

LIZA JACKSON BOAT RAMP

A RECREATIONAL DEVELOPMENT IN SECTION 23, TOWNSHIP 2 SOUTH, RANGE 24 WEST CITY OF FORT WALTON BEACH, OKALOOSA COUNTY, FLORIDA

SITE IMPROVEMENT PLANS

DUTY TO INDEMNIFY:

THE CONTRACTOR SHALL DEFEND, INDEMNIFY, KEEP AND SAVE HARMLESS THE OWNER AND ENGINEER AND THEIR RESPECTIVE MEMBERS, REPRESENTATIVES, AGENTS AND EMPLOYEES, IN BOTH INDIVIDUAL AND OFFICIAL CAPACITIES, AGAINST ALL SUITS, CLAIMS, DAMAGES, LOSSES AND EXPENSES, INCLUDING ATTORNEY'S FEES, CAUSED BY, GROWING OUT OF, OR INCIDENTAL TO THE PERFORMANCE OF THE WORK UNDER THE CONTRACT BY THE CONTRACTOR OR ITS SUBCONTRACTORS TO THE FULL EXTENT AS ALLOWED BY THE LAWS OF THE STATE OF FLORIDA AND NOT BEYOND ANY EXTENT WHICH WOULD RENDER THESE PROVISIONS VOID OR UNENFORCEABLE. IN THE EVENT OF ANY SUCH INJURY (INCLUDING DEATH) OR LOSS OR DAMAGE, OR CLAIMS THEREFORE, THE CONTRACTOR SHALL GIVE PROMPT NOTICE TO THE OWNER.

UTILITIES NOTE

CONTRACTOR SHALL FIELD VERIFY LOCATION OF EXISTING UTILITIES AND COORDINATE WITH UTILITY COMPANIES 48 HOURS PRIOR TO CONSTRUCTION.

UTILITY COMPANIES

CONTRACTOR SHALL HAVE ALL EXISTING BURIED UTILITIES "LINE SPOTTED" BY CALLING 1-800-432-4770 "CALL SUNSHINE" OR BY CONTACTING LOCAL UTILITY COMPANIES.

WATER & SEWER: CITY OF FT. WALTON BEACH
203 B HOLLYWOOD BLVD., NW
FT. WALTON BEACH, FL 32548
PHONE: (850) 833-9613 -- WATER
PHONE: (850) 833-9613 -- SEWER
LINE SPOT: (850) 833-9613

ELECTRIC: GULF POWER
140 HOLLYWOOD BLVD. SW
FT. WALTON BEACH, FL 32548
CONTACT: EDDIE THOMASON
PHONE: (850) 433-4826

GAS: OKALOOSA GAS DISTRICT
364 HIGHWAY 190
P.O. BOX 548
VALPARAISO, FL 32580
CONTACT: ESSA RHEBI, ENGINEERING
PHONE: (850) 729-4864
FAX: (850) 678-2165
LINE SPOT: (850) 729-4880

CABLE TV: COX COMMUNICATIONS
ENGINEERING DEPARTMENT
320 NW RACETRACK ROAD
FT. WALTON BEACH, FL 32547
CONTACT: ROGER DIXON
PHONE: (850) 314-8121
FAX: (850) 863-7061
LINE SPOT: (850) 862-4144

TELEPHONE: CENTURY LINK
P.O. BOX 1778
FT. WALTON BEACH, FL 32549
MAIL CODE 2722
PHONE: (850) 664-3763
LINE SPOT: (800) 432-4770

PREPARED BY:

CHOCTAW ENGINEERING, INC.
112 TRUXTON AVENUE
FT. WALTON BEACH, FL 32547
PHONE: (850) 862-6611
FAX: (850) 863-8059
MSINER@CHOCTAWENG.COM

CEI PROJECT NO.: 2020-141-A

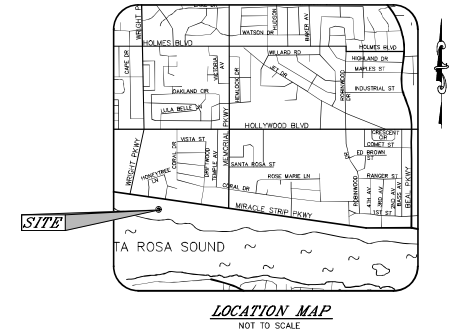
PREPARED FOR:

JDF ARCHITECTURE, LLC
201 HOLLYWOOD BLVD
FORT WALTON BEACH, FL 32548
CONTACT: JASON FLOYD
PHONE: (850) 796-2166
EMAIL: J.FLOYD@JDFARCHITECTURE.COM

BENCHMARK INFORMATION:

BENCHMARK NO. 1
BASE OF UTILITY POLE LOCATED 302'± SOUTH
EAST OF NORTH WEST PROPERTY CORNER.
ELEV. 8.62' NAVD 1988

BENCHMARK NO. 2
BASE OF FIRE HYDRANT LOCATED 20'± SOUTH
EAST OF NORTH WEST PROPERTY CORNER. ELEV.
7.80' NAVD 1988



LEGAL DESCRIPTION (AS PROVIDED)

LOTS 67-76 OF SEABREEZE SUBDIVISION IN PLAT BOOK
1, PAGE 22, OF SECTIONS 14 & 23, TOWNSHIP 2
SOUTH, RANGE 24 WEST, OKALOOSA COUNTY, FLORIDA.

INDEX:

1. COVER SHEET
2. OVERALL PLAN
3. DEMOLITION PLAN
4. SITE PLAN
5. GRADING PLAN
6. DRAINAGE PLAN
7. UTILITY PLAN
8. SECTIONS & PROFILES
9. STORMWATER POLLUTION PREVENTION PLAN
10. MISCELLANEOUS DETAILS
11. WATER AND SEWER DETAILS
12. SPECIFICATIONS (1 OF 2)
13. SPECIFICATIONS (2 OF 2)

DATE PREPARED:

20 AUGUST 2024

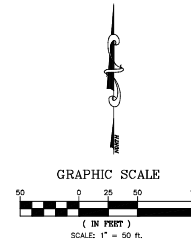
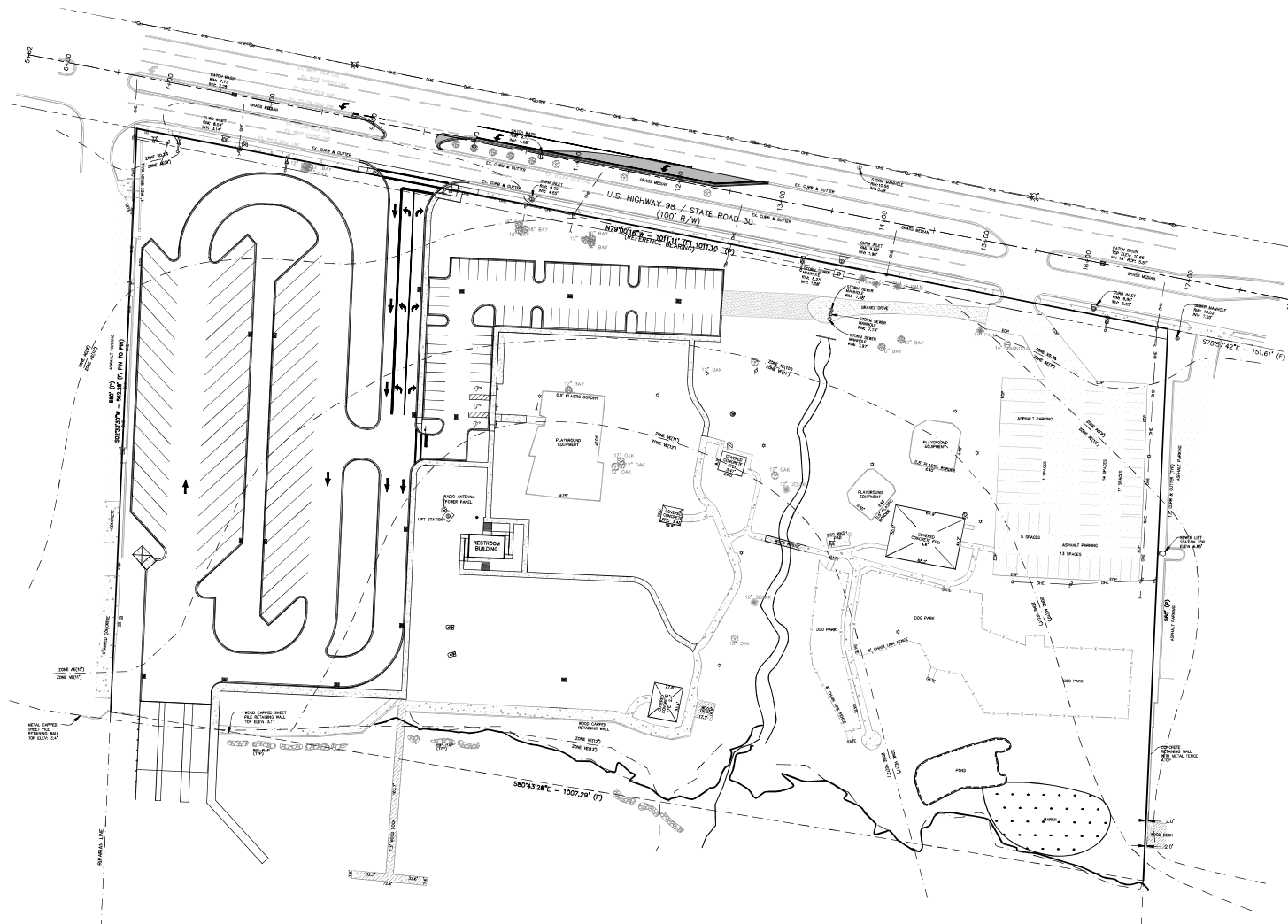
REVISIONS:

23 OCTOBER 2024

20 DECEMBER 2024

25 MARCH 2025

MARK C. SINER, REGISTERED P.E.
FLORIDA CERTIFICATE NO. 48631



- LEGEND**
- ASPHALT
 - CONCRETE
 - SETBACK LINE
 - POWER POLE
 - GUY ANCHOR
 - LIGHT POLE
 - OVERHEAD UTILITY LINE
 - ELECTRICAL BOX
 - TELEVISION BOX
 - TRAFFIC SIGNAL BOX
 - TELEPHONE BOX
 - FENCE
 - TRAFFIC ARROW
 - CENTERLINE
 - SINGLE POLE SIGN
 - DOUBLE POLE SIGN
 - MONITORING WELL

SITE DATA TABLE:

ZONED: REC (RECREATION)

LAND USE: REC (RECREATION)

FLOOD ZONE: X, AE (9'-10'), VE (11'-13')

PARCEL ID #: 23-25-24-221A-0000-0670

BUILDING SETBACKS:
REQUIRED FRONT = 25' PROPOSED FRONT = 25'
SIDE = 7.5' SIDE = 7.5'
REAR = 25' REAR = 25'

BUILDING INFORMATION:
EXISTING FLOOR AREA: 5,150 SF
PROPOSED FLOOR AREA: 760 SF
TOTAL UNITS: TOTAL = 5,910 SF

TOTAL SITE AREA: 547,145 SF = 12.56 ACRES

LIMITS OF CONSTRUCTION: 222,350 SF = 5.10 ACRES

FLOOR AREA ALLOWED: 0.1 = 54,714 SF

FLOOR AREA PROVIDED: 5,910 / 547,145 = 0.010

IMPERVIOUS AREA ALLOWED: 218,858 SF = 40%

IMPERVIOUS AREA PROVIDED: 169,845 SF = 31.0%

LANDSCAPE AREA REQUIRED: 82,070 SF = 15%

LANDSCAPE AREA PROVIDED: 377,300 = 69.0%

EXISTING PARKING SPACES: 178 SPACES

PARKING SPACES PROVIDED: EXISTING SPACES TO REMAIN = 60 SPACES
PROPOSED SPACES: 178 SPACES
TOTAL SPACES = 186 (INCLUDES 5 H/C SPACES)
BICYCLE SPACES REQUIRED: 1 PER 4 VEHICLE SPACES (185 SF) = 47 SPACES
BICYCLE SPACES PROVIDED: 50 SPACES

*FLOOD ZONE INFORMATION FOR FLOOD INSURANCE RATE MAP OF CITY OF FORT WALTON BEACH, ESCALON COUNTY, FLORIDA, COMMUNITY PANEL NO. 12091C0442A, DATED 03/09/2021.

NOTE:
ALL DIMENSIONS ARE TO FACE OF CURB
UNLESS OTHERWISE NOTED.

**LIZA JACKSON
BOAT RAMP
OVERALL PLAN**

Not valid unless bearing Engineer's embossed seal.
LJW
FL REG. NO. 46831

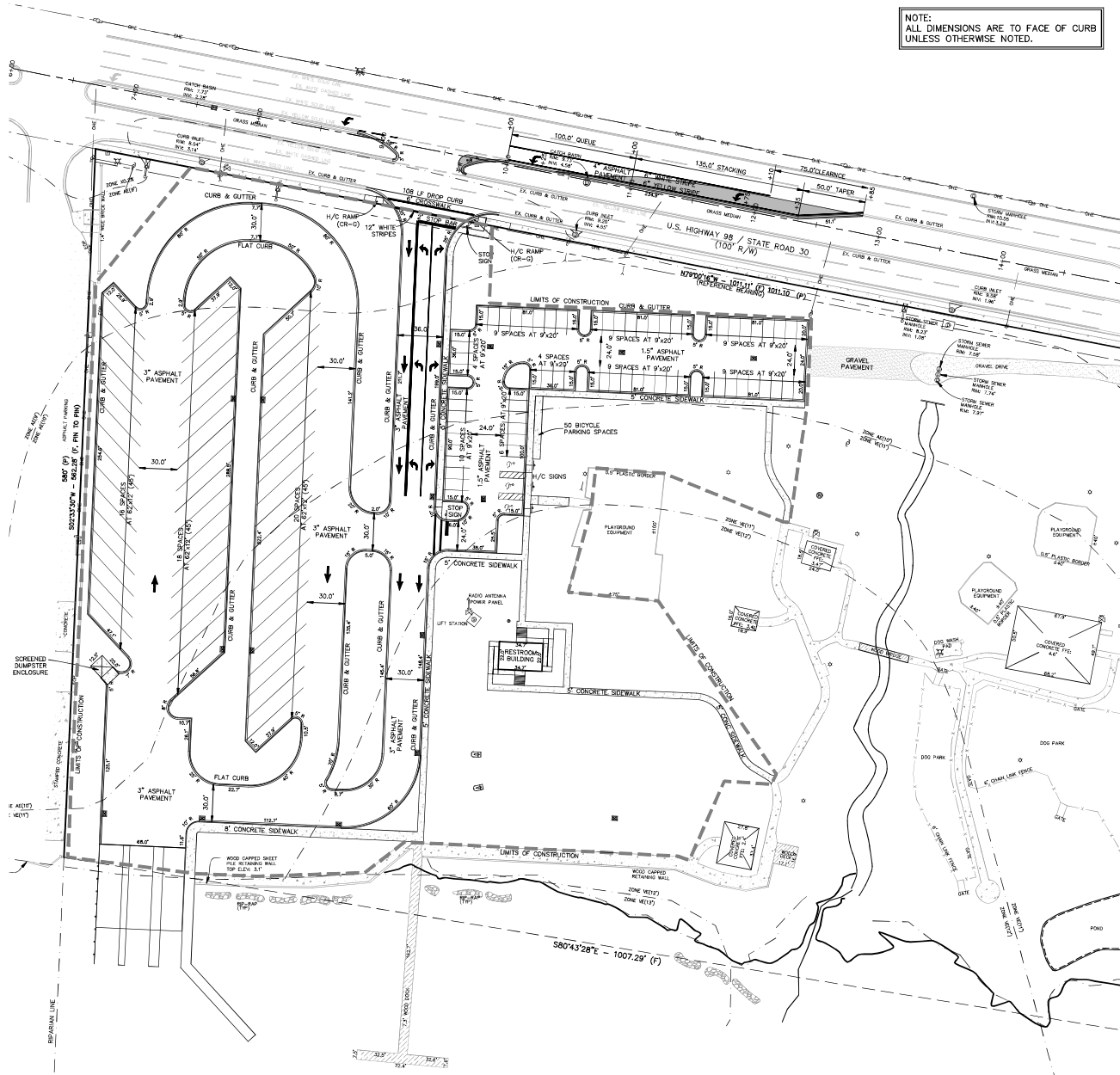
Job No.: 2006-242-B
Date: 20 AUG 2024
Fld. Vol.: N/A
Scale: 1" = 50'
Disk No.: 06242B-ENG
Designed: MTM
Drawn: MTM
Checked: MCS
Sheet

CHOCTAW ENGINEERING, INC.
ENGINEERING • ENVIRONMENTAL • SURVEYING
112 TRILTON AVENUE
FORT WALTON BEACH, FLORIDA 32417
PHONE: 850-462-4611
FAX: 850-462-5009
EMAIL: ce@choctaweng.com
CERTIFICATE OF AUTHORIZATION No. 1592

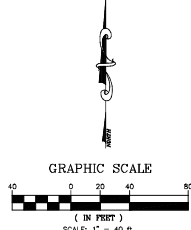
CEI

Revisions:
23 OCTOBER 2024 - REVISED PER INP/MD COMMENTS
20 DECEMBER 2024 - REVISED PER INP/MD COMMENTS

THIS SHEET IS THE PROPERTY OF CEI & IS NOT TO BE REPRODUCED WITHOUT WRITTEN CONSENT FROM CEI.

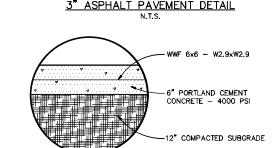
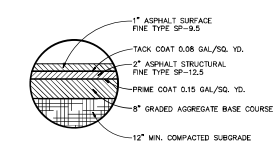
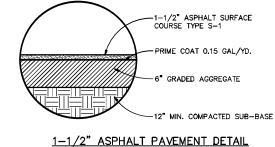


NOTE:
ALL DIMENSIONS ARE TO FACE OF CURB
UNLESS OTHERWISE NOTED.



LEGEND

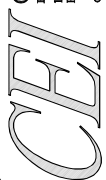
- ASPHALT
- CONCRETE
- SETBACK LINE
- POWER POLE
- GUY ANCHOR
- LIGHT POLE
- OVERHEAD UTILITY LINE
- ELECTRICAL BOX
- TELEVISION BOX
- TRAFFIC SIGNAL BOX
- TELEPHONE BOX
- FENCE
- TRAFFIC ARROW
- CENTERLINE
- SINGLE POLE SIGN
- DOUBLE POLE SIGN
- MONITORING WELL



CROSS SLOPE ON SIDEWALK AND PEDESTRIAN
ACCESSWAY ACROSS THE DRIVEWAY IS NOT TO
EXCEED 2% (1:50).

IF STREET HAS BEEN OVERLAYED, INTO
GUTTER, MATCH CONCRETE TO CONCRETE AND
ASPHALT TO ASPHALT.

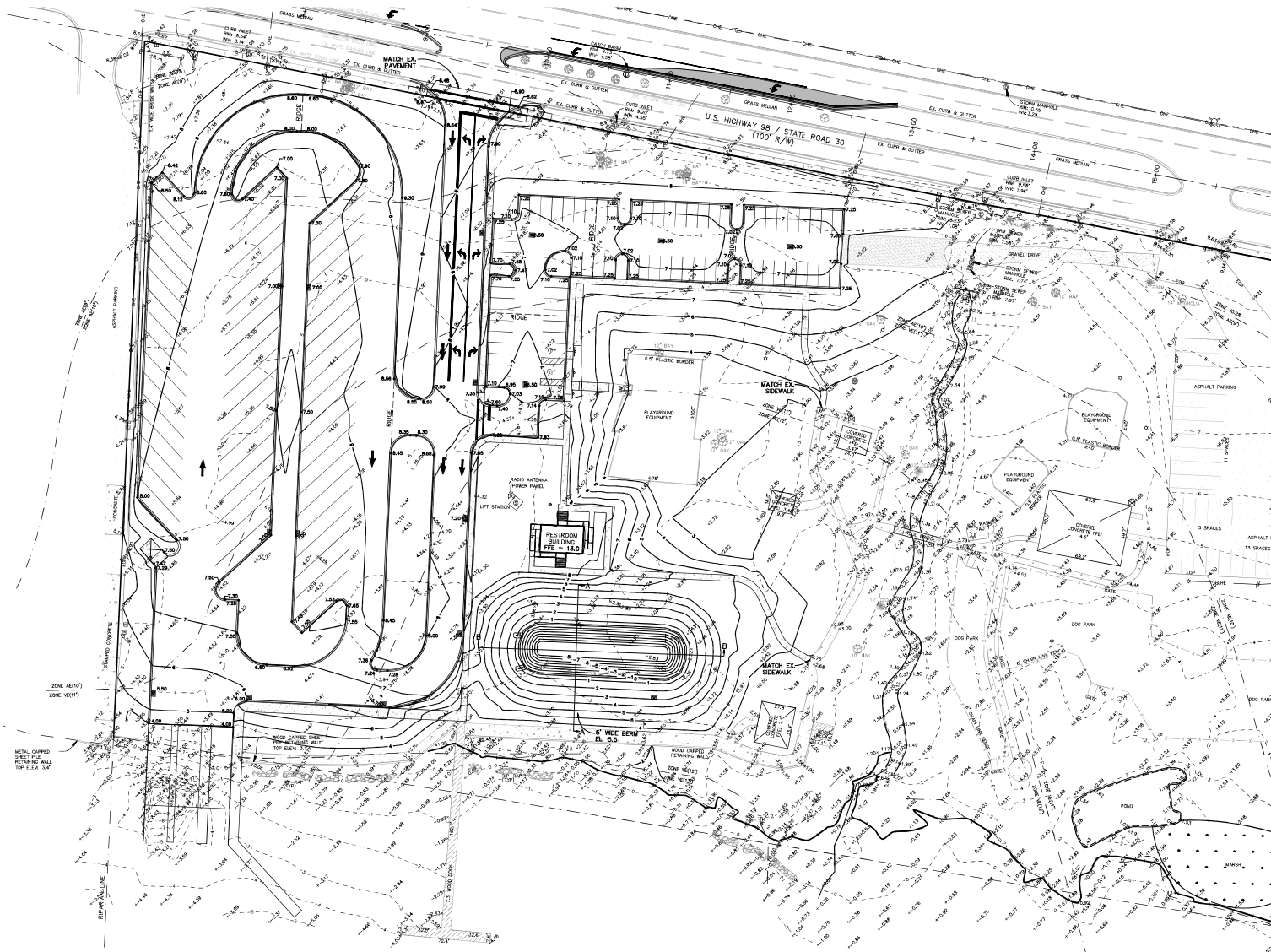
CHOCTAW ENGINEERING, INC.
ENGINEERING • ENVIRONMENTAL • SURVEYING
112 TRILTON AVENUE
FORT WALTON BEACH, FLORIDA 32417
PHONE: 850-462-4611
FAX: 850-462-5009
EMAIL: ce@choctaweng.com
CERTIFICATE OF AUTHORIZATION No. 1592



Revisions:
23 OCTOBER 2024 - REVISED PER INWARD COMMENTS
20 DECEMBER 2024 - REVISED PER INWARD COMMENTS

**LIZA JACKSON
BOAT RAMP**
SITE PLAN
Not valid unless bearing Engineer's embossed seal.
MCS
FL REG. NO. 46831

Job No.: 2006-242-B
Date: 20 AUG 2024
Fld. Vol.: N/A
Scale: 1" = 40'
Disk No.: 06242B-ENG
Design: MTM
Drawn: MTM
Checked: MCS
Sheet



- LEGEND**
- DIRECTION OF STORMWATER RUNOFF
 - FFE FINISHED FLOOR ELEVATION
 - DFW DESIGN HIGH WATER
 - PERC TEST LOCATION
 - BENCHMARK
 - 5.5 PROPOSED SPOT GRADE
 - +5.00 EXISTING SPOT GRADE
 - EXISTING CONTOUR
 - PROPOSED CONTOUR
 - 5' STAKED SILT FENCE
 - ⊗ BASIN AREA

NOTES:

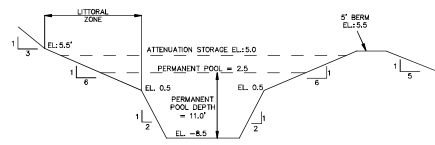
1. MATERIAL EXCAVATED FOR STORMWATER MANAGEMENT SYSTEM TO BE USED FOR FILL MATERIAL THROUGHOUT SITE.
2. CONTRACTOR WILL BE RESPONSIBLE FOR MONITORING CONSTRUCTION AND SUBMITTING TO THE DISTRICT NOTICE OF COMMENCEMENT. ENGINEER-OF-RECORD WILL BE RESPONSIBLE FOR AS-BUILT CERTIFICATIONS WHEN PROJECT IS COMPLETED.
3. THE PROPOSED DEVELOPMENT SHALL BE CONSTRUCTED WITH THE LOWEST FLOOR ELEVATION (EXCLUDING BASEMENTS AND NON-HABITABLE GARAGE) NOT LESS THAN ONE (1) FOOT ABOVE THE AVERAGE ACTUAL CROWN OR CENTER LINE OF THE LOWEST ELEVATION OF THE ROAD ABUTTING THE SUBJECT PROPERTY.
4. STORMWATER RETENTION AREAS SHALL BE SOBBED.

GENERAL NOTES:

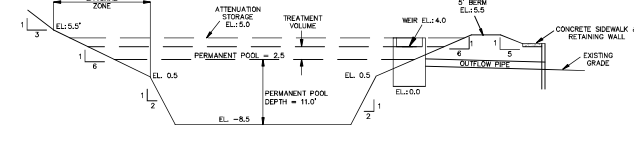
1. DETENTION PONDS SHALL BE DESIGNED TO DRAW DOWN ONE HALF OF THE TREATMENT VOLUME BETWEEN 48 AND 60 HOURS.
2. DRAINAGE DEVICES SMALLER THAN 3 INCHES SHALL INCLUDE A DEVICE TO ELIMINATE CLOGGING (BAFFLES, GRATES, SCREENS OR PIPE ELBOWS).
3. THE LITTORAL ZONE SHALL BE GENTLY SLOPED (6:1 HORIZONTAL:VERTICAL OR FLATTER).
4. A MAXIMUM DEPTH OF 12 FEET AND A MEAN DEPTH BETWEEN 2 AND 8 FEET IS REQUIRED. THE AVERAGE LENGTH TO WIDTH RATIO OF THE POND MUST BE AT LEAST 2:1.
5. THE POND MUST BE DESIGNED SO THAT THE POND SLOPE MEASURED BETWEEN THE CONTROL ELEVATION AND TWO FEET BELOW THE CONTROL ELEVATION IS NO STEEPER THAN 4:1

* IF REQUIRED DUE TO SLOPES EXCEEDING 4:1

POND B-B SECTION
N.T.S.



POND A-A SECTION
N.T.S.



**LIZA JACKSON
BOAT RAMP**

GRADING PLAN

Not valid unless bearing Engineer's embossed seal.
MCS
EL. REC. NO. 4831

Job No.: 2006-242-B
Date: 20 AUG 2024
Fld. Vol.: N/A
Scale: 1" = 40'
Disk No.: 06242B-ENG
Designed: MTM
Drawn: MTM
Checked: MCS
Sheet

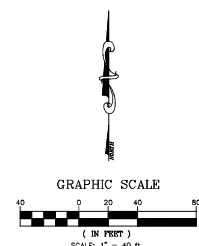
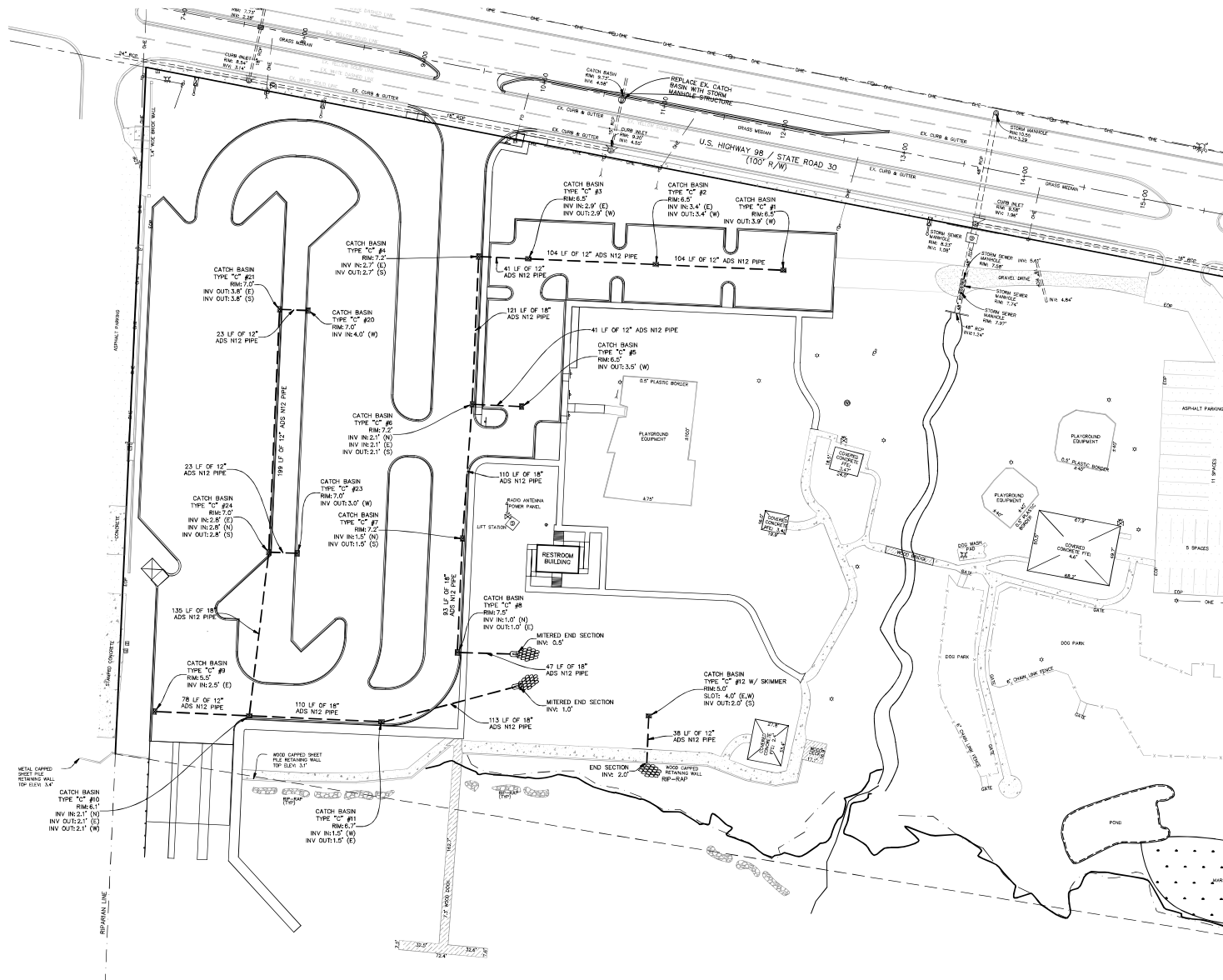
5 of 13

Revisions:
23 OCTOBER 2024 - REVISED PER INWPM COMMENTS
20 DECEMBER 2024 - REVISED PER INWPM COMMENTS
25 MARCH 2025 - REVISED PER PTP COMMENTS

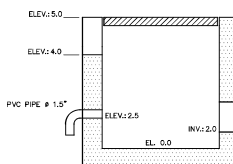
CEI

CHOCTAW ENGINEERING, INC.
ENGINEERING • ENVIRONMENTAL • SURVEYING
112 TRULSON AVENUE
FORT WALTON BEACH, FLORIDA 32547
PHONE: 850-862-6611
FAX: 850-862-5009
EMAIL: ce@choctaweng.com
CERTIFICATE OF AUTHORIZATION No. 1592

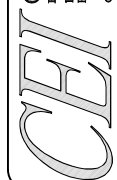
THIS SHEET IS THE PROPERTY OF CEI & IS NOT TO BE REPRODUCED WITHOUT WRITTEN CONSENT FROM CEI.



- LEGEND
- PROPOSED STORM SEWER PIPE
 - CORRUGATED POLYETHYLENE PIPE
 - PERFORATED CORRUGATED POLYETHYLENE PIPE
 - EXISTING STORM SEWER PIPE
 - STORM DRAIN MANHOLE
 - CATCH BASIN
 - TYPE "3" CURB INLET
 - TYPE "4" CURB INLET
 - MITERED END SECTION



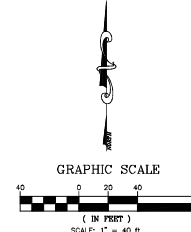
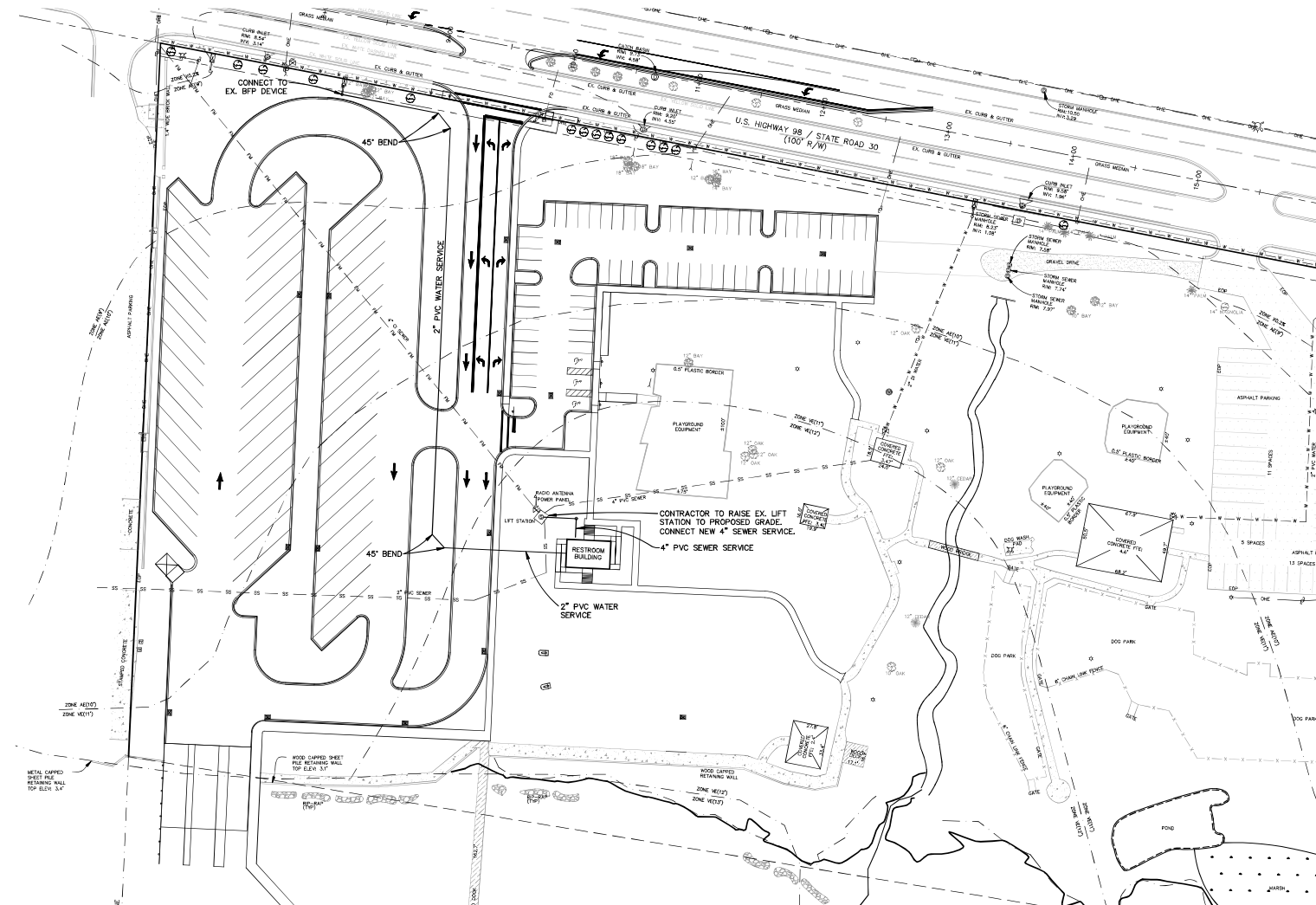
CHOCTAW ENGINEERING, INC.
ENGINEERING • ENVIRONMENTAL • SURVEYING
112 TRILTON AVENUE
FORT WALTON BEACH, FLORIDA 32447
PHONE: 850-862-4611
FAX: 850-862-5009
EMAIL: ce@choctaweng.com
CERTIFICATE OF AUTHORIZATION No. 1592



Revisions:
23 OCTOBER 2024 - REVISED PER INPWAD COMMENTS
20 DECEMBER 2024 - REVISED PER INPWAD COMMENTS
25 MARCH 2025 - REVISED PER FIEP COMMENTS

LIZA JACKSON
BOAT RAMP
DRAINAGE PLAN
Not valid unless bearing Engineer's embossed seal.
LJW
EL. REG. NO. 46831

Job No.: 2006-242-B
Date: 20 AUG 2024
Fld. Vol.: N/A
Scale: 1" = 40'
Disk No.: 06242B-ENG
Designed: MTM
Drawn: MTM
Checked: MCS
Sheet



- LEGEND**
- PROPOSED SANITARY SEWER MAIN
 - PROPOSED WATER MAIN
 - WSC WATER SERVICE CONNECTION
 - FSC FIRE SERVICE CONNECTION
 - SSC SEWER SERVICE CONNECTION
 - EXISTING GAS MAIN
 - EXISTING SANITARY SEWER MAIN
 - EXISTING WATER MAIN
 - GAS VALVE
 - GAS METER
 - BACKFLOW PREVENTER
 - WATER METER
 - FIRE HYDRANT
 - WATER VALVE
 - IRRIGATION VALVE
 - WATER SHUT-OFF
 - SANITARY SEWER MANHOLE
 - SANITARY SEWER CLEANOUT

LANDSCAPE NOTES:

1. SHRUBS SHALL BE A MINIMUM OF TWELVE (12) INCHES IN HEIGHT WHEN MEASURED IMMEDIATELY AFTER PLANTING.
2. TREES SHALL HAVE A MINIMUM HEIGHT OF SIX (6) FEET AT THE TIME OF PLANTING. TREES HAVING AN AVERAGE MATURE SPREAD OF CROWN LESS THAN 20 FEET MAY BE ARRANGED IN GROUPINGS SO AS TO CREATE THE EQUIVALENT OF 20-FOOT CROWN SPREAD.
3. ONLY FLORIDA #1 GRADE OR BETTER PLANT MATERIALS AS DESCRIBED BY THE FLORIDA DEPARTMENT OF AGRICULTURE CAN BE PLANTED ON PROJECT SITE.
4. THE REMAINDER OF THE FRONT BUFFER IS TO BE SOODED.
5. A RAIN SENSOR DEVICE OR SWITCH SHALL BE INSTALLED WITH IRRIGATION SYSTEM.
6. IRRIGATION TO BE PROVIDED BY SHALLOW WELL.
7. ALL LANDSCAPING SHALL BE HIGH SALT TOLERANT.
8. ALL DISTURBED AREAS SHALL BE SOODED OR STABILIZED.

LANDSCAPE REQUIREMENTS

LANDSCAPE AREA	PLANTING REQUIREMENTS	SITE INFORMATION	PLANTS REQUIRED	PROPOSED VEGETATION
EXISTING TREES TO REMAIN	N/A	20 TREES WITH 4" DBH OR GREATER	N/A	20 EX. TREES TO REMAIN
FRONT BUFFER	1 TREE PER 25 LINEAR FEET	LEWIS TURNER BLVD (LEFT LF)	41 TREES	37 CANOPY TREES 14 UNDERSTORY TREES
PERIMETER PLANTINGS	1 TREE PER 50 LINEAR FEET	2,101 LF	85 TREES	85 CANOPY TREES
PROTECTED TREES TO BE REMOVED	1" PLANTED FOR 1" REMOVED	274' DBH	92 TREES*	126 TREES 63 CANOPY TREES 63 UNDERSTORY TREES
⊗ PROPOSED LIVE OAK TREE (CANOPY) ⊙ PROPOSED DREPE MYRTLE OAK TREE (UNDERSTORY) ⊖ PROPOSED AZALEA BUSH (SHRUB)			TOTAL REQUIRED:	126 TREES 63 CANOPY TREES 63 UNDERSTORY TREES
			TOTAL PROPOSED:	126 TREES 63 CANOPY TREES 63 UNDERSTORY TREES

*ASSUMING 3" DBH PLANTING SIZE

OKALOOSA CO. WATER & SEWER NOTES:

1. A MANDATORY PRECONSTRUCTION MEETING SHALL BE HELD AT THE OOWS ENGINEERING DEPT. WITH ALL INVOLVED PARTIES, INCLUDING THE DEVELOPER, ENGINEER-OF-RECORD, AND CONTRACTOR, A MINIMUM OF TWO (2) WEEKS PRIOR TO CONSTRUCTION, IN ORDER TO ADDRESS CONSTRUCTION AND INSPECTION REQUIREMENTS. FAILURE TO HOLD A PRECONSTRUCTION MEETING COULD RESULT IN EXPENSIVE REWORK OF ITEMS NOT ACCEPTABLE BY OOWS STANDARDS.
2. COORDINATE WITH LOCAL FIRE DEPARTMENT ON INSPECTION REQUIREMENTS AND TESTING.
3. COORDINATE ALL UTILITY TIE-INS WITH OOWS MAINTENANCE (850) 609-7034 A MINIMUM OF FIFTEEN (15) WORKING DAYS PRIOR TO CONSTRUCTION. OOWS WILL PERFORM AND/OR OVERSEE ALL CONNECTIONS TO EXISTING WATER OR SEWER MAINS.
4. ALL UTILITY CONSTRUCTION SHALL BE INSPECTED BY THE OOWS ENGINEERING DEPARTMENT (850) 609-5006, INCLUDING, BUT NOT LIMITED TO, PRESURE TESTING, FINISHED GRADE DEPTH, AND SERVICE LOCATIONS. AS A MINIMUM, A MANDATORY FORTY-FOUR (48) HOUR NOTICE IS REQUIRED FOR ALL INSPECTIONS.
5. PRIOR TO OOWS SIGNING PDEP CLEARANCE APPLICATIONS (INVOLVING NEW MAINS), THE FOLLOWING ITEMS ARE REQUIRED:
 - a. PASSING PRESURE TESTS
 - b. PASSING BACTERIOLOGICAL TESTS
 - c. SATISFACTORY INSPECTION
 - d. COMPLETE, ACCURATE AS-BUILTS RECEIVED
6. PRIOR TO OOWS ACCEPTANCE OF INFRASTRUCTURE AND THE SETTING OF WATER METERS, THE FOLLOWING ITEMS ARE REQUIRED:
 - a. PDEP CLEARANCE
 - b. PASSING FINAL INSPECTION AT ESTABLISHED FINISHED GRADE
 - c. ASSOCIATED RIGHT-OF-WAY AND/OR EASEMENTS EXECUTED AND RECORDED WATER & SEWER CONSTRUCTION COST
 - d. 12-MONTH WARRANTY AGREEMENT TO COVER ANY DAMAGES TO OOWS MAINTAINED UTILITIES, WHICH MAY BE CAUSED BY THE INSTALLATION OF OTHER UTILITIES OR INFRASTRUCTURE. THE WARRANTY REQUIRES THE DEVELOPER AND CONTRACTOR TO MAKE ALL REPAIRS OR PAY ASSOCIATED COST REQUIRED TO CORRECT DAMAGES.
7. CAPACITY EXPANSION CHARGES SHALL BE PAID IN FULL PRIOR TO THE ISSUANCE OF A BUILDING PERMIT. COORDINATE CAPACITY EXPANSION CHARGES, ACCOUNT SETUP, AND HYDRANT METERS WITH THE OOWS TAPS OFFICE AT (850) 609-6182.
8. A MINIMUM 15'-0" CLEARANCE SHALL BE MAINTAINED BETWEEN UTILITY MAINS AND PROPOSED BUILDINGS. THE CONTRACTOR SHALL PROVIDE PROPER SEPARATION FROM PROPOSED DRAINAGE SYSTEMS AND UTILITY PIPES, INCLUDING SERVICES.
9. NO UTILITY CONNECTIONS WILL BE MADE INTO COUNTY/POST RIGHT-OF-WAY AND/OR EASEMENTS WITHOUT AN APPROVED UTILITY PERMIT. ALL CROSSINGS UNDER EXISTING ROADS WILL BE WORKED UNLESS PERMITTED OTHERWISE. THE CONTRACTOR MUST REPAIR ANY PAVEMENT CUTS WITHIN TIME SPECIFIED ON PERMIT AND COORDINATE ALL CUTS WITH GOVERNING AUTHORITY A MINIMUM 15 DAYS PRIOR TO WORK BEING DONE.
10. THE CONTRACTOR WILL BE RESPONSIBLE FOR EXTENDING THE PROPOSED WATER AND SEWER MAINS FROM THE UTILITY MAIN CONNECTIONS PROVIDED BY OOWS INTO THE DEVELOPMENT.
11. ALL WATER UTILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH OOWS REQUIREMENTS AND SPECIFICATIONS. ALL WATER MAIN PIPING SHALL BE C-900 DR 18 OR LESS, WITH 3 EXCEPTIONS: DUCTILE IRON PIPE IS REQUIRED FROM TEES TO HYDRANTS, OR AS OTHERWISE SPECIFIED BY OOWS. HYDRANTS SHALL BE Mueller SUPER CENTURY 4433 OR AMERICAN DARNING BRASS.
12. A MINIMUM 36" (AND A MAXIMUM 42" FOR WATER) COVER IS REQUIRED FROM TOP OF ALL PROPOSED UTILITY LINES AND SERVICES FROM FINISHED GRADES, INCLUDING SWALES AND BASINS.
13. ALL LOT CORNERS, RIGHTS-OF-WAY, AND REAR EASEMENT LINES SHALL BE LOCATED AND PROPERLY MARKED, PRIOR TO THE CONTRACTOR INSTALLING MAINS AND SERVICES, THEN AGAIN PRIOR TO FINAL INSPECTION. OOWS ENGINEERING WILL REQUIRE EXACT VERIFICATION OF EACH SERVICE PLACEMENT, BEFORE FINAL ACCEPTANCE IS MADE.
14. A MINIMUM HORIZONTAL CLEARANCE OF 36" IS REQUIRED FROM POWER TRANSFORMER/BOX PERIMETER TO ANY UTILITY MAINS AND SERVICES.
15. CLEANOUTS ARE REQUIRED ON ALL SEWER SERVICES AND SHOULD BE LOCATED AT THE BACK OF THE RIGHT-OF-WAY OR EASEMENT LINE. THE TOP OF THE CLEANOUT SHALL BE 6'-12" BELOW GRADE AND HOUSE A PLASTIC METER BOX WITH A GREEN LID. IF THE CLEANOUT IS LOCATED IN PAVEMENT, IT SHALL BE TRAFFIC-RATED/BRASS, AND NO METER BOX IS REQUIRED.

CHOCTAW ENGINEERING, INC.
ENGINEERING • ENVIRONMENTAL • SURVEYING
112 TRILTON AVENUE
FORT WALTON BEACH, FLORIDA 32447
PHONE: 850-982-4611
FAX: 850-982-5009
EMAIL: ce@choctaweng.com

CERTIFICATE OF AUTHORIZATION No. 1592

THIS SHEET IS THE PROPERTY OF CEI & IS NOT TO BE REPRODUCED WITHOUT WRITTEN CONSENT FROM CEI.

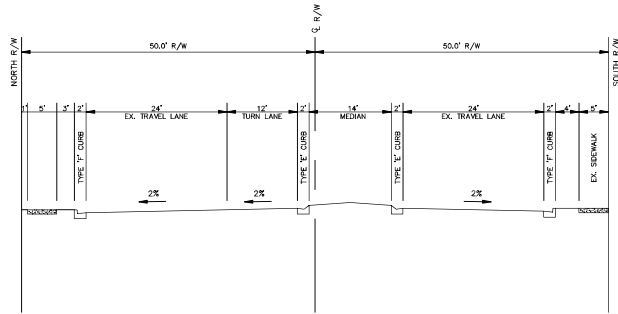
LIZA JACKSON
BOAT RAMP
UTILITY PLAN

Not valid unless bearing Engineer's embossed seal.
MAY 2024
FL REG. NO. 46831

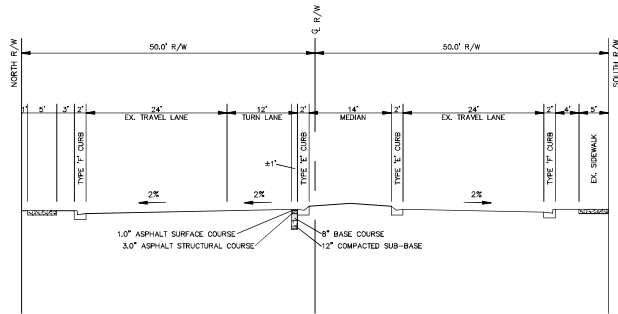
Revision: 23 OCTOBER 2024 - REVISED PER NFWMD COMMENTS
20 DECEMBER 2024 - REVISED PER NFWMD COMMENTS

Job No.: 2006-242-B
Date: 20 AUG 2024
Fld. Vol.: N/A
Scale: 1" = 40'
Disk No.: 06242B-ENG
Design: MTM
Drawn: MTM
Checked: MCS
Sheet

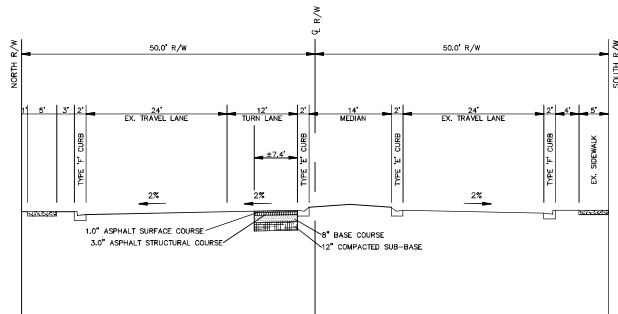
7 of 13



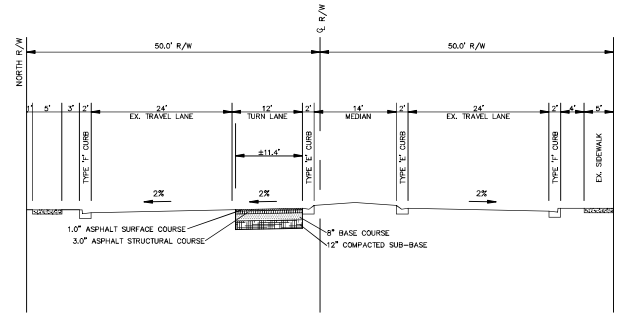
TURN LANE SECTION STA. 10+00



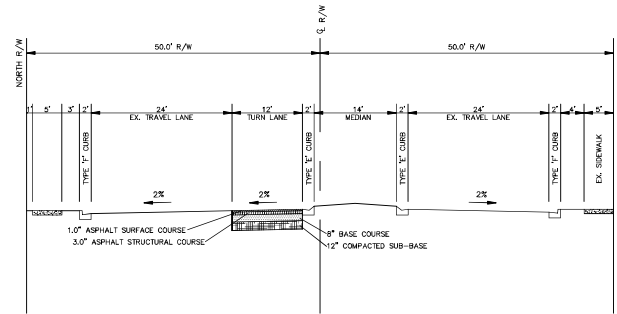
TURN LANE SECTION STA. 10+50



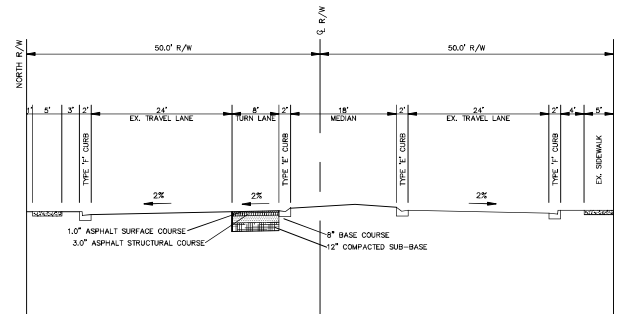
TURN LANE SECTION STA. 11+00



TURN LANE SECTION STA. 11+50



TURN LANE SECTION STA. 12+00



TURN LANE SECTION STA. 12+50

CHOCTAW ENGINEERING, INC.
ENGINEERING • ENVIRONMENTAL • SURVEYING
112 TRUXTON AVENUE
FORT WALTON BEACH, FLORIDA 32417
PHONE 850-462-4611
FAX 850-462-5009
EMAIL ce@choctaweng.com
CERTIFICATE OF AUTHORIZATION No. 1592

CEI

Revisions:
23 OCTOBER 2024 - REVISED PER INPMAD COMMENTS
20 DECEMBER 2024 - REVISED PER INPMAD COMMENTS

LIZA JACKSON
BOAT RAMP
SECTIONS & PROFILES
Not valid unless bearing Engineer's embossed seal.
LJW
FL REG. NO. 46831

Job No.: 2006-242-B
Date: 20 AUG 2024
Fld. Vol.: N/A
Scale: NTS
Disk No.: 06242B-ENG
Designed: MTW
Drawn: MTW
Checked: MCS
Sheet

GENERAL NOTES:

1. MAINTENANCE OF EROSION CONTROL MEASURES IS OF PARAMOUNT IMPORTANCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL EROSION CONTROL MEASURES AS SHOWN ON THE PLANS. THE EROSION CONTROL SYSTEM DESCRIBED ON THE PLANS SHALL MEET THE MINIMUM ACCEPTABLE STANDARDS FOR THIS PROJECT. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED DEPENDENT UPON THE STATE OF CONSTRUCTION. THE SEVERITY OF THE RAINFALL EVENT AND/OR AS DEMAND NECESSARY AS A RESULT OF ON-SITE INSPECTIONS BY THE OWNER, THEIR REPRESENTATIVES OR THE JURISDICTIONAL AUTHORITIES. THESE ADDITIONAL MEASURES SHALL BE INSTALLED AT NO ADDITIONAL COST TO THE OWNER. IT IS THE CONTRACTOR'S ULTIMATE RESPONSIBILITY TO ENSURE THAT THE STORMWATER DISCHARGE FROM THE SITE DOES NOT EXCEED THE TOLERANCES ESTABLISHED BY ANY OF THE JURISDICTIONAL AUTHORITIES.

SITE DESCRIPTION:

- LOCATION: LIZA JACKSON PARK
388 MIRAGE STRIP PARKWAY, FORT WALTON BEACH, FLORIDA
- A.1. SITE CONDITIONS & ACTIVITIES NARRATIVE
A.2. CURRENTLY THE PROPERTY CONTAINS LIZA JACKSON PARK.
A.2. SITE OPERATOR (CONTRACTOR) SHALL PREPARE A CONSTRUCTION SCHEDULE THAT INCLUDES THE DATE GRADING WILL BEGIN AND THE EXPECTED DATE OF STABILIZATION AND SHALL INCLUDE THE CONSTRUCTION SCHEDULE AS PART OF THE STORMWATER POLLUTION PREVENT (COWP) PLAN.
- B. SEQUENCE OF IMPLEMENTATION OF CONTROLS
B.1. INSTALLING OF CONTROL MEASURES.
B.2. CLEARING, GRUBBING AND EXCAVATION.
B.3. CONSTRUCTION ACTIVITIES ASSOCIATED WITH THE BUILDING, SITE DEVELOPMENT, AND INFRASTRUCTURE NECESSARY TO SERVE THE PROPOSED SITE.
- B.4. FINAL STABILIZATION.
C.1. ESTIMATE OF TOTAL PROJECT AREA AND ARE TO BE DISTURBED.
C.2. THE TOTAL SITE AREA IS 9.1256 ACRES.
C.2. THE AREA TO BE DISTURBED IS 5.510 ACRES.
D. THE LUBA SOIL CONSERVATION SERVICE SOIL SURVEY OF OKALOOSA COUNTY LISTS DOROVAN MUCK AND LEON SAND AS THE DOMINANT SOIL TYPES FOR THE PROJECT.
E. PROJECT DRAINS TO SANTA ROSA SOUND.
F. MCA OPERATOR NAME OF
G. CALCULATIONS REFER TO ENGINEER'S STORMWATER MANAGEMENT PLAN.

WIND EROSION CONTROL:

1. BARE EARTH AREAS SHALL BE WATERED DURING CONSTRUCTION AS NECESSARY TO MINIMIZE THE TRANSPORT OF FUGITIVE DUST. IT MAY BE NECESSARY TO LIMIT CONSTRUCTION VEHICLE SPEED. IF BARE EARTH HAS NOT BEEN EFFECTIVELY WATERED, IN NO CASE SHALL FUGITIVE DUST BE ALLOWED TO LEAVE THE SITE UNDER CONSTRUCTION.
2. AS REQUIRED AFTER COMPLETION OF CONSTRUCTION, BARE EARTH AREAS SHALL BE VEGETATED.
3. AT ANY TIME BOTH DURING AND AFTER SITE CONSTRUCTION THAT WATERING AND/OR VEGETATION ARE NOT EFFECTIVE IN CONTROLLING WIND EROSION AND/OR TRANSPORT OF FUGITIVE DUST, OTHER METHODS AS ARE NECESSARY FOR SUCH CONTROL SHALL BE EMPLOYED. THESE METHODS MAY INCLUDE ERECTION OF DUST CONTROL FENCES. IF REQUIRED, DUST CONTROL FENCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAIL FOR A SILT FENCE EXCEPT THE MINIMUM HEIGHT SHALL BE FOUR (4) FEET.

IN ADDITION TO THOSE RESPONSIBILITIES OUTLINED WITHIN THE CONSTRUCTION PLANS AND DOCUMENTS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FOLLOWING MEASURES:

1. PROJECT SCHEDULE WITH EROSION AND SEDIMENT CONTROL INSTALLATIONS AND MAINTENANCE NEED TO SPECIFIC DATES OR CONSTRUCTION ACTIVITIES.
2. ALTERATIONS TO THE DESIGN EROSION AND SEDIMENT CONTROLS DUE TO DIFFERENCES BETWEEN THE DESIGN PLANS AND ANTICIPATED CONSTRUCTION PHASING AND THE CONTRACTOR'S CONSTRUCTION METHODS.
3. NAME AND PHONE NUMBERS OF CONTRACTOR'S REPRESENTATIVE RESPONSIBLE FOR EROSION AND SEDIMENT CONTROL INSTALLATION AND MAINTENANCE ON A 24 HOUR BASIS.
4. THE CONTRACTOR WILL FURNISH, INSTALL, MAINTAIN AND SUBSEQUENTLY REMOVE ALL NECESSARY EROSION CONTROL. THE CONTRACTOR WILL FURNISH AND INSTALL ALL NECESSARY PERMANENT EROSION CONTROLS.
5. THE DEVELOPMENT OF THE APPLICABLE BMPs TO ENSURE THE CONTROL OF OFF-SITE TRACKING/SPLASH, SANITARY WASTE, FERTILIZERS & PESTICIDES, SOLID WASTE DISPOSAL, AND NON-STORMWATER DISCHARGES & HAZARDOUS WASTE, WHEN THE CONTRACTOR ENCOUNTERS A SPILL, CONSTRUCTION WILL STOP AND WORK WILL NOT RESUME UNTIL DIRECTED BY THE APPROPRIATE AGENCY. DISPOSITION OF HAZARDOUS WASTE WILL BE MADE IN ACCORDANCE WITH ANY REQUIREMENTS AND REGULATIONS OF ANY LOCAL, STATE OR FEDERAL AGENCY HAVING JURISDICTION.

THE CONTRACTOR IS ADVISED THAT THE CONTRACT DRAWING ONLY INDICATE EROSION, SEDIMENT, AND TURBIDITY CONTROLS AT LOCATIONS DETERMINED IN THE DESIGN PROCESS. HOWEVER, THE CONTRACTOR IS REQUIRED TO PROVIDE ANY ADDITIONAL CONTROLS NECESSARY TO PREVENT THE POSSIBILITY OF SLIDING ANY ADJACENT LOWLAND PARCEL OR RECEIVING WATER.

MAINTENANCE:
MAINTENANCE OF EROSION CONTROL OF DEVICES IS OF PARAMOUNT IMPORTANCE TO THE PROPERTY OWNER/USER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL POLLUTION PREVENTION CONTROLS DURING CONSTRUCTION. THE CONTRACTOR SHALL PAY CLOSE ATTENTION WHEN CLEARING AND/OR GRADING THE SITE TO ENSURE THAT WHEN EXISTING ROADS ARE ENCOUNTERED, THEY ARE CUT EVENLY WITH CLEAN SHARP FINISHING TOOLS. CONTRACTOR SHALL BE RESPONSIBLE FOR MINIMIZING THE DAMAGE OF THE EXISTING ROAD SYSTEMS.

SEQUENCE OF CONSTRUCTION

- A. PHASE I
A.1. INSTALL STABILIZED CONSTRUCTION ENTRANCES.
A.2. PREPARE TEMPORARY PARKING AND STORAGE AREA, UPON IMPLEMENTATION AND INSTALLATION OF THE FOLLOWING AREAS:
A.2.1. TRAILERS, PARKING, LAY DOWN, POTTY, WASH CONCRETE WASHOUT, MASON'S AREA, FUEL, AND MATERIAL STORAGE CONTAINERS, SOLID WASTE CONTAINERS, ETC. (NOTE THAT ON THE SITE MAPS IMMEDIATELY AND NOTE ANY CHANGES IN LOCATIONS AS THEY OCCUR THROUGHOUT THE CONSTRUCTION PROCESS.)
A.4. CONSTRUCT THE SEDIMENTATION AND SEDIMENT TRAP BASINS.
A.5. CLEAN AND RUB THE SITE.
A.6. START CONSTRUCTION OF BUILDING PAD AND STRUCTURES.
A.7. BEGIN GRADING THE SITE.
- B. PHASE II
B.1. TEMPORARILY SEED DENuded AREAS.
B.2. INSTALL UTILITIES, UNDER DRAINS, STORM SEWERS, CURB AND GUTTERS.
B.3. INSTALL RRP RAP AROUND OUTLET STRUCTURES.
B.4. INSTALL INLET PROTECTION AROUND ALL STORM SEWER STRUCTURES.
B.5. PREPARE SITE PARKING.
B.6. PAVE SITE.
B.7. INSTALL INLET PROTECTION DEVICES.
B.8. COMPLETE GRADING AND INSTALL PERMANENT SEEDING AND PLANTING.
B.9. SOO ALL DISTURBED AREAS WITH GRASSES GREATER THAN 5 TO 1.
B.10. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES (ONLY IF SITE IS STABILIZED.)

EROSION AND SEDIMENT CONTROLS:

EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO, OR AS FIRST STEP IN CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL EROSION CONTROL MEASURES SHOWN ON THE PLANS. THE EROSION CONTROL SYSTEM DESCRIBED WITHIN THE CONSTRUCTION DOCUMENTS SHOULD BE CONSIDERED TO REPRESENT THE MINIMUM ACCEPTABLE STANDARDS FOR THIS PROJECT. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED DEPENDENT UPON THE STATE OF CONSTRUCTION. THE SEVERITY OF THE RAINFALL EVENT AND/OR AS DEMAND NECESSARY AS A RESULT OF ON-SITE INSPECTIONS BY THE OWNER, THEIR REPRESENTATIVES OR THE JURISDICTIONAL AUTHORITIES. THESE ADDITIONAL MEASURES SHALL BE INSTALLED AT NO ADDITIONAL COST TO THE OWNER. IT IS NOTED THAT THE MEASURES IDENTIFIED ON THIS PLAN SHOULD BE ONLY THE SUGGESTED BEST MANAGEMENT PRACTICES (BMPs). THE CONTRACTOR SHALL PROVIDE POLLUTION PREVENT AND EROSION CONTROL MEASURES AS SPECIFIED IN FOOT INDEXES #100 THROUGH #102 AND AS NECESSARY FOR EACH SPECIFIC APPLICATION. IT IS THE CONTRACTOR'S ULTIMATE RESPONSIBILITY TO ENSURE THAT THE STORMWATER DISCHARGE FROM THE SITE DOES NOT EXCEED THE TOLERANCES ESTABLISHED BY ANY OF THE JURISDICTIONAL AUTHORITIES.

- A. GENERAL EROSION CONTROL
A.1. CLEARING AND GRUBBING OPERATIONS SHALL BE CONTROLLED SO AS TO MINIMIZE UNEXPECTED EROSION AREAS EXPOSED TO WEATHER. GENERAL EROSION CONTROL BMPs SHALL BE EMPLOYED TO MINIMIZE SOIL EROSION AND OFF-SITE SEDIMENTATION WHILE THE VARIOUS TECHNIQUES REQUIRED WILL NOT BE DEPOSITED IN LOCATIONS WHERE IT COULD BE WASHED AWAY BY HIGHWATER OR STORMWATER RUNOFF. STOCKPILED MATERIAL SHALL BE COVERED OR DROPPED WITH SEDIMENT CONTAINMENT DEVICES.
A.2. STABILIZATION MEASURES SHALL BE INITIATED FOR EROSION AND SEDIMENT CONTROL ON DISTURBED AREAS AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. CLEARED SITE DEVELOPMENT AREAS WHICH WILL REMAIN AT ROUGH GRADE FOR 14 DAYS OR MORE SHOULD BE STABILIZED IMMEDIATELY BY COVERING WITH ADEQUATE AMOUNTS OF DRY, OVER-SEEDING AND PERIODICALLY WATERED BY SUFFICIENTLY TO STABILIZE THE TEMPORARY GRASSCOVER OR BY THE USE OF AN APPROPRIATE EROSION CONTROL MEASURE.
A.3. ALL GRASS SLOPES CONSTRUCTED STEEPER THAN 4H:1V SHALL BE SODDED IMMEDIATELY AFTER FINAL GRADE IS ESTABLISHED.
A.4. WHERE REQUIRED TO PREVENT EROSION FROM SHEET FLOW ACROSS BARE GROUND FROM ENTERING A LAKE OR SWALE, A TEMPORARY SEDIMENT SWAMP SHALL BE CONSTRUCTED. THE TEMPORARY SEDIMENT SWAMP SHALL REMAIN IN PLACE UNTIL VEGETATION IS ESTABLISHED ON THE GROUND DRAINING TO THE SWAMP.
A.5. PERMANENT SOIL EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES OR ANY DISTURBED LAND AREAS SHALL BE COMPLETED IMMEDIATELY AFTER FINAL GRADING. WHEN IT IS NOT POSSIBLE TO PERMANENTLY PROTECT, TEMPORARY EROSION CONTROL MEASURES SHALL BE INSTALLED IMMEDIATELY AFTER GRADING OPERATIONS. TEMPORARY EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL PERMANENT PROTECTION SHALL BE MAINTAINED UNTIL PERMANENT MEASURES ARE IN PLACE AND ESTABLISHED.

- B. PROTECTION OF SURFACE WATERS
B.1. WHERE PRACTICAL, STORMWATER SHALL BE CONVEYED BY SWALES. SWALES SHALL BE CONSTRUCTED AS SHOWN ON PLANS.
B.2. EROSIONS CONTROL MEASURES SHALL BE EMPLOYED TO MINIMIZE TURBIDITY OF SURFACE WATERS LOCATED DOWNSTREAM OF ANY CONSTRUCTION ACTIVITY.
B.2.1. NEW AND EXISTING STORMWATER INLETS AND OUTFALL STRUCTURES SHALL BE PROTECTED DURING CONSTRUCTION.
B.2.2. PROTECTION MEASURES SHALL BE EMPLOYED IMMEDIATELY AS REQUIRED DURING THE VARIOUS STAGES OF CONSTRUCTION.
B.2.3. PERMANENT EROSION CONTROL DEVICES SHALL REMAIN IN PLACE UNTIL FINAL SITE STABILIZATION HAS BEEN ESTABLISHED.
B.4. HEAVY CONSTRUCTION EQUIPMENT PARKING AND MAINTENANCE AREAS SHALL BE DESIGNED TO PREVENT OIL, GREASE, AND LUBRICANTS FROM ENTERING SITE DRAINAGE FEATURES INCLUDING STORMWATER COLLECTION AND TREATMENT SYSTEMS. CONTRACTORS SHALL PROVIDE BROAD SHEDS OR SILT CONTAINERS AROUND AND SEDIMENT SWAMP WITHIN, SUCH AREAS AS REQUIRED TO CONTAIN SPILLS OF OIL, GREASE, LUBRICANTS, OR OTHER CONTAMINANTS. CONTRACTORS SHALL HAVE AVAILABLE, AND SHALL USE, ABSORBENT FILTER PADS TO CLEAN UP SPILLS IMMEDIATELY AFTER ANY OCCURRENCE.

REFERENCES:

1. THE CONSTRUCTION PLANS AND SPECIFICATIONS FOR THIS PROJECT, CHOCTAW ENGINEERING, INC. PROJECT NO. 2008-242-B, AS PREPARED BY CHOCTAW ENGINEERING, INC., AND REFERENCED AND MADE A PART OF THIS PLAN.
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FILE "NOTICE OF INTENT TO USE GENERAL PERMIT FOR STORMWATER DISCHARGE FROM CONSTRUCTION ACTIVITIES" (SEP FROM 62-601.300-4)(S) OR (LATEST VERSION) TO PREP VIA WEBSITE ELECTRONIC SUBMITTAL OR TO THE FOLLOWING ADDRESS:
NOTES: STORMWATER NOTICES CENTER, MS #3085
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400

TREE PROTECTION:

CRITICAL ROOT AREAS FOR TREES SHOWN TO BE PREPARED SHALL NOT BE DISTURBED. CONTRACTOR SHALL PAY CLOSE ATTENTION WHEN CLEARING AND/OR GRADING THE SITE TO ENSURE THAT WHEN EXISTING ROADS ARE ENCOUNTERED, THEY ARE CUT EVENLY WITH CLEAN SHARP FINISHING TOOLS. CONTRACTOR SHALL BE RESPONSIBLE FOR MINIMIZING THE DAMAGE OF THE EXISTING ROAD SYSTEMS.

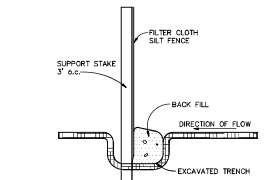
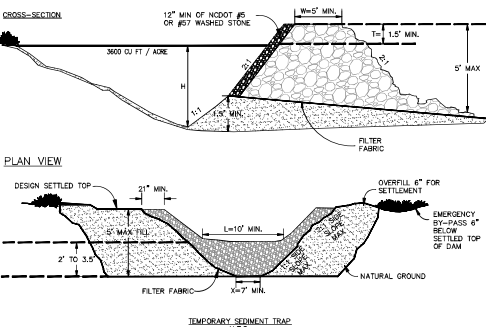
STORMWATER MANAGEMENT

THE STORMWATER RUNOFF FROM THE PROJECT AREA WILL BE COLLECTED ON SITE PRIOR TO A CONTROLLED DISCHARGE TO SANTA ROSA SOUND.

APPROVED STATE AND LOCAL PLANS OR PERMITS:

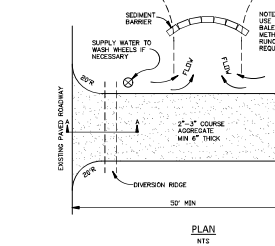
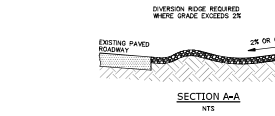
1. CITY OF FORT WALTON BEACH CONSTRUCTION PERMIT
2. INPMD ERP

TEMPORARY SEDIMENT TRAP DESIGN CRITERIA	
DRAINAGE AREA (ACRES)	< 5.0
MIN. LENGTH TO MOUTH (FT)	2:1
MIN. VOLUME REQUIRED (CU. FT.)	3600 (CU. FT. PER AC. DISTURBED)
SURFACE AREA REQUIRED (SQ. FT.)	435 (SQ. FT. PER CFS OF FLOW)



EROSION NOTES:

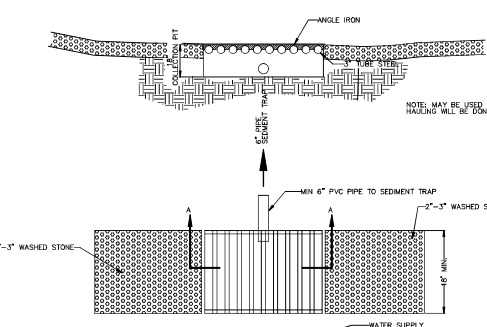
1. EROSION PROTECTION: SOIL EROSION SEDIMENTATION MUST BE CONTROLLED AND RETAINED ON SITE DURING CONSTRUCTION. THEREFORE, EROSION PROTECTION, SUCH AS STAKED BALLED HAY AND SILT FENCE BARRIERS, MUST BE INSTALLED PRIOR TO START OF CONSTRUCTION.
2. SILT FENCE BARRIER SHALL BE INSTALLED AS SHOWN ON PLANS, AND IN ALL AREAS SUBJECT TO SOIL EROSION SEDIMENTATION.
3. STORMWATER DETENTION AREAS SHALL BE SODDED.
4. GRADES AT CURBS ARE AT FLOWLINE.



TEMPORARY CONSTRUCTION ENTRANCE DETAIL

NOTES:

1. THE ENTRANCE SHALL BE MAINTAINED IN A CLEAN STATE TO PREVENT FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY.
2. WHEN NECESSARY WHEELS SHALL BE CLEANED AT THE ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
3. WHEN WASHING IS REQUIRED IT SHALL BE DONE ON AN AREA STABILIZED WITH GRASS STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

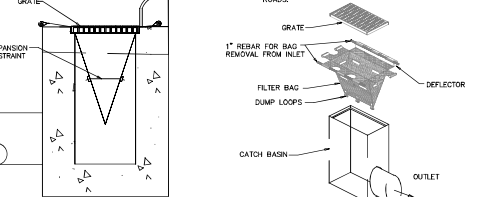


CONSTRUCTION ENTRANCE TIRE WASH

N.T.S.

NOTES:

1. INLET MAINTENANCE SHALL BE DOCUMENTED IN PROJECT LOG BOOK.
2. FILTER TYPES SHALL BE APPROVED BY THE INSPECTOR PRIOR TO INSTALLATION.
3. FILTER BAGS MAY BE REMOVED WHEN SITE IS STABILIZED AT THE DIRECTION OF THE ENGINEER.
4. FILTER BAGS SHALL BE REMOVED PRIOR TO STREET ACCEPTANCE.
5. FILTER BAGS SHALL BE CLEANED OR REPLACED ON A REGULAR BASIS (NOT BE MORE THAN HALF FULL AT ANY TIME).
6. FILTER BAGS SHALL NOT BE ALLOWED IN EXISTING TOWN OR MCDOT ROADS.



CATCH BASIN INLET PROTECTION

N.T.S.

INSTALLATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY FLOWS ARE EXPECTED AND WHERE OVERFLOW CAPACITY IS NECESSARY TO PREVENT EXCESSIVE FLOODING AROUND THE STRUCTURE.

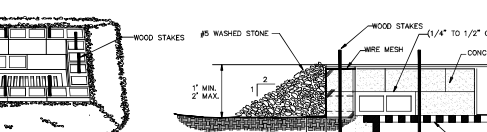
BLOCK AND GRAVEL INLET PROTECTION

N.T.S.

THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY FLOWS ARE EXPECTED AND WHERE OVERFLOW CAPACITY IS NECESSARY TO PREVENT EXCESSIVE FLOODING AROUND THE STRUCTURE.

NOTES:

1. THE ENTRANCE SHALL BE MAINTAINED IN A CLEAN STATE TO PREVENT FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY.
2. WHEN NECESSARY WHEELS SHALL BE CLEANED AT THE ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
3. WHEN WASHING IS REQUIRED IT SHALL BE DONE ON AN AREA STABILIZED WITH GRASS STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.



TEMPORARY CONSTRUCTION ENTRANCE DETAIL

NOTES:

1. THE ENTRANCE SHALL BE MAINTAINED IN A CLEAN STATE TO PREVENT FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY.
2. WHEN NECESSARY WHEELS SHALL BE CLEANED AT THE ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
3. WHEN WASHING IS REQUIRED IT SHALL BE DONE ON AN AREA STABILIZED WITH GRASS STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

TEMPORARY CONSTRUCTION ENTRANCE DETAIL

NOTES:

1. THE ENTRANCE SHALL BE MAINTAINED IN A CLEAN STATE TO PREVENT FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY.
2. WHEN NECESSARY WHEELS SHALL BE CLEANED AT THE ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
3. WHEN WASHING IS REQUIRED IT SHALL BE DONE ON AN AREA STABILIZED WITH GRASS STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

TEMPORARY CONSTRUCTION ENTRANCE DETAIL

NOTES:

1. THE ENTRANCE SHALL BE MAINTAINED IN A CLEAN STATE TO PREVENT FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY.
2. WHEN NECESSARY WHEELS SHALL BE CLEANED AT THE ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
3. WHEN WASHING IS REQUIRED IT SHALL BE DONE ON AN AREA STABILIZED WITH GRASS STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

CHOCTAW ENGINEERING, INC.
ENGINEERING • ENVIRONMENTAL • SURVEYING
PHONE: 850-863-4611
112 TRULION AVENUE
FORT WALTON BEACH, FLORIDA 32437
FAX: 850-863-8009
EMAIL: info@choctaweng.com
CERTIFICATE OF AUTHORIZATION No. 1932

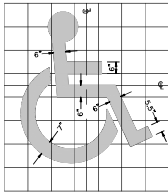
LIZA JACKSON
BOAT RAMP
STORM WATER POLLUTION PREVENTION PLAN
Not valid unless bearing Engineer's embossed seal.
MARK C. SINKER, P.E.
FL. REG. NO. 48831

THIS SHEET IS THE PROPERTY OF CEI & IS NOT TO BE REPRODUCED WITHOUT WRITTEN CONSENT FROM CEI.

Revised: 23 OCTOBER 2024 - REVISED PER INPMD COMMENTS
20 DECEMBER 2024 - REVISED PER INPMD COMMENTS

Job No.: 2006-252-B
Date: 20 AUG 2024
Fld. Vol.: N/A
Scale: NTS
Desk No.: 0642B-MISC
Drawn: MTM
Checked: MCS
Sheet

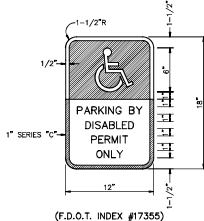
9 of 13



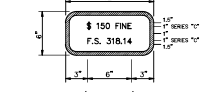
HANDICAP SYMBOL DETAIL
N.T.S.

CHARACTERS AND SYMBOLS SHALL CONTRAST WITH THEIR BACKGROUNDS - EITHER LIGHT CHARACTERS ON A DARK BACKGROUND OR DARK CHARACTERS ON A LIGHT BACKGROUND.

SYMBOL SHALL BE PAINTED BLUE AND TO THE DIMENSIONS SHOWN



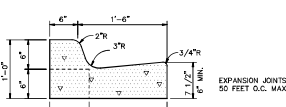
HANDICAP PARKING SIGN DETAIL
(F.D.O.T. INDEX #17355)



HANDICAP PARKING SIGN DETAIL
(F.T.P. - 55)

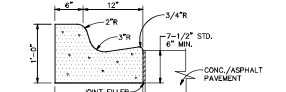
THIS PANEL SHALL BE INSTALLED UNDER THE F.T.P. - 25 OR F.T.P. - 26 HANDICAP PARKING SIGN.

HANDICAP PARKING SIGN DETAIL
(F.D.O.T. INDEX No. 700-102)
N.T.S.



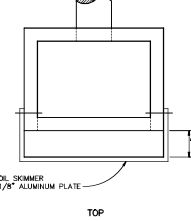
CONCRETE CURB AND GUTTER DETAIL
(F.D.O.T. INDEX No. 520-001)
N.T.S.

WHEN USED ON HIGH SIDE OF ROADWAYS, THE CROSS SLOPE OF THE GUTTER SHALL MATCH THE CROSS SLOPE OF THE ADJACENT PAVEMENT AND THE THICKNESS OF THE CURB SHALL BE 6\"/>

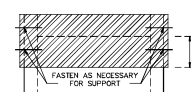


CONCRETE CURB AND GUTTER DETAIL
N.T.S.

WHEN USED ON HIGH SIDE OF ROADWAYS, THE CROSS SLOPE OF THE GUTTER SHALL MATCH THE CROSS SLOPE OF THE ADJACENT PAVEMENT AND THE THICKNESS OF THE CURB SHALL BE 6\"/>

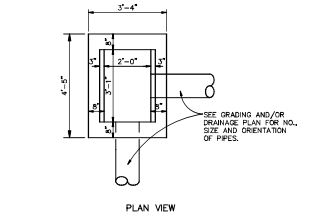


OIL SKIMMER FOR OUTFALL STRUCTURE DETAIL
N.T.S.

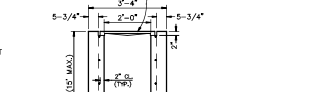


OIL SKIMMER FOR OUTFALL STRUCTURE DETAIL
N.T.S.

WHEN USED ON HIGH SIDE OF ROADWAYS, THE CROSS SLOPE OF THE GUTTER SHALL MATCH THE CROSS SLOPE OF THE ADJACENT PAVEMENT AND THE THICKNESS OF THE CURB SHALL BE 6\"/>

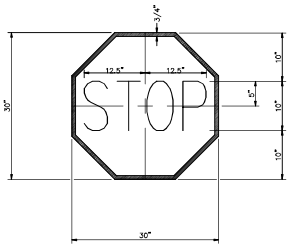


TYPE 1C CATCH BASIN DETAIL
(F.D.O.T. INDEX No. 425-052)
N.T.S.



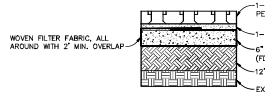
TYPE 1C CATCH BASIN DETAIL
(F.D.O.T. INDEX No. 425-052)
N.T.S.

WHEN USED ON HIGH SIDE OF ROADWAYS, THE CROSS SLOPE OF THE GUTTER SHALL MATCH THE CROSS SLOPE OF THE ADJACENT PAVEMENT AND THE THICKNESS OF THE CURB SHALL BE 6\"/>

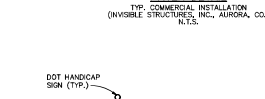


STOP SIGN DETAIL
N.T.S.

NOTE:
SIGN DESIGNATION: R1-1 (REFL.)
RECOLORIZATION: R1-1 (REFL.)
SIGN COLORS: LEGEND, BORDER (WHITE)
LEGEND, BORDER (RED)



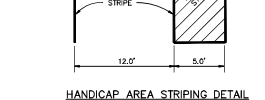
PAVER DETAIL
(TYP. COMMERCIAL INSTALLATION)
(INVISIBLE STRUCTURES, INC., AURORA, CO.)
N.T.S.



PAVER DETAIL
(TYP. COMMERCIAL INSTALLATION)
(INVISIBLE STRUCTURES, INC., AURORA, CO.)
N.T.S.



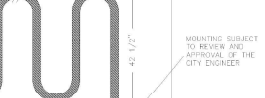
PAVER DETAIL
(TYP. COMMERCIAL INSTALLATION)
(INVISIBLE STRUCTURES, INC., AURORA, CO.)
N.T.S.



PAVER DETAIL
(TYP. COMMERCIAL INSTALLATION)
(INVISIBLE STRUCTURES, INC., AURORA, CO.)
N.T.S.



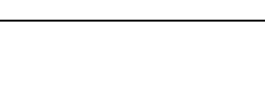
PAVER DETAIL
(TYP. COMMERCIAL INSTALLATION)
(INVISIBLE STRUCTURES, INC., AURORA, CO.)
N.T.S.



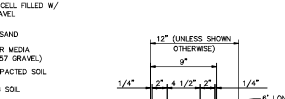
PAVER DETAIL
(TYP. COMMERCIAL INSTALLATION)
(INVISIBLE STRUCTURES, INC., AURORA, CO.)
N.T.S.



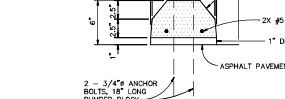
PAVER DETAIL
(TYP. COMMERCIAL INSTALLATION)
(INVISIBLE STRUCTURES, INC., AURORA, CO.)
N.T.S.



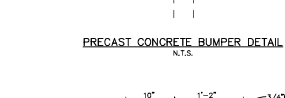
PAVER DETAIL
(TYP. COMMERCIAL INSTALLATION)
(INVISIBLE STRUCTURES, INC., AURORA, CO.)
N.T.S.



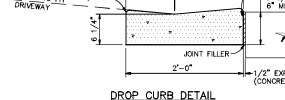
PRECAST CONCRETE BUMPER DETAIL
N.T.S.



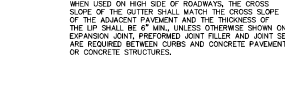
PRECAST CONCRETE BUMPER DETAIL
N.T.S.



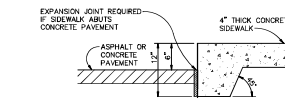
PRECAST CONCRETE BUMPER DETAIL
N.T.S.



PRECAST CONCRETE BUMPER DETAIL
N.T.S.



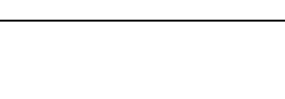
PRECAST CONCRETE BUMPER DETAIL
N.T.S.



PRECAST CONCRETE BUMPER DETAIL
N.T.S.



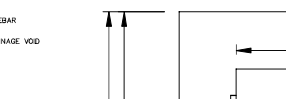
PRECAST CONCRETE BUMPER DETAIL
N.T.S.



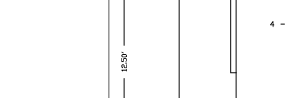
PRECAST CONCRETE BUMPER DETAIL
N.T.S.



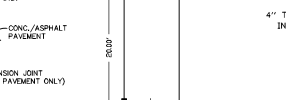
DROP CURB DETAIL
N.T.S.



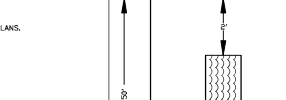
DROP CURB DETAIL
N.T.S.



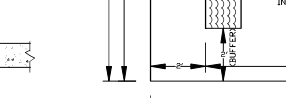
DROP CURB DETAIL
N.T.S.



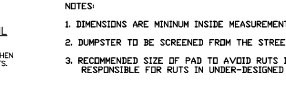
DROP CURB DETAIL
N.T.S.



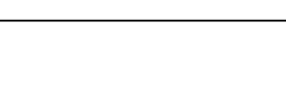
DROP CURB DETAIL
N.T.S.



DROP CURB DETAIL
N.T.S.



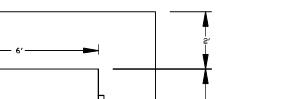
DROP CURB DETAIL
N.T.S.



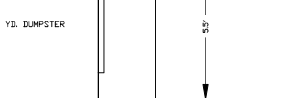
DROP CURB DETAIL
N.T.S.



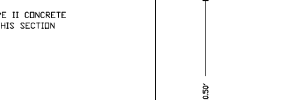
STANDARD CONCRETE DUMPSTER PAD
N.T.S.



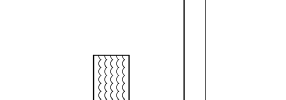
STANDARD CONCRETE DUMPSTER PAD
N.T.S.



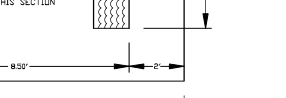
STANDARD CONCRETE DUMPSTER PAD
N.T.S.



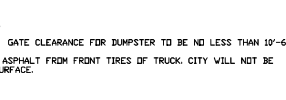
STANDARD CONCRETE DUMPSTER PAD
N.T.S.



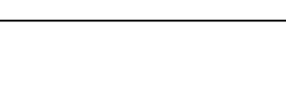
STANDARD CONCRETE DUMPSTER PAD
N.T.S.



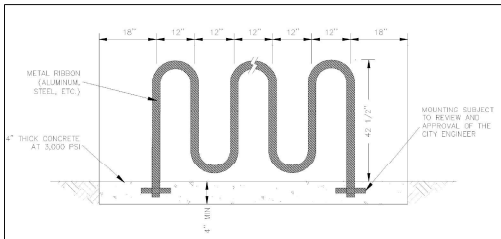
STANDARD CONCRETE DUMPSTER PAD
N.T.S.



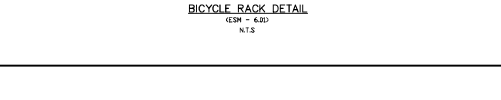
STANDARD CONCRETE DUMPSTER PAD
N.T.S.



STANDARD CONCRETE DUMPSTER PAD
N.T.S.



BICYCLE RACK DETAIL
(CSH - 6.2)
N.T.S.



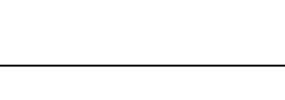
BICYCLE RACK DETAIL
(CSH - 6.2)
N.T.S.



BICYCLE RACK DETAIL
(CSH - 6.2)
N.T.S.

THICKENED EDGE SIDEWALK DETAIL
N.T.S.

THICKENED EDGE SIDEWALK SHALL BE INSTALLED WHEN SIDEWALK ABUTS PAVED PARKING AREA OR STREETS.



THICKENED EDGE SIDEWALK DETAIL
N.T.S.

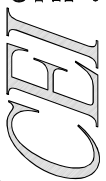


THICKENED EDGE SIDEWALK DETAIL
N.T.S.

NOTES:

1. DIMENSIONS ARE MINIMUM INSIDE MEASUREMENTS.
2. DUMPSTER TO BE SCREENED FROM THE STREET. GATE CLEARANCE FOR DUMPSTER TO BE NO LESS THAN 10'-6\"/>
3. RECOMMENDED SIZE OF PAD TO AVOID RUTS IN ASPHALT FROM FRONT TIRES OF TRUCK. CITY WILL NOT BE RESPONSIBLE FOR RUTS IN UNDER-DESIGNED SURFACE.

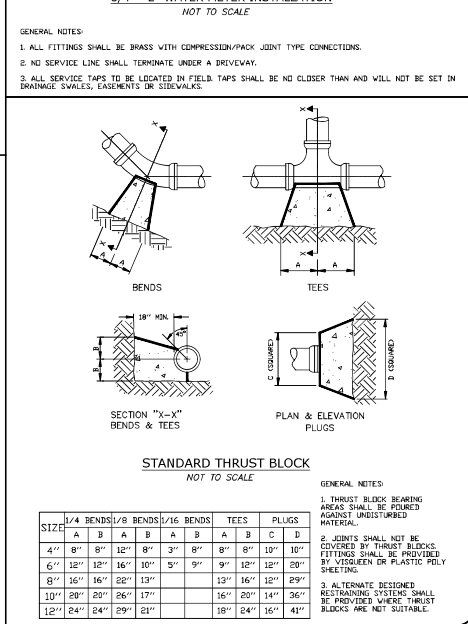
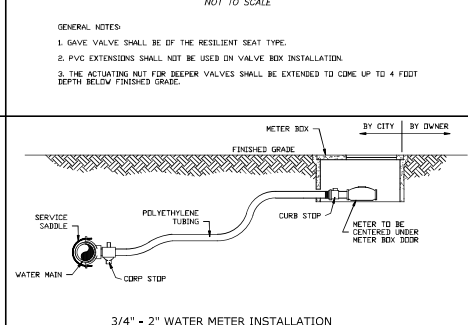
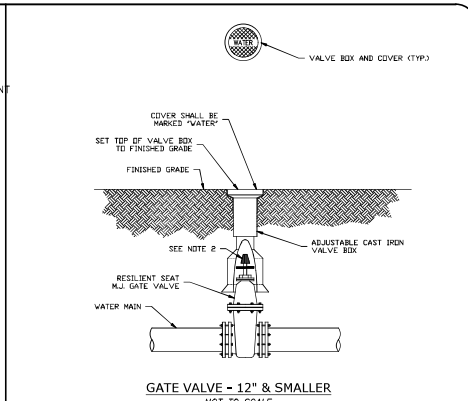
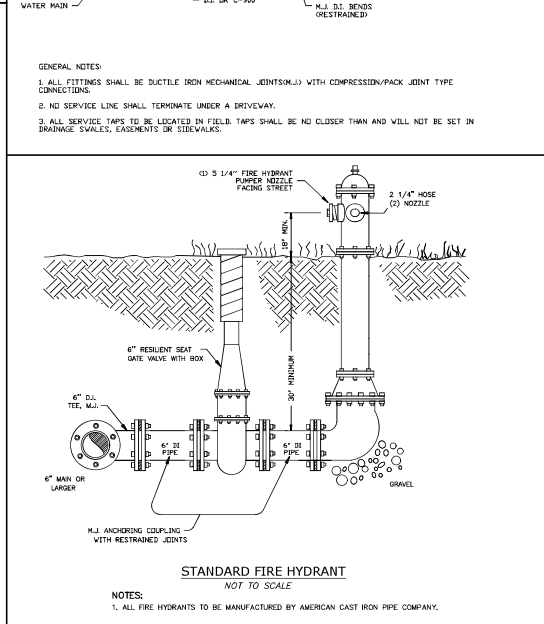
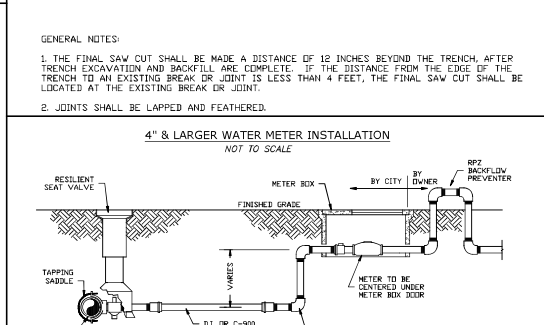
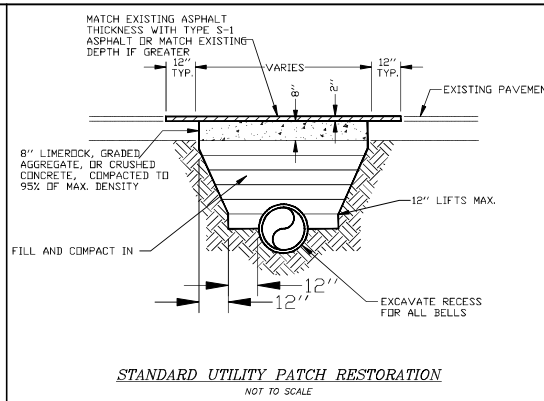
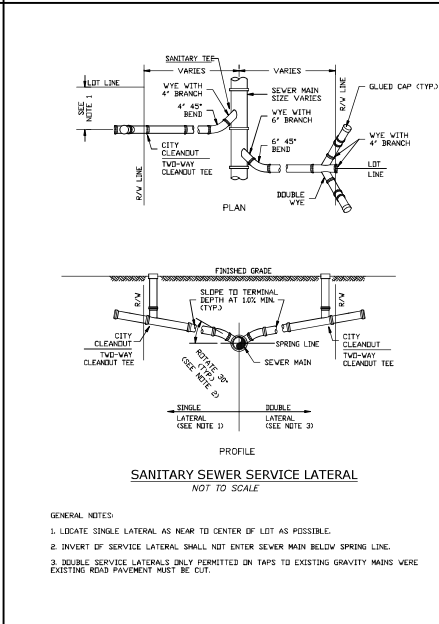
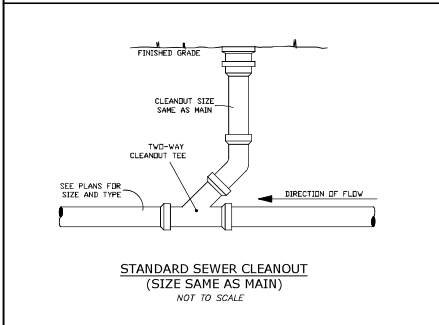
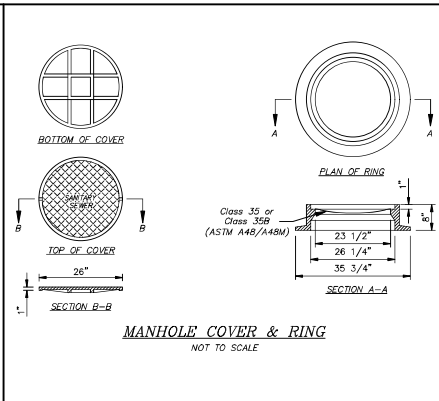
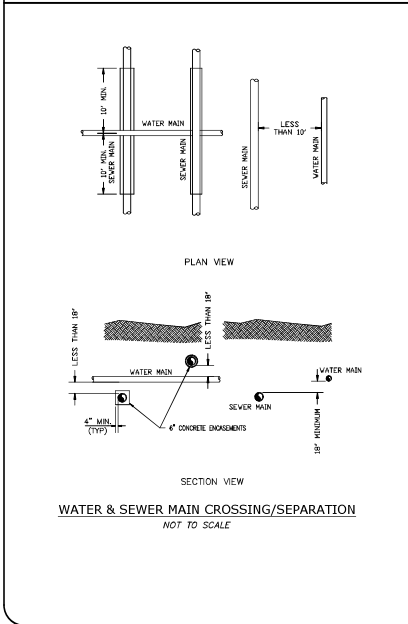
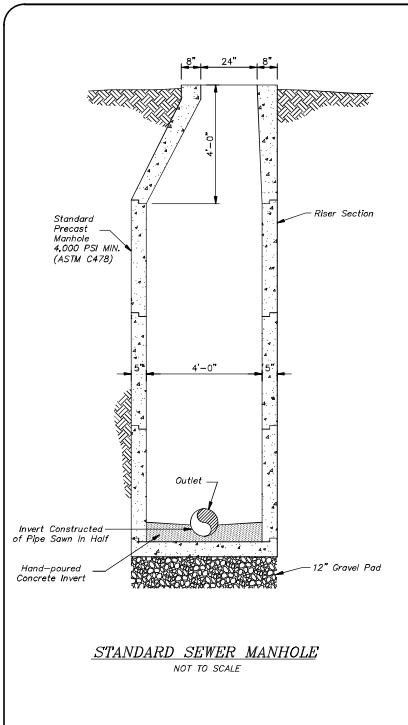
CHOCTAW ENGINEERING, INC.
ENGINEERING • ENVIRONMENTAL • SURVEYING
112 TRILTON AVENUE
FORT WALTON BEACH, FLORIDA 32447
PHONE: 850-462-4611
FAX: 850-462-8009
EMAIL: info@choctaweng.com
CERTIFICATE OF AUTHORIZATION No. 1592



Revisions:
23 OCTOBER 2024 - REVISED PER INWMD COMMENTS
20 DECEMBER 2024 - REVISED PER INWMD COMMENTS

LIZA JACKSON
BOAT RAMP
MISCELLANEOUS DETAILS
Not valid unless bearing Engineer's embossed seal.
MARK C. SNIER, P.E.
FL. REG. NO. 48831

Job No.: 2006-252-B
Date: 20 AUG 2024
Fid. Vol.: N/A
Scale: NTS
Disk No.: 06242B-MISC
Design: MCS
Drawn: MTM
Checked: MCS
Sheet



CHOCTAW ENGINEERING, INC.
ENGINEERING • ENVIRONMENTAL • SURVEYING
112 TRULSON AVENUE
FORT WALTON BEACH, FLORIDA 32547
PHONE: 850-462-6011
FAX: 850-462-9009
EMAIL: ce@choctaweng.com

THIS SHEET IS THE PROPERTY OF CEI & IS NOT TO BE REPRODUCED WITHOUT WRITTEN CONSENT FROM CEI.

LIZA JACKSON
BOAT RAMP
WATER AND SANITARY DETAILS
Not valid unless bearing Engineer's embossed seal.
MARK C. SINKER, P.E.
FL. REG. NO. 48831

Job No.: 2006-252-B
Date: 20 AUG 2024
Fis. Vol.: N/A
Scale: NTS
Desk No.: 062428-MSC
Designed: MCS
Drawn: MTM
Checked: MCS
Sheet

11 of 13

SPECIFICATION: CLEARING AND GRUBBING

All site clearing and grubbing shall be in accordance with section 110 of the Florida Department of Transportation Specifications for Road and Bridge Construction unless modified herein. This work shall be performed in the following areas:

- All street right-of-way.
- All areas where excavation or embankment are to take place.
- Deletion areas.

In addition, certain other areas where underground utilities are to be installed are to be cleared and grubbed to the extent necessary to properly install the utilities. Such work shall be incidental to the contract unit price for the utility to be installed.

SCOPE: Site clearing work includes, but is not limited to:

- Removal of trees and other vegetation.
- Topsoil stripping.
- Clearing and grubbing.
- Removing above grade improvements.
- Removing below grade improvements.

JOB CONDITIONS:

TRAFFIC:
Conduct site clearing operations to ensure minimum interference with roads, streets, walks, and other adjacent occupied or unused facilities. Do not close or obstruct streets, walks, or other occupied or unused facilities without permission from the Owners and or Local approving authority.

Clearing and Protection in Construction Areas:

Preserve trees 6 inches or larger measured breast height (6" dbh) where possible within construction area.

Protection of Existing Improvements:

Provide protection necessary to prevent damage to existing improvements indicated to remain in place.

Restore damaged improvements to original condition as acceptable to the Owner.

LIMITATIONS:

Clearing will be limited to the extent necessary to allow for construction of the proposed improvements as a result of:

- Need for access to the project site for construction equipment.
- Essential grade changes.
- Surface water drainage and utility installation.
- Location of driveways, buildings, and required parking.

CLEARING AND GRUBBING:

Remove trees, shrubs, grass, other vegetation, improvements, or obstructions interfering with the installation of new construction. Remove includes digging out stumps and roots. Do not remove items elsewhere on site or premises unless specifically indicated. Dispose of trees, limbs, stumps, and debris shall be the responsibility of the Contractor.

Strip topsoil to whatever depths encountered to prevent intermingling with underlying subsoil or other objectionable material. Cut heavy growth of grass from areas before stripping.

Stockpile topsoil in storage piles in areas shown or where directed by the Owner. Construct storage piles to freely drain surface water. Cover storage piles if required to prevent windblown dust.

Dispose of unsuitable or excess topsoil same as specified for waste material.

FILLING:

Fill depressions caused by clearing and grubbing operations with satisfactory soil material, unless further excavation or earthwork is indicated.

Place fill material in horizontal layers not exceeding 6" loose depth, and thoroughly compact to density equal to adjacent ground unless otherwise shown on the plans.

REMOVAL OF IMPROVEMENTS:

Remove existing above and below grade improvements and abandoned underground piping or conduit necessary to permit construction and other work.

DISPOSAL OF WASTE MATERIALS:

No burning of any material, debris, or trash will be allowed.

Remove waste materials from project site on a daily basis and dispose of off-site in an approved area.

SPECIFICATION: EXCAVATION, EMBANKMENT AND SUBGRADE:

EXCAVATION, EMBANKMENT AND SUBGRADE: Shall be performed in accordance with Section 120 of the Florida D.O.T. Specifications. All subgrade fill material, and the top 12 inches in cut area, shall be compacted to 100 percent of maximum density as determined by AASHTO T-99. The Subgrade Compaction (Stabilization) shall conform to Section 604 of the Florida D.O.T. Specifications. In most cases this will consist of compacting existing bedrock soil. However, it is the contractor's responsibility to determine the required subgrade section meets the value requirements, regardless of the quantity of stabilizing material to be added. One field density test shall be taken for each 5000 square feet or fraction thereof.

When required subgrade density cannot be obtained, unsuitable material shall be removed to that the road base will be constructed on a minimum of 3' of suitable, properly compacted material. This work shall be included in the contract lump sum price for earth excavation.

SOIL CEMENT BASE COURSE: As a minimum the soil cement base course will conform generally to Section 270 of the Florida D.O.T. Specifications for Road and Bridge Construction. The detailed specifications of the soil cement base course are to be determined by an independent testing laboratory after testing of the material the contractor proposes to use. Moisture and cement content will be specified by the laboratory. However, as a guide for bid purposes, estimate 12% cement by weight and include a price reduction schedule if tests show less cement is required. The soil cement mix will be at optimum moisture content, i.e., neither muddy nor dry, but containing sufficient moisture to make a firm cake when squeezed in the hand. Water should not oozes on the hand when an squeeze. This requires 2 to 4 gallons per square yard but actual quantity of water to be added will depend on latent moisture in the soil. From a practical standpoint the highest moisture content should be maintained that permits packing and finishing without surface cracking, shoving or rutting during compaction and finishing operations.

The freshly compacted and finished soil-cement mix must be adequately cured. An application of bituminous material such as RC-2, MC-3, or RS-6 asphalt emulsion at the rate of 0.15 to 0.20 gal per square yard is preferred as the curing medium. Waterproof paper or moist hvy is acceptable if properly maintained.

SAND-CLAY BASE COURSE: Shall comply with the requirements of Sections 240 and 912 of the Florida D.O.T. Specifications. Tests necessary to determine compliance with Section 912 shall be performed prior to placing the material on the roadbed. These tests include:

- | Composition and gradation. | Percent of material passing the 10-mesh sieve |
|--|---|
| 1. Clay (material smaller than 0.0075mm) | 5 to 25 |
| 2. Silt (material from 0.0075 to 0.0006mm) | 0 to 10 |
| 3. Combined clay and silt | Not greater than 35 |
| 4. Liquid Limit | Not greater than 25 |
| 5. Plasticity Index | Not greater than 6 |

The results of these tests shall be submitted to the engineer for approval. After approval of the material, the sand-clay base course shall be placed in accordance with Section 240. The base course shall be compacted to not less than 98 percent of the maximum density as determined by AASHTO T-155. One density (50%) test shall be taken for each 5000 square feet of the material.

NOTE: Sand Clay base material shall not be used in areas where the second high groundwater table is within two (2) feet of the bottom of the base material.

LEAKROCK BASE COURSE: Shall be constructed in accordance with Section 200 of the Florida D.O.T. Specifications for Road and Bridge Construction. The material shall meet the requirements of Section 911 of the Specifications. Tests necessary to determine compliance with Section 911 shall be performed prior to placing the material on the subgrade. These tests include:

- | Test | Requirement |
|-----------------------------|---------------------------|
| 1. Liquid Limit | Non-Plastic |
| 2. Plastic Index | Greater than 0 |
| 3. Gradation | 95 passing 3.5 inch sieve |
| 4. Unimproved Bearing Ratio | Not less than 100 |

The results of these tests shall be submitted to the engineer for approval. After approval of the material, the leakrock base course shall be placed in accordance with Section 200. The base course shall be compacted to not less than 98 percent of the maximum density as determined by AASHTO T-155. A minimum of three density tests shall be made on each day compaction operations. More frequent tests shall be made as deemed necessary by the Engineer. The base shall be installed to a compacted thickness as shown on the plans, plus or minus one half inch. Deviations from this specification shall be corrected as indicated in the State Specifications.

CONTINUED ON NEXT COLUMN

GRADED AGGREGATE BASE COURSE: Shall comply with the requirements of Section 204 of the Florida D.O.T. Specifications. Tests necessary to determine compliance with Section 204 shall be performed prior to placing the material. These tests include:

- Soundness Loss, Sodium, Sulfate: AASHTO T 104.
- Percent Wear: AASHTO T 196 (Grossing) 4.
- Sieve Analysis.
- Unimproved Bearing Ratio Value.

The results of these tests shall be submitted to the engineer for approval. After the approval of the material, the graded aggregate base course shall be placed in accordance with Section 204. The base course shall be compacted to a density of not less than 100 percent of the maximum density as determined by AASHTO T 180. At least three density tests shall be made on each day's final compaction operation of each course and final density determinations shall be made at more frequent intervals if deemed necessary by the Engineer.

ASPHALT BASE COURSE: Shall comply with the requirements of Sections 280, 330, 331 and 916 of the Florida D.O.T. Specifications. The design mix for asphalt base course Type 2 shall conform to the requirements in Tables 331-1 and 331-2. The Minimum Marshall stability shall be 1000 lbs/in. as indicated in Table 331-2. Percent bitumen by weight of total mix: 5.0 (minimum). Two copies each of the actual design mix shall be submitted to the Engineer. Written approval of the Asphalt base course design mix must be obtained from the engineer prior to commencing base course construction. Once the design mix has been approved by the engineer, sieve analysis tolerances indicated in Table 331-5 are allowable during construction. If sieve analysis values fall outside these tolerances, design mix must be resubmitted for acceptance. After the approval of the mix design, the Asphalt base course shall be placed in accordance with Section 280 and compacted in accordance with Section 300-10.

NOTE: STORMWATER DRAINAGE SHALL BE CONTROLLED DURING ALL PHASES OF CONSTRUCTION.

SPECIFICATION: ASPHALT CONCRETE PAVING

SCOPE: This section includes materials and work required for installation of flexible asphaltic concrete pavement for parking and drive areas shown on the plans.

APPLICABLE PUBLICATIONS: The publications listed below form a part of this specification to the extent referenced. The publications shall be the most current issue and are referred to in the text by the basic designation only. The following are minimum requirements and shall govern except that all local, state, and/or federal codes and ordinances shall govern when their requirements are in excess hereof. All asphalt construction shall be in accordance with applicable sections of the Florida Department of Transportation Specifications for Road and Bridge Construction unless modified herein.

- | | |
|---|---|
| A. Florida Department of Transportation Specifications: | |
| Section 901 | Course Aggregate |
| Section 902 | Fine Aggregate |
| Section 916 | Bituminous Materials |
| Section 917 | Mineral Filler |
| Section 300 | Bituminous Treatments, Surface Courses and Concrete Pavement |
| Section 331 | Type 5 Asphalt Concrete |
| D 1557 | Moisture-Density Relations of Soils and Soil-Aggregate Mixtures Using 10 lb. (4.54 kg) Rammer and 18-in. (457 mm) Drop. |
| D 1559 | Marshall Stability Mix Design |

SUBMITTALS:

- Asphalt Design Mix:
 - Before any asphalt surface is constructed, submit two copies of each of the actual design mix to the Engineer and Owner.
 - Written approval of the asphalt concrete design mix must be obtained from the Engineer and Owner prior to commencing asphalt pavement construction.
- Material Certifications: Furnish copies of materials certificates signed by material producer and Contractor, certifying that each material item complies with, or exceeds specified requirements.
- Asphalt extraction tests.
- Aggregate gradation tests.
- Marshall stability tests.

JOB CONDITIONS:

- Weather limitations: Apply prime and tack coats when ambient temperature is above 40 degrees, and when temperature has not been below 35 degrees for 12 hours prior to application. Do not apply when base is wet or contains excess moisture.

MATERIALS:

- Mineral Filler: Rock dust, hydraulic cement, or other inert material complying with section 917 of the Florida DOT Specifications.
- Asphalt Cement: The bituminous material shall be AC-20, viscosity grade and comply with section 916 of the Florida DOT Specifications.
- Course Aggregate: Comply with section 901 of the Florida DOT Specifications.
- Dine Fine Aggregate: Comply with section 902 of the Florida DOT Specifications.
- Prime Coat and Tack Coat: The bituminous material for the Prime Coat shall be MC-70. The bituminous material for the Tack Coat shall be AC-20, or Emulsified asphalt, grade RS-2 and comply with the requirements in Section 300 and 916 of the Florida DOT Specifications.
- Asphaltic Concrete Design Mixes:
 - Asphalt shall conform to the requirements for Type 5 Asphalt as indicated in Section 331 of the Florida DOT Specifications.
 - Mix shall be white latex analysis and bitumen range given in Section 331 of the Florida DOT Specifications.
 - Minimum Marshall stability shall be 1500 lbs./sq. in. as indicated in Table 331-2 of the Florida DOT Specifications.
 - Percent bitumen by weight of total weight mix: 5.0 - 6.5.
 - Once design mix has been accepted by Engineer and Owner, sieve analysis tolerances indicated in Table 331-5 are allowable during construction. If sieve analysis values fall outside these tolerances, design mix must be resubmitted for acceptance.
 - Provide asphalt-aggregate mixture as recommended by local or state paving authorities to suit project conditions. Use locally available materials and gradations to the Florida DOT Specifications and exhibit satisfactory record on previous installations.

BASE COURSE PREPARATION:

- Prior to construction of the base course, the top 12 inches of subgrade shall be compacted to a minimum soil density of 98% of the Modified Proctor Test (ASTM 1557). The subgrade shall be stabilized by a borate or chloride element containing not less than 25% sodium chloride and shall be mixed thoroughly with water at the rate of 1-1/2 lbs. of salt per gallon of water. The salt must be applied evenly at the rate of 0.2 gallons per square yard to subgrades that are less than 12" below original grades. If prepared base course will not be immediately covered with asphalt on the same day, and white-blown seeds will contaminate the base course surface, the steroids shall be applied to the base course containing the base course.
- Remove loose material from compacted base course surface immediately before applying prime coat.
- Proof roll prepared base material surface to ensure unstable areas have been corrected and are ready to receive paving.

D. Prime Coat:

- Apply bituminous prime coat to base material surfaces where asphaltic concrete paving will be constructed.
- Apply bituminous prime coat in accordance with Section 300 of Florida DOT Specifications.
- Apply at minimum rate of not less than 0.15 gal./sq. yd. over compacted base material. Apply material in penetrate and seal, not hot flood, surface.
- Cure and dry as long as necessary to attain penetration and evaporation of volatile.
- Tack Coat:
 - Tack coat shall be applied in accordance with Section 300 of Florida DOT Specifications. Apply to contact surfaces of previously constructed asphalt or portland cement and concrete and surfaces abutting or projecting into asphalt concrete pavement.
 - Apply tack coat to full depth asphalt base course and sand asphalt base course. Apply emulsified asphalt tack coat between each lift or layer of full depth asphalt and sand asphalt bases and on surface of such bases where asphaltic concrete paving will be constructed.
 - Distribute at rate of 0.08 gal./sq. yd. of surface.
 - Allow to dry until at proper condition to receive paving.

PLACING ASPHALT MIX

- Place asphalt concrete mixture on prepared surface, spread, and strike off. Spread mixture at the following minimum temperatures:
 - When ambient temperature is between 40 degrees F and 50 degrees F: 285 degrees F.
 - When ambient temperature is between 50 degrees F and 60 degrees F: 280 degrees F.
 - When ambient temperature is higher than 60 degrees F: 275 degrees F.
- Place inaccessible and small areas by hand. Place each course to required grade, cross section, and compacted thickness.
- Paver Piling:
 - Place in strips not less than 10'-0" wide, unless otherwise acceptable to the Contracting Officer.
 - After first strip has been placed and rolled, place succeeding strips and extend rolling to overlap previous strips.
- Joints:
 - Construct joints between old and new pavements as detailed in the plans.
 - Joints between successive days' work shall be constructed to ensure continuous bond between adjoining work.
 - Construct joints to have same texture, density, and smoothness as other sections of asphalt concrete course.
 - Make contact surfaces and apply tack coat.

COMPACTION:

- Each lift of asphalt shall be compacted to a minimum of 98% of the Marshall test (ASTM D1559).
- Begin rolling when mixture will bear roller weight without excessive displacement.
- Compact mixture with hot hand tampers or vibrating plate compactors in areas inaccessible to rollers.
- Breakdown Rolling:
 - Accomplish breakdown or initial rolling immediately following rolling of joints and outside edge.
 - Check surface after breakdown rolling, and repair displaced areas by loosening and filling, if required, with hot material.
- Second Rolling:
 - Follow breakdown rolling as soon as possible, while mixture is hot.
 - Continue second rolling until mixture has been thoroughly compacted.
- Finish Rolling:
 - Perform finish rolling while mixture is still warm enough for removal of roller marks.
 - Continue rolling until roller marks are eliminated and course has attained maximum density.
- Patching:
 - Remove and replace paving areas mixed with foreign materials and defective areas.
 - Out cut areas and fill with fresh, hot asphalt concrete.
 - Compact by rolling to maximum surface density and smoothness.
- Protection:
 - After final rolling, do not permit vehicular traffic on pavement until it has cooled and hardened.
 - Erect barricades to protect paving from traffic until mixture has cooled enough not to become marked.

FIELD QUALITY CONTROL:

- An independent Testing Laboratory, selected and paid by the contractor shall be retained to perform construction testing of in-place asphalt courses for Asphalt Extraction, Aggregate gradation, Marshall Stability, Thickness and surface smoothness.
- Thickness: In-place compacted thickness shall not be less than thickness specified on the drawings.
- Surface Smoothness: Testing shall be performed on the finished surface of each asphalt course for smoothness, using 10'-0" straightedge applied parallel with, and at right angles to centerline of paved area. The variation of the surface from the edge of the straight edge between any two contact points shall not exceed 1/4". Check surface areas at intervals necessary to eliminate ponding areas. Repair or remove or replace unacceptable paving as directed by the Contracting Officer.
- Asphalt content, Aggregate gradation, and Marshall Stability shall be as specified in Section 331 of the Florida DOT Specifications.

SPECIFICATION: PORTLAND CEMENT CONCRETE PAVING

SCOPE: This section includes sidewalks, curbs, and miscellaneous concrete pavement.

APPLICABLE PUBLICATIONS: The publications listed below form a part of this specification to the extent referenced. The publications shall be the most current issue and are referred to in the text by the basic designation only. The following are minimum requirements and shall govern except that all local, state, and/or federal codes and ordinances shall govern when their requirements are in excess hereof. All concrete construction shall be in accordance with applicable sections of the Florida Department of Transportation Specifications for Road and Bridge Construction unless modified herein.

A. Florida Department of Transportation Specifications:

- | | |
|--|--|
| Section 345 | Portland Cement Concrete |
| Section 350 | Cement Concrete Pavement |
| Section 520 | Concrete Gutter, Curb Elements and Traffic Separator |
| Section 931 | Metal Accessory Materials for Concrete Pavement and Concrete Structures |
| B. American Society for Testing and Materials (ASTM) Publications: | |
| A 615 | Deformed and Plain Ribbed Steel Bars for Concrete Reinforcement |
| D 1557 | Moisture-Density Relations of Soils and Soil-Aggregate Mixtures Using 10-lb. (4.54 kg) Rammer and 18-in. (457 mm) Drop. |
| D 1751 | Preformed Expansion Joint Filler for Concrete Paving and Structural Construction. (Nonextruding and Resilient Bituminous Type) |

SUBMITTALS:

- Material Certifications: Furnish copies of materials certificates signed by material producer and Contractor, certifying that each material item complies with, or exceeds, specified requirements.

MATERIALS:

- Formwork:
 - Steel, wood, or other suitable material of size and strength to retain horizontal and vertical alignment until removal. Use straight forms, free of distortion and defects.
 - Use flexible spring steel forms or laminated boards to form radius bends as required.
- Form Release Agents:
 - Use coats with nonstaining type coating that will not discolor or deface surface of concrete.
- Welded Wire Mesh:
 - Welded plain cold-drawn steel wire fabric. Furnish in flat sheets, not rolls, unless otherwise acceptable to Contracting Officer. Welded wire mesh shall be free from rust, dirt, foreign matter and shall not be stored directly on the ground. Wire fabric shall comply with Section 931 of the Florida DOT Specifications.
- Reinforcing Bars:
 - Deformed steel bars, ASTM A 615, Grade 40. Reinforcing bars shall be free from rust, dirt, foreign matter and shall not be stored directly on the ground. Deformed steel bars shall comply with Section 931 of the Florida DOT Specifications.
- Concrete Materials:
 - Comply with requirements of Sections 345 and 350 of the Florida DOT Specifications for concrete materials, admixture, bonding materials, curing materials, and others as required.
- Joint Fillers:
 - Resilient preformed bituminous impregnated fiberboard units complying with ASTM D1751. Joint fillers shall comply with Section 932 of the Florida DOT Specifications.

MIXING:

- Design mix to produce normal weight concrete consisting of Portland cement, aggregate, water-reducing or high-range water-reducing admixture (super-plasticizer), air-entraining admixture and water to produce flowing properties.
- Compressive Strength: Minimum 3,000 psi for curbs and walkways and 4,000 psi for pavement, at 28 days. In addition, concrete for pavement shall have a minimum modulus of rupture of 600 psi.
- Slump Range: 3"-5".
- Air Content: 3% to 6%.

PREPARATION:

- Surface Preparation:
 - Remove loose material from compacted base material surface immediately before placing concrete.
- Compact the top 12 inches of subgrade to a minimum soil density of 98% for the Modified Proctor Test (ASTM D1557) to result in a minimum modulus of subgrade reaction (k) of 150 psi/in. Proof-roll prepared base material surface to check for unstable areas. The paving work shall begin after the unsuitable areas have been corrected and are ready to receive paving. Compaction testing for the base material shall be completed prior to the placement of the paving.

CONCRETE INSTALLATION:

- Form Construction:
 - Set forms to required grades and lines, rigidly brace and secure. Install sufficient quantity of forms to allow continuous progress of work and so that forms can remain in place at least 24 hours after concrete placement.
 - Check completed formwork for grade and alignment to following tolerances:
 - Top of forms not more than 1/8" in 10'-0".
 - Vertical face on longitudinal axis, not more than 1/4" in 10'-0".
 - Clean forms after each use, and coat with form release agent as often as required to ensure separation from concrete without damage.
- Reinforcement:
 - Locate, place, and support reinforcement to ensure compliance with plans.
- Concrete Placement:
 - Comply with requirements of Sections 345, 350, and 520 of Florida DOT Specifications for mixing and placing concrete.
 - Do not place concrete until base material and forms have been checked for line and grade. Moisture base material if required to provide uniform dampened condition at time concrete is placed. Concrete shall not be placed around manholes or other structures until they are at the required finish elevation and alignment.
 - Place concrete using methods, which prevent segregation of mix. Consolidate concrete along face of forms and adjacent to transverse joints with Internal vibrator. Keep vibrator away from joint assemblies, reinforcement, or side forms. Consolidate concrete to prevent dislocation of reinforcing, dowels, and joint devices.
 - Deposit and spread concrete in continuous operation between transverse joints, as far as possible. If interrupted for more than 1 1/2 hour pause construction joint.
- Curbs and Gutters:
 - Automatic machine may be used for curb and gutter placement at Contractor's option. Machine placement must produce curb and gutters to required cross section, line, grades, finish, and jointing as specified for formed concrete. If results are not acceptable, remove and replace with formed concrete as specified.

Job No.: 2006-252-B

Date: 20 AUG 2004

Fld. Vol.: N/A

Scale: NTS

Task No.: 06242B-MSC

Design: MCS

Drawn: MTM

Checked: MCS

Sheet

12 of 13

THIS SHEET IS THE PROPERTY OF CEI & IS NOT TO BE REPRODUCED WITHOUT WRITTEN CONSENT FROM CEI.

LIZA JACKSON

BOAT RAMP

SPECIFICATIONS (1 of 2)

Not valid unless bearing Engineer's embossed seal.

MARK C. SNEP, P.E.

FL REG. NO. 4881

CEI CHOCTAW ENGINEERING, INC. ENGINEERING • ENVIRONMENTAL • SURVEYING 850-862-4601 850-863-5009 FAX: 850-863-5009 EMAIL: info@choctaweng.com 108 TRILTON AVENUE, SUITE 100 FORT WALTON BEACH, FLORIDA 32547 CERTIFICATE OF AUTHORIZATION No. 1092

