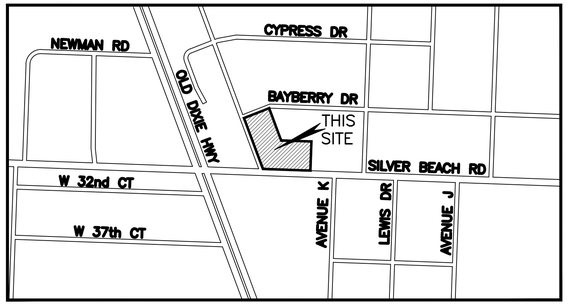
TWIGGS ACADEMY
PROPOSED DAY CARE BUILDING AND PARKING IMPROVEMENTS
829 SILVER BEACH ROAD, LAKE PARK, FL



LOCATION MAP

N

SHEET INDEX

CS	COVER SHEET
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SP1	SITE PLAN
SP2	SITE PLAN DETAILS
A1	FLOOR PLAN
A2	FRONT AND REAR ELEVATIONS
A3	SIDE ELEVATIONS
CE1	PAVING, GRADING AND DRAINAGE PLAN
CE2	SECTIONS
CE3	PAVING, GRADING AND DRAINAGE DETAILS
CE4	WATER AND SEWER PLAN
CE5-CE6	WATER AND SEWER DETAILS
CE7a	EMERGENCY VEHICLE TRACKING
CE7b	GARBAGE VEHICLE TRACKING
L0-0	TREE DISPOSITION PLAN
L1.0	LANDSCAPE PLAN
L1.1	LANDSCAPE DETAILS AND QUANTITIES
I1.0	IRRIGATION PLAN
I1.1	IRRIGATION DETAILS AND QUANTITIES
PH1	PHOTOMETRIC PLAN
PH2	PHOTOMETRIC DETAILS

ATLANTIC ENGINEERING SERVICES, INC.

2826 WATERS EDGE CIRCLE
GREENACRES, FLORIDA 33413
PHONE – (561) 358–4140
FAX – (561) 966–9242
CERTIFICATE OF AUTHORIZATION NO.: 9390

LAND USE:
FLU: C1 BUSINESS DISTRICT

LAND USE:
FLU: R2 MULTIPLE FAMILY RESIDENCE DISTRICT

LAND USE:
FLU: C2 BUSINESS DISTRICT

LAND USE:
FLU: R2 MULTIPLE FAMILY RESIDENCE DISTRICT

REMOVE EXISTING 77 LF OF AC WATER MAIN. INSTALL NEW 77 LF DIP WATER MAIN

REMOVE EXISTING 46 LF OF AC WATER MAIN. INSTALL NEW 46 LF DIP WATER MAIN

REMOVE AND DISPOSE OF EXISTING CHAIN-LINK FENCE

REMOVE AND DISPOSE OF EXISTING PAVEMENT SECTION AND PREPARE FOR NEW IMPROVEMENTS

REMOVE AND DISPOSE OF EXISTING PAVEMENT SECTION AND PREPARE FOR NEW IMPROVEMENTS

REMOVE AND DISPOSE OF EXISTING CONC. DWY

REMOVE AND DISPOSE OF EXISTING CONC. DWY

REMOVE AND DISPOSE OF EXISTING CONC. DWY

EXISTING SANITARY SERVICE TO REMAIN. PROTECT IN PLACE

EXISTING SANITARY CLEAN-OUT TO REMAIN. ADJUST TO NEW ELEVATION

EXISTING SANITARY SERVICE TO REMAIN. PROTECT IN PLACE

REMOVE AND DISPOSE OF EXISTING SAN. SERVICE AND PLUG AT MAIN

REMOVE AND DISPOSE OF EXISTING PORCH. SEE ARCHITECT PLAN FOR DETAILS

REMOVE AND DISPOSE OF EXISTING SAN. CLEAN-OUT

EXISTING AC UNITS, ICV, PUMP, BFP AND WV TO BE RELOCATED

REMOVE AND DISPOSE OF EXISTING SAN. SERVICE AND PLUG AT MAIN

REMOVE AND DISPOSE OF EXISTING CATCH BASIN

REMOVE AND DISPOSE OF EXISTING 15" STORM PIPE

REMOVE AND DISPOSE OF EXISTING CATCH BASIN

EXISTING BUILDING TO REMAIN. PROTECT IN PLACE.

REMOVE AND DISPOSE OF EXISTING STRUCTURE

EXISTING AC UNIT TO REMAIN. PROTECT IN PLACE

REMOVE AND DISPOSE OF EXISTING BRICK PORCH

REMOVE AND DISPOSE OF EXISTING CHAIN-LINK FENCE

EXIST. VAULT (TO BE RELOCATED)

EXIST. CB (PROTECT IN PLACE)

EXIST. WM (TO BE REMOVED)

REMOVE AND DISPOSE OF EXISTING CONC. DWY

REMOVE AND DISPOSE OF EXISTING CONC. DWY

REMOVE AND DISPOSE OF EXISTING CONC. SIDEWALK

REMOVE EXISTING 60 LF OF 8" AC WATER MAIN. INSTALL NEW 60 LF OF 8" DIP WATER MAIN

25' CHAIN-LINK FENCE TO REMAIN

85' CHAIN-LINK FENCE TO REMAIN

CYPRESS DRIVE

BAYBERRY DRIVE

AVENUE "B" 60' R/W

TENTH STREET 60' R/W

SILVER BEACH ROAD

AVENUE "A" (P) 75' R/W

8TH STREET

PARCEL 2

PARCEL 3

LOT 17

LOT 18

LOT 19

LOT 22

LOT 23

LOT 27

LOT 28

LOT 29

LOT 30

LOT 31

LOT 33

LOT 16

LOT 15

LOT 14

LOT 13

LOT 12

LOT 11

LOT 10

LOT 9

LOT 8

ONE STORY CBS BUILDING #101 F.F.=16.55

ONE STORY RESIDENCE #103 F.F.=16.91

RESIDENCE F.F.=16.91

LOTS 19, 20 23 & 24
1' GAS EASEMENT
D.B. 1139, PG. 617

5' UTILITY EASEMENT
P.B. 8, PG. 15

LOTS 28 & 29
1' GAS EASEMENT
D.B. 1139, PG. 617

N69°06'11" E 124.98'

S20°53'49"E 151.85'

N20°53'49"W 257.52'

S68°05'46"E 203.08'

S53°04'W 43.81'

461.97'(P) 462.36'(M)

230.0'(P) 229.76'(M)

230.0'(P) 230.18'(M)

STA: 300+81.80

STA: 301+60.73

STA: 201+42.86

STA: 201+88.98

STA: 101+23.78

STA: 101+82.89

99+00 100+00 101+00 102+00 103+00 104+00 104+09

202+00 203+00 204+00 204+13

301+00 302+00 303+00 304+00 304+25

0 20 40 Feet

DEMOLITION PLAN

REV.	DESCRIPTION	DATE
1		
2		
3		
4		
5		
6		

IMTIAZ AHMED, P.E.
LICENSED ENGINEER NO. 46102
STATE OF FLORIDA

SEAL

TWIGGS ACADEMY
829 SILVER BEACH ROAD
LAKE PARK, FL

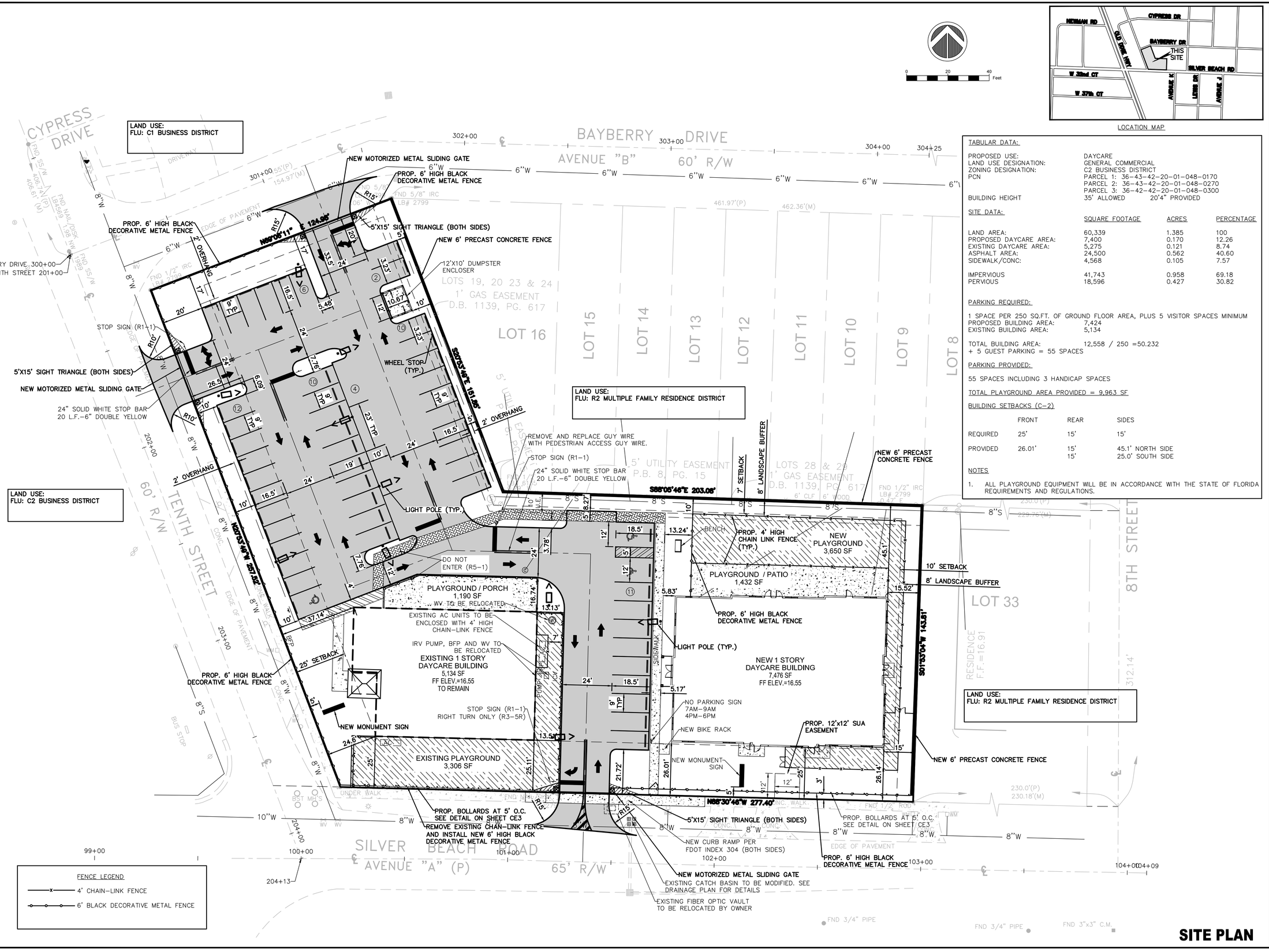
ATLANTIC ENGINEERING SERVICES, INC.
2822 WATERS EDGE CIRCLE
GREENACRES, FLORIDA 33413
PHONE – (561) 358-4140
FAX – (561) 966-8242
CERTIFICATE OF AUTHORIZATION NO.: 9390

PROJ. NO.
SCALE:

DES.	DWN.	CHK.

SHEET NUMBER
D1

DATE DRAWN
JULY 2025



0 20 40 Feet

LOCATION MAP

TABULAR DATA:

PROPOSED USE:	DAYCARE
LAND USE DESIGNATION:	GENERAL COMMERCIAL
ZONING DESIGNATION:	C2 BUSINESS DISTRICT
PCN	PARCEL 1: 36-43-42-20-01-048-0170 PARCEL 2: 36-43-42-20-01-048-0270 PARCEL 3: 36-42-42-20-01-048-0300
BUILDING HEIGHT	35' ALLOWED 20'4" PROVIDED

SITE DATA:

	SQUARE FOOTAGE	ACRES	PERCENTAGE
LAND AREA:	60,339	1.385	100
PROPOSED DAYCARE AREA:	7,400	0.170	12.26
EXISTING DAYCARE AREA:	5,275	0.121	8.74
ASPHALT AREA:	24,500	0.562	40.60
SIDEWALK/CONC:	4,568	0.105	7.57
IMPERVIOUS	41,743	0.958	69.18
PERVIOUS	18,596	0.427	30.82

PARKING REQUIRED:

1 SPACE PER 250 SQ.FT. OF GROUND FLOOR AREA, PLUS 5 VISITOR SPACES MINIMUM
PROPOSED BUILDING AREA: 7,424
EXISTING BUILDING AREA: 5,134

TOTAL BUILDING AREA: 12,558 / 250 =50.232
+ 5 GUEST PARKING = 55 SPACES

PARKING PROVIDED:

55 SPACES INCLUDING 3 HANDICAP SPACES

TOTAL PLAYGROUND AREA PROVIDED = 9,963 SF

BUILDING SETBACKS (C-2)

	FRONT	REAR	SIDES
REQUIRED	25'	15'	15'
PROVIDED	26.01'	15'	45.1' NORTH SIDE
		15'	25.0' SOUTH SIDE

NOTES

1. ALL PLAYGROUND EQUIPMENT WILL BE IN ACCORDANCE WITH THE STATE OF FLORIDA REQUIREMENTS AND REGULATIONS.

SITE PLAN

REV.	DESCRIPTION	DATE
1		
2		
3		
4		
5		
6		

IMTIAZ AHMED, P.E.
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SEAL

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829 SILVER BEACH ROAD
LAKE PARK, FL

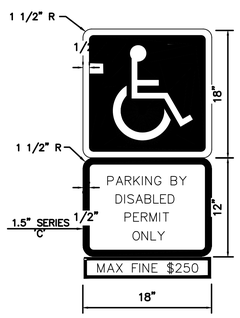
ATLANTIC ENGINEERING SERVICES, INC.
2822 WATERS EDGE CIRCLE
GREENACRES, FLORIDA 33413
PHONE - (561) 358-4140
FAX - (561) 956-2242
CERTIFICATE OF AUTHORIZATION NO.: 9390

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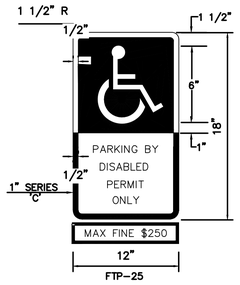
DES.	DWN.	CHK.

SHEET NUMBER
SP1

DATE DRAWN
JULY 2025

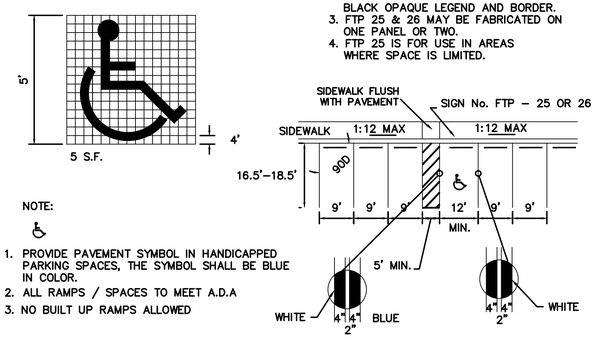


NOTE:
1. ALL LETTERS ARE 1.5" SERIES AT 1.5" SPACING.



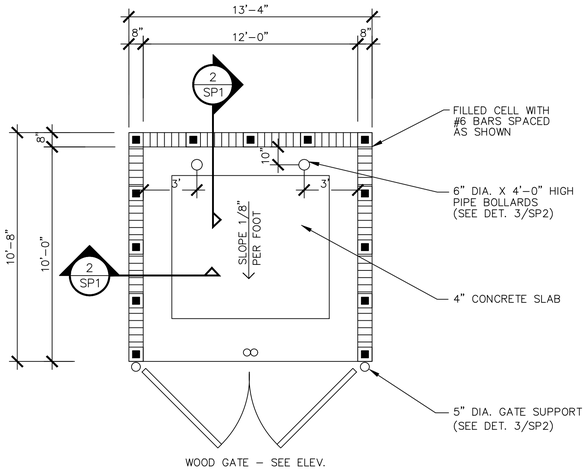
NOTE:
1. ALL LETTERS ARE 1" SERIES AT 1" SPACING.

NOTES:
1. TOP PORTION OF FTP 25 & 26 SHALL HAVE A REFLECTIVE BLUE BACKGROUND WITH WHITE REFLECTIVE SYMBOL AND BORDER
2. BOTTOM PORTION SHALL HAVE A REFLECTIVE WHITE BACKGROUND WITH BLACK OPAQUE LEGEND AND BORDER.
3. FTP 25 & 26 MAY BE FABRICATED ON ONE PANEL OR TWO.
4. FTP 25 IS FOR USE IN AREAS WHERE SPACE IS LIMITED.



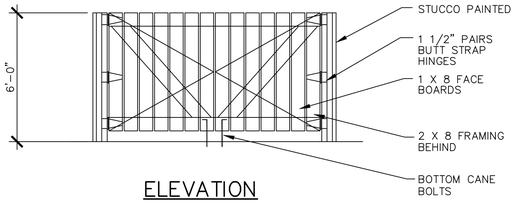
NOTE:
1. PROVIDE PAVEMENT SYMBOL IN HANDICAPPED PARKING SPACES, THE SYMBOL SHALL BE BLUE IN COLOR.
2. ALL RAMPS / SPACES TO MEET A.D.A
3. NO BUILT UP RAMPS ALLOWED

PARKING SPACE DETAIL



WOOD GATE – SEE ELEV.

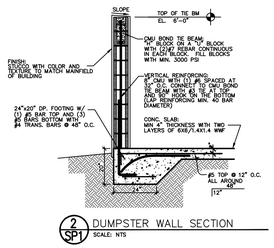
PLAN



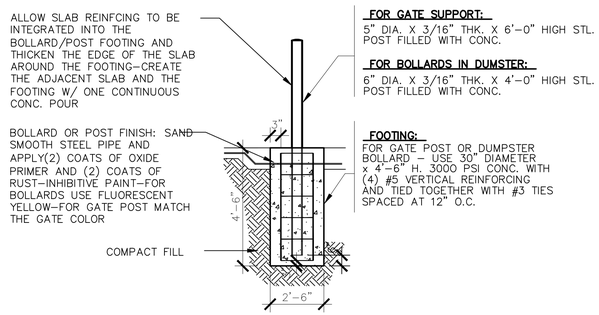
ELEVATION

NOTE: DUMPSTER GATES SHALL BE PAINTED TO MATCH THE BUILDING. DUMPSTER ENCLOSURE WALLS SHALL BE FINISHED SMOOTH STUCCO.

1/SP1 DUMPSTER ENCLOSURE
SCALE: NTS



2/SP1 DUMPSTER WALL SECTION
SCALE: NTS



3/SP1 BOLLARD/POST FTG. DET.
SCALE: NTS

DUMPSTER DETAIL



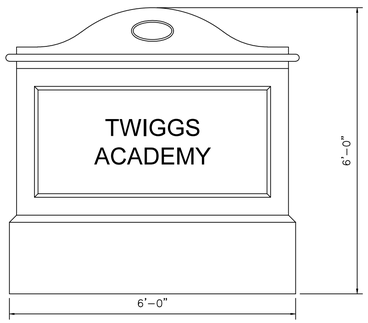
STOP SIGN
(R1-)



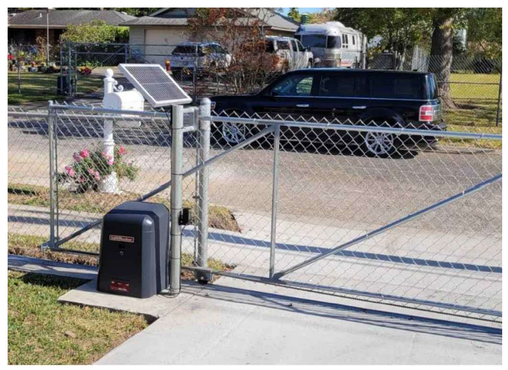
RIGHT TURN ONLY SIGN
(R3-5R)



NO PARKING SIGN



MONUMENT SIGN DETAIL



AUTOMATIC ROLLING GATE DETAIL



6' HIGH BLACK
DECORATIVE METAL FENCE DETAIL

SITE PLAN DETAILS

REV.	DESCRIPTION	DATE

IMTIAZ AHMED, P.E.
LICENSED ENGINEER NO. 46102
STATE OF FLORIDA

SEAL

TWIGGS ACADEMY
829 SILVER BEACH ROAD
LAKE PARK, FL

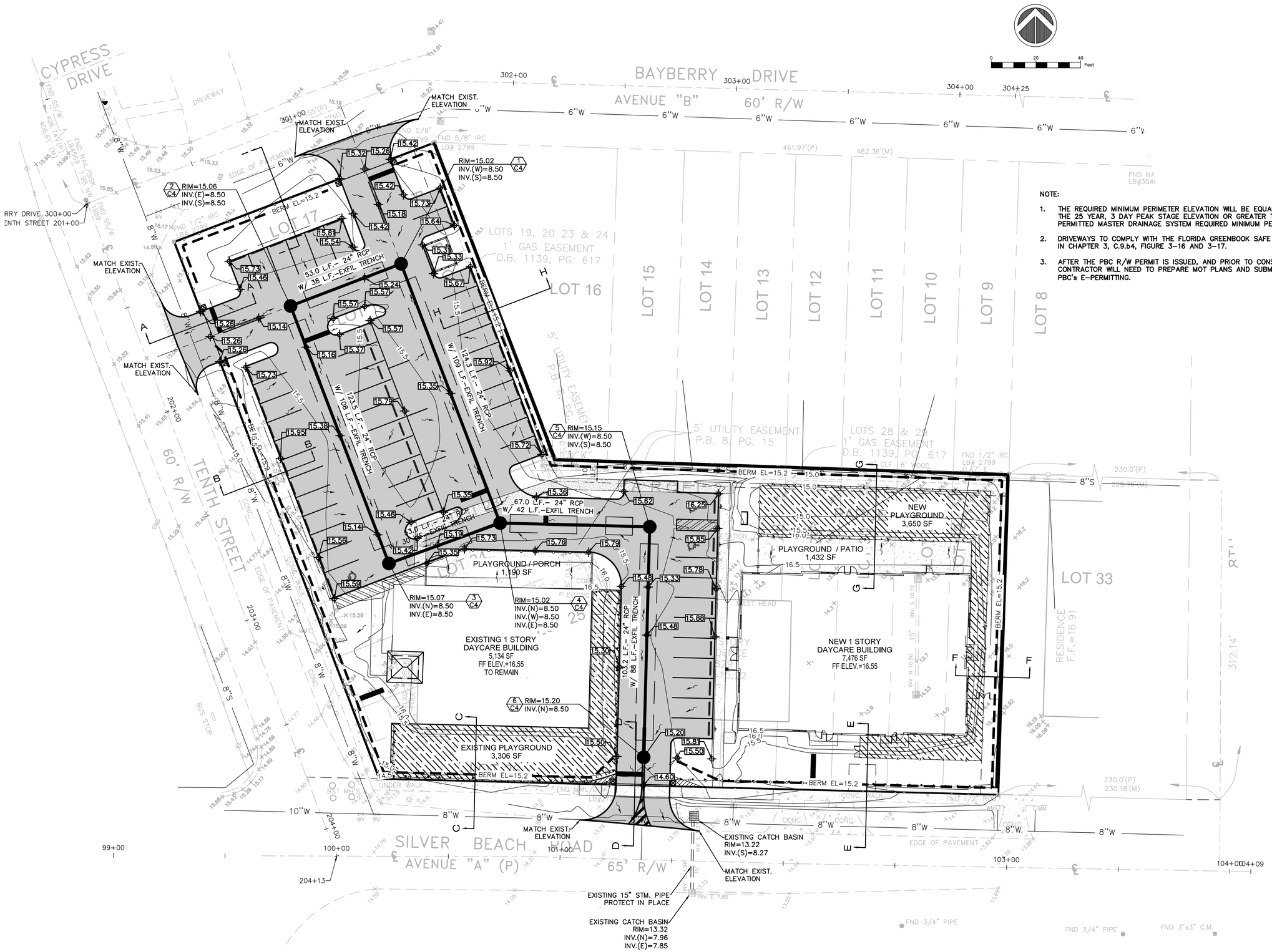
ATLANTIC ENGINEERING SERVICES, INC.
2822 WATERS EDGE CIRCLE
GREENACRES, FLORIDA 33413
PHONE – (561) 358-4140
FAX – (561) 964-9242
CERTIFICATE OF AUTHORIZATION NO.: 9390

PROJ. NO.
SCALE:

DES.	DWN.	CHK.

SHEET NUMBER
SP2

DATE DRAWN
JULY 2025



NOTE:

1. THE REQUIRED MINIMUM PERIMETER ELEVATION WILL BE EQUAL TO OR GREATER THAN THE 25 YEAR, 3 DAY PEAK STAGE ELEVATION OR GREATER THAN THE PREVIOUSLY PERMITTED MASTER DRAINAGE SYSTEM REQUIRED MINIMUM PERIMETER ELEVATION.
2. DRIVEWAYS TO COMPLY WITH THE FLORIDA GREENBOOK SAFE SIGHT DISTANCE DETAILED IN CHAPTER 3, C.9.b4, FIGURE 3–16 AND 3–17.
3. AFTER THE PBC R/W PERMIT IS ISSUED, AND PRIOR TO CONSTRUCTION, THE CONTRACTOR WILL NEED TO PREPARE MOT PLANS AND SUBMIT THEM FOR PERMIT VIA PBC's E–PERMITTING.

PAVING, GRADING AND DRAINAGE PLAN

REV.	DESCRIPTION	DATE
1		
2		
3		
4		
5		
6		

IMTIAZ AHMED, P.E.
LICENSED ENGINEER NO. 46102
STATE OF FLORIDA

SEAL

TWIGGS ACADEMY
829 SILVER BEACH ROAD
LAKE PARK, FL

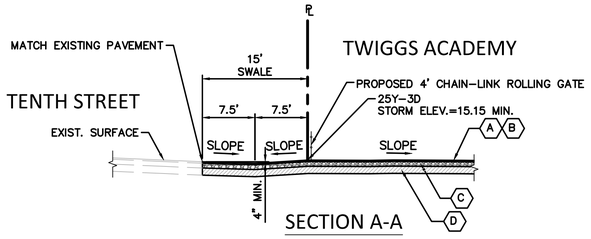
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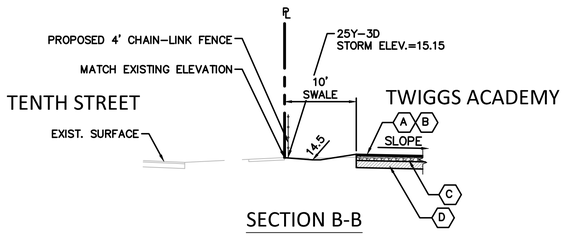
DES.	DWN.	CHK.

SHEET NUMBER
CE1

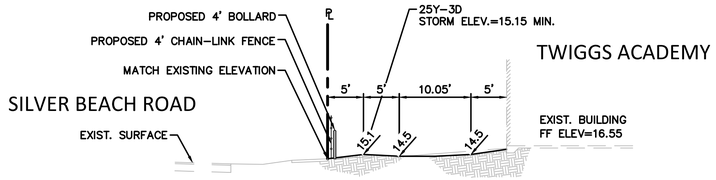
DATE DRAWN
JULY 2025



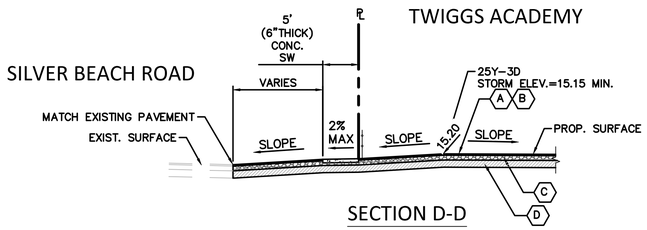
SECTION A-A



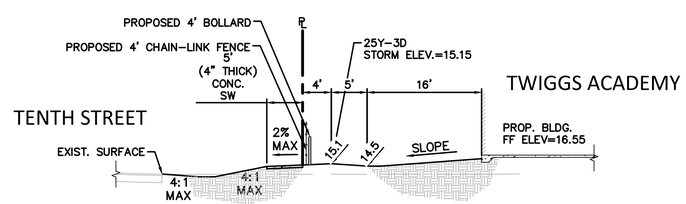
SECTION B-B



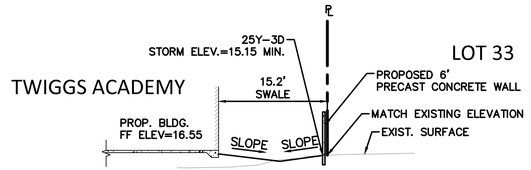
SECTION C-C



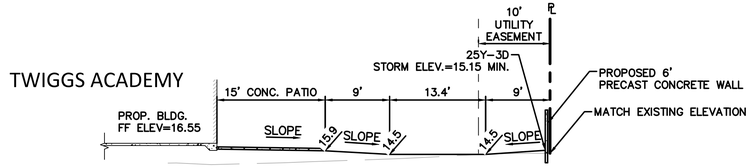
SECTION D-D



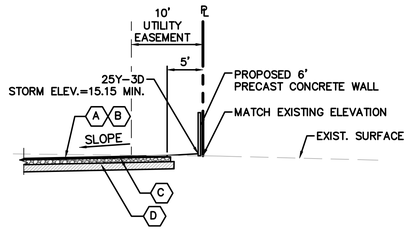
SECTION E-E



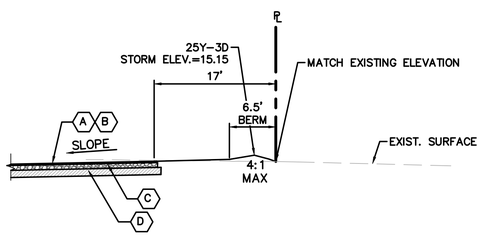
SECTION F-F



SECTION G-G



SECTION H-H



SECTION I-I

Ⓐ FINISH COURSE: 1½" TYPE SP 9.5
STRUCTURAL COURSE: 1 ½" TYPE SP-12.5 ASPHALTIC CONCRETE

Ⓑ BASE COURSE: OPTIONAL BASE GROUP 5 PER FDOT STANDARD SPECIFICATION SECTION 285

Ⓒ 12" SUBGRADE COMPACTED TO 98% MAX DENSITY AASHTO T-180, STABILIZE TO LBR 40.

SECTIONS

REV.	DESCRIPTION	DATE
1		
2		
3		
4		
5		
6		

IMTIAZ AHMED, P.E.
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STATE OF FLORIDA

SEAL

TWIGGS ACADEMY
829 SILVER BEACH ROAD
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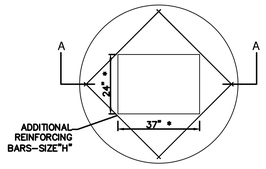
ATLANTIC ENGINEERING SERVICES, INC.
2822 WATERS EDGE CIRCLE
GREENACRES, FLORIDA 33413
PHONE - (561) 358-4140
FAX - (561) 956-7924
CERTIFICATE OF AUTHORIZATION NO.: 9390

PROJ. NO.
SCALE:

DES.	DWN.	CHK.

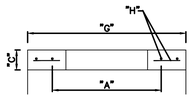
SHEET NUMBER
CE2

DATE DRAWN
JULY 2025



PLAN

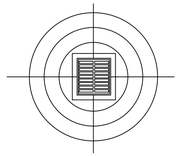
* ADJUST TO 24" X 24" OPENING FOR VALLEY GUTTER INLETS



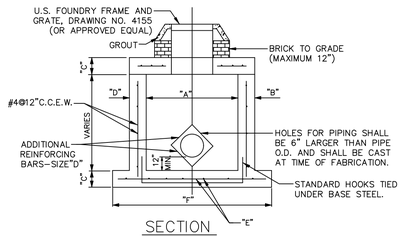
SECTION A-A

"A"	"C"	"G"	"H"
4'-0"ø	8"	5'-4"ø	#4 @ 6"CCEW
5'-0"ø	8"	6'-4"ø	#5 @ 8"CCEW
6'-0"ø	10"	7'-4"ø	#5 @ 6"CCEW
7'-0"ø	10"	8'-4"ø	#5 @ 6"CCEW
8'-0"ø	10"	9'-8"ø	#5 @ 6"CCEW

PRECAST CONCRETE – TOP SLAB FOR CATCH BASIN



PLAN

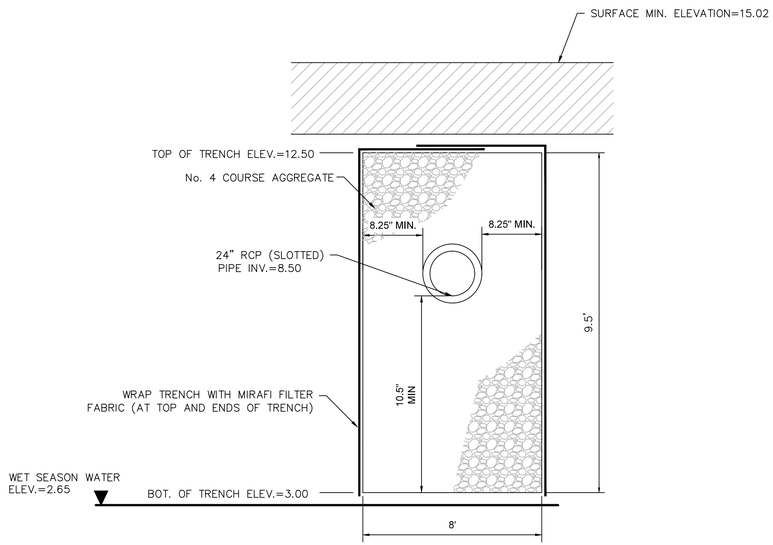


SECTION

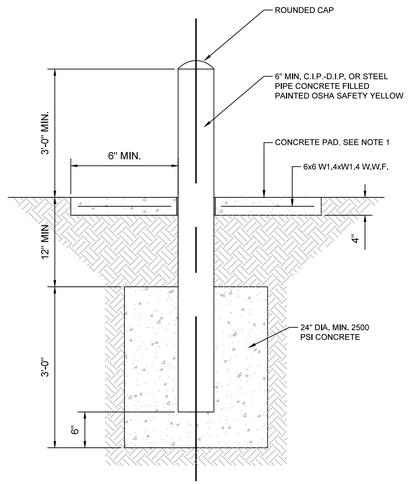
NOTE: SQUARE STRUCTURES MAY BE USED AS AN ALTERNATE EXCEPT FOR CURB INLETS UNLESS STRUCTURE CONTAINS A POLLUTION RETARDENT BAFFLE
SQUARE STRUCTURES MUST BE USED FOR POLLUTION RETARDENT STRUCTURES

TYPE	"A"	"B"	"C"	"D"	"E"	"F"
C-4	4'-0"	8"	8"	#4@12"CCEW	#4@12"CCEW	6'-4" Ø
C-5	5'-0"	8"	8"	#5@12"CCEW	#5@12"CCEW	7'-4" Ø
C-6	6'-0"	8"	8"	#5@12"CCEW	#5@6"CCEW	8'-4" Ø
C-7	7'-0"	8"	8"	#5@12"CCEW	#5@6"CCEW	9'-4" Ø
C-8	8'-0"	10"	10"	2-W.W.M. w/#4 @ 12" C.C. VERT.	#5@6"CCEW	10'-4" Ø

PRECAST CIRCULAR CATCH BASIN



ONSITE EXFILTRATION TRENCH DETAIL



NOTES:
1. PROVIDE SQUARE OR ROUND HOUSEKEEPING PAD AROUND BOLLARD IN UNPAVED AREAS

ON-SITE PAVING AND DRAINAGE SPECIFICATIONS:

1. ALL ORGANIC OR DELETERIOUS MATERIAL SHALL BE REMOVED FROM WITHIN 5 FEET OF ANY EDGE OF PAVEMENT. ANY SUCH MATERIAL SHALL BE REPLACED BY APPROVED GRANULAR FILL WHICH SHALL BE PLACED AND IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEERING REPORT FOR THE SITE.
2. STABILIZED SUBGRADE SHALL HAVE A LIMEROCK BEARING RATIO (LBR) OF 40 AND SHALL BE COMPACTED TO 98% OF MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180.
3. LIMEROCK BASE COURSE SHALL CONFORM TO THE REQUIREMENTS OF SECTION 311 OF FLORIDA D.O.T. STANDARD SPECIFICATIONS. THE MINIMUM PERCENTAGE OF CARBONATES OF CALCIUM AND MAGNESIUM SHALL BE 70%, LIQUID LIMIT 35 PLASTICITY 6, MIN LBR 100 OR ACCEPTABLE FDOT PRODUCT APPROVAL
4. ASPHALTIC CONCRETE TYPE S-3 SHALL CONFORM TO THE REQUIREMENTS OF SECTION 331 OF FLORIDA D.O.T. STANDARD SPECIFICATIONS.
5. PRIME COAT AND TACK COAT FOR BASE COURSES SHALL CONFORM TO THE REQUIREMENTS OF SECTIONS 300-1 THROUGH 300-7 OF FLORIDA D.O.T. STANDARD SPECIFICATIONS. PRIME COAT SHALL BE APPLIED AT A RATE OF 0.25 GALLONS PER SQUARE YARD AND TACK COAT AT A RATE OF 0.08 GALLONS PER SQUARE YARD UNLESS A VARIATION RATE IS APPROVED BY THE ENGINEER.
6. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS, EXCEPT DRAINAGE STRUCTURES.
7. PRECAST CONCRETE MANHOLES AND CATCH BASINS SHALL MEET THE REQUIREMENTS OF A.S.T.M. SPECIFICATIONS C-478 AND 64T.
8. CONCRETE FOR PRECAST MANHOLES AND CATCH BASINS SHALL HAVE MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS.
9. REINFORCING STEEL FOR MANHOLES AND CATCH BASINS SHALL CONFORM TO A.S.T.M. SPECIFICATIONS A-615 AND A-305, LATEST REVISION. GRADE 60 STEEL SHALL BE USED FOR TOP AND BOTTOM SLABS.
10. ALL RE-BAR SPLICES IN CONCRETE STRUCTURES SHALL HAVE A MINIMUM LAP OF 24 BAR DIAMETERS.
11. ALL JOINTS IN CONCRETE STRUCTURES SHALL BE FINISHED WATER TIGHT.
12. ALL SPACES AROUND PIPING ENTERING OR LEAVING MANHOLES AND CATCH BASINS SHALL BE COMPLETELY FILLED WITH 2:1 WATERPROOF, NON-SHRINKING CEMENT MORTAR.
13. REINFORCED CONCRETE PIPE (RCP) SHALL CONFORM TO THE REQUIREMENTS OF A.S.T.M. SPECIFICATION C-76, FOR CLASS III, WALL THICKNESS "B" REINFORCED CONCRETE PIPE, AND AS MODIFIED IN SECTION 941 OF FLORIDA D.O.T. STANDARD SPECIFICATION.
14. ALL LABOR, MATERIALS AND METHODS OF CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH THE MINIMUM ENGINEERING AND CONSTRUCTION STANDARDS ADOPTED BY CITY OF VILLAGE OF PALM SPRINGS PUBLIC WORKS AND THE PLANS AND CONSTRUCTION SPECIFICATIONS. WHERE CONFLICTS OR OMISSIONS EXIST, THE CITY OF PORT ST LUCIE PUBLIC WORKS STANDARDS SHALL DICTATE. SUBSTITUTIONS AND DEVIATIONS FROM PLANS AND SPECIFICATIONS SHALL BE PERMITTED ONLY WHEN WRITTEN APPROVAL HAS BEEN ISSUED BY THE ENGINEER.
15. THE EXISTING ELEVATIONS SHOWN ON THE GRADING PLAN INDICATES THE ELEVATION AT THE POINT DEPICTED ONLY, AND SHOULD NOT BE INTERPRETED AS INDICATING THE ELEVATIONS OF ANY OTHER POINT. THESE EXISTING ELEVATIONS ARE IN NO WAY AN INDICATOR OF SURFACE OR SUBSURFACE SOIL CONDITIONS.
16. BITUMINOUS COATING REQUIRED FOR ALL CORRUGATED METAL PIPE (CMP).
17. THE PROPERTY OWNER IS RESPONSIBLE FOR THE PERPETUAL MAINTENANCE OF ALL FEATURES OF THE SURFACE WATER MANAGEMENT SYSTEM AS OUTLINED BY THE DESIGN ENGINEER ON THE DRAWINGS. THE PROPERTY OWNER IS ALSO RESPONSIBLE FOR THE MAINTENANCE OF ALL INFRASTRUCTURES ON THE SITE.
18. THE SITE CONTRACTOR SHALL APPLY FOR A COUNTY R-O-W PERMIT FOR ANY PROPOSED WORK WITHIN THE R-O-W OF SHIRLEY STREET.

PAVING, GRADING AND DRAINAGE DETAILS

REV.	DESCRIPTION	DATE
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IMTIAZ AHMED, P.E.
LICENSED ENGINEER NO. 46102
STATE OF FLORIDA

SEAL

TWIGGS ACADEMY
829 SILVER BEACH ROAD
LAKE PARK, FL

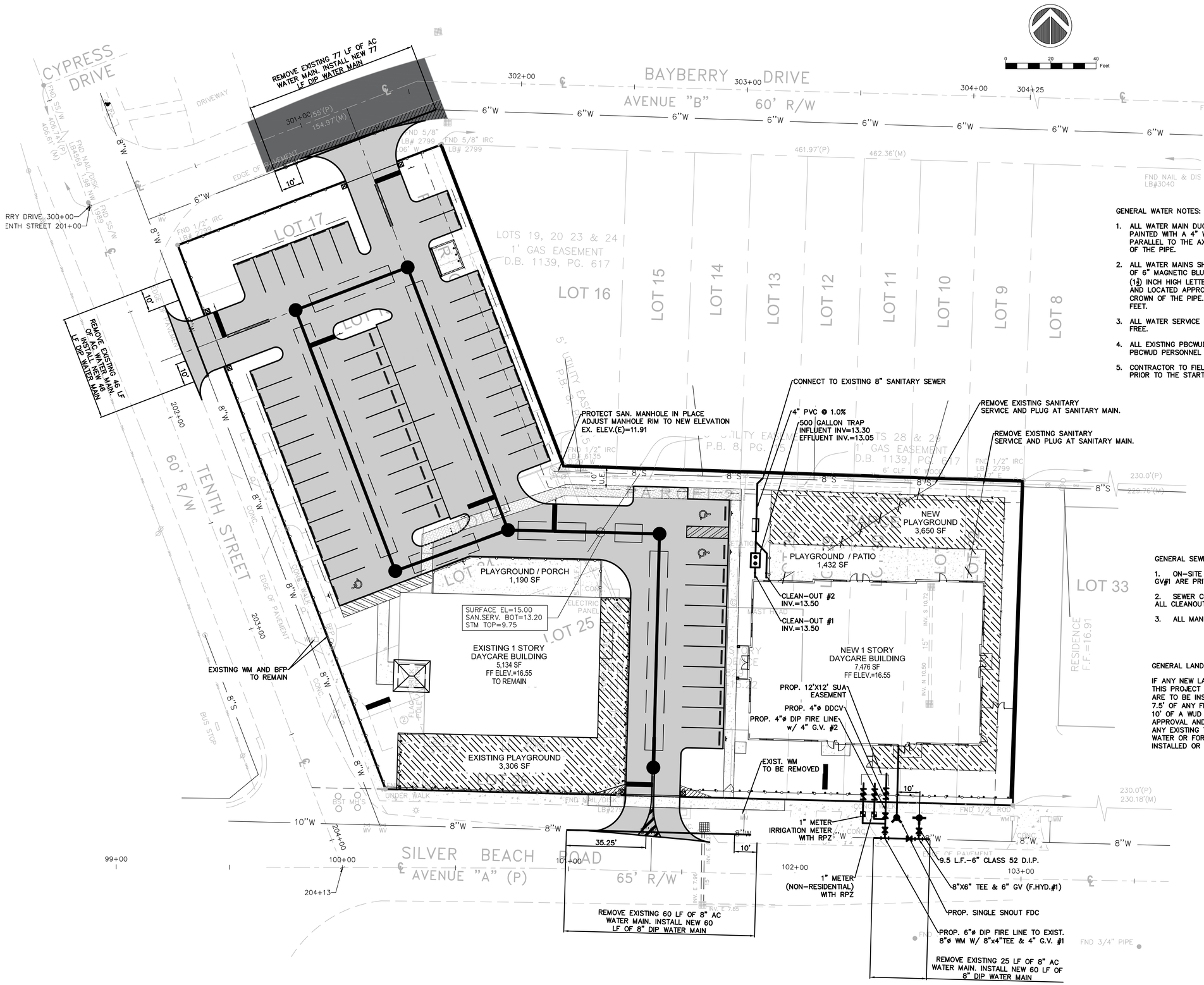
ATLANTIC ENGINEERING SERVICES, INC.
2822 WATERS EDGE CIRCLE
GREENACRES, FLORIDA 33413
PHONE – (561) 358-4140
FAX – (561) 956-9244
CERTIFICATE OF AUTHORIZATION NO.: 9390

PROJ. NO.
SCALE:

DES.	DWN.	CHK.

SHEET NUMBER
CE3

DATE DRAWN
JULY 2025



GENERAL WATER NOTES:

1. ALL WATER MAIN DUCTILE IRON PIPE AND PIPE FITTINGS SHALL BE PAINTED WITH A 4" WIDE CONTINUOUS BLUE LINE THAT RUNS PARALLEL TO THE AXIS OF THE PIPE IS LOCATED ALONG THE TOP OF THE PIPE.
2. ALL WATER MAINS SHALL BE MARKED WITH ONE CONTINUOUS STRIP OF 6" MAGNETIC BLUE CODED TAPE IMPRINTED WITH ONE AND HALF (1½) INCH HIGH LETTERING READING "CAUTION–WATER LINE BELOW" AND LOCATED APPROXIMATELY TWELVE (12) INCHES ABOVE THE CROWN OF THE PIPE. THE WORDING SHALL OCCUR EVERY THREE (3) FEET.
3. ALL WATER SERVICE BRASS FITTINGS ARE REQUIRED TO BE LEAD FREE.
4. ALL EXISTING PBCWUD FACILITIES (IE. VALVES) TO BE OPERATED BY PBCWUD PERSONNEL ONLY.
5. CONTRACTOR TO FIELD VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO THE START OF CONSTRUCTION.

GENERAL SEWER NOTE:

1. ON–SITE SEWER LATERALS AND LIFT STATION UP TO GV#1 ARE PRIVATELY OWNED AND MAINTAINED.
2. SEWER CLEAN–OUT MINI–MANHOLES ARE REQUIRED ON ALL CLEANOUTS WITHIN PAVEMENT AREAS.
3. ALL MANHOLES REQUIRE INFLOW PROTECTION.

GENERAL LANDSCAPE NOTE:

IF ANY NEW LANDSCAPE MATERIALS ARE INSTALLED AS PART OF THIS PROJECT THEN SOD ONLY WITH NO SHRUBS AND/OR TREES ARE TO BE INSTALLED WITHIN 5' OF ANY WATER METER AND WITHIN 7.5' OF ANY FIRE HYDRANT. TREES CANNOT BE INSTALLED WITHIN 10' OF A WUD WATER OR FORCE MAIN WITHOUT PRIOR PBCWUD APPROVAL AND THE INSTALLATION OF A ROOT BARRIER. ALSO IF ANY EXISTING TREES ARE LESS THAN 10' MINIMUM OF ANY NEW WATER OR FORCE MAIN A ROOT BARRIER IS REQUIRED TO BE INSTALLED OR TREE RELOCATED/REMOVED.

WATER AND SEWER PLAN

REV.	DESCRIPTION	DATE
1		
2		
3		
4		
5		
6		

IMTIAZ AHMED, P.E.
LICENSED ENGINEER NO. 46102
STATE OF FLORIDA

SEAL

TWIGGS ACADEMY
829 SILVER BEACH ROAD
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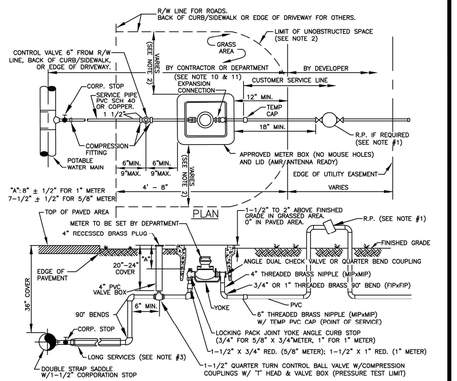
ATLANTIC ENGINEERING SERVICES, INC.
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CERTIFICATE OF AUTHORIZATION NO.: 9390

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SCALE:

DES.	DWN.	CHK.

SHEET NUMBER
CE4

DATE DRAWN
JULY 2025

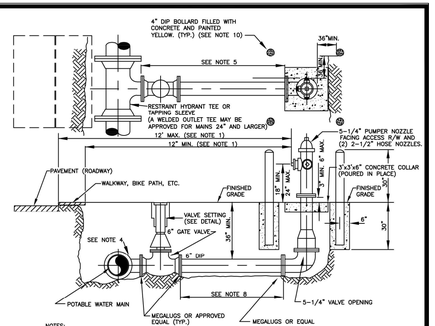


SECTION

NOTES:

1. ALL NON-RESIDENTIAL SERVICES AND RESIDENTIAL SERVICES WITH SEPARATE METERED RECLAIMED WATER SERVICE SHALL HAVE AN APPROVED REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY (R.P.). THE INITIAL TEST OF THE R.P. SHALL BE PERFORMED BY THE DEPARTMENT. THE R.P. SHALL BE INSTALLED AS CLOSE AS POSSIBLE TO THE POINT OF SERVICE NOT TO EXCEED 48" WITHOUT PRIOR DEPARTMENT APPROVAL. THE R.P. DEVICE SHALL BE USC APPROVED PER FAC 62-555.360.#
2. METER BOX SHALL BE LOCATED 12" MINIMUM FROM EDGE OF SIDEWALK, BACK OF CURB, OR EDGE OF DRIVEWAY WITH SOD ONLY WITHIN 5" MINIMUM AND NO TREES WITHIN 10" MINIMUM. IF METER BOX IS 18" OR LESS FROM A DRIVEWAY, THE BOX AND LID MUST BE RATED TIER 15.#
3. FOR INSTALLATION OF SERVICES UNDER DRIVEWAYS AND ROADWAYS USE MIN. 3" DIAMETER BLACK IRON, PVC SCH 40 OR HDPE SDR 9 CASING. CASING SHALL EXTEND MIN. 24" BEYOND EDGE OF PAVEMENT. END OF CASING TO BE SEALED WITH FOAM SEALANT. CASING SHALL BE COLOR-CODED BLACK, WHITE, BLUE, OR BLUE STRIPED.
4. SUCCESSIVE TAPS INTO THE WATER MAIN SHALL BE SPACED A MINIMUM OF 18" APART. TAPS ON SAME SIDE OF A PVC PIPE SECTION SHALL BE MIN. 10' APART
5. METER SHALL NOT BE PLACED IN SIDEWALK OR DRIVEWAY AREAS. WATER SERVICE LINES AND TAPS SHALL NOT BE PLACED UNDER DRIVEWAYS WHENEVER POSSIBLE AND IF REQUIRED, ONLY WITH PRIOR DEPARTMENT APPROVAL.
6. PVC PIPE SHALL BE SCH. 40, WITH SCH 80 PVC FITTINGS. ALL BRASS SHALL BE "LEAD FREE".#
7. MAXIMUM SERVICE LENGTH IS 100' TO METER.
8. BEDDING (MIN. 4") AND COVER (MIN. 4") OVER SERVICE LINE OR CASING SHALL CONSIST OF FINE GRANULAR MATERIAL. UNSUITABLE IN-SITU MATERIALS SUCH AS MUCK, DEBRIS AND LARGER ROCKS SHALL BE REMOVED WITH 2" MAXIMUM SIZE.
9. METER/SERVICE WILL NOT BE INSTALLED/ACTIVATED UNTIL:
   A. ALL FORM BOARDS FOR DRIVEWAY AND/OR SIDEWALK MUST BE COMPLETELY INSTALLED OR THE DRIVEWAY AND/OR SIDEWALK MUST HAVE BEEN INSTALLED.
   B. "MINIMUM UNOBSTRUCTED SPACE" AS SHOWN IN NOTE 2 AND ON THE PLAN VIEW IS PROVIDED WITH 12" MINIMUM VERTICAL SEPARATION REQUIRED TO ALL OTHER UTILITIES.
   C. THE REQUIRED BACKFLOW PREVENTION ASSEMBLY/DEVICE IS INSTALLED AND HAS PASSED INITIAL TEST.
10. METER TO BE INSTALLED BY DEPARTMENT. THE PIPING BEYOND THE CONTROL VALVE SHALL BE INSTALLED BY THE DEVELOPER OR THE DEPARTMENT DEPENDING ON TYPE OF SERVICE INSTALLATION REQUIRED.
11. THE DEVELOPER/PROPERTY OWNER OR ASSIGNEE SHALL BE RESPONSIBLE FOR INSTALLATION OF SERVICES BEYOND PRESSURE TEST LIMITS AS SPECIFIED BY THE DEPARTMENT.
12. THREADED AREAS OF CORPORATION STOP AND OTHER FITTINGS SHALL BE SPIRAL WRAPPED WITH TWO (2) WRAPS OF TEFLON TAPE.
13. METER BOXES IN NON-GRASS AREAS SHALL HAVE TRAFFIC RATED LIDS.
14. A 12" THICK COMPACTED 3/4" ROCK BASE IS REQUIRED FOR METER BOXES OUTSIDE OF GRASS AREA. THE BASE SHALL EXTEND MINIMUM 12" BEYOND THE METER BOX PERIMETER.

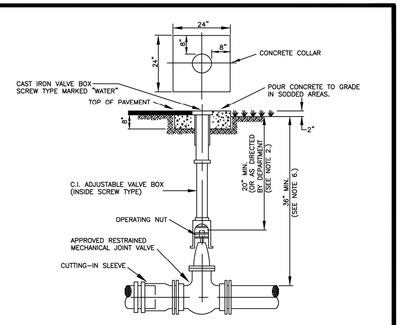
POTABLE WATER SERVICE SINGLE 5/8" X 3/4" & * 1" METER INSTALLATION DETAIL (PVC) 1W



NOTES:

1. FIRE HYDRANT SHALL BE INSTALLED PLUMB AND TRUE IN UNOBSTRUCTED LOCATION AND SHALL NOT INTERFERE WITH PEDESTRIAN WALKWAYS, BIKE PATHS, AND SUCH OTHER SIMILAR PATHWAYS WITH THE EDGE OF THE PUMPER NOZZLE AND/OR HOSE NOZZLES BEING A MINIMUM OF 12" BEHIND SUCH PATHWAYS. A MINIMUM OF 7.5' FEET CLEARANCE IS REQUIRED FROM EACH SIDE AND REAR OF THE HYDRANT. THE FRONT OF THE HYDRANT PUMPER NOZZLE SHALL BE LOCATED A MAXIMUM OF 12" FROM THE EDGE OF PAVEMENT UNLESS OTHERWISE PREVIOUSLY APPROVED BY THE FIRE MARSHAL OFFICE HAVING JURISDICTION.
2. THE SAME MODEL HYDRANT SHALL BE USED THROUGHOUT THE SAME PROJECT OR CONTRACT PHASE. HYDRANTS MUST BE ORDERED RED IN COLOR, WITH FINISHED EPOXY COAT APPLIED BY THE HYDRANT MANUFACTURER. HYDRANT SHALL BE FACTORY EQUIPPED WITH PLUGGED DRAIN HOLES.
3. VALVE SHALL BE PLACED ADJACENT TO MAIN AND RESTRAINED WITH MEGALUGS OR EQUAL.
4. ALL HYDRANTS SHALL BE TEE'D OF THE MAIN PREFERABLY BY A TEE OR TAPPING SLEEVE WITH PRIOR DEPARTMENT APPROVAL.
5. ALL D.I.P. MATERIALS SHALL BE USED BETWEEN TEE/TAPPING SLEEVE AND HYDRANT.
6. HYDRANTS SHALL NOT BE PLACED IN SIDEWALKS, ROADWAYS, OR BIKEPATHS.
7. FIRE HYDRANT SHALL BE LOCATED 5' MINIMUM FROM EDGE OF PAVEMENT WITH RAISED CURBING AND 8' MINIMUM WITHOUT RAISED CURBING.
8. ON RUNS LONGER THAN 60 FEET ANOTHER VALVE IS REQUIRED LESS THAN ONE PIPE JOINT FROM THE HYDRANT.
9. PAINT SAFETY RED, IF REQUIRED, WITH APPROVED PAINT.
10. BOLLARDS MAY BE REQUIRED FOR HYDRANTS WITH LESS THAN SIX (6) FEET TO EDGE OF PAVEMENT WITHOUT RAISED CURBING. NO BOLLARDS SHALL BE INSTALLED IN COUNTY AND/OR FDOT RIGHT-OF-WAY "CLEAR ZONE".
11. BURIED HYDRANT HARDWARE SHALL BE STAINLESS STEEL (TYPE 304L OR TYPE 304 BOLTS/TYPE 304 NUTS).
12. NO CONNECTION (TEE, TAP) IS ALLOWED BETWEEN THE HYDRANT CONTROL VALVE AND THE FIRE HYDRANT.
13. APPROVED SECURITY CAPS WITH CHAINS ARE REQUIRED FOR ALL NOZZLES.

TYPICAL FIRE HYDRANT INSTALLATION WITH BOLLARDS DETAIL * 12W



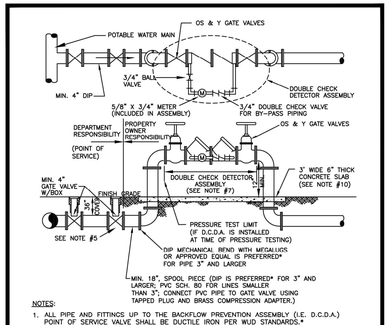
NOTES:

1. CONCRETE COLLAR IS NOT REQUIRED IN PAVED AREAS IF PAVEMENT SURFACE IS FINISHED PRIOR TO CONDITIONAL FINAL INSPECTION.
2. WHEN OPERATING NUT IS DEEPER THAN 36" A ONE PIECE EXTENSION WILL BE REQUIRED TO BRING OPERATING NUT 20"-30" BELOW FINISHED GRADE. EXTENSION BOLTS & NUTS ARE TO BE STAINLESS STEEL. A HIGH STRENGTH STEEL CENTERING PLATE, WELDED TO THE EXTENSION, IS ALSO REQUIRED.
3. VALVE BOXES SHALL HAVE COVERS MARKED "WATER".
4. VALVE BOX EXTENSION TO BE D.I.P. OR C-900 PVC SDR 18 (BLUE)
5. A CUT-IN INSTALLATION SHALL REQUIRE MEGALUGS OR EQUAL THROUGHOUT ASSEMBLY.
6. IN ORDER TO MAINTAIN ADEQUATE COVER OVER VALVE NUT, THE FOLLOWING MINIMUM COVERS OVER PIPE ARE REQUIRED

GATE VALVE SIZE	MIN. COVER OVER PIPE
16"	48"
20"	54"
24"	60"
30"	72"
36"	84"

7. VALVES IN ROADWAYS SHALL BE LOCATED OUTSIDE OF WHEEL PATHS WHENEVER POSSIBLE.

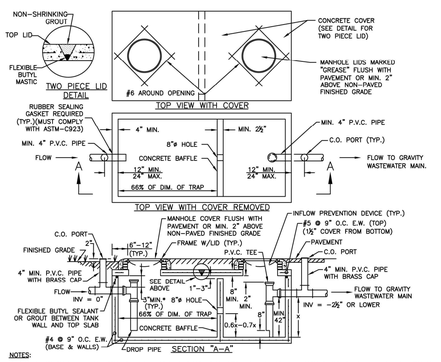
POTABLE WATER MAIN TYPICAL GATE VALVE SETTING AND MAIN CUT-IN DETAIL 13W



NOTES:

1. ALL PIPE AND FITTINGS UP TO THE BACKFLOW PREVENTION ASSEMBLY (I.E. D.C.D.A.) POINT OF SERVICE VALVE SHALL BE DUCTILE IRON PER WUD STANDARDS.*
2. THE INITIAL TEST OF THE BACKFLOW PREVENTION ASSEMBLY SHALL BE PERFORMED BY THE DEPARTMENT PRIOR TO SERVICE ACTIVATION.
3. THE DOUBLE CHECK DETECTOR ASSEMBLY SHALL BE APPROVED BY THE UNIVERSITY OF SOUTHERN CALIFORNIA (U.S.C.) OR THE A.S.S.E. (WITH ONE YEAR FIELD TESTING).
4. THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR THE PROPER OPERATION, MAINT-ENANCE AND SUBSQUENT TESTING OF THE DOUBLE CHECK DETECTOR ASSEMBLY BY A CERTIFIED BACKFLOW TECHNICIAN.
5. WHEN FIRE LINE LENGTH IS OVER ONE PIPE LENGTH, LINE SHALL BE TERMINATED WITH A GATE VALVE (=POINT OF SERVICE). NO PIPE JOINTS / CONNECTIONS ARE PERMITTED BETWEEN POINT OF SERVICE AND VERTICAL 90° BEND
6. THE DESIGN SHALL MINIMIZE ANY POTENTIAL FOR WATER MAIN WITH NO FLOW. A FIRE HYDRANT LOCATED NEAR THE DOUBLE CHECK DETECTOR ASSEMBLY MAY BE REQUIRED FOR LONG, DEAD ENDING DEDICATED FIRE LINES.
7. AN APPROVED REDUCED PRESSURE PRINCIPLE DETECTOR ASSEMBLY SHALL BE REQUIRED FOR ALL FIRE SYSTEMS WITH STORAGE TANKS AND/OR AUXILIARY WATER SUPPLY.
8. TAMPER SWITCHES MAY BE REQUIRED BY THE FIRE MARSHAL.*
9. PIPE MATERIAL ON THE CUSTOMER SIDE OF POINT OF SERVICE VALVE SHALL COMPLY WITH FIRE MARSHAL REQUIREMENTS.*
10. 3' WIDE 6" THICK CONCRETE SLAB IS RECOMMENDED FOR ASSEMBLY SMALLER THAN 4".

DOUBLE CHECK DETECTOR ASSEMBLY * 32W



NOTES:

1. OIL/GREASE INTERCEPTORS SHALL BE WATERTIGHT AND SHALL BE BUILT OF PRECAST CONCRETE WHICH HAS A DESIGN COMPRESSIVE STRENGTH OF MINIMUM 3500 PSI AFTER 28 DAYS. THE DESIGN, SIZING AND CONSTRUCTION SHALL CONFORM TO THIS STANDARD AND TO ALL APPLICABLE BUILDING CODES, HEALTH DEPARTMENT REQUIREMENTS AND REGULATIONS, INCLUDING, BUT NOT LIMITED TO CHAPTER 64E-6, FLORIDA ADMINISTRATIVE CODE. WALL AND SLAB THICKNESS SHOWN ARE MINIMUMS, AND SHALL BE DETERMINED BY THE OWNER'S ENGINEER. THE CONCRETE BOX SHALL BE MONOLITHIC POURED AND SHALL HAVE A PRECAST HOLE ON EACH END ONLY FOR LATERAL. THE PRECAST HOLES SHALL BE SEALED WITH NON-SHRINK GROUT. ALL JOINTS SHALL BE SEALED WITH A RESILIENT FLEXIBLE SEALANT. PRIOR TO CONSTRUCTION AND/OR DEPARTMENT APPROVAL, SHOP DRAWINGS ARE REQUIRED TO BE SUBMITTED AND APPROVED BY THE DEPARTMENT PRIOR TO THE PRE-CONSTRUCTION MEETING FOR ALL INTERCEPTORS.
2. THIS OIL/GREASE INTERCEPTOR SHALL BE USED FOR APPLICATIONS EXCEEDING 25 GPM FLOW RATE, DETERMINED USING THE PLUMBING AND DRAINAGE INSTITUTE FOI G101 "PLUMBING FIXTURE DESIGN CALCULATION" MUST BE SUBMITTED FOR APPROVAL WITH A SHOP DRAWING PRIOR TO THE PRE-CONSTRUCTION MEETING. FOR APPLICATIONS UP TO 25 GPM FLOW RATE (ONE MINUTE FLOW) OR 50 GPM (TWO MINUTE FLOW), AN APPROVED OUTDOOR "GREASE TRAP" MAY BE USED. OTHER DESIGNS MAY BE CONSIDERED UPON SUBMITTAL AND APPROVAL OF SHOP DRAWINGS.
3. INSPECTION PORTS (CLEAN OUTS) ARE REQUIRED TO BE INSTALLED AT EACH END OF ANY TYPE OF INTERCEPTOR WITH PORTS TO REMAIN EASILY ACCESSIBLE FOR UTILITY INSPECTION AND SAMPLING.
4. THE INTERCEPTOR AND CLEAN-OUTS PORT SHALL BE LOCATED OUTSIDE AND IN NON-TRAFFIC AREA WHENEVER POSSIBLE. IF INSTALLED IN IN A TRAFFIC AREA MIN-MANHOLES ARE REQUIRED ON THE INSPECTION PORTS (CLEAN OUTS). THE SURFACE SURROUNDING THE INTERCEPTOR SHALL BE SLOPED TO DRAIN STORM WATER AWAY FROM THE INTERCEPTOR.
5. THE CAPACITY DETERMINATION FOR THE INTERCEPTOR IS THE RESPONSIBILITY OF THE OWNER/CUSTOMER. THE MINIMUM VOLUME OF ANY GREASE INTERCEPTOR SHALL BE 750 GALLONS. THE REQUIRED EFFECTIVE CAPACITY OF THE GREASE INTERCEPTOR SHALL BE CALCULATED BY MULTIPLYING THE TOTAL FLOW RATE BY A RETENTION TIME OF 30 MINUTES. THE REQUIRED EFFECTIVE CAPACITY OF THE GREASE INTERCEPTOR IS GREATER THAN 1250 GALLONS, INSTALLATION OF MULTIPLE GREASE INTERCEPTORS IN SERIES IS REQUIRED.
6. NO BAFFLE IS REQUIRED IF THERE ARE MULTIPLE GREASE INTERCEPTORS INSTALLED IN SERIES. HOWEVER, CLEANOUT PORTS MUST BE INSTALLED ON EACH END OF EACH INTERCEPTOR.
7. THE PROPERTY OWNER/CUSTOMER SHALL BE RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF THE INTERCEPTOR.
8. THE GREASE INTERCEPTOR SHALL NOT BE USED FOR THE PURPOSE OF INTERCEPTING SAND AND OIL FROM NON- FOOD HANDLING ESTABLISHMENTS.
9. EACH FACILITY WITH AN OIL/GREASE INTERCEPTOR SHALL HAVE A SEPARATE (NOT SHARED) INTERCEPTOR AND SHALL BE INDIVIDUALLY METERED THROUGH THE DEPARTMENT.
10. A "GREASE TRAP" OR "OIL/GREASE INTERCEPTOR" SHALL BE REQUIRED TO RECEIVE THE DRAINAGE FROM FIXTURES AND EQUIPMENT (SINKS, DISHWASHERS, FLOOR DRAINS, CAN WASH AREAS, ETC.) WITH GREASE LADEN WASTE LOCATED IN COMMERCIAL FOOD PREPARATION AREAS SUCH AS RESTAURANTS, HOTEL KITCHENS, HOSPITALS, SCHOOL KITCHENS, AND SIMILAR FACILITIES.
11. THE "GREASE TRAP" OR "OIL/GREASE INTERCEPTOR" SHALL BE LOCATED AS CLOSE AS PRACTICALLY POSSIBLE TO THE FIXTURES AND EQUIPMENT GENERATING GREASE.
12. A "SOLIDS INTERCEPTOR" SHALL BE CONSIDERED TO BE INSTALLED UPSTREAM OF A " GREASE TRAP" WHERE SUBSTANTIAL AMOUNT OF SOLIDS FROM FOOD GRINDERS, DISPOSALS MAY BE PRESENT.
13. MANHOLE COVER SHALL BE MACHINED TO ACCEPT INFLOW PROTECTOR.
14. SEE WUD STANDARD DETAIL 1SB FOR FIBERGLASS TYPE OIL/GREASE INTERCEPTOR INSTALLATIONS.*

OIL/ GREASE INTERCEPTOR CONCRETE STRUCTURE * 1SA

WATER AND SEWER DETAILS

REV.	DESCRIPTION	DATE
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LICENSED ENGINEER NO. 46102
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829 SILVER BEACH ROAD
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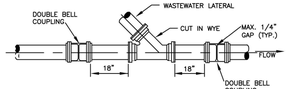
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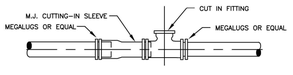
DATE DRAWN
MARCH 2026



GRAVITY WASTEWATER MAIN

NOTE:

DUCTILE IRON FITTINGS (WYE, TEE, SLEEVES) ARE REQUIRED FOR DUCTILE IRON AND/OR C-900 PVC MAIN.

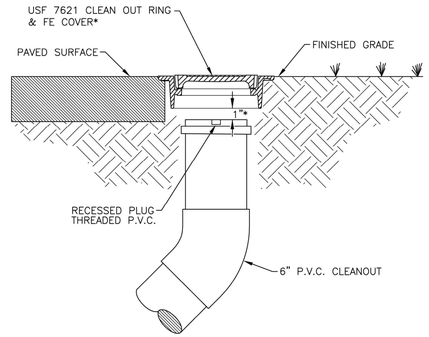


DUCTILE IRON-MECHANICAL JOINT (FORCE MAIN)

NOTE:

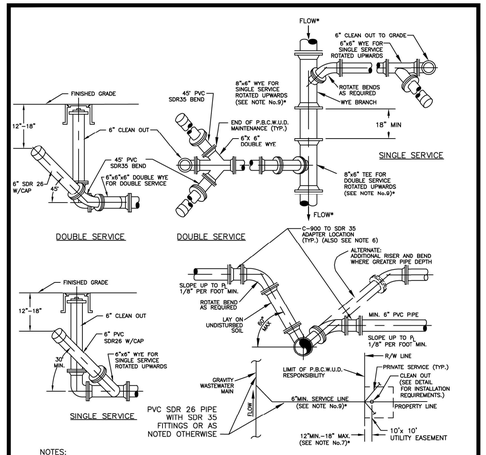
MEGALUGS OR EQUAL ARE REQUIRED THROUGHOUT ASSEMBLY.

WASTEWATER SYSTEM STANDARD CUT-IN DETAILS 9S



1. CLEANOUTS TO BE LOCATED IN GRASS AREA WHENEVER POSSIBLE WITH A MINIMUM OF THREE (3) FEET FROM EDGE OF PAVEMENT, BACK OF CURB, EDGE OF DRIVEWAY, AND TRANSFORMERS ON RESIDENTIAL AND NON-RESIDENTIAL LOTS UNLESS LOTS ARE ASSOCIATED WITH TOWNHOME OR ZERO LOT LINE LOTS. ON ZERO LOT LINE LOTS THE MINIMUM DIMENSION SHALL BE ONE (1) FOOT INSTEAD OF THREE (3) FOOT MINIMUM UNLESS OTHERWISE APPROVED BY THE DEPARTMENT.*
2. CLEANOUTS SHALL NOT BE INSTALLED IN TRAFFIC LANES OR AREAS UNDER HEAVY TRAFFIC LOADS.
3. THE COVER TO BE MARKED "S".
4. CLEANOUTS TO BE INSTALLED PRIOR TO WATER METER RELEASE.
5. THE DEVELOPER/PROPERTY OWNER OR ASSIGNEE SHALL BE RESPONSIBLE FOR CLEANOUT INSTALLATION PRIOR TO WATER METER INSTALLATION AS SPECIFIED BY THE DEPARTMENT.
6. A CONCRETE COLLAR MAY BE REQUIRED IF CLEANOUT IS LOCATED BETWEEN DRIVEWAYS. SPECIAL CONSTRUCTION DETAIL WILL BE REQUIRED.
7. ALONG STREETS WITH ADJACENT NON-EXCLUSIVE UTILITY EASEMENT, THE CLEANOUTS ENDING PBCWUD MAINTENANCE RESPONSIBILITY SHALL BE INSTALLED MIN. 12", MAX. 18" INTO THE EASEMENT.

TYPICAL CLEANOUT INSTALLATION * 11SA



NOTES:

1. MIN. 3' AND 5' MAX. DEPTH IS REQUIRED, UNLESS PLANS SHOW OTHERWISE, FOR SERVICE LATERAL WYE AT THE CLEAN OUT ENDING P.B.C.W.U.D. OWNERSHIP AND MAINTENANCE RESPONSIBILITY.
2. CLEAN OUT IS TO BE INSTALLED PER DEPARTMENT STANDARDS PRIOR TO WATER METER INSTALLATION.
3. WASTEWATER MAIN WYE BRANCH TO MATCH MAIN PIPE MATERIAL.
4. CLEAN OUTS DESIGNATING THE END OF THE DEPARTMENT'S MAINTENANCE RESPONSIBILITY SHALL BE LOCATED WITHIN AN UTILITY EASEMENT OR RIGHT-OF WAY DEDICATED FOR UTILITIES.
5. THE DEVELOPER/PROPERTY OWNER OR ASSIGNEE SHALL BE RESPONSIBLE FOR CLEAN OUT INSTALLATION PRIOR TO WATER METER INSTALLATION AS SPECIFIED BY THE DEPARTMENT.
6. SEE MINIMUM SEPARATION STATEMENT FOR P.V.C. C-900 SDR 18 PIPE MATERIAL REQUIREMENTS AT WASTEWATER LATERAL/POTABLE WATER MAIN CROSSINGS.
7. ALONG STREETS WITH ADJACENT NON-EXCLUSIVE UTILITY EASEMENT, THE CLEANOUT ENDING PBCWUD MAINTENANCE RESPONSIBILITY SHALL BE INSTALLED 12" MIN. TO 18" MAX. INTO THE UTILITY EASEMENT.*
8. MIN. 3' HORIZONTAL SEPARATION MUST BE MAINTAINED BETWEEN CLEANOUTS AND EDGE OF PAVEMENT, BACK OF CURB, EDGE OF DRIVEWAY, LIGHTPOLES, TRANSFORMERS, POWER POLES.
9. GRAVITY SEWER MAINS ARE 8" DIAMETER WITH ALL SEWER LATERAL CONNECTIONS TO A GRAVITY SEWER MAINS REQUIRED TO BE 6" DIAMETER IN SIZE UNLESS OTHERWISE PREVIOUSLY APPROVED BY THE DEPARTMENT.*

TYPICAL WASTEWATER SERVICE CONNECTION * 12S

GENERAL NOTES

DEFINITIONS

1. DEPARTMENT – THE PALM BEACH COUNTY WATER UTILITIES DEPARTMENT.
2. CONTRACTOR – UTILITY CONTRACTOR AND ALL UTILITY SUBCONTRACTORS.
3. ENGINEER – ENGINEER RESPONSIBLE FOR INSPECTION AND CERTIFICATION.

PROCEDURE

1. A PRE-CONSTRUCTION MEETING IS TO BE HELD PRIOR TO DELIVERY OF MATERIALS AND INITIATION OF ANY POTABLE WATER, RECLAIMED WATER AND/OR WASTEWATER SYSTEM CONSTRUCTION. THE MEETING SHALL BE ATTENDED BY THE DEPARTMENT, CONTRACTOR, ENGINEER AND OTHER INTERESTED PARTIES.
2. ANY REVISIONS TO THE APPROVED PLANS SHALL BE CALLED TO THE ATTENTION OF THE DEPARTMENT PRIOR TO THE PRE-CONSTRUCTION MEETING. REVISED PLANS MUST BE APPROVED PRIOR TO THE MEETING.
3. FIVE (5) COPIES OF THE CURRENT APPROVED MATERIAL LIST AND ALL NECESSARY SHOP DRAWINGS SHALL BE SUBMITTED FOR APPROVAL PRIOR TO SCHEDULING OF THE PRE-CONSTRUCTION MEETING.
4. ALL APPLICABLE PERMITS MUST BE OBTAINED PRIOR TO PRECONSTRUCTION MEETING. (DOT, HEALTH DEPARTMENT, COUNTY ENGINEER, ETC.).
5. THE CONTRACTOR SHALL MAINTAIN A CURRENT APPROVED SET OF CONSTRUCTION PLANS ON JOB SITE.
6. ALL MATERIALS SUPPLIED SHALL CONFORM TO PRODUCT LIST AND SHOP DRAWINGS AS APPROVED PRIOR TO CONSTRUCTION. SUBSTITUTE MATERIALS SHALL NOT BE APPROVED AFTER DELIVERY TO THE JOB SITE. ALL REQUESTS FOR MATERIAL SUBSTITUTION SHALL BE APPROVED PRIOR TO DELIVERY OF THESE MATERIALS TO THE JOB SITE.
7. THE LOCATIONS OF EXISTING UTILITIES SHOWN ON THE APPROVED PLANS ARE TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR. APPROVAL OF DEVELOPMENT PLANS BY THE DEPARTMENT IN NO WAY IMPLIES VERIFICATION OF THE ACCURACY OF THOSE PLANS OR FEATURES DEPICTED THEREON. ANY DISCREPANCY IN OR VARIATION FROM THE APPROVED PLANS IS TO BE BROUGHT TO THE ATTENTION OF THE DEPARTMENT BY THE ENGINEER AND CONTRACTOR. THE CONTRACTOR SHALL CONFIRM AND INSTALL (IF NECESSARY) ADEQUATE MECHANICAL PIPE / JOINT RESTRAINT ON EXISTING PIPES PRIOR TO CONNECTION.
8. THE CONTRACTOR SHALL BE RESPONSIBLE AT ALL TIMES THROUGHOUT THE DURATION OF CONSTRUCTION FOR THE PROTECTION OF EXISTING AND NEWLY INSTALLED UTILITIES FROM DAMAGE OR DISRUPTION OF SERVICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING SUCH MEASURES AS NECESSARY TO PROTECT THE HEALTH, SAFETY AND WELFARE OF THOSE PERSONS HAVING ACCESS TO THE WORK SITE.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING LOCATIONS FROM ALL OTHER UTILITY FACILITIES.
10. THE CONTRACTOR OR ENGINEER SHALL SCHEDULE INSPECTIONS AND TESTS A MINIMUM OF 24-48 HOURS IN ADVANCE.
11. NO CONNECTION TO OR ANY OTHER CONSTRUCTION SHALL BE PERFORMED ON AN EXISTING DEPARTMENT OWNED OR MAINTAINED MAIN OR STRUCTURE WITHOUT THE PRESENCE OF A DEPARTMENT INSPECTOR.
12. FACILITIES PROPOSED HEREIN SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PLANS AND THE DEPARTMENT'S MINIMUM STANDARDS. CONFLICTS BETWEEN THE PRECEDING DOCUMENTS SHOULD BE CALLED TO THE ATTENTION OF THE DEPARTMENT FOR RESOLUTION. DEVIATIONS FROM THE APPROVED PLANS MUST BE APPROVED IN ADVANCE BY THE DEPARTMENT.
13. UPON COMPLETION OF CONSTRUCTION, A FINAL INSPECTION SHALL VERIFY PROPER ADHERENCE TO ALL FACETS OF THE PLANS AND SPECIFICATIONS.

PRESSURE PIPE NOTES

1. THERE SHALL BE 36" MINIMUM COVER FROM FINISHED GRADE TO TOP OF PIPE.
2. DUCTILE IRON PIPE (DIP) THICKNESS SHALL CONFORM TO THE DEPARTMENT'S APPROVED MATERIAL LIST. POTABLE WATER AND RECLAIMED WATER MAINS DIP SHALL BE CEMENT LINED. FORCE MAIN DIP SHALL BE CERAMIC EPOXY LINED.
3. PVC PRESSURE PIPE SHALL BE C-900, SDR-18, 150 PSI.
4. ALL FITTINGS SHALL BE DUCTILE IRON WITH MECHANICAL JOINTS AND CEMENT OR APPROVED EPOXY LINING.
5. POTABLE WATER, RECLAIMED WATER AND WASTEWATER FORCE MAIN VALVES 10 INCHES AND SMALLER SHALL BE RESILIENT SEAT GATE VALVES. TWELVE-INCH (12") OR LARGER FORCE MAIN VALVES SHALL BE RESILIENT SEAT GATE VALVES OR ECCENTRIC PLUG VALVES (IF APPROVED IN ADVANCE BY DEPARTMENT). POTABLE WATER AND RECLAIMED WATER MAIN VALVES LARGER THAN 10 INCHES SHALL BE BUTTERFLY VALVES.
6. ALL TRENCHING, PIPE-LAYING, BACKFILL, PRESSURE TESTING, AND DISINFECTION MUST COMPLY WITH ALL APPLICABLE FEDERAL, STATE, COUNTY AND HEALTH DEPARTMENT STANDARDS AND REGULATIONS.

GRAVITY SEWER NOTES

1. MANHOLES AND OTHER CASTINGS SHALL BE INSPECTED BY THE DEPARTMENT BEFORE PLACEMENT AND BEFORE APPLICATION OF THE CORROSION BARRIER SYSTEM (IF APPLICABLE).
2. ALL OPENINGS IN PRECAST MANHOLES SHALL BE CAST AT TIME OF MANUFACTURE OR CORED IN FIELD.
3. ALL MANHOLES SHALL BE SET PLUMB TO LINE AND GRADE, AND SHALL REST ON A FIRM, CAREFULLY GRADED SUBGRADE, WHICH SHALL PROVIDE UNIFORM BEARING UNDER BASE.
4. PVC WASTEWATER GRAVITY PIPE SHALL CONFORM TO ASTM D-3034, SDR 26 WITH PVC SDR 35 FITTINGS, OR PVC C-900 SDR 18, PIPE AND FITTINGS, WITH PUSH-ON RUBBER GASKET JOINTS.
5. D.I.P GRAVITY SEWER PIPE SHALL BE PRESSURE CLASS 350, EPOXY LINED.
6. THE COMPLETED GRAVITY WASTEWATER SYSTEM SHALL BE INSPECTED BY THE DEPARTMENT TO VERIFY ALIGNMENT AND INTEGRITY. THERE SHALL BE NO LEAKAGE. ALL MAINS SHALL BE LAMPED, SHOWING A FULL CIRCLE OF LIGHT. DURING THESE INSPECTIONS, THE MAIN SHALL BE CLEAN AND DRY.

REV.	DESCRIPTION	DATE
1		
2		
3		
4		
5		
6		

IMTIAZ AHMED, P.E.
LICENSED ENGINEER NO. 46102
STATE OF FLORIDA

SEAL

TWIGGS ACADEMY
829 SILVER BEACH ROAD
LAKE PARK, FL

ATLANTIC ENGINEERING SERVICES, INC.
2822 WATERS EDGE CIRCLE
GREENACRES, FLORIDA 33413
PHONE – (561) 358-4140
FAX – (561) 966-0244
CERTIFICATE OF AUTHORIZATION NO.: 9390

PROJ. NO.
SCALE:

DES.	DWN.	CHK.

SHEET NUMBER
CE5

DATE DRAWN
MARCH 2026

WATER AND SEWER DETAILS



EMERGENCY VEHICLE TRACKING PLAN

REV.	DESCRIPTION	DATE
1		
2		
3		
4		
5		
6		

IMTIAZ AHMED, P.E.
LICENSED ENGINEER NO. 46102
STATE OF FLORIDA

SEAL

TWIGGS ACADEMY
829 SILVER BEACH ROAD
LAKE PARK, FL

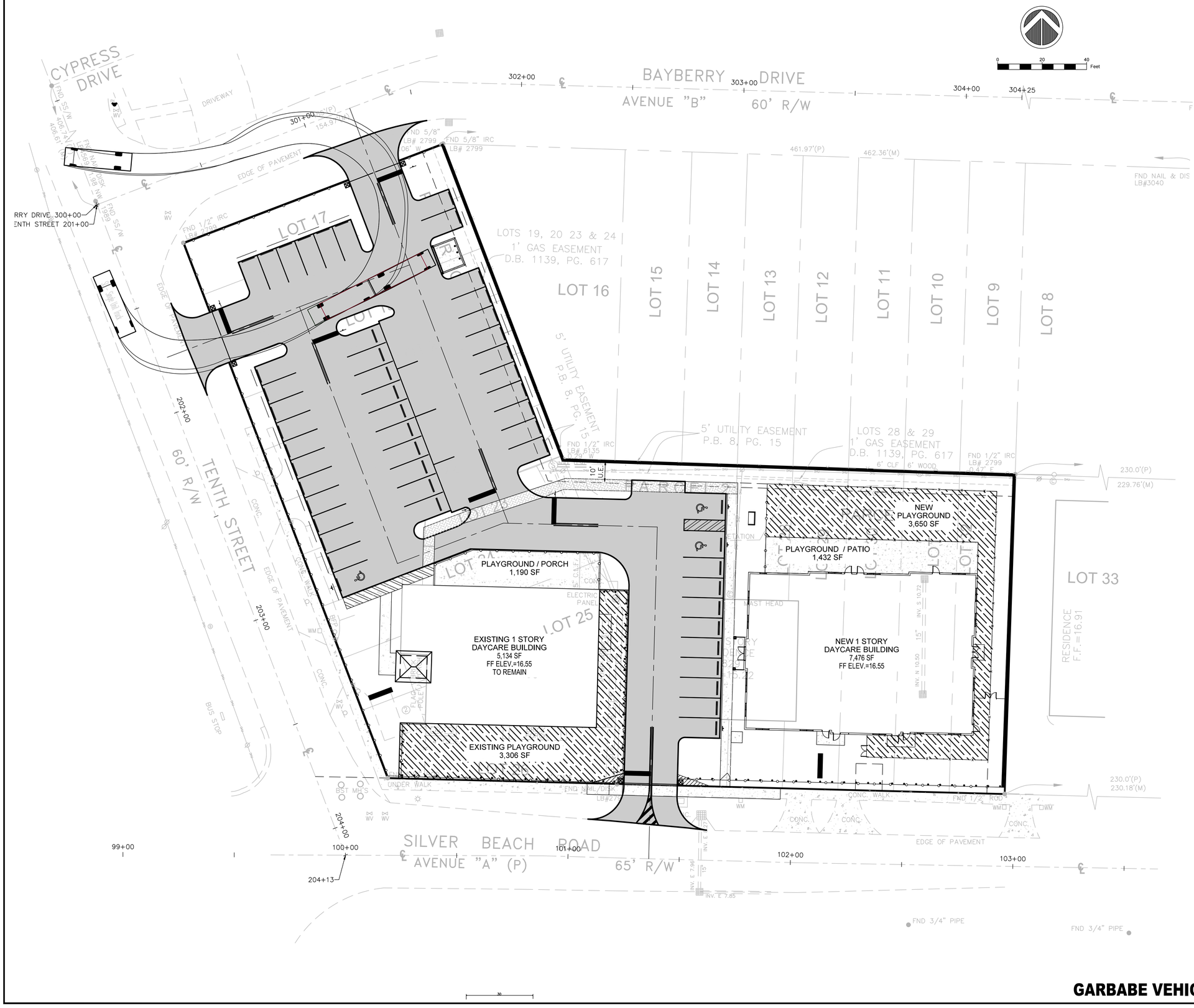
ATLANTIC ENGINEERING SERVICES, INC.
2822 WATERS EDGE CIRCLE
GREENACRES, FLORIDA 33413
PHONE – (561) 358-4140
FAX – (561) 926-8242
CERTIFICATE OF AUTHORIZATION NO.: 9390

PROJ. NO.
SCALE:

DES.	DWN.	CHK.

SHEET NUMBER
CE7a

DATE DRAWN
OCT 2025



SU – Single Unit Truck	
Overall Length	30.000ft
Overall Width	8.000ft
Overall Body Height	11.981ft
Min Body Ground Clearance	1.367ft
Track Width	8.000ft
Lock-to-lock time	6.0s
Curb to Curb Turning Radius	42.000ft

GARBABE VEHICLE TRACKING PLAN

REV.	DESCRIPTION	DATE

IMTIAZ AHMED, P.E.
LICENSED ENGINEER NO. 46102
STATE OF FLORIDA

SEAL

TWIGGS ACADEMY
829 SILVER BEACH ROAD
LAKE PARK, FL

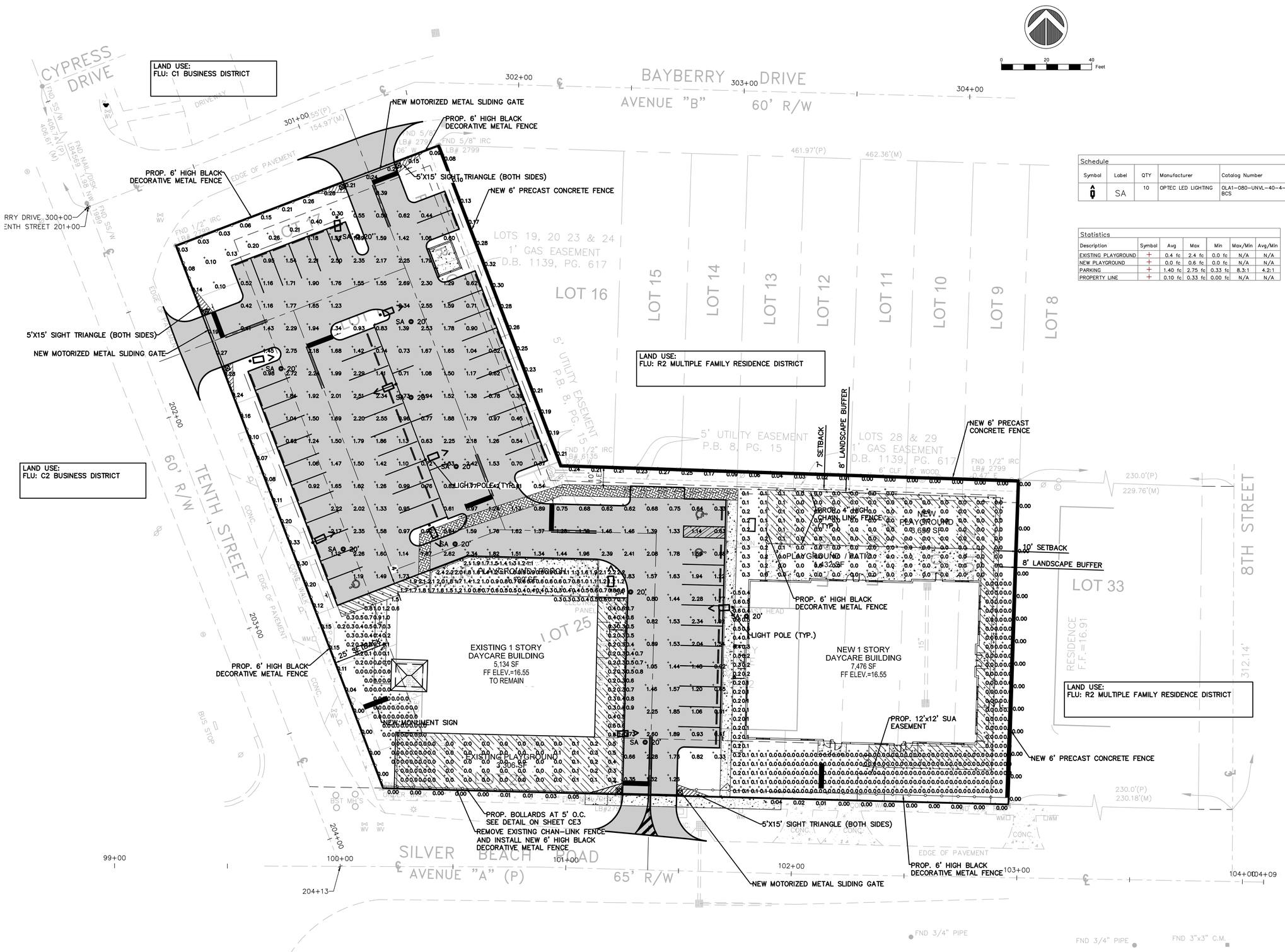
ATLANTIC ENGINEERING SERVICES, INC.
2822 WATERS EDGE CIRCLE
GREENACRES, FLORIDA 33413
PHONE – (561) 358-4140
FAX – (561) 926-2424
CERTIFICATE OF AUTHORIZATION NO.: 9390

PROJ. NO.
SCALE:

DES.	DWN.	CHK.

SHEET NUMBER
CE7b

DATE DRAWN
OCT 2025



Schedule							
Symbol	Label	QTY	Manufacturer	Catalog Number	Lumens per Lamp	LLF	Wattage
⊕	SA	10	OPTEC LED LIGHTING	OLA1-080-UNVL-40-4-BCS	4568	0.9	80

Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
EXISTING PLAYGROUND	+	0.4 fc	2.4 fc	0.0 fc	N/A	N/A
NEW PLAYGROUND	+	0.0 fc	0.6 fc	0.0 fc	N/A	N/A
PARKING	+	1.40 fc	2.75 fc	0.33 fc	8.3:1	4.2:1
PROPERTY LINE	+	0.10 fc	0.33 fc	0.00 fc	N/A	N/A

PHOTOMETRIC PLAN

REV.	DESCRIPTION	DATE
1		
2		
3		
4		
5		
6		

IMTIAZ AHMED, P.E.
LICENSED ENGINEER NO. 46102
STATE OF FLORIDA

SEAL

TWIGGS ACADEMY
829 SILVER BEACH ROAD
LAKE PARK, FL

ATLANTIC ENGINEERING SERVICES, INC.
2822 WATERS EDGE CIRCLE
GREENACRES, FLORIDA 33413
PHONE – (561) 358-4140
FAX – (561) 956-2424
CERTIFICATE OF AUTHORIZATION NO.: 9390

PROJ. NO.
SCALE:

DES.	DWN.	CHK.

SHEET NUMBER
PH1

DATE DRAWN
JULY 2025

REVO LIGHTING

SPARTAN LED AREA LIGHTER

Client:	
Order #:	
Project:	
Type:	

SPARTAN



TAA COMPLIANT

CCT & LUMEN Selectable

Options Available

FEATURES

- Wide variety of options for both power and CCT selections to meet your application requirements more easily.
- Four optical distributions to put the light where you need it most without wasted light and energy.
- Available control options for both dusk to dawn operation and Bi-level occupancy to save energy while still meeting security and safety lighting levels.
- 134,000 hours to reach a 70% lumen maintenance ensures that this long lasting fixture will operate for years maintenance free.
- Dark Sky compliant options available.

CONSTRUCTION & ELECTRICAL

- Rugged Die Cast one piece aluminum housing.
- TAA assembly options available.
- Flexible mounting options to suit your project.
- Low profile, 3G rated design reduces wind loading requirements.
- Universal 120-277VAC 50/60 Hz or 347-480VAC Input voltage options.
- 0-10V Dimming (10%-100%) Driver
- Standard Surge Protection
  - 10KV - (120-277VAC)
  - 20KV - (347-480VAC)
- Power Factor > 0.9
- THD < 20%

PERFORMANCE DATA

EFFICACY
134 - 164 Lumens per Watt (LPW)

CCT/CRI
30K, 40K, 50K, 70+ CRI

RATED LIFE
>100,000 Hours (L70)

LUMEN OUTPUT
Lumen Output Ranges from 6,500 to 60,000 Lumens

OPERATING TEMPS
-40°C to +45°C Ambient (40°C for 400W)

WARRANTY
5 year Standard
10 Year Extended
10 Year Extended with Labor

ORDERING INFORMATION

SPARTAN / ____ / ____ / ____ / ____ / ____ / ____ / ____ / ____ / ____ / ____ / ____ / ____ / ____

SERIES · SIZE · WATTAGE · CCT · OPTICAL DISTR. · VOLTAGE · DRIVER FEATURES · FINISH · PHOTOCELL · CONTROLS · MOUNTING ACCESSORIES · SHIELDING · BUY AMERICA · WARRANTY

FIXTURE SERIES	
SPARTAN	LED Area Lighter

SIZE	
16	16 Inch Nominal Length (100WS, 140WS, 180WS)
25	25 Inch Nominal Length (250WS, 300WS, 400WS)

WATTAGE	
100WS	40W, 60W, 80W, 100W Select. (6,500 - 15,800 lm)
140WS	60W, 90W, 120W, 140W Select. (9,600 - 23,000 lm)
180WS	72W, 108W,144W, 180W Select. (12,800 - 27,000 lm)
300WS	120W, 180W, 240W, 300W Select. (18,500 - 45,000 lm)
400WS	300W, 320W, 360W, 400W Select. (48,500 - 60,000 lm) Only 180 and 400 CCT Select.

CCT	
CS	70+ CRI, 30K, 40K, 50K CCT Select.

OPTICAL DISTRIBUTION	
T2	Type II Distribution (Road and Pathways)
T3	Type III Forward Throw Distribution
T4	Type IV Forward Throw Distribution (Min. Backlight)
T5	Type V General Area Distribution

VOLTAGE	
UNV	Universal 120-277VAC
UHV	Universal High 347-480VAC

DRIVER FEATURES	
10V	0-10V Dimming
12A	12V Aux Power & 0-10V Dimming

FINISH	
BZ	Bronze Powder Coat Finish (Standard)
CU	Custom Powder Coat Finish (Contact Factory)

PHOTOCELL	
PC	120-277 VAC Photocell - 3 Pin NEMA - ON/OFF
PC4	480 VAC Photocell - 3 Pin NEMA - ON/OFF
PC7	120-277 VAC Photocell - 7 Pin NEMA - ON/DIM/OFF

CONTROLS	
SRP	Sensor Ready Plug'n'Play Port
MP	Motion PIR Occ. Plug'n'Play
MPBA	Motion PIR Occ. Plug'n'Play, Bluetooth App Control
MWP	Motion Sensor, Microwave Occ., Plug'n'Play
MWPBA	Motion Sensor, Microwave Occ., Plug'n'Play, Bluetooth App Control
MDLD	Motion PIR Occ. & Daylight Harv., Direct Mount Line Voltage

MOUNTING ACCESSORIES	
APB	Arm Pole Bracket, Fits 4 In. and 5 In. Square and Round Poles
AAPB	Adjustable Arm Pole Bracket, Fits 4 IN and 5 IN Square and Round Poles (No PC)
SPF	Slip Fitter for 2 - 3/8 In Tenon
WMB	Wall Mount Bracket
YKM	Yoke Mount

SHIELDING	
BLGS	Back Light Glare Shield
FVGS	Full Visor Glare Shield
BLAS	Back Light Adjustable Control Shield (25in. future needs (pcs)

BUY AMERICA	
-	Standard Production and Assembly
TAA	Trade America Act Compliant (CoO: Cambodia)

WARRANTY	
-	5 Year Warranty (Standard)
10Y	10 Year Warranty
10YL	10 Year Warranty with Labor

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POWERED BY ESPEN

REVO LIGHTING

SPARTAN LED AREA LIGHTER

MOUNTING ACCESSORIES



APB - Arm Pole Bracket
Fits both 4 and 5 Inch Round and Square Poles simplifying project specifications.



SPF - Slip Fitter for 2 ⅜ In Tenon
Allows for angle adjustment and installation onto horizontal 2 ⅜ O.D. pole top tenon adapters.



WMB - Wall Mount Bracket
Wall mount is easy to install for direct wall mounting with ½ in conduit wiring or standard J Box mounting.

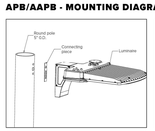


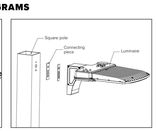
YKM - Yoke Mount
Die cast aluminum yoke mount easily adapts to many surfaces and with angle adjustment for fixture aiming.

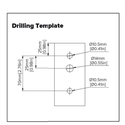


AAPB - Adjustable Arm Bracket
Versatile adjustable mounting arm fit both 4 and 5 Inch Round and Square poles great for retrofitting existing parking lot and area lights. (NO PC)

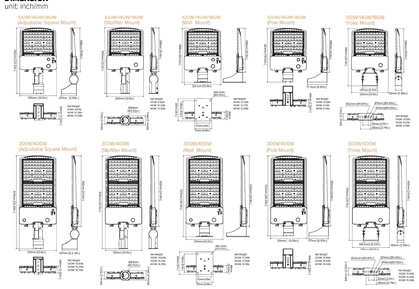
APB/AAPB - MOUNTING DIAGRAMS







DIMENSION
unit: inch/mm



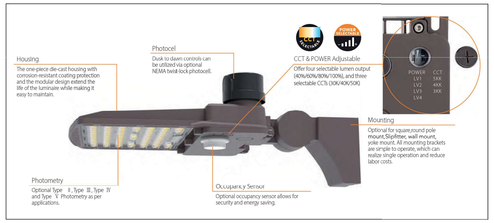
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REVO LIGHTING

SPARTAN LED AREA LIGHTER

STRUCTURAL DESIGN



ACCESSORIES(Optional)

Spartan series features a backlight control which provides reduced pixilation and increased visual comfort without compromising performance.
External Glare Shield: sold separately or as an accessory.



Back Light Glare Shield

Full Visor Glare Shield



Plug-and-Play PIR Sensor
PIR sensor:MSP
Bluetooth PIR sensor:
MSP



Plug-and-Play Microwave Sensor
Microwave sensor: MSM
Bluetooth microwave sensor:
MSM



120-277V PIR Sensor
PIR sensor:MSP
Bluetooth PIR sensor:
MSP



NEMA Photocell
3 pin NEMA Type:ARTW1 3-7I7F
7 pin NEMA Type: JL-241C



Back Light Control Shield

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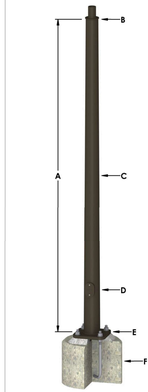
RTSP Round Tapered Steel Poles

KW

PROJECT NAME

GENERATION DATE **4/23/2026**

CATALOG NUMBER **RTSP20 - 6.5 - 11 - KZ13 - 2**



A — POLE SHAFT

The pole shaft is one or two section design and constructed of weldable grade hot rolled commercial quality carbon steel with a guaranteed minimum yield strength of 55,000 psi after fabrication. Each section is one-piece construction with a full-length longitudinal weld and is cylindrical in cross-section having a uniform taper of 0.14 inches of diameter change per foot of length.

HEIGHT	BASE OD	TOP OD	GAUGE	WEIGHT	EPA MAX LOAD 90 MPH AASHTO
20'	6.5"	3.7"	11	143 lbs	28.5

B — MOUNTING DESIGNATION

2 3/8" x 4" TENON

C — FINISH

K-KLAD Over Galvanizing - In areas where superior performance is required, K-KLAD powder coating applied over hot dip galvanized steel provides an additional surface barrier, encapsulating the cathodic protective zinc surface.

FINISH TYPE	COLOR
K-KLAD Over Galvanizing	Bronze

D — HAND HOLE

An oval reinforced gasketed handhole is located 1'-6" above base with a grounding provision located inside the ring.

WIDTH	LENGTH
4"	6.5"

E — BASE PLATE

The anchor base is fabricated from structural quality hot rolled carbon steel plate that meets or exceeds a minimum yield strength of 36,000 psi. All welds are performed in accordance with AWS D1.1, latest edition.

BOLT CIRCLE
9.5"

F — ANCHOR BOLTS

Anchor bolts are of commercial quality hot rolled carbon steel that meets or exceeds yield strength of 55,000 psi. Four properly sized anchor bolts come with all poles unless otherwise specified. Anchor bolts have the threaded end galvanized a minimum of 8 inches per ASTM A153.

WIDTH	LENGTH	HOOK
1"	36"	4"

OPTIONS

COMMENTS

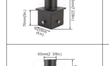
KW INDUSTRIES, INC. | 909 INDUSTRIAL BLVD. SUGAR LAND, TEXAS 77478 | 1.800.275-5944 | KWINDUSTRIES.COM

REVO LIGHTING

SPARTAN LED AREA LIGHTER

ADDITIONAL MOUNTING ACCESSORIES

POLE BRACKET — * For mounting one fixture on an existing pole



4" Square Pole Mount with 2-3/8" O.D. Tenon
No. 4SQA-BPO
Finish: Dark Bronze
USE: For use with square, non-tapered steel and aluminum poles. Furnished with four 5/8" hex head stainless steel bolts. Vertical tenon measures 2-3/8" O.D., and is made of steel tubing. Fixtures mounted to this bracket can be adjusted both vertically and horizontally.



4" Round Pole Mount with 2-3/8" O.D. Tenon
NO. 4SQA-BPO
Finish:Dark Bronze
USE: For use with round, non-tapered steel and aluminum poles. Furnished with four 5/8" hex head stainless steel bolts. Vertical tenon measures 2-3/8" O.D., and is made of steel tubing. Fixtures mounted to this bracket can be adjusted both vertically and horizontally.



5" Square Pole Mount with 2-3/8" O.D. Tenon
No. 5SQA-BPO
Finish: Dark Bronze
USE: For use with square, non-tapered steel and aluminum poles. Furnished with four 5/8" hex head stainless steel bolts. Vertical tenon measures 2-3/8" O.D., and is made of steel tubing. Fixtures mounted to this bracket can be adjusted both vertically and horizontally.



5" Round Pole Mount with 2-3/8" O.D. Tenon
NO. 5SQA-BPO
Finish:Dark Bronze
USE: For use with round, non-tapered steel and aluminum poles. Furnished with four 5/8" hex head stainless steel bolts. Vertical tenon measures 2-3/8" O.D., and is made of steel tubing. Fixtures mounted to this bracket can be adjusted both vertically and horizontally.



Pole Bracket Accessories - Angle Adjustment Adapter
NO. 3GA-ALSA
Finish: Dark Bronze
USE: Durable brackets are engineered to provide versatile mounting options. These arms are made from rugged die-cast aluminum. They allow optimal positioning of the light fixture to maximize the lighting effectiveness vertically and horizontally.



Pole Bracket accessories Tenon & Yoke Adaptor
NO. 5P-TB-S
Finish: Dark Bronze
USE: The 2 3/8" OD Tenon Mount Adapter for Yoke Fixtures is designed to mount WESTER light fixtures that are equipped with a yoke mount onto a 2-3/8" OD tenon. It may be utilized with the Wester Flood Light Series of light fixtures.



Horizontal Wall or Square or Round pole mount with 2-3/8" Tenon Bracket
NO. SQA-SP-D
Finish: Dark Bronze
USE: This tenon bracket can be installed to a wall , square pole, round pole. Vertical tenon measures 2-3/8" O.D., and is made of steel tubing. Comes with our adjustable slipfitter. Suggested 3/8" diameter bolts for mounting. Mounting holes are spaced 3-1/4" apart.



Adjustable Art Mount Kit
NO. SQASLDLR-K
Finish: Dark Bronze
Description: Adjustable pole mount kit, suitable for 4" & 5" square or round pole

WALL BRACKET — * Attaches to any flat surface — ** Includes two wall brackets



90° Wall Mount Bracket with 2-3/8" O.D. Tenon
NO. WM-SP-D
Finish: Dark Bronze
USE: This wall mount bracket with 7-5/8" tenon attaches an WESTER flood light to a linear any surface (wall, roof, or wood pole). Mounted using groove and studs & 2-3/8" O.D. tenon to mount a fixture with our adjustable slipfitter. Suggested 3/8" diameter bolts for mounting. Mounting holes are spaced 3-1/4" apart.

Mid-Pole tenon Bracket



2-3/8" OD Horizontal Tenon Mid-Pole Bracket
NO. 1GABA-2
Finish: Dark Bronze
USE:2-3/8" OD Horizontal Tenon Mid-Pole Bracket is designed to mount light fixture that is equipped with a adjustable slipfitter onto a 2-3/8" OD horizontal tenon.

Round External Mount Horizontal Tenon - To mount 2/3/4 fixtures on a existing pole



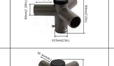
Double 90° Horizontal Tenon Adaptor
NO. 1GA-2-90-D
Finish:Dark Bronze
USE:The Bracket is designed to mount over 2-3/8" (60mm) O.D. vertical tenon. Two fixtures can be mounted to the Round External Mount Horizontal Tenon and adjusted horizontally



Triple 120° Horizontal Tenon Adaptor
NO. 1GA-3-120-D
Finish:Dark Bronze
USE:The Bracket is designed to mount over 2-3/8" (60mm) O.D. vertical tenon. Three fixtures can be mounted to the Round External Mount Horizontal Tenon and adjusted horizontally



Double 180° Horizontal Tenon Adaptor
NO. 1GA-2-180-D
Finish:Dark Bronze
USE:The Bracket is designed to mount over 2-3/8" (60mm) O.D. vertical tenon. Two fixtures can be mounted to the Round External Mount Horizontal Tenon and adjusted horizontally



Quad 90° Horizontal Tenon Adaptor
NO. 1GA-4-90-D
Finish:Dark Bronze
USE:The Bracket is designed to mount over 2-3/8" (60mm) O.D. vertical tenon. Four fixtures can be mounted to the Round External Mount Horizontal Tenon and adjusted horizontally



Triple 90° Horizontal Tenon Adaptor
NO. 1GA-3-90-D
Finish:Dark Bronze
USE:The Bracket is designed to mount over 2-3/8" (60mm) O.D. vertical tenon. Three fixtures can be mounted to the Round External Mount Horizontal Tenon and adjusted horizontally

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POWERED BY ESPEN

REVO LIGHTING

SPARTAN LED AREA LIGHTER

PERFORMANCE DATA

SPARTAN 100W

SETTING	SYSTEM WATTS	DIST.TYPE	CRI	3000K LUMENS	3000K LPW	4000K LUMENS	4000K LPW	5000K LUMENS	5000K LPW
100%	100W	2	70	14500lm	145 lm/W	15800lm	158 lm/W	15000lm	150 lm/W
		3	70	14500lm	145 lm/W	15800lm	158 lm/W	15000lm	150 lm/W
		4	70	14500lm	145 lm/W	15800lm	158 lm/W	15000lm	150 lm/W
		5	70	15100lm	151 lm/W	16000lm	160 lm/W	15600lm	156 lm/W
80%	80W	2	70	12000lm	150 lm/W	13000lm	163 lm/W	12500lm	156 lm/W
		3	70	12000lm	150 lm/W	13000lm	163 lm/W	12500lm	156 lm/W
		4	70	12000lm	150 lm/W	13000lm	163 lm/W	12500lm	156 lm/W
		5	70	12500lm	156 lm/W	13300lm	166 lm/W	12800lm	160 lm/W
60%	60W	2	70	9300lm	155 lm/W	10000lm	167 lm/W	9600lm	160 lm/W
		3	70	9300lm	155 lm/W	10000lm	167 lm/W	9600lm	160 lm/W
		4	70	9300lm	155 lm/W	10000lm	167 lm/W	9600lm	160 lm/W
		5	70	9600lm	160 lm/W	10200lm	170 lm/W	9850lm	164 lm/W
40%	40W	2	70	6400lm	160 lm/W	6800lm	170 lm/W	6560lm	164 lm/W
		3	70	6400lm	160 lm/W	6800lm	170 lm/W	6560lm	164 lm/W
		4	70	6400lm	160 lm/W	6800lm	170 lm/W	6560lm	164 lm/W
		5	70	6560lm	164 lm/W	7000lm	175 lm/W	6700lm	168 lm/W

SPARTAN 140W

SETTING	SYSTEM WATTS	DIST.TYPE	CRI	3000K LUMENS	3000K LPW	4000K LUMENS	4000K LPW	5000K LUMENS	5000K LPW
100%	140W	2	70	20000lm	147 lm/W	23000lm	164 lm/W	21000lm	150 lm/W
		3	70	20000lm	147 lm/W	23000lm	164 lm/W	21000lm	150 lm/W
		4	70	20000lm	147 lm/W	23000lm	164 lm/W	21000lm	150 lm/W
		5	70	21000lm	150 lm/W	23500lm	168 lm/W	21500lm	154 lm/W
80%	120W	2	70	18000lm	150 lm/W	20000lm	167 lm/W	18500lm	154 lm/W
		3	70	18000lm	150 lm/W	20000lm	167 lm/W	18500lm	154 lm/W
		4	70	18000lm	150 lm/W	20000lm	167 lm/W	18500lm	154 lm/W
		5	70	18500lm	154 lm/W	20500lm	171 lm/W	19000lm	158 lm/W
60%	90W	2	70	13800lm	153 lm/W	15200lm	169 lm/W	14200lm	158 lm/W
		3	70	13800lm	153 lm/W	15200lm	169 lm/W	14200lm	158 lm/W
		4	70	13800lm	153 lm/W	15200lm	169 lm/W	14200lm	158 lm/W
		5	70	14000lm	156 lm/W	15600lm	173 lm/W	14400lm	161 lm/W
40%	60W	2	70	9400lm	157 lm/W	10300lm	172 lm/W	9700lm	162 lm/W
		3	70	9400lm	157 lm/W	10300lm	172 lm/W	9700lm	162 lm/W
		4	70	9400lm	157 lm/W	10300lm	172 lm/W	9700lm	162 lm/W
		5	70	9600lm	160 lm/W	10500lm	175 lm/W	10000lm	167 lm/W

SPARTAN 180W

SETTING	SYSTEM WATTS	DIST.TYPE	CRI	3000K LUMENS	3000K LPW	4000K LUMENS	4000K LPW	5000K LUMENS	5000K LPW
100%	180W	2	70	24800lm	138 lm/W	27000lm	150 lm/W	25200lm	140 lm/W
		3	70	24800lm	138 lm/W	27000lm	150 lm/W	25200lm	140 lm/W
		4	70	24800lm	138 lm/W	27000lm	150 lm/W	25200lm	140 lm/W
		5	70	25500lm	142 lm/W	28000lm	156 lm/W	26000lm	144 lm/W
80%	144W	2	70	20200lm	140 lm/W	22000lm	153 lm/W	21600lm	143 lm/W
		3	70	20200lm	140 lm/W	22000lm	153 lm/W	21600lm	143 lm/W
		4	70	20200lm	140 lm/W	22000lm	153 lm/W	21600lm	143 lm/W
		5	70	20800lm	144 lm/W	22800lm	158 lm/W	21000lm	146 lm/W
60%	108W	2	70	15300lm	142 lm/W	16800lm	156 lm/W	15700lm	145 lm/W
		3	70	15300lm	142 lm/W	16800lm	156 lm/W	15700lm	145 lm/W
		4	70	15300lm	142 lm/W	16800lm	156 lm/W	15700lm	145 lm/W
		5	70	15800lm	146 lm/W	17300lm	160 lm/W	16200lm	150 lm/W
40%	72W	2	70	10500lm	146 lm/W	11500lm	160 lm/W	10800lm	150 lm/W
		3	70	10500lm	146 lm/W	11500lm	160 lm/W	10800lm	150 lm/W
		4	70	10500lm	146 lm/W	11500lm	160 lm/W	10800lm	150 lm/W
		5	70	10800lm	150 lm/W	11800lm	164 lm/W	11000lm	153 lm/W

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REVO LIGHTING

SPARTAN LED AREA LIGHTER

Client:	
Order #:	
Project:	
Type:	

SPARTAN



TAA COMPLIANT

CCT & LUMEN Selectable

Options Available

FEATURES

- Wide variety of options for both power and CCT selections to meet your application requirements more easily.
- Four optical distributions to put the light where you need it most without wasted light and energy.
- Available control options for both dusk to dawn operation and Bi-level occupancy to save energy while still meeting security and safety lighting levels.
- 134,000 hours to reach a 70% lumen maintenance ensures that this long lasting fixture will operate for years maintenance free.
- Dark Sky compliant options available.

CONSTRUCTION & ELECTRICAL

- Rugged Die Cast one piece aluminum housing.
- TAA assembly options available.
- Flexible mounting options to suit your project.
- Low profile, 3G rated design reduces wind loading requirements.
- Universal 120-277VAC 50/60 Hz or 347-480VAC Input voltage options.
- 0-10V Dimming (10%-100%) Driver
- Standard Surge Protection
  - 10KV - (120-277VAC)
  - 20KV - (347-480VAC)
- Power Factor > 0.9
- THD < 20%

PERFORMANCE DATA

EFFICACY
134 - 164 Lumens per Watt (LPW)

CCT/CRI
30K, 40K, 50K, 70+ CRI

RATED LIFE
>100,000 Hours (L70)

LUMEN OUTPUT
Lumen Output Ranges from 6,500 to 60,000 Lumens

OPERATING TEMPS
-40°C to +45°C Ambient (40°C for 400W)

WARRANTY
5 year Standard
10 Year Extended
10 Year Extended with Labor

ORDERING INFORMATION

SPARTAN / ____ / ____ / ____ / ____ / ____ / ____ / ____ / ____ / ____ / ____ / ____ / ____ / ____

SERIES · SIZE · WATTAGE · CCT · OPTICAL DISTR. · VOLTAGE · DRIVER FEATURES · FINISH · PHOTOCELL · CONTROLS · MOUNTING ACCESSORIES · SHIELDING · BUY AMERICA · WARRANTY

FIXTURE SERIES	
SPARTAN	LED Area Lighter

SIZE	
16	16 Inch Nominal Length (100WS, 140WS, 180WS)
25	25 Inch Nominal Length (250WS, 300WS, 400WS)

WATTAGE	
100WS	40W, 60W, 80W, 100W Select. (6,500 - 15,800 lm)
140WS	60W, 90W, 120W, 140W Select. (9,600 - 23,000 lm)
180WS	72W, 108W,144W, 180W Select. (12,800 - 27,000 lm)
300WS	120W, 180W, 240W, 300W Select. (18,500 - 45,000 lm)
400WS	300W, 320W, 360W, 400W Select. (48,500 - 60,000 lm) Only 180 and 400 CCT Select.

CCT	
CS	70+ CRI, 30K, 40K, 50K CCT Select.

OPTICAL DISTRIBUTION	
T2	Type II Distribution (Road and Pathways)
T3	Type III Forward Throw Distribution
T4	Type IV Forward Throw Distribution (Min. Backlight)
T5	Type V General Area Distribution

VOLTAGE	
UNV	Universal 120-277VAC
UHV	Universal High 347-480VAC

DRIVER FEATURES	
10V	0-10V Dimming
12A	12V Aux Power & 0-10V Dimming

FINISH	
BZ	Bronze Powder Coat Finish (Standard)
CU	Custom Powder Coat Finish (Contact Factory)

PHOTOCELL	
PC	120-277 VAC Photocell - 3 Pin NEMA - ON/OFF
PC4	480 VAC Photocell - 3 Pin NEMA - ON/OFF
PC7	120-277 VAC Photocell - 7 Pin NEMA - ON/DIM/OFF

CONTROLS	
SRP	Sensor Ready Plug'n'Play Port
MP	Motion PIR Occ. Plug'n'Play
MPBA	Motion PIR Occ. Plug'n'Play, Bluetooth App Control
MWP	Motion Sensor, Microwave Occ., Plug'n'Play
MWPBA	Motion Sensor, Microwave Occ., Plug'n'Play, Bluetooth App Control
MDLD	Motion PIR Occ. & Daylight Harv., Direct Mount Line Voltage

MOUNTING ACCESSORIES	
APB	Arm Pole Bracket, Fits 4 In. and 5 In. Square and Round Poles
AAPB	Adjustable Arm Pole Bracket, Fits 4 IN and 5 IN Square and Round Poles (No PC)
SPF	Slip Fitter for 2 - 3/8 In Tenon
WMB	Wall Mount Bracket
YKM	Yoke Mount

SHIELDING	
BLGS	Back Light Glare Shield
FVGS	Full Visor Glare Shield
BLAS	Back Light Adjustable Control Shield (25in. future needs (pcs)

BUY AMERICA	
-	Standard Production and Assembly
TAA	Trade America Act Compliant (CoO: Cambodia)

WARRANTY	
-	5 Year Warranty (Standard)
10Y	10 Year Warranty
10YL	10 Year Warranty with Labor

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REVO LIGHTING

SPARTAN LED AREA LIGHTER

BUG #5000K

SYSTEM WATTS	VOLTAGE	DIST.TYPE	B	U	G
100W	120-277V/347-480V	2	3	0	3
		3	3	0	3
		4	3	0	2
		5	4	0	2
140W	120-277V/347-480V	2	3	0	3
		3	3	0	3
		4	3	0	3
		5	4	0	2
180W	120-277V/347-480V	2	4	0	3
		3	3	0	3
		4	3	0	3
		5	4	0	2
300W	120-277V/347-480V	2	5	0	4
		3	4	0	4
		4	4	0	4
		5	5	0	4
400W	120-277V/347-480V	2	5	0	4
		3	5	0	5
		4	5	0	5
		5	5	0	4

ELECTRICAL DATA

Number Of Drivers	Driver Current (mA)	Nominal Power (W)	INPUT VOLTAGE (V)	CURRENT (Amps)
1	850	100	120	0.83
		100	208	0.48
		100	240	0.42
		100	277	0.36
	3430	100	347	0.29
		100	480	0.21
1	1200	140	120	1.17
		140	208	0.67
		140	240	0.58
		140	277	0.51
		140	347	0.40
		140	480	0.29
1	960	180	120	1.50
		180	208	0.87
		180	240	0.75
		180	277	0.65
		180	347	0.52
		180	480	0.38
1	1500	300	120	2.50
		300	208	1.44
		300	240	1.29
		300	277	1.08
		300	347	0.86
		300	480	0.63
1	1460	400	120	3.33
		400	208	1.92
		400	240	1.67
		400	277	1.44
		400	347	1.15
		400	480	0.83

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PHOTOMETRIC DETAILS

DATE	DESCRIPTION	REV.

IMTIAZ AHMED, P.E.
LICENSED ENGINEER NO. 46102
STATE OF FLORIDA

SEAL

TWIGGS ACADEMY
829 SILVER BEACH ROAD
LAKE PARK, FL

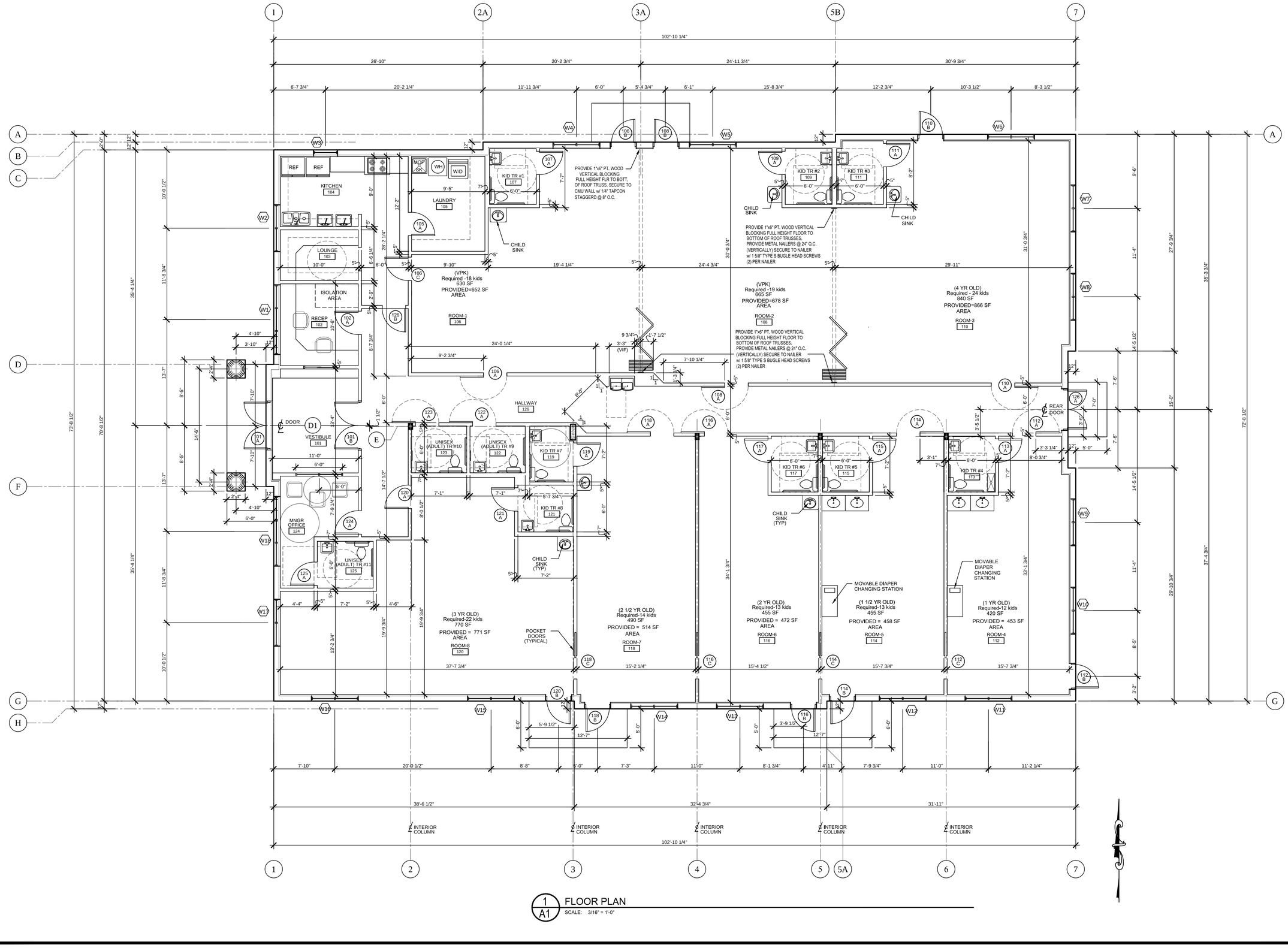
ATLANTIC ENGINEERING SERVICES, INC.
2822 WATERS EDGE CIRCLE
GREENACRES, FLORIDA 33413
PHONE – (561) 358-4140
FAX – (561) 828-8274
CERTIFICATE OF AUTHORIZATION NO.: 9390

PROJ. NO.
SCALE:

DES.	DWN.	CHK.

SHEET NUMBER
PH2

DATE DRAWN
JULY 2025



1 A1 FLOOR PLAN
SCALE: 3/16" = 1'-0"

REV.	DESCRIPTION	DATE
1		
2		
3		
4		
5		
6		

IMTIAZ AHMED, P.E.
LICENSED ENGINEER NO. 46102
STATE OF FLORIDA

SEAL

TWIGGS ACADEMY
101 10th STREET
LAKE PARK, 33403

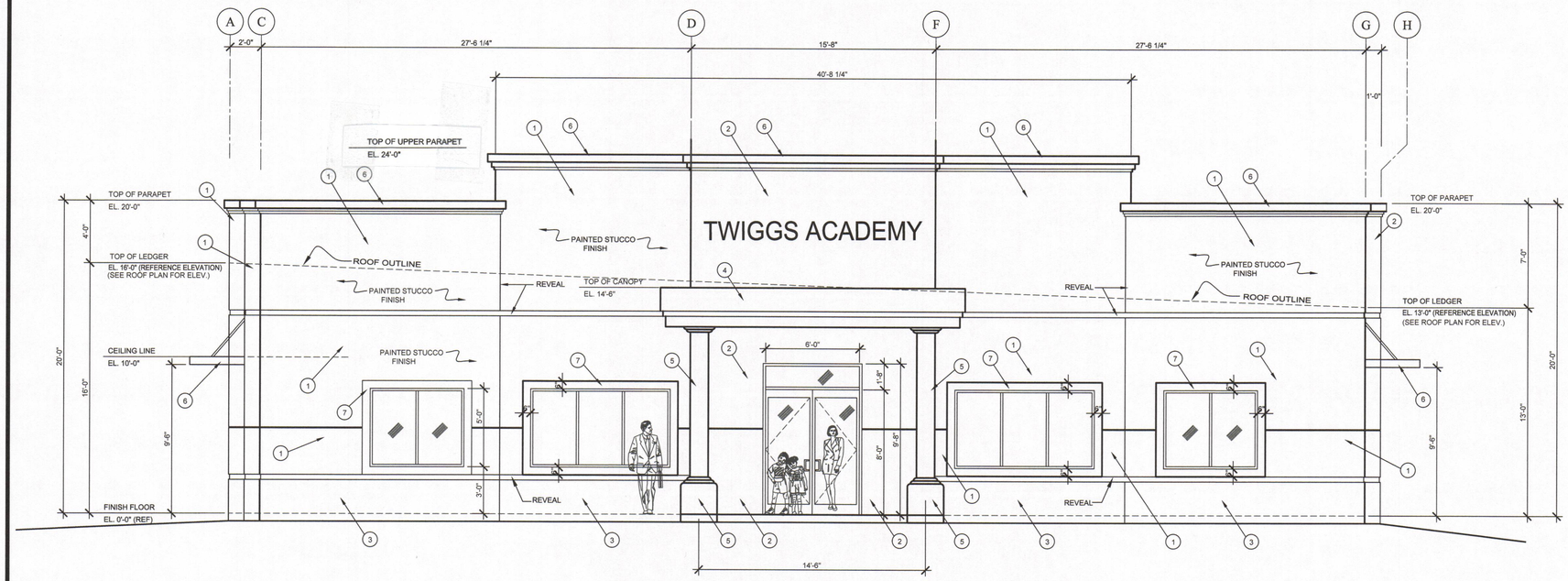
ATLANTIC ENGINEERING SERVICES, INC.
2822 WATERS EDGE CIRCLE
GREENACRES, FLORIDA 33413
PHONE – (561) 358-4140
FAX – (561) 966-9242
CERTIFICATE OF AUTHORIZATION NO.: 9390

PROJ. NO. 0000
SCALE: AS SHOWN

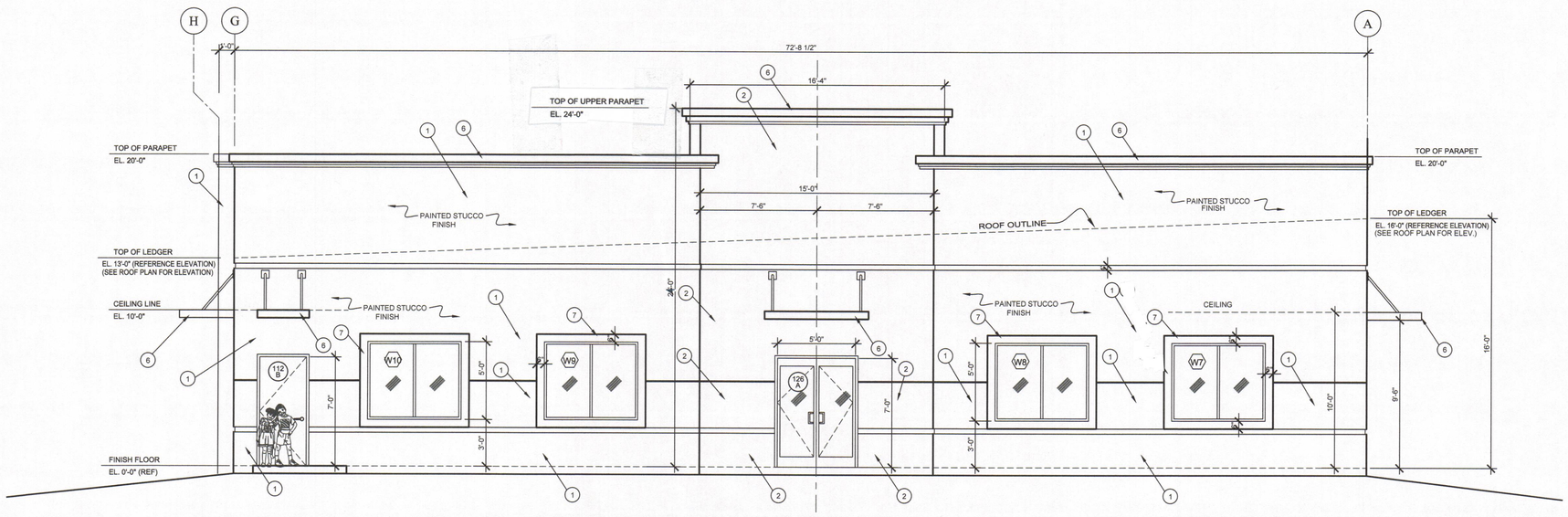
DES.	DWN.	CHK.
	ddt	

SHEET NUMBER
A1
11/19/2025
DATE DRAWN

FLOOR PLAN



1 / A2 FRONT ELEVATION (WEST)
SCALE: 1/4" = 1'-0"



2 / A2 REAR ELEVATION (EAST)
SCALE: 1/4" = 1'-0"

COLOR LEGEND

1	SW 1666 VENETIAN YELLOW	70%
2	SW 6655 ADVENTURE ORANGE	22%
3	SW 6825 IZMIR PURPLE	9%
4	SW 7076 CYBERSPACE	5%
5	SW 7660 EARL GRAY	6%
6	SW 6258 TRICORN BLACK	5%
7	SW 7006 EXTRA WHITE	3.5%

COLOR LEGEND

1	SW 1666 VENETIAN YELLOW	76%
2	SW 6655 ADVENTURE ORANGE	24%
3		0%
4		0%
5		0%
6	SW 6258 TRICORN BLACK	6%
7	SW 7006 EXTRA WHITE	3%

REV.	DESCRIPTION	DATE
1		
2		
3		
4		
5		
6		

IMTIAZ AHMED, P.E.
LICENSED ENGINEER NO. 46102
STATE OF FLORIDA

SEAL

TWIGGS ACADEMY
101 10th STREET
LAKE PARK, 33403

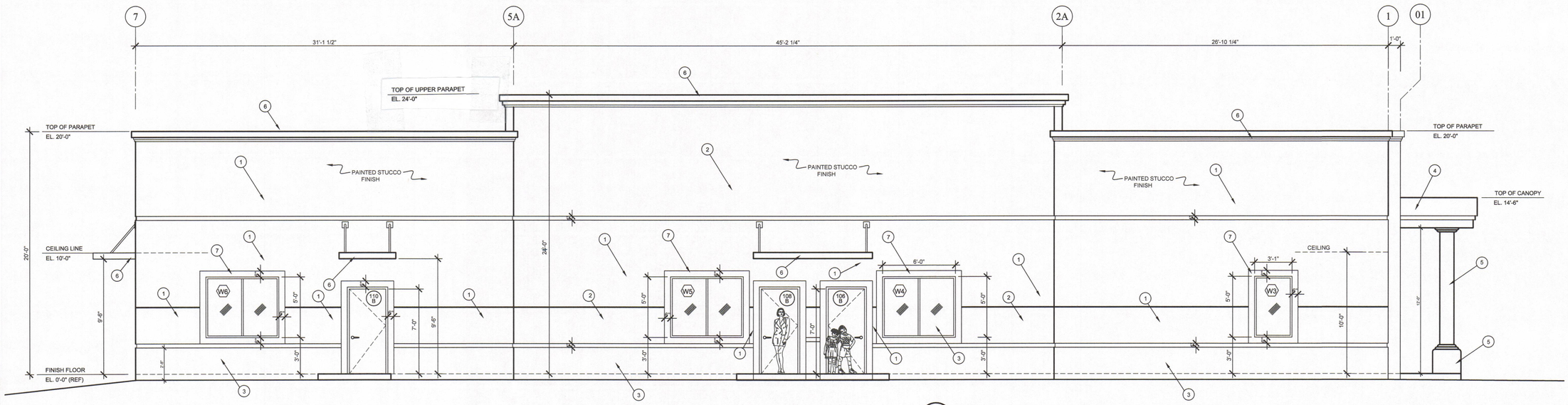
ATLANTIC ENGINEERING SERVICES, INC.
2822 WATERS EDGE CIRCLE
GREENACRES, FLORIDA 33413
PHONE – (561) 358-4140
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CERTIFICATE OF AUTHORIZATION NO.: 9390

PROJ. NO. 0000
SCALE: AS SHOWN

DES.	DWN.	CHK.
	ddt	

SHEET NUMBER
A2
11/19/2025
DATE DRAWN

FRONT and REAR ELEVATIONS



1 A3 SIDE ELEVATION (NORTH)
SCALE: 1/4" = 1'-0"

COLOR LEGEND

1	SW 1666 VENETIAN YELLOW	72%
2	SW 6655 ADVENTURE ORANGE	18%
3	SW 6825 IZMIR PURPLE	9.5%
4		0%
5		0%
6	SW 6258 TRICORN BLACK	5%
7	SW 7006 EXTRA WHITE	2%



2 A3 SIDE ELEVATION (SOUTH)
SCALE: 1/4" = 1'-0"

COLOR LEGEND

1	SW 1666 VENETIAN YELLOW	78%
2	SW 6655 ADVENTURE ORANGE	16%
3	SW 6825 IZMIR PURPLE	9.4%
4		0%
5		0%
6	SW 6258 TRICORN BLACK	5%
7	SW 7006 EXTRA WHITE	2%

SIDE ELEVATIONS

REV.	DESCRIPTION	DATE
1		
2		
3		
4		
5		
6		

IMTIAZ AHMED, P.E.
LICENSED ENGINEER NO. 46102
STATE OF FLORIDA

SEAL

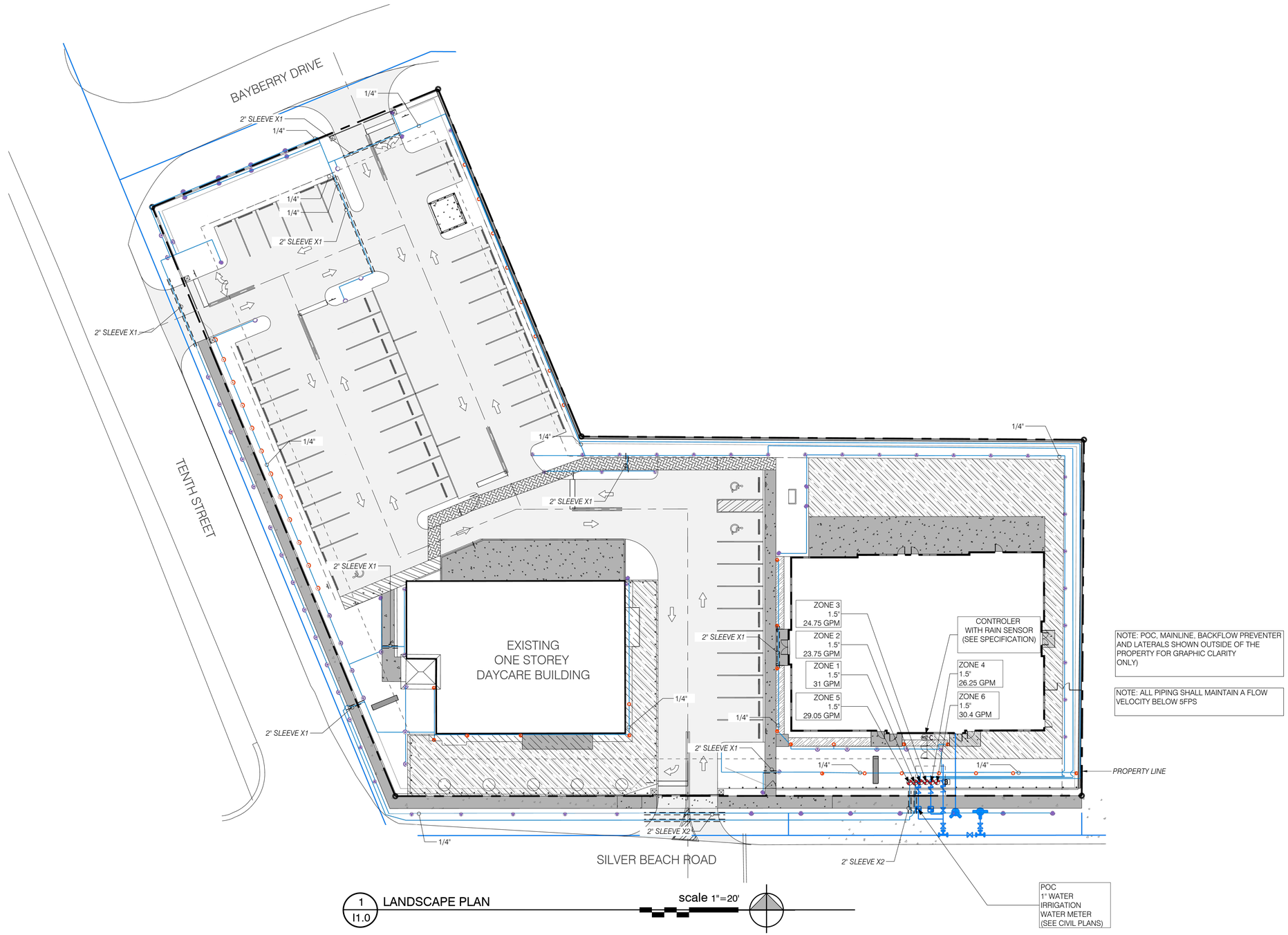
TWIGGS ACADEMY
101 10th STREET
LAKE PARK, 33403

ATLANTIC ENGINEERING SERVICES, INC.
2822 WATERS EDGE CIRCLE
GREENACRES, FLORIDA, 33413
PHONE – (561) 358-4140
FAX – (561) 966-9242
CERTIFICATE OF AUTHORIZATION NO.: 9390

PROJ. NO. 0000
SCALE: AS SHOWN

DES.	DWN.	CHK.
	ddt	

SHEET NUMBER
A3
11/19/2025
DATE DRAWN



1 / I1.0 LANDSCAPE PLAN scale 1"=20'

THIS SYSTEM HAS BEEN DESIGNED AND SHALL BE INSTALLED IN ACCORDANCE WITH ALL THE REQUIREMENTS OF APPENDIX F, CONSTRUCTION AND BUILDING CODES FOR TURF AND LANDSCAPE IRRIGATION SYSTEMS, OF THE FLORIDA BUILDING CODE.

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Greene Group
Landscape Architecture

Champion Blvd Suite G11-203
Boca Raton FL 33496
561-799-9945
www.GGRNE.COM

ATLANTIC ENGINEERING SERVICES, INC.
2822 WATERS EDGE CIRCLE
GREENACRES, FLORIDA 33413
PHONE – (561) 358-4140
FAX – (561) 966-9242
CERTIFICATE OF AUTHORIZATION NO.: 9390

REGISTERED LANDSCAPE ARCHITECT MARK R KEISER
LA 6666892
STATE OF FLORIDA
05/12/26

Twiggs Academy

829 Silver Beach Road
Lake Park, FL 33403

Date Created:
05202025

Document Phase:
Permitting

	date	remark
	06/20/25	ISSUED FOR CLIENT REVIEW
	07/23/25	ISSUED FOR REVIEW
	12/15/25	UPDATED AS PER TOWN OF LAKE PARK REVIEW
	03/10/26	REVISED PER NEW SITE PLAN
	04/21/26	REVISED PER NEW SITE PLAN
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PROJECT NO. 325LKP

IRRIGATION PLAN

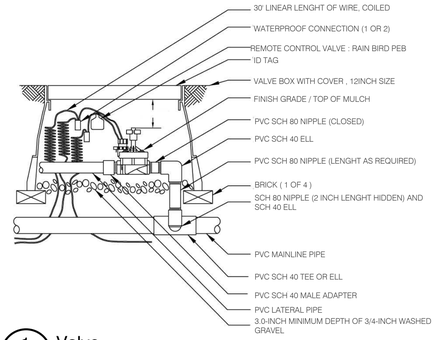
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IRRIGATION MATERIALS SCHEDULE

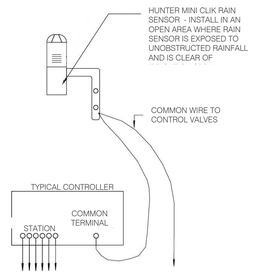
SYMBOL	DESCRIPTION	SPECIFICATION	
POC	POINT OF CONNECTION	PUMP 1.5 HP	
B	BACKFLOW PREVENTER	Watts 007 1"	
	REMOTE CONTROL VALVE	Plastic Electric Remote Control Valves,	
		Globe Configuration with NPT Threaded Inlet/Outlet	
C	CONTROLLER	Hunter X CORE	
RS	RAIN SENSOR	Mini-clik	
----------	MAINLINE	Sched 40 PVC Sleeve	
————	LATERAL LINE	Sched 40 PVC Sleeve	
==========	SLEEVE	Sched 40 PVC Sleeve	
	SHRUB 12" Pop-Up	SPECIFICATION	PATTERN
	S_SS	Hunter PROS-06 Shrub Spray 12"	SIDE SPRAY HALF
	S_10H	S_10Q	10' R HALF
	S_10Q	S_10Q	10' R QUARTER
	S_CS	Hunter PROS-06 Shrub Spray 12"	CENTER STRIP 30X5
	TURF 6" Pop-Up	SPECIFICATION	PATTERN
	T_15H	Hunter PROS-06 Turf Spray 6"	15'R HALF
	T_15Q	Hunter PROS-06 Turf Spray 6"	15'R QUARTER
	T_8H	Hunter PROS-06 Turf Spray 6"	8' R HALF
	T_10Q	Hunter PROS-06 Turf Spray 6"	10'R QUARTER
	T_12H	Hunter PROS-06 Turf Spray 6"	12'R 180 DEG
	T_12Q	Hunter PROS-06 Turf Spray 6"	12'R QUARTER
	T_CS	Hunter PROS-06 Turf Spray 6"	CENTER STRIP 30X5

IRRIGATION NOTES

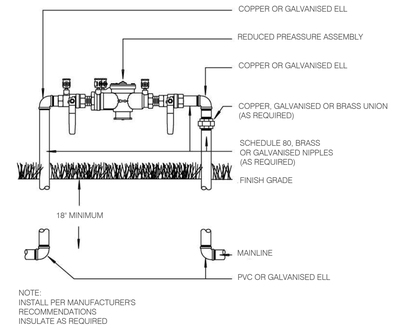
1. The Irrigation Contractor shall be responsible for contacting the utility companies to verify locations off all underground facilities.
2. The Irrigation Contractor shall visit the site prior to bidding to verify all existing equipment and bring any discrepancies to the irrigation designers' attention prior to bidding.
3. The Irrigation Contractor is responsible for installing a fully operational system in accordance with the all the various manufacturer's specifications and site-specific conditions.
   The Irrigation Contractor shall ensure that the existing and the new systems functions optimally.
4. The Irrigation Contractor shall adhere to the Florida Building Code (Appendix F).
5. The Irrigation Plans are schematic and drawn for graphic clarity. All piping below pavement shall be sleeved. The layout for the irrigation system shall be coordinated with the Landscape Plan.
6. Sprinkler locations adjacent to pavement, structures, fences, etc. shall be offset as follows: 6" min. for pop-ups, 12" for shrub risers. All sprinkler heads to be set perpendicular to the finished grade.
7. The Irrigation Contractor shall familiarize himself with all grade differences, location of walls, structures and utilities.
8. The Irrigation Contractor shall repair and replace all items damaged by his work. The Contractor shall coordinate his/her work with all other contractors for the location of sleeves through walls and under roadways and walks. The Irrigation Contractor shall not willingly install any equipment as shown on the drawings when it is obvious in the field that unknown obstructions, grade differences or differences in area dimensions exist that may not have been considered in the design of the system. Any such discrepancies should be brought to the attention on the owner's representative. In the event of this notification not performed, the irrigation contractor shall assume full responsibility for any revisions necessary.
9. All sprinkler equipment not otherwise detailed shall be installed as per the manufacturer's recommendations and specifications.
10. The Irrigation Contractor shall install check valves on all heads in areas where finished grade exceeds 4:1, where post valve shut-off draining of the irrigation head occurs or as directed by the owner's representative. The Irrigation Contractor to provide 1800 PCS (pressure compensating screens) as necessary to reduce or eliminate overspray onto streets, walks or other areas as directed by the owner's representative.
11. Piping in narrow planting spaces shall be offset to one side to allow for tree and shrub planting.
12. All piping shall be sized to maintain flow velocity below 5 FPS.
13. All sleeving to be SCH40 PVC, sizes indicated on plan. Sleeves shall always be 2X larger than the pipe. Refer see sleeving detail on the Specification sheet.
14. The Irrigation controller shall be installed in accordance with local codes and manufacturers recommendations. Proper surge protection and grounding equipment shall be provided. A rain sensor shall be provided and installed per the manufacturer's specifications. to over-ride the system. See plan for specification.
15. Control wires shall be UL approved PE control wire. Use 14 gage control wire and 12 gage ground wire. Wire shall be bundled and attached to the main line in the trench or through wire sleeves at pavement crossings 24" below final grade. All spices shall be made with waterproof direct burial spice kits and contained in valve boxes. Two extra control wires shall be installed to the furthest valves in each direction from the controller.
16. Valve locations are schematic only and will be adjusted for site conditions. Each valve shall be installed in an Amtek or Carson valve box. The flow adjustment feature will be used to balance the pressure throughout the system.
17. All glue joints shall be cleaned, sanded and treated with a colored high etch primer and joined using a solvent conforming with ASTM D2564
18. As-built drawings shall be prepared by the contractor and given to the owner prior to final acceptance. Watering time per station shall be determined in the field and per local requirements. The Irrigation Contractor to request a system hand-over and wet check to be performed with the owner's representative to demonstrate operational functionality prior to completion.



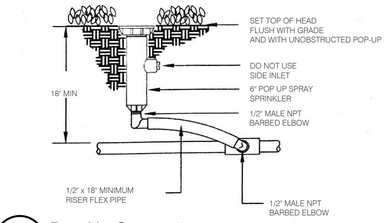
1 I1.1 Valve NTS



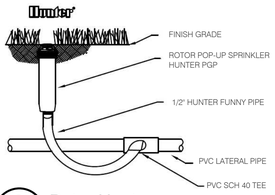
4 I1.1 Rain Sensor NTS



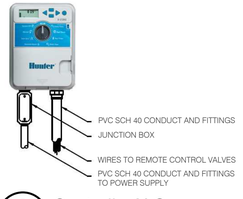
2 I1.1 Backflow Preventer NTS



5 I1.0 Pop Up Spray 6" NTS



3 I1.1 Rotor Hunter NTS



6 I1.1 Controller X-Core NTS

DEFTH OF COVERAGE PER FLORIDA BUILDING CODE AMENDED APENDIX F

FOR NONTRAFFIC AND NONCULTIVATED AREAS

PIPE DIAMETER	MINIMUM DEPTH OF COVER
1/2" THROUGH 1 1/4"	6" - 12"
1 1/2" THROUGH 2"	12" - 18"
2 1/2" THROUGH 3"	18" - 24"
6" AND LARGER	24" - 36"

FOR VEHICLE TRAFFIC AREAS

PIPE DIAMETER	MINIMUM DEPTH OF COVER
1/2" THROUGH 2 1/2"	18" - 24"
3" THROUGH 5"	24" - 30"
6" AND LARGER	30" - 36"

THIS SYSTEM HAS BEEN DESIGNED AND SHALL BE INSTALLED IN ACCORDANCE WITH ALL THE REQUIREMENTS OF APPENDIX F, CONSTRUCTION AND BUILDING CODES FOR TURF AND LANDSCAPE IRRIGATION SYSTEMS, OF THE FLORIDA BUILDING CODE.

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PHONE – (561) 358-4140
FAX – (561) 966-9242
CERTIFICATE OF AUTHORIZATION NO.: 9390

REGISTERED LANDSCAPE ARCHITECT MARK R KESSEL LA 6666892 STATE OF FLORIDA 05/12/26

Twiggs Academy
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IRRIGATION DETAILS & QUANTITIES

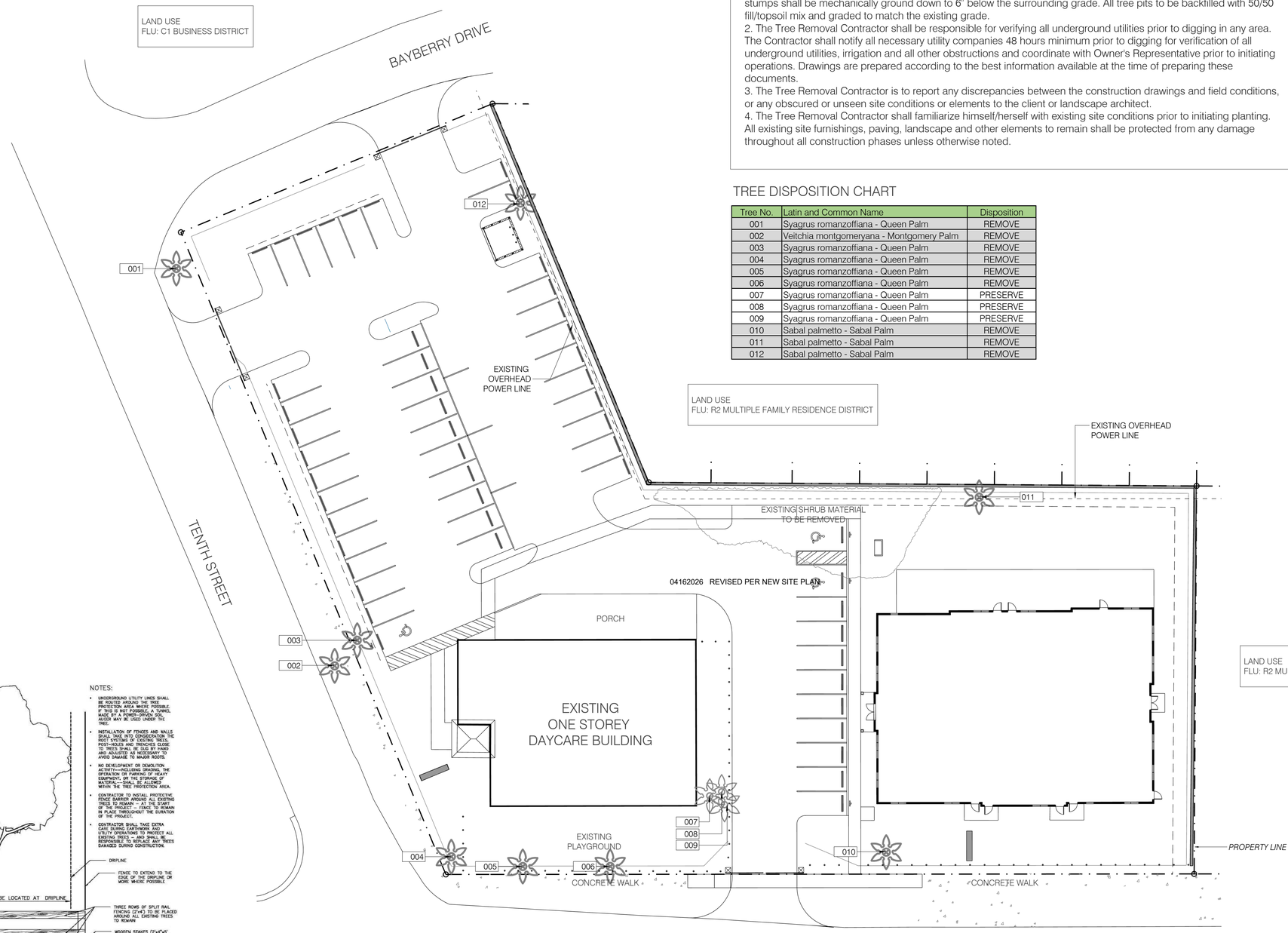
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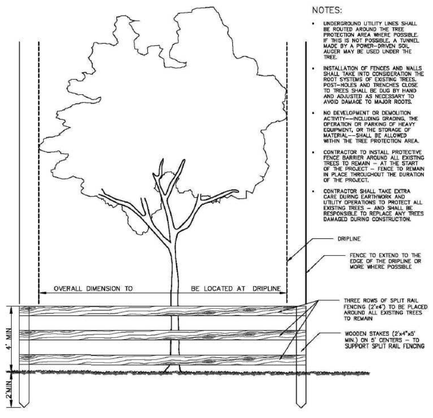
GENERAL NOTES - TREE REMOVAL

1. All trees and palms designated for removal to be removed from site prior to landscape installation. All tree and palm stumps shall be mechanically ground down to 6" below the surrounding grade. All tree pits to be backfilled with 50/50 fill/topsoil mix and graded to match the existing grade.
2. The Tree Removal Contractor shall be responsible for verifying all underground utilities prior to digging in any area. The Contractor shall notify all necessary utility companies 48 hours minimum prior to digging for verification of all underground utilities, irrigation and all other obstructions and coordinate with Owner's Representative prior to initiating operations. Drawings are prepared according to the best information available at the time of preparing these documents.
3. The Tree Removal Contractor is to report any discrepancies between the construction drawings and field conditions, or any obscured or unseen site conditions or elements to the client or landscape architect.
4. The Tree Removal Contractor shall familiarize himself/herself with existing site conditions prior to initiating planting. All existing site furnishings, paving, landscape and other elements to remain shall be protected from any damage throughout all construction phases unless otherwise noted.

TREE DISPOSITION CHART

Tree No.	Latin and Common Name	Disposition
001	Syagrus romanzoffiana - Queen Palm	REMOVE
002	Veitchia montgomeryana - Montgomery Palm	REMOVE
003	Syagrus romanzoffiana - Queen Palm	REMOVE
004	Syagrus romanzoffiana - Queen Palm	REMOVE
005	Syagrus romanzoffiana - Queen Palm	REMOVE
006	Syagrus romanzoffiana - Queen Palm	REMOVE
007	Syagrus romanzoffiana - Queen Palm	PRESERVE
008	Syagrus romanzoffiana - Queen Palm	PRESERVE
009	Syagrus romanzoffiana - Queen Palm	PRESERVE
010	Sabal palmetto - Sabal Palm	REMOVE
011	Sabal palmetto - Sabal Palm	REMOVE
012	Sabal palmetto - Sabal Palm	REMOVE





NOTE: BARRIER TO FORM CONTINUOUS CIRCLE AROUND THE TREE OR GROUP OF TREES. SEE LANDSCAPE PLAN FOR LOCATION OF TREES TO REMAIN.

TREE PROTECTION DETAIL

1 / L0.0 **TREE DISPOSITION PLAN** scale 1"=20'

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CERTIFICATE OF AUTHORIZATION NO.: 9390

REGISTERED LANDSCAPE ARCHITECT MARK R KEISER
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STATE OF FLORIDA

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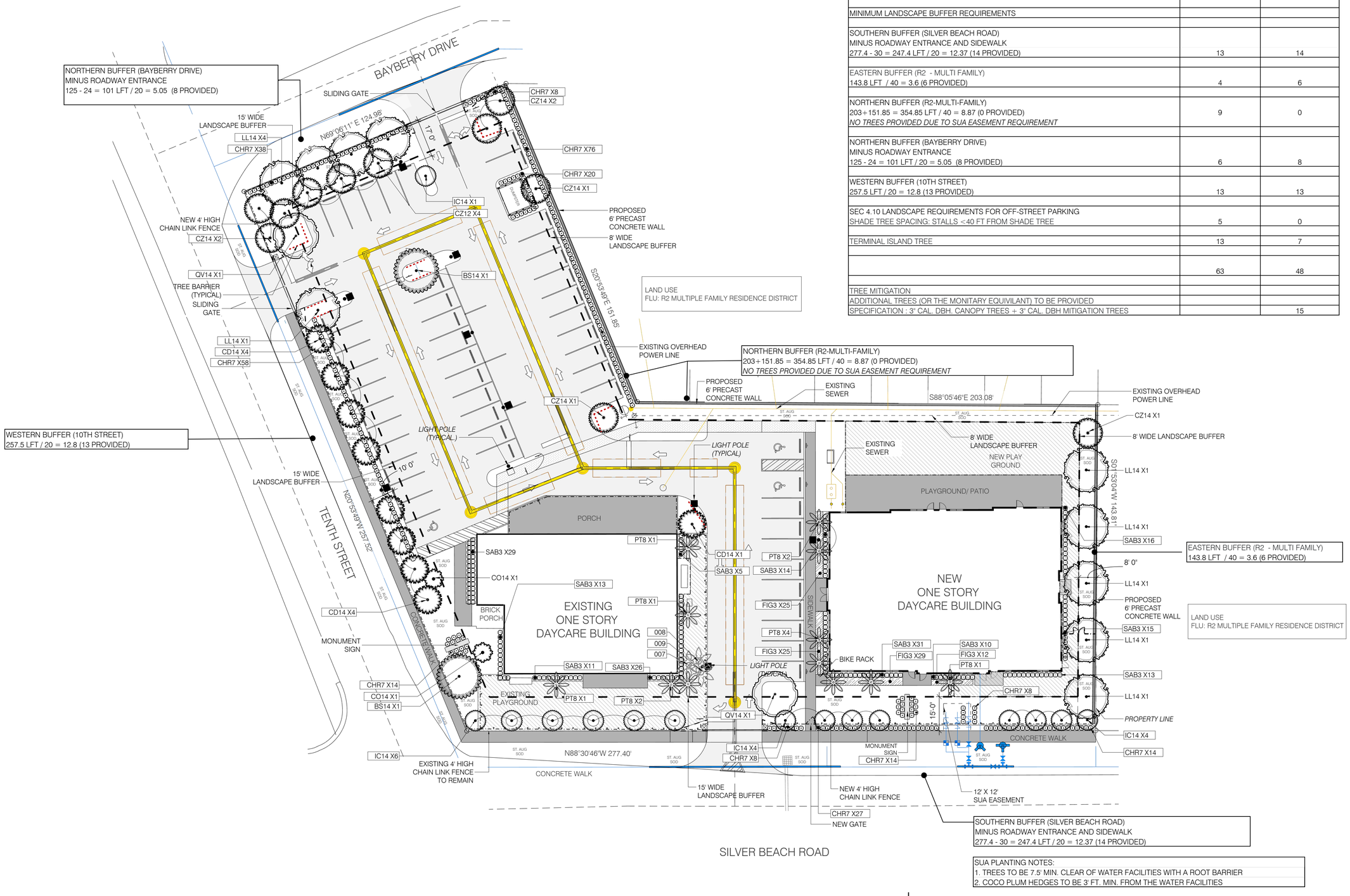
PROJECT NO. 325LKP

TREE DISPOSITION PLAN

L0 .0

LAND DEVELOPMENT CODE

TOWN OF LAKE PARK LANDSCAPE REQUIREMENTS	TREES REQUIRED	TREES PROVIDED
MINIMUM LANDSCAPE BUFFER REQUIREMENTS		
SOUTHERN BUFFER (SILVER BEACH ROAD) MINUS ROADWAY ENTRANCE AND SIDEWALK 277.4 - 30 = 247.4 LFT / 20 = 12.37 (14 PROVIDED)	13	14
EASTERN BUFFER (R2 - MULTI FAMILY) 143.8 LFT / 40 = 3.6 (6 PROVIDED)	4	6
NORTHERN BUFFER (R2-MULTI-FAMILY) 203+151.85 = 354.85 LFT / 40 = 8.87 (0 PROVIDED) *NO TREES PROVIDED DUE TO SUA EASEMENT REQUIREMENT*	9	0
NORTHERN BUFFER (BAYBERRY DRIVE) MINUS ROADWAY ENTRANCE 125 - 24 = 101 LFT / 20 = 5.05 (8 PROVIDED)	6	8
WESTERN BUFFER (10TH STREET) 257.5 LFT / 20 = 12.8 (13 PROVIDED)	13	13
SEC 4.10 LANDSCAPE REQUIREMENTS FOR OFF-STREET PARKING SHADE TREE SPACING: STALLS <40 FT FROM SHADE TREE	5	0
TERMINAL ISLAND TREE	13	7
	63	48
TREE MITIGATION		
ADDITIONAL TREES (OR THE MONITARY EQUIVILANT) TO BE PROVIDED		
SPECIFICATION : 3" CAL. DBH. CANOPY TREES + 3" CAL. DBH MITIGATION TREES		15



1 / L1.0 LANDSCAPE PLAN

scale 1"=20'

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MARK R KEEFE
LA 6666892
STATE OF FLORIDA

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LANDSCAPE PLAN

L1 .0

LANDSCAPE MATERIAL SCHEDULE

SYMBOL	QTY		BOTANIC AND COMMON NAME	SPECIFICATION	NATIVE	NOTES
TREES						
BS14	2		Bursera simaruba - Gumbo Limbo	14' OA. HT. 3" CAL. DBH.	FL NATIVE	
CD14	9		Coccoloba diversifolia- Pigeon plum	14' OA. MIN. 3" CAL. DBH.	FL NATIVE	
CO14	2		Chrysophyllum oliviforme - Satin Leaf Tree	14' OA. MIN. 3" CAL. DBH.	FL NATIVE	
CZ14	11		Conucarpus erectus 'sericea' - Silver Buttonwood	12' OA. HT. 3" CAL. DBH	FL NATIVE	
IC14	15		Ilex x attuanata 'Eagleston' - Eagleston Holly	14' OA. HT. 3" CAL. DBH.	FL NATIVE	
LL14	10		Lysiloma latisiliquum - Wild Tamarind	14' OA. HT. 3" CAL. DBH.	FL NATIVE	
QV14	2		Quercus virginiana - Live Oak	14' OA. HT. 3" CAL. DBH.	FL NATIVE	
PALMS						
PT8	12		Ptychosperma elegans - Solitaire Palm	8' CT SINGLE TRUNK		
SHRUB						
CHR7	295		Chrysobalanus icaco 'Red Tip' - Red Tip Coco Plum Hedge	30" MIN. OA. 24" O.C	FL NATIVE	
SAB3	183		Schleffera aboricola - Green Aboricola Hedge	24" SPRD. 24" O.C	HEDGE	
GROUNDCOVER						
FIG3	91		Ficus microcarpa 'Green Island' - Ficus 'Green Island'	12" HT., 24" O.C		
SOD						
	5,000	SFT		ST. AUGUSTINE 'FLORATAM'	*EST. QUANTITY	

LANDSCAPE - GENERAL NOTES

1. All existing trees to remain and all relocated plant material shall be protected from damage or injury and shall be barricaded or otherwise suitably flagged and protected from damage.

2. The Contractor shall be responsible for verifying all underground utilities prior to digging in any area. The Contractor shall notify all necessary utility companies 48 hours minimum prior to digging for verification of all underground utilities, irrigation and all other obstructions and coordinate with Owner's Representative prior to initiating operations. Drawings are prepared according to the best information available at the time of preparing these documents.

3. All plant material is to be Florida Number 1 or better according to the latest version of the Florida Department of Agriculture's Grades and Standards for Nursery Plants.

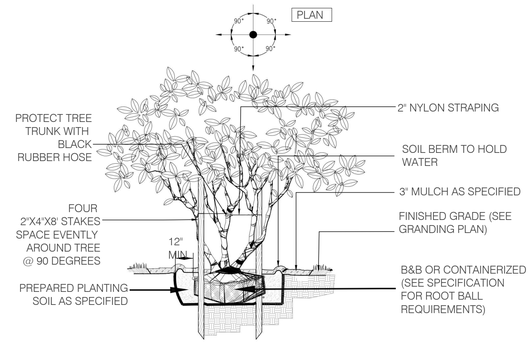
4. Sod is to be grade "A" weed free. All sodded areas are to be provided with St. Augustine " Floratam" solid sod. All sod is to be laid level, tight, and even along planting beds.

5. All plants are to be top dressed with a minimum 3" layer of Melaleuca mulch or equal.

6. All landscape areas are to be provided with automatic sprinkler system which provide 100% coverage, and 50% overlap

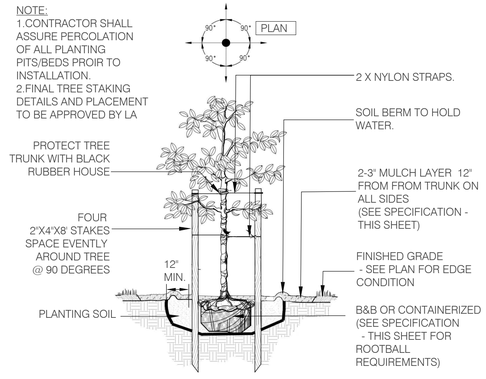
7. All landscape material is to be Florida #1 grade or better.

8. All asphalt, road rock, and other non-natural materials shall be removed and refilled to the undisturbed lot level with clean soil before any planting or installation of the required drought-resistant sod or ground cover.

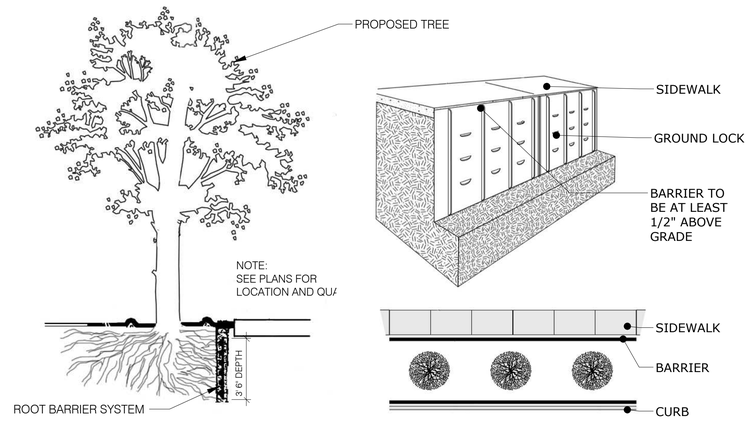


2 L1.1 Multi-Trunk Tree (Typical)

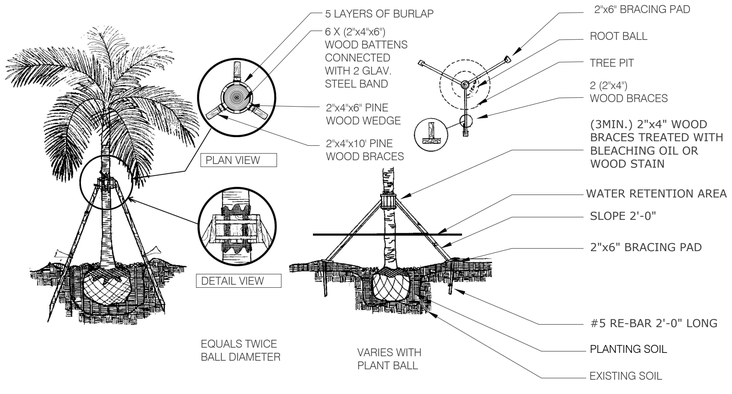
NOTE:
1.CONTRACTOR SHALL ASSURE PERCOLATION OF ALL PLANTING PITS/BEDS PROIR TO INSTALLATION.
2.FINAL TREE STAKING DETAILS AND PLACEMENT TO BE APPROVED BY LA



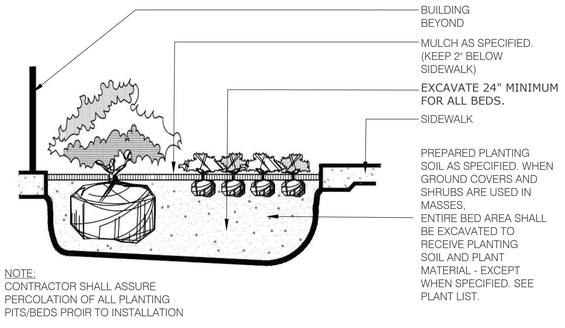
4 L1.1 Tree Planting Detail (Typical)
NTS



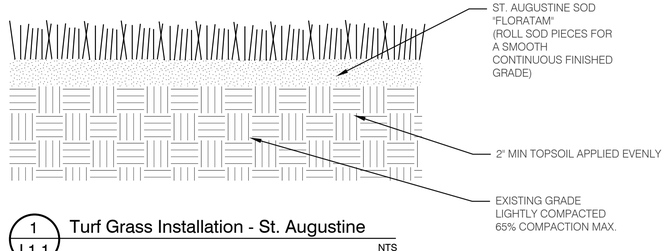
6 L1.1 Root Barrier Detail - Proposed Tre
NTS



3 L1.1 Palm Planting Detail (Typical)
NTS



5 L1.1 Shrub & Groundcover Planting Detail (Typical)
NTS



1 L1.1 Turf Grass Installation - St. Augustine
NTS

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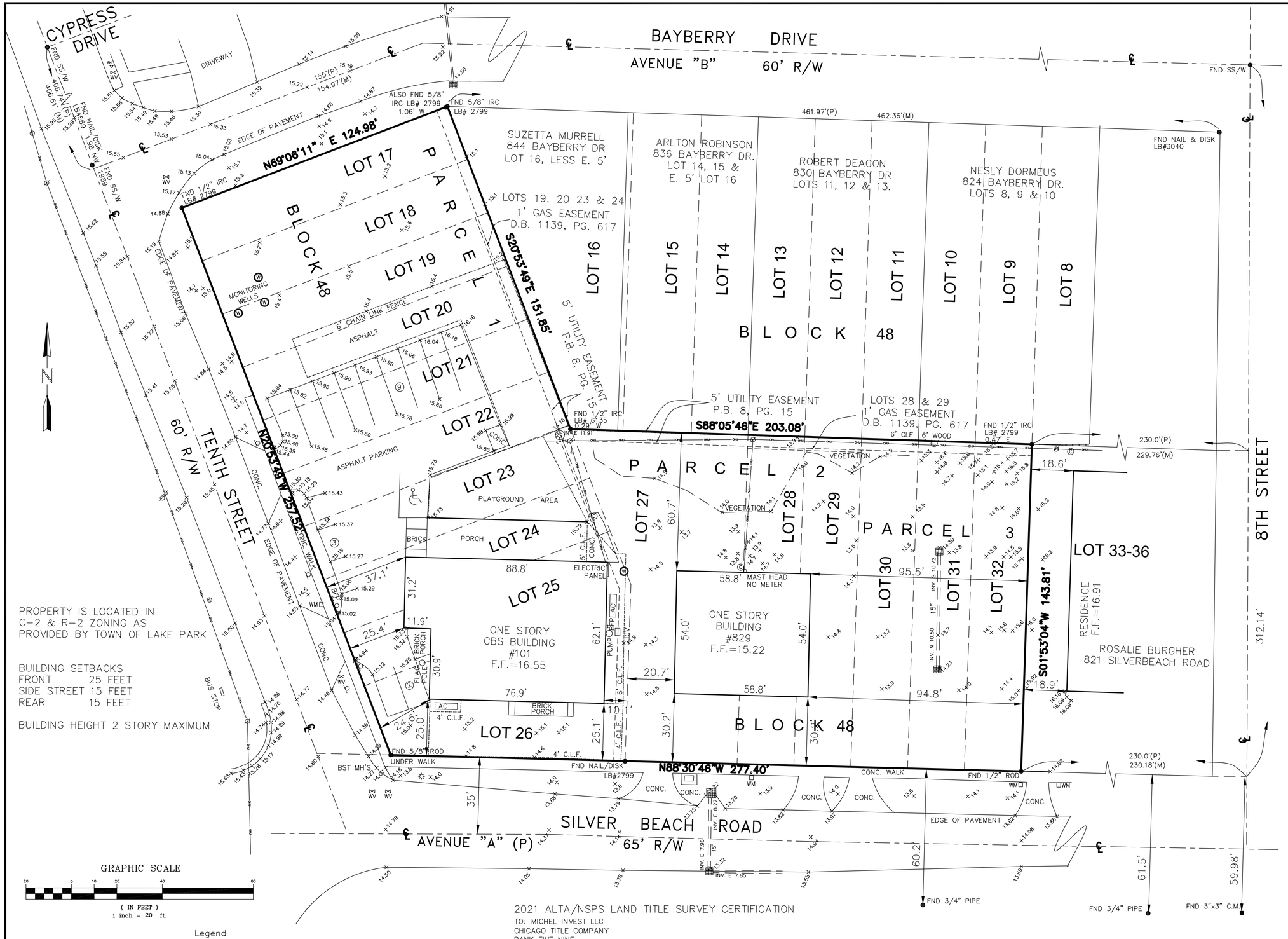
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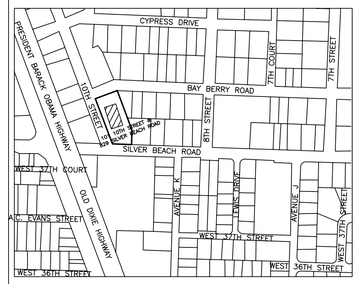
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LANDSCAPE DETAILS & QUANTITIES

L1 .1





LOCATION MAP

DESCRIPTION:

Parcel 1: 36-43-42-20-01-048-0170 (101 10th Street)
Lots 17,18,19,20,21,22,23,24,25 and 26, Block 48, KELSEY CITY (n/k/a Lake Park), according to the Plat thereof, as recorded in Plat Book 8, Page 27, Public Records of Palm Beach County, Florida.

Parcel 2: 36-43-42-20-01-048-0270 (829 Silver Beach Road)
Lots 27,28 and 29, Block 48, KELSEY CITY (n/k/a Lake Park), according to the Plat thereof, as recorded in Plat Book 8, Page 27, Public Records of Palm Beach County, Florida.

Parcel 3: 36-43-42-20-01-048-0300 (823 Silver Beach Road)
Lots 30,31 and 32, Block 48, KELSEY CITY (n/k/a Lake Park), according to the Plat thereof, as recorded in Plat Book 8, Page 27, Public Records of Palm Beach County, Florida.

Containing 60,339 square feet or 1.35 Acres more or less.

NOTE: LOTS 20-26, BLOCK 48, AFFECTED BY UNITY OF TITLE IN ORB 5578, PG. 322

SURVEYOR'S NOTES:

1. THIS BOUNDARY SURVEY WAS PERFORMED IN ACCORDANCE WITH TITLE COMMITMENT NO 1205303, DATED 1-7-2022 PREPARED BY OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY. THE DESCRIPTION AND EASEMENTS AS STATED THEREIN ARE AS SHOWN HEREON.
2. THIS BOUNDARY & TOPOGRAPHIC SURVEY MEETS THE REQUIREMENTS OF THE STANDARDS OF PRACTICE IN CHAPTER 5J-17.052 OF THE FLORIDA ADMINISTRATIVE CODES & ALTA 2021 STANDARDS.
3. SUBSURFACE AND ENVIRONMENTAL CONDITIONS WERE NOT ADDRESSED AS A PART OF THIS SURVEY. ONLY VISIBLE ABOVE GROUND IMPROVEMENTS HAVE BEEN SHOWN. THERE MAY EXIST UNDERGROUND UTILITIES, FOUNDATIONS OR OTHER MATTERS WHICH HAVE NOT BEEN REFLECTED ON THIS SURVEY.
4. ADDITIONS AND/OR DELETIONS TO THIS SURVEY MAP BY OTHER THAN THE SIGNING SURVEYOR IS PROHIBITED WITHOUT THE WRITTEN CONSENT OF THIS OFFICE.
5. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS AND DISTANCES ARE NOT TO BE SCALED FOR CONSTRUCTION AND/OR DESIGN PURPOSES.
6. THIS MAP, AS DEPICTED IN ITS GRAPHIC FORM, BEARING THE SIGNATURE AND SEAL OF THE SURVEYOR, IS THE OFFICIAL DOCUMENT OF THE LANDS AS DESCRIBED HEREIN AND WILL IN NO CIRCUMSTANCE BE SUPPLANTED IN AUTHORITY BY ANY OTHER GRAPHIC OR DIGITAL FORM OF THE MAP.
7. THIS SURVEY IS PREPARED FOR THE PARTIES AS STATED HEREON AND IS NOT ASSIGNABLE TO OTHER PARTIES WITHOUT THE WRITTEN CONSENT OF THE SURVEYOR.
8. THIS SURVEY DOCUMENT, AS AN INSTRUMENT OF SERVICE, IS INTENDED FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED AND CERTIFIED. REUSE AND/OR RELIANCE UPON THIS DOCUMENT FOR ANY OTHER PURPOSE WITHOUT WRITTEN AUTHORIZATION AND ADAPTION BY DEAN SURVEYING & MAPING, INC., SHALL BE WITHOUT LIABILITY TO DEAN SURVEYING & MAPPING, INC.
9. ELEVATIONS AS SHOWN HEREON ARE SHOWN IN FEET AND DECIMAL PARTS THEREOF AND ARE BASED UPON THE NORTH AMERICAN VERTICAL DATUM OF 1988, REFERENCE BENCHMARK IS N.G.S. STEEL ROD DESIGNATED "U-402" WHICH HAS A PUBLISHED ELEVATION OF 20-735.
10. THE ORIGINAL PLAT OF "KELSEY CITY" (NOW KNOWN AS LAKE PARK) CONSISTS OF EIGHT (8) SHEETS, WHICH ARE NOT CONSECUTIVELY NUMBERED. THE COVER SHEET SHEET CONTAINS THE DEDICATION, KEY MAP AND NOTES AND IS RECORDED AS PAGE 15 OF PLAT BOOK 8. SHEET 1 ENCOMPASSES THE AREA IN WHICH BLOCK 48 LIES AND IS RECORDED AS PAGE 27 OF PLAT BOOK OF PLAT BOOK 8.

PROPERTY IS LOCATED IN
C-2 & R-2 ZONING AS
PROVIDED BY TOWN OF LAKE PARK

BUILDING SETBACKS
FRONT 25 FEET
SIDE STREET 15 FEET
REAR 15 FEET

BUILDING HEIGHT 2 STORY MAXIMUM

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

Legend

- Indicates Set 1/2" Iron Rod & Cap #LB6936
- Indicates Found Iron Rod & Cap
- Indicates Found Concrete Monument
- Indicates Wood Utility Pole
- Indicates Concrete Power Pole
- Indicates Pole Anchor
- Indicates Catch Basin
- (P) Indicates Plat Dimension
- (G) Indicates Grid Bearing
- Indicates Water Meter
- Indicates Sanitary Cleanout
- —OHUL— Indicates Overhead Utility Lines
- Indicates Water Valve
- Indicates FIRE HYDRANT
- (D) Indicates Storm Drainage Manhole
- Indicates Light Pole
- Indicates Ballard
- Indicates Sign
- Indicates Well
- Indicates Sanitary Manhole

2021 ALTA/NSPS LAND TITLE SURVEY CERTIFICATION

TO: MICHEL INVEST LLC
CHICAGO TITLE COMPANY
BANK FIVE NINE
FLORIDA FIRST CAPITAL FINANCE CORPORATION
SMALL BUSINESS ADMINISTRATION

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1,2,3,4,6b,7a,7a1,8,9,11a,13,16,17 AND 18 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON JANUARY 21, 2025

DATE OF MAP OR PLAT 3/18/2025

REVISIONS	DATE
UPDATE SURVEY TO ALTA	1/21/25

NOTE: This drawing is not valid without embossed seal or Digital Signature of Surveyor.

RICHARD N. DEAN
Professional Surveyor & Mapper
Florida Certificate No. 4406
L.B. 6936

BOUNDARY AND TOPOGRAPHIC SURVEY Prepared For & certified to:
MICHEL INVEST LLC

ADDRESS: 101 10TH STREET & 829 SILVER BEACH ROAD LAKE PARK, FL. 33403

PROPERTY LIES IN FLOOD ZONE "X" AS PER NATIONAL FLOOD INSURANCE PROGRAM RATE MAP 12099C0387G

Dean Surveying and Mapping, Inc.
"The Measuring Line Shall Go Forth" Jeremiah 31:39
4201 Westgate Avenue
Suite A3
West Palm Beach, Florida 33409
Tel:(561)625-8748

FIELD: R.N.D./L.J.	DATE: 11-12-24
DRAWN: M.R.	SCALE: 1" = 20'
SHEET: 1 of 1	JOB No.: 024-1102


TWIGGS ACADEMY


TWIGGS ACADEMY
TWIGGS ACADEMY


TWIGGS ACADEMY


TWIGS ACADEMY
TWIGS ACADEMY
TWIGS ACADEMY

Atlantic Engineering Services, Inc.
2826 Waters Edge Circle
Greenacres, FL 33413

Ph.: (561)358-4140
Fax: (561)922-9765
atlanticengserv@gmail.com

December 17, 2025

TRAFFIC STATEMENT

Twiggs Daycare
101 10th Street and 829 Silver Beach Road
Lake Park, FL 33403

Project Description

The proposed project consists of the construction of an approximately new 7,476 square foot daycare center after demolishing the existing 3,186 square foot daycare building located on 829 Silver Beach Road in the City of Lake Park, Palm Beach County, Florida (Parcel Number 36-43-42-20-01-048-0270). The other existing daycare building of approximately 4,588 square feet located on 101 10th Street (Parcel Number 36-43-42-20-01-048-0170) will remain as is. The parcel located at 823 Silver Beach Road (Parcel Number 36-42-42-20-01-048-0300) is currently vacant and zoned residential. This parcel will be rezoned and incorporated into the new project. The total site after combining all three parcels is approximately 1.385 acres. Site access is proposed via one existing driveway off Silver Beach Road which will be a right-in/right-out only driveway, one existing full access driveway at the northern end of the property off Tenth Street. The existing one-way egress right-turn only access to Tenth Street will be closed because of its close proximity to Silver Beach Road. A new access to Bayberry Drive will be constructed. Please see attached location map (Exhibit A), site plan (Exhibit B), and survey (Exhibit C). The buildout date for this project is December 2027.

Project Traffic

Daily and peak-hour vehicular trips generated by the subject development plan were estimated utilizing Palm Beach County approved trip generation rates as follows:

Trip Generation - Daycare

DAILY

NEW DAYCARE				
Land Use	ITE Code	Intensity	Trip Generation Rate	Total Trips
New Daycare	565	140 Students	4.09	573
TOTAL NEW TRIPS				573

AM Peak Hour

NEW DAYCARE						
Land Use	ITE Code	Intensity	Trip Generation Rate	Total Trips		
				In	Out	Total
Daycare	565	140 Students	0.78	58	52	110
TOTAL NEW TRIPS				58	52	110

PM Peak Hour

NEW DAYCARE						
Land Use	ITE Code	Intensity	Trip Generation Rate	Total Trips		
				In	Out	Total
Daycare	565	140 Students	0.79	52	58	110
TOTAL NEW TRIPS				52	58	110

(1) Source: Institute of Transportation Engineers (ITE), Trip Generation, 11th Edition

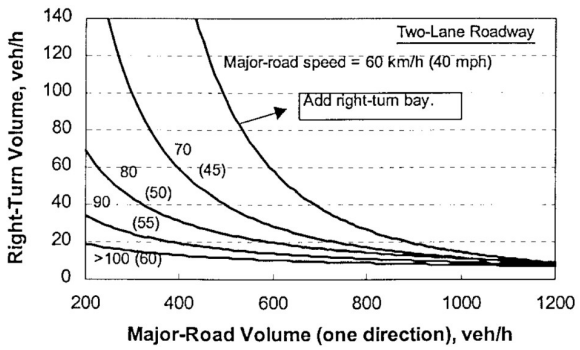
As per the above trip generation analysis, based on the adopted trip generation rates, the proposed new construction will result in a gross increase to the average daily trips of 573 trips, 110 trips during the AM peak hour, and 110 trips during the PM peak hour without taking the pass-through trips into account. This is to demonstrate the driveway trips. We have assumed that 40% of the traffic will ingress and egress from Silver Beach Road, 35% will be using the Tenth Street driveways, and the other 25% will be using the Bayberry Drive access. In this study, we are determining the impact of traffic to the roadway network around the project. Exhibit D shows the project traffic distribution. We also developed project driveway volumes which are shown on Exhibit E.

Based on the above project assignment, it is clear that this development has less than one percent (1%) impact of the adopted level of service, therefore no further analysis is required and the new development meets concurrency.

Access Analysis and Conclusion

Site access is proposed via one existing driveway off Silver Beach Road which will be a right-in/right-out only driveway, one existing full access driveway at the northern end of the property off Tenth Street. The existing one-way egress right-turn only access to Tenth Street will be closed because of its close proximity to Silver Beach Road. A new access to Bayberry Drive will be constructed.

Turning movements into the project were reviewed as per the Project Driveway Volumes (Exhibit E). As per this exhibit, we show 22 vehicles turning right into the project off Silver Beach Road, 4 vehicles turning right into the project off 10th Street, and 10 vehicles turning right into the project off Bayberry Drive during the peak hour. Based on the NCHRP 457 graph for Major Road Volume (one direction) seen below, which shows that none of our driveways have volumes that warrant a right turn lane. In addition, we have included Excel Spreadsheets for the three individual driveways based on NCHRP 457.



In addition, we have reviewed the Palm Beach County Land Development Code which states that: “a 12 foot wide right turn lane with appropriate storage and transition shall be provided at each driveway where the street average daily traffic volumes exceed 10,000 vehicles per day and driveway volume exceeds 1,000 trips per day or 75 right turns inbound in the peak hour.”

Based on the trip generation and the driveway turning movements of this site, it is our opinion that accessibility to the site is adequate and no improvements are needed.

Sincerely,

Imtiaz Ahmed, P.E.
FL License No.: 46102

EXHIBIT A

LOCATION MAP

DOROTHY JACKS
CFA, AAS
Palm Beach County Property Appraiser

LOCATION MAP

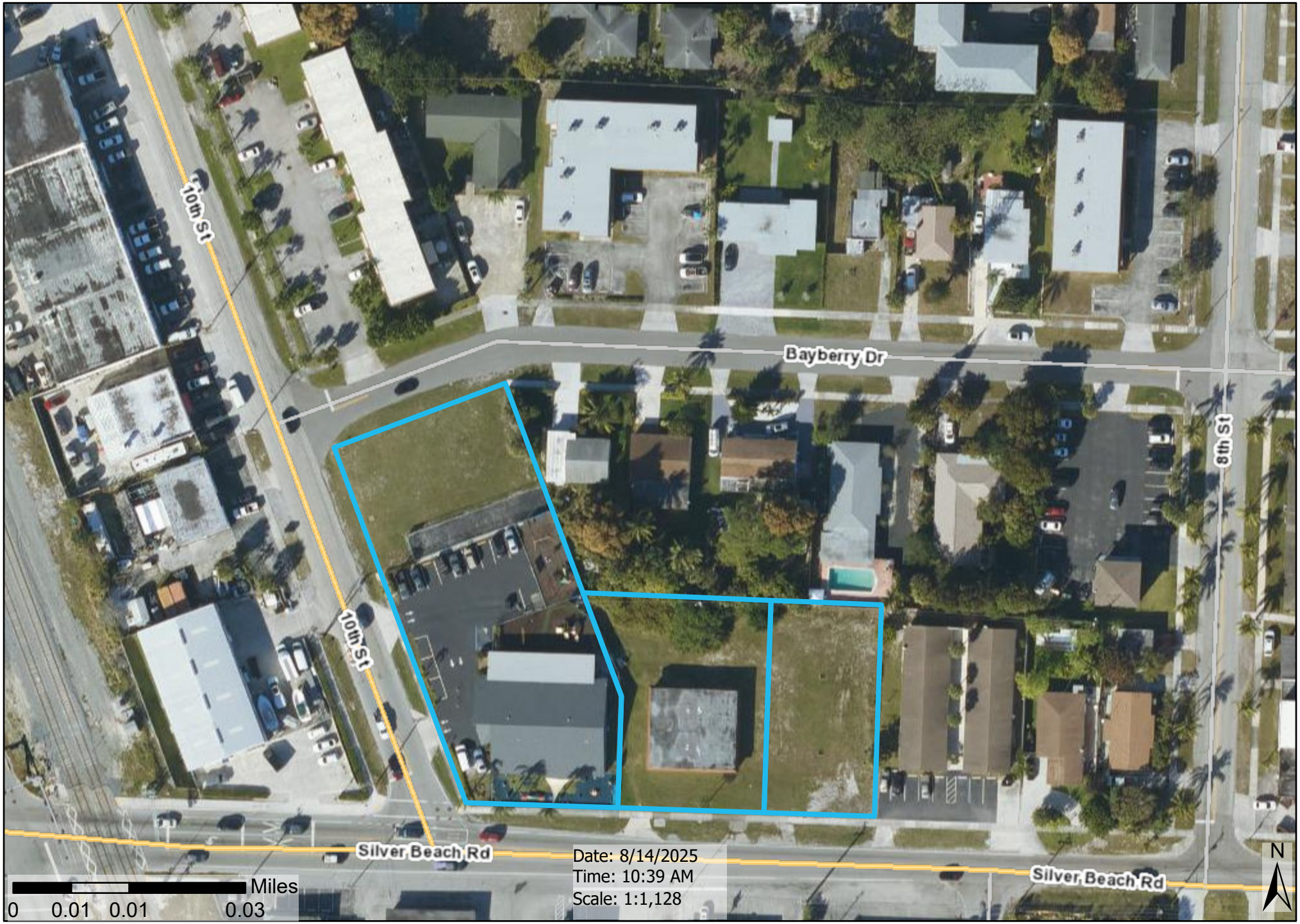
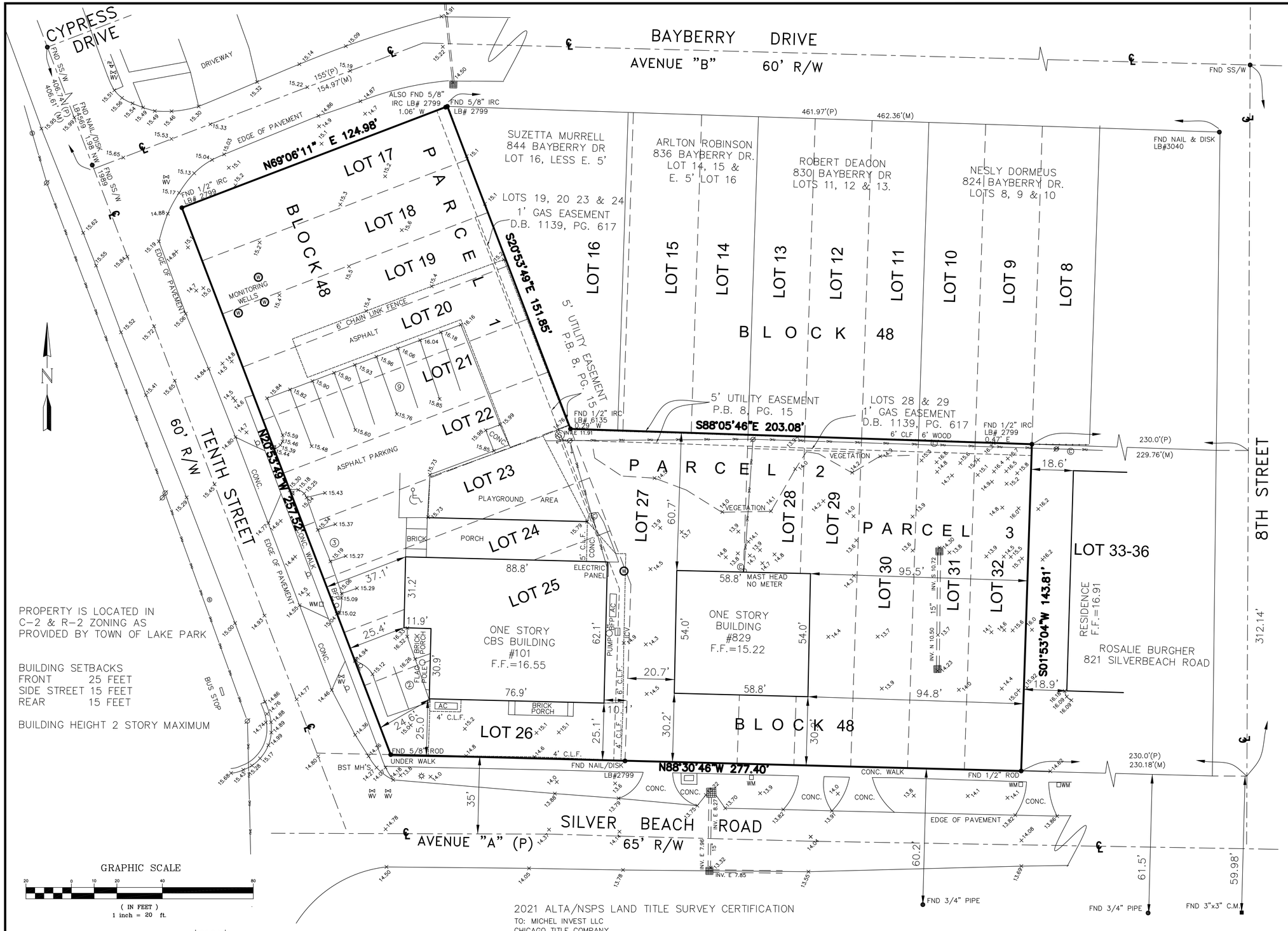
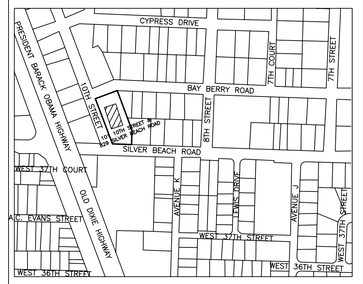


EXHIBIT B

SURVEY





LOCATION MAP

DESCRIPTION:

Parcel 1: 36-43-42-20-01-048-0170 (101 10th Street)
Lots 17,18,19,20,21,22,23,24,25 and 26, Block 48, KELSEY CITY (n/k/a Lake Park), according to the Plat thereof, as recorded in Plat Book 8, Page 27, Public Records of Palm Beach County, Florida.

Parcel 2: 36-43-42-20-01-048-0270 (829 Silver Beach Road)
Lots 27,28 and 29, Block 48, KELSEY CITY (n/k/a Lake Park), according to the Plat thereof, as recorded in Plat Book 8, Page 27, Public Records of Palm Beach County, Florida.

Parcel 3: 36-43-42-20-01-048-0300 (823 Silver Beach Road)
Lots 30,31 and 32, Block 48, KELSEY CITY (n/k/a Lake Park), according to the Plat thereof, as recorded in Plat Book 8, Page 27, Public Records of Palm Beach County, Florida.

Containing 60,339 square feet or 1.35 Acres more or less.

NOTE: LOTS 20-26, BLOCK 48, AFFECTED BY UNITY OF TITLE IN ORB 5578, PG. 322

SURVEYOR'S NOTES:

1. THIS BOUNDARY SURVEY WAS PERFORMED IN ACCORDANCE WITH TITLE COMMITMENT NO 1205303, DATED 1-7-2022 PREPARED BY OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY. THE DESCRIPTION AND EASEMENTS AS STATED THEREIN ARE AS SHOWN HEREON.
2. THIS BOUNDARY & TOPOGRAPHIC SURVEY MEETS THE REQUIREMENTS OF THE STANDARDS OF PRACTICE IN CHAPTER 5J-17.052 OF THE FLORIDA ADMINISTRATIVE CODES & ALTA 2021 STANDARDS.
3. SUBSURFACE AND ENVIRONMENTAL CONDITIONS WERE NOT ADDRESSED AS A PART OF THIS SURVEY. ONLY VISIBLE ABOVE GROUND IMPROVEMENTS HAVE BEEN SHOWN. THERE MAY EXIST UNDERGROUND UTILITIES, FOUNDATIONS OR OTHER MATTERS WHICH HAVE NOT BEEN REFLECTED ON THIS SURVEY.
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PROPERTY IS LOCATED IN
C-2 & R-2 ZONING AS
PROVIDED BY TOWN OF LAKE PARK

BUILDING SETBACKS
FRONT 25 FEET
SIDE STREET 15 FEET
REAR 15 FEET

BUILDING HEIGHT 2 STORY MAXIMUM

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

Legend

- Indicates Set 1/2" Iron Rod & Cap #LB6936
- Indicates Found Iron Rod & Cap
- Indicates Found Concrete Monument
- Indicates Wood Utility Pole
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- Indicates Light Pole
- Indicates Ballard
- Indicates Sign
- Indicates Well
- Indicates Sanitary Manhole

2021 ALTA/NSPS LAND TITLE SURVEY CERTIFICATION

TO: MICHEL INVEST LLC
CHICAGO TITLE COMPANY
BANK FIVE NINE
FLORIDA FIRST CAPITAL FINANCE CORPORATION
SMALL BUSINESS ADMINISTRATION

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1,2,3,4,6b,7a,7a1,8,9,11a,13,16,17 AND 18 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON JANUARY 21, 2025

DATE OF MAP OR PLAT 3/18/2025

REVISIONS	DATE
UPDATE SURVEY TO ALTA	1/21/25

NOTE: This drawing is not valid without embossed seal or Digital Signature of Surveyor.

Richard N Dean
Digitally signed by Richard N Dean
Date: 2025.03.18 21:39:01 -04'00'

RICHARD N. DEAN
Professional Surveyor & Mapper
Florida Certificate No. 4406
L.B. 6936

BOUNDARY AND TOPOGRAPHIC SURVEY Prepared For & certified to:
MICHEL INVEST LLC

ADDRESS: 101 10TH STREET &
829 SILVER BEACH ROAD
LAKE PARK, FL. 33403

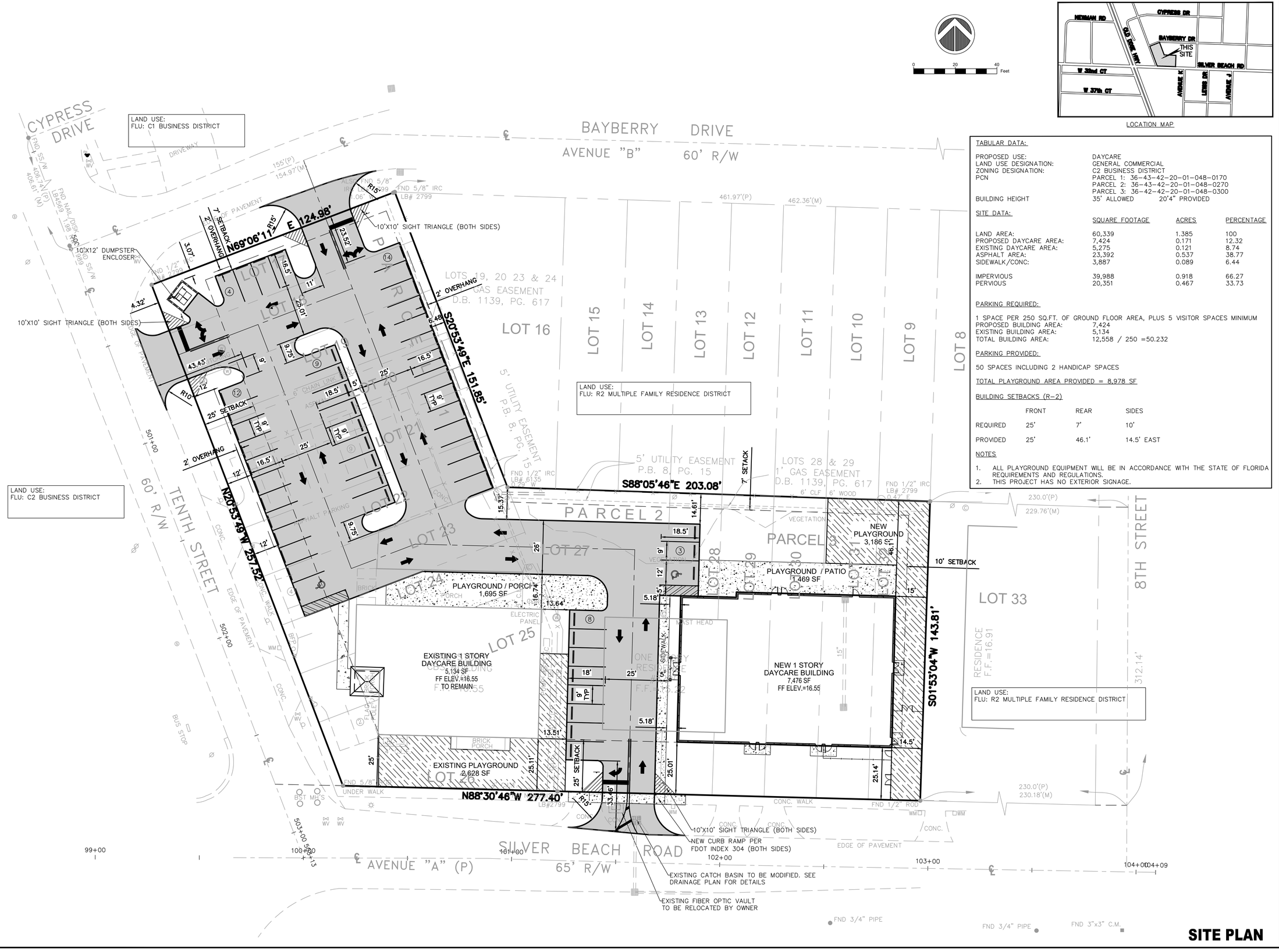
PROPERTY LIES IN FLOOD ZONE "X" AS PER NATIONAL FLOOD INSURANCE PROGRAM RATE MAP 12099C0387G

Dean Surveying and Mapping, Inc.
"The Measuring Line Shall Go Forth" Jeremiah 31:39
4201 Westgate Avenue
Suite A3
West Palm Beach, Florida 33409
Tel:(561)625-8748

FIELD: R.N.D./L.J.	DATE: 11-12-24
DRAWN: M.R.	SCALE: 1" = 20'
SHEET: 1 of 1	JOB No.: 024-1102

EXHIBIT C

SITE PLAN



LOCATION MAP

TABULAR DATA:

PROPOSED USE:	DAYCARE
LAND USE DESIGNATION:	GENERAL COMMERCIAL
ZONING DESIGNATION:	C2 BUSINESS DISTRICT
PCN	PARCEL 1: 36-43-42-20-01-048-0170 PARCEL 2: 36-43-42-20-01-048-0270 PARCEL 3: 36-42-42-20-01-048-0300
BUILDING HEIGHT	35' ALLOWED 20'4" PROVIDED

SITE DATA:

	SQUARE FOOTAGE	ACRES	PERCENTAGE
LAND AREA:	60,339	1.385	100
PROPOSED DAYCARE AREA:	7,424	0.171	12.32
EXISTING DAYCARE AREA:	5,275	0.121	8.74
ASPHALT AREA:	23,392	0.537	38.77
SIDEWALK/CONC:	3,887	0.089	6.44
IMPERVIOUS	39,988	0.918	66.27
PERVIOUS	20,351	0.467	33.73

PARKING REQUIRED:

1 SPACE PER 250 SQ.FT. OF GROUND FLOOR AREA, PLUS 5 VISITOR SPACES MINIMUM
PROPOSED BUILDING AREA: 7,424
EXISTING BUILDING AREA: 5,134
TOTAL BUILDING AREA: 12,558 / 250 =50.232

PARKING PROVIDED:

50 SPACES INCLUDING 2 HANDICAP SPACES

TOTAL PLAYGROUND AREA PROVIDED = 8,978 SF

BUILDING SETBACKS (R-2)

	FRONT	REAR	SIDES
REQUIRED	25'	7'	10'
PROVIDED	25'	46.1'	14.5' EAST

NOTES

1. ALL PLAYGROUND EQUIPMENT WILL BE IN ACCORDANCE WITH THE STATE OF FLORIDA REQUIREMENTS AND REGULATIONS.
2. THIS PROJECT HAS NO EXTERIOR SIGNAGE.

SITE PLAN

REV.	DESCRIPTION	DATE
1		
2		
3		
4		
5		
6		

IMTIAZ AHMED, P.E.
LICENSED ENGINEER NO. 46102
STATE OF FLORIDA

SEAL

TWIGS ACADEMY
101 10th STREET, LAKE PARK, FL

ATLANTIC ENGINEERING SERVICES, INC.
2822 WATERS EDGE CIRCLE
GREENACRES, FLORIDA 33413
PHONE – (561) 358-4140
FAX – (561) 956-2242
CERTIFICATE OF AUTHORIZATION NO.: 9390

PROJ. NO.
SCALE:

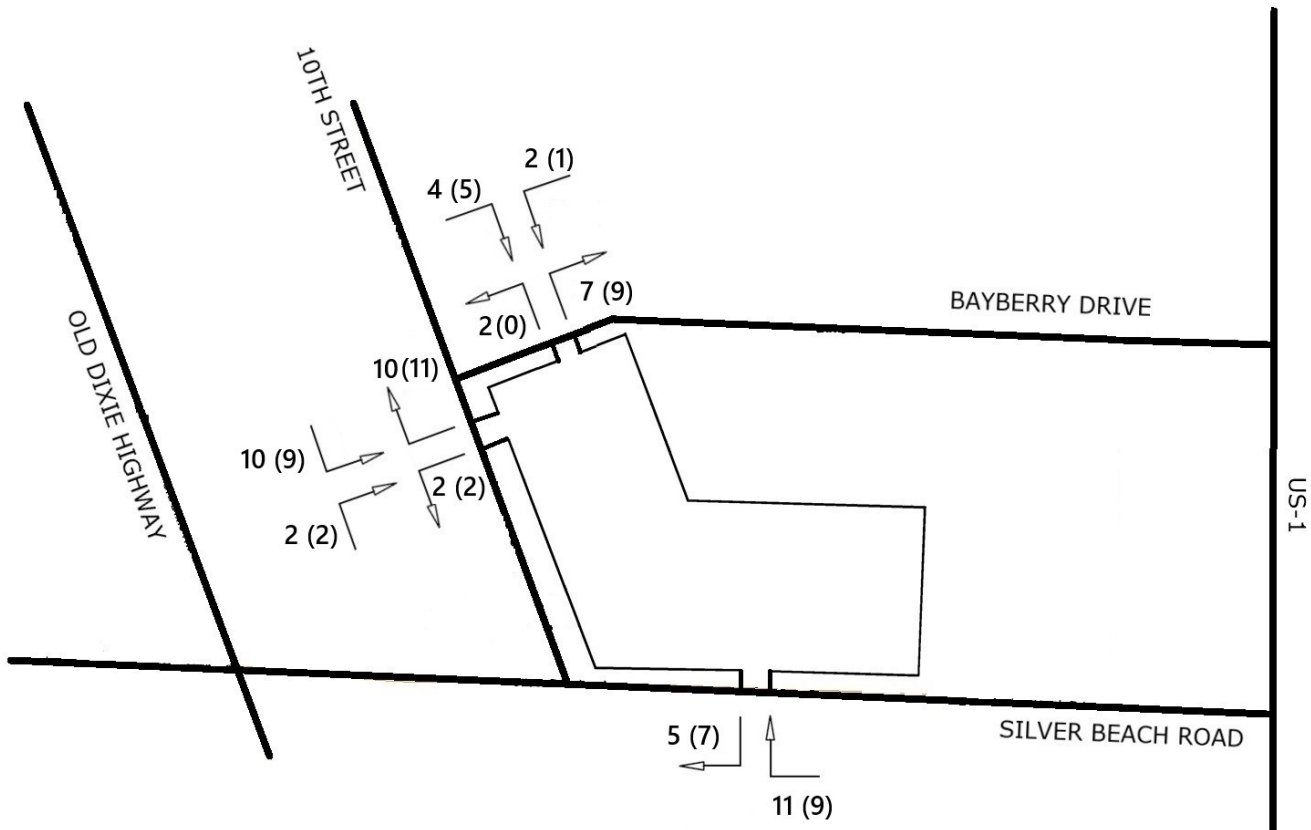
DES.	DWN.	CHK.

SHEET NUMBER
SP1

DATE DRAWN
JULY 2025



TWIGGS DAYCARE	EXHIBIT D PROJECT TRAFFIC DISTRIBUTION	**AES**



LEGEND

55 -AM PEAK HOUR

(55) -PM PEAK HOUR

286 -AADT

TWIGGS DAYCARE	EXHIBIT E PROJECT DRIVEWAY VOLUMES	AES

BAYBERRY DRIVE RIGHT TURN ANALYSIS

Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

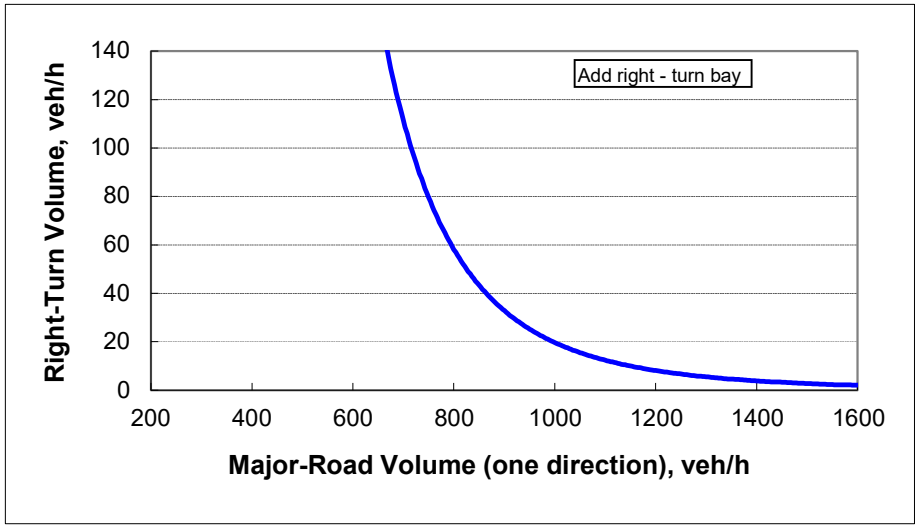
INPUT

Roadway geometry:	2-lane roadway

Variable	Value
Major-road speed, km/h:	48
Major-road volume (one direction), veh/h:	100
Right-turn volume, veh/h:	10

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	1430082
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	



10TH STREET RIGHT TURN ANALYSIS

Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

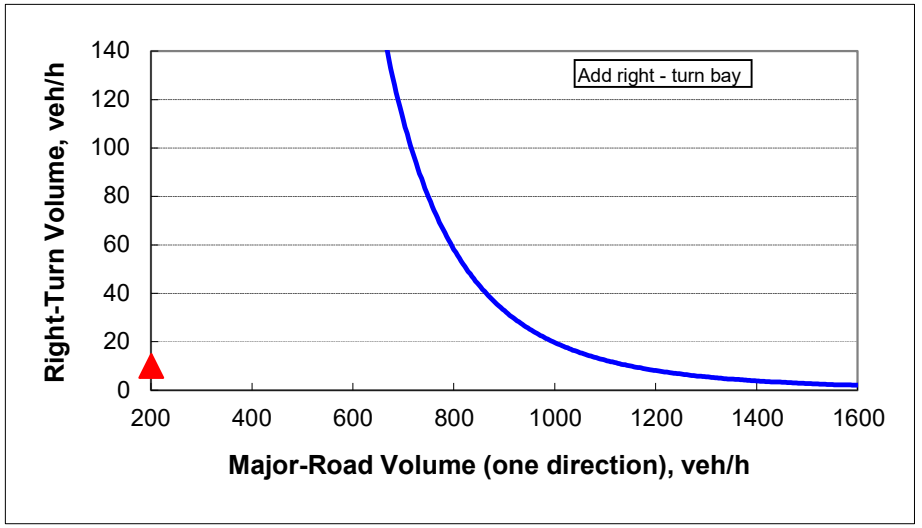
INPUT

Roadway geometry:	2-lane roadway

Variable	Value
Major-road speed, km/h:	48
Major-road volume (one direction), veh/h:	200
Right-turn volume, veh/h:	10

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	49177
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	



SILVER BEACH ROAD RIGHT TURN ANALYSIS

Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

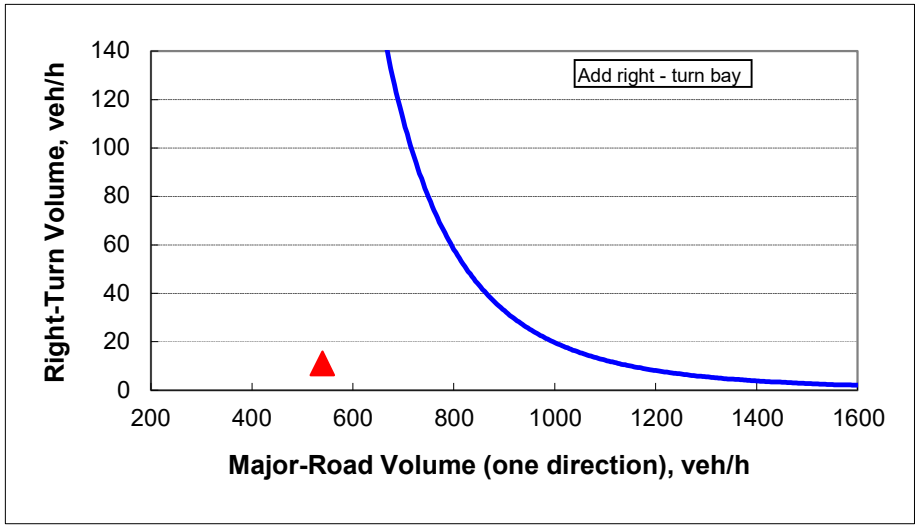
INPUT

Roadway geometry:	2-lane roadway

Variable	Value
Major-road speed, km/h:	48
Major-road volume (one direction), veh/h:	539
Right-turn volume, veh/h:	11

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	397
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	



Engineering and Public Works Department
P.O. Box 21229
West Palm Beach, FL 33416-1229
(561) 684-4000
FAX: (561) 684-4050
www.pbc.gov

Palm Beach County Board of County Commissioners
Maria G. Marino, Mayor
Sara Baxter, Vice Mayor
Gregg K. Weiss
Joel G. Flores
Marci Woodward
Maria Sachs
Bobby Powell Jr.

County Administrator
Joseph Abruzzo

"An Equal Opportunity Employer"

printed on sustainable and recycled paper

September 5, 2025

Imtiaz Ahmed, P.E.
Atlantic Engineering Services, Inc.,
2826 Waters Edge Circle,
Greenacres, FL 33413

RE: Twiggs Daycare
Project #: 250701
Traffic Performance Standards (TPS) Review

Dear Mr. Ahmed:

The Palm Beach County Traffic Division has reviewed the above reference project Traffic Impact Statement, dated July 14, 2025, and supplemental changes and information provided in an email to the Traffic Division, dated 9/2/2025, pursuant to the Traffic Performance Standards in Article 12 of the Palm Beach County (PBC) Unified Land Development Code (ULDC). The project is summarized as follows:

Municipality:	Lake Park
Location:	NEC of Silver Beach Road and 10th Street
PCN:	36-43-42-20-01-048-0270/-0170/-0300
Access:	One right-in/right-out access connection onto Silver Beach Road, one full access connection onto 10th Street, and one full access connection onto Bayberry Drive (As used in the study and is NOT necessarily an approval by the County through this TPS letter)
Existing Uses:	Daycare = 75 Students, and Single Family Residential Detached = 1 DU
Proposed Uses:	Daycare =140 Students
Net Daily Trips:	123 (Existing – Proposed)
Net Peak Hour Trips:	25 (14/11) AM; 24 (11/13) PM (Existing – Proposed)
Proj Daily Trips:	286
Proj Peak Hour Trips:	55 (29/26) AM; 55 (26/29) PM
Build-out:	December 31, 2027

Based on our review, the Traffic Division has determined the proposed use will have an insignificant impact on the area roadways within the Radius of Development Influence. Therefore, it **meets** the TPS of Palm Beach County.

Please note the receipt of a TPS approval letter does not constitute the review and issuance of a Palm Beach County Right-of-Way (R/W) Construction Permit nor does it eliminate any requirements that may be deemed as site related. For work within Palm Beach County R/W, a detailed review of the project will be provided upon submittal for a R/W permit application. The project is required to comply with all Palm Beach County standards and may include R/W dedication.

No building permits are to be issued by the Town after the build-out date specified above, or as amended. The County traffic concurrency approval is subject to the Project Aggregation Rules set forth in the Traffic Performance Standards Ordinance.

The approval letter shall be valid no longer than one year from date of issuance, unless an application for a Site Specific Development Order has been approved, an application for a Site Specific Development Order has been submitted, or the approval letter has been superseded by another approval letter for the same property.

If you have any questions regarding this determination, please contact me at 561-478-5755 or email MRahman@pbc.gov.

Sincerely,

Rahman

Moshiur Rahman, Ph.D., P.E.
Professional Engineer
Engineering and Public Works Dept.
Traffic Division

MR:QB:ep
ec: Nadia Di Tommaso, Director of Community Development, Town of Lake Park
Quazi Bari, P.E., PTOE, Manager - Growth Management, Traffic Division
Alberto Lopez Tagle, Technical Assistant III, Traffic Division

File: General - TPS - Mun - Traffic Study Review
F:\TRAFFIC\MR\MUN\APPROVED\2025\250701 TWIGGS DAYCARE.DOCX

Atlantic Engineering Services, Inc.

Contact: Imtiaz Ahmed, P.E.

2826 Waters Edge Circle
Green Acres, FL 33413
Phone: 561.358.4140

TWIGGS ACADEMY

Stormwater Management Report

March 2026

PRE CONSTRUCTION CALCULATIONS

Summary for Subcatchment 1S: (new Subcat)

Runoff = 15.24 cfs @ 59.89 hrs, Volume= 1.896 af, Depth>16.43"
Routed to Pond 2P : STORAGE

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
SFWMD 72-hr 100Y - 72H Rainfall=18.40"

	Area (sf)	CN	Description
*	20,004	98	
	40,335	79	50-75% Grass cover, Fair, HSG C
	60,339	85	Weighted Average
	40,335		66.85% Pervious Area
	20,004		33.15% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.0					**Direct Entry, Minimum**

Summary for Pond 2P: STORAGE

Inflow Area = 1.385 ac, 33.15% Impervious, Inflow Depth > 16.43" for 100Y - 72H event
Inflow = 15.24 cfs @ 59.89 hrs, Volume= 1.896 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 15.83' @ 72.00 hrs Surf.Area= 60,339 sf Storage= 82,569 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	14.00'	59,406,308 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
14.00	5,125	0	0
15.00	60,339	32,732	32,732
999.00	60,339	59,373,576	59,406,308

Events for Pond 2P: STORAGE

Event	Inflow (cfs)	Elevation (feet)	Storage (cubic-feet)
3Y - 1H	3.84	14.17	1,670
5Y - 1H	5.24	14.24	2,752
5Y - 24H	4.99	14.88	25,758
25Y - 72H	10.85	15.41	57,221
100Y - 72H	**15.24**	**15.83**	**82,569**

TWIGGS PRE-DEVELOPMENT DATA

Acreage

Basin Name	Basin 01	
Total Acreage	1.39	ac
Building	0.19	ac
Pavement	0.27	ac
Pond (NWL)	0.00	ac
Pervious	0.93	ac

Area Data	sq ft	acres
Drainage Area	60,339	1.39
Total Impervious Area Breakdown		
Building	8,330	0.19
Pavement	11,676	0.27
Sidewalks	NA	NA
Total	20,006	0.46
Open Area / Landscape Area		
Total open area	40,333	0.93

Runoff Coefficient (C)

Coverage	C	Percentage of Total	C x Percentage
Pond	0.00	0%	0.00
Pervious	0.93	67%	0.62
Impervious	0.46	33%	0.15
	Composite	100%	0.77

Curve Number (CN) Calculations

Coverage	CN	Acreage	C x Acreage
Pond	100	0.00	0.00
Pervious	60	0.93	55.56
Impervious	98	0.46	45.01
		Sum of CN x Acreage	100.56
		Composite CN	73

Time of Concentration

#1 Sheet Flow (< 300 linear feet)

Manning's n	0.15	(From Table 3-1)
2YR-24HR Rainfall (in)	5.63	(P2)
Length (ft)	200	
Slope (ft/ft)	0.50%	**Remember that 2% is the same as 0.02 ft/ft, 5% is 0.05 ft/ft, and so on…*
Tt (mins)	22.4	

#2 Unpaved Concrentrated Flow

Length (ft)	0
Slope (ft/ft)	0.01
Tt (mins)	0.00

#3 Paved Concentrated Flow

Length (ft)	0
Slope (ft/ft)	0.005
Tt (mins)	0.00

#4 Total Time of Concentration (Sum of #1-3)	22.4	mins

Minimum Tc used = 10 minutes

POST CONSTRUCTION CALCULATIONS

TWIGGS POST DEVELOPMENT DATA

Acreage

Basin Name	Basin 01	
Total Acreage	1.39	ac
Building	0.29	ac
Pavement/Conc	0.64	ac
Pond (NWL)	0.00	ac
Pervious	0.45	ac

Area Data	sq ft	acres
Drainage Area	60,339	1.39
Total Impervious Area Breakdown		
Building	12,676	0.29
Pavement	24,500	0.56
Sidewalks	4,568	0.10
Total	41,744	0.96
Open Area / Landscape Area		
Total open area	18,595	0.43

Runoff Coefficient (C)

Coverage	C	Percentage of Total	C x Percentage
Pond	0.00	0%	0.00
Pervious	0.45	33%	0.15
Impervious	0.93	67%	0.63
	Composite	100%	0.77

Curve Number (CN) Calculations

Coverage	CN	Acreage	C x Acreage
Pond	100	0.00	0.00
Pervious	60	0.45	27.25
Impervious	98	0.93	91.24
		Sum of CN x Acreage	118.49
		Composite CN	86

Time of Concentration

#1 Sheet Flow (< 300 linear feet)

Manning's n	0.15	(From Table 3-1)
2YR-24HR Rainfall (in)	5.63	(P2)
Length (ft)	92	
Slope (ft/ft)	0.48%	**Remember that 2% is the same as 0.02 ft/ft, 5% is 0.05 ft/ft, and so on....*
Tt (mins)	12.2	

#2 Unpaved Concrentrated Flow

Length (ft)	0
Slope (ft/ft)	0.01
Tt (mins)	0.00

#3 Paved Concentrated Flow

Length (ft)	150
Slope (ft/ft)	0.005
Tt (mins)	1.74

#4 Total Time of Concentration (Sum of #1-3)	14.0	mins

Minimum Tc used = 10 minutes

TWIGGS POST DEVELOPMENT DATA

Water Quality Treatment Volumes SFWMD

				sq ft	acres
Total Drainage Area				60,339	1.39
Impervious Area Beakdown (Total Site-Roof Areas)				41,744	0.96
WQTV Impervious Area Breakdown (Total Impervious-Open Area)				23,149	0.53
Percentage of Impervious Area				69.18%	
Percentage of Impervious to be treated (%Imp x 2.5 inches)				1.73	Inches

(Total Drainage Area) x (1.0 inches)=	5,028	cf
or		
(Impervious Area) x (2.5 Inches)=	8,697	cf
100% of Water Quality Treatment Volume=	8,697	cf
	0.200	ac-ft

FINAL WQTV with Volume Reduction (100% for Wet Detention,		8,697	cf
75% for Dry Detention, 50% for Retention)		0.200	ac-ft

Exfiltration Trench has 0 reduction in this formula since the SFWMD already accounts for this reduction in the Trench Design Formula.

Refers to the Stormwater Water Quality criteria. Part 4.2.1 - SFWMD ERP Handbook Volume 2 and Example I in Part III Section W (Pages W-1 thru w-5)

TWIGGS POST DEVELOPMENT DATA

Water Storage - 3Yr-1Hr Storm

3 Year - 1 Hour Depth (in)=	2.41		
Curve Number (Pre)=	73		
Curve Number (Post)=	86		
Drainage Area (ft^2)=	60,339.00	SqFt	
Runoff (Q-Pre)=	0.98	Inches	From HydoCad
Runoff (Q-Post)=	2.35	Inches	From HydoCad
Delta Q=	1.37	Inches	
	(ft^3)	(Ac-ft)	
Pre Water Storage Volume	887.00	0.020	From HydoCad
Post Water Storage Volume	2831.40	0.065	From HydoCad
Delta (Post-Pre) Water Volume	1944.40	0.045	

Water Storage - 5Yr-1Hr Storm

5 Year - 1 Hour Depth (in)=	2.94		
Curve Number (Pre)=	63		
Curve Number (Post)=	92		
Drainage Area (ft^2)=	60,339.00	SqFt	
Runoff (Q-Pre)=	1.21	Inches	From HydoCad
Runoff (Q-Post)=	2.68	Inches	From HydoCad
Delta Q=	1.47	Inches	
	(ft^3)	(Ac-ft)	
Pre Water Storage Volume	1165.00	0.027	From HydoCad
Post Water Storage Volume	3223.44	0.074	From HydoCad
Delta (Post-Pre) Water Volume	2058.44	0.047	

Water Storage - 5Yr-24Hr Storm

5 Year - 24 Hour Depth (in)=	7.48		
Curve Number (Pre)=	63		
Curve Number (Post)=	92		
Drainage Area (ft^2)=	60,339.00	SqFt	
Runoff (Q-Pre)=	3.94	Inches	From HydoCad
Runoff (Q-Post)=	6.05	Inches	From HydoCad
Delta Q=	2.11	Inches	
	(ft^3)	(Ac-ft)	
Pre Water Storage Volume	4642.00	0.107	From HydoCad
Post Water Storage Volume	7274.52	0.167	From HydoCad
Delta (Post-Pre) Water Volume	2632.52	0.060	

Water Storage - 25Yr-72Hr Storm

25 Year - 72 Hour Depth (in)=	13.30		
Curve Number (Pre)=	63		
Curve Number (Post)=	92		
Drainage Area (ft^2)=	60,339.00	SqFt	
Runoff (Q-Pre)=	10.35	Inches	From HydoCad
Runoff (Q-Post)=	13.00	Inches	From HydoCad
Delta Q=	2.65	Inches	
	(ft^3)	(Ac-ft)	
Pre Water Storage Volume	12211.00	0.280	From HydoCad
Post Water Storage Volume	15550.92	0.357	From HydoCad
Delta (Post-Pre) Water Volume	3339.92	0.077	

Water Storage - 100Yr-72Hr Storm

100 Year - 72 Hour Depth (in)=	18.40		
Curve Number (Pre)=	63		
Curve Number (Post)=	92		
Drainage Area (ft^2)=	60,339.00	SqFt	
Runoff (Q-Pre)=	12.75	Inches	From HydoCad
Runoff (Q-Post)=	15.49	Inches	From HydoCad
Delta Q=	2.74	Inches	
	(ft^3)	(Ac-ft)	
Pre Water Storage Volume	15035.00	0.345	From HydoCad
Post Water Storage Volume	18556.56	0.426	From HydoCad
Delta (Post-Pre) Water Volume	3521.56	0.081	

Pre Water Storage Volume=	15035.00	0.345
Post Water Storage Volume=	13496.84	0.310

TWIGGS POST DEVELOPMENT DATA

Exfiltration Min. Size

Total Drainage Area (A) =	1.39	Acres
Weighted Curve Number (C)=	86	
Time of Concentration (Tc)=	10	Minutes

Water Volume Required to Retain the Max of the WQTV or Delta Post Development -Pre Development 3YR-1HR Storm: 0.0446 Ac-ft

Calculations

Assumption that the first 1" runoff is completelt polluted

Time to Generate 1-inch Runoff (T1) =	10.60	MIN
Design Frequency (F)=	10	YR

POLLUTED RUNOFF DURATION Tt

Time of Concentration =	10	MIN
Time to Generate 1-Inch Runoff (T1)	10.60	MIN
Total Storm Duration (Tt)	20.60	MIN

STORM INTENSITY FORMULA

Storm Intensity (i)=	6.58	INCH/HR

PEAK DISCHARGE

Peak Discharge (Q)=	780.19	CFS

TWIGGS POST DEVELOPMENT DATA

MAXIMUM POLLUTED (TREATMENT) VOLUME		V'=600QTt
Maximum Polluted Volume (V')=	964,325	CF
	22.1379	Ac-ft
Volume of 3YR-1HR Storm=	0.045	Ac-ft
Volume of Storage (Vatt)=	0.045	Ac-ft
Volume Water Quality (Vwq)=	0.200	Ac-ft
Volume to be Retained on Trench (Vtotal)=	0.200	Ac-ft

DETERMINING TRENCH STORAGE		
Average Ground Elevation=	15.50	FT
Seasonal High Water Table (SWHT)=	2.65	FT
Exfiltration Trench Pipe Diameter=	2.00	FT
Pipe Invert Elevation=	8.50	FT
Pipe Area Above SHWT (Apipe)=	4.91	SF
Top of Trench Elevation=	12.5	FT
Height of Trench Above SHWT (Du)=	9.50	FT
Height of Trench Below SHWT (Ds)=	0.00	FT
Width of Trench (W)=	8.00	FT
Height of Trench (H)=	9.50	FT
Exfiltration Trench Aggregate Porosity (f)=	0.30	
$A_{trench}=f(W*Du-A_{pipe})$		
Exfiltration Trench Storage Area (A_{trench})=	21.327	SF
$S=A_{trench}+A_{pipe}$		
Storage in Trench (S)=	26.236	FT^3/FT

DETERMINING LENGTH OF EXFILTRATION TRENCH

FDOT DISTRICT VI METHOD

$$E_T = 2K_{10}\left(\frac{D_U}{2} + D_S\right)H_2 + 2K_{15}d_2H_2 + 2K_{20}d_3H_2$$

$$L = \frac{V_T}{S + 60 * E_T T_T}$$

FDOT EMPIRICAL METHOD

Eq.2- Use Eq.2 if trench width is twice the depth of exfiltration trench or if saturated depth (Ds) is greater than non-saturated thench depth (Du).

$$L = \frac{FS[(\%WQ)(Vwq) + Vadd]}{K(2 \times H_2 \times D_U - {D_U}^2 + 2 \times H_2 \times D_S) + 1.39 \times 10^{-4} \times W \times D_U}$$

2.396 Convert storage to ac-in

0.00 0.01056 0.01370

Using Eq.2 174.91

Average Hydraulic Conductivity (K)=	7.33E-05	CFS-/FT^2-FT
Height of Trench Below SHWT (Ds)=	0.00	FT
Height of Trench Above SHWT (Du)=	9.50	FT
Average Ground Elevation=	15.50	FT
Seasonal High Water Table (SHWT)=	2.65	FT
Current Head (H2)=	7.00	FT
Volume to be Retained in Trench Under Formula (Vt)=		Acre-in
Storage in Trench (S)=	26.24	FT^3/FT
Width of Trench (W)=	8.00	FT
Required Length of Trench (L)=	174.91	FT
Safety Factor (SF)=	2	
Proposed Length of Trench Based on Formula	349.81	FT
Proposed Length of Trench Based on Excess Volume	65.19	FT
Proposed Length of Trench (L)=	415	FT

TWIGGS POST DEVELOPMENT DATA

SITE PARAMETERS - EXFILTRATION MAX VOLUME

From initial Storage Calculations		
Total Drainage Area (A)=	1.385	Ac
Weighted Curve Number (C)=	86	
Time of Concentration (Tc)=	10	Minutes
Max Volume for Design Length (Volume Manually Entered to Generate Exact Exfiltration	0.235000	Ac-ft

CALCULATIONS

Assumption that the First 1" of Runoff is Completely Polluted.

$$t_1 = \frac{2940F^{-0.11}}{308.5C - 60.5(0.5895 + F^{-0.67})}$$

2282.17
215.29
10.60

Time to Generate 1-Inch Run-off (t1)=	10.60	Minutes
Design Frequency (F)=	10	YR

*Formula Developed by FDOT Distric VI

Polluted Run-off Duration (Tt)

$$T_T = t_C + t_1$$

Time of Concentration (Tc)=	10	Minutes
Time to Generate 1-Inch Run-off (t1)=	10.60	Minutes
Total Storm Duration (Tt)=	20.60	Minutes

Storm Intensity Formula

$$i = \frac{308.5}{48.6 * F^{-0.11} + T_T(0.5895 + F^{-0.67})}$$

308.50
54.27
5.68

Storm Intensity (i)=	5.68	Inch/hr

Peak Discharge

$$Q = CiA$$

Peak Discharge (Q)=	674	CFS

Maximum Polluted (Treatment) Volume

$$V' = 60QT_T$$

Maximum Polluted (Treatment) Volume (V')=	832,474.35
Volume to be retained in Trench (Vtotal)=	
Max Volume That Trench Can Retain within formula (Vformula)=	
Excess Volume to be Retained in Trench (Vexcess)=	

DETERMING TRENCH STORAGE

Average Ground Elevation=	15.50	FT
Seasonal High Water Table (SWHT)=	2.65	FT
Exfiltration Trench Pipe Diameter=	2.00	FT
Pipe Invert Elevation=	8.50	FT
Pipe Area Above SHWT (Apipe)=	4.91	SF
Trench Top Elevation	12.5	FT
Height of Trench Above SHWT (Du)=	9.50	FT
Height of Trench Below SHWT (Ds)=	0.00	FT
Width of Trench (W)=	8.00	FT
Exfiltration Trench Aggregate Porosity (f)=	0.30	

EXFILTRATION TRENCH CALCULATIONS - ACTUAL MAX STORAGE VOLUME CALCULATIONS

$$A_{trench} = f(W * D_u - A_{pipe})$$

Exfiltrration Trench Storage Area (Atrench)=	21.33	SF

$$S = A_{trench} + A_{pipe}$$

Storage in Trench (S)=	26.24	FT^3/FT

DETERMINING LENGTH OF EXFILTRATION TRENCH

FDOT DISTRICT VI METHOD

$$E_T = 2K_{10}\left(\frac{D_U}{2} + D_S\right)H_2 + 2K_{15}d_2H_2 + 2K_{20}d_3H_2$$

$$L = \frac{V_T}{S + 60 * E_T T_T}$$

FDOT EMPIRICAL METHOD

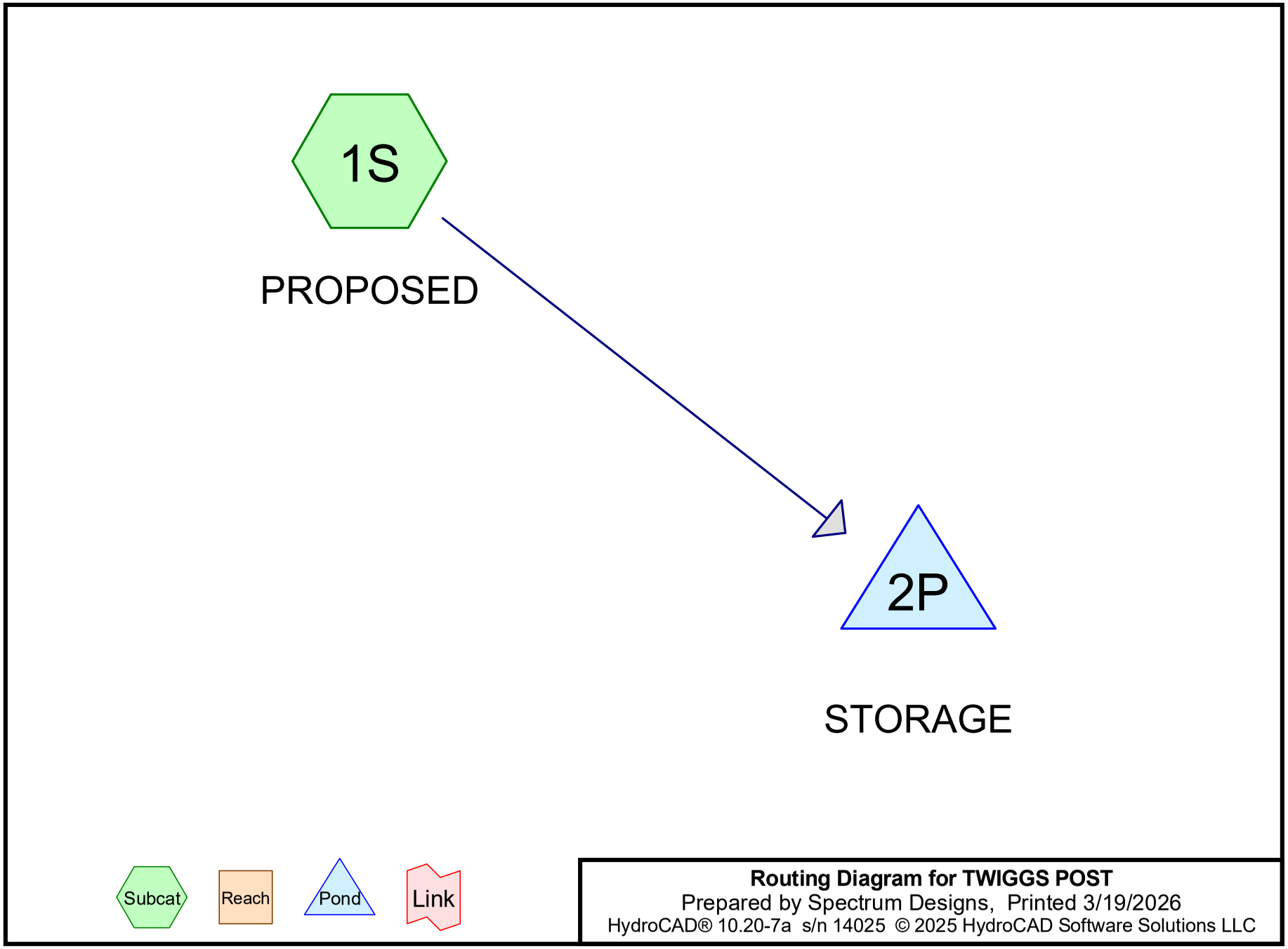
Eq.2- Use Eq.2 if trench width is twice the depth of exfiltration trench or if saturated depth (Ds) is greater than non-saturated thench depth (Du).

$$L = \frac{FS[(\%WQ)(Vwq) + Vadd]}{K(2 \times H_2 \times D_U - {D_U}^2 + 2 \times H_2 \times D_S) + 1.39 \times 10^{-4} \times W \times D_U}$$

2.820
0.01

Using Eq.2 205.88

Average Hydraulic Conductivity (K)=	7.33E-05	CFS-/FT^2-FT
Height of Trench Below SHWT (Ds)=	0.00	FT
Height of Trench Above SHWT (Du)=	9.50	FT
Average Ground Elevation=	15.50	FT
Seasonal High Water Table (SHWT)=	2.65	FT
Current Head (H2)=	7.00	FT
Volume to be Retained in Trench Under Formula (Vt)=		Acre-in
Storage in Trench (S)=	26.24	FT^3/FT
Width of Trench (W)=	8.00	FT
Required Length of Trench (L)=	205.88	FT
Safety Factor (SF)=	2	
Length of Trench Based on Formula (Lformula)=	411.75	FT
Length of Trench Based on Excess Volume (Lexcess)=	3.25	FT
Actual Length of Trench to be Built on Plans (L)=	415	FT



Routing Diagram for TWIGGS POST
Prepared by Spectrum Designs, Printed 3/19/2026
HydroCAD® 10.20-7a s/n 14025 © 2025 HydroCAD Software Solutions LLC

Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	5Y - 1H	FDOT 1-hr		Default	1.00	1	3.55	2
2	5Y - 24H	Type II FL 24-hr		Default	24.00	1	7.00	2
3	25Y - 72H	SFWMD 72-hr		Default	72.00	1	14.00	2
4	100Y - 72H	SFWMD 72-hr		Default	72.00	1	16.50	2

Summary for Pond 2P: STORAGE

[42] Hint: Gap in defined storage above volume #1 at 12.50'

Inflow Area = 1.490 ac, 61.74% Impervious, Inflow Depth = 1.34" for 5Y - 1H event
Inflow = 5.12 cfs @ 0.72 hrs, Volume= 0.166 af
Outflow = 1.64 cfs @ 1.00 hrs, Volume= 0.166 af, Atten= 68%, Lag= 16.8 min
Discarded = 1.64 cfs @ 1.00 hrs, Volume= 0.166 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 8.22' @ 1.00 hrs Surf.Area= 0.076 ac Storage= 0.119 af

Plug-Flow detention time= 67.9 min calculated for 0.166 af (100% of inflow)
Center-of-Mass det. time= 68.5 min (114.2 - 45.7)

Volume	Invert	Avail.Storage	Storage Description
#1	3.00'	0.208 af	**8.00'W x 415.00'L x 9.50'H EXFIL TRENCH** 0.724 af Overall - 0.031 af Embedded = 0.693 af x 30.0% Voids
#2	8.50'	0.030 af	**24.0" Round RCP_Round 24"** Inside #1 L= 415.0' 0.031 af Overall - 0.2" Wall Thickness = 0.030 af
#3	15.00'	0.138 af	**PAVEMENT (Prismatic)** Listed below (Recalc) -Impervious
#4	14.50'	0.085 af	**RETENTION (Conic)** Listed below (Recalc)
		0.462 af	Total Available Storage

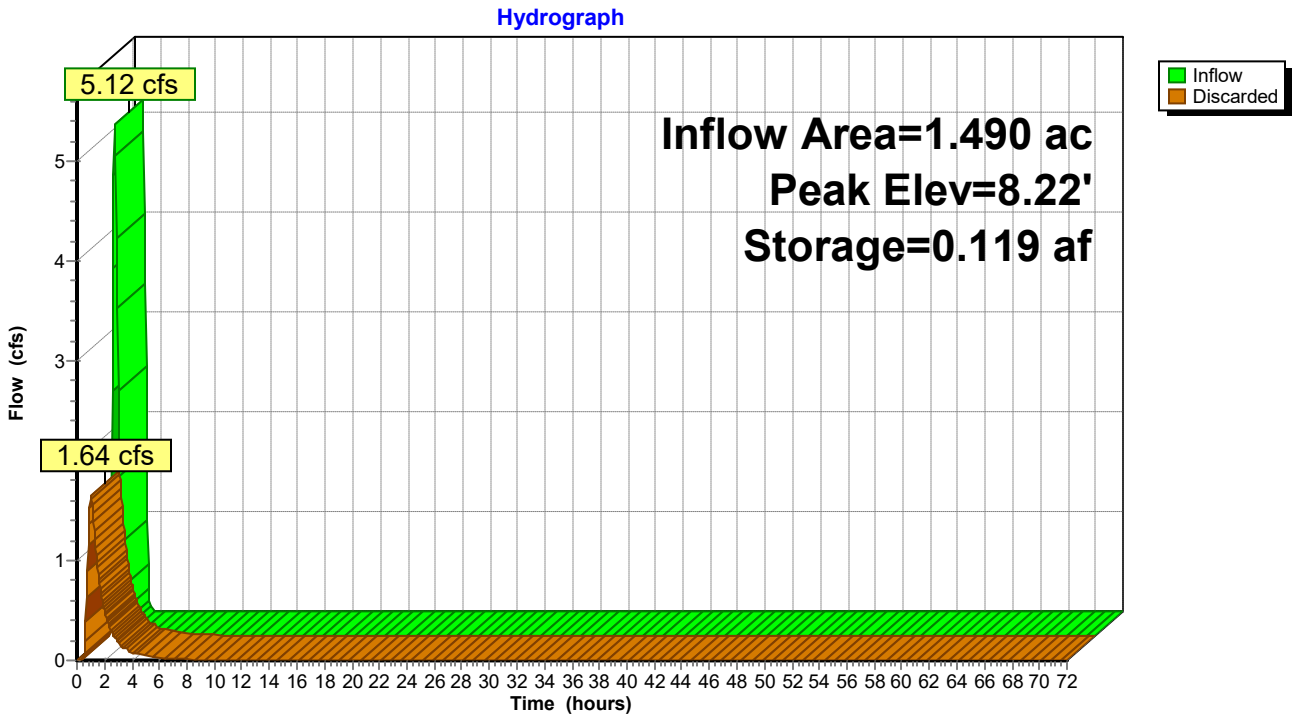
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
15.00	0.087	0.000	0.000
15.20	0.379	0.047	0.047
15.40	0.540	0.092	0.138

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)	Wet.Area (acres)
14.50	0.052	0.000	0.000	0.052
15.33	0.164	0.085	0.085	0.164

Device	Routing	Invert	Outlet Devices
#1	Discarded	3.00'	**5.700 in/hr Exfiltration over Wetted area from 3.00' - 12.50'** Conductivity to Groundwater Elevation = 2.65' Excluded Wetted area = 0.076 ac

Discarded OutFlow Max=1.64 cfs @ 1.00 hrs HW=8.22' (Free Discharge)
↑—**1=Exfiltration** (Controls 1.64 cfs)

Pond 2P: STORAGE



Summary for Pond 2P: STORAGE

[42] Hint: Gap in defined storage above volume #1 at 12.50'

Inflow Area = 1.490 ac, 61.74% Impervious, Inflow Depth = 4.15" for 5Y - 24H event
Inflow = 3.95 cfs @ 12.19 hrs, Volume= 0.515 af
Outflow = 2.07 cfs @ 12.63 hrs, Volume= 0.515 af, Atten= 48%, Lag= 26.6 min
Discarded = 2.07 cfs @ 12.63 hrs, Volume= 0.515 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 9.24' @ 12.63 hrs Surf.Area= 0.076 ac Storage= 0.150 af

Plug-Flow detention time= 68.4 min calculated for 0.515 af (100% of inflow)
Center-of-Mass det. time= 68.8 min (907.3 - 838.5)

Volume	Invert	Avail.Storage	Storage Description
#1	3.00'	0.208 af	**8.00'W x 415.00'L x 9.50'H EXFIL TRENCH** 0.724 af Overall - 0.031 af Embedded = 0.693 af x 30.0% Voids
#2	8.50'	0.030 af	**24.0" Round RCP_Round 24"** Inside #1 L= 415.0' 0.031 af Overall - 0.2" Wall Thickness = 0.030 af
#3	15.00'	0.138 af	**PAVEMENT (Prismatic)** Listed below (Recalc) -Impervious
#4	14.50'	0.085 af	**RETENTION (Conic)** Listed below (Recalc)
		0.462 af	Total Available Storage

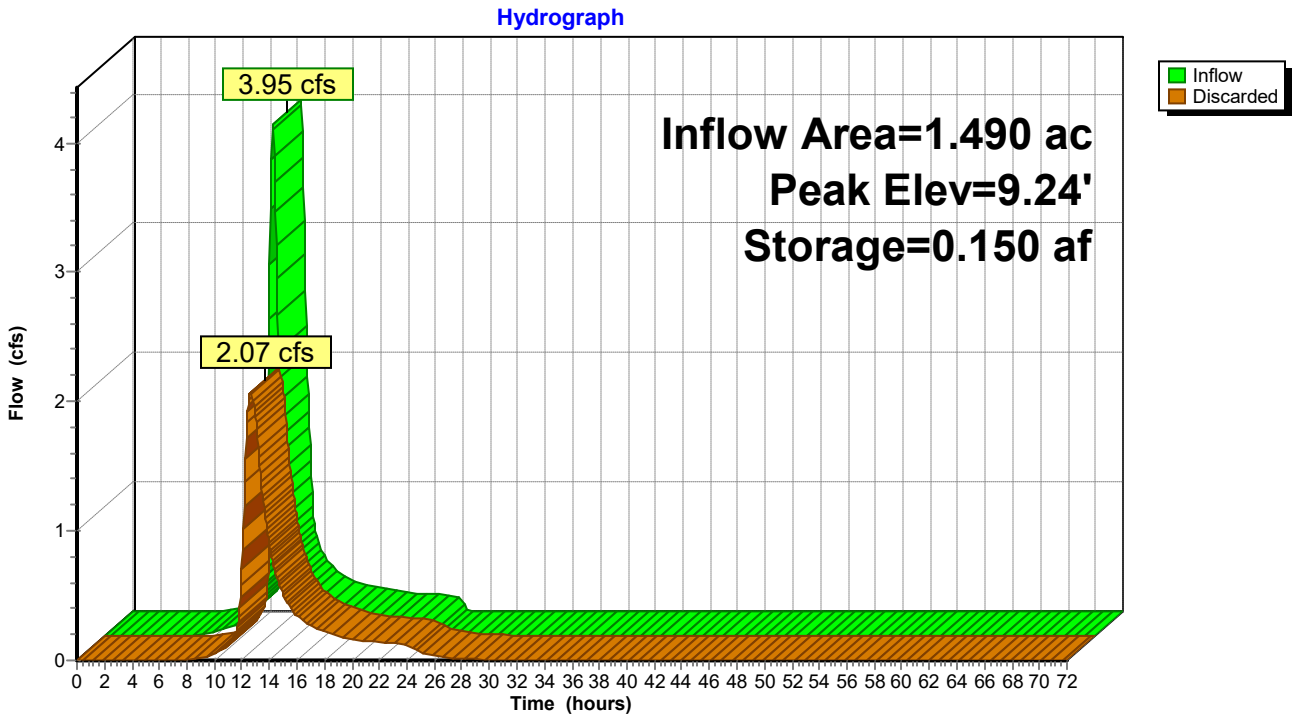
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
15.00	0.087	0.000	0.000
15.20	0.379	0.047	0.047
15.40	0.540	0.092	0.138

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)	Wet.Area (acres)
14.50	0.052	0.000	0.000	0.052
15.33	0.164	0.085	0.085	0.164

Device	Routing	Invert	Outlet Devices
#1	Discarded	3.00'	**5.700 in/hr Exfiltration over Wetted area from 3.00' - 12.50'** Conductivity to Groundwater Elevation = 2.65' Excluded Wetted area = 0.076 ac

Discarded OutFlow Max=2.07 cfs @ 12.63 hrs HW=9.24' (Free Discharge)
↑—**1=Exfiltration** (Controls 2.07 cfs)

Pond 2P: STORAGE



Summary for Pond 2P: STORAGE

[42] Hint: Gap in defined storage above volume #1 at 12.50'

Inflow Area = 1.490 ac, 61.74% Impervious, Inflow Depth > 10.65" for 25Y - 72H event
Inflow = 11.62 cfs @ 59.90 hrs, Volume= 1.323 af
Outflow = 4.48 cfs @ 60.16 hrs, Volume= 1.301 af, Atten= 61%, Lag= 16.0 min
Discarded = 4.48 cfs @ 60.16 hrs, Volume= 1.301 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 15.15' @ 60.16 hrs Surf.Area= 0.211 ac Storage= 0.326 af

Plug-Flow detention time= 67.7 min calculated for 1.301 af (98% of inflow)
Center-of-Mass det. time= 53.0 min (3,461.5 - 3,408.5)

Volume	Invert	Avail.Storage	Storage Description
#1	3.00'	0.208 af	**8.00'W x 415.00'L x 9.50'H EXFIL TRENCH** 0.724 af Overall - 0.031 af Embedded = 0.693 af x 30.0% Voids
#2	8.50'	0.030 af	**24.0" Round RCP_Round 24"** Inside #1 L= 415.0' 0.031 af Overall - 0.2" Wall Thickness = 0.030 af
#3	15.00'	0.138 af	**PAVEMENT (Prismatic)** Listed below (Recalc) -Impervious
#4	14.50'	0.085 af	**RETENTION (Conic)** Listed below (Recalc)
		0.462 af	Total Available Storage

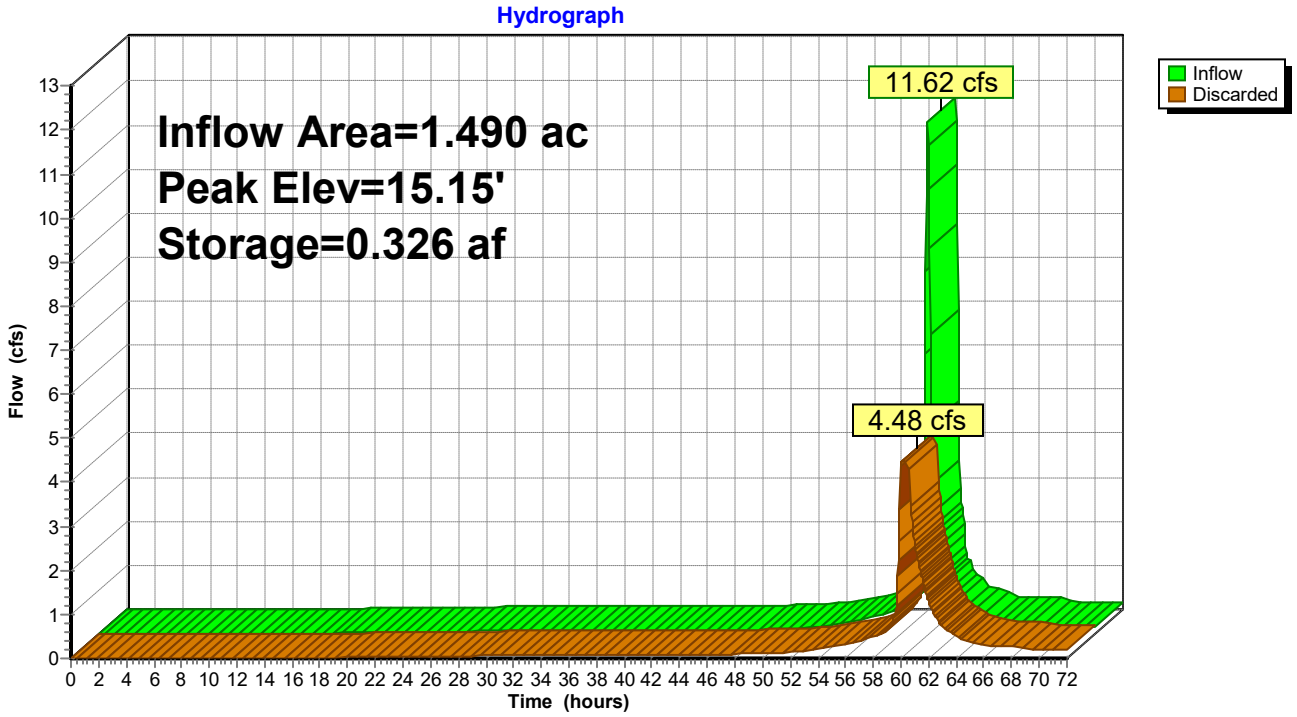
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
15.00	0.087	0.000	0.000
15.20	0.379	0.047	0.047
15.40	0.540	0.092	0.138

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)	Wet.Area (acres)
14.50	0.052	0.000	0.000	0.052
15.33	0.164	0.085	0.085	0.164

Device	Routing	Invert	Outlet Devices
#1	Discarded	3.00'	**5.700 in/hr Exfiltration over Wetted area from 3.00' - 12.50'** Conductivity to Groundwater Elevation = 2.65' Excluded Wetted area = 0.076 ac

Discarded OutFlow Max=4.48 cfs @ 60.16 hrs HW=15.15' (Free Discharge)
1=Exfiltration (Controls 4.48 cfs)

Pond 2P: STORAGE



Summary for Pond 2P: STORAGE

[42] Hint: Gap in defined storage above volume #1 at 12.50'

Inflow Area = 1.490 ac, 61.74% Impervious, Inflow Depth > 13.06" for 100Y - 72H event
Inflow = 13.98 cfs @ 59.90 hrs, Volume= 1.622 af
Outflow = 4.54 cfs @ 60.19 hrs, Volume= 1.597 af, Atten= 68%, Lag= 17.6 min
Discarded = 4.54 cfs @ 60.19 hrs, Volume= 1.597 af

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
Peak Elev= 15.30' @ 60.19 hrs Surf.Area= 0.235 ac Storage= 0.405 af

Plug-Flow detention time= 67.8 min calculated for 1.596 af (98% of inflow)
Center-of-Mass det. time= 53.7 min (3,433.9 - 3,380.2)

Volume	Invert	Avail.Storage	Storage Description
#1	3.00'	0.208 af	**8.00'W x 415.00'L x 9.50'H EXFIL TRENCH** 0.724 af Overall - 0.031 af Embedded = 0.693 af x 30.0% Voids
#2	8.50'	0.030 af	**24.0" Round RCP_Round 24"** Inside #1 L= 415.0' 0.031 af Overall - 0.2" Wall Thickness = 0.030 af
#3	15.00'	0.138 af	**PAVEMENT (Prismatic)** Listed below (Recalc) -Impervious
#4	14.50'	0.085 af	**RETENTION (Conic)** Listed below (Recalc)
		0.462 af	Total Available Storage

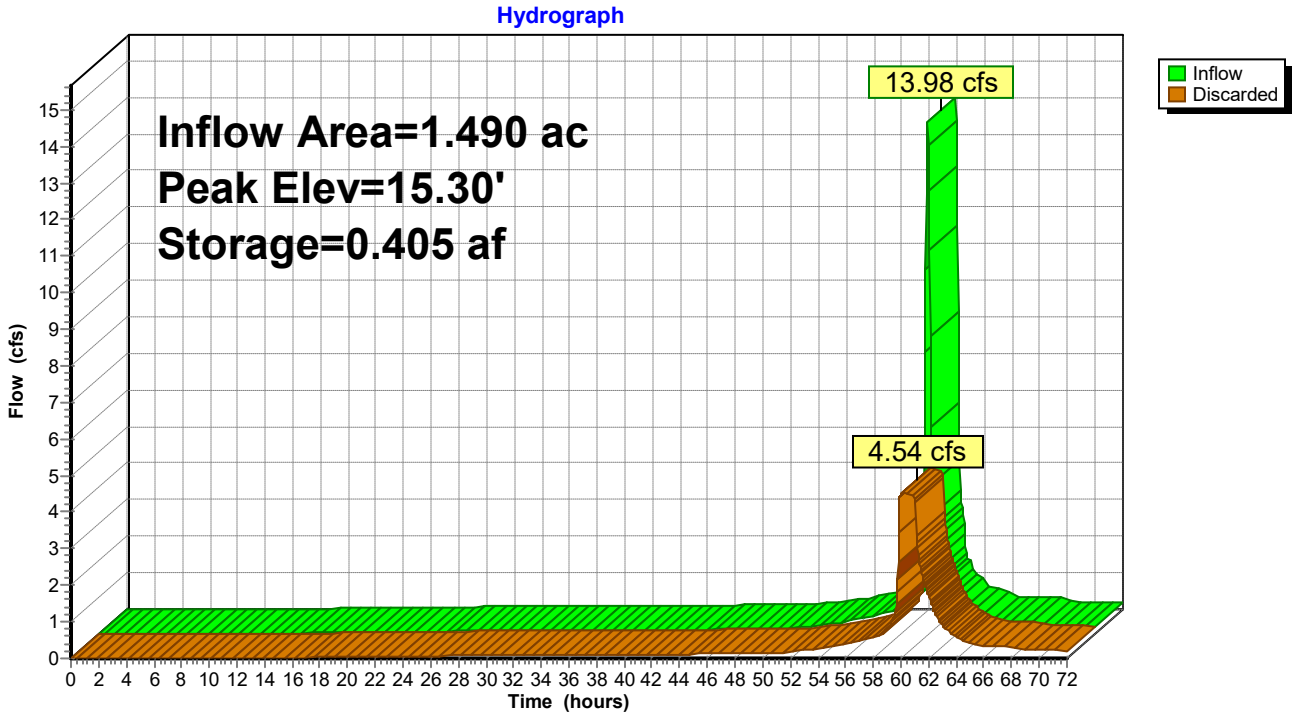
Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
15.00	0.087	0.000	0.000
15.20	0.379	0.047	0.047
15.40	0.540	0.092	0.138

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)	Wet.Area (acres)
14.50	0.052	0.000	0.000	0.052
15.33	0.164	0.085	0.085	0.164

Device	Routing	Invert	Outlet Devices
#1	Discarded	3.00'	**5.700 in/hr Exfiltration over Wetted area from 3.00' - 12.50'** Conductivity to Groundwater Elevation = 2.65' Excluded Wetted area = 0.076 ac

Discarded OutFlow Max=4.53 cfs @ 60.19 hrs HW=15.30' (Free Discharge)
1=Exfiltration (Controls 4.53 cfs)

Pond 2P: STORAGE



Stage-Area-Storage for Pond 2P: STORAGE

Elevation (feet)	Wetted (acres)	Storage (acre-feet)
3.00	0.076	0.000
3.20	0.080	0.005
3.40	0.084	0.009
3.60	0.088	0.014
3.80	0.092	0.018
4.00	0.096	0.023
4.20	0.100	0.027
4.40	0.103	0.032
4.60	0.107	0.037
4.80	0.111	0.041
5.00	0.115	0.046
5.20	0.119	0.050
5.40	0.123	0.055
5.60	0.127	0.059
5.80	0.131	0.064
6.00	0.134	0.069
6.20	0.138	0.073
6.40	0.142	0.078
6.60	0.146	0.082
6.80	0.150	0.087
7.00	0.154	0.091
7.20	0.158	0.096
7.40	0.162	0.101
7.60	0.166	0.105
7.80	0.169	0.110
8.00	0.173	0.114
8.20	0.177	0.119
8.40	0.181	0.123
8.60	0.185	0.128
8.80	0.189	0.135
9.00	0.193	0.141
9.20	0.197	0.148
9.40	0.201	0.155
9.60	0.204	0.163
9.80	0.208	0.170
10.00	0.212	0.177
10.20	0.216	0.183
10.40	0.220	0.190
10.60	0.224	0.194
10.80	0.228	0.199
11.00	0.232	0.204
11.20	0.235	0.208
11.40	0.239	0.213
11.60	0.243	0.217
11.80	0.247	0.222
12.00	0.251	0.226
12.20	0.255	0.231
12.40	0.259	0.236
12.60	0.261	0.238
12.80	0.261	0.238
13.00	0.261	0.238
13.20	0.261	0.238
13.40	0.261	0.238
13.60	0.261	0.238
13.80	0.261	0.238
14.00	0.261	0.238
14.20	0.261	0.238
14.40	0.261	0.238
14.60	0.323	0.244
14.80	0.346	0.258
15.00	0.373	0.278
15.20	**0.403**	0.350
15.40	**0.425**	**0.462**

Events for Pond 2P: STORAGE

Event	Inflow (cfs)	Discarded (cfs)	Elevation (feet)	Storage (acre-feet)
3Y - 1H	4.23	1.30	7.34	0.099
5Y - 1H	5.12	1.64	8.22	0.119
5Y - 24H	3.95	2.07	9.24	0.150
25Y - 72H	11.62	4.48	15.15	0.326
100Y - 72H	**13.98**	**4.54**	**15.30**	**0.405**

GEOTECHNICAL REPORT

ATM Engineering

TESTING LABORATORIES - ENGINEERING INSPECTION SERVICES - DRILLING - ENVIRONMENTAL SERVICES.

Aubrey Engineering, LLC d/b/a ATM Engineering

1950 W 84th Street, Hialeah, FL 33014 Phone:. 305-646-1888 Fax: 305-646-1887

April 25, 2025

Atlantic Engineering Services, Inc.
2826 Waters Edge Circle,
Greenacres, FL 33413

RE: **Subsurface Investigation for Proposed One-Story Building**
Located at: 101 10th Street, Lake Park, FL

Dear Sir.:

Pursuant to your authorization, **ATM ENGINEERING** conducted a subsurface investigation at the above referenced project. The investigation was performed **April 24th, 2025.**

The purpose of the investigation was to develop preliminary information about the site and the subsurface conditions existing in the vicinity of the proposed construction.

To achieve the desired objective **two (2) standard penetration test borings and one (1) percolation test** were performed and the logs are enclosed in this report.

TEST METHOD:

The borings were conducted in accordance with the procedures outlined for the standard penetration test and split spoon sampling of soils by ASTM Method D-1586.

A two (2) foot long two (2) inches O.D. Split Spoon Sampler was driven into the ground by successive blows with 140 lbs. The hammer drops thirty (30) inches. The soil sampler was driven two (2) feet at a time, then extracted for visual examination and classification of the retained soil samples.

The number of blows required for a one (1) foot penetration of the sampler is designated as "N" (known as the standard penetration resistance value). The "N" value provides an indication of the relative density of non-cohesive soils and the consistency of cohesive soils.

Suitable corrections are applied to this number in order to include the effects of soil overburden pressure and other factors. A general evaluation of soils is made from the established correlation between "N" and the relative density or consistency of soils.

This dynamic method of soil testing has been widely accepted by foundation engineers and architects to conservatively evaluate the bearing capacity of soils. A continuous drilling and sampling procedure was used therefore, the samples were taken at intervals of two (2) feet or at every change in soil characteristics.

Aubrey Engineering, LLC d/b/a ATM Engineering

1950 W 84th Street, Hialeah, FL 33014 Phone:. 305-646-1888 Fax: 305-646-1887

The types of foundation material encountered have been visually classified and are described in detail in the boring logs. The results of the field penetration tests are presented in the boring logs in numerical forms. The average ground water level at the site was found at **twelve (12) feet, two (2) inches** below the existing surface (see logs). Fluctuation in the observed ground water level should be expected due to seasonal climatic changes, rainfall variation, surface water run-off and other specific factors related to the site in question.

FOUNDATION RECOMMENDATIONS FOR THE PROPOSED ONE-STORY BUILDING:

Our recommendations are based on the information provided by the client as to the type of structure planned and on our subsurface investigation performed on the proposed site. Our recommendations are as follows:

1. Clear the entire building area plus 5'-0" outside the perimeter of construction and remove all top soil, and unsuitable subsurface material to the necessary depth. We anticipate an average clearance depth of approximately six (6) inches.

2. Compact cleared area to a minimum compaction of 98% of the optimum dry density as per AASHTO T-180. Verify densification procedures by taking an adequate number of field density compaction tests. The cleared area should be inspected prior to the commencement of the backfilling operation to ensure that all the unsuitable material has been removed.

3. Backfill building area, plus 5'-0" outside the perimeter of the structure to the required elevation with a clean mixture of sand, lime rock and lime sand fill (or approved fill material) in compacted layers not to exceed 12" in thickness. Compact each layer to a minimum of 98% of the optimum dry density as per AASHTO T180. Verify densification procedures by taking an adequate number of field density tests, especially in the footing area.

4. Excavate footing trenches to the required depth from the ground elevation.

5. Compact the bottom of the footing trench to a minimum compaction of 98% of the optimum dry density as per AASHTO T-180. Verify densification procedures by taking an adequate number of field density compaction tests.

DESIGN RECOMMENDATIONS:

The above foundation recommendation having been achieved and verified, we anticipate that the foundation and footings may be appropriately proportioned for a safe soil bearing capacity not to exceed **2500 pounds per square foot**. The use of spread footings and single column pads is suggested. A monolithic slab foundation may also be adopted.

Aubrey Engineering, LLC d/b/a ATM Engineering

1950 W 84th Street, Hialeah, FL 33014 Phone:. 305-646-1888 Fax: 305-646-1887

April 25, 2025
Atlantic Engineering Servies, Inc.

CONCLUSION:

Regardless of the thoroughness of our Geotechnical exploration there is always a possibility that conditions on the subject property (site) may be different from those at the test locations. Therefore, should any subsoil condition different from those reported in our boring logs be encountered during construction, **ATM ENGINEERING,** should be notified immediately.

This report was prepared exclusively for the use of **Atlantic Engineering Services, Inc.** The conclusions provided by **ATM ENGINEERING** are based solely on the information presented in this report. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

We appreciate the opportunity to have been of service to your company. Please feel free to contact us if there are any questions or comments pertaining to this report.

Sincerely yours,

4-28-25

Waseem Quadri, P.E .#51481 & S.I. #1154
Special Inspector - Threshold Buildings
ATM Engineering

WASEEM QUADRI LICENSE No. 51481 STATE OF FLORIDA PROFESSIONAL ENGINEER

RS/jtlAtlanticEngineeringServices,Inc

ATM Engineering

Testing Laboratories - Engineering Inspection Services - Chemist - Drilling - Environmental Services
Aubrey Engineering, LLC d/b/a ATM Engineering
1950 West 84th Street, Hialeah, Florida 33014/Phone: 305-646-1888/Fax: 305-646-1887

SOIL BORING LOG

CLIENT	Atlantic Engineering Services, Inc.	**Order No**	25-0424
ADDRESS	2826 Waters Edge Circle, GreenAcres, FL 33413	**Report No.**	1
PROJECT	Proposed One-Story Building	**Boring No.**	B-1
ADDRESS	101 10th Street, Lake Park, FL	**Date**	4/24/2025
LOCATION	As Marked on Aerial Photography	**Driller**	AG
		Helper	MP

Depth (feet)	DESCRIPTION OF MATERIALS	Sample No.	Hammer blows on sampler	"N"	"N" Curve
	Soil Boring from 0' to 20'				10 20 30 40 50+
1	0'-0" to 0'-2" Top soil	0'-2'	2 3	6	
2			3 3		
3	0'-2" to 5'-8" Backfill - light brown silica sand with shells	2'-4'	4 4	7	
4			3 4		
5		4'-6'	4 6	11	
6			5 5		
7	5'-8" to 8'-0" Light brown silica sand	6'-8'	6 6	13	
8			7 6		
9	8'-0" to 10'-0" Dark brown silica sand	8'-10'	8 7	14	
10			7 9		
11	▼	10'-12'	11 10	23	
12			13 12		
13		12'-14'	15 14	27	
14			13 12		
15	10'-0" to 20'-0" Brown medium silica sand	14'-16'	12 11	24	
16			13 16		
17		16'-18'	12 18	31	
18			13 19		
19		18'-20'	15 20	38	
20			18 22		
21	End Of Boring @ 20'				
22					
23					
24					
25					
26					
27					
28					
29					
30					

Water Level: (▼) 12'-0"
Sample Type: Split Spoon (SS)
At Date: 4/24/2025

Respectfully submitted,

Waseem Quadri, P.E. #51481 & S.I. #1154
Threshold Building - Special Inspector

WASEEM QUADRI LICENSE No. 51481 STATE OF FLORIDA PROFESSIONAL ENGINEER

Robert Shank, President

ATM Engineering

Testing Laboratories - Engineering Inspection Services - Chemist - Drilling - Environmental Services
Aubrey Engineering, LLC d/b/a ATM Engineering
1950 West 84th Street, Hialeah, Florida 33014/Phone: 305-646-1888/Fax: 305-646-1887

SOIL BORING LOG

CLIENT	Atlantic Engineering Services, Inc.	Order No	25-0424
ADDRESS	2826 Waters Edge Circle, GreenAcres, FL 33413	Report No.	1
PROJECT	Proposed One-Story Building	Boring No.	B-2
ADDRESS	101 10th Street, Lake Park, FL	Date	4/24/2025
LOCATION	As Marked on Aerial Photography	Driller	AG
		Helper	MP

Depth (feet)	DESCRIPTION OF MATERIALS	Sample No.	Hammer blows on sampler	"N"	"N" Curve
	Soil Boring from 0' to 20'				10 20 30 40 50+
1	0'-0" to 0'-2" Top soil	0'-2'	1 2	5	
2	0'-2" to 2'-8" Backfill - brown sand with some shells		3 3		
3		2'-4'	3 4	7	
4			3 4		
5	2'-8" to 7'-0" Light brown silica sand	4'-6'	4 5	9	
6			4 4		
7		6'-8'	6 7	15	
8			8 7		
9		8'-10'	7 9	17	
10	7'-0" to 12'-0" Dark brown silica sand		8 10		
11		10'-12'	11 10	20	
12	▼		10 13		
13		12'-14'	12 11	22	
14			11 13		
15		14'-16'	15 16	28	
16	12'-0" to 20'-0" Brown medium silica sand		12 11		
17		16'-18'	13 17	33	
18			16 15		
19		18'-20'	12 16	34	
20			18 18		
21	End of Boring @ 20'				
22					
23					
24					
25					
26					
27					
28					
29					
30					

Water Level: (▼) 12'-3"
Sample Type: Split Spoon (SS)
At Date: 4/24/2025

Respectfully submitted,

Waseem Quadri, P.E. #51481 & S.I. #1154
Threshold Building - Special Inspector

WASEEM QUADRI LICENSE No. 51481 STATE OF FLORIDA PROFESSIONAL ENGINEER

Robert Shank, President

ATM Engineering

Testing Laboratories - Engineering Inspection Services - Chemist - Drilling - Environmental Services
Aubrey Engineering, LLC d/b/a ATM Engineering
1950 W 84th Street, Hialeah, Florida 33014 - Phone: 305-646-1888/Fax: 305-646-1887

PERCOLATION TEST
USUAL OPEN HOLE TEST (CONSTANT HEAD)

CLIENT:	Atlantic Engineering Services, Inc.	Date: 4/24/2025	
CLIENT ADDRESS:	2826 Waters Edge Circle,		
	GreenAcres, FL 33413	TEST #:	P-1
PROJECT NAME:	Proposed One-Story Building		
PROJECT ADDRESS:	101 10th Street, Lake Park, FL		

LOCATION OF TEST	As Marked on Aerial Photography		
DIAMETER OF HOLE (IN)	6	LAT:	LON:
DEPTH HOLE (FEET)	15		
WATER TABLE BELOW GROUND SURFACE:	12 ft	3 in	

No.	Elapse Time (minute)	GPM
1	1	6.0
2	1	6.0
3	1	6.0
4	1	6.0
5	1	6.0
6	1	6.0
7	1	6.0
8	1	5.0
9	1	5.0
10	1	5.0

PERCOLATION RATE :	5.7
K-VALUE:	7.337E-05

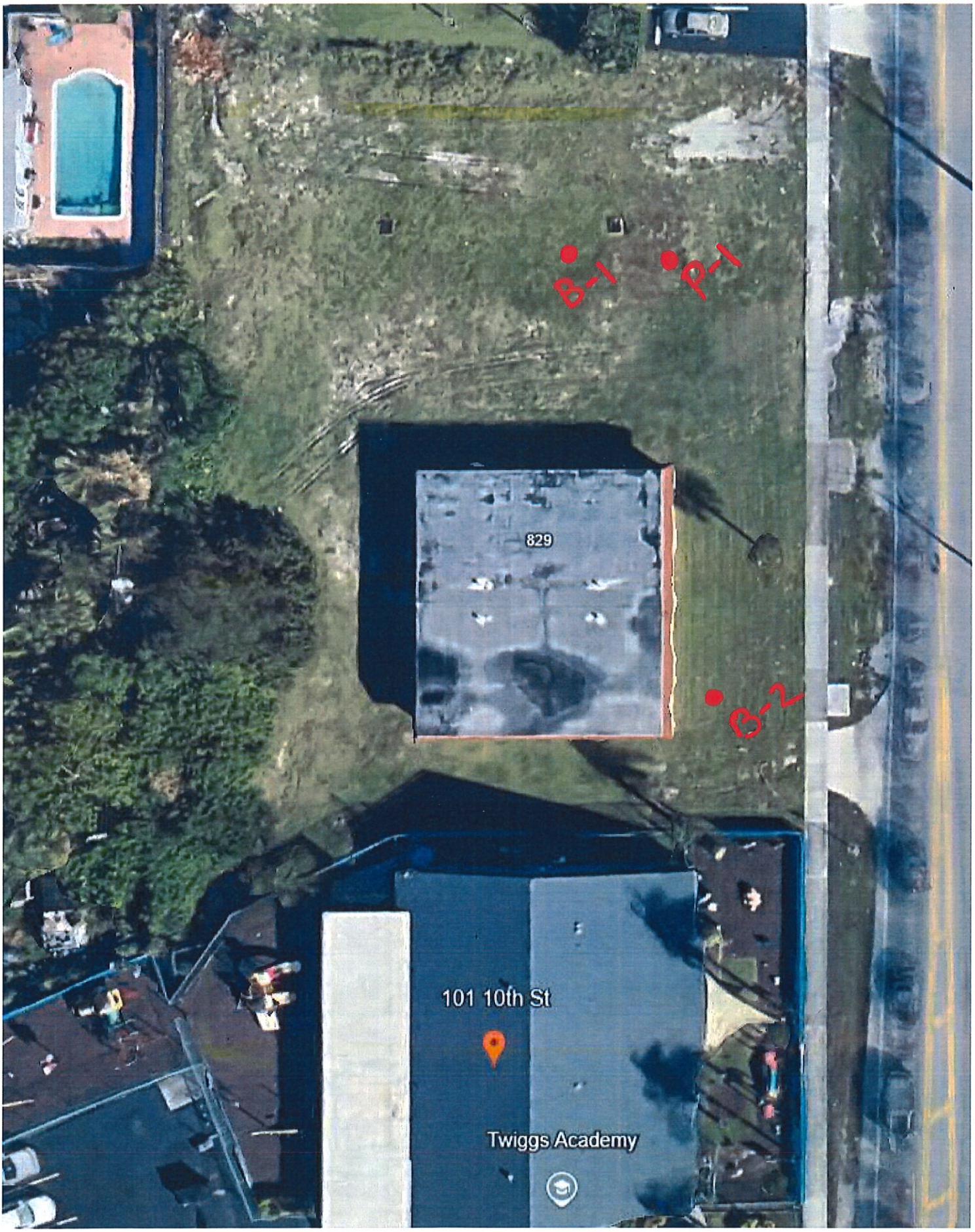
SOIL DEPTH	SOIL DESCRIPTION
0'-0" to 0'-2"	Top Soil
0'-2" to 3'-0"	Backfill - light brown silica sand with shells
3'-0" to 6'-6"	Light brown silica sand
6'-6" to 10'-0"	Dark brown silica sand
10'-0" to 15'-0"	Brown medium silica sand

FIELD TECH.	AG/MP
TYPE BY:	jt

Robert Shank, President

Waseem Quadri, P.E. #51481 STATE OF FLORIDA
Special Inspector (Threshold Bldg.) #7154
ATM Engineering

WASEEM QUADRI LICENSE No. 51481 STATE OF FLORIDA PROFESSIONAL ENGINEER


B-1
P-1
829
B-2
101 10th St
Twiggs Academy

Narrative/Justification Statement

Purpose of the Business

The purpose of ***Twiggs Academy Preschool*** is to provide a safe, nurturing, and developmentally appropriate early learning environment for children from infancy through four years old. The school is committed to supporting the whole child—socially, emotionally, physically, and cognitively—by offering high-quality care and structured learning experiences aligned with Florida's Early Learning and VPK standards.

Twiggs Academy exists to partner with families in the critical early years of childhood, ensuring that every child receives the foundational skills, guidance, and support needed for long-term academic success and healthy development. Through research-based curriculum, individualized instruction, and intentional play, the preschool aims to foster curiosity, creativity, and a lifelong love of learning.

Impact on Children, Families, and the Community

1. Impact on Children

- **School Readiness:** Children gain early literacy, math, language, and social-emotional skills that prepare them for kindergarten and future academic success.

- **Developmental Growth:** Age-appropriate learning opportunities support fine and gross motor skills, cognitive development, problem-solving, and independence.

- **Safe & Supportive Environment:** A consistent, nurturing setting builds confidence, emotional security, and positive peer relationships.

- **Early Intervention & Support:** Staff can identify developmental needs early, helping children receive timely support and improving long-term outcomes.

2. Impact on Families

- **Reliable and High-Quality Childcare:** Families benefit from dependable early care from 6:30 a.m. to 5:30 p.m. (93 enrollment) and 7 a.m. to 6 p.m.(expansion school - 135 enrollment), supporting working parents and guardians.

- **Parent Partnership & Communication:** Regular updates, progress reports, and family involvement create a strong home-school connection.

- **Peace of Mind:** Parents feel confident that their children are in a safe, licensed, and enriching learning environment that meets Florida's childcare standards.

3. Impact on the Community

- **Strengthens Local Workforce:** By offering full-day childcare, Twiggs Academy helps parents maintain employment and stability.

- **Promotes Early Education Access:** Twiggs Academy increases availability of VPK services, supporting equitable school readiness for all children.

- **Supports Long-Term Community Outcomes:** High-quality early learning programs contribute to higher graduation rates, reduced remediation in schools, and overall healthier communities.

To minimize car traffic for parents at Twiggs Academy Preschool, an effective plan involves a combination of clearly defined traffic flow, staggered timing for pickup and drop off , designated staff assistance, designated parking for expanded school, and the active promotion of the new technology system. carpooling. The plan will be a collaborative effort between the school and parents.

1. **Traffic Flow and Zone Management**

- **Two-Way Traffic System:**
  Access from Silver Beach will be controlled by an electric security gate, which will remain closed during peak traffic hours (7:00–10:00 AM and 4:00–7:00 PM). This system is designed to eliminate parent vehicles from entering or exiting during high-congestion periods on Silver Beach, thereby improving both safety and traffic flow. The approach is comparable to the traffic design used at ***Oceana Coffee, but with more stringent controls and operational guidelines.***
- **Designated Drop-Off/Pick-Up (DO/PU) Zone:**
  The school will include a clearly defined DO/PU area with marked parking spaces, high-visibility signage, and painted pavement indicators (e.g., yellow curbs reserved for immediate loading and unloading). The design accommodates multiple vehicles simultaneously, enabling parents to move efficiently in and out throughout the day. Due to the extended pick-up window—beginning at 12:30 PM for VPK students and spanning approximately five hours—There is NO queuing.
- **Parking Requirements within the DO/PU Zone:**
  Parents will be required to park in the designated DO/PU spaces when dropping off or picking up their children. A separate DO/PU section will be allocated specifically for VPK students, who are developmentally able to walk safely with a parent to and from their vehicle.
- **Separated Pedestrian Pathways:**
  To ensure the safety of children and families, the site plan includes distinct, dedicated pedestrian walkways leading directly to the school entrance. These pathways help eliminate pedestrian–vehicle conflict points.
- **Enhanced Signage:**
  The traffic system will be supported by simple, highly visible signage and optional color-coded markers to clearly direct both drivers and pedestrians. Signage will include instructions for navigating the site as well as posted DO/PU rules.

2. Operational Procedures

Efficient traffic and safety management will depend on consistent staff oversight and clear expectations for families.

- **Staff Support:**
  During periods of inclement weather and peak DO/PU times, trained staff members—equipped with high-visibility safety vests—will be stationed in the DO/PU zone to assist children safely entering or exiting vehicles.
- **Staggered Scheduling:**
  Arrival and dismissal times will be strategically staggered, aligned with the school's operating hours (7:00 AM–6:00 PM), to distribute traffic more evenly and minimize congestion.
- **Efficient Loading and Unloading Expectations:**
  Parents will be encouraged to have all student belongings (backpacks, diapers, wipes, clothing, and other supplies) fully prepared prior to entering the DO/PU area. This practice reduces the time each vehicle spends in the zone and maintains a continuous, efficient flow of traffic.

3. Parent Communication and Alternatives

A successful plan requires parental cooperation, which is achieved through clear communication and providing alternatives to single-family car use.

- **Communication Plan:** Twiggs Academy will develop a comprehensive communication plan detailing the new procedures, traffic map, and timing. Share this information via email, the school website, newsletters, and a dedicated parent portal.
- **Encourage Carpooling:** Twiggs Academy will actively promote and help facilitate carpooling among families who live in the same neighborhood. The school could provide resources or use carpool-matching apps to connect interested parents. Carpoolers could be given access to a priority or preferred lane to incentivize participation.

- **"Walk or Bike" Initiatives:** If feasible and safe for the surrounding area, encourage walking or biking by partnering with programs like Safe Routes to School.
- The number of persons anticipated to be using or working on the property as a result of the Special Exception use will be Twelve teachers and one director
- The proposed preschool is designed and intended to operate as a **low-impact educational use** that is fully compatible with the surrounding business and offices. The following measures ensure minimal nuisance impact:
- **Noise Impacts**

  The preschool will generate minimal noise comparable to a standard professional office use. No outdoor instruction, outdoor play, or amplified sound will occur on the site. All educational activities will take place indoors within acoustically controlled classrooms. Drop-off and pick-up procedures will be managed efficiently to prevent excessive vehicle idling or congestion-related noise.
- **Visual Impacts**

  The exterior appearance of the building will maintain a professional and aesthetically appropriate design consistent with the character of the surrounding district. Required landscaping and buffering will be installed and maintained in accordance with applicable code requirements to minimize visual impacts on adjacent and nearby properties.
- **Other Potential Nuisance Factors**

  The preschool will operate strictly within approved hours and enrollment limits established in coordination with the Community Development Director. Traffic circulation and parking will be managed to prevent congestion, and all operations will comply with local ordinances related to safety, sanitation, and property maintenance. No activities will be conducted that create glare, vibration, odors, or other disturbances.
- Based on the above, the proposed use will not create noise, visual, or other nuisance conditions that would adversely affect neighboring properties. Twiggs Academy Preschool will function as a well-managed, orderly, and compatible use within the Town.

4. Key Technology Solutions

- **Mobile Apps for Parents and Staff:** These are the core of most solutions, allowing parents and staff to manage various tasks from their smartphones.
- **Contactless Check-in/out:** Parents will be able to use their own devices to check children in and out via GPS, a unique 4-digit PIN, or scanning a QR code at a physical kiosk, eliminating shared surfaces and paper sign-in sheets.
- **Real-Time Attendance Tracking:** The system automatically updates attendance records in real-time, allowing staff to instantly see who is on site and monitor room ratios to ensure compliance with regulations.

5. Safety and security measures

- Authorized pick-up list: Parents must provide a list of authorized adults who can pick up their child.
- Photo ID: Twiggs Academy will require a valid photo ID for individuals who are not on the authorized list.
- Emergency contact information: Emergency contact information will be kept up to date.
- Security measures: Twiggs Academy will have security measures like a password system or a secure entry system with key fobs or fingerprint readers.
- Communication: If an unauthorized person is dropping off or picking up a child, they will not be authorized to do so without prior notification or being added to the authorization record.

6. Ongoing Evaluation

- **Feedback and Adjustment:** Management of Twiggs Academy will regularly seek feedback from parents and staff to identify potential issues and fine-tune the procedures as needed.

- By implementing this structured and well-communicated plan, Twiggs Academy Preschool can significantly reduce traffic congestion, improve safety, and create a less stressful experience for everyone involved.

Frog Street Curriculum at Twiggs Academy Preschool

At Twiggs Academy Preschool, we use the **Frog Street Early Childhood Curriculum**, a nationally recognized, research-based program designed to support young children's growth in every area of development—from infancy through Pre-K/VPK. Frog Street provides a joyful, structured, and purposeful learning experience that aligns with Florida Early Learning and VPK Standards.

Why Frog Street?

Frog Street was created by early childhood experts who specialize in brain development, literacy, early math, and social-emotional learning. The curriculum intentionally blends academic readiness with nurturing relationships, play-based exploration, and routines that build confidence and independence.

Key Features of Frog Street at Twiggs Academy

1. Comprehensive Developmental Learning

Frog Street supports **all domains of early learning**, including:

- Language & literacy
- Early math & problem-solving
- Science inquiry
- Fine & gross motor development
- Social–emotional development
- Physical health & safety
- Cognitive and brain-based learning skills

Each classroom—infants, toddlers, 2's, 3's, and VPK—uses age-appropriate materials, lessons, and routines aligned with developmental milestones.

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2. Social–Emotional Learning Through Conscious Discipline

A core component of Frog Street is **Conscious Discipline**, a positive behavior-guidance system that helps children:

- Build self-regulation skills
- Understand emotions
- Develop empathy
- Solve conflicts in healthy ways

Teachers model calm behavior, use consistent routines, and teach children strategies for expressing feelings and building friendships.

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3. Language-Rich, Literacy-Rich Environment

Frog Street integrates literacy throughout the day with:

- Daily read-alouds
- Vocabulary-rich conversations
- Alphabet and phonological awareness activities
- Storytelling, music, and rhymes

These experiences help build strong early language skills essential for kindergarten readiness.

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4. Structured Daily Learning Through Play

Hands-on, play-based learning is central to Frog Street. Children rotate through engaging learning centers that may include:

- Blocks
- Dramatic play
- Science and discovery
- Sensory tables
- Writing and art centers
- Manipulatives and puzzles

Teachers guide exploration, introduce new concepts, and support children's individual learning styles.

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5. Strong Alignment With Florida Standards

Frog Street meets or exceeds:

- **Florida Early Learning and Developmental Standards Birth–Five**
- **Florida VPK Standards**
- Literacy and math readiness skills required for kindergarten entry

The curriculum includes ongoing assessment tools that help teachers track progress and tailor instruction for each child.

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6. Family Engagement

Frog Street provides:

- Monthly theme guides
- At-home activity suggestions

- Family letters and resources
- Progress updates

Twiggs Academy uses these tools to ensure parents are active partners in their child's learning journey.

Our Commitment at Twiggs Academy

By using Frog Street, Twiggs Academy ensures:

- Consistent, high-quality instruction across all age groups
- A nurturing environment based on emotional safety and positive discipline
- Developmentally appropriate activities that prepare children academically, socially, and emotionally for kindergarten success

Frog Street helps Twiggs Academy create a joyful classroom community where children feel safe, loved, and excited to learn each day.

APPLE Accreditation for Twiggs Academy Preschool

Twiggs Academy Preschool is proud to have earned **A.P.P.L.E. (Accredited Professional Preschool Learning Environment) Accreditation**, a distinguished recognition awarded by the **Florida Association for Child Care Management (FACCM)**. This accreditation demonstrates that our preschool meets or exceeds high standards of quality in early childhood education.

APPLE Accreditation is one of Florida's most respected accreditations for early learning programs. To achieve this status, Twiggs Academy underwent a comprehensive evaluation process that assessed multiple areas of program excellence, including:

- **Health and Safety Standards:** Ensuring children learn in a safe, well-maintained, and developmentally appropriate environment.

- **Teacher Qualifications and Professional Development:** Demonstrating that our educators are trained, supported, and continually improving in early childhood best practices.

- **Curriculum and Learning Environment:** Providing a rich, developmentally appropriate curriculum that supports cognitive, physical, social–emotional, and language development.

- **Family and Community Engagement:** Maintaining strong communication with families and building collaborative relationships that support children's learning.

- **Program Administration and Leadership:** Upholding strong operational policies, ethical practices, and effective management.

By earning APPLE Accreditation, Twiggs Academy Preschool shows its commitment to delivering **high-quality early education**, maintaining accountability, and creating a nurturing environment where infants through VPK students can grow, explore, and thrive.

This accreditation reflects our dedication to excellence and assures families that Twiggs Academy meets rigorous standards that go above and beyond Florida's minimum licensing requirements.

Twiggs Academy Preschool

Daily Operations Schedule (6:30 AM – 5:30 PM)(7 AM- 6PM expansion)**

Overview

Twiggs Academy Preschool operates Monday through Friday from **6:30 AM to 5:30 PM (7 AM- 6 PM expansion)**, serving children from **infants through 4 years old (VPK)**. The daily schedule supports developmental needs, safety, routine, exploration, and nurturing care across all age groups.

Daily Operations

7AM – 8:00 AM | Arrival & Early Morning Care

- School opens; staff greet children and families.
- Health and wellness checks conducted during drop-off.
- Children placed in mixed-age early arrival classrooms.
- Quiet choice activities: books, manipulatives, soft music, sensory play (age-appropriate).
- Teachers review individual infant schedules and needs.

8:00 AM – 8:30 AM | Classroom Transition & Breakfast

- Children transition to their assigned age-level classrooms.
- Breakfast is served (infants fed on individual feeding schedules).
- Handwashing routines before and after meals.
- Daily goals and activities are reviewed with the children.

8:30 AM – 9:00 AM | Morning Circle Time

Age-adjusted activities may include:

- Songs, fingerplays, and movement
- Weather and calendar
- Introduction to daily theme or learning topic
- Language-building activities

Infants participate in floor time, language interactions, and tummy time instead of structured circle time.

9:00 AM – 10:30 AM | Learning Centers & Structured Curriculum

Infants: developmental play, sensory exploration, bonding activities
Toddlers: centers such as dramatic play, blocks, art, sensory bins, music
Preschool/VPK:

- Literacy and language centers
- Math and problem-solving activities
- Science and discovery time

- Fine motor activities
  Teachers rotate small groups and conduct individualized instruction or VPK-required lessons.

10:30 AM – 11:30 AM | Outdoor Play / Gross Motor Development

- Outdoor playground time (weather permitting) or indoor gross-motor substitute.
- Activities: running, climbing, ball play, trikes, nature exploration.
- Infants may enjoy stroller walks, tummy time on outdoor mats, or shaded fresh-air time.
- Hydration breaks provided.

11:30 AM – 12:15 PM | Lunch

- Catered or brought-from-home meals served (depending on center policy).
- Teachers model family-style dining for older groups.
- Infants fed according to schedule (bottles, solids).
- Handwashing and diaper checks/potty routines.

12:15 PM – 2:30 PM | Rest & Nap Time

- Lights lowered, quiet music or soft sound machine.
- All children rest; infants follow their individualized routines.
- Teachers maintain required visual checks every 15 minutes for napping children.

- Quiet activities available for early wakers (books, puzzles, table toys).

2:30 PM – 3:00 PM | Afternoon Snack

- Healthy snacks provided.
- sanitation procedures followed.
- Infants fed on demand or according to schedule.

3:00 PM – 4:00 PM | Afternoon Learning & Enrichment

Activities vary by age group:

- Art and creative expression
- Music and movement
- STEM centers
- Outdoor play rotation
- VPK skill reinforcement
- Social–emotional learning activities

Infants enjoy sensory time, social interaction, and developmental floor play.

4:00 PM – 6 PM | End-of-Day Care & Pick-Up

- Mixed-age classrooms combine as enrollment decreases.

- Quiet play activities: blocks, manipulatives, dramatic play, reading corner.
- Teachers conduct final diaper changes and restroom reminders.
- Daily communication shared with parents (behavior notes, meals, naps, incidents, achievements).
- The center will close promptly at 6 PM.

Additional Operational Notes

- **Diapering & Potty Training:** Every 2 hours or as needed; ongoing potty-training support for 2–3-year-olds.
- **Sanitation:** Toys sanitized throughout the day; classrooms cleaned during nap time and after closing.
- **Inclement Weather:** Indoor gross motor activities provided in multipurpose room.
- **Infant Care:** Feedings, diapering, and naps follow individual schedules communicated by the family.
- **Safety & Compliance:** All staff maintain ratios and supervision at all times, following state licensing guidelines.

Major Florida Child Care Licensing Requirements

1. **Licensing Authority**
    - Child care centers are typically licensed by the **Florida Department of Children & Families (DCF)**.

2. **Staff Screening & Background Checks**
    - All child care personnel must undergo **level-2 background screening**, which includes criminal history checks, employment history, and checks of registries (sexual predator/offender, abuse/neglect) per Florida Statute.
    - Fingerprint submission is required.

3. **Staff Training & Qualifications**
    - New child care personnel must start training within **90 days of employment** and must complete a 40-hour introductory course within one year.
    - The introductory course must cover: state rules, health/safety/nutrition, identifying/reporting child abuse, child development (typical and atypical), observation techniques, and working with early literacy, among other topics.
    - Annual continuing education is required.

- There is also a training requirement regarding serving children with disabilities (within 5 years of employment).

- For credentialing: a director must have a **child care professional credential** or a **Child Development Associate (CDA)**, or an equivalent credential.

4. **Staff-to-Child Ratios**
   Under Florida Statutes, the minimum required ratios are:

   - **Birth – 1 year:** 1 staff per 4 children
   - **1 – under 2 years:** 1 staff per 6 children
   - **2 – under 3 years:** 1 staff per 11 children
   - **3 – under 4 years:** 1 staff per 15 children
   - **4 – under 5 years:** 1 staff per 20 children

   - For children older than 5, different ratios apply, but not necessarily relevant for a preschool (unless you also serve school-age).

5. **preschool Requirements (Physical Space)**

   - There are minimum standards for **indoor space per child** and **outdoor play area**.

   - According to the statute: if the preschool was newly licensed (after Oct 1, 1992), there must be at least **35 sq ft of usable indoor floor space per child**, plus **45 sq ft of usable outdoor play area per child** for the children using that space.

   - The rules also cover building conditions, napping space, bathroom facilities, food-prep areas, equipment, and more.
   -

6. **Health, Safety & Sanitation**

   - Licensing standards must address health, sanitation, safety, and adequate physical surroundings.

   - Facilities must comply with fire safety rules (State Fire Marshal) for child-care facilities.

- For nap times, there are requirements about supervision, nap space, etc., laid out in rule (65C-22).

7. **Licensing Application**
    - To apply for or renew a license, Twiggs Academy must use the **DCF form CF-FSP 5017**.
    - The application must include: background screening clearance, an approved fire inspection, and other documentation.
    - Renewal: license renewal applications must be submitted **at least 45 days before** expiration.
8. **Capacity & Director Requirements**
    - The statute requires a **credentialed director** for a licensed preschool.
    - There are also minimum age and moral-character requirements for child care personnel.
9. **Inspections & Ongoing Compliance**
    - DCF (or the local licensing agency) is responsible for **inspections** to ensure compliance with licensing standards.
    - They monitor ongoing compliance with staff ratios, health and safety, training, and preschool standards.

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2. Personnel / Staff Requirements

- **Background Checks**: All child-care personnel must undergo **Level-2 screening** (criminal history, employment history, sexual predator/offender registry, child abuse registry).
- **Fingerprinting** required consistent with Florida law.

- **Minimum Age**: The preschool operator must be at least 21; employees under 16 must be under direct supervision.
- **Introductory Training**: All new personnel must complete a **40-hour child-care training course**, covering:
    - Florida child-care rules/regulations
    - Health, safety, nutrition
    - Child abuse / neglect identification & reporting
    - Child development (typical/atypical)
    - Observational tools / developmental checklists
    - Early literacy, language development
    - Working with children with disabilities (e.g., autism, Down syndrome)
- **Ongoing Training**: Annual or in-service training required (statute mandates in-service).
- **Special Disabilities Training**: Personnel must complete training about serving children with disabilities within 5 years of employment.
- **Credentials**: For every 20 children, at least one staff must hold a:
    - Child Development Associate (CDA) credential, **or**
    - Child Care Professional Credential, **or**
    - Equivalent/greater credential.

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3. Staff-to-Child Ratios

As required by Florida Statute 402.305:

- Birth – 1 year: 1 staff : 4 children
- 1 – under 2: 1 : 6
- 2 – under 3: 1 : 11
- 3 – under 4: 1 : 15
- 4 – under 5: 1 : 20
- When multiple age groups are mixed, the ratio is based on the group with **the highest number of children** (oldest group ratio applies).

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4. preschool / Physical Environment

- **Indoor Space**: Must meet minimum standards for usable indoor floor space.
- **Outdoor Play Area**: Must have adequate, usable outdoor play space per child.
- **Napping Space**: Dedicated space for naps that meets safety standards.
  Bathrooms: Must have sufficient bathroom facilities suitable for children.

- **Food Preparation Area**: If providing meals/snacks, must meet sanitation and food prep requirements.
- **Equipment**: Indoor and outdoor equipment must be safe, maintained, age-appropriate.
- **Fire / Safety Compliance**: Must pass fire inspection before licensing.

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5. Health, Sanitation & Safety

- Twiggs Academy will follow health-related requirements (immunizations, illness policies, first-aid).

- Sanitation: Toys, surfaces, restrooms, food areas must be regularly cleaned.

- Supervision: Adequate supervision must be maintained when children arrive, depart, and during all activities.

- Reporting & Documentation: Must maintain health, accident, incident records, and report required issues.

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6. Food & Nutrition

- Twiggs Academy will provide nutritious meals and snacks if the preschool serves food.
- Ensure proper handwashing before/after meals.

- If using outside food providers or cooking on-site, maintain food safety standards consistent with the local health department.

7. Record Keeping- Twiggs Academy will-

- Maintain **attendance records** for each child.
- Maintain **personnel records**, including training certificates, background checks, credentials.

- Keep **health records** for each child: immunizations, health check-ups, incident reports.

- Maintain **incident / accident reports** with appropriate documentation.

- Licensing documents, inspection reports, and licensing certificate should be posted or readily available.

Playground Requirements for Twiggs Academy Preschool

At Twiggs Academy Preschool, ensuring a safe, engaging, and developmentally appropriate outdoor play environment is a top priority. To comply with Florida's licensing regulations and best practices, we follow these playground requirements:

1. Minimum Outdoor Play Space

- According to Florida Statutes, each child (1 year of age and older) must have a **minimum of 45 square feet** of usable outdoor play area per child.
- The outdoor play area should accommodate at least **half (½) of our licensed capacity** at any one time.
- For infants (under 1 year), the standard of 45 sq ft per child doesn't apply, but we must provide **appropriate outdoor infant play equipment** instead.

2. Surface and Drainage

- The ground surface must be **adequately drained** to prevent standing water.
- The surfacing under and around play equipment should be safe and provide **fall protection** (e.g., resilient material or properly maintained loose-fill surfaces).

3. Emergency and Health Preparedness

- At Twiggs Academy, at least one staff member trained in **pediatric CPR** must be on-site whenever children are present.

- The outdoor play area must follow

4. Program Planning

- Twiggs Academy will maintain a **written plan** for daily activities that includes both active and quiet play, tailored to the age of the children.

- Outdoor play is integrated into our schedule to support children's physical development, social interaction, and exploration.

5. Local Considerations

- Twiggs Academy will also comply with **local (Palm Beach County) licensing** or health department rules. For example, county regulations require that the outdoor play area be free of litter, hazards, and provide shade.

- If there are any site-specific constraints (e.g., limited space, urban environment), Twiggs Academy will work with licensing authorities to ensure compliance or make required substitutions (e.g., additional indoor play space if outdoor space is limited).

Why These Requirements Matter for Twiggs Academy-

- **Safety:** Proper fencing, surfacing, and supervision reduce risk of injury.

- **Development:** A well-designed outdoor area supports physical, social, and emotional growth.

- **Regulatory Compliance:** Meeting state and county licensing standards is essential for legal operation and for maintaining our license.

- **Well-being:** Daily outdoor play helps children get fresh air, engage in active play, and develop healthy habits.

a. Compliance with Applicable Codes and Regulations
The proposed development will fully comply with all applicable provisions of the Code, including this chapter, Subpart B land development regulations, parking requirements, and landscaping standards. All site plans have been prepared in accordance with current zoning, engineering, and planning requirements and will be implemented as approved.

b. Outdoor Instruction and Recreational Activities
Twiggs Academy acknowledges and agrees that no outdoor instruction will be conducted on the site. All educational and enrichment activities will occur indoors in compliance with approved use conditions.

c. Enrollment Limitations
Enrollment capacity will be 135 children. The preschool will not exceed a limit mutually agreed upon by the property owner and the Community Development Director. This enrollment cap will be established to ensure minimal traffic congestion and to prevent adverse impacts on adjacent and nearby properties, with particular consideration given to properties located within 300 feet of the site.

d. Compliance with Educational Laws and Regulations
The preschool will operate in full compliance with all applicable local, state, and federal laws and regulations governing educational facilities, including licensing requirements, safety standards, and operational regulations.

e. Neighborhood Notification and Opportunity for Comment
Owners of all properties located within 300 feet of the site will be provided an opportunity to submit comments regarding the appropriateness of the proposed use, consistent with the general business/office character of the district and in accordance with required public notice procedures.

Twiggs Academy remains committed to operating as a low-impact, professionally managed educational preschool that is compatible with the surrounding area.

ATM Engineering

TESTING LABORATORIES - ENGINEERING INSPECTION SERVICES - DRILLING - ENVIRONMENTAL SERVICES.

Aubrey Engineering, LLC d/b/a ATM Engineering

1950 W 84th Street, Hialeah, FL 33014 Phone:. 305-646-1888 Fax: 305-646-1887

April 25, 2025

Atlantic Engineering Services, Inc.
2826 Waters Edge Circle,
Greenacres, FL 33413

RE: **Subsurface Investigation for Proposed One-Story Building**
Located at: 101 10th Street, Lake Park, FL

Dear Sir.:

Pursuant to your authorization, **ATM ENGINEERING** conducted a subsurface investigation at the above referenced project. The investigation was performed **April 24th, 2025.**

The purpose of the investigation was to develop preliminary information about the site and the subsurface conditions existing in the vicinity of the proposed construction.

To achieve the desired objective **two (2) standard penetration test borings and one (1) percolation test** were performed and the logs are enclosed in this report.

TEST METHOD:

The borings were conducted in accordance with the procedures outlined for the standard penetration test and split spoon sampling of soils by ASTM Method D-1586.

A two (2) foot long two (2) inches O.D. Split Spoon Sampler was driven into the ground by successive blows with 140 lbs. The hammer drops thirty (30) inches. The soil sampler was driven two (2) feet at a time, then extracted for visual examination and classification of the retained soil samples.

The number of blows required for a one (1) foot penetration of the sampler is designated as "N" (known as the standard penetration resistance value). The "N" value provides an indication of the relative density of non-cohesive soils and the consistency of cohesive soils.

Suitable corrections are applied to this number in order to include the effects of soil overburden pressure and other factors. A general evaluation of soils is made from the established correlation between "N" and the relative density or consistency of soils.

This dynamic method of soil testing has been widely accepted by foundation engineers and architects to conservatively evaluate the bearing capacity of soils. A continuous drilling and sampling procedure was used therefore, the samples were taken at intervals of two (2) feet or at every change in soil characteristics.

Aubrey Engineering, LLC d/b/a ATM Engineering

1950 W 84th Street, Hialeah, FL 33014 Phone:. 305-646-1888 Fax: 305-646-1887

The types of foundation material encountered have been visually classified and are described in detail in the boring logs. The results of the field penetration tests are presented in the boring logs in numerical forms. The average ground water level at the site was found at **twelve (12) feet, two (2) inches** below the existing surface (see logs). Fluctuation in the observed ground water level should be expected due to seasonal climatic changes, rainfall variation, surface water run-off and other specific factors related to the site in question.

FOUNDATION RECOMMENDATIONS FOR THE PROPOSED ONE-STORY BUILDING:

Our recommendations are based on the information provided by the client as to the type of structure planned and on our subsurface investigation performed on the proposed site. Our recommendations are as follows:

1. Clear the entire building area plus 5'-0" outside the perimeter of construction and remove all top soil, and unsuitable subsurface material to the necessary depth. We anticipate an average clearance depth of approximately six (6) inches.

2. Compact cleared area to a minimum compaction of 98% of the optimum dry density as per AASHTO T-180. Verify densification procedures by taking an adequate number of field density compaction tests. The cleared area should be inspected prior to the commencement of the backfilling operation to ensure that all the unsuitable material has been removed.

3. Backfill building area, plus 5'-0" outside the perimeter of the structure to the required elevation with a clean mixture of sand, lime rock and lime sand fill (or approved fill material) in compacted layers not to exceed 12" in thickness. Compact each layer to a minimum of 98% of the optimum dry density as per AASHTO T180. Verify densification procedures by taking an adequate number of field density tests, especially in the footing area.

4. Excavate footing trenches to the required depth from the ground elevation.

5. Compact the bottom of the footing trench to a minimum compaction of 98% of the optimum dry density as per AASHTO T-180. Verify densification procedures by taking an adequate number of field density compaction tests.

DESIGN RECOMMENDATIONS:

The above foundation recommendation having been achieved and verified, we anticipate that the foundation and footings may be appropriately proportioned for a safe soil bearing capacity not to exceed **2500 pounds per square foot**. The use of spread footings and single column pads is suggested. A monolithic slab foundation may also be adopted.

Aubrey Engineering, LLC d/b/a ATM Engineering

1950 W 84th Street, Hialeah, FL 33014 Phone:. 305-646-1888 Fax: 305-646-1887

April 25, 2025
Atlantic Engineering Servies, Inc.

CONCLUSION:

Regardless of the thoroughness of our Geotechnical exploration there is always a possibility that conditions on the subject property (site) may be different from those at the test locations. Therefore, should any subsoil condition different from those reported in our boring logs be encountered during construction, **ATM ENGINEERING,** should be notified immediately.

This report was prepared exclusively for the use of **Atlantic Engineering Services, Inc.** The conclusions provided by **ATM ENGINEERING** are based solely on the information presented in this report. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

We appreciate the opportunity to have been of service to your company. Please feel free to contact us if there are any questions or comments pertaining to this report.

Sincerely yours,

4-28-25

Waseem Quadri, P.E .#51481 & S.I. #1154
Special Inspector - Threshold Buildings
ATM Engineering

WASEEM QUADRI LICENSE No. 51481 STATE OF FLORIDA PROFESSIONAL ENGINEER

RS/jtlAtlanticEngineeringServices,Inc

ATM Engineering

Testing Laboratories - Engineering Inspection Services - Chemist - Drilling - Environmental Services
Aubrey Engineering, LLC d/b/a ATM Engineering
1950 West 84th Street, Hialeah, Florida 33014/Phone: 305-646-1888/Fax: 305-646-1887

SOIL BORING LOG

CLIENT	Atlantic Engineering Services, Inc.	**Order No**	25-0424
ADDRESS	2826 Waters Edge Circle, GreenAcres, FL 33413	**Report No.**	1
PROJECT	Proposed One-Story Building	**Boring No.**	B-1
ADDRESS	101 10th Street, Lake Park, FL	**Date**	4/24/2025
LOCATION	As Marked on Aerial Photography	**Driller**	AG
		Helper	MP

Depth (feet)	DESCRIPTION OF MATERIALS	Sample No.	Hammer blows on sampler	"N"	"N" Curve
	Soil Boring from 0' to 20'				10 20 30 40 50+
1	0'-0" to 0'-2" Top soil	0'-2'	2 3	6	
2			3 3		
3	0'-2" to 5'-8" Backfill - light brown silica sand with shells	2'-4'	4 4	7	
4			3 4		
5		4'-6'	4 6	11	
6			5 5		
7	5'-8" to 8'-0" Light brown silica sand	6'-8'	6 6	13	
8			7 6		
9	8'-0" to 10'-0" Dark brown silica sand	8'-10'	8 7	14	
10			7 9		
11	▼	10'-12'	11 10	23	
12			13 12		
13		12'-14'	15 14	27	
14			13 12		
15	10'-0" to 20'-0" Brown medium silica sand	14'-16'	12 11	24	
16			13 16		
17		16'-18'	12 18	31	
18			13 19		
19		18'-20'	15 20	38	
20			18 22		
21	End Of Boring @ 20'				
22					
23					
24					
25					
26					
27					
28					
29					
30					

Water Level: (▼) 12'-0"
Sample Type: Split Spoon (SS)
At Date: 4/24/2025

Respectfully submitted,

Waseem Quadri, P.E. #51481 & S.I. #1154
Threshold Building - Special Inspector

WASEEM QUADRI LICENSE No. 51481 STATE OF FLORIDA PROFESSIONAL ENGINEER

Robert Shank, President

ATM Engineering

Testing Laboratories - Engineering Inspection Services - Chemist - Drilling - Environmental Services
Aubrey Engineering, LLC d/b/a ATM Engineering
1950 West 84th Street, Hialeah, Florida 33014/Phone: 305-646-1888/Fax: 305-646-1887

SOIL BORING LOG

CLIENT	Atlantic Engineering Services, Inc.	Order No	25-0424
ADDRESS	2826 Waters Edge Circle, GreenAcres, FL 33413	Report No.	1
PROJECT	Proposed One-Story Building	Boring No.	B-2
ADDRESS	101 10th Street, Lake Park, FL	Date	4/24/2025
LOCATION	As Marked on Aerial Photography	Driller	AG
		Helper	MP

Depth (feet)	DESCRIPTION OF MATERIALS	Sample No.	Hammer blows on sampler	"N"	"N" Curve
	Soil Boring from 0' to 20'				10 20 30 40 50+
1	0'-0" to 0'-2" Top soil	0'-2'	1 2	5	
2	0'-2" to 2'-8" Backfill - brown sand with some shells		3 3		
3		2'-4'	3 4	7	
4			3 4		
5	2'-8" to 7'-0" Light brown silica sand	4'-6'	4 5	9	
6			4 4		
7		6'-8'	6 7	15	
8			8 7		
9		8'-10'	7 9	17	
10	7'-0" to 12'-0" Dark brown silica sand		8 10		
11		10'-12'	11 10	20	
12	▼		10 13		
13		12'-14'	12 11	22	
14			11 13		
15		14'-16'	15 16	28	
16	12'-0" to 20'-0" Brown medium silica sand		12 11		
17		16'-18'	13 17	33	
18			16 15		
19		18'-20'	12 16	34	
20			18 18		
21	End of Boring @ 20'				
22					
23					
24					
25					
26					
27					
28					
29					
30					

Water Level: (▼) 12'-3"
Sample Type: Split Spoon (SS)
At Date: 4/24/2025

Respectfully submitted,

Waseem Quadri, P.E. #51481 & S.I. #1154
Threshold Building - Special Inspector

WASEEM QUADRI LICENSE No. 51481 STATE OF FLORIDA PROFESSIONAL ENGINEER

Robert Shank, President

ATM Engineering

Testing Laboratories - Engineering Inspection Services - Chemist - Drilling - Environmental Services
Aubrey Engineering, LLC d/b/a ATM Engineering
1950 W 84th Street, Hialeah, Florida 33014 - Phone: 305-646-1888/Fax: 305-646-1887

PERCOLATION TEST
USUAL OPEN HOLE TEST (CONSTANT HEAD)

CLIENT:	Atlantic Engineering Services, Inc.	Date: 4/24/2025	
CLIENT ADDRESS:	2826 Waters Edge Circle,		
	GreenAcres, FL 33413	TEST #:	P-1
PROJECT NAME:	Proposed One-Story Building		
PROJECT ADDRESS:	101 10th Street, Lake Park, FL		

LOCATION OF TEST	As Marked on Aerial Photography		
DIAMETER OF HOLE (IN)	6	LAT:	LON:
DEPTH HOLE (FEET)	15		
WATER TABLE BELOW GROUND SURFACE:	12 ft	3 in	

No.	Elapse Time (minute)	GPM
1	1	6.0
2	1	6.0
3	1	6.0
4	1	6.0
5	1	6.0
6	1	6.0
7	1	6.0
8	1	5.0
9	1	5.0
10	1	5.0

PERCOLATION RATE :	5.7
K-VALUE:	7.337E-05

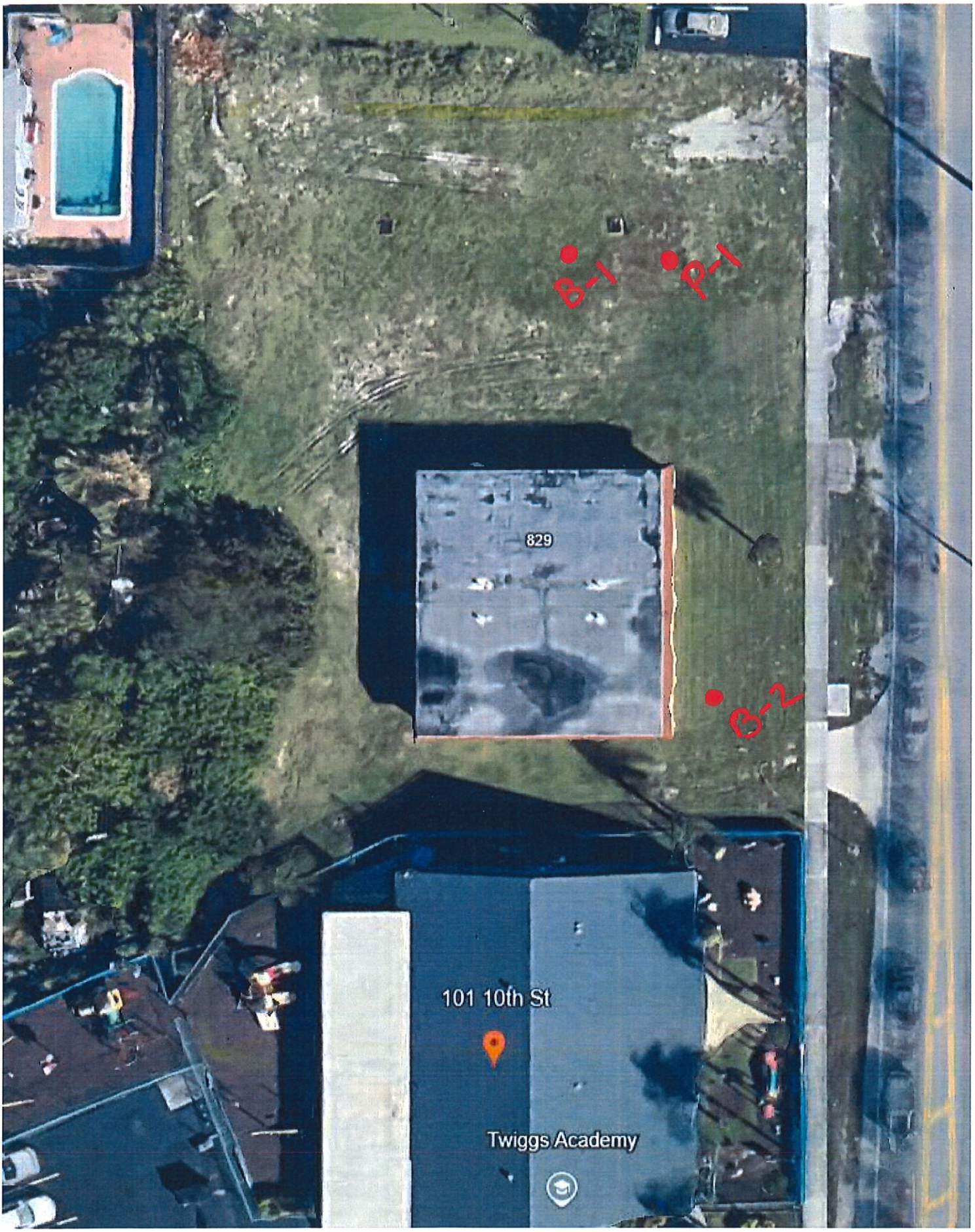
SOIL DEPTH	SOIL DESCRIPTION
0'-0" to 0'-2"	Top Soil
0'-2" to 3'-0"	Backfill - light brown silica sand with shells
3'-0" to 6'-6"	Light brown silica sand
6'-6" to 10'-0"	Dark brown silica sand
10'-0" to 15'-0"	Brown medium silica sand

FIELD TECH.	AG/MP
TYPE BY:	jt

Robert Shank, President

Waseem Quadri, P.E. #51481 STATE OF FLORIDA
Special Inspector (Threshold Bldg.) #7154
ATM Engineering

WASEEM QUADRI LICENSE No. 51481 STATE OF FLORIDA PROFESSIONAL ENGINEER


B-1
P-1
829
B-2
101 10th St
Twiggs Academy

I HEREBY CERTIFY THIS COPY
TO BE A TRUE AND CORRECT
COPY OF THE ORIGINAL

This instrument was prepared by and return to:

Barry L. Clayton, Esq.
18314 Little Oaks Drive
Jupiter, Florida 33458

Folio Nos.: 36-43-42-20-01-048-0170 (101 10th Street – Parcel 1)
36-43-42-20-01-048-0270 (829 Silver Beach Road – Parcel 2)
36-43-42-20-01-048-0300 (823 Silver Beach Road – Parcel 3)

WARRANTY DEED

(STATUTORY FORM - SECTION 689.02, F.S.)

THIS INDENTURE, made this 25th day of March, 2022, between **JM WILSON CORP, a Florida corporation,** whose address is PO Box 210096, Royal Palm Beach, Florida 33421, Grantor*, and **MICHEL INVEST LLC, a Florida limited liability company**, whose mailing address is 5030 Sabreline Terrace, Greenacres, Florida 33463, Grantee*,

WITNESSETH that said Grantor, for and in consideration of the sum of Ten ($10.00) Dollars, and other good and valuable consideration to said Grantor in hand paid by said Grantee, the receipt whereof is hereby acknowledged, has granted, bargained and sold to the said Grantee, and Grantee's successors and assigns forever, the following described land, situate, lying and being in Palm Beach County, Florida, to-wit:

Parcel 1:

Lots 17, 18, 19, 20, 21, 22, 23, 24, 25 and 26, Block 48, KELSEY CITY (n/k/a Lake Park), according to the Plat thereof, as recorded in Plat Book 8, Page 27, Public Records of Palm Beach County, Florida.

Parcel 2:

Lots 27, 28 and 29, Block 48, KELSEY CITY (n/k/a Lake Park), according to the Plat thereof, as recorded in Plat Book 8, Page 27, Public Records of Palm Beach County, Florida.

Parcel 3:

Lots 30, 31 and 32, Block 48, KELSEY CITY (n/k/a Lake Park), according to the Plat thereof, as recorded in Plat Book 8, Page 27, Public Records of Palm Beach County, Florida.

and said Grantor does hereby fully warrant the title to its interest in said land and will defend the same against lawful claims of all persons whomsoever. Grantor represents that it has fully complied with all requirements of Section 607.1202, Florida Statutes. * "Grantor" and "Grantee" are used for singular or plural, as context requires.

IN WITNESS WHEREOF, Grantor has hereunto set its hand and seal the day and year first above written.

Signed, sealed and delivered
in our presence:

JM WILSON CORP.,
a Florida corporation

Printed Name: Barry L. Clayton

By: _____
Johnetta Wilson, President

Printed Name: WAYNE S. EVANS

Attest: _____
Johnetta Wilson, Secretary

STATE OF FLORIDA
COUNTY OF PALM BEACH

The foregoing instrument was acknowledged before me by means of ☑ physical presence or ☐ online notarization this 25th day of March, 2022, by **Johnetta Wilson,** as President and Secretary, of JM Wilson Corp, a Florida corporation, on behalf of the corporation. She ☐ is personally known to me or ☑ has produced her Florida driver's license as identification, and she took an oath.

NOTARY PUBLIC
Name (printed): Barry L. Clayton

BARRY L. CLAYTON
Commission # HH 186408
Expires December 18, 2025
Bonded Thru Budget Notary Services

TOWN OF LAKE PARK
COMMUNITY DEVELOPMENT DEPARTMENT

APPLICATION FOR SITE PLAN REVIEW OR AMENDMENT

Please call (561)881-3319 for submittal fees

****For Planned Unit Development (PUD) applications, please refer to Section 78-77 of the Town Code of Ordinances for additional requirements****

Project Name: Twiggs Academy

Project Address: 101 10th Street, Lake Park, FL 33403

Property Owner: MICHEL INVEST LLC

APPLICANT INFORMATION:

Applicant Name: Dr. Pierre Michel

Applicant Address: 5030 SABRELINE TER, LAKE WORTH, FL 33463

Phone: 561-289-6414 Fax: _____ E-Mail: 4drmichel@gmail.com

SITE INFORMATION:

General Location: Northeast corner of Silverbeach Road and Tenth Street

Address: 101 10th Street, Lake Park, FL 33403

Zoning District: C2 - Business Future Land Use: C2 - Business Acreage: 1.385

Property Control Number (PCN): 36-43-42-20-01-048-0170
36-43-42-20-01-048-0270
36-42-42-20-01-048-0300

ADJACENT PROPERTY:

DIRECTION	ZONING	BUSINESS NAME	USE
North	R2		MULTIFAMILY
East	R2		MULTIFAMILY
South			
West	C2		BUSINESS

JUSTIFICATION:

Information concerning all requests (attach additional sheets if needed)

1. Please explain the nature of the request:

Proposed construction of a daycare building of approximately 7,476 SF after the demolition of the existing structure just east of the existing daycare building abutting Silverbeach Road and a new parking lot will be constructed north of the existing daycare building abutting Tenth Street.

2. What will be the impact of the proposed change to the surrounding area?

There will be no impact on the surrounding area as there will be three proposed driveways to access the site. The new construction along with updated landscaping will enhance the neighborhood.

3. How does the proposed Project comply with the Town of Lake Park's zoning requirements?

The proposed project complies with the Town of Lake Park's zoning requirements as the entire site except for 1 lot to the east is zoned business. The single lot to the east which is zoned multifamily will be rezoned.

LEGAL DESCRIPTION:

The subject property is located approximately 0 mile(s) from the intersection of Silverbeach Rd and Tenth St, on the ____ north, _____ east, _____south, _____ west side of the _____ (street/road).

Legal Description:
KELSEY CITY LTS 17 TO 26 INC BLK 48
KELSEY CITY IN PB 8 PGS 15 TO 18, 23, 27 & 34 TO 37 INC

I hereby certify that I am the owner(s) of record of the above described property or that I/we have written permission from the owner(s) of record to request this action.

OWNER/APPLICANT Signature — Date: 7-22-25

REVISED: 07/24/2018, previous versions obsolete

PLEASE DO NOT DETACH FROM APPLICATION.

SIGNATURE REQUIRED BELOW.

Please be advised that Section 51-6 of the *Town of Lake Park Code of Ordinances* provides for the Town to be reimbursed, in addition to any application or administrative fees, for any supplementary fees and costs the Town incurs in processing development review requests.

These costs may include, but are not limited to, advertising and public notice costs, legal fees, consultant fees, additional Staff time, cost of reports and studies, NPDES stormwater review and inspection costs, and any additional costs associated with the building permit and the development review process.

For further information and questions, please contact the Community Development Department at 561-881-3318.

I, Pierre Michel, have read and understand the regulations above regarding cost recovery.

Property Owner Signature

7-22-25
Date

REVISED: 07/24/2018, previous versions obsolete

CONSENT FORM

FROM PROPERTY OWNER AND DESIGNATION OF AUTHORIZED AGENT:

Before me, the undersigned authority, personally appeared Pierre Michel, who, being by me first duly sworn, on Oath deposed and says:

1. That he/she is the fee simple title owner of the property described in the attached Legal Description;
2. That he/she is requesting _____ in the Town of Lake Park, Florida;
3. That he/she is appointed Imtiaz Ahmed to act as authorized on his/her behalf to accomplish the above Project.

Property Owner Name: Pierre Michel

Property Owner Signature

Manager
By: Name/Title

101 Tenth Street
Street Address

Lake Park FL 33403
City, State, Zip Code

561-289-6414
Telephone Number

Fax Number

4drmichel@gmail.com
E-Mail Address

Sworn and Subscribed before me on this 22 **day of** July, **20**25,

PATRICIA M. SAUNDERS
Notary Public - State of Florida
Commission # HH 470981
My Comm. Expires Dec 7, 2027
Bonded through National Notary Assn.

Patricia M. Saunders
NOTARY PUBLIC

MY COMMISSION EXPIRES:

12/7/2027

REVISED: 07/24/2018, previous versions obsolete

TOWN OF LAKE PARK
COMMUNITY DEVELOPMENT DEPARTMENT

APPLICATION FOR SPECIAL EXCEPTION REVIEW

Applicant/Agent: Dr. Pierre Michel

Address: 5030 Sabrelane Terrace, Lake Worth, FL 33463

Telephone: 561-289-6414 Fax: _____

E-mail : 4drmichel@gmail.com

☒ Owner

☐ Agent (Attach Agent Authorization Form)

Owner's Name
(if not Applicant): _____

Address: _____

Telephone: _____ Fax: _____

E-Mail : _____

Property Location: 101 10th St, Lake Park, FL 33403

Legal Description: KELSEY CITY LTS 17 TO 32 INC BLK 48

Property Control Number: 36-43-42-20-01-048-0170, 36-43-42-20-01-048-0270, 36-43-42-20-01-048-0300

Future Land Use: Commercial Zoning: C2 - Business District

Acreage: 1.385 Square Footage of Use: 7,424

Proposed Use: Daycare

Zoning/Existing Use of Adjacent Properties:

North: R2 - Multiple Family Residence South: _____

East: R2 - Multiple Family Residence West: C2 - Business District

APPLICATION REQUIREMENTS:

1. Please discuss how the Special Exception use is consistent with the goals, objectives, and policies of the Town's Comprehensive Plan.

The proposed special exception is consistent with the Commercial future land use and comprehensive plan

2. Please discuss how the proposed Special Exception is consistent with the land development and zoning regulations and all other portions of the Town of Lake Park Code of Ordinances.

the project has been designed to meet all applicable zoning and land development standards, including setbacks, parking, circulation, landscaping, and buffering. The use is compatible with the residential character of the district by providing a community-serving function with minimal impact on surrounding properties, and all operational elements—such as traffic, noise, and outdoor play areas—will comply with the Town's performance and safety requirements.

3. Please explain how the proposed Special Exception use is compatible with the character and use (existing and future) of the surrounding properties in its function; hours of operation; type and amount of traffic to be generated; building location; mass; height and setback; and other relevant factors peculiar to the proposed Special Exception use and the surrounding property.

The proposed daycare Special Exception is compatible with the surrounding residential properties because it provides a low-intensity, neighborhood-serving use that fits the character of the R-2 district. The facility will operate during typical daytime hours (6:30 am to 7pm) and traffic will be limited to short, staggered drop-off and pick-up periods that will not impact nearby streets. The building's location, mass, height, and setbacks comply with R-2 requirements, and the site layout—including parking, circulation, and outdoor play areas—has been designed to ensure safety, minimize noise, and maintain appropriate buffering. Together, these elements ensure the use integrates smoothly with both existing and future surrounding development.

4. Please explain how the establishment of the proposed Special Exception use in the identified location does not create a concentration or proliferation of the same or similar type of Special Exception use, which may be deemed detrimental to the development or redevelopment of the area in which the Special Exception use is proposed to be developed.

We have assessed the concentration of similar Special Exception uses (daycare centers) in the vicinity of the subject property and determined that granting this Special Exception will not result in an over-saturation or "clustering" that would be detrimental to area character or redevelopment potential. A review of the Lake Park zoning map and a survey of existing daycare facilities shows few, if any, comparable daycare Special Exceptions within a reasonable walking/driving radius. This project fills a local need for community-serving childcare without duplicating an existing concentration of such uses. Furthermore, the site and design have been carefully laid out to minimize neighborhood impacts, including thoughtful buffering, limited traffic peak overlap, and adherence to all Town development standards.

5. Please explain how the Special Exception use does not have a detrimental impact on surrounding properties based on; (a) The number of persons anticipated to be using, residing, or working on the property as a result of the Special Exception use; (b) The degree of noise, odor, visual, or other potential nuisance factors generated by the Special Exception use; (c) The effect on the amount and flow of traffic within the vicinity of the proposed Special Exception use.

The proposed daycare will accommodate a limited number of children and staff consistent with the scale of the building and site, ensuring that the number of persons on the property will not overwhelm the surrounding neighborhood. Any noise, visual, or other potential nuisance factors are minimized by the building's orientation, landscaping buffers, and the location of outdoor play areas, which are set back from adjacent properties. The use does not generate odors or other disruptive effects, and all operations are designed to be compatible with the residential character of the surrounding area

6. Please explain how the proposed Special Exception use meets the following requirements; (a) does not significantly reduce light and air to adjacent properties; (b) does not adversely affect property values in adjacent areas; (c) would not be deterrent to the improvement, development or redevelopment of surrounding properties in accord with existing regulations; (d) does not negatively impact adjacent natural systems or public facilities, including parks and open spaces; and (e) provides pedestrian amenities, including, but not limited to, benches, trash receptacles, and/or bicycle parking.

(a) The proposed daycare is a single-story building with appropriate setbacks, ensuring it does not significantly reduce light or air to adjacent properties.
(b) The use is compatible with the surrounding residential neighborhood and is designed to maintain the aesthetic and functional character of the area, so it is not expected to adversely affect property values.
(c) The project supports neighborhood-serving uses without creating conflicts, and its scale and design would not deter improvement, development, or redevelopment of surrounding properties in accordance with existing regulations.
(d) The site design preserves existing landscaping and stormwater systems and does not impact natural systems or public facilities, including nearby parks and open spaces.
(e) The project provides pedestrian amenities consistent with Town standards, including designated walkways, trash receptacles, and bicycle parking to support safe and convenient pedestrian access.

Please provide the following:

1.	Fees:	1. Special Exception Fees: Structure Size: 0 - 14,999 sq. ft. = $1,500.00 + 15,000 sq. ft. = $3,000.00 2. Minimum Initial Escrow Fee: $1,500.00 Advertising costs: The petitioner shall pay all costs of publication of Public Hearing required in a newspaper of general circulation within the Town. This cost will be deducted from the escrow.
2.	Property Owners List:	A complete list of property owners and mailing addresses of all property owners within 300 feet of the subject parcel as recorded in the latest official Palm Beach County Tax Roll. Certified Mail will be sent to all owners within 300 feet; postage will be deducted from escrow.
3.	Location Map	
4.	Site Plan, Landscape Plan Architectural Plans	A. Site plan drawn to scale indicating: 1. size of the buildings; 2. intended floor area ratios; 3. quantity of parking spaces; 4. intended access road(s); 5. the general type of construction in accordance with the Florida Building Code and the Codes of the Town of Lake Park; and, 6. availability and approximate location of utilities B. Landscape Plan showing proposed improvements, to scale C. Architectural plans including floor plan and building elevations, to scale
5.	Site Survey:	A certified boundary survey by a surveyor registered in the State of Florida containing an accurate legal description of the property and a computation of the total acreage of the parcel.
6.	Applicants statement:	On the Applicants letterhead please provide a statement of interest in the property.
7.	Warranty Deed:	A Warranty Deed with an affidavit from the Applicant stating that the Deed represents the current ownership.
8.	Traffic Analysis:	A Traffic Impact Analysis, if required by the Town Engineer or Staff.

***If special exception is for new development on a vacant parcel, please refer to requirements for site plan approval and site plan checklist as well.

STAFF REVIEW: SUBMIT ONE COMPLETE SET IN HARD COPY AND ONE AS AN ELECTRONIC COPY.

PLANNING BOARD REVIEW: UPON THE APPROVAL OF ALL GOVERNING AGENCIES, PLEASE SUMBIT ONE ELECTRONIC COPY AND SIX (6) COMPLETE SETS OF THE REQUIRED DOCUMENTS FOR FINAL REVIEW

PLEASE DO NOT DETACH FROM APPLICATION.

SIGNATURE REQUIRED BELOW.

Please be advised that Section 51-6 of the *Town of Lake Park Code of Ordinances* provides for the Town to be reimbursed, in addition to any application or administrative fees, for any supplementary fees and costs the Town incurs in processing development review requests. These costs may include, but are not limited to, advertising and public notice costs, legal fees, consultant fees, additional Staff time, cost of reports and studies, NPDES stormwater review and inspection costs, and any additional costs associated with the building permit and the development review process.

For further information and questions, please contact the Community Development Department at 561-881-3320.

9/13/21

I, Dr. Pierre Michel, have read and understand the regulations above regarding cost recovery.

Property Owner Signature

12-17-25
Date