

No. 21-541

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IN THE  
**Supreme Court of the United States**

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TRAVIS TUGGLE,

*Petitioner,*

*v.*

UNITED STATES OF AMERICA,

*Respondent.*

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ON PETITION FOR A WRIT OF CERTIORARI TO THE UNITED  
STATES COURT OF APPEALS FOR THE SEVENTH CIRCUIT

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**BRIEF OF *AMICI CURIAE* ELECTRONIC  
FRONTIER FOUNDATION, BRENNAN CENTER  
FOR JUSTICE, CENTER FOR DEMOCRACY  
& TECHNOLOGY, ELECTRONIC PRIVACY  
INFORMATION CENTER, AND NATIONAL  
ASSOCIATION OF CRIMINAL DEFENSE  
LAWYERS IN SUPPORT OF PETITIONER**

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JENNIFER LYNCH

*Counsel of Record*

ANDREW CROCKER

ELECTRONIC FRONTIER FOUNDATION

815 Eddy Street

San Francisco, CA 94109

(415) 436-9333

[jlynch@eff.org](mailto:jlynch@eff.org)

*Attorneys for Amici Curiae*

*(For Continuation of Appearances See Inside Cover)*

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308271



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(800) 274-3321 • (800) 359-6859

RACHEL LEVINSON-WALDMAN  
LAURA HECHT-FELELLA  
BRENNAN CENTER FOR JUSTICE  
1140 Connecticut Avenue NW,  
Suite 1150  
Washington, DC 20036  
(202) 249-7193

*Counsel for Amicus Curiae  
Brennan Center for Justice*

ALAN BUTLER  
MEGAN IORIO  
ELECTRONIC PRIVACY INFORMATION  
CENTER  
1519 New Hampshire Avenue NW  
Washington, DC 20036  
(202) 483-1140

*Counsel for Amicus Curiae  
Electronic Privacy  
Information Center*

SHARON BRADFORD FRANKLIN  
CENTER FOR DEMOCRACY  
& TECHNOLOGY  
1401 K Street NW, Suite 200  
Washington, DC 20005  
(202) 407-8842

*Counsel for Amicus Curiae  
Center for Democracy  
& Technology*

JEFFREY T. GREEN  
NATIONAL ASSOCIATION OF  
CRIMINAL DEFENSE LAWYERS  
1501 K Street N.W.  
Washington, DC 20005  
(202) 736-8291

*Counsel for Amicus Curiae  
National Association of  
Criminal Defense Lawyers*

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**STATEMENT OF IDENTITY AND  
INTEREST OF *AMICI CURIAE*<sup>1</sup>**

Amici are organizations committed to ensuring that constitutional rights are protected as technology advances. They have all served as amicus curiae in this Court in several cases addressing the intersection of the Fourth Amendment and new technologies. *See, e.g., Carpenter v. United States* 138 S. Ct. 2206 (2018); *Riley v. California*, 573 U.S. 373 (2014); *United States v. Jones*, 565 U.S. 400 (2012).

The Electronic Frontier Foundation (“EFF”) is a nonprofit organization that has worked for more than 30 years to protect privacy, free speech, and civil liberties in the digital world. EFF, with its over 30,000 active donors, represents the interests of technology users in court cases and broader policy debates surrounding the application of law in the digital age.

The Brennan Center for Justice at NYU School of Law<sup>2</sup> is a nonpartisan public policy and law institute focused on

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1. No counsel for a party authored this brief in whole or in part, and no such counsel or party made a monetary contribution intended to fund the preparation or submission of this brief. No person other than the amici curiae, or their counsel, made a monetary contribution intended to fund its preparation or submission.

Pursuant to Supreme Court Rule 37.2(a), amici curiae provided at least ten days’ notice of their intent to file this brief to counsel of record for all parties. All parties have consented to the filing of this brief.

2. This brief does not purport to convey the position, if any, of the New York University School of Law.

fundamental issues of democracy and justice. The Center's Liberty and National Security ("LNS") Program uses innovative policy recommendations, litigation, and public advocacy to advance effective national security policies that respect the rule of law and constitutional values. The LNS Program is particularly concerned with domestic intelligence gathering policies, including the dragnet collection of Americans' communications and personal data, and the concomitant effects on First and Fourth Amendment freedoms.

The Center for Democracy & Technology ("CDT") is a nonprofit public interest organization which seeks to ensure that the human rights we enjoy in the physical world are realized in the digital world. Integral to this work is CDT's representation of the public's interest in protecting individuals from abuses of technologies that threaten the constitutional and democratic values of privacy and free expression. For twenty-five years, CDT has advocated in support of laws and policies that protect individuals from unconstitutional government surveillance, including serving as *amicus curiae* in this Court in cases involving application of Fourth Amendment safeguards to surveillance technologies. This case presents significant issues concerning warrantless surveillance that chills individuals' free association and intrudes upon their privacy inside their homes.

The Electronic Privacy Information Center ("EPIC") is a public interest research center in Washington, D.C., that focuses on emerging privacy, civil liberties, and civil rights issues. EPIC routinely participates as *amicus curiae* in cases concerning constitutional rights and emerging technologies.

The National Association of Criminal Defense Lawyers (“NACDL”) is a nonprofit voluntary professional bar association, founded in 1958, that works on behalf of criminal defense attorneys to ensure justice and due process for those accused of crime or misconduct. NACDL has a nationwide membership of up to 40,000 members, including affiliates, comprised of private criminal defense lawyers, public defenders, military defense counsel, law professors, and judges. NACDL has a particular interest in cases that involve surveillance technologies and programs that pose new challenges to personal privacy, and NACDL’s Fourth Amendment Center operates to provide training, resources, and direct litigation assistance in such cases.

### **INTRODUCTION AND SUMMARY OF ARGUMENT**

This case asks the Court to consider whether long-term, continuous, and surreptitious video recording of all activity outside a person’s home is an unconstitutional invasion of privacy. The Seventh Circuit below held that law enforcement did not need a warrant to watch in real-time and record for later viewing all comings and goings at Mr. Tuggle’s home, twenty-four hours a day, seven days a week, for a year and a half. *United States v. Tuggle*, 4 F. 4th 505, 511 (7th Cir. 2021). As addressed fully in Mr. Tuggle’s petition for certiorari, state and federal courts were already divided on the constitutionality of warrantless video surveillance of areas immediately outside the home, and the Seventh Circuit’s holding deepens the split of authority. Hence, amici urge the Court to grant the petition.

The Court should also grant certiorari because this case presents an important and unsettled question of federal law: whether the Fourth Amendment bars warrantless long-term video surveillance of areas surrounding the home, even when those areas are exposed to the public. This issue affects a large swath of Americans. Video surveillance technology has become both increasingly sophisticated and increasingly inexpensive—thus diminishing practical constraints on its use. Police use of covert, long-term pole camera surveillance is already widespread, and its use is likely to increase as the costs of cameras and data storage continue to decrease. These cameras are already able to record in the dark, operate continuously around the clock, and pan, tilt, and zoom in on small details via remote control. In the near future, they are likely to include advanced image processing capabilities, including facial recognition, license plate identification, “suspicious activity” flagging, and more. Many people are unable to surround their homes with fences of sufficient height and opacity to keep out prying eyes, whether because of city ordinances controlling fence height or because their financial circumstances prevent them from building such a fence.

The lower court likened the long-term continuous surveillance in this case to the individual aerial photographs this Court addressed more than 30 years ago in *Dow Chemical v. United States*, 476 U.S. 227 (1986), and *California v. Ciraolo*, 476 U.S. 207 (1986). *Tuggle*, 4. F. 4th at 515. But there is no comparison. In those cases, the surveillance flights were brief, and the resulting photographs exposed few, if any, intimate details of a person’s life. *See, e.g., Dow Chemical*, 476 U.S. at 238 (noting that the details in the photographs were “limited to an outline of the facility’s buildings and equipment”);

*Ciraolo*, 476 U.S. at 209 (describing a single flight over Ciraolo’s backyard). *See also Florida v. Riley*, 488 U.S. 445, 448 (1989) (helicopter circled twice over Riley’s property).

But as this Court recognized in *Carpenter v. United States*, 138 S. Ct. 2206 (2018), there is a “world of difference between the limited types of personal information addressed in” those earlier cases and the comprehensive information that officers can gather easily and cheaply from their secret, all-seeing pole camera sentries today. 138 S. Ct. at 2219. Pole camera surveillance, like the cell site location information (CSLI) at issue in *Carpenter*, enables the government to compile an “exhaustive chronicle” of information on individuals’ lives. *Id.* In the COVID-19 pandemic, home-facing video surveillance may be even more invasive and revealing than CSLI. As most Americans stayed close to home over the last year and a half, our houses and apartments became our entire worlds. Particularly during this time, someone could learn more about us by watching and recording the deliveries to our doorsteps than they could by recording where we travelled. Thus, pole cameras implicate both Fourth Amendment protection against long-term, technologically aided surveillance and the heightened concern for privacy in the home and its immediate surroundings.

The Seventh Circuit recognized that “[c]onstitutionally and statutorily mandated protections stand as critical bulwarks in preserving individual privacy vis-à-vis the government in this surveillance society.” *Tuggle*, 4 F. 4th at 509-10. The Court should grant certiorari to ensure the Fourth Amendment guards against warrantless pole camera surveillance. Without such protections, police will be free to use pole cameras against anyone, at any time.



## ARGUMENT

### **I. The Capabilities of Video Surveillance Have Increased Significantly, Just as the Costs of Such Surveillance Have Decreased, Counseling in Favor of Certiorari.**

Today's pole camera technology already far exceeds the technology anticipated in this Court's prior opinions. While the camera used by police in *Ciraolo*, for example, was "a standard 35mm [film] camera," 476 U.S. at 209, today's pole cameras are digital and can capture far more than "naked-eye observation." *Id.* at 213. The cameras used to surveil Mr. Tuggle seven years ago integrated pan and tilt functions that allowed officers to change the angle of view remotely, and powerful zoom lenses to capture minute details from a distance. They were also equipped with "[r]udimentary lighting technology [that] improved the quality of overnight footage." *Tuggle*, 4 F. 4th at 511.

Today, an investigation using pole cameras would likely include more sophisticated technology, including true "night vision" and artificial intelligence to swivel and zoom automatically. For example, IndigoVision, a company that sells several advanced surveillance cameras, markets a "thermal camera" that can "detect presence and movement of people and vehicles in . . . complete darkness."<sup>3</sup> Another company, Viseum, sells an "intelligent moving camera" that claims its programming can detect

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3. *SP Camera Range: Specialist Solutions for Challenging Environments*, IndigoVision, <https://www.indigovision.com/products/cameras-and-encoders/sp-camera-range> (all websites last visited November 9, 2021).

“suspicious” activity and automatically move and zoom to capture that activity.<sup>4</sup>

Because today’s pole cameras are digital and networked, they also allow for both real-time viewing and retrospective, easily searchable access to colossal amounts of stored footage—a feat previously unimaginable in the age of film cameras. Today’s cameras are much smaller than cameras of 30 years ago; they can be hidden from view, and, unlike a film camera, they rarely need to be attended to in person. This makes them ideal for surveillance in residential areas like Mr. Tuggle’s, where the “neighborhood was made up of frequently untraveled roads, and made physical surveillance difficult for investigators.” Cert. Pet. App. at 44a.

Camera technology in general has developed rapidly in recent years, and these developments will likely cross over to pole cameras. Newer cameras can identify precise and granular details—as minute as letters on a package. Canon has produced a 250-megapixel camera that can “read the lettering on the side of an aircraft from 11 miles away.”<sup>5</sup> Aeryon Labs, a drone manufacturer that

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4. Jay Stanley, *The Dawn of Robot Surveillance: AI, Video Analytics and Privacy* 31-32, ACLU (June 17, 2019), [https://www.aclu.org/sites/default/files/field\\_document/061819-robot\\_surveillance.pdf](https://www.aclu.org/sites/default/files/field_document/061819-robot_surveillance.pdf) (quoting ViseumSafetyWatch, *Intelligent CCTV Panoramic Security Camera*, YouTube (Feb. 5, 2017), <https://www.youtube.com/watch?v=xoLFv2TLuBE>; *Video Analytics Software*, Viseum, <https://www.viseum.co.uk/cctv-products/video-analytics-software>).

5. Stanley, *supra* note 4, at 32 (quoting Stephen Shankland, *Canon’s 250-Megapixel Sensor Powers Eagle-Eyed Camera*, CNet (Sept. 7, 2015), <https://www.cnet.com/tech/computing/canons-250-megapixel-sensor-powers-eagle-eyed-camera>).

frequently contracts with U.S. agencies, is now marketing a drone-mounted camera that can “read a license plate or identify a person from over 1,000 feet away” or “read the serial number on an insulator from 100 feet away.”<sup>6</sup>

Pole cameras may also integrate capabilities currently being used or considered for use by law enforcement in other camera systems, including sophisticated analytical software that allows for license plate identification,<sup>7</sup> facial recognition, filtering, object identification, and more. These analytical tools can be applied to video footage after the fact—enhancing recordings obtained via older pole camera technology. For example, backend analytics software like BriefCam can aggregate surveillance camera footage, “rapidly” comb through it to “pinpoint” people and objects, make that footage searchable by keyword, and provide law enforcement the ability to “review six surveillance sites in less time than one classic surveillance operation.”<sup>8</sup> The software can also summarize footage by “showing every pedestrian or vehicle that appeared at [a] location across many hours all together within minutes” or can filter footage by “allow[ing]

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6. Jason Koebler, *This Drone Zoom Lens Can Identify Your Face from 1,000 Feet Away*, VICE Motherboard (Feb. 25, 2015), <https://www.vice.com/en/article/8qxe93/this-drone-zoom-lens-can-identify-your-face-from-1000-feet-away>.

7. *Deployable Video Surveillance Units*, i2c Technologies, <https://i2ctech.com/product/vpmax-customizable-pole-camera-system> (describing the VPMax Complete Customizable Pole Camera Unit as including “a variety of camera combinations . . . including PTZ, fixed, thermal imaging, license plate readers and gunshot detection”).

8. *Video Analytics Solutions for Post-Event Investigations*, BriefCam, <https://www.briefcam.com/solutions/police-investigations>.

operators to show only red cars . . . or only women, with all the other traffic disappearing.”<sup>9</sup> Technology like this allows the massive amounts of digital footage collected by today’s pole cameras to be searched quickly and easily, even after an indefinite passage of time.

Law enforcement are also eyeing camera systems that enable real-time facial recognition. The Orlando Police Department<sup>10</sup> and an Oregon county sheriff’s office<sup>11</sup> tested real-time facial recognition technology in 2017, and the Detroit Police Department purchased a real-time facial recognition system that same year that could connect “to any interface that performs live video.”<sup>12</sup> A

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9. Stanley, *supra* note 4, at 29 (citing *The BriefCam Comprehensive Video Analytics Platform*, BriefCam, <https://www.briefcam.com/solutions/platform-overview>; *Technology that Allows You to Review Video Fast*, BriefCam, <https://www.briefcam.com/technology/video-synopsis>).

10. Joey Roulette, *Another Florida Police Agency Wants to Use Real-Time Facial Recognition Surveillance*, Orlando Wkly. (Apr. 26, 2019), <https://www.orlandoweekly.com/Blogs/archives/2019/04/26/another-florida-police-agency-wants-to-use-real-time-facial-recognition-surveillance>.

11. Drew Harwell, *Oregon Became a Testing Ground for Amazon’s Facial-Recognition Policing. But What if Recognition Gets It Wrong?*, Wash. Post (Apr. 30, 2019), <https://www.washingtonpost.com/technology/2019/04/30/amazons-facial-recognition-technology-is-supercharging-local-police>.

12. Clare Garvie & Laura M. Moy, *America Under Watch*, Geo. Ctr. on Privacy & Tech. (2019), <https://www.americaunderwatch.com> (quoting DPD, *Crime Intelligence Unit Standard Operating Procedure for Face Recognition* (July 1, 2018, revised April 1, 2019), <https://drive.google.com/drive/folders/1Obv4VgNv6pPXs9C9lBKUb9ZKGuW8m0lV>).

2016 Georgetown investigation reported that “at least five major police departments—including agencies in Chicago, Dallas, and Los Angeles—either claimed to run real-time face recognition off of street cameras, bought technology that can do so, or expressed a written interest in buying it.”<sup>13</sup>

As the capabilities of camera surveillance technology have increased over the years, its costs have decreased significantly, radically lowering the financial barriers to mass law enforcement use. As this case demonstrates, it is now easy, efficient, and affordable for law enforcement to surveil anyone around the clock for an unprecedented amount of time. Even assuming the government could assign agents to achieve a comparable level of surveillance to the eighteen months of 24-hour monitoring made possible by the three pole cameras in this case (and do so without detection), those agents would have had to expend nearly 20,000 hours of labor.<sup>14</sup> Not only would this likely be

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13. Clare Garvie *et al.*, *The Perpetual Line-up: Unregulated Police Face Recognition in America*, Geo. Ctr. on Privacy & Tech. (Oct. 18, 2016), <https://www.perpetuallineup.org>.

14. The first pole camera recorded over eighteen months of footage; the second, over five months; and the third, over two months. *See Tuggle*, 4 F. 4th at 511. For a human stakeout to achieve the 24-hour monitoring made possible by these pole cameras, three agents would need to serve daily 8-hour shifts consecutively for the duration of each pole camera’s operation. If the stakeouts were conducted by entry-level FBI Special Agents on a 2014 base pay scale, the salary costs alone for the human equivalent of the three cameras’ surveillance would amount to approximately \$300,000. *See Special Agents FAQs*, FBI, <https://www.fbijobs.gov/career-paths/special-agents/FAQs> (stating that new FBI Special Agents “earn salaries at the GL-10 Special Base Rate for Law Enforcement Officers”).

cost-prohibitive for most departments, it does not account for the opportunity costs of pulling agents away from doing any other work in order to conduct surveillance full-time for a year and a half. As the Seventh Circuit noted in this case:

To assume that the government would, or even could, allocate thousands of hours of labor and thousands of dollars to station agents atop three telephone poles to constantly monitor Tuggle's home for eighteen months defies the reasonable limits of human nature and finite resources.

*Tuggle*, 4 F. 4th at 526.

The costs involved to implement camera surveillance like that of Mr. Tuggle's home are, by contrast, minimal. Pole cameras can be purchased today for under \$3,500,<sup>15</sup> and publicly available budget requests from law

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The 2013 GL-10 Step 1 Base Rate for Law Enforcement officers was \$47,770. *Salary Table 2014-GL (LEO)*, OPM (Jan. 2014), <https://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/salary-tables/pdf/2014/GL.pdf>. This does not factor in additional costs such as benefits, training, and supervision.

15. See, e.g., *Axis Communications VB-M50B Overview*, BhPhotoVideo, [https://www.bhphotovideo.com/c/product/1246282-REG/canon\\_1064c001\\_vb\\_m50b\\_1\\_3\\_mp\\_day\\_night.html/overview](https://www.bhphotovideo.com/c/product/1246282-REG/canon_1064c001_vb_m50b_1_3_mp_day_night.html/overview) (describing a network-capable Canon PTZ camera); see also *Request for Proposals for Annual Contract for Covert Surveillance Camera Systems*, Tarrant County Purchasing Dept. (Feb. 27, 2019), [https://www.tarrantcounty.com/content/dam/main/purchasing/Bids%20and%20RFPs/2019\\_Bids-RFPs/2019-119\\_RFP.pdf](https://www.tarrantcounty.com/content/dam/main/purchasing/Bids%20and%20RFPs/2019_Bids-RFPs/2019-119_RFP.pdf) at 16 (sheriff's office request for proposals for covert surveillance camera systems that employ this Canon camera or its equivalent).

enforcement agencies indicate entire camera systems can be purchased for about \$11,000.<sup>16</sup> Apart from the one-time costs of purchasing and installing these cameras, one of the only remaining ongoing costs is data storage, a service that has grown cheaper over time.<sup>17</sup> This makes long-term pole camera surveillance remarkably budget-efficient—so much so that the marginal costs of surveilling a person with a pole camera *decrease* as the length of the surveillance increases. By contrast, every hour an officer spends monitoring a home translates to an hourly wage, and the pay scale determining that wage steadily climbs with time. And while an agent may lose focus spending day after day monitoring the same spot, a camera will be just as precise at the end of eighteen months as it was at the beginning.

Given these incentives and low costs, there is no reason to believe future surveillance would be limited to the eighteen months at issue in this case. Nor is there reason to believe law enforcement would limit its surveillance only to high-priority targets. With indefinite, low-cost data storage and inexpensive camera systems like the ones that agencies are already purchasing today, law enforcement could conceivably record the outside of *any* home for any amount of time.

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16. See, e.g., *Canton (MI) Community Board Agenda*, Canton Community (Sept. 28, 2021), <https://www.documentcloud.org/documents/21094266-canton-community-board-agenda-9-28-2021> at 30 (budget request from Canton, Michigan Police Department for Covert Pole Camera System costing \$10,749.56).

17. See Andy Klein, *Hard Drive Cost Per Gigabyte*, Backblaze (July 11, 2017), <https://www.backblaze.com/blog/hard-drive-cost-per-gigabyte>.

## **II. Certiorari Is Necessary to Make Clear the Fourth Amendment Prohibits the Long-term Warrantless Monitoring and Video Recording of All Activity Immediately Outside a Person’s Home.**

### **A. Pole Cameras Implicate the Fourth Amendment’s Protections Against Both Unreasonable Invasions of the Home and the Use of Technology to Generate Comprehensive Records of an Individual’s Activities.**

Because pole cameras enable long-term monitoring of private residences, they sit at the intersection of two threads of this Court’s Fourth Amendment jurisprudence. These bodies of law—evincing special protection for the home and its immediate environs and increased concern about technologically-aided invasions of privacy—combine to prohibit the warrantless surveillance carried out in this case.

First, the home and its curtilage represent the “very core” of individual privacy under the Fourth Amendment. *Florida v. Jardines*, 569 U.S. 1, 6 (2013) (citation omitted). Warrantless searches inside the home are “presumptively unreasonable.” *Payton v. New York*, 445 U.S. 573, 586 (1980). That presumption extends to warrantless searches of a home’s curtilage, the “area ‘immediately surrounding and associated with the home,’” which is considered “part of the home itself for Fourth Amendment purposes.”<sup>18</sup>

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18. Just like the unfenced front porch in *Jardines*, the area of Mr. Tuggle’s home viewed by the government’s pole cameras in this case—its front façade and the driveway—was a “classic exemplar of an area adjacent to the home and ‘to which the activity of home life extends.’” 569 U.S. at 7 (quoting *Oliver*, 466 U.S. at 182 n.12)). *See*



*Jardines*, 569 U.S. at 6 (quoting *Oliver v. United States*, 466 U.S. 170, 180 (1984)). “Unlicensed physical intrusion” by the government of the home or its curtilage is almost always a search, as in *Jardines*, 569 U.S. at 7. In addition, remote surveillance of those areas can “become invasive . . . through modern technology which discloses to the senses those intimate associations, objects or activities otherwise imperceptible to police or fellow citizens.”<sup>19</sup> *Ciraolo*, 476 U.S. at 215 n.3. See also *Kyllo v. United States*, 533 U.S. 27, 37 (2001) (“In the home, our cases show, *all* details are intimate details, because the entire area is held safe from prying government eyes.”) (emphasis original).

Second, recent cases have clarified that even when venturing into public view, individuals maintain a reasonable expectation of privacy against protracted, technologically aided police surveillance. *Carpenter*, 138 S. Ct. at 2220 (citing *Jones*, 565 U.S. at 430 (Alito, J., concurring in judgment); *id.* at 415 (Sotomayor, J., concurring)). Although “lawful conventional surveillance techniques,” *Jones*, 565 U.S. at 416 (Sotomayor, J., concurring)), such as a stakeout, might allow police to watch a suspect’s activities for limited periods from public

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*id.* (“While the boundaries of the curtilage are generally ‘clearly marked,’ the ‘conception defining the curtilage’ is at any rate familiar enough that it is ‘easily understood from our daily experience.’”).

19. As Justice Kagan noted in her *Jardines* concurrence, “it is not surprising that in a case involving a search of a home, property concepts and privacy concepts” frequently align. 569 U.S. at 13 (Kagan, J., concurring). “The law of property ‘naturally enough influence[s]’ our ‘shared social expectations’ of what places should be free from governmental incursions.” *Id.* (quoting *Georgia v. Randolph*, 547 U.S. 103, 111 (2006)).

vantage points, digitally enabled surveillance is “ever alert,” and its “memory is nearly infallible.” *Carpenter*, 138 S. Ct. at 2219. “Prior to the digital age, law enforcement might have pursued a suspect for a brief stretch, but doing so ‘for any extended period of time was difficult and costly and therefore rarely undertaken.’” *Id.* at 2217 (quoting *Jones*, 565 U.S. at 429 (Alito, J., concurring in judgment)). “For that reason, ‘society’s expectation has been that law enforcement agents and others would not—and indeed, in the main, simply could not—secretly monitor and catalogue” a person’s movements “for a very long period.” *Id.*

Thus, in cases involving surveillance both inside and outside the home, the Court has recognized that sense-enhancing technologies have the potential “to encroach upon areas normally guarded from inquisitive eyes.” *Carpenter*, 138 S. Ct. at 2214. It has cautioned against a “mechanical interpretation” of the Fourth Amendment and instead “sought to ‘assure[ ] preservation of that degree of privacy against government that existed when the Fourth Amendment was adopted.’” *Id.* (quoting *Kyllo*, 533 U.S. at 34 (2001)) (last alteration in original).

However, some lower courts considering pole cameras have mistakenly held that this Court’s precedents do not allow these strands of Fourth Amendment law to be synthesized. *Cf. Carpenter*, 138 S. Ct. at 2214-15 (recognizing, similarly, that “requests for cell-site records lie at the intersection of two lines of cases, both of which inform our understanding of the privacy interests at stake.”). In the decision below, the Seventh Circuit concluded that the government’s use of a pole camera did not implicate the Fourth Amendment’s protection of

the home from sense-enhancing technologies because, applying *Kyllo*, it was “a commonplace technology, located where officers were lawfully entitled to be, and captured events observable to any ordinary passerby.” *Tuggle*, 4 F. 4th at 516. Similarly, it distinguished cases protecting an individual’s aggregated movements from protracted surveillance because in this case “the cameras only highlighted Tuggle’s *lack* of movement.” *Id.* at 524 (emphasis original).

But even from a fixed location outside a home, constant and secret long-term surveillance makes it possible to learn intimate details about the lives of everyone in the household. For example, police could identify everyone who visits the home by tracking the license plate of every car that parks in the driveway. They could learn when the teenager sneaks out of the house to see their sweetheart. They could observe the house occupants sunbathing in the nude in the backyard. They could deduce whether the occupants were expecting a baby, merely by the large boxes delivered to the home, and whether the occupants later lost that baby, by those same boxes being returned.

It is also constitutionally significant that pole camera footage can be combined with other technologies, such as facial recognition or license plate readers to create new and more revealing insights. *Carpenter*, 138 S. Ct. at 2218-19 (rules adopted for tracking technologies must “take account of more sophisticated systems that are already in use or in development”); *id.* at 2218 (the government could “deduce a detailed log” of suspect’s movements in “combination with other information”). See also *Leaders of a Beautiful Struggle v. Baltimore Police Dept.*, 2 F. 4th 330, 344 (4th Cir. 2021) (en banc) (aerial surveillance

program was likely unconstitutional because it allowed citywide tracking of individuals' movements including through "cross-reference against publicly available information").

The Court should therefore clarify that its precedents discussing the Fourth Amendment's protection of the home and of an individual's activities over the long term are in fact mutually reinforcing in cases like this one. It is indisputable that although law enforcement positioned its cameras on public property and captured areas theoretically viewable by passersby, the whole of the cameras' footage gave the government "access to a category of information" about Tuggle's home that was "otherwise unknowable" to passersby or even a designated surveillance team. *Carpenter*, 138 S. Ct. at 2218. And, in light of the special protections for the home, training cameras on Tuggle's home for an extended time, like tracking his movements in public, also reveals "the privacies of life." *Id.* at 2217. *See also United States v. Karo*, 468 U.S. 705, 716 (1984) ("We cannot accept the Government's contention that it should be completely free from the constraints of the Fourth Amendment to determine by means of an electronic device, without a warrant and without probable cause or reasonable suspicion, whether a particular article — *or a person, for that matter* — is in an individual's home at a particular time.") (emphasis added).

**B. The Degree of Privacy Afforded by the Fourth Amendment Should Not Depend on Whether Someone Has Built a Fence around Their Property. A Contrary Rule Would Disproportionately Subject Low-Income People to Warrantless Surveillance.**

Requiring people to construct barriers around their homes to shield themselves from the threat of continuous, warrantless pole camera surveillance contravenes the Fourth Amendment and will disproportionately harm people with limited financial means who cannot safeguard their privacy in the absence of constitutional protections.

**1. The Fourth Amendment Does Not Require People to Build Fences Around Their Homes to Manifest a Subjective Expectation of Privacy.**

Regardless of whether they have successfully shielded their property from public view, a reasonable person does not expect their home to be continuously surveilled by the police. *See, e.g., Commonwealth v. Mora*, 150 N.E.3d 297, 306 (Mass. 2020) (“While people subjectively may lack an expectation of privacy in some discrete actions they undertake in unshielded areas around their homes, they do not expect that every such action will be observed and perfectly preserved for the future.”); *State v. Jones*, 903 N.W.2d 101, 111 (S.D. 2017) (concluding it was subjectively reasonable to expect that the outside of a home, although unobstructed from public view, would not be subjected to “24/7 targeted, long-term observation”). The ability to retreat into one’s home is at the “very core” of the right to be free from unreasonable government intrusion, and

this right means very little if a “[s]tate’s agents could stand in a home’s porch or side garden and trawl for evidence with impunity.” *Jardines*, 569 at 6. The government’s indiscriminate, prolonged video monitoring of a home and its curtilage “provokes an immediate negative visceral reaction” and “raises the spectre of the Orwellian state.” *United States v. Cuevas-Sanchez*, 821 F.2d 248, 251 (5th Cir. 1987). Thus, it is objectively reasonable to expect privacy in the areas surrounding a home, even if those areas are not shielded by a fence.

Moreover, a multitude of factors entirely unrelated to someone’s reasonable expectation of privacy may affect whether they can erect barriers or fences around their property. These include terrain, population density, aesthetics, community ordinances, cost, and whether someone is a landowner or a tenant. *See, e.g., Mora*, 150 N.E.3d at 306 (noting that “the capacity to build privacy fences and other similar structures likely would correlate closely with land ownership and wealth”); *Horton v. United States*, 541 A.2d 604, 608 (D.C. 1988) (noting that the “configuration of the streets and houses in many parts of the city may make it impossible, or at least highly impracticable, to screen one’s home and yard from view”). In many places, installing fencing would breach local custom and could potentially result in disputes with neighbors. To require that people erect physical barriers before invoking the protections of the Fourth Amendment artificially constricts the analysis and divorces it from practical considerations.

Such a rule would also undoubtedly leave homeowners “at the mercy of advancing technology.” *Kyllo*, 533 U.S. at 35 (rejecting a mechanical interpretation of the Fourth

Amendment and holding that use of thermal imaging to detect heat from a defendant's home was a search). To successfully hide one's home and curtilage from a camera placed atop a utility pole would require the installation of a more than 25-foot, opaque fence.<sup>20</sup> Not only would this be impractical, unsightly, and prohibitively expensive, it would also be illegal in many jurisdictions—including Mattoon, Illinois, where Mr. Tuggle lived.<sup>21</sup>

The Fourth Amendment does not require people to take such extraordinary measures to protect themselves from invasive modern surveillance techniques. Individuals can maintain a reasonable expectation of privacy in sensitive information even when it is in public view. *See* Section II.A, *supra*. Surely, if a person need not abandon their use of a cell phone to avoid government surveillance of their location, they also need not barricade their home from the outside world to protect against long-term, warrantless surveillance by pole cameras. *Cf. Carpenter*, 138 S. Ct. at 2220 (finding cell phone location information

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20. The standard height of most utility poles is between 25 and 40 feet. Federal Communications Commission, *Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Investment*, 32 FCC Rcd 9760 (11) (Nov. 17, 2017), <https://ecfsapi.fcc.gov/file/111766605895/FCC-17-153A1.pdf>.

21. Mattoon Code § 152.02 (“Fences constructed upon any lot or parcel of real estate located in a residential zoned district shall not exceed four feet in height from the building line to any street property line and shall not otherwise exceed six feet in height. On a corner lot, the four feet height requirement shall apply to the front yard...”); Mattoon Code § 159.51 (“In all residence districts a triangular space shall be maintained at the street corner of a corner lot, free from any kind of obstruction to vision between the heights of three and 12 feet above the established grade...”).

is not truly “shared” because cell phones automatically convey location information and are “indispensable to participation in modern society”).

**2. Upholding Warrantless, Long-Term Pole Camera Surveillance Would Disproportionately Affect Those with the Fewest Resources to Protect Themselves from Government Surveillance and Would Result in Unequal Constitutional Protections for Low-Income People.**

Upholding warrantless, long-term pole camera surveillance in this case will make privacy a function of wealth and will violate the longstanding principle that “the most frail cottage in the kingdom is absolutely entitled to the same guarantee of privacy as the most majestic mansion.” *United States v. Ross*, 456 U.S. 798, 822 (1982).

Wealthy individuals have the resources to protect themselves against intrusive new surveillance technologies. They can purchase homes in gated communities that bar Google’s Street View photography vehicles, hire architects to conceal buildings from aerial surveillance, and buy homes in areas where the utilities are buried underground.<sup>22</sup> Lower-income individuals do not have the same opportunities.

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22. Hillary Hoffower, *From Hiding their Mansions on Google Maps to Building \$500,000 Panic Rooms, Rich People are Spending No Expense to Keep Their Lives Private and Secure*, Business Insider (Feb. 12, 2020), <https://www.businessinsider.com/rich-people-spending-more-privacy-security-2018-11>.



Constitutional rights should not hinge on someone's ability to "afford to install fortifications and a moat around his or her castle." *Mora*, 150 N.E.3d at 306. The wealth gap in the United States is striking and has persisted for decades, with stark racial disparities.<sup>23</sup> A 2019 Survey of Consumer Finances showed Black families' median wealth is less than 13 percent that of white families, and Hispanic families' wealth is less than 20 percent.<sup>24</sup> For most families in Mattoon, Illinois, where the median household income is under \$40,000 and over 20 percent of the population lives below the poverty line, even building a simple fence is likely out of reach.<sup>25</sup>

Even if they could afford to fence in their property, people living in apartments or who rent their homes are commonly restricted from doing so. *See, e.g., United States v. Acosta*, 965 F.2d 1248, 1256 (3d Cir. 1992) (noting that "tenants generally have neither the authority nor the investment incentive to take steps to protect a yard from view by doing such things as erecting a solid fence or planting trees and shrubbery"). Across the United States, home ownership rates among Black Americans

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23. Neil Bhutta *et al.*, *Disparities in Wealth by Race and Ethnicity in the 2019 Survey of Consumer Finances*, FEDS Notes (Sept. 28, 2020), <https://doi.org/10.17016/2380-7172.2797>.

24. *Id.*

25. The median household income in Mattoon, Illinois was \$39,852 in 2019. *Quick Facts: Mattoon City, Illinois*, United States Census Bureau, <https://www.census.gov/quickfacts/mattooncityillinois>. The average cost to install a fence in Illinois according to the home services website HomeAdvisor.com is \$2,827. *How Much Does it Cost to Build a Fence?*, Home Advisor (Oct. 1, 2020), <https://www.homeadvisor.com/cost/fencing/install-a-fence/>.

and people of color are disproportionately low compared to white families due to the legacies of slavery, segregation, redlining, and other racist practices.<sup>26</sup> Permitting warrantless, long-term pole camera surveillance of those who are unable to construct a fence or other barrier will troublingly “apportion Fourth Amendment protections on grounds that correlate with income, race, and ethnicity.” *United States v. Whitaker*, 820 F.3d 849, 854 (7th Cir. 2016) (recognizing racial disparities in housing types across race and income in rejecting a strict distinction between apartments and single-family houses in the context of warrantless dog sniffs at front doors).

## CONCLUSION

In light of the well-developed split of authority, the growing sophistication of law enforcement pole cameras, and the practical barriers to protecting privacy under a contrary rule, the petition for certiorari should be granted.

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26. Rashawn Ray, *et al.*, *Homeownership, Racial Segregation, and Policy Solutions to Racial Wealth Equity*, Brookings (Sept. 1, 2021), <https://www.brookings.edu/essay/homeownership-racial-segregation-and-policies-for-racial-wealth-equity/> (“Black Americans . . . post a homeownership rate of 46.4% compared to 75.8% of white families.”).

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Respectfully submitted,

JENNIFER LYNCH

*Counsel of Record*

ANDREW CROCKER

ELECTRONIC FRONTIER FOUNDATION

815 Eddy Street

San Francisco, CA 94109

(415) 436-9333

jlynch@eff.org

*Attorneys for Amici Curiae*

RACHEL LEVINSON-WALDMAN

LAURA HECHT-FELELLA

BRENNAN CENTER FOR JUSTICE

1140 Connecticut Avenue NW,  
Suite 1150

Washington, DC 20036

(202) 249-7193

*Counsel for Amicus Curiae*

*Brennan Center for Justice*

SHARON BRADFORD FRANKLIN

CENTER FOR DEMOCRACY

& TECHNOLOGY

1401 K Street NW, Suite 200

Washington, DC 20005

(202) 407-8842

*Counsel for Amicus Curiae*

*Center for Democracy*

*& Technology*

ALAN BUTLER

MEGAN IORIO

ELECTRONIC PRIVACY

INFORMATION CENTER

1519 New Hampshire Avenue  
NW

Washington, DC 20036

(202) 483-1140

*Counsel for Amicus Curiae*

*Electronic Privacy*

*Information Center*

JEFFREY T. GREEN

NATIONAL ASSOCIATION OF CRIMINAL

DEFENSE LAWYERS

1501 K Street N.W.

Washington, DC 20005

(202) 736-8291

*Counsel for Amicus Curiae*

*National Association of*

*Criminal Defense Lawyers*