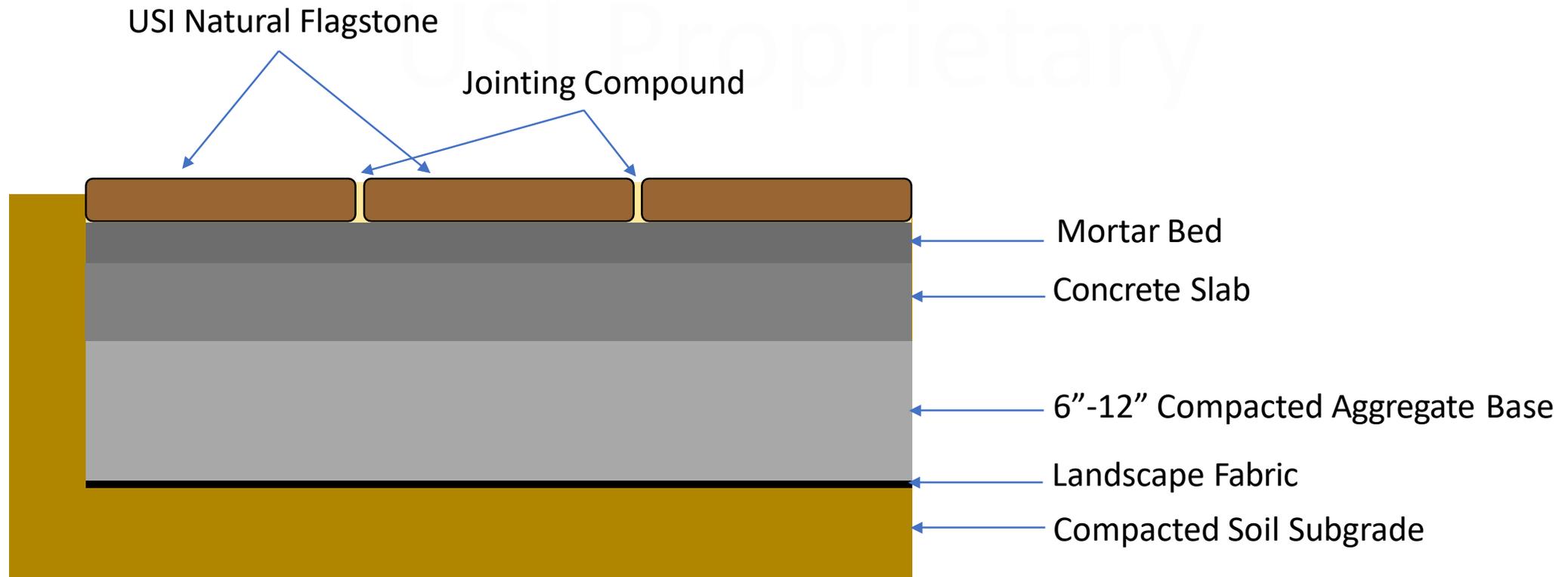


# USI Natural Stone Wet Lay Installation



# USI Natural Stone Wet Lay Installation

## Preparing the Base

1. Sub-base shall be virgin or compacted soil.
2. Lay geotextile over compacted area.
3. Provide minimum 6" compacted base (washed 2B, #67 or similar), compact every 3-4 inches. A thicker base is recommended to achieve better stability.
4. Pour concrete slab and allow to set for 24 hours.

## Laying the Stone

1. USI natural stone shall be laid in specified pattern. Refer to USI Pattern Layouts.
2. Lay stone into approximately 1" mortar bed, apply a scratch coat to the calibrated side of the stone
3. Set stone in place and level surface using a mallet.
4. Inspect each piece for major defects prior to installation.
5. Best practice is to pull from multiple crates during installation, this will ensure a balanced color range throughout the job.

## Jointing

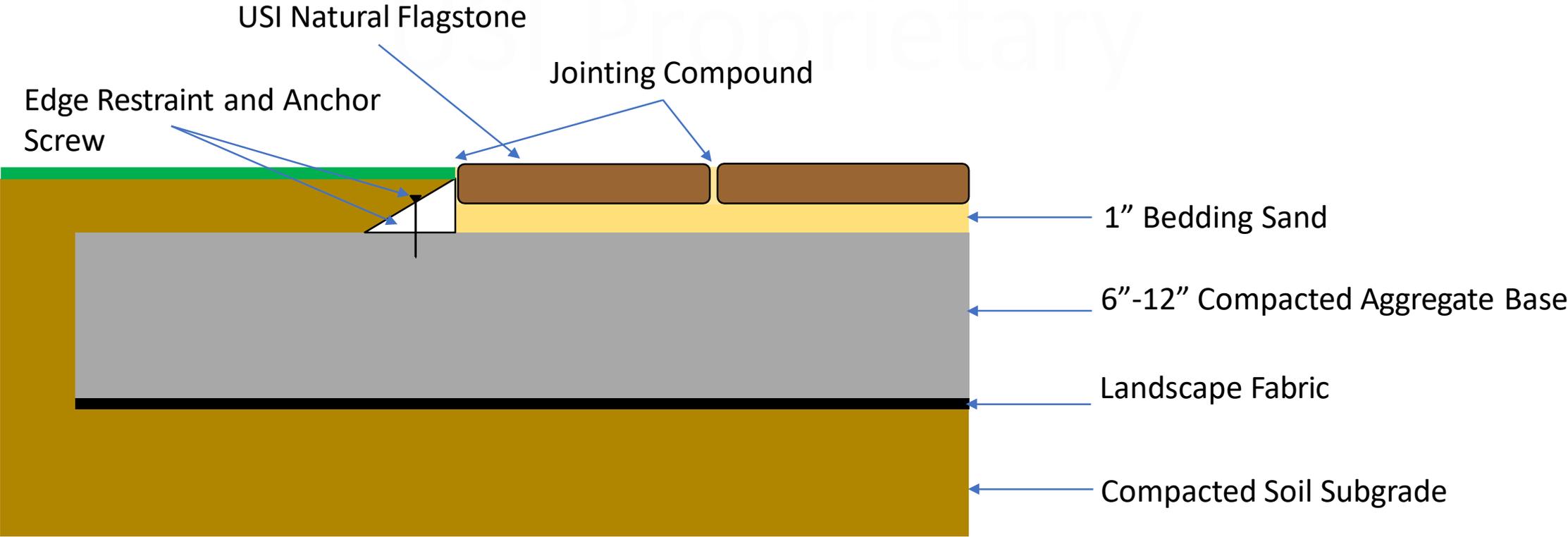
1. Use a grout bag, trowel or pointing tool to fill mortar into joints. Make sure to keep the surface of the stone clean of mortar using a wet sponge.
2. When joints have hardened for 24 hours, clean stone with a stiff brush and water.

## Cleaning

1. Sweep surface to remove loose sand and debris. Stone can also be sprayed with a hose or lightly pressure washed to remove any residual sand or debris.
2. Do not use any acidic based cleaners when cleaning Universal Stone Imports products.

\*\*\*#1 recommended installation method\*\*\*

# USI Natural Stone - Dry Lay



# USI Natural Stone - Dry Lay

## Preparing the Base

1. Sub-base shall be virgin or compacted soil.
2. Lay geotextile over compacted area.
3. Provide minimum 6" compacted base (washed 2B, #67 or similar), compact every 3-4 inches. A thicker base is recommended to achieve better stability.
4. Screed a 1" thick bed of concrete sand (ASTM C33 / C33M-13). If the base is not properly graded and smooth, imperfections may be noticeable.

## Laying the Stone

1. USI natural stone shall be laid in specified pattern. Refer to attached Pattern Layouts (4 Size Pattern and Pattern2)
2. Make sure bedding is smooth and flat. Set stone in place then level surface using a rubber mallet.
3. Inspect each piece for major defects prior to installation.
4. Best practice it to pull from multiple crates during installation, this will ensure a balanced color range throughout the job.

## Jointing

There are multiple products that work well when jointing USI stone on a dry lay application. USI does not recommend one over another. Follow recommended guidelines from jointing or polymeric sand manufacturer on how to properly install their products with natural stone.

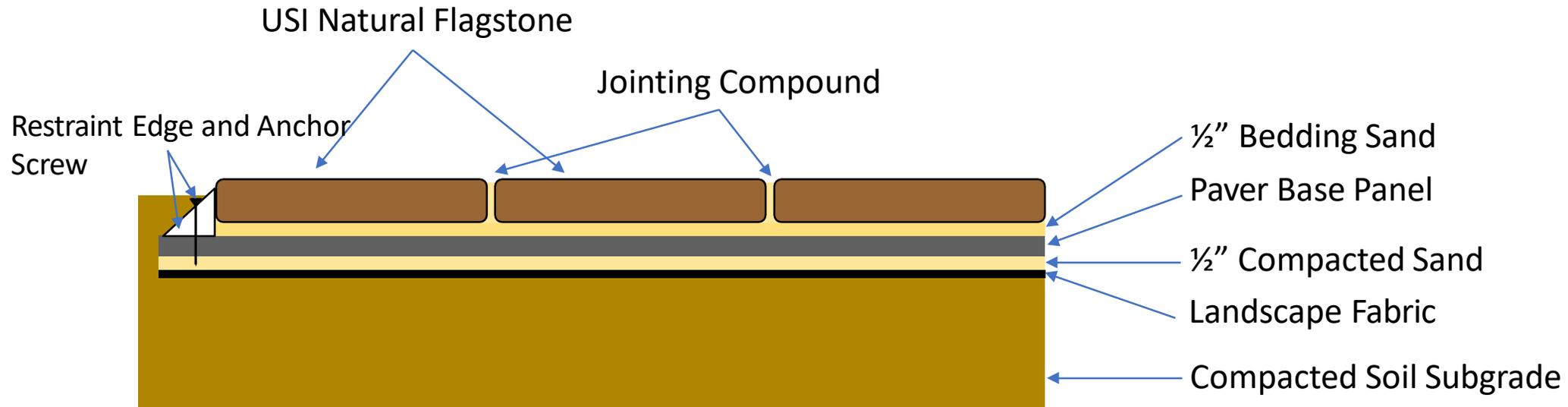
## Cleaning

1. Sweep surface to remove loose sand and debris. Stone can also be sprayed with a hose or lightly pressure washed to remove any residual sand or debris. (Avoid pressure washing joints directly)
2. Do not use any acidic based cleaners when cleaning Universal Stone Imports products.

\*\*\*Dry lay installation methods may result in stone shifting or rocking over time\*\*\*

# USI Natural Stone Installation Using a paver base panel

USI Proprietary



# USI Natural Stone Installation w/ Paver Base Panel

## Preparing the Base

1. Excavate desired area 3" deep and at least 6" wider than the final paved area. Level the excavated area with a rake and compact to desired slope.
2. Lay down geotextile.
3. Spread an even layer of sand to the bedding layer.
4. Install the paver base panel in a staggered pattern ensuring the locking of the tongue and groove system.
5. Add an additional thin layer of bedding sand on top of the paver base panel.
6. Install edging on paver base panel and set anchor screw to ensure lateral support.

## Laying the Stone

1. USI natural stone shall be laid in specified pattern. Refer to attached Pattern Layouts (4 Size Pattern and Pattern2)
2. Make sure bedding is smooth and flat. Set stone in place and level with a mallet.

## Joints

There are multiple products that work well when jointing USI stone on a dry lay application. USI does not recommend one over another. Follow recommended guidelines from jointing or polymeric sand manufacturer on how to properly install their products with natural stone.

## Cleaning

1. Sweep surface of stone to remove loose sand and debris. Stone can also be sprayed with a hose or pressure washed to remove any residual sand or debris.
2. Do not use any acidic based cleaners when cleaning Universal Stone Imports products.

\*\*\*Dry lay installation methods using paver base panels may result in stone shifting or rocking over time\*\*\*

# Key benefits of using USI flagging

1. Just like a traditional paver, USI natural stone comes in a **uniform size** that is **dimensionally cut & calibrated** to have a consistent thickness.
2. Save time by not having to deal with varying thicknesses like we see with other natural stone.
3. Less waste with dimensional flagstone, which means less work, which equals better profit margins.
4. Can be installed using similar installation methods of concrete or brick pavers – See USI Installation Guide
5. Save time installing dimensional USI flagstone vs traditional concrete & brick pavers  
Example: 1 piece of Castle Grey 24x24 will cover the same area as 18 traditional 4x8 clay pavers
6. Durability: The average compressive strength for the Castle Collection is 21,000+ PSI
7. Uniqueness: No one piece of natural stone will look exactly like another. USI products differentiate themselves on every single install.