

B. W. SINCLAIR INFORMATION UPDATE

INTEGRATED SYSTEM DELIVERS ORE FOR WALLBOARD MANUFACTURING

A western building materials manufacturer has specified a BWSI material-handling system to transfer gypsum ore from the quarry unloading station to the storage silos above the pin mixers.



Our responsibility starts with the Truck Dump Hopper and Volumetric Belt Feeder at the back end of the crusher building. From this point, we elevate the run-of-mine ore (<12") to the crusher tower with a High-Incline Flexible Sidewall Belt Conveyor. Tramp iron removal is done with an Eriez SP™ suspended permanent magnetic separator mounted on a custom trolley for periodic manual cleaning.



From the crushers, the ore drops to a BWSI Model 900™ Mill-Duty Centrifugal Discharge Bucket Elevator fitted with Style AC high-capacity buckets. The heavy-duty seal-welded dust tight casing contains the dusty material as it climbs to the top of the crushing building. A Model 1000 2-way Pneumatic Diverter Valve routes the crushed material to stockpile, or to the wallboard mill.



The elevator can load the crushed stone to a Horizontal Distribution Belt Conveyor with a powered Tripper Module. Reacting to position-indicating limit switches, the automatic tripper stops at pre-selected bunker locations to distribute the material into stockpiles.

The final conveyor in the system is an Inclined Belt Conveyor to traverse between the crushing and manufacturing buildings, where the pulverized gypsum becomes the core of wall-board sheets. The belt spans ~ 100 ft between supports with a custom structural steel truss, and belt tension is maintained with a BWSI 3-pulley gravity take-up system incorporated into the central support tower.



Single source responsibility and our integrated system approach allowed BWSI to manage this project for the customer. System start-up and commissioning were on time and on budget.

B. W. SINCLAIR, INC.

P. O. Box 1111 Wichita Falls TX 76307-1111 USA

www.bwsinclair.com 940-766-2556 voice 940-766-0430 fax sales@bwsinclair.com