

1 UNITED STATES DEPARTMENT OF TRANSPORTATION
2 FEDERAL HIGHWAY ADMINISTRATION
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4 Complaint for the prohibition of
5 Rectangular Rapid Flashing Beacons

Case No. 2022-0375

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8 Petitioners: Mark Baker, Heidi
O’Leary, MarieAnn Cherry

9 Date: June 26, 2022
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11 **I. INTRODUCTION**

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- 13 1. The cities of Ashland, Oregon, Little Canada, Minnesota, and Penn Yan, New York
14 (Cities) discriminate against individuals with disabilities in violation of Title II of the
15 Americans with Disabilities Act (ADA), 42 U.S.C. §§ 12131–12134, and its implementing
16 regulation, 28 C.F.R. Part 35.
 - 17 2. Title II of the ADA specifies that “no qualified individual with a disability shall, by reason
18 of such disability, be excluded from participation in or be denied the benefits of the
19 services, programs, or activities of a public entity, or be subjected to discrimination by any
20 such entity.” 42 U.S.C. § 12132; 28 C.F.R. § 35.130(a).
 - 21 3. In addition to the general prohibitions against discrimination, the ADA regulation requires
22 that “no qualified individual with a disability shall, because a public entity’s facilities are
23 inaccessible to or unusable by individuals with disabilities, be excluded from participation

1 in, or be denied the benefits of the services, programs, or activities of a public entity, or be
2 subjected to discrimination by any public entity.” 28 C.F.R. § 35.149.

3 4. The Cities installed devices called Rectangular Rapid Flashing Beacons which pulse high
4 energy rapidly flashing LED light, subjecting Plaintiffs to discrimination due to their
5 qualified disabilities and neurological intolerance to such rapidly flashing LED light.

6 5. The use of RRFBs constitutes assault.

7 6. The US Food and Drug Administration has not approved or developed regulations for LED
8 lights.

9 7. The FHWA has failed to receive FDA approval to authorize the use of RRFBs, has failed to
10 validly measure the non-uniform luminance of RRFBs, and has failed to study the effects
11 of RRFBs on people with disabilities.

12 **II. STATEMENT OF FACTS**

13 8. Mark Baker is a resident of Ashland, Oregon. Heidi O’Leary is a resident of Little Canada,
14 Minnesota. MarieAnn Cherry is a resident of the Village of Cambridge, New York
15 (Plaintiffs). Plaintiff Mark Baker been diagnosed with Autism Spectrum Disorder which is
16 a qualified ADA disability. Plaintiffs Heidi O’Leary and MarieAnn Cherry have been
17 diagnosed with epilepsy which is a qualified ADA disability. All plaintiffs are therefore
18 protected under the ADA.

19 9. A person who is LED light-disabled is one who becomes disabled or has reduced capacity
20 to function when exposed to LED light. Plaintiffs are LED light-disabled.

21 10. City streets and sidewalks are public services (Barden vs. City of Sacramento, Case 01-
22 15744)

1 11. The City of Ashland operates RRFBs along Siskiyou Blvd. at Beach Street, University
2 Way, Garfield Street, Garfield Street, Avery Street, Bridge Street, and Frances Lane.

3 Figure 1 shows the RRFBs installed at University Way.



13 *Figure 1 - RRFB at University Way*

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15 12. The City of Little Canada operates an RRFB along Little Canada Road at Market Place
16 Drive. Figure 2 shows the RRFB installed at Market Place Drive.

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Figure 2 - RRFB at Market Place Drive

13. The RRFBs shine exceedingly high intensity, rapidly flashing LED light into the eyes of drivers and pedestrians. On numerous occasions, Plaintiffs have been subjected to these LED flashing lights, causing disorientation, visual impairment, agitation, anxiety, fear, wobbly legs, nausea, vomiting, and seizures. The LED flashing lights create discriminatory barriers that prevent plaintiffs from safely accessing public services such as sidewalks and roads in the Cities.
14. Figure 3 shows an RRFB. RRFBs have been given an interim approval by the Federal Highway Administration based on a single study performed at the Texas A&M

1 Transportation Institute¹; however, RRFBs have never received full approval in the Manual
2 of Uniform Traffic Control Devices. The FHWA has not studied the impacts of RRFBs on
3 those who are LED light-disabled. In addition, the study that the FHWA relied on is
4 invalid because the study used the wrong metrics when measuring the brightness of the
5 light. The Texas A&M researchers incorrectly used luminous intensity, when the proper
6 metric is luminance for a surface source LED emitter. As can be seen in Figure 3, RRFBs
7 are exceedingly intense.



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18 *Figure 3 – Rectangular Rapid Flashing Beacon*

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23 ¹ <https://static.tti.tamu.edu/tti.tamu.edu/documents/TTI-CTS-0010.pdf>

- 1 15. A marketing video from Spot Devices (now Carmanah) shows the LED flashing lights of
2 an RRFB: <https://youtu.be/KBltx0Argag>
- 3 16. Plaintiffs have made repeated requests to Ashland and Little Canada for accommodation to
4 be protected from RRFBs so that Plaintiffs can safely access city streets. Ashland and
5 Little Canada have denied Plaintiff's request for accommodation and have referenced the
6 FHWA's interim approval of RRFBs as proof that RRFBs are authorized.
- 7 17. The US Food and Drug Administration is the responsible federal agency for regulating
8 electronic products The FDA specifically regulates light-emitting products in the federal
9 Code of Regulations Title 21, Chapter I, Subchapter J, Part 1040² As noted in Part 1040,
10 the FDA has the following regulations: 1040.10 Laser products, 1040.20 Sunlamp
11 products, 1040.30 Mercury Vapor lamps. Missing from these regulations is 1040.40 LED
12 products. The significance of this lack of FDA regulation for LED products is that the
13 Cities' decision to use LED flashing lights was done without waiting for approval and
14 regulation from the FDA. Nor did the Cities submit a petition to the FDA requesting such
15 approval, thus making the Cities liable for the injuries and discrimination caused by the use
16 of unregulated LED flashing lights.
- 17 18. The use of RRFBs meet the legal criteria for assault. Assault is defined as intentionally
18 putting another in reasonable apprehension of an imminent harmful or offensive contact
19 and physical injury is not required.³ The specific design of an RRFB is to intentionally
20 place the driver into a state of fear and apprehension, thus demanding that the driver stop

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23 ² <https://www.ecfr.gov/current/title-21/chapter-I/subchapter-J/part-1040>

³ <https://www.law.cornell.edu/wex/assault>

1 the vehicle. The use of exceedingly intense, rapidly flashing LED light is not a mere lack
2 of concern, but rather an intentional design decision to use to the most severe, weaponized
3 form of light available. The Cities could have decided to use a soft, gentle, slow flashing
4 light as a warning, but instead purposely chose the punishing effect of the excessively
5 intense, strobing version of light that is the same type used for torture. Therefore, the
6 Cities are committing assault and the use of the word assault in this filing is appropriate.

7 8 **III. ADA Enforcement Actions**

9 19. The ADA was passed in 1990 and further strengthened in 2008. Since that time, numerous
10 cases have been filed and decided in favor of plaintiffs who were discriminated against due
11 to the failure of a government agency to remove a barrier that unjustly discriminated. The
12 US Department of Justice supported the plaintiffs in the following cases:

13 20. **A.V. v. Douglas County School District et al. (D. Co.)⁴** - In this case, a student with
14 Autism Spectrum Disorder (which is the same as Plaintiff's diagnosis) was roughly
15 handled by the police and then left in a patrol vehicle. The student banged his head on the
16 window for a lengthy period of time because he was in distress. This type of reaction is
17 similar to how Plaintiff Mark Baker feels when assaulted by LED flashing lights and
18 Plaintiff has screamed, smashed his hand into his face, and cursed when subjected to LED
19 flashing lights. As plaintiffs have explained to the Cities, LED flashing lights are
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23 ⁴ https://www.ada.gov/av_douglas_co_soi.html

1 neurologically intolerable. In this case, the DOJ supported the student's right to
2 accommodation.

3 21. **American Council of the Blind of Metropolitan Chicago, et al. v. City of Chicago**⁵ - In
4 this case, the plaintiffs are those with vision-related disabilities. The city of Chicago failed
5 to provide accessible pedestrian signals for those who are blind. Just as a non-sighted
6 person needs accommodation to navigate the built environment, the use of LED flashing
7 lights creates a barrier for Plaintiff where no barrier existed before the installation of the
8 LED flashing lights. By shining LED flashing light into Plaintiffs' eyes, the cities disable
9 Plaintiffs. Just as the city of Chicago was required to provide accessible pedestrian signals
10 for those who are blind, the Cities are required to refrain from shining LED flashing lights
11 into the eyes of Plaintiffs. In this case, the DOJ supported those with vision-related
12 disabilities.

13 22. **Betancourt-Colon v. City of San Juan, 19-cv-1837 (D.P.R.)**⁶ - In this case, the DOJ
14 supported an individual's right to navigate sidewalks and that the city of San Juan is
15 required to provide curb cuts to make the sidewalk accessible to all individuals. Similarly,
16 the Cities' use of LED flashing lights creates a barrier, reducing vision and putting the lives
17 of Plaintiffs at risk.

18 23. **American Council of the Blind of New York, Inc. v. The City of New York 18-cv-5792**
19 **(SDNY)**⁷ – On April 23, 2021, the United States filed a Statement of Interest in the case
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22 ⁵ https://www.ada.gov/acbmc/acbmc_motion.html

⁶ https://www.ada.gov/betancourt_soi.html

⁷ https://www.nysd.uscourts.gov/sites/default/files/2020-10/18-cv-5792%20ACBNY%20v.%20City%20of%20New%20York%20-%20Opinion%20%20Order_2.pdf

1 of American Council of the Blind of New York v. City of New York. In this case, the Court
2 concluded that the city of New York deprived individuals with vision disabilities of
3 meaningful access to its signalized crossings and the pedestrian grid in violation of the
4 Americans with Disabilities Act. In response, the parties filed competing remedial plans.
5 The Statement of Interest asserts that the remedy adopted to redress the City's ADA and
6 Rehabilitation Act violations should: (1) ensure that newly constructed and altered
7 signalized intersections are accessible and that existing signalized intersections are
8 modified such that individuals with vision-related disabilities have an equal opportunity to
9 travel safely and efficiently within the pedestrian grid; (2) allow for the use of alternative
10 methods to provide individuals with vision-related disabilities access to the pedestrian grid
11 only where those methods are as effective as APS and prioritize integration; (3) consider
12 financial and administrative burdens only in choosing between equally effective
13 alternatives, as the City has forfeited the argument that costs establish a defense to liability;
14 and (4) be implemented expeditiously, while prioritizing access to important areas of public
15 life and intersections that present heightened safety risks. In the same way that the city of
16 New York was required by the Court to ensure those with vision-related disabilities are
17 given an equal opportunity to use altered pedestrian crossings, the Cities must ensure that
18 pedestrian crossings are designed in such a way as to not discriminate against those who
19 are LED light-disabled.

20 **IV. Arguments Against Accommodation**

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1 24. Local governments have developed a toolkit of excuses for why they don't need to provide
2 an accommodation. In this section we review the Cities' possible responses to Plaintiffs'
3 request for accommodation.

4 25. **The City Does Not Own the RRFBs** – Ashland City Attorney Katrina Brown attempted to
5 claim that the City does not own or operate the RRFBs. Plaintiff Mark Baker contacted the
6 legal counsel for Southern Oregon University and the Ashland School District and was
7 informed by both agencies that they have no involvement with the RRFBs. Thus, Ashland
8 City Attorney Brown's efforts to deflect blame to other agencies for the RRFBs fails.

9 26. **Undue Burden** - The ADA does not require a public entity to take any action that it can
10 demonstrate would result in a fundamental alteration in the nature of a service, program, or
11 activity or in undue financial and administrative burdens. 28 C.F.R. § 35.150(a)(3). In this
12 situation, the fundamental service is the road and sidewalk which allows people to navigate
13 in the built environment. The service is not the RRFB and removing the RRFB would not
14 alter the fundamental nature of the service as shown by the fact that there are hundreds of
15 other streets and sidewalks in the Cities that do not use RRFBs.

16 27. In addition, the Cities cannot claim an undue financial or administrative burden related to
17 removing the RRFBs because the Cities are at fault for having created the discriminatory
18 barrier where none had previously existed. The Cities created this barrier without having
19 ensured that RRFBs are safe for people with autism, epilepsy, migraines, and other LED
20 light-disabled people. Eliminating the RRFBs would simply restore the roadway and
21 sidewalk back to its non-discriminatory state that existed prior to the installation of the
22 RRFBs.

- 1 28. **Public Safety** - The Cities have claimed that the RRFBs were installed for safety purposes.
2 This claim is not supported by the facts. The facts are that RRFBs reduce driver vision,
3 increasing the risk of vehicle crash or injury. A December 2021 study sponsored by the
4 Emergency Responder Safety Institute stated, “*When lights flash and turn completely off*
5 *during the flash cycle, it can be difficult for drivers to accurately judge their location,*
6 *speed and direction of motion.*”⁸ Thus, as common sense would tell us, it is simply not safe
7 to shine rapidly flashing LED lights into a person’s eyes.
- 8 29. In addition, because the RRFBs trigger epileptic seizures, migraines, and panic attacks for
9 LED light-disabled people, RRFBs are not safe for this class of people.
- 10 30. **RRFBs are the Only Solution** – The Cities may claim that RRFBs are the only method of
11 achieving pedestrian safety. This would be an untrue claim, as there are numerous traffic
12 engineering options for safety ranging from expensive solutions such as constructing a
13 bridge, to inexpensive solutions such as curb outs and reducing the speed limit.

14 **V. Accommodation Options**

- 15 31. The Cities chose not to offer any accommodations at all for Plaintiffs. However, the
16 following is a list of possible accommodations that the Cities may be considering. Only
17 one of these proposals is a legitimate method of providing accommodation. As per the
18 ADA, Plaintiffs are not required to accept an accommodation offered by the Cities. C.F.R.
19 §§ 35.130(e)(1)

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23 ⁸ <https://www.respondersafety.com/Download.aspx?DownloadId=f31a5f73-7b95-44c7-bd25-1e4cdfce5229>

1 32. **Require Plaintiff to not use the road.** - Requiring the Plaintiffs to map out alternate travel
2 routes to avoid being assaulted by the RRFBs does not provide the inclusive environment
3 required by the ADA. Additionally, Plaintiffs are unable to freely access businesses along
4 the roadway so long as the RRFB barriers exist.

5 33. **Special Glasses** - The RRFB LED flashing lights have exceedingly high peak luminance,
6 the luminance is spatially non-uniform, and the flashing uses a digital square wave.
7 Glasses will not help. In addition, the ADA prohibits forcing a person to use a technology
8 to overcome the discrimination.

9 34. **Operate During Certain Times of the Day** - The Cities may propose that the RRFBs be
10 turned off for an hour per day to accommodate the Plaintiff. This would be an unjust
11 solution, forcing the Plaintiffs to use the street only at certain times, when everyone else
12 can use the street at any time.

13 35. **Turn off and Remove the RRFBs Permanently** – Turning off the RRFBs would
14 eliminate most of the discrimination. Removing of the entire RRFB apparatus would
15 eliminate the remainder of the discrimination caused by the fear of seeing the device and
16 reliving the previous assaults.

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19 **VI. CAUSE OF ACTION UNDER TITLE II OF THE ADA**

20 36. The allegations of Paragraphs 1-35 are hereby realleged and incorporated by reference.

21 37. The Cities have discriminated against Plaintiffs and other individuals with disabilities in
22 violation of the following Codes of Federal Regulation:

23 A. Denial of benefits. 28 C.F.R. §§ 35.130(a)

1 B. Unequal opportunity. 28 C.F.R. §§ 35.130(b)(1)(ii) and 28 C.F.R. §§ 35.130(b)(1)(iii)
2 and 28 C.F.R. §§ 35.130(b)(1)(vii)

3 C. Failure to accommodate. 28 C.F.R. §§ 35.130(b)(7)(i)

4 D. Failure to provide the most integrated setting. 28 C.F.R. §§ 35.130(d)

5 38. The FHWA has failed to receive FDA approval of the RRFB device.

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7 **VII. Relief Requested**

8 39. Therefore, Plaintiffs request that the Federal Highway Administration, Office of Civil
9 Rights take the following actions:

10 A. Declare that Cities have violated Title II of the ADA and its implementing regulation.

11 B. Terminate the FHWA’s RRFB Interim Approval.

12 C. Notify all local and state agencies that the use of RRFBs is to be discontinued and
13 that the RRFB apparatus is to be removed.

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15 Dated: June 29, 2022

16 Respectfully Submitted By,

17 /s/ Mark Baker
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19 /s/ Heidi O’Leary
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21 /s/ MarieAnn Cherry
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