## FINAL PLANS

THREE OAKS PARKWAY EXTENSION THREE OAKS PARKWAY OVER FIDDLESTICKS CANAL R.C. BOX CULVERT
lee county project no. : 4053


B4. GANALRLALNOTES
B5. QUANTTIES
B5. QUANTITES
B6. STAKE OUT PLA
B7 TYRAS
B7. THPIICAL BOXXECTION \& DETALIS
B8. HEADWALL DETALS
B9. WNGWALL DETALS
B10. UNREINFORCED SLLAB \& WING FOOTING PLAN
B11. TABLINOR RC.C. BOCCULVER VARIABLES
B12. REINFORCING STEEL DETAT
B12. REINFORCING STEEL DITALLS
B13. STANOARD REINFORCING STEEL BENDING DETALS B13. STANDR R REINFORCIING
B14B15.
BORING PLAN SHEETS






90\% REVIEW SET


## GENERAL NOTES

GENERAL SPECCIICATIONS:

1. ALL MATERALS, CONST IN THE SPRCIIAL PROVISIONS FOR THIS PROJECT.
DESIGN SPECIIICATIONS:
2. FDOT STRUCTURES MA $\qquad$
3. American association of state highway and transportation officials (Aashto) load and resistance factor

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRAA
(LRFD) BRIIGE DESIGN SPELIFICATION, BTH EDTION.
4. fdot design manual dated january 2019
governing standards and construction specification:
HRIDA DEPARTMENT OF TRANSPORTATION, FY2019-20 STANDARD PLANS AND REVISED INDEX DRAWINGS AS APPENDED
HEREIN, AND 2019 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AS AMENDED BY CONTRACT DOCUMENTS.
5. VERTCAL DATUM - NAVD 88 (SEE ROADWAY PLANS),
7. Environmental classification : moderately aggressive
design methooology:
design loads:
S. HL-93 with dynamic load allowance

Materials:
10. THE FO
CONCRETE (PRECAST BOX CUIVERTS, HEADWALIS. APRONS, CUT OFF WALLS, wingwalls): - CLASS IV F'C $=5,500$ PS


1. all reinforcing steel shall be grade 60 Carbon steel per specificatons section 931.
2. SOIL PROPERTIES:

FRICTION ANGLE - $30^{\circ}$
MAXIMUM ALLOWABLE BEARING PRESSURE - 2 KIPSISO FT
tilties:

14. THE CONtractor will insure that no interruption of utilit service occurs and shall coordinate with

 | OPERATED CLOSER THAN 12 FEET TO THE EXISTING POWER LINES AND NO EXCAVATION SHALL BE PERMITTED WITHIN 5 FEE |
| :--- | of power pole facilities.

GENERAL:
15. ALL Dimensions shown are either horizontal or vertical unless otherwise noted. an ambient temperature of
6. THE Contractor shall apply a class 5 finish to all exposed suraces of the headwalis. this work shall b
17. payment for riprap, channel exchavation and replacement of select bedding and backfill material, as well as DEWATERNG, INCLUDING ALL NECES
RELATED TTEMS IN THE CONTRACT.
8. Refer to index 289, 290, 291, for adotional detalls.
9. REFER TO GEOTECHNICAL REPORT ADDENDUM:
PREPARED BY: UNIVERAL ENGINERING SERVVICES PREPARED BY: UNI
DATED: $1 / 28 / 18$

COMPLY WITH RECOMMENDATIONS CONTANED THEREIN, EXCEPT USE CLEAN COARSE SAND (10\% FiNES) COMPACTED TO $100 \%$
OF T99 MAXIMUM DENSITY. SUBGRADE SHALL BE DRY AT TIME OF CuLVERT INSTALATION.

EOTECHNICAL NOTES
ALL LOOSE SEDIMENT PRESENT in the base of the canal should be over excavated and removed from
THE LIMIT 0 of THE
,
IF THE EXCAVation has been sufficiently dewatered, clean fine sand (with less than 5 Percent
PASSING the $\# 200$ SIEVE

 ELEVATION OF THE CULVERT.
3. The fll material should be placed in uniform 10 to 12 inch loose lifts and compacted to 100 PERCENT OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY (AASHTTT-99). FIELD DENSTIY TEST SHO
PERFORMED ON EACH LAYER OF FILL MATERIAL TO VERIFY THE REQURED COMPACTION IS OBTAINED.
4. EXCAVATION SHould be sloped as necessary to prevent slope falure and to allow backilling. as a Minimum, all excavation operations will be requred to meet osha 29 Cfr part 1926 SUBpart p
REGULATION for TTPE C solis. where lateral confinement wil not permit slopes to be laid back, the REGULATION FRR TYPE C SOILS. WHERE LATERAL CONFINEMENT WILL NOT PERMM
EXCAVATION SHOULD BE SHORED IN ACCORDANCE WITH OSHA REQUREMENTS.
5. DURING ExCavation, Excavated material should not be stockplled at the top of the slope within a Horizontal distance equal to the excavation depth. provisions for
within excavations is the sole responililit of the contractor.
6. The contractor is responsible for the stabiltr of all excavated slopes and the design of any TEMPORARY SHORING AND BRACING THAT MAY BE USED. ALL SURFACE RUNOFF SHOULD BE DIVERTED AWAY
FROM EXCAVATIONS. PERFORM ALL EXCAVATONS IN ACORDANCE WITH OSHA REQUIREMENTS. SHORING IS



the following soil parameters shall be used to design temporary shoring
$\mathrm{Ka}=x$
$\mathrm{kp}=x$
D $=x$
DENITY $=x$ PCF
$C=x^{2}$ LB/FT
THE EARTH PRESSURE COEFFFIIENTS PROVIDED ABOVE ARE BASED ON HORIZONTAL GROUND SURFACES BOTH BEHIND AND IN FRONT OF THE BRACING AND SHORING. DESIGN OF THE TEMPORARY BRACING AND SHORING
MUST CONIDER THE EFFECTS OF SLOPING GROUND, HYDROSTATC PRESSURE, AND TRAFIC SURCHARGE loading.
3. backfill and grade all excavations as soon as possible to prevent surface water ponding and CONCENTRATING FLOW FROM ENTERING THE EXCAVATION. KEEP THE EXCAVATIONS DRY WITH COFFERDAMS,
SHEET PLING, DIVERSIONS DTTCHES, SUMPS AN P SHETI PLING, DIVERSIONS DITCHES, SUMPS AND PUMPS AS REQURED. DEWE
ANTCIPATED SINCE THE BOTTOM OF FOOTNG IS BELOW THE WATER TABLE.

EGEND

CL. . CLEARAN
EA. $=$ EACA
EL. $=$ ELEEVATI

EL. = ELEVATION
EXXIST. $=$ EXXITING
EXISTT = EEISTING
MAX $=$ MAXIMUM
MIN. $=$ MINIMUM
MIN. $=$ MNIMUM
PGL $=$ PROFLLE GRADE LINE
PROP: $=$ PROPOSED
SHLDR SHOLERR
SHLDR $=$ SHOULD
SPA. $=$ SPACIING
SPA. $=$ SPACING
STR. $=$ STRUCTURE
TYP = =TYPCAL
WM $=$ WATER MAIN
WM $=$ WATER
WP $=$ Wookroin
YR.
Y YEAR

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| WORK POINTS |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Point | NORTHING | EASTING | Point | NORTHING |  |
| 1 | 791258.8556 | 721111.6600 | 9 | 791387.4407 | 721113.2 |
| 2 | 791305.4477 | 721119.4039 | 10 | 791340.9450 | 721122.1 |
| 3 | 791306.0814 | 721119.4682 | 11 | 791340.1113 | 721122.0 |
| 4 | 791306.8607 | 721192.4310 | 12 | 791340.8916 | 721195.1 |
| 5 | 791306.8623 | 721192.5771 | 13 | 791340.8932 | 721195.2880 |
| 6 | 791307.5979 | 721261.4601 | 14 | 791341.6278 | 121264.0 |
| 7 | 791306.7642 | 721261.3961 | 15 | 791342.4615 | 721264.135 |
| 8 | 791262.2343 | 721269.9594 | 16 | 791393.77 | 721272.6 |



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TYPICAL BOX CULVERT SECTION
12


APRON AND CUTOFF WALL SECTION ${ }^{12}$




NOTES:

1. FOR WING FOOTING REINFORCEMENT, SEE SHEET B9.
2. FOR DETAIIS NOT SHOWN, SEE INDICES 400-291 \& $400-292$.

| CONCRETE QUANTITIES (C.Y.) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Structure | $\begin{aligned} & \text { LEFT } \\ & \text { CTTOFF } \\ & \text { WALL } \end{aligned}$ | $\begin{aligned} & \text { RIGHT } \\ & \text { CUTOFF } \end{aligned}$ | $\underset{\substack{\text { sottom } \\ \text { sLAB }}}{\text { Sta }}$ | BoxwALL | $\begin{aligned} & \text { SLOP } \\ & \text { TLAB } \end{aligned}$ | $\underset{\text { APRON }}{\text { LEFT }}$ | RIGHTAPRON | $\begin{gathered} \text { LEFT } \\ \text { WEAD } \end{gathered}$ | $\underset{\text { HEAD }}{\substack{\text { RIGHT }}}$ | $\underset{\text { SOTAL }}{\text { SOTA }}$ | WING |  |  | WING B |  |  | wing C |  |  | WING D |  |  | $\begin{aligned} & \text { culvert } \\ & \text { TOTAL } \end{aligned}$ |
|  |  |  |  |  |  |  |  |  |  |  | footing | wall | $\begin{gathered} \text { SUB } \\ \text { TOTAL } \end{gathered}$ | footing | wall | $\begin{gathered} \text { SUB } \\ \text { TOTAL } \end{gathered}$ | footing | WALL | $\begin{gathered} \text { SUB } \\ \text { TOTAL } \end{gathered}$ | footing | WALL | $\begin{gathered} \text { SUB } \\ \text { TOTAL } \end{gathered}$ |  |
| 1 | 6 | 6 | 150 | 271 | 150 | 8 | 8 | 8 | 8 | 615 | 30 | 20 | 54 | 30 | 20 | 54 | 33 | 23 | 56 | 29 | 20 | 49 | 828 |

## MAIN STEEL REINFORCEMENT SPACING (IN)


main steel reinforcement / rebars



| WINGWALL NO. | BAR MARK |
| :---: | :---: |
| WING A | $\# 5$ |
| WING B | $\# 4$ |
| WIIGG C | $\# 6$ |
| WING D | $\# 7$ |




1. ALL Reinforcing steel shall be grade 60 in accordance with the latest edition of asshto m31m/m31. 2. ALL FABRICATION OF REINERORCING STEEL SHALL BE DONE IN ACCORDANCE WITH THE LATEST VERSION OF THE "MANUAL OF


