**Challenge:**

Efficiently and quickly track and process an extremely high volume of customer traffic arriving in cars and other vehicles to pick up and take home various in-store, online or phoned-in product purchases.

Solution:

4SIGHT™ Logistics Solution, combined with sophisticated and comprehensive color CCTV camera analytics, that captures and manages vehicle and customer images as well as critical license plate information.

Results:

A well-orchestrated five-zone customer-facing pick-up area that can easily accommodate and service 12 lanes of incoming vehicle traffic flow (approximately 170 vehicles at any given time and up to 2,000 customers a day during peak periods on weekends) while processing each store customer within 10 minutes.

Establishment:

Nebraska Furniture Mart-
Texas

Environment:

Retail Furniture, Appliances
and Electronics Showroom
& Distribution Center

Geography:

The Colony (Dallas), Texas

4SIGHT™ Ensures Customer Product Pick-Ups are Accurate and Fast at Nebraska Furniture Mart-Texas



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This case study focus represents one of five in a series on our 4SIGHT™ Logistics Solution application at Nebraska Furniture Mart-Texas.

For a comprehensive project overview, download the following story from our website Case Studies page: [Nebraska Furniture Mart-Texas Gets Highly Efficient Yard, Dock & Gate Operations.](#)

Nearly a fourth of all Nebraska Furniture Mart (NFM)-Texas customers—21 percent to be exact—prefer to take home the products they purchase in the store.

However, prior to opening in the spring of 2015—and with upwards of 2,000 customers projected to visit NFM’s newest and largest store in the Dallas area during peak weekend time periods—meeting the needs of such a large volume of traffic could potentially lead to a huge customer service logistics headache. But no worries at NFM-Texas.

Company personnel managing the design and construction of the store’s distribution center dock and yard spent numerous hours thinking long and hard about how to properly handle current and future traffic projections for customer facing pick-up traffic volume as well.

The end result—with the help of a multi-member team from 4SIGHT Logistics Solution—is a sophisticated and comprehensive software data management system complete with color CCTV camera analytics. The entire package manages the flow of 12 lanes of customer traffic that is then funneled into a covered five-zone pick-up area.

Overseeing the customer pick-up area is a glass-enclosed command center. From that vantage point, up to 12 operators managed by a single supervisor communicate with each NFM-Texas customer as he or she enters the customer pick up area. The entire customer product pick-up process takes only 10 minutes, starting with when the customer arrives at the lane speaker to when they depart the pick-up area canopy.

Captured images ensure accuracy

Before an arriving customer is directed to move to a designated zone in the NFM-Texas customer pick-up area to retrieve their purchased product(s), multiple color CCTV cameras capture images of the customer, the customer’s vehicle as well as the vehicle’s license plate info; all of which NFM-Texas uses for sales order tracking purposes and to ensure product pick-up accuracy.

“When we first started working with 4SIGHT on our yard and dock management plans, we brought up our needs around managing our customer pick-up area as well,” said Pat Evers, Process Improvement Supervisor, Nebraska Furniture Mart-Texas, The Colony, Texas. “Instead of handling 30 cars in wait, like at one of our other store locations, we knew we had to have a system in place to manage 170 cars in wait.”



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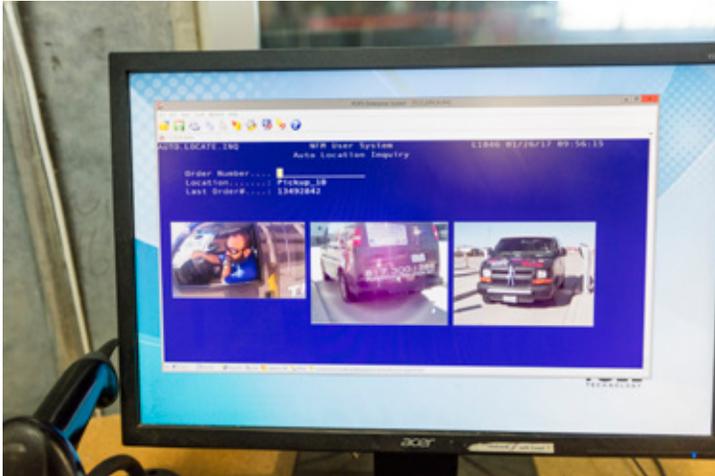
– Pat Evers, Process Improvement Supervisor, Nebraska Furniture Mart-Texas, The Colony, Texas

Evers pointed out that NFM-Texas initially considered other approaches for managing the store’s customer pick-up area. They included systems used for bank branch drive-throughs as well as those available from building management system providers. Coming up with a design that could handle not only current volume expectations but future volume was critical.

“Because the 4SIGHT team and their system was already linked to our discussions on our selection of Serco dock equipment through MHC Systems in Kansas City, Mo., it only made sense to continue pursuing 4SIGHT’s recommendations and advantages concerning what that would entail for the customer pick-up area,” said Evers. “In addition to that, it was determined early on that 4SIGHT would interact well with our existing ERP system.”

License plate recognition is key

Faced with handling up to 170 vehicles in wait during peak hours, NFM-Texas required a customer pick-up design approach that would take store associates the least amount of time to get the right product(s) to the right customer. NFM-Texas conducted time studies that determined it could take as much as five to 10 minutes just to find a vehicle with that kind of volume, let alone the time it would take to load the customer’s product(s).



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– Pat Evers, Process Improvement Supervisor,
Nebraska Furniture Mart-Texas, The Colony, Texas

“After some brainstorming, we, along with 4SIGHT’s team, agreed that license plate recognition was the best way to manage the customer tracking process,” related Evers. License plate recognition is a key component of 4SIGHT’s gate management capability. “During construction, with 300 to 500 workers on the job site every day, we started to incorporate some camera analytics with the construction traffic coming and going to determine how many cars or other vehicles we could effectively monitor in our customer pick-up area.”

Once NFM-Texas collected that test data, the company then made the necessary adjustments in activity to determine how the entire approach would successfully work on a much larger scale using 4SIGHT as the primary management tool. Added to the mix were 2-way speaker systems in each lane that allow customers to talk to NFM-Texas pick-up area operators as well as color monitors used by loading associates inside the product staging area (located just inside the warehouse right beside the customer pick-up area).

Camera analytics help fight credit card fraud

Using the color monitors, NFM-Texas loading associates are able to match up their sales order records with a visual identification of the vehicle they will be loading as well as correct license plate information. The customer pick-up area contains five separate loading zones labeled “A” through “E” on support columns and on the pick-up area’s two side walls.

Prior to walking out the warehouse door to take a load to a customer, the loading associate scans his sales order record’s bar code at a computer terminal to properly identify the correct order. 4SIGHT then matches that sales order record with images of the customer, the customer’s vehicle, their license plate info along with the customer’s assigned loading zone.

“With camera analytics and our ability to record images of license plates, the 4SIGHT system allows us to take that digitized image of the license plate number and make that a permanent part of our sales order record,” Evers explained. “Before, at other store locations, our receptionist would have to manually type that information into the general comments section of our sales order record.”

4SIGHT now ensures a much more accurate record of customer data. We’ve actually been able to utilize that information on credit card fraud cases. Now we’re able to connect a variety of evidence to each sales order record, including the license plate image, vehicle image and an image of the person driving the vehicle. When a customer picks something up from us and they’ve given us a fraudulent credit card, we now have all of that information to go back and charge them with either a misdemeanor or a felony, depending upon the size of what they picked up and the value.”

Faster traffic flow with accurate sales order records

Accuracy at NFM-Texas’ customer pick-up area also means that everything a customer purchases during a visit to the store is placed on a single sales order record instead of multiple sales orders.

For example, if a customer purchases a bedroom set, the mattress and box spring components of the order aren’t located on a separate sales order. This eliminates any unnecessary wait times at the customer pick-up area which can occur when separate sales orders are being processed. This also ensures that the volume of pick-up traffic moves much faster through the pick-up area than it would otherwise.

In addition, if a customer service operator directs a customer to move her vehicle from Lane 7 to Zone B under the pick-up area canopy, and because she misunderstood the operator and ends up in Zone D instead, that’s not a problem. Due to all of the visual identification and data collected, 4SIGHT has that covered as well.

Once a customer load is finished, the NFM-Texas associate returns to the warehouse and rescans the barcode on the sales order record at the appropriate zone terminal. The order is then considered complete. When the customer exits the pick-up area canopy, another series of CCTV security cameras scans the vehicle’s rear license plate. 4SIGHT records that image. That then then closes out that customer’s load time activity from the moment they start interacting with the speaker system until they leave the canopy. Evers further explained that the customer’s data is then purged from the 4SIGHT system once the car leaves the pick-up area canopy.



“The 4SIGHT system will allow us to easily adapt to any unforeseeable changes in volume in the future.”

– Pat Evers, Process Improvement Supervisor, Nebraska Furniture Mart–Texas, The Colony, Texas

Well prepared for the future

“Working with the 4SIGHT team, we really invested a lot of time and effort into the design and operation of our customer pick-up area,” Evers pointed out. During that process, NFM-Texas had to not only accurately forecast overall traffic volume for its \$1 billion store, but also predict how many cars to expect for each day of the week, cycle time for each car in each pick-up area lane, how many cars per minute, hour and day, how much depth was required in the parking lot before customers reached the lane speakers, how much space was required from the lane speakers to the pick-up area canopy and how much area was needed underneath the canopy.

“Our pick-up area was truly designed to operate at peak volume,” Evers added. “At slower times, some people have commented that it looks overbuilt; however, what they need to remember is that we’ve designed the pick-up area not only for today, but for what our needs might be 10 years from now. The 4SIGHT system will allow us to easily adapt to any unforeseeable changes in volume in the future.”

For more information about 4SIGHT Logistics Solution’s benefits, or to request an online product demo, log on to www.4sightsolution.com, or contact us at **866-691-1377**.



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