REQUEST FOR INFORMATION:

REPLACEMENT OF GNOEC TOLL COLLECTION SYSTEM

NOTE: This Request for Information (RFI) is solely for information and planning purposes and does not constitute a solicitation. This information will be reviewed and discussed by the Greater New Orleans Expressway Commission and may result in the advertisement of a formal and competitive Request for Proposal or public procurement action for any or all of the services included in the RFI.

RFI No.: 2024-02

Greater New Orleans Expressway Commission

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Metairie, Louisiana 70002
504-835-3118

Introduction

The Greater New Orleans Expressway Commission (GNOEC) invites vendors to provide information and materials for the agency to consider during planning for and implementing the replacement and systems upgrades for our toll collection, auditing, reporting and violations enforcement systems.

GNOEC is seeking system integrators, technology and software providers, and equipment vendors who specifically provide the services for the implementation of toll systems and can knowledgeably and transparently discuss ideas that could meet the GNOEC's stated goals, with discussions about industry trends, best design and development approaches, recommended solutions, contracting and pricing methodologies, and life cycle maintenance approaches.

This RFI intends to obtain feedback and input to identify state-of-the-industry solutions to the toll collection, audit and reporting and enforcement needs of the Greater New Orleans Expressway Commission.

It is the intention of GNOEC that this RFI will foster a joint endeavor with a chosen vendor to combine the skills, knowledge and resources of the vendor and GNOEC to produce the toll system that will service GNOEC for years to come. GNOEC hopes to foster a collaborative process with the chosen vendor, rather than strict adherence to a long list of predefined requirements. The eventual award will identify system performance goals. However, a productive joint working relationship should serve to deliver a cost-effective state-of-the-art replacement system.

Responses to this request for information will include one-on-one interviews followed by written submissions as described later in this document.

This RFI does not constitute nor should respondents construe it as a solicitation or obligation on the part of the GNOEC to issue a procurement nor award a contract.

Should the GNOEC choose to proceed with procurement or award a contract, the GNOEC will issue a Request for Proposal, and the GNOEC will select the proposal determined to be the most advantageous, considering price and the evaluation factors in the Request for Proposal. If the services or work needed falls into the scope of the Public Bid Law, the GNOEC will bid the Project accordingly.

Background

GNOEC manages a twin span bridge that is 24 miles long across the Lake Pontchartrain Lake. Currently, GNOEC collects tolls only on the North Shore of Lake Pontchartrain on its Southbound Bridge (both electronically and on a cash basis). GNOEC has 3 primary locations of business:

- Volunteers of America (VOA) Building: GNOEC's main administrative office is located at the south end of the bridge.
- North Toll Plaza (NTP): The facility to support the toll collection operation at the north end of the bridge.
- Maintenance Warehouse: All bridge related maintenance is headquartered in a separate facility located at the north end of the bridge.

GNOEC conducts toll collection with auditing, customer service and toll violation enforcement operations at the NTP with 5 tolling lanes. GNOEC also staffs and operates a customer service center for toll tags located at the VOA and the NTP offices.

Additionally, GNOEC directly supports the current toll collection roadside systems maintenance in collaboration with the existing legacy toll system vendor. GNOEC staff are responsible for the maintenance on-site tasks that include preventative and routine activities, unit-level equipment replacement and troubleshooting and similar activities for the toll lanes. The legacy toll system vendor supplements this maintenance on a per-request basis for onsite assistance and software changes.

Existing Toll Collection Functionality

The NTP is comprised of 5 lanes of traffic. Downstream of the plaza, vehicles merge into two southbound lanes of the bridge. Traffic through the plaza flows from north to south at low speeds with stopping conditions in lanes where cash/credit tolls are collected. There are no additional toll collection points as vehicles traverse the 24-mile span.

The lanes at the plaza support both staffed and Tag Only modes of operation, capable of shifting between modes depending on operational needs. All lanes include automated vehicle classification (AVC) systems that determine a vehicle's class based on its axle count and height. The height used in the classification scheme is under or over 7 feet. Traffic is channeled through an 80' long lane with treadle, vehicle separation and a tag reader near the entry. A toll booth, patron display, signal lights and an exit loop are positioned near the end of the channel.

Staffed lanes include manual operations to collect cash and credit cards, make change and manually process non-revenue transactions. Staffed lanes process vehicles with and without tags. The lanes are equipped with handheld credit card readers, but are not fully integrated with the collector terminal. Toll collectors are also able to process funeral or military convoys.

Vehicles that have insufficient funds at the toll lanes are asked to exit the plaza to a turnaround lane where they can obtain the proper funds for the toll and return to the entrance of the plaza. A stand-alone ATM (not integrated with either the toll system, nor back-office) is located in the lobby of the NTP building for patron cash withdrawals.

On occasion, weather conditions may trigger bridge police escorts of vehicles across the bridge. When this protocol is activated, traffic flow through the plaza is interrupted as vehicles are being staged in groups further down the bridge. Toll collection operations remain active even during the traffic interruption.

All lanes are equipped to read the standard 6C tags issued by the customer service center. In addition, the lanes are capable of processing the 6C tags issued by the Louisiana Department of Transportation (LaDOTD) that are used at LaDOTD facilities across the state. GNOEC currently utilizes the Sirit 6204 with only the ISOC protocol enabled. At present, GNOEC does not utilize Sego or TDM tag protocols. GNOEC does not participate in any local, or regional interoperability hub.

Each lane also has license plate image capture cameras to assist in manual toll enforcement operations. These cameras are located on the exit side of the booth to capture images as the vehicle traverses the exit loop when a violation is detected. In addition, each lane has a camera that records the lanes on a 24 x 7 basis. This is used by GNOEC departments to review traffic traversing through the lanes.

Existing Host and Customer Service Functionality

The existing toll system includes host and customer service systems accessible from any of the three locations at GNOEC. The host system and customer service systems are provided by different vendors. All facilities are connected by a fiber backbone between the three locations.

The host system provides the auditing, reporting and real-time monitoring functions. The collectors use this system to start a segment of duty. Collectors end a shift by entering a final deposit coin and cash count, as well as credit card summary information. The current auditing functions allow for adjustments to collector shifts for shift corrections and reports used to balance and audit the collector shifts.

The host system provides a suite of traffic and revenue reports. Reports provide summarized or detail traffic information using a varied selection of payment types, classification information and time periods. Host reports are also available for collector performance monitoring.

GNOEC self-operates the customer service center. These supporting hardware and software systems have been recently updated. Operations include customer service via walk-ins and phone, account management, and processing, reporting and related operations. GNOEC is planning on retaining the current customer service center system. A new host system application shall utilize an interface with the customer service center to receive tag status changes for use in the lanes and to transmit tag patron transactions from the lanes to the customer service center.

GNOEC Goals

Toll Collection

After strategic planning, GNOEC determined that free-flow, multi-lane open road tolling will not be part of the system replacement. GNOEC does utilize a single lane tag-only mode of unattended operation, in addition to staffed toll collection lanes. The focus will be on the replacement of current operations functionality with the following enhancements:

- Replacement of the in-lane toll collection system with a more currently implemented solution.
- Upgrade toll system components with available off-the-shelf components which are not near end-of-life.
- The current toll system utilizes an equipment room in the plaza building, stand-alone cabinets near the plaza entry and under-counter cabinet for installed equipment. GNOEC desires the utilization of as much of this space for installation of the replacement system.
- Fully integrating credit card payment processing with the collector interface in staffed lanes.
- Support for toll rates based on vehicle class and payment method (cash, credit, tag or non-revenue).
- Enhanced capabilities to handle customers who do not have adequate payment when stopping in a staffed lane (increased efficiency, automation and tracking of vehicle turnarounds across inner lanes to a designated turnaround lane located after the plaza.)
- Integration with current multiple protocol RFID readers in toll lanes that support 6C, Sego and TDM protocols used by tags used in the industry.

- New license plate cameras in all 5 lanes to expand enforcement and payment handling options. These cameras should be integrated into the toll lane system.
- New technology for additional mobile payment technologies (e.g., Apple Pay, Samsung Pay, Google Pay, etc.).
- The entry gantry currently includes a dynamic message sign (DMS) sign for GNOEC. This is not directly interfaced into the toll system; but is instead interfaced into the Dispatch Office. Each lane has a traffic light indicating red for closed and green for open. Each lane also has an electronic sign to display the current payment methods available in that lane (for example, TAG ONLY, TAG CASH CREDIT for attended lanes, etc.). Enhanced signage on the entry gantry including replacement of the current lane payment types signs and traffic light indicators are requested.
- Enhanced alerting system indicating lane and host conditions that require attention by required personnel. Email, text alerts and a possible interface to the GNOEC command center are options to provide notice to required personnel. Also, the ability to respond (with email, texts or thru the command center interface) to the alerts to indicate acknowledgement and resolution to alerts when generated.
- Enhanced receipt printer where payment and credit receipts can be printed by request for the patron.
- When tags are entered manually because they were not read, added reporting on transactions indicating manual entry of tags with reporting to tag store for follow-up processing by tag store on troublesome tags.

Changes that are not mandatory but will be considered in the evaluation are:

- Traffic signals and patron fare displays (PFD) are present in the current lanes. Enhanced signalization would be considered if measurably improved over the current device capabilities. GNOEC is not opposed to eliminating the patron displays. However, if a vendor supports a desirable PFD, GNOEC would consider its use.
- Pre-class toll geometries present unique vehicle queuing, tag association, sequencing and image capture issues. GNOEC would consider an operational shift from pre-class toll processing to a post-class scheme, if the change demonstrably improves overall system accuracy and can be cost justified.

- Currently, when a lane running in unattended mode encounters a problem (synchronization problem, vehicle stopping in the lane with no payment, etc.), a collector in an adjacent lane temporarily leaves his/her booth and enters the booth for the lane where the problem exists and resets the lane to clear the problem. The ability to do this from an adjacent lane through the toll collector interface would be considered.

GNOEC is not planning changes to the number of lanes or to the plaza infrastructure. Changes will be considered to things such as the pavement, traffic islands, and booths to support the new toll collection system. GNOEC recognizes that some level of work likely will be required for equipment installation including enclosures, cable routing and possible pavement work for sensors; however, solutions that minimize infrastructure changes or civil work are preferred, if performance requirements can be met.

Special Situations

GNOEC has operational requirements that must be addressed in the replacement system.

Turn-Around

Bridge patrons sometime enter the toll plaza but cannot provide a payment for the toll or desire to turn around before proceeding on the bridge. A driveway after the plaza building is provided to allow these patrons to exit the roadway and travel north away from the bridge or stop at the plaza to obtain payment. During the Turn-Around process, adjacent lanes in the direction of the plaza building are alerted of a potential vehicle traversing the plaza to access the turn-around driveway.

Bridge Escorts

Occasionally weather conditions dictate the police escort of groups of vehicles across the bridge. Patrons pay tolls as normal. However, patrons are staged at the beginning of the bridge after the plaza. Vehicle queues extend from the bridge entry back to the plaza. Vehicles remain enqueued for several minutes while staged for escort. The replacement system should accommodate this special circumstance.

Evacuations

Emergency situations require the uninterrupted flow of traffic through the plaza. During an evacuation, the system registers each vehicle. Vehicles with tags are not charged for passage. All vehicles proceed through the plaza without stopping. No enforcement images should be captured during evacuations.

Government IDs

GNOEC is required to allow free passage to designated government personnel (police, fire, etc.). Upon presentation of an official ID, the toll collector manually selects the ID type and enters the ID number

which designates the passage as non-revenue. GNOEC requires flexibility in defining valid ID types for government ID transaction recording and host reporting.

Funerals

GNOEC allows funeral participants to traverse the plaza for free. At the end of the funeral procession in a lane, the collector manually records the number of vehicles counted for that procession. Enhancements to this procedure would be considered.

Special Events

GNOEC may sometime open the entire plaza for free passage. It is preferred this mode of operation be initiated and halted at a plaza level and the required commands be sent to the individual lane controllers. Enhancements to this procedure would be considered.

Host System

The current host hardware and software systems have reached end-of-life. GNOEC desires to modernize the current toll audit and revenue reconciliation capabilities. GNOEC seeks a replacement host system that provides the following functionality:

- Support for toll collector start and end of shift duties (i.e., check in, cash drawer issuance, end of shift deposits, etc.).
- Toll collector audit, reconciliation, and performance reporting.
- Cash and credit card transaction reconciliation.
- A suite of traffic and revenue reports, as well as ad hoc query tools, typical of a relatively small toll collection authority.
- A suite of monthly, quarterly and annual traffic and revenue reports.
- An interface to the customer service center to receive tag account statuses for use in the lane, and to transmit tag transactions to the customer service center.
- The current Host system contains a primary database and a 'hot' secondary database that is constantly synchronized to provide for instances of database failure. Each database resides on its own hardware and the primary server is located at the TPN plaza and the secondary server is located at the VOA office on the other side of the lake.
- Automated interfaces to banks for deposits and reconciliation of deposits.

Interoperability

GNOEC operates autonomously. It currently does not have any interagency agreements for the exchange of toll-related patron transactions. GNOEC is not a participant in a local, regional or interstate interoperability toll group. However, interoperability may be required in the future by state or federal mandates.

RFI Questions

GNOEC has developed a series of questions to help illicit the desired information being sought. GNOEC appreciates your careful consideration and response so that we can obtain meaningful feedback for planning purposes.

Roadside Toll System

1. Describe your experience and current solutions for staffed toll collection lanes in traditional toll plazas similar to GNOEC facilities. Describe elements of your solutions that:
    - Supports the combination of payment methods currently accepted by GNOEC.
    - Full integration of in-lane credit card payments, including security considerations.
    - Include automated enforcement of non-payments via license plate image capture.
    - Include toll collector interface description to verify class/toll amount and tag information associated with vehicles traversing the toll lane, overriding AVC-generated class, and other interactions to handle situations that occur during the toll collection process.
    - Describe collector cash/collector shift management and accounting. Provide detail on how reports are based on revenue date and how collector shifts are mapped to revenue date.
2. Describe the handling of multiple RFID protocols. Additionally, describe how multiple transponders detected for a single vehicle are resolved.
3. Describe your toll system offerings for accepting payments from customers in staffed lanes beyond cash, license plate or transponder – specifically credit cards but also other methods such as contactless smartphone applications, mobile wallets or similar technologies, either as provided technologies or inter-faces to third-party technologies.

4. Describe your toll system offerings for accepting toll payment in unattended lanes via license plate image and transponder.

5. Describe your AVC solution in the context of the GNOEC classification structure and the pavement requirements in traditional lanes. Discuss any recent advancements that would minimize or eliminate the need for pavement remediation, including any limitations of performance requirements.

6. Describe your toll system offerings approach to AVC (e.g. pre-class, hybrid with some post-processing, or post-processing only) to present the toll due to the customer and accept payment; then, discuss the following:

    - Any additional classification hardware that is required, or challenges that your proposed approach presents, when these same lanes operate staffed sometimes and unstaffed at other times.

    - Any business rule considerations that would mitigate these challenges given the staffed and unstaffed operations.

7. Describe your toll system's capability to support continued revenue collection during periods of extreme congestion and standstill traffic. Specifically, provide a description of the system's ability to support GNOEC's bridge escort protocol.

8. Describe your experience or approach to working with toll agency operations that self-perform first-level maintenance of roadside tolling equipment, such as unit replacement, tuning and/ or preventative maintenance activities.

9. Discuss your approach to transitioning the lanes, coordination with other legacy system vendors, while minimizing impacts to the traveling public and toll collection operations, including the possibility of night work or restricted durations of closures to off-peak periods.

10. Describe your experience utilizing existing equipment installation locations and cabinets when replacing a legacy system.

11. Describe additional capabilities of your toll system offerings that may not have been enumerated here that might benefit GNOEC.

12. Describe your system's capabilities to capture front and rear vehicle images. Explain the mechanism to ensure the images taken are properly associated with any tag read or payment registered, and AVC-generated class information for the vehicle.
13. Describe your capabilities, if exists, to reset an adjacent unattended lane from a staffed lane when the unattended lane to synchronize the lane with actual traffic or clear a vehicle that has stopped because of no payment.

Host System

1. Describe your experience and current solutions for host systems in traditional toll plazas similar to GNOEC facilities. Describe elements of your solutions that:
    - Support for toll collector start and end of shift duties (i.e., check in, cash drawer issuance, end of shift deposits, etc.).
    - Toll collector audit, reconciliation, and performance reporting.
    - Cash and credit card transaction reconciliation.
    - Interfaces to banks and credit card clearing houses for reconciliation.
    - Provides traffic and revenue reports, as well as ad hoc query tools, typical of a relatively small toll collection authority.
    - Provides suite of monthly, quarterly and annual traffic and revenue reports.
    - Describe the architecture of the host environment with respect to redundancy, system backups and patching.
2. Describe your capabilities and experience providing interfaces to the customer service centers for the exchange of tag account statuses and patron tag transactions.
3. Describe additional capabilities of your host system offerings that may not have been enumerated here that might benefit GNOEC.

Interoperability

While GNOEC currently does not participate in an interoperable regional toll group, it recognizes the future may dictate participation.

1. Describe your experience and current solutions that provide interoperability capabilities.

2. Describe your ability to adapt to potential changes in interoperability file and data exchange interfaces.

Requested Responses

Point of Contact

The point of contact for all inquiries related to this request for information shall be:

Melissa Phillpott
Greater New Orleans Expressway Commission
P. O. Box 7656
Metairie, LA 70010
504-835-3118
melissa@gnoec.org

Response Instructions

Please respond to all applicable questions above in as much detail as possible. You may copy the questions and provide your response in a separate file. Note: GNOEC developed the questions above with the expectation not all will apply to every Respondent. If a question does not apply to your area of expertise, please write "N/A" in response.

Schedule

GNOEC will first conduct either on-site or virtual interview with interested vendors. These interviews will allow the vendor and GNOEC to ask questions and gather information to better prepare a response to the RFI.

The one-on-one interviews will be conducted on Monday through Friday during the weeks beginning January, 20th, and ending January, 31st 2025. Respondents will have to contact GNOEC prior to this time to schedule a time within this time frame. The interviews will be approximately 2 to 3 hours. If required, GNOEC is willing to allocate more time if necessary.

Written responses will be provided to GNOEC both in electronic and written form by February 7, 2025 by the end of business day.

Emailed responses should include name and contact information of the responding vendor. Receive verification will be provided by GNOEC.

One-on-One Interviews

The GNOEC plans on interviewing interested vendors either virtually or on-site to exchange information and answer questions that will enable the vendors to better prepare a response to this RFI.

Responding vendors will be responsible for costs of the virtual or on-site interviews. The GNOEC will provide the facility for the on-premise interview.

Terms and Conditions

General Conditions

This RFI does not constitute nor should respondents construe it as a solicitation or obligation on the part of the GNOEC to issue a procurement nor award a contract. The GNOEC will not pay for the preparation of any response or information submitted for the GNOEC's use.

The GNOEC may, at its sole discretion, use information provided in response to the RFI; however, the GNOEC is not obligated to use any information so received.

To the extent that information to be provided in response to this RFI may be considered as divulging a Respondent's intellectual property including copyrights and trade secrets, or confidential proprietary information (CPI), the following statements shall apply:

- Confidential Proprietary Information. The GNOEC does not require CPI or trade secrets be submitted in response to this RFI.
- Commission Use. The GNOEC shall consider all submitted response materials as its property. The GNOEC shall have the right to use all ideas, concepts or know-how that any response presents, unless a Respondent affirmatively notes all objections as part of its response. Notwithstanding copyright designations contained on the face of responses, GNOEC shall have the non-exclusive right to reproduce and distribute responses internally, and to comply with public record or other disclosure requirements under the provisions of Commonwealth or U.S. statutes or regulations, or rules or orders of any court of competent jurisdiction.

Public Disclosure

The disclosure of information from Public Agencies is governed in Louisiana by Louisiana Freedom of Information Act (FOIA).

§29B-1-4 Entitled “Exemptions” under (a) indicates as follows: There is a presumption of public accessibility to all public records, subject only to the following categories of information which are specifically exempt from disclosure under this article:

(1) Trade secrets, as used in this section, which may include but are not limited to, any formula, plan pattern, process, tool, mechanism, compound, procedure, production data, or completion of information which is not patented which is known only to certain individuals within a commercial concern who are using it to fabricate, produce or compound an article or trade or a service or to locate minerals or other substances, having commercial value, and which gives its users an opportunity to obtain business advantage over competitors;...”

To the extent the GNOEC receives requests under the Freedom of Information Act to disclose such trade secrets, as defined above, it will provide timely notice to the owner of the trade secrets so that it may proceed in any form it deems necessary in any court of competent jurisdiction or otherwise to preclude the disclosure by the GNOEC if it is unable to do so under the Louisiana Freedom of Information Act.

REQUEST FOR INFORMATION:

EXHIBIT A – Sample Images of Toll Plaza and Collector Screens

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Figure 1 Google Maps Overview of TPN Toll Plaza

This overhead shot of the TPN Toll Plaza show traffic enters from the top (North) thru 5 lanes and narrows to the two lanes of the bridge to the south of the plaza.

Figure 2 Entry to TPN Toll Plaza

This entry to the TPN Toll Plaza shows the DMS overhead sign, the signs over each lane indicating payment mode of the lane and a traffic light indicating whether the lane is open or closed. Lane 1 is located closest to the plaza building on the right and lane 5 is the left most lane.

Figure 3 Exit from Toll Plaza

The exit from the Toll Plaza allows vehicles from Lanes 1, 2 and 5 to merge into Lanes 3 and 4 before the bridge starts.

Figure 4 Gantry over the entry of the lanes.

This gantry located at the entry of the plaza contains the DMS signs, Lane Payment mode signs on the entry side of the gantry and the Sirit 6204 tag readers on the backside.

Figure 5 Lane 1 booth location

The booth is located at the exit of the lane. The lane is approximately 80 feet from the entry under the gantry to the exit loops located at the end of the lane. The traffic light and pdf are located after the booth. Note the clearance under the plaza is 14.5 feet.

Figure 6 Turnaround location at the exit of the plaza

The turnaround lane is located after the exit of the plaza to the right of lane 1. Vehicles that must turnaround due to non-payment, etc. navigate from the lane they are in to the turnaround lane to obtain payment at the plaza or to go north of the plaza to get payment elsewhere.

Figure 7 Exit lane located at the end of the turnaround lane

At the end of the turnaround lane on the side of the plaza there is a gate that is used to track vehicles that are turned around follow the correct path to exit the plaza.

Figure 8 Lane 5 Entry showing AVC components

The Lane 5 entry shows the Automated Vehicle Classifier (AVC) components (loops, treadle and banner array). Each lane has an entry gate past the AVC that is manually controlled from within the booth by the collector.

Figure 9 Lane 5 toll booth and exit configuration

The Lane 5 toll booth is shown here with the placement of the red light and pfd behind the booth. Lane 5 merges with traffic in Lane 4 after exiting the plaza. Also, Lanes 1 and 2 merge into Lane 3 after the plaza.

Figure 10 Inside of Tollbooth

The inside of the tollbooth facing traffic is show here. The table top contains a receipt printer with a touchscreen for toll collections. Under the desk is an equipment enclosure containing the lane computer and equipment to interface to the lane components.

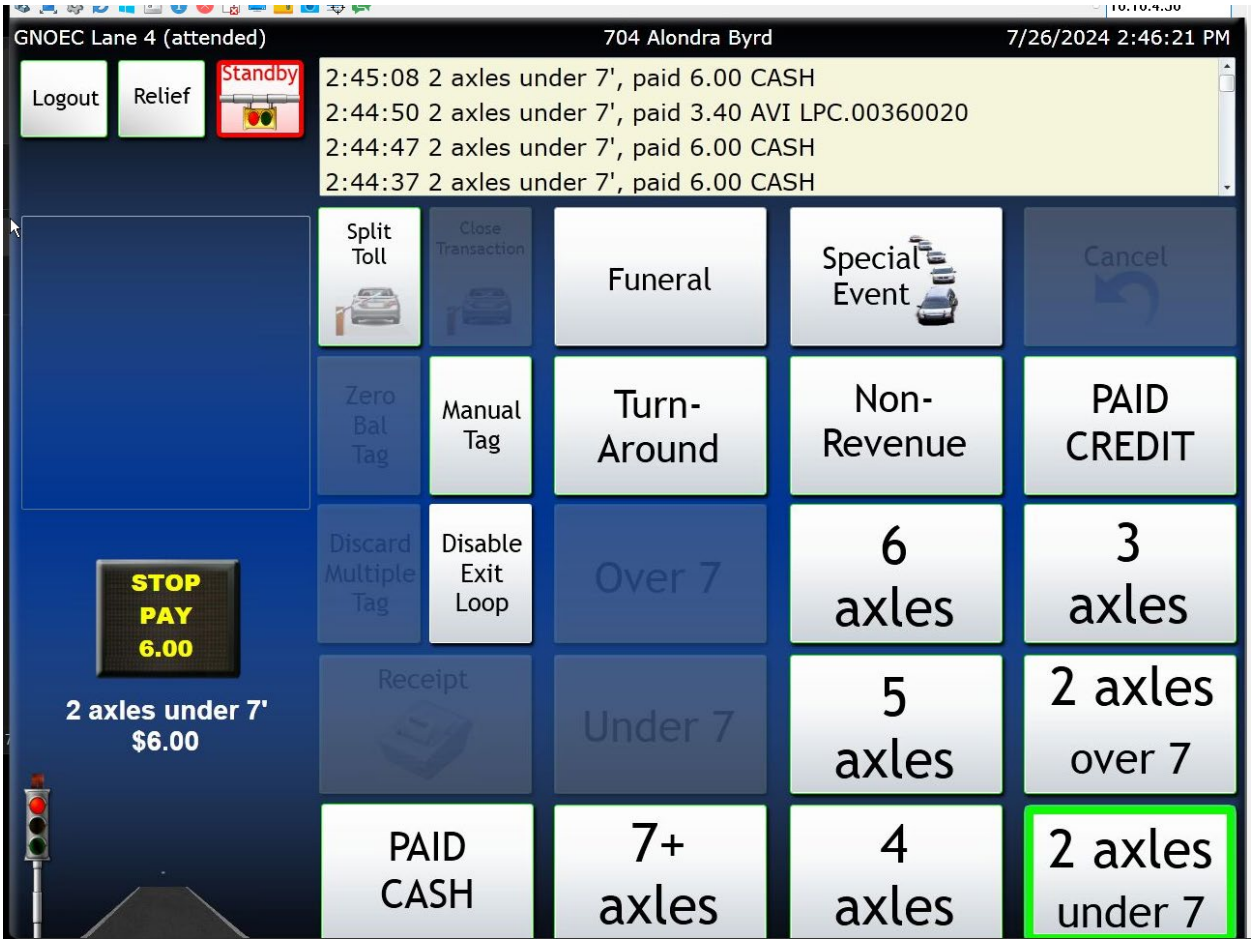

Figure 11 Sample toll collector screen used to collect tolls

This is an example screen used by the toll collectors to collect tolls. As a vehicle enters the lane, it is displayed on the left side of the screen. As the vehicle exits, it is displayed in the top window of the screen.

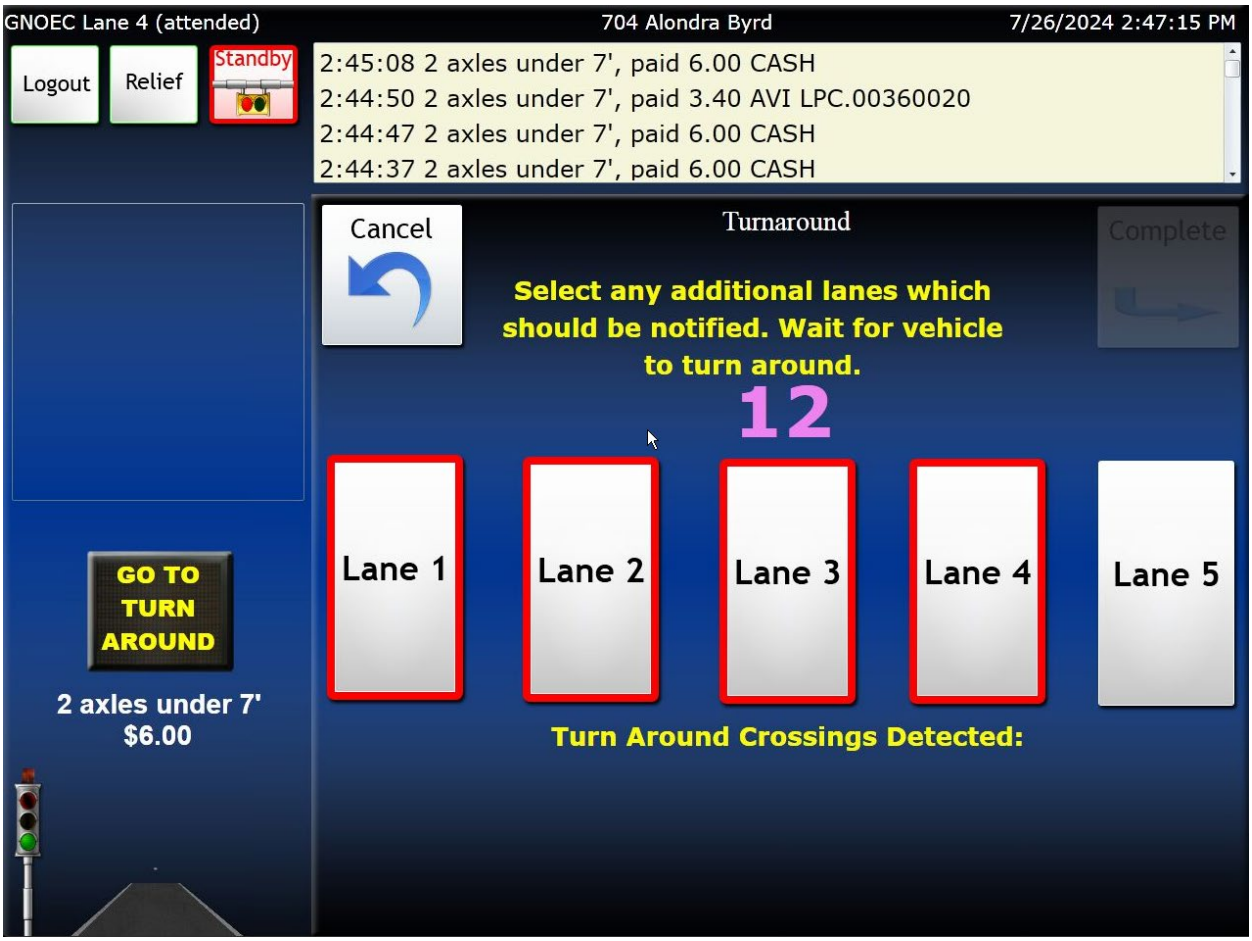

Figure 12 Example Turnaround screen

This is an example screen of a turnaround being executed at the plaza. This turnaround is from lane 5 and this screen is displayed on lanes 1 through 4 to indicate to these lanes to stop the traffic until turnaround is complete.

RFI AMENDMENT #1
For The Replacement of GNOEC Toll Collection System

Written responses will be provided to GNOEC both in electronic and written form has been moved from by February 7, 2025 to **February 18, 2025** by the end of business day.