



CHICAGO O'HARE INTERNATIONAL AIRPORT

Chicago, Illinois

Terminal 5 BHS Redevelopment

Chicago Department of Aviation | 2018 – 2020

BNP Associates, Inc. was the baggage handling system (BHS) design lead for Muller & Muller, Ltd., and the Chicago Department of Aviation (CDA) to provide a 30% Detail Design for the improvements to the Chicago O'Hare International Airport (ORD) Terminal 5 (T5) BHS.

T5 is currently the only international arrival terminal at ORD with FIS facilities, but will go through a step change as the proposed O'Hare Global Terminal is built and the large hub carriers' international arrival operations will shift to the main O'Hare terminal campus.

The challenges presented with the redevelopment design of the ORD T5 BHS was the availability of space, restrictive BHS clear heights within the existing bagroom, and the requirement to develop a comprehensive phasing plan to ensure ongoing operations during construction.

The existing system consisted of a dedicated originating CBIS (three CTX-9400s) and a secondary lower level recheck system (two CTX-9400s), both of which are being removed to repurpose the area into non-BHS space. This terminal change reduced the current available BHS CBIS space by 11,500 ft², leaving only the existing make-up area to provide the required BHS equipment for future terminal baggage demand.

To fully optimize the existing make-up area, the design team provisioned a new PGDS compliant originating CBIS below a new East Head House expansion area. The make-up area design included 15 new flat plate carousels, a dedicated recheck oversize screening area, a consolidated manual encode zone, and a new lane-based early bag storage system. The make-up area also provisioned adequate drive aisle circulation for the pre-clear and international arrival unloads occupying the shared space.

The phasing plan was broken down into two primary work paths, focusing the BHS construction to one half of the make-up area at any point in time. This phasing plan included over 30 installation and demolition steps including temporary systems to ensure the T5 airlines could still screen and process baggage throughout construction. A new temporary make-up facility was planned outside the terminal footprint to supplement the make-up capacity during redevelopment of each half of the existing bagroom.



ASSOCIATES, INC.

BNP PROJECT TEAM

David Mecartney, Principal
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BHS CONSTRUCTION AMOUNT

US \$180 Million

REFERENCE

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SCOPE OF SERVICES

Analysis Study
Conceptual Design
Schematic Design
30% TSA Design Documents