

NSSGA INSTA-GUIDE

The National Stone, Sand and Gravel Association designed the NSSGA INSTA-GUIDES to provide the industry salespeople with a simple, basic and instant overview of sales issues within the industry. The NSSGA INSTA-GUIDES will show you where to find detailed and expanded background information highlighting a particular selling topic.

Topic #4 Selling Aggregate for Stormwater Retention

This INSTA-GUIDE will:

1. Define stormwater retention.
2. Identify the competition.
3. Identify competitor's objections to aggregate.
4. Highlight aggregate features, advantages and benefits.
5. Provide more detailed aggregate/stormwater retention references.

1. **What is Stormwater Retention?**

During recent years, the government has realized that construction of buildings, parking lots, roads etc. create changes in the water holding capacity of the property on which the construction occurs. Hence, federal, state and local legislation has mandated that the additional water run-off created by new construction be retained for the specific rain event and time period.

2. **Competitive Materials/Systems**

Theoretically, the number of competing products used for stormwater retention could be endless. However, as a practical matter, there are four. They are:

- A. **Corrugated Steel Pipe.** Although aggregate is typically used in conjunction with steel pipe, this system drastically reduces the amount of aggregate used. Steel pipe can rust; and that possibility increases with the acid in stormwater run-off. If the steel pipe fails, the parking lot could collapse. Multiple pipes increase the cost.
- B. **Concrete Pipe.** Although aggregate is used as a bedding material and in the pipe construction, concrete pipe is very heavy and requires special equipment. Result: increased cost.
- C. **Plastic Structures.** These are newer alternatives without a long history of performance. While they won't rust, can they handle the weight? High Density Polyethylene (HDPE) will deform over time due to stress.

D. **Open Ponds.** These are the old fashioned solutions. The disadvantages are that they consume a large area of potential expensive real estate and may well be considered an attractive (and dangerous) nuisance. Insurance liability problems are always a possibility.

3. **Your customers may hear incorrect characterizations of aggregate products.**

A. For instance, they may hear that aggregate structures must be twice as large as pipe structures to have the same water storage capacity.

Answer: Of course they're larger but no more than 50% larger because pipes are round yet all excavation is at right angles.

Conclusion: Pipe structures are not nearly as compact as they'd like developers to think.

B. They may hear open structures and pipes are easier to clean out. The truth is that today engineers have designs for the inlets that trap the materials to be cleaned before they clog the structure. Simply, all infiltration structures should be periodically maintained to ensure peak efficiency.

4. **Aggregate Features, Advantages and Benefits**

Feature	Advantage	Benefit
Local availability	Lower transportation cost/increased value to end-user	No need to maintain inventory on site. Cash not tied up in inventory. Speed of construction.
Can be placed directly from delivery vehicle	Versatile product that is easily installed	No special equipment. Much lower labor costs.
Ease of construction	Less labor and equipment requirements	Less supervision/labor. Much lower costs.
Structural integrity	Lower life cycle costs due to superior product performance	No need for back-up systems.
Ease of design	Structure design can be accomplished in both the public or private sector	Availability of NSSGA Stormwater Infiltration Structure Design Software--successfully used nearly 1,000 times.

5. **Aggregate/Stormwater Retention References**

A. NSSGA's **Stormwater Infiltration Structures Design Software**

B. NSSGA's **The Aggregate Handbook**