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# Parcel Handling Design and Integration Multi-site Updates in the Western US for OnTrac



**CLIENT**

OnTrac

**INDUSTRY**

Parcel Handling

**PROJECT SCOPE**

[System Integration](#),  
Engineering Design,  
[Millwright/Mechanical](#) &  
[Electrical](#)  
(Infrastructure),  
[Controls](#), [Project Management](#)

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Outbound van lines and Parcel Handling System in Redlands, Calif.  
 (Photo: SilMan Industries)

### Article Summary: OnTrac and SilMan, A Trusted Partnership

Built on a foundation of long-standing trust, the executive teams at OnTrac and SilMan Industries collaborated on a high-stakes challenge: to create a plan for rapid design and execution of system updates and expansions across multiple sites. To meet the aggressive timeline, SilMan proposed an innovative cost-plus strategy designed to dramatically accelerate the scheduling, design, and implementation phases for the complex, overlapping projects. This approach leveraged OnTrac’s prior positive experience with SilMan’s detailed, transparent accounting and reporting practices, ultimately proving that mutual trust in a cost-plus arrangement yields significant efficiencies and savings for both organizations.

This article recounts the results achieved through a dynamic partnership, including a detailed case study of the Redlands, California facility.

### Engineered Throughput

When parcel and logistics providers face escalating demands, their infrastructure must evolve quickly, reliably, and cost-effectively. For the OnTrac Redlands, California facility, the requirement was clear: implement a high-capacity 6K Manual Sort System that could fulfill

Speak to a key team member on this project



Meet David Rebata.

For more information about this project or related topics, contact David by email or call directly at 510.409.6567.

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dual roles, serving as both a last-mile delivery center and an auxiliary hub, managing overflow from the neighboring regional sortation center during peak seasons.

Not only did this undertaking demonstrate the prowess of SilMan's system design and integration team, but it also showcased the company's capability to deliver a complete, turnkey service. From the initial engineering through final commissioning, SilMan's team approach was on full display—investigative, experienced, connected, and focused on achieving the best outcome. This parcel industry savviness provided superior control over the project's budget, schedule, and quality, ensuring a safe, reliable, and cost-effective system built for the long term.



[Custom Material Handling System Integration for Levi Strauss Fulfillment Center](#)

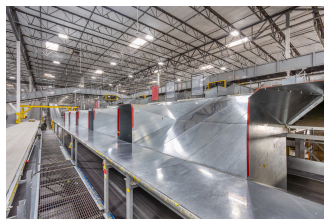
## Collaborative Engineering and the Turn-Key Blueprint

The success of a project of this scale hinges on early alignment and meticulous planning. SilMan's process began with a deep collaborative engagement, establishing a shared vision with the client's team. This initial phase, detailed in the project proposal, included a crucial site visit at Redlands and focused meetings with key OnTrac operations personnel, forming the foundation of the final design.

The project then moved into SilMan's in-house engineering team:

- Detailed System Design: 3D Laser Building Scan for detailed building layouts and application-system design of the fully engineered sortation system (mechanical and electrical).
- Permitting: Detailed system-engineered drawings for structural, electrical, and Fire Safety review for the city of Redlands approval.
- Project Management & Scheduling: Develop a phased installation plan that allowed for a fast-track start-up approach. Project managers provided continuous support throughout both the planning and execution phases, coordinating all aspects of project scheduling, cost control, and system design updates.

This upfront investment in collaborative engineering and self-performed services allowed the project to transition from concept to construction with uncommon speed and efficiency.



Click images for full-screen viewing. (Photos: SilMan Industries)

## Design, Integration and Implementation Highlights

The overall directive included two aspects. First, to provide a primary design of the local delivery center while providing infrastructure for cross-dock hub operations that could absorb overflow from the OnTrac Ontario, CA Sort Center. The design must also provide a separate Incompatible Conveyor System that could handle ICs during hub sort operations. The challenge for the SilMan design team, in collaboration with the OnTrac engineering group, was to meet the building's limitations and achieve the volume that OnTrac expected from the facility.

And of course, all this was accomplished within the desired budget and start-up schedule.

Highlights of the completed system include:

- 6 Unload Caljan multi-stage conveyors integrated with Mettler Toledo weigh, dim, and scan tunnels.
- Conveyor Support Platform in the Unload area creates (and maintains) usable space for the Smalls Sort System (located underneath the platform) and induction to the IC Conveyor Line.
- Bi-directional conveyors in Sort Slide Sort operation providing dual use of sort splits for both local delivery conveyance (AM shifts) and Hub operations (PM shifts).
- Incompatible Conveyor (IC) line for hub operations during PM shifts with MDR (motorized driven roller) gates located in the required areas for team member egress/access, as per city codes.
- Sort slide with capabilities to convey to 4 Van Lines (A.M.) and 2 Outbound LVD (Low Volume Divert) Towers for P.M. hub operations.
- AB Compact Logix Safety PLC with HMI Touchscreen for ease of system use, diagnostics, and service.
- Incorporated Smalls Sort Operation under conveyor support platform/mezzanine in Unload Area for Hub Operations support.

## Value-Added Services: Tenant Improvements

SilMan's core competency in self-performed installation allowed the project to extend far beyond the material handling system, providing significant added value by tackling crucial Tenant Improvement (TI) work. This comprehensive approach eliminated the client's need to contract and manage additional subcontractors for electrical and facility construction tasks, drastically simplifying project management and reducing schedule risk—a critical advantage in a fast-track project.

The scope for the work began with foundational support for the facility's



Electrical Infrastructure

technology and climate control. For the new IT Room, SilMan installed specialized anti-static flooring and two fire-rated plywood panels to create a secure, compliant environment for sensitive equipment, powered by five dedicated circuits and pre-cabled with four conduits. Additionally, SilMan supplied and installed the necessary electrical and mechanical hookups for a climate control system, ensuring the IT infrastructure remained within optimal operating temperature. And finally, the installation of a security entrance at the building's main entrance.



Security Entrance

In the warehouse, SilMan's electrical expertise ensured all support infrastructure was ready for operation, including the installation of two high-capacity circuits with twist-lock plugs for the Extendo telescoping conveyors, located at loading doors. The team also established the Intermediate Distribution Frame (IDF) location, running four separate circuits Above Finished Floor (AFF) at warehouse columns. Finally, SilMan enhanced the dock amenities by installing two dock fans and two dock lights, alongside new quad and convenience outlets, ensuring optimal safety and working conditions.

## Networkwide Excellence in the Western US

The cost-plus arrangement between SilMan and OnTrac significantly influenced the multi-site approach by providing complete transparency for all costs, enabling the projects to commence much sooner than the traditional RFP process, which could have added months. In turn, the multi-year, multi-site package was completed on schedule and within budget, providing all the required functionality expected by the OnTrac executive team.

In fact, the SilMan-OnTrac collaboration completed the projects outlined below within a three-year period.

SilMan Industries' capabilities as a fully vertical, turn-key integrator produced these outcomes through their abundant in-house resource base, encompassing mechanical and controls engineering, as well as on-site installation and project management. All these project disciplines came from our in-house resources and ability to scale quickly to meet OnTrac's project requirements.

## Project Highlights

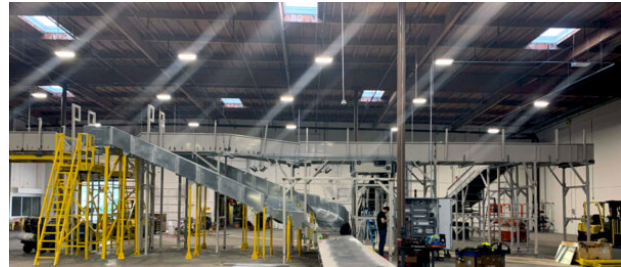
### Carlsbad, CA – 6K Delivery Center (Completed December 2021)

- 5 Unload Doors (expandible to 6)
- 4 Way Split Sort Slide System
- 3 Van Lines – 96 Van Positions
- Hybrid Cross Dock Load Door Capability –  
9 Low Volume Load Doors



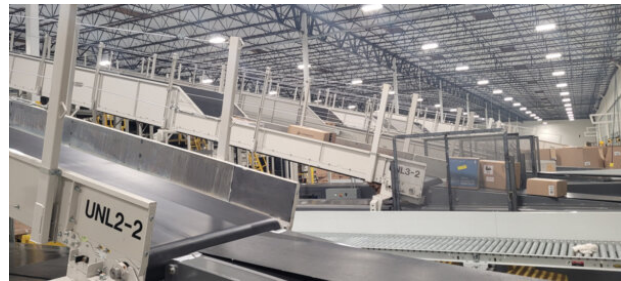
### Petaluma, CA – 2K Delivery Center (Completed March 2022)

- 2 Unload Doors (expandible to 3)
- 2 Way Split LVD Sort Tower
- 2 Van Lines – 80 Van Positions



### San Diego, CA – 6K Delivery Center (Completed January 2023)

- 6 Unload Doors
- 5 Way Split Sort Slide System
- 4 Van Lines – 124 Van Positions
- Hybrid Cross Dock Load Door Capability –  
7 Low Volume Load Doors



### Phoenix, AZ Hub Sort Center Expansion (Completed November 2022)

3 Unload Doors Added

Expanded three 3 HVD Sort Towers

1 Van Line – 30 Van Positions Added

6 Door HVD Load System



## Vancouver, WA 9K Sort Center Expansion (Completed March 2022)

- 1 Outbound HVD Added
- 1 Inbound HVD Added



## Conclusion: A Partnership Built for the Long Haul

The Redlands High-Capacity Manual Sort System is a powerful demonstration of how trust accelerates efficiency. This partnership's transparent nature opened the door to **Time-and-Material contracts**, establishing a productive and cost-effective course of action for both parties.

From the initial proposal through to the final system manuals, SilMan acted as the single-source resource for design, engineering, management, and labor. This capacity—fueled by a curious and collaborative culture—provided OnTrac with total control over the budget, schedule, and quality of outcomes.

By expertly managing the integration of both SilMan-provided and owner-procured equipment, the project achieved a seamless, fast-track start-up. The successful outcome of these projects solidifies the OnTrac network, with capacity for continued growth.

SilMan remains committed to OnTrac's success, providing lifecycle support, deepening the partnership for the long term.



## About the Company

SilMan Industries (previously SilMan Construction) is based in San Leandro, Calif., with Engineering and Field Operations offices in Tupelo, Miss. The firm provides integrated turnkey solutions in the Industrial, Manufacturing, Distribution, and Public Works sectors.

Notably, in 2010 SilMan Industries was contracted to dismantle and remove the [NUMMI](#) assembly line in Fremont, Calif., transport the equipment, and reinstall the system in Blue Spring, Miss., establishing [Toyota Motor Manufacturing Mississippi](#) (TMMMS). This high-visibility project ignited the company's meteoric growth, laying the foundation for SilMan's national service area.

For more information, please visit [www.silmanindustries.com/about](http://www.silmanindustries.com/about).



## Optimize Your Investment

SilMan's multi-disciplinary [Specialty Trade Services](#) (STS) is a community of project professionals: Engineers, [Project Managers & Coordinators](#), [Trade Teams](#), and [Safety Management](#). Bringing a new performance standard throughout the industrial community:

- [Equipment and Controls](#), [Industrial Facilities](#), [Building Systems](#), and [Transportation Infrastructure](#).

STS commonly supports the SilMan System Integration group. Specializations include [distribution center optimization](#) for the Fulfillment and Parcel sectors (see "[A Comprehensive Guide to Efficient Parcel Handling Systems](#)"), [food and beverage manufacturing and warehouse solutions](#), and [end-to-end innovative manufacturing solutions](#).

Check out SilMan's "One Team" approach in action: [Facility improvements and a new bottling line at a leading West Coast dairy](#).

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