

# **Engineering Services**

Technical Bulletin

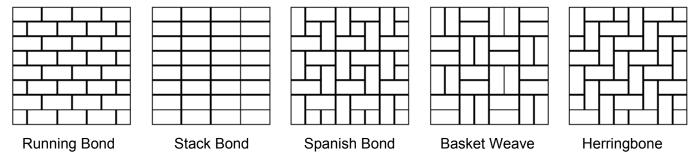
Clay pavers are strong, durable, and color safe (non-fading), and provide a value added option on any project.

#### **Accessibility**

Clay pavers comply with ADA requirements for slip resistance, surface level and vibration levels.

#### **Bond Patterns**

A wide variety of bond patterns is possible. For vehicular applications the Herringbone pattern is recommended.



#### **ASTM Specifications**

General Shale pavers comply with the following ASTM Specifications.

1-1/4" and 2-1/4" pavers comply with ASTM C 902 Standard Specification for Pedestrian and Light Traffic Paving Brick; for use in rigid and flexible base applications.

2-1/4" pavers comply with ASTM C 1272 Standard Specification for Heavy Vehicular Paving Brick; for use in rigid base applications only.

#### **Physical Property Requirements**

	<u>ASTM C 902</u>	ASTM C 1272
Compressive Strength	Class SX 8,000 psi	Type R: 8,000 psi Type F: 10,000 psi
Cold Water Absorption	8%	6%
Modules of Rupture Requirement (MOR)	None	Type R: 1,200 psi Type F: 1,500 psi

# **Dimensional Tolerances (8" Dimension)**

<u>C 902</u>	<u>C 1272</u>			
PS ± 1/4"	PS ± 1/4"			
PX ± 1/8"	PX (Flexible Only ± 1/8"			
PA No Limit	PA No Limit			

General Shale Pavers conform to PS (straight edge pavers) or PA (tumbled pavers) tolerances.

# **Abrasion Requirements**

- Type I Wire Cut
  - o Public sidewalks and driveways
- Type II Mud, Slurry, Heavily Textured
  - o Heavily traveled residential walkways and driveways
- Type III Sand Coated
  - Single family residential floors and patios

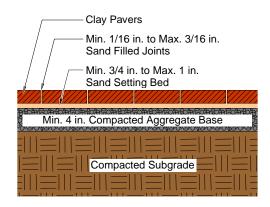
#### **Vehicular Applications**

In most applications C 902 pavers are acceptable. C 1272 are only required for heavy vehicles AND heavy traffic volume (Refer to General Shale Technical Bulletin Vehicular Paver Specification.doc).

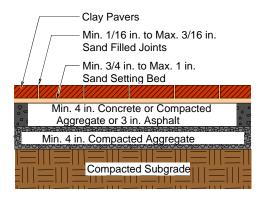
# **General Thickness Requirements**

Unit / Base	Residential		Commercial					
	Patio	Walks	Drives	Patio	Walks	Drives	Parking	Streets
1-1/4" Flexible Base	X	Х						
1-1/4" Rigid Base	X	Х	X	X	X			
2-1/4" Flexible Base	Х	Х	Х	Х	Х	Х		
2-1/4" Rigid Base						х	x	х

# **Recommended Paving Design Sections**



**Typical Residential Patio or Walkway** 



**Typical Residential Driveway** 

(Note: For more applications / details visit the General Shale website <u>www.generalshale.com</u> Technical Resource section.)

#### Aggregates

Base Stone Sand – Setting Base Sand - Jointing
ASTM D 2940 ASTM C 33 ASTM C 144
DOT Road Base Course Concrete Sand Masonry Sand

(Use <u>after</u> initial compaction

with concrete sand)

# **Drainage**

Slope surface a minimum of 1/4" per foot (2% slope) for adequate water run-off and drainage.

# **Geotextile**

Prevents aggregates from mixing or migrating into base. Recommended for soft clay base materials.

#### **Cutting Pavers**

Wet saw is recommended; splitters are okay for smaller jobs. Do not use concrete blades, use a soft matrix blade specifically intended for clay pavers.

#### **Mortared Pavers**

Use Type – S mortar. Latex additives can help improve bond strength, workability and durability. Tool joints when "thumb print" hard using a concave jointing tool.

# **Estimating Materials**

#### **Pavers**

4.5 Pavers per sq. ft. Figure approximately 5% for waste and breakage.

# Sub Base Aggregate

3/4" crusher run. For every 100 sq. ft. of area figure 2 tons material for 4" thick base.

#### Setting Sand / Bed Sand

For every 125 sq. ft. of area figure 1 ton of sand for jointing and 1" thick setting bed.