# ESTES RESERVE SUBDIVISON PRELIMINARY PLAT PLANS

### **PROJECT TEAM**

CIVIL ENGINEERING

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OWNER/DEVELOPER

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### GEOTECHNICAL ENGINEERING

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### GENERAL NOTE

CONDITIONS AS THEY EXISTED AT THE TIME OF PLAN PREPARATION. THE CONDITIONS OF THE PROPERTY MAY HAVE CHANGED SINCE PROJECT DESIGN. THE CONTRACTOR SHALL VERIFY AND CONFIRM ALL EXISTING CONDITIONS AND SHALL CONTACT THE PROJECT ENGINEER IMMEDIATELY IF CONDITIONS HAVE CHANGED FROM WHEN THE PLANS WERE PREPARED.

### ACCESSIBILITY NOTE

THE SITE SHALL COMPLY WITH THE FLORIDA BUILDING CODE (FBC) 2020 ACCESSIBILITY CODE.

### PROPERTY LEGAL DESCRIPTION (PER SURVEY)

PROPERTY DESCRIPTION PARCEL "D"

THAT PART OF LOTS 9 AND 10, OF R. C. TREMAIN'S SUBDIVISION, UNRECORDED, SECTION 5, TOWNSHIP 19 SOUTH, RANGE 27 EAST, IN LAKE COUNTY, FLORIDA, BOUNDED AND DESCRIBED AS FOLLOWS:

COMMENCE AT THE SOUTHWEST CORNER OF THE SOUTHWEST 1/4 OF SECTION 5, TOWNSHIP 19 SOUTH, RANGE 27 EAST, AND RUN NORTH 00°36'44" WEST, ALONG THE WEST LINE OF THE SOUTHWEST 1/4, A DISTANCE OF 25.01 FEET TO A POINT ON THE NORTH RIGHT-OF-WAY LINE OF BATES AVENUE, SAID RIGHT-OF-WAY BEING 50 FEET IN WIDTH; THENCE NORTH 87°38'34" EAST, ALONG THE NORTH RIGHT-OF-WAY LINE OF BATES AVENUE, A DISTANCE OF 338.51 FEET; THENCE NORTH 00°43'28" WEST, 629.69 FEET; THENCE NORTH 88°12'54" EAST, 337.19 FEET, TO THE POINT OF BEGINNING OF THIS DESCRIPTION; FROM SAID POINT OF BEGINNING; RUN NORTH 00°50'17" WEST, 325.50 FEET; THENCE NORTH 88° 30'58" EAST, 631.37 FEET TO A POINT ON THE WEST RIGHT-OF-WAY LINE OF ESTES ROAD, SAID RIGHT-OF-WAY BEING 66 FEET IN WIDTH; THENCE SOUTH 01°09'S1" EAST, ALONG THE WEST RIGHT-OF-WAY LINE OF ESTES ROAD 322.15 FEET; THENCE SOUTH 88°12'54" WEST, 633.25 FEET TO THE POINT OF BEGINNING.

## **VICINITY MAP**



**ESTES ROAD** EUSTIS, FLORIDA 32736 SECTION 05, TOWNSHIP 19 SOUTH, RANGE 27 EAST

### SHEET LIST

- C1 COVER SHEET
- C2 CONSTRUCTION NOTES
- C3 DEMOLITION PLAN
- C4 SUBDIVISION SITE PLAN
- C5 SUBDIVISION GRADING AND DRAINAGE PLAN
- C6 SUBDIVISION UTILITY PLAN
- OFF-SITE UTILITY PLAN
- C8 STORMWATER POLLUTION PREVENTION PLAN
- C9 DARBY COURT PLAN AND PROFILE -0+10 TO 5+97
- C10 DARBY COURT CROSS SECTIONS 0+55 TO 5+41
- C11 CONSTRUCTION DETAILS
- C12 CITY OF EUSTIS CONSTRUCTION DETAILS

### DATUM NOTE

ELEVATIONS SHOWN ON THE PLAN SET ARE RELATIVE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (PER SURVEY)

### PERMIT NOTE

SEPERATE PERMITS ARE REQUIRED FOR THE FOLLOWING (IF APPLICABLE):

- CONSTRUCTION TRAILERS
- LIFT STATIONS SIGNS ENTRY WALL FEATURES RETAINING WALLS
- ACCESS GATES GENERATORS
  - FENCES WALK-IN COOLERS
- AWNINGS ETC.

### FIRE NOTE

SITE TO CONFORM TO FLORIDA FIRE PREVENTION CODE 7TH EDITION (2020)

SEPERATE PERMITS ARE REQUIRED FOR THE FOLLOWING (IF APPLICABLE): FIRE ALARMS

- FIRE SPRINKLERS FIRE ALARM MONITORING
  - FIRE UNDERGROUND

DUMPSTER ENCLOSURES

SITE LIGHTING

DUMPSTER ENCLOSURE

**BEFORE YOU DIG** IT'S THE LAW! **DIAL 811** SUNSHINE STATE ONE CALL OF FLORIDA, INC.



ENGINEERING FIRM REGISTRY NUMBER: 29279 1120 WEST MINNEOLA AVENUE CLERMONT, FLORIDA 34711 PHONE: (352) 242-9329 WWW.GERMANAENGINEERING.COM

Printed copies of this document are not considered signed M Germana

Digitally signed by Christopher Date: 2023.04.19 13:04:00 -04'00'



CHRISTOPHER M. GERMANA, P.E. ENGINEERING FIRM REGISTRY # 29279

### **EXISTING UTILITIES**

THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THE PLANS HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE VARIOUS UTILITIES AND TO MAKE THE NECESSARY ARRANGEMENTS FOR ANY RELOCATIONS TO THESE UTILITIES WITH THE OWNER OF THE UTILITY. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN CROSSING AN UNDERGROUND UTILITY, WHETHER SHOWN ON THE PLAN OR LOCATED BY THE UTILITY COMPANY. ALL UTILITIES THAT INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE RELOCATED BY THE RESPECTIVE UTILITY COMPANY AND THE CONTRACTOR SHALL COOPERATE WITH THEM DURING RELOCATION OPERATIONS. ANY DELAY OR INCONVENIENCE CAUSED TO THE CONTRACTOR BY THE RELOCATION OF VARIOUS UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT, AND NO EXTRA COMPENSATION WILL BE ALLOWED.

### DRAINAGE SYSTEMS

THE CONTRACTOR SHALL PERFORM ALL WORK PERTAINING TO DRAINAGE INCLUDING EXCAVATION OF STORMWATER POND PRIOR TO THE COMMENCEMENT OF OTHER WORK INCLUDED IN THESE PLANS. THE DRAINAGE FACILITIES SHALL BE MAINTAINED BY THE CONTRACTOR DURING THE COURSE OF THIS CONTRACT. THE CONTRACTOR SHALL INCLUDE FUNDS IN THE DRAINAGE COSTS OF THE CONTRACT TO OPERATE AND MAINTAIN THE DRAINAGE SYSTEMS DURING THE WORK PROCESS.

### PERMITS AND PERMIT REQUIREMENTS

THE CONTRACTOR SHALL OBTAIN FROM THE OWNER COPIES OF ALL REGULATORY AND LOCAL AGENCY PERMITS. THE CONTRACTOR SHALL BE EXPECTED TO REVIEW AND ABIDE BY ALL THE REQUIREMENTS AND LIMITATIONS SET FORTH IN THE PERMITS. A COPY OF THE PERMIT SHALL BE KEPT ON THE JOB AT ALL TIMES.

### LAYOUT AND CONTROL

UNLESS OTHERWISE NOTED ON THE PLANS, THE CONTRACTOR SHALL PROVIDE FOR THE LAYOUT OF ALL THE WORK TO BE CONSTRUCTED. BENCHMARK INFORMATION SHALL BE PROVIDED TO THE CONTRACTOR BY THE OWNER OR OWNER'S SURVEYOR. ANY DISCREPANCIES BETWEEN FIELD MEASUREMENTS AND CONSTRUCTION PLAN INFORMATION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.

### QUALITY CONTROL TESTING REQUIREMENTS

ALL TESTING RESULTS SHALL BE PROVIDED TO THE OWNER/OPERATOR AND THE ENGINEER. TESTING REQUIREMENTS ARE TO BE IN ACCORDANCE WITH THE OWNER/OPERATOR'S SPECIFICATIONS AND REQUIREMENTS. ALL TEST RESULTS SHALL BE PROVIDED (PASSING AND FAILING) ON A REGULAR AND IMMEDIATE BASIS. CONTRACTOR SHALL PROVIDE TESTING SERVICES THROUGH A FLORIDA LICENSED GEOTECHNICAL ENGINEERING FIRM ACCEPTABLE TO THE OWNER AND THE ENGINEER. CONTRACTOR TO SUBMIT TESTING FIRM TO OWNER FOR APPROVAL PRIOR TO COMMENCING TESTING.

### SHOP DRAWINGS

SHOP DRAWINGS AND CERTIFICATIONS FOR ALL STORM DRAINAGE, WATER SYSTEM, SEWER SYSTEM, AND PAVING SYSTEM MATERIALS AND STRUCTURES ARE REQUIRED. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO ORDERING THE MATERIALS REQUIRED FOR CONSTRUCTION.

### **EARTHWORK QUANTITIES**

THE CONTRACTOR SHALL PERFORM HIS OWN INVESTIGATIONS AND CALCULATIONS AS NECESSARY TO ASSURE HIMSELF OF EARTHWORK QUANTITIES. THERE IS NO IMPLICATION THAT EARTHWORK BALANCES, AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY IMPORT FILL NEEDED, OR FOR REMOVAL AND DISPOSAL OF EXCESS MATERIALS. PURSUANT TO LAND DEVELOPMENT REGULATIONS (LDR) SECTION 6.06.01(F), SOIL REMOVAL FROM THE SITE SHALL NOT EXCEED 200% OF THE VOLUME AREA OF THE NEEDED RETENTION/DETENTION VOLUME REQUIRED.

### **EROSION CONTROL**

EROSION AND SILTRATION CONTROL MEASURES ARE TO BE PROVIDED AND INSTALLED PRIOR TO COMMENCEMENT OF CONSTRUCTION. THESE MEASURES ARE TO BE INSPECTED BY THE CONTRACTOR ON A REGULAR BASIS AND ARE TO BE MAINTAINED OR REPAIRED ON AN IMMEDIATE BASIS AS REQUIRED. REFER TO WATER MANAGEMENT DISTRICT PERMIT FOR ADDITIONAL REQUIREMENTS FOR EROSION CONTROL AND SURFACE DRAINAGE. ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE STABILIZED WITH SOD WITHIN 7 DAYS OF COMPLETION OF CONSTRUCTION. SOD SHALL BE THE SAME VARIETY OF EXISTING SOD

### LIMITS OF DISTURBANCE

AT NO TIME SHALL THE CONTRACTOR DISTURB SURROUNDING PROPERTIES OR TRAVEL ON SURROUNDING PROPERTIES WITHOUT WRITTEN CONSENT FROM THE PROPERTY OWNER. REPAIR OR RECONSTRUCTION OF DAMAGED AREAS ON SURROUNDING PROPERTIES SHALL BE PERFORMED BY THE CONTRACTOR ON AN IMMEDIATE BASIS. ALL COSTS FOR REPAIRS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND NO EXTRA COMPENSATION SHALL BE PROVIDED. GRADING AND/OR CLEARING ON PROPERTIES OTHER THAN SHOWN ON THE APPROVED PLANS IS PROHIBITED.

### TREE REMOVAL

THE CONTRACTOR SHALL NOTIFY THE OWNER AND THE ENGINEER WHEN ALL WORK IS LAID OUT (SURVEY STAKED), SO THAT A DETERMINATION MAY BE MADE OF SPECIFIC TREES TO BE REMOVED. NO TREES ON THE CONSTRUCTION PLANS AS BEING SAVED SHALL BE REMOVED WITHOUT PERMISSION FROM THE OWNER AND ENGINEER.

### **CLEARING AND GRUBBING**

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEARING AND GRUBBING FOR SITE CONSTRUCTION INCLUDING CLEARING FOR PAVING, UTILITIES, DRAINAGE FACILITIES AND BUILDING CONSTRUCTION. ALL AREAS TO BE CLEARED SHALL BE FIELD STAKED AND REVIEWED BY THE OWNER AND ENGINEER PRIOR TO ANY CONSTRUCTION.

### **AS-BUILTS**

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AS-BUILT SURVEYS FOR ALL APPLICABLE UTILITIES.

### MATERIAL STORAGE/DEBRIS REMOVAL

1. NO COMBUSTIBLE BUILDING MATERIALS MAY BE ACCUMULATED ON THE SITE AND NO CONSTRUCTION WORK INVOLVING COMBUSTIBLE MATERIALS MAY BEGIN UNTIL INSTALLATION OF ALL REQUIRED WATER MAINS AND FIRE HYDRANTS HAVE BEEN COMPLETED, DEP APPROVAL RECEIVED FOR THE WATER MAINS, AND THE HYDRANTS ARE IN OPERATION. CONSTRUCTION WORK INVOLVING NON-COMBUSTIBLE MATERIALS, SUCH AS CONCRETE, MASONRY AND STEEL MAY BEGIN PRIOR TO THE FIRE HYDRANTS BEING OPERATIONAL.

2. ALL MATERIALS EXCAVATED SHALL REMAIN THE PROPERTY OF THE OWNER AND SHALL BE STOCKPILED AT ON-SITE LOCATIONS AS SPECIFIED BY THE OWNER. MATERIALS SHALL BE STOCKPILED SEPARATELY AS TO USABLE (NON-ORGANIC) FILL STOCKPILES AND ORGANIC (MUCK) STOCKPILES IF MUCK IS ENCOUNTERED. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL UNSUITABLE FILL MATERIALS FROM THE SITE. ALL CLAY ENCOUNTERED SHALL BE EXCAVATED OUT AND REPLACED WITH CLEAN GRANULAR FILL MATERIALS.

### FILL MATERIAL

ALL MATERIALS SHALL CONTAIN NO MUCK, STUMPS, ROOTS, BRUSH, VEGETATIVE MATTER, RUBBISH OR OTHER MATERIAL THAT WILL NOT COMPACT INTO A SUITABLE AND ENDURING BACKFILL. FILL SHALL BE CLEAN, NON-ORGANIC, GRANULAR MATERIAL WITH NOT MORE THAN 10% PASSING THE NO. 200 SIEVE.

### COMPACTION

FILL MATERIALS PLACED UNDER ROADWAYS SHALL BE COMPACTED TO AT LEAST 98% OF THE MAXIMUM DENSITY AS SPECIFIED IN AASHTO T-180. ALL OTHER FILL AREAS ARE TO BE COMPACTED TO AT LEAST 95% MAXIMUM DENSITY AS SPECIFIED IN AASHTO T-180. FILL MATERIALS SHALL BE PLACED AND COMPACTED IN A MAXIMUM OF 12" LIFTS. THE CONTRACTOR SHALL PROVIDE THE ENGINEER AND OWNER WITH ALL (PASSING AND FAILING) TESTING RESULTS. RESULTS SHALL BE PROVIDED ON A TIMELY AND REGULAR BASIS PRIOR TO CONTRACTOR'S PAY REQUEST SUBMITTAL FOR THE AFFECTED WORK.

### GENERAL DESIGN INTENT

ALL PAVING SURFACES IN INTERSECTIONS AND ADJACENT SECTIONS SHALL BE GRADED TO DRAIN POSITIVELY IN THE DIRECTION SHOWN BY THE FLOW ARROWS ON THE PLANS AND TO PROVIDE A SMOOTHLY TRANSITIONED DRIVING SURFACE FOR VEHICLES WITH NO SHARP BREAKS IN GRADE, AND NO UNUSUALLY STEEP OR REVERSE CROSS SLOPES. APPROACHES TO INTERSECTIONS AND ENTRANCE AND EXIT GRADES TO INTERSECTIONS WILL HAVE TO BE STAKED IN THE FIELD AT DIFFERENT GRADES THAN THE CENTERLINE GRADES TO ACCOMPLISH THE PURPOSES OUTLINED. IN ADDITION, THE STANDARD CROWN WILL HAVE TO BE CHANGED IN ORDER TO DRAIN POSITIVELY IN THE AREA OF INTERSECTIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCOMPLISH THE ABOVE AND THE ENGINEER SHALL BE CONSULTED SO THAT HE MAY MAKE ANY AND ALL REQUIRED INTERPRETATIONS OF THE PLANS OR GIVE SUPPLEMENTARY INSTRUCTION TO ACCOMPLISH THE INTENT OF THE PLANS.

### MATERIALS/CONSTRUCTION SPECIFICATIONS

MATERIALS AND CONSTRUCTION METHODS FOR THE ROADWAY CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION LATEST EDITION.

### PAVEMENT SECTION REQUIREMENTS

CONSTRUCTION OF ROADWAY, SUBGRADE PREPARATION, AND PAVEMENT INSTALLATION SHALL CONFORM TO FDOT STANDARDS AND SOILS REPORT RECOMMENDATIONS UNLESS OTHERWISE NOTED IN THE CONSTRUCTION DOCUMENTS.

### **SIDEWALKS**

SIDEWALKS ARE TO BE CONSTRUCTED IN THE AREA AS SHOWN ON THE CONSTRUCTION PLANS. SIDEWALK SHALL BE CONSTRUCTED OF 4 INCHES OF CONCRETE WITH A 28 DAY COMPRESSION STRENGTH OF 2500 PSI. JOINTS SHALL BE EITHER TOOLED OR SAWCUT AT A DISTANCE OF 5' LENGTHS, HANDICAPPED RAMPS SHALL BE PROVIDED AT ALL INTERSECTIONS AND BE IN ACCORDANCE WITH STATE REGULATIONS FOR HANDICAP ACCESSIBILITY.

### PAVEMENT MARKINGS/SIGNAGE

PAVEMENT MARKINGS AND SIGNAGE SHALL BE PROVIDED AS SHOWN ON THE CONSTRUCTION PLANS AND SHALL MEET THE REQUIREMENTS OF THE OWNER/OPERATOR. SIGNAGE SHALL BE IN CONFORMANCE WITH MUTCD (LATEST EDITION). A 48-HOUR PAVEMENT CURING TIME WILL BE PROVIDED PRIOR TO APPLICATION OF THE PAVEMENT MARKINGS. REFLECTIVE PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH FDOT INDEX NO. 17352.

### TRAFFIC CONTROL

WHERE APPLICABLE A MOT PLAN SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO COMMENCEMENT OF WORK. A MINIMUM OF 2-WAY, ONE LANE TRAFFIC SHALL BE MAINTAINED IN THE WORK SITE AREA. ALL CONSTRUCTION WARNING SIGNAGE SHALL BE IN PLACE PRIOR TO COMMENCEMENT OF CONSTRUCTION AND BE MAINTAINED THROUGHOUT CONSTRUCTION. ACCESS SHALL BE CONTINUOUSLY MAINTAINED FOR ALL PROPERTY OWNERS SURROUNDING THE WORK SITE AREA. LIGHTED WARNING DEVICES ARE TO BE OPERATIONAL PRIOR TO DUSK EACH NIGHT DURING CONSTRUCTION.

### **CURBING**

CURBING SHALL BE CONSTRUCTED WHERE NOTED ON THE CONSTRUCTION PLANS. CONCRETE FOR CURBS SHALL BE DEPARTMENT OF TRANSPORTATION CLASS "1" CONCRETE WITH A 28 DAY COMPRESSION STRENGTH OF 2500 PSI. ALL CURBS SHALL HAVE SAW CUT CONTRACTION JOINTS AND SHALL BE CONSTRUCTED AT INTERVALS NOT TO EXCEED 10'-0" ON CENTER. CONSTRUCTION OF CURBS SHALL BE IN CONFORMANCE WITH FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SECTION 520 AND DETAILS PROVIDED ON THE CONSTRUCTION PLANS.

### R/W RESTORATION

ALL AREAS WITHIN THE RIGHT-OF-WAYS SHALL BE FINISH GRADED WITH A SMOOTH TRANSITION INTO EXISTING GROUND. ALL SWALES SHALL BE STABILIZED IMMEDIATELY AFTER FINAL GRADING. ALL DISTURBED AREAS SHALL BE RAKED CLEAN OF ALL LIMEROCK AND ROCKS AND SODDED AFTER FINAL GRADING IN ACCORDANCE WITH THE CONSTRUCTION PLANS PRIOR TO FINAL INSPECTION. ALL GRASSING (SOD) SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL FINAL ACCEPTANCE BY THE OWNER/OPERATOR.

### SITE ACCESS

ALL ACCESS TO THE JOB SITE FOR CONSTRUCTION AND RELATED ACTIVITIES SHALL BE BY EXISTING STREETS AND ROADS.

### LANDSCAPING

PROVIDE MINIMUM 5' SEPARATION FROM UTILITIES AND TREES WITH INVASIVE ROOT SYSTEMS.

### WATER PIPE MATERIALS

WATER SYSTEM SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER AND SHALL MEET CITY OF EUSTIS SPECIFICATIONS. POLYVINYL CHLORIDE PLASTIC PIPE (PVC) 4" THROUGH 12" SHALL BE MANUFACTURED IN ACCORDANCE WITH ANSI/AWWA C900 (LATEST EDITION) AND SHALL HAVE A MINIMUM WORKING PRESSURE OF 150 PSI AND A DR (DIMENSION RATIO) OF 18. ALL PVC PIPE SHALL BEAR THE NSF LOGO FOR POTABLE WATER. JOINTS SHALL BE OF THE PUSH-ON TYPE AND COUPLINGS CONFORMING TO ASTM D3139, DR18 PIPE. DUCTILE IRON PIPE (DIP) SHALL BE STANDARD PRESSURE CLASS 350 IN SIZES 4" THROUGH 12" AND CONFORM TO ANSI/AWWA C150/A21.50 (LATEST EDITION). ALL DUCTILE IRON PIPE SHALL HAVE A STANDARD THICKNESS OF CEMENT MORTAR LINING AS SPECIFIED IN ANSI/AWWA C104/A21.4 (LATEST EDITION). PIPE JOINTS SHALL BE OF THE PUSH-ON RUBBER GASKET TYPE CONFORMING TO ANSI/AWWA C111/A21.11 (LATEST EDITION).PIPE DETECTOR WITH LOCATOR WIRE SHALL BE INSTALLED ON ALL WATER MAINS PER DETAIL. PIPE SIZES GREATER THAN 12" SHALL BE SEPARATELY SPECIFIED ON THE PLANS; WITH THICKNESS CLASSES TO BE SHOWN BASED ON WORKING PRESSURES, PIPE DEPTH AND TRENCH CONDITIONS. FITTINGS FOR DUCTILE IRON PIPE AND PVC C-900 PIPE SHALL BE DUCTILE IRON AND SHALL CONFORM TO ANSI/AWWA C153/A21.10 (LATEST EDITION) AND SHALL BE CEMENT LINED IN CONFORMANCE WITH ANSI/AWWA C104/A21.4 (LATEST EDITION). POLYETHYLENE WRAP USED FOR CORROSION PREVENTION ON DUCTILE IRON PIPE SHALL CONFORM TO THE REQUIREMENTS OF ANSI/ASTM D1248. THE MINIMUM NOMINAL THICKNESS SHALL BE 0.008 IN. (8 MILS). INSTALLATION OF POLY WRAP SHALL BE IN ACCORDANCE WITH AWWA C105. TRANSMISSION MAIN SHALL BE DIP RATED FOR 250 PSI.

### **VALVES**

GATE VALVES SHALL BE RESILIENT SEAT AND SHALL CONFORM TO ANSI/AWWA C509.87 WITH WRENCH NUT, EXTENSION STEMS AND OTHER APPURTENANCES AS REQUIRED. MANUFACTURER'S CERTIFICATION OF THE VALVES COMPLIANCE WITH AWWA SPECIFICATION C509 AND TESTS LISTED THEREIN WILL BE REQUIRED. VALVES SHALL BE CLOW, DRESSER, KENNEDY, AMERICAN.

### AIR RELEASE VALVES

AIR RELEASE VALVES SHALL BE PLACED AT HIGH POINTS OF THE TRANSMISSION MAIN TO PERMIT ESCAPE OF TRAPPED AIR. THE VALVE SIZE, LOCATION AND METHOD OF INSTALLATION SHALL BE INDICATED ON THE DRAWINGS, OR AS DIRECTED BY THE ENGINEER. AIR RELEASE VALVES SHALL BE CRISPN PRESSURE AIR VALVE TYPE.

### WATER SERVICES

UNLESS OTHERWISE NOTED IN THE PLANS, THE UTILITY COMPANY SHALL PROVIDE AND INSTALL WATER METERS. CONTRACTOR SHALL CONSTRUCT WATER SERVICE THROUGH THE CURB STOP AND SET METER BOXES TO FINISHED GRADE AS SHOWN ON THE WATER SYSTEM DETAIL SHEET. POLYETHYLENE (PE) PRESSURE PIPE FOR WATER SERVICES 1/2" THROUGH 3" SHALL CONFORM TO AWWA C901.88, MIN. 200 PSI. AND SHALL BE PHILLIPS DRISCO CTS 5100 (DR-9) ASTM D-2737, 200 PSI. ALL SERVICES SHALL INCLUDE THE FOLLOWING: LOCKING CURB STOPS, WYE BRANCHES, UNIONS AS REQUIRED, PE SERVICE PIPE AND CORPORATION STOPS. THE SERVICE SHALL BE COMPLETE THROUGH THE CURB STOP AS SHOWN ON THE DETAIL SHEET, AND SHALL BE OF THE TYPE REQUIRED FOR COMPATIBILITY WITH THE SERVICE LINES SPECIFIED, AND FITTINGS SHALL BE MANUFACTURED BY FORD. WHERE APPLICABLE - UNLESS OTHERWISE NOTED IN PLANS, UTILITY COMPANY SHALL PROVIDE AND INSTALL IRRIGATION METERS. WHERE RECLAIM SERVICE IS NOT PROVIDED, CONTRACTOR SHALL CONSTRUCT IRRIGATION SERVICE THROUGH THE CURB STOP AND SET NEW BOXES TO FINISHED GRADE AS SHOWN ON THE WATER SYSTEM DETAIL SHEET.

### PIPE INSTALLATION

PIPE INSTALLATION OF PVC WATER MAIN SHALL BE IN CONFORMANCE WITH ASTM D2774 (LATEST EDITION). INSTALLATION OF DUCTILE IRON PIPE WATER MAIN SHALL BE IN CONFORMANCE WITH AWWA C600.87. COMPACTED BACKFILL SHALL BE TO 98% MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180 UNDER ALL PAVEMENTS WITH 12" MAXIMUM LIFT THICKNESS. OTHER COMPACTION OF BACKFILL SHALL BE TO 95% MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180 WITH 12" MAXIMUM LIFT THICKNESS. SEE PIPE TRENCHING DETAILS. MINIMUM COVER OVER ALL PIPE SHALL BE 36" FROM TOP OF PIPE TO FINISHED GRADE. SEE PLAN AND PROFILE SHEETS FOR REQUIRED DEPTH. WATER MAINS ARE TO BE INSTALLED SO AS TO PROVIDE A MINIMUM VERTICAL CLEARANCE OF 18" OR A MINIMUM HORIZONTAL CLEARANCE OF 10' FROM ALL OTHER UTILITIES. IF THE MINIMUM CLEARANCE CAN NOT BE ACHIEVED, THEN DUCTILE IRON WATER MAIN SHALL BE SPECIFIED 10 FEET EITHER SIDE OF THE CROSSING. HORIZONTAL AND VERTICAL MINIMUM SEPARATION DISTANCE REQUIREMENTS BETWEEN WATER MAIN AND ALL OTHER UTILITIES SHALL COMPLY WITH 62-555.314 (1), (2), (3) AND (4), FAC. ALL WATER MAINS SHALL BE INSTALLED WITH CONCRETE THRUST BLOCKS. ALL PLUGS, CAPS, TEES, BENDS, FIRE HYDRANTS, VALVES, ETC. SHALL BE MECHANICAL JOINT FITTINGS.

### SCHEDULING

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING SCHEDULE OF WORK TO BE COMPLETED INCLUDING DATES FOR ELECTRICAL, COMMUNICATION, WALLS, FENCES, UTILITIES, LANDSCAPING, IRRIGATION, HARDSCAPING, ROADWAY, MASS GRADING, WELL INSTALLATION, WASTEWATER SYSTEM, ETC. (IF APPLICABLE)

This item has been digitally signed and sealed by Christopher M. Germana, PE on the date adjacent to the seal.

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

Digitally signed by Christopher

M Germana

Date: 2023.04.19

13:04:47 -04'00'



CHRISTOPHER M. GERMANA, P.E. FLORIDA PROFESSIONAL ENGINEER # 61682 ENGINEERING FIRM REGISTRY # 29279 GERMANA ENGINEERING
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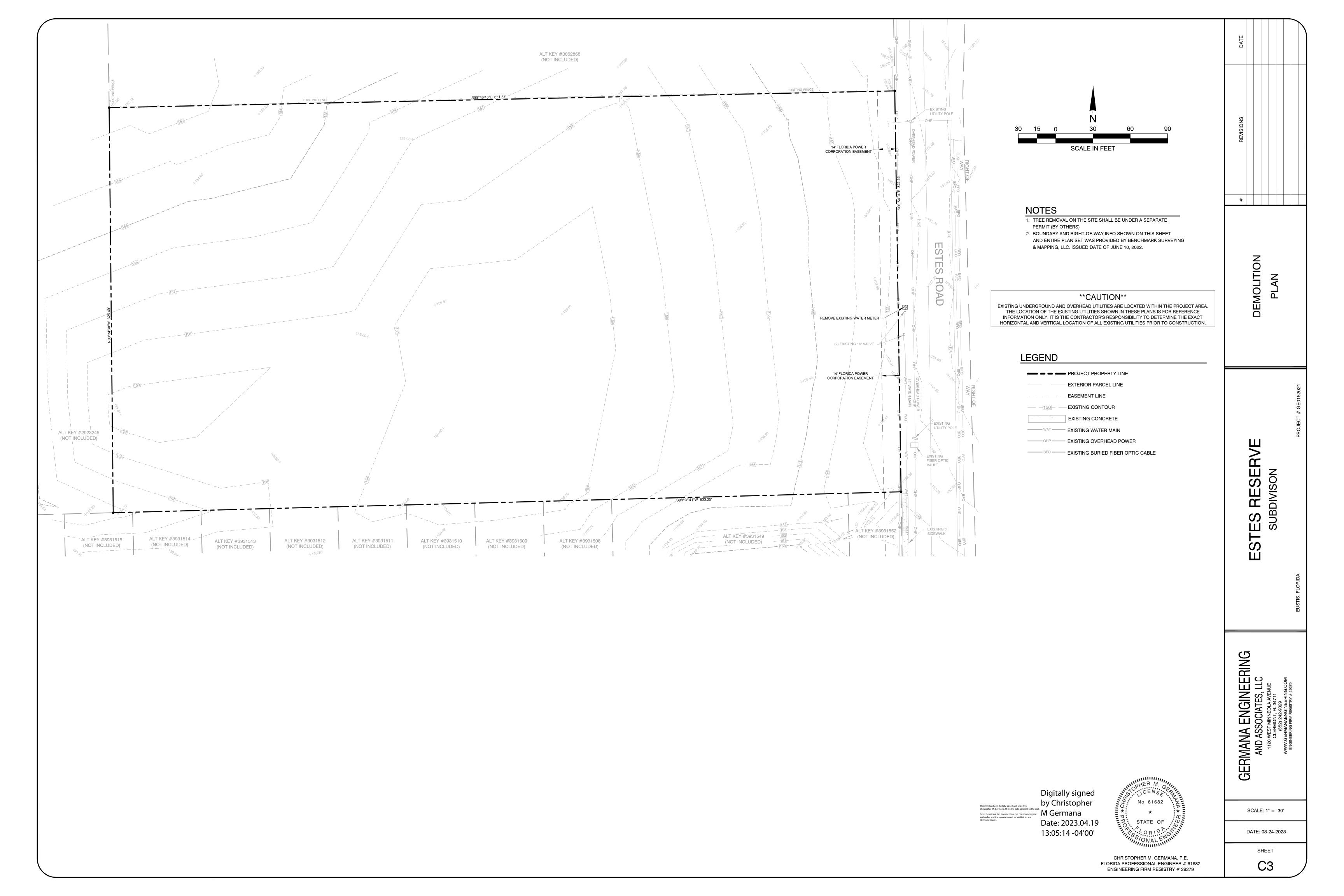
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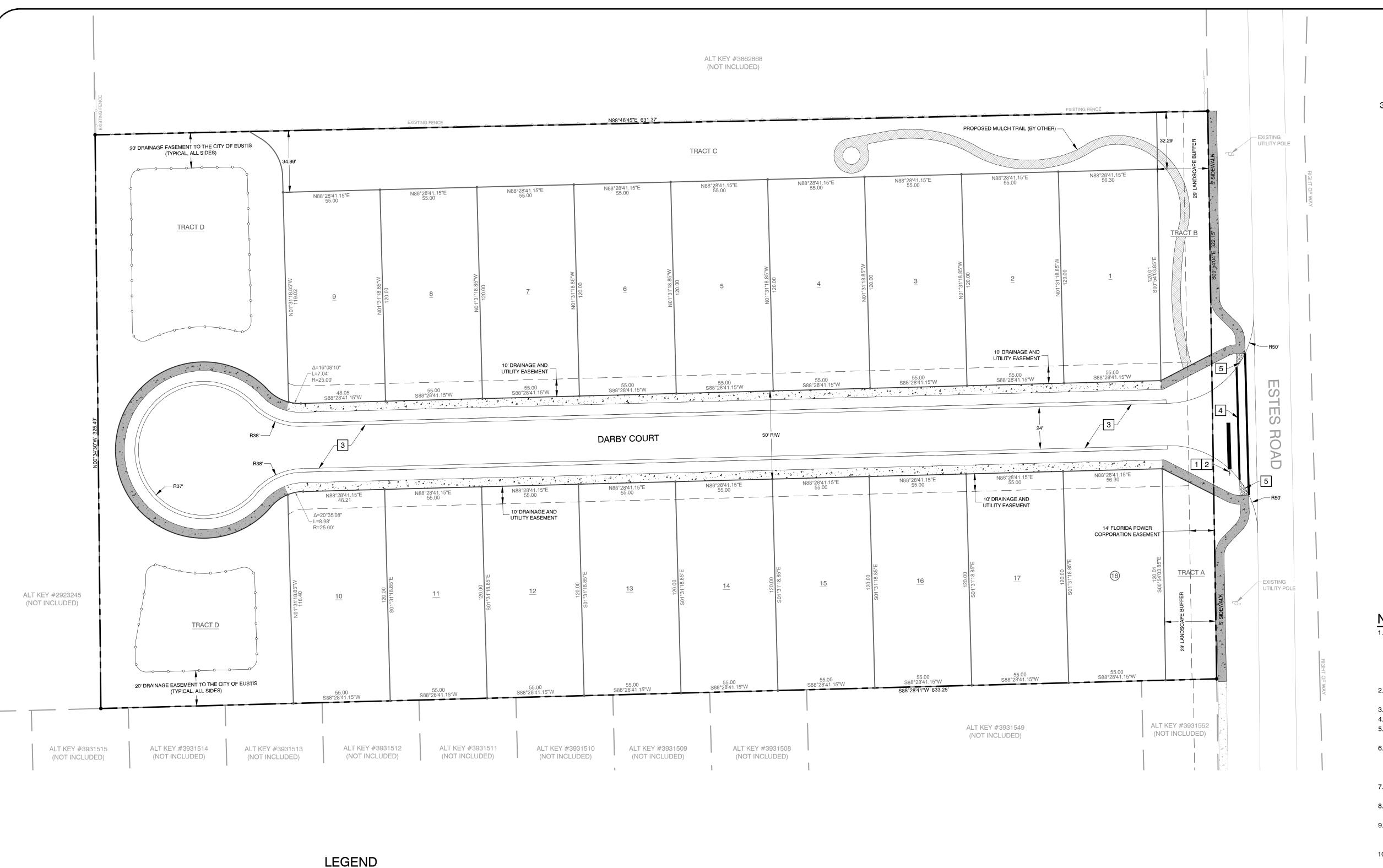
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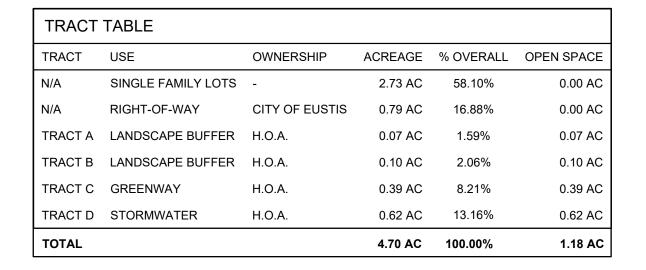
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SHEET

C2







# REAR LOT LINE S' REAR DRAINAGE FASEMENT (TYP.) DRAINAGE ESMT JOY WHIT LOT LINE S' REAR S/B DRAINAGE ESMT JOY WHIT LOT LAYOUT NTS REAR LOT LINE S' REAR DRAINAGE FASEMENT (TYP.) DRAINAGE ESMT JOY DRAINAGE ESMT JOY WHIT LOT LAYOUT NTS

KEY	LEGEND
1	24" WHITE PAINTED STOP BAR
2	30" STOP SIGN (R1-1) AND STREET SIGN
3	DROP CURB PER FDOT INDEX, 300
4	12" WHITE PAINTED CROSSWALK
5	DETECTABLE WARNING MAT IN BRICK RED

PROPOSED CONCRETE TO BE CONSTRUCTED WITH THIS

PROJECT (TYPICAL, SEE SHEET C11 FOR DETAILS)

PROPOSED MULCH TRAIL (BY OTHERS)

PROJECT PROPERTY LINE

→ PROPOSED FENCE

EXTERIOR PARCEL LINE

PROPOSED CONCRETE

- EASEMENT LINE

EXISTING FENCE

DRAINAGE  & UTILITY  & UTILITY  EASEMENT  TRACT  BOUNDARY LINE  SS S1		PADWAY 2'	6' SOD DROP CURB	LOT LINE  LOT LINE  DRAINAGE  R. UTILITY  EASEMENT					
TYPICAL 50' RIGHT-OF-WAY									

NTS





CHRISTOPHER M. GERMANA, P.E. FLORIDA PROFESSIONAL ENGINEER # 61682 ENGINEERING FIRM REGISTRY # 29279

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### SUBDIVISION SITE DATA

1. <u>SITE AREA</u> = 4.70 AC / 204,742 SF

2. SITE LOCATION

ESTES ROAD EUSTIS, FLORIDA 32736

SECTION 05, TOWNSHIP 19 SOUTH, RANGE 27 EAST TAX PARCEL #3862867

DESIGN DISTRICT: SUBURBAN NEIGHBORHOOD FUTURE LAND USE: SUBURBAN RESIDENTIAL

3. SITE REQUIREMENTS (PER LAND USE)

DENSITY: 5 DU/AC MAX BLDG HEIGHT: 1-STORY / 35' MAX OPEN SPACE (LDR SEC. 109-3.): 25% MIN. (1.18 AC)

ISR (LDR SEC. 109-3.): 40% MAX. MIN. PARK SIZE: 1/4 ACRE (<25 LOTS)

ESTES ROAD BUFFER: 29'
STREET SETBACK: 25'

STREET SETBACK: 22
COMMON LOT SETBACK:
REAR LOT SETBACK: 33

4. SUBDIVISION DATA

NUMBER OF LOTS: 18
CLASSIFICATION: SINGLE FAMILY RESIDENTIAL
DENSITY: 3.83 DU/ACRE
TYPICAL LOT SIZE: 55' X 120' (6,600 SF)
SCHOOL AGE POPULATION: .65 X 18 = 12 CHILDREN
WETLANDS: NONE ON SITE
FLOOD ZONES: NONE ON SITE

ROAD TYPE: RESIDENTIAL STREET PROPOSED LOT TYPE: HOUSE LOT PARK TYPE: GREENWAY (0.36 AC)

5. <u>UTILITY DATA</u>

WATER: CITY OF EUSTIS

SEWER: CITY OF EUSTIS

ELECTRICITY: SECO ENERGY TELEPHONE: CENTURY LINK

LOTS = 1.26 AC (3,049 SF/LOT)

ROADWAY = 0.46 AC

### NOTE

- 1. THE SITE CONSTRUCTION STAKEOUT SHALL BE PERFORMED UNDER THE DIRECTION OF A FLORIDA REGISTERED SURVEYO AUTOCAD FILE WILL BE PROVIDED TO AID IN THE SITE CONSTRUCTION STAKEOUT. ANY DISCREPANCIES FOUND BETWEEN THE AUTOCAD FILES SHALL BE BROUGHT TO THE
- ENGINEERS ATTENTION FOR CLARIFICATION PRIOR TO THAT STAKEOUT.

  2. PROJECT SITE SHALL COMPLY WITH THE FLORIDA
  ACCESSIBILITY CODE FOR BUILDING CONSTRUCTION (FBC) 2020 EDITION
- UTILITY EASEMENTS TO BE DEDICATED TO THE CITY OF EUSTIS.
   DRAINAGE UTILITIES TO BE DEDICATED TO THE HOME OWNERS ASSOCIATION.
   THE HOME OWNERS ASSOCIATION SHALL MAINTAIN ALL
- COMMON AREAS, FENCES, AND RETENTION AREAS.

  6. ALL SIDEWALKS CONSTRUCTED THROUGHOUT THE ENTIRE SITE SHALL BE CONSTRUCTED IN COMPLIANCE WITH THE CITY OF EUSTIS LAND DEVELOPMENT REGULATIONS AND
- SPECIFICATIONS.

  7. POND TRACT SHALL BE DEDICATED TO THE HOME OWNERS ASSOCIATION.
- 8. WALLS, FENCES, AND SIGNS SHALL BE OWNED AND MAINTAINED BY THE HOME OWNERS ASSOCIATION.
- BOUNDARY AND RIGHT-OF-WAY INFO SHOWN ON THIS SHEET
   AND ENTIRE PLAN SET WAS PROVIDED BY BENCHMARK SURVEYING & MAPPING,
   LLC. ISSUED DATE OF JUNE 10, 2022
   ALL HOUSES SHALL HAVE GARAGES IN ACCORDANCE TO EUSTIS LAND
- DEVELOPMENT REGULATIONS SEC. 110-5.8. GARAGES.

  11. ALL DRIVEWAYS SHALL CONFORM TO CITY OF EUSTIS REQUIREMENTS AND DESIGN STANDARDS.

GERMANA ENGINEERING AND ASSOCIATES, LLC

**UBDIVISION** 

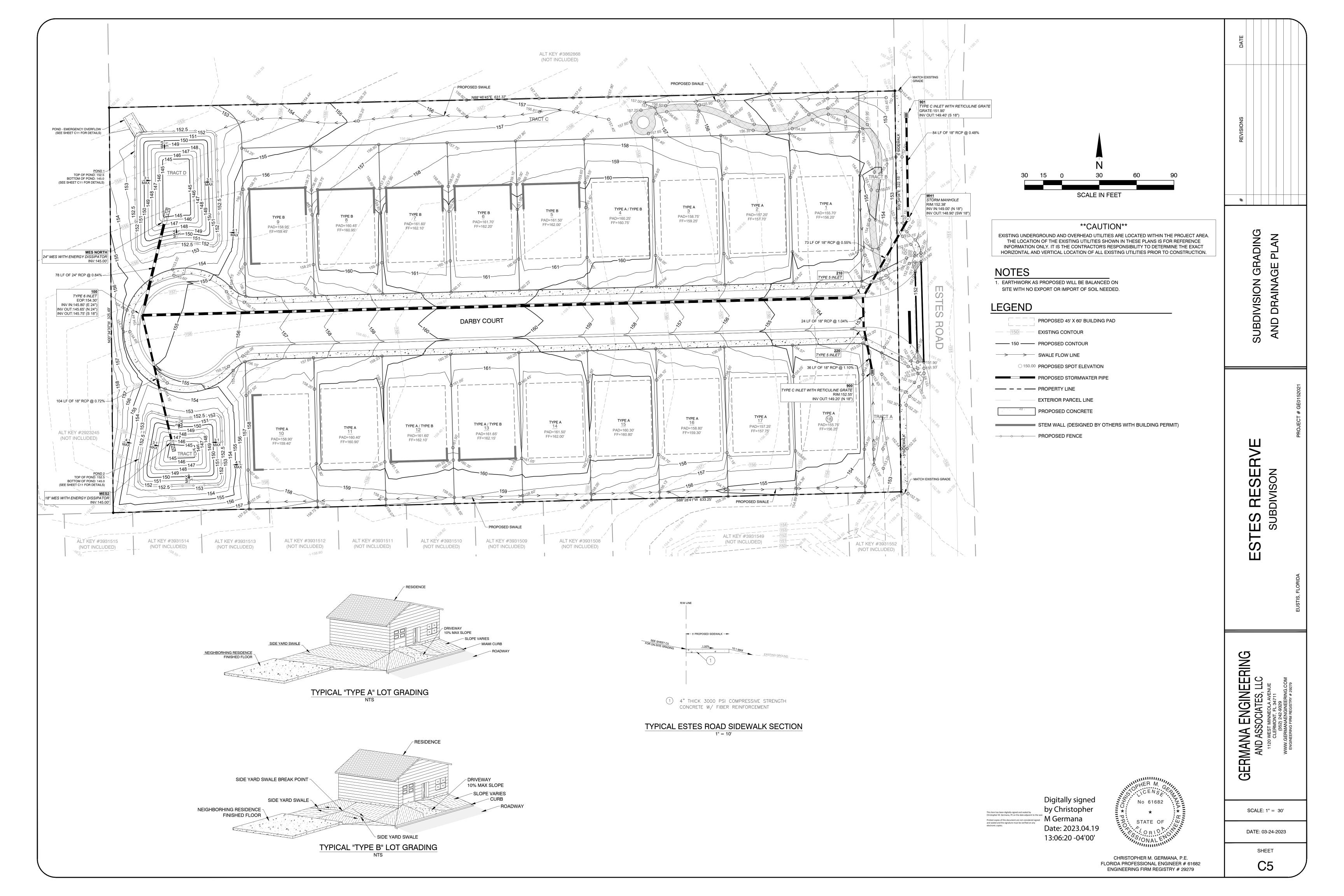
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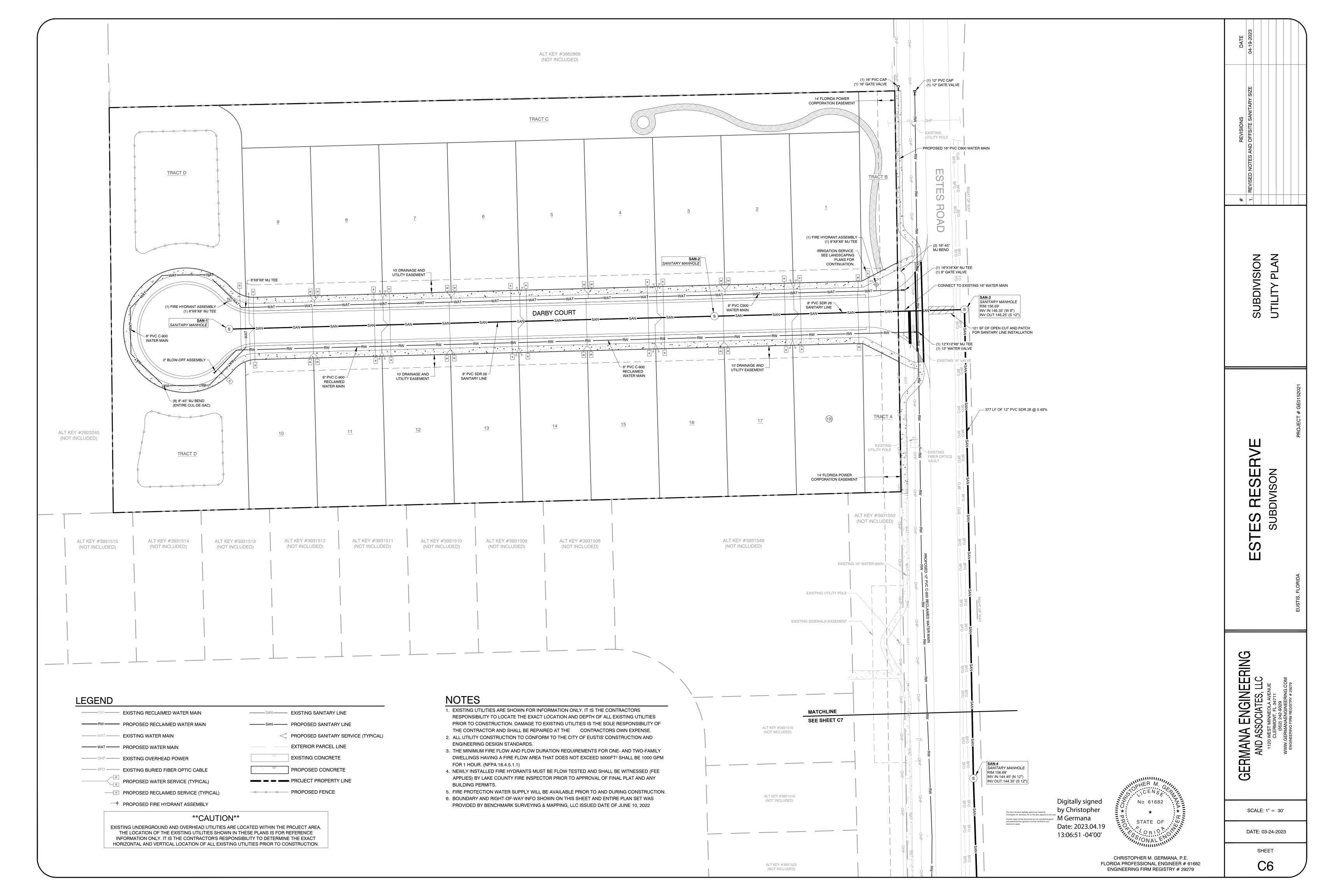
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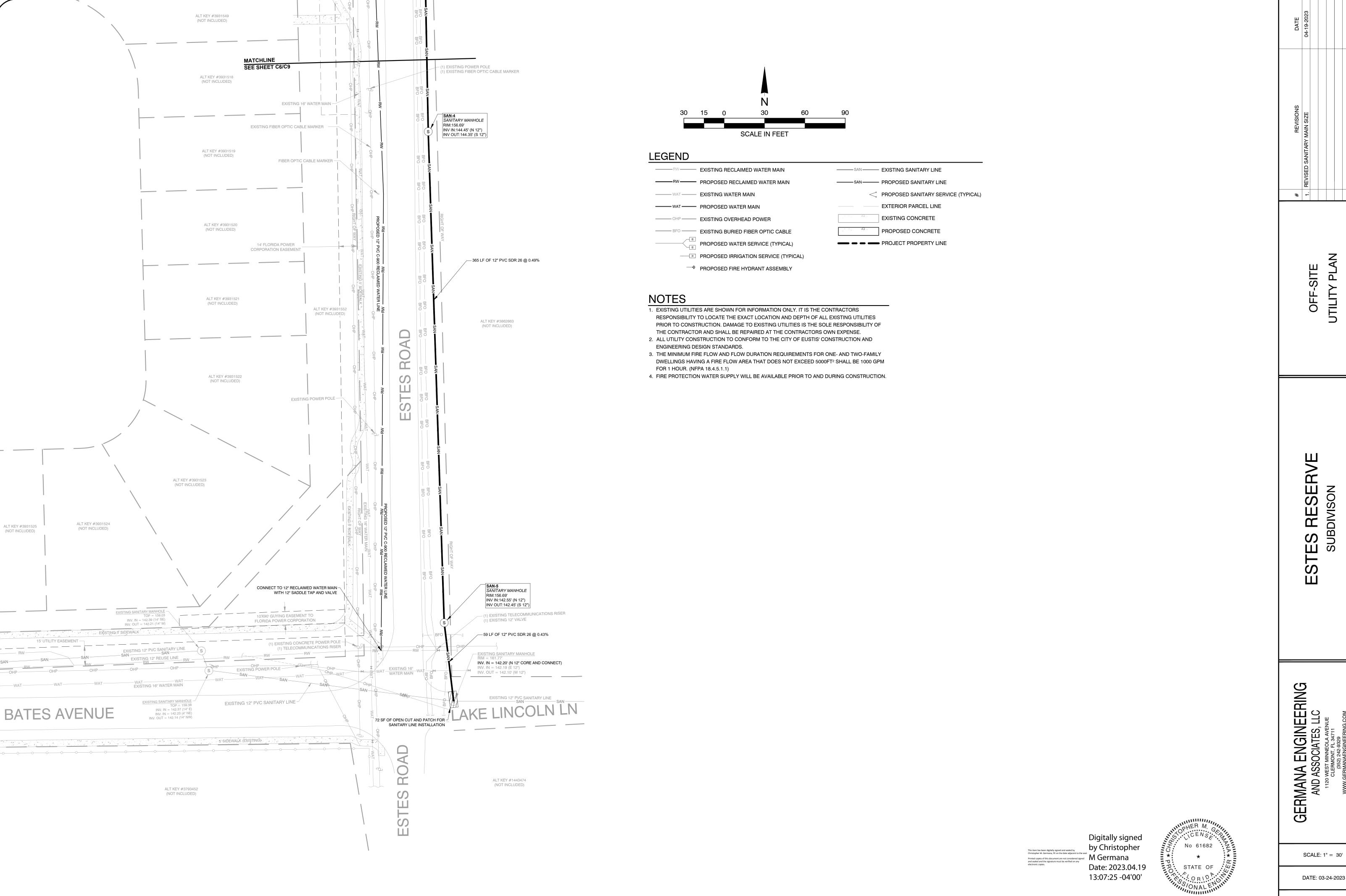
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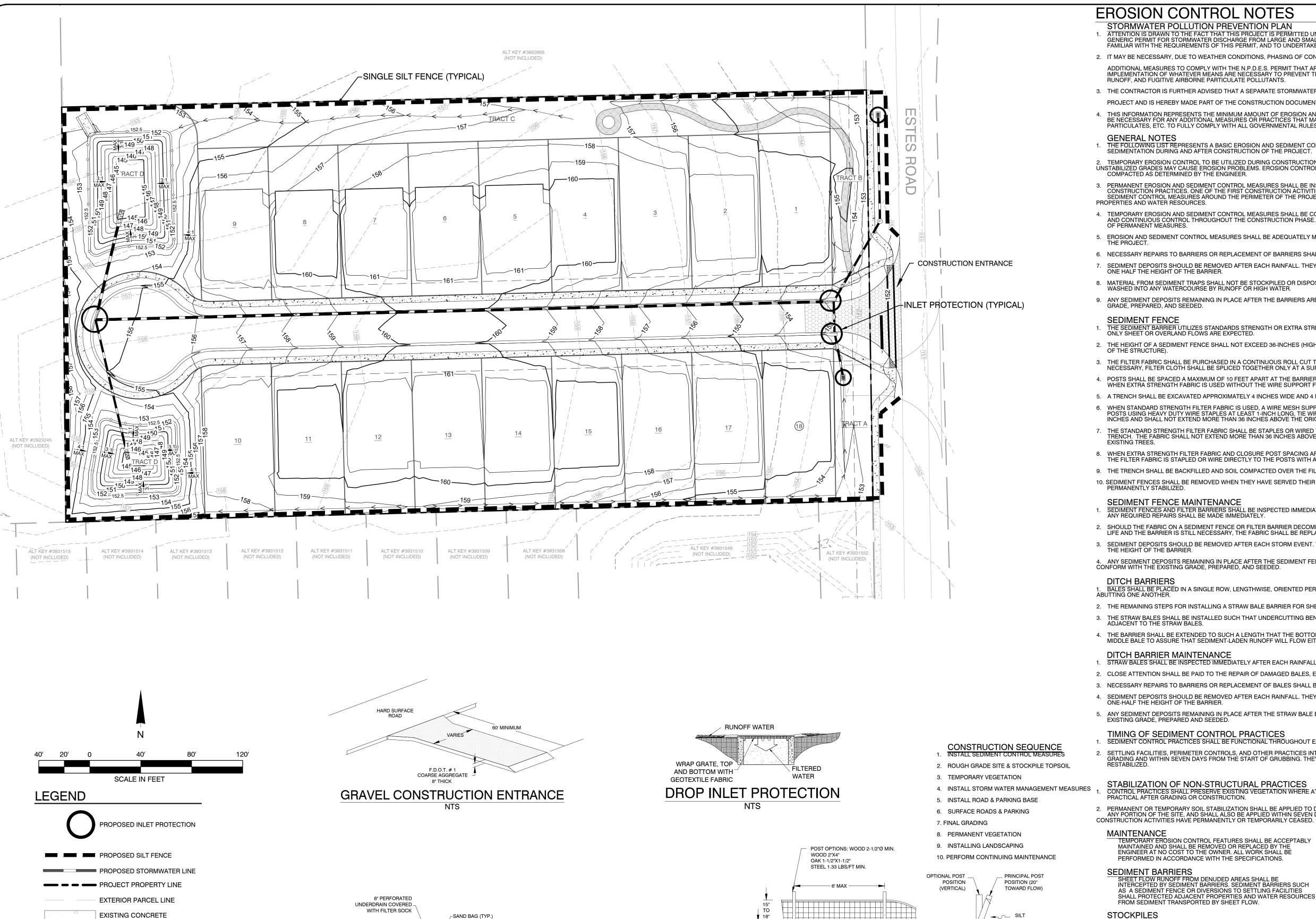




DATE: 03-24-2023

SHEET

CHRISTOPHER M. GERMANA, P.E. FLORIDA PROFESSIONAL ENGINEER # 61682 ENGINEERING FIRM REGISTRY # 29279



PROPOSED CONCRETE

GERMANA ENGINEERING AND ASSOCIATES, LLC.

THE SITE IS NEXT TO UNIMPROVED AGRICULTURAL

LAND TO THE NORTH, A MIDDLE SCHOOL TO THE

SILT FENCE AND INLET PROTECTION AS NEEDED.

WEST, SINGLE FAMILY RESIDENTIAL TO THE SOUTH,

1. PRE-MANUFACTURED INLET SOCK MAY BE

SUBSTITUTED IF APPROVED BY THE ENGINEER.

CONTACT: CHRISTOPHER M. GERMANA, PE

1120 WEST MINNEOLA AVENUE CLERMONT, FLORIDA 34711

**BURGLAND INVESTMENTS, LLC.** 

AND ESTES ROAD TO THE EAST.

1810 WEST KENNEDY BLDV, SUITE 232

CONTACT: FRANK BOMBEECK

TAMPA, FLORIDA 33606

(352) 242-9329

(813) 321-1984

EROSION CONTROL MEASURES: EROSION AND RUNOFF WILL BE CONTROLLED BY

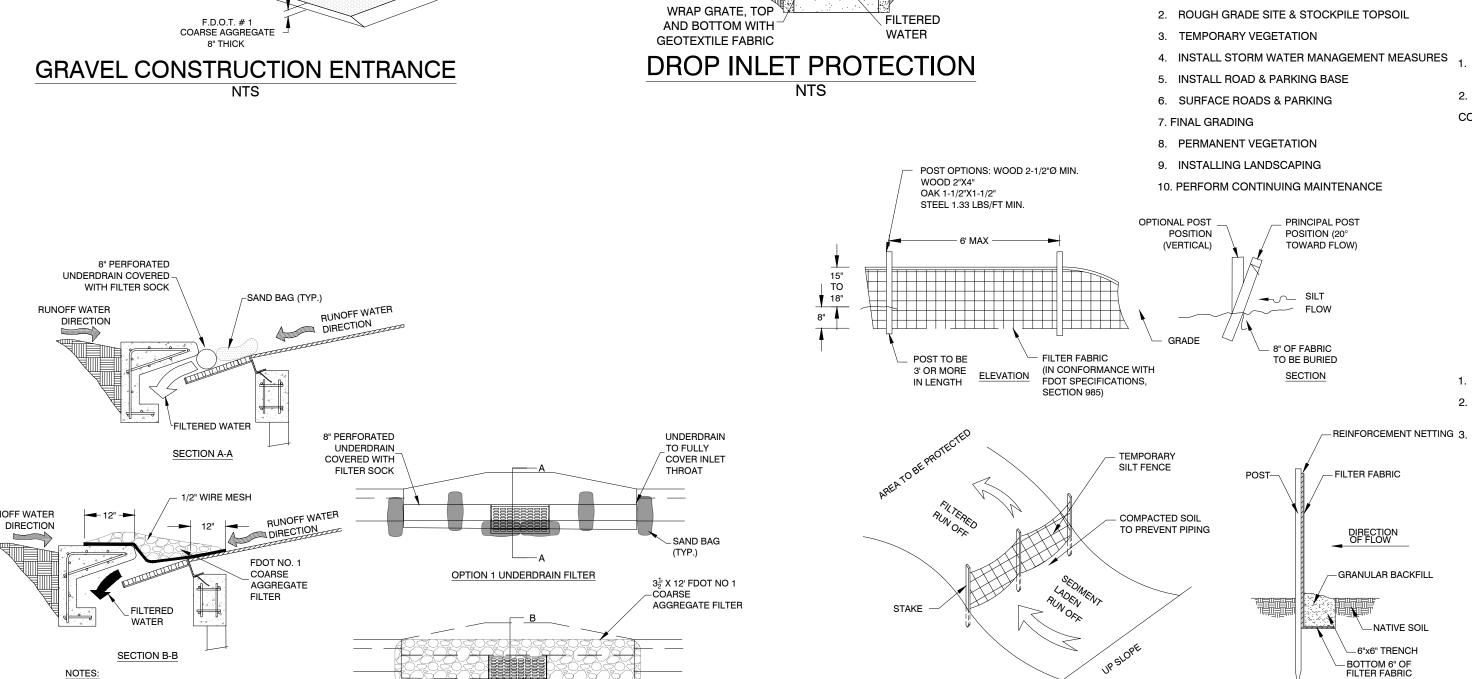
→ PROPOSED FENCE

**EROSION CONTROL SUMMARY** 

EROSION CONTROL DESIGNER:

OWNER/DEVELOPER:

AREA ADJACENT TO SITE:



─IRON GRATE

OPTION 2 GRAVEL AND WIRE MESH

**CURB INLET PROTECTION** 

**EROSION CONTROL NOTES** 

STORMWATER POLLUTION PREVENTION PLAN 1. ATTENTION IS DRAWN TO THE FACT THAT THIS PROJECT IS PERMITTED UNDER THE STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BE FAMILIAR WITH THE REQUIREMENTS OF THIS PERMIT, AND TO UNDERTAKE ANY MEASURES NECESSARY TO COMPLY WITH SAID REQUIREMENTS.

2. IT MAY BE NECESSARY, DUE TO WEATHER CONDITIONS, PHASING OF CONSTRUCTION ACTIVITIES, QUANTITY AND TYPE OF MATERIALS, ETC., TO TAKE ADDITIONAL MEASURES TO COMPLY WITH THE N.P.D.E.S. PERMIT THAT ARE NOT OUTLINED IN THESE PLANS. THE CONTRACTOR IS FULLY RESPONSIBLE FOR IMPLEMENTATION OF WHATEVER MEANS ARE NECESSARY TO PREVENT THE DISCHARGE OF POLLUTANTS, INCLUDING BUT NOT LIMITED TO TURBID WATER RUNOFF, AND FUGITIVE AIRBORNE PARTICULATE POLLUTANTS.

3. THE CONTRACTOR IS FURTHER ADVISED THAT A SEPARATE STORMWATER POLLUTION PREVENTION PLAN (S.W.P.P.P.) HAS BEEN PREPARED FOR THIS PROJECT AND IS HEREBY MADE PART OF THE CONSTRUCTION DOCUMENTS.

4. THIS INFORMATION REPRESENTS THE MINIMUM AMOUNT OF EROSION AND SEDIMENT CONTROL MEASURES, IN THE OPINION OF THE ENGINEER, THAT MAY BE NECESSARY FOR ANY ADDITIONAL MEASURES OR PRACTICES THAT MAY BE NECESSARY TO CONTROL EROSION, TURBID DISCHARGE, FUGITIVE PARTICULATES, ETC. TO FULLY COMPLY WITH ALL GOVERNMENTAL RULES AND/OR PERMIT REQUIREMENTS.

THE FOLLOWING LIST REPRESENTS A BASIC EROSION AND SEDIMENT CONTROL PROGRAM WHICH IS TO BE IMPLEMENTED TO HELP PREVENT OFF-SITE

2. TEMPORARY EROSION CONTROL TO BE UTILIZED DURING CONSTRUCTION AT AREAS DESIGNATED BY THE ENGINEER OR AREAS ON SITE WHERE UNSTABILIZED GRADES MAY CAUSE EROSION PROBLEMS. EROSION CONTROL MAY BE REMOVED AFTER UPSLOPE AREA HAS BEEN STABILIZED BY SOD, OR COMPACTED AS DETERMINED BY THE ENGINEER.

3. PERMANENT EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AT THE EARLIEST PRACTICAL TIME CONSISTENT WITH GOOD CONSTRUCTION PRACTICES. ONE OF THE FIRST CONSTRUCTION ACTIVITIES SHOULD BE THE PLACEMENT OF PERMANENT AND TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES AROUND THE PERIMETER OF THE PROJECT OR THE INITIAL WORK AREA TO PROTECT THE PROJECT, ADJACENT

4. TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE COORDINATED WITH PERMANENT MEASURES TO ASSURE ECONOMICAL, EFFECTIVE, AND CONTINUOUS CONTROL THROUGHOUT THE CONSTRUCTION PHASE. TEMPORARY MEASURES SHALL NOT BE CONSTRUCTED FOR EXPEDIENCY IN LIEU.

5. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE ADEQUATELY MAINTAINED TO PERFORM THEIR INTENDED FUNCTION DURING CONSTRUCTION OF THE PROJECT.

6. NECESSARY REPAIRS TO BARRIERS OR REPLACEMENT OF BARRIERS SHALL BE ACCOMPLISHED PROMPTLY. 7. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH RAINFALL. THEY MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY

ONE HALF THE HEIGHT OF THE BARRIER. 8. MATERIAL FROM SEDIMENT TRAPS SHALL NOT BE STOCKPILED OR DISPOSED OF IN A MANNER WHICH MAKES THEM READILY SUSCEPTIBLE TO BEING WASHED INTO ANY WATERCOURSE BY RUNOFF OR HIGH WATER.

9. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE BARRIERS ARE NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED, AND SEEDED.

1. THE SEDIMENT BARRIER UTILIZES STANDARDS STRENGTH OR EXTRA STRENGTH SYNTHETIC FILTER FABRICS. IT IS DESIGNED FOR SITUATIONS IN WHICH ONLY SHEET OR OVERLAND FLOWS ARE EXPECTED.

2. THE HEIGHT OF A SEDIMENT FENCE SHALL NOT EXCEED 36-INCHES (HIGHER FENCES MAY IMPOUND VOLUMES OF WATER SUFFICIENT TO CAUSE FAILURE 3. THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE

NECESSARY, FILTER CLOTH SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6-INCH OVERLAP, AND SECURELY SEALED. 4. POSTS SHALL BE SPACED A MAXIMUM OF 10 FEET APART AT THE BARRIER LOCATION AND DRIVEN SECURELY INTO THE GROUND (MINIMUM OF 12 INCHES). WHEN EXTRA STRENGTH FABRIC IS USED WITHOUT THE WIRE SUPPORT FENCE, POST SPACING SHALL NOT EXCEED 6 FEET.

5. A TRENCH SHALL BE EXCAVATED APPROXIMATELY 4 INCHES WIDE AND 4 INCHES DEEP ALONG THE LINE OF POSTS AND UPSLOPE FROM THE BARRIER. 6. WHEN STANDARD STRENGTH FILTER FABRIC IS USED, A WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY DUTY WIRE STAPLES AT LEAST 1-INCH LONG, TIE WIRES, OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 2 INCHES AND SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE.

7. THE STANDARD STRENGTH FILTER FABRIC SHALL BE STAPLES OR WIRED TO THE FENCE, AND 8-INCHES OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE FABRIC SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE. FILTER FABRIC SHALL NOT BE STAPLED TO

8. WHEN EXTRA STRENGTH FILTER FABRIC AND CLOSURE POST SPACING ARE USED, THE WIRE MESH SUPPORT FENCE MAY BE ELIMINATED IN SUCH A CASE, THE FILTER FABRIC IS STAPLED OR WIRE DIRECTLY TO THE POSTS WITH ALL OTHER PROVISION OF ITEM NO. 6 APPLYING.

9. THE TRENCH SHALL BE BACKFILLED AND SOIL COMPACTED OVER THE FILTER FABRIC. 10. SEDIMENT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN

SEDIMENT FENCE MAINTENANCE SEDIMENT FENCES AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.

2. SHOULD THE FABRIC ON A SEDIMENT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER IS STILL NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY. 3. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-THIRD

4. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SEDIMENT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED, AND SEEDED.

BALES SHALL BE PLACED IN A SINGLE ROW, LENGTHWISE, ORIENTED PERPENDICULAR TO THE CONTOUR, WITH ENDS OF ADJACENT BALES TIGHTLY

2. THE REMAINING STEPS FOR INSTALLING A STRAW BALE BARRIER FOR SHEET FLOW APPLICATIONS APPLY HERE, WITH THE FOLLOWING ADDITION. THE STRAW BALES SHALL BE INSTALLED SUCH THAT UNDERCUTTING BENEATH THE BALES IS MINIMIZED BY THE USE OF ROCK CHECK DAMS PLACED ADJACENT TO THE STRAW BALES.

4. THE BARRIER SHALL BE EXTENDED TO SUCH A LENGTH THAT THE BOTTOMS OF THE END BALES ARE HIGHER IN ELEVATION THAN THE TOP OF THE LOWEST MIDDLE BALE TO ASSURE THAT SEDIMENT-LADEN RUNOFF WILL FLOW EITHER THROUGH OR OVER THE BARRIER BUT NOT AROUND IT.

DITCH BARRIER MAINTENANCE

1. STRAW BALES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL 2. CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED BALES, END RUNS, AND UNDERCUTTING BENEATH BALES.

3. NECESSARY REPAIRS TO BARRIERS OR REPLACEMENT OF BALES SHALL BE ACCOMPLISHED PROMPTLY.

4. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH RAINFALL. THEY MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY

5. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE STRAW BALE BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.

TIMING OF SEDIMENT CONTROL PRACTICES 1. SEDIMENT CONTROL PRACTICES SHALL BE FUNCTIONAL THROUGHOUT EARTH DISTURBING ACTIVITY

SETTLING FACILITIES, PERIMETER CONTROLS, AND OTHER PRACTICES INTENDED TO TRAP SEDIMENT SHALL BE IMPLEMENTED AS THE FIRST STEP OF GRADING AND WITHIN SEVEN DAYS FROM THE START OF GRUBBING. THEY SHALL CONTINUE TO FUNCTION UNTIL THE UPSLOPE DEVELOPMENT AREA IS RESTABILIZED.

STABILIZATION OF NON-STRUCTURAL PRACTICES
CONTROL PRACTICES SHALL PRESERVE EXISTING VEGETATION WHERE ATTAINABLE AND DISTURBED AREAS SHALL BE RE-VEGETATED AS SOON AS IT IS

PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN FOURTEEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE, AND SHALL ALSO BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS WHICH MAY NOT BE AT FINAL GRADE, WHERE

MAINTENANCE

SILT FENCE

TEMPORARY EROSION CONTROL FEATURES SHALL BE ACCEPTABLY
MAINTAINED AND SHALL BE REMOVED OR REPLACED BY THE
ENGINEER AT NO COST TO THE OWNER. ALL WORK SHALL BE

PERFORMED IN ACCORDANCE WITH THE SPECIFICATIONS.

SEDIMENT BARRIERS

SHEET FLOW RUNOFF FROM DENUDED AREAS SHALL BE INTERCEPTED BY SEDIMENT BARRIERS. SEDIMENT BARRIERS SUCH

AS A SEDIMENT FENCE OR DIVERSIONS TO SETTLING FACILITIES SHALL PROTECTED ADJACENT PROPERTIES AND WATER RESOURCES FROM SEDIMENT TRANSPORTED BY SHEET FLOW. STOCKPILES

ALL SOIL STOCKPILES SHALL BE PROTECTED FROM EROSION BY PERIMETER CONTROL DEVICES SUCH AS STRAW BALE DIKES OR FILTER FABRIC FENCES, AND THESE PERIMETER CONTROL DEVICES SHALL BE MAINTAINED THROUGHOUT THE LIFE OF THE PROJECT.

INLET PROTECTION ALL STORM SEWER INLETS WHICH ACCEPT WATER RUNOFF FROM THE DEVELOPMENT AREA SHALL BE PROTECTED SO THAT SEDIMENT-LADEN WATER WILL NOT ENTER THE STORM SYSTEM WITHOUT FIRST BEING PONDED AND

CONSTRUCTION ACCESS ROUTES

MEASURES SHALL BE TAKEN TO PREVENT SOIL TRANSPORT ONTO SURFACES OR PUBLIC ROADS WHERE RUNOFF IS NOT CHECKED.

PERMANENT VEGETATION

PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL GROUND COVER IS ACHIEVED WHICH, IN THE OPINION OF THE ENGINEER, PROVIDES ADEQUATE COVER AND IS MATURE ENOUGH TO CONTROL SOIL EROSION SATISFACTORILY AND TO SURVIVE ADVERSE WEATHER CONDITIONS.

INSPECTION SCHEDULE 1. DIVERSION SWALE AND STRUCTURAL PROTECTION - INSPECT EVERY 7 DAYS OR AFTER EACH RAINSTORM PRODUCING RUNOFF. REPAIR AS REQUIRED. 2. INLET PROTECTION - INSPECT FOR SEDIMENT ACCUMULATION AFTER EACH RAINFALL AND DAILY DURING CONTINUED RAINFALL. REPAIR OR REPLACE WHEN WATER FLOW IS RESTRICTED BY SEDIMENT.

VEGETATIVE PLANTING - INSPECT AFTER SPROUTING OCCURS AND REPLANT BARE AREAS. INSPECT ESTABLISHED COVER EVERY 15 DAYS FOR DAMAGE;
REPLANT AS REQUIRED. MAINTAIN ESTABLISHED COVER AT MAXIMUM 6" HEIGHT. IRRIGATE AS REQUIRED DURING DRY PERIODS TO MAINTAIN LIVE

Digitally signed by Christopher M Christopher M. Germana, PE on the date adjacent to Germana and sealed and the signature must be verified on any Date: 2023.04.19

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CHRISTOPHER M. GERMANA, P.E. FLORIDA PROFESSIONAL ENGINEER # 61682 ENGINEERING FIRM REGISTRY # 29279

SHEET

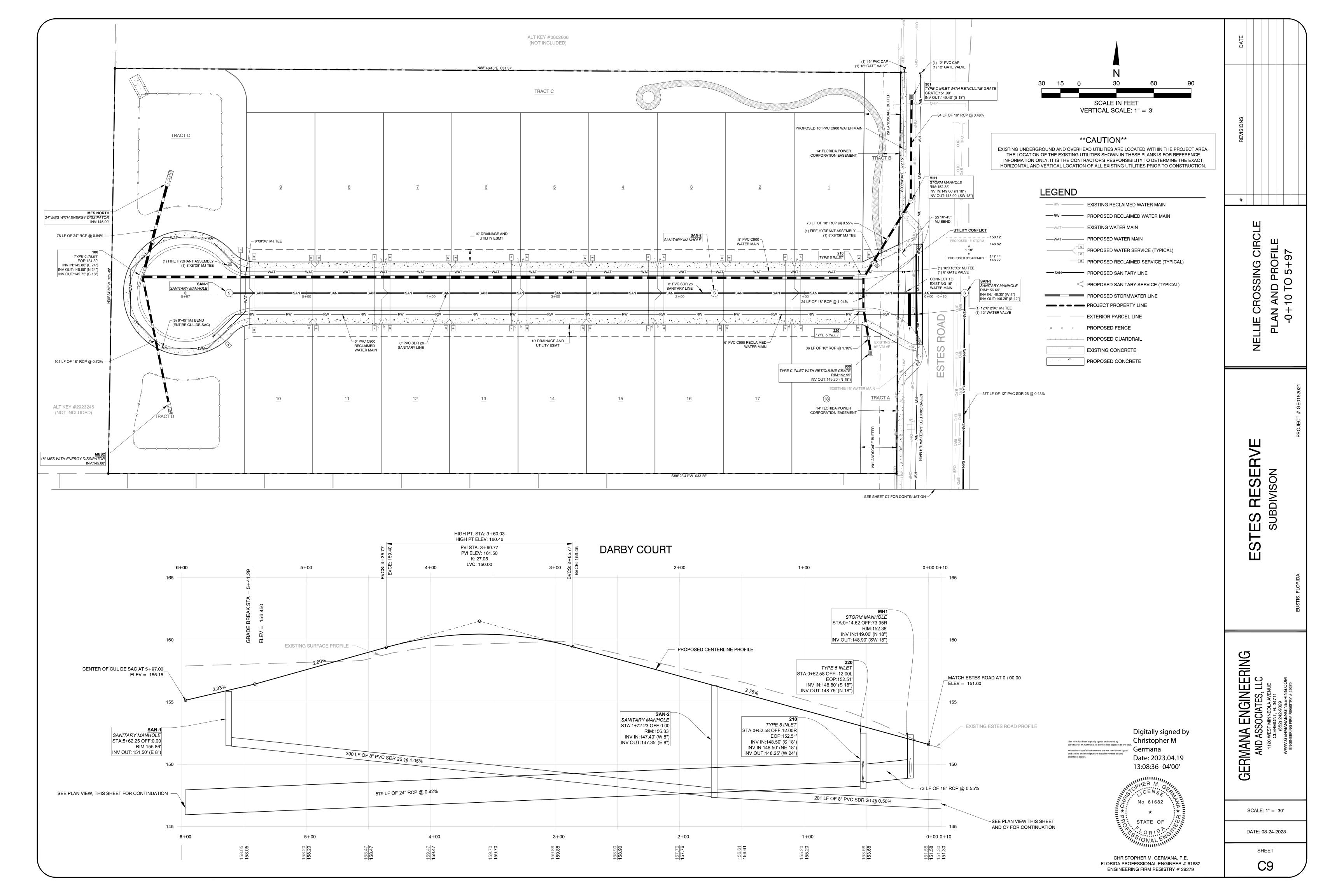
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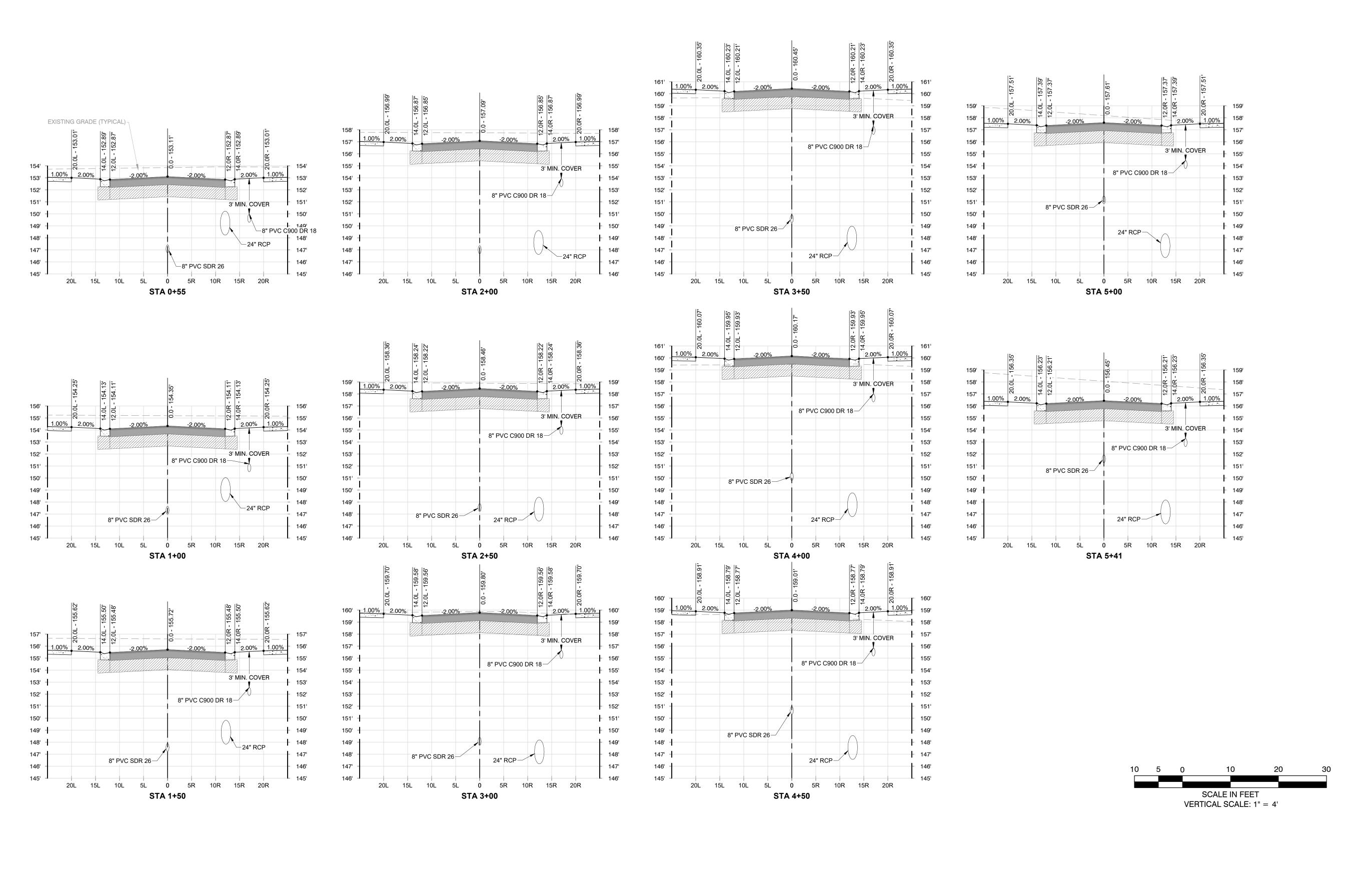
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Digitally signed by Christopher M Germana Date: 2023.04.19
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DATE: 03-24-2023

SCALE: NTS

GERMANA ENGINEERING AND ASSOCIATES, LLC

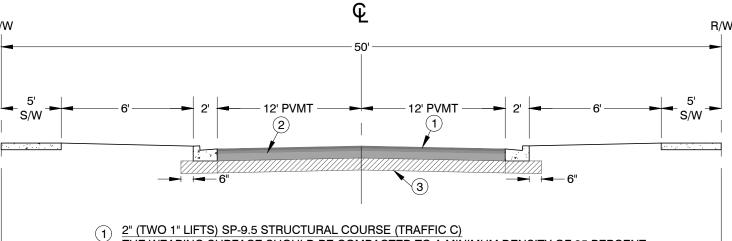
DARBY COURT CROSS SECTIONS 0+55 TO 5+41

ESTES RESEF SUBDIVISON

SHEET C10

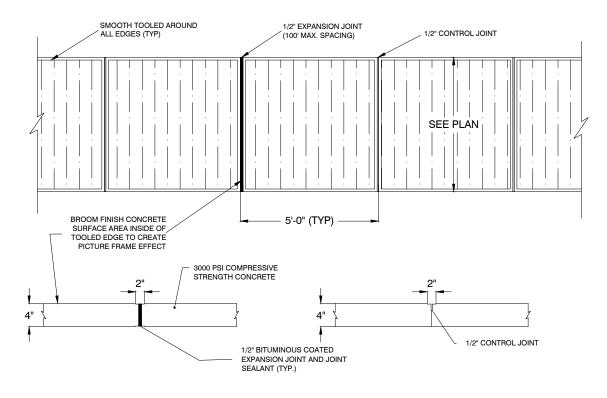
CHRISTOPHER M. GERMANA, P.E. FLORIDA PROFESSIONAL ENGINEER # 61682 ENGINEERING FIRM REGISTRY # 29279

NA, P.E. NEER # 61682 RY # 29279

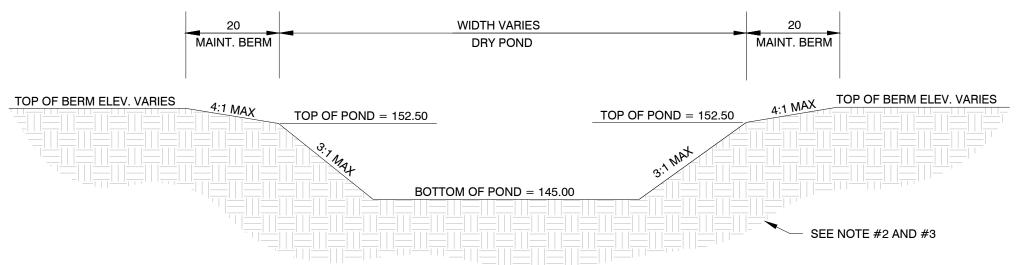


- THE WEARING SURFACE SHOULD BE COMPACTED TO A MINIMUM DENSITY OF 95 PERCENT OF THE LABORATORY DENSITY AS DETERMINED BY THE MARSHALL STABILITY TEST METHOD (AASHTO T-245).
- 6" LIMEROCK BASE (LBR 100) QUALITY OF LIMEROCK TO BE IN ACCORDANCE WITH CURRENT FLORIDA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS AND COMPACTED TO A MINIMUM DENSITY EQUIVALENT TO 95 PERCENT OF THE MODIFIED PROCTOR (AASHTO T-180), PRIMED, COMPACTED TO 98% OF THE MAXIMUM DENSITY, PER AASHTO T-180.
- (3) 12" TYPE B STABILIZED SUBGRADE (LBR 40) THE SUBGRADE SHOULD BE COMPACTED TO 95% OF THE MODIFIED PROCTOR MAXIMUM DENSITY (AASHTO T-180) FOR A DEPTH OF 1 FOOT BELOW PAVEMENT SUBGRADE.

# TYPICAL R/W DETAIL

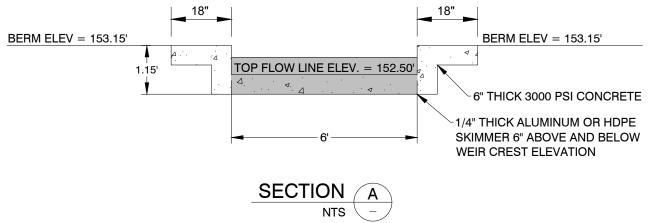


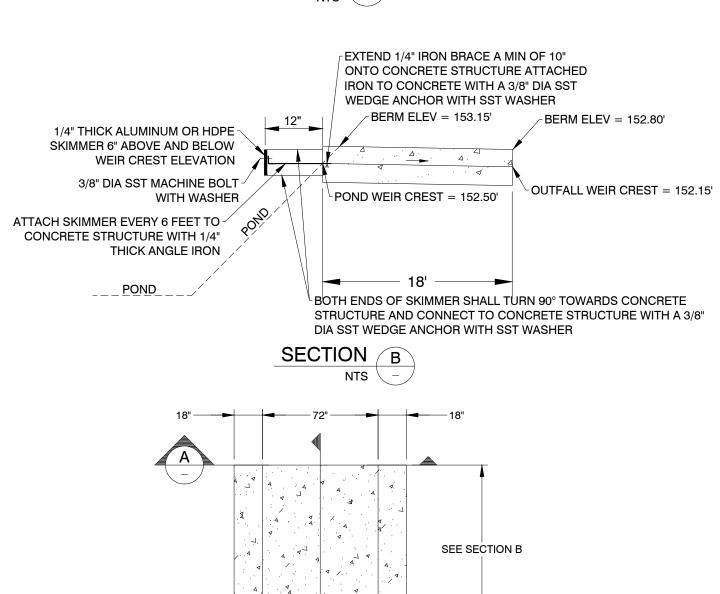
SIDEWALK DETAIL



- 1. BAHIA SOD SHALL BE USED ON POND SIDE SLOPES AND BERM. NON-MUCK GROWN SOD SHALL BE INSTALLED.
- 2. THE POND BOTTOM AREA SHOULD BE STRIPPED AND CLEARED OF TREES, SURFACE VEGETATION, TOP SOIL, ROOT LADEN SOILS, DEBRIS, AND ANY DELETERIOUS OR CLAYEY MATERIAL. POND BOTTOM TO BE SEEDED WITH ARGENTINE BAHIA SEEDS.
- 3. IF CLAYEY SOILS ARE ENCOUNTERED DURING GRADING OF THE POND, IT SHOULD BE OVER EXCAVATED TO A DEPTH OF 3 FEET BELOW THE POND BOTTOM AND REPLACED WITH CLEAN FINE SANDS. ALL FILL SHALL BE GRANULAR SOIL WITH LESS THAN 5% PASSING THROUGH THE NUMBER 200 SIEVE AT A MINIMUM PERMEABILITY RATE OF 10 FT/DAY.
- 3. CONTRACTOR TO OVER-EXCAVATE THE POND BOTTOM TO AN ELEVATION OF 142.50' TO ENSURE NO CLAY IS BENEATH THE POND TO ELEVATION 142.50'. CONTRACTOR TO EXCAVATE ANY CLAY FOUND AND FILL WITH CLEAN FINE SAND WITH LESS THAN 5% PASSING THROUGH THE NUMBER 200 SIEVE AT A MINIMUM PERMEABILITY RATE OF 10 FEET PER DAY.

# TYPICAL DRY POND DETAIL





POND EMERGENCY OVERFLOW WEIR DETAIL

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CHRISTOPHER M. GERMANA, P.E. FLORIDA PROFESSIONAL ENGINEER # 61682 ENGINEERING FIRM REGISTRY # 29279

SHEET C11

DATE: 03-24-2023

SCALE: NTS

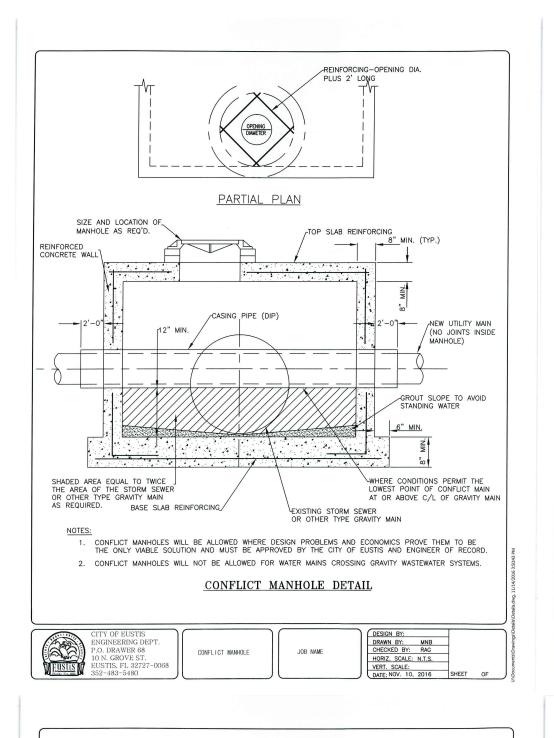
GERMANA ENGINEERING AND ASSOCIATES, LLC

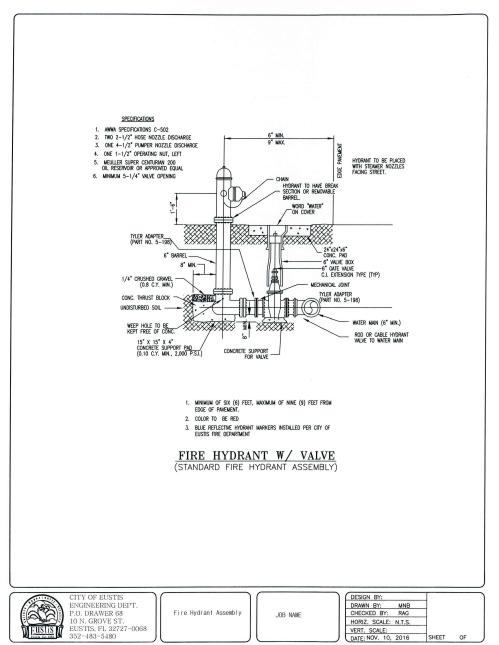
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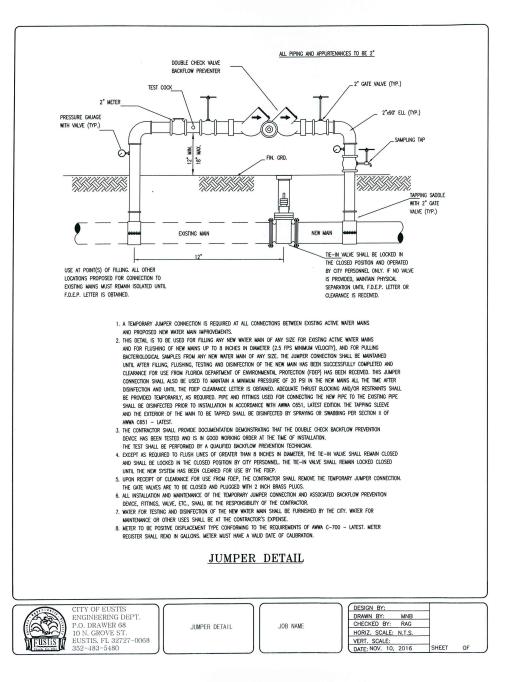
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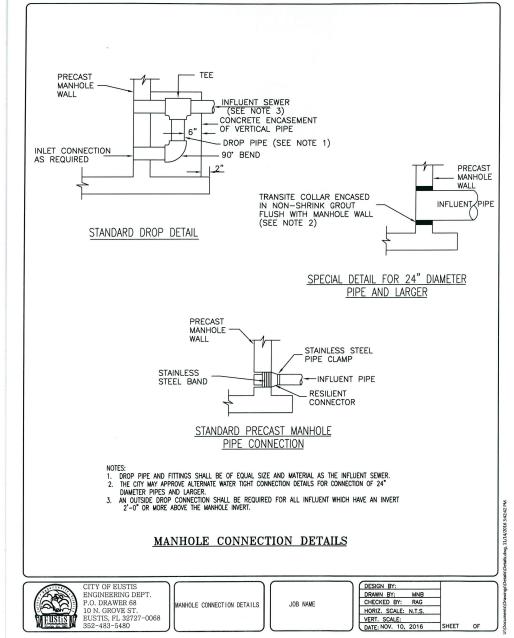
ESTES RESEF SUBDIVISON

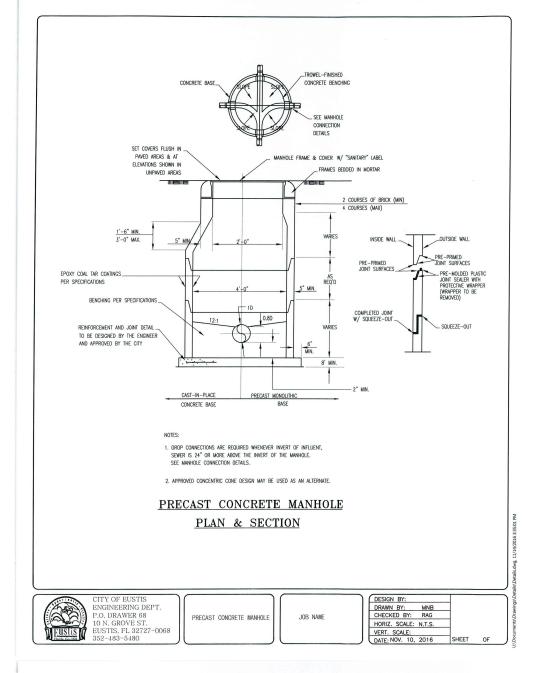
**DETAIL** 

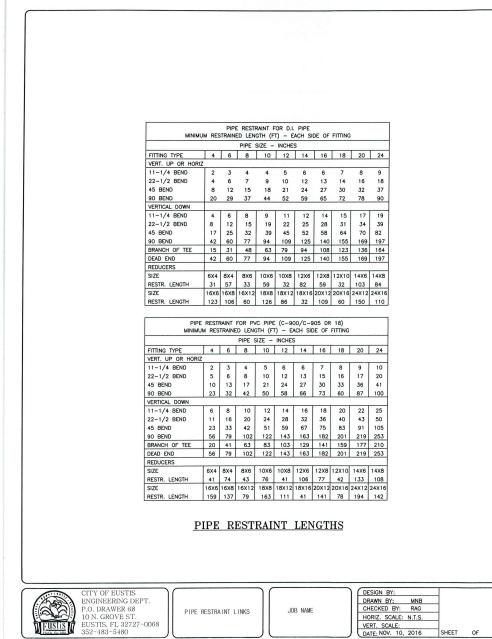


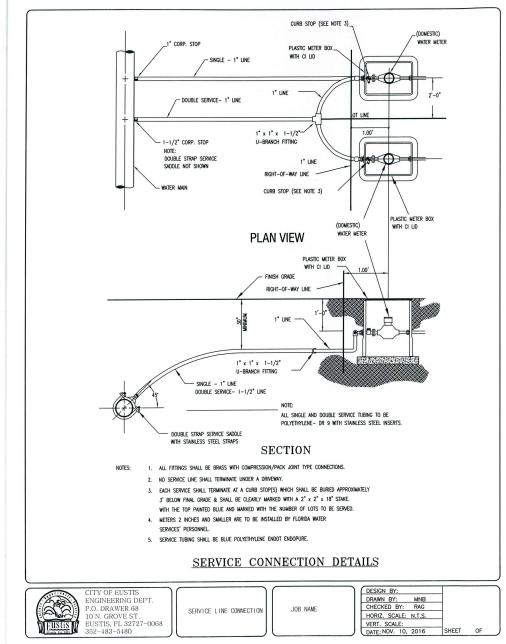


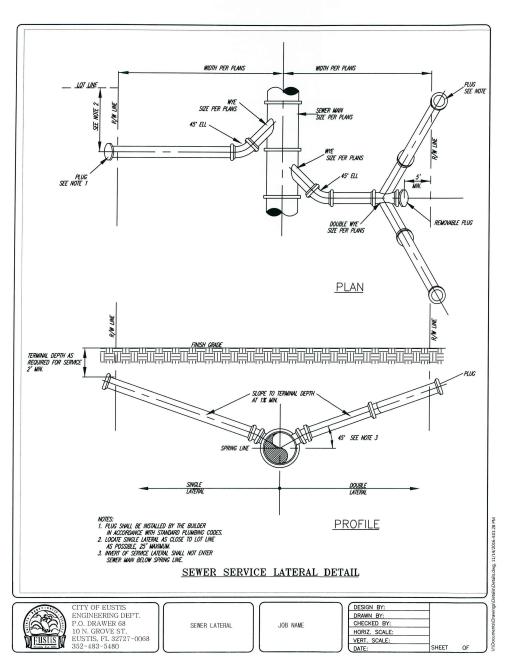


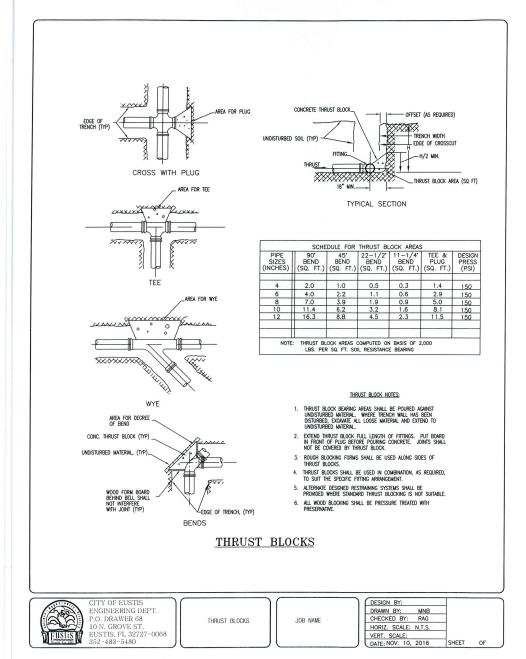


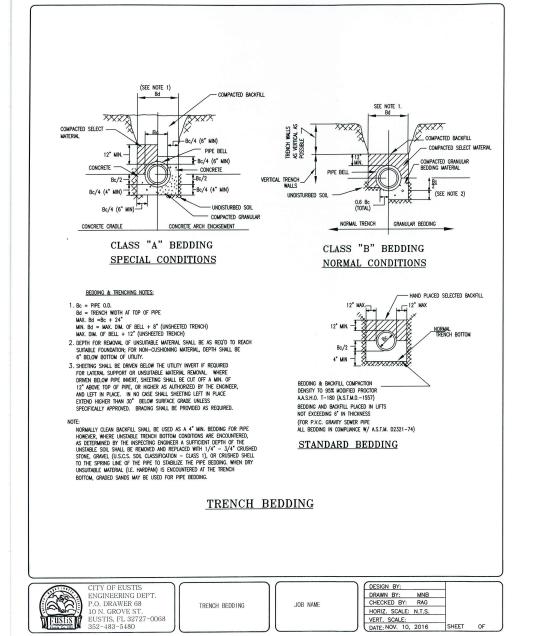


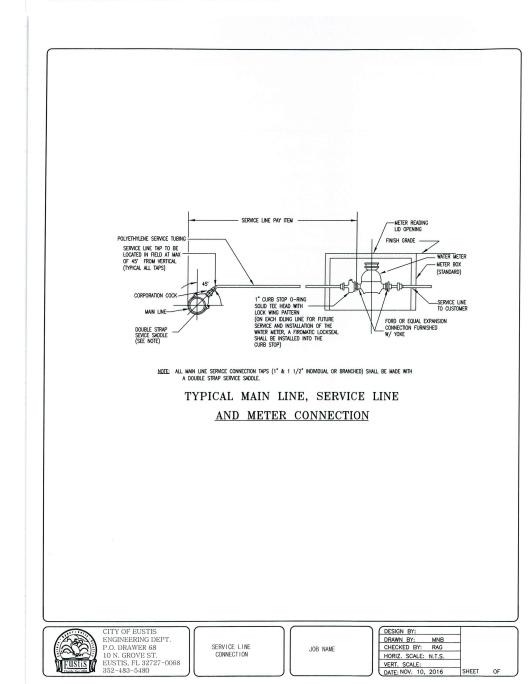


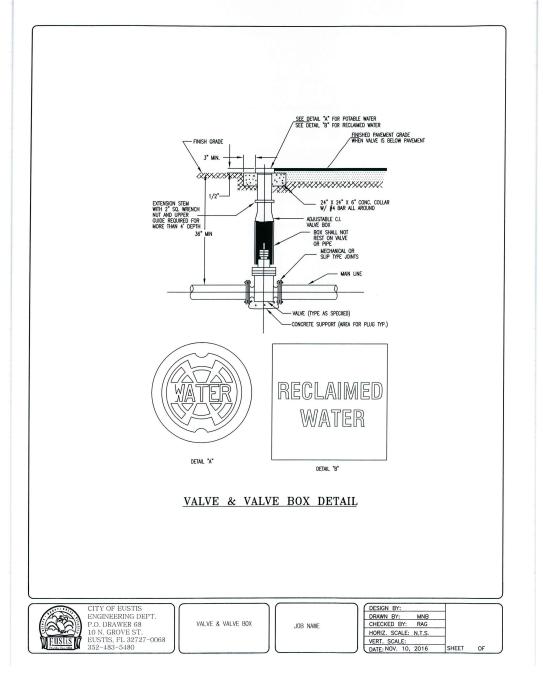


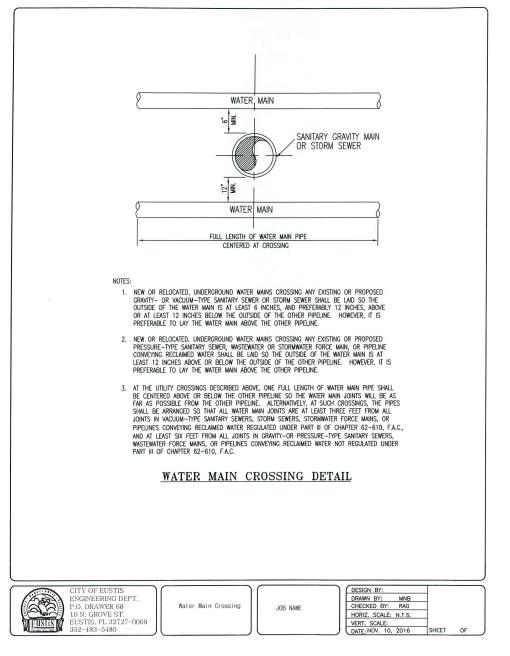


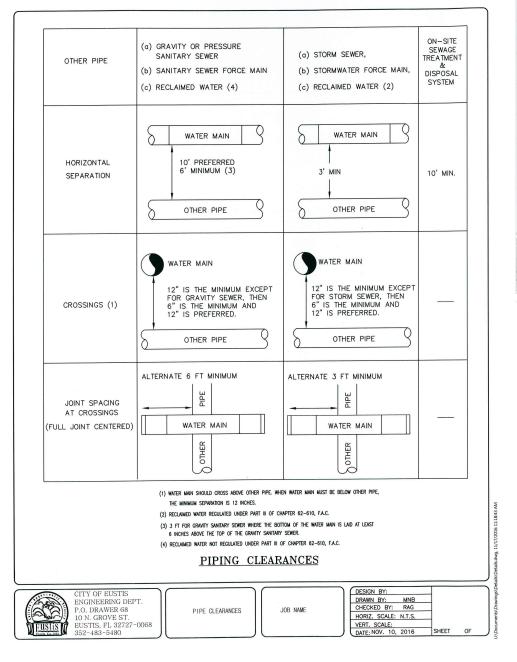


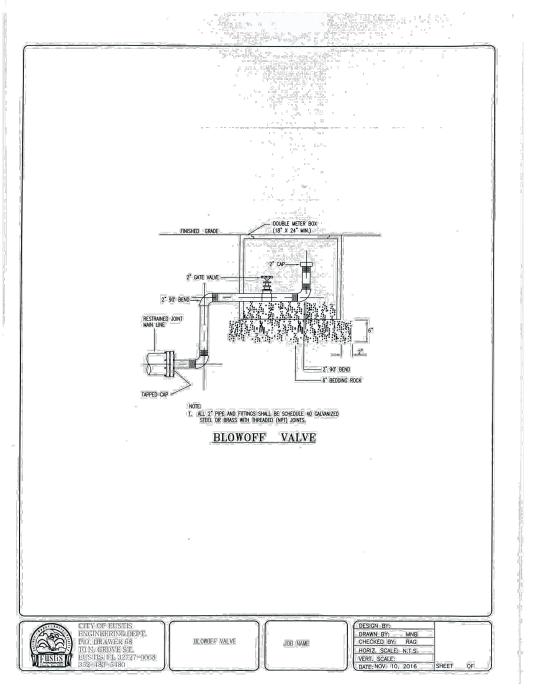


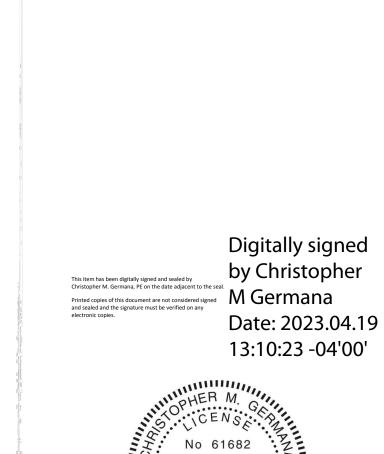


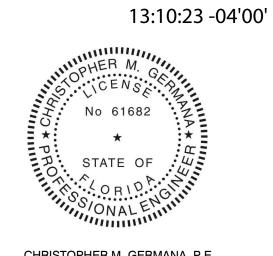












CHRISTOPHER M. GERMANA, P.E.
FLORIDA PROFESSIONAL ENGINEER # 61682
ENGINEERING FIRM REGISTRY # 29279

GERMANA ENGINEERING
AND ASSOCIATES, LLC
1120 WEST MINNEOLA AVENUE
CLERMONT, FL 34711
(352) 242-9329

# | | |

OF

DET

CONSTRUCTION

SCALE: NTS

DATE: 03-24-2023

C12

SHEET