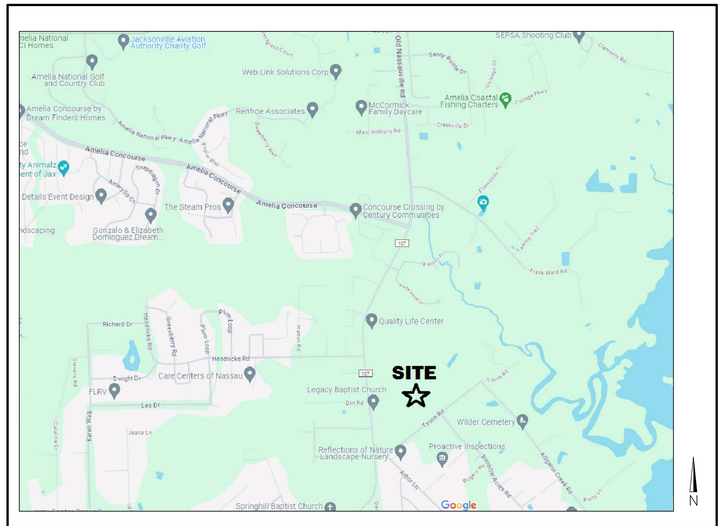
TYSON FOREST
Nassau County, Florida
FOR
TYSON FOREST, LLC

960185 GATEWAY BOULEVARD, SUITE 203
FERNANDINA BEACH FLORIDA 32034

PARCEL IDENTIFICATION NUMBER: 44-2N-28-0000-0001-0000

LEGEND

12"W	EXISTING WATER MAIN
8"SAN	EXISTING SANITARY SEWER
12"FM	EXISTING FORCE MAIN
	WATER MAIN
	SANITARY SEWER SYSTEM
	FORCE MAIN
	DRAINAGE PIPE
	DRAINAGE DIVIDE LINE
	RIGHT-OF-WAY LINE
x	SILT FENCE
19	EXISTING CONTOUR
	PROPOSED ROADWAY
	EXISTING ROADWAY
20	SEWER MANHOLE LABEL
	PROPOSED FIRE HYDRANT
	EXISTING FIRE HYDRANT
	GATE VALVE
	REDUCER
D	DRAINAGE AREA LABEL
	HAY BALES
	CATCH BASIN/CURB INLET
	DRAINAGE MANHOLE
	MITERED END SECTION
P- 1	DRAINAGE PIPE LABEL
S- 1	DRAINAGE STRUCTURE LABEL



Location Map

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Prepared By:

J. Lucas & Associates, Inc.
DESIGN AND CONSULTING ENGINEERS
CERTIFICATE OF AUTHORIZATION NO. 3981
1305 CEDAR STREET - JACKSONVILLE, FL 32207
PHONE: (904) 396-3060 - FAX: (904) 396-3456
E-MAIL: lucascad@bellsouth.net

OCTOBER 2023

PROJECT NUMBER: 2301

811 Know what's below. Call before you dig.

PLANS DESIGNED UNDER 2024 JEA STANDARDS
JEA AVAILABILITY # 2023-1132

This item has been digitally signed and sealed by James M. Lucas, PE on the date adjacent to the seal. This shall include all sheets listed above on the List of Sheets.

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

JAMES M. LUCAS LICENSE No. 18370 STATE OF FLORIDA PROFESSIONAL ENGINEER

GRAPHIC SCALE
0 50 100 200
(IN FEET) 1 inch = 100 ft.

BASIN PRE W1
AREA = 9.84 Ac.
CN= 83.4

BASIN PRE W2
AREA = 13.55 Ac.
CN= 83.4

BASIN PRE W3
AREA = 20.94 Ac.
CN= 83.2

BASIN PRE W4
AREA = 12.10 Ac.
CN= 83

BASIN PRE E1
AREA = 19.11 Ac.
CN= 83

Tc PATH = 940'
Tc = 78 min.

Tc PATH = 1280'
Tc = 119 min.

Tc PATH = 1920'
Tc = 178 min.

Tc PATH = 780'
Tc = 72 min.

Tc PATH = 605'
Tc = 101 min.

40.94 Ac.
9.79 Ac.
3.68 Ac.
2.97 Ac.
1.12 Ac.
0.11 Ac.
0.04 Ac.
0.63 Ac.
1.12 Ac.
0.01 Ac.
0.35 Ac.
5.78 Ac.
6.52 Ac.

LEGEND
Tc PATH
PREDIVIDE

LEGEND
9– LEON FINE SAND
16– ELLBELLE MUCKY FINE SAND
24– KINGSFERRY FINE SAND
28– TISONIA MUCKY PEAT
39– EVERGREEN–LEON MUCKS

J. LUCAS & ASSOCIATES, INC.
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VERSION: ACAD 20
DRAWN BY: SBD
DESIGNED BY: ML
APPROVED BY: JML
DATE: AUGUST 2023

NO.	REVISION	BY	DATE
1.	ADDED WETLAND AREAS	JML	8/4/24

PREDEVELOPMENT PLAN OF TYSON FOREST FOR TYSON FOREST, LLC

DRAWING NO. 2 OF 41
JOB NO. 2301
FILE: 2301BASE

SEAL & SIGNATURE:
JAMES M. LUCAS, P.E. 18370

UPLAND BUFFERS SHALL BE MAINTAINED IN THEIR NATURAL VEGITATED CONDITION. NATIVE VEGITATION REMOVED OR DESTROYED WITHIN THE UPLAND BUFFER IN VIOLATION OF NASSAU COUNTY COMPREHENSIVE PLAN POLICY 1.04A.02 SHALL BE RESTORED. THESE AREAS SHALL BE REPLANTED WITH COMPARABLE NATIVE VEGETATIVE SPECIES AS WERE REMOVED OR DESTROYED. NOXIOUS AND NON-NATIVE INVASIVE PLANT MATERIALS CAN BE REMOVED. DEAD VEGITATION CAN BE REMOVED. LIMBING CAN OCCUR WITHIN THE BUFFERS, PROVIDED THAT THE LIMBS TO BE REMOVED ARE LESS THAN THREE (3) INCHES IN DIAMETER.

WETLANDS

BASIN UNDWET W

BASIN OFFSITE
AREA = 14.22 Ac.
Cn= 84
Tc = 58 min.

BASIN RW NORTH
AREA = 1.99 Ac.
Cn= 96.5
Tc = 15 min.

BASIN UND.WET E
AREA = 12.86 Ac.
Cn= 83
Tc = 101 min.

BASIN NEW L N
AREA = 1.25 Ac.
Cn= 84
Tc = 25 min.

BASIN RW SOUTH
AREA = 3.81 Ac.
Cn= 96.5
Tc = 15 min.

BASIN NEW L S
AREA = 6.66 Ac.
Cn= 84
Tc = 25 min.

BASIN UNRET W
AREA = 2.09 Ac.
Cn= 83
Tc = 30 min.

BASIN UNDWET W
AREA = 26.06 Ac.
Cn= 83
Tc = 150 min.

BASIN RW EST
AREA = 3.40 Ac.
Cn= 98
Tc = 15 min.

BASIN LOT BUF
AREA = 0.43 Ac.
Cn= 83
Tc = 25 min.

BASIN NEW L E
AREA = 2.87 Ac.
Cn= 84
Tc = 25 min.

POND LINER

TREATMENT SWALES (TYP.)

PARK

BRANNON OAK DRIVE

TYSON ROAD (80' R/W)

RAINBOW ACRES ROAD

ALLIGATOR CREEK ROAD

WETLAND IMPACT
WETLANDS
DIVIDE-POST
VNB
UPLAND BUFFER

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DATE: AUGUST 2023

NO.	REVISION	BY	DATE
1.	ADDED WETLAND IMPACT AREAS	JML	8/4/24

POST DEVELOPMENT OF
TYSON FOREST
FOR
TYSON FOREST, LLC

DRAWING NO. 3 OF 41
JOB NO. 2301
FILE: 2301BASE

SEAL & SIGNATURE:

JAMES M. LUCAS, P.E. 18370

GRAPHIC SCALE

0 100 200 400

(IN FEET) 1 inch = 200 ft.

NOTES:

TOTAL NUMBER OF LOTS	40
TOTAL AREA:	123.15 Ac.
DENSITY:	0.32 LOTS PER ACRE
AVE. LOT SIZE:	1 ACRE MINIMUM
PRESENT ZONING:	OPEN RURAL
PROPOSED ZONING:	OPEN RURAL
DEVELOPED BY:	TYSON FARMS, LLC
TYPE OF DEVELOPMENT	SINGLE FAMILY

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VERSION: ACAD14
DRAWN BY: DAD
DESIGNED BY: JML
APPROVED BY: JML
DATE: OCT. 2023

NO.	REVISION	BY	DATE

MASTER SITE PLAN OF TYSON FOREST FOR TYSON FOREST, LLC

DRAWING NO. 4 OF 41
JOB NO. 2301
FILE: 2301MASTER

SEAL & SIGNATURE:

JAMES M. LUCAS, P.E. 18370

ALL RCP PIPE SHOWN MAY BE REPLACED WITH PP (HP STORM PIPE) PROVIDED IT MEETS THE MANUFACTURERS SPECIFICATIONS

STRUCTURE	TYPE	TOP OF GRATE	INVERT	PIPE SIZE
1	CURB INLET	13.50	10.50	18" RCP
2	CURB INLET	13.50	10.43	18" RCP
			9.93	24" RCP
3	D MH	13.25	9.58	24" RCP
			9.58	24" RCP
4	D MH	13.25	9.34	24" RCP
			9.34	24" RCP
5	MES	--	9.29	24" RCP
6	MOD E INLET	13.25	9.70	18" RCP
7	MES	--	9.50	18" RCP
8	MES	--	12.00	14"x23"ERCP
9	MES	--	12.00	14"x23"ERCP
10	MES	--	11.75	24" RCP
11	MES	--	11.65	24" RCP
12	MES	--	12.00	14"x23"ERCP
13	MES	--	12.00	14"x23"ERCP
14	MES	--	11.50	18" RCP
15	MES	--	9.97	18" RCP
16	CURB INLET	13.50	10.50	18" RCP
17	CURB INLET	13.50	10.45	18" RCP
			10.45	18" RCP
18	CURB INLET	13.50	10.00	18" RCP
			10.45	18" RCP
			10.00	18" RCP
19	MES	--	9.84	18" RCP
20	CURB INLET	13.50	10.50	18" RCP
21	YARD DRAIN	11.50	8.50	12" HDPE
		1' SLOT @ 9.50 NW		
22	MES	--	8.26	12" HDPE
23	MES	--	12.18	18" RCP
24	MES	--	11.73	18" RCP
25	CURB INLET	9.50	6.00	18" RCP
26	CURB INLET	9.50	5.95	18" RCP
			5.45	24" RCP
27	CURB INLET	9.50	5.04	24" RCP
			5.95	18" RCP
			4.54	30" RCP
28	CURB INLET	9.50	4.38	30" RCP
			5.95	18" RCP
			4.38	30" RCP
29	CURB INLET	9.40	4.22	30" RCP
			4.22	30" RCP
30	CURB INLET	9.40	4.19	30" RCP
			3.69	36" RCP
31	MES	--	3.66	36" RCP
32	CURB INLET	9.50	6.00	18" RCP
33	CURB INLET	9.50	6.00	18" RCP
34	MOD E INLET	9.75	6.80	18" RCP
35	MES	--	6.50	18" RCP
36	DAM	--	9.50	8 FT
37	D MH	10.50	7.75	19"x30" ERCP
			7.75	19"x30" ERCP
38	END WALL	--	7.50	19"x30" ERCP
39	MES	--	8.80	15" RCP
40	MES	--	8.00	15" RCP

AREA TABULATION		PIPE TABULATION		
AREA LETTER	AREA in Ac.	PIPE NUMBER	PIPE DIAMETER	PIPE LENGTH
A	0.71	P - 1	18 " RCP	38
A1	0.70	P - 2	24 " RCP	292
B	0.47	P - 3	24 " RCP	200
B1	0.55	P - 4	24 " RCP	46
C	0.80	P - 5	18 " RCP	30
D	12.02	P - 6	DBLE 14"x23" ERCP	110
E	7.72	P - 7	24 " RCP	40
F	5.91	P - 8	DBLE 14"x23" ERCP	60
G	0.10	P - 9	18 " RCP	148
G1	0.89	P - 10	18 " RCP	30
H	0.10	P - 11	18 " RCP	252
I	0.38	P - 12	18 " RCP	57
J	0.29	P - 13	18 " RCP	30
J1	1.62	P - 14	12 " HDPE	44
K	9.18	P - 15	18 " RCP	84
L	0.23	P - 16	18 " RCP	30
L1	0.90	P - 17	24 " RCP	276
M	0.80	P - 18	30 " RCP	186
M1	1.51	P - 19	30 " RCP	178
N	0.15	P - 20	30 " RCP	30
N1	0.12	P - 21	36 " RCP	44
O	0.09	P - 22	18 " RCP	30
O1	0.35	P - 23	18 " RCP	30
P	0.34	P - 24	18 " RCP	24
Q	0.33	P - 25	19"x30" ERCP	16
R	0.14	P - 26	15 " RCP	118
R1	1.49	P - 27	15 " RCP	149
S	0.09			
T	1.23			
U	0.21			
V				
TOTAL	47.42			

FIRE HYDRANT NOTES:
1. NEW FIRE HYDRANT(S) SHALL BE INSTALLED SO THAT A FOUR AND ONE-HALF (4-1/2) INCH PORT IS FACING THE ROADWAY BY WHICH IT IS ACCESSED. HYDRANT(S) SHALL BE POSITIONED NOT MORE THAN FIVE (5) FEET AWAY FROM THE CURB OR BERM OF THE ROADWAY.
2. A 36 INCH (914MM) CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF FIRE HYDRANTS EXCEPT AS OTHERWISE REQUIRED OR APPROVED (NFPA 1:18.5.3).
3. A CLEAR SPACE OF NO LESS THAN 60 INCHES (1524 MM) SHALL BE PROVIDED IN FRONT OF EACH HYDRANT CONNECTION HAVING DIAMETER GREATER THAN 2 1/2 INCHES (64 MM) (NFPA 1:18.5.7.2).

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VERSION: ACAD14
DRAWN BY: DAD
DESIGNED BY: JML
APPROVED BY: JML
DATE: OCT. 2023

NO.	REVISION	BY	DATE
2	REVISED PER NASSAU COUNTY REVIEW	DAD	8/28/24
1	REVISED PER NASSAU COUNTY REVIEW	DAD	5/2/24

GENERAL NOTES AND TABLES
TYSON FOREST
FOR
TYSON FOREST, LLC

DRAWING NO. 5 OF 41
JOB NO. 2301
FILE: 2301GENNOTES

SEAL & SIGNATURE:
JAMES M. LUCAS, P.E. 18370

GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL EXISTING UTILITIES AND FOR DAMAGE TO EXISTING UTILITIES CAUSED BY HIS OPERATION.
2. THE CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO BIDDING TO FAMILIARIZE HIMSELF WITH JOB SITE CONDITIONS.
3. ALL INTERSECTION RADII ARE 30 FEET AND ALL CUL-DE-SAC RETURNS ARE 40 FEET AS REQUIRED BY THE NASSAU COUNTY AS MEASURED FROM THE RADIUS POINT TO THE EDGE OF PAVEMENT.
4. TOPOGRAPHIC INFORMATION SHOWN ON PAVING & DRAINAGE SHEET PROVIDED BY THE OWNER.
5. THE CONTRACTORS SHALL ASSUME FULL RESPONSIBILITY FOR COMPLIANCE WITH ALL STATE AND / OR FEDERAL SAFETY LAWS.
6. CONTRACTOR SHALL ARRANGE FOR AND PAY FOR ALL TESTING AS REQUIRED IN THE JEA SPECIFICATIONS PERTAINING TO THIS JOB.
7. ALL WATER AND SEWER WORK SHALL BE AS PER JEA STANDARD SPECIFICATIONS UNLESS SHOWN OTHERWISE.
8. CONTRACTOR SHALL CONTACT JEA 48 HOURS IN ADVANCE PRIOR TO WORKING ON THE THEIR SYSTEM.

FLOOD ZONE AE BASE FLOOD ELEV.=8.0
FEMA PANEL # 12089C0359G

TOTAL FLOOD PLANE AREA = 62.84 ACRES
PORTION OF LOTS WITHIN FLOOD PLANE =11.79 ACRES

OPEN SPACE = 1-11.79/62.84 = 81.24%

SUBDIVISION LAND USE CALCULATIONS FOR TYSON FOREST

TOTAL AREA	123.00 AC.
WETLANDS	73.38 AC.
WETLANDS REMOVED	1.95 AC.
WETLANDS REMAINING	71.43 AC.
NET ACREAGE	51.57 AC.
TOTAL LOTS	40
GROSS DENSITY	0.32 UNITS PER AC.
ZONING DISTRICT	OR
BUILDING HEIGHT	45'
SETBACKS	
FRONT	35'
REAR	25'
SIDE	15'
MAX. LOT COVERAGE	20%

NOTE: CORNER LOTS SHALL HAVE DIMENSIONS SUFFICIENT TO PERMIT THE ESTABLISHMENT OF FRONT BUILDING LINES ON EACH SIDE OF THE LOTS HAVING STREET FRONTAGE. THE DEVELOPMENT REVIEW COMMITTEE MAY CONSIDER A TWENTY (20) PERCENT REDUCTION OF THE BUILDING LINES (REQUIRED YARD/BUILDING SETBACK LINE) ALONG THE SECONDARY FRONTAGE.

JEA GENERAL NOTES

1. ALL ELEVATIONS ARE BASED ON U.S.C. & G.S. DATUM AND SHOWN IN FEET. ELEVATIONS SHOWN THUS (15.0) REFER TO U.S. COASTAL AND GEODETIC SURVEY DATUM, NORTH AMERICAN VERTICAL DATUM OF 1988, (N.A.V.D. OF 1988).
2. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND AVOID ALL UTILITIES, OTHER STRUCTURES AND OBSTRUCTIONS BOTH ABOVE AND BELOW THE GROUND SURFACE. ALL DAMAGE RESULTING FROM THE CONTRACTOR'S FAILURE TO COMPLY WITH THIS REQUIREMENT SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
3. THE CONTRACTOR SHALL MINIMIZE SERVICE INTERRUPTIONS AT SERVICE CONNECTIONS. THE MANNER IN WHICH THIS IS ACCOMPLISHED SHALL BE LEFT TO THE DISCRETION OF THE CONTRACTOR, SUBJECT TO THE REQUIREMENTS OF THE CONTRACT SPECIFICATIONS. NO EXISTING ACTIVE SERVICE SHALL BE LEFT INTERRUPTED AT THE END OF THE WORK DAY.
4. ALL PIPE LENGTHS SHOWN ON PLAN AND PROFILES ARE FROM CENTER TO CENTER OF MANHOLES OR ALONG THE CENTER LINE OF FORCE MAINS OR WATER MAINS.
5. THE CONTRACTOR SHALL PROVIDE NO LESS THAN A 6 INCH CLEARANCE BETWEEN ALL UTILITIES OTHER THAN WATER MAINS WHICH SHALL BE TO COUNTY HEALTH DEPARTMENT PERMIT CONDITIONS.
6. INVERT ELEVATIONS SHOWN ON DRAWINGS REFER TO THE CENTERLINE OF MANHOLES, UNLESS OTHERWISE INDICATED.
7. PIPE JOINT DEFLECTION, WHERE ALLOWED BY EXCEPTION, SHALL NOT EXCEED 80% OF THE MAXIMUM RECOMMENDED BY THE MANUFACTURER FOR THE SIZE AND TYPE OF JOINT.
8. THE CONTRACTOR SHALL EMPLOY A LAND SURVEYOR, REGISTERED IN THE STATE OF FLORIDA, TO REFERENCE AND RESTORE PROPERTY CORNERS AND LANDMARK'S WHICH MAY BE DISTURBED BY CONSTRUCTION.
9. THE DEPARTMENT OF TRANSPORTATION AND RAILROAD COMPANIES ARE TO BE NOTIFIED IN ADVANCE OF CONSTRUCTION PER THEIR RESPECTIVE PERMIT CONDITIONS.
10. THE CONTRACTOR SHALL NOTIFY APPLICABLE UTILITY CONTACT PERSONNEL, NOT LESS THAN ONE WEEK PRIOR TO CONSTRUCTION OF FACILITIES IN THEIR RESPECTIVE AREAS.
11. THE CONTRACTOR SHALL RESTORE ALL DITCHES, SWALES, CULVERTS, HEADWALLS AND STORM DRAIN INLETS AND ANY OTHER DRAINAGE FACILITIES REMOVED OR DISTURBED BY THE CONSTRUCTION OPERATION. THE COST OF THESE ITEMS SHALL BE INCLUDED IN THE PRICE BID FOR FURNISHING AND INSTALLING ANY NEW ITEM CAUSING SUCH DAMAGE.
12. THE LOCATION OF ALL SEWER AND WATER SERVICE LINES MAY NOT BE INDICATED ON THESE PLANS. THE LOCATION OF PROPOSED NEW SERVICES SHALL BE DETERMINED IN THE FIELD.
13. THESE PLANS DO NOT STAND BY THEMSELVES. BID DOCUMENTS, MOST CURRENT JEA W&S STANDARDS DETAILS & MATERIALS MANUAL, NASSAU COUNTY STANDARD SPECIFICATIONS & DETAILS AND ANY OTHER STANDARDS, LISTED OR REFERENCED, ARE INCLUDED IN THE PROJECT DOCUMENTS.
14. ALL NEW WATER AND SEWER TAPS TO BE PERFORMED BY UTILITY CONTRACTOR OR A LICENSED MASTER PLUMBER MUST BE SCHEDULED 48 HOURS IN ADVANCE WITH JEA INSPECTOR.
15. A HOLD HARMLESS AGREEMENT WITH JEA MUST BE EXECUTED PRIOR TO FINAL ACCEPTANCE.
16. ALL CONSTRUCTION SHALL COMPLY WITH THE LATEST JEA CONSTRUCTION STANDARDS AND SPECIFICATIONS.
17. CONNECTION CONTINGENT UPON THE CONSTRUCTION, DEDICATION AND FINAL ACCEPTANCE OF THE OFFSITE COLLECTION AND DISTRIBUTION SYSTEM BY JEA.
18. WATER METERS MUST BE LOCATED IN THE RIGHT OF WAY OUTSIDE SIDEWALK & DRIVEWAY.
19. A PRE-CONSTRUCTION CONFERENCE IS REQUIRED AND SHALL BE SCHEDULED WITH THE JEA DEVELOPMENT, CONTACT CHRIS BARRINGTON @ 665-4081
20. ALL DOMESTIC SERVICES TO INCLUDE INSTALLATION OF BACKFLOW PREVENTERS PER JEA CROSS CONNECTION CONTROL PROGRAM REQUIREMENTS AND DETAIL W-15. BACKFLOWS SHALL BE TESTED UPON INSTALLATION AND BI-ANNUALLY THEREAFTER.

WATER AND SEWER NOTES

1. ALL FIRE HYDRANTS, VALVES AND BOXES WILL BE LOCATED WITHIN THE RIGHTS-OF-WAY AND SHALL INCLUDE TEE, 6" GATE VALVE AND BOX AND HYDRANT.
2. THE CONTRACTOR SHALL ADHERE TO ALL GENERAL NOTES ON THIS SHEET, INCLUDING THE NOTES BELOW.
3. THERE MUST BE A TEN FOOT HORIZONTAL SEPARATION BETWEEN WATER AND SEWER LINES OR AN 18 - INCH VERTICAL SEPARATION WHERE POSSIBLE. IF 18 INCHES IS NOT POSSIBLE, THE FORCE MAIN MUST BE WATER PIPE WITH STAGGERED JOINTS AS REQUIRED UNDER F.A.C 17-6.
4. ALL WATER MAINS SHALL HAVE A MINIMUM OF 36" COVER OVER THE TOP OF THE PIPE IN UNPAVED AREAS AND A MINIMUM OF 42" IN PAVED AREAS UNLESS OTHERWISE SHOWN.
5. WATER MAINS SHALL BE CLASS 900, DR-18 PIPE AS REQUIRED BY JEA FOR ALL PIPE 4 INCHES THRU 8 INCHES, 10 INCHES AND LARGER AND OFFSITE SEWER FORCE MAIN SHALL BE DR-18, AND HDPE FOR 2 INCH AND SMALLER.
6. ALL INSPECTIONS AND TESTING SHALL BE COORDINATED WITH JEA.
7. WATER METER BOXES MUST BE FURNISHED AND INSTALLED BY THE CONTRACTOR. METERS WILL BE SET BY JEA.
8. UTILITY CONTRACTOR SHALL BE RESPONSIBLE FOR DIGGING OUT AND ADJUSTING MANHOLES IN ROADWAY.
9. MARK "W" IN CURB (COLOR BLUE) FOR LOCATING APPROPRIATE WATER SERVICES AND "S" IN CURB (COLOR RED) FOR SEWER SERVICES.
10. WATER MAINS SHALL BE FLUSHED, PRESSURE TESTED AND DISINFECTED AS REQUIRED BY AWWA IN ACCORDANCE WITH JEA STANDARDS PRIOR TO ACCEPTANCE.
11. ALL WATER OR SEWER CONSTRUCTION WITHIN THE JEA-OWNED SERVICE AREA MUST BE PERFORMED BY JEA FORCES OR A LICENSED UNDERGROUND UTILITY CONTRACTOR.
12. ALL REQUIRED JEA FEES MAY BE PAID FOR @ JEA 515 N. LAURA ST. CUSTOMER CENTER 1ST FLOOR.
13. UTILITY PERMIT APPROVAL IS REQUIRED PRIOR TO THE PRE-CONSTRUCTION MEETING.

NOTES:
1. ALL PROPOSED RIGHT-OF-WAY WIDTHS ARE 50' UNLESS NOTED OTHERWISE.
2. ALL PAVEMENT WIDTHS ARE 20' UNLESS NOTED OTHERWISE.
3. PAVEMENT RETURN RADIUS AT INTERSECTIONS ARE 30' RADIUS.
4. PAVEMENT RETURN RADIUS AT CUL-DE-SACS ARE 40' RADIUS.
5. SEE SHEET 35 FOR DETAIL OF RIGHT-OF-WAY AND PAVEMENT DIMENSIONS.

UPLAND BUFFER NOTES:

1. UPLAND BUFFERS SHALL BE MAINTAINED IN THEIR NATURAL VEGETATED CONDITION. NATIVE VEGETATION REMOVED OR DESTROYED WITHIN THE UPLAND BUFFER IN VIOLATION OF NASSAU COUNTY COMPREHENSIVE PLAN POLICY 1.04A.02 SHALL BE RESTORED. THESE AREAS SHALL BE REPLANTED WITH COMPARABLE NATIVE VEGETATIVE SPECIES AS WERE REMOVED OR DESTROYED. NOXIOUS AND NON-NATIVE INVASIVE PLANT MATERIALS CAN BE REMOVED. DEAD VEGETATION CAN BE REMOVED. LIMBING CAN OCCUR WITHIN THE BUFFERS, PROVIDED THAT THE LIMBS TO BE REMOVED ARE LESS THAN THREE (3) INCHES IN DIAMETER.
2. PER 37.03 E LDC, UPLAND BUFFERS MAY BE INCLUDED WITHIN THE DEVELOPMENT LOT, TRACT OR PARCEL. FOR LOTS CREATED AFTER THE EFFECTIVE DATE OF THIS ORDINANCE, THE WETLAND BUFFER SHALL NOT COUNT TOWARD THE MINIMUM SETBACK REQUIREMENT OF THE ZONING DISTRICT IN WHICH IT IS LOCATED.
3. PER 37.05 G LDC, IT IS THE DEVELOPER'S RESPONSIBILITY TO INFORM ANY PROSPECTIVE BUYER THAT THE REQUIRED BUFFER OF NATIVE VEGETATION IS NOT TO BE DISTURBED OR REMOVED AT ANY TIME BY THE PROPERTY OWNER AS THIS WILL BE A VIOLATION OF THE ADOPTED NASSAU COUNTY COMPREHENSIVE PLAN.

BUFFER AREA = 311575 SF
BUFFER LENGTH = 9220 FT
AVERAGE BUFFER WIDTH = 33.79 FT

FDEP/ JEA
ENVIRONMENTAL SERVICES

1. SEE JEA STANDARDS MANUAL, PLATE W-10 FOR SEPARATION SPECS.
2. ALL POTABLE WATER PIPE 3"(INCHES) IN DIAMETER OR LESS SHALL BE N.S.F.P.W. RATED.
3. ALL WORK SHALL BE IN ACCORDANCE WITH JEA AND NASSAU COUNTY STANDARD SPECIFICATIONS AND DETAILS AND ALL APPLICABLE STATE AND LOCAL REGULATIONS.
4. SERVICES SHALL BE TRANSFERRED TO THE PROPOSED MAIN UPON COMPLETION AND PRIOR TO THE EXISTING MAIN BEING ABANDONED.
5. IF SOLVENT CONTAMINATION IS FOUND IN THE PIPE TRENCH, WORK SHALL BE STOPPED AND THE PROPER AUTHORITIES NOTIFIED. WITH APPROVAL OF THE PERMITTING AGENCY, DUCTILE IRON PIPE, FITTINGS AND SOLVENT RESISTANT GASKET MATERIAL SHALL BE USED IN THE CONTAMINATED AREA. THE DUCTILE IRON PIPE SHALL EXTEND AT LEAST 100 FEET BEYOND ANY SOLVENT NOTED.

UTILITY CONTACTS

A.	AMERICAN TELEPHONE & TELEGRAPH CO. (AT&T)	904-755-3414
B.	BELLSOUTH TELEPHONE	904-350-2200
C.	NASSAU COUNTY, PUBLIC WORKS DEPT.	904-530-6175
D.	NASSAU COUNTY, PLANNING & ZONING	904-530-6300
E.	NASSAU COUNTY, CODE ENFORCEMENT	904-530-6200
F.	DISTRIBUTION PROJECTS	904-665-6050
G.	FLORIDA DEPARTMENT OF TRANSPORTATION	904-381-8778
H.	JEA - COLLECTION & DISTRIBUTION	904-630-3734
I.	JEA - GENERAL INFORMATION	904-665-6000
J.	JEA - GroundsWorks / COMMUNITY OUTREACH	904-665-7500
K.	JEA - POWER OUTAGES	904-665-0300
L.	JEA - SEWER PROBLEMS	904-630-3732
M.	JEA - WATER PROBLEMS	904-630-3780
N.	COMCAST	904-380-6419
O.	MOBILE GAS	904-733-9533
P.	PEOPLES GAS	904-443-7368
Q.	SUNSHINE ONE CALL	1-800-432-4770 OR 811

NASSAU COUNTY M.O.T. NOTES

1. NOTIFY THE ENGINEERING DIVISION [(904) 530-6225] A MINIMUM OF 5 WORKING DAYS PRIOR TO IMPLEMENTATION OF THE M.O.T.
2. THE PROJECT WORK HOURS SHALL BE BETWEEN 7:00 AM TO 7:00 PM ON RESIDENTIAL STREETS AND 9:00 AM TO 4:00 PM ON COLLECTOR OR ARTERIAL STREETS.
3. NO LANE CLOSURES ARE ALLOWED FROM 7:00 AM TO 9:00 AM AND 4:00 PM TO 7:00 PM MONDAY THROUGH FRIDAY.
4. THE ROADWAY SHALL BE RESTORED TO AT LEAST A LIMEROCK SURFACE BEFORE IT IS REOPENED TO TRAFFIC AND BEFORE THE CONTRACTOR MOVES TO THE NEXT CONSTRUCTION ZONE.
5. THE CONTRACTOR SHALL CONFIRM THAT EXISTING SIGNAGE WILL NOT POSE A CONFLICT FOR WORK ZONE TRAFFIC CONTROL. THE CONTRACTOR SHALL COVER OR REMOVE ALL SIGNING IN CONFLICT WITH THE TRAFFIC CONTROL DURING CONSTRUCTION OPERATIONS.
6. ACCESS TO SIDE STREETS, PRIVATE AND COMMERCIAL DRIVEWAYS SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.
7. NASSAU COUNTY PROHIBITS MID-BLOCK CROSSINGS OF PEDESTRIANS. WHEN AN ALTERNATE PAVED PEDESTRIAN ROUTE IS NOT FEASIBLE, THE CONTRACTOR SHALL MAINTAIN A 4 FT. WIDE STABLE PEDESTRIAN PATHWAY IN ACCORDANCE WITH FDOT INDEX 660.
8. CONSTRUCTION AREAS WITHIN COUNTY RIGHT-OF-WAY AND EASEMENTS SHALL BE TREATED WITH SOD TO PROTECT AGAINST EROSION.
9. M.O.T. SHALL BE IN ACCORDANCE WITH FDOT STANDARD INDEX AND THE NASSAU COUNTY ROAD CLOSURE POLICY. AN M.O.T. PLAN PREPARED BY A FLORIDA ADVANCE M.O.T. CERTIFIED PERSONNEL WILL NEED TO BE SUBMITTED PRIOR TO THE PRE-CONSTRUCTION MEETING FOR COUNTY REVIEW.

CLEARING/GRUBBING & PAVING/DRAINAGE NOTES

1. THE CONTRACTOR SHALL ADHERE TO ALL GENERAL NOTES ON THIS SHEET, INCLUDING THE NOTES BELOW.
2. THE CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS TO WORK IN EXISTING NASSAU COUNTY RIGHTS-OF-WAY.
3. ALL CONSTRUCTION LINES & GRADES SHALL BE ESTABLISHED AND MAINTAINED BY THE CONTRACTOR. OWNER SUPPLIES BOUNDARY AND BENCHMARK ONLY.
4. ALL PIPE LENGTHS ARE SCALED AND MAY REQUIRE SLIGHT FIELD ADJUSTMENTS TO FIT CONDITIONS.
5. CLEARING CONTRACTOR WILL CLEAR, GRUB AND DISPOSE OF ALL DEBRIS AND SURFACE ORGANICS TO FIRM MATERIAL ALL EASEMENTS, ROAD RIGHTS-OF-WAY AND DETENTION AREAS. DISPOSAL SHALL BE INCLUDED IN THE CONTRACT.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR PREVENTING DOWNSTREAM TURBIDITY AND SILTATION CAUSED BY HIS CONSTRUCTION WITH HAY BALES, SCREENS, SILT BASINS AND/OR OTHER SUITABLE MEANS WITHIN ALL GOVERNMENTAL REGULATIONS.
7. STORM DRAIN CONTRACTOR SHALL BE RESPONSIBLE FOR BRICKING UP CURB INLETS TO FINISHED GRADE AND FURNISHING AND MAINTAINING ALL HARDWARE.
8. THE PAVING/CURB CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTING CURB TRANSITIONS TO FINISH GRADE.
9. LUMP SUM PRICE FOR CLEARING AND GRUBBING SHALL INCLUDE THE CLEARING AND GRUBBING ALL ELECTRIC EASEMENTS.
10. AS-BUILTS: THE CONTRACTOR SHALL RETAIN AND PAY FOR NECESSARY PROFESSIONALS TO PREPARE AS-BUILT DRAWINGS IN ACCORDANCE WITH THE NASSAU COUNTY AS-BUILT REQUIREMENTS CHECKLIST.
11. UNDERDRAINS SHALL BE INSTALLED IN ALL CASES WHERE THE GROUNDWATER TABLE IS CLOSER THAN 24 INCHES BELOW THE PROPOSED CENTERLINE GRADE OF ANY ROAD, REGARDLESS OF PLANS.
12. ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED. LAKE BANK SHALL BE SODDED IN ACCORDANCE WITH NASSAU COUNTY STANDARDS.
13. FILTER WRAP ALL DRAINAGE JOINTS WITHIN EASEMENTS. DRAINAGE EASEMENTS SHALL BE UNOBSTRUCTED.
14. ALL TRAFFIC SIGNING AND MARKING TO MEET NASSAU COUNTY AND F.D.O.T. SPECIFICATIONS.
15. A LOT GRADING PLAN IS REQUIRED WITH THE BUILDING PERMIT, IN ACCORDANCE WITH ORDINANCE 99-17, SECTION 10.8.2.1.
16. THE MAXIMUM FLOOR ELEVATION SHALL NOT EXCEED MORE THAN 6" FROM THE MINIMUM FLOOR ELEVATIONS SPECIFIED IN THE ENGINEERING PLANS.
17. THE MAXIMUM SLOPE ON LOTS SHALL BE 3:1.
18. THE CONTRACTOR SHALL PROOF ROLL THE SUBGRADE PER GEOTECH REPORT SECTION 6.3.1.

Development Review General Notes:

1. Engineering Plans approval does not constitute permission to violate any adopted Federal, State, or Local law, code, or ordinance.
2. All work within the public streets and right-of-ways shall conform to Nassau County Land Development Codes (LDC), FDOT Standard Indices, Florida Greenbook, Nassau County Roadway and Drainage Standards, and Nassau County Standard Details as necessary. For any discrepancy between standards, the most stringent shall prevail.
3. Per Nassau County Roadway and Drainage Standards, Ordinance 99-17 Section 6.2.4, site shall be constructed per approved construction drawings. Any substantial deviation shall be concurrently reviewed by Engineer of Record and Nassau County Development Review Committee prior to field changes.
4. A pre-construction meeting with Nassau County Engineering Services Construction Inspector is required. Attendees shall be Nassau County, Engineer of Record, Contractor, Testing firm, Paving firm, and utility companies per Nassau County Ordinance 99-17 Section 7.2.3. Nassau County may cancel pre-construction meeting if attendee list is inadequate. Nassau County Engineering Services can be reached at 904-530-6225.
5. The contractor shall schedule and coordinate all work with the appropriate Nassau County Construction Inspector assigned to the project per Nassau County Ordinance 99-17 Section 7.2.
6. All work shall be performed in a safe manner. All safety rules and guidelines of O.S.H.A. shall be followed. The contractor shall be wholly responsible for any injuries to his employees and any damage to private property or persons during the course of this project.
7. Per Nassau County Roadway and Drainage Standards, Ordinance 99-17 Section 11.8.1, any disturbed areas within Nassau County Right-of-Way shall be sodded.
8. Per Nassau County Roadway and Drainage Standards, Ordinance 99-17 Section 7.4.1, at the time of final inspection, grassing shall be a minimum of seventy percent coverage and fully established and/or sodding to be one hundred percent coverage and stabilized.
9. Engineer of Record approved shop drawings shall be provided to Nassau County Construction Inspector a minimum of one week before beginning structure installation.
10. Parking at mail kiosks is required per Nassau County Roadway and Drainage Standards, Ordinance 99-17 Section 8.4. Mail kiosk locations are subject to USPS Postmaster approval.
11. The developer's contractor is the single responsible party for the proper implementation of an Erosion Protection Sediment Control (EPSC) within each lot or construction site. This includes the responsibility for the actions/inactions of employees, subcontractors, and/or suppliers.
12. Sidewalks to be provided and built in accordance Florida Building Code. All proposed sidewalks shall meet ADA requirements.
13. The Contractor shall comply with current Florida accessibility standards for all work on this project.
14. Per Ordinance 99-17 Section 8.5.1, minimum cover for water lines and force mains under pavement shall 42" and 36" in green areas.
15. All water, sewer, and storm water construction within Nassau County ROW shall be accomplished by an underground utility contractor licensed under the provisions of Chapter 409 of the Florida Statutes.
16. No work shall be permitted between the hours of 7:00 PM - 7:00AM without prior approval from Nassau County Engineering Services.
17. All trees required to be protected shall be flagged for protection prior to clearing.
18. All grading and placement of compacted fill shall be in accordance with the latest Nassau County Specifications.
19. Any damages (sidewalk, curb, asphalt, ditch grading, et cetera) within Public Right-of-Way shall be repaired or replaced in accordance with Nassau County Specifications. Proposed repair method shall be approved by Nassau County Engineering Services.
20. Any asphalt millings from Nassau County ROW shall be delivered to the Road Department Laydown yard located on Gene Lasserre Boulevard or Pea Farm Road. Please contact the Road Department at (904) 530-6175.
21. Per Nassau County Ordinance 99-17 Section 7.4.2 and 7.4.4, as-built drawings shall be submitted to Nassau County before a final inspection can be scheduled. As-builts submittals will be in accordance with Nassau County as-built requirement checklist. As-built drawings shall be certified by required licensed surveyor and approved by Engineer of Record.

ROADWAY AND DRAINAGE STANDARDS
NASSAU COUNTY
ENGINEERING SERVICES DEPARTMENT

REVISION DATES

DEVELOPMENT REVIEW GENERAL NOTES

NOTE SHEET: 1
DWG:
ISSUED: 12/09/2020

Stormwater Drainage Notes:

1. All stormwater drainage facilities within Public Right-of-Way and paved areas, including Nassau County Right-of-Way, turn lanes, residential roadways, drive aisles for multi-family developments, and major drive aisles for commercial developments shall be laser profiled per FDOT Section 430.
2. A builder cannot modify the County's storm water management system including the pipes, inlets, area drains, ditches and related elements typically within the street or within a drainage easement without the prior written approval of the County Engineer or designee.
3. Drainage easements and ditches should remain free of stockpiled soil, sediment, mud, construction materials/waste, et cetera at all times. Positive stormwater flow must be maintained throughout construction.
4. The contractor shall temporarily or permanently stabilize bare soil areas and soil stockpiles when the area is inactive for fourteen days or more or has reached finished grade.
5. Per Ordinance 99-17 Section 11.11.5.4, all gravity flow pipe installations shall have a soil tight joint performance unless specific site factors warrant watertight joint performance.
6. Per Ordinance 99-17 Section 10.6.5.1, Immediately Install additional Erosion Protection Sediment Control measures if sediment is leaving your site. Failure to contain sediment to your site may result in delayed inspections, notices of violation, citations, fines, penalties, and/or stop work orders.
7. Per 99-17 Section 10.1.2.a-e, stormwater management for a project shall not have adverse effects on adjacent properties, downstream structures, or rights of other landowners.

Paving Notes:

1. Per Nassau County Roadway and Drainage Standards, Ordinance 99-17 Section 12.2 and 12.4, a construction bond and 26-month maintenance bond will be required for all work within Nassau County Right-of-Way.
2. A pre-pave meeting is required prior to any paving operations within Nassau County ROW, residential subdivisions, or multi-family developments.
3. Approved mix designs shall be provided to Nassau County Construction Inspector 48 hours prior to pre-pave meeting or placement of concrete.
4. Contractor is required to have a Certified QC Asphalt Level III Technician during any asphalt operations within Nassau County ROW, residential subdivision, or multi-family developments.
5. All bases shall be primed in accordance with Ordinance 99-17 Section 11.5.2.3, Nassau County Standard Details, and FDOT Standard Specifications.
6. Signage and pavement markings shall be in compliance with Nassau County Standards, Manual on Uniform Traffic Control Devices (MUTCD), and FDOT Standard Plans.
7. Maintenance of Traffic (MOT) shall be in compliance with FDOT Standard Index 600 Series.
8. All work, materials, and testing performed within Nassau County right-of-way and single-family/multi-family developments shall be in accordance with the current revision of Nassau County's Ordinance 99-17 and all current Nassau County Standard Details.
9. Per Ordinance 99-17 Section 11.9.2, all pavement markings within Nassau County ROW shall be lead free thermoplastic meeting Nassau County and FDOT Standard Specification Latest Edition.
10. Removing pavement markings within Nassau County ROW shall be:
    a. Grinding or hydro-blasting on weathered asphalt surfaces.
    b. Hydro-blasting only on new asphalt surfaces.
    c. Paint Blackout is prohibited.
11. Per Ordinance 99-17 Section 8.5.5, any damage to pavement resulting from construction or pavement marking removal within Public ROW not planned as part of the project shall be milled and overlaid for entire width of roadway and length of damage plus 50' in each direction.
12. All underground utilities, or appropriate conduit sleeves, that are to be installed under pavement must be installed prior to preparation of the subgrade for pavement.
13. Single Vertical Joints in roadway construction shall be avoided in Nassau County Right-of-Way using Nassau County Standard Detail #26.
14. All drainage structures shall have traffic bearing grates that meet or exceed the rating for the facilities expected tra

LOT TREE PLANTING NOTES:

1. Lot trees installed by builder shall be a minimum 2" dbh at the time of planting per Table 37-3.
2. Lot trees installed by builder shall be selected from the list of approved trees per Table 37-1 and 37-2.

LANDSCAPE NOTES:

PLANT MATERIAL

1. ALL INSTALLED TREES, SHRUBS AND GROUNDCOVERS SHALL CONFORM TO THE STANDARDS FOR FLORIDA GRADE #1 OR BETTER ACCORDING TO THE CURRENT EDITION OF "GRADES AND STANDARDS FOR NURSERY PLANTS" PUBLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES, DIVISION OF PLANT INDUSTRY. SYNTHETIC OR ARTIFICIAL TREES, SHRUBS, GROUNDCOVERS OR VINES ARE NOT ACCEPTABLE SUBSTITUTES. IN CHOOSING PLANT MATERIALS, CONSIDERATION SHOULD BE GIVEN TO THE AMOUNT OF SUN OR SHADE, THE WETNESS OR DRYNESS OF THE SOIL, THE EFFECTS OF SALT SPRAY (WHERE APPLICABLE), THE AMOUNT OF IRRIGATION REQUIRED AND THE MATURE SIZE AND SPATIAL NEEDS OF PLANTS CHOSEN.

2. SHRUBS SHALL HAVE A MINIMUM HEIGHT OF EIGHTEEN (18) INCHES WHEN PLANTED. WHEN PLANTED AS A HEDGE, THE MAXIMUM SPACING IS 30 INCHES ON CENTER. ALL SHRUBS USED FOR VISUAL SCREENING SHALL BE OF A PLANT SPECIES THAT IS CAPABLE OF REACHING A HEIGHT OF FOUR (4) FEET WITHIN TWENTY-FOUR (24) MONTHS UNDER NORMAL GROWING CONDITIONS. SHRUBS USED AS ACCENT GROUND COVER AND VINES MAY VARY IN SIZE DEPENDING ON THE TYPE OF PLANT MATERIAL AND THE DESIRED EFFECT.

3. GROUNDCOVERS SHALL BE PLANTED IN SUCH A MANNER AS TO PRESENT A FINISHED APPEARANCE AND COMPLETE COVERAGE WITHIN ONE (1) YEAR AFTER PLANTING.

MAINTENANCE

1. THE PROPERTY OWNER IS RESPONSIBLE FOR THE MAINTENANCE OF ALL LANDSCAPE AREAS REQUIRED BY THIS SECTION. MAINTENANCE INCLUDES IRRIGATING, MOWING, TRIMMING, FERTILIZING AND CARRYING OUT THOSE ACTIVITIES NECESSARY TO KEEP THE PLANT MATERIAL IN A HEALTHY AND GROWING CONDITION, MAINTAIN VISUAL CLEARANCE AND ALLOW PASSAGE OF VEHICLES AND PEDESTRIANS ON PUBLIC ROADS AND NON-EXCLUSIVE EASEMENTS.

2. UPON DETERMINATION BY THE COUNTY THAT A REQUIRED TREE OR PLANT IS DEAD OR SEVERELY DAMAGED OR DISEASED, THE TREE OR PLANT SHALL BE REPLACED BY THE OWNER WITH PLANT MATERIAL MEETING THE REQUIREMENTS OF THIS SECTION.

3. ALL BUFFERS AREAS REQUIRED AS PART OF A DEVELOPMENT PLAN, WHETHER IN COMMON OR PRIVATE OWNERSHIP, SHALL BE THE RESPONSIBILITY OF THAT DEVELOPMENT'S PROPERTY OWNERS' ASSOCIATION. WHERE THERE IS NO PROPERTY OWNERS' ASSOCIATION, SUCH LANDSCAPED AREAS SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER.

LANDSCAPE NOTES:
THE PERIMETER LANDSCAPE STRIPS ADJACENT TO TYSON ROAD ARE A REQUIREMENT OF THIS SUBDIVISION. THE EXISTING TREES SHALL REMAIN TO FULFILL THE LANDSCAPE REQUIREMENT EXCEPT WHERE DRIVEWAYS ARE TO BE PROVIDED PER 37.05D(2)LDC. IF EXISTING TREES DO NOT MEET THE PLANTING REQUIREMENT IN 37.05D(2)LDC, ADDITIONAL TREES SHALL BE PLANTED.

NASSAU COUNTY LANDSCAPE NOTES:

1. LDC Section 37.05 (B) - Plant material. All installed trees, shrubs and groundcovers shall conform to the standards for Florida Grade #1 or better according to the current edition of "Grades and Standards for Nursery plants" published by the Florida Department of Agriculture and Consumer Services, Division of Plant Industry.

2. LDC Section 37.05 (B)(1) - All trees shall be planted in a minimum dimension of ten (10) feet. This minimum planting area must be free of all pavement and vehicle overhang in order to prevent possible tree damage.

3. LDC Section 37.05 (B)(2) - Shrubs shall have a minimum height of eighteen (18) inches when planted. When planted as a hedge, the maximum spacing is 30 inches on center. All shrubs used for visual screening shall be of a plant species that is capable of reaching a height of four (4) feet within twenty-four (24) months under normal growing conditions. Shrubs used as accent ground cover and vines may vary in size depending on the type of plant material and the desired effect.

4. LDC Section 37.05 (B)(3) - Groundcovers shall be planted in such manner as to present a finished appearance and complete coverage within one (1) year after planting.

5. LDC Section 37.05 (B) - All trees planted shall be staked or guyed for a period of at least six (6) months in accordance with the adopted planting detail.

6. LDC Section 37.05 (H)(4) - All planting areas shall be mulched with approximately three inches of organic mulch, such as pine bark or shredded hardwood chips.

7. LDC Section 37.05 (K) - The property owner is responsible for the maintenance of all landscape areas required by this section, Maintenance includes irrigating, mowing, trimming, fertilizing and carrying out those activities necessary to keep the plant material in a healthy and growing condition, maintain visual clearance and allow passage of vehicles and pedestrians on public roads and non-exclusive easements.

8. LDC Section 37.05 (K)(1) - Upon determination by the county that a required tree or plant is dead or severely damaged or diseased, the tree or plant shall be replaced by the owner with plant material meeting the requirements of this section.

9. LDC Section 37.05 (K)(2) - All buffer areas required as part of a development plan, whether in common or private ownership, shall be the responsibility of that development's property owners' association. Where there is no property owners' association, such landscaped areas shall be the responsibility of the property owner.

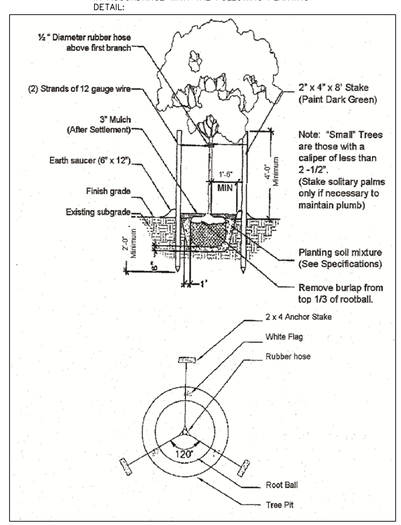
10. LDC Section 37.05 (K)(3) - Trees on developed properties may be pruned to maintain shape and promote their shade-giving qualities. They should be pruned to remove diseased or dying portions in areas where falling limbs could be a hazard to people or property. Lower limbs may be removed to provide clearance. In addition, trees located in association with vehicular use areas shall also be pruned to allow a seven-foot clearance from ground level to avoid potential for damage or injury to pedestrians and cleared to thirteen (13) above pavement level for vehicles. However, the excessive pruning or pollarding of trees into round balls of crown or branches resulting in an unnecessary reduction of shade is prohibited and may require supplemental plantings.
All pruning shall be done following the American National Standard for Tree Care Operations "Tree, Shrub and Other Woody Plant Maintenance - Standard Practices."

11. LDC Section 37.05 (E)(1) - At the intersection of two (2) streets, all landscaping within that area defined by the Florida Department of Transportation sight triangle, as outlined in the FDOT Design Standards for Design, Construction, Maintenance and Utility Operations on the State Highway System shall be installed and maintained below three (3) feet in height or above eight (8) feet in height.

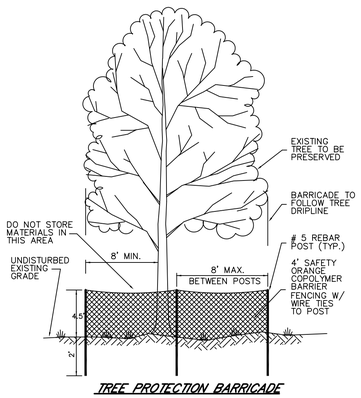
12. LDC Section 37.05 (E)(2) - When a driveway intersects a right-of-way, clear unobstructed cross visibility shall be provided within the site triangle formed by such intersection. The sight triangle shall be measured from the point of intersection, fifteen (15) feet along the access way and then fifteen (15) feet along the right-of-way, with the third side being a line connecting the two (2) points. Cross visibility within the sight triangle shall be unobstructed between the height of three (3) feet and eight (8) feet measured from the ground line. Trees and palms shall have their limbs and foliage trimmed in a manner that no limbs or foliage will extend in to the cross visibility area. To ensure proper visibility at the intersection of access ways with public rights-of-way, excluding properly trimmed trees as previously stated; only ground cover type plants shall be allowed within the sight triangle.

13. LDC Section 37.05 (D) - The use of a wall or fence is permitted provided the wall or fence is located on the inner most boundary (behind the vegetation as viewed from outside the development) of the perimeter landscaping adjacent to rights-of-way/streets, required uncompilmentary land use buffer or other landscaped area.

NOTE: ALL TREES PLANTED SHALL BE STAKED OR GUYED FOR A PERIOD OF AT LEAST SIX (6) MONTHS IN ACCORDANCE WITH THE FOLLOWING PLANTING DETAIL:



PLANTING DETAIL
N.T.S.



TREE PROTECTION BARRICADE
N.T.S.

PLANT SCHEDULE

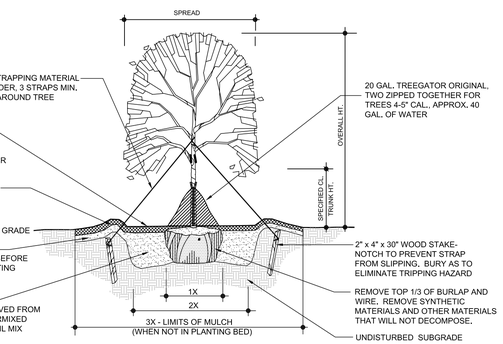
TREES	CODE	QTY	BOTANICAL / COMMON NAME
	IE	11	Ilex x attenuata 'East Palatka' / East Palatka Holly 12' – 14' HEIGHT, 4' – 5' SPREAD MIN., 3" CAL.,
	JC	5	Juniperus chinensis / Juniper 12' – 14' HEIGHT, 4' – 5' SPREAD MIN., 3" CAL.,
	MG3	5	MAGNOLIA GRANDIFLORA 'D.D. BLANCHARD' / D.D. BLANCHARD MAGNOLIA 12' – 14' HEIGHT, 4' – 5' SPREAD MIN., 3" CAL.,
	QV3	9	QUERCUS VIRGINIANA / LIVE OAK 14' – 16' HEIGHT, 6' – 8' SPREAD MIN., 3" CAL.,

NOTES:

LANDSCAPE BUFFER PLANTING REQUIREMENTS ACCOUNT FOR 2 SHADE AND 3 UNDERSTORY TREES PER EVERY 100 FEET OF BUFFER ALONG TYSON ROAD.

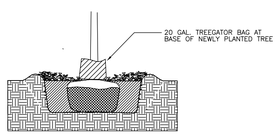
EXISTING TREES THAT MEET THE SIZE AND SPECIES REQUIREMENTS OF THE LANDSCAPE CODE, MAY BE PRESERVED WITHIN THE BUFFER AREA AND USED AS REPLACEMENT FOR PLANTING TREES.

ADJACENT ROAD	ROADWAY LENGTH	TREES REQUIRED
TYSON ROAD	2,490	50 SHADE TREES PLANTED ON LOTS 1-4 AND 18-27 MAY BE PLANTED IN 75 UNDERSTORY THE BUFFER AREA 125 TOTAL 25 TREES PLANTED IN BUFFER TRACT 'F' NEXT TO LOT 28 AND 5 TREES PLANTED IN FRONT OF TRACT 'D' (SEE SHEETS 8 AND 9)



NOTES:
- PLANT TOP OF ROOT BALL 2" ABOVE FINISH GRADE.
- BOTTOM OF ROOT BALL SHALL BE SEATED DIRECTLY ON UNDISTURBED SUBGRADE.
- TOPMOST ROOT-ROOT FLARE SHALL BE MADE VISIBLE PRIOR TO PLANTING.
- ROOT DEFECTS - INSPECT ROOT BALL FOR ROOT DEFECTS. CUT ROOTS WHERE THEY BEGIN TO KINK OR CIRCLE. ROOT BALL SHALL COMPLY WITH FLORIDA GRADES AND STANDARDS.
- STAKE ABOVE FIRST STRONG BRANCHES TO PROVIDE FIRM SUPPORT.

TREE PLANTING W/GATOR BAGS
N.T.S.



NOTES:
PROVIDE ONE 20 GALLON TREEGATOR BAG FOR ALL NEWLY PLANTED TREES UP TO 4" CALIPER.
PROVIDE TWO 20 GALLON TREEGATOR BAGS ZIPPED TOGETHER FOR ALL 4" CALIPER AND ABOVE TREES AND PALMS.
STANDARD DRIP TIME IS 6 TO 10 HOURS
FILL BAGS TWICE WEEKLY FOR 3 TO 4 MONTHS FOR 2 – 4" CALIPER TREES.
FILL BAGS TWICE WEEKLY FOR 4 TO 5 MONTHS FOR 4" CALIPER AND ABOVE TREES AND PALMS.

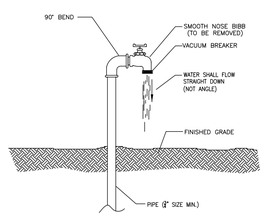
TreeGator Bag Detail

TREE IRRIGATION SCHEDULE

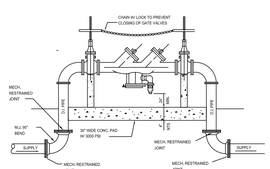
Size of Nursery Stock	Irrigation Schedule for Vigor *3	Irrigation Schedule for Survival **4
< 2 inch caliper	Daily for 2 weeks; every other day for 2 months; weekly until established.	Twice weekly for 2-3 months.
2-4 inch caliper	Daily for 1 month; every other day for 3 months; weekly until established.	Twice weekly for 3-4 months.
> 4 inch caliper	Daily for 6 weeks; every other day for 5 months; weekly until established.	Twice weekly for 4-5 months.

1. Delete daily irrigation when planting in winter. Irrigation frequency can be reduced slightly (ex. 2-3 times each week instead of every other day) when planting hardened-off, field-grown trees that were root-pruned during production. Establishment takes 3 (hardiness zones 10-11) to 4 (hardiness zones 8-9) months per inch trunk caliper.
2. Irrigation frequency can be reduced slightly (ex. to once or twice each week) when planting hardened-off, field-grown trees that were root-pruned during production.
3. At each irrigation, apply 2-3 gallons per inch trunk caliper to the root ball. Apply water in a manner so all water soaks into the root ball. Do not water if root ball is wet/saturated on the irrigation day.
4. Trees take much longer to establish than 3-4 months per inch trunk caliper. Irrigate in drought the following summer.

SOURCE: FLORIDA URBAN FORESTRY COUNCIL AND DR. EDWARD F. GILMAN, UNIVERSITY OF FLORIDA, GAINESVILLE. UPDATED JUNE 1999



Hose Bibb Detail



Backflow Preventor

LOT SUMMARY AND TREE PLANTING TABLE

LOT NO.	LOT SIZE (GROSS)	LOT SIZE (NET) INCLUDES BUFFER	LOT SIZE (NET) USABLE	LOT WIDTH *	LOT DEPTH *	PHASE	# OF TREES PER ** 37.05 C (1) LDC	ELA PLANTING PER LDC 37.05(D) # CANOPY	# UNDERSTORY
1	153587.50	61412.95	17531.90	100.00'	436.00'	1	5	5	7
2	44990.47	28793.82	14342.48	100.00'	436.00'	1	4	2	4
3	45566.47	22880.01	18338.92	100.00'	436.00'	1	5	2	4
4	55637.78	33561.13	25712.23	100.00'	436.00'	1	6	2	4
5	73996.37	66843.35	58922.37	100.00'	436.00'	1	8		
6	59683.89	57876.32	54102.76	100.00'	436.00'	1	8		
7	46044.01	46044.01	46044.01	100.00'	436.00'	1	7		
8	50392.61	34300.00	28525.46	100.00'	436.00'	1	6		
9	46429.06	43357.45	39651.09	100.00'	436.00'	1	7		
10	54686.32	47507.94	40773.28	100.00'	436.00'	1	7	NO ELA PLANTING REQUIRED	
11	54873.09	46827.39	27653.42	100.00'	436.00'	1	7		
12	44942.92	43844.17	38596.98	100.00'	436.00'	1	7		
13	55104.83	44047.28	44047.28	100.00'	436.00'	1	7		
14	139890.73	51652.54	20633.49	100.00'	436.00'	1	5		
15	51463.40	40577.19	32273.36	100.00'	436.00'	1	6		
16	46604.65	38239.58	35799.17	100.00'	436.00'	1	7		
17	48215.63	31015.37	31015.37	100.00'	436.00'	1	6		
18	55721.84	42166.45	42166.45	100.00'	436.00'	1	7	2	4
19	43600.00	32900.00	32900.00	100.00'	436.00'	1	6	2	3
20	43600.00	32900.00	32900.00	100.00'	436.00'	1	6	2	3
21	43600.00	32900.00	32900.00	100.00'	436.00'	1	6	2	3
22	43600.00	31900.86	31900.86	100.00'	436.00'	1	6	2	3
23	43600.00	30527.10	30527.10	100.00'	436.00'	1	6	2	3
24	43600.00	30400.00	30400.00	100.00'	436.00'	1	6	2	3
25	43600.00	30757.14	30757.14	100.00'	436.00'	1	6	2	3
26	43600.00	30621.62	30621.62	100.00'	436.00'	1	6	2	3
27	47960.00	33083.00	28765.52	100.00'	436.00'	1	6	1	1
28	44748.96	35791.20	31608.11	100.00'	436.00'	1	6		
29	45019.83	29614.67	25859.16	100.00'	436.00'	1	6		
30	48153.39	30219.52	26455.56	100.00'	436.00'	1	6		
31	60197.71	20534.26	18333.34	100.00'	436.00'	1	5		
32	46195.59	12075.32	12075.32	100.00'	436.00'	1	4		
33	44947.47	44802.09	43834.20	100.00'	436.00'	1	7	NO ELA PLANTING REQUIRED	
34	50642.37	50642.37	50642.37	100.00'	436.00'	1	8		
35	54895.46	31239.05	26681.65	100.00'	436.00'	1	6		
36	48335.59	48232.65	44525.42	100.00'	436.00'	1	7		
37	54298.20	41778.56	30803.04	100.00'	436.00'	1	6		
38	107957.28	43484.20	23570.29	100.00'	436.00'	1	5		
39	73607.58	49133.44	40110.77	100.00'	436.00'	1	7		
40	53683.29	53683.29	53683.29	100.00'	436.00'	1	8		

* FOR EXACT MEASUREMENTS SEE PLAT (BY OTHERS)
"NET" INCLUDES UPLAND BUFFERS
"NET USABLE" DOES NOT INCLUDE WETLANDS OR UPLAND BUFFERS
** BASED ON NET USABLE SQUARE FOOTAGE

ELA IN WETLANDS NOT INCLUDED IN LOTS 1 AND 27

J. LUCAS & ASSOCIATES, INC.
CONSULTING AND DESIGN ENGINEERS
CERTIFICATE OF AUTHORIZATION NO. 3981
1305 CEDAR STREET – JACKSONVILLE, FL 32207
PH (904) 396-3060 FAX (904) 396-3456

VERSION: ACAD14
DRAWN BY: DAD
DESIGNED BY: JML
APPROVED BY: JML
DATE: OCT. 2023

NO.	REVISION	BY	DATE
3	ADDED ELA PLANTING PER COUNTY REVIEW	JML	12/2/24
2	REVISED PER NASSAU COUNTY REVIEW	DAD	8/28/24
1	REVISED PER NASSAU COUNTY REVIEW	DAD	5/2/24

LANDSCAPE NOTES, TABLES & DETAILS
TYSON FOREST
FOR
TYSON FOREST, LLC

DRAWING NO. 5A OF 41
JOB NO. 2301
FILE: 2301GENNOTES

SEAL & SIGNATURE:

JAMES M. LUCAS, P.E. 18370

GRAPHIC SCALE
0 50 100 200
(IN FEET) 1 inch = 100 ft.

PANDYS PLACE
COUNTY ROAD NO. 107 (OLD NASSAUVILLE ROAD)
DIRT ROAD
BIG OAK AVENUE
SHUMARD OAK DRIVE
BARREN OAK ROAD
TYSON ROAD
RAINBOW ACRES ROAD
ALLIGATOR CREEK ROAD
ARBOR LANE
PARK
WETLANDS
DETENTION POND
STORM MANHOLE
STORM PIPE
INLET
MITERED END SECTION
OUTFALL STRUCTURE
OUTFALL PIPE
DITCH
OHU
TPKD

STORMWATER MAINTENANCE PLAN NOTES:

1. POND BANKS AND MAINTENANCE BUFFERS ARE TO BE MOWED 30-36 TIMES PER YEAR, AS NEEDED. HOMEOWNERS ARE RESPONSIBLE FOR MOWING AND MAINTAINING THE AREA BETWEEN THE WATER AND THEIR LOT. THE HOA IS RESPONSIBLE FOR MOWING AND MAINTAINING ANY POND BANKS AND MAINTENANCE BUFFERS THAT ARE NOT ADJACENT TO SINGLE FAMILY HOMES.

2. THE HOA IS RESPONSIBLE FOR MONTHLY POND MAINTENANCE, INCLUDING BUT NOT LIMITED TO, AQUATIC WEED CONTROL, DEBRIS REMOVAL, AND VERIFICATION THAT THE PONDS AND OUTFALL STRUCTURES ARE OPERATING AS DESIGNED.

3. THE HOA IS RESPONSIBLE FOR YEARLY STORMWATER SYSTEM MAINTENANCE, INCLUDING BUT NOT LIMITED TO, DEBRIS REMOVAL AND VERIFICATION THAT ALL STORMWATER STRUCTURES CALLED OUT ON THE PAVING AND DRAINAGE SHEET ARE OPERATING AS DESIGNED.

4. VEGETATIVE NATURE BUFFER (VNB) AREAS ARE TO REMAIN UNDISTURBED. SEE SHEETS 3 AND 16 TO 20 FOR LOCATIONS.

J. LUCAS & ASSOCIATES, INC.
CONSULTING AND DESIGN ENGINEERS
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1305 CEDAR STREET – JACKSONVILLE, FL. 32207
PH (904) 396-3060 FAX (904) 396-3456

VERSION: ACAD 20
DRAWN BY: SBD
DESIGNED BY: ML
APPROVED BY: JML
DATE: AUGUST 2023

NO.	REVISION	BY	DATE
1	REVISED PER SJRWMD REVIEW	DAD	8/28/24

STORMWATER MAINTENANCE PLAN
TYSON FOREST
FOR
TYSON FOREST, LLC

DRAWING NO. 5B OF 41
JOB NO. 2301
FILE: 2301BASE

SEAL & SIGNATURE:
JAMES M. LUCAS, P.E. 18370

J. LUCAS & ASSOCIATES, INC.
CONSULTING AND DESIGN ENGINEERS
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VERSION: ACAD14
DRAWN BY: DAD
DESIGNED BY: JML
APPROVED BY: JML
DATE: AUGUST 2023

NO.	REVISION	BY	DATE
5	REVISED PER NASSAU COUNTY AND SJRWMD REVIEW	DAD	8/28/24
4	ADJUSTED WATER SERVICE & FIRE HYDRANT LOCATIONS	DAD	6/3/24
3	REVISED PER NASSAU COUNTY REVIEW	DAD	5/2/24
2	MOVED FIRE HYDRANTS AND ADDED ONE ALONG TYSON ROAD	DAD	4/4/24
1	REVISED PER JEA REVIEW	DAD	3/21/24

GEOMETRY PLAN OF TYSON FOREST FOR TYSON FOREST, LLC

DRAWING NO. 6 OF 41
JOB NO. 2301
FILE: 2301

SEAL & SIGNATURE:

JAMES M. LUCAS, P.E. 18370

J. LUCAS & ASSOCIATES, INC.
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DATE: AUGUST 2023

NO.	REVISION	BY	DATE
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2	REVISED PER NASSAU COUNTY REVIEW	DAD	5/2/24
1	REVISED PER JEA REVIEW	DAD	3/21/24

GEOMETRY PLAN OF TYSON FOREST FOR TYSON FOREST, LLC

DRAWING NO. 7 OF 41
JOB NO. 2301
FILE: 2301

SEAL & SIGNATURE:

JAMES M. LUCAS, P.E. 18370

WETLANDS
FOR CONTINUATION SEE SHEET 7
UPLAND BUFFER
10' DRAINAGE EASEMENT
UPLAND BUFFER
FLOOD ZONE X
FLOOD ZONE AE
BFE 8
FLOOD ZONE LINE
FOR CONTINUATION SEE SHEET 10
UPLAND BUFFER
15' DRAINAGE EASEMENT
16
UPLAND BUFFER
WETLANDS
WETLANDS
WETLANDS
17
POND 2
P-1/TMW1
FLOOD ZONE LINE
FLOOD ZONE X
VNB BUFFER
WETLANDS
WETLANDS
UPLAND BUFFER
BUILDING SETBACK (TYP.)
19
20
21
22
23
24
25
26
27
20' PRIVATE DRAINAGE EASEMENT
FOR CONTINUATION SEE SHEET 6
20' DRAINAGE EASEMENT
20' DRAINAGE EASEMENT
20' DRAINAGE EASEMENT
20' DRAINAGE EASEMENT
20' DRAINAGE EASEMENT
20' DRAINAGE EASEMENT
20' DRAINAGE EASEMENT
20' DRAINAGE EASEMENT
20' DRAINAGE EASEMENT
BUILDING SETBACK (TYP.)
MULCH BETWEEN STR PROPERTY LINE W/ 3" THICK (TYP.)
FOR CONTINUATION SEE SHEET 9
15' FPL/JEA & SIDEWALK EASEMENT
15' FPL/JEA AND SIDEWALK EASEMENT
10' MULTI-USE TRAIL
S52°09'46"W
1599.89'
OHU
12+00
13+00
14+00
15+00
16+00
17+00
18+00
19+00
20+00
21+00
22+00
23+00
ASPHALT END
10' ENHANCED LANDSCAPE AREA EASEMENT
RAINBOW ACRES ROAD
TYSON ROAD
(60' R/W)

GRAPHIC SCALE
0 20 40 80
(IN FEET) 1 inch = 40 ft.

IE 2
QV3 2
JC 2
MG3 2
IE 3
QV3 3

PLANTED TREE LEGEND

TREES	CODE	COMMON NAME
	IE	EAST PALATKA HOLLY
	JC	JUNIPER
	MG3	D.D. BLANCHARD MAGNOLIA
	QV3	LIVE OAK

SEE SHEET 5A FOR BUFFER TABLE, TREE TABLES, TREE PLANTING & BARRICADE DETAILS AND PLANT SCHEDULE FOR BUFFER TREES ALONG TYSON ROAD

J. LUCAS & ASSOCIATES, INC.
CONSULTING AND DESIGN ENGINEERS
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PH (904) 396-3060 FAX (904) 396-3456

VERSION: ACAD 14
DRAWN BY: DAD
DESIGNED BY: JML
APPROVED BY: JML
DATE: AUGUST 2023

NO.	REVISION	BY	DATE
3	REVISED PER NASSAU COUNTY AND SJRWMD REVIEW	DAD	8/26/24
2	REVISED PER NASSAU COUNTY REVIEW	DAD	5/2/24
1	REVISED PER JEA REVIEW	DAD	3/21/24

GEOMETRY PLAN OF TYSON FOREST FOR TYSON FORREST, LLC

DRAWING NO. 8 OF 41
JOB NO. 2301
FILE: 2301

SEAL & SIGNATURE:

JAMES M. LUCAS, P.E. 18370

POND 3

FOR CONTINUATION SEE SHEET 10

FLOOD ZONE X

UPLAND BUFFER

UPLAND BUFFER

UPLAND BUFFER

10' FPL & JEA EASEMENT

FLOOD ZONE LINE

WETLANDS

WETLANDS

FLOOD ZONE X

BARREN OAK ROAD (50' R/W)

PC = 15+03.86

PT = 17+40.13

PRC = 11+44.84

MIAMI CURB (TYP)

5'x5' MAIL KIOSK CONCRETE PAD 8" THICK

3 PAVED 8' X 22' OFFSTREET PARKING SPACES

BIKE RACK

6' SIDEWALK

BUILDING SETBACK (TYP.)

PARK
TRACT 'D'

SCHOOL BUS STOP AREA 12'x22' CONC. PAD WITH CANOPY

MULCH BETWEEN TRAIL AND PROPERTY LINE W/ PINESTRAW 3" THICK (TYP.)

15' FPL/JEA AND SIDEWALK EASEMENT

PC = 10+30.97

R=30' (TYP.)

15' FPL/JEA & SIDEWALK EASEMENT

PERIMETER LANDSCAPE TRACT 'F'

10' MULTI-USE TRAIL

TYSON ROAD
(60' R/W)

ALLIGA

CONTINUATION SEE SHEET 8

SEE SHEET 5A FOR BUFFER TABLE, TREE TABLES, TREE PLANTING & BARRICADE DETAILS AND PLANT SCHEDULE FOR BUFFER TREES ALONG TYSON ROAD

PLANTED TREE LEGEND

TREES	CODE	COMMON NAME
	IE	EAST PALATKA HOLLY
	JC	JUNIPER
	MG3	D.D. BLANCHARD MAGNOLIA
	QV3	LIVE OAK

GRAPHIC SCALE
0 20 40 80
(IN FEET) 1 inch = 40 ft.

J. LUCAS & ASSOCIATES, INC.
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VERSION: ACAD14
DRAWN BY: DAD
DESIGNED BY: JML
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DATE: AUGUST 2023

NO.	REVISION	BY	DATE
5	ADDED PARKING DIMENSIONS PER COUNTY REVIEW	JML	12/2/24
4	REVISED PER NASSAU COUNTY AND SJRMD REVIEW	DAD	8/28/24
3	ADJUSTED WATER SERVICE & FIRE HYDRANT LOCATIONS	DAD	6/3/24
2	REVISED PER NASSAU COUNTY REVIEW	DAD	5/2/24
1	REVISED PER JEA REVIEW	DAD	3/21/24

GEOMETRY PLAN OF TYSON FOREST FOR TYSON FOREST, LLC

DRAWING NO. 9 OF 41
JOB NO. 2301
FILE: 2301

SEAL & SIGNATURE:

JAMES M. LUCAS, P.E. 18370

GRAPHIC SCALE

0 20 40 80

(IN FEET) 1 inch = 40 ft.

VNB BUFFER

WETLANDS

UPLAND BUFFER

20' DRAINAGE EASEMENT

R=65'

R=40' (TYP.)

R=30' (TYP.)

C-D-S RAB PT. 22+22.81

22+00

R=50'

BUILDING SETBACK (TYP.)

10' FPL & JEA EASEMENT

6' SIDEWALK

BARRENOAK ROAD

(50' R/W)

FLOOD ZONE AE
BFE 8

FLOOD ZONE LINE

FLOOD ZONE X

POND 3

37 38 36 35 39 40 34

FOR CONTINUATION SEE SHEET 9

J. LUCAS & ASSOCIATES, INC.
CONSULTING AND DESIGN ENGINEERS
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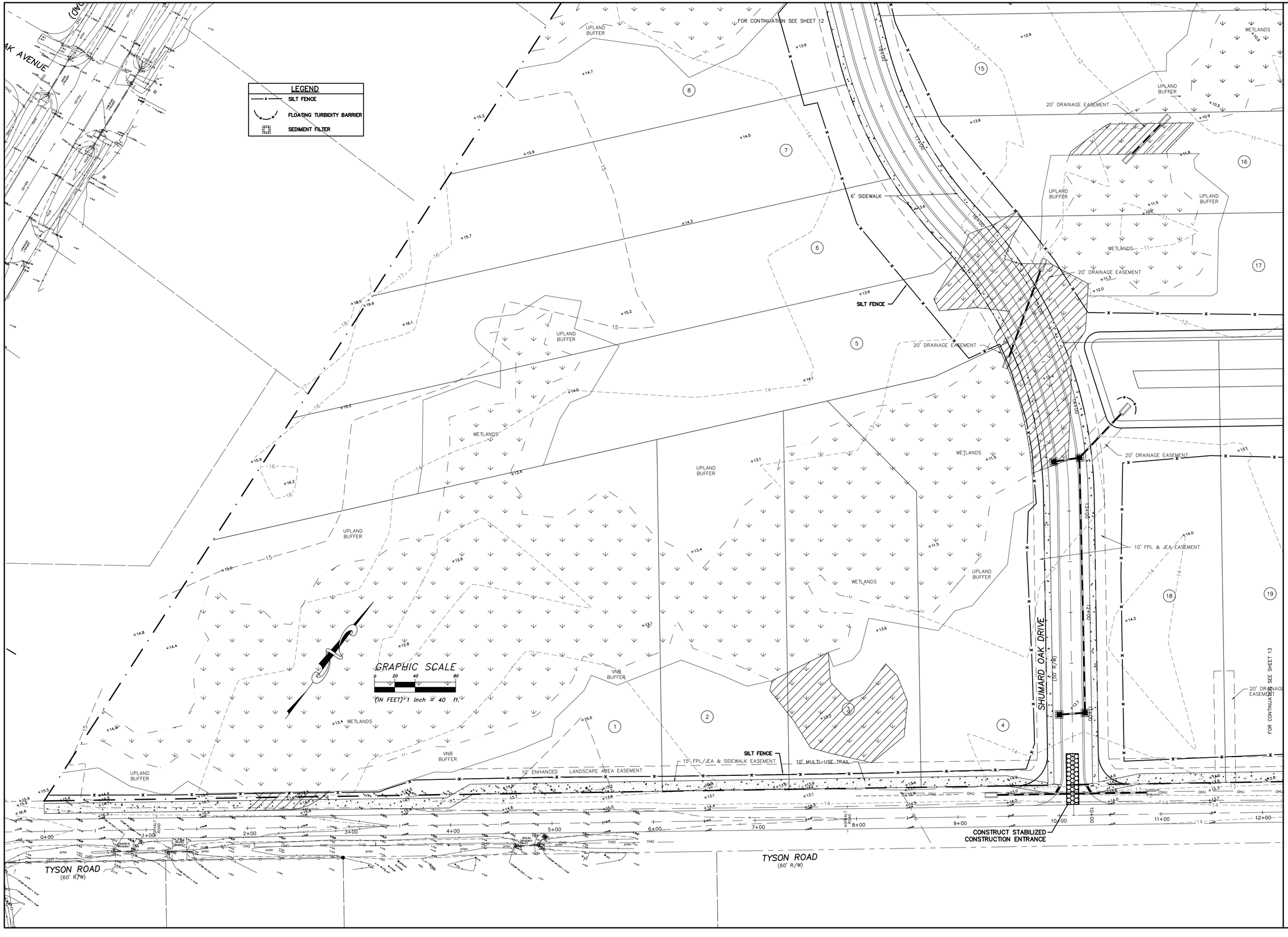
NO.	REVISION	BY	DATE
4	REVISED PER NASSAU COUNTY AND SJRWMD REVIEW	DAD	8/28/24
3	ADJUSTED WATER SERVICE & FIRE HYDRANT LOCATIONS	DAD	6/3/24
2	REVISED PER NASSAU COUNTY REVIEW	DAD	5/2/24
1	REVISED PER JEA REVIEW	DAD	3/21/24

GEOMETRY PLAN OF TYSON FOREST FOR TYSON FOREST, LLC

DRAWING NO. 10 OF 41
JOB NO. 2301
FILE: 2301

SEAL & SIGNATURE:

JAMES M. LUCAS, P.E. 18370



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3	REVISED PER NASSAU COUNTY REVIEW	DAD	5/2/24
2	MOVED FIRE HYDRANTS AND ADDED ONE ALONG TYSON ROAD	DAD	4/4/24
1	REVISED PER JEA REVIEW	DAD	3/21/24

EROSION CONTROL PLAN OF TYSON FOREST FOR TYSON FOREST, LLC

DRAWING NO. 11 OF 41
JOB NO. 2301
FILE: 2301

SEAL & SIGNATURE:

JAMES M. LUCAS, P.E. 18370

LEGEND

SILT FENCE

FLOATING TURBIDITY BARRIER

SEDIMENT FILTER

GRAPHIC SCALE

0 20 40 80

(IN FEET) 1 inch = 40 ft.

FLOOD ZONE AE
BFE 8

FLOOD ZONE LINE

FLOOD ZONE X

WETLANDS

VNB BUFFER

6' SIDEWALK

10' FPL & JEA EASEMENT

SHUMARD OAK DRIVE
(50' R/W)

PARK

SILT FENCE

20' DRAINAGE EASEMENT

10' DRAINAGE EASEMENT

UPLAND BUFFER

DRAINAGE EASEMENT

POND 1

FOR CONTINUATION SEE SHEET 11

J. LUCAS & ASSOCIATES, INC.
CONSULTING AND DESIGN ENGINEERS
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1305 CEDAR STREET - JACKSONVILLE, FL 32207
PH (904) 396-3060 FAX (904) 396-3456

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NO.	REVISION	BY	DATE
3	REVISED PER NASSAU COUNTY AND SJRWMD REVIEW	DAD	8/28/24
2	REVISED PER NASSAU COUNTY REVIEW	DAD	5/2/24
1	REVISED PER JEA REVIEW	DAD	3/21/24

EROSION CONTROL PLAN OF TYSON FOREST FOR TYSON FOREST, LLC

DRAWING NO. 12 OF 41
JOB NO. 2301
FILE: 2301

SEAL & SIGNATURE:

JAMES M. LUCAS, P.E. 18370

WETLANDS
FOR CONTINUATION SEE SHEET 12
UPLAND BUFFER
10' DRAINAGE EASEMENT
FLOOD ZONE AE
BFE 8
FOR CONTINUATION SEE SHEET 15
FLOOD ZONE X
SILT FENCE
15' DRAINAGE EASEMENT
FLOOD ZONE LINE
UPLAND BUFFER
WETLANDS
DOUBLE ROW SILT FENCE
POND 2
GRAPHIC SCALE
0 20 40 80
(IN FEET) 1 inch = 40 ft.
FLOOD ZONE LINE
SILT FENCE
FLOOD ZONE X
VNB BUFFER
20' PRIVATE DRAINAGE EASEMENT
WETLANDS
WETLANDS
UPLAND BUFFER
FOR CONTINUATION SEE SHEET 11
20' DRAINAGE EASEMENT
15' FPL/JEA & SIDEWALK EASEMENT
SILT FENCE
10' MULTI-USE TRAIL
15' FPL/JEA AND SIDEWALK EASEMENT
FOR CONTINUATION SEE SHEET 14
10' ENHANCED LANDSCAPE AREA EASEMENT
ASPHALT ROAD
RAINBOW ACRES ROAD
TYSON ROAD
(60' R/W)

LEGEND
- SILT FENCE
- FLOATING TURBIDITY BARRIER
- SEDIMENT FILTER

J. LUCAS & ASSOCIATES, INC.
CONSULTING AND DESIGN ENGINEERS
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VERSION: ACAD 14
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DESIGNED BY: JML
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DATE: AUGUST 2023

NO.	REVISION	BY	DATE
3	REVISED PER NASSAU COUNTY AND SJRWMD REVIEW	DAD	8/28/24
2	REVISED PER NASSAU COUNTY REVIEW	DAD	5/2/24
1	REVISED PER JEA REVIEW	DAD	3/21/24

EROSION CONTROL PLAN OF TYSON FOREST FOR TYSON FOREST, LLC

DRAWING NO. 13 OF 41
JOB NO. 2301
FILE: 2301

SEAL & SIGNATURE:

JAMES M. LUCAS, P.E. 18370

POND 3

FOR CONTINUATION SEE SHEET 15

FLOOD ZONE X

UPLAND BUFFER

SILT FENCE

10' FPL & JEA EASEMENT

BARREN OAK ROAD (60' R/W)

FLOOD ZONE LINE

WETLANDS

FOR CONTINUATION SEE SHEET 13

6' SIDEWALK

PARK

15' FPL/JEA AND SIDEWALK EASEMENT

15' FPL/JEA & SIDEWALK EASEMENT

10' MULTI-USE TRAIL

CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE

TYSON ROAD (60' R/W)

ALLIGATOR

GRAPHIC SCALE

0 20 40 80

(IN FEET) 1 inch = 40 ft.

LEGEND

- SILT FENCE
- FLOATING TURBIDITY BARRIER
- SEDIMENT FILTER

J. LUCAS & ASSOCIATES, INC.
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3	ADJUSTED WATER SERVICE & FIRE HYDRANT LOCATIONS	DAD	6/3/24
2	REVISED PER NASSAU COUNTY REVIEW	DAD	5/2/24
1	REVISED PER JEA REVIEW	DAD	3/21/24

EROSION CONTROL PLAN OF TYSON FOREST FOR TYSON FOREST, LLC

DRAWING NO. 14 OF 41
JOB NO. 2301
FILE: 2301

SEAL & SIGNATURE:

JAMES M. LUCAS, P.E. 18370

4	REVISED PER NASSAU COUNTY AND SJRWMD REVIEW	DAD	8/28/24
3	ADJUSTED WATER SERVICE & FIRE HYDRANT LOCATIONS	DAD	6/3/24
2	REVISED PER NASSAU COUNTY REVIEW	DAD	5/2/24
1	REVISED PER JEA REVIEW	DAD	3/21/24
NO.	REVISION	BY	DATE

EROSION CONTROL PLAN OF TYSON FOREST FOR TYSON FOREST, LLC

DRAWING NO. 15 OF 41
JOB NO. 2301
FILE: 2301

SEAL & SIGNATURE:
JAMES M. LUCAS, P.E. 18370

VERSION: ACAD14
DRAWN BY: DAD
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APPROVED BY: JML
DATE: AUGUST 2023

J. LUCAS & ASSOCIATES, INC.
CONSULTING AND DESIGN ENGINEERS
CERTIFICATE OF AUTHORIZATION NO. 3981
1305 CEDAR STREET – JACKSONVILLE, FL 32207
PH (904) 396-3060 FAX (904) 396-3456

FOR CONTINUATION SEE SHEET 17

CONSTRUCT 256LF INTERCEPTOR V-SWALE WITH 3:1 SIDE SLOPES SODDED

CONSTRUCT 284LF INTERCEPTOR V-SWALE WITH 3:1 SIDE SLOPES SODDED

MIAMI CURB & GUTTER

6" SIDEWALK

20' DRAINAGE EASEMENT

FUTURE DRIVEWAY CULVERT FOR LOT 16

END MIAMI CURB & GUTTER

10' ENHANCED LANDSCAPE AREA EASEMENT

15' FPL/JEA & SIDEWALK EASEMENT

10' MULTI-USE TRAIL

10' FPL & JEA EASEMENT

REGRADE DITCH (SEE PROFILE ON SHEETS 34 AND 34A, SEE SECTION ON SHEET 19)

FOR CONTINUATION SEE SHEET 18

UPLAND BUFFER

WETLANDS

VNB BUFFER

FFE 16.1 | FFE 16.7 | FFE 16.4 | FFE 16.0 | FFE 15.8 | FFE 15.6 | FFE 15.2 | FFE 13.0

S-7 | S-8 | S-9 | S-10 | S-11 | S-16 | S-17 | S-18 | S-19 | S-20 | S-23 | S-24

P-6 | P-7 | P-10 | P-11 | P-12 | P-13 | P-15

BOT.=1.00 | TOP=10.75

SHUMARD OAK DRIVE (60' R/W)

TYSON ROAD (60' R/W)

GRAPHIC SCALE
0 20 40 80
(IN FEET) 1 inch = 40 ft.

J. LUCAS & ASSOCIATES, INC.
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1305 CEDAR STREET - JACKSONVILLE, FL 32207
PH (904) 396-3060 FAX (904) 396-3456

VERSION: ACAD14
DRAWN BY: DAD
DESIGNED BY: JML
APPROVED BY: JML
DATE: AUGUST 2023

NO.	REVISION	BY	DATE
5	REVISED PER NASSAU COUNTY AND SJRWMD REVIEW	DAD	8/28/24
4	ADJUSTED WATER SERVICE & FIRE HYDRANT LOCATIONS	DAD	6/3/24
3	REVISED PER NASSAU COUNTY REVIEW	DAD	5/2/24
2	MOVED FIRE HYDRANTS AND ADDED ONE ALONG TYSON ROAD	DAD	4/4/24
1	REVISED PER JEA REVIEW	DAD	3/21/24

PAVING & DRAINAGE PLAN OF TYSON FOREST FOR TYSON FOREST, LLC

DRAWING NO. 16 OF 41
JOB NO. 2301
FILE: 2301

SEAL & SIGNATURE:

JAMES M. LUCAS, P.E. 18370

CONSTRUCT 470LF INTERCEPTOR V-SWALE WITH 3:1 SIDE SLOPES SODDED

CONSTRUCT 334LF INTERCEPTOR V-SWALE WITH 3:1 SIDE SLOPES SODDED

SHUMARD OAK DRIVE

6' SIDEWALK

10' FPL & JEA EASEMENT

MIAMI CURB & GUTTER

6" UNDERDRAIN

20' DRAINAGE EASEMENT

10' DRAINAGE EASEMENT

5' BERM
TOP=14.00
N.W.L.=11.00

BOT.=3.00

DRAINAGE EASEMENT

POND 1
TOP=14.00
N.W.L.=11.00
BOT.=3.00

FFE 16.3

FFE 16.1

FFE 15.2

VNB BUFFER

UPLAND BUFFER

WETLANDS

PARK

FLOOD ZONE AE
BFE 8

FLOOD ZONE LINE

FLOOD ZONE X

GRAPHIC SCALE
0 20 40 80
(IN FEET) 1 inch = 40 ft.

FOR CONTINUATION SEE SHEET 16

P- 1 P- 2 P- 3 P- 4 P- 5 P- 6 P- 7 P- 8 P- 9

S- 1 S- 2 S- 3 S- 4 S- 5 S- 6 S- 7 S- 12 S- 13 S- 14 S- 15

A A1 B B1 C D E F

J. LUCAS & ASSOCIATES, INC.
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1305 CEDAR STREET - JACKSONVILLE, FL 32207
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3	REVISED PER NASSAU COUNTY AND SJRWMD REVIEW	DAD	8/28/24
2	REVISED PER NASSAU COUNTY REVIEW	DAD	5/2/24
1	REVISED PER JEA REVIEW	DAD	3/21/24

PAVING & DRAINAGE PLAN OF TYSON FOREST FOR TYSON FOREST, LLC

DRAWING NO. 17 OF 41
JOB NO. 2301
FILE: 2301

SEAL & SIGNATURE:

JAMES M. LUCAS, P.E. 18370

FOR CONTINUATION SEE SHEET 17

FOR CONTINUATION SEE SHEET 20

FOR CONTINUATION SEE SHEET 16

FOR CONTINUATION SEE SHEET 19

S- 14 | P- 9 | P- 24 | S- 11 | S- 21 | P- 14 | S- 22 | S- 36 | S- 38 | S- 40 | S- 39 | P- 26 | S- 37 | P- 25 | P- 27

10' DRAINAGE EASEMENT

FLOOD ZONE AE
BFE 8

FLOOD ZONE X

FLOOD ZONE LINE

UPLAND BUFFER

WETLANDS

CONSTRUCT 255LF V-SWALE @ 0.20%

15' DRAINAGE EASEMENT

16 FFE 13.0

17 FFE 13.1

POND 2
TOP=10.75
N.W.L.=9.00
BOT.=1.00

WEIR WALL CONTROL STRUCTURE (SEE SHEET 35)

POND LINER

5' BERM

BOT.=1.00

N.W.L.=9.00

TOP=10.75

GRAPHIC SCALE
0 20 40 80
(IN FEET) 1 inch = 40 ft.

FFE 11.1

VNB BUFFER

FUTURE DRIVEWAY CULVERT FOR LOT 27

20' PRIVATE DRAINAGE EASEMENT

20LF 15" RCP WITH M.E.S. EACH END
W. INV.=9.20
E. INV.=9.00

19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27

20' DRAINAGE EASEMENT
FFE 15.2

20' DRAINAGE EASEMENT
FFE 15.1

20' DRAINAGE EASEMENT
FFE 14.5

20' DRAINAGE EASEMENT
FFE 14.3

20' DRAINAGE EASEMENT
FFE 13.9

20' DRAINAGE EASEMENT
FFE 13.5

20' DRAINAGE EASEMENT
FFE 13.3

20' DRAINAGE EASEMENT
FFE 13.0

20' DRAINAGE EASEMENT

LOT SWALE RETENTION AREA (SEE SHEET 35)

15' FPL/JEA & SIDEWALK EASEMENT

10' MULTI-USE TRAIL

10' ENHANCED LANDSCAPE AREA EASEMENT

REGRADE DITCH (SEE PROFILE ON SHEETS 34 AND 34A, SEE SECTION ON SHEET 19)

3:1 SIDE SLOPE

PERIMETER LANDSCAPE

15' FPL/JEA AND SIDEWALK EASEMENT

REMOVE EXISTING ENDWALL

EXISTING 19"x30" ERCP

EXIST. INV.=7.69

TYSON ROAD
(60' R/W)

RAINBOW ACRES ROAD

ASPHALT ROAD

12+00 | 13+00 | 14+00 | 15+00 | 16+00 | 17+00 | 18+00 | 19+00 | 20+00 | 21+00 | 22+00 | 23+00

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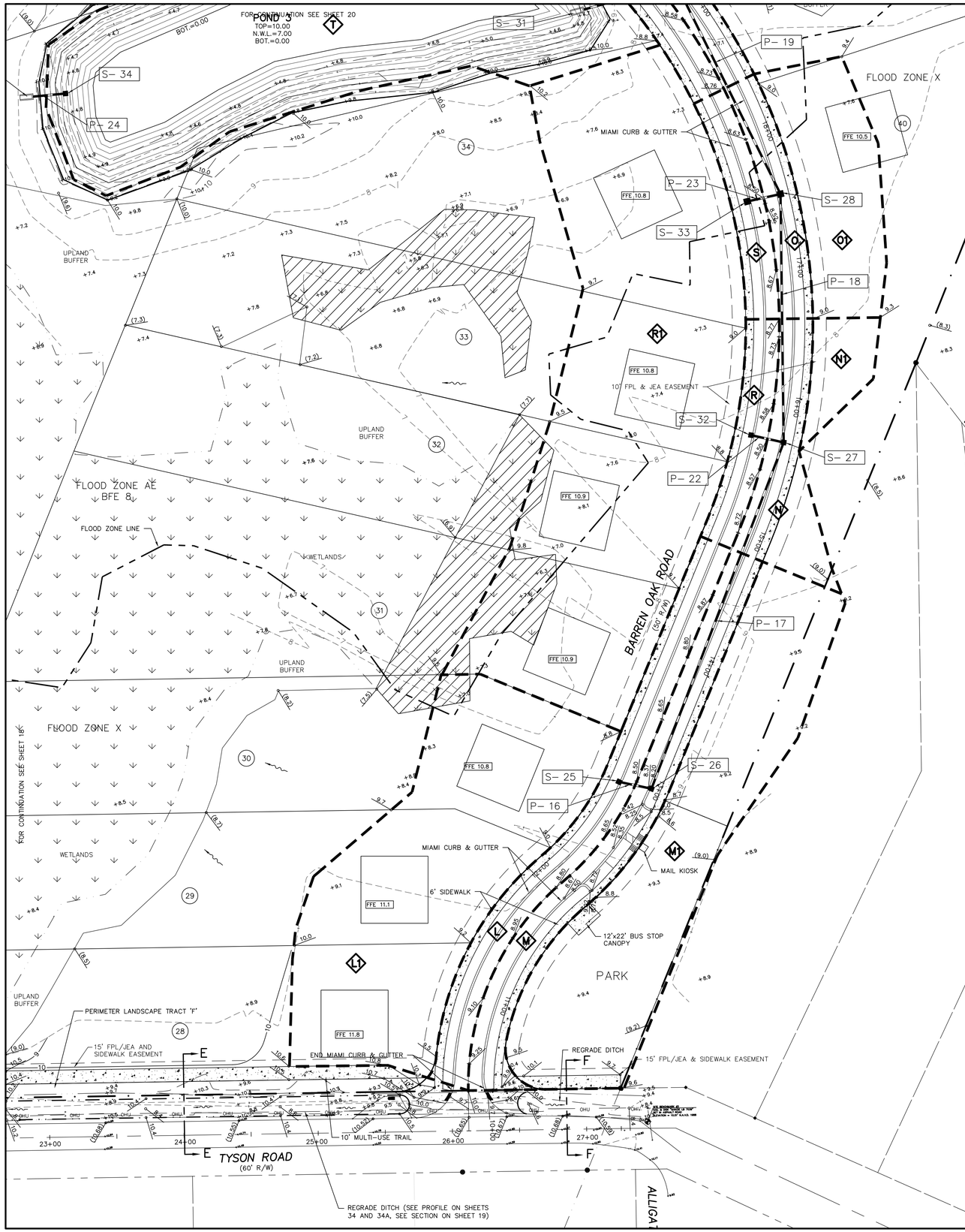
3	REVISED PER NASSAU COUNTY AND SJRWMD REVIEW	DAD	8/29/24
2	REVISED PER NASSAU COUNTY REVIEW	DAD	5/2/24
1	REVISED PER JEA REVIEW	DAD	3/21/24

PAVING & DRAINAGE PLAN OF TYSON FOREST FOR TYSON FOREST, LLC

DRAWING NO. 18 OF 41
JOB NO. 2301
FILE: 2301

SEAL & SIGNATURE:

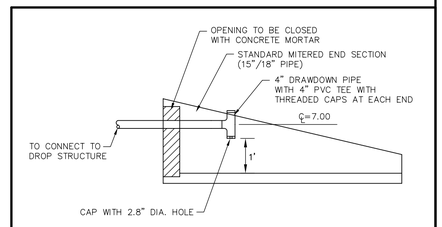
JAMES M. LUCAS, P.E. 18370



GRAPHIC SCALE

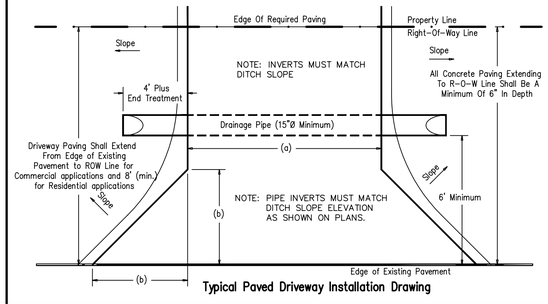
0 20 40 80

(IN FEET) 1 inch = 40 ft.

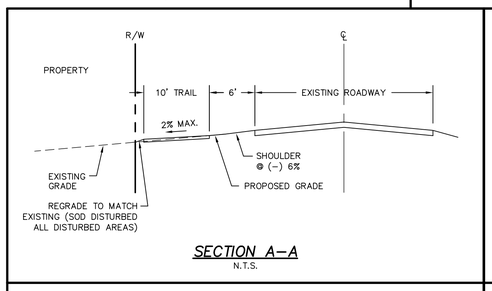


POND 3 BLEED DOWN DETAIL
N.T.S.

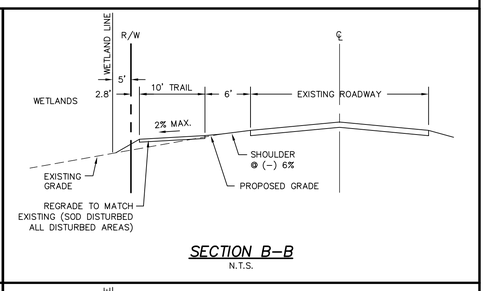
NOTE: A DRIVEWAY PERMIT WILL BE REQUIRED FROM NASSAU COUNTY AND CULVERTS SHALL BE SIZED BASED UPON DESIGN AND PERFORMANCE CRITERIA CONTAINED IN ROADWAY AND DRAINAGE STANDARDS, SECTION 10.6.4 (MINIMUM 15" PIPE). ALL DRIVEWAY CULVERTS SHALL BE 15" DIAMETER.



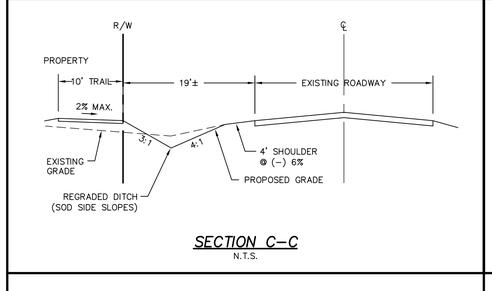
Typical Paved Driveway Installation Drawing



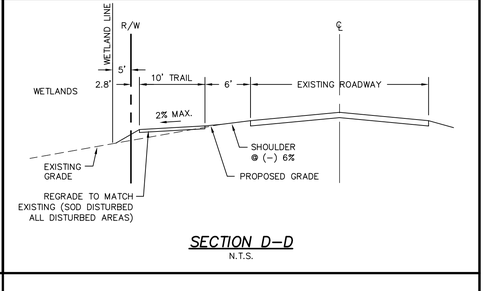
SECTION A–A
N.T.S.



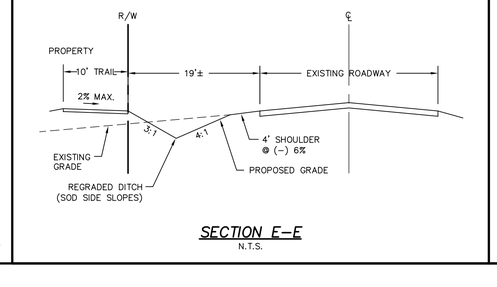
SECTION B–B
N.T.S.



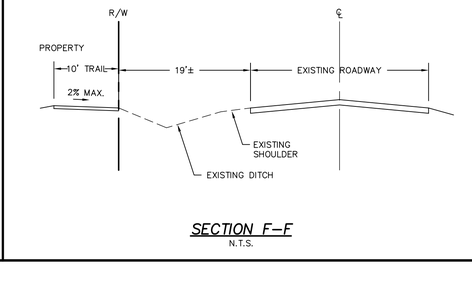
SECTION C–C
N.T.S.



SECTION D–D
N.T.S.



SECTION E–E
N.T.S.



SECTION F–F
N.T.S.

J. LUCAS & ASSOCIATES, INC.
CONSULTING AND DESIGN ENGINEERS
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1305 CEDAR STREET – JACKSONVILLE, FL 32207
PH (904) 396-3060 FAX (904) 396-3456

VERSION: ACAD14
DRAWN BY: DAD
DESIGNED BY: JML
APPROVED BY: JML
DATE: AUGUST 2023

NO.	REVISION	DATE	BY
4	REVISED PER NASSAU COUNTY AND SJRWMD REVIEW	8/28/24	DAD
3	ADJUSTED WATER SERVICE & FIRE HYDRANT LOCATIONS	6/3/24	DAD
2	REVISED PER NASSAU COUNTY REVIEW	5/2/24	DAD
1	REVISED PER JEA REVIEW	3/21/24	DAD

PAVING & DRAINAGE PLAN OF TYSON FOREST FOR TYSON FOREST, LLC

DRAWING NO. 19 OF 41
JOB NO. 2301
FILE: 2301

SEAL & SIGNATURE:

JAMES M. LUCAS, P.E. 18370

GRAPHIC SCALE
(IN FEET) 1 inch = 40 ft.
0
20
40
80
FLOOD ZONE AE
BFE 8
FLOOD ZONE AE
BFE 8'
FLOOD ZONE AE
BFE 8
FLOOD ZONE X
FLOOD ZONE LINE
POND 3
N.W.L.=7.00
BOT.=0.00
BARREN OAK ROAD
20' DRAINAGE EASEMENT
10' PFC & E&A EASEMENT
4" PVC ORIFICE PIPE
4" 22.5° BEND
4" 90° BEND
M.E.S. FOR ORIFICE (SEE DETAIL THIS SHEET)
MIAMI CURB & GUTTER
8' SIDEWALK
UPLAND BUFFER
VNB BUFFER
WETLANDS
S-35
S-34
S-31
S-30
S-29
P-24
P-20
P-19
INV=5.00
INV=4.50
INV=4.00
INV=3.50
INV=3.00
INV=2.50
INV=2.00
INV=1.50
INV=1.00
INV=0.50
INV=0.00
INV=-0.50
INV=-1.00
INV=-1.50
INV=-2.00
INV=-2.50
INV=-3.00
INV=-3.50
INV=-4.00
INV=-4.50
INV=-5.00
INV=-5.50
INV=-6.00
INV=-6.50
INV=-7.00
INV=-7.50
INV=-8.00
INV=-8.50
INV=-9.00
INV=-9.50
INV=-10.00
INV=-10.50
INV=-11.00
INV=-11.50
INV=-12.00
INV=-12.50
INV=-13.00
INV=-13.50
INV=-14.00
INV=-14.50
INV=-15.00
INV=-15.50
INV=-16.00
INV=-16.50
INV=-17.00
INV=-17.50
INV=-18.00
INV=-18.50
INV=-19.00
INV=-19.50
INV=-20.00

NOTES:

1. EXISTING DRIVEWAY NOTE:
ALL DRIVEWAYS SHALL BE REMOVED AND RESTORED FROM R/W TO EDGE OF PAVEMENT. ALL DISTURBED AREAS ARE TO BE SODDED PER NASSAU COUNTY REQUIREMENTS.

2. SHOULD THE CONSTRUCTION OF THE WATER MAIN ENCROACH INTO THE EXISTING STABILIZED SUBGRADE AT ANY POINT, THEN THE SUBGRADE WILL BE RESTORED FOR THE LENGTH OF THE DISTURBANCE PLUS 50 FEET ON EACH END (NORTH AND SOUTH) BY REMOVING THE SUBGRADE FROM EDGE OF PAVEMENT OUT 2 FEET AND BY INSTALLING 12 INCHES OF LIMEROCK (100LBR & 98% DENSITY) IN 2 LIFTS WITH A FEW INCHES OF TOPSOIL OVER THE LIMEROCK FOLLOWED BY SOD.

3. A PRE-CONSTRUCTION MEETING WILL BE REQUIRED BEFORE ANY WORK WITHIN COUNTY RIGHT-OF-WAY CAN BEGIN.

CONNECT TO EXISTING 12" STUB
EXISTING FIRE HYDRANT
EXISTING 12"x12"x10" TEE
12" G.V. W/ BOX & 10" G.V. W/ BOX
EXISTING 12" PVC DR-25 WATER MAIN
FOR DRIVEWAY REPAIR SEE DETAIL ON THIS SHEET
PROPOSED 12" PVC DR-18 WATER MAIN
PROPOSED FIRE HYDRANT ASSEMBLY
12" G.V. W/ BOX
MATCH LINE SEE BELOW
EXIST. 10"x8" REDUCER
EXISTING 8" PVC DR-25 WATER MAIN
HENDRICKS ROAD
PANDYS PLACE
COUNTY ROAD NO. 107 (OLD NASSAUVILLE ROAD)
(R/W VARIES)

GRAPHIC SCALE
0 20 40 80
(IN FEET) 1 inch = 40 ft.

1 1/2" ASPHALTIC CONCRETE SP-9.5 (COUNTY STD.)
8" COMPACTED LIMEROCK BASE, MIN. L.B.R. 100 98% MAX. DENSITY - A.A.S.H.T.O. T-180 PRIME COAT BASE TO F.D.O.T. STDS.
12" CONSTRUCTED SUB-BASE MIN. L.B.R. 40 MAX. PLASTIC INDEX OF 6, COMPACTED TO 98% MAX. DENSITY - A.A.S.H.T.O. T-180
EXISTING DRIVEWAY CULVERT

TYPICAL ASPHALT DRIVEWAY SECTION
N.T.S.

12" CONSTRUCTED SUB-BASE MIN. L.B.R. 40 MAX. PLASTIC INDEX OF 6, COMPACTED TO 98% MAX. DENSITY - A.A.S.H.T.O. T-180
TOPSOIL
EXISTING DRIVEWAY CULVERT

TYPICAL NON-PAVED DRIVEWAY SECTION
N.T.S.

6" THICK REINFORCED CONCRETE 3,000 PSI
12" CONSTRUCTED SUB-BASE MIN. L.B.R. 40 MAX. PLASTIC INDEX OF 6, COMPACTED TO 98% MAX. DENSITY - A.A.S.H.T.O. T-180
EXISTING DRIVEWAY CULVERT

TYPICAL CONCRETE DRIVEWAY SECTION
N.T.S.

NOTES:

1. EXISTING DRIVEWAY NOTE:
ALL DRIVEWAYS SHALL BE REMOVED AND RESTORED FROM R/W TO EDGE OF PAVEMENT. ALL DISTURBED AREAS ARE TO BE SODDED PER NASSAU COUNTY REQUIREMENTS.

2. SHOULD THE CONSTRUCTION OF THE WATER MAIN ENCROACH INTO THE EXISTING STABILIZED SUBGRADE AT ANY POINT, THEN THE SUBGRADE WILL BE RESTORED FOR THE LENGTH OF THE DISTURBANCE PLUS 50 FEET ON EACH END (NORTH AND SOUTH) BY REMOVING THE SUBGRADE FROM EDGE OF PAVEMENT OUT 2 FEET AND BY INSTALLING 12 INCHES OF LIMEROCK (100LBR & 98% DENSITY) IN 2 LIFTS WITH A FEW INCHES OF TOPSOIL OVER THE LIMEROCK FOLLOWED BY SOD.

3. A PRE-CONSTRUCTION MEETING WILL BE REQUIRED BEFORE ANY WORK WITHIN COUNTY RIGHT-OF-WAY CAN BEGIN.

SEE ABOVE
MATCH LINE
NASSAUVILLE VOLUNTEER FIRE DEPARTMENT
PROPOSED FIRE HYDRANT ASSEMBLY
FOR DRIVEWAY REPAIR SEE DETAIL ON THIS SHEET
EXISTING DRY HYDRANT
PROPOSED 12" PVC DR-18 WATER MAIN
12" G.V. W/ BOX
DIRT ROAD
COUNTY ROAD NO. 107 (OLD NASSAUVILLE ROAD)
(R/W VARIES)
BIG OAK AVENUE
ARBOR LANE (66' R/W)
(2) 12" 22.5° BENDS
12"x12" TEE
(2) 12" G.V. W/ BOX
12" PLUG
FOR CONTINUATION SEE SHEET 22

GRAPHIC SCALE
0 20 40 80
(IN FEET) 1 inch = 40 ft.

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VERSION: ACAD 20
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APPROVED BY: JML
DATE: AUGUST 2023

NO.	REVISION	BY	DATE
1	REVISED PER JEA REVIEW	DAD	3/21/24

OFFSITE WATER PLAN OF TYSON FOREST FOR TYSON FOREST, LLC

DRAWING NO. 21 OF 41
JOB NO. 2301
FILE: 2301BASE

SEAL & SIGNATURE:

JAMES M. LUCAS, P.E. 18370

J. LUCAS & ASSOCIATES, INC.
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DATE: AUGUST 2023

NO.	REVISION	BY	DATE
1	REVISED PER JEA REVIEW	DAD	3/21/24

OFFSITE WATER PLAN OF TYSON FOREST FOR TYSON FOREST, LLC

DRAWING NO. 22 OF 41
JOB NO. 2301
FILE: 2301BASE

SEAL & SIGNATURE:

JAMES M. LUCAS, P.E. 18370

FOR CONTINUATION SEE SHEET 24

NOTES:

1. ALL LOTS TO BE SERVED BY JEA FOR POTABLE WATER AND FIRE PROTECTION WITH NEW WATER SYSTEM.
2. ALL LOTS SHALL HAVE A SEWER SEPTIC SYSTEM AS REQUIRED AND PERMITTED THROUGH THE NASSAU COUNTY HEALTH DEPARTMENT.
3. DRAINFIELD LOCATIONS ARE APPROXIMATE. EXACT LOCATIONS AND DIMENSIONS MAY VARY.
4. NO PORTION OF ANY DRAINFIELD SHALL ENCROACH INTO AN UPLAND BUFFER OR WETLAND AREA.

FOR CONTINUATION SEE SHEET 25

GRAPHIC SCALE
0 20 40 80
(IN FEET) 1 inch = 40 ft.

TYSON ROAD
(60' R/W)

SHUMARD OAK DRIVE
(60' R/W)

PROPOSED 8" PVC DR-18 WATER MAIN
PROPOSED 10" PVC DR-18 WATER MAIN
PROPOSED FIRE HYDRANT ASSEMBLY
LIMITED SPACE FIRE HYDRANT ASSEMBLY
(2) 12" 45° BENDS
12"x10" REDUCER
10"x10" TEE
(2) 10" G.V. W/ BOX
10"x10"x8" TEE
10" G.V. W/ BOX
8" G.V. W/ BOX
(2) 8" 45° BENDS
(3) 6" SLEEVES
2" IRRIGATION SERVICE
6' SIDEWALK
10' MULTI-USE TRAIL
10' ENHANCED LANDSCAPE AREA EASEMENT
15' FPL/JEA & SIDEWALK EASEMENT
10' FPL & JEA EASEMENT
20' DRAINAGE EASEMENT
MAINTAIN 3' SEPARATION
UPLAND BUFFER
VNB BUFFER
WETLANDS
DRAINFIELD
CONCRETE DRIVEWAY
ASPHALT ROAD
GRAVEL DRIVEWAY
DITCH
ONU
OHU
PHO

J. LUCAS & ASSOCIATES, INC.
CONSULTING AND DESIGN ENGINEERS
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3	REVISED PER NASSAU COUNTY REVIEW	DAD	5/2/24
2	MOVED FIRE HYDRANTS AND ADDED ONE ALONG TYSON ROAD	DAD	4/4/24
1	REVISED PER JEA REVIEW	DAD	3/21/24

WATER & SEWER PLAN OF TYSON FOREST FOR TYSON FOREST, LLC

DRAWING NO. 23 OF 41
JOB NO. 2301
FILE: 2301

SEAL & SIGNATURE:

JAMES M. LUCAS, P.E. 18370

NOTES:

1. ALL LOTS TO BE SERVED BY JEA FOR POTABLE WATER AND FIRE PROTECTION WITH NEW WATER SYSTEM.
2. ALL LOTS SHALL HAVE A SEWER SEPTIC SYSTEM AS REQUIRED AND PERMITTED THROUGH THE NASSAU COUNTY HEALTH DEPARTMENT.
3. DRAINFIELD LOCATIONS ARE APPROXIMATE. EXACT LOCATIONS AND DIMENSIONS MAY VARY.
4. NO PORTION OF ANY DRAINFIELD SHALL ENCROACH INTO AN UPLAND BUFFER OR WETLAND AREA.

GRAPHIC SCALE
0 20 40 80
(IN FEET) 1 inch = 40 ft.

PROPOSED FIRE HYDRANT ASSEMBLY
SEE DETAIL ON THIS SHEET
FOR DRIVEWAY REPAIR
12" C.I.P.
12" C.I.V. W/ BOX
MATCH LINE
PROPOSED FIRE HYDRANT ASSEMBLY
SEE DETAIL ON THIS SHEET
FOR DRIVEWAY REPAIR
NASSAMMLE VOLUNTEER FIRE DEPARTMENT
6" SIDEWALK
2" FLUSHING HYDRANT
PROPOSED 2" POLY WATER MAIN
10' FPL & JEA EASEMENT
4" PLUG, TAPPED 2"
PROPOSED 4" PVC DR-18 WATER MAIN
SHUMARD OAK DRIVE
(100' R/W)
2" IRRIGATION SERVICE
PARK
LIMITED SPACE FIRE HYDRANT ASSEMBLY 8"x4" REDUCER AND 4" G.V. W/ BOX
MAINTAIN 3' SEPARATION
6" SIDEWALK
20' DRAINAGE EASEMENT
10' DRAINAGE EASEMENT
DRAINAGE EASEMENT
POND 1
10' DRAINAGE EASEMENT
FOR CONTINUATION SEE SHEET 23
VNB BUFFER
WETLANDS
DRAINFIELD
FLOOD ZONE AE
BFE 8
FLOOD ZONE LINE
FLOOD ZONE X
UPLAND BUFFER
9
10
11
12
13
14

J. LUCAS & ASSOCIATES, INC.
CONSULTING AND DESIGN ENGINEERS
CERTIFICATE OF AUTHORIZATION NO. 3981
1305 CEDAR STREET – JACKSONVILLE, FL 32207
PH (904) 396-3060 FAX (904) 396-3456

VERSION: ACAD 14
DRAWN BY: DAD
DESIGNED BY: JML
APPROVED BY: JML
DATE: AUGUST 2023

NO.	REVISION	BY	DATE
3	REVISED PER NASSAU COUNTY AND SJRWMD REVIEW	DAD	8/28/24
2	REVISED PER NASSAU COUNTY REVIEW	DAD	5/2/24
1	REVISED PER JEA REVIEW	DAD	3/21/24

WATER & SEWER PLAN OF TYSON FOREST FOR TYSON FOREST, LLC

DRAWING NO. 24 OF 41
JOB NO. 2301
FILE: 2301

SEAL & SIGNATURE:

JAMES M. LUCAS, P.E. 18370

FOR CONTINUATION SEE SHEET 24

WETLANDS

UPLAND BUFFER

10' DRAINAGE EASEMENT

UPLAND BUFFER

FLOOD ZONE AE
BFE 8

FLOOD ZONE X

FLOOD ZONE LINE

WETLANDS

FOR CONTINUATION SEE SHEET 27

UPLAND BUFFER

15' DRAINAGE EASEMENT

16

DRAINFIELD

UPLAND BUFFER

17

DRAINFIELD

WETLANDS

POND 2

GRAPHIC SCALE
0 20 40 80
(IN FEET) 1 inch = 40 ft.

FLOOD ZONE LINE

FLOOD ZONE X

DRAINFIELD

VNB BUFFER

FOR CONTINUATION SEE SHEET 23

19 DRAINFIELD

20 DRAINFIELD

21 DRAINFIELD

22 DRAINFIELD

23 DRAINFIELD

24

25 DRAINFIELD

20' PRIVATE DRAINAGE EASEMENT

DRAINFIELD

26

27

WETLANDS

WETLANDS

UPLAND BUFFER

20' DRAINAGE EASEMENT

20' DRAINAGE EASEMENT

20' DRAINAGE EASEMENT

20' DRAINAGE EASEMENT

20' DRAINAGE EASEMENT

20' DRAINAGE EASEMENT

20' DRAINAGE EASEMENT

20' DRAINAGE EASEMENT

20' DRAINAGE EASEMENT

15' FPL/JEA & SIDEWALK EASEMENT

PROPOSED 10" PVC DR-18 WATER MAIN

PROPOSED 10" PVC DR-18 WATER MAIN

10" G.V. W/ BOX

PROPOSED LIMITED SPACE FIRE HYDRANT ASSEMBLY

10' MULTI-USE TRAIL

PROPOSED LIMITED SPACE FIRE HYDRANT ASSEMBLY

15' FPL/JEA AND SIDEWALK EASEMENT

4.00'

4.00'

OHU

12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00

15.27'

15.27'

ASPHALT ROAD

10' ENHANCED LANDSCAPE AREA EASEMENT

PROPOSED 10" PVC DR-18 WATER MAIN

RAINBOW ACRES ROAD

TYSON ROAD
(60' R/W)

FOR CONTINUATION SEE SHEET 26

NOTES:

1. ALL LOTS TO BE SERVED BY JEA FOR POTABLE WATER AND FIRE PROTECTION WITH NEW WATER SYSTEM.
2. ALL LOTS SHALL HAVE A SEWER SEPTIC SYSTEM AS REQUIRED AND PERMITTED THROUGH THE NASSAU COUNTY HEALTH DEPARTMENT.
3. DRAINFIELD LOCATIONS ARE APPROXIMATE. EXACT LOCATIONS AND DIMENSIONS MAY VARY.
4. NO PORTION OF ANY DRAINFIELD SHALL ENCROACH INTO AN UPLAND BUFFER OR WETLAND AREA.

J. LUCAS & ASSOCIATES, INC.
CONSULTING AND DESIGN ENGINEERS
CERTIFICATE OF AUTHORIZATION NO. 3981
1305 CEDAR STREET – JACKSONVILLE, FL 32207
PH (904) 396-3060 FAX (904) 396-3456

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APPROVED BY: JML
DATE: AUGUST 2023

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2	REVISED PER NASSAU COUNTY REVIEW	DAD	5/2/24
1	REVISED PER JEA REVIEW	DAD	3/21/24

WATER & SEWER PLAN OF TYSON FOREST FOR TYSON FOREST, LLC

DRAWING NO. 25 OF 41
JOB NO. 2301
FILE: 2301

SEAL & SIGNATURE:

JAMES M. LUCAS, P.E. 18370

POND 3

FOR CONTINUATION SEE SHEET 27

4" PLUG, TAPPED 2"

PROPOSED 4" PVC DR-18 WATER MAIN

LIMITED SPACE FIRE HYDRANT ASSEMBLY 8"x4" REDUCER AND 4" G.V. W/ BOX

FLOOD ZONE

DRAINFIELD

MAINTAIN 3' SEPARATION

UPLAND BUFFER

PROPOSED 8" PVC DR-18 WATER MAIN

10' FPL & JEA EASEMENT

FLOOD ZONE LINE

WETLANDS

BARREN OAK ROAD (50' R/W)

FOR CONTINUATION SEE SHEET 25

FLOOD ZONE X

LIMITED SPACE FIRE HYDRANT ASSEMBLY

6' SIDEWALK

PARK

10"x10"x8" TEE
10" G.V. W/ BOX
8" G.V. W/ BOX
(2) 8" 45° BENDS

(3) 6" SLEEVES

2" IRRIGATION SERVICE

15' FPL/JEA AND SIDEWALK EASEMENT

15' FPL/JEA & SIDEWALK EASEMENT

10" PLUG AND 2" FLUSHING HYDRANT

PROPOSED 10" PVC DR-18 WATER MAIN

10' MULTI-USE TRAIL

23+00 24+00 25+00 26+00 27+00

TYSON ROAD
(60' R/W)

ALLIGATOR

GRAPHIC SCALE
0 20 40 80
(IN FEET) 1 inch = 40 ft.

NOTES:

1. ALL LOTS TO BE SERVED BY JEA FOR POTABLE WATER AND FIRE PROTECTION WITH NEW WATER SYSTEM.
2. ALL LOTS SHALL HAVE A SEWER SEPTIC SYSTEM AS REQUIRED AND PERMITTED THROUGH THE NASSAU COUNTY HEALTH DEPARTMENT.
3. DRAINFIELD LOCATIONS ARE APPROXIMATE. EXACT LOCATIONS AND DIMENSIONS MAY VARY.
4. NO PORTION OF ANY DRAINFIELD SHALL ENCROACH INTO AN UPLAND BUFFER OR WETLAND AREA.

J. LUCAS & ASSOCIATES, INC.
CONSULTING AND DESIGN ENGINEERS
CERTIFICATE OF AUTHORIZATION NO. 3981
1305 CEDAR STREET – JACKSONVILLE, FL 32207
PH (904) 396-3060 FAX (904) 396-3456

VERSION: ACAD14
DRAWN BY: DAD
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DATE: AUGUST 2023

NO.	REVISION	BY	DATE
4	REVISED PER NASSAU COUNTY AND SJRWMD REVIEW	DAD	8/28/24
3	ADJUSTED WATER SERVICE & FIRE HYDRANT LOCATIONS	DAD	6/3/24
2	REVISED PER NASSAU COUNTY REVIEW	DAD	5/2/24
1	REVISED PER JEA REVIEW	DAD	3/21/24

WATER & SEWER PLAN OF TYSON FOREST FOR TYSON FOREST, LLC

DRAWING NO. 26 OF 41
JOB NO. 2301
FILE: 2301

SEAL & SIGNATURE:

JAMES M. LUCAS, P.E. 18370

GRAPHIC SCALE

0 20 40 80

(IN FEET) 1 inch = 40 ft.

NOTES:

1. ALL LOTS TO BE SERVED BY JEA FOR POTABLE WATER AND FIRE PROTECTION WITH NEW WATER SYSTEM.
2. ALL LOTS SHALL HAVE A SEWER SEPTIC SYSTEM AS REQUIRED AND PERMITTED THROUGH THE NASSAU COUNTY HEALTH DEPARTMENT.
3. DRAINFIELD LOCATIONS ARE APPROXIMATE. EXACT LOCATIONS AND DIMENSIONS MAY VARY.
4. NO PORTION OF ANY DRAINFIELD SHALL ENCROACH INTO AN UPLAND BUFFER OR WETLAND AREA.

VNB BUFFER
WETLANDS
UPLAND BUFFER
FLOOD ZONE AE BFE 8
FLOOD ZONE LINE
DRAINFIELD
20' DRAINAGE EASEMENT
2" FLUSHING HYDRANT
PROPOSED 2" POLY WATER MAIN
22+00
10' FPL & JEA EASEMENT
6' SIDEWALK
BARREN OAK ROAD
(50' R/W)
20+00
2" POLY WATER MAIN
MAINTAIN 3' SEPARATION
4" PLUG, TAPPED 2"
POND 3
PROPOSED 4" PVC DR-18 WATER MAIN
LIMITED SPACE FIRE HYDRANT ASSEMBLY 8"x4" REDUCER AND 4" G.V. W/ BOX
18+00
FLOOD ZONE DRAINFIELD
35
36
37
38
39
40
34

J. LUCAS & ASSOCIATES, INC.
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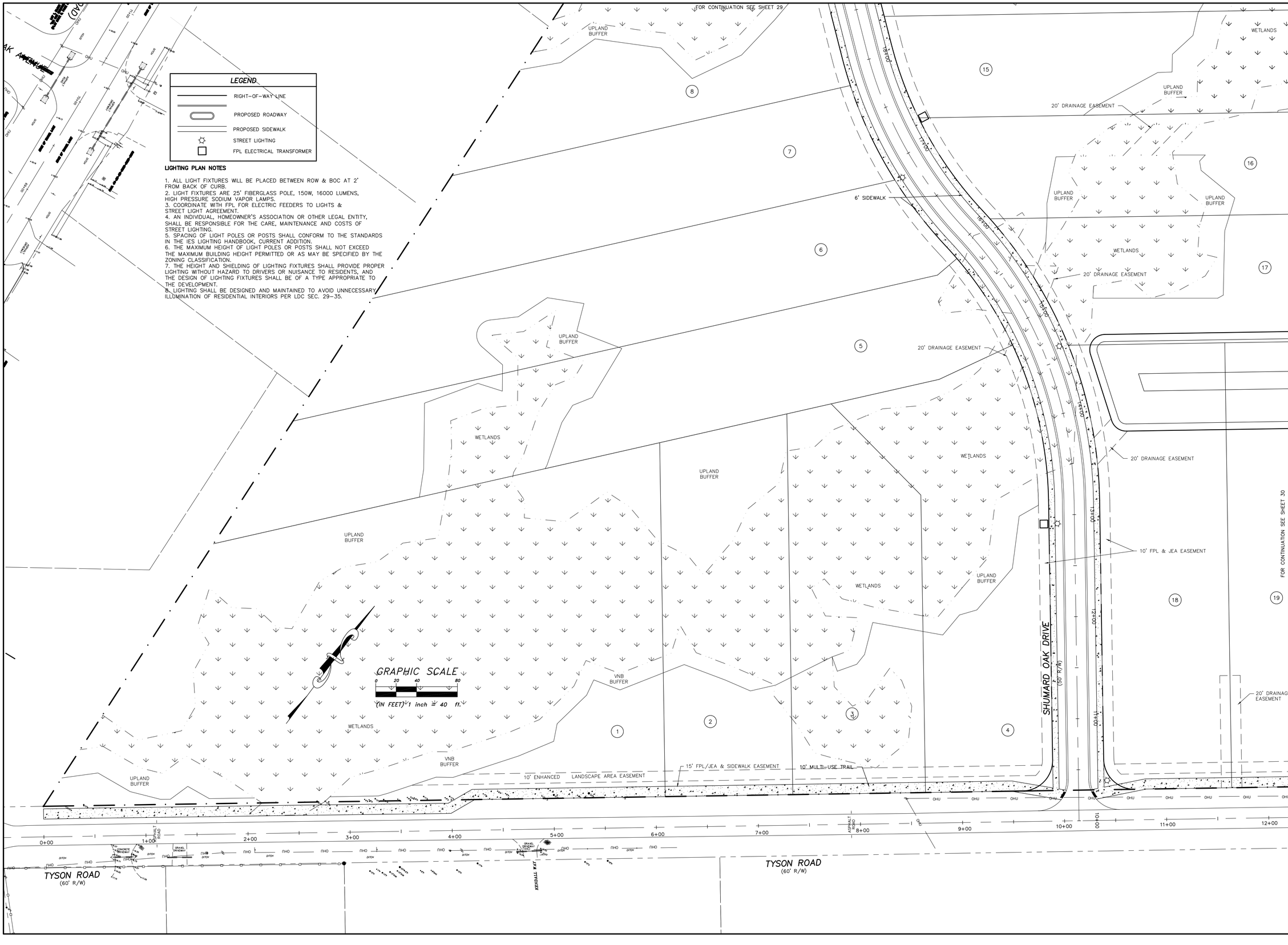
3	ADJUSTED WATER SERVICE & FIRE HYDRANT LOCATIONS	DAD	6/3/24
2	REVISED PER NASSAU COUNTY REVIEW	DAD	5/2/24
1	REVISED PER JEA REVIEW	DAD	3/21/24

WATER & SEWER PLAN OF TYSON FOREST FOR TYSON FOREST, LLC

DRAWING NO. 27 OF 41
JOB NO. 2301
FILE: 2301

SEAL & SIGNATURE:

JAMES M. LUCAS, P.E. 18370



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1305 CEDAR STREET – JACKSONVILLE, FL 32207
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DATE: AUGUST 2023

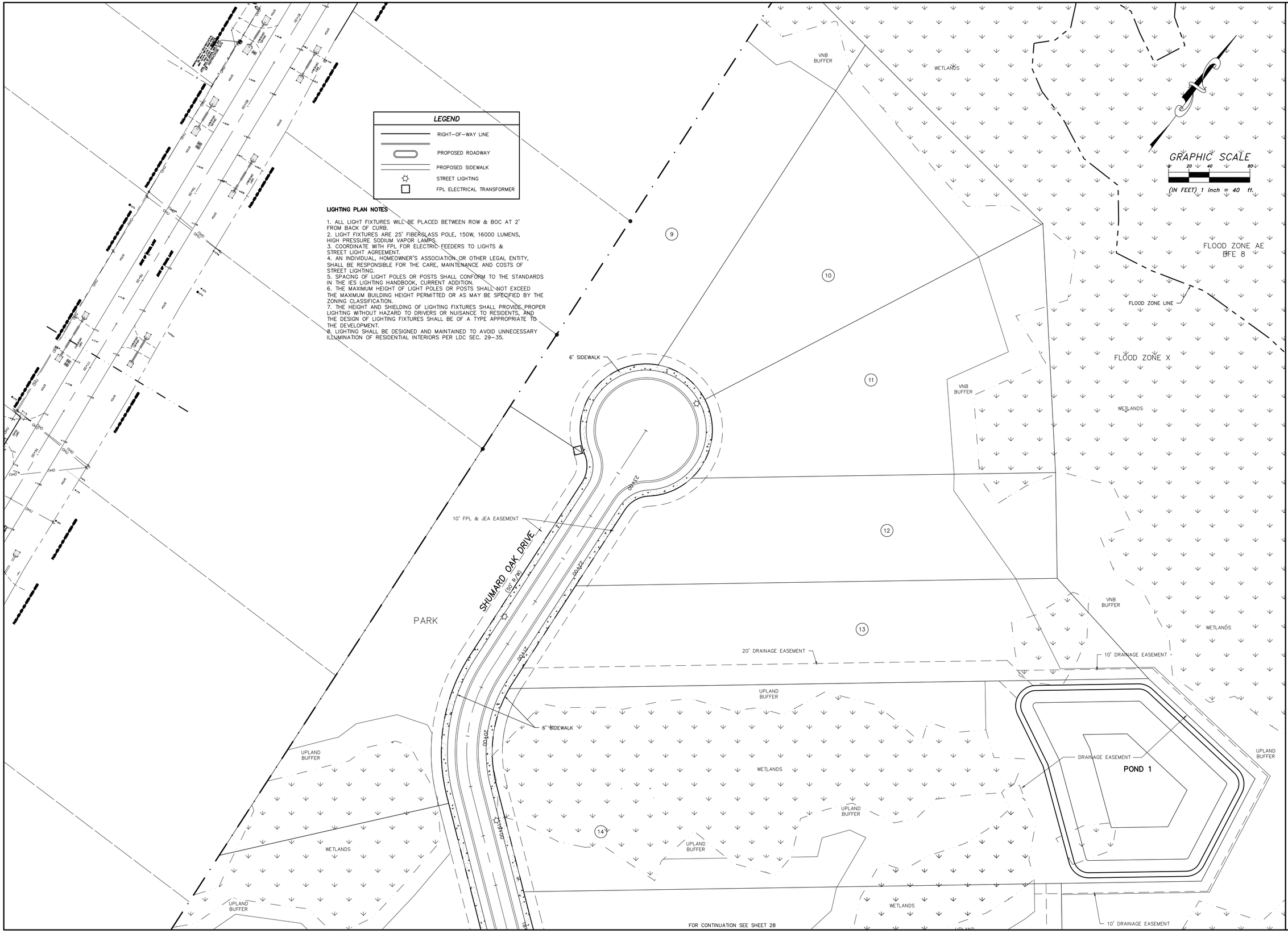
NO.	REVISION	DATE	BY
5	REVISED PER NASSAU COUNTY AND SJRWMD REVIEW	8/28/24	DAD
4	ADJUSTED WATER SERVICE & FIRE HYDRANT LOCATIONS	6/3/24	DAD
3	REVISED PER NASSAU COUNTY REVIEW	5/2/24	DAD
2	MOVED FIRE HYDRANTS AND ADDED ONE ALONG TYSON ROAD	4/4/24	DAD
1	REVISED PER JEA REVIEW	3/21/24	DAD

LIGHTING PLAN OF TYSON FOREST FOR TYSON FOREST, LLC

DRAWING NO. 28 OF 41
JOB NO. 2301
FILE: 2301

SEAL & SIGNATURE:

JAMES M. LUCAS, P.E. 18370



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2	REVISED PER NASSAU COUNTY REVIEW	5/2/24	DAD
1	REVISED PER JEA REVIEW	3/21/24	DAD

LIGHTING PLAN OF TYSON FOREST FOR TYSON FOREST, LLC

DRAWING NO. 29 OF 41
JOB NO. 2301
FILE: 2301

SEAL & SIGNATURE:

JAMES M. LUCAS, P.E. 18370

FOR CONTINUATION SEE SHEET 29

FOR CONTINUATION SEE SHEET 32

FOR CONTINUATION SEE SHEET 28

FOR CONTINUATION SEE SHEET 31

WETLANDS

UPLAND BUFFER

10' DRAINAGE EASEMENT

FLOOD ZONE AE
BFE 8

FLOOD ZONE X

FLOOD ZONE LINE

15' DRAINAGE EASEMENT

16

17

POND 2

GRAPHIC SCALE
0 20 40 80
(IN FEET) 1 inch = 40 ft.

VNB BUFFER

19 20 21 22 23 24 25 26 27

20' DRAINAGE EASEMENT

20' PRIVATE DRAINAGE EASEMENT

15' FPL/JEA & SIDEWALK EASEMENT

10' MULTI-USE TRAIL

10' ENHANCED LANDSCAPE AREA EASEMENT

OHU

12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00

ASPHALT ROAD

RAINBOW ACRES ROAD

TYSON ROAD
(60' R/W)

LEGEND

- RIGHT-OF-WAY LINE
- PROPOSED ROADWAY
- PROPOSED SIDEWALK
- STREET LIGHTING
- FPL ELECTRICAL TRANSFORMER

LIGHTING PLAN NOTES

1. ALL LIGHT FIXTURES WILL BE PLACED BETWEEN ROW & BOC AT 2' FROM BACK OF CURB.
2. LIGHT FIXTURES ARE 25' FIBERGLASS POLE, 150W, 16000 LUMENS, HIGH PRESSURE SODIUM VAPOR LAMPS.
3. ~~COORDINATE WITH FPL FOR ELECTRIC FEEDERS TO LIGHTS & STREET LIGHT AGREEMENT.~~
4. AN INDIVIDUAL, HOMEOWNER'S ASSOCIATION OR OTHER LEGAL ENTITY, SHALL BE RESPONSIBLE FOR THE CARE, MAINTENANCE AND COSTS OF STREET LIGHTING.
5. SPACING OF LIGHT POLES OR POSTS SHALL CONFORM TO THE STANDARDS IN THE IES LIGHTING HANDBOOK, CURRENT ADDITION.
6. THE MAXIMUM HEIGHT OF LIGHT POLES OR POSTS SHALL NOT EXCEED THE MAXIMUM BUILDING HEIGHT PERMITTED OR AS MAY BE SPECIFIED BY THE ZONING CLASSIFICATION.
7. THE HEIGHT AND SHIELDING OF LIGHTING FIXTURES SHALL PROVIDE PROPER LIGHTING WITHOUT HAZARD TO DRIVERS OR NUISANCE TO RESIDENTS, AND THE DESIGN OF LIGHTING FIXTURES SHALL BE OF A TYPE APPROPRIATE TO THE DEVELOPMENT.
8. LIGHTING SHALL BE DESIGNED AND MAINTAINED TO AVOID UNNECESSARY ILLUMINATION OF RESIDENTIAL INTERIORS PER LDC SEC. 29-35.

J. LUCAS & ASSOCIATES, INC.
CONSULTING AND DESIGN ENGINEERS
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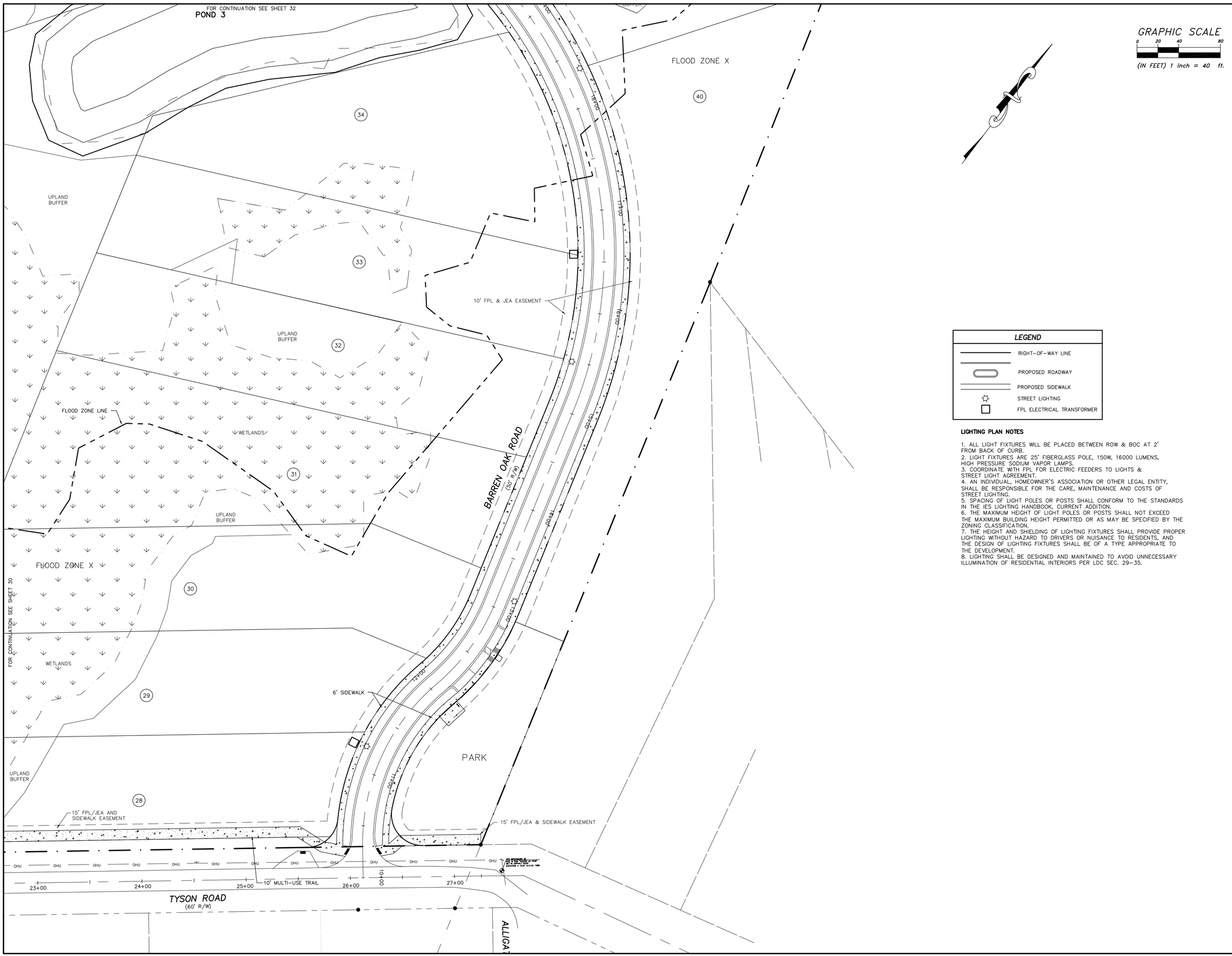
NO.	REVISION	BY	DATE
3	REVISED PER NASSAU COUNTY AND SJRWMD REVIEW	DAD	8/28/24
2	REVISED PER NASSAU COUNTY REVIEW	DAD	5/2/24
1	REVISED PER JEA REVIEW	DAD	3/21/24

LIGHTING PLAN OF TYSON FOREST FOR TYSON FOREST, LLC

DRAWING NO. 30 OF 41
JOB NO. 2301
FILE: 2301

SEAL & SIGNATURE:

JAMES M. LUCAS, P.E. 18370



LEGEND

- RIGHT-OF-WAY LINE
- PROPOSED ROADWAY
- PROPOSED SIDEWALK
- STREET LIGHTING
- FPL ELECTRICAL TRANSFORMER

LIGHTING PLAN NOTES

1. ALL LIGHT FIXTURES WILL BE PLACED BETWEEN ROW & BOC AT 2' FROM BACK OF CURB.
2. LIGHT FIXTURES ARE 25' FIBERGLASS POLE, 150W, 16000 LUMENS, HIGH PRESSURE SODIUM VAPOR LAMPS.
3. COORDINATE WITH FPL FOR ELECTRIC FEEDERS TO LIGHTS & STREET LIGHT AGREEMENT.
4. AN INDIVIDUAL, HOMEOWNER'S ASSOCIATION OR OTHER LEGAL ENTITY, SHALL BE RESPONSIBLE FOR THE CARE, MAINTENANCE AND COSTS OF STREET LIGHTING.
5. SPACING OF LIGHT POLES OR POSTS SHALL CONFORM TO THE STANDARDS IN THE IES LIGHTING HANDBOOK, CURRENT ADDITION.
6. THE MAXIMUM HEIGHT OF LIGHT POLES OR POSTS SHALL NOT EXCEED THE MAXIMUM BUILDING HEIGHT PERMITTED OR AS MAY BE SPECIFIED BY THE ZONING CLASSIFICATION.
7. THE HEIGHT AND SHIELDING OF LIGHTING FIXTURES SHALL PROVIDE PROPER LIGHTING WITHOUT HAZARD TO DRIVERS OR NUISANCE TO RESIDENTS, AND THE DESIGN OF LIGHTING FIXTURES SHALL BE OF A TYPE APPROPRIATE TO THE DEVELOPMENT.
8. LIGHTING SHALL BE DESIGNED AND MAINTAINED TO AVOID UNNECESSARY ILLUMINATION OF RESIDENTIAL INTERIORS PER LDC SEC. 29-35.

J. LUCAS & ASSOCIATES, INC.
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3	ADJUSTED WATER SERVICE & FIRE HYDRANT LOCATIONS	DAD	6/3/24
2	REVISED PER NASSAU COUNTY REVIEW	DAD	5/2/24
1	REVISED PER JEA REVIEW	DAD	3/21/24

LIGHTING PLAN OF TYSON FOREST FOR TYSON FOREST, LLC

DRAWING NO. 31 OF 41
JOB NO. 2301
FILE: 2301

SEAL & SIGNATURE:

JAMES M. LUCAS, P.E. 18370

GRAPHIC SCALE

0 20 40 80

(IN FEET) 1 inch = 40 ft.

LIGHTING PLAN NOTES

1. ALL LIGHT FIXTURES WILL BE PLACED BETWEEN ROW & BOC AT 2' FROM BACK OF CURB.
2. LIGHT FIXTURES ARE 25' FIBERGLASS POLE, 150W, 16000 LUMENS, HIGH PRESSURE SODIUM VAPOR LAMPS.
3. COORDINATE WITH FPL FOR ELECTRIC FEEDERS TO LIGHTS & STREET LIGHT AGREEMENT.
4. AN INDIVIDUAL, HOMEOWNER'S ASSOCIATION OR OTHER LEGAL ENTITY, SHALL BE RESPONSIBLE FOR THE CARE, MAINTENANCE AND COSTS OF STREET LIGHTING.
5. SPACING OF LIGHT POLES OR POSTS SHALL CONFORM TO THE STANDARDS IN THE IES LIGHTING HANDBOOK, CURRENT ADDITION.
6. THE MAXIMUM HEIGHT OF LIGHT POLES OR POSTS SHALL NOT EXCEED THE MAXIMUM BUILDING HEIGHT PERMITTED OR AS MAY BE SPECIFIED BY THE ZONING CLASSIFICATION.
7. THE HEIGHT AND SHIELDING OF LIGHTING FIXTURES SHALL PROVIDE PROPER LIGHTING WITHOUT HAZARD TO DRIVERS OR NUISANCE TO RESIDENTS, AND THE DESIGN OF LIGHTING FIXTURES SHALL BE OF A TYPE APPROPRIATE TO THE DEVELOPMENT.
8. LIGHTING SHALL BE DESIGNED AND MAINTAINED TO AVOID UNNECESSARY ILLUMINATION OF RESIDENTIAL INTERIORS PER LDC SEC. 29-35.

LEGEND

- RIGHT-OF-WAY LINE
- PROPOSED ROADWAY
- PROPOSED SIDEWALK
- STREET LIGHTING
- FPL ELECTRICAL TRANSFORMER

VNB BUFFER
WETLANDS
UPLAND BUFFER
FLOOD ZONE AE BFE 8
FLOOD ZONE X
FLOOD ZONE LINE
20' DRAINAGE EASEMENT
10' FPL & JEA EASEMENT
6' SIDEWALK
BARREN OAK ROAD (50' R/W)
POND 3
22+00
21+00
20+00
19+00
18+00
37
38
36
35
39
40
34

J. LUCAS & ASSOCIATES, INC.
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3	ADJUSTED WATER SERVICE & FIRE HYDRANT LOCATIONS	DAD	6/3/24
2	REVISED PER NASSAU COUNTY REVIEW	DAD	5/2/24
1	REVISED PER JEA REVIEW	DAD	3/21/24

LIGHTING PLAN OF TYSON FOREST FOR TYSON FOREST, LLC

DRAWING NO. 32 OF 41
JOB NO. 2301
FILE: 2301

SEAL & SIGNATURE:

JAMES M. LUCAS, P.E. 18370

SHUMARD OAK DRIVE
SCALE: 1"=40' (HOR.)
. 1"=4' (VERT.)

SHUMARD OAK DRIVE
SCALE: 1"=40' (HOR.)
. 1"=4' (VERT.)

J. LUCAS & ASSOCIATES, INC.
CONSULTING AND DESIGN ENGINEERS
CERTIFICATE OF AUTHORIZATION NO. 3981
1305 CEDAR STREET – JACKSONVILLE, FL 32207
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VERSION: ACAD 20
DRAWN BY: SBD
DESIGNED BY: ML
APPROVED BY: JML
DATE: AUGUST 2023

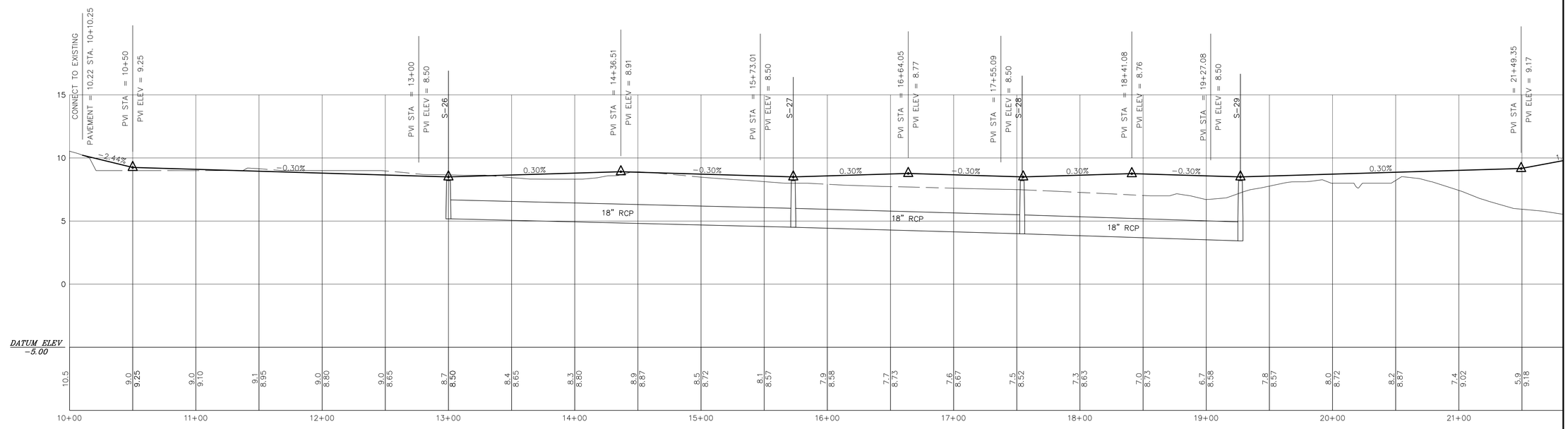
NO.	REVISION	BY	DATE
1	REVISED PER NASSAU COUNTY REVIEW	DAD	5/2/24

ROADWAY & UTILITY PROFILES
TYSON FOREST
FOR
TYSON FOREST, LLC

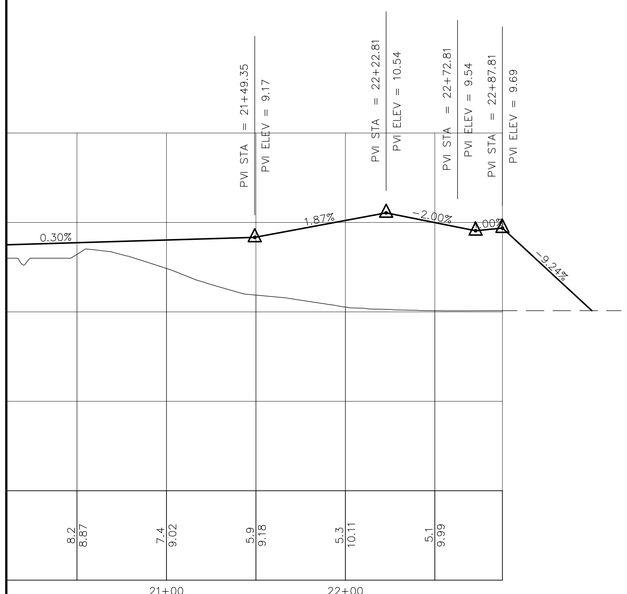
DRAWING NO. 33 OF 41
JOB NO. 2301
FILE: 2301BASE

SEAL & SIGNATURE:

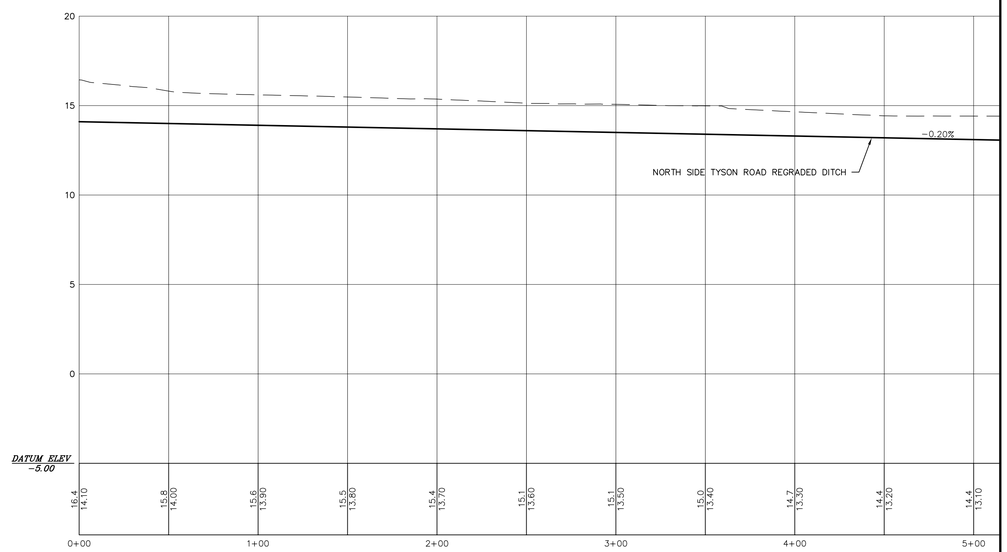
JAMES M. LUCAS, P.E. 18370



BARREN OAK ROAD
SCALE: 1"=40' (HOR.)
1"=4' (VERT.)



BARREN OAK ROAD
SCALE: 1"=40' (HOR.)
1"=4' (VERT.)



TYSON ROAD NORTH SIDE DITCH
SCALE: 1"=40' (HOR.)
1"=4' (VERT.)

J. LUCAS & ASSOCIATES, INC.
CONSULTING AND DESIGN ENGINEERS
CERTIFICATE OF AUTHORIZATION NO. 3981
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PH (904) 396-3060 FAX (904) 396-3456

VERSION: ACAD20
DRAWN BY: SBD
DESIGNED BY: ML
APPROVED BY: JML
DATE: AUGUST 2023

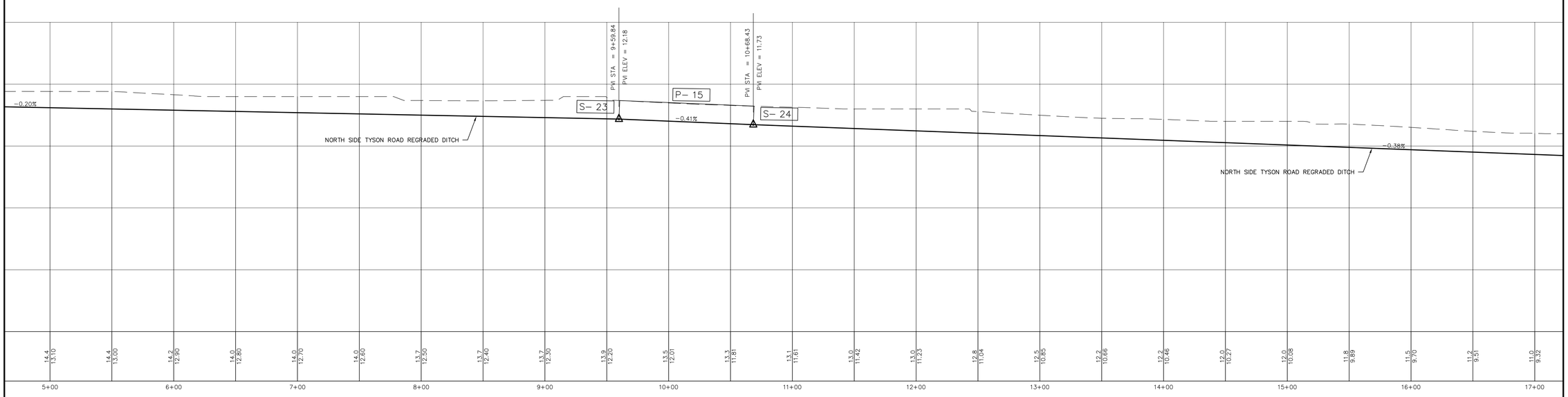
NO.	REVISION	BY	DATE
1	REVISED PER NASSAU COUNTY REVIEW	DAD	5/2/24

ROADWAY & UTILITY PROFILES
TYSON FOREST
FOR
TYSON FOREST, LLC

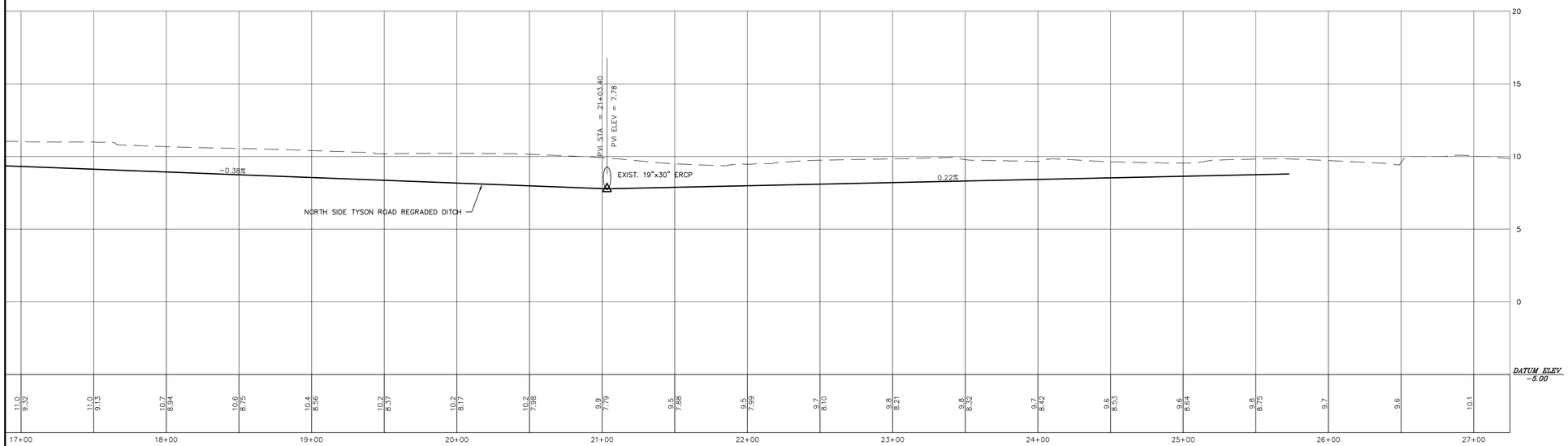
DRAWING NO. 34 OF 41
JOB NO. 2301
FILE: 2301BASE

SEAL & SIGNATURE:

JAMES M. LUCAS, P.E. 18370



TYSON ROAD NORTH SIDE DITCH
SCALE: 1"=40' (HOR.)
1"=4' (VERT.)



TYSON ROAD NORTH SIDE DITCH
SCALE: 1"=40' (HOR.)
1"=4' (VERT.)

J. LUCAS & ASSOCIATES, INC.
CONSULTING AND DESIGN ENGINEERS
CERTIFICATE OF AUTHORIZATION NO. 3981
1305 CEDAR STREET - JACKSONVILLE, FL 32207
PH (904) 396-3060 FAX (904) 396-3456

VERSION: ACAD20
DRAWN BY: SBD
DESIGNED BY: ML
APPROVED BY: JML
DATE: AUGUST 2023

NO.	REVISION	BY	DATE
1	REVISED PER NASSAU COUNTY REVIEW	DAD	5/2/24

ROADWAY & UTILITY PROFILES
TYSON FOREST
FOR
TYSON FOREST, LLC

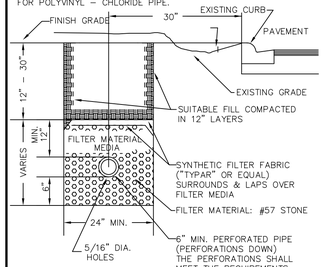
DRAWING NO. 34A OF 41
JOB NO. 2301
FILE: 2301BASE

SEAL & SIGNATURE:

JAMES M. LUCAS, P.E. 18370

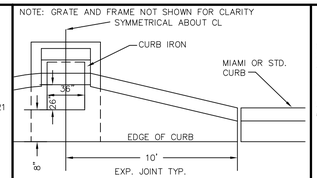
NOTE: ALL TYPE "A" & "B" INLETS SHALL BE PRECAST WITH A CIRCULAR OPENING IN BOTH SIDES FOR A 6" P.V.C. SUBSOIL DRAIN. EACH OPENING SHALL HAVE THE SAME FLOW LINE ELEVATION AS THE LOWEST STORM DRAIN IN EACH PARTICULAR INLET, BUT NOT TO EXCEED 42" BELOW TOP OF GRATE ALL SUBSOIL DRAINS TO BE CONSTRUCTED 10' EACH SIDE OF INLET UNLESS OTHERWISE NOTED.

PIPE USE FOR SUB SOIL DRAINS SHALL MEET A.A.S.H.T.O. M177-721 SPECIFICATIONS FOR BITUMINOUS FIBER PIPE, A.A.S.H.T.O. M198 FOR ASBESTOS CEMENT PIPE, A.A.S.H.T.O. M198 FOR ALUMINUM PIPE, A.S.T.M. C444 FOR CONCRETE PIPE OR A.S.T.M. D 3033 FOR POLYVINYL - CHLORIDE PIPE.

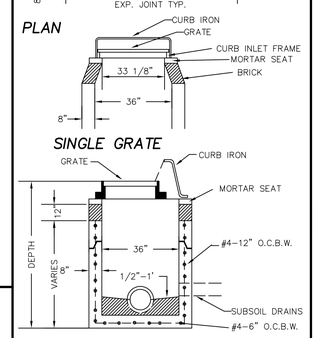


UNDER DRAIN DETAIL
N.T.S.

NOTE: GRATE AND FRAME NOT SHOWN FOR CLARITY



PLAN

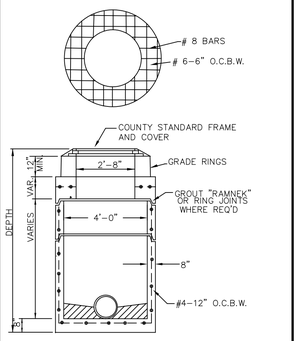


SINGLE GRATE

TYPE "A" CURB INLET

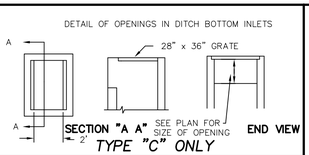
MANHOLE AND INLET NOTES

1. CONCRETE DESIGN STRENGTH 4000 P.S.I.
2. PIPES MUST BE IN CONSTRUCTION JOINT.
3. BRICK MANHOLES OVER 10' DEEP SHALL HAVE 12" WALL THICKNESS FOR ALL PORTIONS OF WALL OVER 10' DEEP.
4. PRECAST MANHOLES AND INLETS SHALL BE IN ACCORDANCE WITH LATEST EDITION OF A.S.T.M. C478
5. CHAMFER ALL EXPOSED EDGES 3/4".
6. INLETS AND MANHOLES TO BE PLACED ON UNDISTURBED SOIL HAVING A MINIMUM BEARING CAPACITY OF 2000 P.S.I.

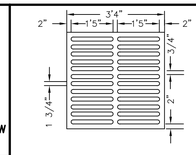


TYPE J-1 MANHOLE

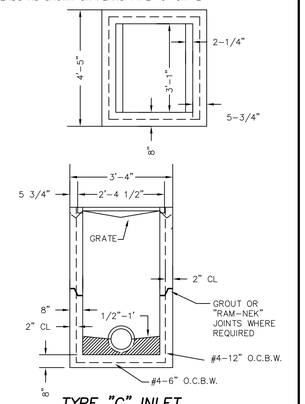
DETAIL OF OPENINGS IN DITCH BOTTOM INLETS



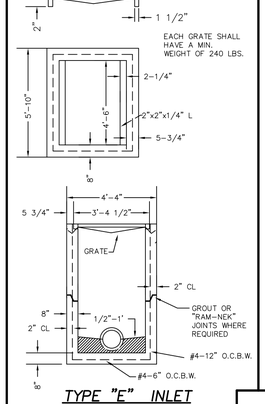
TYPE "C" ONLY



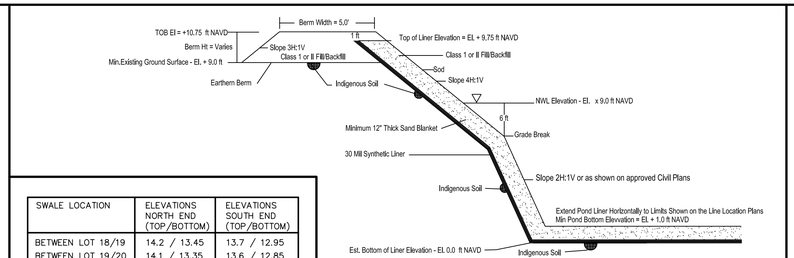
NOTE: OPENING MAY BE CONSTRUCTED AT EITHER END OR BOTH ENDS AS SHOWN ON PLANS TYPE "C" OR "E"



TYPE "C" INLET



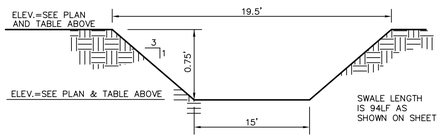
TYPE "E" INLET



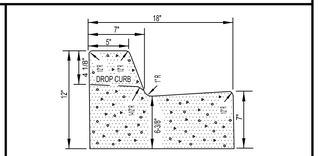
Pond 2 - Synthetic Liner

SWALE LOCATION	ELEVATIONS NORTH END (TOP/BOTTOM)	ELEVATIONS SOUTH END (TOP/BOTTOM)
BETWEEN LOT 18/19	14.2 / 13.45	13.7 / 12.95
BETWEEN LOT 19/20	14.1 / 13.35	13.6 / 12.85
BETWEEN LOT 20/21	13.5 / 12.75	13.0 / 12.25
BETWEEN LOT 21/22	13.3 / 12.55	12.8 / 12.05
BETWEEN LOT 22/23	12.9 / 12.15	12.4 / 11.65
BETWEEN LOT 23/24	12.5 / 11.75	12.0 / 11.25
BETWEEN LOT 24/25	12.3 / 11.55	11.8 / 11.05
BETWEEN LOT 25/26	12.0 / 11.25	11.5 / 10.75
BETWEEN LOT 26/27	11.7 / 10.95	11.2 / 10.45

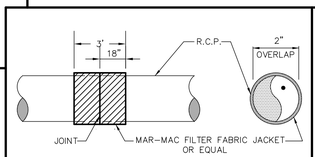
NOTE: SOD ENTIRE SWALE AREA



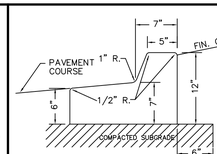
LOT SWALE RETENTION AREA SECTION (LOTS 18-27)
N.T.S.



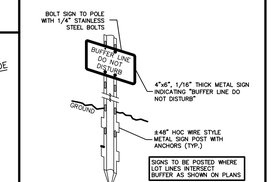
STANDARD CURB & GUTTER
N.T.S.



PIPE JOINT WRAPPING DETAIL
N.T.S.



SPILL CURB DETAIL
(AT ISLANDS)

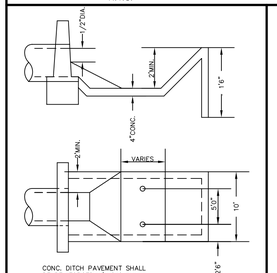


BUFFER AREA BOUNDARY SIGN
N.T.S.

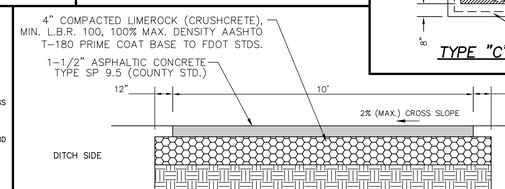
LOT GRADING DETAIL
N.T.S.

1. FINISHED FLOOR ELEV. AND APPROX. BUILDING LOCATION DENOTES STD. LOT TYPE GRADING.
2. ALL PROPOSED CORNER ELEVATIONS WILL BE AS FOLLOWS (A) BACK CORNER LOT ELEVATIONS ARE AT NATURAL GROUND UNLESS OTHERWISE NOTED OR WHERE FILLING IS REQUIRED TO OBTAIN 1% SLOPE.
3. "A, B, OR C" DENOTES NASSAU COUNTY STANDARDS. EXACT LOCATION OF SWALES SHALL BE DETERMINED WHEN THE SIZE AND LOCATION OF BUILDING IS SET. (BY OTHERS)

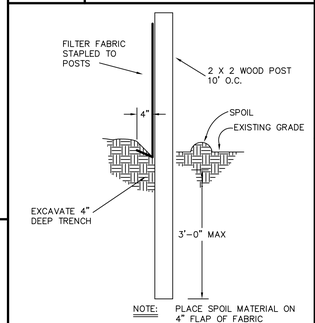
30.1 PROPOSED GRADE AT LOT CORNERS.



EROSION PROTECTION

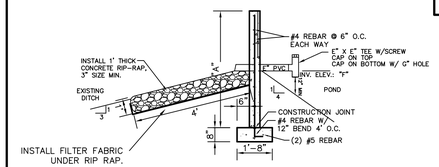


10' MULTI-USE TRAIL SECTION
N.T.S.

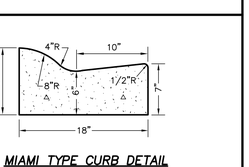


NOTE: PLACE SPOIL MATERIAL ON 4" FLAP OF FABRIC

FABRIC SILT FENCE DETAIL
N.T.S.

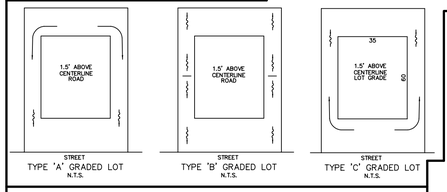


SECTION B-B



MIAMI TYPE CURB DETAIL

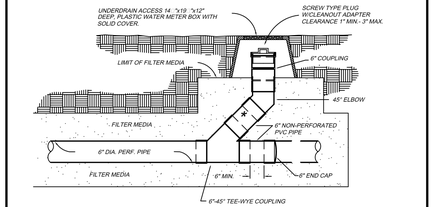
TYPE	"E" INLET	"E" INLET
LOCATION	POND 1	POND 3
STRUC.	S-6	S-34
A	14.00	10.00
B	11.00	7.00
C	9.20	6.30
D	9.70	6.80
E	18"	18"
F	4"	4"
G	11.60	7.60
H	2.8"	2.8"
I	0'-6"	2'-0"
K	4'-4"	4'-4"
L	5'-4"	5'-4"
J	N/A	N/A



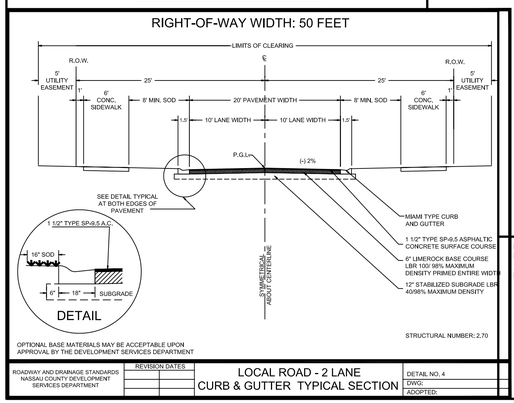
TYPE 'A' GRADED LOT
N.T.S.

TYPE 'B' GRADED LOT
N.T.S.

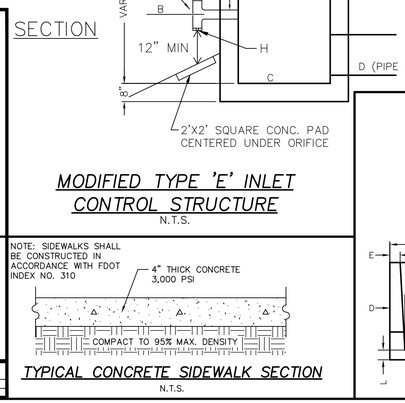
TYPE 'C' GRADED LOT
N.T.S.



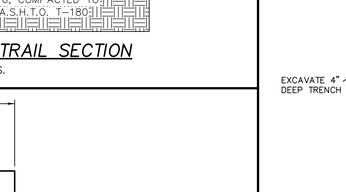
UNDERDRAIN CLEANOUT DETAIL

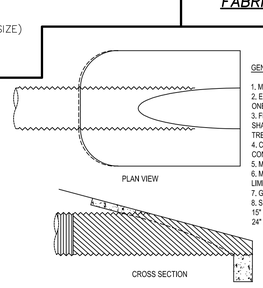


ROADWAY AND DRAINAGE STANDARDS NASSAU COUNTY DEVELOPMENT SERVICES DEPARTMENT	REVISION DATES	LOCAL ROAD - 2 LANE CURB & GUTTER TYPICAL SECTION	DETAIL NO. 4
			DWG:
			ADOPTED:



MODIFIED TYPE 'E' INLET CONTROL STRUCTURE
N.T.S.



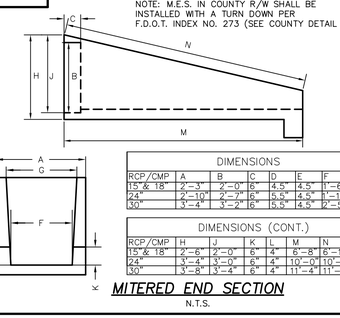


GENERAL NOTES:

1. MINIMUM 12" FILL OVER TOP OF CULVERT.
2. EDGES MUST BE STABILIZED WITH A MINIMUM OF ONE ROW OF SOD FOR ALL END TREATMENTS.
3. FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS SHALL BE USED AS A GUIDELINE FOR ALL END TREATMENTS REFER TO INDEXES 261, 266, & 272.
4. CULVERTS MUST BE INSTALLED AT START OF CONSTRUCTION.
5. MINIMUM CULVERT SIZE IS 15".
6. MITERED END SECTIONS REQUIRED WHEN SPEED LIMIT IS GREATER THAN 30 MPH.
7. GRATES REQUIRED FOR CULVERTS LARGER THAN 24".
8. SIDE SLOPES SHALL BE 2:1 (OR LESS) FOR 15" & 18" CULVERTS, AND 4:1 FOR CULVERTS 24" AND GREATER.

POURED IN PLACE MITERED END SECTION

NOTE: M.E.S. IN COUNTY R/W SHALL BE INSTALLED WITH A TURN DOWN PER F.D.O.T. INDEX NO. 273 (SEE COUNTY DETAIL ABOVE)



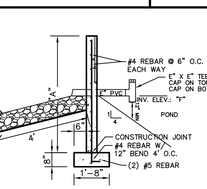
DIMENSIONS							
RCP/CMP	A	B	C	D	E	F	G
15" & 18"	2'-3"	2'-0"	6"	4.5"	4.5"	1'-6"	1'-7"
24"	2'-10"	2'-7"	6"	5.5"	4.5"	1'-10"	2'-1"
30"	3'-4"	3'-2"	6"	6.5"	4.5"	2'-5"	2'-7"

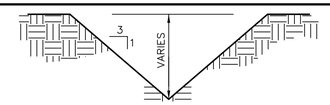
DIMENSIONS (CONT.)						
RCP/CMP	H	J	K	L	M	N
15" & 18"	2'-6"	2'-0"	6"	4"	6'-8"	6'-10.46"
24"	3'-4"	3'-0"	6"	4"	10'-0"	10'-3.63"
30"	3'-8"	3'-4"	6"	4"	11'-4"	11'-8.13"

NOTE: SIDEWALKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH FDOT INDEX NO. 310

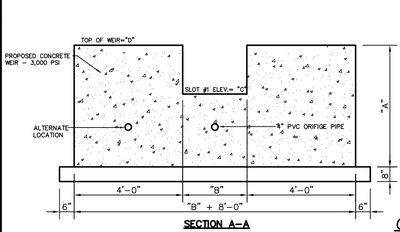
TYPICAL CONCRETE SIDEWALK SECTION
N.T.S.

CURB INLET POSITION DETAIL
N.T.S.





V-SWALE SECTION
N.T.S.

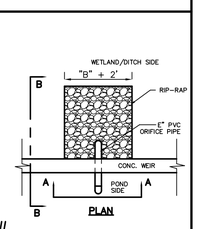


POND 2	
A	4'-0"
B	8'-0"
C	9.50
D	11.00
E	4.0"
F	9.00
G	2.8"

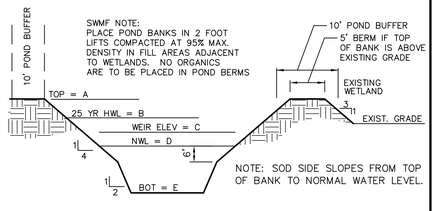
*COMPACT FILL TO 10' ON EACH SIDE OF WING WALLS

SECTION A-A

POND 2 WEIR WALL CONTROL STRUCTURE DETAIL



	POND 1	POND 2	POND 3
A:	14.00	10.75	10.00
B:	13.30	10.23	9.17
C:	11.60	9.50	7.60
D:	11.00	9.00	7.00
E:	3.00	1.00	0.00



TYPICAL POND SECTION
N.T.S.

J. LUCAS & ASSOCIATES, INC.
CONSULTING AND DESIGN ENGINEERS
CERTIFICATE OF AUTHORIZATION NO. 3981
1305 CEDAR STREET - JACKSONVILLE, FL 32207
PH (904) 396-3060 FAX (904) 396-3456

VERSION: ACAD14
DRAWN BY: DAD
DESIGNED BY: JML
APPROVED BY: JML
DATE: OCT 2023

NO.	REVISION	BY	DATE
3	REVISED TYPICAL PAVEMENT SECTION PER COUNTY REVIEW	JML	12/2/24
2	REVISED PER NASSAU COUNTY REVIEW	DAD	8/28/24
1	REVISED PER NASSAU COUNTY REVIEW	DAD	5/2/24

PAVING & DRAINAGE DETAILS OF TYSON FOREST FOR TYSON FOREST, LLC

DRAWING NO. 35 OF 41
JOB NO. 2301
FILE: 2301DET

SEAL & SIGNATURE:

GENERAL NOTES:

1. Cross Slopes and Grades:

   A. Sidewalk, ramp, and landing slopes (i.e. 0.02, 0.05, and 1:12) shown in this Index are maximums. With approval of the Engineer, provide the minimum feasible slope where the requirements cannot be met.

   B. Landings must have cross-slopes less than or equal to 0.02 in any direction.

   C. Maintain a single longitudinal slope along each side of the curb ramp. Ramp slopes are not required to exceed 15 feet in length.

   D. Joints permitted at the location of Slope Breaks. Otherwise locate joints in accordance with Index 522-001. No joints are permitted within the ramp portion of the Curb Ramp.

2. Curb, Curb and Gutter and/or Sidewalk:

   A. Refer to Index 522-001 for concrete thickness and sidewalk details.

   B. Remove any existing curb, curb and gutter, or sidewalk to the nearest joint beyond the curb transition or to the extent that no remaining section is less than 5 feet long.

3. Curb Ramp Alpha-Identification:

   A. Sidewalk curb ramp alpha-identifications (e.g. CR-A) are provided for reference purposes in the Plans.

   B. Alpha-Identifications CR-I and CR-J are intentionally omitted.

4. Detectable Warnings:

   A. Install detectable warnings in accordance with Specification 527.

   B. Place detectable warnings across the full width of the ramp or landing, to a minimum depth of 2 feet measured perpendicular to the curb line and no greater than 5 feet from the back of the curb or edge of pavement.

   C. If detectable warnings are shown in the Plans on slopes greater than 5%, align the truncated domes with the centerline of the ramp; otherwise, the truncated domes are not required to be aligned.

5. Detectable Warnings - Acceptance Criteria:

   A. Color and texture shall be complete and uniform.

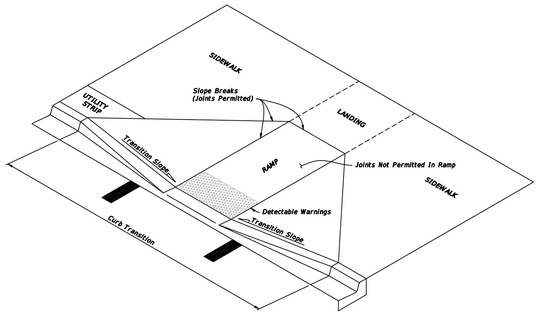
   B. 90% of individual truncated domes shall be in accordance with the Americans with Disabilities Act Standards for Transportation Facilities, Section 705.

   C. There shall be no more than 4 non-compliant domes in any one square foot.

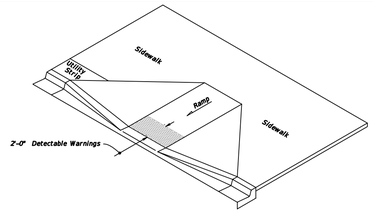
   D. Non-compliant domes shall not be adjacent to other non-compliant domes.

   E. Surfaces shall not deviate more than 0.10" from a true plane.

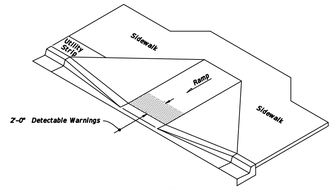
NASSAU COUNTY NOTE:
1. DETECTABLE WARNING MATS WITHIN NASSAU COUNTY ROW SHALL BE YELLOW AND WET-SET.



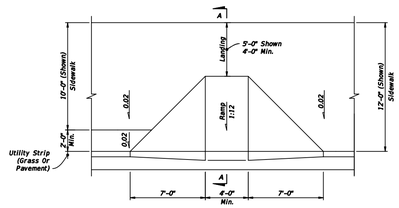
CURB RAMP NOMENCLATURE



ISOMETRIC VIEW



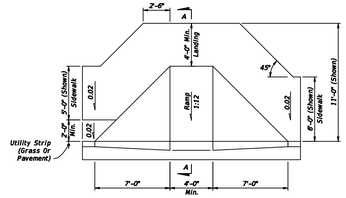
ISOMETRIC VIEW



PLAN VIEW

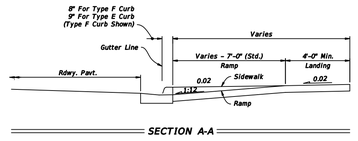
NOTE: For Example of CR-A used in Radial Curb Returns, See Sheet 8.

CR-A



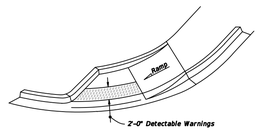
PLAN VIEW

CR-B



SECTION A-A

SIDEWALK CURB RAMPS CR-A AND CR-B



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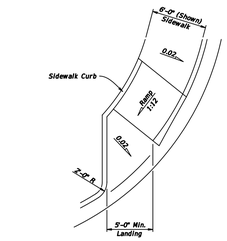
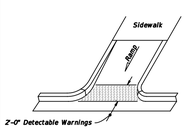
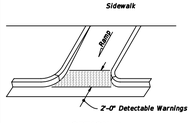


PLAN VIEW

CR-D

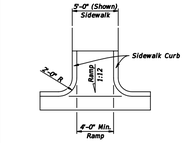


OPTION A



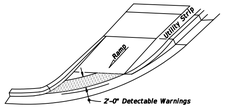
OPTION B

ISOMETRIC VIEW



PLAN VIEW

CR-E



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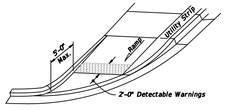
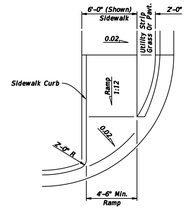


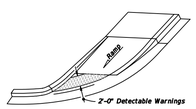
OPTION B

ISOMETRIC VIEW

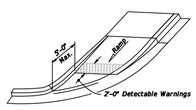


PLAN VIEW

CR-F

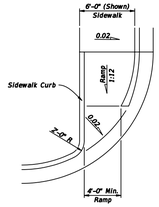


OPTION A



OPTION B

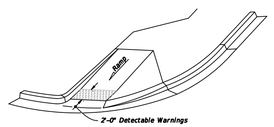
ISOMETRIC VIEW



PLAN VIEW

CR-G

SIDEWALK CURB RAMPS CR-D, CR-E, CR-F & CR-G



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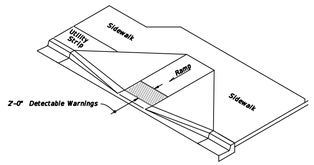

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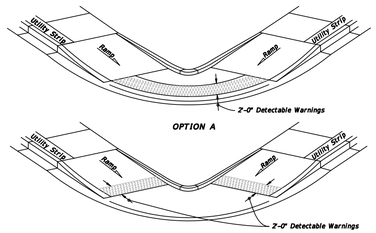
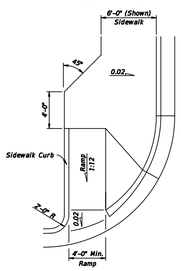


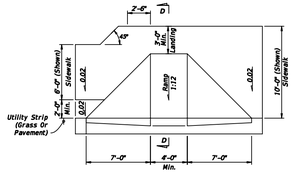
OPTION B

ISOMETRIC VIEW



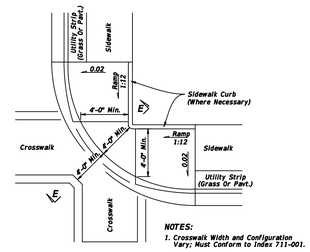
PLAN VIEW

CR-H



PLAN VIEW

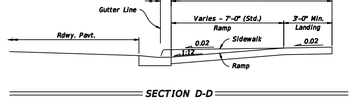
CR-K



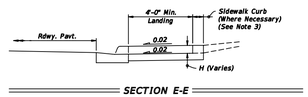
NOTES:
1. Crosswalk Width and Configuration Vary; Must Conform to Index 711-001.
2. 15' Radius Curve Shown for CR-L.
3. For additional information on sidewalk curb construction, see SIDEWALK CURB OPTIONS details, on Sheet 3.

PLAN VIEW

CR-L



SECTION D-D



SECTION E-E

SIDEWALK CURB RAMPS CR-H, CR-K & CR-L

J. LUCAS & ASSOCIATES, INC.
CONSULTING AND DESIGN ENGINEERS
CERTIFICATE OF AUTHORIZATION NO. 3981
1305 CEDAR STREET – JACKSONVILLE, FL 32207
PH (904) 396-3060 FAX (904) 396-3456

VERSION: ACAD14
DRAWN BY: DAD
DESIGNED BY: JML
APPROVED BY: JML
DATE: OCT. 2023

NO.	REVISION	BY	DATE

SIDEWALK RAMP DETAILS OF TYSON FOREST FOR TYSON FOREST, LLC

DRAWING NO. 36 OF 41
JOB NO. 2301
FILE: 2301SWDETAILS

SEAL & SIGNATURE:

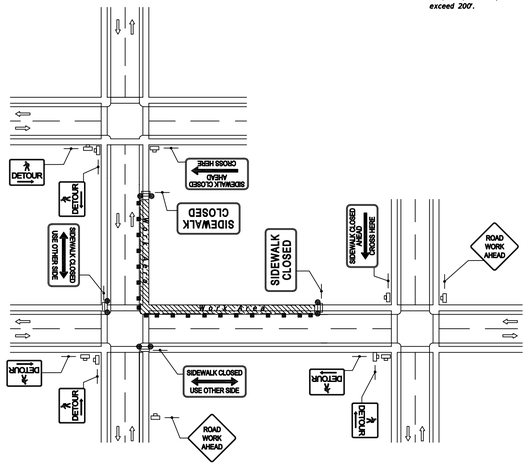
JAMES M. LUCAS, P.E. 18370

SYMBOLS

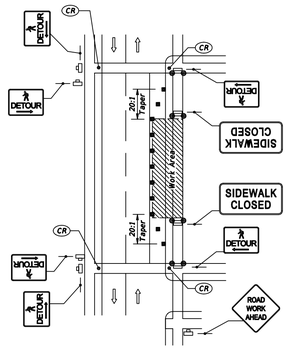
- Work Area
- Channelizing Device
- Work Zone Sign
- (CR) Required Locations For Either Temporary Or Permanent Curb Ramps.
- Lane Identification + Direction of Traffic
- Pedestrian Longitudinal Channelizing Device (LCD) with Mounted Work Zone Sign or separate Work Zone Sign
- Pedestrian Longitudinal Channelizing Device (LCD)
- Temporary Sidewalk

GENERAL NOTES:

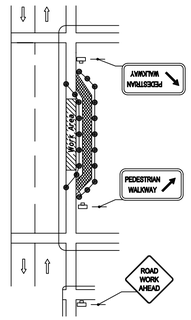
1. When encroaching work requires a sidewalk closure for 60 minutes or greater, provide an alternate pedestrian route.
2. For spacing of vehicular Channelizing Devices, see applicable vehicular temporary traffic control indexes.
3. Cover or deactivate pedestrian traffic signal display(s) controlling closed crosswalks.
4. For post mounted signs located near or adjacent to a sidewalk, maintain a minimum 7' clearance from the bottom of the sign panel to the surface of the sidewalk.
5. Provide a 5' wide temporary walkway, except where space restrictions warrant a minimum width of 4'. Provide a 5' x 5' passing space for temporary walkways less than 5' in width at intervals not to exceed 200'.
6. Provide a cross-slope with a maximum value of 0.02 for all temporary walkways.
7. Maintain temporary walkway surfaces and ramps that are stable, firm, slip-resistant, and free of any obstructions or hazards such as holes, debris, mud, construction equipment, and stored material.
8. Remove temporary walkways immediately after reopening of the sidewalk, unless otherwise noted in the plans.
9. Meet the requirements of Index 522-002 for temporary curb ramps.
10. Place pedestrian longitudinal channelizing device(s) across the full width of the closed sidewalk. For temporary walkways, similar to the Sidewalk Diversion, place LCDs to delineate both sides of the temporary walkway.
11. For sidewalk diversions, ensure that there is sufficient R/W for placement of temporary sidewalk and pedestrian longitudinal channelizing devices.



CROSSWALK CLOSURE AND PEDESTRIAN DETOUR



SIDEWALK DETOUR



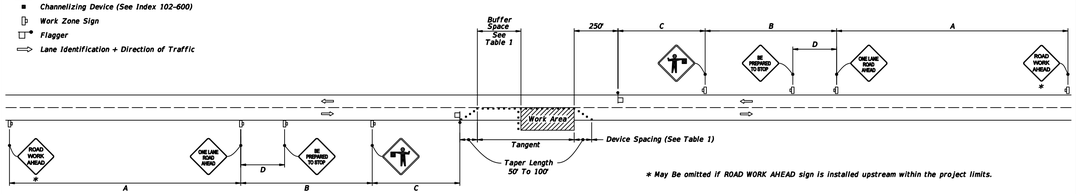
SIDEWALK DIVERSION

LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2020-21 STANDARD PLANS	PEDESTRIAN CONTROL FOR CLOSURE OF SIDEWALKS	INDEX	SHEET
11/01/17						102-660	1 of 1

12:43:24 PM
2/26/2020

SYMBOLS:

- Work Area
- Channelizing Device (See Index 102-600)
- Work Zone Sign
- Flagger
- Lane Identification + Direction of Traffic



* May Be omitted if ROAD WORK AHEAD sign is installed upstream within the project limits.

WITHOUT TEMPORARY RAISED RUMBLE STRIPS

GENERAL NOTES:

1. Special Conditions may be required in accordance with these notes and the following sheets:
   - A. Railroad Crossings:
     - a. If an active railroad crossing is located closer to the Work Area than the queue length plus 300 feet, extend the Buffer Space as shown on Sheet 3.
     - b. If the queuing of vehicles across an active railroad crossing cannot be avoided, provide a uniformed traffic control officer or flagger at the highway-rail grade crossing to prevent vehicles from stopping within the highway-rail grade crossing, even if automatic train warning devices are in place.
   - B. If the Work Area encroaches on the Centerline, use the Layout for Temporary Lane Shift to Shoulder on Sheet 3 only if the Existing Paved Shoulder width is sufficient to provide for an 11' lane between the Work Area and the Edge of Existing Paved Shoulder. Reduce the posted speed when appropriate.
2. Temporary Raised Rumble Strips:
   - A. Use when both of the following conditions are met concurrently:
     - a. Existing Posted Speed is 55 mph or greater;
     - b. Work duration is greater than 60 minutes.
   - B. Use a consistent Strip color throughout the work zone.
   - C. Place each Rumble Strip Set transversely across the lane at locations shown.
   - D. Use Option 1 or Option 2 as shown on Sheet 2. Use only one option throughout work zone.
3. Additional one-way control may be provided by the following means:
   - A. Flag-carrying vehicle;
   - B. Official vehicle;
   - C. Pilot vehicles;
   - D. Traffic signals.

   When flaggers are the sole means of one-way control, the flaggers must be in sight of each other or in direct communication at all times.
4. When a side road intersects the highway within the TTC zone, place additional TTC devices in accordance with other applicable TCZ Indexes.
5. The two channelizing devices directly in front of the work area may be omitted provided vehicles in the work area have high-intensity rotating, flashing, oscillating, or strobe lights operating.
6. When Buffer Space cannot be attained due to geometric constraints, use the greatest attainable length, not less than 200 ft, for posted speeds greater than 25 mph.
7. ROAD WORK AHEAD and the BE PREPARED TO STOP signs may be omitted if all of the following conditions are met:
   - A. Work operations are 60 minutes or less.
   - B. Speed limit is 45 mph or less.
   - C. There are no sight obstructions to vehicles approaching the work area for a distance equal to the Buffer Space shown in Table 1.
   - D. Vehicles in the work area have high-intensity, rotating, flashing, oscillating, or strobe lights operating.
   - E. Volume and complexity of the roadway has been considered.
   - F. If a railroad crossing is present, vehicles will not queue across rail tracks.
   - G. AFADs are not in use.
8. See Index 102-600 for general TCZ requirements and additional information.
9. Automated Flagger Assistance Devices (AFADs) may be used in accordance with Specifications Section 102, 990 and the APL vendor drawings.

TABLE 1
DEVICE SPACING

Posted Speed	Maximum Spacing of Cones or Tubular Markers		Maximum Spacing of Type I or Type II Barricades/Panels/Drums		Distance Between Signs				Buffer Space
	On a Taper	On a Tangent	On a Taper	On a Tangent	A	B	C	D	
25	20'	50'	20'	50'	200'	200'	200'	100'	155'
30	20'	50'	20'	50'	200'	200'	200'	100'	200'
35	20'	50'	20'	50'	200'	200'	200'	100'	250'
40	20'	50'	20'	50'	200'	200'	200'	100'	305'
45	20'	50'	20'	50'	350'	350'	350'	175'	360'
50	20'	50'	20'	100'	500'	500'	500'	250'	425'
55	20'	50'	20'	100'	2640'	1500'	1000'	500'	495'
60	20'	50'	20'	100'	2640'	1500'	1000'	500'	570'
65	20'	50'	20'	100'	2640'	1500'	1000'	500'	645'
70	20'	50'	20'	100'	2640'	1500'	1000'	500'	730'

CONDITIONS

WHERE ANY VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCROACH THE AREA BETWEEN THE CENTERLINE AND A LINE 2' OUTSIDE THE EDGE OF TRAVEL WAY.

LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2020-21 STANDARD PLANS	TWO-LANE, TWO-WAY, WORK WITHIN THE TRAVEL WAY	INDEX	SHEET
11/01/17						102-603	1 of 3

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2/26/2020

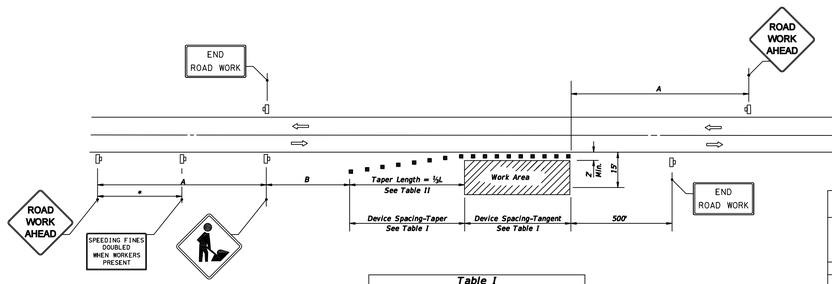

Table I
Device Spacing

Speed (mph)	Max. Distance Between Devices (ft.)			
	Cones or Tubular Markers		Type I or Type II Barricades or Vertical Panels or Drums	
	Taper	Tangent	Taper	Tangent
25	25	50	25	50
30 to 45	25	50	30	50
50 to 70	25	50	50	100

DISTANCE BETWEEN SIGNS

Speed	Spacing (ft.)	
	A	B
40 mph or less	200	200
45 mph	350	350
50 mph or greater	500	500

*Midway between signs.

Table II
Taper Length - Shoulder

Speed (mph)	½L (ft)			Notes
	8' Shldr.	10' Shldr.	12' Shldr.	
25	28	35	42	$L = \frac{WS^2}{60}$
30	40	50	60	
35	55	68	82	
40	72	90	107	
45	120	150	180	L=WS
50	133	167	200	
55	147	183	220	
60	160	200	240	
65	173	217	260	
70	187	233	280	

8' minimum shoulder width

½L = Length of shoulder taper in feet

W = Width of total shoulder in feet (combined paved and unpaved width)

S = Posted speed limit (mph)

SYMBOLS

- Work Area
- Channelizing Device (See Index 102-600)
- Work Zone Sign
- Lane Identification + Direction of Traffic

GENERAL NOTES

1. When four or more work vehicles enter the through traffic lanes in a one hour period or less (excluding establishing and terminating the work area), the advanced FLAGGER sign shall be substituted for the WORKERS sign. For location of flaggers and FLAGGER signs, see Index 102-603.
2. SHOULDER WORK sign may be used as an alternate to the WORKER symbol sign only on the side where the shoulder work is being performed.
3. When a side road intersects the highway within the TTC zone, additional TTC devices shall be placed in accordance with other applicable TCZ Indexes.
4. For general TCZ requirements and additional information, refer to Index 102-600.

DURATION NOTES

1. Signs and channelizing devices may be omitted if all of the following conditions are met:
   - a. Work operations are 60 minutes or less.
   - b. Vehicles in the work area have high-intensity, rotating, flashing, oscillating, or strobe lights operating.

CONDITIONS

WHERE ANY VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCROACH THE AREA CLOSER THAN 15' BUT NOT CLOSER THAN 2' TO THE EDGE OF TRAVEL WAY.

LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2020-21 STANDARD PLANS	TWO-LANE, TWO-WAY, WORK ON SHOULDER	INDEX	SHEET
11/01/17						102-602	1 of 1

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2/26/2020

J. LUCAS & ASSOCIATES, INC.
CONSULTING AND DESIGN ENGINEERS
CERTIFICATE OF AUTHORIZATION NO. 3981
1305 CEDAR STREET - JACKSONVILLE, FL 32207
PH (904) 396-3060 FAX (904) 396-3456

VERSION: ACAD14
DRAWN BY: DAD
DESIGNED BY: JML
APPROVED BY: JML
DATE: OCT. 2023

NO.	REVISION	BY	DATE

M.O.T. DETAILS OF
TYSON FOREST
FOR
TYSON FOREST, LLC

DRAWING NO. 37 OF 41
JOB NO. 2301
FILE: 2301MOT

SEAL & SIGNATURE:

JAMES M. LUCAS, P.E. 18370

STORM WATER POLLUTION PREVENTION PLAN

GOVERNMENT REQUIREMENTS

SITE DESCRIPTION

PROJECT NAME AND LOCATION: TYSON FOREST
TYSON ROAD
FERNANDINA BEACH, FL 32034

OWNER NAME AND ADDRESS: TYSON FARMS
960185 GATEWAY BLVD., SUITE 32034
FERNANDINA BEACH, FL 32034

DESCRIPTION:
40 LOT SINGLE FAMILY SUBDIVISION

SOIL DISTURBING ACTIVITIES WILL INCLUDE:
CLEARING AND GRUBBING; EARTHWORK, AND GRADING;
STORM SEWER, IRRIGATION, AND PREPARATION FOR FINAL PLANTING
AND SEEDING.

RUNOFF CURVE NUMBERS:
1. PRE-CONSTRUCTION = 83
2. DURING CONSTRUCTION = 84
3. POST-CONSTRUCTION = 86

SOILS:
SCS SURVEY FOR SOILS DATA
SITE MAPS:
* SEE ATTACHED GRADING PLAN FOR PRE & POST DEVELOPMENT GRADES, AREAS OF SOILS, DISTURBANCE, LOCATION OF SURFACE WATERS, WETLANDS, PROTECTED AREAS, MAJOR STRUCTURAL AND NONSTRUCTURAL CONTROLS AND STORM WATER DISCHARGE POINTS.

* SEE ATTACHED EROSION & TURBIDITY CONTROL PLAN FOR LOCATION OF TEMPORARY STABILIZATION PRACTICES, AND TURBIDITY BARRIERS.

* SEE GENERAL NOTES FOR REQUIREMENTS FOR TEMPORARY AND PERMANENT STABILIZATION.

SITE AREA:
1. TOTAL AREA OF SITE = 123 ACRES
2. TOTAL AREA TO BE DISTURBED = 51 ACRES

NAME OF RECEIVING WATERS:
ALLIGATOR CREEK

CONTROLS

THIS PLAN UTILIZES BEST MANAGEMENT PRACTICES TO CONTROL EROSION AND TURBIDITY CAUSED BY STORM WATER RUN OFF. AN EROSION AND TURBIDITY PLAN HAS BEEN PREPARED TO INSTRUCT THE CONTRACTOR ON PLACEMENT OF THESE CONTROLS. IT IS THE CONTRACTORS RESPONSIBILITY TO INSTALL AND MAINTAIN THE CONTROLS PER PLAN AS WELL AS ENSURING THE PLAN IS PROVIDING THE PROPER PROTECTION AS REQUIRED BY FEDERAL, STATE AND LOCAL LAWS. REFER TO "CONTRACTORS RESPONSIBILITY" FOR A VERBAL DESCRIPTION OF THE CONTROLS THAT MAY BE IMPLEMENTED.

STORM WATER MANAGEMENT

STORM WATER DRAINAGE WILL BE PROVIDED BY (DESCRIPTION:) WET DETENTION

FOR THE PROJECT. AREAS WHICH ARE NOT TO BE CONSTRUCTED ON, BUT WILL BE REGRADED SHALL BE STABILIZED IMMEDIATELY AFTER GRADING IS COMPLETE. WHEN CONSTRUCTION IS COMPLETE, A TOTAL OF 51 ACRES WILL HAVE BEEN REGRADED, 72 ACRES LEFT UNDISTURBED. THE SITE DISCHARGES TO A WET DETENTION SYSTEM. WHERE PRACTICAL, TEMPORARY SEDIMENT BASINS WILL BE USED TO INTERCEPT SEDIMENT BEFORE ENTERING THE PERMANENT DETENTION BASIN, THE WET DETENTION SYSTEM IS DESIGNED WITH A 21 DAY MINIMUM RESIDENCE VOLUME. THIS IS IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH BY THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT FOR THIS TYPE OF DEVELOPMENT AT THE TIME OF PERMITTING.

TIMING OF CONTROLS/MEASURES

REFER TO "CONTRACTORS RESPONSIBILITY" FOR THE TIMING OF CONTROL/MEASURES.

CERTIFICATION OF COMPLIANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS

IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL LAWS RELATED TO STORM WATER MANAGEMENT AND EROSION AND TURBIDITY CONTROLS, THE FOLLOWING PERMITS HAVE BEEN OBTAINED.

C.O.E. DREDGE/FILL PERMIT # _____
S.J.R.W.M.D. ENVIRONMENTAL RESOURCE PERMIT # _____

POLLUTION PREVENTION PLAN CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE, AND IMPRISONMENT FOR KNOWING VIOLATIONS.

SIGNED: _____
ENGINEER JAMES M. LUCAS, P.E.

DATED: 12/16/23

GENERAL

THE CONTRACTOR SHALL AT A MINIMUM IMPLEMENT THE CONTRACTOR'S REQUIREMENTS OUTLINED BELOW AND THOSE MEASURES SHOWN ON THE EROSION AND TURBIDITY CONTROL PLAN. IN ADDITION THE CONTRACTOR SHALL UNDERTAKE ADDITIONAL MEASURES REQUIRED TO BE IN COMPLIANCE WITH APPLICABLE PERMIT CONDITIONS AND STATE WATER QUALITY STANDARDS, DEPENDING ON THE NATURE OF MATERIALS AND METHODS OF CONSTRUCTION THE CONTRACTOR MAY BE REQUIRED TO ADD FLOCCULANTS TO THE RETENTION SYSTEM PRIOR TO PLACING THE SYSTEM INTO OPERATION.

SEQUENCE OF MAJOR ACTIVITIES:

THE ORDER OF ACTIVITIES WILL BE AS FOLLOWS:

1. INSTALL STABILIZED CONSTRUCTION ENTRANCE
2. INSTALL SILT FENCES AND HAY BALES ARE REQUIRED
3. CLEAR AND GRUB FOR DIVERSION SWALES/DIKES AND SEDIMENT BASIN
4. CONSTRUCT SEDIMENTATION BASIN
5. CONTINUE CLEARING AND GRUBBING
6. STOCK PILE TOP SOIL IF REQUIRED
7. PERFORM PRELIMINARY GRADING ON SITE AS REQUIRED
8. STABILIZE DENUDED AREAS AND STOCKPILES AS SOON AS PRACTICABLE
9. INSTALL STORM SEWER AND IRRIGATION
10. COMPLETE GRADING AND INSTALL PERMANENT SEEDING/SOD AND PLANTING
11. REMOVE ACCUMULATED SEDIMENT FROM BASINS
12. WHEN ALL CONSTRUCTION ACTIVITY IS COMPLETE AND THE SITE IS STABILIZED. REMOVE ANY TEMPORARY DIVERSION SWALES/DIKES AND RESEED/SOD AS REQUIRED

CONTRACTOR'S REQUIREMENTS

TIMING OF CONTROLS/MEASURES

AS INDICATED IN THE SEQUENCE OF MAJOR ACTIVITIES, THE SILT FENCES AND HAY BALES, STABILIZED CONSTRUCTION ENTRANCE AND SEDIMENT BASIN WILL BE CONSTRUCTED PRIOR TO CLEARING OR GRADING OF ANY OTHER PORTIONS OF THE SITE, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICAL IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. ONCE CONSTRUCTION ACTIVITY CEASES PERMANENTLY IN AN AREA, THAT AREA WILL BE STABILIZED PERMANENTLY IN ACCORDANCE WITH THE PLANS. AFTER THE ENTIRE SITE IS STABILIZED, THE ACCUMULATED SEDIMENT WILL BE REMOVED FROM THE SEDIMENT TRAPS AND THE EARTH DIKE/SWALES WILL BE REGRADED/REMOVED AND STABILIZED IN ACCORDANCE WITH THE EROSION & TURBIDITY CONTROL PLAN.

CONTROLS

IT IS THE CONTRACTORS RESPONSIBILITY TO IMPLEMENT THE EROSION AND TURBIDITY CONTROLS AS SHOWN ON THE EROSION AND TURBIDITY CONTROL PLAN. IT IS ALSO THE CONTRACTORS RESPONSIBILITY TO ENSURE THESE CONTROLS ARE PROPERLY INSTALLED, MAINTAINED, AND FUNCTIONING PROPERLY TO PREVENT TURBID OR POLLUTED WATER FROM LEAVING THE PROJECT SITE. THE CONTRACTOR WILL ADJUST THE EROSION AND TURBIDITY CONTROLS SHOWN ON THE EROSION AND TURBIDITY CONTROL PLAN AND ADD ADDITIONAL CONTROL MEASURES, AS REQUIRED, TO ENSURE THE SITE MEETS ALL FEDERAL, STATE AND LOCAL EROSION AND TURBIDITY CONTROL REQUIREMENTS. THE FOLLOWING BEST MANAGEMENT PRACTICES WILL BE IMPLEMENTED BY THE CONTRACTOR AS REQUIRED BY THE EROSION AND TURBIDITY CONTROL PLAN AND AS REQUIRED TO MEET THE EROSION AND TURBIDITY REQUIREMENTS IMPOSED ON THE PROJECT SITE BY THE REGULATORY AGENCIES.

EROSION AND SEDIMENT CONTROLS

STABILIZATION PRACTICES

1. HAY BALE BARRIER: HAY BALE BARRIERS CAN BE USED BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION WITH THE FOLLOWING LIMITATIONS:
   A. WHERE THE MAXIMUM SLOPE BEHIND THE BARRIER IS 33 PERCENT.
   B. IN MINOR SWALES OR DITCH LINES WHERE THE MAXIMUM CONTRIBUTING DRAINAGE AREA IS NO GREATER THAN 2 ACRES.
   C. WHERE EFFECTIVENESS IS REQUIRED FOR LESS THAN 3 MONTHS.
   D. EVERY EFFORT SHOULD BE MADE TO INSURE THE USE OF STRAW BALE BARRIERS CONSTRUCTED IN LIVE STREAMS OR IN SWALES WHERE THERE IS THE POSSIBILITY OF A WASHOUT. IF NECESSARY, MEASURES SHALL BE TAKEN TO PROPERLY ANCHOR BALES TO ENSURE AGAINST WASHOUT.
   REFER TO DETAIL SHEET FOR CONSTRUCTING THE HAY BALE BARRIER. ALSO REFER TO DETAIL SHEET FOR PROPER LOCATION, MATERIAL AND USAGE.

2. FILTER FABRIC BARRIER: FILTER FABRIC BARRIERS CAN BE USED BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION WITH THE FOLLOWING LIMITATIONS:
   A. WHERE THE MAXIMUM SLOPE BEHIND THE BARRIER IS 33 PERCENT.
   B. IN MINOR SWALES OR DITCH LINES WHERE THE MAXIMUM CONTRIBUTING DRAINAGE AREA IS NO GREATER THAN 2 ACRES.
   REFER TO DETAIL SHEET FOR PROPER CONSTRUCTION OF THE FILTER FABRIC BARRIER.

3. BRUSH BARRIER WITH FILTER FABRIC: BRUSH BARRIER MAY BE USED BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION WHERE ENOUGH RESIDUE MATERIAL IS AVAILABLE ON SITE.

4. LEVEL SPREADER: A LEVEL SPREADER MAY BE USED WHERE SEDIMENT-FREE STORM RUNOFF IS INTERCEPTED AND DIVERTED AWAY FROM THE GRADED AREAS ONTO UNDISTURBED STABILIZED AREAS. THIS PRACTICE APPLIES ONLY IN THOSE SITUATIONS WHERE THE SPREADER CAN BE CONSTRUCTED ON UNDISTURBED SOIL AND THE AREA BELOW THE LEVEL LIP IS STABILIZED, THE WATER SHOULD NOT BE ALLOWED TO RECONCENTRATE AFTER RELEASE. LEVEL SPREADER SHALL BE CONSTRUCTED IN ACCORDANCE WITH GOVERNMENTAL STANDARDS.

5. STOCKPILING MATERIAL: NO EXCAVATED MATERIAL SHALL BE STOCKPILED IN SUCH A MANNER AS TO DIRECT RUNOFF DIRECTLY OFF THE PROJECT SITE INTO ANY ADJACENT WATER BODY OR STORM WATER COLLECTION FACILITY.

6. EXPOSED AREA LIMITATION: THE SURFACE AREA OF OPEN, RAW ERODIBLE SOIL EXPOSED BY CLEARING AND GRUBBING OPERATIONS OR EXCAVATION AND FILLING OPERATIONS SHALL NOT EXCEED 10 ACRES. THIS REQUIREMENT MAY BE WAIVED FOR LARGE PROJECTS WITH AN EROSION CONTROL PLAN WHICH DEMONSTRATES THAT OPENING OF ADDITIONAL AREAS WILL NOT SIGNFICANTLY AFFECT OFF-SITE DEPOSIT OF SEDIMENTS.

7. INLET PROTECTION: INLETS AND CATCH BASINS WHICH DISCHARGE DIRECTLY OFF-SITE SHALL BE PROTECTED FROM SEDIMENT-LADEN STORM RUNOFF UNTIL THE COMPLETION OF ALL CONSTRUCTION OPERATIONS THAT MAY CONTRIBUTE SEDIMENT TO THE INLET.

8. TEMPORARY SEEDING: AREAS OPENED BY CONSTRUCTION OPERATIONS AND THAT ARE NOT ANTICIPATED TO BE RE-EXCAVATED OR DRESSED AND RECEIVE FINAL GRASSING TREATMENT WITHIN 30 DAYS SHALL BE SEEDED WITH A QUICK GROWING GRASS SPECIES WHICH WILL PROVIDE AN EARLY COVER DURING THE SEASON IN WHICH IT IS PLANTED AND WILL NOT LATER COMPETE WITH PERMANENT GRASSING.

9. TEMPORARY SEEDING AND MULCHING: SLOPES STEEPER THAN 6:1 THAT FALL WITHIN THE CATEGORY ESTABLISHED IN PARAGRAPH 8 ABOVE SHALL ADDITIONALLY RECEIVE MULCHING OF APPROXIMATELY 2 INCHES LOOSE MEASURE OF MULCH MATERIAL CUT INTO THE SOIL OF THE SEEDED AREA ADEQUATE TO PREVENT MOVEMENT OF SEED AND MULCH.

10. TEMPORARY GRASSING: THE SEEDED OR SEEDED AND MULCHED AREA(S) SHALL BE ROLLED AND WATERED OR HYDROMULCHED OR OTHER SUITABLE METHODS IF REQUIRED TO ASSURE OPTIMUM GROWING CONDITIONS FOR THE ESTABLISHMENT OF A GOOD GRASS COVER. TEMPORARY GRASSING SHALL BE THE SAME MIX & AMOUNT REQUIRED FOR PERMANENT GRASSING IN THE CONTRACT SPECIFICATIONS.

11. TEMPORARY REGRASSING: IF AFTER 14 DAYS FROM SEEDING, THE TEMPORARY GRASSED AREAS HAVE NOT ATTAINED A MINIMUM OF 75 PERCENT GOOD GRASS COVER, THE AREA WILL BE REWORKED AND ADDITIONAL SEED APPLIED SUFFICIENT TO ESTABLISH THE DESIRED VEGETATIVE COVER.

12. MAINTENANCE: ALL FEATURES OF THE PROJECT DESIGNED AND CONSTRUCTED TO PREVENT EROSION AND SEDIMENT SHALL BE MAINTAINED DURING THE LIFE OF THE CONSTRUCTION SO AS TO FUNCTION AS THEY WERE ORIGINALLY DESIGNED AND CONSTRUCTED.

13. PERMANENT EROSION CONTROL: THE EROSION CONTROL FACILITIES OF THE PROJECT SHOULD BE DESIGNED TO MINIMIZE THE IMPACT ON THE OFFSITE FACITLITIES.

14. PERMANENT SEEDING: ALL AREAS WHICH HAVE BEEN DISTURBED BY CONSTRUCTION WILL, AS A MININUM, BE SEEDED, THE SEEDING MIX MUST PROVIDE BOTH LONG-TERM VEGETATION AND RAPID GROWTH SEASONAL VEGETATION. SLOPES STEEPER THAN 4:1 SHALL BE SEEDED AND MULCHED OR SODDED.

STRUCTURAL PRACTICES

1. TEMPORARY DIVERSION DIKE : TEMPORARY DIVERSION DIKES MAY BE USED TO DIVERT RUNOFF THROUGH A SEDIMENT-TRAPPING FACILITY. AND IT SHALL BE CONSTRUCTED AS PER DETAIL SHEET.

2. TEMPORARY SEDIMENT TRAP: A SEDIMENT TRAP SHALL BE INSTALLED IN A DRAINAGE WAY AT A STORM DRAIN INLET OR AT OTHER POINTS OF DISCHARGE FROM A DISTURBED AREA.
   THE FOLLOWING SEDIMENT TRAPS MAY BE CONSTRUCTED EITHER INDEPENDANTLY OR IN CONJUNCTION WITH A TEMPORARY DIVERSION DIKE:

   A. BLOCK & GRAVEL SEDIMENT FILTER – THIS PROTECTION IS APPLICABLE WHERE HEAVY FLOWS AND/OR WHERE AN OVERFLOW CAPACITY IS NECESSARY TO PREVENT EXCESSIVE PONDING AROUND THE STRUCTURE. TO BE CONSTRUCTED PER GOVERNMENTAL STANDARDS.

   B. GRAVEL SEDIMENT TRAP – – THIS PROTECTION IS APPLICABLE WHERE HEAVY CONCENTRATED FLOWS ARE EXPECTED, BUT NOT WHERE PONDING AROUND THE STRUCTURE MIGHT CAUSE EXCESSIVE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES & UNPROTECTED AREAS, TO BE CONSTRUCTED PER GOVERNMENTAL STANDARDS.

   C. DROP INLET SEDIMENT TRAP – THIS PROTECTION IS APPLICABLE WHERE THE INLET DRAINS A RELATIVELY FLAT AREA (S < 5%) AND WHERE SHEET OR OVERLAND FLOWS (Q < 0.5 CFS) ARE TYPICAL. THIS METHOD SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS SUCH AS IN STREET OR HIGHWAY MEDIANS. TO BE CONSTRUCTED PER GOVERNMENTAL STANDARDS.

3. OUTLET PROTECTION: APPLICABLE TO THE OUTLETS OF ALL PIPES AND PAVED CHANNEL SECTIONS WHERE THE FLOW COULD CAUSE EROSION & SEDIMENT PROBLEM TO THE RECEIVING WATER BODY, SILT FENCES & HAY BALES ARE TO BE INSTALLED IMMEDIATELY DOWNSTREAM OF THE DISCHARGING STRUCTURE AS SHOWN ON THE OUTLET PROTECTION DETAIL.

4. SEDIMENT BASIN: WILL BE CONSTRUCTED AT THE COMMON DRAINAGE LOCATIONS THAT SERVE AN AREA WITH 10 OR MORE DISTURBED ACRES AT ONE TIME, THE PROPOSED STORM WATER PONDS (OR TEMPORARY PONDS) WILL BE CONSTRUCTED FOR USE AS SEDIMENT BASINS, THESE SEDIMENT BASINS MUST PROVIDE A MINIMUM OF 3,600 CUBIC FEET OF STORAGE PER ACRE DRAINED UNTIL FINAL STABILIZATION OF THE SITE.

THE 3,600 CUBIC FEET OF STORAGE AREA PER ACRE DRAINED DOES NOT APPLY TO FLOWS FROM OFFSITE ARES AND FLOWS FROM ONSITE ARES THAT ARE EITHER UNDISTURBED OR HAVE UNDERGONE FINAL STABILIZATION WHERE SUCH FLOWS ARE DIVERTED AROUND BOTH THE DISTURBED AREA AND THE SEDIMENT BASIN. ANY TEMPORARY SEDIMENT BASINS CONSTRUCTED MUST BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH SPECIFICATIONS FOR STRUCTURAL FILL. ALL SEDIMENT COLLECTED IN PERMANENT OR TEMPORARY SEDIMENT TRAPS MUST BE REMOVED UPON FINAL STABILIZATION.

OTHER CONTROLS

WASTE DISPOSAL

WASTE MATERIALS

ALL WASTE MATERIALS EXCEPT LAND CLEARING DEBRIS SHALL BE COLLECTED AND STORED IN A SECURELY LIDDED METAL DUMPSTER. THE DUMPSTER WILL MEET ALL LOCAL AND STATE SOLID WASTE MANAGEMENT REGULATIONS. THE DUMPSTER WILL BE EMPTIED AS NEEDED AND THE TRASH WILL BE HAULED TO A STATE APPROVED LANDFILL. ALL PERSONNEL WILL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL. NOTICES STATING THESE PRACTICES WILL BE POSTED AT THE CONSTRUCTION SITE BY THE CONSTRUCTION SUPERINTENDENT, THE INDIVIDUAL WHO MANAGES THE DAY-TO-DAY SITE OPERATIONS, WILL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE FOLLOWED.

HAZARDOUS WASTE

ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATION OR BY THE MANUFACTURER. SITE PERSONNEL WILL BE INSTRUCTED IN THESE PRACTICES AND THE SITE SUPERINTENDENT, THE INDIVIDUAL WHO MANAGES DAY-TO-DAY SITE OPERATIONS, WILL BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE FOLLOWED.

SANITARY WASTE

ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS AS NEEDED TO PREVENT POSSIBLE SPILLAGE. THE WASTE WILL BE COLLECTED AND DISPOSED OF IN ACCORDANCE WITH STATE AND LOCAL WASTE DISPOSAL REGULATIONS FOR SANITARY SEWER OR SEPTIC SYSTEMS.

OFFSITE VEHICLE TRACKING

A STABILIZED CONSTRUCTION ENTRANCE WILL BE PROVIDED TO HELP REDUCE VEHICLE TRACKING OF SEDIMENTS. THE PAVED STREET ADJACENT TO THE SITE ENTRANCE WILL BE SWEPT DAILY TO REMOVE ANY EXCESS MUD, DIRT OR ROCK TRACKED FROM THE SITE. DUMP TRUCKS HAULING MATERIAL FROM THE CONSTRUCTION SITE WILL BE COVERED WITH A TARPAULIN.

INVENTORY FOR POLLUTION PREVENTION PLAN

THE MATERIALS OR SUBSTANCES LISTED BELOW ARE EXPECTED TO BE PRESENT ONSITE DURING CONSTRUCTION:

☒ CONCRETE	☒ FERTILIZERS	☒ WOOD
☒ ASPHALT	☒ PETROLEUM BASED PRODUCTS	☒ MASONRY BLOCKS
☐ TAR	☒ CLEANING SOLVENTS	☐ ROOFING MATERIALS
☐ DETERGENTS	☒ PAINTS	☐ METAL STUDS
☐ _____	☐ _____	☐ _____

SPILL PREVENTION

MATERIAL MANAGEMENT PRACTICES

THE FOLLOWING ARE THE MATERIAL MANAGMENT PRACTICES THAT WILL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES TO STORM WATER RUNOFF.

GOOD HOUSEKEEPING

THE FOLLOWING GOOD HOUSEKEEPING PRACTICES WILL BE FOLLOWED ONSITE DURING THE CONSTRUCTION PROJECT.

* AN EFFORT WILL BE MADE TO STORE ONLY ENOUGH PRODUCT REQUIRED TO DO THE JOB.

* ALL MATERIALS STORED ONSITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE.

* PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE ORIGINAL MANUFACTURER'S LABEL.

* SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.

* WHENEVER POSSIBLE, ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSAL OF THE CONTAINER.

* MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED.

* THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE MATERIALS ONSITE RECEIVE PROPER USE AND DISPOSAL.

HAZARDOUS PRODUCTS

THESE PRODUCTS ARE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS.

* PRODUCTS WILL BE KEPT IN ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE.

* ORIGINAL LABELS AND MATERIAL SAFETY DATA WILL BE RETAINED; THEY CONTAIN IMPORTANT PRODUCT INFORMATION.

* IF SURPLUS PRODUCT MUST BE DISPOSED OF, MANUFACTURER'S OR LOCAL AND STATE RECOMMENDED METHODS FOR PROPER DISPOSAL WILL BE FOLLOWED.

PRODUCT SPECIFIC PRACTICES

THE FOLLOWING PRODUCT SPECIFIC PRACTICES WILL BE FOLLOWED ONSITE:

PETROLEUM PRODUCTS

ALL ONSITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE, PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT SUBSTANCES USED ONSITE WILL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

FERTILIZERS

FERTILIZERS USED WILL BE APPLIED ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER. ONCE APPLIED, FERTILIZER WILL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORM WATER. STORAGE WILL BE IN A COVERED AREA. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER WILL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.

PAINTS

ALL CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT WILL NOT BE DISCHARGED TO THE STORM WATER SYSTEM BUT WILL BE PROPERLY DISPOSED OF ACCORDING TO MANUFACTURERS' INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.

CONCRETE TRUCKS

CONCRETE TRUCKS WILL NOT BE ALLOWED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER ON THE SITE.

SPILL CONTROL PRACTICES

IN ADDITION TO THE GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS SECTIONS OF THIS PLAN, THE FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:

MANUFACTURERS' RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED ON SITE AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.

MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ONSITE. EQUIPMENT AND MATERIALS WILL INCLUDE BUT NOT BE LIMTED TO BROOMS, DUST PANS, MOPS, RAGS, GLOVES, GOGGLES, LIQUID ABSORBENT (I.E. KITTY LITTER OR EQUAL), SAND, SAWDUST, AND PLASTIC AND METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE.

ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.

THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.

SPILL OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SIZE OF THE SPILL.

THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM REOCCURRING AND HOW TO CLEAN UP THE SPILL IF THERE IS ANOTHER ONE. A DESCRIPTION OF THE SPILLS, WHAT CAUSED IT, AND THE CLEANUP MEASURES WILL ALSO BE INCLUDED.

THE SITE SUPERINTENDENT RESPONSIBLE FOR THE DAY-TO-DAY SITE OPERATIONS, WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. HE/SHE WILL DESIGNATE AT LEAST ONE OTHER SITE PERSONNEL WHO WILL RECEIVE SPILL PREVENTION AND CLEANUP TRAINING. THESE INDIVIDUALS WILL EACH BECOME RESPONSIBLE FOR A PARTICULAR PHASE OF PREVENTION AND CLEANUP. THE NAMES OF RESPONSIBLE SPILL PERSONNEL WILL BE POSTED IN THE MATERIAL STORAGE AREA AND IF APPLICABLE, IN THE OFFICE TRAILER ONSITE.

MAINTENANCE/INSPECTION PROCEDURES

EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE PRACTICES

THE FOLLOWING ARE INSPECTION AND MAINTENANCE PRACTICES THAT WILL BE USED TO MAINTAIN EROSION AND SEDIMENT CONTROLS.

* NO MORE THAN 10 ACRES OF THE SITE WILL BE DENUDED AT ONE TIME WITHOUT WRITTEN PERMISSION FROM THE ENGINEER.

* ALL CONTROL MEASURES WILL BE INSPECTED BY THE SUPERINTENDENT. THE PERSON RESPONSIBLE FOR THE DAY-TO-DAY SITE OPERATION OR SOMEONE APPOINTED BY THE SUPERINTENDENT, AT LEAST ONCE A WEEK AND FOLLOWING ANY STORM EVENT OF 0.25 INCHES OR GREATER.

* ALL TURBIDITY CONTROL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER; IF A REPAIR IS NECESSARY, IT WILL BE INITIATED WITHIN 24 HOURS OF REPORT.

* BUILT UP SEDIMENT WILL BE REMOVED FROM SILT FENCE WHEN IT HAS REACHED ONE-THIRD THE HEIGHT OF THE FENCE.

* SILT FENCE WILL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS, TO SEE IF THE FABRIC IS SECURELY ATTATCHED TO THE FENCE POSTS, AND TO SEE THAT THE FENCE POSTS ARE FIRMLY IN THE GROUND.

* THE SEDIMENT BASINS WILL BE INSPECTED FOR THE DEPTH OF SEDIMENT, AND BUILT UP SEDIMENT WILL BE REMOVED WHEN IT REACHES 10 PERCENT OF THE DESIGN CAPACITY OR AT THE END OF THE JOB, WHICHEVER COMES FIRST.

* DIVERSION DIKES/SWALES WILL BE INSPECTED AND ANY BREACHES PROMPTLY REPAIRED.

* TEMPORARY AND PERMANENT SEEDING AND PLANTING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND HEALTHY GROWTH.

* A MAINTENANCE INSPECTION REPORT WILL BE MADE AFTER EACH INSPECTION.

THE REPORTS WILL BE KEPT ON SITE DURING CONSTRUCTION AND AVAILABLE UPON REQUEST TO THE OWNER, ENGINEER OR ANY FEDERAL STATE OR LOCAL AGENCY APPROVING SEDIMENT AND EROSION PLANS, OR STORM WATER MANAGEMENT PLANS.
THE REPORTS SHALL BE MADE AND RETAINED AS PART OF THE STORM WATER POLLUTION PREVENTION PLAN FOR AT LEAST THREE YEARS FROM THE DATE THAT THE SITE IS FINALLY STABILIZED AND THE NOTICE OF TERMINATION IS SUBMITTED THE REPORTS SHALL IDENTIFY ANY INCIDENTS OF NON-COMPLIANCE.

* THE SITE SUPERINTENDENT WILL SELECT UP TO THREE INDIVIDUALS WHO WILL BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE AND REPAIR ACTIVITIES, AND FILLING OUT THE INSPECTION AND MAINTENANCE REPORT.

* PERSONNEL SELECTED FOR INSPECTION AND MAINTENANCE RESPONSIBILITIES WILL RECEIVE TRAINING FROM THE SITE SUPERINTENDENT. THEY WILL BE TRAINED IN ALL THE INPECTION AND MAINTENANCE PRACTICES NECESSARY FOR KEEPING THE EROSION AND SEDIMENT CONTROLS USED ONSITE IN GOOD WORKING ORDER.

NON-STORM WATER DISCHARGES

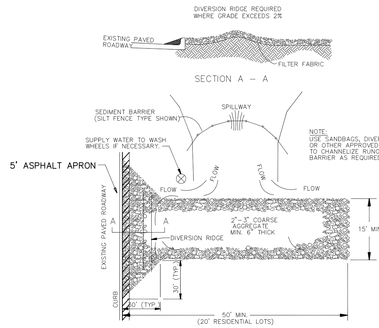
IT IS EXPECTED THAT THE FOLLOWING NON-STORM WATER DISCHARGES WILL OCCUR FROM THE SITE DURING THE CONSTRUCTION PERIOD:

* WATER FROM WATER LINE FLUSHING

* PAVEMENT WASH WATERS (WHERE NO SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE OCCURRED)

* UNCONTAMINATED GROUNDWATER (FROM DEWATERING EXCAVATION).

ALL NON-STORM WATER DISCHARGES WILL BE DIRECTED TO THE SEDIMENT BASIN PRIOR TO DISCHARGE.



NOTES:

1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO THE ENTRANCE ONTO PUBLIC RIGHT-OF-WAY
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

CONSTRUCTION ENTRANCE DETAIL

CONTRACTOR'S CERTIFICATION

I CERTIFY UNDER PENALTY O

PROJECT:

STORM WATER POLLUTION PREVENTION PLAN
INSPECTION AND MAINTENANCE REPORT FORM
TO BE COMPLETED EVERY 7 DAYS AND WITHIN 24 HOURS OF A RAINFALL EVENT OF 0.25 INCHES OR MORE

INSPECTOR:_____ DATE:_____

INSPECTOR'S QUALIFICATIONS:
_____
_____
_____
_____

DAYS SINCE LAST RAINFALL:_____ AMOUNT OF LAST RAINFALL _____ INCHES

STABILIZATION MEASURES

INSPECTION AREA (DESCRIPTION OF LOCATION)	DATE SINCE LAST DISTURBED	DATE OF NEXT DISTURBANCE	STABILIZED ? (YES/NO)	STABILIZED WITH	CONDITION

STABILIZATION REQUIRED:
_____
_____
_____
_____

TO BE PERFORMED BY:_____ ON OR BEFORE:_____

PROJECT:

STORM WATER POLLUTION PREVENTION PLAN
INSPECTION AND MAINTENANCE REPORT FORM
STRUCTURAL CONTROLS

DATE:_____

EARTH DIKES/SWALES

DIKE OR SWALE	FROM	TO	IS DIKE/SWALE STABILIZED ?	IS THERE EVIDENCE OF WASHOUT OR OVERTOPPING

MAINTENANCE REQUIRED FOR EARTH DIKE/SWALE:
_____
_____
_____
_____

TO BE PERFORMED BY:_____ ON OR BEFORE:_____

CATCH BASIN/CURB INLET/OUTFALL TURBIDITY CONTROLS

STRUCTURE/ OUTFALL	ARE TURBIDITY CONTROLS IN PLACE	ANY EVIDENCE OF CLOGING/WASHOUT OR BYPASSING ?	ARE TURBIDITY CONTROLS IN NEED OF REPLACING	DOES SILT NEED TO BE REMOVED FROM AROUND CONTROL

MAINTENANCE REQUIRED FOR CATCH BASIN/CURB INLETS/OUTFALLS TURBIDITY CONTROLS:
_____
_____
_____
_____

TO BE PERFORMED BY:_____ ON OR BEFORE:_____

PROJECT:

STORM WATER POLLUTION PREVENTION PLAN
INSPECTION AND MAINTENANCE REPORT FORM
SEDIMENT BASIN

DEPTH OF SEDIMENT IN BASIN	DEPTH OF SEDIMENT SIDE BASIN	ANY EVIDENCE OF OVERTOPPING OF THE EMBANKMENT ?	CONDITION OF OUTFALL FROM SEDIMENT BASIN

MAINTENANCE REQUIRED FOR SEDIMENT BASIN:
_____
_____
_____
_____

TO BE PERFORMED BY:_____ ON OR BEFORE:_____

OTHER CONTROLS

STABILIZED CONSTRUCTION ENTRANCE

DOES MUCH SEDIMENT GET TRACKED ON TO ROAD ?	IS THE GRAVEL CLEAN OR IS IT FILLED WITH SEDIMENT?	DOES ALL TRAFFIC USE THE STABILIZED ENTRANCE TO LEAVE THE SITE ?	IS THE CULVERT BENEATH THE ENTRANCE WORKING? (IF APPLICABLE)

MAINTENANCE REQUIRED FOR STABILIZED CONSTRUCTION ENTRANCE:
_____
_____
_____
_____

TO BE PERFORMED BY:_____ ON OR BEFORE:_____

PROJECT:

STORM WATER POLLUTION PREVENTION PLAN
INSPECTION AND MAINTENANCE REPORT FORM

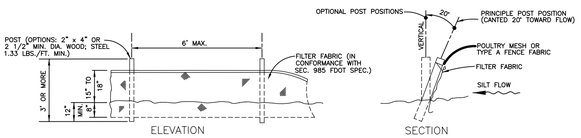
CHANGES REQUIRED TO THE POLLUTION PREVENTION PLAN:
_____
_____
_____
_____
_____
_____
_____
_____

REASONS FOR CHANGES:
_____
_____
_____
_____
_____
_____
_____
_____

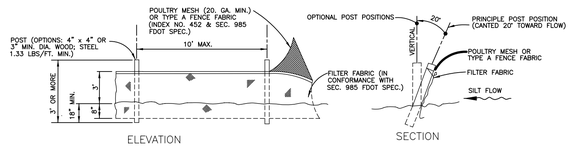
I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

SIGNATURE:_____

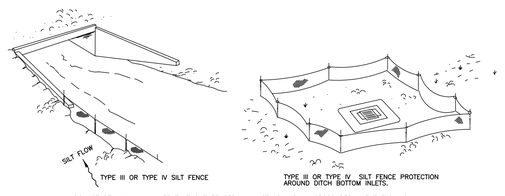
DATE:_____



TYPE III SILT FENCE

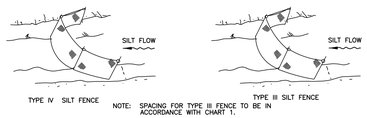


TYPE VI SILT FENCE



DO NOT DELAY IN A MANNER THAT SILT FENCES WILL ACT AS A DAM ACROSS PERMANENT FLOWING WATERCOURSES. SILT FENCES ARE TO BE USED AT UPLAND LOCATIONS AND TURBIDITY BARRIERS USED AT PERMANENT BODIES OF WATER.

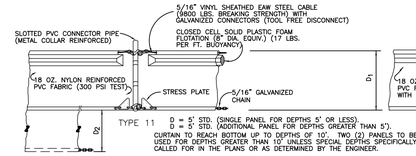
SILT FENCE APPLICATIONS



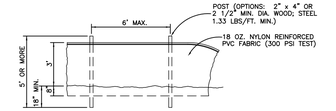
SILT FENCE TYPE III & IV

N.T.S.

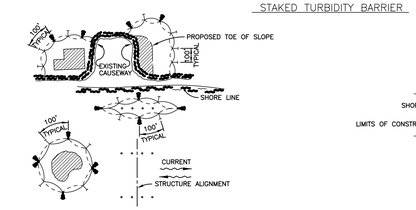
NOTE: SILT FENCE TO BE INSTALLED A MINIMUM OF 6' FROM ANY REMAINING PROTECTED TREE.



FLOATING TURBIDITY BARRIERS



STAKED TURBIDITY BARRIER



NOTES:
1. TURBIDITY BARRIERS ARE TO BE USED IN ALL PERMANENT BODIES OF WATER REGARDLESS OF WATER DEPTH.
2. NUMBER AND SPACING OF ANCHORS DEPENDENT ON CURRENT VELOCITIES.
3. DEPLOYMENT OF BARRIER AROUND PILE LOCATIONS MAY VARY TO ACCOMMODATE CONSTRUCTION OPERATIONS.
4. NAVIGATION MAY REQUIRE SEGMENTING BARRIER DURING CONSTRUCTION OPERATIONS.

NOTE:
TURBIDITY BARRIERS FOR FLOWING STREAMS AND TIDAL CREEKS MAY BE EITHER FLOATING, OR STAKED TYPES OR ANY COMBINATIONS OF TYPES THAT WILL SUIT SITE CONDITIONS AND MEET EROSION CONTROL AND WATER QUALITY REQUIREMENTS. THE BARRIER TYPE(S) WILL BE AT THE CONTRACTORS OPTION UNLESS OTHERWISE SPECIFIED IN THE PLANS, HOWEVER PAYMENT WILL BE UNDER THE PAY ITEM(S) ESTABLISHED IN THE PLANS FOR FLOATING TURBIDITY BARRIER AND/ OR STAKED TURBIDITY BARRIER. POSTS IN STAKED TURBIDITY BARRIERS TO BE INSTALLED IN VERTICAL POSITION UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

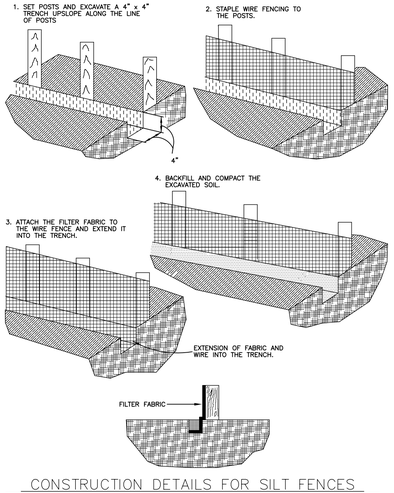
TURBIDITY BARRIER APPLICATIONS

TURBIDITY BARRIERS

N.T.S.

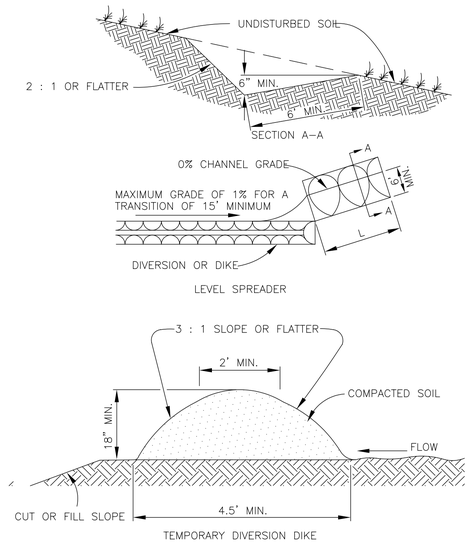
NOTE TO CONTRACTOR:

THIS IS THE CONTRACTORS CERTIFICATION REQUIRED BY THE EPA'S NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES), STORM WATER POLLUTION PREVENTION PLAN FOR CONSTRUCTION SITES OVER 5 ACRES. THIS CERTIFICATION MUST BE COMPLETED WEEKLY AND AFTER EVERY RAINFALL EVENT OVER 0.25 INCHES. IT IS SUGGESTED THAT THIS SHEET BE REMOVED FROM THE PLAN SET AND DUPLICATED AS NEEDED BY THE CONTRACTOR.



CONSTRUCTION DETAILS FOR SILT FENCES

N.T.S.



DIVERSION DIKE

N.T.S.

EROSION AND SEDIMENT CONTROL NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING SILT FROM SITE IF NOT REUSABLE ON-SITE AND ASSURING PLAN ALIGNMENT AND GRADE IN ALL DITCHES AND SWALES AT COMPLETION OF CONSTRUCTION.
2. THE SITE CONTRACTOR IS RESPONSIBLE FOR REMOVING THE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER COMPLETION OF CONSTRUCTION AND ONLY WHEN AREAS HAVE BEEN STABILIZED.
3. ADDITIONAL PROTECTION – ON-SITE PROTECTION MUST BE PROVIDED THAT WILL NOT PERMIT SILT TO LEAVE THE PROJECT CONFINES DUE TO UNFORSEEN CONDITIONS OR ACCIDENTS.
4. CONTRACTOR SHALL INSURE THAT ALL DRAINAGE STRUCTURES, PIPES, ETC., ARE CLEANED OUT AND WORKING PROPERLY AT TIME OF ACCEPTANCE.
5. WIRE MESH SHALL BE LAID OVER THE TOP DROP INLET SO THAT THE WIRE EXTENDS A MINIMUM OF 1 FOOT BEYOND EACH SIDE OF THE INLET STRUCTURE. HARDWARE CLOTH OR COMPARABLE WIRE MESH WITH 1/2-INCH OPENINGS SHALL BE USED. IF MORE THAN ONE STRIP OF MESH IS NECESSARY, THE STRIPS SHALL BE OVERLAPPED.
6. FDOT NO.1 COARSE AGGREGATE SHALL BE PLACED OVER THE WIRE MESH AS INDICATED ON DETAIL. THE DEPTH OF STONE SHALL BE AT LEAST 12 INCHES OVER THE ENTIRE INLET OPENING. THE STONE SHALL EXTEND BEYOND THE INLET OPENING AT LEAST 18 INCHES ON ALL SIDES.
7. IF THE STONE FILTER BECOMES CLOGGED WITH SEDIMENT SO THAT IT NO LONGER ADEQUENTLY PERFORMS ITS FUNCTION, THE STONES MUST BE PULLED AWAY FROM THE INLET, CLEANED AND REPLACED.
8. DELETED
9. DELETED
10. THE FILTER BARRIER SHALL BE ENTRENCHED AND BACKFILLED. A TRENCH SHALL BE EXCAVATED AROUND THE INLET AND WIDTH OF A BALE TO A MINIMUM DEPTH OF FOUR INCHES. AFTER THE BALES ARE STACKED, THE EXCAVATED SOIL SHALL BE BACKFILLED AND COMPACTED AGAINST THE FILTER BARRIER.
11. DELETED
12. DELETED
13. DELETED
14. DELETED
15. NECESSARY REPAIRS TO BARRIERS SHALL BEACCOMPLISHED PROMPTLY.
16. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH RAINFALL. THEY MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
17. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.
18. SILT FENCES AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
19. SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER IS STILL NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
20. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
21. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
22. THE CONTRACTOR IS RESPONSIBLE FOR FOLLOMNG THE BEST EROSION AND SEDIMENT CONTROL PRACTICES AS OUTLINED IN THE PLANS, SPECIFICATIONS AND ST. JOHNS RIVER WATER MANAGEMENT DISTRICT PERMIT.
23. FOR ADDITIONAL INFORMATION ON SEDIMENT AND EROSION CONTROL REFER TO "THE FLORIDA DEVELOPMENT MANUAL – A GUIDE TO SOUND LAND AND WATER MANAGEMENT" FROM THE STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION (FDER), CHAPTER 6.
24. EROSION AND SEDIMENT CONTROL BARRIERS SHALL BE PLACED ADJACENT TO ALL WETLAND AREAS WHERE THERE IS POTENTIAL FOR DOWNSTREAM WATER QUALITY DEGRADATION. SEE DETAIL SHEET FOR TYPICAL CONSTRUCTION.
25. ALL DISTURBED AREAS SHALL BE GRASSED, FERTILIZED, MULCHED AND MAINTAINED UNTIL A PERMANENT VEGETATIVE COVER IS ESTABLISHED.
26. SOD SHALL BE PLACED IN AREAS WHICH MAY REQUIRE IMMEDIATE EROSION PROTECTION TO ENSURE WATER QUALITY STANDARDS ARE MAINTAINED.
27. ANY DISCHARGE FROM DEWATERING ACTIVITY SHALL BE FILTERED AND CONVEYED TO THE OUTFALL IN A MANNER WHICH PREVENTS EROSION AND TRANSPORTATION OF SUSPENDED SOLIDS TO THE RECEIVING OUTFALL.
28. DEWATERING PUMPS SHALL NOT EXCEED THE CAPACITY OF THAT WHICH REQUIRES A CONSUMPTIVE USE PERMIT FROM THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT.
29. ALL DISTURBED AREAS TO BE STABILIZED THROUGH COMPACTION, SILT SCREENS, HAY BALES AND GRASSING. ALL FILL SLOPES 3:1 OR STEEPER TO RECEIVE STAKED SOLID SOD.
30. ALL DEWATERING, EROSION AND SEDIMENT CONTROL TO REMAIN IN PLACE AFTER COMPLETION OF CONSTRUCTION AND BE REMOVED ONLY WHEN AREAS HAVE BEEN STABILIZED.
31. THIS PLAN INDICATES THE MINIMUM EROSION AND SEDIMENT CONTROL MEASURES REQUIRED FOR THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR MEETING ALL APPLICABLE RULES, REGULATIONS AND WATER QUALITY GUIDELINES AND MAY NEED TO INSTALL ADDITIONAL CONTROLS.
32. ALL EXCAVATIONS AND EARTHWORK SHALL BE DONE IN A MANNER TO MINIMIZE WATER TURBIDITY AND POLLUTION. DISCHARGE SHALL BE CONTROLLED AND REROUTED THROUGH HAY FILTERS, SILTATION DIAPERS AND SUMPS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PREVENTION, CORRECTION, CONTROL AND ABATEMENT OF EROSION AND WATER POLLUTION IN ACCORDANCE WITH CHAPTER 17-3, FLORIDA ADMINISTRATIVE CODE.
33. THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL OF ANY SEDIMENT THAT LEAVES THE SITE AND CHANGES ANY DOWNSTREAM CONDITIONS BY RAISING CHANNEL BOTTOMS AND/OR CLOGGING OUTFALL CULVERTS.
34. THE CONTRACTOR SHALL PAY FOR ANY WATER QUALITY CONTROL VIOLATIONS FROM ANY AGENCY THAT RESULTS IN FINES BEING ASSESSED TO THE OWNER BECAUSE OF THE CONTRACTOR'S FAILURE TO ELIMINATE TURBID RUNOFF FROM LEAVING THE SITE AND RAISING BACKGROUND LEVELS ABOVE EXISTING BACKGROUND LEVEL.

J. LUCAS & ASSOCIATES, INC.
CONSULTING AND DESIGN ENGINEERS
CERTIFICATE OF AUTHORIZATION NO. 3981
1305 CEDAR STREET – JACKSONVILLE, FL 32207
PH (904) 396-3060 FAX (904) 396-3456

VERSION: ACAD 14
DRAWN BY: DAD
DESIGNED BY: JML
APPROVED BY: JML
DATE: OCT. 2023

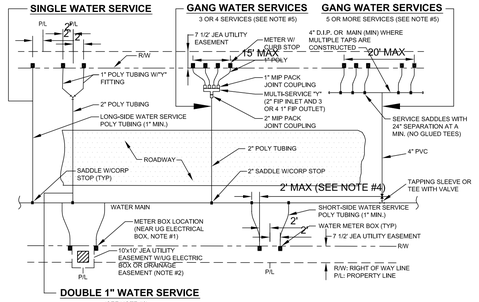
NO.	REVISION	BY	DATE

EROSION & SEDIMENT CONTROL NOTES AND DETAILS OF TYSON FOREST FOR TYSON FOREST, LLC

DRAWING NO. 39 OF 41
JOB NO. 2301
FILE: 2301SWPPP

SEAL & SIGNATURE:

A LOCATE WIRE SHALL BE PLACED ON SERVICES 10FT OR GREATER.



NOTES:

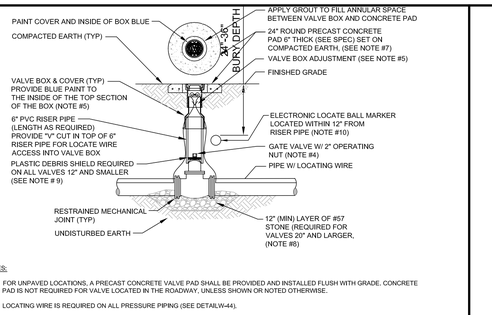
1. THE SKETCHES ABOVE INDICATE TYPICAL WATER SERVICE AND METER BOX LOCATIONS, ACTUAL LOCATIONS OF BOXES MAY VARY SLIGHTLY ACCORDING TO FIELD CONDITIONS ENCOUNTERED, TYPICALLY, THE METER BOX SHALL LOCATED AT THE R/W LINE BUT INSIDE THE 7 1/2' ELECTRIC EASEMENT.
2. UNLESS SPECIFIED OTHERWISE BY THE APPLICABLE COUNTY (NASSAU CLAY OR ST. JOHNS COUNTY), THE METER BOX SHALL BE LOCATED IN THE JEA 7 1/2' UTILITY EASEMENT, AND TWO FEET INSIDE OF THE PROLONGATION OF ONE OF THE SIDE PROPERTY LINES, IF A CONFLICT EXISTS WITH OTHER UTILITIES, THE METER BOX MAY BE ADJUSTED TO FOUR FEET (MAX.) INSIDE PROPERTY LINES (IN LIEU OF TWO FEET), UNLESS APPROVED OTHERWISE BY JEA, THE WATER METER BOX SHALL BE LOCATED IN NON-TRAFFIC AREAS (NOT IN SIDEWALKS OR DRIVEWAYS). IF THE METER BOX IS APPROVED BY JEA TO BE LOCATED IN A DRIVEWAY OR SIDEWALK, THEN THE CONSTRUCTION SHALL MEET STANDARD DETAIL NUMBERS W-3&4, AT A MINIMUM (SEE W-3 AND W-4 FOR THE REQUIREMENTS OF SPECIAL ORDER POLYMER BOX AND TOP) , SET TOP OF BOX AT FINISHED GRADE, IF AN UNAPPROVED METER BOX IS IDENTIFIED BY JEA, THEN THE CONTRACTOR OR CUSTOMER SHALL BE RESPONSIBLE FOR THE COST OF RELOCATING ANY METER BOX WHICH IS LOCATED IN THE SIDEWALK OR DRIVEWAY OR THE COST TO PROVIDE THE CORRECT METER BOX, JEA SHALL APPROVE ALL DEVIATIONS TO THE ABOVE PRIOR TO CONSTRUCTION.
3. IF DRAINAGE OR OTHER EASEMENT LOCATED BETWEEN LOTS, METER BOXES SHALL BE LOCATED AT THE EASEMENT LINE BUT OUTSIDE THE EASEMENT AREA.
4. FOR SINGLE SERVICES: THE HORIZONTAL DISTANCE (PERPENDICULAR TO THE MAIN)BETWEEN THE SERVICES SADDLE AND THE METER BOX SHALL BE 2 FEET MAXIMUM, FOR DOUBLE 1" SERVICES, THE 2" POLY MAIN SHALL BE LOCATED CENTERED BETWEEN THE TWO METER BOXES. LOCATE WIRE IS REQUIRED ON ALL SERVICES 10' OR GREATER IN LENGTH. IF LOCATE WIRE IS REQUIRED, THE WIRE SHALL RUN FROM THE METER BOX (W/ PIG TAIL) TO THE MAIN (DEAD END SHALL BE TAPED WITH NO CONNECTION TO MAIN WIRE WITH THE LAST 24 INCHES STRIPED OF INSULATION(MAKE WIRE AS GROUND), ALL EXCEPTIONS TO THIS REQUIREMENT MUST BE APPROVED BY JEA. THIS WILL ASSIST IN LOCATING EXISTING SERVICE LINES IN THE FUTURE.
5. GANG WATER SERVICES: FOR 3 OR 4 SERVICES IN ONE AREA, A DUCTILE IRON PIPE (D.I.P.) WATER MAIN EXTENSION W/LOCATE WIRE MAY BE UTILIZED ON EITHER SHORT-SIDE OR LONG SIDE SERVICES WHERE SHOWN ON THE DRAWINGS, LOCATE WIRE SHALL EXTEND FROM ONE METER BOX TO CORP STOP AT WATER MAIN. FOR 5 OR MORE SERVICES IN ONE AREA, A WATER MAIN EXTENSION W/LOCATE WIRE MAY BE UTILIZED ON EITHER SHORT-SIDE OR LONG SIDE SERVICES WHERE SHOWN ON THE DRAWINGS (TAPS STAGGERED AND AT 2 FEET ON CENTER-MIN). FOR WATER SUPPLY HEADERS WHERE 5 OR MORE TAPS ARE CONSTRUCTED, THE HEADER PIPE SHALL BE 4" AT A MINIMUM, EXAMPLE: CONSTRUCT A 4" MAIN PVC CROSSING THE STREET FOR 5 RESIDENTIAL CUSTOMERS, UTILIZING 4" DIP, 4" PIPE, 4"X1" SADDLES AND 1" CORP STOPS (NO GLUED TEE FITTINGS), THE 4" OR LARGER D.I.P. WATER MAIN MUST BE SIZED AND DESIGNED BY THE P.E. ENGINEER.
6. DOUBLE 1" WATER SERVICES IS ALLOWED FOR SHORT SIDE OR LONG SIDE SERVICES AND WHERE SHOWN ON THE DRAWINGS.
7. A 1" IRRIGATION SERVICE MAYBE TAPPED INTO THE (1" MIN) DOMESTIC WATER SERVICE LINE (WHICH SERVES THE SAME CUSTOMER) UTILIZING A 1" BRONZE "Y" FITTING, (IN AREAS WHERE NO RECLAIMED WATER IS AVAILABLE).
8. No 2" AND SMALLER WATER SERVICE TAPS PERMITTED ON WATER MAINS WHICH ARE 20" AND LARGER SIZE.
9. RECLAIMED WATER METER BOXES OR SERVICES SHALL BE CONSTRUCTED SIMILAR TO THE ABOVE AND SHALL BE LOCATED, AT A MIN, OF 10' FROM THE POTABLE WATER SERVICE, AND/OR BOX AND NOT ALLOWED IN CONCRETE OR ASPHALT UNLESS APPROVED OTHERWISE BY JEA.
10. SERVICE SIZE SHALL BE SAME AS THE METER SIZE.

WATER OR RECLAIM SERVICE INSTALLATIONS 2" AND SMALLER METER

JANUARY 2023 PLATE W-1

NOTES:

1. SEE PLATE W-1 FOR METER LOCATION REQUIREMENTS.
2. SINGLE BAND SADDLES SHALL BE UTILIZED ON NEW 1" WATER SERVICES WHICH ARE INSTALLED ON A DRY 10" SIZE OR SMALLER WATER MAIN (NEW WATER MAIN CONSTRUCTION). FOR WET TAPS OR WATER MAINS 12" SIZE AND LARGER, A DOUBLE BAND SADDLE IS REQUIRED. BRASS SADDLES MAY BE UTILIZED ON NEW 1 INCH AND SMALLER WATER SERVICES WHICH ARE INSTALLED ON A DRY 10 INCH OR SMALLER PVC WATER MAIN.
3. NO OPEN CUT UNDER ROADWAY PAVING ALLOWED UNLESS THE ROADWAY IS BEING RECONSTRUCTED OR IF DIRECTED OTHERWISE BY J.E.A. CONSTRUCT POLY LINE WITH 24" (MIN.) COVER UNDER ROADWAYS. THE POLY WATER SERVICE LINE SHALL BE SAME SIZE AS THE METER (1" MINIMUM) AND BE INSTALLED PERPENDICULAR TO THE MAIN AND NOT EXCEED 100LF UNLESS APPROVED OTHERWISE BY JEA.
4. INSTALL PVC PLUG IN ALL CURB STOPS IF WATER SERVICE IS "NOT IN USE" (I.E.: IF NO METER IS INSTALLED), WATER SERVICES SERVING VACANT LOTS (SERVICE NOT IN USE), SHALL INCLUDE A "W" CUT INTO THE CURB (CLOSEST TO THE METER BOX), AND PAINTED BLUE (PAINTED PURPLE FOR RECLAIMED WATER). IN ADDITION, FOR NEW DEVELOPMENT AREAS WHERE THE WATER SERVICE IS "NOT IN USE", A LANDSCAPE TIMBER OR 3x3 MIN. P.T. POST (TOP PAINTED BLUE OR PURPLE FOR RECLAIMED WATER). THE REMOVAL OR TRANSFER OF A WATER SERVICE SHALL INCLUDE BRASS METER COUPLINGS (HEX ON BARREL TYPE).
5. NO 2" AND SMALLER WATER SERVICE TAPS PERMITTED ON WATER MAINS WHICH ARE 20" AND LARGER SIZE.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF THE METER OR ELECTRONIC DEVICES IF DAMAGED BY THE CONTRACTOR DURING THE CONSTRUCTION PERIOD.
7. METER BOX AND TOP SHALL BE CLEAR OF ALL DEBRIS TO ALLOW FULL ACCESS TO BOX (i.e. NO DIRT, TRASH OR OTHER DEBRIS PLACED ON TOP OF BOX).
8. LOCATE WIRING REQUIRED ON ALL SERVICES 10' OR GREATER IN LENGTH, SEE PLATE W-44.

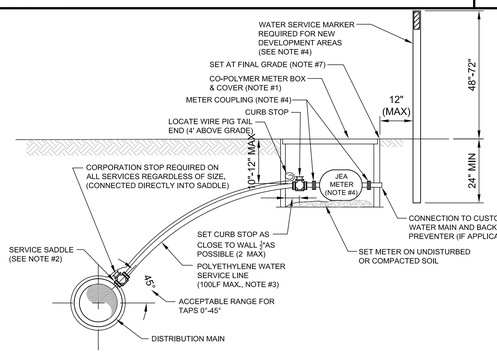


NOTES:

1. FOR UNPAVED LOCATIONS, A PRECAST CONCRETE VALVE PAD SHALL BE PROVIDED AND INSTALLED FLUSH WITH GRADE. CONCRETE PAD IS NOT REQUIRED FOR VALVE LOCATED IN THE ROADWAY, UNLESS SHOWN OR NOTED OTHERWISE.
2. LOCATING WIRE IS REQUIRED ON ALL PRESSURE PIPING (SEE DETAILW-44).
3. A "V" CUT SHALL BE CARVED IN THE CURB CLOSEST/ADJACENT(↓ASPHALT IF NO CURB) TO ALL BELOW GRADE VALVES. THE "V" CUT IS TO BE PAINTED BLUE WATER/PURPLE RECLAIMED.
4. IN PAVED AREAS, INSTALL VALVE AT A DEPTH TO ALLOW A 12" MIN. DISTANCE BETWEEN THE VALVE COVER PLATE AND THE TOP OF THE VALVE OPERATING NUT. OUTSIDE OF PAVED AREAS (GRASS), INSTALL VALVE AT A DEPTH TO ALLOW A 6" MINIMUM DISTANCE BETWEEN THE VALVE COVER AND THE TOP OF THE VALVE OPERATING NUT. OPERATING NUT/STEM EXTENSION SHALL BE PROVIDED (WHERE APPLICABLE) SO THAT THE OPERATING NUT WILL BE NO MORE THAN 30 INCHES BELOW FINISHED GRADE.
5. FOR NEW CONSTRUCTION, THE VALVE BOX SHALL BE ADJUSTED TO MIDRANGE TO ALLOW FOR FUTURE BOX ADJUSTMENTS, ROUTE LOCATE WIRES THRU A "Y" CUT IN THE TOP OF THE 6" PVC RISER PIPE FOR LOCATE WIRE ACCESS INTO VALVE BOX. THE LOCATE WIRES WITH A 24" LONG PIG-TAIL AT THE TOP SHALL BE CONNECTED TOGETHER WITH A WIRE NUT.
6. BRASS IDENTIFICATION TAG INDICATING "WATER", VALVE SIZE, DIRECTION AND TURNS TO OPEN & VALVE TYPE, PROVIDE A 3" HOLE IN BRASS TAG AND ATTACH TAG (TWIST WIRE AROUND TAG) TO THE END OF THE LOCATE WIRE. TAGS ARE NOT REQUIRED ON VALVES INSTALLED ON FIRE HYDRANT BRANCH LINES.
7. IN LIEU OF PRECAST CONCRETE PAD, A 6" THICK X 24" (ROUND OR SQUARE) POURED CONCRETE PAD W/2 - #4 REBAR AROUND PERIMETER, MAY BE USED.
8. GRAVEL SHALL BE PROVIDED UNDER ALL VALVES 20" AND LARGER. THE MINIMUM VERTICAL LIMIT OF GRAVEL IS 12" UNDER THE VALVE UP TO ½ THE OVERALL HEIGHT OF THE VALVE.
9. FOR VALVES 12 INCH AND SMALLER, PROVIDE A WHITE OR BLACK PLASTIC DEBRIS SHIELD WHICH INSTALLS BELOW THE OPERATING NUT. THIS SHIELD SHALL CENTER THE RISER PIPE BOX OVER THE OPERATING NUT AND MINIMIZE INFILTRATION. SHIELD SHALL BE BY AFC, BOXLOK OR APPROVED EQUAL.
10. ALL VALVES SHALL BE INSTALLED WITH AN ELECTRIC LOCATE MARKER. MARKER SHALL BE 4" DIA. COLOR CODED BALL MARKER (3M-1403XR FOR WATER AND 1408XR FOR RECLAIMED WATER).

WATER VALVE INSTALLATION DETAIL

JANUARY 2023 PLATE W-18



WATER SERVICE DETAIL- 2" AND SMALLER METER

JANUARY 2023 PLATE W-2

PLAN

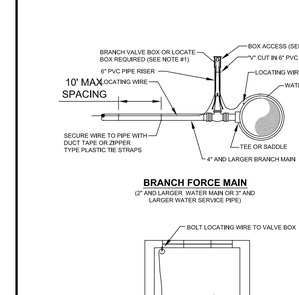
SECTION "A-A"

NOTES:

1. IN LIEU OF BELL/ROD RESTRAINTS, MECHANICAL JOINT RESTRAINTS MAY BE USED,
2. LOCATING WIRE REQUIRED, UTILIZING A LOCATE WIRE BOX INSTALLED AT PLUG LOCATION.
3. NUMBER OF TIE RODS REQUIRED IS AS FOLLOWS:
   3" - 8" DIAMETER MAIN - 2 TIE RODS REQUIRED PER JOINT (3/4" ROD)
   10" - 12" DIAMETER MAIN - 4 TIE RODS REQUIRED PER JOINT (3/4" ROD)
   14" - 16" DIAMETER MAIN - 6 TIE RODS REQUIRED PER JOINT (3/4" ROD)
   18" - 20" DIAMETER MAIN - 8 TIE RODS REQUIRED PER JOINT (3/4" ROD)
   24" DIAMETER MAIN - 12 TIE RODS REQUIRED PER JOINT (3/4" ROD)
   30" - 36" DIAMETER MAIN - 14 TIE RODS REQUIRED PER JOINT (1" ROD)
   42" - 48" DIAMETER MAIN -16 TIE RODS REQUIRED PER JOINT (1 1/4" ROD)
   54" DIAMETER MAIN - 18 TIE RODS REQUIRED PER JOINT (1 1/4" ROD)
4. THE LOCATION OF THE DEAD END PLUG SHALL NOT BE UNDER PAVEMENT, IF POSSIBLE, THE STUB OUT SHALL EXTEND BEYOND THE INTERSECTION AREAS OR ROAD CROSSING BY 10 FEET (MIN.) WHERE POSSIBLE.

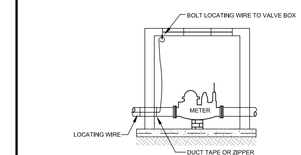
PLUGGED DEAD END USING MECHANICAL RESTRAINTS

JANUARY 2023 PLATE W-37



BRANCH FORCE MAIN

(2" AND LARGER WATER MAIN OR 3" AND LARGER WATER SERVICE PIPE)



CONNECTION AT LARGE METER BOX

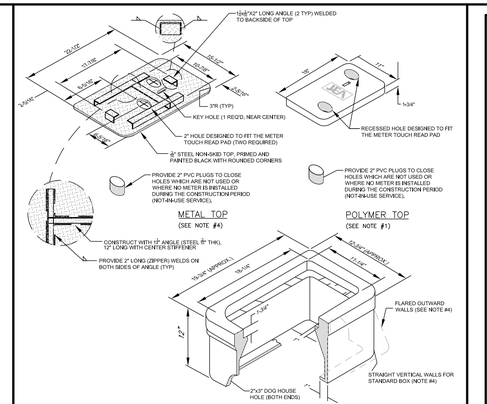
(3" OR LARGER SERVICE)

NOTES:

1. NOTE THAT THE BRANCH WIRE IS NOT CONNECTED TO THE MAIN WIRE.
2. LOCATE WIRE SHALL ENTER THE VALVE BOX THROUGH A "V" CUT IN THE 6" PVC RISER PIPE SECTION (SEE W-18),
3. LOCATE WIRE SHALL HAVE ENOUGH SLACK TO REACH 4' ABOVE FINAL GRADE AND LOCATE POINTS.

LOCATE WIRE FOR BRANCH MAIN

JANUARY 2023 PLATE W-44A



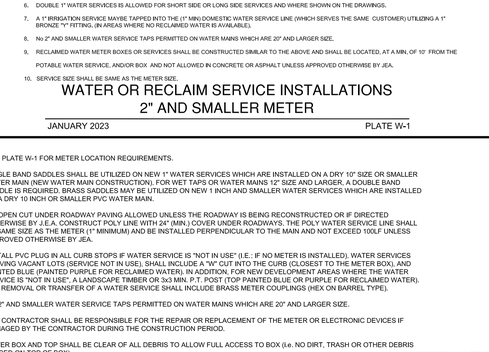
POLYMER BOX

NOTES:

1. THE STANDARD BOX (AS (ASTM C857) LOAD RATING WITH STRAIGHT VERTICAL WALLS & TOP (AS (ASTM C857) RATING WITH FLARED WALLS, THE FLARED WALL BOX IS SIMILAR TO (SIMILAR TO JEA BROOKS SERIES) P BOX, WALLS SHALL BE FRIENDLY/ESS, THE INSIDE LIP OF THE BOX SHALL BE LOCATED SAME AS THE BOX, THE ONE HOLE LIDS ARE FOR SPECIAL ORDERS ONLY AND REQUIRE JEA'S APPROVAL PRIOR TO USE.
2. ALL SIZES SHOWN ARE IN INCHES AND ARE APPROXIMATE SIZES.
3. POLYMER BOX APPROXIMATE WEIGHT 20lbs, POLYMER TOP APPROXIMATE WEIGHT 20lbs, SEE CONSTRUCTION DETAILS W-3A (TWO HOLE) AND W-3B (ONE HOLE) FOR MANUFACTURING DETAILS FOR COVERS.
4. UNLESS APPROVED OTHERWISE IN WRITING BY JEA, ALL METER BOXES SHALL BE LOCATED IN NON-TRAFFIC AREAS (NOT IN THE ROADWAY, DRIVEWAYS OR SIDEWALKS), IF AN EXCEPTION TO THIS RULE IS APPROVED BY JEA, THEN THE FOLLOWING SHALL BE PROVIDED:
   A) UNDER NO CIRCUMSTANCE SHALL A METER BOX BE LOCATED IN A COMMERCIAL TRAFFIC AREA,
   B) IF AN EXCEPTION IS APPROVED IN WRITING THE METER BOX LOCATED IN A SIDEWALK OR RESIDENTIAL DRIVEWAY SHALL (INCLUDE A POLYMER BOX WITH FLARED OUTWARD WALLS (NOT STRAIGHT WALLS) AND A POLYMER TOP, BOX AND TOP SHALL BE INSTALLED BY A JEA MANAGER OR JEA METER O&M STAFF,
   C) METAL TOPS MAY BE UTILIZED IF SPECIFICALLY APPROVED BY JEA MANAGER OR JEA METER O&M STAFF,

WATER METER BOX & COVER FOR 1" AND SMALLER METERS

JANUARY 2023 PLATE W-3

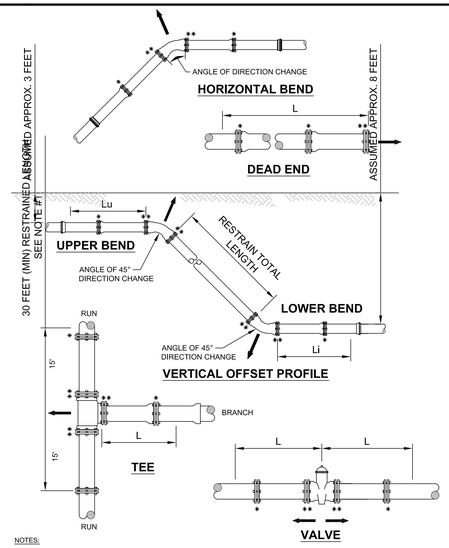


GENERAL NOTE:

1. PAY ITEM " * " DENOTES A RESTRAINT WHICH IS PAID FOR ON A PER EACH BASIS.
2. PAY ITEM " ** " DENOTES A RESTRAINT WHICH IS INCLUDED IN THE UNIT PRICE BID FOR FITTING OR VALVE.
3. ➡ INDICATES DIRECTION OF THRUST FORCE.

MECHANICAL RESTRAINT DETAILS - I

JANUARY 2023 PLATE W-31C



NOTES:

1. TOTAL LENGTH BETWEEN FIRST JOINTS OR RESTRAINED LENGTH ON EITHER SIDE OF TEE (RUN) SHALL BE A TOTAL DISTANCE OF 30 FEET (MIN.).
2. PAY ITEM *** DENOTES A RESTRAINT WHICH IS PAID FOR ON A PER EACH BASIC.
3. PAY ITEM **** DENOTES A RESTRAINT WHICH IS INCLUDED IN THE UNIT PRICE BID FOR FITTING OR VALVE.

MECHANICAL RESTRAINT DETAILS - II

JANUARY 2023 PLATE W-31D

LENGTH (L) TO BE RESTRAINED (SEE PLATE Nos. 38C & 38D FOR ADDITIONAL DETAILS)

NOMINAL PIPE SIZE (IN.)	HORIZONTAL BENDS 90° BENDS L (FT.)	45° BENDS L (FT.)	22.5° BENDS L (FT.)	11.25° BENDS L (FT.)	VERTICAL OFFSETS 45° BENDS (SEE NOTE 4) UPPER L (FT.)	LOWER L (FT.)	VALVES OR DEAD ENDS L (FT.)
4	21	9	5	3	17	3	47
6	30	13	6	3	23	4	66
8	38	16	8	4	30	6	86
10	45	19	9	5	36	7	103
12	53	22	11	6	43	8	121
14	61	26	13	6	50	9	140
16	66	28	14	7	55	10	154
18	73	30	15	8	60	11	170
20	79	33	16	8	66	12	186
24	79	33	16	8	77	15	185
30	93	39	19	10	97	17	222
36	106	39	21	11	107	20	257
42	117	49	24	12	120	24	289
48	144	53	26	13	133	26	321

PVC PIPE RESTRAINT NOTES:

1. THIS SCHEDULE SHALL BE UTILIZED ON ALL WATER, SEWER FORCE MAIN OR RECLAIMED WATER SYSTEMS, ALL FITTINGS SHALL BE RESTRAINED TO LENGTHS INDICATED ON THE ABOVE SCHEDULE, AT A MINIMUM.
2. ASSUMPTIONS: PVC PIPE, SAFETY FACTOR=1.5, TEST PRESSURE=150PSI, SOIL=GM OR SM, TRENCH TYPE 3, DEPTH OF COVER=30 INCHES FOR 20" AND SMALLER PIPE SIZE OR 36 INCHES FOR 24" AND LARGER PIPE SIZE.
3. BENDS AND VALVES: SHALL BE RESTRAINED ON EACH SIDE OF FITTING.
4. VERTICAL OFFSETS; ARE APPROX. 3 FEET COVER ON TOP AND APPROX. 8 FEET COVER ON BOTTOM, PER THE DETAILS, Lu IS THE RESTRAINED LENGTH FOR THE UPPER (TOP) LEVEL, Li IS THE RESTRAINED LENGTH FOR THE LOWER (DEEPER) LEVEL, ASSUME 45 DEGREE BENDS.
5. TEES: TOTAL LENGTH BETWEEN FIRST JOINTS OR RESTRAINED LENGTH ON EITHER SIDE OF TEE (RUN) SHALL BE A TOTAL DISTANCE OF 30 FEET (MIN). SEE SCHEDULE ABOVE FOR RESTRAINT LENGTH ON TEE "BRANCH" LINE.
6. HDPE TO PVC TRANSITIONS: THE PVC PIPE SIDE SHALL BE RESTRAINED 35 FT (MIN).
7. THE INSTALLATION OF BELL HARNESS RESTRAINTS AT PVC JOINTS (DR-18 & 25 PIPE) SHALL BE COMPLETED PER THE MANUFACTURERS RECOMMENDATION, WHICH INCLUDES NOT OVER TIGHTENING THE PARALLEL ROD/NUTS, THESE NUTS SHOULD ONLY BE SNUG TIGHT, THE HOME MARKS ON THE PIPE SHOULD ALWAYS BE VISIBLE AFTER THE RESTRAINT IS INSTALLED, OVERHOMING THE JOINT MAY CAUSE A FAILURE AT THE BELL RESULTING IN A SERVICE OUTAGE.

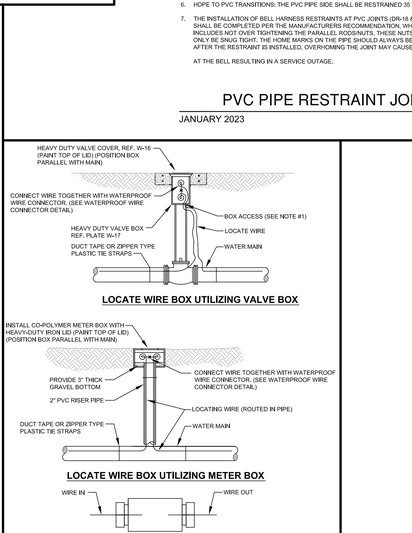
PVC PIPE RESTRAINT JOINT SCHEDULE

JANUARY 2023 PLATE W-31A

SIZE (IN.)	L (FT.)
6x4	34
6x6	36
8x4	62
10x8	35
10x6	63
12x10	36
12x8	64
16x12	66
16x10	92
20x18	35
20x16	66
20x12	117
24x20	56
24x18	80
24x16	101
30x24	78
30x20	121
36x30	78
36x24	141
42x36	75
42x30	140
48x42	75
48x36	139

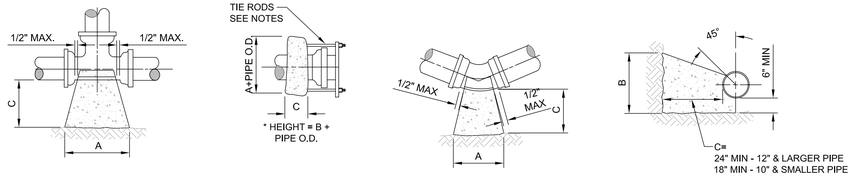
RUN SIZE (IN.)	BRANCH SIZE (IN.)	L (FT.)
4	4	F.O.
6	6	10
	4 < LESS	F.O.
8	8	29
	6 < LESS	F.O.
10	10	45
	8	13
	6 < LESS	F.O.
12	12	62
	10	32
	8 < LESS	F.O.
16	16	94
	12	39
	10	5
	10 < LESS	F.O.
20	20	125
	16	75
	12	14
	10 < LESS	F.O.
24	24	124
	20	64
	16	36
	12 < LESS	F.O.
30	30	159
	24	104
	20	60
	16 < LESS	F.O.
36	36	192
	30	142
	24	83
	20	33
	16 < LESS	F.O.
42	42	223
	36	176
	30	124
	24	59
	20	5
	16 < LESS	F.O.
48	48	253
	42	209
	36	162
	30	104
	24	34
	20 < LESS	F.O.

F.O. = FITTING ONLY



NOTES:

1. LOCATE WIRE SHALL ENTER THE VALVE BOX THROUGH A "V" CUT IN THE 6" PVC RISER PIPE (SEE W-16),
2. LOCATE WIRE SHALL HAVE ENOUGH SLACK TO REACH 4' ABOVE FINAL GRADE AND LOCATE POINTS.
3. L



NOTES:

1. ALL BEARING SURFACES TO BE CARRIED TO UNDISTURBED SOIL.
2. THESE TABLES SHOW MINIMUM SIZES FOR THRUST BLOCKS IN GOOD SOIL (A-1 THRU A-3, CLEAN SANDS AND GRAVELS) WITH MINIMUM BEARING CAPACITY OF 2000 psi.
3. POOR SOILS A-4 THRU A-8, SILTY SOILS, CLAYS, MUCK AND PEAT WILL REQUIRE LARGER THRUST BLOCKING.
4. BOTH CONCRETE THRUST BLOCKS AND TIE RODS MUST BE USED WHEN, IN THE JUDGEMENT OF THE ENGINEER, THE NATURE AND CRITICALITY OF AN INSTALLATION IS SUCH AS TO REQUIRE POSITIVE ASSURANCE OF STABILITY.
5. THE USE OF THRUST BLOCKS SHALL BE LIMITED TO SITUATIONS SUCH AS POINT REPAIR WHERE EXPOSING SEVERAL JOINTS OF PIPE IS NOT FEASIBLE DUE TO EXISTING GROUND CONDITIONS.
6. CONCRETE COLLARS WITH TIE RODS MAY BE USED ON DEAD END LINES AT THE CONTRACTOR'S DISCRETION. NUMBER OF TIE RODS REQUIRED IS AS FOLLOWS:
   - 3" - 8" DIAMETER MAIN - 2 TIE RODS REQUIRED PER JOINT (3/4" ROD)
   - 10" - 12" DIAMETER MAIN - 4 TIE RODS REQUIRED PER JOINT (3/4" ROD)
   - 14" - 16" DIAMETER MAIN - 6 TIE RODS REQUIRED PER JOINT (3/4" ROD)
   - 18" - 20" DIAMETER MAIN - 8 TIE RODS REQUIRED PER JOINT (3/4" ROD)
   - 24" DIAMETER MAIN -12 TIE RODS REQUIRED PER JOINT (3/4" ROD)
   - 30" - 36" DIAMETER MAIN -14 TIE RODS REQUIRED PER JOINT (1" ROD)
   - 42" - 48" DIAMETER MAIN -16 TIE RODS REQUIRED PER JOINT (1 1/4" ROD)
   - 54" DIAMETER MAIN -18 TIE RODS REQUIRED PER JOINT (1 1/4" ROD)
7. MAXIMUM TEST PRESSURE TO BE 150 PSI.

THRUST BLOCK FOR TEES & PLUGS

SIZE	90° BEND A	90° BEND B	90° BEND C	S.F. BEARING SURFACE
4"	16"	16"	18"	1.78
6"	20"	24"	18"	3.33
8"	26"	32"	18"	5.78
10"	32"	40"	18"	8.89
12"	36"	48"	24"	12.00
14"	40"	56"	24"	15.56
16"	48"	60"	24"	20.00
18"	56"	64"	24"	24.89
20"	60"	76"	24"	31.67
24"	72"	90"	24"	45.00
30"	86"	102"	24"	60.67
36"	116"	108"	24"	86.11

THRUST BLOCK FOR BENDS

SIZE	90° BEND A	90° BEND B	90° BEND C	S.F. BEARING SURFACE	45° BEND A	45° BEND B	45° BEND C	S.F. BEARING SURFACE	22-1/2° BEND A	22-1/2° BEND B	22-1/2° BEND C	S.F. BEARING SURFACE	11-1/4° BEND A	11-1/4° BEND B	11-1/4° BEND C	S.F. BEARING SURFACE
4"	16"	16"	18"	1.78	14"	16"	18"	1.56	14"	16"	18"	1.56	14"	16"	18"	1.56
6"	22"	32"	18"	4.89	16"	18"	18"	2.00	14"	16"	18"	1.56	14"	16"	18"	1.56
8"	32"	36"	18"	8.00	24"	28"	18"	4.67	16"	18"	18"	2.00	14"	16"	18"	1.56
10"	36"	46"	18"	11.50	26"	36"	18"	6.50	20"	24"	18"	3.33	14"	18"	18"	1.75
12"	44"	56"	24"	17.11	32"	40"	24"	8.89	24"	30"	24"	5.00	16"	20"	24"	2.22
14"	52"	62"	24"	22.39	36"	48"	24"	12.00	26"	36"	24"	6.50	20"	24"	24"	3.33
16"	58"	72"	24"	29.00	40"	54"	24"	15.00	32"	38"	24"	8.44	22"	26"	24"	3.97
18"	64"	80"	24"	35.56	46"	60"	24"	19.17	36"	42"	24"	10.50	24"	32"	24"	5.33
20"	72"	88"	24"	44.00	52"	66"	24"	23.83	38"	48"	24"	12.67	26"	36"	24"	6.50
24"	96"	96"	24"	36.89	64"	78"	24"	34.67	46"	56"	24"	17.89	32"	40"	24"	8.89
30"	122"	102"	24"	86.11	72"	94"	24"	47.00	56"	62"	24"	24.11	36"	48"	24"	12.00
36"	166"	104"	24"	123.33	88"	108"	24"	66.00	64"	78"	24"	34.67	44"	54"	24"	16.50

THRUST BLOCK SIZE CHART

JANUARY 2023 PLATE W-38

WATER MAIN AND NON-WATER MAIN SEPARATION REQUIREMENTS - NOTES

1. IT IS REQUIRED THAT "WATER MAINS" BE INSTALLED, CLEANED, DISINFECTED AND HAVE A SATISFACTORY BACTERIOLOGICAL SURVEY PERFORMED IN ACCORDANCE WITH THE LATEST APPLICABLE AWWA STANDARDS, CHAPTER 62-555, F.A.C. AND LATEST JEA WATER AND SEWER STANDARDS. FOR THE PURPOSE OF THIS SECTION, THE PHRASE "WATER MAINS" SHALL MEAN MAINS, INCLUDING TREATMENT PLANT PROCESS PIPING, CONVEYING EITHER RAW, PARTIALLY TREATED, OR FINISHED DRINKING WATER;

   FIRE HYDRANT LEADS; AND SERVICE LINES THAT HAVE AN INSIDE DIAMETER OF THREE (3) INCHES OR GREATER. IN ADDITION, THE PHRASE "RECLAIMED WATER" REFERS TO THE WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
2. NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE (3) FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER.
3. NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST SIX (6) FEET, AND PREFERABLY TEN (10) FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY-TYPE SANITARY SEWERS MAY BE REDUCED TO THREE (3) FEET WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX (6) INCHES ABOVE THE TOP OF THE SEWER (SPECIAL CASE).
4. NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX (6) INCHES, AND PREFERABLE TWELVE (12) INCHES, ABOVE OR AT LEAST TWELVE (12) INCHES BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
5. NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS A LEAST TWELVE (12) INCHES ABOVE OR BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
6. AT THE UTILITY CROSSINGS DESCRIBED IN NOTES 4 AND 5 ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE (3) FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER, AND AT LEAST SIX (6) FEET FROM ALL JOINTS IN GRAVITY OR PRESSURE-TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINE CONVEYING RECLAIMED WATER.
7. NEW OR RELOCATED FIRE HYDRANTS SHALL BE LOCATED SO THAT THE HYDRANTS ARE AT LEAST THREE (3) FEET FROM ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER; AT LEAST THREE (3) FEET, AND PREFERABLY TEN (10) FEET, FROM ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER; AT LEAST SIX (6) FEET, AND PREFERABLY TEN (10) FEET, FROM ANY EXISTING OR PROPOSED GRAVITY OR PRESSURE-TYPE SANITARY SEWER OR WASTEWATER FORCE MAIN.
8. WHERE AN UNDERGROUND WATER MAIN IS BEING LAID LESS THAN THE REQUIRED MINIMUM HORIZONTAL DISTANCE FROM ANOTHER PIPELINE AND WHERE AN UNDERGROUND WATER MAIN IS CROSSING ANOTHER PIPELINE AND JOINTS IN THE WATER MAIN ARE BEING LOCATED LESS THAN THE REQUIRED MINIMUM DISTANCE FROM JOINTS IN THE OTHER PIPELINE, THE CONTRACTOR SHALL CONSULT THE DESIGN ENGINEER TO OBTAIN APPROVAL OF ANY ALTERNATIVE CONSTRUCTION METHODS. PRIOR TO CONSTRUCTION.

NOTES ON UTILITY SEPARATION REQUIREMENTS

JANUARY 2023 PLATE W-11

HORIZONTAL & VERTICAL SEPARATION REQUIREMENTS

PROPOSED UTILITY

CONFLICTING UTILITY	POTABLE WATER HORIZ.	POTABLE WATER VERT.	POTABLE WATER JOINT SPACING*	WASTEWATER GRAVITY AND FORCE MAIN HORIZ.	WASTEWATER GRAVITY AND FORCE MAIN VERT.	WASTEWATER GRAVITY AND FORCE MAIN JOINT SPACING*	RECLAIMED WATER HORIZ.	RECLAIMED WATER VERT.	RECLAIMED WATER JOINT SPACING*	VACUUM SEWERS HORIZ.	VACUUM SEWERS VERT.	VACUUM SEWERS JOINT SPACING*
POTABLE WATER	3' NOTE 1	12"	3' NOTE 2	6' to 10'	12" NOTE 5	6' NOTE 2	3'	12"	6' NOTE 2	3' to 10'	12"	3' NOTE 2
RECLAIMED WATER	3'	12"	6' NOTE 2	3' NOTE 1	12"	3' NOTE 2	3'	12"	6' NOTE 2	3' NOTE 1	12"	3' NOTE 2
WASTEWATER (GRAVITY AND FORCE MAIN)	6' to 10'	12"	6' NOTE 2	3' NOTE 1	12"	6"	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2
VACUUM SEWERS	3' to 10'	12"	3' NOTE 2	3' NOTE 1	12"	6"	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2
RIGHT OF WAYS	3' NOTE 1	N/A	N/A	3' NOTE 1	N/A	N/A	3' NOTE 1	N/A	N/A	3' NOTE 1	N/A	N/A
PERMANENT STRUCTURES (BUILDINGS, SIGNS, POLES, ETC.)	SEE NOTE 7	N/A	N/A	SEE NOTE 7	N/A	N/A	SEE NOTE 7	N/A	N/A	SEE NOTE 7	N/A	N/A
STORM SEWERS	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2
GAS	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2
TREES	3'-6" NOTE 6	N/A	N/A	3'-6" NOTE 6	N/A	N/A	3'-6" NOTE 6	N/A	N/A	3'-6" NOTE 6	N/A	N/A
ALL OTHER UTILITIES	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2

NOTES:

1. THIS SEPARATION REQUIREMENT IS TO PROVIDE ACCESSIBILITY FOR CONSTRUCTION AND MAINTENANCE. THREE FEET OF HORIZONTAL SEPARATION IS THE MINIMUM FOR PIPES WITH THREE FEET OF COVER. FOR PIPES INSTALLED AT GREATER DEPTH, PROVIDE AN ADDITIONAL FOOT OF SEPARATION FOR EACH ADDITIONAL FOOT OF DEPTH.
2. THE MINIMUM JOINT SPACING REQUIRED FROM CROSSING FROM OTHER UTILITIES WHILE STILL MAINTAINING MINIMUM VERTICAL SEPARATION.
3. DISTANCES GIVEN ARE FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE.
4. NO WATER PIPE SHALL PASS THROUGH OR COME INTO CONTACT WITH ANY PART OF SANITARY OR STORM WATER MANHOLE OR STRUCTURES.
5. WATER MAIN SHOULD CROSS ABOVE OTHER PIPES WHENEVER POSSIBLE. WHEN WATER MAIN MUST BE BELOW OTHER UTILITY PIPING, THE MINIMUM SEPARATION SHALL BE 12 INCHES.
6. REFER TO POTABLE WATER PIPING- SECTION 350, III.4.11.
7. SEE SECTION 350, III.4.10 FOR MINIMUM SEPARATION REQUIREMENTS FROM PIPE TO STRUCTURES.

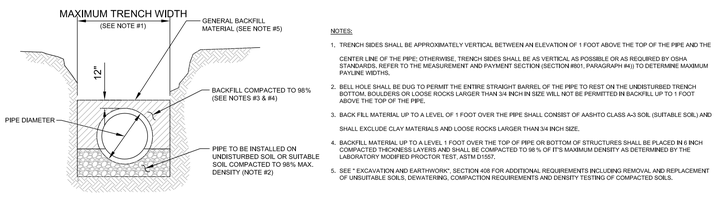
SEPARATION REQUIREMENTS FOR WATER, WASTEWATER AND RECLAIMED WATER MAINS

JANUARY 2023 PLATE W-10

J. LUCAS & ASSOCIATES, INC.
CONSULTING AND DESIGN ENGINEERS
CERTIFICATE OF AUTHORIZATION NO. 3981
1305 CEDAR STREET – JACKSONVILLE, FL 32207
PH (904) 396-3060 FAX (904) 396-3456

VERSION: ACAD14
DRAWN BY: DAD
DESIGNED BY: JEA
APPROVED BY: JML
DATE: OCT. 2023

NO.	REVISION	BY	DATE



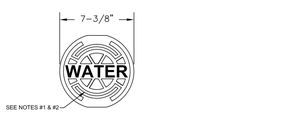
TYPICAL TRENCH

NOTES:

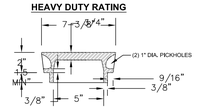
1. TRENCH SIDES SHALL BE APPROXIMATELY VERTICAL BETWEEN AN ELEVATION OF 1 FOOT ABOVE THE TOP OF THE PIPE AND THE CENTER LINE OF THE PIPE; OTHERWISE, TRENCH SIDES SHALL BE AS VERTICAL AS POSSIBLE OR AS REQUIRED BY OSHA STANDARDS. REFER TO THE MEASUREMENT AND PAYMENT SECTION (SECTION #801, PARAGRAPH #4)) TO DETERMINE MAXIMUM PAYLINE WIDTHS.
2. BELL HOLE SHALL BE DUG TO PERMIT THE ENTIRE STRAIGHT BARREL OF THE PIPE TO REST ON THE UNDISTURBED TRENCH BOTTOM. BOULDERS OR LOOSE ROCKS LARGER THAN 3/4 INCH IN SIZE WILL NOT BE PERMITTED IN BACKFILL UP TO 1 FOOT ABOVE THE TOP OF THE PIPE.
3. BACK FILL MATERIAL UP TO A LEVEL OF 1 FOOT OVER THE PIPE SHALL CONSIST OF AASHTO CLASS A-3 SOIL (SUITABLE SOIL) AND SHALL EXCLUDE CLAY MATERIALS AND LOOSE ROCKS LARGER THAN 3/4 INCH SIZE.
4. BACKFILL MATERIAL UP TO A LEVEL 1 FOOT OVER THE TOP OF PIPE OR BOTTOM OF STRUCTURES SHALL BE PLACED IN 6 INCH COMPACTED THICKNESS LAYERS AND SHALL BE COMPACTED TO 98 % OF IT'S MAXIMUM DENSITY AS DETERMINED BY THE LABORATORY MODIFIED PROCTOR TEST, ASTM D1557.
5. SEE " EXCAVATION AND EARTHWORK", SECTION 408 FOR ADDITIONAL REQUIREMENTS INCLUDING REMOVAL AND REPLACEMENT OF UNSUITABLE SOILS, DEWATERING, COMPACTION REQUIREMENTS AND DENSITY TESTING OF COMPACTED SOILS.

OPEN CUT TRENCH FOR PRESSURE PIPE

JANUARY 2023 IN CITY RIGHT OF WAY PLATE W-42



HEAVY DUTY RATING

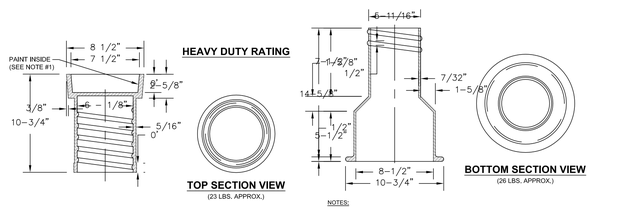


NOTES:

1. PAINT TOP OF THE COVER WITH ENAMEL PAINT (BLUE COLOR) FOR WATER.
2. FOR "REUSE" PAINT TOP PANTONE PURPLE.
3. LID WEIGHT: APPROX. 12 LBS.

WATER SYSTEM VALVE BOX COVER

JANUARY 2023 PLATE W-16



HEAVY DUTY RATING

TOP SECTION VIEW
(23 LBS. APPROX.)

BOTTOM SECTION VIEW
(26 LBS. APPROX.)

NOTES:

1. PAINT THE INSIDE OF THE TOP SECTION OF THE BOX WITH APPLICABLE COLOR (BLUE OR PURPLE)
2. HEAVY DUTY RATING (TOTAL WEIGHT APPROX. 50 LBS.).
3. REFERENCE SECTION 351, PARAGRAPH X.2.

WATER SYSTEM VALVE BOX

JANUARY 2023 PLATE W-17

JEA WATER & SEWER STANDARD DETAILS OF TYSON FOREST FOR TYSON FOREST, LLC

JEA STANDARD 2023

DRAWING NO. 41 OF 41
JOB NO. 2301
FILE: 2301WSDET

SEAL & SIGNATURE: