

WEST VIRGINIA

Department of
ENVIRONMENTAL
PROTECTION



2022 AML Contract 2 Project South
Update

December 8, 2023



RESPEC.COM



Project

CONTRACT 2

PROJECT SOUTH

01

CROWN HILL REFUSE,
slide and drainage

02

MORRIS CREEK
TREATMENT

03

SUMMERLEE AMD
TREATMENT

04

PRICE HILL COMPLEX -
POND CLEANING

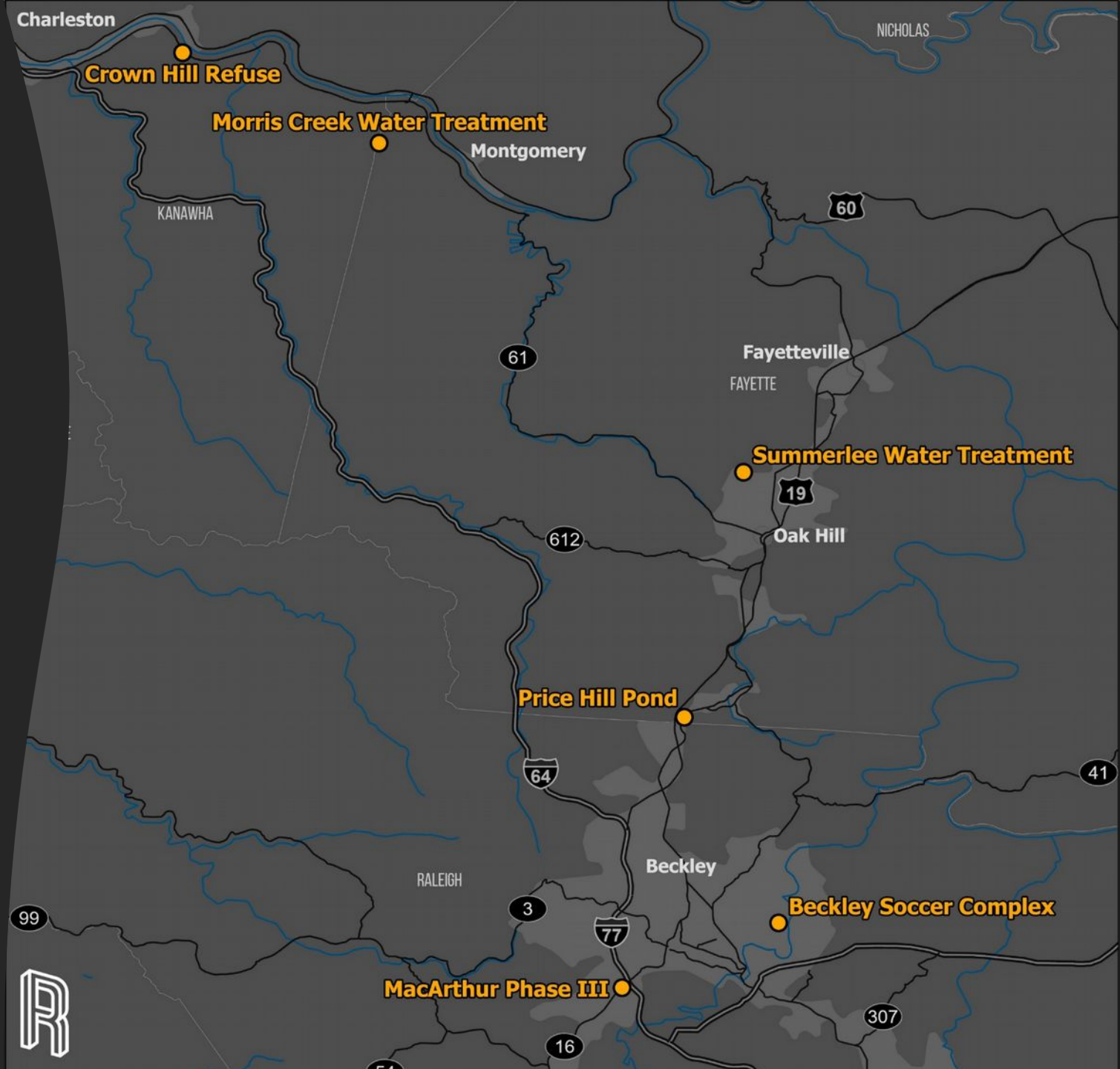
05

Beckley soccer complex

06

MACARTHUR
SUBSIDENCE

we
know
the
challenges



Crown hill refuse, slide, and drainage

Key Issues

- / Open/Collapsed Portals
 - / AMD Draining from open portals
 - / Wet & Dry Seals
- / Slide
 - / 600' upslope & approximately 100'. ~1.2 Acres
 - / Secondary Slide forming
- / Refuse
 - / Potential for coal refuse combustion
 - / Site has existing coal blocks and refuse that will not require remediation

Site Constraints

- / EROE - completed
- / Difficult access
- / Division of Highways permit needed due to proximity
- / Slope Stability



Main Active Landslide



Main Active Slide Material



Collapsed and Draining Entry-Iron Laden Drainage

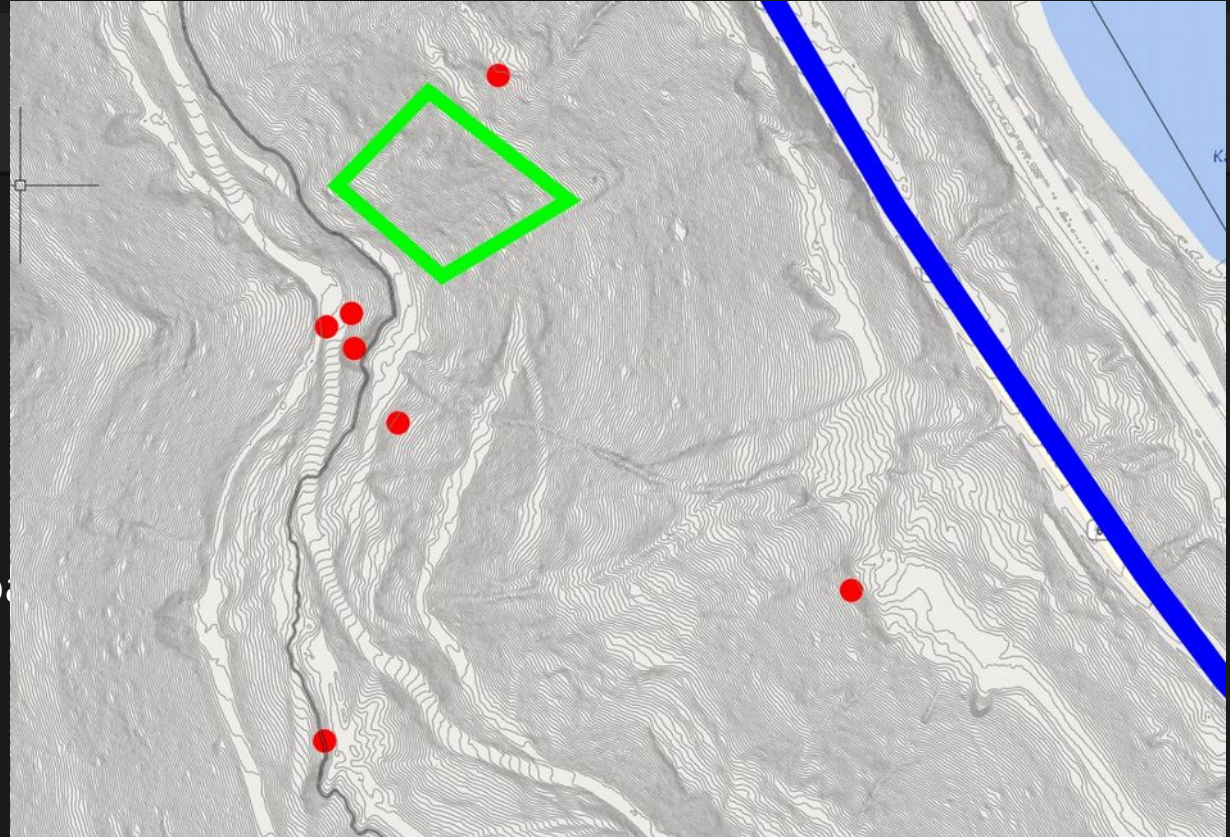


Collapsed and Draining Entry-Top of Main Slide

Crown hill refuse, slide, and drainage

Design Phase

- / Surveying Completed
- / Drilling Completed
- / Bat Assessments Completed
- / Conceptual Plan being Developed
- / Portal Closures (6 wet seals/1 wet seal with b
- / Possible Retaining Wall
- / Revegetation
- / Possible AMD Treatment



Grant Application Estimated Construction Cost - \$ 616,875

Estimated Design Schedule

Activity/Task	Q3-2023	Q4-2023	Q1-2024	Q2-2024	Q3-2024	Q4-2024
Initial Site Investigations (Survey, Mapping, Drilling, Water Sampling)	█					
Conceptual Plan and Review		█				
95% Plans			█			
Permitting/NPDES/WDOH				█		
Construction ROE					█	
Publish Final Design						█

morris creek TREATMENT

Key Issues

- / Failure in passive AMD treatment system (3 ponds) that was installed in 2014
- / AMD coming from multiple sealed mine entries

Site Constraints

- / EROE-Complete
- / Power Supply
- / USACE Permit
- / Multiple Counties

Grant Application Estimated
Construction Cost - \$1.2M



Estimated Design Schedule

Design Phase

- / Currently Conducting Water Testing
- / Remove/Upgrade existing system
- / Construct New System (Possibly Active)
- / Extend electrical lines

Activity / Task	Q3-2023	Q4-2023	Q1-2024	Q2-2024	Q3-2024	Q4-2024
Initial Site Investigations (Survey, Mapping, Drilling, Water Sampling)		█				
Conceptual Plan Review			█			
95% Plans				█		
Permitting/NPDES/MWDOH/USACE					█	
Environmental Consultations/Assessments						█
Construction ROE						█
Publish Final Design						█

Summerlee AMD treatment

Key Issues

- / Existing Passive Treatment Failing
 - / Highly acidic surface runoff and mine drainage from refuse pile
 - / 3-4 GPM surface runoff
 - / AMD flowing freely into Wolf Creek of the New River
 - / Clogged with iron sludge and debris

Site Constraints

- / EROE – completed
- / Public Participation
- / Waste Disposal
- / Power Supply



Price hill complex – pond

cleaning Key Issues

- / 4 Sediment Ponds original installed for iron settling no longer working
- / Previous AML project
- / Maintenance rounds have been completed at the site
 - / Berm
 - / Dike
 - / Dipping



Site Constraints

- / Sludge Disposal
- / No Ownership

Design Phase

- / Survey Completed
- / Water and Sludge Test
- / Remove Sludge Material and Disposal in Land Fill
- / Maintenance on Pond Embankments

Grant Application Estimated Construction Cost - \$500,000

Estimated Design Schedule

Activity / Task	Q4-2023	Q1-2024	Q2-2024	Q3-2024	Q4-2024
Initial Site Investigations (Survey, Mapping, Drilling, Water Sampling)					
Conceptual Plan & Review					
95% Plans					
Permitting/NPDES/WWDOH/USACE					
Environmental Consultations/Assessments					
Publish Final Design					

BECKLEY SOCCER COMPLEX

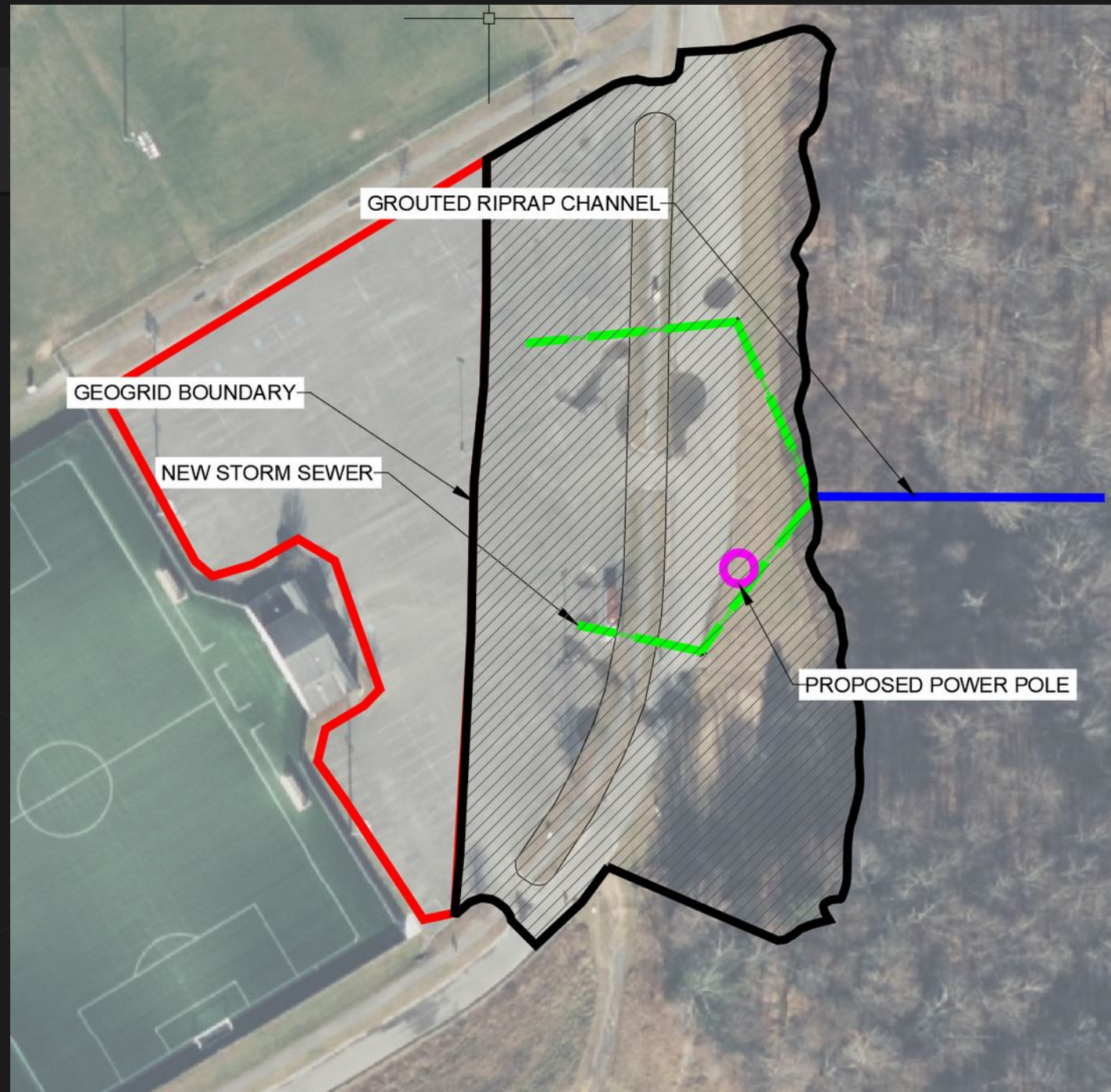
- / Subsidence
 - / ~450 LF Scarp Line
 - / Average 3' deep and ~40 in in width
- / Open/Collapsed Portals
 - / 7 Different locations
 - / Wet & Dry

Site Constraints

- / EROE - COMPLETED
- / Heavy utilized public facility
 - / Soccer Fields
 - / Hilling and Biking Trails
- / Access to portals from trail system
- / Public interaction

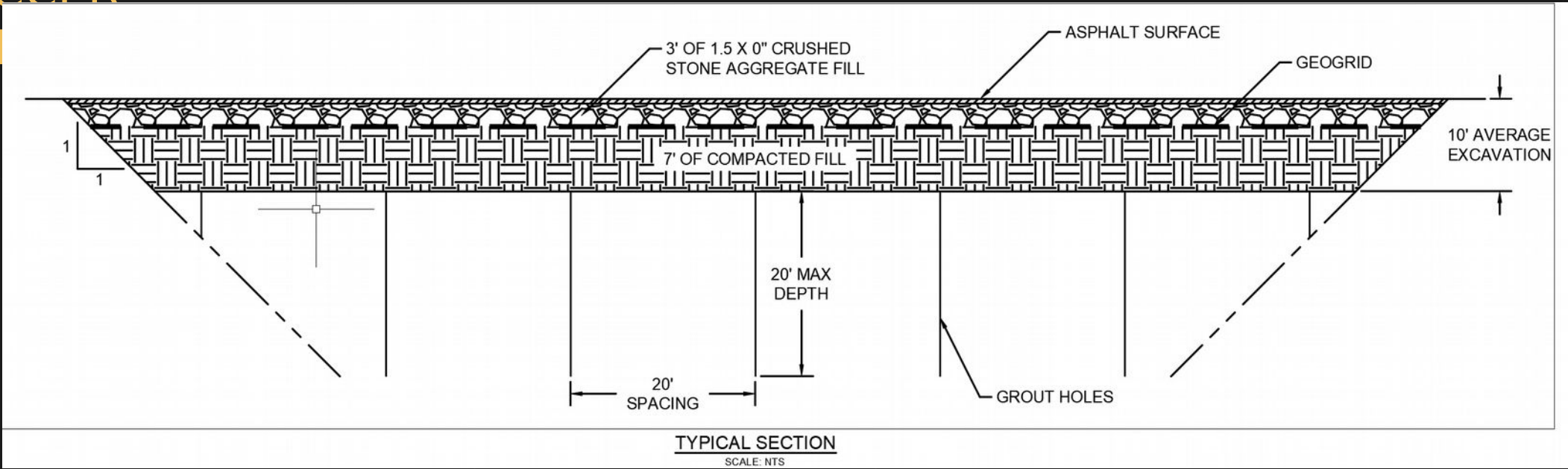


BECKLEY
SOCCER
COMPLEX

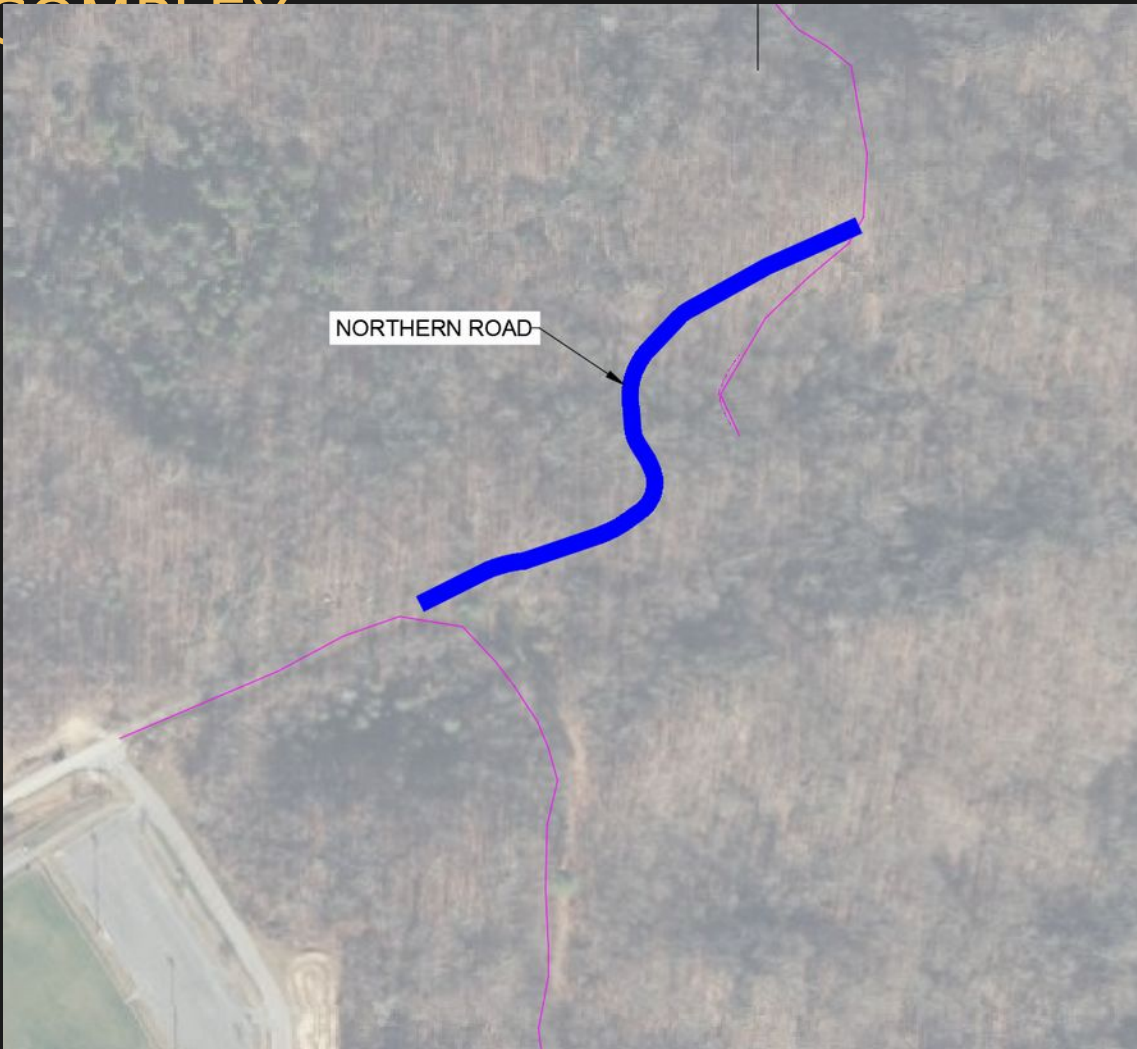


CONTRACT 2
PROJECT SOUTH

BECKLEY
SOCCER
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BECKLEY
SOCCER
COMPLEX



BECKLEY
SOCCER
COMPLEX

Grant Application Estimated
Construction Cost - \$1.8m



Estimated Design Schedule

Activity/Task	Q3-2023	Q4-2023	Q1-2024	Q2-2024
95% Plans				
Permitting/NPDES/WMDOH/USACE				
Environmental Consultations/Assessments				
Construction ROE				
Publish Final Design				

Macarthur subsidence

Key Issues

- / Subsidence
 - / Extensive history of subsidence
 - / 40' - 80' of cover between mine and ground surface
 - / Phase I and II AML projects have already been completed

Site Constraints

- / CORE- ~150 property owners

Design Phase

- / 21 Exploratory Drill Holes Completed
- / Geological Model Completed
- / Grouting Underground Mine Works

Grant Application Estimated Construction Cost- \$10.4M



Estimated Design Schedule

Activity/ Task	Q2-2023	Q3-2023	Q4-2023	Q1-2024	Q2-2024	Q3-2024	Q4-2024
Initial Site Investigations (Survey, Mapping, Drilling, Water Sampling)	█	█					
Conceptual Plan & Review			█	█			
95% Plans				█	█		
Permitting/NPDES/WMDOH/USACE					█	█	
Environmental Consultations/Assessments					█	█	
Construction ROE						█	█
Publish Final Design							█



We are
committed
to
dedicating
the necessary
resources to
complete
projects
efficiently and
in a timely
manner.



Thank you

We look forward to your questions

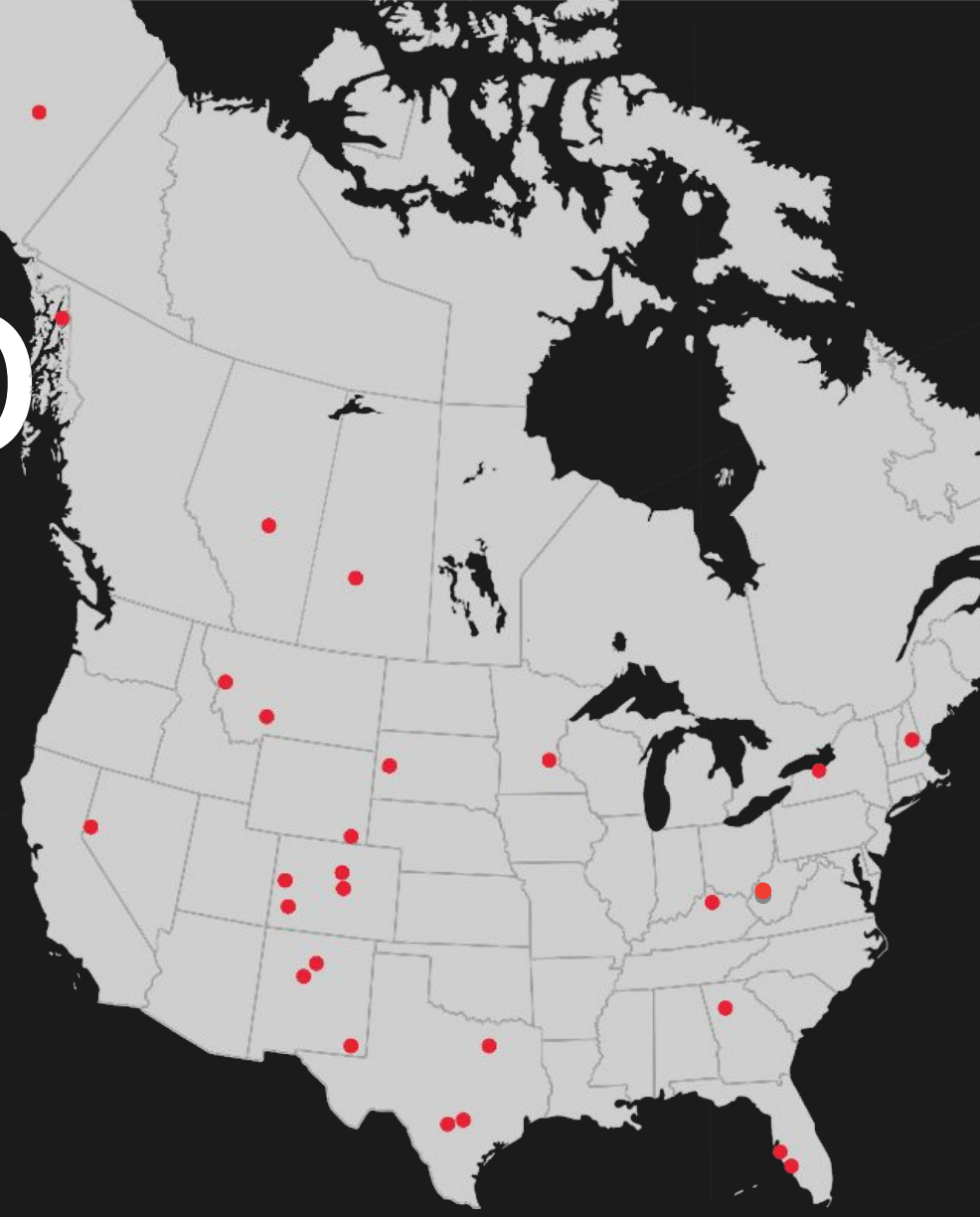


**WHITNEY
FAULKNER**

Project Manager

773.218.5866

whitney.faulkner@respec.com



Respec.com