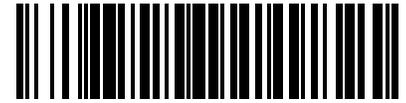




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CITY OF CHICAGO
OFFICE OF INSPECTOR GENERAL

CHICAGO DEPARTMENT OF TRANSPORTATION TRAFFIC SIGNAL PLANNING AUDIT



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City of Chicago
Office of Inspector General

CHICAGO DEPARTMENT OF TRANSPORTATION (CDOT) TRAFFIC SIGNAL PLANNING AUDIT



2,834 signalized intersections

.....
Which CDOT is responsible for managing and maintaining across the City



CDOT's number of traffic signal engineers and technicians falls well short of the Federal Highway Administration recommended staffing levels



Traffic signal retiming is a cost-effective tool

- Improves the flow of motor vehicles, bicycles, and pedestrians
- Reduces fuel consumption and corresponding emissions
- Improves safety by reducing crash rates and protecting pedestrians and cyclists



CDOT does not have a traffic signal management plan

.....
The Department lacks clear goals and objectives, and has not adopted performance measures

CDOT does not have a proactive signal maintenance or retiming program

I. EXECUTIVE SUMMARY

The Office of Inspector General (OIG) conducted an audit of the Chicago Department of Transportation's (CDOT) traffic signal planning practices. Traffic signals are one of the most cost-effective tools for promoting traffic safety, reducing congestion, and minimizing air pollution. CDOT is responsible for managing 2,834 signalized intersections across Chicago. The objective of the audit was to determine whether CDOT's traffic signal planning meets industry best practices as defined by the Federal Highway Administration (FHWA). FHWA recommends that agencies have a documented traffic signal management plan with defined goals, objectives, and performance measures. The plan should also describe staff's responsibilities and explain how they support the program's goals and objectives. FHWA provides recommended staffing levels based on the number of traffic signals an agency manages.

A. CONCLUSION

OIG concluded that CDOT does not have a traffic signal management plan, nor does it have objectives or performance measures connecting its traffic signal management program to broader Department goals and City plans, such as the *Roadmap for the Future of Transportation and Mobility in Chicago*, *Vision Zero*, and *Chicago Streets for Cycling Plan 2020*.¹ Without a signal management plan, CDOT cannot ensure that traffic signals are optimized to promote traffic safety, reduce congestion, and minimize air pollution.

B. FINDING

OIG found that CDOT's traffic signal planning practices do not align with FHWA guidance, which recommends having a traffic signal management plan that sets goals and objectives, defines performance measures, and delineates staff responsibilities. While CDOT seeks opportunities to upgrade signals when possible, its lack of an overall plan prevents the Department from prioritizing signal improvements to meet broader goals and maximize its limited resources.

¹ City of Chicago, "Roadmap for the Future of Transportation and Mobility in Chicago: Chicago's New Transportation and Mobility Task Force," March 2019, accessed March 6, 2020, https://www.chicago.gov/content/dam/city/depts/mayor/PDFs/21755_37_AF_MobilityReport.pdf. City of Chicago, "Vision Zero Chicago: Chicago's Initiative to Eliminate Traffic Fatalities and Serious Injuries by 2026," June 2017, accessed March 6, 2020, https://secureservercdn.net/198.71.233.109/8qg.efl.myftpupload.com/wp-content/uploads/2016/05/17_0612-VZ-Action-Plan_FOR-WEB.pdf. City of Chicago, Department of Transportation, "Chicago Streets for Cycling Plan 2020," accessed March 6, 2020, <https://www.chicago.gov/content/dam/city/depts/cdot/bike/general/ChicagoStreetsforCycling2020.pdf>.

In addition, OIG found that rather than proactively maintaining and retiming traffic signals, CDOT conducts most of its work in response to 311 complaints, aldermanic requests, and major construction projects. This approach to maintenance limits CDOT's ability to address problems before they become hazardous or unnecessarily expensive to repair. And the Department's reactive approach to traffic signal retiming means that over time, due to shifting traffic patterns and timing drift, signals may not be optimally programmed to handle traffic. FHWA suggests that adopting a traffic signal management plan helps agencies strategically shift from reactive to proactive work, ultimately improving efficiency. Under its current practices, CDOT may be missing out on a cost-effective opportunity to improve the flow of motor vehicles, bicycles, and pedestrians, decrease fuel consumption and corresponding emissions, and improve safety by reducing crash rates.² CDOT management stated that the Department does not have enough staff to proactively retime and maintain traffic signals. Our review confirmed that the Department's number of traffic signal engineers and technicians falls well short of the FHWA recommended staffing levels. However, the Department does use contractors to supplement its staff.

C. RECOMMENDATIONS

OIG recommends that CDOT develop a traffic signal management plan aligned with FHWA recommendations. This plan should include clear goals and objectives, performance measures, and a strategy to transition toward more proactive traffic signal maintenance and retiming work. We also recommend that CDOT conduct an analysis to determine its staffing needs related to traffic signals, and then work with the Office of Budget and Management to meet those needs.

D. CDOT RESPONSE

In response to our audit findings and recommendations, CDOT stated that it will develop a Traffic Signal Management Plan (TSMP) using FHWA guidance as a framework. The TSMP will be developed and implemented by the Divisions of Engineering, Traffic Safety, and Electrical Operations, as well as the Commissioner's Office. The Department stated that the TSMP will include goals tied to CDOT's strategic plans along with objectives and performance metrics to measure progress towards the goals. The TSMP will also specify staff members' roles and responsibilities related to achieving the goals.

The Department will utilize the TSMP as a framework to prioritize improvements and maintenance for the City's 2,834 signalized intersections.

² Srinivasa Sunkari, "The Benefits of Retiming Traffic Signals," *Institute of Transportation Engineers Journal*, 74, no. 4 (April 2004): 26–29. See also City of Boston, "The Benefits, of Retiming/Rephasing Traffic Signals in the Back Bay," March 2010, 1, accessed March 6, 2020, https://www.cityofboston.gov/images_documents/The%20Benefits%20of%20Traffic%20Signal%20Retiming%20Report_tcm3-18554.pdf.

Finally, the Department stated that it will analyze its traffic signal staffing levels, compare them to FHWA guidance, and work with the Office of Budget Management to better meet CDOT's staffing needs.

The specific recommendations related to each finding, and CDOT's response, are described in the "Finding and Recommendations" section of this report.

II. BACKGROUND

The Chicago Department of Transportation (CDOT) manages 2,834 signalized intersections across Chicago. As illustrated in Figure 1, CDOT's Division of Electrical Operations maintains the City's traffic signals, while the Division of Traffic Safety reviews intersection signal layout and timing, and addresses timing requests from aldermen or 311. The Division of Engineering is responsible for design and construction management of signal improvement projects.

FIGURE 1: CDOT DIVISIONS WORKING ON TRAFFIC SIGNALS



Electrical Operations

Maintains signals



Traffic Safety

Reviews signal layouts
and timings



Engineering

Designs signal layouts

Source: OIG summary of operations as described by CDOT.

There is no dedicated, consistent source of funding for traffic signal work. Signal improvements may be paid for with City funds, state grants, or federal grants depending on the project. The scope of a signal upgrade project generally depends on the funding source.

A. MOST TRAFFIC SIGNALS ARE NOT CENTRALLY CONTROLLED

CDOT stated it has installed new technology at 283 signalized intersections in the Loop and along several major corridors outside downtown that allows the Department to track each signal's operating status from a control center and gather traffic flow data; it plans to connect an additional 229 intersections by the end of 2020. The new equipment will eventually allow CDOT traffic engineers to change signal timings remotely and technicians to know more specifically what is wrong with a signal when responding to complaint calls. However, according to CDOT management, due to cost, the City will not add this technology to all signals for several decades.³

³ Costs for these improvements can vary widely depending on the method of connection and the age of the existing signal. Older signals must be fully replaced while newer signals only need to be upgraded.

The vast majority of signalized intersections in Chicago are regulated solely by the type of equipment pictured in Figure 2— controllers housed in metal boxes located on the corners of signalized intersections.

FIGURE 2: A TRAFFIC SIGNAL CONTROLLER



Source: OIG photo.

As shown in Figure 3, each of these on-site controllers contains a program that manages cycle length—how long it takes a signal to go from green to yellow to red and back again—and interval length—how long the signal displays each light color—as well as “dials,” which vary the other two factors depending on the time of day. CDOT technicians program the controller in a specialized traffic signal shop and then

install it in the box. To input new timings or other changes, CDOT technicians must mechanically reprogram each individual controller.

FIGURE 3: TRAFFIC SIGNAL CONTROL INFRASTRUCTURE



Source: OIG photo and summary of traffic signal infrastructure as described by CDOT.

Controllers may also perform additional functions to improve traffic, transit, or pedestrian flow. Some vary the cycle or interval if attached equipment detects certain conditions. For example, if a camera attached to a left turn signal detects a vehicle in the left turn lane it can activate the green left turn arrow.⁴

B. THE FEDERAL HIGHWAY ADMINISTRATION PROVIDES RECOMMENDATIONS FOR PLANNING AND STAFFING

Traffic signal layouts must follow the FHWA Manual on Uniform Traffic Control Devices (MUTCD). The MUTCD contains technical requirements for the design and physical placement of traffic signals, as well as some interval durations.⁵ However, it does not prescribe any specific tactics for promoting traffic safety, reducing congestion, and minimizing air pollution.

⁴ CDOT staff reported that there are more than 400 intersections with this kind of equipment in Chicago.

⁵ Federal Highway Administration, *Manual on Uniform Traffic Control Devices*, accessed March 6, 2020, <https://mutcd.fhwa.dot.gov/pdfs/2009r1r2/mutcd2009r1r2edition.pdf>

To determine how well state and local transportation agencies operate traffic signals to achieve these goals, the National Transportation Operations Coalition developed the *National Traffic Signal Report Card*.⁶ The most recent edition, published in 2012, scored the responses of 241 agencies across the United States and Canada, finding that agencies generally did not,⁷

- have well-documented objectives or goals for measuring performance;
- review and adjust signal timing to respond to changes in traffic or land use, or use modern software to optimize timing;
- document their signal timing practices, consider a sufficient variety of factors when developing timing plans, and develop alternative timing plans for emergencies or special events;
- have access to high quality, real time traffic data; and
- have resources adequate to address their maintenance needs.

In response to these findings, FHWA published its 2015 *Traffic Signal Management Plans* guidebook.⁸ As illustrated in Figure 4, the guidebook recommends that transportation agencies develop plans that document the goals, objectives, strategies, and performance measures of their traffic signal programs.

⁶ National Transportation Operations Coalition, *National Traffic Signal Report Card*, 2012, 3, accessed March 6, 2020, https://transops.s3.amazonaws.com/uploaded_files/NTOC-2012-Traffic-Signal-Report-Card-Technical-Report.pdf.

⁷ The *National Traffic Signal Report Card* presents aggregated results; it does not provide an individual grade for the City of Chicago.

⁸ Federal Highway Administration, *Traffic Signal Management Plans*, November 2015, accessed March 6, 2020, <https://ops.fhwa.dot.gov/publications/fhwahop15038/fhwahop15038.pdf>.

FIGURE 4: EXAMPLE OF TRAFFIC SIGNAL PLAN ELEMENTS



Source: OIG illustration based on FHWA's *Traffic Signal Management Plans* guidebook.

To facilitate the integration of new personnel and reduce dependence on the expertise of key individuals, each agency's plan should clearly assign staff responsibilities and describe how they support the program's objectives.⁹ In addition, FHWA's 2009 publication *Traffic Signal Operations and Maintenance Staffing Guidelines* provides recommendations regarding staffing requirements for traffic signal programs.¹⁰

⁹ Federal Highway Administration, *Traffic Signal Management Plans*, November 2015, vii, accessed March 6, 2020, <https://ops.fhwa.dot.gov/publications/fhwahop15038/fhwahop15038.pdf>.

¹⁰ Federal Highway Administration, *Traffic Signal Operations and Maintenance Staffing Guidelines*, March 2009, accessed March 6, 2020, <https://ops.fhwa.dot.gov/publications/fhwahop09006/fhwahop09006.pdf>.

III. FINDING AND RECOMMENDATIONS

FINDING: WITHOUT A TRAFFIC SIGNAL MANAGEMENT PLAN, CDOT CANNOT ENSURE THAT TRAFFIC SIGNALS ARE OPTIMIZED TO PROMOTE TRAFFIC SAFETY, REDUCE CONGESTION, AND MINIMIZE AIR POLLUTION.

FHWA recommends that transportation agencies develop traffic signal management plans to coordinate their signal design, operations, and maintenance activities, thereby maximizing system effectiveness with limited resources. Each management plan should connect the agency's goals to specific and measurable objectives, and include performance measures for tracking progress.

CDOT does not have a traffic signal management plan, nor has the Department developed objectives or performance measures to connect its traffic signal management program to broader CDOT goals and City plans, such as the *Roadmap for the Future of Transportation and Mobility in Chicago*, *Vision Zero*, and *Chicago Streets for Cycling Plan 2020*.

1. THE CITY'S TRAFFIC SIGNAL IMPROVEMENTS ARE NOT GUIDED BY A TRAFFIC SIGNAL MANAGEMENT PLAN

FHWA notes that, similar to a pedestrian or bicycle master plan, a traffic signal management plan provides a roadmap for capital improvement projects. Without a traffic signal management plan to guide improvements, CDOT conducts traffic signal work based on project-specific funding from one of four sources:

- improvements made as part of a larger capital project, such as street reconstruction or major corridor work;
- improvements using intermittent federal or state funding;¹¹
- improvements using local funding, such as aldermanic menu projects; and
- improvements requested from or completed by a private developer.

These assorted projects may meet the goals of their respective funders, but they generally do not take into account any broader goals of the traffic signal system.

¹¹ These projects are selected from a CDOT-developed Traffic Signal Priority list. However, this list has not been updated since 2014.

While CDOT seeks opportunities to upgrade and retime signals when possible, without an overall plan, the Department cannot prioritize signal improvements to meet broader goals or maximize its limited resources.

Further, although CDOT has begun installing remote monitoring and control technology at roughly 300 signalized intersections, it has not developed a plan to roll out this technology Citywide.

Without a plan articulating how traffic signal activities achieve program objectives and support Department goals, CDOT cannot ensure that traffic signal planning, operations, and maintenance activities are working in concert. And without measuring its performance, CDOT cannot demonstrate success, which makes it difficult to advocate for increased resources.

CDOT management stated that the role of managing traffic signals was historically split between several departments, including the Department of Streets and Sanitation and the Office of Emergency Management and Communications. Over time, the City consolidated the various aspects of the role under CDOT. The Department's management, however, did not prioritize planning or coordinating traffic signal related activities. According to FHWA, such a lack of coordination is common across the country and is one of the issues meant to be addressed through traffic signal management planning. CDOT management also stated that they often rely on the expertise of specific personnel, and that the departure of long-tenured experts makes it difficult to plan and to ensure consistent operations. FHWA notes that a traffic signal management plan mitigates the impact of losing key personnel by documenting goals and processes, thereby facilitating the training and integration of new staff.¹²

2. THE CITY'S TRAFFIC SIGNAL MAINTENANCE AND TIMING ACTIVITIES ARE PRIMARILY REACTIVE

CDOT does not have a proactive traffic signal maintenance or retiming program. Instead, the Department conducts most work in response to 311 complaints or aldermanic requests. FHWA instructs that a traffic signal management plan helps agencies strategically shift from reactive to proactive work, ultimately improving efficiency.

CDOT technicians responding to complaints attempt to perform some proactive maintenance, such as cleaning controllers and tightening loose components. However, Department management stated that the volume of complaints combined

¹² Federal Highway Administration, *Traffic Signal Management Plans*, November 2015, 1, accessed March 6, 2020, <https://ops.fhwa.dot.gov/publications/fhwahop15038/fhwahop15038.pdf>.

with insufficient resources leave little time for such tasks. Technicians undertake this maintenance on an ad hoc basis only as they have time after responding to complaints. Ultimately, due to CDOT's primarily reactive approach to traffic signal maintenance, most problems are not discovered until they are potentially hazardous and, correspondingly, more expensive to repair.

CDOT further acknowledged that it does not have goals for comprehensive signal retiming and rarely seeks to determine whether the signal timing at any particular intersection is appropriate under current conditions. However, the Department does conduct signal retiming during street reconstruction or major capital work.

Over time, due to shifting traffic patterns and timing drift, signals may not be optimally programmed to handle traffic. According to the most recent *National Traffic Signal Report Card*, poorly timed signals account for an estimated 5 to 10 percent of all traffic delays nationwide.¹³ These delays increase fuel consumption and vehicle emissions, which increases air pollution. FHWA recommends reviewing performance data for each intersection every three years to determine whether to change traffic signal timing.¹⁴ Because of its reactive approach, the Department may miss out on cost-effective opportunities to improve the flow of motor vehicles, bicycles, and pedestrians; minimize fuel consumption and related emissions; and improve safety by reducing crash rates and protecting pedestrians and bikes.¹⁵

In recent years, transportation agencies across the nation have enjoyed significant benefits following traffic signal retiming projects.

- The City of Boston retimed 60 traffic signals in its Back Bay neighborhood. Before and after retiming each intersection, it measured performance related to traffic delay, safety, emissions, and energy. Officials calculated a cost benefit ratio of \$1 in investment costs to \$83 in benefits arising from reduced traffic delay, improved safety, lower emissions, and decreased energy use.¹⁶

¹³ National Transportation Operations Coalition, *National Traffic Signal Report Card*, 2012, 4, accessed March 6, 2020, https://transops.s3.amazonaws.com/uploaded_files/NTOC-2012-Traffic-Signal-Report-Card-Technical-Report.pdf

¹⁴ Federal Highway Administration, *Traffic Signal Operations and Maintenance Staffing Guidelines*, March 2009, 12, accessed March 6, <https://ops.fhwa.dot.gov/publications/fhwahop09006/fhwahop09006.pdf>

¹⁵ Srinivasa Sunkari, "The Benefits of Retiming Traffic Signals," *Institute of Transportation Engineers Journal*, 74, no. 4 (April 2004): 26–29. See also City of Boston, "The Benefits, of Retiming/Rephasing Traffic Signals in the Back Bay," March 2010, 1, accessed March 6, 2020, https://www.cityofboston.gov/images_documents/The%20Benefits%20of%20Traffic%20Signal%20Retiming%20Report_tcm3-18554.pdf

¹⁶ City of Boston, "The Benefits, of Retiming/Rephasing Traffic Signals in the Back Bay," March 2010, 1-3, accessed March 6, 2020, https://www.cityofboston.gov/images_documents/The%20Benefits%20of%20Traffic%20Signal%20Retiming%20Report_tcm3-18554.pdf

- A City of Portland, Oregon project to coordinate timings on 135 signals along 17 corridors resulted in a reduction in carbon emissions of over 15,000 metric tons per year.¹⁷
- The Pima Association of Governments—a metropolitan planning organization in Tucson, Arizona—led a project to retime 133 intersections. This program resulted in reductions of more than 9 percent in vehicle delays, a 3 percent in fuel consumption, and between 2 and 16 percent in vehicle emissions.¹⁸

CDOT management stated that the Department does not have sufficient staff to proactively retime and maintain traffic signals. Indeed, the Department does not meet FHWA’s recommended staffing levels, as illustrated in Figure 5. FHWA’s *Traffic Signal Operations and Maintenance Staffing Guidelines* recommend that agencies with 150 or more signals employ one engineer for every 75 to 100 signals and one maintenance technician for every 30 to 40 signals. As of January 2020, CDOT has four engineers—or roughly one for every 708 signals—and 27 technicians—or one for every 104 signals.¹⁹ However, management stated that CDOT’s effective staffing level is higher than it appears because they use contractors to supplement the work of in-house staff.

FIGURE 5: CDOT DOES NOT MEET FHWA RECOMMENDED STAFFING LEVELS

Chicago Has	Job Title	Chicago Should Have
4	Traffic Engineer	28
27	Technician	71

Source: FHWA’s *Traffic Signal Operations and Maintenance Staffing Guidelines* and OIG analysis of CDOT signals and budgeted positions as of January 2020.

¹⁷ Peters, Jim, Randy McCourt, and Renee Hurtado, “Reducing Carbon Emissions and Congestion by Coordinating Traffic Signals,” *Institute of Transportation Engineers Journal*, April 2009, 25–29, accessed March 6, 2020, <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.377.2453&rep=rep1&type=pdf>.

¹⁸ National Transportation Operations Coalition, *National Traffic Signal Report Card*, 2012, 19, accessed March 6, 2020, https://transops.s3.amazonaws.com/uploaded_files/NTOC-2012-Traffic-Signal-Report-Card-Technical-Report.pdf.

¹⁹ City of Chicago, “2020 Budget Appropriations Ordinance,” accessed March 6, 2020, 318, https://www.chicago.gov/content/dam/city/depts/obm/supp_info/2020Budget/2020BUDGETORDINANCE.pdf.

RECOMMENDATIONS

1. CDOT should develop and publish a traffic signal management plan that aligns with FHWA recommendations. The plan should include,
 - a. clear goals and objectives, including analysis of how traffic signal management fits into broader CDOT goals and City plans;
 - b. performance measures related to each objective;
 - c. a set of actions to help meet the plan's goals and objectives; and
 - d. definitions of staff responsibilities and descriptions of staffers' expected roles in achieving the goals and objectives.
2. CDOT should ensure that each of its divisions involved in managing traffic signals helps develop the plan.
3. Using FHWA staffing guidance, CDOT should conduct an analysis to determine its staffing needs related to traffic signals, then work with OBM to meet those needs.

MANAGEMENT RESPONSE

"CDOT agrees with OIG's recommendations that a Traffic Signal Management Plan (TSMP) would provide a framework for prioritizing improvements and maintenance to the City's 2,834 signalized intersections. Accordingly, CDOT will work to develop a TSMP using the framework recommended by OIG and detailed in FHWA's Traffic Signal Management Plans guidance, FHWA-HOP-15-38 published in November 2015. Specifically, the TSMP will provide goals linked to CDOT's strategic plans within the context of the budgetary and operational practicability to meet those goals. The objectives with related performance metrics will provide the actions to meet the goals. The strategies and tactics will be assigned to appropriate staff based on delineated roles and responsibilities that meet the goals and objectives identified in the TSMP.

"CDOT agrees with OIG's recommendations that the CDOT Engineering, Traffic Safety, and Electrical Operations Divisions, as well as the Commissioner's Office are integral during development and implementation of the TSMP.

"CDOT agrees with OIG's recommendations that additional staff is needed to successfully implement the TSMP. In conjunction with developing the TSMP, CDOT will utilize OIG's staffing estimation, the FHWA's 2009 Traffic Signal Operations and Maintenance Staffing Guidelines, and the TSMP's goals to analyze CDOT's traffic signal staffing levels. CDOT will continue to supplement City staffing resources with consultants where appropriate. Additionally, CDOT agrees with FHWA's guidelines that increasing the number of remote signal monitoring and control capabilities will

improve workflow and staffing efficiencies. Finally, CDOT will work with OBM to increase staff based on what is reasonably practicable for the City.”

IV. OBJECTIVES, SCOPE, AND METHODOLOGY

A. OBJECTIVES

The objective of the audit was to determine whether CDOT traffic signal planning meets industry best practices as defined by FHWA.

B. SCOPE

This audit assessed CDOT's traffic signal planning practices in 2019, including the Department's development of goals, objectives, plans, and performance measures.

Due to the technical knowledge that would be required, this audit did not assess the overall efficiency or effectiveness of the City's traffic system. The audit also did not assess the frequency of travel signal maintenance; we addressed maintenance at the planning level. While the audit reviewed CDOT's planning for remote monitoring of traffic signals, it did not assess the Department's technology or deployment decisions for remotely monitored traffic controllers.

C. METHODOLOGY

To understand the Department's processes related to traffic signals, OIG met with management and staff in the following CDOT divisions:

- the Division of Engineering (to understand the project planning process);
- the Division of Traffic Safety (to understand traffic signal operations and retiming); and
- the Division of Electrical Operations (to understand traffic signal maintenance).

We also observed a traffic signal repairman during his shift to learn more about field operations.

To learn about best practices in traffic signal management planning, OIG reviewed written guidance, and spoke with peer cities and subject matter experts from the Texas Transportation Institute and FHWA. We compared CDOT's practices to best practices, and met with Department management to discuss our results and solicit feedback.

To address internal controls, OIG interviewed CDOT staff to learn how they plan, evaluate information, and set objectives related to traffic signal management. To assess information and communication activities, we spoke with CDOT staff about new systems and collaboration between divisions. To assess monitoring activities, we

asked CDOT staff for information on available data and performance measures related to traffic signals.

D. STANDARDS

We conducted this audit in accordance with generally accepted Government Auditing Standards issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

E. AUTHORITY AND ROLE

The authority to perform this audit is established in the City of Chicago Municipal Code § 2-56-030 which states that OIG has the power and duty to review the programs of City government in order to identify any inefficiencies, waste, and potential for misconduct, and to promote economy, efficiency, effectiveness, and integrity in the administration of City programs and operations.

The role of OIG is to review City operations and make recommendations for improvement.

City management is responsible for establishing and maintaining processes to ensure that City programs operate economically, efficiently, effectively, and with integrity.

MISSION

The City of Chicago Office of Inspector General (OIG) is an independent, nonpartisan oversight agency whose mission is to promote economy, efficiency, effectiveness, and integrity in the administration of programs and operations of City government. OIG achieves this mission through,

- administrative and criminal investigations by its Investigations Section;
- performance audits of City programs and operations by its Audit and Program Review Section;
- inspections, evaluations and reviews of City police and police accountability programs, operations, and policies by its Public Safety Section; and
- compliance audit and monitoring of City hiring and employment activities by its Hiring Oversight Unit.

From these activities, OIG issues reports of findings and disciplinary and other recommendations,

- to assure that City officials, employees, and vendors are held accountable for violations of laws and policies;
- to improve the efficiency and cost-effectiveness of government operations; and
- to prevent, detect, identify, expose, and eliminate waste, inefficiency, misconduct, fraud, corruption, and abuse of public authority and resources.

AUTHORITY

OIG's authority to produce reports of its findings and recommendations is established in the City of Chicago Municipal Code §§ 2-56-030(d), -035(c), -110, -230, and 240.

Cover image courtesy of OIG.

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