



STAFF REPORT

Report To: Board of Supervisors

Meeting Date: August 5, 2021

Staff Contact: Carol Akers, Purchasing & Contracts Administrator and Darren Schulz, Public Works Director

Agenda Title: For Possible Action: Discussion and possible action regarding a proposed purchase through RDO Integrated Controls (“RDO”) for an amount not to exceed \$99,288 to procure Carlson Landfill GPS software and equipment (“Carlson System”) which will allow real-time monitoring of compaction and grading at the Carson City Landfill (“Landfill”). (Carol Akers, cakers@carson.org and Rick Cooley, rcooley@carson.org)

Staff Summary: The Carlson System would allow Landfill employees to monitor compaction and grading of solid waste in real-time, which helps optimize use of the Landfill’s finite space while also minimizing equipment fuel consumption and wear-and-tear.

Agenda Action: Formal Action / Motion

Time Requested: Consent

Proposed Motion

I move to approve the purchase as presented.

Board's Strategic Goal

Efficient Government

Previous Action

None

Background/Issues & Analysis

The ultimate goal of any landfill is to place as much solid waste into the permitted space as possible. The Landfill is a valuable, but finite, asset, and optimizing its usable space prolongs its useful life. Currently staff relies on annual volume analysis reporting and operator/management experience to determine proper compaction and grade at the Landfill.

The Carlson System is installed on the heavy equipment used for compaction and grading, and tracks compaction in real time with color mapping using pass counts and vertical deflection. Landfill operators using the Carlson System will know when optimum compaction and correct grading elevations have been reached, which will maximize the existing space for solid waste at the Landfill. In addition, real-time monitoring will allow Landfill operators to minimize fuel consumption and wear-and-tear on the equipment.

The information collected can also be monitored by Landfill managers for planning purposes and can also be downloaded to fit with the modeling that is done each year and part of the Landfill’s permit reporting requirements.

Moving forward the City would pay an annual support fee for the Carlson System for an estimated cost of \$7,140.

Applicable Statute, Code, Policy, Rule or Regulation

NRS 332.115(1)(g), (h), (i)

Financial Information

Is there a fiscal impact? Yes

If yes, account name/number: Capital Projects Fund-Landfill Equipment Account 2103939-506502

Is it currently budgeted? Yes

Explanation of Fiscal Impact: Account 2103939-506502 will be reduced by \$99,288. The available budget is \$1,355,000. This item was included as part of the approved FY 2022 CIP budget for the Landfill.

The next annual support fee period will begin July 1, 2022 through June 30, 2023 with an estimated cost of \$7,140.00 to be paid annually from the Landfill-Software Maintenance Account (1013904-500433).

Alternatives

Do not approve the purchase and provide alternative direction to staff.

Attachments:

[RDO-Carson City Quote.pdf](#)

Board Action Taken:

Motion: _____

1) _____

2) _____

Aye/Nay

(Vote Recorded By)



Investment Proposal (Quote)

RDO Integrated Controls
 5221 Midland Road
 Billings (CM) MT, 59101
 Phone: (406) 259-5536 - Fax: (406) 256-2269

Proposal for:
 CARSON CITY LANDFILL
 3600 FLINT DR
 CARSON CITY, NV, 89701
 CARSON CITY

Investment Proposal Date: 6/15/2021
Pricing Valid Until: 8/31/2021
Deal Number: 1456177
Customer Account#: 6066031
Landfill Account Manager: Matthew Phelps
Phone: (720) 534-8769
Fax:
Email: mphelps@rdoic.com

Comments

Thank you for your consideration in investing in a Carlson Landfill GPS system. This quote includes pricing on the following:

- 1: One base station set up and installed on site
- 2: Two Carlson GPS systems for a compactor/dozer/grader
- 3: One 35w Satel Radio
- 4: One year subscription for Carlson Command - (Cloud based data management platform)
- 5: One year of fleet shield - RDO's unlimited phone and remote service
- 6: All associated costs for labor, installation, and training.

Equipment Information

Quantity	Make / Model Additional Items	Price Per Unit	Cash Price
2	2021 Carlson Landfill GPS System for compactor/dozer/grader	\$32,495.00	\$64,990.00
1	Carlson GPS/GNSS BS-1 Cellular& UHF Base Station (1/10th foot accuracy)	\$14,995.00	\$14,995.00
1	Satel Easy Pro 35w Radio (For extended coverage)	\$2,690.00	\$2,690.00
1	Carlson Command Office Software – Data Management Reporting Platform	\$3,000.00	\$3,000.00
1	Fleet Shield Services (FSS) - Unlimited phone & remote support	\$1,500.00	\$1,500.00
1	All associated Labor/Installation - (Localization, calibration, & training)	\$12,113.00	\$12,113.00
Equipment Subtotal:			\$99,288.00

Purchase Order Totals

Balance:	\$99,288.00
Total Taxable Amount:	\$0.00
MT STATE TAX:	\$0.00
Sales Tax Total:	\$0.00
Sub Total:	\$99,288.00
Cash with Order:	\$0.00
Balance Due:	\$99,288.00

Equipment Options

Qty	Serial Number	Make / Model	Description
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Annual cost to run the Carlson Landfill System (in general).

The following costs should be considered when developing an annual landfill budget after purchasing the Carlson Landfill System:

1. Cellular Data Plan (per machine) – roughly 4 GB per month on average GSM or CDMA. Data transfer from machine to Carlson Command and/or correction signal platform (\$35/month)
2. Annual Software Maintenance – Carlson Landfill Grade – \$900 per seat each year. *optional.
3. RDO Service & Support Plan – Fleet Shield – annual \$1,500 fee.
4. Carlson Command Data Management Platform – annual \$3,000 fee (maximum). *optional.
5. Training – consider budgeting for additional on-site training (\$1,600 a day) *optional