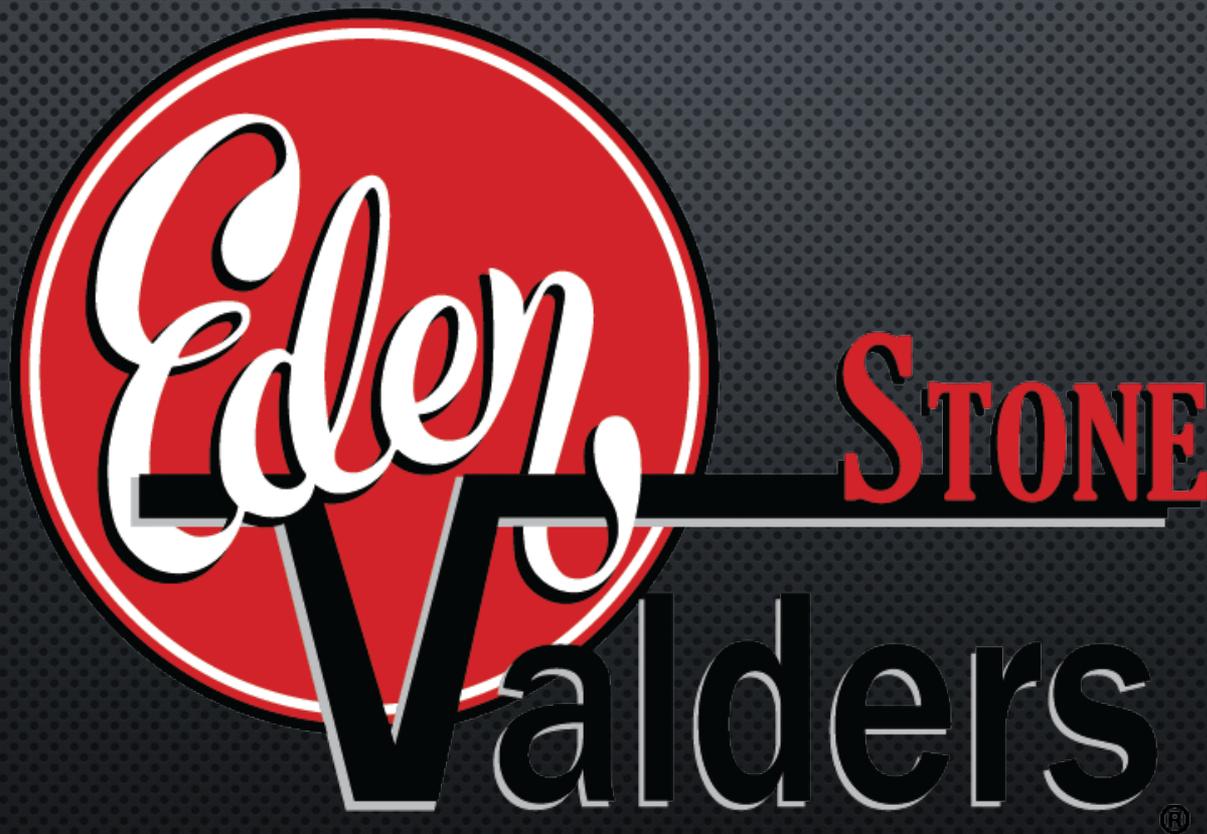
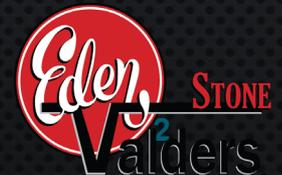


NOT ALL STONE IS CREATED EQUAL -
RIGHT!?!



CHARACTERISTICS/PERFORMANCE

- LIMESTONE IS LIMESTONE! RIGHT?
- LIMESTONE REPRESENTS A BROAD RANGE OF STONE THAT VARIES IN MINERAL COMPOSITION AND WILL VARY GREATLY IN STRENGTH, DENSITY & ACTUAL PERFORMANCE CHARACTERISTICS.
- AMERICAN SOCIETY FOR TESTING AND MATERIALS
- ASTM “TYPE RATING” OF A PARTICULAR LIMESTONE WILL SUGGEST THE BEST LONG-TERM PERFORMANCE OF THIS MATERIAL FOR YOUR PROJECT.
- ASTM STANDS FOR AMERICAN SOCIETY FOR TESTING AND MATERIALS. A GLOBAL ORGANIZATION PROVIDING BENCHMARKS FOR QUALITY, SAFETY, AND PERFORMANCE, INCLUDING SPECIFIC TESTS FOR STONE’S DURABILITY, STRENGTH, ABSORPTION RATES, AND DENSITY.



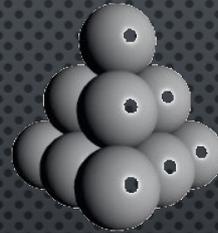


The Niagara Escarpment

ORIGIN - SEDIMENTARY LIMESTONE

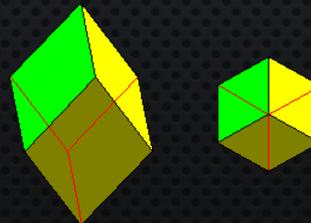
- OOLITIC – A PRACTICALLY NON-CRYSTALLINE VARIETY OF LIMESTONE CONTAINING CALCITE AND NO MORE THAN 5% MAGNESIUM CARBONATE.

- **INDIANA LIMESTONE**



- DOLOMITE – A CRYSTALLINE VARIETY OF LIMESTONE THAT PRIMARILY CONSISTS OF CALCIUM CARBONATE AND MAGNESIUM CARBONATE.

- **EDEN VALDERS STONE**



- Can you name a famous building made from Limestone?
 - Empire State Building
 - Pentagon



ORIGIN - OOLITIC LIMESTONE

- A CALCITE-CEMENTED CALCAREOUS STONE FORMED OF SHELLS AND SHELL FRAGMENTS.
- IT IS CHARACTERISTICALLY A FREE STONE WITHOUT CLEAVAGE PLANES.
- UNIFORM COMPOSITION, TEXTURE & STRUCTURE. TYPICALLY, GRAY OR BUFF COLOR.
- HIGH INTERNAL ELASTICITY.



ORIGIN – DOLOMITE LIMESTONE

- LESS SOLUBLE THAN CALCITE, ENOUGH SO THAT IT IS PREFERRED IN MANY EXTERIOR APPLICATIONS.
- DOLOMITE IS HARDER PER THE MOHS SCALE, (H=3.5) THAN OOLITIC (H=3.0).
- THIS IS ENOUGH OF A DIFFERENCE TO MAKE IT MORE SUITABLE FOR HIGH WEAR APPLICATIONS SUCH AS PAVERS OR STAIR TREADS.



CHARACTERISTICS/PERFORMANCE HISTORICAL ASTM TEST INFO

- ALL QUARRIERS AND FABRICATORS SHOULD HAVE HISTORICAL TEST DATA ON THEIR STONE MATERIALS.
- MOST SHOULD HAVE TEST DATA ON ABSORPTION, SPECIFIC GRAVITY, DENSITY, COMPRESSIVE STRENGTH, MODULUS OF RUPTURE, ABRASION RESISTANCE, AND FLEXURAL STRENGTH.
- CARE SHOULD BE TAKEN TO ENSURE THAT TEST RESULTS LISTED BY THE MANUFACTURER ARE AVERAGE RESULTS AND NOT THE HIGHEST SINGLE TEST RESULT.



LIMESTONE SELECTION

WHAT IS MOST IMPORTANT TO YOUR PROJECT/OWNER?

1. AESTHETICS – “THE LOOK”
2. PERFORMANCE CHARACTERISTICS THAT MATCH SPECIFIC APPLICATIONS
 - ABSORPTION, STRENGTH, WEAR RESISTANCE, ETC.
3. AVAILABILITY
4. COST - INITIAL AND LIFE CYCLE
5. SUPPLIER CAPABILITY, EXPERIENCE, AND CAPACITY

Natural Limestone Fabrication & Production





OVERBURDEN

RIP RAP/AGGREGATE

DIMENSIONAL STONE



PRODUCTION FLOW

THE STEPS INVOLVED GOING FROM A RAW BLOCK
TO A FINISHED PRODUCT:

1. SLABBING
2. SURFACE FINISHING
3. DIMENSIONAL CUTTING
4. EDGE PROCESSING
5. FINISHING
6. PACKAGING/SHIPPING



SLABBING



● BLOCKS ARE INSPECTED FOR COLOR, UNIFORMITY, DEFECTS AND RIFT ORIENTATION PRIOR TO SETTING THE BLOCKS FOR SLABBING

● RIFT OR LAYERS OCCUR NATURALLY THROUGH THE SEDIMENTATION PROCESS DURING FORMATION.

Hydraulic Stone Splitting Machine

Typical opening up to 60"

48" max length is common and 20-24" max height





PLATE

3/4



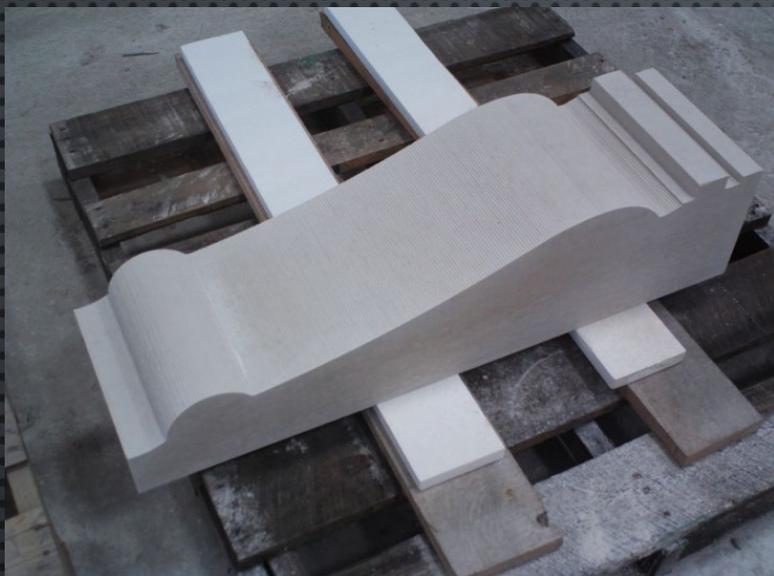




DIMENSIONAL CUTTING

- STANDARD SQUARE OUT
- PATTERN CUT OUTS-WATERJET
 - RADIUS /CURVES
 - RAKE CUT/ MITER TOP
 - GEOMETRICAL
- STRAIGHT PROFILING
 - CUBIC WORK
 - 2 STEP PROCESS
- 3D PROFILING
 - RADIAL PROFILING
 - INSIDE RETURN PROFILING

Specialty Profile



Water Jet Radius Work





EDGE PROCESSING

- ◆ SLOTTED EDGES
- ◆ FLAT EDGES
- ◆ MITER EDGES
- ◆ CHAMFER EDGE
- ◆ PROFILE WHEELS
 - ◆ STANDARD WHEELS
 - ◆ CUSTOM WHEELS

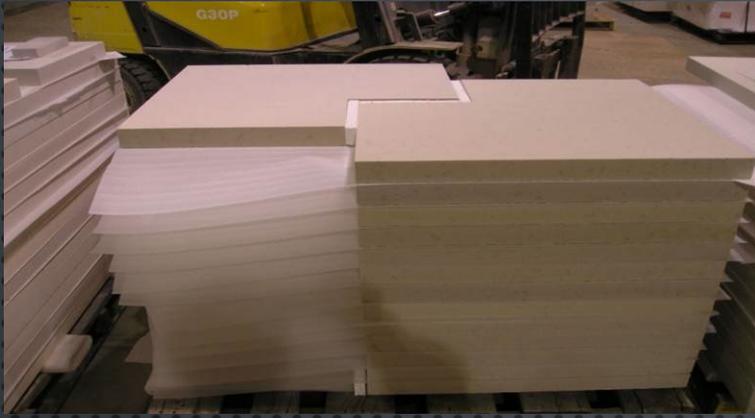


FINISHING

- MOST PRODUCTS FLOW THROUGH A FINISHING DEPARTMENT FOR FINAL TOUCHES
- REMOVAL OF ANY MARKINGS, EXCESS STONE OR IMPERFECTIONS LEFT FROM MACHINE APPLICATIONS IS DONE HERE
- TOOLING INCLUDES;
 - GRINDING
 - DREMEL CUTTERS
 - CORE BITS
 - PAINTS & STENCILS
 - EPOXY
- AN ARTISIAN'S TOUCH IS NEEDED WHEN WORKING WITH COMPLEX PIECES OR FINE FINISHES

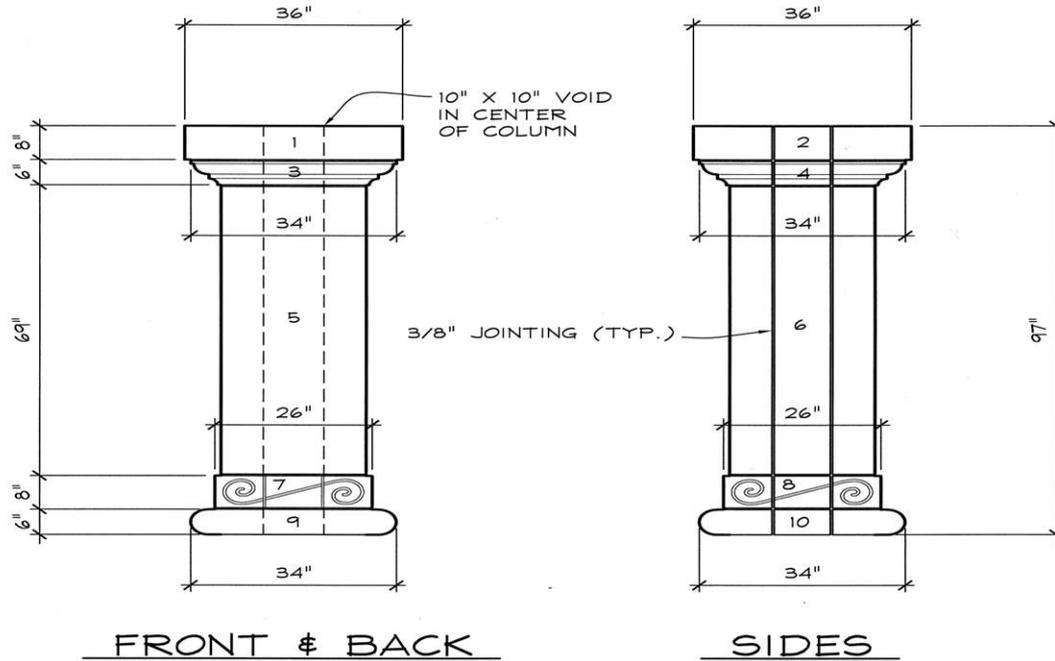


PACKAGING/SHIPPING



- COMPLETED ITEMS ARE STAGED AND FINAL PIECE COUNT IS TALLIED BEFORE SHIPPING
- EACH PIECE IS MARKED AND LABELED ON SHIPPING LIST
- SPECIAL REQUEST PACKAGING MAY BE REQUIRED
 - A-FRAME
 - CRATING
 - STAND-UPS
- PALLETS THAT ARE READY TO SHIP ARE THEN STAGED OUTSIDE OR INDOORS & AWAIT FINAL SHIPPING
- SHIPMENT IS MADE VIA FLAT BED (PREFERRED), CLOSED VAN OR IN SOME CASES VIA RAIL

SHOP DRAWINGS



FRONT & BACK

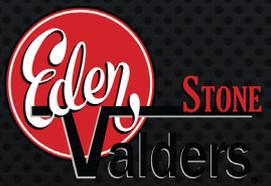
SIDES

ALL STONE FOR THIS SETTING PLAN WILL BE MARKED WITH A 'B' IN THE PIECE NUMBER

PRIVATE RES.
PALOS PARK, IL

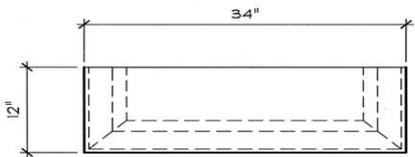
ORDER #: 23194
SHEET #: V-B

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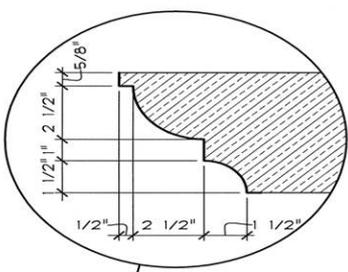


SHOP FABRICATION TICKET

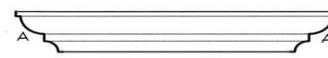
| | | | | | |
|--------------------------------|---------|----------------|--------|--------------|-----------|
| PRIVATE RES. PALOS PARK, IL | | PIECE #: B3 | | | |
| | | ORDER #: 23194 | | | |
| MATERIAL: DOVEWHITE | PIECE # | PCS | LENGTH | HEIGHT/WIDTH | THICKNESS |
| FINISH: SANDBLAST | | 8 | 34" | 12" | 5 5/8" |



TOP



RIGHT



FRONT



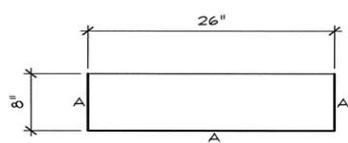
FRONT

NOTES:

- FINISH 2" FROM FINISHED SIDES ON BOTTOM
- A. FINISHED SURFACE

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| | | | | | |
|--------------------------------|---------|----------------|--------|--------------|-----------|
| PRIVATE RES. PALOS PARK, IL | | PIECE #: B7 | | | |
| | | ORDER #: 23194 | | | |
| MATERIAL: DOVEWHITE | PIECE # | PCS | LENGTH | HEIGHT/WIDTH | THICKNESS |
| FINISH: SANDBLAST | | 8 | 26" | 8" | 7 5/8" |



TOP

ENGRAVE HATCHED AREA (TYP.)



FRONT



LEFT



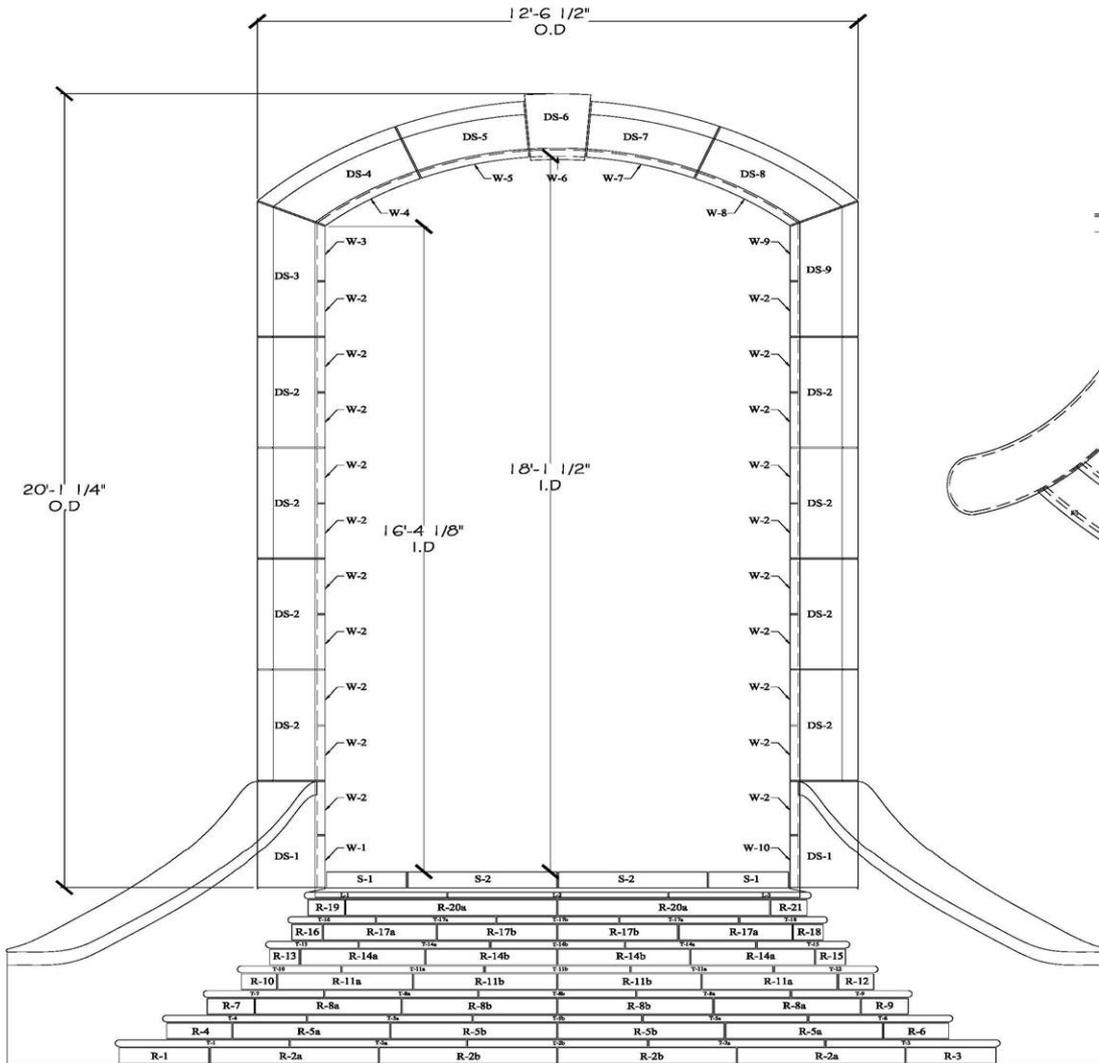
RIGHT

NOTES:

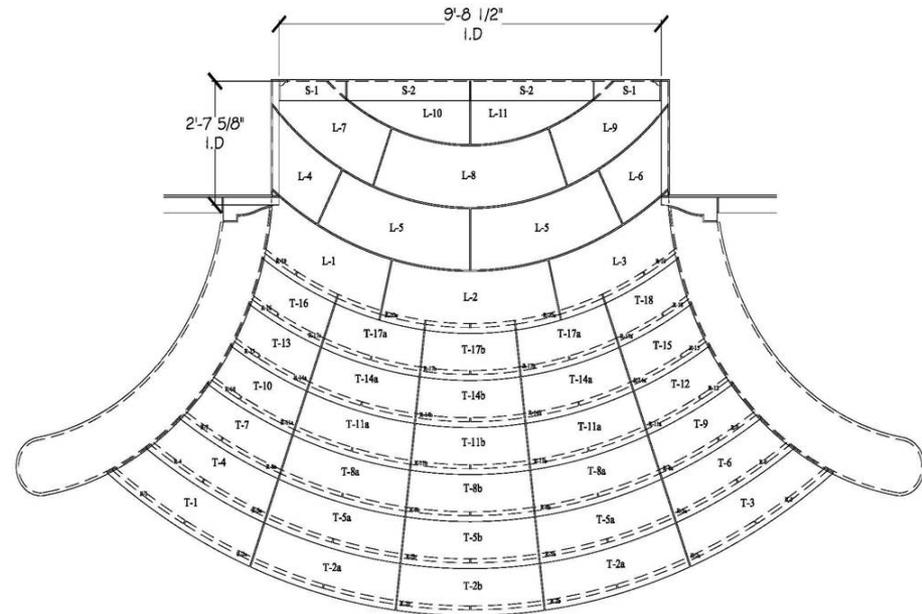
- FINISH 2" FROM FINISHED SIDES ON TOP
- A. FINISHED SURFACE

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Setting Plan

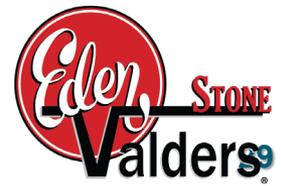


FRONT VIEW



PLAN VIEW







- SIZE SELECTION AND ESTIMATING WITH OUTCROPPING,
- FLAGSTONE, AND CUTDRYWALL

• RESOURCES AVAILABLE ON OUR WEBSITE AND IN OUR LITERATURE

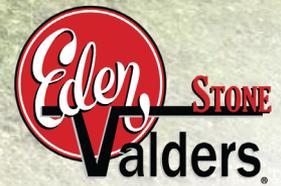


2' to 4' Long

18" to 30" Deep

18" to 24" Tall

Outcropping For Benches





ESTIMATING YOUR OUTCROPPING ORDER

Determine the Length, Height and Depth of the wall you would like to build. Multiply the dimensions by the weight of the material to get your estimate.

$\text{Length} \times \text{Height} \times \text{Depth} \times 150$ (pounds per cubic foot.)
Divide the total by 2,000 (pounds per ton) to get your estimated total tonnage for the project. If calculating by the piece, use 165 pounds per cubic foot.



EDEN OUTCROPPING



PACKAGING

Stacked on standard pallets, typically wrapped with plastic, except for Pallet Size.
(Standard pallet weight between 3000-4000 lbs)

ASTM C97

Max. Water Absorption 0.20%
Min. Density 170 pcf

ASTM C170

Min. Compressive Strength 33,000 psi

Eden-Valders Stone Company
www.evstone.net

GEOLOGY

Dolomitic Limestone

ORIGIN

Eden, WI

DESCRIPTION

Natural bedface top & bottom, Natural and irregular sides and ends

COLOR

White to Light Gray or Light Buff, some Weathered Edge, will buffen as it ages

COVERAGE

Typically 6 to 8 sqft per ton (depending on installation)

SIZES

1-2 man size: 8-20" L x 8-20" W x 6-12" T, approx. 6-8 pcs per layer

2-3 man size: 2-3' L x 1-2' W x 6-12" T, approx. 3-4 pcs per layer

Bobcat size: 3-4' L x 18-30" W x 6-12" T (also avail. 13-16" T), approx. 2 pcs per layer

Pallet Size: 3-5' L x 2-4' W x 6-12" T (also avail. 13-16" T)

WEIGHT

Approximately 173 lbs per cubic foot

W4520 Lime Rd. Eden, WI 53019
(920) 477-2521
318 W Washington St. Valders, WI 54245
(920) 775-4151

Calculating the Material

Flagstone Square Foot Coverage

| | |
|------------|-----------------|
| 1" Thick | 100+ sqft/ton |
| 1 ½" Thick | 90-100 sqft/ton |
| 2" Thick | 80-90 sqft/ton |
| 2 ½" Thick | 70-80 sqft/ton |

30 Feet x **30 Feet** = 900 Square Feet
90 Square Feet (1 ½" Flagstone)

= 10 Tons of 1 ½" Flagstone





PACKAGING

Stand up or lay down pallets, between
3000 and 4000 lbs

ASTM C97

Max. Water Absorption 0.20%
Min. Density 170 pcf

ASTM C 170

Min. Compressive Strength 33,000 psi

GEOLOGY

Dolomitic Limestone

ORIGIN

Eden, WI

DESCRIPTION

Smooth, Natural Bedface top & bottom, Naturally
irregular shapes

COLOR

White to light gray, will buffen as it ages

COVERAGE

Typically 80-100 sqft per ton

SIZES

16" - 42" diameter

WEIGHT

Approximately 173 lbs per cubic foot

THICKNESS

Available in 3/4", 1", 1 1/2", 2" and 2 1/2" (+/- 1/8" is typical)



Eden Splitface Cut Drywall

Geology- Dolomitic Limestone

Origin- Eden, WI

Description- Natural bedface top & bottom, snapped front & back, untrimmed ends

Length- Random 8 to 36 inches
(203 to 914 mm)

Depth- 6", 8", 10", 12"

Thickness range- 2-3", 3-4", 4-5",
5-6"

Color- White to light gray, will
buffen as it ages

Coverage per ton-
6" depth approx. 30 sqft per ton
8" depth approx. 20 sqft per ton
10" depth approx. 17 sqft per ton
12" depth approx. 15 sqft per ton

Weight- Approximately 173 lbs
per cubic foot



Packaging: Typically 3000 lbs or 4000 lbs
on wooden pallets with stretch wrap.

Material shall conform to ASTM C 568 with the
following properties:

- a. Maximum absorption rate of 0.20 percent
when tested in accordance with ASTM C 97.
- b. Minimum density of 170 lbs/cubic ft when
tested in accordance with ASTM C 97.
- c. Minimum compressive strength of 33,000
average psi when tested in accordance with
ASTM C 170.





art,

music









