

TASK ORDER TO THE AGREEMENT

In accordance with the Miscellaneous Maintenance for Roads, Right-of-Ways, and Stormwater Maintenance Facilities Agreement, approved by the Board of County Commissioners on July 6, 2022 (the "Agreement") for work within the scope of Solicitation 22Q-141-TO-03 DRA 3250 Erosion Repair - Major Maintenance Project, this Project Amendment to the Agreement (this "Amendment") is made and entered into between Hartman Civil Construction Co., Inc. whose address 7379 N Whippoorwill Terrance, Hernando, FL 34442, and possessing FEIN# 46-5262082 ("CONTRACTOR") and Marion County, a political subdivision of the State of Florida, 601 SE 25th Avenue, Ocala, FL, 34471 ("COUNTY").

WITNESSETH

WHEREAS the parties wish to amend the Agreement as set forth below; and;

IN CONSIDERATION of the mutual covenants and conditions contained herein, the parties do hereby agree as follows:

1. This Amendment shall be deemed to amend and become a part of the Agreement in accordance with the original Solicitation and Agreement for Miscellaneous Maintenance for Roads, Right-of-Ways, and Stormwater Maintenance Facilities under 22Q-141.

2. CONTRACTOR's services and performance will be in accordance with the scope of service and fee schedule, Exhibit A hereto. The total cost for the Project will not exceed One Hundred and Forty-Three Thousand, Eight Hundred and Thirty-Seven Dollars with Zero Cents (\$143,837.00). The Project shall reach substantial completion within 30 calendar days with an additional 7 calendar days for final completion. All Work shall proceed in a timely manner without delays. **TIME IS OF THE ESSENCE.** All limitations of time set forth in the Contract Documents are of the essence of this Contractor. The Work may be presumed abandoned after ninety (90) days if CONTRACTOR terminates the Work without just cause or without proper notification to COUNTY, including the reason for termination, or fails to perform Work without just cause for ninety (90) consecutive days.

3. All provisions of the Agreement not specifically amended herein shall remain in full force and effect.

[REMAINDER OF PAGE
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IN WITNESS WHEREOF the parties have entered into this Amendment, as approved by the Marion County Board of County Commissioners, on the date of the last signature below.

ATTEST:

MARION COUNTY, A POLITICAL SUB-DIVISION OF THE STATE OF FLORIDA

GREGORY C. HARRELL, DATE
MARION COUNTY CLERK OF COURT

MICHELLE STONE DATE
CHAIRMAN

FOR USE AND RELIANCE OF MARION COUNTY ONLY, APPROVED AS TO FORM AND LEGAL SUFFICIENCY

BCC APPROVED: July 16, 2024
22Q-141-TO-03 DRA 3250 Erosion Repair - Major Maintenance Project

MATTHEW G. MINTER, DATE
MARION COUNTY ATTORNEY

WITNESS:

Hartman Civil Construction Co., Inc.

SIGNATURE

BY: DATE

PRINTED NAME

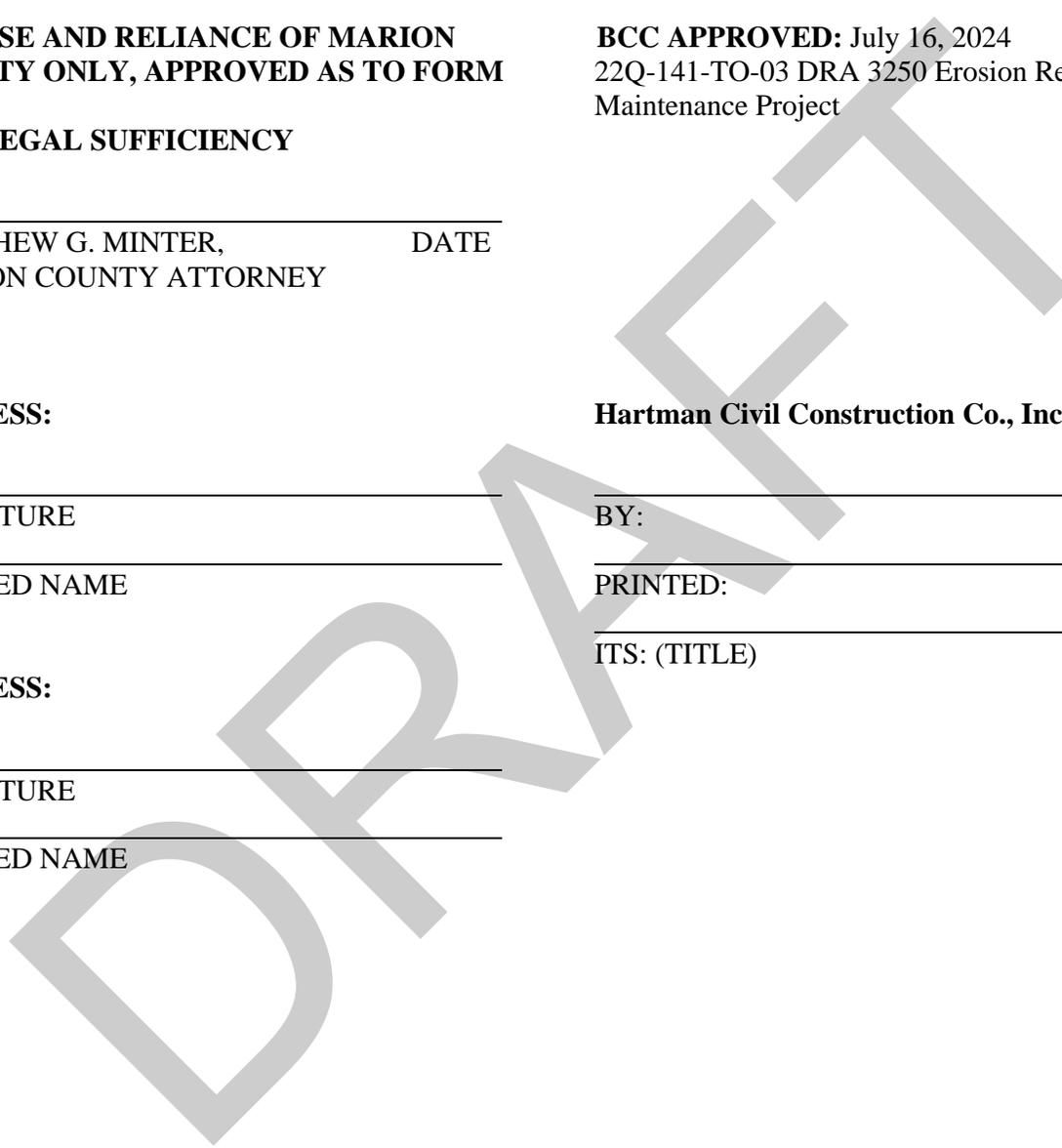
PRINTED:

WITNESS:

ITS: (TITLE)

SIGNATURE

PRINTED NAME



**MP 75 - DRA 3250 Major Maintenance Project
Scope of Work**

DRA # 3250

Parcel ID # Within an easement on
PID# 35300-000-14.

Area in Acres 2.6

Type Dry

Const. Type Constructed

Fencing Type N/A

Side Slope 4:1

Subdivision OTOW Phase 1-A
Section 2-A

Estimated Address SW 60th AVE

Latitude N 29° 08'54.7"

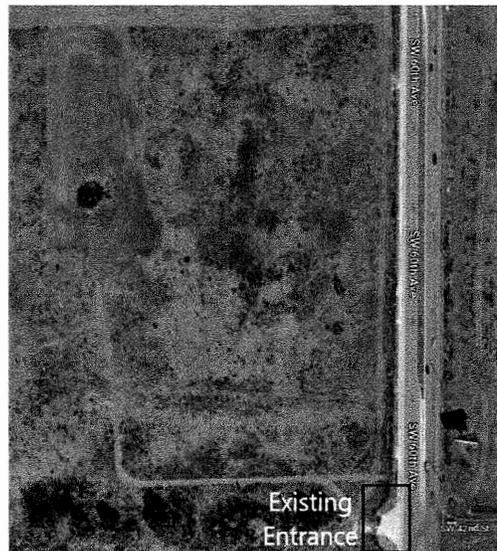
Longitude W 82° 13'15.0"



Quantity	Work Description
1 LS	01 SE side of DRA: Construction Entrance

The CONTRACTOR will be responsible for repairs to any damage to the concrete drive, curbs, or asphalt roadway where trucks and equipment are entering and exiting the DRA. Gate needs to be secured at all times when not in use. Cattle roam freely within this field.

The logistics of utilizing this area to access the DRA is considered part of this pay item, which includes placement of material to construct a driveway/entrance that enables construction vehicles to enter and exit the DRA. Lime rock and crushed concrete are not suitable material for a construction entrance. Refer to Construction Entrance Detail or Construction Entrance with Pipe Detail. At the conclusion of the project, this entrance must be removed and the area restored to the original condition or better. Sod is to be used to permanently stabilize the construction entrance area, which is included in pay item 2.3 of the bid form (400 SY).



MP 75 - DRA 3250 Major Maintenance Project
Scope of Work

1,750 SY There is an existing pathway into the DRA. The Contractor is responsible for obtaining a signed letter from the Property Owner allowing the use of the existing entrance and pathway. The Contractor will be responsible for repairs to any damage to the pathway where trucks and equipment are entering and exiting the DRA. Seed & Mulch will be used to repair any damages to the pathway, which is included in pay item 1.4 of the bid form (1,750 SY). Seed & Mulch will be in accordance with FDOT Standard Specifications Section 570.

Sweeping of the county road is to be conducted by the CONTRACTOR to ensure sediment is removed from the road and the right-of-way at the end of each work day. These activities are part of the Construction Entrance pay item.

Contractor to install and maintain a rain gauge on-site. The rain gauge will need to be reset the morning after each rain event. Please do not empty the rain gauge until a Marion County Inspector is on-site to record the amount of rainfall.

600 SY 02 South and West side of DRA: Perform standard clearing and grubbing in area of sinkhole construction activity. See Construction Drawing Figures 1 – 4 (Locations A – E).

1 LS 03 South and West side of DRA: Earthwork including Sinkhole repairs in DRA bottom and side slope. See Construction Drawing Figures 1 – 4 (Locations A – E).

1. Vegetative and soil material removed from this area shall be properly disposed. Removed topsoil can be reused by the CONTRACTOR as part of the Earthwork pay item. If other material is reused, the material must be raked for removal of roots and other debris prior to placement. Removal of this material from the reused topsoil is considered incidental.
2. Contractor will need to coordinate with Andreyev on time and date for the sinkhole repair. Andreyev is contracted for (16) sixteen hours to observe the sinkhole repair. Contractor will need to complete all sinkhole repairs within (16) sixteen hours.
3. A 75' x 75' area has been accounted for in order to stage material for the sinkhole repairs. The staging area must be within the limits of the easement. Once material has been removed, sod will be used to repair this area. This is included in pay item 1.5.
4. Repair of sinkhole/erosion areas in DRA side slopes & bottom. (Areas A-E)
 - a. The construction limits of the sinkhole areas impact a volume of 1,317 cubic yards (CY) (does not include volume impacted by trench slopes). The construction limits of sinkhole area **A** is 91 square yards (SY) with a maximum depth of 4 feet. The sinkhole repair area is 16 feet x 51 feet with a maximum depth of 4 feet below the existing ground. The construction limits of sinkhole area **B** is 33 square yards (SY) with a maximum depth of 4 feet. The sinkhole repair area is 14 feet x 21 feet with a maximum depth of 4 feet below the existing ground. The construction limits of sinkhole area **C** is 34 square yards (SY) with a maximum depth of 4 feet. The sinkhole repair area

MP 75 - DRA 3250 Major Maintenance Project
Scope of Work

is 16 feet x 19 feet with a maximum depth of 4 feet below the existing ground. The construction limits of sinkhole area **D** is 131 square yards (SY) with a maximum depth of 4 feet. The sinkhole repair area is 21 feet x 56 feet with a maximum depth of 4 feet below the existing ground. The construction limits of sinkhole area **E** is 311 square yards (SY) with a maximum depth of 9 feet. The sinkhole repair area is 50 feet x 56 feet with a maximum depth of 9 feet below the existing ground.

- b. The Contractor shall over-excavate a minimum horizontal distance of five (5) feet beyond the outside edge of the depression and a minimum vertical distance of three (3) feet to expose solution tubes (included in dimensions and depths above), solution tubes shall then be crushed and backfilled per Andreyev's repair recommendation.
- c. Suitable material must be used to backfill the sinkhole. The Contractor shall utilize either onsite material or clean borrow material. Using the AASHTO Soil Classification System, the material used will need to be classified by the Contractor and follow Andreyev's repair recommendation (see Exhibit A Geotechnical Report). The material used to backfill the sinkhole will need to be tested by the contractor and results will need to be provided to the County and Andreyev Engineering to verify the material matches the recommendation. When using on-site material, limerock/rock/ boulders larger than two (2) inches in diameter must be removed from excavated material prior to backfill of sinkhole. Each 12-inch lift must consist of homogeneous (same source) material (In Place Quantity: 1,317 CY).
- d. During the repair of sinkhole/significant erosion, it may become necessary to go outside of the construction limits. This additional work will be addressed for payment in either of two ways, as determined by the COUNTY ENGINEER or his designee:
 - 1. Prorated at a cubic yard price, which will be determined by dividing the Earthwork pay item by the construction limit volume; or
 - 2. Time and materials based on labor and equipment rates.
- e. Note: Testing of the on-site material has been performed by the COUNTY and results are included in the bid package. It is the CONTRACTOR's responsibility to utilize means and methods to ensure that the material is worked such that, even if excavated wet, the material can be placed, compacted, and meet density requirements (90% of modified proctor). Failed density tests will be back charged to the Contractor.
- f. Note: The CONTRACTOR is responsible for utilizing shoring or a trench slope to meet OSHA requirements. This work is considered incidental in the cost of the Earthwork pay item.

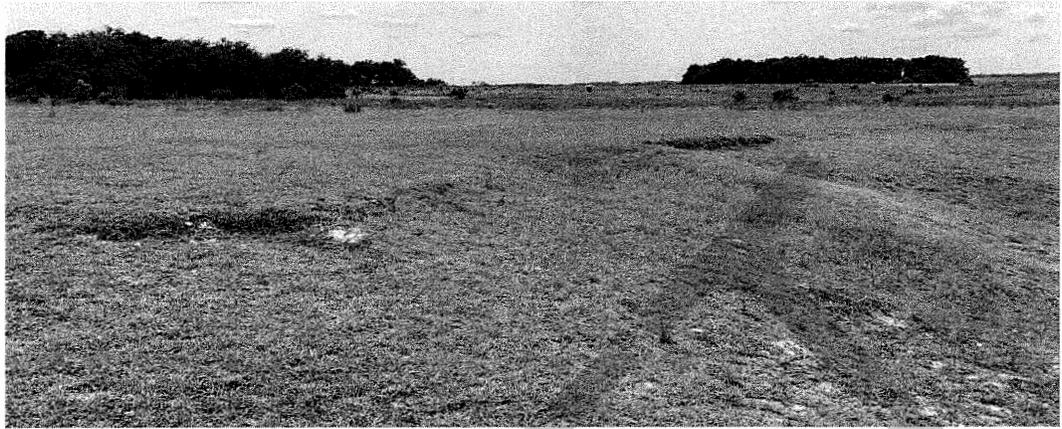
1,473 SY

04 South and West side of DRA: Bahia sod needed for sinkhole repair. Surface area to be sodded within the construction limits = 600 SY, additional sod quantity is estimated utilizing a 1:1 trench slope area = 473 SY, and construction entrance = 400 SY. Pallet sod only.

If a trench slope is not utilized, sod for that area will not be paid. If a gentler slope is used for the trench slope, the additional area will be considered as means and methods and the additional sod considered incidental to pay item sinkhole repair/earthwork.

MP 75 - DRA 3250 Major Maintenance Project
Scope of Work

- 1 LS 05 Southern corner of DRA at top of pond: Earthwork including Erosion Repair in DRA side slope. See Construction Drawing Figure 3 (Location F).



- 195 SY 06 Southern corner of DRA at top of pond: Finish grade and sod to match existing side slope of pond with Bahia – 70' wide x 25' long area. Pallet sod only.

- 154 SY 07 Southern corner of DRA at pond bottom: Standard clear and grub 55' wide x 50' long area (See Construction Drawing Figure 4). Includes removal of brush and debris. Also included, is the removal of rip rap from clear and grub area.
-Total clear and grub area = 241 SY. However, 87 SY was accounted for with Location E.



- 1 LS 08 Southern corner of DRA at pond bottom: Finish grade area to one foot below invert of outfall pipe. Install geotextile in accordance with FDOT specifications 514, attached to MES. Install rip rap on geotextile (approximately 10' wide x 10' long x 18" high). Taking care not to damage material in accordance with FDOT specifications 530 & 985. Rip rap shall be 12"-18" in size and hard rock material (granite). Lime rock and crushed concrete will not be accepted. Re-establish sump area per Construction Drawing Figure 4. Line item includes any fill material needed to re-establish the 50' x 50' sump area to a 4:1 slope. Fill being brought in will need to be similar to on-site material.

MP 75 - DRA 3250 Major Maintenance Project
Scope of Work

278 SY

09 Southern corner of DRA at pond bottom: Re-established 50' x 50' sump area finish grade and sod with Bahia. Pallet sod only.

DRAFT

DRA 3250 EROSION REPAIR – MAJOR MAINTENANCE PROJECT

SPECIAL PROVISIONS

SP-1. SPECIFICATIONS AND COORDINATION OF DOCUMENTS

Work shall be in accordance with the Marion County Land Development Code, FDOT Standard Specification for Road and Bridge Construction, latest edition, and FDOT Design Standards, latest edition. In case of a discrepancy or conflict, the specification to follow will be the strictest/most conservative as determined by the COUNTY ENGINEER or his designee.

Order of Precedence:

Contract
Special Provisions
General Conditions
Specifications
Details on Drawings
Plan Drawings

SP-2. LIQUIDATED DAMAGES: Liquidated damages shall be assessed at a rate of \$250 per day.

SP-3. CONTRACTOR must provide a supervisor on-site in the day to day activities.

SP-4. CONTRACTOR shall submit the following items within seven (7) days of the Notice of Award, and prior to issuance of the Notice to Proceed (NTP):

- a. Proof of Insurance,
- b. Construction Schedule that complies with CONTRACT time,
- c. List of SUB-CONTRACTORS,
- d. List of Suppliers,
- e. List of Emergency Telephone numbers,
- f. Detailed MOT plan,
- g. Copy of MOT certification,
- h. Copy of Stormwater Erosion and Sedimentation Control Inspector certification,
- i. Any other document required by the contract and not listed above.

SP-5. PROJECT MANAGEMENT: The CONTRACTOR shall appoint one individual to act as the CONTRACTOR's representative in regard to the contract. Contact numbers for this individual and for a secondary, or backup, person shall be provided to the COUNTY. Daily Reports (DR) or Weekly Progress Reports shall be completed by the Project Manager or authorized representative and must be signed by the CONTRACTOR. Quantities identified on the DRs shall be compared to invoices submitted by the CONTRACTOR for accuracy prior to payment being made to the CONTRACTOR.

SP-6. HOURS OF OPERATION AND OVERTIME: For overtime purposes, the COUNTY's working schedule is from 8:00 A.M. to 5:00 P.M., Monday through Friday, eight (8) hours per day/forty (40) hours per week except on holidays. Work during other times, on weekends, or on Holidays must be requested and pre-approved by the County at least 48 hours in advance.

SP-7. TEMPORARY FACILITIES: The CONTRACTOR will not be required to maintain a Field Office.

SP-8. DEWATERING: Minor water may be encountered during repair and dewatering will be considered incidental as area percolates and is workable within 24 hours.

DRA 3250 EROSION REPAIR – MAJOR MAINTENANCE PROJECT

- SP-9. DEWATERING: Activities to address/control a substantial volume of water due to heavy or multiple rainfall events will require the use of berms/dams and a large pump to eliminate accumulated water from the excavated project area. This activity shall be paid lump sum through C.1. The contractor must submit a Dewatering Plan for review and approval prior to performing any dewatering activities. Dewatering activities must be initiated within 24 hours of the end of said rainfall event(s). Only one recovery day maximum will accompany a major rainfall event or multiple rainfall events occurring in sequential days.
- SP-10. IMPLEMENTATION OF EROSION CONTROL BEST MANAGEMENT PRACTICES (BMPs): Implementation of all erosion control BMPs are considered incidental to this project unless identified in Exhibit A for a specific Work Location. BMPs specified at work locations shall be paid as per Section 2.2.
- SP-11. MAINTENANCE OF TRAFFIC: The CONTRACTOR shall submit a Maintenance of Traffic Plan at the pre-construction meeting for performing the prescribed work as identified in Exhibit A. Maintenance of Traffic shall be per Section 2.1 of these specifications.
- SP-12. MOBILIZATION: The CONTRACTOR shall submit mobilization cost as part of the Fee schedule. Payment shall be made for all work in this activity, verified, inspected and accepted, in accordance with this Contract and Task Order.
- SP-13. METHOD OF MEASUREMENT and BASIS OF PAYMENT: Except for items noted in the Bid Form to be paid in Lump Sum, the Method of Measurement shall be per work location and the Basis of Payment shall be per unit price for each item identified in the Quote Form for each work location completed, inspected and accepted by the COUNTY.
- SP-14. TREE PROTECTION: This item is included in the pay item for Clearing and Grubbing and no extra compensation will be allowed. Pruning and maintenance may be necessary when branches must be removed. Make smooth cuts, as flush to the trunk as possible. Treat trees immediately with pruning paint unless they are pine trees. The sap from the Pine Tree will seal them. Removal of trees as shown on the construction plans shall be removed in a manner that will protect adjacent tree root structure. Protection from machinery and equipment is the responsibility of the CONTRACTOR. Any trees not labeled on the construction plans for removal will not be damaged, destroyed or removed. The CONTRACTOR will be subject to a penalty of Two Thousand Five Hundred Dollars (\$2,500) per damaged tree. No machinery or equipment shall be parked under or near any trees for any period of time.
- SP-15. STANDARD CLEARING AND GRUBBING: Material used to fill the holes is considered incidental and shall be included in the Clearing and Grubbing price. All areas shall be stabilized with sod within seven (7) days or as soon as all earth disturbing activities are complete for the work location. Hauling and disposal of materials from the clearing and grubbing effort is considered incidental and shall be included in the price for standard clearing and grubbing.
- SP-16. Prior to construction, contractor is to locate all utilities, cable lines, etc. It may be necessary to remove, modify, and/or relocate existing lines/systems to continue providing service to existing buildings and facilities. Coordination of any temporary service interruptions is to be the responsibility of the contractor.

DRA 3250 EROSION REPAIR – MAJOR MAINTENANCE PROJECT

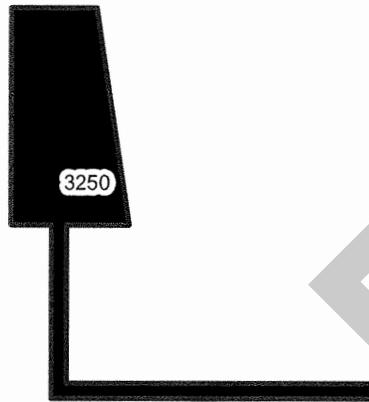
SP-17. ENVIRONMENTAL SERVICES: This project does involve potential gopher tortoise (GT) relocations. The CONTRACTOR will hire an environmental consultant that will survey the project areas for listed species and provide permitting for any needed protection/collection/movement of the listed species, including GTs. The Contractor will need to work with their Consultant with an excavator and operator for protection, collection, relocation, and/or removal of the listed species from the project areas, in accordance with the FWC Permit. Payment for environmental services shall be made at the lump sum price bid and shall constitute full compensation for coordination, environmental survey with report, permitting and permit fees, and all work and equipment necessary to protect on-site and/or relocate GTs. If the relocation of GTs is required off-site, payment shall be made under Gopher Tortoise - Recipient Site Fee per each GT relocated under contingency. If GTs are not required to be relocated off-site, payment shall be made under contingency item Gopher Tortoise - Protected On-Site per each GT remaining on-site with protective barriers.

END OF SPECIAL PROVISIONS

DRAFT

SW 38th ST

SW 39th ST



SW 60th AVE

SW 58th AVE

SW 57th CT

SW 40th PL

CROSS
OVER

SW 42nd ST

SW 42nd PL

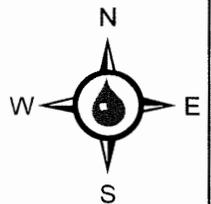
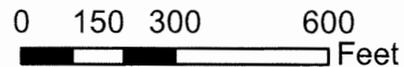
SW 43rd
STREET RD

SW 43rd PL

Legend

-  Storm Basins (DRAs)
-  County, Paved
-  County, Not Paved
-  County, MSTU, Paved
-  Other
-  Parcels

Date Created: 9/19/2023
Last Modified: 9/19/2023



MP 75 Major Maintenance Overall Location Map (DRA 3250)

Marion County
Office of the County Engineer
Stormwater Program
412 SE 25th Avenue
Ocala, FL 34471

LEGEND

 STANDARD CLEAR & GRUB (TYP)

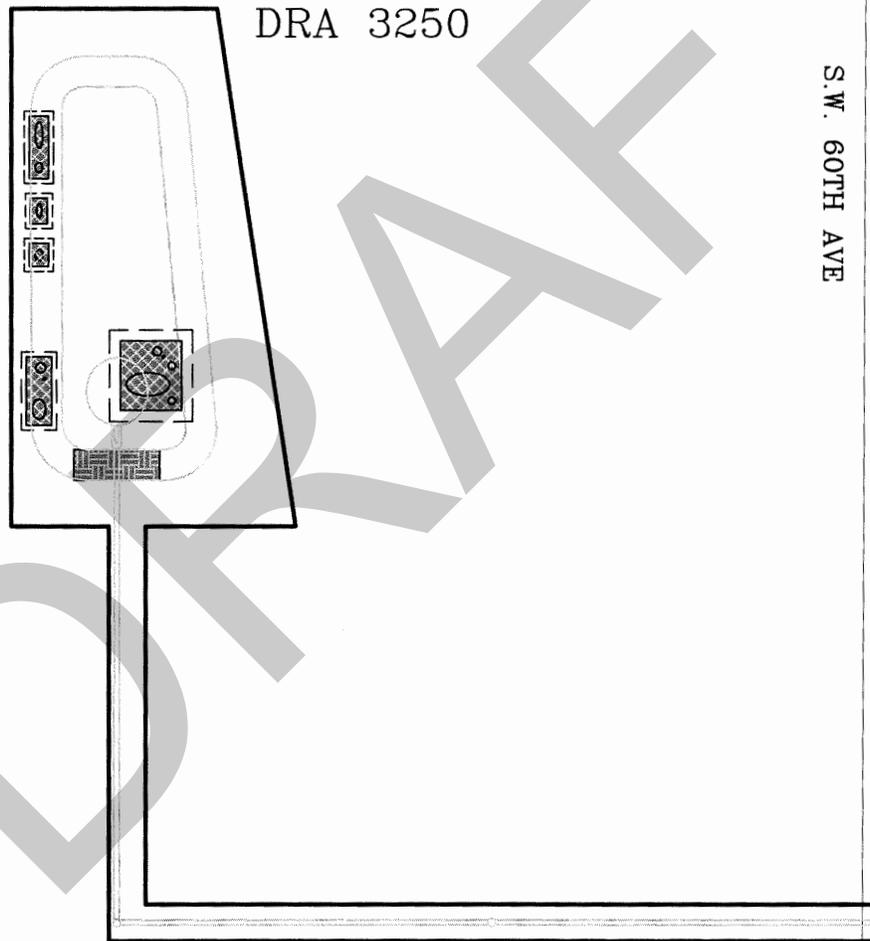
 FINISH GRADE & SOD AREA (TYP)

 EROSION REPAIR (TYP)

 MITERED END SECTION (MES)



SCALE 1" = 150'



Marion County
Office of the County Engineer
412 SE 25th Ave. Ocala, FL 34471

FIGURE 1
MP 75 DRA 3250
S.W. 60TH AVE

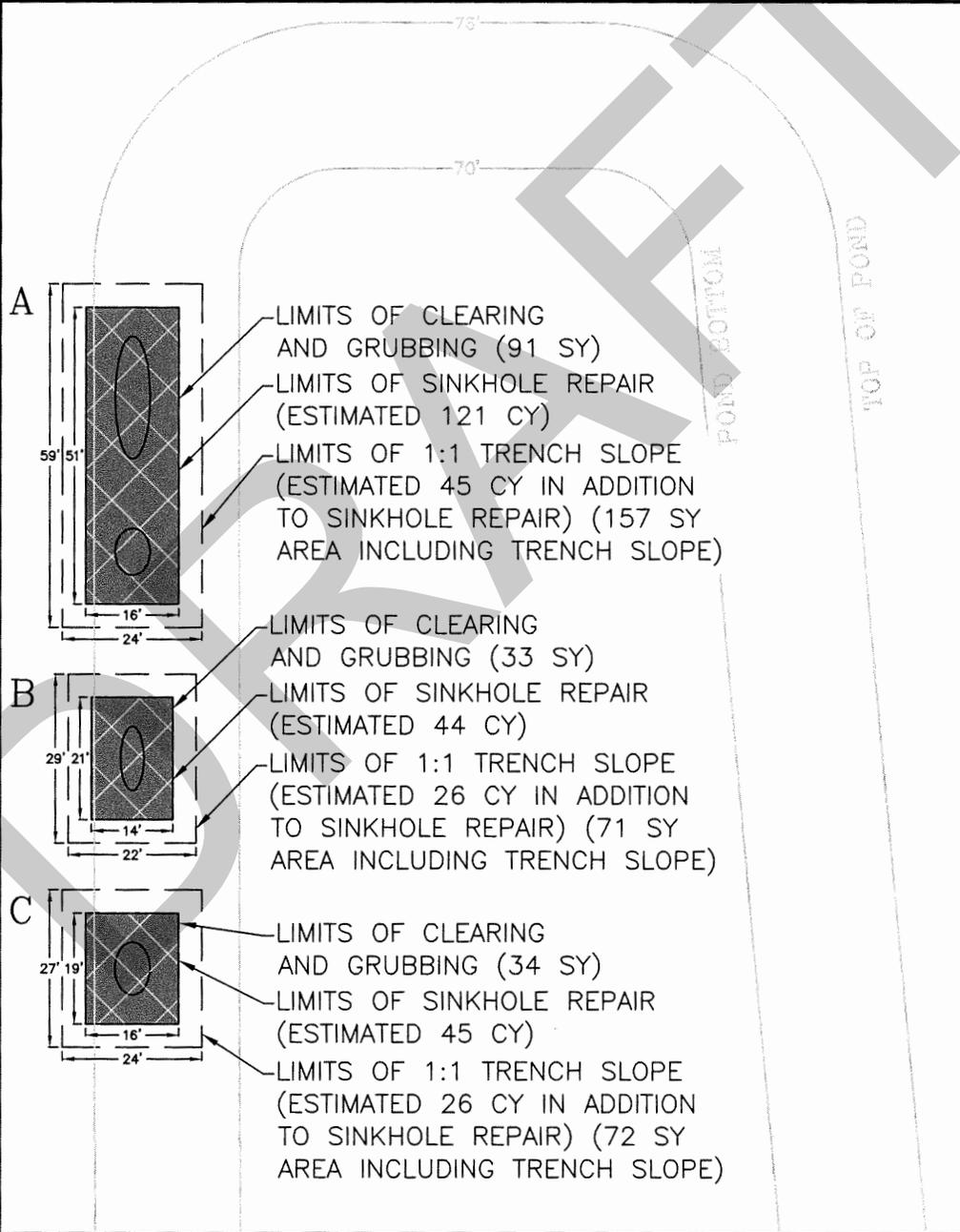
SCALE: 1" = 150'
DATE: 9/15/23
FILE: DRA 3250.DWG

LEGEND

-  STANDARD CLEAR & GRUB (TYP)
-  FINISH GRADE & SOD AREA (TYP)
-  EROSION REPAIR (TYP)
-  MITERED END SECTION (MES)



SCALE 1" = 30'



- A**
 - LIMITS OF CLEARING AND GRUBBING (91 SY)
 - LIMITS OF SINKHOLE REPAIR (ESTIMATED 121 CY)
 - LIMITS OF 1:1 TRENCH SLOPE (ESTIMATED 45 CY IN ADDITION TO SINKHOLE REPAIR) (157 SY AREA INCLUDING TRENCH SLOPE)
- B**
 - LIMITS OF CLEARING AND GRUBBING (33 SY)
 - LIMITS OF SINKHOLE REPAIR (ESTIMATED 44 CY)
 - LIMITS OF 1:1 TRENCH SLOPE (ESTIMATED 26 CY IN ADDITION TO SINKHOLE REPAIR) (71 SY AREA INCLUDING TRENCH SLOPE)
- C**
 - LIMITS OF CLEARING AND GRUBBING (34 SY)
 - LIMITS OF SINKHOLE REPAIR (ESTIMATED 45 CY)
 - LIMITS OF 1:1 TRENCH SLOPE (ESTIMATED 26 CY IN ADDITION TO SINKHOLE REPAIR) (72 SY AREA INCLUDING TRENCH SLOPE)



Marion County
Office of the County Engineer
412 SE 25th Ave. Ocala, FL 34471

FIGURE 2
MP 75 DRA 3250
S.W. 60TH AVE

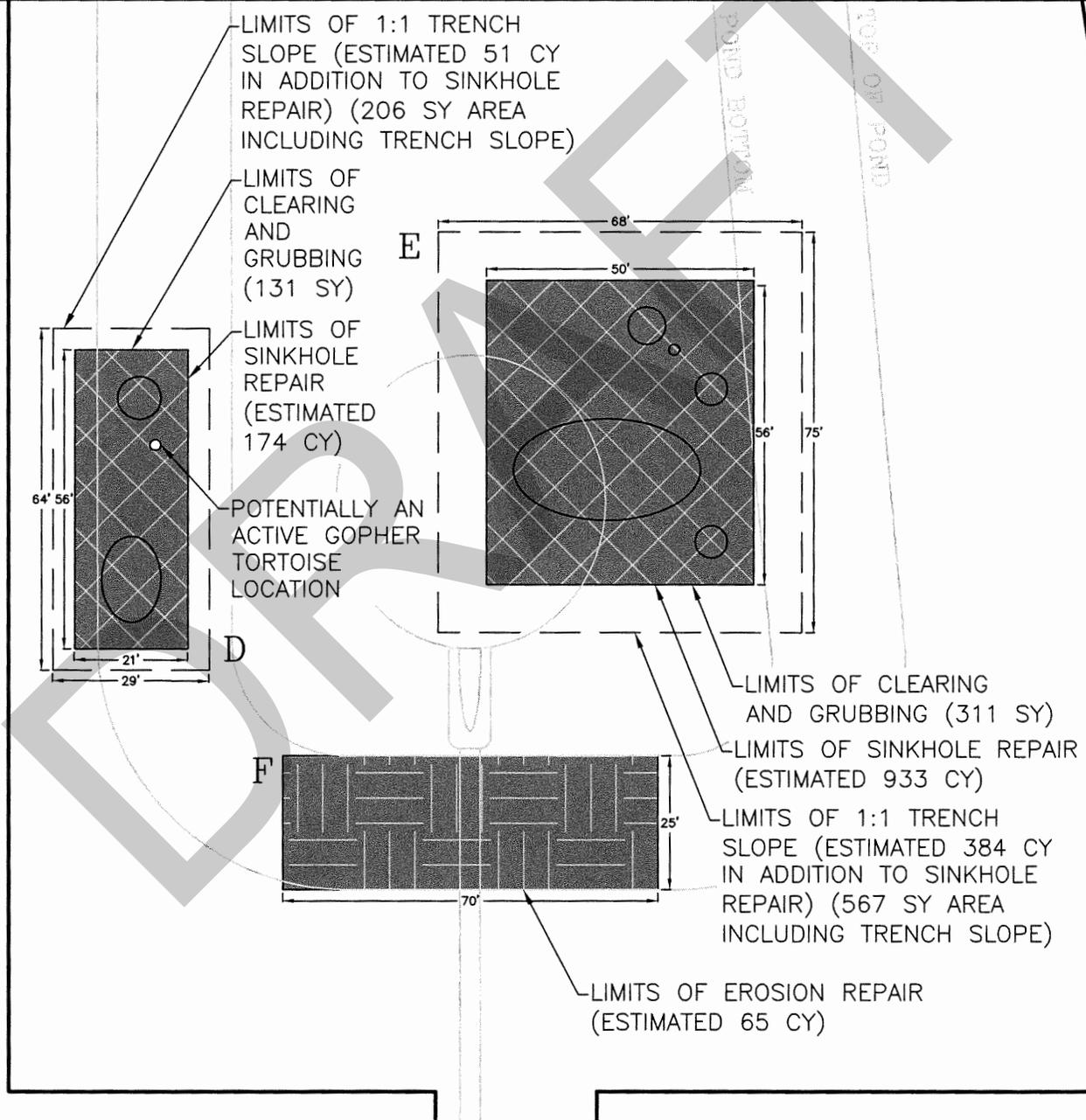
SCALE:	1" = 30'
DATE:	9/15/23
FILE:	DRA 3250.DWG

LEGEND

-  STANDARD CLEAR & GRUB (TYP)
-  FINISH GRADE & SOD AREA (TYP)
-  EROSION REPAIR (TYP)
-  MITERED END SECTION (MES)



SCALE 1" = 30'



Marion County
 Office of the County Engineer
 412 SE 25th Ave. Ocala, FL 34471

FIGURE 3
 MP 75 DRA 3250
 S.W. 60TH AVE

SCALE:	1" = 30'
DATE:	9/15/23
FILE:	DRA 3250.DWG

LEGEND

 STANDARD CLEAR & GRUB (TYP)

 FINISH GRADE & SOD AREA (TYP)

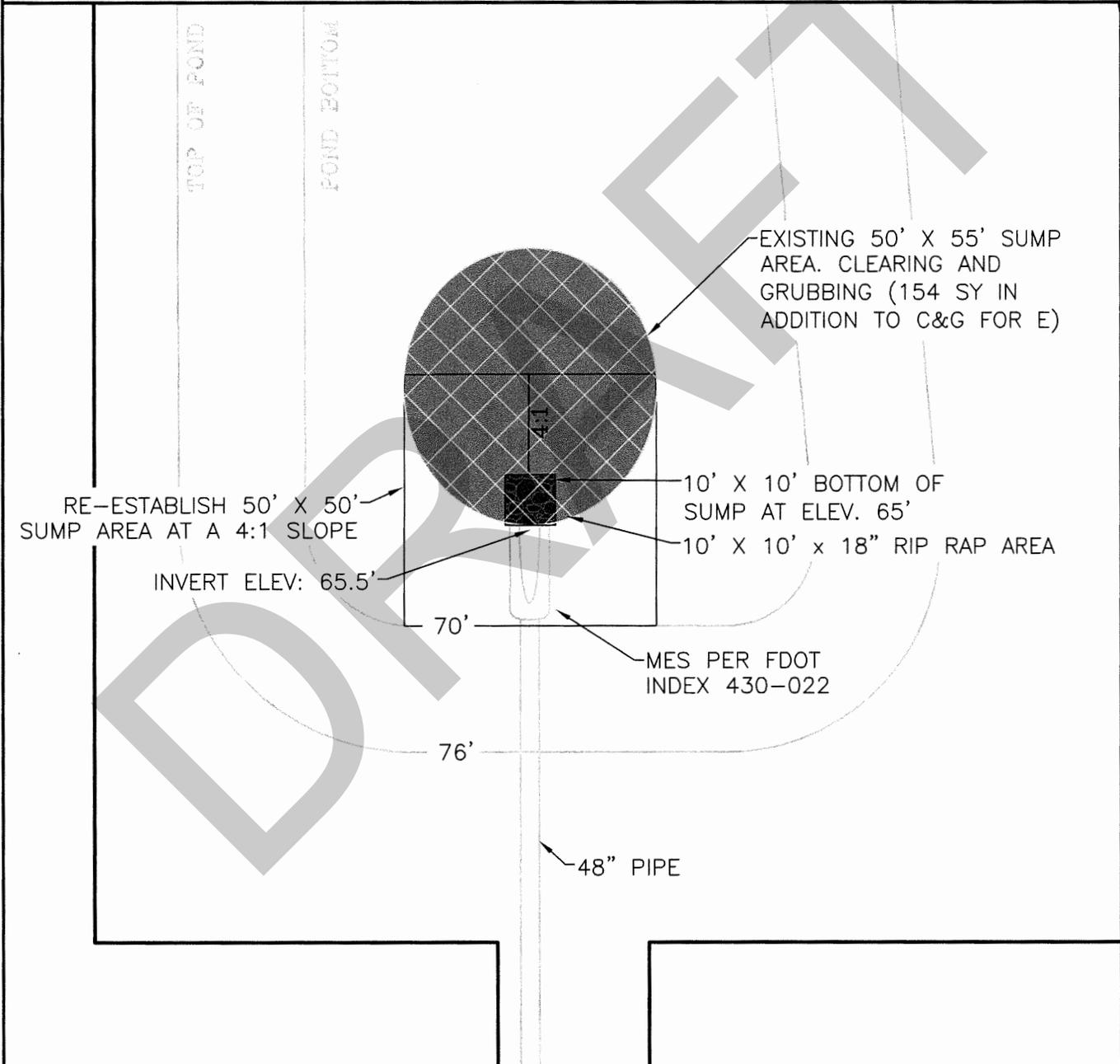
 EROSION REPAIR (TYP)

 MITERED END SECTION (MES)

 RIP RAP (TYP)



SCALE 1" = 30'



Marion County
Office of the County Engineer
412 SE 25th Ave. Ocala, FL 34471

FIGURE 4
MP 75 DRA 3250
S.W. 60TH AVE

SCALE:	1" = 30'
DATE:	9/15/23
FILE:	DRA 3250.DWG



Updated: May 22, 2024
Project No.: GPGT-23-072

To: Marion County Office of the County Engineer
C/O: Marion County Board of County Commissioners
601 SE 25th Avenue
Ocala, Florida 34471

Attention: Ms. Christine Vrabic, P.E.

**Subject: Geotechnical Sinkhole Examinations and Repair Recommendations,
Marion County DRA, Southwest 38th Street and Southwest 60th
Avenue, Marion County, Florida**

Dear Ms. Vrabic:

Andreyev Engineering, Inc. (AEI) has completed our visual examinations of the possible sinkhole activity in the dry retention pond at within the dry retention area located southwest of the intersection of Southwest 38th Street and Southwest 60th Avenue in Ocala, Marion County, Florida. We have included the U.S.G.S. Topographic Map, which depicts the location and approximate boundaries of the site as **Figure 1**. An overview site location map, which depicts the layout of the site and the approximate locations of the observed depressions, is included as **Figure 2**. Selected photographs are presented in the attached **Appendix A**.

The stormwater retention pond is a dry pond located roughly 800 feet southwest of the intersection of Southwest 38th Street and Southwest 60th Avenue. At the time of our visual investigations on May 3, 2023, five depressions were observed in the southeast part of the pond bottom. The largest of these was irregular in shape and measured about 35 feet by 10 feet in width and as much as about 5 feet in depth. The remaining four depressions were roughly circular in shape and ranged from about 6 to 10 feet in diameter and as much as 2 to 3 feet in depth.

We also observed seven shallow areas which were possibly depressional and/or erosional in nature in the western and southwestern pond berms. The majority of these were oblong in shape and ranged from about 7 to 16 feet in width, while the smallest of these was about 1 foot in width. Additionally, two shallow possible erosional and/or depressional areas were observed near the top of the southern berm which measured about 50 feet in width each.

AEI recommends excavating the loose soils from in and around the depressions and plugging them with clayey soils, as shown on **Figure 3**. The excavation should extend a

minimum horizontal distance of 5 feet beyond the outside edge of the depression. AEI personnel should monitor the excavation activities to provide direction on the final extent of the recommended excavations. Once the excavations are complete, and prior to backfilling, AEI will conduct an inspection to determine whether exposed limestone is present in the excavation and if any shafts or deeper voids can be observed in the limestone layer.

For excavations without exposed limestone, shafts, or voids, backfilling of the excavation can begin following completion of the inspection by AEI. The excavation should be backfilled with at least 5 feet of compacted low permeability soil material followed by backfilling of the remainder of the excavation with compacted sand and/or low permeability soil material. The compacted low permeability soil should consist of inorganic clayey sand to sandy clay soil (AASHTO A-2-6, A-2-7, A-6, or A-7) with a minimum 20% clay content (minimum 20% passing the #200 sieve).

All fill should be placed in level lifts not to exceed 12 inches loose and should be compacted to a minimum of 90% of the soil's modified Proctor maximum dry density as determined by ASTM Specification D-1557. In-place density tests should be performed on each lift by an experienced engineering technician working under the direction of a registered geotechnical to verify that the recommended degree of compaction has been achieved. The technician should exercise caution when measuring density within the depressional areas, due to potential unstable soil conditions. It may not be possible in most cases to measure the density of the initial several lifts of backfill material due to safety concerns.

For excavations with exposed limestone shafts that extend deeper than can be excavated, AEI recommends filling the shafts with an approved flowable grout material. The flowable grout shall have a minimum slump of 7 inches at the outlet of the pipe or hose to ensure that small voids are filled. If needed, two to three feet of rock or gravel fill can be placed into the bottom of the shaft prior to conducting flowable grout activities to help minimize the seepage of grout into unwanted areas. Following the filling of any shafts, the open holes should follow the repair procedures previously provided. AEI will determine if there are any shafts requiring grout.

Regarding the potential erosional and/or depressional areas in the western and southern pond berms, AEI recommends that the shallow soils within these areas be probed with a hand cone penetrometer or hand soil probe to check for excessively loose conditions. This can be performed by the AEI engineering monitor at the time that the above-mentioned repairs are being performed at the pond. If very loose conditions are encountered, then the area should be over-excavated and backfilled with compacted clayey soil consistent with the recommendations above. If very loose conditions are not encountered, then the area can be leveled and filled with sand soil to match the surrounding grades.

Any and all excavations should be constructed in accordance with applicable local, state and federal regulation including those outlined by the Occupational Safety and Health

Administration (OSHA). It is the contractor's sole responsibility for designing and constructing safe and stable excavations. Excavations should be sloped, benched or braced as required to maintain stability of the excavation sides and bottoms. Excavations should take into account loads resulting from equipment, fill stockpiles and existing construction. Any shoring need to maintain a safe excavation should be designed by a professional engineer registered in the State of Florida in accordance with local, state and federal guidelines.

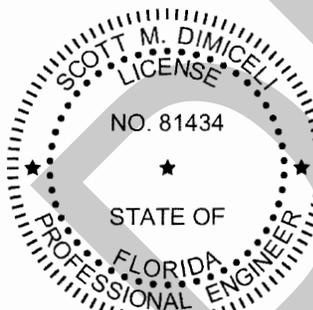
Repair procedures implemented at the depression locations shall be monitored by AEI to ensure proper documentation and repair. A final report documenting depression repair procedures will be provided to SWFWMD for all depressions repaired within stormwater management areas.

It is very difficult, if not impossible, to predict if, when, and where depressions may form. The recommendations herein should be considered a "best effort" to achieve repairs and are based on constraints imposed by the sizes and locations of the affected areas, the use of the land, and the local geology. Even if repairs are fully compliant with these recommendations, AEI does not guarantee that future depressions will not form at the repair locations or that depressions will not form at other locations within this area.

AEI appreciates the opportunity to participate in this project and trusts that the information herein is sufficient for your immediate needs. If you have any questions or comments regarding the contents of this report, please do not hesitate to contact the undersigned.

Sincerely,

ANDREYEV ENGINEERING, INC.



Scott M. DiMiceli, State of Florida,
Professional Engineer, License No.
81434

This item has been electronically
signed and sealed by Scott M.
DiMiceli on 5/22/2024 using a SHA
authentication code.

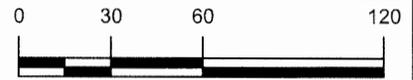
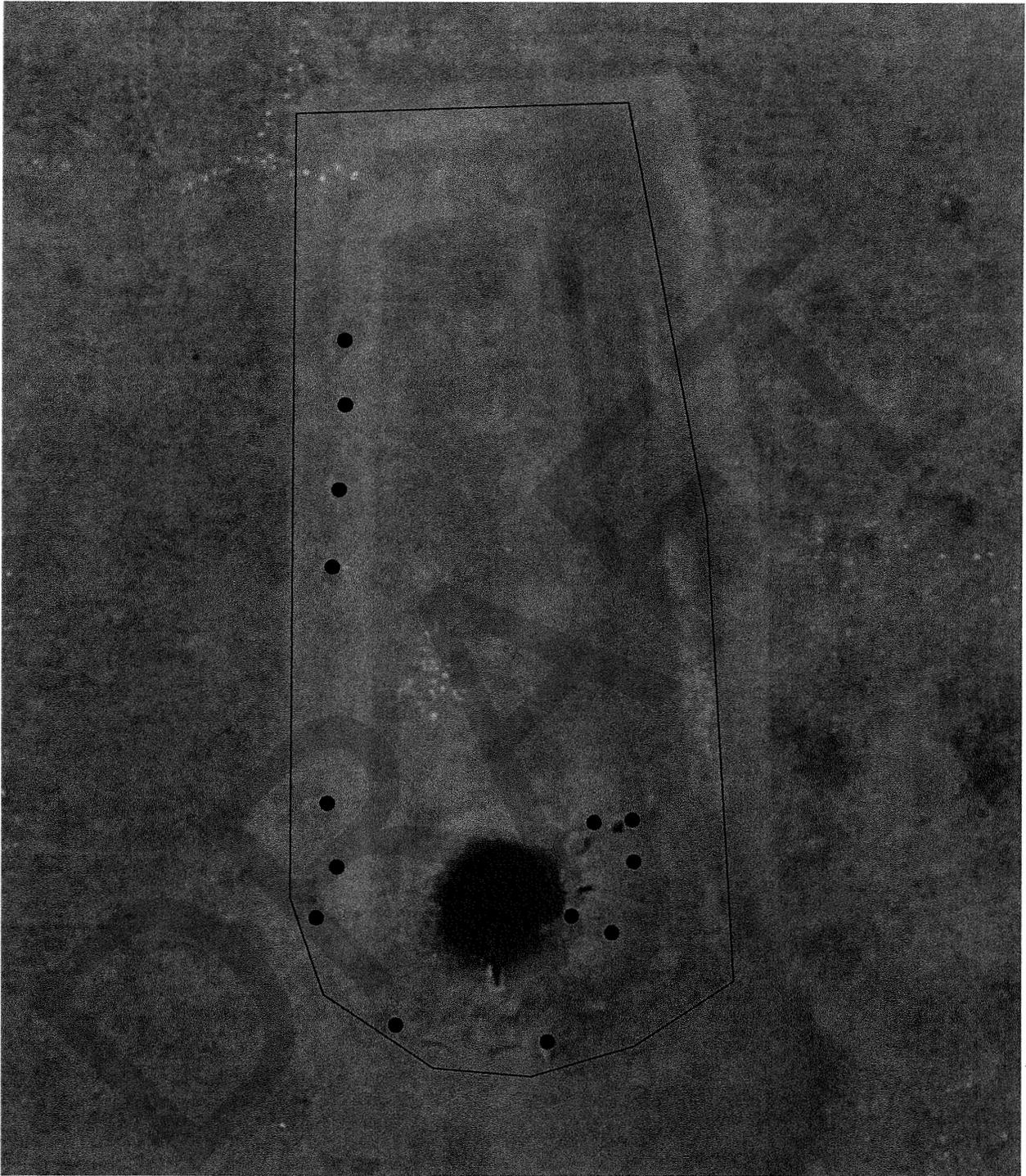
Printed copies of this document are
not considered signed and sealed and
the SHA authentication code must be
verified on any electronic copies.

Scott M. DiMiceli, P.E.
Staff Engineer
Florida Registration No.81434

Attachments: Figure 1 – USGS Topographic Map
Figure 2 – Site Plan
Figure 3- – Sinkhole Repair Detail
Appendix A – Site Photographs

DRAFT

FIGURES



GRAPHIC SCALE: 1"=60'

LEGEND:

— APPROXIMATE DRA AREA

● APPROXIMATE LOCATION OF DEPRESSIONAL AND/OR EROSIONAL FEATURE



**Andreyev
Engineering,
Inc.**

GEOTECHNICAL SINKHOLE INVESTIGATION
MARION COUNTY DRA
SW 38th ST & SW 60th AVE
MARION COUNTY, FL

APPROXIMATE SCALE:

1"=60'

DATE: 05/12/23

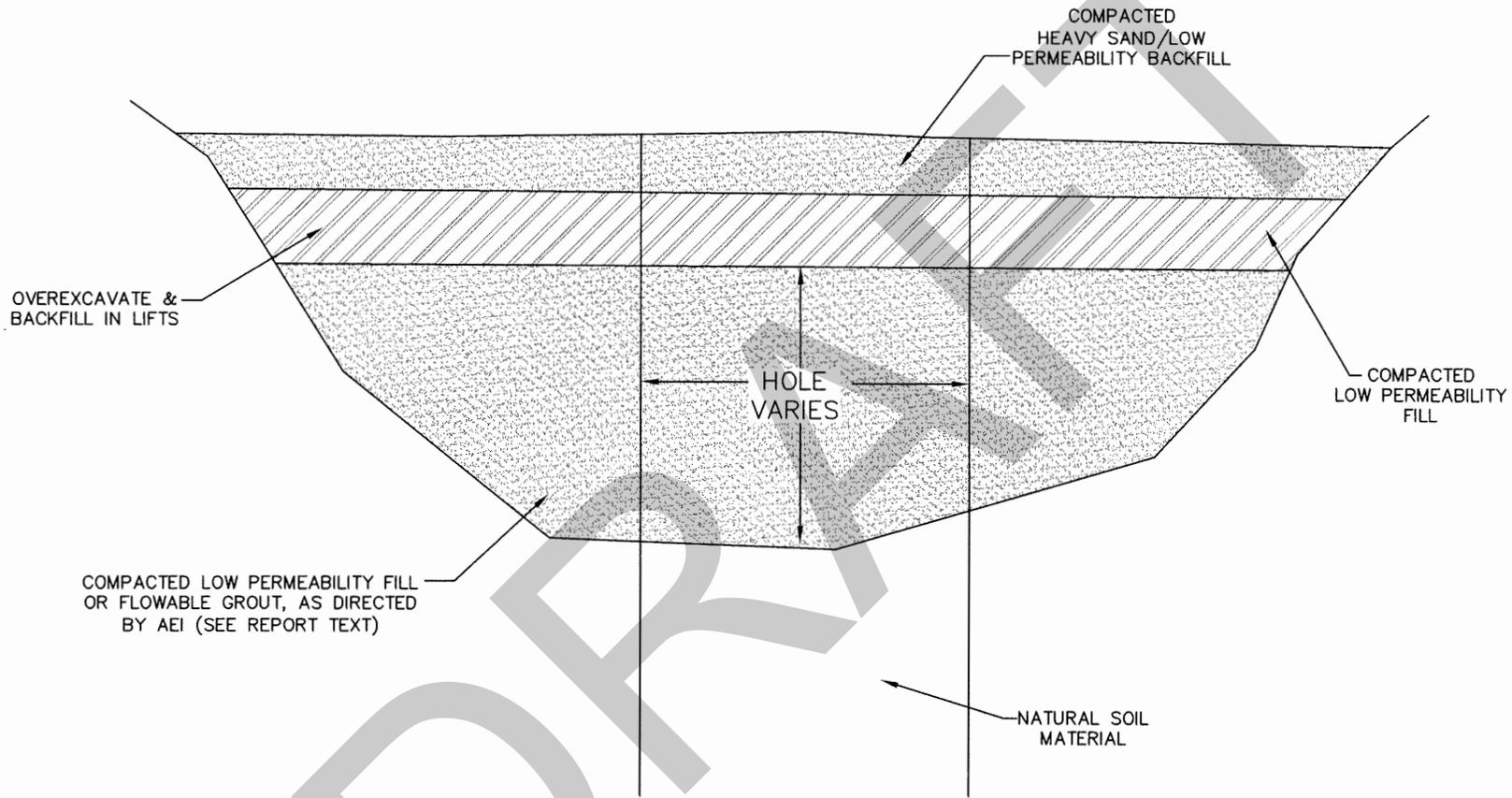
ENGINEER: RJ

PN: GPGT-23-072

DRAWN BY: DLS

SITE PLAN

FIGURE 2



**Andreyev
Engineering,
Inc.**

GEOTECHNICAL SINKHOLE INVESTIGATION
MARION COUNTY DRA
 SW 38th ST & SW 60th AVE
 MARION COUNTY, FL

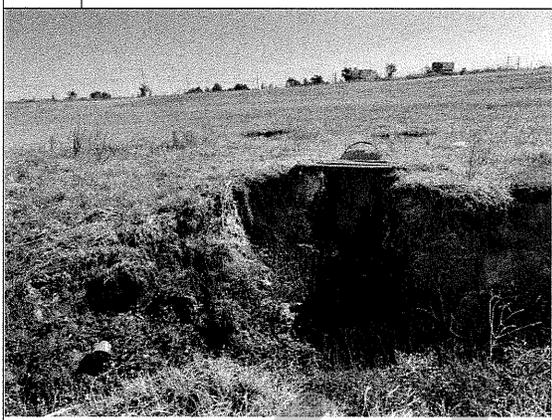
APPROXIMATE SCALE:	DATE: 05/12/23	ENGINEER: RJ
N.T.S.	PN: GPGT-23-072	DRAWN BY: DLS

SINKHOLE REPAIR DETAIL
 FIGURE 3

DRAFT

APPENDIX A: PHOTOGRAPHS

Site Photographs
 Marion County DRA
 SW 38th Street and SW 60th Ave, Marion County, Florida

			
<p>Photo #1:</p>	<p>Southern part of the DRA, facing south.</p>	<p>Photo #2:</p>	<p>View of a depressional area in the southeast part of the DRA.</p>
			
<p>Photo #3:</p>	<p>Another view of the depressional area in Photo #2, facing east.</p>	<p>Photo #4:</p>	<p>View of depressional areas in the eastern part of the DRA.</p>
			
<p>Photo #5:</p>	<p>View of a depressional area in the eastern part of the DRA.</p>	<p>Photo #6:</p>	<p>Possible depressional / erosional areas in the western berm of the DRA.</p>

Site Photographs
 Marion County DRA
 SW 38th Street and SW 60th Ave, Marion County, Florida

			
<p>Photo #7:</p>	<p>Possible depressional / erosional areas north of the area in Photo #6.</p>	<p>Photo #8:</p>	<p>Possible depressional / erosional area in the southwest berm of the DRA.</p>
			
<p>Photo #9:</p>	<p>Possible depressional / erosional area south of the area in Photo #8.</p>	<p>Photo #10:</p>	<p>Possible depressional / erosional areas in the south berm of the DRA.</p>
			
<p>Photo #11:</p>	<p>Another view of the area shown in Photo #10.</p>		



**May 22, 2024
GPGT-23-072**

**To: Marion County Office of the County Engineer
C/O: Marion County Board of County Commissioners
601 SE 25th Avenue
Ocala, Florida 34471**

Attention: Ms. Christine Vrabic, P.E.

Subject: Soil Testing, Marion County DRA, Southwest 38th Street and Southwest 60th Avenue, Marion County, Florida

Dear Ms. Vrabic:

As requested, Andreyev Engineering, Inc. (AEI) has completed laboratory soil testing for the above referenced project. Two samples of candidate soils, identified as "DRA 3250 Top of Pond" and "DRA 3250 Next to Pond" were retrieved from the Marion County offices on November 8, 2023, and we understand that the soils are intended to be used as backfill material for the sinkhole excavations described in AEI report No. GPGT-23-072, dated May 22, 2024.

The candidate soils were returned to AEI's laboratory for moisture content and soil fines content (percent passing the #200 sieve) testing, which was conducted on November 9 through 13, 2023. Both samples consisted of inorganic sandy soil. The laboratory test results are shown in the below table. The soil types presented are based on the laboratory results and our visual classification of the samples:

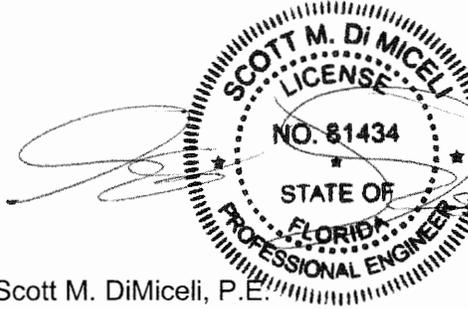
Sample	Soil Type (USCS, AASHTO)	Moisture Content (%)	Fines Content (%)
"DRA 3250 Top of Pond"	Fine Sand (SP), (A-3)	0.4	4.4
"DRA 3250 Next to Pond"	Clayey Fine Sand (SC), (A-2-6, A-2-7)	2.1	13.6

As noted in the aforementioned report, backfill within the excavated sinkhole areas should consist of clayey sand to sandy clay with a minimum 20% passing the No. 200 sieve. Based on these requirements and the laboratory test results, it appears that the tested candidate soils are not suitable for use as backfill within the excavated sinkhole areas.

AEI appreciates the opportunity to participate in this project, and we trust that the information herein is sufficient for your immediate needs. If you have any questions or comments concerning the contents of this report, please do not hesitate to contact the undersigned.

Sincerely,

ANDREYEV ENGINEERING, INC.

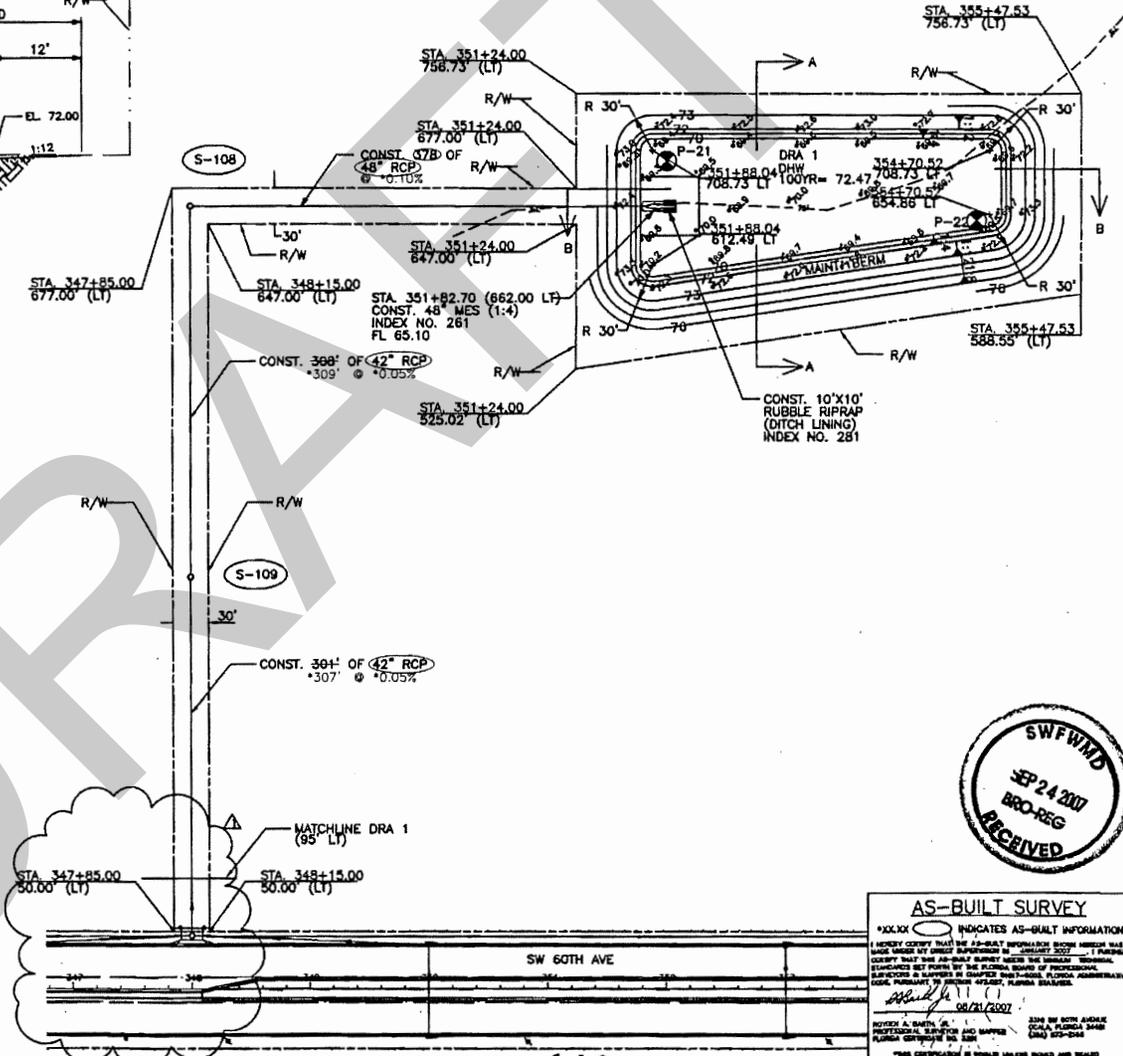
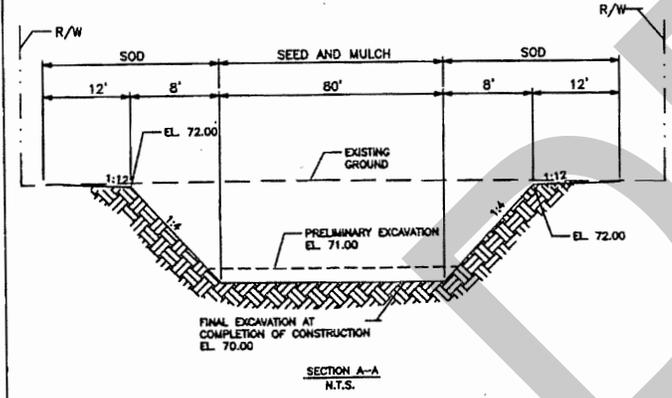
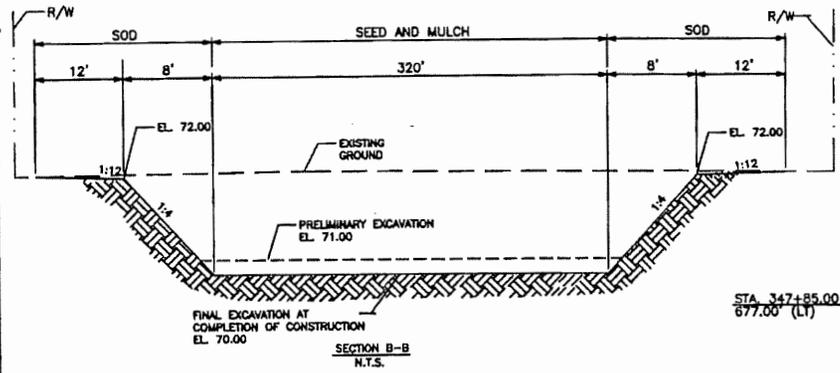
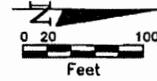


This item has been digitally signed and sealed by Scott DiMiceli, P.E. on 5/22/24.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Scott M. DiMiceli, P.E.
Staff Engineer
Florida Registration No.81434

DRAFT



DRAWN BY		CHECKED BY		SUPERVISOR BY	
DATE		DATE		DATE	
EST	REVISED	EST	REVISED	EST	REVISED
8/29/02		8/29/02		8/29/02	
PROJECT: SW 60TH AVENUE DRAINAGE DITCH DRAWING NO.: 44027494.000 SHEET NO.: 97					



AS-BUILT SURVEY

INDICATES AS-BUILT INFORMATION

VERIFY COUNTY THAT THE AS-BUILT INFORMATION SHOWS FEDERAL ROAD MARKINGS HAVE BEEN SET BY STATE SUPERVISOR BY JANUARY 2003 - 1 NUMBER

VERIFY THAT THE AS-BUILT SURVEY MEETS THE BOARD'S TECHNICAL STANDARDS SET FORTH BY THE BOARD OF PROFESSIONAL ENGINEERS & SURVEYORS IN CHAPTER 63B-04, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 473.07, FLORIDA STATUTES.

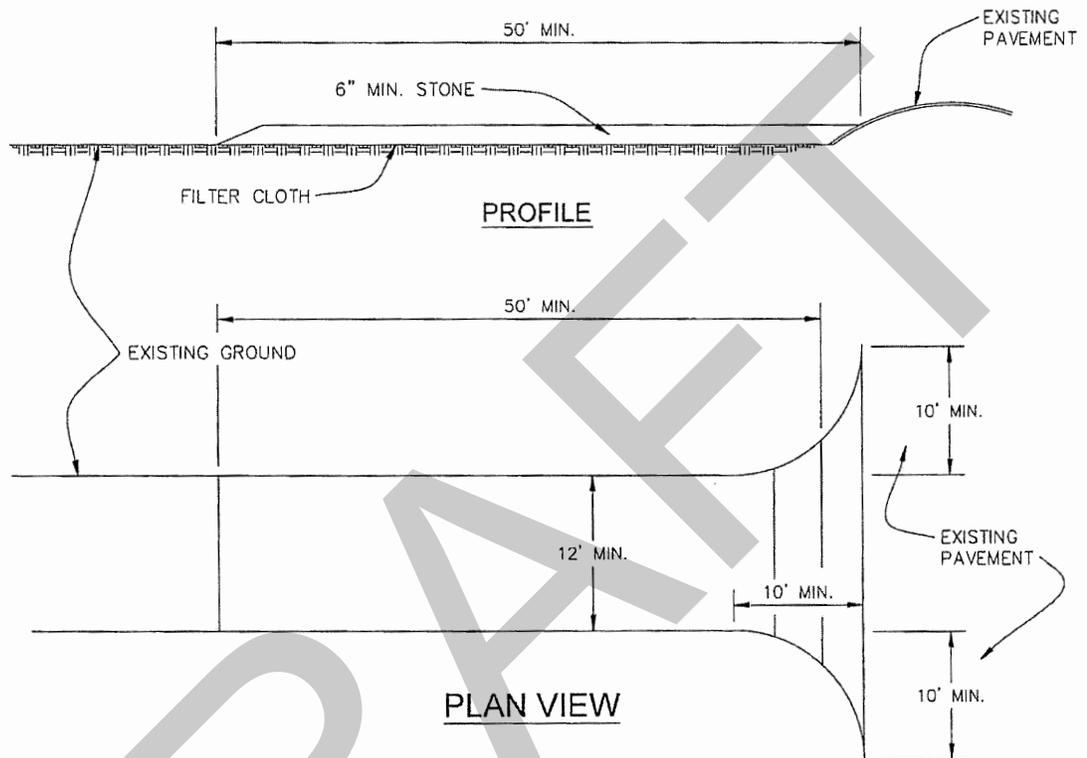
08/21/2002

ROBERT A. SMITH, P.E.
PROFESSIONAL ENGINEER AND SURVEYOR
FLORIDA CERTIFICATE NO. 528

2300 NE 10TH AVENUE
OCALA, FLORIDA 34468
(352) 237-5244

THIS CONTRACTOR IS TO MAINTAIN THESE MARKS AND SIGNALS WITH A MINIMUM DURATION OF 90 DAYS.

44027494.000

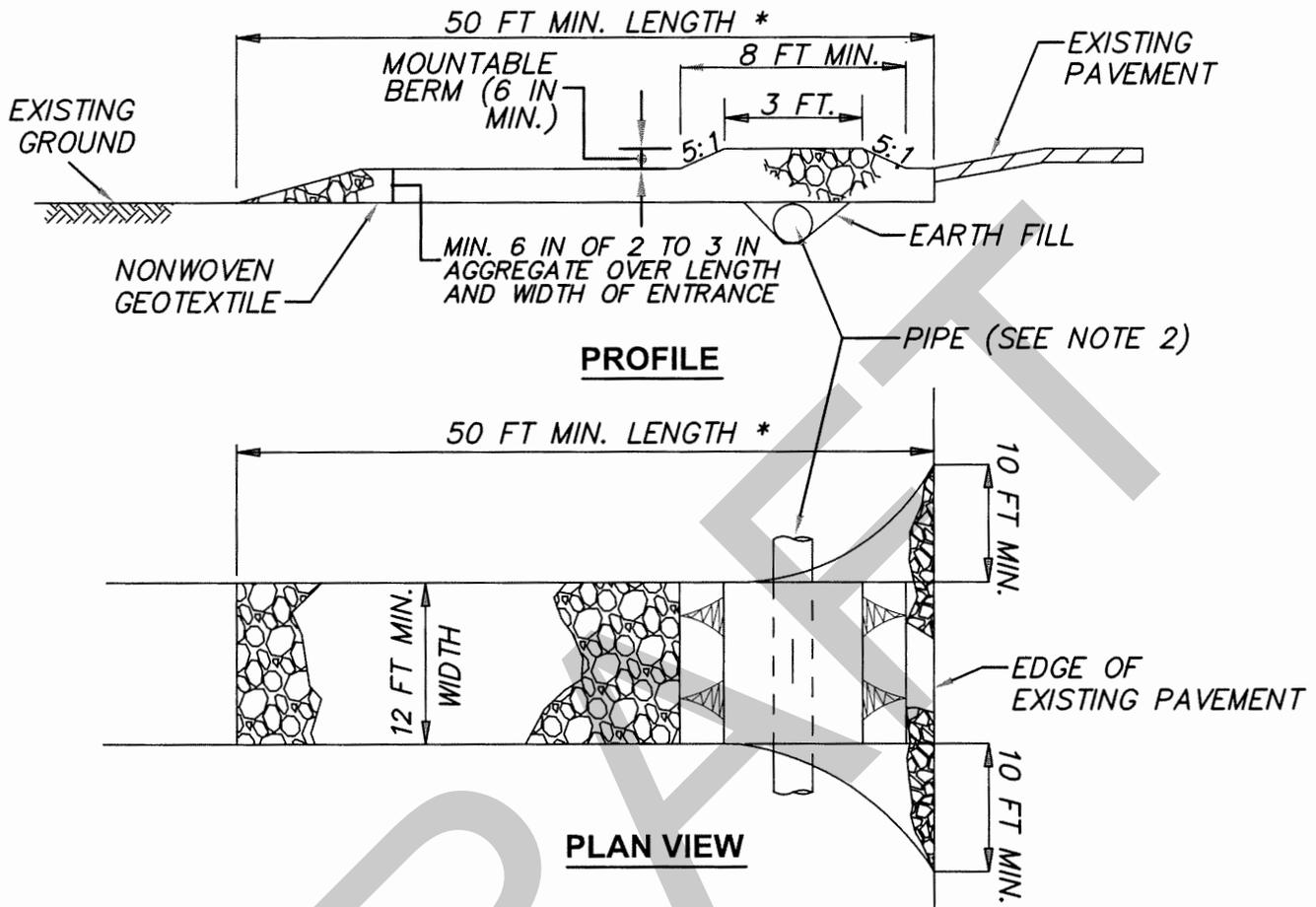


STABILIZED CONSTRUCTION ENTRANCE

1. STONE SIZE - USE 2" STONE, GRANITE OR HARD ROCK.
2. GEOTEXTILE - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.

STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE



CONSTRUCTION SPECIFICATIONS

1. PLACE THE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE A MINIMUM LENGTH OF 50 FEET AND A MINIMUM WIDTH OF 12 FEET. FLARE THE SCE AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
2. PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE (MAINTAIN POSITIVE DRAINAGE). PROVIDE PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BERM IS REQUIRED WHEN THE SCE IS NOT LOCATED AT A HIGH SPOT.
3. PREPARE SUBGRADE AND PLACE GEOTEXTILE OVER THE ENTIRE AREA PRIOR TO PLACING THE STONE.
4. PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SCE. USE 2-3 INCH STONE, GRANITE, OR HARD ROCK.
5. MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE, MOUNTABLE BERM, AND SPECIFIED DIMENSIONS. SWEEPING OF THE COUNTY ROAD IS TO BE CONDUCTED BY THE CONTRACTOR TO ENSURE SEDIMENT IS REMOVED FROM THE ROAD AND THE RIGHT-OF-WAY AT THE END OF EACH WORK DAY.



Marion County
Office of the County Engineer
412 SE 25th Ave. Ocala, FL 34471

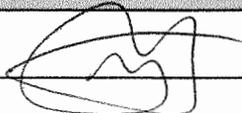
TYPICAL CONSTRUCTION ENTRANCE
DETAIL WITH TEMPORARY PIPE

SCALE:	NTS
DATE:	1/18/2024
FILE:	Construction Detail with Pipe.DWG

Hartman Civil Construction Co., Inc.
 9200 SW Hwy. 484
 Ocala, FL 34481
 O: (352) 690-1525
 F: (844) 270-4832
 E: office@hartmancivil.com
 CGC060004

Quote Form

MP 75 Major Maintenance Project (DRA 3250)

Item No.	Description of Services	Bid Quantity	Unit of Measure	Unit Price	Total Price
1 General					
1.1	Mobilization/Demobilization	1	LS	\$ 7,500.00	\$ 7,500.00
1.2	Maintenance of Traffic	1	LS	\$ 4,500.00	\$ 4,500.00
1.3	Construction Entrance - embankment	1	LS	\$ 7,500.00	\$ 7,500.00
1.4	Seed & Mulch - Pathway	1750	SY	\$ 1.00	\$ 1,750.00
1.5	Bahia Sod - Material Staging Area	625	SY	\$ 8.00	\$ 5,000.00
2 Sinkhole Repair					
2.1	Clearing and Grubbing - Standard (A-E)	600	SY	\$ 4.00	\$ 2,400.00
2.2	Earthwork - Sinkhole Repair (A-E)	1	LS	\$ 84,003.00	\$ 84,003.00
2.3	Bahia Sod (A-E)	1473	SY	\$ 8.00	\$ 11,784.00
3 Erosion Repair					
3.1	Earthwork - Erosion Repair (F)	1	LS	\$ 7,500.00	\$ 7,500.00
3.2	Bahia Sod (F)	195	SY	\$ 8.00	\$ 1,560.00
4 Sump Repair					
4.1	Clearing and Grubbing - Standard	154	SY	\$ 4.00	\$ 616.00
4.2	Rip Rap Placement (Includes geotextile) and Re-Establish Sump Area	1	LS	\$ 7,500.00	\$ 7,500.00
4.3	Bahia Sod	278	SY	\$ 8.00	\$ 2,224.00
Total Project Cost					\$ 143,837.00
Contingency					
C.1	Dewatering	1	LS	\$ 500.00	
C.2	Gopher Tortoise - Recipient Site Fee	1	EA	\$ 9,500.00	
C.3	Gopher Tortoise - Protected On-Site	1	EA	\$ 4,500.00	
C.4	RCP - 48"	1	LF	\$ 300.00	
C.5	Mitered End Section - 48"	1	EA	\$ 4,500.00	
Signature of Authorized Representative:					
Hartman Civil Construction Co., Inc. 9200 SW Hwy. 484 Ocala, FL 34481 O: (352) 690-1525 F: (844) 270-4832 E: office@hartmancivil.com CGC060004		Printed:	Michael A Hartman, President		
		Date:	6/21/2024		

TELECOM
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 754-200-1000
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