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Better Site Design - A Primer

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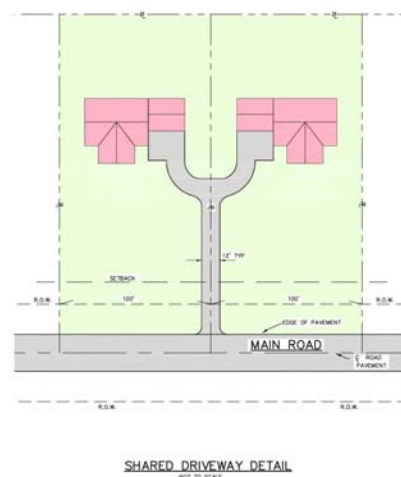
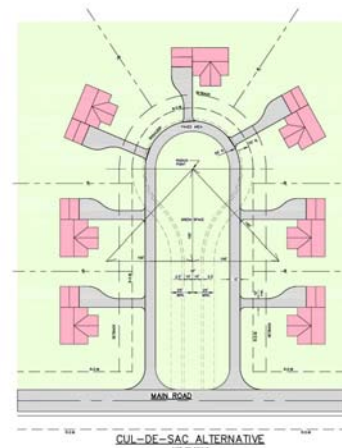
Better Site Design (BSD), as discussed here, is the development of subdivisions or commercial projects which results in less disturbance to the site in its natural form. BSD is also known as Open Space Design, Low Impact Design, Environmentally Sensitive Design or Conservation Design. The overarching premises of this methodology is the reduction of stormwater generated by the completed project. Some of the concepts currently being promoted are easy to implement, some are more difficult (ie: more expensive) and some are contrary to some local zoning or subdivision regulations and may require variances.

There are 3 main considerations for this design concept: minimize clearing, minimize impervious areas and use fewer structural stormwater treatment systems.

Minimize Clearing - Instead of clear cutting a site, clear only that area necessary for roadways and buildings. Leaving as much area as possible undisturbed contributes to the reduction in post development runoff. Constructing narrower roads, ie: 20 foot pavement versus 24 foot pavement without gutters can also contribute to less clearing. A critical area to preserve is along streams. A buffer of native vegetation here helps maintain stream quality during and after construction. Clustering homes within a subdivision aids in the minimization of clearing as well.

Minimize Impervious Areas - It's obvious that this design concept will do the most to limit the increase in post development storm flow. There are many conventional and unconventional methods of reducing impervious cover: narrow road pavements, minimize size of parking spaces, pave overflow

parking areas with pervious pavement materials, eliminate concrete street gutters, reduce cul-de-sac paving and use of shared driveways. The drawings below illustrate a cul-de-sac alternative and shared driveways.



Stormwater Treatment - State laws now mandate stormwater treatment. Past practice has been generally to convey runoff into catch basins, then into storm sewers and then into treatment-detention basins. These systems can become large and expensive. An alternate to "centralized" stormwater treatment would be "decentralized" treatment. Decentralization means detaining and

treating as close to the stormwater source as practical. Some options include: directing street runoff to swales in lieu of curbs and gutters, allow parking lot runoff to flow off the edges into bioretention basins or filter strips, directing roof drainage to pervious areas rather than to storm sewers. Depending upon site slopes and soil permeability these methods may not work on all sites, but can at least reduce the size of any final structural treatment systems.

A booklet has been prepared by NYSDEC entitled "Better Site Design" dated April 2008 which provides an in-depth discussion of this subject. A link to this booklet and other similar documents can be found on our web site at: www.emengineers.com/news.htm, then click on "Better Site Design". This includes comparison drawings of cul-de-sac alternatives.

NYSDEC SPDES

General Permit No. GP-0-08-001

By: Garrett M. Hacker, Project Manager

The New York State Department of Environmental Conservation issued a new SPDES General Permit for Stormwater Discharges from construction activity, (GP-0-08-001). This article will outline the current construction activities covered by the permit and changes from the previous SPDES General Permit, (GP-02-01).

General Permit GP-0-08-001 is a two year permit, issued April 15, 2008 pursuant to Article 17, Titles 7, 8 and Article 70 of the Environmental Conservation Law. The permit became effective as of May 1, 2008 and covers discharge of stormwater from construction sites to surface waters of the State. The permit authorizes stormwater discharges to surface waters of the State from the following construction activities:

- Construction activities involving soil disturbance of one (1) or more acres; including disturbances of less than one acre that are part of a larger common plan of development or sale that will ultimately disturb one or more acres of land; excluding routine maintenance activity that is performed to maintain the original line and grade, hydraulic capacity or original purpose of a facility.
- Construction activities involving soil disturbances of less than one (1) acre where the Department has determined that a SPDES permit

is required for stormwater discharges based on the potential for contribution to a violation of a water quality standard or for significant contribution of pollutants to surface waters of the State.

- Construction activities located in watersheds identified in Appendix D of the application that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.

The following is a brief list of significant changes in this permit compared to the previous permit:

- Permits will be required for construction activities tributary to water classified as AA and AA-s, and activities on soils identified as an E and F (generally those exceeding 25% slopes).
- Owners / operators subject to requirements of a MS4 shall have SWPPP reviewed and accepted by the MS4 prior to submitting a NOI to the NYSDEC.
- Owners / operators must inspect site after every rain event and obtain a qualified inspector to conduct inspections every 7 days.

E&M Engineers and Surveyors is experienced in all aspects of the SPDES permit process and employs a staff of certified inspectors capable of performing SWPPP inspections. Information for this article was obtained from the NYSDEC website (www.dec.ny.gov).

Adverse Possession (a.k.a. Squatter's Rights)

By: Frederick J. Moricca III, P.L.S.

What is Adverse Possession? "Adverse possession is the occupation of property for an extended period of time, as defined by law, which is not legally owned by the person occupying the property. This is sometimes called squatting, or squatter's rights."

Obviously, the property is either unoccupied or in an area that is not visible by the legal landowner. If the occupation or adverse possession of the property is long enough; 10 – 21 years depending on what state it takes place in, the adverse claimant may become the owner of the property, even if they don't have a legal claim to it. Thus, adverse possession can be said to be a means of acquiring land without having to pay for it.

Is adverse possession legal? In fact, the time a person starts occupation of another person's land to gain title of the property is illegal. If the land owner chooses, he can have the person or persons squatting on his land removed from the property and charged with trespassing. Simply put, no one can just walk onto your land and claim it without expecting some type of repercussion.

What does it take for adverse possession to turn into a legal title? There are five elements that have to take place for land to be acquired by adverse possession. The adverse claimant must show that the non-permissive use is **actual, open and notorious, exclusive, hostile, and continuous** for the statutory period. All of these elements must coexist if title is to be acquired by adverse possession.

Actual- possession must be actual occupation of the land with the intent to keep it for oneself. Just claiming the land or paying taxes on it, without occupation is not sufficient. Physical acts must show that the adverse claimant is exercising dominion over the land that an average owner of similar property would do. Ordinary use of the property for example would be, planting and harvesting of crops or cutting and selling of timber. These uses indicate actual possession, and in some states these acts may constitute actual possession.

Open and Notorious- An adverse claimant must possess the land openly for all to see, as a true landowner would. Secretly occupying someone else's land does not give the claimant any legal rights. Planting and harvesting crops, timbering, fencing, clearing the land, or improving the land demonstrates open and notorious possession. The owner must have knowledge of the adverse use, or it is so notorious that it is generally known by the public. This notorious occupation of the property puts the landowner on notice that his land will be lost unless the landowner seeks to recover possession of property within a certain time period.

Exclusive- The adverse claimant will not obtain title unless he or she has exclusive possession of the land. The claimant must hold the property as his or her own, in opposition to the claim of others. Once again, physical improvements of the land by the claimant, as by the construction of fences or houses, are evidence of exclusive possession.

Hostile- Possession of the land must be hostile (sometimes referred to as adverse) if the title of the land is to ever ripen from adverse possession. Hostile possession means that the claimant must occupy the land in opposition to the true landowner's rights.

Possession must be hostile from the start and continue through the statutory period.

Continuous- The adverse claimant's possession must be continuous for the full statutory period if it is to ripen into legal title. Continuous means regular, uninterrupted occupancy of the land. Sporadic use is not enough. The adverse claimant must show daily control of the land that he or she is adversely possessing.

Once the adverse claimant shows that the adverse possession claim is **actual, open and notorious, exclusive, hostile, and continuous** and has satisfied the statutory period, clear title will be acquired.

This is all well and good for the adverse claimant, but what about the legal landowner? What can he do to prevent this from happening?

The legal land owner has a number of rights he can exercise to stop the adverse possession of his or her land.

The commencement of a lawsuit by the legal owner of the land against the adverse claimant over the right of ownership and possession of the land is one way to interrupt the **continuous** possession. It can be an action to quiet title (*quiet title is a lawsuit filed to establish ownership of real property*), for trespassing, an injunction involving possessive rights, or to file petition for registration of land title. These lawsuits will destroy the continuity of possession only if pursued to final judgment successfully.

The entry of the legal owner upon the land being adversely possessed with the intent to repossess is a clear exercise of ownership that will disturb possession. The legal owner's actions must now be **open and notorious** so there can be no doubt to what he or she is intending.

If you own land, it is important that you do not "sleep on your rights" since you could lose ownership of the land.

Featured Project

Town of Chautauqua Water District #2 300,000 Gallon Water Storage Tank

A 300,000 gallon water storage tank was constructed beginning in the Fall of 2008 and completed in the Spring of 2009. The tank is situated on the western shore of Chautauqua Lake on Route 430. The tank serves the Chautauqua Point Development LLC, Chautauqua Lake Estates Condominiums, Camelot Golf, Inc., The Snider Trust and the Villas at Chautauqua Point Association, Inc. There are 178 existing consumers and 30± possible future consumers. Every day 60,000 gallons of water is drawn and filtered from Chautauqua Lake to fill the tank. The existing water supply system is connected to the tank by 650 feet of 8" ductile iron waterline. The water level is controlled using simple pressure switches. The total cost of the project was \$989,900.00. E&M was responsible for design, bidding, construction services and inspection.



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