

SPORTS FIELDS AS A STORM WATER BEST MANAGEMENT PRACTICE

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- 1) Storm water Detention and Water Quality Requirements**
 - The 1 Acre Rule
 - What is Disturbed Land Area?
 - 3 Types of Detention/Treatment

- 2) Storm Water Best Management Practices**
 - Detention Ponds
 - Underground Detention and Water Quality
 - Bio retention/Bio swales
 - Soil Modifications

- 3) Sports Field and Storm Water Goals/Design**
 - New Track & Field
 - Making Existing Site
 - the Soil Perform – Sports Field Goals
 - Fulfill Storm Water BMP Requirements
 - Detention/Holding Capacity
 - Water Quality
 - Improve Soil from Class D to Class A
 - Water Infiltration- Drainage
 - Root Mass and Density
 - Turf Durability
 - Safe and Useable Sports Field

- 4) Making the Soil Perform - Sports Field Root zone Targets**
 - Root zone Modification Depth
 - Targeted Root zone modification type
 - Target Infiltration
 - Target Organic Matter Content
 - Target Pore Space
 - Turf Type

- 5) Testing, Testing, Testing**
 - Existing Soil- Particle Size, Texture, Organic Matter, Fertility
 - Imported Materials- Sand, Organic Material
 - Pre-Construction- Root zone Mix
 - On-site Test Plots
 - Post Construction Root zone Mix

- 6) Schedule**
 - The Critical Path – Storm water governing body.
 - Plans Submitted to Storm water governing body.
 - Seeding/Sprigging/Sod – Critical Dates
 - The Grow-In Period

- 7) Construction**
 - Stake & Verify- Ensuring Proper Slope of Sub Grade and Finish Grade
 - Assurance for Contractor and Owner

8) Construction Sequence

- Demolition
- Laser of Sub Grade
- Perimeter Drains
- Irrigation
- Test Plots of Pre-Mix On-site
- Testing – Test Plots Mix
- Imported Sand
- Imported Compost and Amendments
- Reverse Tine Tilling
- Testing- Root zone Post Construction
- Root zone Post Test - Infiltration
- Fertilization, Slit Seed with Fiber Mulch
- Grow In Sequence

9) Modifying Soils

- On-site vs. Off-site
- How Deep Can We Modify Soils?

10) Project Challenges

- Regulatory Delays and Variability
- Material Sources
- Coordination of Sub Contractors
- Timing of Construction activities
- Potential Bad Weather
- Staging of Material
- Access to Sports Field

11) Design & Construction Considerations

- Types of activities that will occur on the field
- Storm Water agency regulation for field usage
- Existing storm pipe elevations
- Amount of site area available
- Storm water regulation agency review schedule
- Project start date to coincide with seeding/sod window
- Availability of qualified Contractors for field install
- Annual maintenance costs
- Long term maintenance costs

12) What is the End Results

- Potentially Utilizes Existing Materials
- A Storm Water Best Management Practice
- Reduced Run Off
- No Additional Land Usage
- Safe, Well Draining, Competitive and Useable

13) Summary

- What is the End Results
- There IS NO I IN TEAM

14) Questions