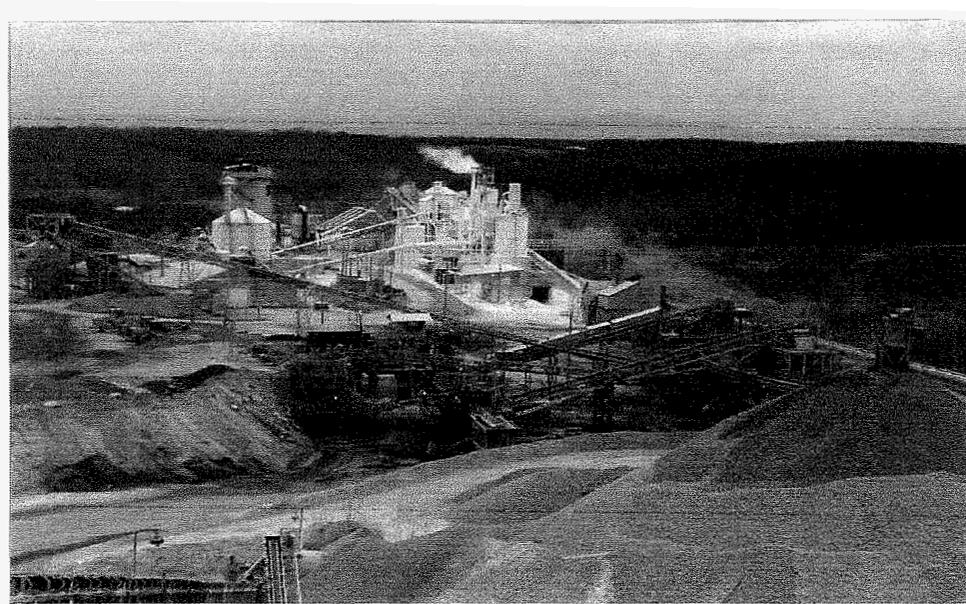


WELCOME
TO

GLOBAL STONE CHEMSTONE CORPORATION

AN OGLEBAY NORTON COMPANY



PLANT TOUR INFORMATION

• **STRASBURG** •

AB24-Comm-17-1

GLOBAL STONE CHEMSTONE CORPORATION

Global Stone Chemstone Corporation presently consists of three plant locations covering 2500 acres of limestone deposits over a three county area in north western Virginia.

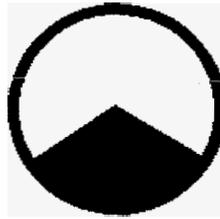
Chemstone currently employs a company wide compliment of 20 full time employees and 5 part time employees.

Chemstone adheres to a strict Health and Safety Policy meeting and or exceeding regulatory requirements of the Department of Environmental Quality, Department of Mineral Mining, and the Dept. of Air and Water Quality.

Chemstone product lines are Processed Lime, Limestone, and Aggregate Products.

The annual capacities (for tons produced), all plants combined, are as follows:

Overburden / tons	3,280,000	
Ore / tons	1,486,000	
	Total tons	4,766,000
Main Plant	1,622,000 / tons	
Wash Plant	270,000 / tons	
Lime:		
Rotary Kilns	305,000 / tons	
Calcimatic Kiln	55,000 / tons	
Shaft Kilns	50,000 /tons (idle)	
	Total Lime Production / tons	402,000
Hydrator	60,000 / tons	
Aggregate Plants	1,500,000 / tons	
Limestone Plants	680,000 /tons	



STRASBURG PLANT

Quarry:

7 cu. yd. Caterpillar Loaders (2)
44 ton Caterpillar Trucks (4)
50 ton Euclid Trucks (2)
Tamrock Drill (4")
Dozer, Grader (1)

Operates 2 Loader Spreads on day shift, Chemical and Non Chemical Stone.
One Loader Spread, Stripping and Utility on 2nd Shift

Crushing Equipment:

Ore:

Apron Feeder
Primary Roll Crusher
Triple Deck Screen (7' x 16')
54" Secondary Cone Crusher
200 TPH Washing Plant for Fine Stone

Plant produces 3 different kiln feed sizes, 3/4" x 1/8", Limestone Chips, and Concrete Sand. Closed circuit 3000 tons per day.

Aggregate:

Primary Jaw Crusher (38" x 46")
Primary Double Deck Screen (5 x 14)
45" Secondary Cone Crusher
Triple Product Screen (8' x 20')
Tertiary Fine Head Cone Crusher (54")

Portable Plant operates open circuit on secondary, closed circuit on tertiary.
Capable of making up to 5 products at one time. Quaternary includes 250 H.P.
Vertical Shaft Impactor and 6 x 16 Double Deck Screen with Ball Tray.

Calcining Equipment:

Rotary Kiln: 13' x 145' K.V.S. with 10 Bay Preheater. 600 tons per day.
Indirect coal firing system. Gas and Oil back up. Reverse Air Dust Collector.

Calcimatic Kiln: Gas fired 180 tons / day

AZBE Shaft Kilns: (Idle) 80 tons/day per kiln.

Hydrating Plant:

200 tons / day Calcium Hydroxide. 2 grades, Rail and Truck loading.

Product Loading:

CXS Rail, 5 Different Loading points for various products.
Three Utility Loaders for Stone
Three Truck Loadouts for Lime
Truck Scale/Laboratory combination

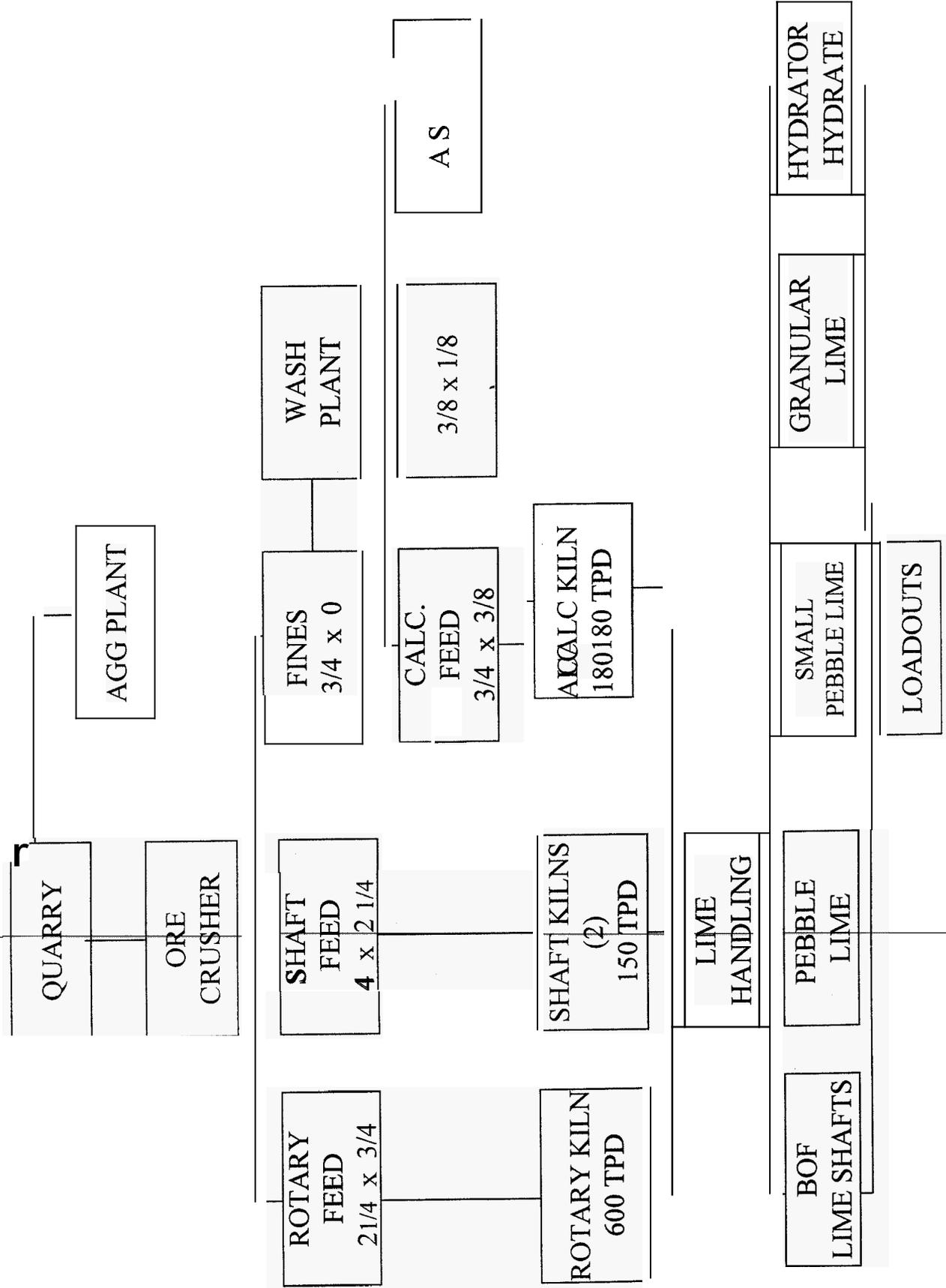
Global Stone Strasburg Plant

Annual Capacity

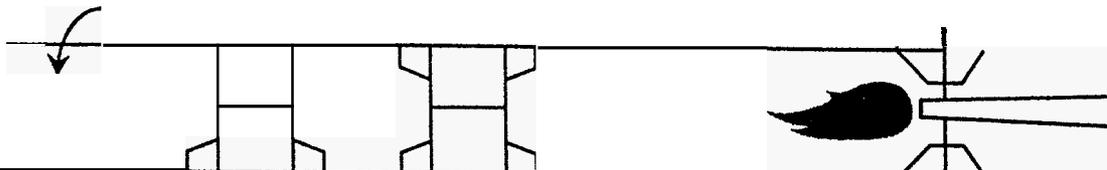
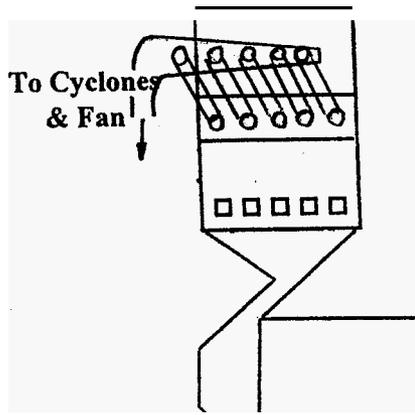
Overburden tons ①	600,000
Ore tons	700,000
Total Tons	1,300,000
Main Plant	750,000
Wash Plant	270,000
Rotary Kiln	200,000
Calcimatic Kiln	60,000
Shaft Kilns	Idle
Total Lime Production	260,000
Hydrator	65,000
Aggregate Plant	700,000

① Over this when required.

GLOBAL STONE CHEMSTONE STRASBURG



CHEMSTONE ROTARY KILN CONFIGURATION



4'4"

12'
Cold Side
Trefoil

9'

12'
Hot Side
Trefoil

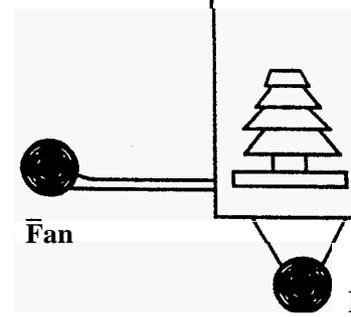
80'

Burning
Zone

Pillard Burner
(3 Fuel)

Horizontal
Discharge
Grates

Contact Cooler



Kiln Configuratio

10 Bay Pre-heater

External Gas Ducts

Barrel Length 157'

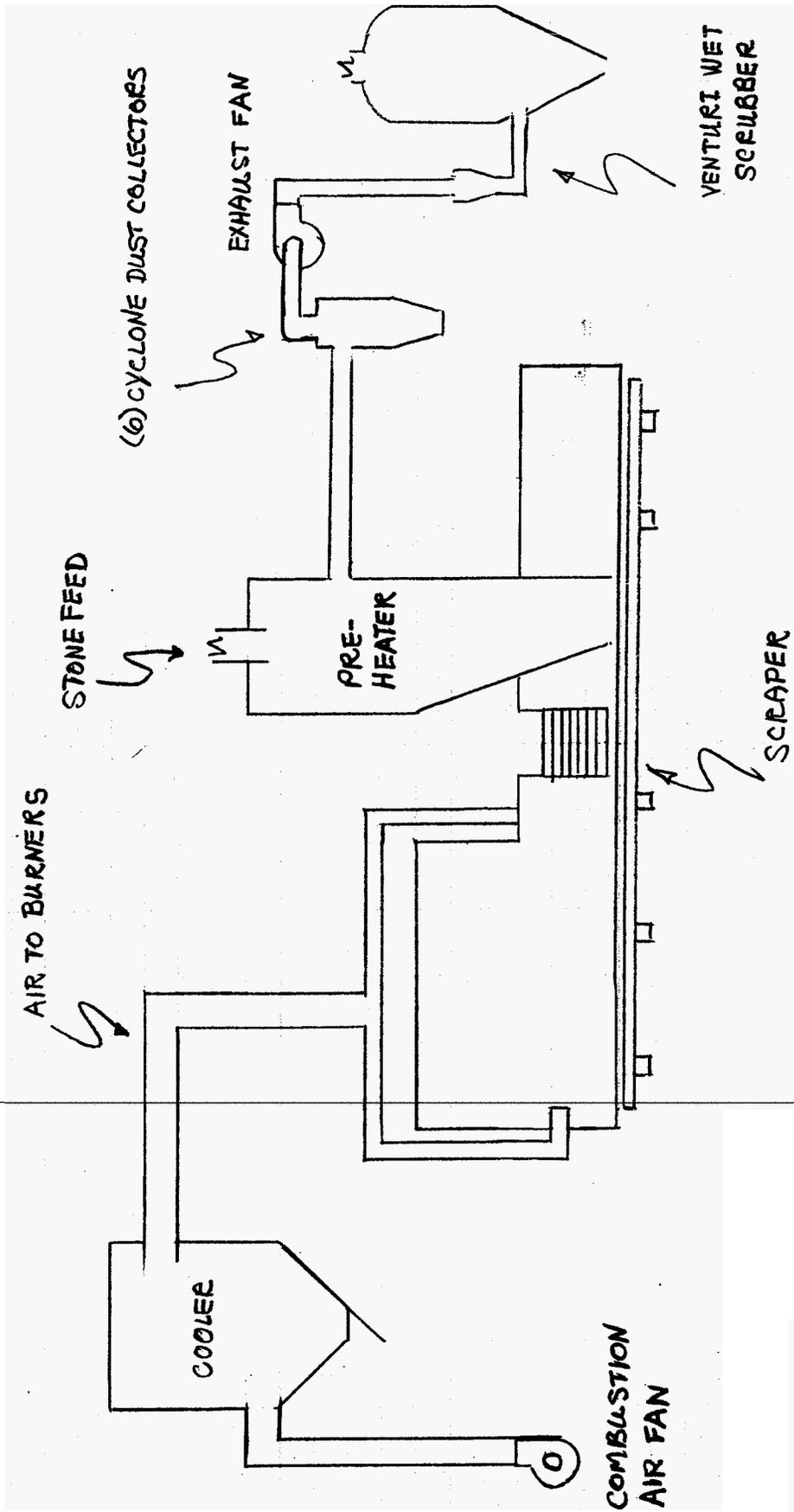
Barrel Diameter 13'6"

Aspect Ratio: 10.74

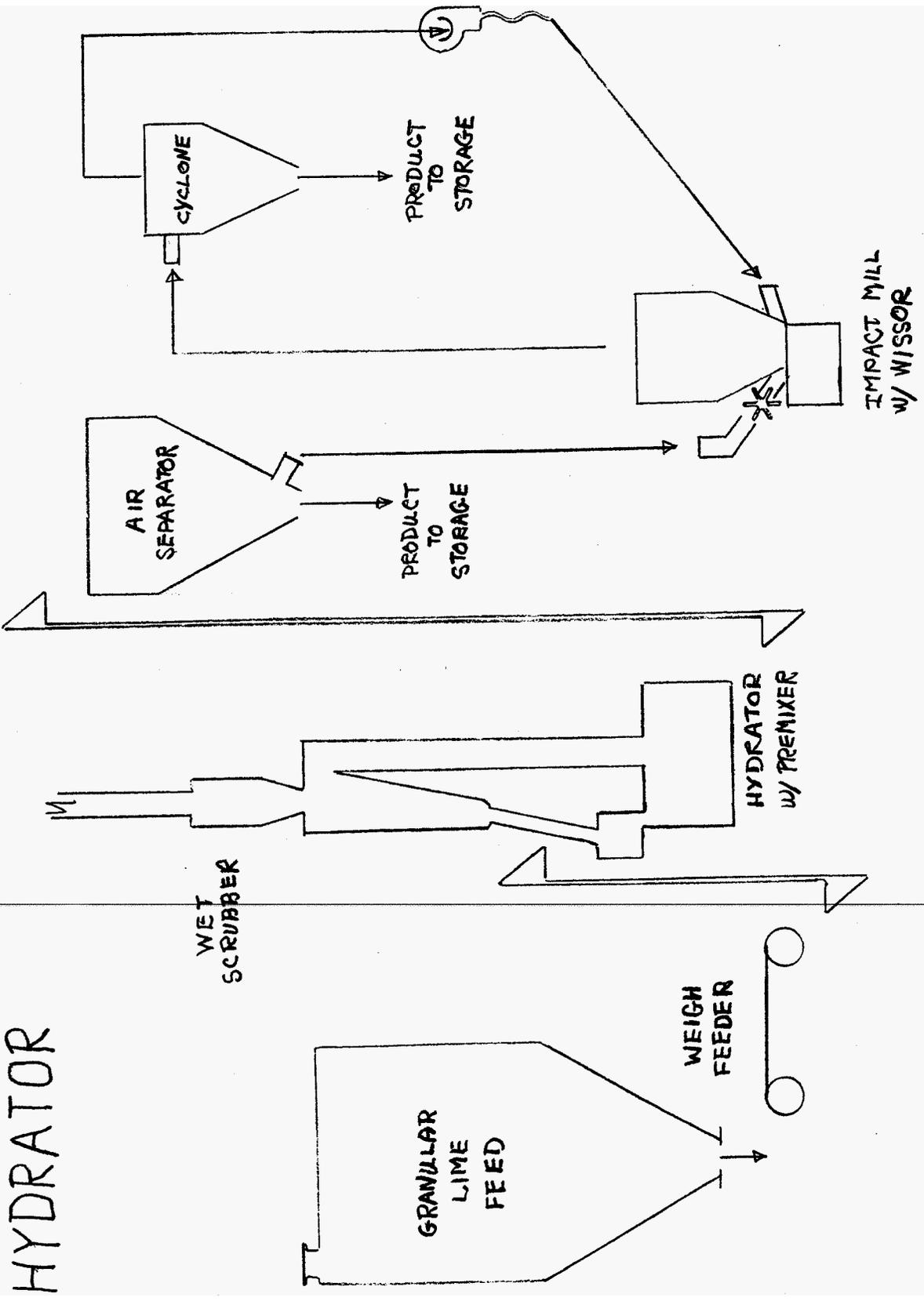
Internals: 2, 12ft Brick Trefoils

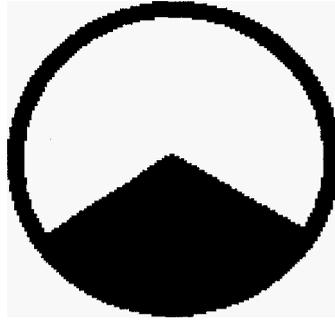
1 Brick Discharge Dam.

CALCIMATIC KILN



HYDRATOR





**OTHER
OPERATIONS**



MIDDLETOWN PLANT

Quarry:

7 cu. yd. Caterpillar Loaders (2)
35 ton Caterpillar Trucks (2)
Dozer, Grader (1)

Crushing Equipment:

Primary jaw Crusher (34' x 42")
Screen, Triple Deck
Secondary Jaw Crusher (18" x 30")
Tertiary Short Head Cone Crusher (48")

Fine Grind Plant:

Oil fired, Parallel Flow Rotary Dryer
Pennsylvania Hammermill
ISC Vertical Shaft Impactor
Derrick Screeners, 4' x 12' Double Deck
Air Classifier, 14' Ft. Sturdivant

Two primary products, sand and fine ground Limestone, 2200 tons per day.

Product Loading:

CSX Rail, Truck

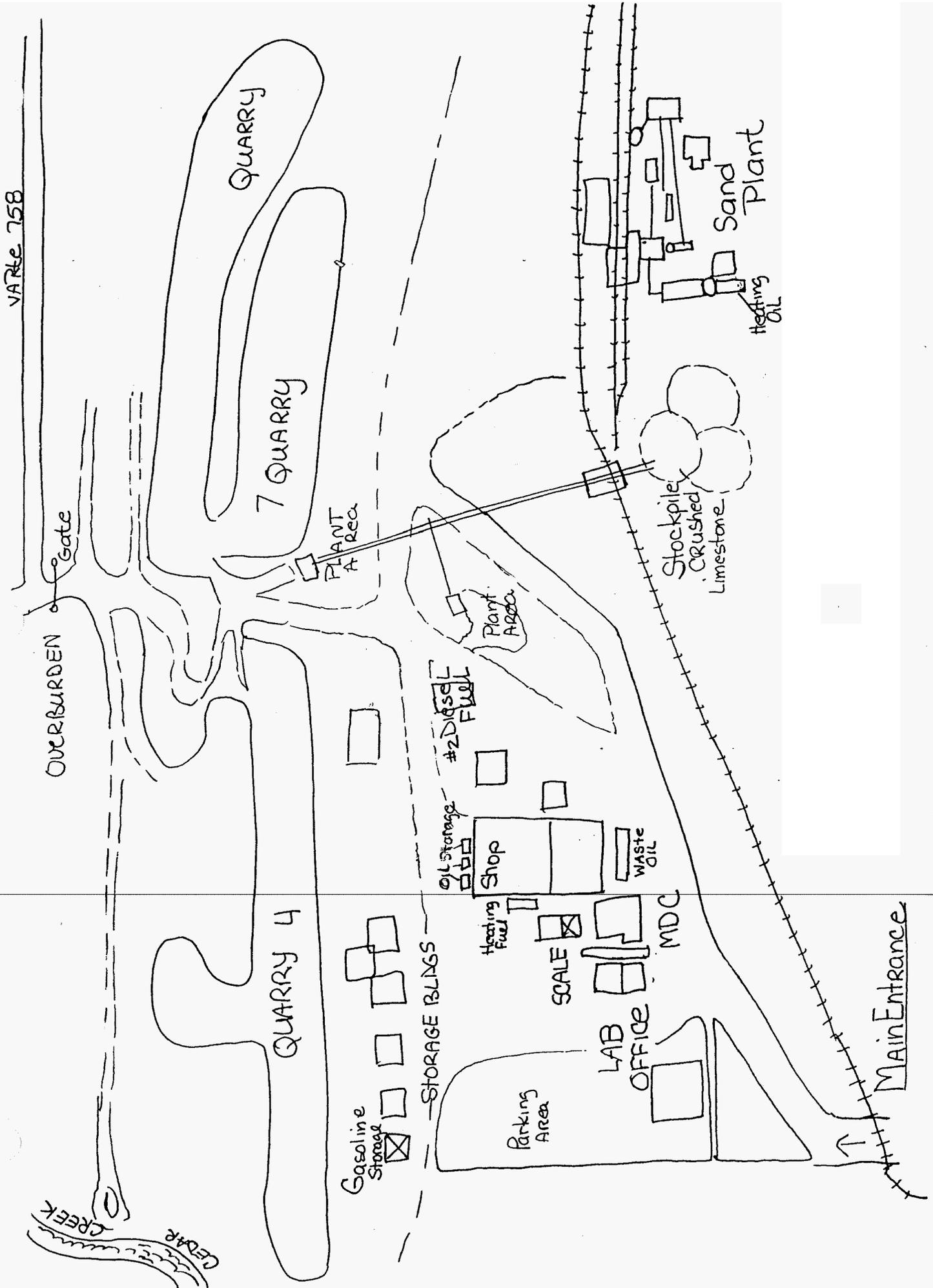
Loading Bins allow fast loading. Product Storage limited to one day's production.

Global Stone Middletown Plant

Annual Capacity

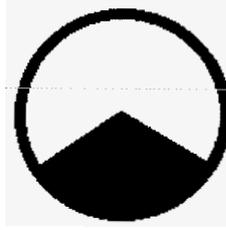
Overburden tons	400,000
Ore Tons	600,000
Total Tons	750,000
Main Plant	600,000
Limestone Production	450,000 (16 x 200 Sand) 150,000 (60 x 0)

VAR 758



GLOBAL STONE CHEMSTONE CORPORATION - Middletown Plant

A Subsidiary of Middleton Company



WINCHESTER PLANT

Quarry:

5.5 cu.yd. Caterpillar Loaders (2)
35 ton Euclid Trucks (5)
30 ton Terex Truck (1)
Caterpillar Grader (1)

Operates 2 Loader Spreaders on Day Shift, one on chemical Stone, one on Non-Chemical
Stone 2nd Shift Stripping and Utility

Limestone Crushing Equipment:

Primary Jaw Crusher (36" x 48")
Screens (3) Double Deck
Secondary Gyrotory Crusher (50")

Plant operates open circuit. Originally designed for blast furnace stone. Poor condition and inefficient 3000 ton per shift capacity.

Crushing Equipment:

Aggregate:

New Plant:

New Plant has DBT Primary Roll Crusher, 3 Deck Screen, Secondary Impact Crusher (closed circuit). Tertiary Gyradisc Plant for fine crushing.

Calcining Equipment:

10 x 350 ft. F. L. Schmidt Rotary Kiln 430 TPD Capacity.

Straight Rotary Kiln, no preheater. Direct fired coal system. Four module pulse jet dust collector. Niems Cooler, 4 chamber.

Limestone Fine Grind Plant:

44" Double Row Cage Mill Steadman
Sturdivent Air Classifier. Gas Fired Rotary Dryer.
50 Tons Per Hour

Capable of malting four sized products

Product Loading:

Scalehouse / Laboratory combination rail with access two carriers
(CSX, N.S.).

Yard Loaders for Trucks.

Global Stone Winchester Plant

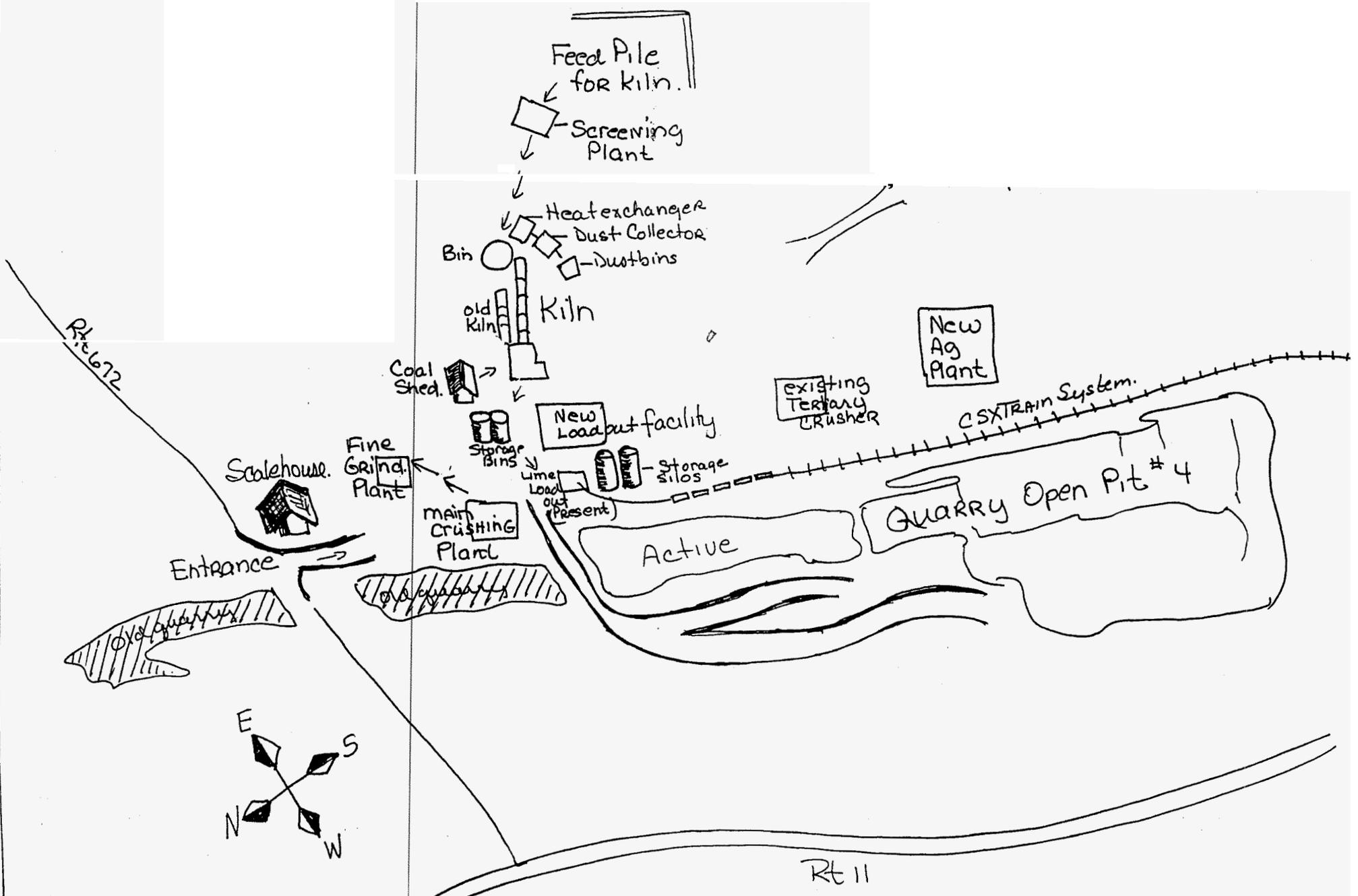
	Annual Capacity
Overburden Tons	1,080,000
Ore Tons	436,000

Total tons 1,516,000

Main Plant	500,000
Rotary Kiln	142,000
Aggregate Plant	750,000 (with new plant)
Limestone	200,000

GLOBAL STONE CHEMSTONE CORPORATION - Winchester Plant

An Oglebay Norton Company



WINCHESTER PLANT MATERIAL FLOWCHART

