

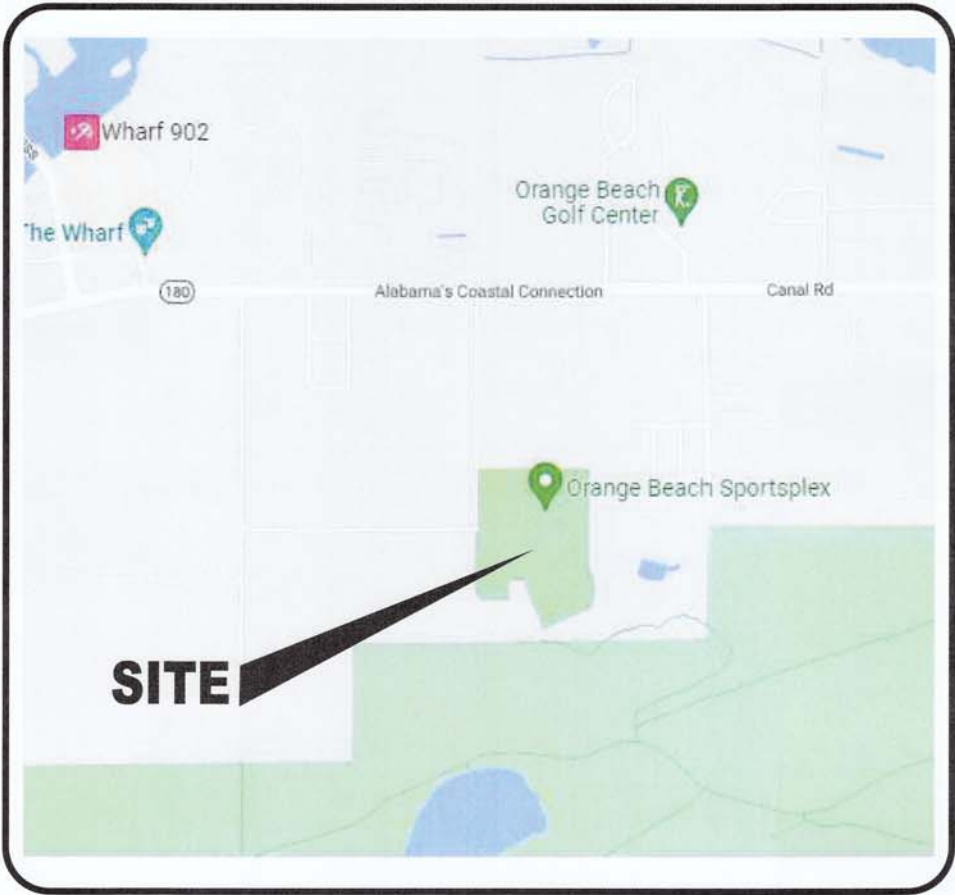
ORANGE BEACH HIGH SCHOOL SOFTBALL FIELD RENOVATIONS

CITY OF ORANGE BEACH
CIVIL CONSTRUCTION DRAWINGS

AUGUST 2022

SHEET INDEX	
SHEET NO.	SHEET TITLE
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UTILITY PROVIDERS	
SANITARY SEWER	CITY OF ORANGE BEACH SEWER
WATER	ORANGE BEACH WATER AUTHORITY
POWER	BALDWIN EMC



VICINITY MAP
N.T.S.

PREPARED BY:



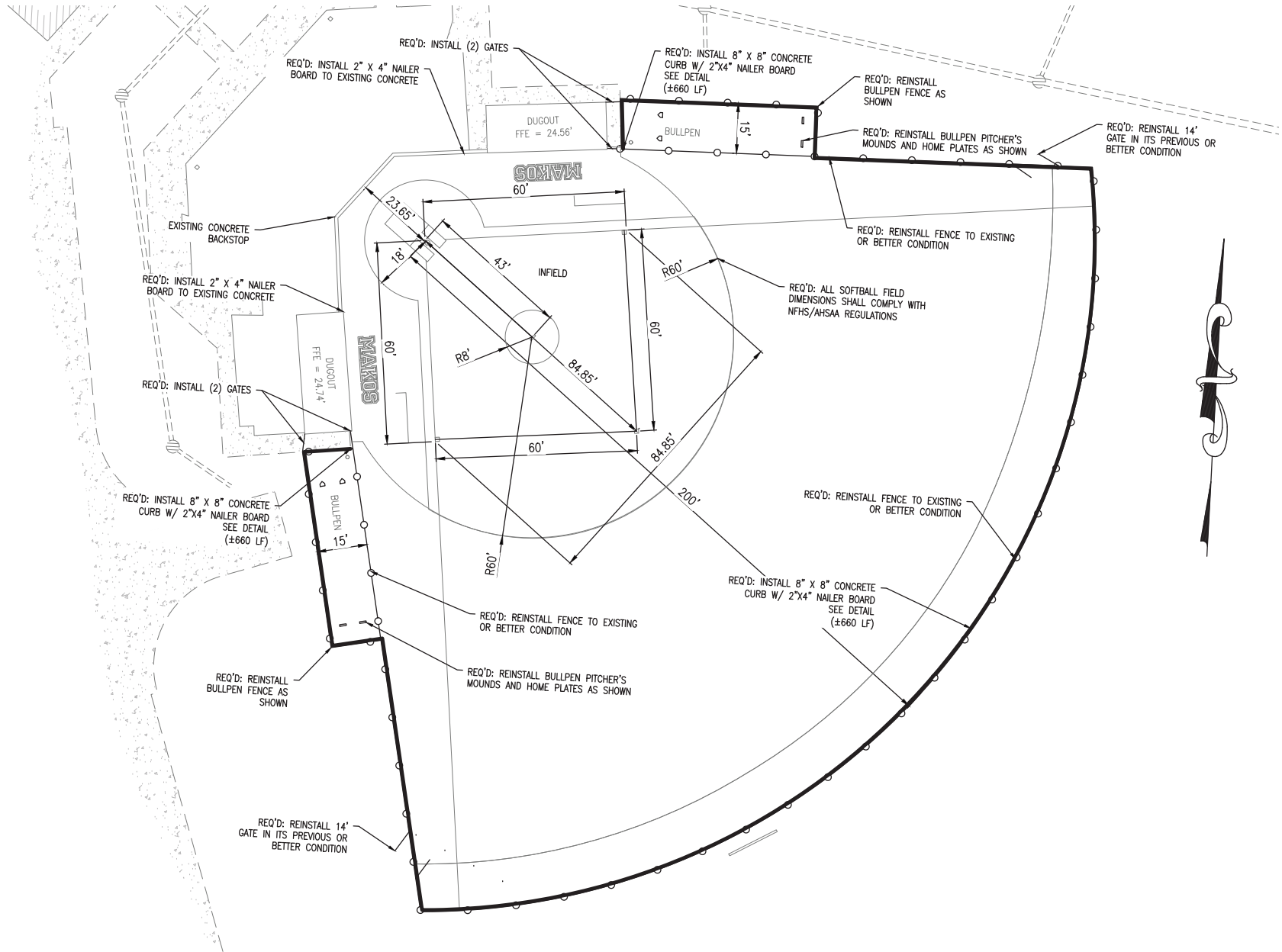
TIMOTHY LAWLEY, P.E.
ALABAMA LICENSE NO. 30859

08/29/22

DATE

NUMBER	REVISION	DATE

DWG INFO: S:\1-CLIENTS\22-093-TURF FIELDS-CITY OF ORANGE BEACH\CIVIL ENGINEERING\PRODUCTION DWGS\SOFTBALL DESIGN\22-093-SOFTBALL CIVIL DESIGN.DWG ~8/30/2022 3:49:20 PM



SITE NOTES

1. ALL CONCRETE SHALL BE CLASS A, 3,000 PSI AT 28 DAYS COMPRESSIVE STRENGTH WITH A MAXIMUM SLUMP OF 4" UNLESS NOTED OTHERWISE. ALL EXPOSED CONCRETE TO HAVE A FINE BROOM FINISH.
2. ALL MATERIALS SHALL BE NEW UNLESS USED OR SALVAGED MATERIALS ARE AUTHORIZED BY THE OWNER OR TENANT.
3. SPECIAL CARE SHALL BE GIVEN WHILE WORKING NEAR PRIVATE RESIDENCES. ANY DAMAGES TO OR ADJACENT TO PRIVATE PROPERTY SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR.
4. THE CONTRACTOR SHALL UTILIZE GPS MOUNTED GRADE CONTROL SYSTEMS FOR THE CONSTRUCTION OF THE SOFTBALL SUBGRADE AND BASE LAYER FOR INSTALLATION (CONE LEVEL TO BE USED). IT IS IMPERATIVE THAT THE GRADE CONTROL EQUIPMENT REACH A FINE GRADING TOLERANCE OF 0.25" (0.02'). THE CONTRACTOR SHALL PROVIDE ASBUILT SHOTS OF THE TOPPING STONE ON A 25 FT GRID TO THE ENGINEER FOR REVIEW AND APPROVAL BEFORE INSTALLATION OF THE TURF.
5. ALL MATERIAL INSTALLATION SHALL MEET OR EXCEED "SPRINTURF" INSTALLATION GUIDELINES & SPECIFICATIONS.

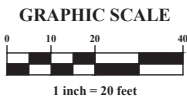
CONCRETE NOTES:

1. CONCRETE SHALL BE A MIX DESIGNED BY A RECOGNIZED TESTING LAB TO ACHIEVE A STRENGTH OF 3,000 PSI IN 28 DAYS WITH A PLASTIC AND WORKABLE MIX. ALL CONCRETE USED TO FILL MASONRY UNITS SHALL HAVE A MAXIMUM AGGREGATE SIZE OF 3/8" UNLESS OTHERWISE NOTED.
2. REINFORCING STEEL SHALL BE NEW BILLET STEEL MEETING A.S.T.M. A-615 GRADE 60 LATEST AND DEFORMED IN ACCORDANCE WITH A.S.T.M. A-305 LATEST. STEEL SHALL BE CLEANED, FREE FROM OIL, SCALE AND RUST. STEEL SHALL BE BENT, LAPPED, PLACED IN ACCORDANCE WITH A.C.I. STANDARDS AND SPECIFICATIONS.
3. CONCRETE FOR 8"x8" CURB SHALL BE FIBER REINFORCED CONCRETE (FRC). REBAR REINFORCEMENT (TWO #4 BARS) SHALL BE REQUIRED AT THE EQUIPMENT ENTRY GATES LOCATED ALONG LEFT AND RIGHT FIELD PERIMETER FENCE.

CONSTRUCTION SEQUENCE:

1. EXCAVATE THE EXISTING SURFACE TO REQUIRED SUBGRADE DEPTH.
2. EXCAVATE THE COLLECTOR/PERIMETER PIPE TRENCHES.
3. COMPACT THE SUBGRADE SOIL TO A NUCLEAR DENSITY OF 95% OR MORE.
4. INSTALL CONCRETE CURB WITH WOODEN NAILER-BOARD TO ATTACH THE SYNTHETIC TURF.
5. INSTALL A NON-POROUS LINER, OR GEOTEXTILE, ON THE COMPACTED SOIL AS SPECIFIED.
6. INSTALL A SERIES OF 1" X 12" MULTI FLOW DRAINS LAID OUT IN A HERRINGBONE PATTERN AT 15 FOOT INTERVALS AS SHOWN ON THESE PLANS.
7. FILL THE FIELD WITH 6" OF CLEAN FREE DRAINING STONE. SEE CIVIL DETAILS FOR STONE SPECIFICATIONS AND BUILD-UP. (COMPACTION OF 95% MIN. ATSM D-698 STANDARD DENSITY)
8. LASER LEVEL FOR PLANARITY.
9. TIE THE MULTI FLOW DRAINS INTO THE COLLECTOR DRAIN PIPES AS SHOWN.
10. TIE THE COLLECTOR DRAINS INTO THE EXISTING STORM SEWER SYSTEMS AS SHOWN.

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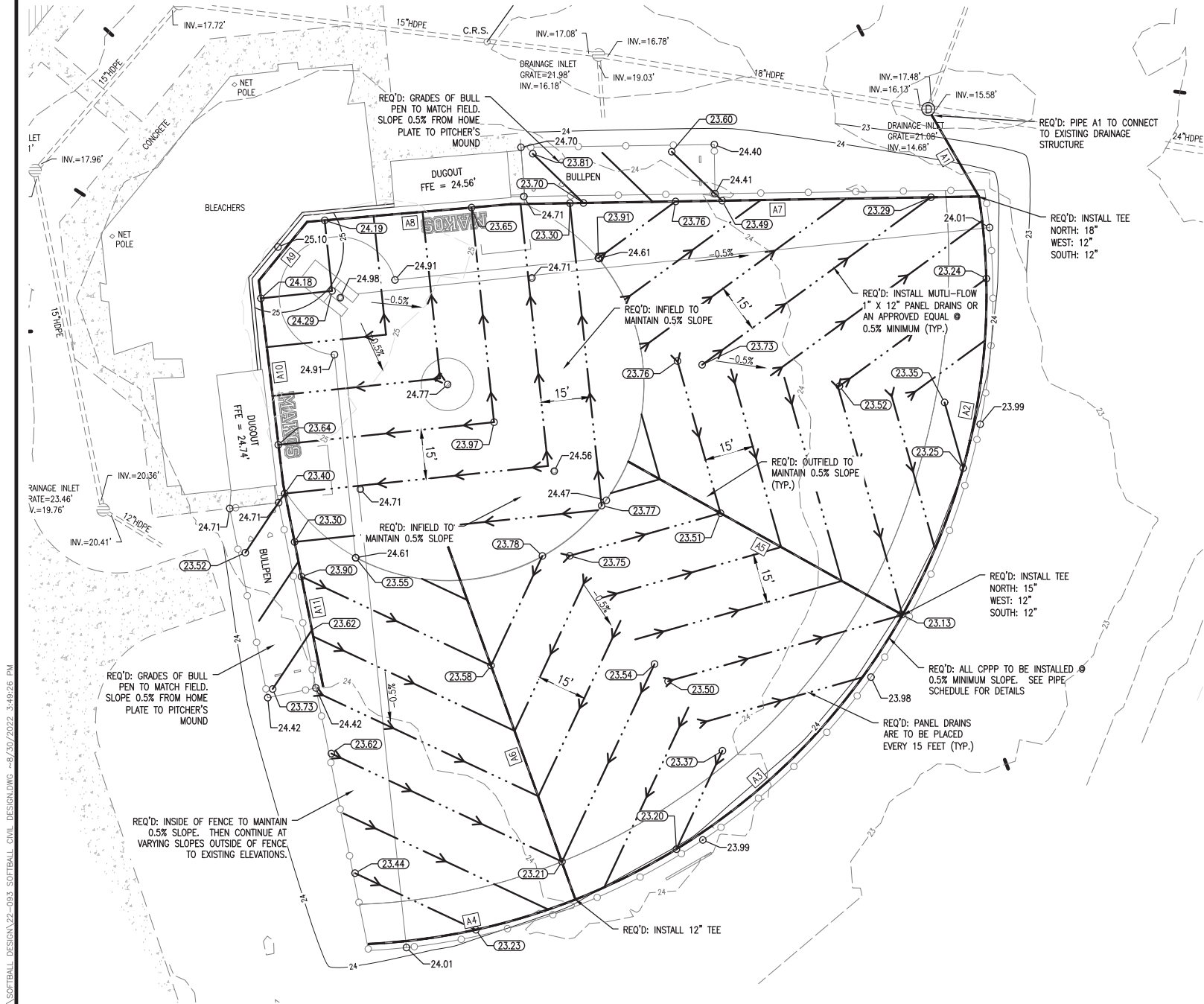


GEOMETRIC PLAN
ORANGE BEACH SOFTBALL FIELDS
CITY OF ORANGE BEACH



SCALE: 1"=20'
DATE: AUGUST 2022
DRAWN BY: EI
CHECKED BY: TL
SHEET: 2 OF 7

DWG INFO: S:\1-CLIENTS\22-093-SOFTBALL DESIGN\22-093-SOFTBALL CIVIL DESIGN.DWG - 8/30/2022 3:49:26 PM

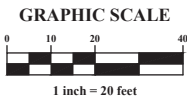


PIPE SCHEDULE					
PIPE NAME	SIZE	SLOPE	LENGTH	UPSTREAM INV.	DOWNSTREAM INV.
A1	18" HDPE	4.51%	29 L.F.	19.89	18.50
A2	15" CPPP	0.51%	133 L.F.	20.81	20.14
A3	12" CPPP	0.50%	135 L.F.	21.74	21.06
A4	12" CPPP	0.51%	65 L.F.	22.07	21.74
A5	12" CPPP	1.45%	97 L.F.	22.45	21.06
A6	12" CPPP	0.60%	115 L.F.	22.43	21.74
A7	12" CPPP	0.67%	143 L.F.	21.35	20.39
A8	12" CPPP	0.51%	63 L.F.	21.67	21.35
A9	12" CPPP	0.52%	24 L.F.	21.79	21.67
A10	12" CPPP	0.53%	63 L.F.	22.12	21.79
A11	12" CPPP	0.51%	63 L.F.	22.44	22.12

PRO. LEGEND	
	PRO. CONCRETE
	PRO. CONTOURS
	SURFACE ELEVATION
	PRO. 12" MULTIFLOW
	SUBGRADE ELEVATION

1. THE CONTRACTOR SHALL FURNISH AND MAINTAIN ALL NECESSARY BARRICADES AROUND WORK AND SHALL PROVIDE PROTECTION AGAINST WATER DAMAGE AND SOIL EROSION.
2. ALL SILT BARRIERS MUST BE PLACED AS ACCESS IS OBTAINED DURING CLEARING. NO GRADING SHALL BE DONE UNTIL SILT BARRIER AND DETENTION FACILITIES ARE CONSTRUCTED.
3. ALL SEDIMENT CONTROL DEVICES ARE TO BE CONSTRUCTED AND FULLY OPERATIONAL PRIOR TO ANY OTHER CONSTRUCTION OR GRADING.
4. ALL SLOPES SHALL BE STABILIZED AS SOON AS POSSIBLE.
5. COMPACTION OF THE BACKFILL OF ALL TRENCHES SHALL BE COMPACTED TO THE DENSITY OF 95% OF THEORETICAL MAXIMUM DRY DENSITY (ATM D698). BACKFILL MATERIAL SHALL BE FREE FROM ROOTS, STUMPS OR OTHER FOREIGN DEBRIS AND SHALL BE PLACED AT OR NEAR OPTIMUM MOISTURE. CORRECTION OF ANY TRENCH SETTLEMENT WITHIN A YEAR FROM THE DATE OF APPROVAL WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
6. ALL FILL MATERIAL TO BE UTILIZED ON THE PROJECT SHALL BE FREE OF ORGANIC OR OTHERWISE DELETERIOUS MATERIALS AND COMPACTED TO MINIMUM DRY DENSITIES CORRESPONDING TO 95% OF MAXIMUM DRY DENSITY AS OBTAINED BY STANDARD PROCTOR, ASTM D698 AND AT LEAST 98% OF STANDARD PROCTOR WITHIN 1 FOOT BELOW PAVEMENT SUB-GRADE. FILL SHALL BE PLACED IN LIFTS NOT TO EXCEED 6 INCHES IN COMPACTED FILL THICKNESS. A REPORT FROM A GEO-TECHNICAL ENGINEER WILL BE REQUIRED BY THE LOCAL JURISDICTIONAL INSPECTOR.
7. MAXIMUM SLOPE OF EMBANKMENT SHALL BE 3.0 FEET HORIZONTAL TO 1.0 FOOT VERTICAL, OR MATCH EXISTING.
8. PROPOSED CONTOUR INTERVALS ARE AS LABELED. ALL PROPOSED CONTOURS ARE FINISHED GRADES.
9. THE CONTRACTOR WILL INSURE THAT POSITIVE AND ADEQUATE DRAINAGE IS MAINTAINED AT ALL TIMES WITHIN THE PROJECT LIMITS. THIS MAY INCLUDE, BUT NOT LIMITED TO, REPLACEMENT OR RECONSTRUCTION OF EXISTING DRAINAGE STRUCTURES THAT HAVE BEEN DAMAGED OR REMOVED OR RE-GRADING AS REQUIRED BY THE ENGINEER, EXCEPT FOR THOSE DRAINAGE ITEMS SHOWN AT SPECIFIC LOCATIONS IN AND HAVING SPECIFIC PAY ITEMS IN THE DETAILED ESTIMATE. NO SEPARATE PAYMENT WILL BE MADE FOR ANY COSTS INCURRED TO COMPLY WITH THIS REQUIREMENT.
10. EXCESS EARTH CUT MATERIAL SHALL BECOME THE RESPONSIBILITY OF THE CITY OF ORANGE BEACH AND SHALL BE STOCKPILED ON SITE AS DIRECTED THE CITY OF ORANGE BEACH.
11. ALL STORM DRAINAGE PIPE SHALL BE LAID ON SMOOTH CONTINUOUS GRADES WITH NO VISIBLE BENDS AT JOINTS.
12. ALL STORM DRAINAGE INLET STRUCTURES SHALL HAVE METAL FRAME AND COVER FOR ACCESS.
13. THE CONTRACTOR SHALL PROVIDE ANY EXCAVATION AND MATERIAL SAMPLES NECESSARY TO CONDUCT REQUIRED SOIL TESTS. ALL ARRANGEMENTS AND SCHEDULING FOR THE TESTING SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
14. SOILS TESTING AND ON-SITE INSPECTION SHALL BE PERFORMED BY AN INDEPENDENT GEOTECHNICAL ENGINEER. THE SOILS ENGINEER SHALL PROVIDE COPIES OF TEST REPORTS TO THE CONTRACTOR, THE OWNER AND THE OWNER'S REPRESENTATIVE AND SHALL PROMPTLY NOTIFY THE OWNER, HIS REPRESENTATIVE AND THE CONTRACTOR SHOULD WORK PERFORMED BY THE CONTRACTOR FAIL TO MEET THESE SPECIFICATIONS.
15. CONTRACTOR SHALL REMOVE ALL UNSUITABLE MATERIAL FROM LIMITS OF ROADWAY CONSTRUCTION AS DIRECTED BY AN INDEPENDENT GEO-TECHNICAL ENGINEER. UNSUITABLE MATERIAL SHALL BE REMOVED FROM THE SITE UNLESS OTHERWISE DIRECTED.

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ENGINEERING - SURVEYING - CONSTRUCTION MANAGEMENT

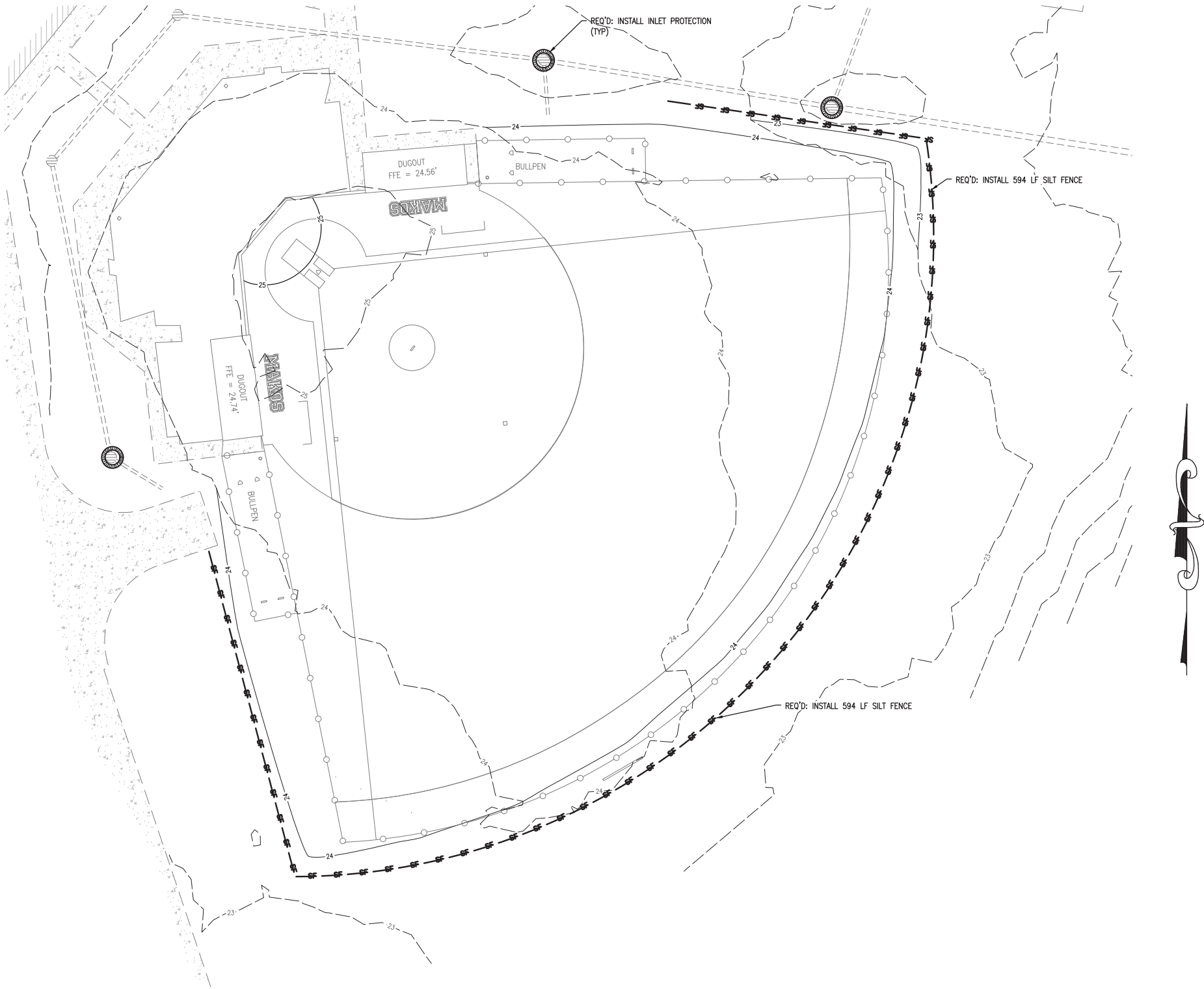
30673 Sgt. E. I. "Boots" Thomas Drive, Spanish Fort, AL 36527 Phone: (251) 544-7900

GRADING & DRAINAGE PLAN
ORANGE BEACH SOFTBALL FIELDS
CITY OF ORANGE BEACH




SCALE: 1"=20'
DATE: AUGUST 2022
DRAWN BY: EI
CHECKED BY: TL
SHEET: 3 OF 7

DWG INFO: S:\1-CLIENTS\22-093-SOFTBALL DESIGN\22-093-SOFTBALL CIVIL DESIGN.DWG ~8/30/2022 3:49:30 PM

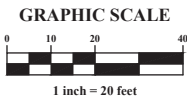


- SOIL EROSION & SEDIMENT CONTROL NOTES:
1. ALL EROSION AND SEDIMENT CONTROL PRACTICES MUST BE IN ACCORDANCE WITH THE ALABAMA HANDBOOK FOR EROSION CONTROL, SEDIMENT CONTROL AND STORM WATER MANAGEMENT FOR CONSTRUCTION SITES AND URBAN AREAS, VOLUME 1 AND 2, LATEST EDITION.
 2. THE MEASURES SET FORTH IN THE EROSION CONTROL PLAN ARE INTENDED AS THE MINIMUM STANDARDS, ANY EROSION CONTROL MEASURE BEYOND THAT SPECIFIED IN THE PLAN, THAT IS REQUIRED TO COMPLY WITH LOCAL, STATE, AND FEDERAL LAW, SHALL BE IMPLEMENTED.
 3. IN THE EVENT THAT EROSION PREVENTION AND CONTROL DEVICES SHOWN IN THE EROSION CONTROL PLAN PROVE NOT TO BE EFFECTIVE, ALTERNATE METHODS FOR MAINTAINING STATE WATER QUALITY STANDARDS FOR DISCHARGE FROM THE CONSTRUCTION SITE WILL BE REQUIRED. ALL ALTERNATE EROSION PREVENTION AND CONTROL DEVICES MUST BE REVIEWED AND APPROVED BY LOCAL AND STATE COMPLIANCE PERSONNEL PRIOR TO PLACEMENT.
 4. THE CONTRACTOR SHALL INSPECT INSTALLED BMPs AT LEAST ONCE EVERY SEVEN (7) DAYS AND REPAIR OR REPLACE MY DAMAGED OR INEFFECTIVE DEVICES.
 5. THE CONTRACTOR SHALL INSPECT INSTALLED BMPs WITHIN 24 HOURS AFTER PRECIPITATION EVENTS OF 0.50 INCHES OR GREATER AND REPAIR OR REPLACE ANY DAMAGED OR INEFFECTIVE DEVICES.
 6. DISTURBED AREAS SHALL BE GRADED, SODDED, OR VEGETATED (SEEDED AND MULCHED)WITHIN 13 DAYS OF ANY CONSTRUCTION ACTIVITY FOR AN EFFECTIVE BMP.
 7. ALL AREAS IDENTIFIED TO HAVE SOLID SODDING, SHALL BE VEGETATED WITH PERMANENT SEEDING (SEASONAL MIX) IN ACCORDANCE WITH SECTION 860, TABLE FOR ZONE 3 IN THE ALABAMA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS HIGHWAY CONSTRUCTION (CURRENT EDITION).
 8. SILT FENCE MUST MEET THE REQUIREMENTS OF LOCAL JURISDICTIONAL AGENCY, SAID REQUIREMENTS AS SHOWN BY THESE PLANS.
 9. WHEN ANY CONSTRUCTION BORDERS A DRAINAGE COURSE:
 - A. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ANY BUILDING OR OTHER EXCAVATION SPOIL DIRT, CONSTRUCTION TRASH OR DEBRIS, ETC., FROM THE DRAINAGE AREA SHOWN HEREON IN AN EXPEDITIOUS MANNER AS CONSTRUCTION PROGRESSES.
 - B. THE CONTRACTOR HEREBY AGREES TO STOP ALL WORK AND RESTORE THESE AREAS IMMEDIATELY UPON NOTIFICATION BY THE LOCAL JURISDICTIONAL INSPECTOR AND/OR PROFESSIONAL ENGINEER.
 10. A COPY OF THE APPROVED LAND DISTURBANCE PLAN SHALL BE PRESENT ON THE SITE WHENEVER LAND DISTURBING ACTIVITY IS IN PROGRESS.
 11. **CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES UNTIL PERMANENT VEGETATION HAS BEEN ESTABLISHED. CONTRACTOR SHALL CLEAN OUT ALL SEDIMENT PONDS WHEN REQUIRED BY THE ENGINEER OR LOCAL JURISDICTIONAL INSPECTOR. CONTRACTOR SHALL INSPECT EROSION CONTROL MEASURES AT THE END OF EACH WORKING DAY TO ENSURE MEASURES ARE FUNCTIONING PROPERLY.**
 12. ALL SLOPES SHALL BE STABILIZED AND VEGETATED AS SOON AS POSSIBLE. USE EROSION CONTROL BLANKET (ECB) WHERE GRASSING SLOPES ARE INTERMITTENT.
 13. ALL CONSTRUCTION WASTE AND DEBRIS, SILT FENCES, HAY BALES, AND INLET PROTECTION AND OTHER TEMPORARY BMP'S HALL BE REMOVED FROM THE SITE UPON CONSTRUCTION COMPLETION.
 14. INACTIVE PROJECTS (MORE THAN 7 DAYS) SHALL BE MULCHED IF INACTIVE FOR LESS THAN 60 DAYS. IF INACTIVE FOR MORE THAN 60 DAYS, DISTURBED AREAS SHALL BE SEEDED & MULCHED

EROSION CONTROL LEGEND

- PROPOSED "A" SILT FENCE
-  PROPOSED INLET PROTECTION (WATTLE)

NUMBER:	REVISION:	DATE:

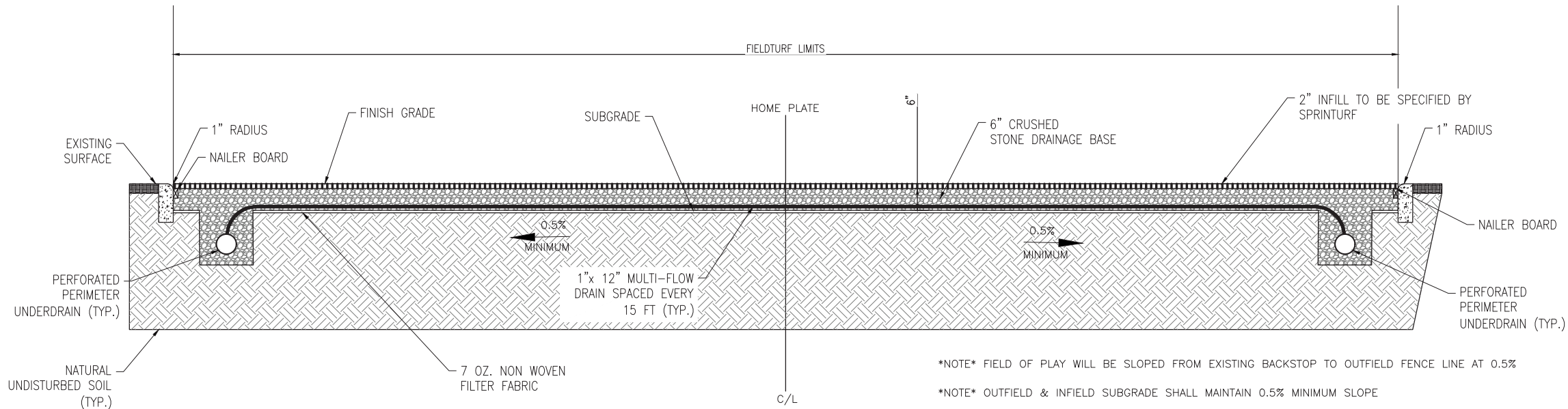


EROSION CONTROL PLAN
ORANGE BEACH SOFTBALL FIELDS
CITY OF ORANGE BEACH

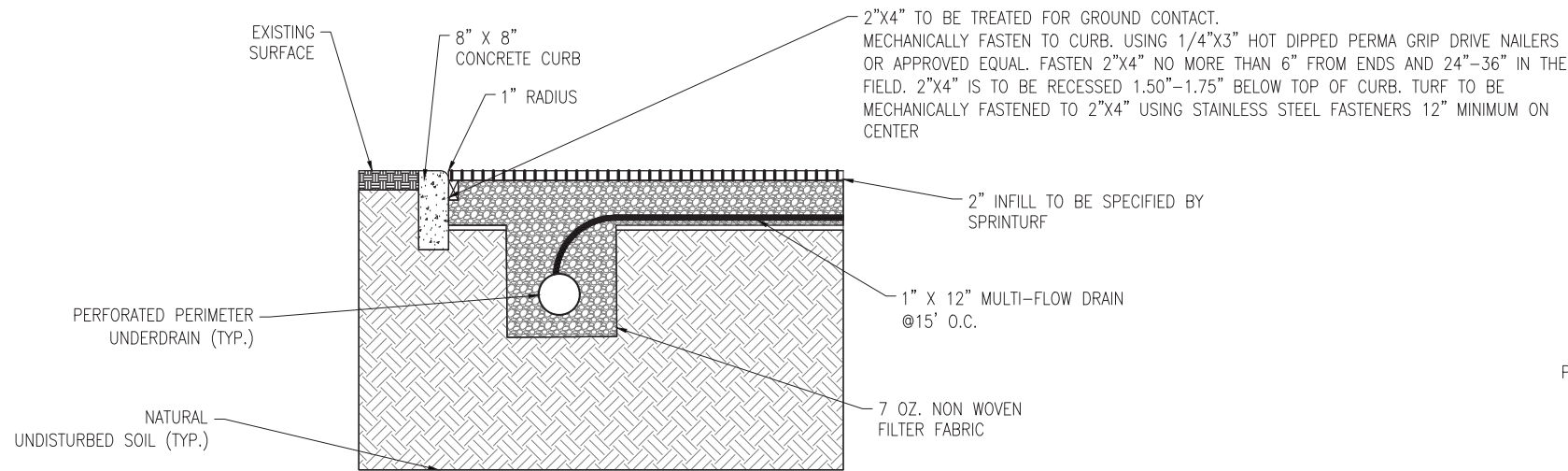


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DATE: AUGUST 2022
DRAWN BY: EI
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SHEET: 4 OF 7

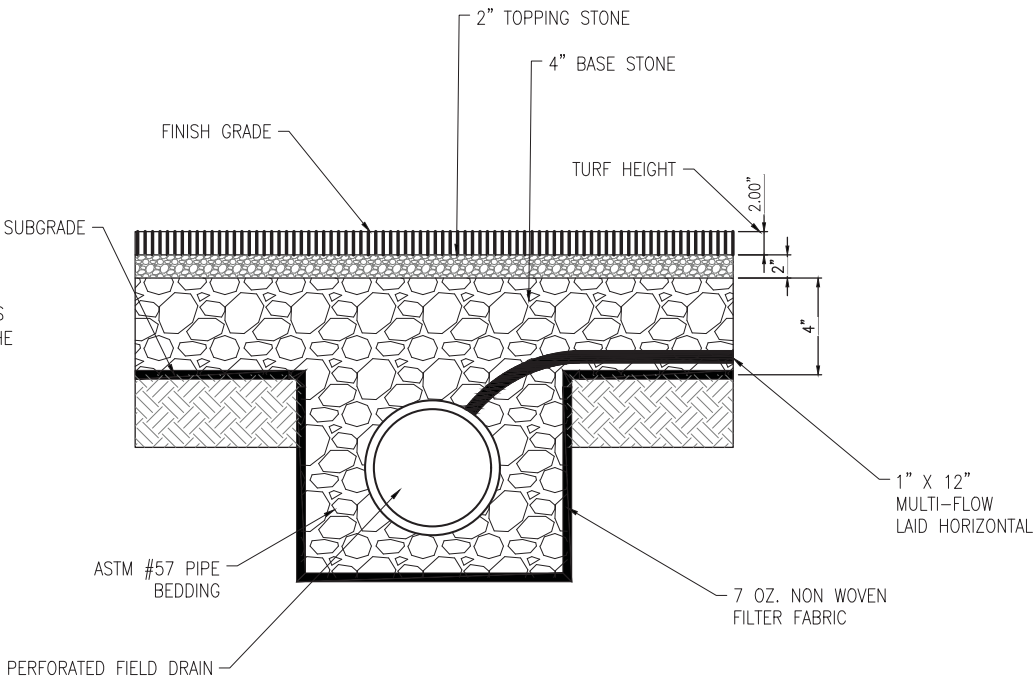
DWG INFO: S:\1-CLIENTS\22-093-TURF FIELDS CITY OF ORANGE BEACH\CIVIL ENGINEERING\PRODUCTION DWGS\SOFTBALL DESIGN\22-093-TITLE NOTES DETAILS.DWG --8/30/2022 3:48:37 PM



TYP. CROSS-SECTION
N.T.S.



PERIMETER DRAIN
N.T.S.



TYP. FIELD DRAIN TRENCH SECTION
N.T.S.

DWG INFO: 3-11-CLIENTS	NUMBER:	REVISION:	DATE:	<div><p>ENGINEERING - SURVEYING - CONSTRUCTION MANAGEMENT</p><p>30673 Sgt. E. I. "Boots" Thomas Drive, Spanish Fort, AL 36527 Phone: (251) 544-7900</p></div>		CIVIL DETAILS		<div></div>	SCALE: N.T.S.
						ORANGE BEACH SOFTBALL FIELDS			DATE: AUGUST 2022
						CITY OF ORANGE BEACH			DRAWN BY: EI
									CHECKED BY: TL
									SHEET: 5 OF 7



SYNTHETIC TURF EDGE DETAIL
8"X8" CURB

TYPICAL SILT FENCE INSTALLATION

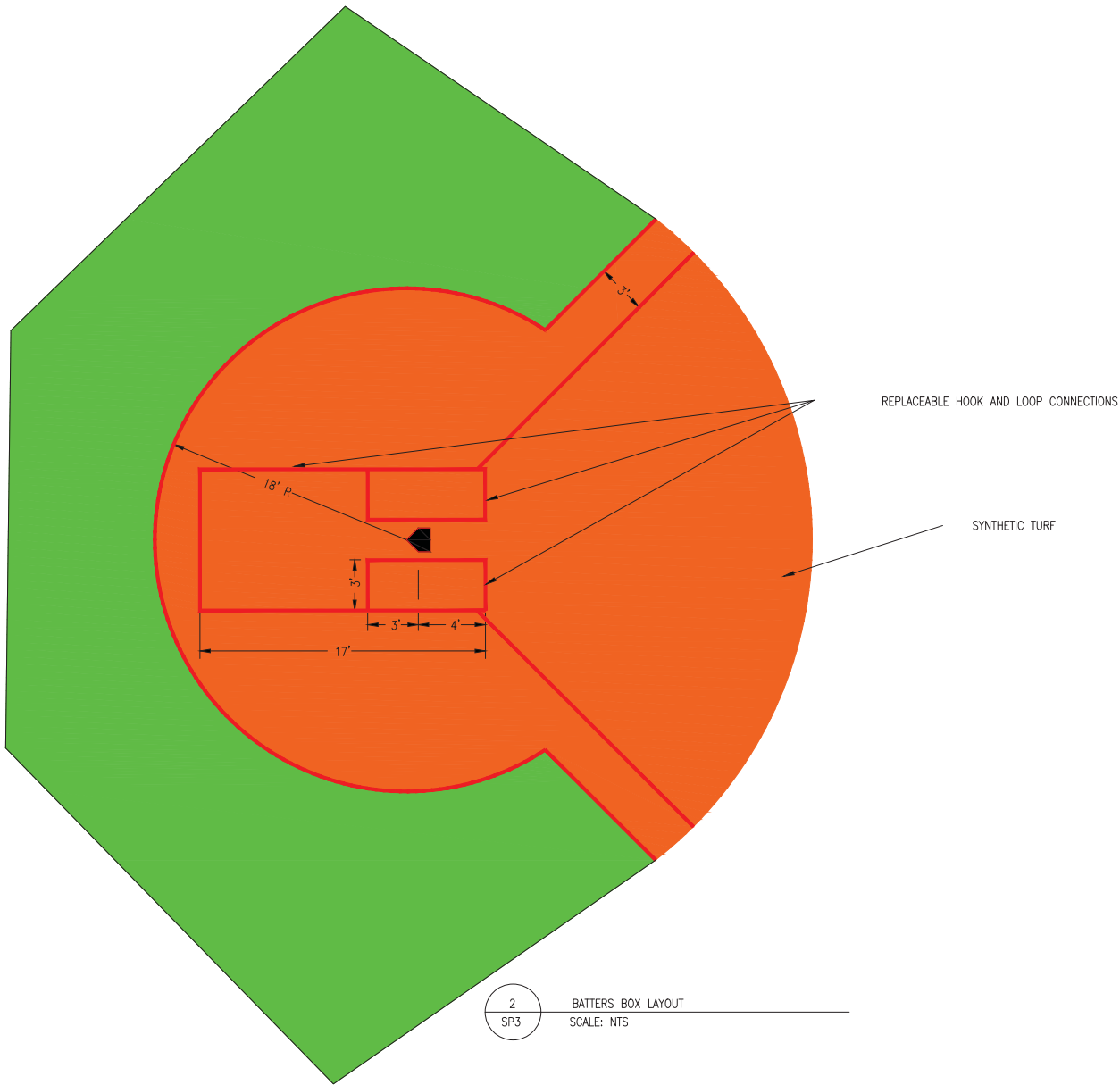
MULTI-FLOW UNDERDRAIN DETAIL

STAKE DETAILS

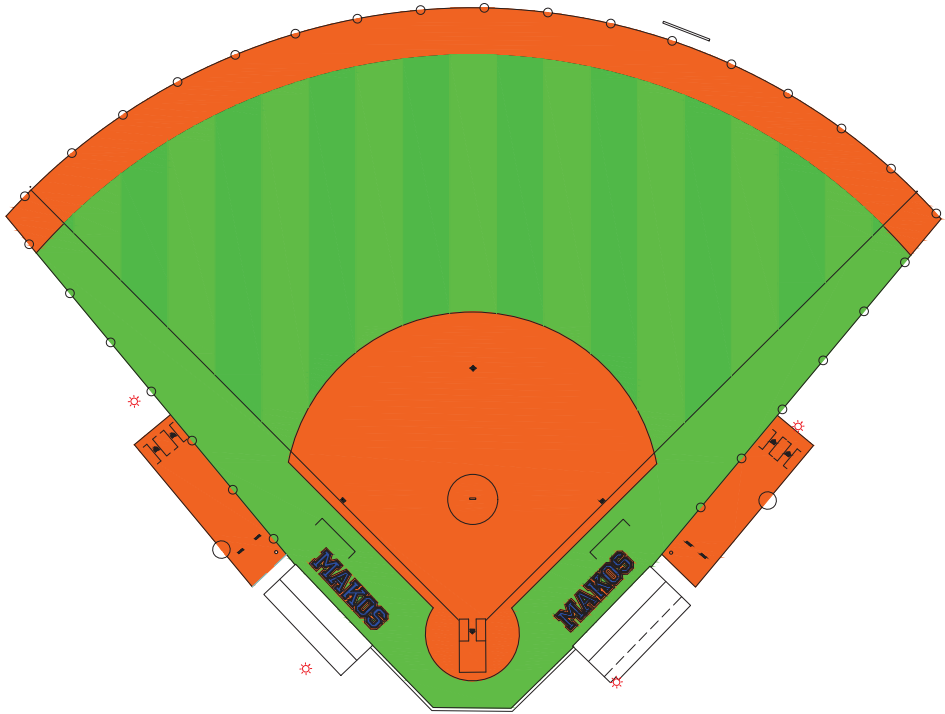
SCALE: N.T.S.
DATE: AUGUST 2022
DRAWN BY: EI
CHECKED BY: TL
SHEET: 6 OF 7

DWG: INFO: SA1 - CLIENT: 5.22-093, TURF FIELDS, CITY OF ORANGE BEACH, CIVIL ENGINEERING, PRODUCTION DWG, SOTBALL DESIGN, 22-093, TITLE NOTES, DETAILS DWG, -08/30/2022, 3:49:45 PM

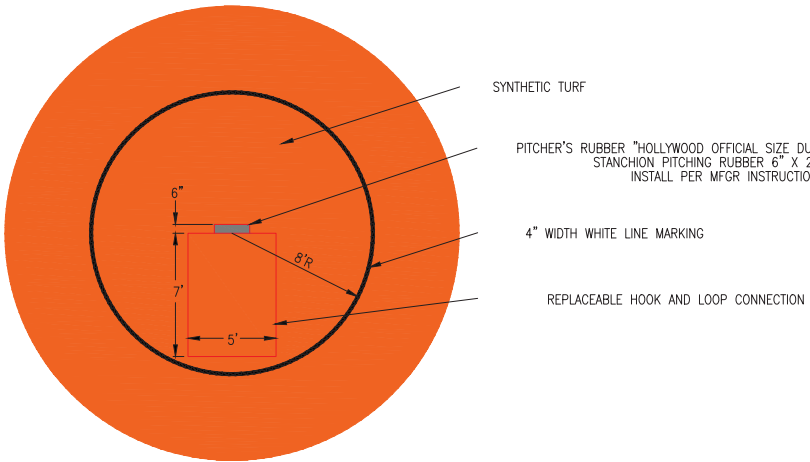
NOTE LAYOUT FOR ILLUSTRATION PURPOSES ONLY. SPRINTURF MATERIALS, REPLACEMENT SECTIONS, LOGOS, ETC. ARE TO BE PROVIDED BY THE CITY OF ORANGE BEACH.



2
SP3
BATTERS BOX LAYOUT
SCALE: NTS



1
SP3
TURF TYPE 2
SCALE: NTS



3
SP3
PITCHERS CIRCLE LAYOUT
SCALE: NTS

NUMBER:	REVISION:	DATE:



ENGINEERING - SURVEYING - CONSTRUCTION MANAGEMENT

30673 Sgt. E. I. "Boots" Thomas Drive, Spanish Fort, AL 36527 Phone: (251) 544-7900

TURF LAYOUT
ORANGE BEACH SOFTBALL FIELDS
CITY OF ORANGE BEACH

SCALE: N.T.S.
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