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Cover photo courtesy of Denver International Airport.
AUDITOR’S LETTER

August 26, 2021

The objective of our audit of the airport parking shuttle system at Denver International Airport was to determine whether the airport is effectively managing the parking shuttle contract and whether the airport procured the contract in line with city standards and leading practices. I am pleased to present the results of this audit.

We found the airport’s Parking and Transportation Section does not adequately monitor the parking shuttle contract and lacks internal guidance for monitoring the contract in several areas. Additionally, the procurement of the current contractor did not align with city requirements and leading practices to ensure the process was competitive and that the airport received the best value.

By implementing recommendations for stronger contract monitoring, documenting policies and procedures, performing a cost-benefit analysis, and reforming contract procurement practices, Denver International Airport’s Parking and Transportation Section will be better equipped to ensure it receives services in compliance with the parking shuttle contract and at the best possible value. These recommendations will also ensure passengers and airport employees receive quality and timely shuttle service.

This performance audit is authorized pursuant to the City and County of Denver Charter, Article V, Part 2, Section 1, “General Powers and Duties of Auditor.” We conducted this performance audit in accordance with generally accepted government auditing standards. 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.

We extend our appreciation to the personnel in Denver International Airport’s Parking and Transportation Section and to the personnel from ABM Parking Services Inc. who assisted and cooperated with us during the audit. For any questions, please feel free to contact me at 720-913-5000.

Denver Auditor’s Office

[Signature]

Timothy M. O’Brien, CPA
Auditor
Airport Parking Shuttle System

AUGUST 2021

Objective

To assess:
1. Whether Denver International Airport's Parking and Transportation Section has adequate controls to efficiently and effectively manage its parking shuttle services contract.
2. Whether the procurement process for the parking shuttle contract aligns with city rules and leading practices and whether the airport's outsourcing of the service was efficient and economical.

Background

ABM Parking Services Inc. operates the parking shuttle system at Denver International Airport, which transports the public and airport employees for free between the terminal and concourses and several airport parking lots.

Before the COVID-19 pandemic, ABM's shuttle buses served an average of about 6.9 million passengers a year.

Denver International Airport Inadequately Monitors Its Parking Shuttle Services Contract, and the Contract Lacks Some Key Provisions

- The Parking and Transportation Section does not sufficiently monitor the contract in several areas.
- The parking shuttle contract lacks detail on some elements of driver safety, and subcontracts were not updated to include federal disaster provisions for pandemic-related costs.
- Parking and Transportation lacks policies and procedures and has inadequate management oversight of the contract monitoring process.

The Airport's and ABM Parking Services' Practices Do Not Sufficiently Ensure ABM Complies with the Parking Shuttle Services Contract

- Parking and Transportation staff failed to ensure ABM shuttles entered each lot within the intervals required in the contract.
- The airport and ABM lack effective processes to monitor customer complaints and ensure customers receive a timely response.
- The airport's invoice review process increases the likelihood that the airport overpays for shuttle services.

Denver International Airport Needs to Improve Procurement Practices for the Parking Shuttle Services Contract

- The Parking and Transportation Section has not conducted a cost-benefit analysis to identify the best method of providing parking shuttle services.
- Parking and Transportation provided insufficient time for the 2016 contract procurement process, which reduced competition for the bid.
- The NextBus tracking system was not procured through a competitive bid, which is inconsistent with city standards.

WHY THIS MATTERS

Without adequate contract monitoring and procurement practices, the airport's Parking and Transportation Section cannot ensure it is receiving parking shuttle services in compliance with the contract and risks overpaying for the service. Additionally, airport passengers and employees cannot be certain they will receive parking shuttle services in a timely manner.
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BACKGROUND

Denver International Airport is the third-busiest airport in the United States and one of the top 10 busiest airports in the world. Owned by the City and County of Denver, the airport operates as an enterprise — a government entity that operates as a self-sustaining business. The airport must generate enough revenue to cover all its costs to support planning, development, operation, and maintenance of the airport.

The airport is the primary economic engine for Colorado, generating more than $33 billion for the region annually. In 2020, about 34 million passengers traveled through the airport compared to 69 million passengers in 2019. This 51% reduction — equating to about 35 million fewer passengers — was because of the COVID-19 pandemic.

Denver International Airport’s mission is “to operate at the highest standards of safety and security.” The airport aims to execute this mission “while delivering consistent, outstanding service to customers ... and offers the highest levels of service and efficiency.”

The Airport Parking Shuttle Service System

The Parking and Transportation Section oversees the airport’s parking shuttle system, which serves both passengers and airport employees. The airport fully outsources the operations and management of the shuttle service to its contractor: ABM Parking Services Inc. Before the COVID-19 pandemic, a fleet of 60 shuttles served an average of 6.9 million passengers a year.

The airport’s parking lots are open 24 hours a day, seven days a week to accommodate all flight departures and arrivals. Passengers pay to park in the East or West Economy lots, the Pikes Peak lot, or the Mt. Elbert lot, as well as the airport’s East and West garages. The parking shuttle service is provided at no cost to customers and stops in each parking lot. The shuttles take passengers to and from the airport terminal.

SHUTTLE ROUTES – The airport has nine parking shuttle routes: four routes for passengers and five routes for airport employees. Figure 1 on the following page shows the passenger routes for the West Economy, East Economy, Pikes Peak, and Mt. Elbert parking lots, as well as the employee routes among the air cargo buildings, the Landside Lot, and concourses A, B, and C.


FIGURE 1. Airport Shuttle System Routes for Passengers and Employees

Note: As of June 2021, the Mt. Elbert and Pikes Peak lots remain closed because of the COVID-19 pandemic.
Source: Auditor’s Office illustration based on information from Denver International Airport.
STATISTICS ON SHUTTLE SERVICES – From February 2017 through December 2020, the airport paid about $82 million for the shuttle services. Before 2020, the shuttles transported an average of about 6.9 million public and employee passengers. In 2020, both the cost and the number of passengers decreased because of the impacts of the COVID-19 pandemic. For example, the cost of operating the shuttle service dropped by over $8.5 million.

ABM uses 45 of its larger shuttles to transport passengers on the Pikes Peak, Mt. Elbert, Landside, and concourse routes, and it uses 10 of its smaller shuttles for the East Economy, West Economy, and air cargo routes. Additionally, ABM reserves five other shuttles for special requests from the airport. Figure 2 summarizes the annual totals for the cost of the shuttle services and the number of passengers transported.

ABM Parking Services Inc. is a multinational company that provides parking and shuttle transportation for major airports such as Dallas/Fort Worth, Washington-Dulles, and Los Angeles International.3

ABM provided shuttle services at Denver International Airport since 1998. The most recent contract began in 2017 and ends in 2022. It allows for up to two one-year extensions after that. The previous contract with ABM also included a five-year term and two one-year extensions. However, the airport extended that contract for two more years — for a total contract period of nine years.

The airport’s contract requires ABM to provide all personnel, vehicles, materials, equipment, and other necessary items to fully manage and operate the airport’s parking shuttle service. The airport pays ABM fees for each hour the shuttles operate. On average, the airport pays ABM $1.7 million a month. The maximum the airport might pay over the life of the contract is $178 million.

The airport’s contract allows it to deduct monetary penalties — or “liquidated damages” — from its payments to ABM when the company fails to meet its obligations in seven areas:

- Reliability.
- Courtesy and service.
- Vehicle maintenance and cleanliness.
- Employee training and appearance.
- Safety.
- Report submission.
- Compliance with airport rules and regulations.

In 2016, the airport publicly advertised the bid for shuttle services and selected ABM through a request-for-proposals process, which requires prospective contractors to submit proposals demonstrating how they can deliver the services outlined in the contract. The airport contracted with ABM again after receiving only one other proposal.

**Contract Oversight**

**THE PARKING AND TRANSPORTATION SECTION’S MONITORING RESPONSIBILITIES** – The Parking and Transportation Section oversees the airport’s contract with ABM and assigned one employee to serve as the contract administrator. In addition, a senior vice president and the airport commercial director oversee contract operations for parking shuttle services.

The contract administrator provides day-to-day oversight of ABM — which includes tracking and responding to customer complaints about parking shuttle services and reviewing monthly invoices and supporting documentation. The contract administrator compares the hourly shuttle totals on the invoice with the billing backup documents ABM submits for its invoices, and they check both the total hours and the hours associated with each type of shuttle.

They also must review the vehicle list, monthly busing plan, and quarterly reviews. If the contract administrator identifies any issues based on these
reports, the administrator discusses the issues with ABM during regularly scheduled meetings.

The contract administrator uses these reports and meetings to determine whether parking shuttle services are meeting demand.

**THE CONTRACT COMPLIANCE GROUP’S MONITORING RESPONSIBILITIES** – In addition to the contract administrator, the contract compliance group within the Parking and Transportation Section provides periodic oversight of the ABM contract. The group performs contract compliance reviews and conducts a second review of monthly invoices and supporting documentation.

During the review of monthly invoices, contract coordinators check all the daily operational review documents to ensure each day's total matches the billable hours on a signature sheet. The coordinators also ensure all documentation includes required signatures.

The contract compliance group — in collaboration with the contract administrator, airport commercial director, and senior vice president of the Parking and Transportation Section — uses a risk assessment process to determine which reviews of the ABM contract should be prioritized during the upcoming calendar year. From 2017 to 2020, the contract compliance group completed the following reviews to evaluate ABM’s adherence to contract requirements:

- A review of customer feedback for the parking shuttle system.
- A review of training received by ABM’s employees.
- A review to determine whether ABM employees wear their uniforms.
- A review of NextBus, a GPS shuttle tracking software and mobile app, to verify the system's reliability.
- A review of driver’s license records for ABM employees.
- A review to determine whether ABM’s service vehicles are safely maintained.
- A review to determine whether ABM provided reports on time.

**Pandemic-Related Service Changes**

During the COVID-19 pandemic, the number of passengers served by the parking shuttle system fell drastically to about 1.8 million. The Parking and Transportation Section closed the Pikes Peak and Mt. Elbert parking lots, as well as the Landside Lot for employees. The East Economy Lot was changed from accommodating passengers to providing parking for airport employees. Passenger parking was still available in the West Economy Lot.

Parking and Transportation also discontinued the use of NextBus, the airport’s GPS shuttle tracking system, and it formally stopped assessing monetary penalties included in ABM’s contract.

Before the pandemic, the contract administrator would meet with ABM daily. But during the pandemic, they met weekly instead. The airport also
agreed to increase ABM's hourly fees to compensate for the decrease in shuttle hours related to the pandemic's impact on travel.

Systems Used for Contract Monitoring

Parking and Transportation uses information from three primary systems to manage the airport parking shuttle contract: NextBus, GateKeeper, and Route Manager.

**NEXTBUS** – Before Parking and Transportation stopped using NextBus in April 2020, staff used this system to monitor shuttle service levels. The system tracked each bus's location using GPS. It recorded information such as which route each bus was servicing, the current latitude and longitude of each bus, and the expected arrival of a bus at each shuttle stop.

Staff could use the system to monitor the position of each active shuttle. Additionally, staff could download reports to monitor the time between shuttle arrivals for every bus stop.

In some lots, NextBus also provided information to passengers on when the next bus would arrive at their location.

**GATEKEEPER** – This system tracks shuttle access in the parking lots using a set of gates for all parking lot entries and exits. The gates have an antenna that reads a scanner installed on each bus.

*GATES FOR WEST ECONOMY LOT* | An airport parking shuttle passes through the exit gate of the West Economy parking lot at Denver International Airport. The GateKeeper system records the time of all gate entries, which airport staff can then download to assess ABM Parking Services Inc.'s compliance with service-level requirements. PHOTO BY AUDITOR’S OFFICE STAFF
Each time a shuttle passes one of the gates, the system records the shuttle's bus number, the date, and the time. Parking and Transportation staff can download reports from the system to assess the intervals between each shuttle's entrance into the lots.

**ROUTE MANAGER** – This is ABM's proprietary system used to record the number of hours each shuttle runs per day, the number of passengers transported, and the number of trips taken.

Each hour a shuttle is in service, bus drivers manually record the time they begin and end each trip along with the route and the number of passengers transported. At the end of each day, ABM staff manually enter the drivers’ information into Route Manager.

While Parking and Transportation staff do not have access to Route Manager, they receive system reports from ABM that include the number of bus hours driven each month and the number of passengers transported each month. Additionally, ABM uses the bus information in Route Manager to bill the airport for shuttle service hours.
DENVER INTERNATIONAL AIRPORT INADEQUATELY MONITORS ITS PARKING SHUTTLE SERVICES CONTRACT, AND THE CONTRACT LACKS SOME KEY PROVISIONS

Denver International Airport’s Parking and Transportation Section is not adequately monitoring its parking shuttle contract with ABM Parking Services Inc.

Specifically, we found:

- The Parking and Transportation Section is not monitoring the contract in several areas, including checking bus driver safety, assessing monetary penalties known as “liquidated damages,” and reviewing contract fees.
- The parking shuttle contract does not require background checks, drug testing, or limits on bus driver shifts.
- The Parking and Transportation Section did not ensure ABM’s subcontracts were updated with federal disaster provisions outlined in a 2020 amendment to the airport’s contract with ABM.
- Some ABM processes related to training and vehicle inspections do not align with the parking shuttle contract.

Without consistent contract monitoring, Parking and Transportation cannot ensure ABM meets all contract requirements and the airport’s needs. Additionally, without enhanced controls, the airport cannot ensure passengers and airport employees are receiving quality and timely shuttle services.

THE PARKING AND TRANSPORTATION SECTION DOES NOT SUFFICIENTLY MONITOR SEVERAL CONTRACT AREAS

The Parking and Transportation Section has only one employee responsible for monitoring the airport’s parking shuttle contract and ensuring ABM complies with the contract and its associated procedures.

To monitor the shuttle service, this contract administrator receives and responds to customer complaints, monitors shuttles using in-person observations and airport cameras, reviews and approves ABM reports and invoices, and discusses any identified issues with ABM management during weekly meetings. Additionally, they previously tracked passenger counts and passenger wait times — or “shuttle headways” — using the NextBus system when it was used.

However, we found several areas of the contract that the contract administrator does not adequately monitor — including areas related to assessing monetary penalties, bus driver safety, and contract fees.
MONETARY PENALTIES – The airport's contract with ABM allows it to deduct monetary penalties — or “liquidated damages” — when the company fails to meet its obligations in seven areas, as described in Table 1. We found Parking and Transportation’s contract administrator does not monitor six of these areas.

### TABLE 1. When the Airport Can Assess Monetary Penalties from ABM Parking Services Inc.

<table>
<thead>
<tr>
<th>Compliance Area</th>
<th>A Monetary Penalty Can Be Assessed When:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reliability</td>
<td>Buses take longer than 10 minutes to enter the lot more than 5% of the time.</td>
</tr>
<tr>
<td>Courtesy and Service</td>
<td>The airport receives a documented or substantiated incident of rude behavior by an ABM employee.</td>
</tr>
<tr>
<td>Vehicle Maintenance and Cleanliness</td>
<td>ABM does not perform preventative maintenance, a vehicle fails an inspection or has not been cleaned, the required number of service vehicles are not on-site, or a vehicle is not replaced after 100,000 miles.</td>
</tr>
<tr>
<td>Employee Training and Appearance</td>
<td>An ABM employee is not wearing their uniform or does not have a neat appearance.</td>
</tr>
<tr>
<td>Safety</td>
<td>Two or more bus accidents occur in a one-month — or 8,000-vehicle-hour — period.</td>
</tr>
<tr>
<td>Reports</td>
<td>ABM fails to provide a required, recurring report listed in the contract.</td>
</tr>
<tr>
<td>Compliance with Airport Rules and Regulations</td>
<td>ABM’s management fails to comply with the airport’s rules and regulations.</td>
</tr>
</tbody>
</table>

**Note:** The contract refers to the monetary penalties as “liquidated damages.”

**Source:** Denver International Airport’s parking shuttle contract with ABM Parking Services Inc.

The contract administrator said they do not conduct any structured or documented review of any of the monetary penalties except for courtesy and service — where penalties are assessed based on customer feedback.

In some cases, Parking and Transportation’s practices for monetary penalties do not align with the contract. For example, the contract administrator does not require monthly busing reports to be submitted and does not review routes during peak times each month to determine the reliability of the shuttle service.

Without consistent and formal monitoring of the compliance areas associated with the monetary penalties, the airport cannot ensure its parking shuttle system is operating as intended in the contract or that

**RELATED FINDINGS**

In Finding 2, we discuss additional issues with Parking and Transportation’s processes for assessing monetary penalties related to reliability and courtesy and service. These discussions begin on pages 19 and 26, respectively.
ABM is providing the required level of service to airport passengers and employees.

**BUS DRIVER SAFETY** – Parking and Transportation only minimally monitors ABM’s bus drivers to ensure they are appropriately qualified to operate the buses safely and that they are paid in accordance with the contract. ABM employed 201 bus drivers on average for the airport’s parking shuttle contract before the COVID-19 pandemic, it had 35 drivers during the height of the pandemic, and it now employs 136 bus drivers during recovery from the pandemic.

To monitor driver qualifications, the contract administrator attended ABM’s quarterly trainings where drivers were recertified to assist customers with disabilities, in alignment with the contract’s Americans with Disabilities Act requirements. But the contract administrator did not document their attendance at these meetings and has not attended one since the onset of the COVID-19 pandemic in spring 2020.

Furthermore, the contract administrator said they do not review or monitor ABM’s processes to perform background checks and drug screenings on bus drivers or ensure that drivers have all required certifications and are paid an appropriate wage. The airport also does not have a process to monitor whether ABM’s vehicle maintenance and inspection practices conform to the contract requirements.

During our testing, we did not find any bus drivers who did not meet the contract requirements for training, background checks, drug screenings, certifications, or wages. However, the airport cannot ensure ABM bus drivers are meeting all service and safety requirements in the contract because the airport does not monitor any of these areas.

Parking and Transportation officials also chose not to receive ABM’s operations manual, which describes the company’s procedures to operate the parking shuttle system. Procedures associated with the airport contract require that the manual be reviewed and approved.

Among other requirements, the operations manual should include ABM’s processes for driver safety, bus servicing and safety, customer service, and training. The contract procedures also say ABM should submit its operations manual to the contract administrator “for review and approval no later than 30 days prior to the start of the comprehensive shuttle bus service” — which would have been January 2017. However, Parking and Transportation leadership decided to let ABM retain ownership of the document without reviewing or approving it due to the large size of the document.

**CONTRACT FEES** – The Parking and Transportation Section did not review new contract fees to ensure the fees were necessary and related to providing parking shuttle services. The airport paid ABM $51.43 per hour for 850 daily bus hours under the original contract. But when the COVID-19 pandemic

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pandemic reduced passenger demand for the shuttle service, the number of hours the buses operated each day also needed to be reduced. As a result, the airport agreed to adjust the contract fees it paid to ABM beginning in June 2020 so that ABM could break even with its costs and revenue.

To determine the appropriate amount to adjust fees, Parking and Transportation leadership considered several scenarios with differing amounts of daily hours and costs per hour before agreeing to 410 bus hours per day at $76.15 per hour.

During this process, Parking and Transportation staff examined a cost breakdown of the new fees that included categories such as management wages, fringe benefits, overhead, and other items. However, staff provided no documentation demonstrating they reviewed what costs were included in each category or that expenses included in these categories are necessary for operating the parking shuttle system.

Parking and Transportation's lack of review of the new contract fees resulted from the section's reliance on general budget development policies that list only items required to be included in the annual budget rather than more specific review procedures. By not reviewing what costs are included in the spending categories that make up the new contract fees, ABM could overcharge the airport for parking shuttle services or include costs unrelated to its contract with the airport.

The city's Executive Order No. 8 addresses contract procurement and says it is the responsibility of the initiating authority — or the agency that requests the contract — to monitor contract performance throughout the life of a contract. This includes ensuring contract terms are met and documenting contract monitoring.

The executive order also mandates that the initiating authority establish policies and procedures for monitoring contracts — including identifying specific people responsible for contract monitoring and creating steps to address noncompliant vendors.

Federal standards established by the U.S. Government Accountability Office also say an organization's management should design control activities such as policies, procedures, techniques, and mechanisms to achieve the entity's objectives and address any related risks. Common types of control activities include performance reviews, manager reviews, appropriate documentation of transactions, and proper execution of transactions.

Furthermore, these standards say management should establish and operate activities to monitor control activities and evaluate results. Ongoing monitoring can include regular management and supervisory

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activities, comparisons, reconciliations, and other routine actions.

**The Parking Shuttle Contract Lacks Detail on Some Elements of Driver Safety**

We found the parking shuttle contract with ABM does not have detailed requirements to limit bus drivers’ shifts nor does it require drivers’ background checks or drug testing — which are outlined in federal, city, and airport regulations.

For example, federal motor vehicle regulations place strict limits on the number of hours drivers of passenger-carrying commercial vehicles can drive and work. Specifically, drivers cannot drive more than 10 hours a day and cannot drive for any period if they have been on duty for 15 hours or more in a day, 60 hours in seven consecutive days, or 70 hours in eight consecutive days. While the ABM contract has a general requirement that the company must obey all federal, state, and local laws, it does not specifically limit bus drivers’ shifts.

Although we did not find any ABM drivers in violation of federal driver shift limits, the airport’s Parking and Transportation Section is not monitoring this and, therefore, cannot ensure ABM is abiding by driver safety regulations.

The parking shuttle contract also does not require bus drivers to undergo background checks. According to the airport’s rules and regulations, all drivers with access to the airport’s secured areas are required to have an airport ID badge with driver authorization. To get an airport ID badge, an applicant must be fingerprinted and pass a criminal history record check.

But the parking shuttle contract does not require drivers to undergo a background or criminal history check, and Parking and Transportation has no policies or practices to monitor whether ABM drivers are appropriately checked before they drive airport parking shuttles. The contract says ABM must comply with the airport’s security program — which may include badging requirements — but it does not explicitly say this includes a background check.

While ABM requires its drivers to consent to a background check in their job applications, Parking and Transportation cannot ensure these checks meet airport standards without monitoring this process.

Furthermore, Parking and Transportation does not monitor ABM’s adherence to the city’s Executive Order No. 94 — which prohibits city employees and contractors from being under the influence of alcohol or drugs while performing city business. The contract also lacks details on how the airport will enforce compliance with the executive order.

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Executive Order 94 says positions that require a commercial driver’s license — such as bus drivers — must be tested for illegal drug use before beginning employment. It says they will be tested again for alcohol, legal drugs, and illegal drugs after an accident, when returning to duty after violating the order, and for follow-up testing after returning to duty.9 Drivers can also be tested randomly and for reasonable suspicion.

By comparison, the parking shuttle contract says only that ABM must comply with Executive Order 94, but the Parking and Transportation Section does not monitor ABM’s compliance. The lack of monitoring in this area is because Parking and Transportation lacks policies and procedures for monitoring ABM’s compliance with the city’s drug and alcohol testing requirements.

Although ABM has its own policy to test drivers before their employment begins, after an accident, when a driver returns to duty, for follow-up, and randomly as well as for reasonable suspicion, Parking and Transportation cannot ensure ABM is complying with the city’s executive order or its own policy without appropriate monitoring.

Again, both the city’s Executive Order No. 8 and federal leading practices say organizations should monitor contract performance and evaluate results.10 Additionally, organizations also need to create policies and procedures to monitor contract compliance and performance.

Without specific contract requirements and contract monitoring policies and procedures, Parking and Transportation cannot appropriately monitor ABM’s performance in these areas and hold them accountable if they do not meet driver safety standards. Additionally, bus passengers cannot be certain that the parking shuttle service is meeting “the highest standards of safety and security,” as stated in the airport’s mission.11

**Parking Shuttle Subcontracts Are Missing Disaster Reimbursement Provisions**

The Parking and Transportation Section did not ensure ABM updated its subcontracts with language affirming compliance with the federal Contract Work Hours and Safety Standards Act, as required by a 2020 amendment to ABM’s contract.12

The purpose of the amendment was to add language that would allow the airport to seek federal reimbursement of costs incurred as a result of the COVID-19 pandemic. The contract amendment requires ABM to insert

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9 Exec. Order No. 94.
some of the federal language into its existing subcontracts for services like vehicle maintenance and bus driver recruitment, which the company uses to provide parking shuttle services at the airport.

However, after reviewing ABM’s subcontracts, we found the required language had not been included as of February 2021. The most recent ABM subcontract or amendment to a subcontract took effect in 2017 — three years before the contract amendment between ABM and the airport. When asked whether they were aware of the new requirement, ABM officials said they were not involved in the contract amendment process and were unaware of any changes that needed to be made to their subcontracts. Without the specific language included in ABM’s subcontracts, Parking and Transportation management said the Federal Emergency Management Agency could deny the airport’s requests for COVID-19-related reimbursements.

The Parking and Transportation Section Lacks Policies and Procedures and Management Oversight for Contract Monitoring

As mentioned, the Parking and Transportation Section’s inadequate monitoring of its parking shuttle contract is because it lacks policies and procedures for contract monitoring and because management has not provided sufficient oversight of the contract monitoring function. For example, Parking and Transportation’s contract administrator does not have any policies or procedures to monitor bus drivers — such as their shift limits, bus inspections, and certification and training.

Beyond one policy to research and respond to customer complaints, the contract administrator also has no monitoring policies or procedures for assessing the monetary penalties listed in the contract. Additionally, we found Parking and Transportation management does not provide sufficient oversight of contract monitoring for the parking shuttle contract. Managers were often uncertain why Parking and Transportation had adopted certain practices — particularly around contract procurement and approving billed hours. They said the decision had been made under previous leadership when the parking shuttle system was managed by a different airport division.

Managers were also sometimes unaware of how the contract administrator monitored the contract. For instance, during meetings with staff, managers did not know that no other staff were filling in to respond to customer complaints when the contract administrator was out of the office, and management had to ask the administrator whether they were monitoring shuttle service levels.

We also found Parking and Transportation seldomly incorporates feedback from the airport’s contract compliance group or parking service agents to improve contract monitoring practices.

The contract compliance group conducts compliance reviews of specific contract areas and provides recommendations to the Parking and
Transportation Section. Out of a sample of five compliance reviews, we found four included recommendations that were not implemented or issues that were not followed up on. This included one review of the customer complaint process where the reviewer recommended changes to the complaint tracking process for the third time without implementation from Parking and Transportation.

Parking and Transportation also does not formally incorporate into its monitoring process information on the parking shuttle system gathered by parking service agents in the field. While these parking service agents are primarily responsible for managing airport parking facilities, Parking and Transportation management said they also observe ABM staff in the field and record them in inspection reports tracked by the contract administrator.

The contract administrator said they received emails from agents reporting on some issues like a sign or bus being out of order, but the administrator has never received a formal report from a parking service agent. Additionally, the contract administrator does not track the inspection reports as management had claimed, because the system the reports are recorded in does not have practical uses for busing operations and the administrator does not have access to the system.

Federal leading practices say an organization should establish an oversight structure with responsibilities to oversee the development and performance of control activities and monitoring activities, as well as establish policies and procedures and monitoring activities as we previously discussed. A control activity can include manager reviews of the organization’s performance. Leading practices also say management should use quality information — including compliance data — from reliable internal and external sources to support its control system and make informed decisions.

The Parking and Transportation Section Cannot Ensure ABM Parking Services Meets Contract Requirements

As a result of the Parking and Transportation Section’s inadequate contract monitoring, we found several examples of ABM not complying with contract requirements. We also identified deficiencies in ABM’s internal processes. Specifically, we found the following areas where ABM is noncompliant:

- **ADA TRAINING** – ABM has not submitted documentation of its bus drivers’ compliance with Americans with Disabilities Act training, nor has it submitted documentation that its bus drivers are recertified every three months, along with its monthly reports as required in the contract.

- **EMPLOYEE TRAINING** – ABM does not have a formal training program documented for each job classification and new employees.

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Additionally, ABM does not submit documentation of its existing trainings as required in the contract, unless the airport specifically requests it.

**CUSTOMER COMPLAINT RESPONSE** – Parking and Transportation staff are tracking and responding to customer complaints rather than ABM employees doing that, as stated in the contract. Parking and Transportation management made the decision to have their staff take over responsibility of responding to customer complaints, but neither the contract nor its associated procedures were amended to reflect this change.

**ACCEPTANCE OF TIPS** – The contract prohibits ABM’s drivers from asking for and accepting tips. ABM allows its drivers to accept tips, although they cannot ask for them.

Because of the airport’s lack of contract monitoring, ABM’s internal processes are deficient, which could affect its ability to provide parking shuttle services at the airport. These deficiencies include:

**VEHICLE INSPECTIONS** – ABM’s vehicle inspection policy does not align with the company’s current practices. For example, bus drivers do not perform all elements of the inspection process as listed in ABM’s policy, and ABM’s vehicle inspection reports do not include all elements listed in the policy. Instead, various other ABM employees and subcontractors perform some elements of the inspection process, including engine checks and vehicle maintenance. This misalignment is because ABM has not revised its vehicle inspection policy since 2013.

**DRIVER ENDORSEMENTS** – ABM does not have a policy or procedure to ensure its bus drivers have a passenger-carrying endorsement on their commercial driver’s licenses, as required by the airport contract. Although ABM has a policy to keep driver certifications on file and requires drivers to submit their license numbers and experience in their application forms, neither the policy nor the application form require the passenger-carrying endorsement.

Without assurance that ABM complies with all contract requirements, the Parking and Transportation Section cannot ensure ABM is providing the levels of service required by the contract. Additionally, the airport’s liability could potentially increase if drivers are not appropriately trained or if they do not maintain adequate licensing.

This lack of contract monitoring has led to further deficiencies in the airport’s and ABM’s processes, which we discuss in further detail in Finding 2.
1.1 RECOMMENDATION: Develop Contract Monitoring Policies and Procedures

Denver International Airport’s Parking and Transportation Section should develop and document contract monitoring policies and procedures for the parking shuttle contract — including procedures to monitor driver training, wages, background checks, drug tests, licensing, and shift limits, as well as vehicle inspections and liquidated damages.

AGENCY RESPONSE: AGREE, IMPLEMENTATION DATE – NOV. 1, 2021
SEE PAGE 52 FOR THE AGENCY’S FULL RESPONSE TO OUR RECOMMENDATIONS.

1.2 RECOMMENDATION: Develop Monitoring Procedures for Payment and Contract Fees

Denver International Airport’s Parking and Transportation Section should develop and document contract monitoring policies and procedures for payments made to ABM and for contract fees.

AGENCY RESPONSE: AGREE, IMPLEMENTATION DATE – NOV. 1, 2021
SEE PAGE 52 FOR THE AGENCY’S FULL RESPONSE TO OUR RECOMMENDATIONS.

1.3 RECOMMENDATION: Update Contract Provisions

Denver International Airport’s Parking and Transportation Section should update the parking shuttle service contract to include requirements for bus drivers related to background checks, shift limits, and drug and alcohol testing, as well as how the airport should monitor these requirements.

AGENCY RESPONSE: AGREE, IMPLEMENTATION DATE – NOV. 1, 2021
SEE PAGE 52 FOR THE AGENCY’S FULL RESPONSE TO OUR RECOMMENDATIONS.

1.4 RECOMMENDATION: Ensure Update of Subcontracts

Denver International Airport’s Parking and Transportation Section should ensure that all subcontracts for the parking shuttle contract are updated to include the required provisions from the Federal Emergency Management Agency.

AGENCY RESPONSE: DISAGREE
SEE PAGE 52 FOR THE AGENCY’S FULL RESPONSE TO OUR RECOMMENDATIONS.
**RECOMMENDATION** Establish Managerial Oversight

Denver International Airport’s Parking and Transportation Section should establish and document a managerial oversight process for contract monitoring.

AGENCY RESPONSE: AGREE, IMPLEMENTATION DATE – NOV. 1, 2021
SEE PAGE 52 FOR THE AGENCY’S FULL RESPONSE TO OUR RECOMMENDATIONS.

**RECOMMENDATION** Incorporate Information from Other Resources

Denver International Airport’s Parking and Transportation Section should evaluate airport resources that can assist in monitoring the parking shuttle contract and incorporate information collected from these resources into its contract monitoring policies and procedures.

AGENCY RESPONSE: AGREE, IMPLEMENTATION DATE – NOV. 1, 2021
SEE PAGE 52 FOR THE AGENCY’S FULL RESPONSE TO OUR RECOMMENDATIONS.

**RECOMMENDATION** Receive, Review, and Approve Operations Manual

Denver International Airport’s Parking and Transportation Section should receive and review ABM Parking Services Inc.'s operations manual and approve it when it meets the airport’s needs and expectations.

AGENCY RESPONSE: AGREE, IMPLEMENTATION DATE – NOV. 1, 2021
SEE PAGE 52 FOR THE AGENCY’S FULL RESPONSE TO OUR RECOMMENDATIONS.
FINDING 2 AND RECOMMENDATIONS

The Airport’s and ABM Parking Services’ Practices Do Not Sufficiently Ensure ABM Complies with the Parking Shuttle Services Contract

As a result of the limited contract monitoring we discussed in Finding 1, we identified three issues related to how the airport's Parking and Transportation Section and its contractor, ABM Parking Services Inc., ensure compliance with the contract:

1. Parking and Transportation staff failed to ensure ABM shuttles entered each lot within the intervals required in the contract.
2. Parking and Transportation and ABM do not effectively monitor customer feedback.
3. Parking and Transportation also does not ensure it pays only for shuttle hours that meet passenger demand and it does not ensure the hours it pays for are accurate.

By not complying with these contract areas, the Parking and Transportation Section lacks assurance that ABM provides safe, reliable, and efficient shuttle services. Additionally, the airport’s decision to not monitor wait times led to a potential overpayment of up to several million dollars.

The Parking and Transportation Section Failed to Ensure ABM Shuttles Entered Each Lot within the Intervals Required by the Contract

To maintain reliable services for passengers and airport employees, the parking shuttle contract specifies the maximum wait times between shuttles for each route.

As shown in Figure 3 on the next page, the interval between shuttles should not exceed 5 minutes in the East and West Economy lots, and it should not exceed 10 minutes for the Landside and Pikes Peak routes.

According to the contract, the airport can impose monetary penalties, which are deducted from the airport’s monthly payment to ABM, if the following performance standard is not met:

“95% of the buses enter the lot within 10-minutes based on NextBus or [GateKeeper] software reporting if a member of the traveling public or employee waits longer than the 10-minute service interval between buses, or waits more than 10-minutes for a bus at any stop at any public or employee parking facility or at the Airport’s Terminal building.”
Based on the contract language, our testing focused on whether the shuttles met the required service levels in at least 95% of the trips taken each day. We chose this approach because the contract’s associated procedures say: “For the purposes of Liquidated Damages assessments, the City will designate a ‘point’ on each shuttle bus route to determine whether Contractor is meeting the agreed upon Service Level Intervals.” In addition, for the airport to learn about passenger wait times, a customer must submit a complaint, but there is no way to determine whether every passenger who waited longer than 10 minutes submitted a complaint. We confirmed this approach with Parking and Transportation staff.

Following our testing, ABM management said there was disagreement on how to apply monetary penalties during the last contract. In 2011, the airport received an informal document with advice from an employee at the City Attorney’s Office saying the monetary penalties for the performance standard appear to connect with passenger wait times for the 2008 contract.

The advice also said the penalty amounts for service-level violations are unclear and that further clarification may be necessary. This informal document does not include the employee’s name or signature and explicitly mentions the advice is only the employee’s opinion and is not an official opinion from the City Attorney's Office.

Despite this, ABM and the airport agreed that the airport will assess monetary penalties only if a customer complains about a wait time. However, the current contract — which began in 2017 — does not mention the requirement of a customer complaint for assessing monetary penalties. As a result, it remains unclear when to assess monetary penalties for service-level violations.

We found ABM failed to meet the 95% requirement for service levels every day for over a three-year period, which could have resulted in several million dollars in penalties. However, because the airport was not monitoring for compliance with required service levels, the airport never assessed any penalties.

**FIGURE 3. Parking Shuttle Services Contract Requirements for Service Levels**

Under the contract, there can be no interval between any two shuttles longer than:

- **East and West Economy lots**
  - 5 minutes
- **Landside and Pikes Peak lots**
  - 10 minutes

If the shuttle service does not meet these requirements 95% of the time, the airport can deduct money from the monthly payment for each interval that exceeds the maximum.

<table>
<thead>
<tr>
<th>Minutes between shuttles</th>
<th>Over 10 minutes</th>
<th>Over 20 minutes</th>
<th>Over 30 minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$50 deduction</td>
<td>$100 deduction</td>
<td>$500 deduction</td>
</tr>
</tbody>
</table>

**Source:** Graphic designed by Auditor’s Office staff using information from the parking shuttle services contract.
Under the contract, Parking and Transportation staff can use either the GateKeeper or NextBus systems to monitor ABM’s compliance with service levels. Staff said they prefer to use NextBus over GateKeeper because NextBus provides more detailed information about arrival times between bus stops. However, for our analysis, we chose to use the GateKeeper system to test ABM’s compliance with service levels because NextBus’s data is not always accurate.

Despite their preference to use NextBus, Parking and Transportation staff acknowledged NextBus information is not always accurate. Specifically, the loss of satellite connection during bad weather or when shuttles travel under the Westin hotel for the West and East Economy routes can impact the accuracy of the data. In addition, bus drivers do not consistently log in to the system to ensure shuttle locations are accurate.

ABM staff have also noted issues with the accuracy of NextBus. We reviewed ABM’s responses to customer complaints from Feb. 1, 2017, through Dec. 31, 2020. In 37 instances, ABM noted they could not learn more about a customer complaint because of missing information in NextBus.

We selected a random sample of six days to compare the information recorded by NextBus for the Landside and West Economy routes with the information recorded by GateKeeper. Our comparison found 35 shuttles recorded in GateKeeper did not have any data recorded in NextBus. Furthermore, NextBus did not record 312 trips that GateKeeper recorded.

After Parking and Transportation management reviewed our draft report, they said Gatekeeper is subject to errors because the parking lot gates do not always correctly read a shuttle bus’s access tag. This conflicted with our prior conversations with Parking and Transportation staff who explained errors tend to be rare, and if an error occurs at all, it triggers corrective action for staff to update or re-position a shuttle bus’s access tag.

In addition, we randomly sampled seven days of logs staff use to track issues with the parking lot gates. Of these, we found only one instance related to a shuttle bus.

We tested whether ABM met the service-level requirements each day from the beginning of the current shuttle contract — Feb. 1, 2017 — through March 31, 2020, which was the day when Parking and Transportation suspended the service-level requirement because of the COVID-19 pandemic. Based on the language in the current contract’s performance standard, we also calculated the potential penalties for each day the shuttles took longer than 10 minutes to enter the lot more than 5% of the time (i.e., the buses must be on time 95% of the time or ABM risks incurring a penalty).
FIGURE 4. Service-Level Testing Results for All Hourly Periods

<table>
<thead>
<tr>
<th>LOT</th>
<th>DAYS SHUTTLE SERVICE FAILED TO REACH 95% COMPLIANCE</th>
<th>NUMBER OF SHUTTLES ENTERING LOT</th>
<th>INTERVAL BETWEEN SHUTTLES ENTERING LOT</th>
<th>POTENTIAL PAYMENT DEDUCTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>West Economy</td>
<td>1,155 100%</td>
<td>170,912</td>
<td>8,019 • 3,968 105,588</td>
<td>$5.45M</td>
</tr>
<tr>
<td>East Economy</td>
<td>1,155 100%</td>
<td>152,890</td>
<td>9,210 • 4,129 81,974</td>
<td>$5.86M</td>
</tr>
<tr>
<td>Landside</td>
<td>1,067 92%</td>
<td>268,536</td>
<td>27,243 • 404 • 21</td>
<td>$1.41M</td>
</tr>
<tr>
<td>Pikes Peak</td>
<td>880 76%</td>
<td>311,116</td>
<td>19,940 • 1,618 • 447</td>
<td>$1.38M</td>
</tr>
</tbody>
</table>

Note: We calculated the potential payment deductions by multiplying the totals for each interval category that exceeded the maximum time of 10 minutes with the corresponding deduction amounts listed in Figure 3 on page 20. We then added up the deduction amounts for each interval category and rounded the total dollar amount.

Source: Auditor’s Office analysis of service levels using information from the airport’s GateKeeper system from Feb. 1, 2017, through March 31, 2020.

As shown in Figure 4 above, ABM failed to meet that 95% compliance mark on most days we tested, leading to the following potential payment deductions for each route:

- West Economy: $5.45 million.
- East Economy: $5.86 million.
- Landside: $1.41 million.
- Pikes Peak: $1.38 million.14

Parking and Transportation staff said deductions should apply only to service-level issues identified during designated “peak periods” as detailed in the contract. For example, the peak periods for the Pikes Peak route are 5 a.m. to 11 a.m. and 5 p.m. to 11 p.m. Monday through Saturday and 3 p.m. to midnight on Sundays. However, the contract and its associated procedures do not clearly explain when to apply payment deductions.

Based on the airport’s interpretation of the service-level requirements, we tested ABM’s compliance with service levels for the designated peak periods.

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14 The Mt. Elbert lot is not included in this list because when the Pikes Peak lot is full, ABM uses Mt. Elbert as an overflow lot and includes it as part of the Pikes Peak route. To account for this, we included entrances into the Mt. Elbert lot in our testing of the Pikes Peak route.
As illustrated in Figure 5, ABM still failed to consistently meet the requirements during the designated peak periods — leading to the following potential payment deductions for each route:

- West Economy: $2.05 million.
- East Economy: $2.25 million.
- Landside: $329,650.
- Pikes Peak: $157,150.

### FIGURE 5. Service-Level Testing Results for Only Peak Periods

<table>
<thead>
<tr>
<th>LOT</th>
<th>DAYS SHUTTLE SERVICE FAILED TO REACH 95% COMPLIANCE</th>
<th>NUMBER OF SHUTTLES ENTERING LOT</th>
<th>INTERVAL BETWEEN SHUTTLES ENTERING LOT</th>
<th>POTENTIAL PAYMENT DEDUCTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>West Economy</td>
<td>1,155 100%</td>
<td>91,602</td>
<td>More than 10 minutes, less than 20 minutes: 28,661 3,108 608</td>
<td>$2.05M</td>
</tr>
<tr>
<td>East Economy</td>
<td>1,155 100%</td>
<td>82,184</td>
<td>More than 20 minutes, less than 30 minutes: 30,584 3,612 716</td>
<td>$2.25M</td>
</tr>
<tr>
<td>Landside</td>
<td>654 57%</td>
<td>72,884</td>
<td>More than 30 minutes: 6,371 71 8</td>
<td>$0.33M</td>
</tr>
<tr>
<td>Pikes Peak</td>
<td>240 21%</td>
<td>41,059</td>
<td>Under 10 minutes and compliant: 2,685 89 28 38,257</td>
<td>$0.16M</td>
</tr>
</tbody>
</table>

**Note:** We calculated the potential payment deductions by multiplying the totals for each interval category that exceeded the maximum time of 10 minutes with the corresponding deduction amounts listed in Figure 3 on page 20. We then added up the deduction amounts for each interval category and rounded the total dollar amount.

**Source:** Auditor’s Office analysis of service levels using information from the airport’s GateKeeper system from Feb. 1, 2017, through March 31, 2020.

In addition to the potential penalties Parking and Transportation could have applied, ABM’s lack of compliance with the required service levels may have increased the chance airport passengers and employees waited longer than they should have for a shuttle to arrive.

We reviewed customer complaints related to wait times. From October 2018 through December 2020, 286 customer complaints were about wait times. Of these, 151 explicitly mentioned waiting longer than 10 minutes for a shuttle to arrive. While the Parking and Transportation Section assessed monetary penalties for six customer complaints during our testing period, the airport’s documentation shows only one of those was directly tied to a passenger’s wait time.
Under the contract, Parking and Transportation staff should monitor compliance with the service-level requirements by performing daily reviews of service-level information. Additional reviews should occur throughout each month to assess compliance on 20 randomly chosen dates.

Any issues of noncompliance noted in this monthly review are then supposed to lead to a reduction in monthly payments to ABM. However, airport staff said they do not perform either of the required service-level reviews. Instead, they look into service levels only when a customer complains about a long wait time.

Compounding the issue, when staff research customer complaints about wait times, they rely on information from NextBus rather than GateKeeper. However, Parking and Transportation do not have safeguards to ensure NextBus accurately and consistently records the information necessary to monitor service levels.

Meanwhile, ABM explained it agreed with the airport that the airport will assess monetary penalties only if a customer complains about a wait time. However, we found the contract requirements about monitoring service levels and assessing penalties does not include this understanding and therefore remain unclear.

As shown in Table 2 on the next page, the contract’s associated procedures do not clearly explain how and when Parking and Transportation staff should enforce the contract’s service-level requirements.

By not ensuring the contract requirements are clear and consistent, Parking and Transportation staff could misinterpret its monitoring responsibilities. As a result, there is a risk that ABM is not held accountable for providing reliable shuttle services for both public and employee passengers and that the airport may overpay for services.
TABLE 2. Comparison Between Service-Level Requirements in the Shuttle Services Contract versus the Contract’s Associated Procedures

<table>
<thead>
<tr>
<th>Contract Language</th>
<th>Procedure Language</th>
<th>Issue</th>
</tr>
</thead>
<tbody>
<tr>
<td>The contract’s performance standard for required service levels contains this sentence fragment: “95% of the buses enter the lot within 10-minutes based on NextBus or [GateKeeper] software reporting if a member of the traveling public or employee waits longer than the 10-minute service interval between buses, or waits more than 10-minutes for a bus at any stop at any public or employee parking facility or at the Airport’s Terminal building.”</td>
<td>The procedures say: “For the purposes of Liquidated Damages assessments, the City will designate a ‘point’ on each shuttle bus route to determine whether Contractor is meeting the agreed upon Service Level Intervals.” The procedures do not mention the requirement of a passenger wait time or customer complaint to assess damages for service-level violations.</td>
<td>The procedures reference only the assessment of penalties based on service-level violations and do not resolve the sentence fragment in the contract’s language.</td>
</tr>
<tr>
<td>The contract includes the following deduction requirement for service-level noncompliance: “$50 over 10 minutes per occurrence. $100 over 20 minutes per occurrence. $500 over 30 minutes per occurrence.”</td>
<td>The procedures say Parking and Transportation staff should review service levels during “designated Peak times on 20 randomly chosen dates and times throughout the month for the assessment of Liquidated Damages.”</td>
<td>It is unclear whether service-level issues noted during a review of the designated peak times would require deductions for the entire day or just during the peak times. Additionally, neither the contract nor the procedures mention the requirement of customer complaints when assessing penalties.</td>
</tr>
</tbody>
</table>

Source: Auditor’s Office analysis using information from the airport shuttle services contract and the contract’s standard operating procedures.

2.1 RECOMMENDATION Enforce Review of Service Levels

Denver International Airport’s Parking and Transportation Section should enforce its daily and monthly review of service levels as outlined by the contract’s standard operating procedures.

AGENCY RESPONSE: AGREE, IMPLEMENTATION DATE – NOV. 1, 2021
SEE PAGE 52 FOR THE AGENCY’S FULL RESPONSE TO OUR RECOMMENDATIONS.
2.2 RECOMMENDATION  Update Contract Language

Denver International Airport’s Parking and Transportation Section should update the parking shuttle contract and its standard operating procedures to ensure consistency between the contract’s performance standard for required service levels and the corresponding procedures used to monitor that standard.

AGENCY RESPONSE: AGREE, IMPLEMENTATION DATE – DEC. 31, 2021
SEE PAGE 52 FOR THE AGENCY’S FULL RESPONSE TO OUR RECOMMENDATIONS.

2.3 RECOMMENDATION  Develop and Implement Controls for Data Accuracy

Denver International Airport’s Parking and Transportation Section should develop and implement controls to ensure its preferred system to monitor the parking shuttle contract’s service-level requirements records shuttle location and service levels accurately and reliably.

AGENCY RESPONSE: AGREE, IMPLEMENTATION DATE – JAN. 14, 2022
SEE PAGE 52 FOR THE AGENCY’S FULL RESPONSE TO OUR RECOMMENDATIONS.

Neither the Airport nor ABM Parking Services Effectively Monitor Customer Complaints

We identified three issues with how both the airport’s Parking and Transportation Section and ABM manage customer feedback:

1. Parking and Transportation and ABM did not always accurately input information into their separate customer correspondence trackers.
2. Parking and Transportation did not always respond to customer complaints in accordance with its policies and procedures.
3. Parking and Transportation does not analyze customer complaints to identify trends and potential improvements for the parking shuttle system.

Although the parking shuttle service has safely transported over 22.2 million passengers and airport employees since 2017, without effectively monitoring customer feedback, Parking and Transportation cannot ensure that those who use the parking shuttle system are receiving appropriate customer service.

The Parking and Transportation Section and ABM both receive customer feedback through a general email inbox. ABM records information on all customer correspondence received through the inbox in its tracker, but ABM staff will respond only to customers who submitted compliments.
Meanwhile, the Parking and Transportation contract administrator only tracks complaints and responds to customers who submitted complaints to the email inbox. While the contract administrator responds to complaints, ABM will investigate the complaint and provide a recorded resolution.

If a shuttle passenger sends feedback that includes both a compliment and complaint — for example, if the passenger had a positive experience with the shuttle system during their departure trip but had a negative experience during their return trip — then both the contract administrator and ABM would respond.

Most customers submit their feedback by email or text message to the airport’s general email account. Some call ABM or the Parking and Transportation Section.

Feedback on the shuttle system provided through the airport’s website or social media is forwarded to the email inbox. We learned through interviews with the contract administrator that this feedback does not always reach Parking and Transportation right away because the correspondence is forwarded by a different airport staff member, so there may be delays before the contract administrator receives the messages.

ABM has been tracking customer feedback for the parking shuttle services contract since the most recent contract began in February 2017. According to ABM’s customer feedback trackers between July 2017 and December 2020, the parking shuttle system received about 9,000 compliments. Starting in late July 2017, Parking and Transportation designated its contract administrator with tracking and responding only to customer complaints. According to the contract administrator’s customer complaint tracking spreadsheet, between July 2017 and December 2020, the parking shuttle system received about 1,700 complaints. For the purposes of this audit, we reviewed only Parking and Transportation’s customer complaint process and tracker documentation.

The airport and ABM each track customer feedback using their own spreadsheets, which include different information. They both track the date a complaint is received; however, all other information varies. For example, the airport does not track the contents of passengers’ complaints or the airport’s responses to complaints.

Based on our review of airport information on customer complaints received between February 2017 and December 2020, the airport assessed monetary penalties against ABM for only six complaints for a total of $417. As mentioned, only one complaint was directly tied to a passenger's wait time.

The Parking and Transportation Section and ABM Did Not Accurately Record Customer Feedback

We found that the airport’s customer complaint tracker contained several inaccurate entries. For example, the tracker recorded two complaints as received in 2014 when the tracker was not implemented until 2017, so
receiving complaints for the tracker in 2014 would have been impossible.

Federal standards established by the U.S. Government Accountability Office say organizations should ensure data used for monitoring purposes is accurate.\textsuperscript{15} But we found data reliability issues in both the airport’s and ABM’s customer correspondence trackers, including several duplicate entries and missing records.

ABM’s tracker had several blank entries for complaint resolutions and the airport’s tracker had many blank entries for when the airport responded to the customer, so it is unclear from the tracker whether the customer received a response from the airport.

The airport and ABM need to ensure these resolution entries are not left blank — especially for complaints related to Americans with Disabilities Act compliance. Without proper resolution entries, the airport would not be able to make improvements based on the complaint received, monitor how it is responding to the feedback, or determine whether monetary penalties should be assessed.

We requested Parking and Transportation’s responses and ABM’s resolutions to a randomly selected sample of 25 complaints received since February 2017. Out of the 25 selected complaints, the airport’s contract administrator was responsible for responding to 14. From those 14 complaints, they were able to provide documentation of a response for only two complaints. ABM was responsible for recording resolutions for each of the 25 complaints; however, ABM recorded resolutions for only nine of the selected 25 complaints.

The Parking and Transportation’s contract compliance group conducted a customer service compliance review on the compliments and complaints that personnel managing the ABM contract received in February 2020. The review recommended that the ABM tracker include the contract administrator’s response to customers, which would increase collaboration between ABM and the airport.

The group also conducted reviews in 2018 and 2019, with similar recommendations. Because the airport and ABM are tracking separate information, the 2020 review concluded that “the contractor and administrator are recommended for the third time to implement the recommended tracking measures to ensure better customer service and increase consistency.”

Though the airport’s contract compliance group has recommended several times that the Parking and Transportation Section improve its tracking process for customer correspondence, the section failed to implement these recommendations and the airport has also not required ABM to comply.

In 2019, the Parking and Transportation Section hired a third-party vendor, Corona Insights, to conduct a parking shuttle customer satisfaction survey. However, the section did not implement the recommendations made by Corona Insights because the airport stopped using NextBus during the COVID-19 pandemic to save money. Corona Insights found that customers were highly satisfied with the shuttle drivers, but shuttle availability and predictability should be improved to manage expectations around when the next shuttle will arrive. This would be especially helpful for passengers in the economy lots because this information can help them determine whether they should wait for a shuttle or walk to the terminal. Parking and Transportation Section management said airport staff plan to work with NextBus to still implement this recommendation.

Without improving customer feedback policies and procedures and implementing review recommendations, Parking and Transportation fails to ensure parking shuttle passengers receive appropriate levels of customer service.

**The Parking and Transportation Section Did Not Always Quickly Respond to Customer Feedback**

The contract administrator responds to customer complaints in accordance with Parking and Transportation policies and procedures, which say customers must receive a response within three business days after the first normal business day. These policies and procedures do not include an example of how this would be applied in practice, and they are unclear on when a customer should be receiving a response from the airport.

The three-business day response time begins depending on when the complaint is received. We learned from the contract administrator that a complaint is considered received the same day if it is sent before 5 p.m. When a complaint is received after business hours, the complaint is treated as if it was received the next business day, when the email inbox would be checked starting at 8 a.m.

However, this distinction on whether a complaint is received during business hours is not included in the policies and procedures. The policies and procedures also do not include guidance on receiving and responding to customer feedback provided to other airport departments — as there is often a delay in other airport departments forwarding relevant feedback on the shuttle system to the Parking and Transportation Section, which could impact when a customer will receive a response.

The policies and procedures do not include guidance on what information is important to track for each customer correspondence received. Lastly, auditors found that none of the section’s policies and procedures included a change log to record any revisions. Without a change log, an employee would need to compare previous versions of the policies and procedures to determine the exact changes made.

As discussed, federal standards established by the U.S. Government Accountability Office say an organization’s management should design
appropriate control activities for information systems, such as policies and procedures, to achieve the organization's objectives and address any related risks.\textsuperscript{16}

We reviewed the customer correspondence trackers for when complaints were received and found that customer complaints were not always responded to in a timely manner in accordance with the Parking and Transportation Section's own policies and procedures.

Because the contract administrator is the only staff member responding to customer complaints, when the contract administrator is out of the office, a customer does not receive a swift response. The policies and procedures say it is acceptable for a customer to receive a later response if additional information is needed from ABM. However, this information has never been tracked for any of the complaints received, so we cannot determine from the customer correspondence tracker whether a response to a customer was late for this reason.

Furthermore, we found that ABM does not have policies and procedures for customer correspondence, which would provide guidance and ensure consistency on tracking and responding to customer feedback.

The Parking and Transportation Section could assign other staff members to respond to customer complaints when the contract administrator is out of the office. Management was unaware that this was not already happening. Without improved monitoring of and response to customer feedback, Parking and Transportation cannot ensure customers' needs are met and that customers are receiving a timely response in accordance with the section's policies and procedures.

**The Airport Is Not Analyzing Customer Feedback to Learn whether ABM Violated Contract Terms**

When the contract administrator receives a customer complaint, they record the date the complaint is received and the date they respond to the customer. They do not record the content of the complaint or analyze the data for any trends.

The lack of a trend analysis can impact whether the shuttle system is able to improve based on customer feedback. For example, if there is an increase in complaints about customers waiting longer than expected for a shuttle to arrive, then the Parking and Transportation Section could take action to address the amount of time customers may be waiting. But because Parking and Transportation conducts no trend analysis, staff cannot know whether certain complaint trends are increasing or decreasing over time.

These trends could be particularly important for instances when ABM may be violating contract terms — such as if customers are waiting too long for a shuttle or if a customer reports a shuttle driver exhibiting rude behavior.

\textsuperscript{16} U.S. Government Accountability Office.
Parking and Transportation has an annual strategic plan with goals and measures to improve the parking shuttle service. Specifically, for the past three years, Parking and Transportation has set annual goals involving customer correspondence, but it still is not tracking the contents of customer feedback to determine trends over time.

In 2018, Parking and Transportation's goal was to improve customer service by analyzing customer feedback and performing a trend analysis. In 2019, Parking and Transportation's goal was to enhance reporting analytics and business decisions through real-time reporting and analysis. Then in 2020, Parking and Transportation had a goal to “improve the customer service experience ... to provide safe and efficient transportation to passengers.” The measurements for this goal included “changes in complaints and compliments.”

However, the Parking and Transportation Section did not implement any of these goals since a trend analysis was not conducted for 2018, 2019, or 2020.

For this audit, we compared seven airports across the U.S. that have parking shuttle systems and that see a similar number of passengers each year as Denver International Airport. We learned that four of the airports — Dallas/Fort Worth International Airport, Los Angeles International Airport, McCarran International Airport in Las Vegas, and Newark Liberty International Airport in New Jersey — perform a trend analysis on their customer feedback and that the analysis helped the airports identify potential improvements to their parking shuttle systems.

Without analyzing trends on customer feedback, Denver International Airport’s Parking and Transportation Section could be unaware of potential issues and cannot be certain any changes made to its busing operations are having the intended effect.

**COMPARING PARKING SHUTTLE SYSTEMS AT OTHER AIRPORTS**

For this audit, we compared parking shuttle systems at:

- Dallas/Fort Worth International Airport.
- Los Angeles International Airport.
- McCarran International Airport in Las Vegas.
- Newark Liberty International Airport in New Jersey.
- Orlando International Airport in Florida.
- San Francisco International Airport.
- Seattle-Tacoma International Airport.

See Appendix B for details on our analysis.
### 2.4 RECOMMENDATION: Establish Oversight Process for Customer Feedback

Denver International Airport’s Parking and Transportation Section should establish and document a process to review the airport contract administrator’s activities, including contract monitoring of customer service. This process should be included in the section’s customer correspondence policies and procedures, and it should include necessary details to monitor customer complaints, as well as steps to ensure recommendations made by external reviews are addressed and implemented when agreed to.

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### 2.5 RECOMMENDATION: Review and Update Policies and Procedures

Denver International Airport’s Parking and Transportation Section should establish a process to review and update the customer correspondence policies and procedures to ensure they are accurate, consistent, and reflective of actual practices in accordance with contract requirements. In addition, a change log should be added to all Parking and Transportation policies and procedures to record any revisions.

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### 2.6 RECOMMENDATION: Clarify Time Frame for Responding to Customers

Denver International Airport’s Parking and Transportation Section should determine the acceptable maximum amount of time a customer should wait before receiving a response to their feedback. Then the section should ensure a clear definition is included in both the contract language and the section’s customer correspondence policies and procedures.

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2.7 RECOMMENDATION
Ensure Contractor Policies and Procedures Align with the Contract

Denver International Airport’s Parking and Transportation Section should ensure ABM Parking Services Inc. develops policies and procedures for customer correspondence that align with current processes and the airport’s contract.

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2.8 RECOMMENDATION
Improve Tracker Accuracy

Denver International Airport’s Parking and Transportation Section should develop and implement controls to ensure the data in the section’s customer correspondence tracker is complete and accurate.

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The Parking and Transportation Section Does Not Adequately Monitor the Cost of Shuttle Services

Costs for the airport’s parking shuttle services consist of the number of hours the shuttles operate and the hourly fees listed in the contract with ABM Parking Services Inc.

The contract includes an operating fee for the total hours the shuttles operate each month, which covers costs related to employees’ salaries, fringe benefits, and insurance. In addition, there are hourly fees associated with the maintenance of each type of shuttle used to provide the services.

For instance, the larger, 40-foot shuttles that service the Pikes Peak, Landside, and concourse routes have an hourly maintenance fee of about $20. The smaller shuttles that service the East and West Economy routes have an hourly fee of about $9.

Table 3 on the following page shows an example of the monthly costs for shuttle services using the in-service hours and rounded hourly fees from ABM’s January 2018 invoice.

Three areas in particular can impact the number of shuttle hours the Parking and Transportation Section pays for each month: the annual busing plan, the invoice review process, and the accuracy of the data that feeds ABM’s billing.
### TABLE 3. Example of Monthly Costs from ABM’s January 2018 Invoice

<table>
<thead>
<tr>
<th>Description of Cost</th>
<th>In-Service Hours for Month</th>
<th>Hourly Fee</th>
<th>Payment Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shuttles for the East and West Economy routes</td>
<td>4,019</td>
<td>$9</td>
<td>$36,171</td>
</tr>
<tr>
<td>Shuttles for the Pikes Peak, Landside, and concourse routes</td>
<td>21,818</td>
<td>$20</td>
<td>$436,360</td>
</tr>
<tr>
<td>Operating Cost</td>
<td>25,837</td>
<td>$51</td>
<td>$1,317,687</td>
</tr>
<tr>
<td><strong>Total Cost for Shuttle Services</strong></td>
<td></td>
<td></td>
<td><strong>$1,790,218</strong></td>
</tr>
</tbody>
</table>

**Note:** The in-service hours and rounded hourly fees come from ABM’s invoice for January 2018. At times, the shuttle service invoices contain other reimbursable expenses, such as costs related to the NextBus system. However, the example shown here does not include these additional expenses. The total invoice amount for January 2018 was $1,798,790.

**Source:** Auditor’s Office analysis using information from ABM’s January 2018 invoice to provide an example of monthly costs.

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**ANNUAL BUSING PLAN** – Each year, ABM submits a bus schedule detailing the expected bus hours needed to service passengers for each route. The airport contract requires Parking and Transportation staff to review the busing plan to ensure it does not include excessive or unnecessary bus hours.

However, when reviewing the busing plan, Parking and Transportation’s contract administrator said the bus hours are not checked to ensure the hours meet expected passenger demand. Therefore, we did not request any additional support for their review process.

But after reviewing our draft report, Parking and Transportation staff said they take more steps during the review process, which include reviewing airline staffing schedules. Following the meeting to review our draft report, Parking and Transportation staff provided an email with an airline staffing schedule for November 2020. However, the email did not include additional documentation to support that staff analyzed the schedule as part of the busing plan review.

To learn about the changes in passenger demand for the shuttle services, we analyzed the number of passengers transported during in-service bus hours for each month from February 2017 through February 2020.

As illustrated by the trend line in Figure 6 on the next page, the number of passengers transported per hour has gradually decreased over time.

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**LIMITATIONS WITH PASSENGER-PER-HOUR ANALYSIS**

Our analysis used passenger counts and in-service bus hour information recorded in ABM’s Route Manager system. As noted on pages 35 and 36, we found issues with the accuracy of the data in this system.
According to Parking and Transportation staff, they do not review the busing hours because their budget development procedures do not ensure a specific review is completed and documented. But by not ensuring ABM’s planned bus hours are not excessive, the airport may overpay for hours that are not needed to meet passenger demand.

**ROUTE MANAGER INFORMATION** – ABM uses Route Manager to record the number of passengers transported, the number of trips made, and the number of in-service bus hours. Each month, ABM bills the airport based on the number of in-service hours recorded.

We selected a sample of two months to test the accuracy of the Route Manager information recorded for the Pikes Peak route and the Landside route. Of the 14,693 entries recorded in our sample:

- Fifteen contained data-entry errors for the trips recorded. Specifically, 12 entries contained a higher number of trips than possible based on the time required to complete one trip. The other three entries recorded passenger information but did not record any trips taken.
- Seventy contained data-entry errors for passengers recorded. Each of these entries contained passenger counts greater than ABM’s capacity standard. In one entry, 456 passengers were recorded for a single shuttle.
- About 2,600 in-service shuttle bus hours recorded in Route Manager could not be tied to the in-service activity recorded for the same shuttles in the GateKeeper system. On the other hand, 572 hours of in-service activity recorded in GateKeeper could not be tied to the in-service hours recorded in Route Manager.
In addition, we selected a sample of four driver sheets to test whether the information in our sample from Route Manager tied to the source documentation. Our sample of driver sheets consisted of 75 entries. Of these:

- Ten entries in the driver sheets did not record a full hour of service. Yet ABM staff recorded a full in-service hour in Route Manager.
- Six entries contained different passenger counts than the number recorded in Route Manager.
- Twenty-seven entries contained different trip counts than the number recorded in Route Manager.

**TWO TYPES OF SHUTTLES**

ABM uses two types of shuttles for Denver’s airport parking shuttle services: a larger, 40-foot shuttle that services the Pikes Peak, Landside, and concourse routes (pictured above) and a smaller shuttle that services the West Economy, East Economy, and cargo routes (pictured at right). PHOTOS BY AUDITOR’S OFFICE STAFF
According to federal standards, management should ensure information used to support operations is reliable and accurate.\textsuperscript{17} Because information recorded by ABM in Route Manager is used to bill the airport for the shuttle services, Parking and Transportation staff should ensure the information is accurate.

We determined the cause of these errors is that Parking and Transportation lacks safeguards to ensure data in Route Manager is accurate and matches the source documentation.

Without ensuring the information recorded in Route Manager is accurate, the airport could overpay for in-service hours. Furthermore, inaccurate information in Route Manager could impact the results of any analyses assessing the number of shuttles needed to meet passenger demand.

**INVOICE REVIEW PROCESS** – Each month, Parking and Transportation staff review and approve ABM’s monthly invoice. The invoice review procedures require staff to ensure the in-service hours included on each invoice match the in-service hours provided in the backup documentation. Staff said they also check to see whether the billed hours match the approved number of hours on the annual busing plan.

We sampled eight invoices from February 2017 through December 2020 to test the accuracy of Parking and Transportation’s invoice review. All eight invoices had at least one error. Specifically, four invoices contained more bus hours than the number listed on the annual busing plan, and the billed hours on seven invoices did not match the hours found in the backup documentation.

The billed hours were greater than those listed in the busing plan because Parking and Transportation managers have not formalized this review step in their policies and procedures.

By approving invoices with more hours than those on the busing plan, the airport could be paying for in-service hours that are not needed to meet passenger demand. Furthermore, by paying for hours that did not match the backup documentation, the airport both over- and underpaid ABM for shuttle services, as shown in Figure 7 on the following page.

We asked Parking and Transportation staff about the over- and underpayments, and they said a previous management decision allowed ABM to round its hours for billing purposes. This practice led to the difference in hours between the backup documentation and the hours Parking and Transportation paid for.

In January 2020, current management began disallowing ABM to round its hours. However, the invoice review procedures were not updated to explicitly disallow rounded hours. The procedures also do not explain what steps staff should take if the billed hours do not match the supporting documentation.

\textsuperscript{17} U.S. Government Accountability Office.
FIGURE 7. Dollar Impact of Inaccurate Invoice Approval

<table>
<thead>
<tr>
<th>Month</th>
<th>Amount</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 2018</td>
<td>-$117.76</td>
<td></td>
</tr>
<tr>
<td>February 2018</td>
<td>UNDERPAYMENT</td>
<td></td>
</tr>
<tr>
<td>March 2018</td>
<td>$209.93</td>
<td></td>
</tr>
<tr>
<td>April 2018</td>
<td>-$1,098.12</td>
<td>OVERPAYMENT</td>
</tr>
<tr>
<td>July 2018</td>
<td>$279.55</td>
<td></td>
</tr>
<tr>
<td>September 2019</td>
<td>$441.22</td>
<td></td>
</tr>
<tr>
<td>November 2019</td>
<td>$782.27</td>
<td></td>
</tr>
</tbody>
</table>

Note: To determine the dollar impact, we totaled the seven invoices included in our sample in which the billed hours did not meet the hours listed in the backup documentation.

Source: Auditor’s Office analysis of payment information provided by the airport’s Parking and Transportation Section.

2.9 RECOMMENDATION | Update Budget Development Policies and Procedures

Denver International Airport’s Parking and Transportation Section should update its budget development policies and procedures to include steps to review whether the shuttle contractor’s busing plan is based on expected passenger demand.

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2.10 RECOMMENDATION | Develop and Implement Controls for Data Accuracy

Denver International Airport’s Parking and Transportation Section should develop and implement data controls to review the accuracy of the shuttle contractor’s system used to record operational information, such as passenger counts and in-service bus hours. Specifically, the controls should ensure source data matches the data recorded in the system and that the hours recorded in the system reflect only in-service bus hours.

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SEE PAGE 52 FOR THE AGENCY’S FULL RESPONSE TO OUR RECOMMENDATIONS.
Update Policies and Procedures for Invoice Review

Denver International Airport’s Parking and Transportation Section should update its invoice review policies and procedures by adding steps to ensure:

1. The hours billed match the actual in-service hours recorded by the contractor.
2. The billed hours are corrected when they do not match the actual in-service hours found in the support documentation.
3. The hours billed do not exceed the monthly busing plan unless prior approval is documented.

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FINDING 3 AND RECOMMENDATIONS

Denver International Airport Needs to Improve Procurement Practices for Parking Shuttle Services

The current contract for airport parking shuttle services was procured in 2016 and began in February 2017. While the Parking and Transportation Section is responsible for administering the 2017 contract, the Revenue Management Division administered the previous contract and was responsible for initiating the procurement process for the current contract.

We found three issues when we reviewed the Parking and Transportation Section’s procedures for procuring the airport’s parking shuttle services.

1. The section’s staff have not performed an analysis to determine the best method of providing shuttle services.
2. In 2016, airport staff did not give sufficient time for vendors to prepare proposals and procure shuttles before the contract start date. This created a perceived unfair advantage to the incumbent vendor.
3. The airport did not procure its bus tracking technology system in an open, competitive process.

Weaknesses in the procurement process may result in the airport receiving a lower value of services and at higher prices.

The Parking and Transportation Section Has Not Performed a Cost-Benefit Analysis for Parking Shuttle Services

Parking and Transportation Section staff have not performed a cost-benefit analysis to identify the best method of providing parking shuttle services for the airport’s passengers and employees. Without one, the airport cannot know whether it is making an economical choice to continue outsourcing all aspects of its parking shuttle services, and it cannot make other related decisions, such as service-level requirements.

Staff said they prepared an analysis for providing services in-house versus outsourcing many years ago before Parking and Transportation managed the contract, but this documentation was not available for our review. After reviewing the draft of this report, Parking and Transportation Section staff told us that the Purchasing Division in the city’s General Services Department conducted a market research analysis, which included a review of solicitations for similar services at a few other airports.

To support this statement, staff then provided some examples of 2015 solicitation documentation from other airports and one report about procurement of shuttles from a market research company.
However, none of these documents analyzed the costs and benefits of various service methods or service levels and none were specific to Denver International Airport.

In 2014, airport management requested an internal audit to evaluate parking shuttle operations before the previous shuttle contract expired. The airport’s internal auditors recommended a cost-benefit analysis specifically for owning a shuttle fleet. But the audit was not a part of a regular annual audit plan, so the audit did not require a written response to the recommendations and did not include follow-up procedures to verify the recommendations were implemented. Parking and Transportation staff did not perform the recommended analysis.

Leading practices, as well as the practices of some other large airports comparable to Denver International Airport, support the need for a cost-benefit analysis of shuttle service arrangements:

- A 2012 compliance review for Fort Lauderdale-Hollywood International Airport in South Florida recommended the airport continue owning a shuttle fleet, calling it a best industry practice. The report said owning its own buses enabled the airport to ensure continuity of operations if its vendor ceased operations because of the contract ending, bankruptcy, or other reasons. Additionally, the report said public entities may be able to acquire shuttles at lower prices than private companies.¹⁸

- Staff at San Francisco International Airport told us an annual cost-benefit analysis of in-house services versus outsourcing is a legal requirement under San Francisco law. They said most government work must be undertaken by permanent civil servants, and a government organization needs a clear financial and business case for providing an exception to that rule. Airport staff perform a standardized annual analysis. If the analysis for any year cannot demonstrate that it is more cost-effective to outsource the service,

TYPES OF PARKING SHUTTLE SERVICES

Airports have various options for providing parking lot transportation depending on a variety of factors, such as distance, cost, number of passengers, and desired service level and quality.

An airport can choose to provide all services in-house and own or lease its buses. Or an airport can choose to fully outsource these operations, including the procurement of the buses.

If an airport outsources the operations of its shuttle services — such as hiring and managing drivers and making schedules — but it still owns or leases its buses, this is referred to as a “hybrid” model.

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then the City Council would ask the airport to break its shuttle contract and hire its own staff.

- The Institute for Public Procurement says market research is critical because it provides procurement professionals with relevant and current information to make the most appropriate decision. The primary purpose of such research is to determine the availability of supply or alternative solutions. Market research can help with competitive analysis, decisions on outsourcing, or managing risks.19
- All officials we interviewed in other airports said they own their shuttle fleets. This suggests that shuttle fleet ownership may be preferred to full shuttle service outsourcing and further supports the need to perform a cost-benefit analysis of service arrangements.

Management of Denver International Airport’s Parking and Transportation Section could not explain why no cost-benefit analysis was done as the internal audit had recommended. Oversight of the contract belonged to another division at the time, and those employees have since left the airport. We verified that the previous contract designated the airport’s revenue manager to monitor the parking shuttle contract.

Parked and Transportation management told us later that a potential reason to not own shuttles was the city’s Fiscal Accountability Rule for city vehicle use — which describes rules for city employees driving city-owned vehicles — implying that contractors cannot drive city-owned vehicles.20 We believe the intent of this fiscal rule is not related to the airport parking shuttles but rather focused on the use of city-owned vehicles for employees and officials to move around the city.

Relatedly, when following up on a different audit, we recently learned the airport’s Finance Division obtained a waiver from the city controller allowing the division to not follow a different fiscal rule.21 If needed, Parking and Transportation management could explore other interpretations of the city vehicle fiscal rule or seek a waiver.

Without a cost-benefit analysis, the airport cannot determine what approach of procuring the parking shuttle services is the most cost-efficient and advantageous. Such an analysis could explore providing services in-house, outsourcing entirely, or outsourcing only management of operations. It could also look at related questions such as the required average maximum age of shuttles or desired service intervals.

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EXAMPLES FOR IMPROVING PARKING SHUTTLE OPERATIONS

SEATTLE-TACOMA INTERNATIONAL AIRPORT
Officials said their parking shuttle operations have undergone reviews to improve efficiency at least three times. Other parts of its operations are reviewed more frequently. The purpose of these process reviews is to keep bus drivers more engaged with customers and to eliminate wasteful activities that do not add value. A few staff members are trained as efficiency experts.

THE PORT OF SEATTLE
The port has an optimization group as a resource and hired a contractor for training and implementation to enhance efficiency and cost savings. Some of the staff who were impacted by this process were moved to other areas of the airport to help employees remain employed.

DALLAS/FORT WORTH INTERNATIONAL AIRPORT
Officials said they worked with their airport’s sustainability office as well as the National Renewable Energy Laboratory to perform a cost-benefit analysis of electric buses.

For additional information on comparable airports’ practices, see Appendix B.

Other considerations for shuttle ownership:

- Fully outsourcing shuttle services limits competition, because only larger companies with more financial resources can procure the shuttles. By contrast, if the city outsourced only operations of the shuttle service while owning its own fleet, smaller, more local companies could be able to compete for the contract. In addition, more competition may result in lower prices in the airport’s favor.

- Owning its shuttle fleet would enable the airport to ensure continuity of operations.

- The airport could potentially save money procuring its own vehicles because it is a public entity.

- If it owned its fleet, the airport would have greater flexibility to time the procurement of new vehicles or change the desired maximum average age of vehicles. This may be particularly important during economic downturns or changes in demand.

- The costs of owning and maintaining buses may exceed the cost savings and other benefits achieved by outsourcing.

The airport should explore ways to better align its parking shuttle operations with leading practices and take advantage of recent changes in both the market and technological innovations — such as new vendors, vehicle types, and software to track shuttle or passenger movements. These changes in the market may help reduce costs or improve service quality.
3.1 RECOMMENDATION  
Perform Cost-Benefit Analysis

Denver International Airport’s Parking and Transportation Section should establish a process to periodically perform a cost-benefit analysis of parking shuttle services, methods, and related decisions — such as operations management, ownership of buses, the average age of buses, and desired service intervals.

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The Procurement Process for the Shuttle Services Contract in 2016 Did Not Allow Sufficient Time for Competitive Proposals

The airport received two proposals for its shuttle services contract in 2016 — including one from ABM Parking Services Inc., which was the incumbent vendor. Based on documentation, we learned at least three other transportation companies were interested, but the companies did not submit proposals.

Our review of the contract procurement documentation revealed several issues. Most notably, vendors expressed concerns about a lack of time to procure the required shuttle fleet between signing the contract and the contract start date.

The airport’s request for proposals called for two types of buses: smaller buses and larger transit buses. While the smaller buses could be built and delivered before the contract start date of Feb. 1, 2017, the larger transit buses would have required more time — reportedly ranging from 10 to 20 months. Therefore, new transit buses could not be ready for the start of the contract and the chosen vendor would need an interim fleet.

The need for an interim fleet posed significant challenges to prospective vendors. At the time, another company that bid for the contract said obtaining an interim fleet that met all city requirements — including the use of compressed natural gas vehicles — was difficult and exceedingly costly.

For example, because the useful life of a larger transit bus was claimed to be 12 years, very few compressed natural gas buses under that age were available in 2016. Therefore, the only option to provide an interim fleet was to retrofit larger, conventional transit buses at a cost of $45,000 each.
During the current contract, ABM regularly uses 45 larger transit buses. Meanwhile, ABM already had a fleet at the airport, which ABM procured using the hourly fees the airport paid it under the 2008 contract. The other company that bid for the contract asserted this put ABM at a significant competitive financial advantage compared to all other prospective vendors.

Figure 8 provides a timeline of the airport’s procurement of ABM’s services, as well as ABM’s procurement of the NextBus system.

**Figure 8. ABM and NextBus Contract Procurement Timeline, 2008-2024**

The other company described a solution that could have made the process more competitive and fairer: Extend the existing contract to allow prospective vendors time to build a long-term fleet. Additionally, the company said that procuring the compressed natural gas buses for the interim fleet was cost-prohibitive.
Another potential vendor requested to extend the period when proposals were due because it was time-consuming to identify an interim fleet. But the only changes the airport made was to increase the maximum average age of vehicles from five years to seven and to waive the requirement for the first year of the contract, which would have allowed the use of an older interim fleet.

As a result of the constraints, the airport received only two proposals and three other potential vendors sent letters declining to propose. Of those three that declined, two cited the cost and difficulty of providing an interim fleet fueled by compressed natural gas as their reason for declining to submit a proposal.

The Purchasing Division in the city’s General Services Department procured the 2017 contract. However, staff in the airport’s Business Management Services Section said each division is responsible for planning ahead and preparing for contract procurement. They said they send out a “contract expiring” report covering a two-year period to assist airport divisions in planning procurements. At the time, the airport’s Revenue Management Division was responsible for administering the parking shuttle services contract and, therefore, was responsible for ensuring the procurement was initiated in a timely manner.

Despite this, there were only nine months between when the airport issued its request for proposals in May 2016 to when the new contract was started in February 2017. The airport’s procurement documentation said it would take six to nine months to procure the buses. But we found no explanation for the discrepancy between the estimated lead times of six to nine months in the procurement document and the 10 to 20 months described in the vendors’ statements.

We also noted that the request for proposals required vendors to describe how they would meet the maximum 10-minute passenger wait time requirement — which later became a requirement in the current contract. However, as we described on page 20, staff in the Parking and Transportation Section are not enforcing this requirement or tracking compliance.

Therefore, the procurement documents contained a requirement that could have increased the cost of services and deterred some vendors who felt they could not meet this requirement. Longer passenger wait times may have resulted in cost savings to the airport and increased vendor competition.

Several rules and leading practices provide useful guidance on timing procurements:

1. The city’s Executive Order No. 8 says Denver employees’ duty to residents includes exercising strong financial stewardship. Therefore, the city requires a fair, open, and competitive market for the goods and services it purchases. Contracts should be competitively selected, absent special circumstances.
This is important to maintain the quality of key government services, to minimize costs, to set a high ethical standard, and to promote greater transparency.\textsuperscript{22}

- The airport’s own procurement training materials say procurement planning is a division’s responsibility, and it acknowledges contract procurement is a time-consuming process. The materials say it takes on average 314 calendar days — nearly 10 and a half months — to conclude a procurement, not counting planning.

- The Institute for Public Procurement also says if a request for proposals is not designed and executed in an impartial, open, fair, ethical, and transparent manner or is too restrictive, it is subject to more risk and protests. Additionally, leading practices recommend organizations exercise professional judgment when considering whether the nature of a request for proposals or its addenda warrants an extension of the proposal deadline.\textsuperscript{23}

We asked officials from other comparable airports about their procurement practices for shuttle services. While Denver International Airport received only two proposals, we learned other airports received more. For example, McCarran International Airport in Las Vegas had eight potential vendors, and Orlando International Airport in Florida and San Francisco International Airport each had four vendors provide proposals for their parking shuttle services.

Because it occurred five years ago, airport officials could not explain why the parking shuttle contract procurement in 2016 was initiated so late. Staff in the Revenue Management Division were responsible for overseeing the procurement, and those employees have since left the airport.

Overall, a lack of time during the 2016 contract procurement process resulted in the airport receiving less competition and potentially higher prices. Only two vendors submitted proposals, and three vendors sent letters declining to propose. Reduced competition typically results in a lower value for the entity seeking goods and services.

Furthermore, if prospective vendors or the public perceive a procurement to be unfair or inequitable, the city risks damaging its reputation through questions about transparency and fairness.

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### 3.2 RECOMMENDATION

Ensure Fair Contract Procurement

Denver International Airport’s Parking and Transportation Section should establish a process to ensure it maximizes competition in procuring parking shuttle services and that the process is fair and open.

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#### The Procurement of NextBus Did Not Align with City Standards

Before the 2017 contract, the airport had contracted with ABM Parking Services since 2008. The third and last amendment to that initial contract was signed in 2014. However, we found this amendment did not align with leading practices and city rules.

Most notably, ABM did not procure the airport’s bus tracking system, NextBus, in an open competitive process. Additionally, the contract term exceeded the allowed seven years and staff did not accurately document their reasons for extending it beyond that.

The city’s Executive Order No. 8 requires that contracts not exceed five years and any extensions beyond a three-year term should be justified. Optional extensions are typical to help the city better manage customer service and compliance with a contract, even when the intention is to use the entire five-year term. According to Denver’s chief procurement officer, pricing is built to allow vendors to recoup their related investments in necessary assets during a five-year period.

The airport’s 2008 contract with ABM was supposed to last five years with two optional one-year extensions — for a maximum of seven years. This is not unusual for vehicle lease contracts. Denver’s chief procurement officer said seven to eight years is generally considered a beneficial term for such leases, as opposed to the standard five years. The specific optimal period depends on how the vehicles will be used, because if vehicles are used less, they can last longer.

We found that the airport used the 2014 amendment to extend ABM’s contract for two additional years through Jan. 31, 2017 — giving ABM nine years total under the 2008 contract. The amendment itself provided two reasons for this extension:

1. It would allow the vendor to recoup its investment in the vehicles and technology.

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2. It would minimize disruptions during the opening of the Westin hotel and airport transit center in 2015 and 2016, respectively.

However, we determined these justifications were not accurate.

**ABM Parking Services Procured NextBus for the City without a Competitive Process**

During the life of its 2008 contract, ABM acquired no additional buses and recouping costs was already built into the original seven-year term. Therefore, ABM needed no additional time to recoup costs. But we learned the cost in question for the 2014 amendment was related to ABM acquiring — on behalf of the airport — the NextBus system to better track the location of the shuttles.

We could find no evidence that ABM used a competitive process to select NextBus. The airport’s Business Technologies staff said they did not participate in this procurement nor did they identify alternatives to NextBus. The division responsible for the shuttle services contract at the time had decided to procure NextBus and was doing so through its vendor.

Because another division oversaw the contract at the time, managers of the Parking and Transportation Section could not explain why this method of procurement was selected instead of a competitive procurement that would comply with city policy. Procuring bus-tracking technology directly could have allowed the airport to procure the new shuttle services contract without an impact on the contract extension.

The decisions made in 2014 resulted in the airport granting a “sole-source” contract with NextBus in 2019. Sole-source procurement happens when — under certain circumstances and with proper justification — the city can procure goods or services without a competitive process.

From 2017 to 2019, the Business Technologies Section helped analyze alternative technologies when the Parking and Transportation Section wanted to establish a direct relationship with the vendor providing bus-tracking technology. At the time, Business Technologies and Parking and Transportation decided to sign a contract with NextBus using a sole-source procurement process, because the technology was already being used by the airport and its parking shuttle passengers. According to the airport, replacement would have required a capital investment of between $750,000 to $1.7 million, and it would have required marketing costs to inform passengers about the new technology, which could also have affected customer satisfaction.

The city’s current technology acquisition process requires agencies to prepare an intake form with the city’s Technology Services agency and obtain Technology Services’ approval to ensure the new technology is compatible with city systems. The airport’s process requires Business Technologies to be engaged in a similar way. But in 2014, Business Technologies did not require that it have a significant role in all airport technology procurements.
ABM and the airport paid $1.3 million to use NextBus from February 2015 through March 2020 — an average of about $22,000 per month. The total amount paid during the current ABM contract since February 2017 through March 2020 was $611,000, which is an average of about $17,000 per month.

Extending a contract past its allowed period so that a vendor can procure bus-tracking technology on behalf of the city in a noncompetitive process is inconsistent with the city’s policy to procure goods and services competitively. Noncompetitive procurements without a justification can lead to the airport overpaying for goods or services and procuring technology that may not meet the airport’s needs.

**Airport Claimed Traffic Disruption to Justify Contract Extension**

It is unclear how a new contract would have affected “a seamless and smooth transition” of shuttle bus services as was claimed in the 2014 contract amendment.

We found, in actuality, this second reason for extending the contract two more years was intended to allow for more time to observe shuttle service levels, because the new light-rail train might have reduced demands for airport parking.

City rules and leading practices also apply to the noncompetitive procurement of NextBus technology. As mentioned, Executive Order 8 requires city agencies to maintain a fair, open, and competitive market for the goods and services they procure and they must justify any deviations from that policy.25

Additionally, the airport has its own policy for amending or extending existing contracts. It requires all contract amendments extending a contract to have written justification, and it allows contracts to be extended only if there is a corresponding provision within the original contract.

<table>
<thead>
<tr>
<th>3.3</th>
<th>RECOMMENDATION</th>
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<tr>
<td>Enforce Contract Amendment Policy</td>
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</table>

Denver International Airport’s Parking and Transportation Section should ensure the airport’s policies and procedures for contract amendments are followed and decisions related to amendments are accurately documented.

AGENCY RESPONSE: AGREE, IMPLEMENTATION DATE – SEPT. 1, 2021
SEE PAGE 52 FOR THE AGENCY’S FULL RESPONSE TO OUR RECOMMENDATIONS.

Denver International Airport’s Parking and Transportation Section should establish and document internal controls to ensure it procures technology in an open, fair, and competitive process in accordance with Executive Order No. 8. Technology procurements should also be approved by the airport’s Business Technologies Section in accordance with related policies and procedures.

AGENCY RESPONSE: AGREE, IMPLEMENTATION DATE – NOV. 1, 2021
SEE PAGE 52 FOR THE AGENCY’S FULL RESPONSE TO OUR RECOMMENDATIONS.
DENVER INTERNATIONAL
8500 Peña Blvd. | Denver, Colorado 80249-6340 | (303) 342-2000

August 5, 2021

Auditor Timothy M. O’Brien, CPA
Office of the Auditor
City and County of Denver
201 West Colfax Avenue, Dept. 705
Denver, Colorado 80202

Dear Mr. O’Brien,

The Office of the Auditor has conducted a performance audit of the Airport Parking Shuttle System at Denver International Airport.

This memorandum provides a written response for each reportable condition noted in the Auditor’s Report final draft that was sent to us on July 15, 2021. This response complies with Section 20-276 (c) of the Denver Revised Municipal Code (D.R.M.C.).

AUDIT FINDING 1
Denver International Airport Inadequately Monitors Its Parking Shuttle Services Contract, and the Contract Lacks Some Key Provisions

RECOMMENDATION 1.1
Denver International Airport’s Parking and Transportation Section should develop and document contract monitoring policies and procedures for the parking shuttle contract — including procedures to monitor driver training, wages, background checks, drug tests, licensing, and shift limits, as well as vehicle inspections and liquidated damages.

<table>
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<tr>
<th>Agree or Disagree with Recommendation</th>
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</table>
Narrative for Recommendation 1.1

Our Standard Operating Procedures will be updated to include monitoring of driver training, wages, background checks, drug tests, licensing, and shift limits, as well as vehicle inspections and liquidated damages.

RECOMMENDATION 1.2

Denver International Airport’s Parking and Transportation Section should develop and document contract monitoring policies and procedures for payments made to ABM and for contract fees.

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<tr>
<td>Agree</td>
<td>11/1/2021</td>
<td>Renee Franks 303-342-4095</td>
</tr>
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</table>

Narrative for Recommendation 1.2

We will update our policies and procedures to include monitoring of payments made to ABM.

RECOMMENDATION 1.3

Denver International Airport’s Parking and Transportation Section should update the parking shuttle service contract to include requirements for bus drivers related to background checks, shift limits, and drug and alcohol testing, as well as how the airport should monitor these requirements.

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</table>
Narrative for Recommendation 1.3

We will amend the agreement to provide specific language regarding the monitoring of background checks, shift limits, and drug and alcohol testing.

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<tbody>
<tr>
<td>Agree</td>
<td>11/1/2021</td>
<td>Herald Hensley 303-342-4080</td>
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</table>

Narrative for Recommendation 1.4

The Code of Federal Regulations (CFR) states that it is the applicant’s responsibility to include provisions with the prime contractor. Base Tactical, a consulting firm hired by the City and County of Denver, who provides public assistance to secure FEMA obligations and reimbursements, provided the language in the amendment. In Base Tactical’s experience, the language provided is sufficient for FEMA review purposes specific to a claim from the City as long as the subcontractor scope of performance fits within the prime contractor’s scope of performance under the agreement. Appendix F in the ABM amendment (PLANE 202054903-01/Alfresco 201630273-01) executed 11/13/20 contains the audit provision recommended by FEMA in their “Contract Provisions Template” (https://www.fema.gov/sites/default/files/2020-07/fema_pdat_contract-provisions-template.pdf). Appendix F “Compliance with Laws” requires the contractor to comply with all applicable federal law, regulations, executive orders,
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FEMA or HHS policies, procedures, and directives. Additionally, FEMA waived all procurement requirements during the
disaster, DEN added the provisions by amendment to ABM’s agreement to go above and beyond.

RECOMMENDATION 1.5
Denver International Airport’s Parking and Transportation Section should establish and
document a managerial oversight process for contract monitoring.

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<td>Agree</td>
<td>11/1/2021</td>
<td>Herald Hensley 303-342-4080</td>
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</table>

Narrative for Recommendation 1.5
We will establish and document managerial oversight processes for contract monitoring.

RECOMMENDATION 1.6
Denver International Airport’s Parking and Transportation Section should evaluate
airport resources that can assist in monitoring the parking shuttle contract and incorporate
information collected from these resources into its contract monitoring policies and
procedures.

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<tr>
<td>Agree</td>
<td>11/1/2021</td>
<td>Ben Juarez 303-342-4081</td>
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</table>

Narrative for Recommendation 1.6
We will evaluate resources to better monitor the agreement.

RECOMMENDATION 1.7
Denver International Airport’s Parking and Transportation Section should receive and review ABM Parking Services Inc.’s operations manual and approve it when it meets the airport’s needs and expectations.

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<tr>
<td>Agree</td>
<td>11/1/2021</td>
<td>Brian Pokorny 303-342-2535</td>
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Narrative for Recommendation 1.7
DEN will receive, review, and approve the operations manual when it meets the airport’s needs.

AUDIT FINDING 2
The Airport’s and ABM Parking Services’ Practices Do Not Sufficiently Ensure ABM Complies with the Parking Shuttle Services Contract

RECOMMENDATION 2.1
Denver International Airport’s Parking and Transportation Section should enforce its daily and monthly review of service levels as outlined by the contract’s standard operating procedures.

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</table>
Narrative for Recommendation 2.1
We will enforce reviews of service levels as outlined by the Standard Operating Procedures.

RECOMMENDATION 2.2
Denver International Airport’s Parking and Transportation Section should update the parking shuttle contract and its standard operating procedures to ensure consistency between the contract’s performance standard for required service levels and the corresponding procedures used to monitor that standard.

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<tr>
<td>Agree</td>
<td>12/31/2021</td>
<td>Herald Hensley 303-342-4080</td>
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</table>

Narrative for Recommendation 2.2
We will begin work on an amendment to the agreement to ensure consistency regarding service levels and the tools to ensure service levels are met.

RECOMMENDATION 2.3
Denver International Airport’s Parking and Transportation Section should develop and implement controls to ensure its preferred system to monitor the parking shuttle contract’s service-level requirements records shuttle location and service levels accurately and reliably.

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<tr>
<td>Agree</td>
<td>1/14/2022</td>
<td>Brian Pokorny 303-342-2535</td>
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</table>

Narrative for Recommendation 2.3

We agree with the recommendation and are moving forward with the recommissioning and upgrades to the NextBus system to ensure accuracy and reliability. New shuttles are being purchased with a 7-month lead time for delivery. We expect the majority of the fleet to be upgraded in the 4th quarter of 2021 but the purchase of new shuttles will delay the full implementation of this recommendation.

RECOMMENDATION 2.4

Denver International Airport’s Parking and Transportation Section should establish and document a process to review the airport contract administrator’s activities, including contract monitoring of customer service. This process should be included in the section’s customer correspondence policies and procedures, and it should include necessary details to monitor customer complaints, as well as steps to ensure recommendations made by external reviews are addressed and implemented when agreed to.

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<tr>
<td>Agree</td>
<td>11/1/2021</td>
<td>Ben Juarez 303-342-4081</td>
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</table>
Narrative for Recommendation 2.4
Policies and procedures will be established to monitor the activities of the contract administrator related to customer service, customer correspondence and compliance reviews. We will update and review the existing customer correspondence tracker on a regular basis.

RECOMMENDATION 2.5
Denver International Airport’s Parking and Transportation Section should establish a process to review and update the customer correspondence policies and procedures to ensure they are accurate, consistent, and reflective of actual practices in accordance with contract requirements. In addition, a change log should be added to all Parking and Transportation policies and procedures to record any revisions.

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<td>11/1/2021</td>
<td>Brian Pokorny, 303-342-2535</td>
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Narrative for Recommendation 2.5
Policies and procedures are updated annually in 4th Quarter. We will include change logs on all Parking and Transportation policies and procedures.

RECOMMENDATION 2.6
Denver International Airport’s Parking and Transportation Section should determine the acceptable maximum amount of time a customer should wait before receiving a response to their feedback. Then the section should ensure a clear definition is included in both the contract language and the section’s customer correspondence policies and procedures.
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Agree or Disagree with Recommendation | Target date to complete implementation activities (Generally expected within 60 to 90 days) | Name and phone number of specific point of contact for implementation
--- | --- | ---
Agree | 11/1/2021 | Ben Juarez 303-342-4081

**Agree or Disagree with Recommendation**

**Target date to complete implementation activities (Generally expected within 60 to 90 days)**

**Name and phone number of specific point of contact for implementation**

**Narrative for Recommendation 2.6**

The current Customer Correspondence Policy and Procedure includes a defined customer response time for correspondence that does not need additional time for research. The acceptable time for responses and exceptions for correspondence that need additional information/research will be documented in the policy and procedure.

**RECOMMENDATION 2.7**

Denver International Airport’s Parking and Transportation Section should ensure ABM Parking Services Inc. develops policies and procedures for customer correspondence that align with current processes and the airport’s contract.

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**Narrative for Recommendation 2.7**

We will work with ABM to ensure their policies and procedures for customer correspondence align with current processes and the agreement.
RECOMMENDATION 2.8
Denver International Airport’s Parking and Transportation Section should develop and implement controls to ensure the data in the section’s customer correspondence tracker is complete and accurate.

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<td>Brian Pokorny 303-342-2535</td>
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Narrative for Recommendation 2.8
We will ensure the customer correspondence tracker is complete and updated appropriately.

RECOMMENDATION 2.9
Denver International Airport’s Parking and Transportation Section should update its budget development policies and procedures to include steps to review whether the shuttle contractor’s busing plan is based on expected passenger demand.

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<td>Brian Pokorny 303-342-2535</td>
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Narrative for Recommendation 2.9
We will update our policies and procedures to include steps to ensure the busing plan is based on expected passenger demand.
RECOMMENDATION 2.10

Denver International Airport’s Parking and Transportation Section should develop and implement data controls to review the accuracy of the shuttle contractor’s system used to record operational information, such as passenger counts and in-service bus hours. Specifically, the controls should ensure source data matches the data recorded in the system and that the hours recorded in the system reflect only in-service bus hours.

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<td>11/1/2021</td>
<td>Brian Pokorny 303-342-2535</td>
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Narrative for Recommendation 2.10

We agree that source data should match the data recorded in the system used by ABM. We will update policies and procedures to verify data consistency based on “in service” hours billed in the monthly invoice.

RECOMMENDATION 2.11

Denver International Airport’s Parking and Transportation Section should update its invoice review policies and procedures by adding steps to ensure:

1. The hours billed match the actual in-service hours recorded by the contractor.
2. The billed hours are corrected when they do not match the actual in-service hours found in the support documentation.
3. The hours billed do not exceed the monthly busing plan unless prior approval is documented.
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Agree or Disagree with Recommendation | Target date to complete implementation activities (Generally expected within 60 to 90 days) | Name and phone number of specific point of contact for implementation
--- | --- | ---
Agree | 11/1/2021 | Renee Franks 303-342-4095

Narrative for Recommendation 2.11
We will update policies and procedures to ensure invoices are accurate and do not exceed maximum hours unless approved in advance.

AUDIT FINDING 3
Denver International Airport Needs to Improve Procurement Practices for Parking Shuttle Services

RECOMMENDATION 3.1
Denver International Airport’s Parking and Transportation Section should establish a process to periodically perform a cost-benefit analysis of parking shuttle services, methods, and related decisions — such as operations management, ownership of buses, the average age of buses, and desired service intervals.

Agree or Disagree with Recommendation | Target date to complete implementation activities (Generally expected within 60 to 90 days) | Name and phone number of specific point of contact for implementation
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Agree | 11/1/2021 | Ben Juarez 303-342-4081

Narrative for Recommendation 3.1
We agree that a cost-benefit analysis of current services detailed in the Agreement should be performed prior to all future agreements to ensure methods and related decisions such as operations management, ownership of buses,
average age of buses, desired service intervals, etc. are in line with current DEN goals. An initial analysis will begin in 2021 with completion expected in early 2022.

**RECOMMENDATION 3.2**

Denver International Airport’s Parking and Transportation Section should establish a process to ensure it maximizes competition in procuring parking shuttle services and that the process is fair and open.

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<td>Agree</td>
<td>11/1/2021</td>
<td>Herald Hensley 303-342-4080</td>
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</table>

**Narrative for Recommendation 3.2**

We will create internal policies to ensure we follow all DEN established procurement policies and procedures.

**RECOMMENDATION 3.3**

Denver International Airport’s Parking and Transportation Section should ensure the airport’s policies and procedures for contract amendments are followed and decisions related to amendments are accurately documented.

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<td>9/1/2021</td>
<td>Herald Hensley 303-342-4080</td>
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</table>
Narrative for Recommendation 3.3

We will follow all DEN established amendment processes and ensure the decisions are accurately documented.

### RECOMMENDATION 3.4

Denver International Airport’s Parking and Transportation Section should establish and document internal controls to ensure it procures technology in an open, fair, and competitive process in accordance with Executive Order No. 8. Technology procurements should also be approved by the airport’s Business Technologies Section in accordance with related policies and procedures.

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</table>

Narrative for Recommendation 3.4

We will document an internal process to ensure we engage Business Management Services on all procurement activities. Additionally, Parking and Transportation will ensure that Business Technologies is well-informed of upcoming technology initiatives in advance of any procurement activities, so that Business Technologies can assess adherence with policies and procedures and review the procurement of technology for approval.

Please contact Herald Hensley at 303-342-4080 with any questions.

Sincerely,

Herald Hensley

Senior Vice President, Parking and Transportation
cc: Valerie Walling, CPA, Deputy Auditor
    Dawn Wiseman, CRMA, Audit Director
    Sonia Montano, CGAP, CRMA, Audit Manager
    Phil Washington, CEO DEN
    Steve Jaquith, COO DEN
    Benjamin Juarez, Manager of Parking DEN
OBJECTIVE

To assess:

1. Whether Denver International Airport's Parking and Transportation Section has adequate controls to efficiently and effectively manage its parking shuttle services contract.

2. Whether the procurement process for the parking shuttle contract aligns with city rules and leading practices and whether the airport’s outsourcing of the service was efficient and economical.

SCOPE

The audit reviewed the Parking and Transportation Section’s monitoring practices for Denver International Airport's parking shuttle services contract and the section’s process to procure these services. We reviewed documentation to support the section’s monitoring practices and analyzed shuttle bus data from Feb. 1, 2017, through Dec. 31, 2020. We also reviewed documents related to the shuttle services contract procurement process from January 2008 through December 2020.

METHODOLOGY

We used several methodologies to gather and analyze information related to our audit objectives. The methodologies included but were not limited to:

- Interviewing the following individuals:
  - Personnel from the airport's Parking and Transportation Section, Business Management Services Section, and Internal Audit Section.
  - Personnel from ABM Parking Services Inc.
  - Personnel from the city's Department of General Services.
  - Personnel from the following U.S. airports to compare shuttle bus services as discussed in Appendix B:
    - Dallas/Fort Worth International Airport.
    - Los Angeles International Airport.
    - McCarran International Airport in Las Vegas.
• Newark Liberty International Airport in New Jersey.
• Orlando International Airport in Florida.
• San Francisco International Airport.
• Seattle-Tacoma International Airport.

• Reviewing the following criteria:
  ▪ Contracts and amendments between Parking and Transportation and ABM.
  ▪ The city’s Executive Order Nos. 8 and 95.
  ▪ City ordinances related to minimum wage.
  ▪ Federal regulations related to commercial motor carrier safety.
  ▪ The Parking and Transportation Section’s policies and procedures related to the airport parking shuttle system.
  ▪ Denver International Airport’s policies and procedures related to contract procurement and access to secure areas.
  ▪ The Department of General Services’ policies and procedures related to contract procurement.
  ▪ The Institute for Public Procurement’s leading standards and practices.

• Reviewing and analyzing the following:
  ▪ Documentation of Parking and Transportation’s monitoring practices of bus driver safety, payment for services, and customer correspondence compared to requirements in the shuttle services contract and the section’s policies and procedures.
  ▪ GateKeeper service-level data to determine compliance with contract requirements.
  ▪ NextBus service-level data to compare with data held in GateKeeper.
  ▪ Parking and Transportation’s and ABM’s customer correspondence data to identify trends with customer complaints.
  ▪ Customer correspondence data to determine compliance with Parking and Transportation’s customer correspondence policies and procedures.
  ▪ ABM payroll data to determine whether bus drivers’ pay complied with the contract and city ordinances, as well as federal regulations for driver shift limits.
  ▪ Documentation of Parking and Transportation’s monthly payments to ABM for shuttle services compared to the section’s invoice review policies and procedures.
  ▪ Data from Route Manager to determine trends in shuttle services.
  ▪ Data from Route Manager to determine the accuracy of data entries.
  ▪ Documentation of Parking and Transportation’s procurement of the shuttle services and NextBus technology compared to city rules and leading practices.

• Testing service levels against reviewed criteria as discussed in Appendix A.
APPENDICES

Appendix A – Methodology for Service-Level Testing

This appendix details the methodology used to analyze ABM Parking Services’ compliance with the shuttle contract’s service-level requirements. We performed the following steps:

1. We downloaded reports from the GateKeeper system for the gates entering the East and West Economy lots, the Landside lot, and the Pikes Peak lot. ABM uses Mt. Elbert as an overflow lot and includes it as part of the Pikes Peak route. To account for this, we included entrances into the Mt. Elbert lot in our testing of the Pikes Peak route.

2. Parking and Transportation staff said GateKeeper reports include ABM’s service vehicles, so they gave us a list of the vehicles that are not used to transport passengers. We filtered these vehicles out of our testing to ensure we tested only the shuttle buses used to transport passengers.

3. Using Excel, we flagged all service intervals for each route that were greater than the service-level requirements.

4. We identified the days in which 95% of the shuttle buses for each route did not meet the required service level.

5. For each day when the 95% mark was not met, we flagged all service intervals corresponding to the three interval lengths that could result in payment deductions: intervals between 11 minutes and 20 minutes, intervals between 21 minutes and 29 minutes, and intervals of 30 minutes or longer.

6. We multiplied each interval we flagged in step five by the deduction amount that corresponds to each interval length.

7. We filtered the reports for each route by the hourly periods designated as “peak times” in the contract.

8. We repeated steps four through six to analyze the peak times.
Appendix B – Comparison to Selected Other Airports’ Shuttle Bus Services

We interviewed staff at seven other U.S. airports to learn about their parking shuttle systems that transport passengers and employees.

We selected these airports based on them having a similar number of passengers that travel through the airport annually as compared to Denver International Airport. The airports were:

- Dallas/Fort Worth International Airport.
- Los Angeles International Airport.
- McCarran International Airport in Las Vegas.
- Newark Liberty International Airport in New Jersey.
- Orlando International Airport in Florida.
- San Francisco International Airport.
- Seattle-Tacoma International Airport.

Figure 9 below and Figure 10 and Table 4 on the following two pages provide a summary of each airport’s shuttle services as compared to Denver International Airport’s.

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FIGURE 9. Summary Information of Selected Airport Shuttle Services

<table>
<thead>
<tr>
<th>Airport</th>
<th>Number of Shuttle Routes</th>
<th>Roundtrip Distance of Shuttle Routes</th>
<th>Number of Shuttle Buses</th>
</tr>
</thead>
<tbody>
<tr>
<td>DENVER</td>
<td>9</td>
<td>1.2–10 miles by route</td>
<td>60</td>
</tr>
<tr>
<td>Dallas/Fort Worth</td>
<td>20</td>
<td>3–17 miles by route</td>
<td>111</td>
</tr>
<tr>
<td>McCarran (Las Vegas)</td>
<td>5</td>
<td>1.6–8.5 miles by route</td>
<td>73</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>6</td>
<td>1.5–6.1 miles by route</td>
<td>51</td>
</tr>
<tr>
<td>Newark Liberty, N.J.</td>
<td>1</td>
<td>9.1 miles</td>
<td>35</td>
</tr>
<tr>
<td>Orlando, Fla.</td>
<td>4</td>
<td>2.9–8.3 miles by route</td>
<td>52*</td>
</tr>
<tr>
<td>San Francisco</td>
<td>4</td>
<td>5–6 miles by route</td>
<td>24</td>
</tr>
<tr>
<td>Seattle-Tacoma</td>
<td>2</td>
<td>4–5.6 miles by route</td>
<td>45</td>
</tr>
</tbody>
</table>

*Includes two vans

Note: This information was collected in February and March 2021 and may have changed since then.

Source: Auditor’s Office analysis based on interviews with personnel from selected other U.S. airports.
FIGURE 10. Airport Shuttle System Customers Transported Annually

NUMBER OF CUSTOMERS TRANSPORTED ANNUALLY

<table>
<thead>
<tr>
<th>Airport</th>
<th>Before the COVID-19 Pandemic</th>
<th>During the COVID-19 Pandemic</th>
</tr>
</thead>
<tbody>
<tr>
<td>DENVER</td>
<td>1.8 million</td>
<td>7.2 million</td>
</tr>
<tr>
<td>Dallas/Fort Worth</td>
<td>N/A</td>
<td>8.8 million</td>
</tr>
<tr>
<td>McCarran (Las Vegas)</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>5 million</td>
<td>1.3 million</td>
</tr>
<tr>
<td>Newark Liberty, N.J.</td>
<td>1.8 million (average)</td>
<td>1.8 million (average)</td>
</tr>
<tr>
<td>Orlando, Fla.</td>
<td>5.4 million</td>
<td>N/A</td>
</tr>
<tr>
<td>San Francisco</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Seattle-Tacoma</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Note: This information was collected in February and March 2021 and may have changed since then.

Source: Auditor’s Office analysis based on interviews with personnel from selected other U.S. airports.

We asked each airport about several shuttle system topics, including:

- Whether the airport outsources its shuttle services, provides the services in-house, or has a hybrid system.
- Whether the airport performs a cost-benefit analysis.
- The costs associated with operating their parking shuttle system.
- The customer service process.
- Their most recent contract procurement process.
- The number of buses in a shuttle fleet and whether those buses use environmentally friendly energy sources.
- The number of customers transported annually and the number of shuttle routes within the airport.

We documented the practices from other airports to provide ideas that Denver International Airport officials could potentially implement for their parking shuttle services. For example, we learned that all the selected airports own their shuttle fleets, while Denver International Airport leases its shuttle fleet.

These practices were noted as effective at the airport that described their operations. However, each parking shuttle service is different, and these practices may work well at one airport but not at another because of differences in size, layout, or other variations.
### TABLE 4. Summary Information of Selected Airport Shuttle Services

<table>
<thead>
<tr>
<th>International Airports</th>
<th>Type of Buses</th>
<th>Outsourced, In-House, or Hybrid Shuttle Operations Management</th>
<th>Owns or Leases the Bus Fleet</th>
<th>Systems Used for Service-Level Monitoring</th>
<th>How Bus Hours Are Tracked*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denver</td>
<td>Compressed natural gas</td>
<td>Outsourced</td>
<td>Leases</td>
<td>GateKeeper and NextBus GPS tracking</td>
<td>Bus drivers' daily logs and Route Manager system</td>
</tr>
<tr>
<td>Dallas/Fort Worth</td>
<td>Compressed natural gas</td>
<td>Outsourced</td>
<td>Owns</td>
<td>ETA GPS tracking</td>
<td>Excel spreadsheets and bus driver logs</td>
</tr>
<tr>
<td>McCarran (Las Vegas)</td>
<td>Regular diesel or gas</td>
<td>Outsourced</td>
<td>Owns</td>
<td>GateKeeper</td>
<td>Driver sign-in sheets and daily schedule</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>Compressed natural gas</td>
<td>Hybrid; changing to outsourced</td>
<td>Owns</td>
<td>TransLoc GPS tracking</td>
<td>TransLoc GPS software</td>
</tr>
<tr>
<td>Newark Liberty, N.J.</td>
<td>Regular diesel, hybrid, and electric</td>
<td>Outsourced</td>
<td>Owns</td>
<td>NextBus GPS tracking and daily audits by staff</td>
<td>Driver sign-in sheets and set schedule</td>
</tr>
<tr>
<td>Orlando, Fla.</td>
<td>Regular diesel or gas</td>
<td>Outsourced</td>
<td>Owns</td>
<td>GPS tracking and staff quality assurance checks</td>
<td></td>
</tr>
<tr>
<td>San Francisco</td>
<td>Electric, compressed natural gas, and diesel</td>
<td>Outsourced</td>
<td>Owns</td>
<td>GPS connected to onboard camera</td>
<td>Payroll</td>
</tr>
<tr>
<td>Seattle-Tacoma</td>
<td>Compressed natural gas using renewable natural gas</td>
<td>In-House</td>
<td>Owns</td>
<td>GateKeeper and DoubleMap GPS tracking</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** *Blank entries represent information an airport could not or did not provide to the audit team. This information was collected in February and March 2021 and may have changed since then.

**Source:** Auditor’s Office analysis based on interviews with personnel from selected other U.S. airports.
Office of the Auditor

The Auditor of the City and County of Denver is independently elected by the residents of Denver. He is responsible for examining and evaluating the operations of city agencies and contractors for the purpose of ensuring the proper and efficient use of city resources. He also provides other audit services and information to City Council, the mayor, and the public to improve all aspects of Denver’s government.

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