

# IN CASE YOU DON'T RECOGNIZE ME

BEFORE



AFTER



# YES, THAT IS AN INFILTRATOR



JUST BECAUSE YOU HAVE AN EXTRA FOOT TO WORK WITH DOESN'T MEAN YOU HAVE TO USE IT!!!

CONSIDER YOUR SITE CONDITIONS AND EQUIPMENT USED BEFORE COMPROMISING THE FUNCTIONALITY OF INFILTRATION FACILITIES.

# YES, THAT IS AN INFILTRATOR



JUST BECAUSE YOU HAVE AN EXTRA FOOT TO WORK WITH DOESN'T MEAN YOU HAVE TO USE IT!!!

# YES, THAT IS AN INFILTRATOR



JUST BECAUSE YOU HAVE AN EXTRA FOOT TO WORK WITH DOESN'T MEAN YOU HAVE TO USE IT!!!

# WHAT'S WRONG?



WHAT'S WRONG?:

- COMPOST FILTER LOG CHECK DAMS NOT LONG ENOUGH. SHOULD EXTEND UP SLOPES OF SWALE TO DIRECT FLOW OVER OR THROUGH CENTER OF CFL.

WHY?:

- WHEN FLOW DOES NOT CREST AT WEIR OF CFL/CHECK DAM, IT CREATES POTENTIAL FOR SCOURING.

# WHAT'S WRONG?



WHAT'S WRONG?:

- COMPOST FILTER LOG CHECK DAMS NOT LONG ENOUGH. SHOULD EXTEND UP SLOPES OF SWALE TO DIRECT FLOW OVER OR THROUGH CENTER OF CFL.

WHY?:

- WHEN FLOW DOES NOT CREST AT WEIR OF CFL/CHECK DAM, IT CREATES POTENTIAL FOR SCOURING.

# WHAT'S WRONG?



WHAT'S WRONG?:

- EROSION CONTROL BLANKET NOT KEYED/TRENCHED IN AT TOP OF SLOPE.

RESULT?:

- EROSION OCCURRING BENEATH ECB.

# WHAT'S WRONG?



WHAT'S WRONG?:

- EROSION CONTROL BLANKET NOT KEYED/TRENCHED IN AT TOP OF SLOPE.

RESULT?:

- EROSION OCCURRING BENEATH ECB.

# WHAT'S WRONG?



WHAT'S WRONG?:

- POOR SOIL PREPARATION.

RESULT?:

- CLUMPS, ROOTS, ROCKS, ETC. NOT ALLOWING FOR ECB TO MAKE PROPER CONTACT TO GROUND, HINDERING SOIL RETENTION.
- EROSION BENEATH MATTING.

# WHAT'S WRONG?



WHAT'S WRONG?:

- POOR SOIL PREPARATION.

RESULT?:

- CLUMPS, ROOTS, ROCKS, ETC. NOT ALLOWING FOR ECB TO MAKE PROPER CONTACT TO GROUND, HINDERING SOIL RETENTION.
- EROSION BENEATH MATTING.

# WHAT'S WRONG?



WHAT'S WRONG?:

- POOR SOIL PREPARATION.

RESULT?:

- CLUMPS, ROOTS, ROCKS, ETC. NOT ALLOWING FOR ECB TO MAKE PROPER CONTACT TO GROUND, HINDERING SOIL RETENTION.
- EROSION BENEATH MATTING.

# THAT'S MORE LIKE IT



## NOTICE:

- ECB TRENCHED IN AT TOP OF SLOPE.
- SOIL PREPPED, WITH NO LUMPS OR ROOTS/ROCKS ALLOWING ECB TO MAKE GOOD CONTACT WITH SOIL FOR BETTER PROTECTION.

# THAT'S MORE LIKE IT



## NOTICE:

- PROPER SOIL PREPARATION AND PROPER INSTALLATION OF EROSION CONTROL BLANKET

SEE! 100% COVERAGE IS POSSIBLE



...JUST SAYIN...

SEE! 100% COVERAGE IS POSSIBLE



...JUST SAYIN...

SEE! 100% COVERAGE IS POSSIBLE



...JUST SAYIN...

# WHAT'S WRONG?



TRICK QUESTION. SEE BACKSIDE OF SILT FENCE

# WHAT'S WRONG?



## WHAT'S WRONG:

- BACKSIDE OF SILT FENCE NEVER BACKFILLED PROPERLY DURING INSTALLATION.

## RESULT:

- RECURRING FAILURE (SEE ADDITIONAL POSTS INSTALLED).
- UNDERMINING/SEDIMENT DISCHARGE.

# WHAT'S WRONG?



## WHAT'S WRONG?:

- BACKSIDE OF SILT FENCE NEVER BACKFILLED PROPERLY DURING INSTALLATION.

## RESULT?:

- RECURRING FAILURE (SEE ADDITIONAL POSTS INSTALLED).
- UNDERMINING/SEDIMENT DISCHARGE.

# WHAT'S WRONG?



WHAT'S WRONG?:

- BACKSIDE OF SILT FENCE NEVER BACKFILLED PROPERLY DURING INSTALLATION.

RESULT?:

- RECURRING FAILURE (SEE ADDITIONAL POSTS INSTALLED).
- UNDERMINING/SEDIMENT DISCHARGE.

# WHAT'S WRONG?



## WHAT'S WRONG?:

- BACKSIDE OF SILT FENCE NEVER BACKFILLED PROPERLY DURING INSTALLATION.

## RESULT?:

- RECURRING FAILURE (SEE ADDITIONAL POSTS INSTALLED).
- UNDERMINING/SEDIMENT DISCHARGE.

# SAME JOB BETTER INSTALLATION



BACKSIDE OF SILT FENCE TRENCHED IN AND BACKFILLED FOR STABLE INSTALLATION.

# WHY IS THIS NO LONGER STANDARD PRACTICE?



TRENCHING/KEYING IN GEOTEXTILE

# WHY IS THIS NO LONGER STANDARD PRACTICE?



SETTLEMENT OF RIPRAP DUE TO EROSION BENEATH THE GEOTEXTILE FABRIC

# WHAT'S WRONG?



IF YOU ARE UNSURE...PLEASE LEAVE NOW.

# WHAT'S WRONG?



OUR PUBLIC SCHOOL SYSTEM FAILING US IS WHAT'S WRONG.

# SOIL STABILIZERS



GORILLA SNOT USED DURING WINTER MONTHS WHEN VEGETATIVE STABILIZATION WAS NO LONGER ACHIEVABLE.

# SOIL STABILIZERS



APPEARANCE OF GORILLA SNOT MOMENTS AFTER APPLICATION

# SOIL STABILIZERS



SOIL MOSTLY DRY WITHIN AN HOUR OF APPLICATION.

# SOIL STABILIZERS



FOLLOWING WEEK, NO SOIL DISPLACEMENT AFTER WET WEATHER.

# LET'S SING KUMBAYA

- ▣ IN OUR EXPERIENCE THE ONE CONSTANT FOR A SUCCESSFUL PROJECT IN REGARDS TO E&S AND POLLUTION PREVENTION, IS CONTRACTOR INVOLVEMENT AND COMMUNICATION.



# E&S LIAISON OVERVIEW

- REPORTS TO GROUP ENGINEER.
- WORKS CLOSELY WITH THE ASSIGNED CCRS, DELDOT CONSTRUCTION STAFF AND THE CONSTRUCTION CONSULTANTS TO HELP ENSURE THAT CONSTRUCTION ISSUES THAT ARISE IN THE FIELD ARE RESOLVED QUICKLY RELATIVE TO EROSION AND SEDIMENT CONTROL AND/OR STORMWATER ISSUES.

# PRIMARY FUNCTION OF THE E&S LIAISON

- DETERMINING, DESIGNING, AND APPROVING FIELD CHANGES AT THE REQUEST OF THE CONTRACTOR / DELDOT CONSTRUCTION STAFF FOR ALL E&S ASPECTS.
- CAN APPROVE/COORDINATE SWM FACILITY SEQUENCE OF CONSTRUCTION CHANGES.
- CAN APPROVE PHASING CHANGES AS IT AFFECTS THE E&S ASPECTS.
- APPROVE E&S ITEM SUBSTITUTIONS.

# WHEN TO CONTACT

- ALTERING FIELD CONDITIONS.
- IF CONTRACTOR WOULD LIKE TO DEVIATE FROM THE APPROVED PLANS.
- IT'S NOT WORKING AS ANTICIPATED.
- YOU THINK YOU HAVE A MORE EFFECTIVE APPROACH.
- UNCERTAINTY ON IMPLEMENTATION

# CONSTRUCTION GROUP 1 ESL

- JAY HAYES
  - [gerald.hayes.jr@aecom.com](mailto:gerald.hayes.jr@aecom.com)
  - 302-383-9304

# CONSTRUCTION GROUP 2 ESL

- FRANK MILLER
  - [fmiller@centuryeng.com](mailto:fmiller@centuryeng.com)
  - 302-538-0931

# CONSTRUCTION GROUP 3 ESL

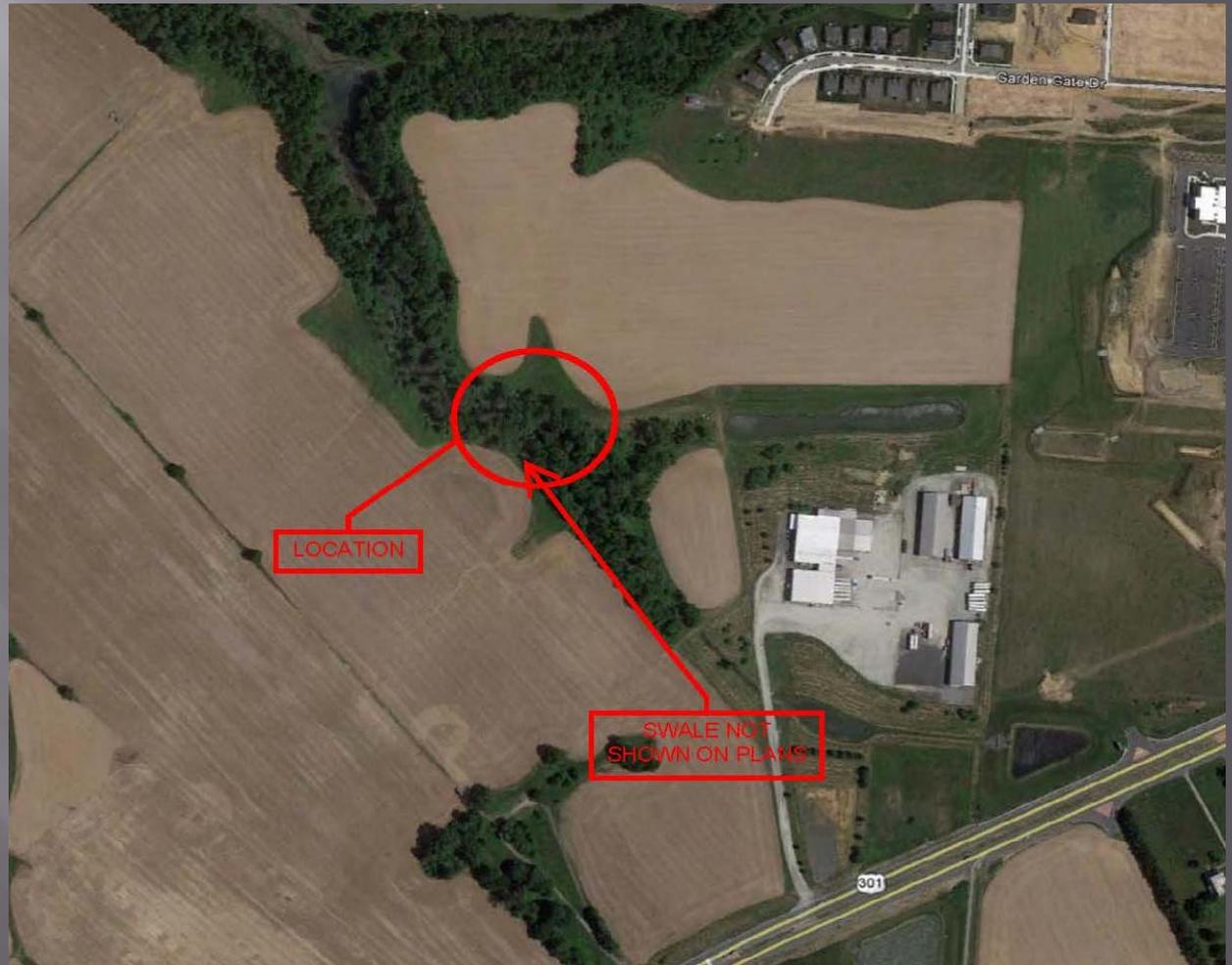
- ADAM MARVIN
  - [adam.marvin@aecom.com](mailto:adam.marvin@aecom.com)
  - 302-245-5808

# UNEXPECTED FIELD CONDITIONS

- ✓ DETERMINING, DESIGNING, AND APPROVING FIELD CHANGES AT THE REQUEST OF THE CONTRACTOR / DELDOT CONSTRUCTION STAFF FOR ALL E&S ASPECTS.

## CONCERN:

- EXISTING SWALE WAS NOT IDENTIFIED ON PLANS.
- NO DESIGN PROVIDED TO ADDRESS E&S ISSUES PRESENTED BY SWALE LOCATION.
- NO DESIGN PROVIDED TO PREVENT CONFLICT WITH PROPOSED HAUL ROAD LOCATION.



# UNEXPECTED FIELD CONDITIONS





# UNEXPECTED FIELD CONDITIONS



## RESULTS AND BENEFITS:

- COORDINATED WITH CONTRACTOR, ENVIRONMENTAL AND CONSTRUCTION STAFF TO DERIVE THE BEST SOLUTION TAILORED TO CONSTRUCTION NEEDS.
- MAINTAINED A CLEAN WATER DIVERSION ELIMINATING THE NEED TO MANAGE ON-SITE RUNOFF.

# LARGE SCALE PHASING REVISION

✓ AUTHORITY TO APPROVE PHASING CHANGES AS IT AFFECTS THE E&S ASPECTS.



## CONCERN:

- PLAN SPECIFIED A SINGLE BASIN FOR E&S CONTROL FOR AREA SHOWN. BASIN IS THE PRIMARY SOURCE OF MATERIAL FOR THE CONTRACT.
- CONTRACTOR REQUESTED A REVISION TO THE PROJECT SEQUENCING TO ELIMINATE THE NEED FOR STOCKPILING.



# LARGE SCALE PHASING REVISION



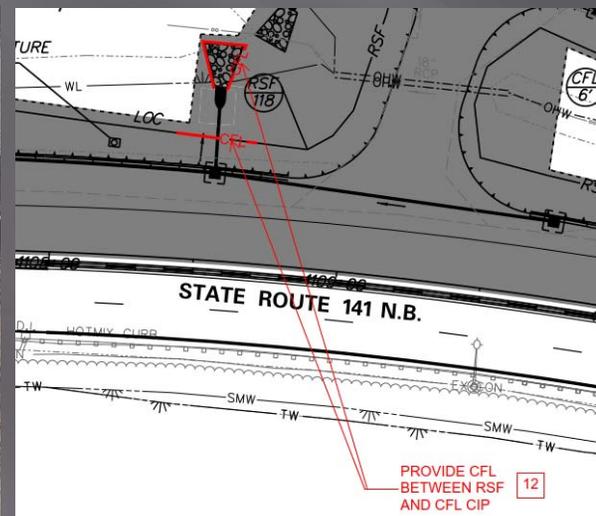
## RESULTS AND BENEFITS:

- WORKING WITH THE CONTRACTOR AND DELDOT CONSTRUCTION STAFF AN ALTERNATE E&S AND PHASING PLAN WAS DEVELOPED TO ALLOW THE CONTRACTOR TO EXCAVATE THE BASIN AND PLACE FILL AS REQUESTED ELIMINATING THE NEED TO STOCKPILE MATERIAL.
- REVISIONS SHOULD ALLOW FOR AN EXPEDITED CONSTRUCTION SCHEDULE.

# USE YOUR ESL – WE ARE HERE TO HELP

## EXAMPLE #1

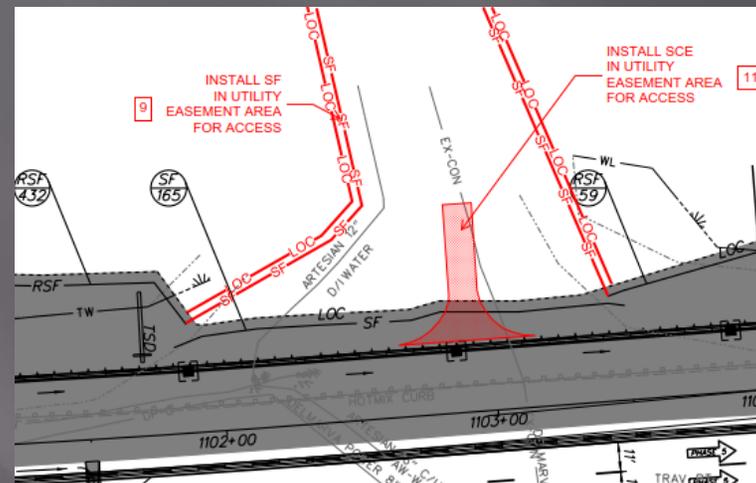
- ESL'S CAN COORDINATE ISSUES BETWEEN CONTRACTORS AND CCRS
- CCR NOTES DEFICIENCY - SF NOT TRENCHED IN. CONTRACTOR SAYS SF CANNOT BE TRENCHED IN DUE TO SHALLOW CONCRETE CULVERT
- SOLUTION: ESL REDLINES CFL IN LIEU OF SF



# USE YOUR ESL – WE ARE HERE TO HELP

## EXAMPLE #2

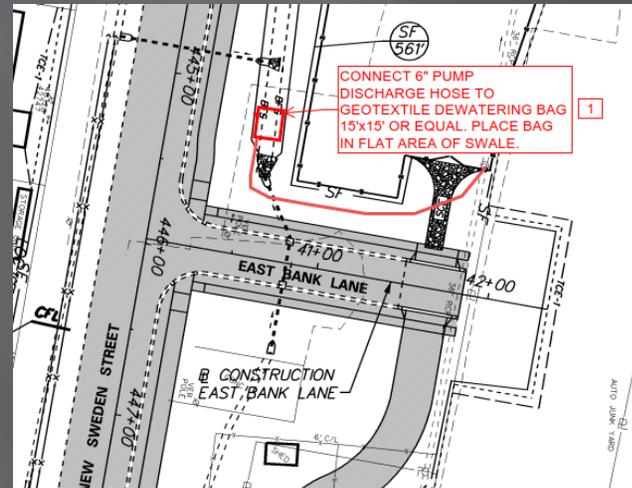
- ESL'S CAN COORDINATE BETWEEN CONTRACTOR/CCR/ENVIRONMENTAL
- CONTRACTOR REQUESTED ADDITIONAL ACCESS AND LAYDOWN ON UPLAND AREA BETWEEN WETLANDS
- SOLUTION: ESL COORDINATED WITH ENVIRONMENTAL TO PROVIDE AS MUCH LOC AS POSSIBLE WITH NO IMPACTS TO WETLANDS



# USE YOUR ESL – WE ARE HERE TO HELP

## EXAMPLE #3

- ESL'S CAN COORDINATE BETWEEN CONTRACTOR/CCR/PERMITTING AGENCY
- CONTRACTOR REQUESTED TO CONTINUOUSLY PUMP DOWN STORM DRAIN MH
- SOLUTION: ESL COORDINATED WITH CCR AND DNREC TO PROVIDE APPROVED PUMPING OPERATION



# USE YOUR ESL – WE ARE HERE TO HELP



# QUESTIONS / COMMENTS