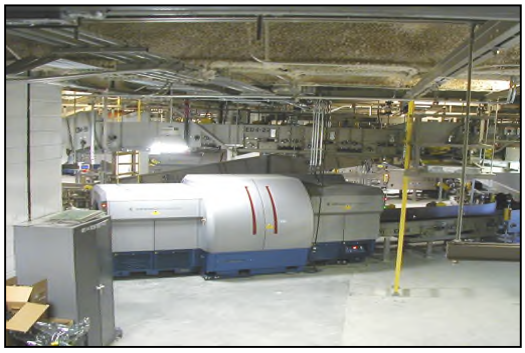
DETROIT (DTW) MCNAMARA TERMINAL
NORTHWEST WORLDGATEWAY BAGGAGE HANDLING SYSTEM



OWNER
WAYNE COUNTY

BNP PROJECT MANAGER
TOM JENNINGS

LOCATION
DETROIT, MICHIGAN, USA

CONTRACT PERIODS

1997 - 2002 – PHASE I
ENTIRE PROJECT AMOUNT
US $1.2 BILLION
BHS CONSTRUCTION AMOUNT
$50 MILLION

2001 – 2006 – PHASE II
BHS CONSTRUCTION AMOUNT
$20 MILLION

2004 – 2006
GARAGE EDS
BHS CONSTRUCTION AMOUNT
$8 MILLION

2006 – 2009
SECURITY EXPANSION
BHS CONSTRUCTION AMOUNT
$34 MILLION

PROJECTS COMPLETED ON SCHEDULE AND WITHIN BUDGET

REFERENCE
DAVE MARTIN
MANAGER - FACILITIES
NORTHWEST AIRLINES, INC.
2583 WORLDGATEWAY PLACE
DETROIT, MI 48242
PHONE: (734) 247-5304

SCOPE OF SERVICES
CONCEPTUAL DESIGN
DESIGN DEVELOPMENT
CONTRACT DOCUMENTS
BIDDING AND PROCUREMENT
CONSTRUCTION MONITORING

RELEVANCE
AUTOMATED BAGGAGE HANDLING SYSTEM UTILIZING 10-DIGIT IATA BAG TAGS AND INTEGRATED CHECKED BAGGAGE SCREENING

When Northwest Airlines undertook the task of building a new $1.2 billion terminal at Detroit Metro Airport, the airline's largest hub, they selected BNP Associates to design its baggage handling system. The new McNamara Terminal-Northwest World Gateway (formerly known as the Midfield Terminal) opened on February 24, 2002.

The Baggage Handling System in the new McNamara Terminal consists of both inbound and outbound systems.

The domestic arrivals system consists of 11 slope plate claim devices each of which provides approximately 160 linear feet of passenger presentation each. One single-sided load conveyor is provided for each unit.

The international arrivals system consists of 7 slope plate claim devices located in an FIS facility below grade (with space allotted for the possible addition of two devices in the future). Each device, designed to accommodate a B747 aircraft, provides approximately 230 linear feet of passenger presentation. Two single-sided load conveyors are provided for each unit to minimize delivery time.

Five FIS Recheck conveyors, including four flow-through type conveyors and one conveyor serving full-service check-in conveyors, accommodate connecting passengers' baggage.

The originating outbound transport system accommodates baggage checked in at four curbside check-in areas, two parking garage check-in areas, a small parcel check-in facility, E-Ticket/Self-Serve areas and 106 total ticket counters in the departures lobby. Individual feeder conveyors are provided at each of 91 check-in counter positions to provide superior ergonomics to customer service agents by eliminating the need to manually lift customers' baggage.

Oversize baggage is checked at either of two check-in conveyors located in the departures lobby or the oversize curbside check-in position. These bags are transported to either of two dedicated run-out belts located on the apron level for subsequent loading onto the aircraft.

The outbound sortation system utilizes high-speed pushers to sort bags input at any of the originating check-in or recheck lines described above in addition to any of six transfer input conveyors located in the make-up bagroom to accommodate in-bank and domestic-to-domestic transfer luggage. After encoding of the bag tag (10-digit IATA or fallback tags), either automatically at any of the six laser scanner arrays or at one of the four manual encoding positions, the originating and transfer bags are sorted via pusher diverters to any of 21 flat plate make-up devices according to flight.

The outbound sortation system also includes an integrated multi-level, CT based, FAA compliant security screening system.

Based on the planning performed in the original design and updated requirements, BNP also designed an expansion to this Baggage Handling System (Phase II) that includes pre-sortation, high-speed transport and a new sortation system in remote Concourse B. In other subsequent projects for NWA, BNP also designed a new system for screening all bags checked in the garage, improvements to the existing screening system and, most recently, a new expansion with a CT-based system for screening.

BNP
ASSOCIATES, INC.