

Lehigh Cement Company LLC BZA Presentation

Height Variance Request &
New Windsor Quarry Expansion /
Transportation Project Overview

Summary of Request

- Mineral Resource Ordinance
 - The Carroll County Mineral Resource Ordinance established overlay zoning known as the MR Zone. In such MR Zone only certain uses were allowed including mining. The primary purpose of MR Zoning was to promote mining. The MR Zone contained many extensive mining site plan requirements including extensive set back requirements. Unfortunately, height was not addressed. As a result, the height requirements of the underlying zone continue to apply. Here, the underlying zone is agricultural, which height requirements are inconsistent with modern mining.

BZA Height Variance Requests

- Limestone Crusher
 - Height required 90 feet. Variance request 50 feet.
- Transfer Station
 - Height required 65 feet. Variance request 25 feet.
- Maintenance Building
 - Height required 46 feet. Variance request 6 feet.

New Windsor Quarry



EXHIBIT BY: KAUFMAN ENGINEERING, INC.

NOTE: FUTURE CONDITIONS IMAGES ARE AN ARTIST'S DEPICTION OF FUTURE CHARACTER

N e w W i n d s o r Q u a r r y

New Windsor Quarry - History

- Lehigh identified reserves and began to acquire properties in the 1950's
- Original New Windsor Quarry MDE permit area = 283 acres. Surface Mine Permit to mine 66 acres of the 283 acres issued in 1990.
- As part of the 1990 permitting process:
 - Berms and landscaping installed in site sensitive areas
 - Hydro-geologic investigation conducted between 1985 and 1989
 - State and local officials established "Zone of Responsibility" (ZOR), the first in the state of Maryland
 - Carroll County established Mineral Resource Overlay (MRO) areas to allow for mining
- Lehigh modified Surface Mine Permit (adds 55 acres) to allow for additional overburden storage in 2006

New Windsor Quarry Expansion - Status

- The New Windsor Quarry will be the sole source of limestone for the Union Bridge cement plant (12,000 tons per day) after initial development and equipment installation is completed.
- A Prefeasibility study on limestone transport from the New Windsor Quarry to the Union Bridge plant was completed in 2011. The study focused on trucks, rail, and overland conveyor.
- Prefeasibility study proved that the overland conveyor was the best option.
- The overland conveyor is 4.5 miles long, 1.8 miles underground with the remaining 2.7 miles constructed on the surface and completely covered with a jumbo cover...eliminating noise, dust and unauthorized access. Conveyor is under 5 county roads and bridged over 1 County Road.
- The permitting process and community outreach has been on-going for 9 years.

New Windsor Quarry – Current Status

- The Federal, State and County Permitting process has been a 9 year process encompassing both Carroll and Frederick Counties, 4 Departments of MDE and 1 comprehensive permit with Army Corps of Engineers (ACOE).
 - Federal – Army Corp of Engineers Permit:
 - Joint permit with MDE Wetlands approved May 2014 for the Haines Branch reconstruction project to mitigate impacts to streams and wetlands at the New Windsor quarry along with stream crossing impacts for conveyor construction.
 - State
 - MDE Wetlands Permit– June 2014
 - Air Quality (permit to construct) Permit– March 2014
 - Surface Mine Permit – June 2014
 - Maryland Agricultural Land Preservation Foundation (MALPF) - April 2014

New Windsor Quarry – Current Status

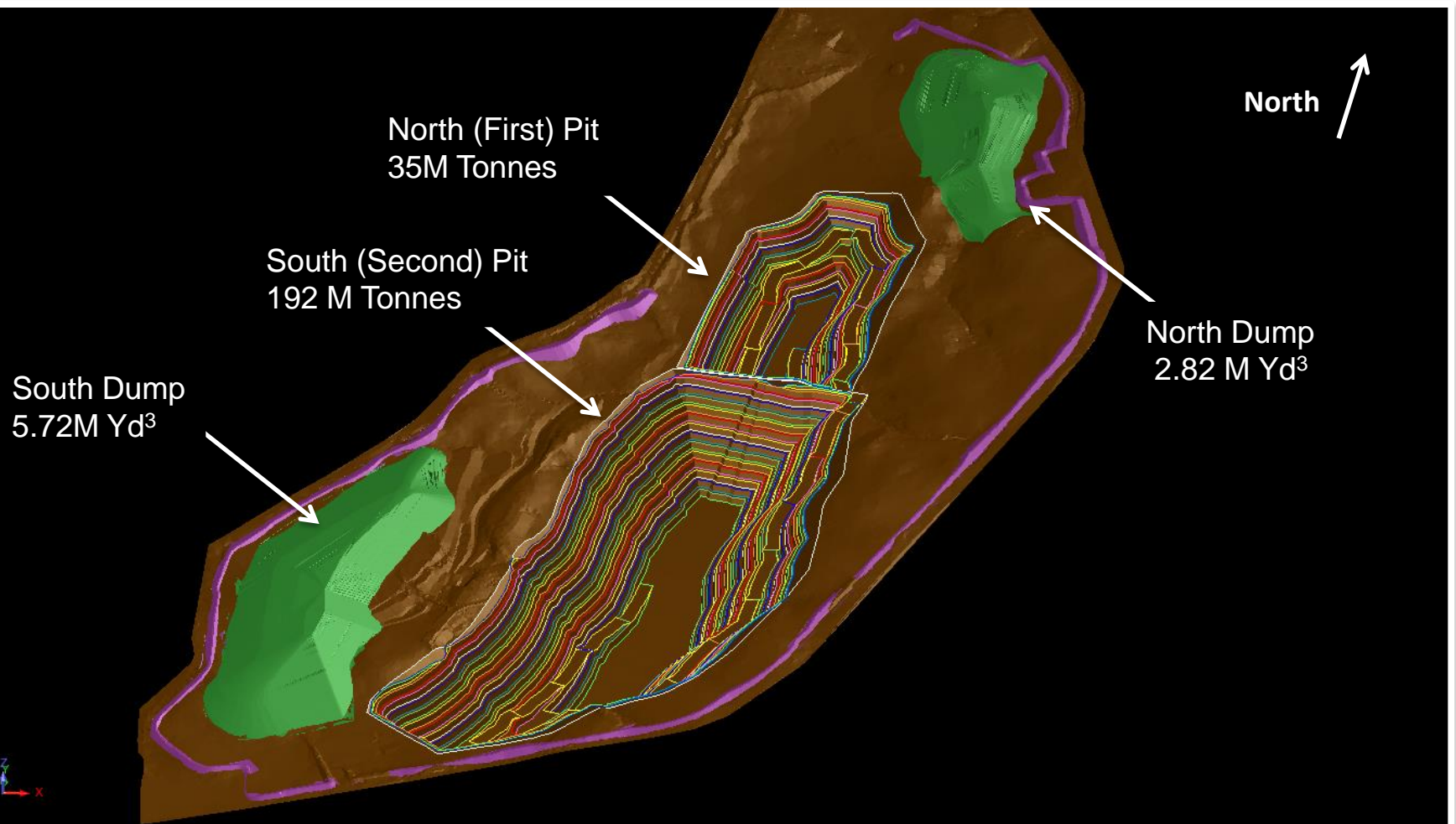
- Carroll County Approvals
 - Text Amendments;
 - Conveyor Systems Definition - August 2012
 - §223 County Code (Mineral Mining) / Landscape / Overburden Stacking Definition - October 2013
 - Agricultural Preservation relief - November 2012
 - FEMA Study – March 2013
 - Proactive Groundwater Monitoring Plan - Sept. 2013
 - Union Bridge plant Amended Site Development Plan - March 2014
 - New Windsor Quarry Amended Site Development Plan - May 2014
 - Overland Conveyor Site Development Plan - June 2014
 - Water Resource Variances - April and June 2014
 - PWA and Indenture for Quarry finalized - February 2015
- Frederick County Approvals
 - Union Bridge plant Amended Site Plan – February 2015
 - BZA for construction within floodplain – January 2014

Union Bridge Plant

2013



Overall Pit Layout



Limestone Transport

- Lehigh initially studied several transport methods
 - Over-the-road trucks
 - 550 truckloads / day, 5 days / week
 - Railroad
 - 156 rail cars / day, 5 days / week: Three 52-car trains or six 26-car trains
 - Belt conveyor
- Prefeasibility study conducted in 2010 and 2011 evaluating the three methods determined the belt conveyor to be the preferred option
 - Issues considered included
 - Community and employee safety
 - Environmental impacts
 - Community impacts
 - Investment and operating costs

Limestone Transport

- Belt conveyor options considered
 - Overland conveyor
 - Suspended conveyor
 - Final decision partly underground (constructed in trench and fill method), partly on the surface and totally enclosed with jumbo cover.
- Total length approximately 4.5 miles
 - 1 single belt with no transfer points
- 1.8 miles (40%) underground
 - Under all county roads (except Quaker Hill Road), three streams and all agricultural preservation easement areas.
- 2.7 miles (60%) on-grade enclosed in jumbo covers
- Only elevated area is crossing Quaker Hill Road where entering the plant.



PROPOSED CONVEYOR PATH LEHIGH CEMENT CO. (JANUARY 2012)

LEGEND

	CONVEYOR PATH		RECOVERY AREA
	CONVEYOR UNDERGROUND		VIALE RECOVERY AREA
	CONVEYOR OVERHEAD		MRO NOTIFICATION AREA
	TOWN LIMITS		LEHIGH PROPERTY
			HOFF PROPERTY

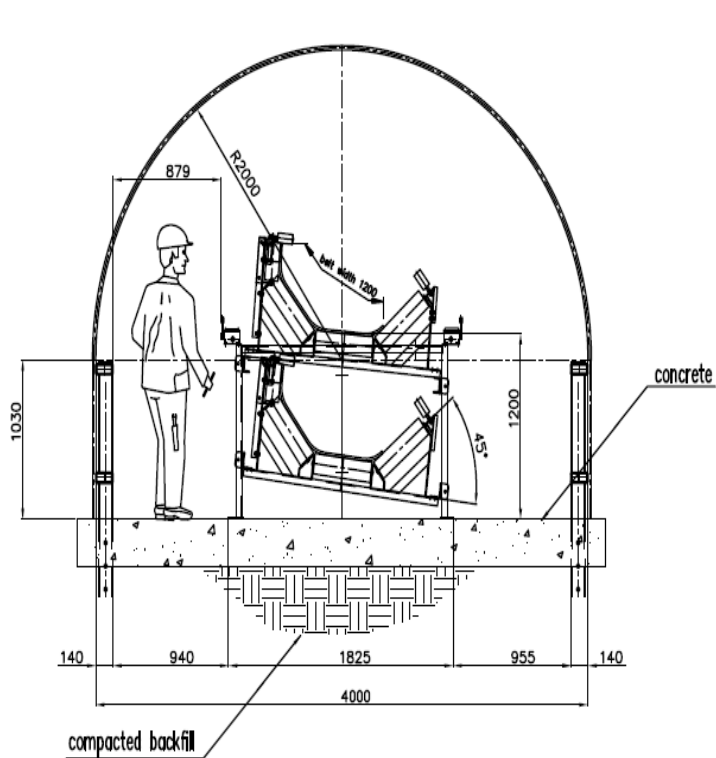


Conveyor

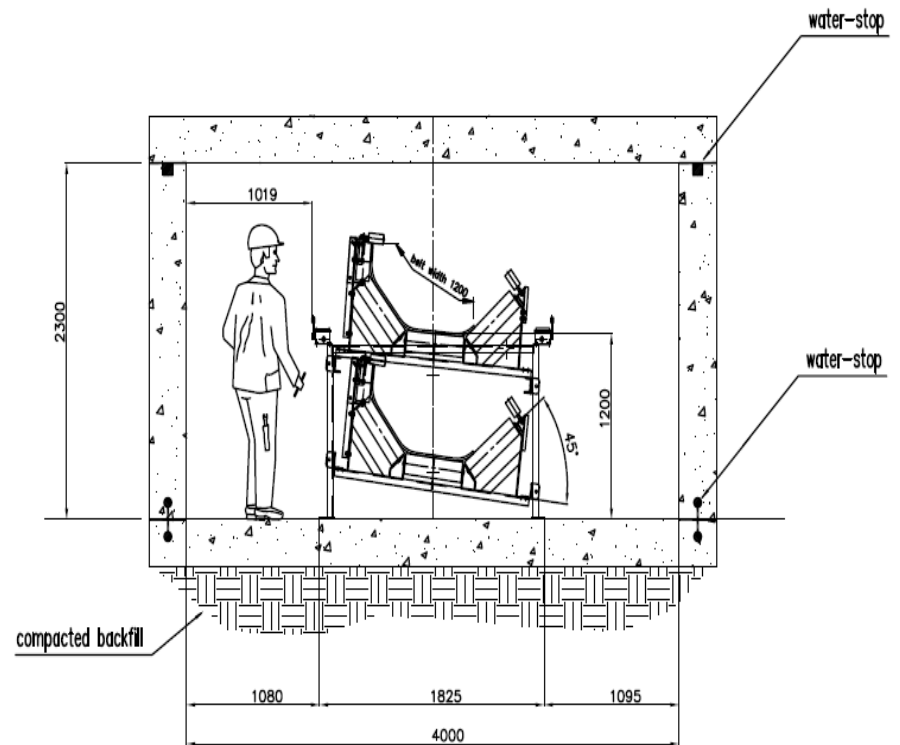




Overland Conveyor Cross Sections



JUMBO COVER



CONCRETE CULVERT

Example of New Windsor Quarry Crushing System



Example of crusher building



Example of a Transfer Tower

Height depends on amount of material and at times, type of material. Height must be high enough to accommodate material flow rates through tower. Tower at quarry must process 2100 tph.

Transfer towers permitted under MDE Air Quality Permit.



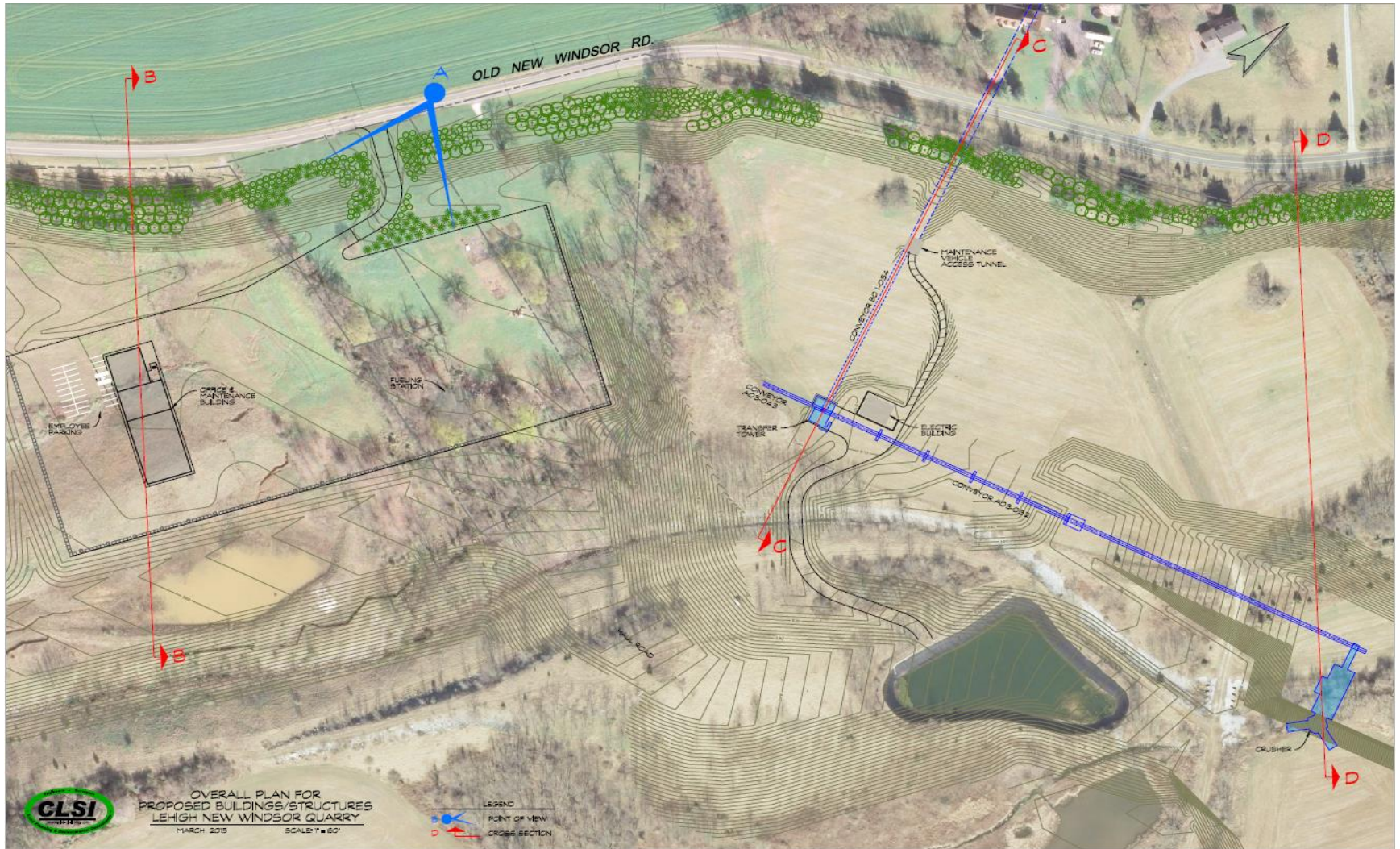
Example of maintenance building



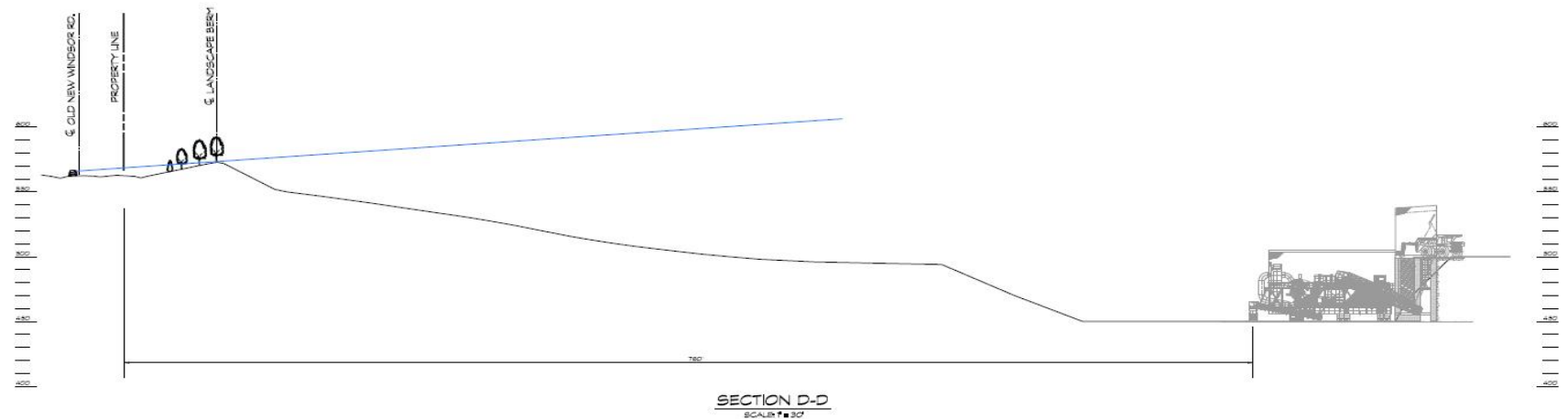
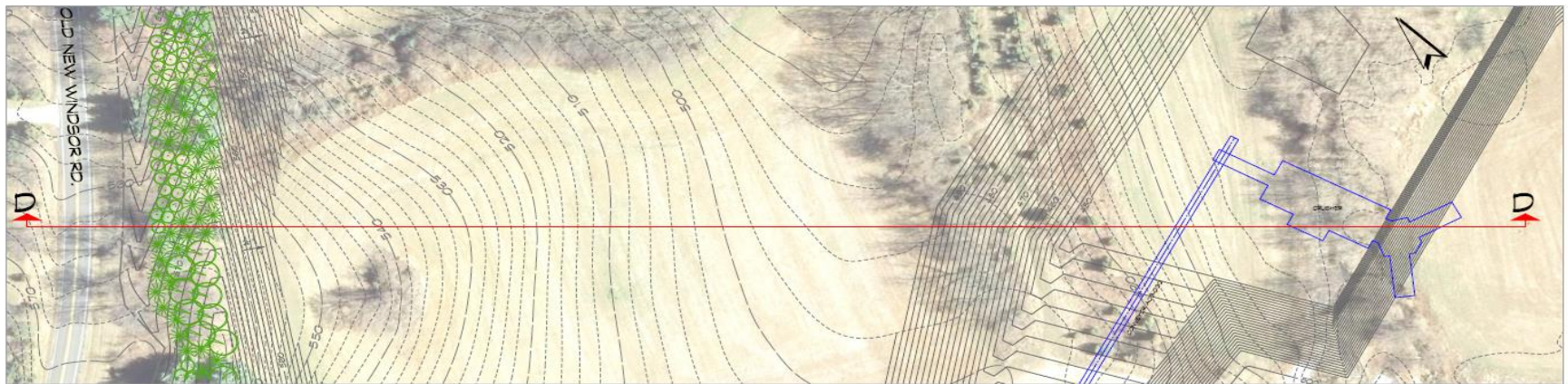
Example of maintenance building



Overview Proposed buildings and Structures at NW Quarry



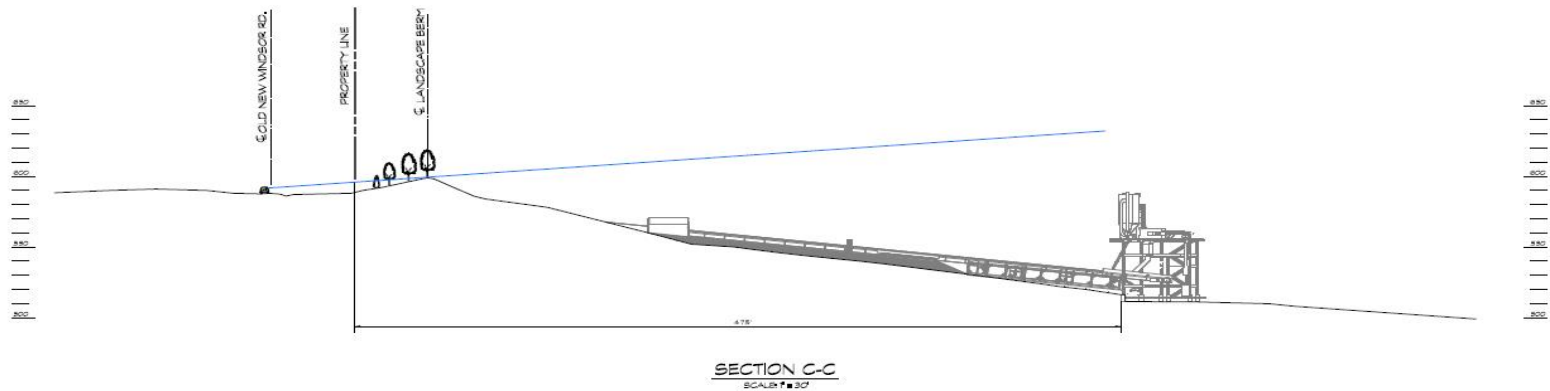
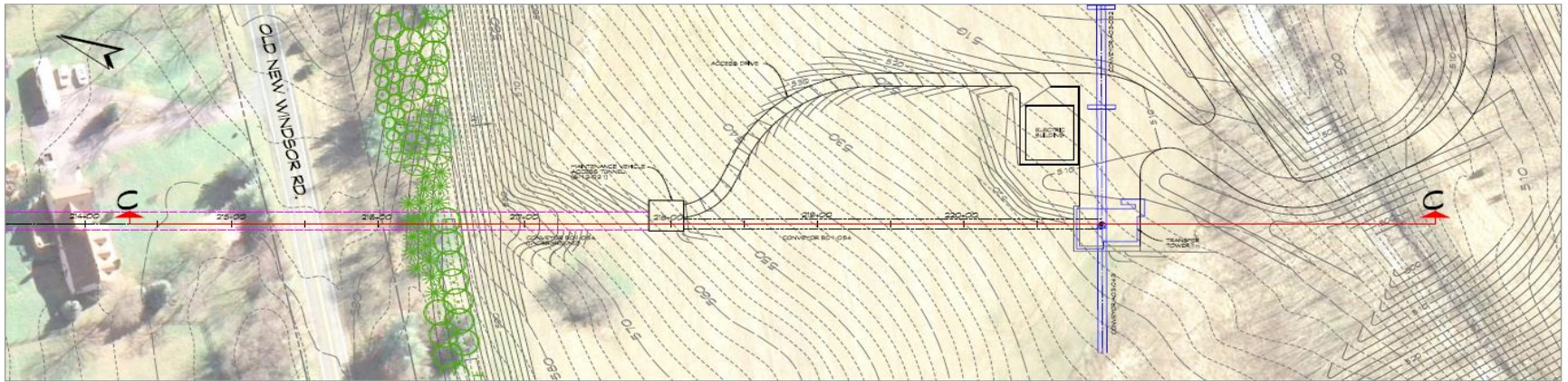
Cross Section of Crusher Building



CROSS SECTION
VIEW TO CRUSHER
LEHIGH NEW WINDSOR QUARRY
MARCH 2015



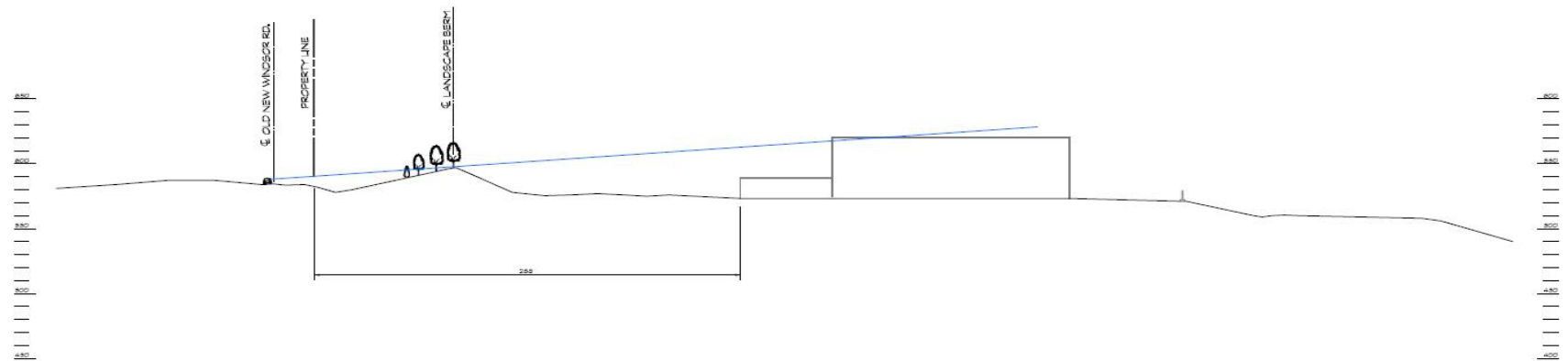
Cross Section of Transfer Tower



CROSS SECTION
VIEW TO TRANSFER TOWER
LEHIGH NEW WINDSOR QUARRY
MARCH 2015



Cross section of Maintenance Building



SECTION B-B
SCALE: 1" = 30'

CROSS SECTION VIEW TO
OFFICE & MAINTENANCE BUILDING
LEHIGH NEW WINDSOR QUARRY
MARCH 2015



View of Maintenance Building with existing approved landscaping



View of Maintenance Building with additional landscaping

