

[illegible]

Approx. 40°03'30" N. Lat. & 86°53'30" W. Long.

[illegible]

LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED UPON ABOVE GROUND EVIDENCE (including, but not limited to, manholes, inlets, valves, and marks made upon the ground by others) AND ARE SPECULATIVE IN NATURE. THERE MAY ALSO BE OTHER EXISTING UNDERGROUND UTILITIES FOR WHICH THERE IS NO ABOVE GROUND EVIDENCE OR FOR WHICH NO ABOVE GROUND EVIDENCE WAS OBSERVED. THE EXACT LOCATIONS OF SAID EXISTING UNDERGROUND UTILITIES SHOULD BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY AND ALL CONSTRUCTION.

VICINITY MAP

MONTGOMERY COUNTY

UTILITIES

Headquarters
8450 WESTFIELD BLVD., SUITE 300
INDIANAPOLIS, IN. 46240-8302
TEL 317-713-4615
FAX 317-713-4616
www.BFSEngr.com

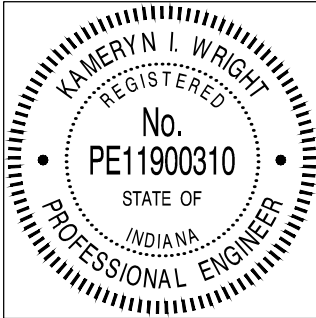
CERTIFIED BY:



BF&S
CIVIL ENGINEERS

Kamryn Wrist
DESIGN ENGINEER

Branch Locations	
FORT WAYNE	260-459-1532
LOUISVILLE	502-593-1996
LAFAYETTE	765-423-5602
MERRILLVILLE	219-769-2333
PLAINFIELD	317-839-3242
SOUTH BEND	574-288-5727



INDIANA DEPARTMENT OF TRANSPORTATION STANDARD
SPECIFICATIONS DATED 2024 TO BE USED WITH THESE PLANS

HORIZONTAL SCALE

As Noted

STATISTICAL SCALE

As Noted

SHEET

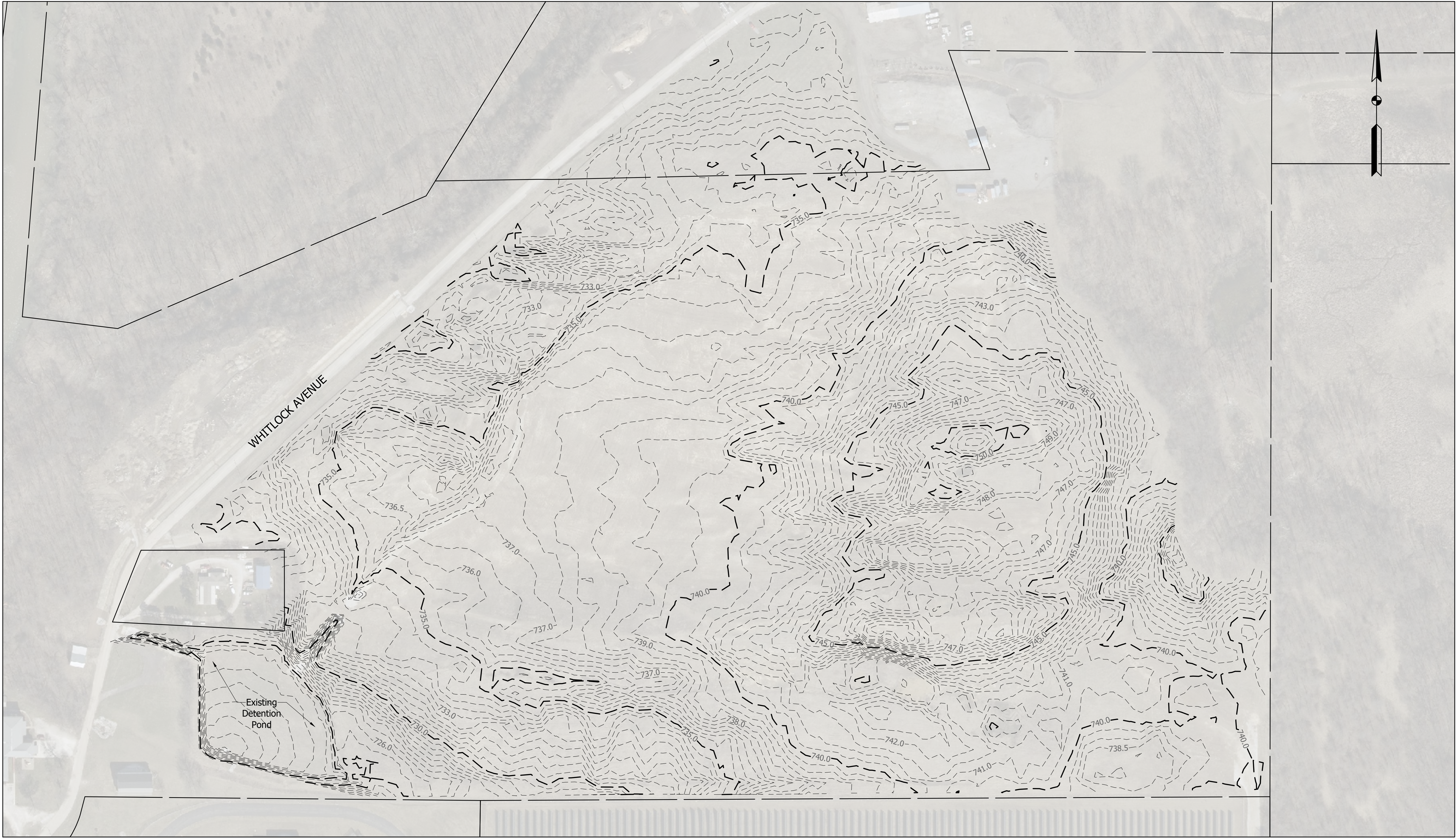
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PROJECT

7202

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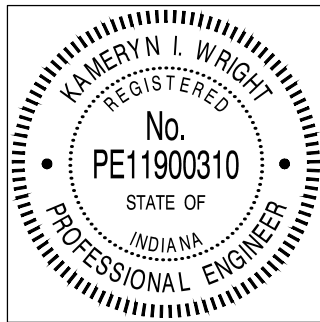
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EXISTING LANDFILL SITE - EXISTING PLAN

Scale: 1"=100'

EXISTING LANDFILL SITE - EXISTING PLAN



RECOMMENDED FOR APPROVAL:	<i>Karyn Wright</i> 6/24/2024 DESIGN ENGINEER DATE
DESIGNED:	G. Nulliner
DRAWN:	G. Nulliner
CHECKED:	K. Wright
CHECKED:	K. Wright

LANDFILL GRADING IMPROVEMENTS PHASE 2		HORIZONTAL SCALE 1"=100'	
		VERTICAL SCALE As Noted	
		SHEET	
		2	OF 12
		PROJECT	

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ELKHART, IN 800-553-0863
FORT WAYNE, IN 260-459-1532
JEFFERSONVILLE, IN 502-583-1986
LAFAYETTE, IN 765-423-5602
MERRILLVILLE, IN 219-769-2333
PLAINFIELD, IN 317-839-3242

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Construction Stormwater General Permit Checklist - Section A: Construction Plan Elements

1. Index of the location of required plan elements in the construction plan
See The Title Sheet.
2. A vicinity map depicting the project site location in relationship to recognizable local landmarks, towns, and major roads
See The Title Sheet.
3. Narrative Of The Nature And Purpose Of The Project
The Purpose Of The Project Is The Improvement Of Drainage Of The Montgomery County Closed Landfill Via Grading Of The Site.
4. Latitude and longitude to the nearest fifteen (15) seconds of the project entrance or beginning of project for linear projects
Latitude: 40°03'30"N, Longitude: 86°53'30"W
5. Legal description of the project site. The description must include the legal section(s), or alternative land division(s), township and range
Township 19N Range 4W Section 29
6. Reduced plat or project site map that is submitted on a sheet or sheets no larger than eleven (11) inches by seventeen (17) inches for all phases or sections associated with this plan, lot numbers/boundaries, and road layout/name, and legend
See The Attached Plat Map.
7. Boundaries of the one hundred (100) year floodplains, floodway fringes, and floodways
See The Attached Indiana Department of Natural Resources Floodplain Analysis & Regulatory Assessment.
8. Land use of all adjacent properties
Adjacent Land Consists Of Forested And Agricultural Land With Intermittent Developments Such As The Montgomery County Jail And A Farmhouse. The Walnut Fork Wildlife Refuge Resides To The Northwest Of The Site.
9. Identification of a U.S. EPA approved or established TMDL, including the name of the TMDL and the pollutant(s) for which there is a TMD
TMDL Data Has Not Been Recorded By The EPA For Walnut Fork Sugar Creek.
10. Name(s) of the receiving water(s) and, when the discharge is to a system (storm sewer, stormwater management measure, etc.) owned/or operated by a municipality, city, town, or county, the name of the system operator and the ultimate receiving water
Stormwater Will Discharge To Walnut Fork Sugar Creek.
11. Identification of discharges to a water on the current 303d list of impaired waters and the pollutant(s) for which it is impaired
Walnut Fork Sugar Creek Is Impaired For Escherichia Coli (E. Coli) And Polychlorinated Biphenyls In Fish Tissue.
12. Soil map of the predominant soil types that includes soil properties, characteristics, limitations, and hazards associated with the project site and the measures that will be integrated into the project to overcome or minimize adverse soil conditions
The Attached Web Soil Survey Soil Map Defines The Area As Ockley Silt Loam And Udorthents.
13. Identification and location of all known wetlands, lakes and water courses on or adjacent to the project site (construction plan, existing site layout.)
The Walnut Fork Of Sugar Creek Runs Along The North And West Of The Site Outside Of Construction Limits. A 0.45 Acre Freshwater Forested Wetland Resides East Of The Site Beyond Construction Limits. Unnamed Ditches And Detention Ponds Exist Adjacent To The Site.
14. Identification and status of any other state or federal water quality permits or authorizations that are required for construction activities and the expected timeline if the permits have not been obtained
Not Applicable.
15. Identification and delineation of natural buffers and existing vegetative cover, such as crop or crop residue, grass, weeds, brush, and trees
The Site Is An Open Field That Contains Native Vegetation With No Trees Or Crops. The Forested Areas Surrounding The Project Site Provides A Natural Buffer Between Walnut Fork Sugar Creek And The Site.
16. Existing topography at a contour interval appropriate to indicate drainage patterns
See Sheet 2.
17. Location(s) where run-off enters the project site
Run-off Does Not Enter The Project Site; All Stormwater Discharge Is A Result Of Precipitation.
18. Location(s) where run-off discharges from the project site prior to construction
Stormwater Will Drain Via An Existing Unnamed Ditch To An Existing Detention Pond South Of The Site Which Drains To Walnut Fork Sugar Creek.
19. Location of all existing structures on the project site
Whitlock Avenue Runs Along The Western Edge Of The Site.
20. Location, size, and dimensions of features, such as existing permanent retention or detention facilities, including manmade wetlands, designed for the purpose of stormwater management
An Existing Detention Pond Is Located In The Southwest Corner Of The Site With An Approximate Area Of 1.13 Acres.
21. Locations where stormwater may be directly discharged into ground water, such as abandoned wells, sinkholes, or karst features
There Are No Anticipated Discharges To Groundwater.
22. Size of the project area expressed in acres
Approximately 12.0 Acres.
23. Total expected land disturbance expressed in acres
Approximately 5.0 Acres.
24. Proposed topography
See Sheet 4.
25. Delineation of all proposed land-disturbing activities, including known off-site activities that will provide services to the project site
Grading Of The Project Site.
26. Location, size, and dimensions of all stormwater drainage systems, such as culverts, storm sewers, and conveyance channels
The Existing Ditch On The West Side Of The Site Is A V-bottom Ditch With An Average Depth Of Approximately 1 Foot and Average Width of Approximately 12 Feet. Two 19" x 30" Elliptical Culverts Were Recently Constructed Under Whitlock Avenue To Perpetuate Stormwater Drainage, As Well As A Drop Structure With An 18" Circular Culvert Under The Access Drive On The Southwest Side Of The Site. A Berm And Flat-Bottom Channel Were Also Recently Constructed That Convey Stormwater To The Existing Detention Pond On The Southwest Side Of The Site.
27. Locations of specific points where stormwater and non-stormwater discharges will leave the project site
Stormwater Discharge Exits The Project Site At The Existing Detention Pond In The Southwest Corner Of The Site Or Sheets Off The East Side Of The Site. Non-stormwater Discharge Does Not Apply For The Project Site.
28. Location of all proposed site improvements, including roads, utilities, lot delineation and identification, proposed structures, and common areas
Site Improvements Include Grading As Shown On Sheet 4.
29. Locations Of Proposed Soil Stockpiles And/or Borrow Disposal Areas
Soil Will Be Borrowed From An Offsite Stockpile As Shown On Sheet 5
30. Construction support activities that are expected to be part of the project (e.g., staging areas, disposal sites, etc.)
Staging Of Materials And Equipment, As Necessary, Will Be Determined By The Contractor. See Sheet 5 For Stockpile.
31. Location of any in-stream activities that are planned for the project including, but not limited to stream crossings and pump arounds
No Stream Crossings Are Anticipated.

Construction Stormwater General Permit Checklist - Section B: Storm Water Pollution Prevention Plan - Erosion and Sediment Control/Project Site Management

1. Description of the potential pollutant generating sources and pollutants, including all potential non-stormwater discharges
A. Fueling Of Vehicles
B. Leaking Equipment Or Vehicles
C. Material Storage
D. Site Demolition
E. Excavation Of Materials
F. Exposed Soils
G. Construction Waste And Litter
H. Tracking Of Soils Offsite
2. Stable construction entrance locations and specifications (at all points of ingress and egress)
See Sheet 4
3. Specifications for temporary and permanent stabilization
See Sheet 4 And Detail On Sheet 12.
4. Sediment control measures for concentrated flow areas
Not Applicable.
5. Sediment control measures for sheet flow areas
See Sheet 4 And Detail On Sheet 11.
6. Run-off control measures (e.g., diversions, rock check dams, swales, etc.)
Not Applicable.
7. Stormwater outlet protection locations and specifications
See Sheet 4 and Detail On Sheet 11.
8. Grade stabilization structure locations and specifications
Not Applicable.
9. Dewatering applications and management methods (basin outlet measures, flocculants etc.)
Not Applicable.
10. Measures utilized for work within waterbodies (crossings, coffer dams, etc.)
Not Applicable.
11. Planned construction sequence describing the relationship between implementation of stormwater quality measures and temporary/permanent stabilization measures in relation to land disturbance
Permanent Seeding Shall Be Implemented For All Disturbed Land And Shall Occur Once Final Grading Has Been Completed. If Final Grading Is Completed In Winter, Appropriate Mulch Covering Shall Be Implemented Until Weather Allows For Permanent Seeding. See INDOT Standard Specification Section 621 For Details.
Pre-Construction:
A. Notify The City Of Crawfordsville.
B. Contact The Indiana Underground Plant Protection Systems, Inc. To Verify The Location Of Any And All Underground Utilities.
C. Exhibit Construction Stormwater Prevention Plan Information At The Job Site. Contractor Shall Designate A Person Responsible For Onsite Inspections And For Providing This SWPPP Onsite.
D. Install Perimeter Protection.
Construction:
A. Establish Construction Entrance At Necessary Access Point.
B. Contractor Shall Construct Concrete Washout If Necessary. Contractor Shall Coordinate Locations of Concrete Washouts With Owner And Engineer.
C. Install Erosion Control Measures As Each New Item Of The Project Is Installed, As Required.
D. Begin Mass Earthwork Operations.
E. Install Staging Areas, Material Storage Areas, And Fueling Stations.
F. Temporarily Seed Disturbed Areas If To Be Left Inactive beyond 7 days, seeding must be applied by the end of the seventh day.
G. Begin Trenching For Water Main.
H. Construct Booster Station and Above Ground Storage Tank.
I. Finish Grading.
J. Install Permanent Seeding.
12. Provisions for erosion and sediment control on individual building lots regulated under this project
The Contractor Shall Maintain All Water Quality Measures During Construction To Prevent Any Blockages From Accumulated Sediment. Monitoring Of The Protective Measures Shall Be Done On A Weekly Basis And Again Within 24 Hours Of Every Half-Inch Rain Event.

Maintenance Shall Include A Written Record Of Each Inspection That Is Made Within 24 Hours Of A Rain Event And Weekly. The Written Record Shall Be Made Available Upon Request.

Temporary Construction Entrance:
A. Inspect Weekly, Within 24 Hours Of Every Half-Inch Rain Event, And After Heavy Use.
B. Reshape Pad As Needed.
C. Top Dress Pad As Needed.
D. Immediately Remove Any Mud And Sediment Tracker Or Washer Onto The Street Using Brushing Or Sweeping. Flush Area Only If Runoff Will Be Flowing Through A Sediment Trap.
E. Repair Any Damaged Pavement Immediately.
- Silt Fence:
A. Inspect The Silt Fence Weekly And Within 24 Hours Of Every Half-Inch Rain Event.
B. If Fence Fabric Tears, Starts To Decompose, Or In Any Way Becomes Ineffective, Replace The Affected Portion Immediately.
C. Remove Deposited Sediment When It Reaches Half The Height Of The Fence At Its Lowest Point Or Is Causing The Fabric To Bulge.
D. Take care to avoid undermining the fence during clean out.
E. After The Contributing Drainage Area Has Been Stabilized, Remove The Fence And Sediment Deposits, Bring The Disturbed Area To Grade, And Stabilize.
- Rock Check Dam:
A. Inspect Check Dams And The Channel After Each Half-Inch Storm Event, And Repair Any Damage Immediately. If Significant Erosion Occurs Between Dams, Install A Riprap Liner In That Portion Of The Channel.
B. Remove Sediment Accumulated Behind Each Dam As Needed To Maintain Channel Capacity, To Allow Drainage Through The Dam, And To Prevent Large Flows From Displacing Sediment.
C. Add Aggregate To The Dams As Needed To Maintain Design Height And Cross Section.
E. When The Dams Are No Longer Needed, Remove The Aggregate And Stabilize Channel Using An Erosion Resistant Lining, If Necessary.
- Temporary Seeding:
A. Monitor Until It Reaches 70% Coverage.
B. Reseed As Needed.
C. Install Additional Erosion Control To Help Establish Cover.
- Check And Maintain Any Additional Erosion Control Measures As Needed.

13. Material Handling And Spill Prevention Plan meeting the requirements in 327 IAC 2-6.1
Vehicle And Equipment Maintenance: Onsite Vehicle And Equipment Maintenance Should Only Be Used Where It Is Impractical To Send Vehicles And Equipment Offsite For Maintenance And Repair. If Maintenance Must Occur Onsite, The Area Where Repairs Are To Be Made Must Be Located Away From Drainage Courses. Drip Pans And/Or Absorbent Pads Should Be Used During Vehicle And Equipment Maintenance Work That Involves Fluids Unless The Maintenance Work Is Performed Over

An Impermeable Surface In A Dedicated Maintenance Area. Inspect Onsite Vehicles And Equipment Daily At The Startup For Leaks, And Repair Immediately. Properly Dispose Of Used Oils, Fluids, Lubricants And Spill Cleanup Materials. Do Not Place Used Oil In A Dumpster Or Pour Into A Storm Drain Or Watercourse.

Vehicle Fueling: Onsite Vehicle And Equipment Fueling Should Only Be Used Where It Is Impractical To Send Vehicles And Equipment Offsite For Fueling. Drip Pans And Absorbent Pads Should Be Used During Vehicle And Equipment Fueling, Unless The Fueling Is Performed Over An Impermeable Surface In A Dedicated Fueling Area. Nozzles Used In Vehicle And Equipment Fueling Should Be Equipped With An Automatic Shutoff To Control Drips. Fueling Operations Should Not Be Left Unattended. Federal, State, And Local Requirements Should Be Observed For Any Stationary Above Ground Storage Tanks.

Debris Collection: To Prevent Clogging Of The Storm Drainage System, Litter And Debris Removal From Drainage Grates, Trash, Rocks And Ditch Lines Should Be A Priority. Construction Debris And Waste Should Be Removed From The Site Biweekly Or More Frequently As Needed. Construction Material Visible To The Public Should Be Stored In An Orderly Manner. Storm Water Runoff Should Be Prevented From Contacting Stored Solid Waste.

Concrete Washout: Perform Washout Of Concrete Trucks Offsite Or In Designated Areas Only. Do Not Wash Out Concrete Trucks Into Storm Drains, Open Ditches, Streets Or Streams. Do Not Allow Excess Concrete To Be Dumped On Site, Except In Designated Areas.

For On Site Washout: Locate Washout Area At Least Fifty (50) Feet From Storm Drains, Open Ditches Or Bodies Of Water; Do Not Allow Runoff From This Area By Constructing A Temporary Berm Or Holding Area Large Enough For Liquid And Solid Waste; Wash Out Wastes Into The Designated Area Where The Concrete Can Set And Be Broken Up And Then Disposed Of Properly.

Alert Procedure For Spills: In The Event Of A Material Spill (Fuel, Oil, Fluids, Lubricants, Etc.), Barricade The Area Allowing No Vehicles To Enter Or Leave The Spill Zone. Notify The Indiana Department Of Environmental Management (IDEM), Office Of Emergency Response, By Calling The Appropriate Phone Number: Office 317-233-7745 Or Toll Free: 800-233-7745. Also, The National Response Center At 800-424-8802 And Provide The Following Information: Time Of Observation Of The Spill, Location Of The Spill, Identify Material Spilled, Probable Time And Source Of Spill, Weather Conditions, Personnel At Scene And Action Initiated By Personnel. Notify The Local Fire Department And Police Department. Coordinate And Monitor Cleanup Until The Situation Has Been Stabilized And The Spill Has Been Eliminated.

14. Material handling and storage procedures associated with construction activity describing the management and disposal of construction products and waste, including concrete and cementitious washout areas and management measures
Shall Be Determined By The Contractor, As Necessary.

Construction Stormwater General Permit Checklist - Section C: Storm Water Pollution Prevention Plan-Post Construction

1. Description of potential pollutant generating sources and a list of pollutants from the final land use that may reasonably be expected to contribute pollutants to stormwater discharges
The Pollutants From The Proposed Land Use Will Be The Same As The Pollutants From The Existing Land Use, Vehicular Traffic, And Litter And Its Associated Pollutants.
2. Description of stormwater quality and stormwater management measures that will be installed to address post-construction sources that are expected to generate pollutants in stormwater discharges and increased run-off after construction activities have been complete
Re-vegetate Disturbed Areas For All Disturbed Land Left Inactive For A Period Of 14 Days And Upon Final Grading. Perimeter Protection And Rock Check Dams To Be Removed After Disturbed Soil Areas Have Been Stabilized.
3. Location, dimensions, detailed specifications, and construction details of all post-construction stormwater quality and stormwater management measures listed in C2 above
See Sheet 4.
4. Sequence describing when each post-construction stormwater measure will be installed in relation to project construction activities including how post-construction measures will be protected from impacts if the measure is installed during active construction/land disturbance.
Permanent Seeding Will Reduce Erosion And Sedimentation Damage By Stabilizing Disturbed Areas, Reduce Problems Associated With Mud Or Dust From Un-vegetated Soil Surfaces, And Reduce Sediment-laden Storm Water Runoff From Being Transported To Downstream Areas.
5. Operation and maintenance manual for each post-construction stormwater measure (manufactured/proprietary measures may include a link to the manual for a specific measure that will be used on the project)
The Contractor Shall Ensure That Re-Vegetated Areas Become Fully Established And Shall Water And Re-Seed As Necessary.

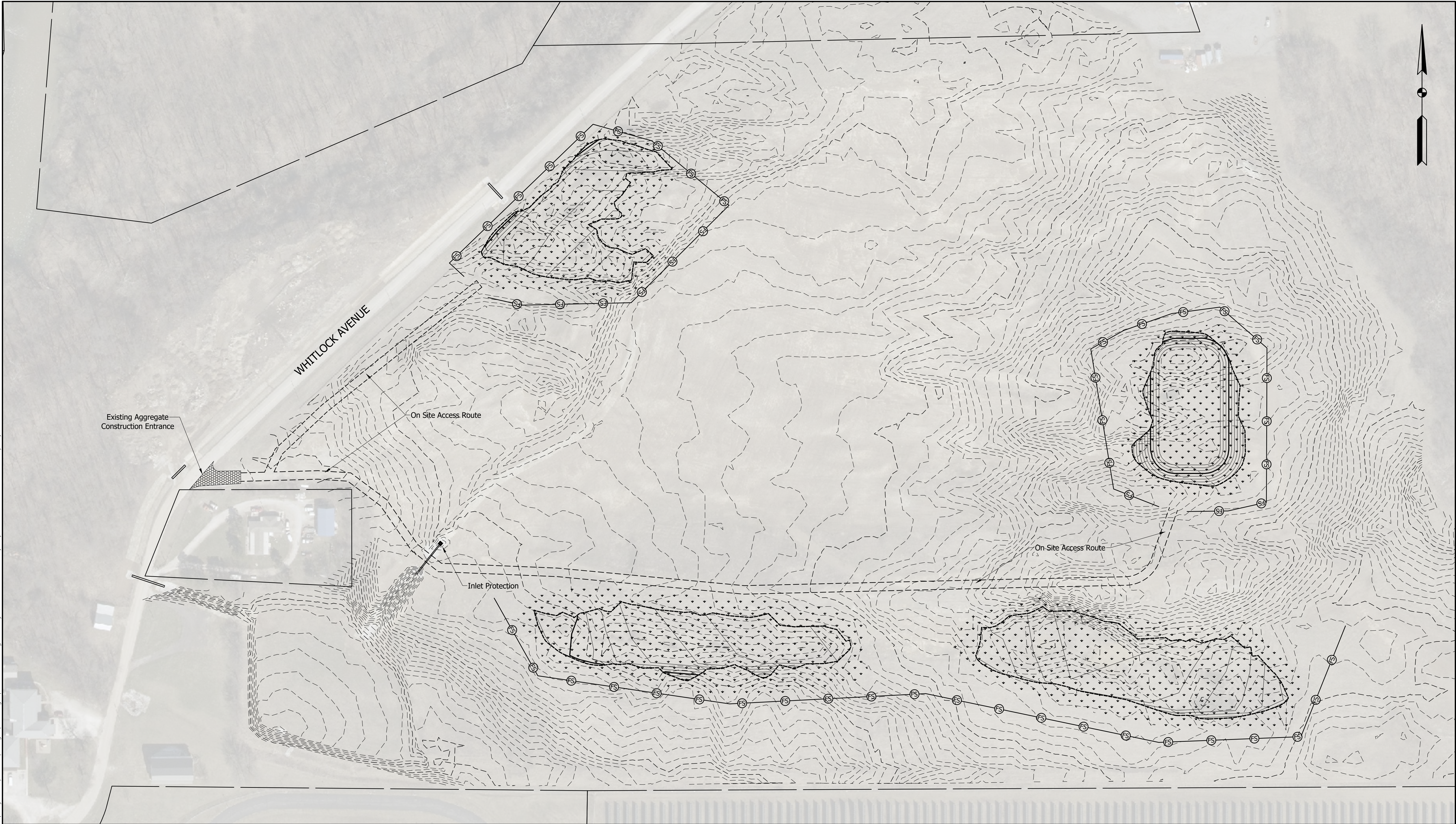
Post Construction Maintenance For Lawns Shall Be Performed By The County As Needed.

6. Entity that will be responsible for operation and maintenance of the post-construction system (if known)
City Of Crawfordsville Stormwater Department And Montgomery County.

STORMWATER POLLUTION PREVENTION SHEET

	RECOMMENDED FOR APPROVAL: <i>Kameryn Wright</i> 6/24/2024 DESIGN ENGINEER DATE		LANDFILL GRADING IMPROVEMENTS PHASE 2		HORIZONTAL SCALE As Noted		7202	
					VERTICAL SCALE As Noted			
					SHEET			
					3 OF 12			
					PROJECT			
DESIGNED: G. Nulliner		DRAWN: G. Nulliner		Headquarters: 8450 WESTFIELD BLVD., SUITE 300 INDIANAPOLIS, IN 46240-8302 TEL 317-713-4615 FAX 317-713-4616 www.BFSEngr.com		 Branch Locations: COLUMBUS, OH 800-553-0863 ELKHART, IN 800-553-0863 FORT WAYNE, IN 260-459-1532 JEFFERSONVILLE, IN 502-593-1996 LAFAYETTE, IN 765-423-5602 MERRILLVILLE, IN 219-769-2333 PLAINFIELD, IN 317-839-3242		BFS NO.
CHECKED: K. Wright		CHECKED: K. Wright						

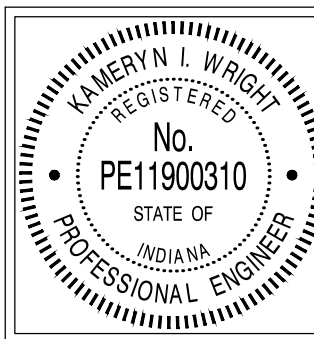
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EXISTING LANDFILL SITE - STORMWATER POLLUTION PREVENTION PLAN

Scale: 1"=80'

- LEGEND
- Perimeter Protection
 - Mulched Seeding Type-R
 - Inlet Protection

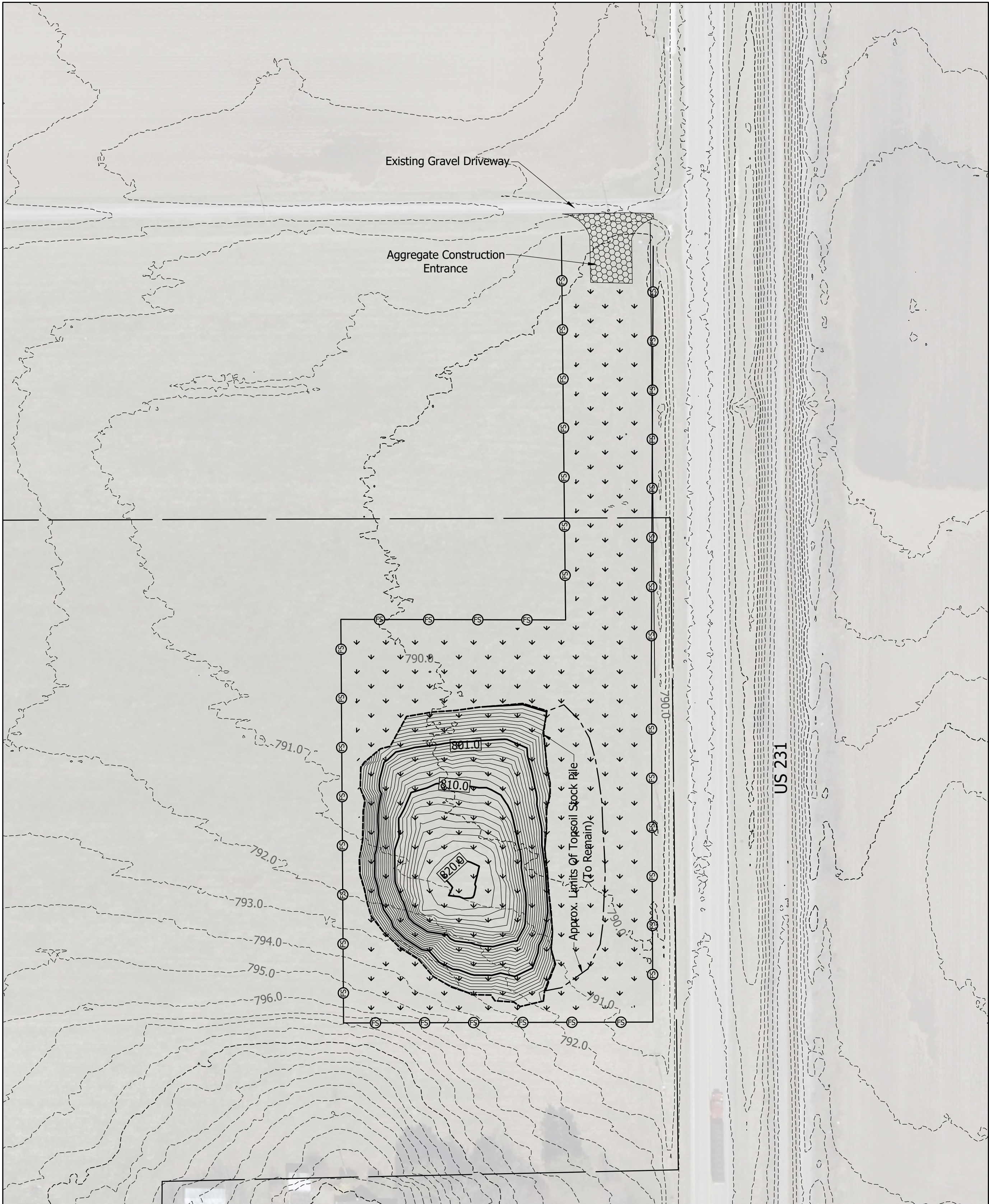


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LANDFILL GRADING IMPROVEMENTS PHASE 2		Branch Locations: COLUMBUS, OH ELKHART, IN FORT WAYNE, IN JEFFERSONVILLE, IN LAFAYETTE, IN MERRILLVILLE, IN PLAINFIELD, IN	
Headquarters: 8450 WESTFIELD BLVD., SUITE 300 INDIANAPOLIS, IN 46240-8302 TEL 317-713-4615 FAX 317-713-4616 www.BFSengr.com			800-553-0863 800-553-0863 260-459-1532 502-593-1996 765-433-5602 219-789-2333 317-839-3242
HORIZONTAL SCALE As Noted		VERTICAL SCALE As Noted	
SHEET 4 OF 12		PROJECT	

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BFS NO.

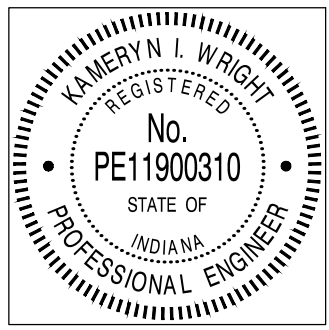
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EXISTING BORROW SITE - STORMWATER POLLUTION PREVENTION PLAN

Scale: 1"=50'

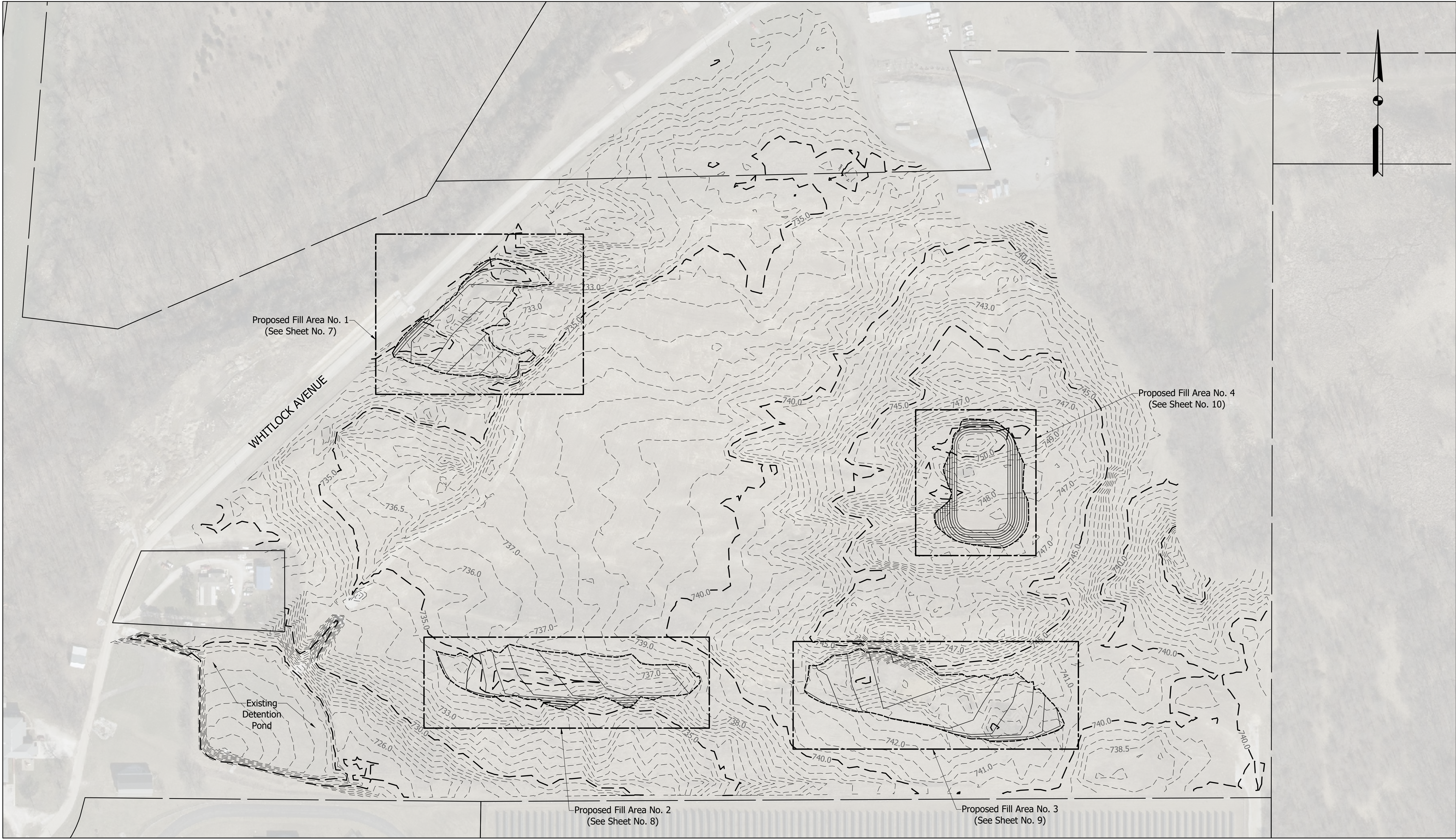
- LEGEND**
- Perimeter Protection
 - Mulched Seeding Type-R
 - Inlet Protection



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HORIZONTAL SCALE As Noted		VERTICAL SCALE As Noted	
SHEET 5 OF 12		PROJECT	

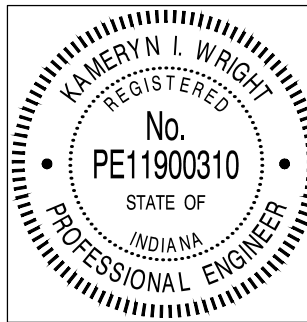
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EXISTING LANDFILL SITE - PROPOSED PLAN

Scale: 1"=100'

EXISTING LANDFILL SITE - PROPOSED PLAN



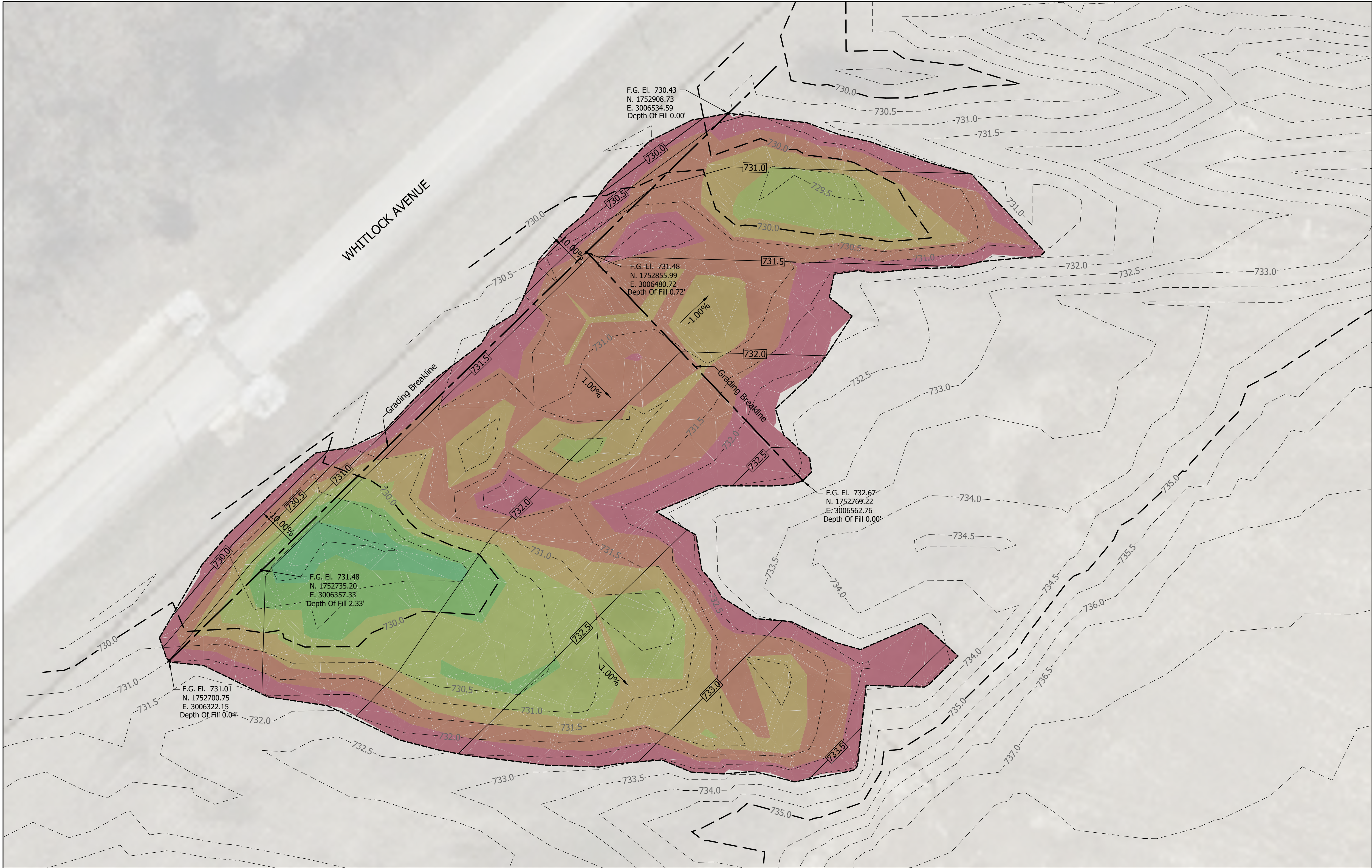
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BF&S CIVIL ENGINEERS	

HORIZONTAL SCALE 1"=100'	
VERTICAL SCALE As Noted	
SHEET	
6	OF 12
PROJECT	

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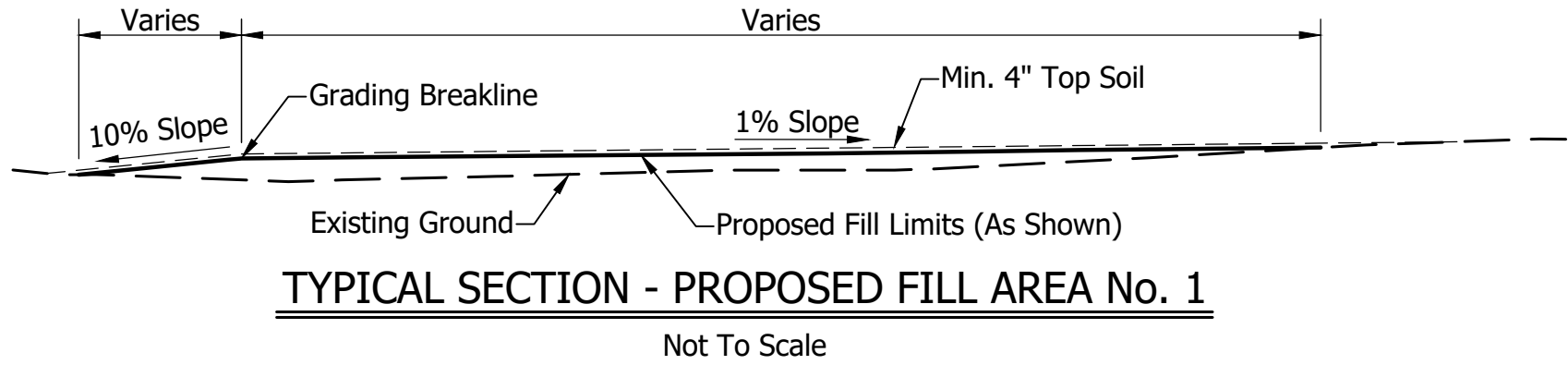


FILL LEGEND			
Number	Minimum Fill Depth	Maximum Fill Depth	Color
1	0.000	0.500	
2	0.500	1.000	
3	1.000	1.500	
4	1.500	2.000	
5	2.000	2.500	
6	2.500	3.000	
7	3.000	3.500	
8	3.500	4.000	
9	4.000	4.500	
10	4.500	5.000	
11	5.000	5.500	

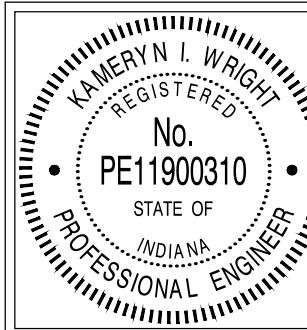
- NOTES
1. Approximate Surface Area 0.96 Ac.
 2. Approximate Fill Volume 1,579 Cyd.
 3. Approximate Top Soil Volume 545 Cyd.

EXISTING LANDFILL SITE - PROPOSED FILL AREA No. 1

Scale: 1"=20'



EXISTING LANDFILL SITE - PROPOSED FILL AREA No. 1



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DESIGNED: G. Nulliner	DRAWN: G. Nulliner
CHECKED: K. Wright	CHECKED: K. Wright

LANDFILL GRADING IMPROVEMENTS PHASE 2		HORIZONTAL SCALE As Noted	
		VERTICAL SCALE As Noted	
		SHEET 7 OF 12	
		PROJECT	

Headquarters:
8450 WESTFIELD BLVD., SUITE 300
INDIANAPOLIS, IN 46240-8302
TEL 317-713-4615
FAX 317-713-4616
www.BFSEng.com

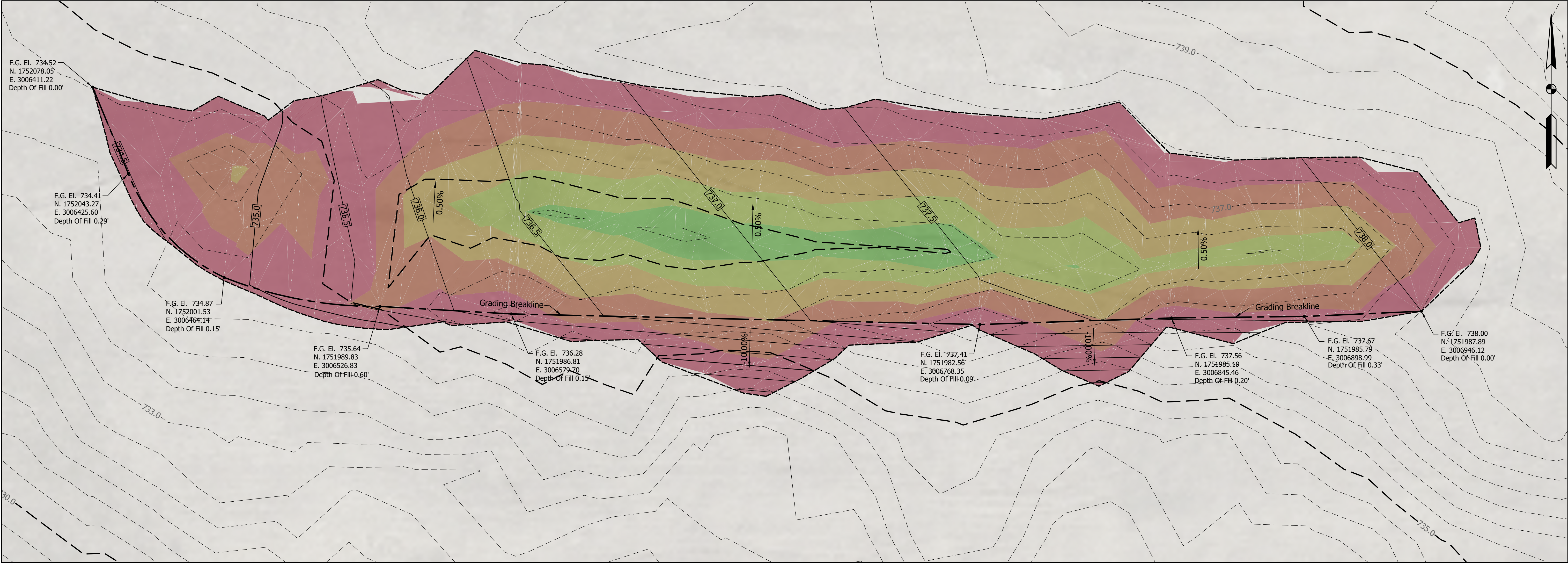


Branch Locations:
COLUMBUS, OH
ELKHART, IN
FORT WAYNE, IN
JEFFERSONVILLE, IN
LAFAYETTE, IN
MERRILLVILLE, IN
PLAINFIELD, IN

800-553-0863
800-553-0863
260-459-1532
502-593-1996
765-433-5602
219-769-2333
317-839-3242

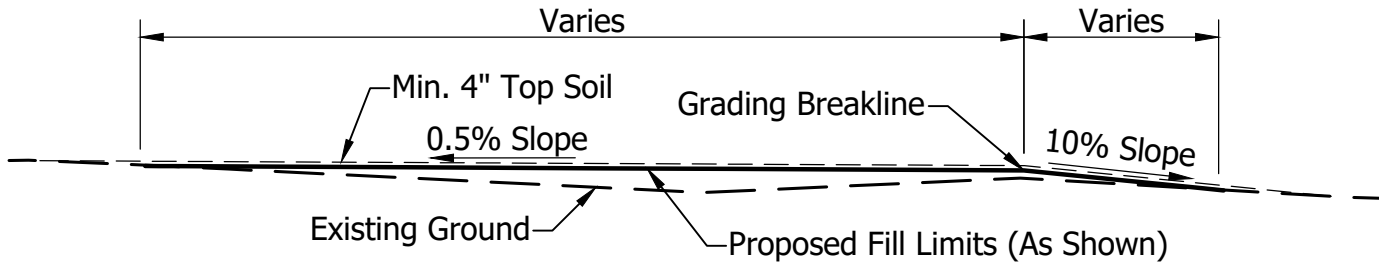
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EXISTING LANDFILL SITE - PROPOSED FILL AREA No. 2

Scale: 1"=20'



TYPICAL SECTION - PROPOSED FILL AREA No. 2

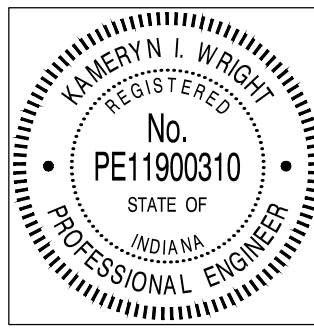
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FILL LEGEND			
Number	Minimum Fill Depth	Maximum Fill Depth	Color
1	0.000	0.500	
2	0.500	1.000	
3	1.000	1.500	
4	1.500	2.000	
5	2.000	2.500	
6	2.500	3.000	
7	3.000	3.500	
8	3.500	4.000	
9	4.000	4.500	
10	4.500	5.000	
11	5.000	5.500	

NOTES

1. Approximate Surface Area 1.10 Ac.
2. Approximate Fill Volume 1,546 Cyd.
3. Approximate Top Soil Volume 613 Cyd.

EXISTING LANDFILL SITE - PROPOSED FILL AREA No. 2



RECOMMENDED FOR APPROVAL: <i>Kamryn Wright</i> 6/24/2024 DESIGN ENGINEER DATE	
DESIGNED: G. Nulliner	DRAWN: G. Nulliner
CHECKED: K. Wright	CHECKED: K. Wright

LANDFILL GRADING IMPROVEMENTS PHASE 2		HORIZONTAL SCALE As Noted	
		VERTICAL SCALE As Noted	
		SHEET 8 OF 12	
		PROJECT	

Headquarters:
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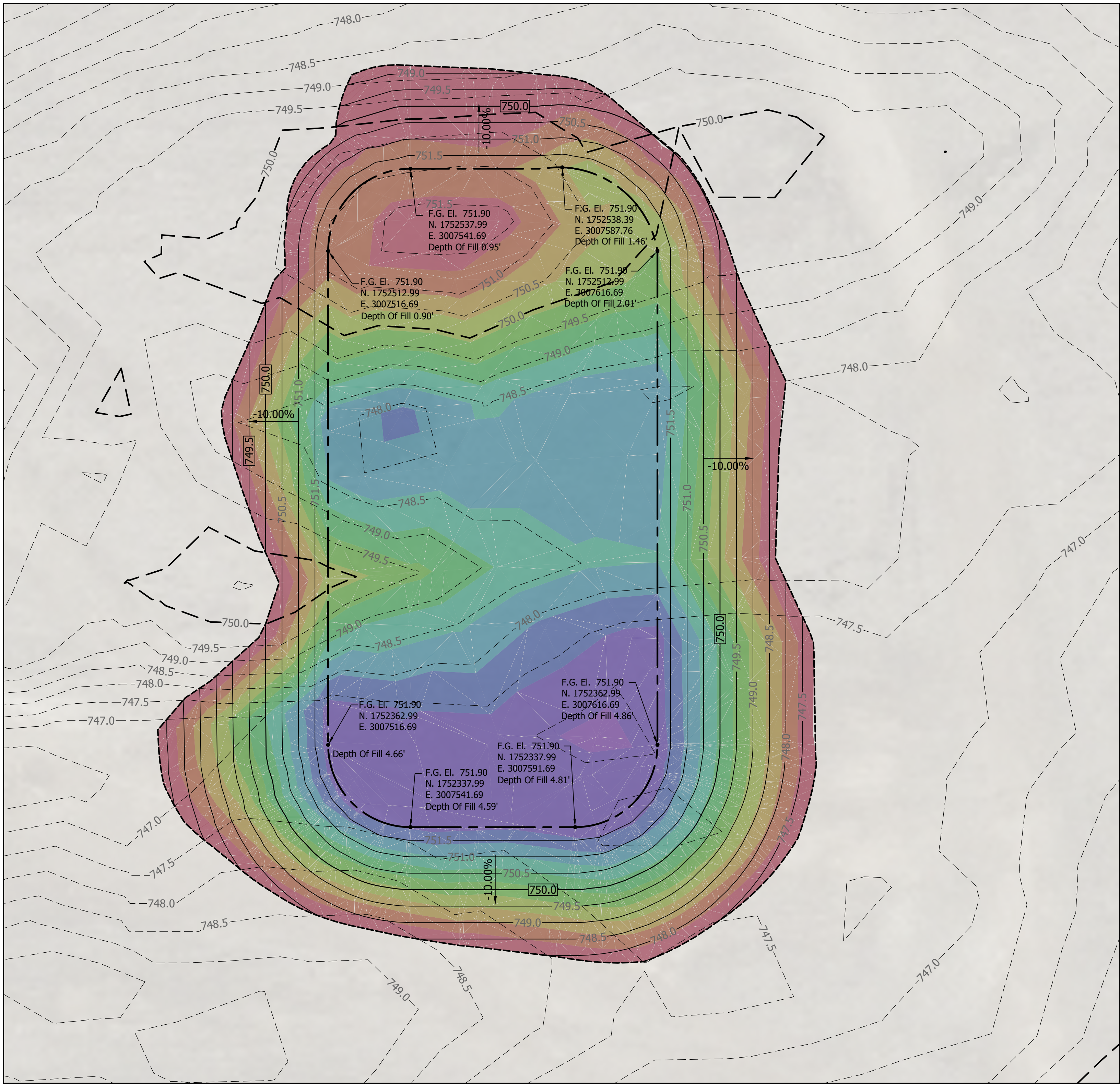


Branch Locations:
COLUMBUS, OH
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JEFFERSONVILLE, IN
LAFAYETTE, IN
MERRILLVILLE, IN
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502-593-1996
765-433-5602
219-769-2333
317-839-3242

7202
BFS NO.

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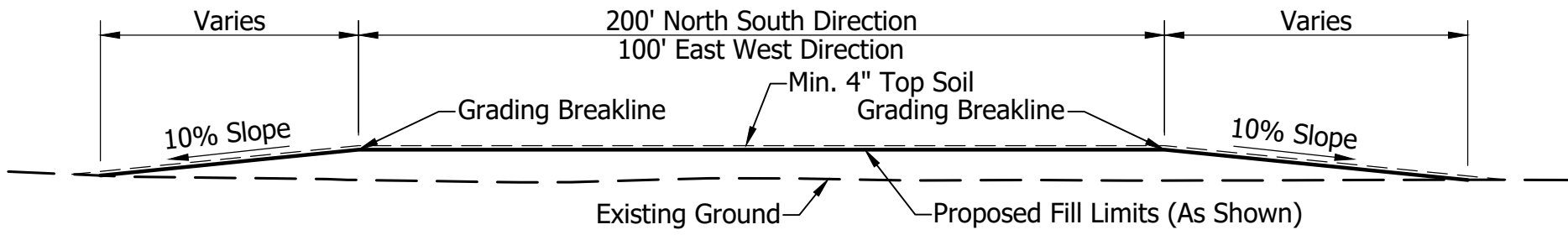


EXISTING LANDFILL SITE - PROPOSED FILL AREA No. 4

Scale: 1"=20'

FILL LEGEND			
Number	Minimum Fill Depth	Maximum Fill Depth	Color
1	0.000	0.500	
2	0.500	1.000	
3	1.000	1.500	
4	1.500	2.000	
5	2.000	2.500	
6	2.500	3.000	
7	3.000	3.500	
8	3.500	4.000	
9	4.000	4.500	
10	4.500	5.000	
11	5.000	5.500	

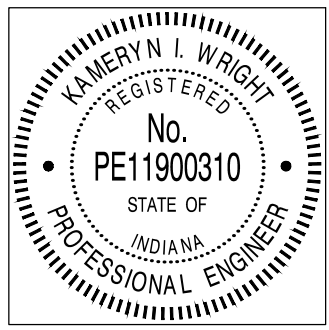
- NOTES
1. Approximate Surface Area 0.94 Ac. Sft.
 2. Approximate Fill Volume 3,625 Cyd.
 3. Approximate Top Soil Volumer 516 Cyd.



TYPICAL SECTION - PROPOSED FILL AREA No. 4

Not To Scale

EXISTING LANDFILL SITE - PROPOSED FILL AREA No. 4



RECOMMENDED FOR APPROVAL: <i>Kameron Wright</i> 6/24/2024 DESIGN ENGINEER DATE	
DESIGNED: G. Nullner	DRAWN: G. Nullner
CHECKED: K. Wright	CHECKED: K. Wright

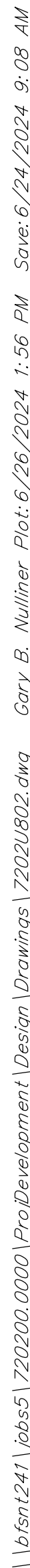
LANDFILL GRADING IMPROVEMENTS PHASE 2		HORIZONTAL SCALE As Noted	
		VERTICAL SCALE As Noted	
		SHEET 10 OF 12	
		PROJECT	

Headquarters:
8450 WESTFIELD BLVD., SUITE 300
INDIANAPOLIS, IN 46240-8302
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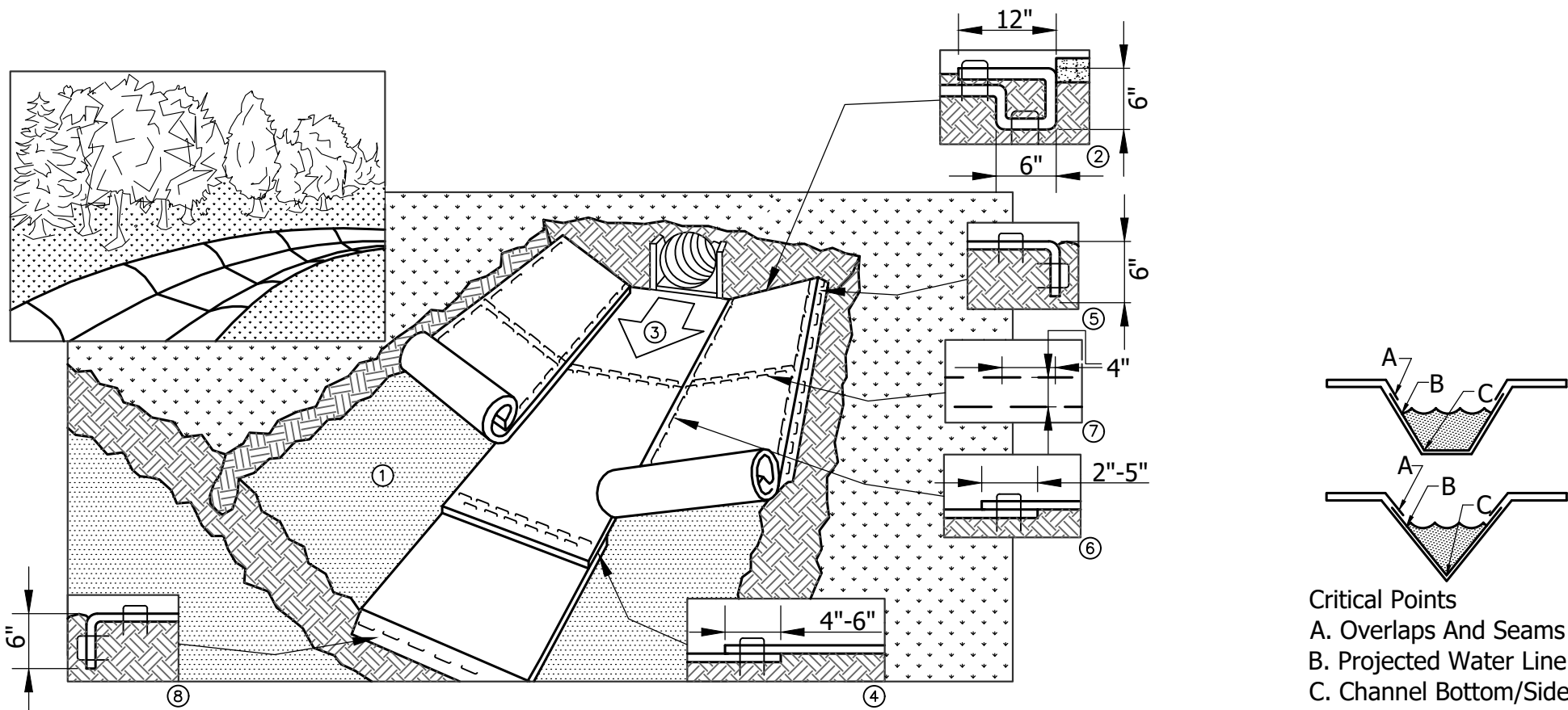
BF&S
CIVIL ENGINEERS

Branch Locations:
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JEFFERSONVILLE, IN 502-593-1996
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MERRILLVILLE, IN 219-789-2333
PLAINFIELD, IN 317-839-3242

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BFS NO.



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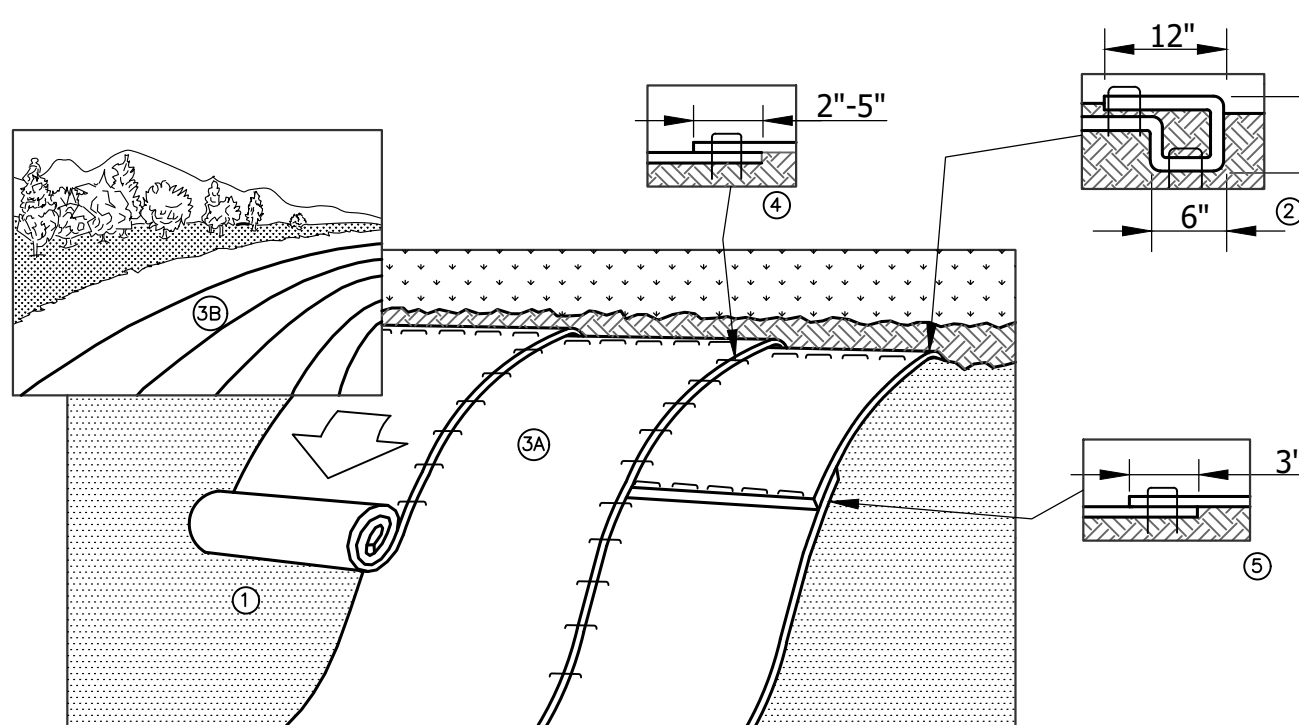
1. Prepare Soil Before Installing Blankets, Including Any Necessary Application Of Lime, Fertilizer, Or Seed.
2. Begin At The Top Of The Channel By Anchoring The Blanket In A 6 Inch Deep By 6 Inch Wide Trench With Approximately 12 Inches Of Blanket Extended Beyond The Upslope Portion Of The Trench. Anchor The Blanket With A Row Of Staples/Stakes Approximately 12 Inches Apart In The Bottom Of The Trench. Backfill And Compact The Trench After Stapling. Apply Seed To Compacted Soil And Fold Remaining 12 Inch Portion Of Blanket Back Over Seed And Compacted Soil. Secure Blanket Over Compacted Soil With A Row Of Staples/Stakes Spaced Approximately 12 Inches Apart Across The Width Of The Blanket.
3. Roll Center Blanket In Direction Of Water Flow In Bottom Of Channel. Blankets Will Unroll With Appropriate Side Against The Soil Surface. All Blankets Must Be Securely Fastened To Soil Surface By Placing Staples/Stakes In Appropriate Locations As Shown In The Staple Pattern Guide. When Using Optional Dot System, Staples/Stakes Should Be Placed Through Each Of The Colored Dots Corresponding To The Appropriate Staple Pattern.
4. Place Consecutive Blankets End Over End (Shingle Style) With A 4-6 Inch Overlap. Use A Double Row Of Staples Staggered 4 Inches Apart And 4 Inches On Center To Secure Blankets.
5. Full Length Edge Of Blankets At Top Of Side Slopes Must Be Anchored With A Row Of Staples/Stakes Approximately 12 Inches Apart In A 6 Inch Deep By 6 Inch Wide Trench. Backfill And Compact The Trench After Stapling.
6. Adjacent Blankets Must Be Overlapped Approximately 2-5 Inches, (Depending On Blanket Type) And Stapled. To Ensure Proper Seam Alignment, Place The Edge Of The Overlapping Blanket (Blanket Being Installed On Top) Even With The Colored Seam Stitch On The Blanket Being Overlapped.
7. In High Flow Channel Applications, A Staple Check Slot Is Recommended At 30-40 Foot Intervals. Use A Double Row Of Staples Staggered 4 Inches Apart And 4 Inches On Center Over Entire Width Of The Channel.
8. The Terminal End Of The Blankets Must Be Anchored With A Row Of Staples/Stakes Approximately 12 Inches Apart In A 6 Inch Deep By 6 Inch Wide Trench. Backfill And Compact The Trench After Stapling.

NOTE:

- * Horizontal Staple Spacing Should Be Altered If Necessary To Allow Staples To Secure The Critical Points Along The Channel Surface.
- ** In Loose Soil Conditions, The Use Of Staple Or Stake Lengths Greater Than 6 Inches May Be Necessary To Properly Anchor The Blankets.

EROSION CONTROL BLANKET - FLOWLINE APPLICATION

Not To Scale



1. Prepare Soil Before Installing Blankets, Including Any Necessary Application Of Lime, Fertilizer, And Seed.
2. Begin At The Top Of The Slope By Anchoring The Blanket In A 6 Inch Deep By 6 Inch Wide Trench With Approximately 12 Inches Of Blanket Extended Beyond The Upslope Portion Of The Trench. Anchor The Blanket With A Row Of Staples/Stakes Approximately 12 Inches Apart In The Bottom Of The Trench. Backfill And Compact The Trench After Stapling. Apply Seed To Compacted Soil And Fold Remaining 12 Inch Portion Of Blanket Back Over Seed And Compacted Soil. Secure Blanket Over Compacted Soil With A Row Of Staples/Stakes Spaced Approximately 12 Inches Apart Across The Width Of The Blanket.
3. Roll The Blankets (A.) Down Or (B.) Horizontally Across The Slope. Blankets Will Unroll With Appropriate Side Against The Soil Surface. All Blankets Must Be Securely Fastened To Soil Surface By Placing Staples/Stakes In Appropriate Locations As Shown In The Staple Pattern Guide. When Using Optional Dot System, Staples/Stakes Should Be Placed Through Each Of The Colored Dots Corresponding To The Appropriate Staple Pattern.
4. The Edges Of Parallel Blankets Must Be Stapled With Approximately 2-5 Inches Overlap Depending On Blanket Type. To Ensure Proper Seam Alignment, Place The Edge Of The Overlapping Blanket (Blanket Being Installed On Top) Even With The Colored Seam Stitch On The Previously Installed Blanket.
5. Consecutive Blankets Spliced Down The Slope Must Be Placed End Over End (Shingle Style) With An Approximate 3 Inch Overlap. Staple Through Overlapped Area, Approximately 12 Inches Apart Across Entire Blanket Width.
6. Overlap The Blankets With The Direction Of The Flow Of The Water

NOTE:

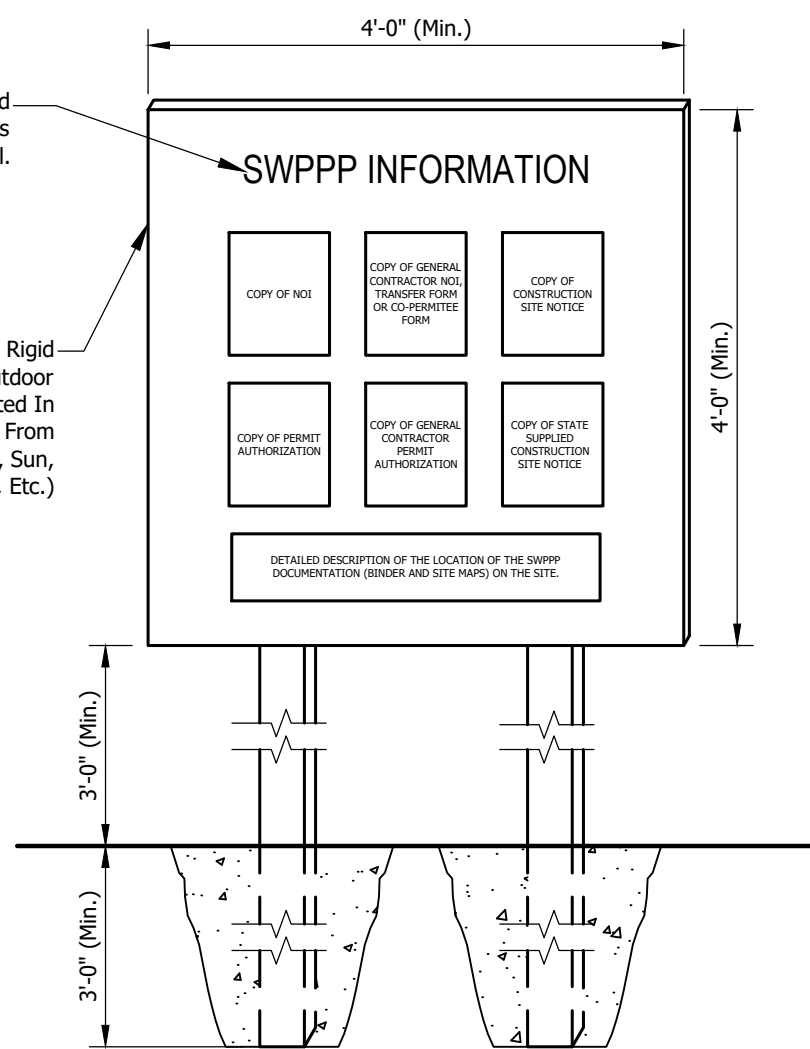
- * In Loose Soil Conditions, The Use Of Staple Or Stake Lengths Greater Than 6 Inches May Be Necessary To Properly Secure The Blankets.

EROSION CONTROL BLANKET - SLOPE APPLICATION

Not To Scale

"SWPPP INFORMATION" Must Be Displayed Prominently Across The Top Of The Sign, As Shown In The Detail.

Sign To Be Constructed Of A Rigid Material, Such As Plywood Or Outdoor Sign Board. Sign Must Be Constructed In A Manner To Protect Documents From Damage Due To Weather (Wind, Sun, Moisture, Etc.)

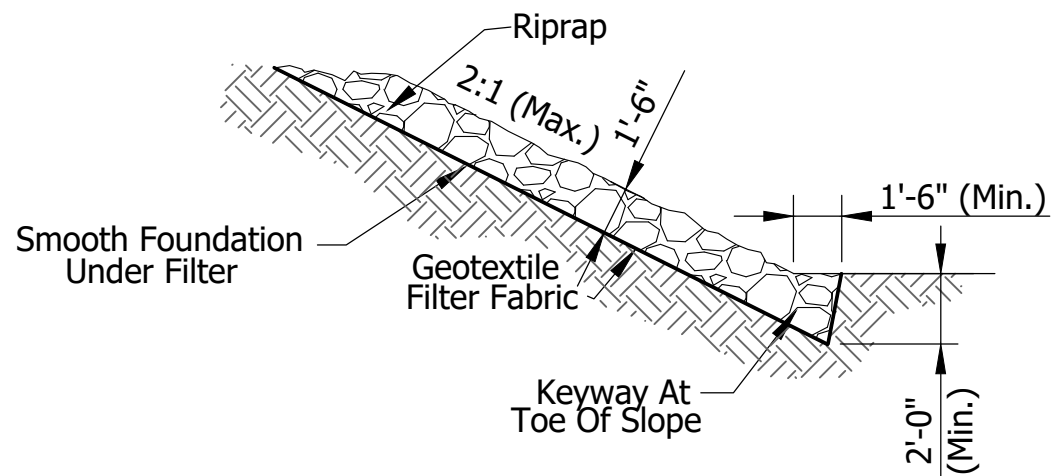


SWPPP INFORMATION SIGN

Not To Scale

NOTES:

- 1.) The SWPPP Information Sign Must Be Located Near The Construction Entrance Of This Site, Such That It Is Accessible And Viewable By The General Public, But Not Obstructing Views As To Cause A Safety Hazard.
- 2.) All Posted Documents Must Be Maintained In A Clearly Readable Condition At All Times Throughout Construction And Until The Notice-Of-Termination (NOT) Is Filed For The Permit.
- 3.) Contractor Shall Post Other Storm Water And/Or Erosion And Sediment Control Related Permits On The Sign As Required.
- 4.) Sign Shall Be Located Outside Of Public Right-Of-Way And Easements Unless Approved By The Plainfield MS4 Operator.



NOTES:

Installation:

Excavate Only Deep Enough For Both Filter And Riprap. Compact Any Fill Material To The Density Of The Surrounding Undisturbed Soil.

Cut A Keyway In Stable Material At The Base Of The Slope To Reinforce The Toe. Keyway Depth Should Be 1 1/2 Times The Design Thickness Of The Riprap, And Should Extend A Horizontal Distance Equal To The Design Thickness.

Place Geotextile Fabric On The Smoothed Foundation, Overlapping The Edges 12 Inches Minimum. Secure With Anchor Pins Spaced Every 3 Feet Along The Overlap.

Immediately After Installing The Filter, Add The Riprap To Full Thickness In One Operation. Do Not Dump Through Chutes Or Use Any Method That Causes Segregation Of Rock Sizes, Or That Will Dislodge Or Damage The Underlying Filter Material.

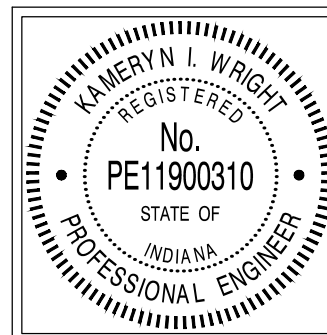
If Fabric Is Damaged, Remove The Riprap And Repair By Adding Another Layer Of Fabric, Overlapping The Damaged Area By 12 Inches.

Place Smaller Aggregate In Voids To Form A Dense, Uniform, Well Graded Mass. Blend The Riprap Surface Smoothly With The Surrounding Area To Eliminate Protrusions Or Over Falls.

Maintenance:

Inspect Periodically For Displaced Aggregate Material, Slumping And Erosion At Edges, Especially Downstream Or Downslope.

RIPRAP
Not To Scale



RECOMMENDED FOR APPROVAL:

DESIGNED: G. Nulliner
DRAWN: G. Nulliner
CHECKED: K. Wright
CHECKED: K. Wright

LANDFILL GRADING IMPROVEMENTS
PHASE 2

Headquarters:
8450 WESTFIELD BLVD., SUITE 300
INDIANAPOLIS, IN 46240-8302
TEL 317-713-4615
FAX 317-713-4616
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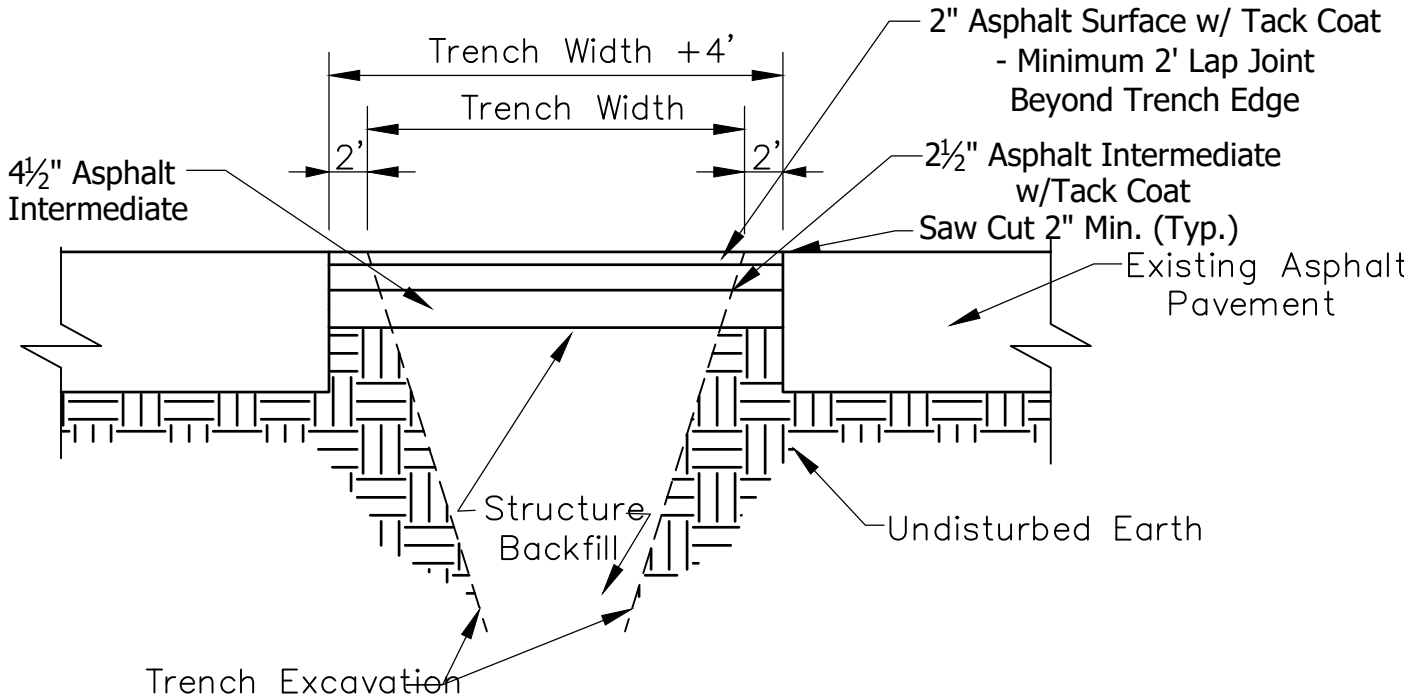
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260-459-1532
502-593-1996
765-433-5602
219-769-2333
317-839-3242

CIVIL ENGINEERS

HORIZONTAL SCALE	
As Noted	
VERTICAL SCALE	
As Noted	
SHEET	
12	OF 12
PROJECT	

WELDED WIRE INLET PROTECTION

Not To Scale

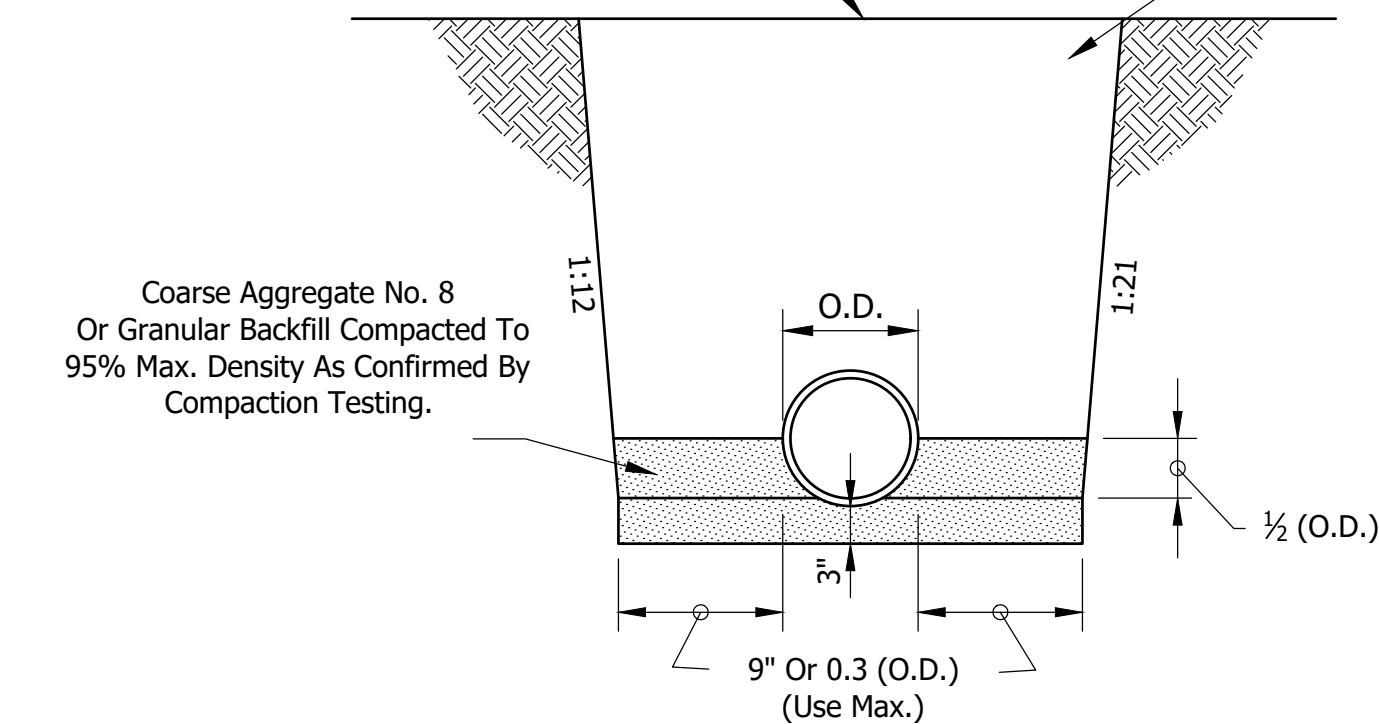


ASPHALT

PAVEMENT RECONSTRUCTION DETAILS

Not To Scale

Finished Ground; However, Contractor Shall Coordinate Grade To Ensure Proper Pavement Section Or To Allow Placement Of Approved Loam Material To A Depth Of 8" For Seeding Or Sodding.



RCP PIPE BEDDING DETAIL

Scale: None

DETAIL SHEET

BFS NO. 7202