind cannot read the walk/don’t walk and/or countdown signals on visual-only pedestrian signals.
      2. Accessible pedestrian signals (“APSs”) are devices that provide people who are blind with safe-crossing information by communicating information about pedestrian signal timing in a non-visual format, such as audible tones, speech messages, and vibrotactile surfaces.  An APS device is commonly attached to the pole and includes a tactile pushbutton with a three-dimensional arrow directing pedestrians to the adjacent crosswalk.  The APS device emits a soft “locator tone” every second, which allows blind pedestrians to locate it as they approach the intersection.  When pressed, the APS button responds with an audible message telling the pedestrian to “walk” or “wait,” which corresponds to the visual signals provided to sighted pedestrians.  The push button itself also vibrates to alert pedestrians who are deaf-blind that it is safe to walk.
      3. Although Chicago protects sighted pedestrians by providing visual signals for crossing 2,689 intersections, it has installed APSs at only 15 of those intersections.
      4. At over 99 percent of Chicago’s signalized intersections, people who are blind do not have access to safe-street-crossing information that Chicago provides to sighted pedestrians, and they must use less safe and less reliable methods than sighted pedestrians to cross intersections.
      5. Such methods include listening for the sound of vehicular traffic moving parallel to their direction of travel to indicate that it may be safe to cross the street.  This method can be unreliable for many reasons, including inconsistent traffic patterns and the many competing noises in an urban setting.
      6. In addition, Chicago’s elevated or ‘L’ train travels above many of the city’s street intersections, producing a loud, even thunderous, sound that can drown out the sound of vehicular traffic.
      7. While ‘L’ trains are in transit above a non-APS signalized intersection, people who are blind must wait until the ‘L’ train has passed before crossing, often through multiple traffic cycles, as these pedestrians lack the same safe-crossing information that their sighted peers receive from Chicago’s visual-only signals.
      8. Chicago also has many complex, six-way intersections, at which it is difficult for pedestrians who are blind to discern the sound of parallel traffic and to orient themselves in the direction of an adjacent crosswalk.
      9. Additionally, an increase in the presence of electric vehicles, which are much quieter than traditional vehicles, has made using the sound of vehicular traffic as a cue for safe-crossing a riskier practice.
      10. In addition, Chicago has installed leading pedestrian intervals (“LPIs”) at many intersections with visual-only signals, making crossing those intersections even more dangerous than before for people who are blind.
      11. The LPI signal notifies pedestrians to begin crossing the street before parallel vehicular traffic receives a green light, giving those pedestrians a “head start” or extra time to enter the crosswalk before parallel vehicular traffic begins to move and turn right into the crosswalk.  For those who can use an LPI, it improves safety because drivers can readily see pedestrians in the crosswalk before turning and thus more easily avoid hitting them.
      12. For people who are blind, however, installing LPIs without APSs makes crossing even less safe because blind individuals will not know about the LPI, and will only begin to cross when they hear the parallel vehicular traffic begin.  Consequently, people who are blind are deprived of extra seconds of crossing time provided to sighted pedestrians, and drivers may get a false sense that no more pedestrians will cross when the traffic light turns green because sighted pedestrians will have already stepped into the crosswalk.
      13. Similar to LPIs, Chicago has installed exclusive pedestrian phases (“EPPs”) but no APSs at various intersections.  In an EPP intersection, vehicular traffic is stopped in all of the intersection’s directions while pedestrians in all directions are given safe-crossing signals.  As with an LPI, if the pedestrian signals provide visual-only safe crossing information at an EPP intersection, people who are blind are denied the benefit of the EPP and will only know when it is safe to cross by relying on the sound of parallel vehicular traffic.
      14. As a result of Chicago’s failure to provide APSs at signalized intersections, people who are blind are denied benefits and services provided to sighted pedestrians and face risks and burdens not experienced by sighted pedestrians, including:
          1. Fear of injury or death, including fear of just leaving home to get to work or social or community engagements.  Once out of the house and traversing Chicago, the lack of APSs increases risk of harm or death when crossing the street: one aggrieved individual, plaintiff Maureen Heneghan, was hit by a car while crossing at a Chicago intersection not equipped with APS, and another aggrieved individual, plaintiff Ann Brash, was nearly hit by a bus at a signalized crossing without APS but was pulled to safety by a stranger.
          2. Having to use alternate and more circuitous routes than sighted pedestrians to avoid crossing at certain signalized intersections because of safety concerns.
          3. Added delays and expenses not experienced by sighted pedestrians, because individuals who are blind may forgo travel by foot to avoid the danger of crossing signalized intersections without APSs, and use a hired ride service for even short distances.
          4. Increased anxiety, frustration, and embarrassment, and decreased independence, when attempting to navigate the city’s signalized intersections.
   4. **Chicago Has Attempted to Increase APS Installation Since at Least 2006, but Repeatedly Failed to Meet Its Own APS Goals and to Provide Equal Access to People Who Are Blind.**
      1. Since at least 2006, Chicago officials have communicated internally regarding the need for APSs as a means to provide accessibility for and protect the safety of people who are blind.
      2. A December 13, 2007 memorandum from the then-Commissioners of the Mayor’s Office for People with Disabilities (“MOPD”) and CDOT to Chicago’s then-Mayor, with the subject “Accessible Pedestrian Signal Initiative Update,” states:

In 2006, MOPD formed an APS Advisory Committee . . . In 2008, we intend to launch a pilot project that will begin the installation of APS at approximately 40 street corners throughout the City . . . [to be] installed around blind service organizations, corners specifically requested by blind individuals, and at intersections that [] are difficult and dangerous to cross. . . . The APS initiative is a tremendous step forward for improving pedestrian safety and accessibility for our blind and visually impaired residents and visitors.

(Emphasis in original).

* + 1. As of 2012, however, Chicago had installed APSs at only seven of its intersections.
    2. In 2012, Chicago published a Pedestrian Plan, describing an APS as “a traffic signal that provides auditory and/or vibrotactile information to people who are blind or have low vision,” that “should be installed where there is a need to provide additional crossing information,” and “should be considered at locations with LPIs to provide information to people who are blind or have low vision.”  The plan included a goal statement to improve “pedestrian safety at signalized intersections.”  That safety goal included milestones to implement “accessible pedestrian signals at ten intersections by 2014” and include “accessible pedestrian signals with all new traffic signals by 2016.”
    3. Chicago did not meet either of the 2012 plan’s APS milestones.  Chicago installed only one APS in 2013 and then none were installed for five more years, until the next APS was installed in 2018.
    4. Between 2012 and 2018, Chicago installed dozens of visual-only pedestrian signals at intersections throughout the city.
    5. In 2018, the city informed community members that it intended to install APSs at approximately 50 intersections, with potentially additional locations to follow, and would consider community input in selecting locations for APS installation.
    6. On May 14, 2019, CDOT published a memorandum requiring APS installation at new signals and “full” but not “partial” modernizations, while requiring that other technological enhancements be installed or considered for installation at all partial modernizations.
    7. Chicago newly installed at least nine signalized intersections without APS since publication of the 2019 CDOT memorandum.
    8. In July 2019, the city held a press conference and issued a press release announcing its APS plans, including that “[u]p to 100 intersections will get new traffic signals that aid persons with blindness or low-vision in the next two years through efforts of CDOT and Mayor’s Office of People with Disabilities.”
    9. Despite the promise of APSs at 100 intersections within two years, as of one year later, July 2020, Chicago had installed an APS at only one additional intersection.
    10. As of October 8, 2020, Chicago asserts that it has installed APSs at 15 intersections.
    11. In February 2020, Chicago produced a table of “Planned APS Locations,” listing 113 intersections where it plans to install APS, the last four of which have an  “Anticipated Project End” date of “2024 Q4.”
    12. Even if the city’s February 2020 plan were to come to fruition, Chicago would have APSs at fewer than four percent of its signalized intersections by the end of 2024.

### First Claim for Relief Violation of the Americans with Disabilities Act, 42 U.S.C. § 12132

1. The United States respectfully incorporates the allegations of paragraphs 1 through 47 as if fully set forth herein.
2. Chicago’s provision of visual pedestrian signals at thousands of intersections, while providing APS at less than one percent of those intersections, denies qualified people who are blind with equal access to safe-crossing information.
3. As a result, the City of Chicago is in violation of Title II of the ADA, 42 U.S.C. §§ 12131-34, and its implementing regulation, 28 C.F.R. Part 35.

### Second Claim for Relief Violation of Section 504 of the Rehabilitation Act of 1973, 29 U.S.C. 794

1. The United States respectfully incorporates the allegations of paragraphs 1 through 47 as if fully set forth herein.
2. The City of Chicago’s traffic signal program is administered by the Chicago Department of Transportation (“CDOT”).  CDOT receives federal grant funds for that program from the U.S. Department of Transportation.  Chicago’s provision of visual pedestrian signals at thousands of intersections, while providing APS at less than one percent of those intersections, denies qualified people who are blind solely on the basis of disability, with equal access to safe-crossing information.
3. As a result, the City of Chicago is in violation of Section 504 of the Rehabilitation Act, 29 U.S.C. § 794, and its implementing regulation for recipients of federal funding from the U.S. Department of Transportation, 49 C.F.R. Part 27.

### Prayer for Relief

WHEREFORE, the United States of America prays that the Court grant the following relief:

1. Grant judgment in favor of the United States on its complaint and declare that the City of Chicago has violated Title II of the ADA, 42 U.S.C. §§ 12131-34, and its implementing regulations, 28 C.F.R. Part 35, and Section 504 of the Rehabilitation Act of 1973, 29 U.S.C. § 794, and its relevant implementing regulations, 49 C.F.R. Part 27, by denying individuals who are blind equal access to pedestrian signal safety information;
2. Enter an injunction requiring the defendant to provide individuals who are blind equal access to pedestrian signal safety information;
3. Award compensatory damages in an appropriate amount for injuries suffered as a result of Chicago’s failure to comply with Title II and Section 504; and
4. Award such other additional relief as justice may require.

Dated: April 8, 2021

Respectfully submitted,

JOHN R. LAUSCH, JR.  
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