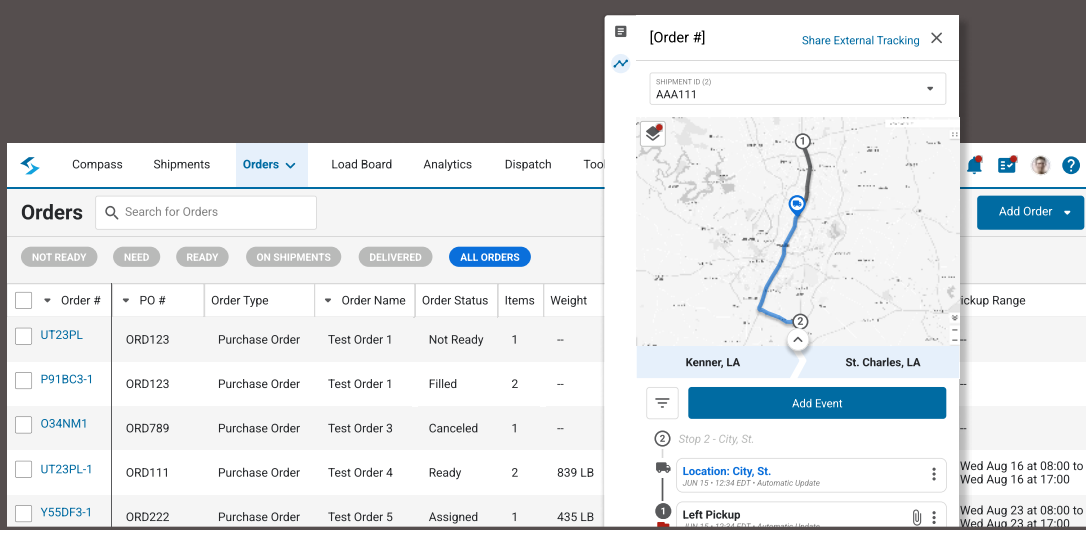


Supplier Portal

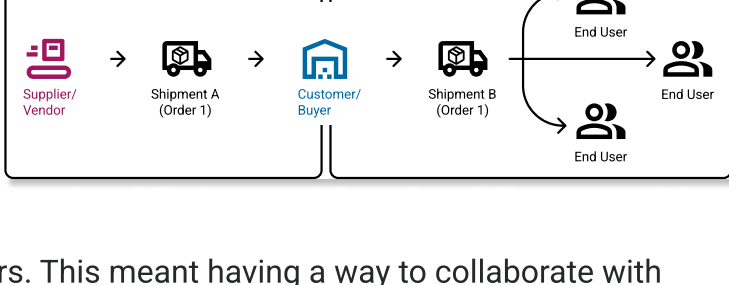
ROLE
Lead Product Designer

PLATFORM
Web



Background

In Shipwell and the freight industry, a shipment is made up of one or more orders. Orders can be inbound or outbound. An inbound order focuses on demand and goes from the customer (our user) to the end user. An inbound order focuses on supply and goes from a supplier/vendor to the customer/buyer (our user). Shipwell has a strong set of features focused on outbound orders.



Our users needed a way to manage their inbound orders. This meant having a way to collaborate with their vendors and coordinate how much product from their purchase orders (PO) was going to be shipped and when. Since suppliers were not on the platform it meant all communication was happening via other tools, email or phone calls. That left a disconnect between the two parties and required extra work to keep the orders in Shipwell up-to-date.

Beyond the technical details of how this feature would work there were also business constraints. A new customer had just signed a contract with the agreement in place that we would have this feature ready by their go-live date. While making that deadline was of utmost importance this feature needed to work for our entire customer base. Thinking strategically about an MVP as well as the next phases would be crucial to executing successfully.



Discovery

1 Customer Survey
I started research by sending out a survey to all of our customers. The goal was to understand how many of them had inbound orders, get an overview of that workflow, metrics on the number of suppliers they work with and the amount of orders they are currently running. The survey also allowed us to get a pool of customers that we could use for further research. I would follow-up with these customers to dive deeper into their current workflow as well as utilize them to get feedback on designs throughout the project.

Takeaways

- Larger customers w/high volume would be main user.
- Creation flow would need to be quick and simple.
- **Utilize defaults, saved data, quick look-ups and bulk actions.**
- Future iterations would need to incorporate importing to avoid manual entry.
- With such high volume, users want to **focus on the orders that require action.**

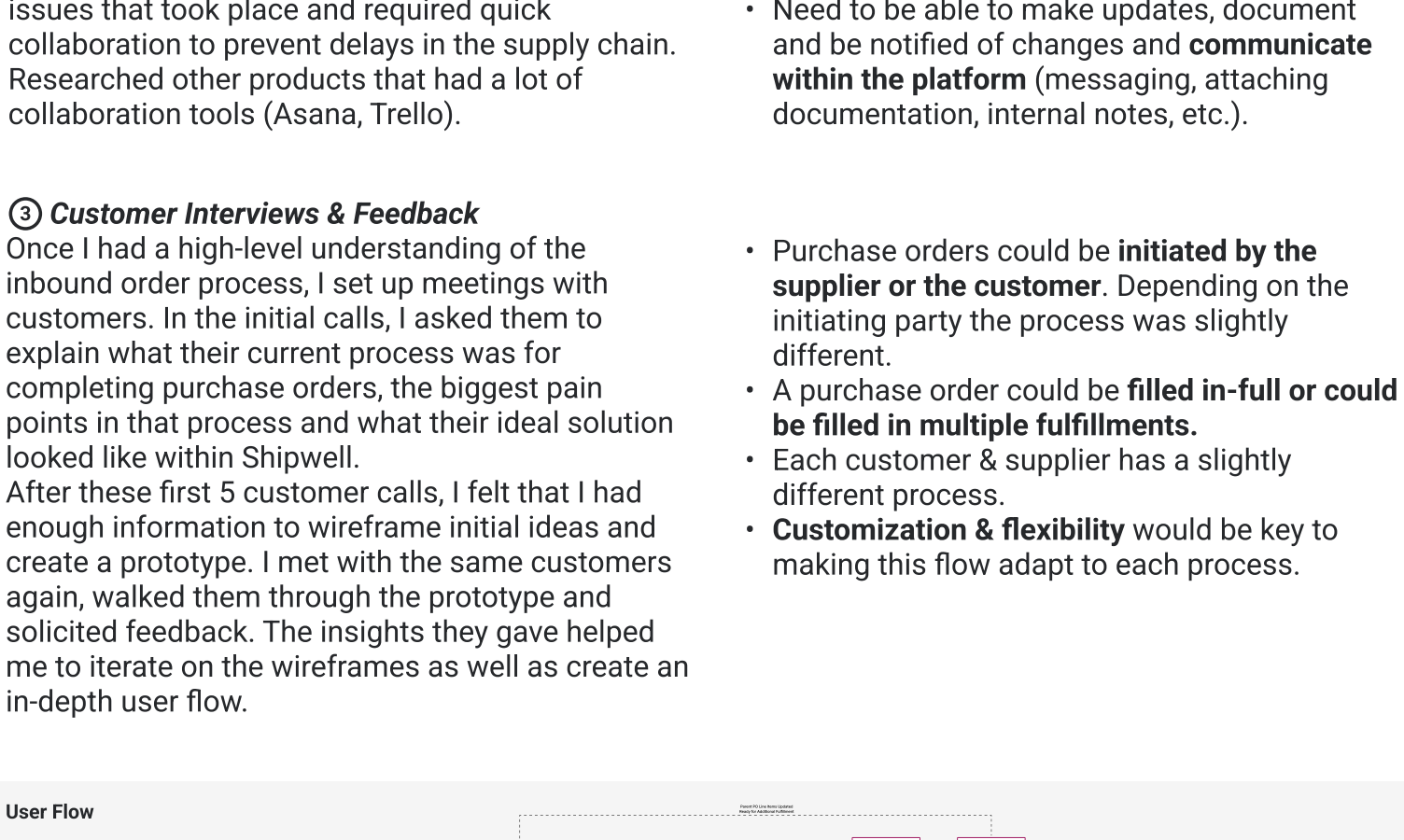
2 Competitor & Market Research
Some of our TMS competitors had supplier portal functionality. I was able to observe the main pieces of their flow. I was also able to find a few products that dealt directly with PO collaboration and buyer/vendor enablement. These products focused on the core problems very well but lacked the breadth of features that a full TMS offers. There were often issues that took place and required quick collaboration to prevent delays in the supply chain. Researched other products that had a lot of collaboration tools (Asana, Trello).

- The user interface for most TMS competitors felt antiquated and unfocused.
- **"50% of PO lines will change"** - Due to late shipments, manufacturing delays, missed emails and miscommunications.
- **Resolution management and collaboration** would be a key theme.
- Need to be able to make updates, document and be notified of changes and **communicate within the platform** (messaging, attaching documentation, internal notes, etc.).

3 Customer Interviews & Feedback
Once I had a high-level understanding of the inbound order process, I set up meetings with customers. In the initial calls, I asked them to explain what their current process was for completing purchase orders, the biggest pain points in that process and what their ideal solution looked like within Shipwell. After these first 5 customer calls, I felt that I had enough information to wireframe initial ideas and create a prototype. I met with the same customers again, walked them through the prototype and solicited feedback. The insights they gave helped me to iterate on the wireframes as well as create an in-depth user flow.

- Purchase orders could be **initiated by the supplier or the customer.** Depending on the initiating party the process was slightly different.
- A purchase order could be **filled in-full or could be filled in multiple fulfillments.**
- Each customer & supplier has a slightly different process.
- **Customization & flexibility** would be key to making this flow adapt to each process.

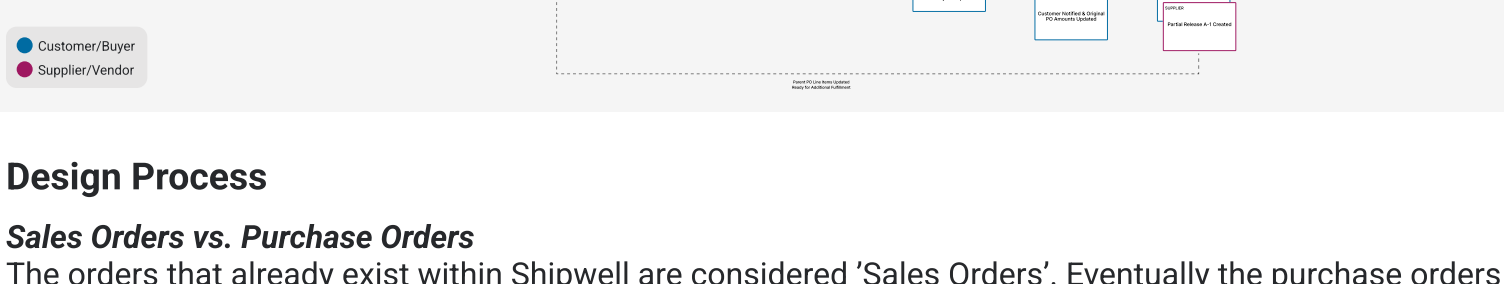
User Flow



Design Process

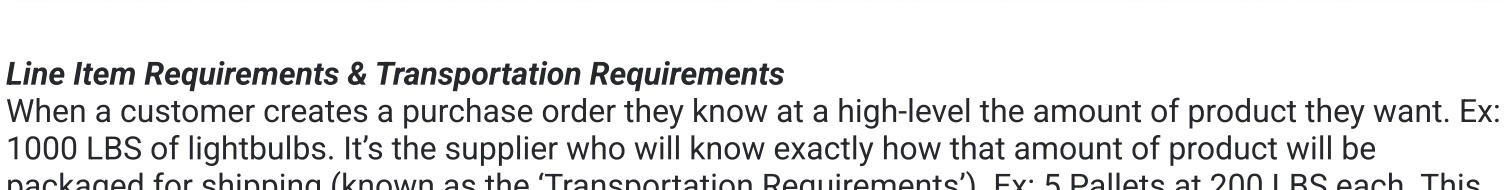
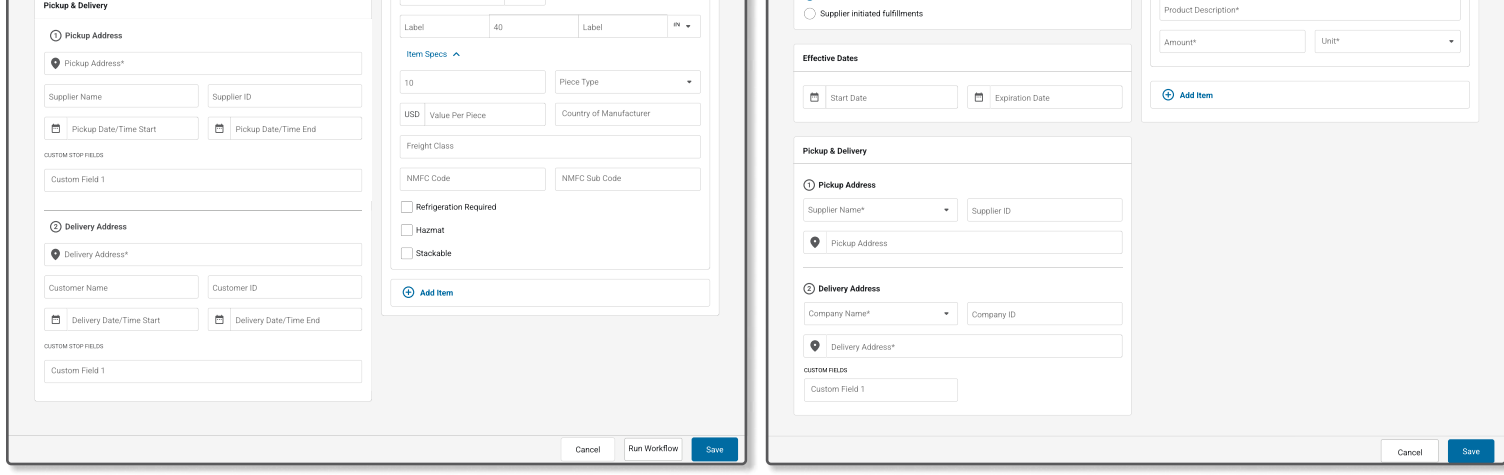
Sales Orders vs. Purchase Orders

The orders that already exist within Shipwell are considered 'Sales Orders'. Eventually the purchase orders that were ready to be added/converted into a shipment would turn into a sales order. The purchase order had a different set of fields. I needed to make the experience feel consistent when creating either type of order and by the time the purchase order was ready to be converted into a shipment it must have all of the required information a sales order has.

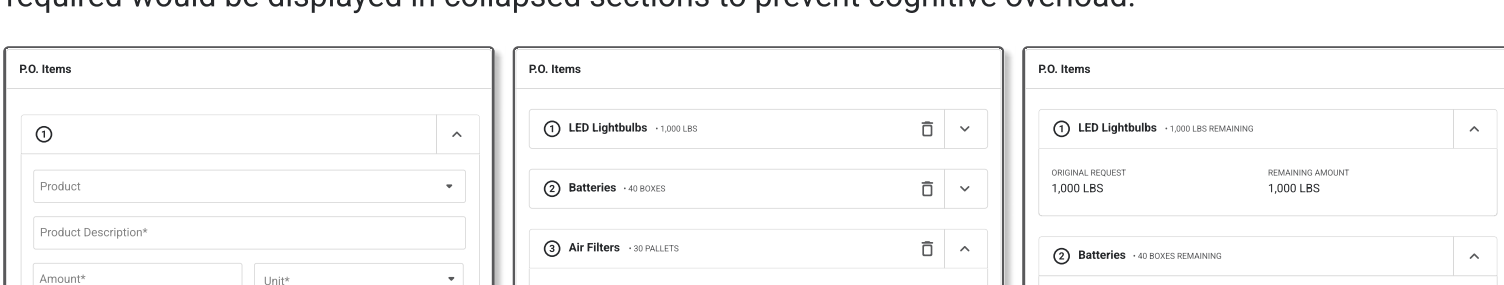


Line Item Requirements & Transportation Requirements

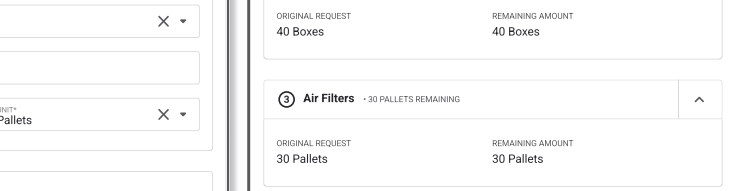
When a customer creates a purchase order they know at a high-level the amount of product they want. Ex: 1000 LBS of lightbulbs. It's the supplier who will know exactly how that amount of product will be packaged for shipping (known as the 'Transportation Requirements'). Ex: 5 Pallets at 200 LBS each. This information is required before a shipment can be created. Therefore the design needed to allow for the PO to have high level quantities and at a certain point require more detailed transportation requirements. To achieve this I used progressive engagement. I only displayed the required fields at each stage in order to not overload the UI. When more details were required, they would display. Additional fields that were not required would be displayed in collapsed sections to prevent cognitive overload.



Supplier Visibility into Shipment Details & Timelines
Through research, I found that the biggest blind spot in this flow was after the order was converted into a shipment by the customer. The customer was booking the carrier and setting up pickup dates but all of this was happening at the supplier's facility. It was imperative that the supplier get visibility into these details so that they could be prepared with the goods. They also needed certain documents that only the customer had. A technical constraint around this area was that we did not have the resources to build out an equivalent shipment details page for the supplier. There would need to be another method to give them visibility into the shipment while also being a lightweight implementation for engineering.



Development & Prototype
Multiple parties collaborating on the same order created some technical challenges, especially when you consider only certain actions were available depending on who initiated a release and only certain fields were editable depending on the status of a purchase order. In order to make this clear I led many meetings with the engineering squad and walked them through the prototype and answered questions. I also got great feedback that helped me to iterate on aspects of the design as well. As designs developed, I would regularly update the prototype so that it was current and could be utilized by both engineering and product.



View Prototype

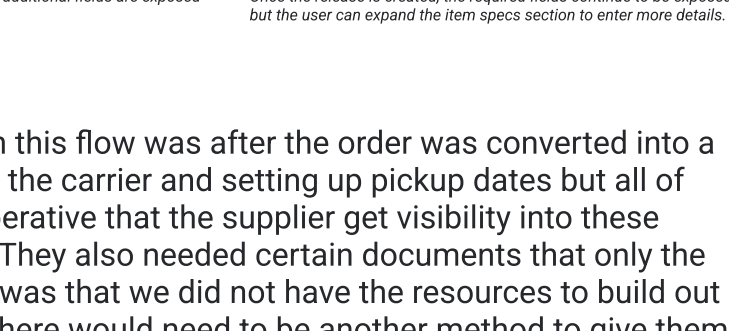
Current State

At the time of writing this case study, this feature is still under development. It is currently on target for the MVP to be released on schedule. In order to meet this deadline, aspects of the design had to be cut to remove scope and certain workflows were prioritized over others. These decisions were made based on what our current customers needed most. Deprioritized workflows would be worked on immediately following the release. Based on continued research and customer feedback there are also additional features that I have designed that will enhance the capabilities of the supplier portal and make it a selling point to even more prospects.

Enhancements

1 Associate Supplier with Multiple Locations

Through customer conversations, we found that one supplier often has more than one location they operate out of. Customers often don't know what location the order will be picked up at until it's released by the supplier. Allowing suppliers to have multiple addresses would be a necessary update. To be even more efficient, users could designate supplier locations from existing address book entries.



2 Counter-Order

Whenever Customer is ready to be released, whether it is the customer or the supplier initiating, the interaction should allow for a negotiation. The customer may request a certain amount of product by a specific date and rather than reject the request the supplier may counter with a different amount and/or by a different date. The same can be said from the supplier-initiated flow. The customer might not be able to handle the size of the shipment at that time. A counter-offer could resolve this issue.

