Property Identification

Site Address:	2502 AVENUE M
Sec/Town/Range:	05/35S/40E
Parcel ID:	**2405-524-0039-000-0**
Jurisdiction:	Fort Pierce
Land Use Code:	1000 - Vac Comm
Account #:	**18364**
Map ID:	24/05N
Zoning:	General Co

Legal Description

CARVER HEIGHTS BLK 2 LOTS 19 AND 20 (0.35 AC - 15,228 SF)

Total Areas

Finished/Under Air (SF):	0
Gross Sketched Area (SF):	0
Land Size (acres):	0.35
Land Size (SF):	15,228

Map

State of Florida, Microsoft, Vantor Powered by Esri

Building Wind Speed

Occupancy Category	I	II	III & IV
Speed	140	150	160

Sources/links:

Ownership

Tony Philip
2402 Blossom CT
Fort Pierce, FL 34982-5604

Current Values

Just/Market value:	$28,600
Assessed value:	$28,600
Exemption value:	$0
Taxable value:	$28,600

Important

Property taxes are subject to change upon change of ownership.

- **Past taxes are not a reliable projection of future taxes.**
- **The sale of a property will prompt the removal of all exemptions, assessment caps, and special classifications.**

Links

Taxes for this parcel: SLC Tax Collector's Office
Download TRIM for this Parcel: Download PDF
File for homestead exemptions.
View associated Tax Map.
Report Homestead Fraud on this parcel.

JOSEPH E. SMITH, CLERK OF THE CIRCUIT COURT - SAINT LUCIE COUNTY
FILE # 4343181 OR BOOK 4033 PAGE 2639, Recorded 08/22/2017 11:48:27 AM Doc
Tax: $349.30

Prepared by and Return to Kendahl Galego ,
an employee of First International Title, Inc.
107 North 2nd Street
Fort Pierce, FL 34950
File No.: 109252-41

WARRANTY DEED

This indenture made on August 15, 2017, by **Roosevelt Nelson, as Trustee of the Roosevelt Nelson Revocable Trust dated October 23, 2008, and Individually** whose address is: 1502 Avenue O, Fort Pierce, FL 34950 hereinafter called the "grantor",

to **Tony Philip, a single man** whose address is: 2402 Blossom Ct, Fort Pierce, FL 34982 hereinafter called the "grantee":

(Which terms "Grantor" and "Grantee shall include singular or plural, corporation or individual, and either sex, and shall include heirs, legal representatives, successors and assigns of the same)

Witnesseth, that the grantor, for and in consideration of the sum of Ten Dollars, ($10.00) and other valuable considerations, receipt whereof is hereby acknowledged, hereby grants, bargains, sells, aliens, remises, releases, conveys and confirms unto the grantee, all that certain land situate in St. Lucie County, **Florida,** to-wit:

Lot 19, Block 2, CARVER HEIGHTS, according to the Plat thereof, recorded in Plat Book 10, Page(s) 19, of the Public Records of St. Lucie County, Florida.

and

Lot 20, Block 2, CARVER HEIGHTS, according to the Plat thereof, recorded in Plat Book 10, Page(s) 19, of the Public Records of St. Lucie County, Florida.

Parcel Identification Number: 2405-524-0039-000/0 and 2405-524-0040-000/0

The land is not the homestead of the Grantor under the laws and Constitution of the State of Florida and neither the Grantor nor any person(s) for whose support the Grantor is responsible reside on or adjacent to the land.

Subject to all reservations, covenants, conditions, restrictions and easements of record and to all applicable zoning ordinances and/or restrictions imposed by governmental authorities, if any.

Together with all the tenements, hereditaments and appurtenances thereto belonging or in any way appertaining.

To Have and to Hold, the same in fee simple forever.

And the grantor hereby covenants with said grantee that the grantor is lawfully seized of said land in fee simple; that the grantor has good right and lawful authority to sell and convey said land; that the grantor hereby fully warrants the title to said land and will defend the same against the lawful claims of all persons whomsoever; and that said land is free of all encumbrances except taxes accruing subsequent to December 31st of 2017.

In Witness Whereof, the grantor has hereunto set their hand(s) and seal(s) the day and year first above written.

Roosevelt Nelson, as Trustee of the Roosevelt Nelson Revocable Trust dated October 23, 2008

Roosevelt Nelson, individually

Signed, sealed and delivered in our presence:

Witness Signature

Print Name: Margarita Hunt

Witness Signature

Print Name: Laura M. Sutterfield

State of FLORIDA

County of St. Lucie

The Foregoing Instrument Was Acknowledged before me on August 15, 2017, by **Roosevelt Nelson, as Trustee of the Roosevelt Nelson Revocable Trust dated October 23, 2008, and Individually**, who is/are personally known to me or who has/have produced a valid Fl drivers license as identification.

Notary Public

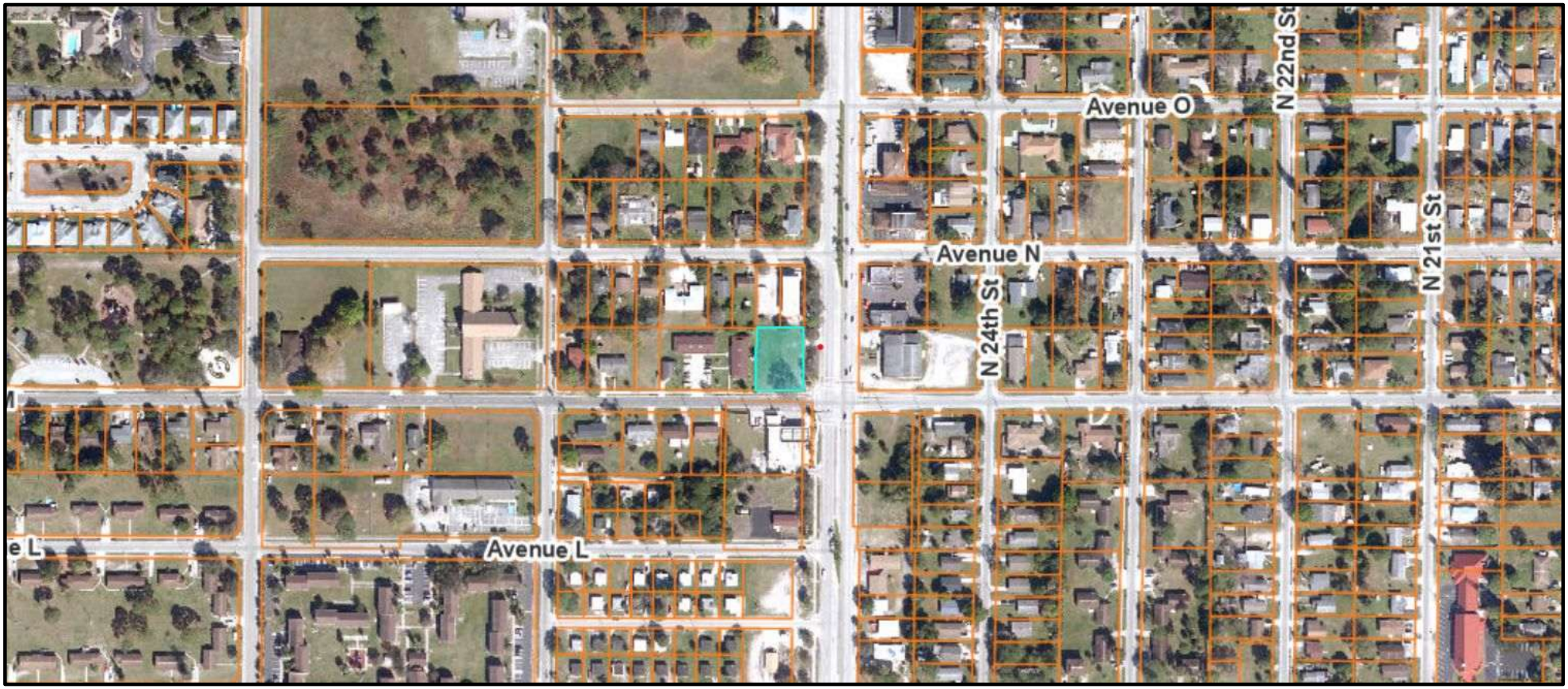
Printed Name: Laura M. Sutterfield

My Commission expires: 10/24/2018

LAURA M. SUTTERFIELD
Notary Public - State of Florida
My Comm. Expires Oct 24, 2018
Commission # FF 162858
Bonded through National Notary Assn.

Narrative:

The proposed project consists of a convenience store, parking lot, sidewalk and driveway improvements. The project was discussed at a pre-application meeting with the planning department.



2/4/2026

Location Map

Map Source: St. Lucie County

N

2502 Avenue M
Fort Pierce, FL

Advanced Restoration Ecology


Avenue N
N 24th St
N 23rd St
Avenue M

2/4/2026

Species Survey Map

Map Source: St. Lucie County

N

2502 Avenue M
Fort Pierce, FL

Advanced Restoration Ecology

2/4/2026

CLC Map

Map Source: St. Lucie County

N

2502 Avenue M
Fort Pierce, FL

Advanced Restoration Ecology

St. Lucie County, Florida (FL111)

St. Lucie County, Florida (FL111)

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
50	Waveland and Immokalee fine sands	0.3	100.0%
Totals for Area of Interest		**0.3**	**100.0%**

2/4/2026

Soil Map

Map Source: Web Soil

N

2502 Avenue M
Fort Pierce, FL

Advanced Restoration Ecology

Justification Statement

The proposed project consists of a convenience store, parking lot, sidewalk and driveway improvements. The project was discussed at a pre-application meeting with the planning department.

EXISTING ADJACENT BUILDING

LOT 3 BLOCK 2 (OCCUPIED)

LOT 2 BLOCK 2 (OCCUPIED)

LOT 1 BLOCK 2 (OCCUPIED)

5'CHAIN LINK FENCE

5'CHAIN LINK FENCE

6'CHAIN LINK FENCE

6' P.U.E.

6' P.U.E.

N89°59'57"E(C) 108.00'(P&C)

54.00'(P)

5'CHAIN LINK FENCE

54.00'(P)

ELECTRIC PANEL

CONC.

FPUA ON CONC. PAD

EX. UTILITY RISER

PULL ELECTRIC BOX

CONC. SIDEWALK

EDGE OF PAVEMENT

CONC. CURB AND GUTTER

CURB CUT

EDGE OF CONC. 1.0'W

CONC. DRIVEWAY

EDGE OF PAVEMENT

EXISTING ADJACENT BUILDING

N00°40'30"E(C) 140.96'(P&C)

LOT 19 BLOCK 2 (VACANT)

N00°40'30"E(C) 140.93'(P&C)

LOT 20 BLOCK 2 (VACANT)

S00°40'30"W(C) 140.90'(P&C)

CONC. SIDEWALK

CONC. CURB AND GUTTER

LOT 18 BLOCK 2 (OCCUPIED)

CURB INLET

CONC.

PULL ELECTRIC BOX

TRAFFIC LIGHT MAST ARM POLE

CONCRETE

CURB CUT

WOOD POWER POLE

54.00'(P)

54.00'(P)

65.00'(P)

CONC. SIDEWALK

MANHOLE

CONC.

CONC. CURB AND GUTTER

S89°58'00"W(C) 108.00'(P&C)

CURB CUT

EDGE OF PAVEMENT

CONC. CURB AND GUTTER

CATCH BASIN CURB INLET

℄

AVENUE M

EDGE OF PAVEMENT

CONC. CURB AND GUTTER

22'WIDTH OF PAVEMENT

TRAFFIC LIGHT MAST ARM

CURB CUT

CURB CUT

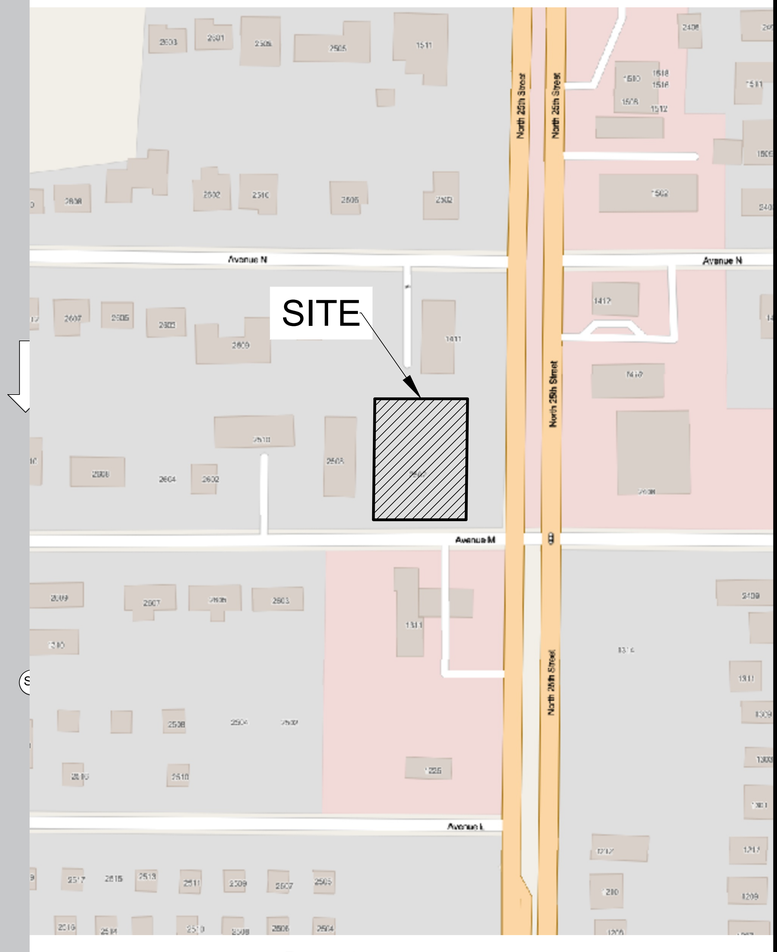
CONC. CURB AND GUTTER

LEGEND

- EXISTING CHAIN LINK FENCE
- EXISTING WOOD FENCE
- EXISTING UTILITY EASEMENT (UE)
- PROPERTY BOUNDARY
- ROAD CENTERLINE ℄
- EXISTING EDGE OF PAVEMENT
- RIGHT OF WAY (ROW)

SITE DATA:

STREET ADDRESS: 2502 & 2504 AVENUE M, FORT PIERCE, FLORIDA, FL 34947
LEGAL DESCRIPTION: CARVER HEIGHTS BLK 2 LOTS 19 AND 20
PARCEL ID: 2405-524-0039-000-0
ZONING: RESIDENTIAL
FEMA FLOOD ZONE: X



LOCATION PLAN
Scale: 1:1000

N

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PERMITS REQUIRED

■ CITY OF FORT PIERCE

PERMIT#

NO.	REVISIONS	DATE

PROPOSED CONVENIENCE STORE TONY PHILLIP

2502 & 2504 AVENUE M
FORT PIERCE, FL 34947

SHEET TITLE
EXISTING SITE PLAN

DATE
08/27/2025

SCALE
1"=10'

DRAWN BY
L.S

SHEET
C-101

EXISTING ADJACENT BUILDING

LOT 3 BLOCK 2 (OCCUPIED)

LOT 2 BLOCK 2 (OCCUPIED)

LOT 1 BLOCK 2 (OCCUPIED)

5'CHAIN LINK FENCE

EX. 5'CHAIN LINK FENCE

EX. 6'CHAIN LINK FENCE

PROP. PERIMETER BERM

PROP. 6-FT TALL OPAQUE PRIVACY FENCE

EX. 5'CHAIN LINK FENCE

N89°59'57"E(C) 108.00'(P&C)

6' UTILITY EASEMENT

6' UTILITY EASEMENT

EX. FPUA ON CONC. PAD

EX. ELECTRIC PANEL

EX. CONC.

EX. UTILITY RISER

EX. PULL ELECTRIC BOX

65' R/W

EX. CONC. SIDEWALK

EX. EDGE OF PAVEMENT

EX. CONC. CURB AND GUTTER

EX. EDGE OF PAVEMENT

PROP. TYPE 'D' CRUB

PROP. RETENTION AREA

EX. SOD AREA

48'-0"

PROP. INTERNAL SWALE

PROP. DUMPSTER (SEE DETAIL SHEET)

PROP. ASPHALT PAVMENT

EX. CONC. DRIVEWAY

EX. CURB CUT

N 25TH STREET

39'WIDTH OF PAVEMENT

EX. CONC. MEDIAN

PROP. 6-FT TALL OPAQUE PRIVACY FENCE

ADA RAMP

PROP. "HANDICAP" SIGN

24" DETECTABLE WARNING STRIPS, TYP. WITH TRUNCATED CONCRETE-BRICK (RED COLOR)

PROP. PERIMETER BERM

EXISTING ADJACENT BUILDING

PROP. SOD AREA

PROP. ASPHALT PAVMENT

PROP. 5' WIDE CONC. SIDEWALK

PROP. SOD AREA

EX. SOD AREA

EX. CONC. SIDEWALK

EX. CONC. CURB AND GUTTER

EX. EDGE OF PAVEMENT

LOT 18 BLOCK 2 (OCCUPIED)

PROP. CONC. WHEEL STOP

PROP. BUILDING 2,799 SQ FT

87'-8"

EX. CATCH BASIN

EX. CURB INLET

PROP. TYPE 'D' CRUB

EX. PULL ELECTRIC BOX

EX. LIGHT POLE

EX. TRAFFIC LIGHT MAST ARM POLE

24" DETECTABLE WARNING STRIPS, TYP. (BOTH SIDES) WITH TRUNCATED CONCRETE-BRICK (RED COLOR)

PROP. STOP BAR

PROP. ADDITIONAL SIDEWALK TO EXT. SIDEWALK

PROP. STOP SIGN

EX. CURB CUT

EX. WOOD POWER POLL

EX. CONC. SIDEWALK

EX. CONC. SIDEWALK

EX. MANHOLE

EX. CONC. CURB AND GUTTER

EX. SOD AREA

PROP. CONC. DRIVEWAY

EX. CONC. CURB AND GUTTER

EX. SOD AREA

EX. STORM MANHOLE

PROP. CURB CUT

EX. EDGE OF PAVEMENT

EX. CATCH BASIN CURB INLET

AVENUE M

EX. EDGE OF PAVEMENT

EX. CONC. CURB AND GUTTER

22'WIDTH OF PAVEMENT

EX. TRAFFIC LIGHT MAST ARM

EX. CONC. CURB AND GUTTER

EX CURB CUT

EX CURB CUT

LEGEND

- EXISTING CHAIN LINK FENCE
- EXISTING UTILITY EASEMENT (UE)
- PROPERTY BOUNDARY
- ROAD CENTERLINE ℄
- EXISTING EDGE OF PAVEMENT
- EXISTING CONCRETE
- EXISTING ASPHALT
- PROPOSED ASPHALT
- PROPOSED SODDED AREA
- PROPOSED CONCRETE
- PROPOSED BUILDING

SITE DATA:

STREET ADDRESS: 2502 & 2504 AVENUE M, FORT PIERCE, FL 34947
LEGAL DESCRIPTION: CARVER HEIGHTS BLK 2 LOTS 19 AND 20 PARCEL ID: 3402-605-0041-000-9
ZONING: GENERAL CO
FEMA FLOOD ZONE: X

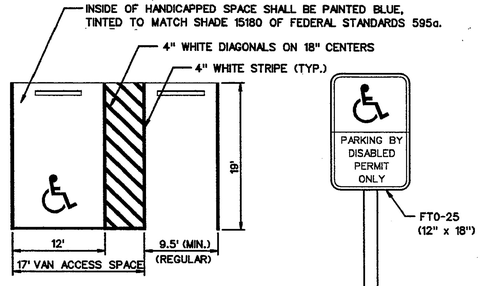
PARKING PER SEC 135-315 RETAIL 1 SPACE PER 200 SQ FT GROSS FLOOR AREA OF RETAIL SPACE

TOTAL BUILDING 2,799 SQ FT OF RETAIL - SITE LOCATED WITHIN FT PIERCE CRA AREA WHICH ALLOWS FOR PARKING REDUCTION 1,200 SQ FT - 7 SPACES REQUIRED - 8 PROVIDED

TOTAL PARKING

7 REGULAR SPACES
1 ADA ACESSIBLE SPACE
8 TOTAL

THE PROPOSED CONSTRUCTION HAS BEEN DESIGNED TO BE CONSTRUCTED SO THAT THE DIVERSION OF POST DEVELOPMENT STORMWATER RUNOFF AND OTHER SURFACE WATERS SHALL NOT RESULT IN FLOODING OR DAMAGE TO ADJACENT PROPERTIES, IN ACCORDANCE WITH SECTION 103-203(B), OF THE CITY OF FORT PIERCE CODE OF ORDINANCES.



PAVEMENT MARKINGS

HANDICAPPED PARKING SIGN

N

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smithlandel@outlook.com

PERMITS REQUIRED

☐ CITY OF FORT PIERCE

PERMIT#

NO.	REVISIONS	DATE

PROPOSED CONVENIENCE STORE TONY PHILLIP

2502 & 2504 AVENUE M
FORT PIERCE, FL 34947

SHEET TITLE: PROPOSED SITE PLAN

DATE: 08/27/2025

SCALE: 1"=10'

DRAWN BY: L.S

SHEET: C-102

EXISTING ADJACENT BUILDING

LOT 3 BLOCK 2 (OCCUPIED)

LOT 2 BLOCK 2 (OCCUPIED)

LOT 1 BLOCK 2 (OCCUPIED)

5'CHAIN LINK FENCE

EX. 6'CHAIN LINK FENCE

21.65 MIN PER. ELEV.

6' UTILITY EASEMENT

N89°59'57"E(C) 108.00'(P&C)

6' UTILITY EASEMENT

21.65 MIN PER. ELEV.

PROP. RETENTION AREA

18.00

19.00

21.50

21.80

PROP. DUMPSTER

20.50

PROP. ASPHALT PAVMENT

PROP. INTERNAL SWALE

EXISTING ADJACENT BUILDING

LOT 18 BLOCK 2 (OCCUPIED)

N00°40'30"E(C) 140.90'(P&C)

PROP. SOD AREA

PROP. ASPHALT PAVMENT

PROP. SOD AREA

PROP. 5' WIDE CONC. SIDEWALK

PROP. BUILDING FFE = 22.40

22.07

32'-8"

S00°40'30"W(C) 140.90'(P&C)

PROP. SOD AREA

21.50

20.50

19.00

20.00

21.65 MIN PER. ELEV.

26'

21.30

PROP. CONC. DRIVEWAY

PROP. CURB CUT

20.36

31'-7"

20.36

EX. CONC. SIDEWALK

EX. SOD AREA

EX. CONC. CURB AND GUTTER

EX. SOD AREA

EX. EDGE OF PAVEMENT

EX. CONC. SIDEWALK

EX. CONC. CURB AND GUTTER

EX. SOD AREA

EX. CONC. DRIVEWAY

EX. CONC. SIDEWALK

EX. CURB CUT

EX. CATCH BASIN

EX. CURB INLET

EX. LIGHT POLE

EX. CURB CUT

EX. MANHOLE

EX. CONC. CURB AND GUTTER

EX. CURB CUT

EX. STORM MANHOLE

EX. CATCH BASIN CURB INLET

AVENUE M

EX. EDGE OF PAVEMENT

EX. CONC. CURB AND GUTTER

22'WIDTH OF PAVEMENT

EX. TRAFFIC LIGHT MAST ARM

EX. CONC. CURB AND GUTTER

EX CURB CUT

EX. EDGE OF PAVEMENT

EX. CONC. SIDEWALK

EX. CONC. CURB AND GUTTER

N 25TH STREET

39'WIDTH OF PAVEMENT

EX. CONC. MEDIAN

EX. EDGE OF PAVEMENT

EX. EDGE OF PAVEMENT

LEGEND

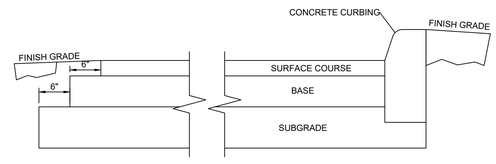
- EXISTING CHAIN LINK FENCE
- EXISTING UTILITY EASEMENT (UE)
- PROPERTY BOUNDARY
- ROAD CENTERLINE ℄
- EXISTING EDGE OF PAVEMENT
- PROPOSED INTERNAL SWALE
- EXISTING CONCRETE
- EXISTING ASPHALT
- PROPOSED ASPHALT
- PROPOSED SODDED AREA
- PROPOSED CONCRETE
- ×21.0 EXISTING ELEVATION GRADE
- 22.07 PROPOSED ELEVATION GRADE
- PROPOSED BUILDING
- PROPOSED DRAINAGE FLOW

SITE DATA:

STREET ADDRESS: 2502 & 2504 AVENUE M, FORT PIERCE, FL 34947
LEGAL DESCRIPTION: CARVER HEIGHTS BLK 2 LOTS 19 AND 20 PARCEL ID: 3402-605-0041-000-9
ZONING: GENERAL CO
FEMA FLOOD ZONE: X

TOTAL AREA	= 0.35 ACR (15,220 SQ FT) (100%)
PROP. BUILDING	= 2,799 SQ FT (0.06 ACR) (17.14%)
PAVEMENT/SIDEWALK/CONC.	= 7,079 SQ FT (0.16 ACR) (45.71%)
TOTAL IMPERVIOUS	= 9,878 SQ FT (0.23 ACR) (62.85%)
PERVIOUS	= 5,344 SQ FT (0.12 ACR) (37.15%)

THE PROPOSED CONSTRUCTION HAS BEEN DESIGNED TO BE CONSTRUCTED SO THAT THE DIVERSION OF POST DEVELOPMENT STORMWATER RUNOFF AND OTHER SURFACE WATERS SHALL NOT RESULT IN FLOODING OR DAMAGE TO ADJACENT PROPERTIES, IN ACCORDANCE WITH SECTION 103-203(B), OF THE CITY OF FORT PIERCE CODE OF ORDINANCES.



MATERIALS

SURFACE COURSE: 1 1/2" FDOT S-III ASPHALT PAVEMENT

BASE: 6" COMPACTED LIMEROCK OR COQUINA BASE SAME DENSITY AS SUBGRADE

SUBGRADE: 8" THICK STABLIZED SUBGRADE (FBV 75)

N

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PERMITS REQUIRED

☐ CITY OF FORT PIERCE

PERMIT#

NO.	REVISIONS	DATE

PROPOSED CONVENIENCE STORE TONY PHILLIP

2502 & 2504 AVENUE M
FORT PIERCE, FL 34947

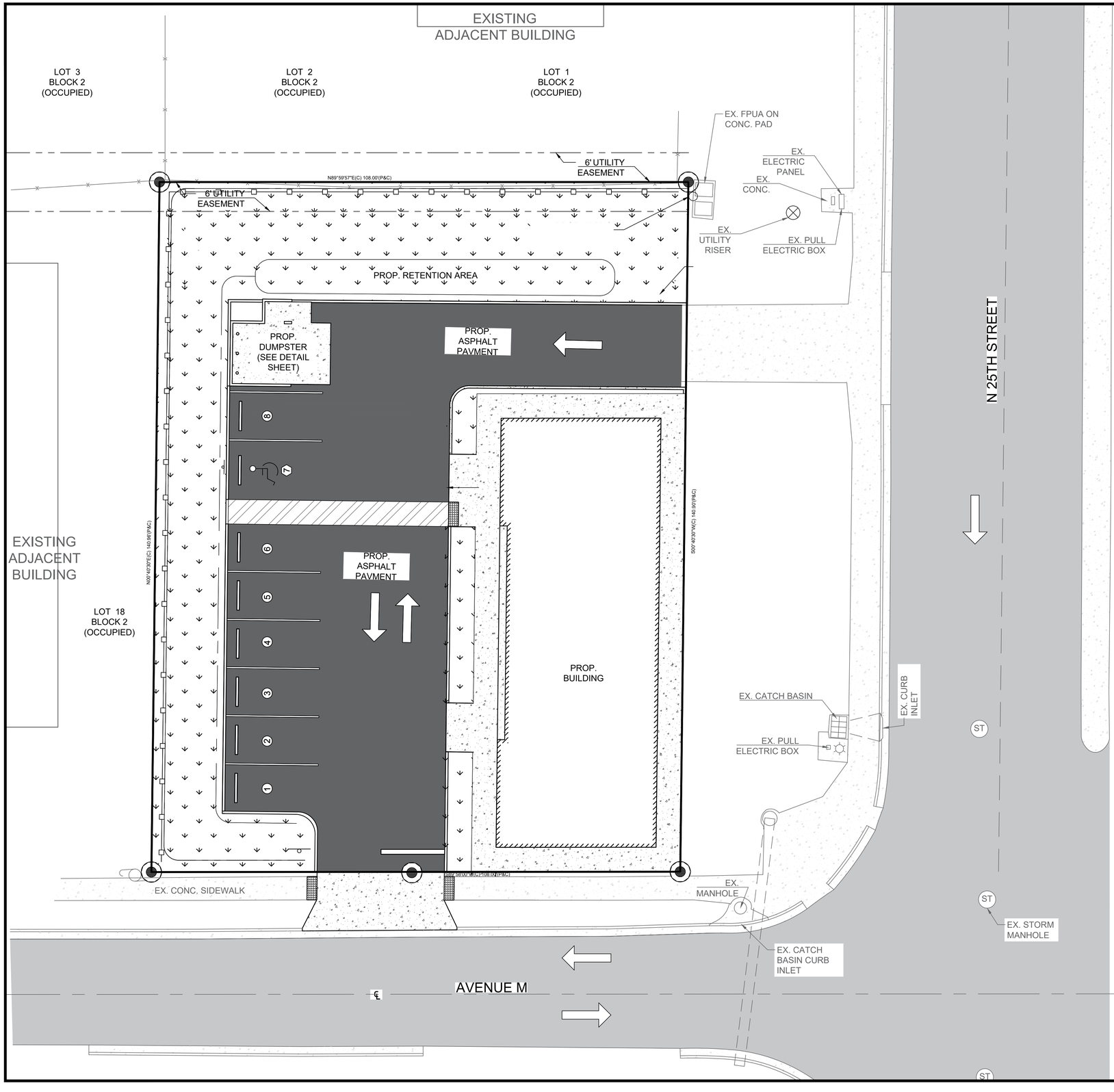
SHEET TITLE: DRAINGE & GRADING PLAN

DATE: 08/27/2025

SCALE: 1"=10'

DRAWN BY: L.S

SHEET: C-103



LEGEND

- PROPOSED PVC WATER SERVICE LINE
- EXISTING FPUA WATER MAIN
- EXISTING FPUA SEWER MAIN
- PROPOSED PVC SANITARY SEWER SERVICE

CLIENT TO COORDINATE WITH FPUA FOR WATER & SEWER SERVICE CONNECTIONS

PLEASE REFER TO FPUA STANDARD DETAILS FOR WATER AND SEWER SERVICE CONNECTIONS PROVIDED ON THE DETAIL SHEET C-502 AND C-503

FPUA ELECTRIC, WATER AND SEWER SERVICE.

ELECTRIC CONNECTION SHALL BE UNDERGROUND. CONTRACTOR TO COORDINATE WITH FPUA. SEE ELECTRICAL RISER DIAGRAM (SEE ARCHITECTURAL PLANS)

N

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PERMITS REQUIRED

☑ CITY OF FORT PIERCE

PERMIT#

NO.	REVISIONS	DATE

PROPOSED CONVENIENCE STORE TONY PHILLIP

2502 & 2504 AVENUE M
FORT PIERCE, FL 34947

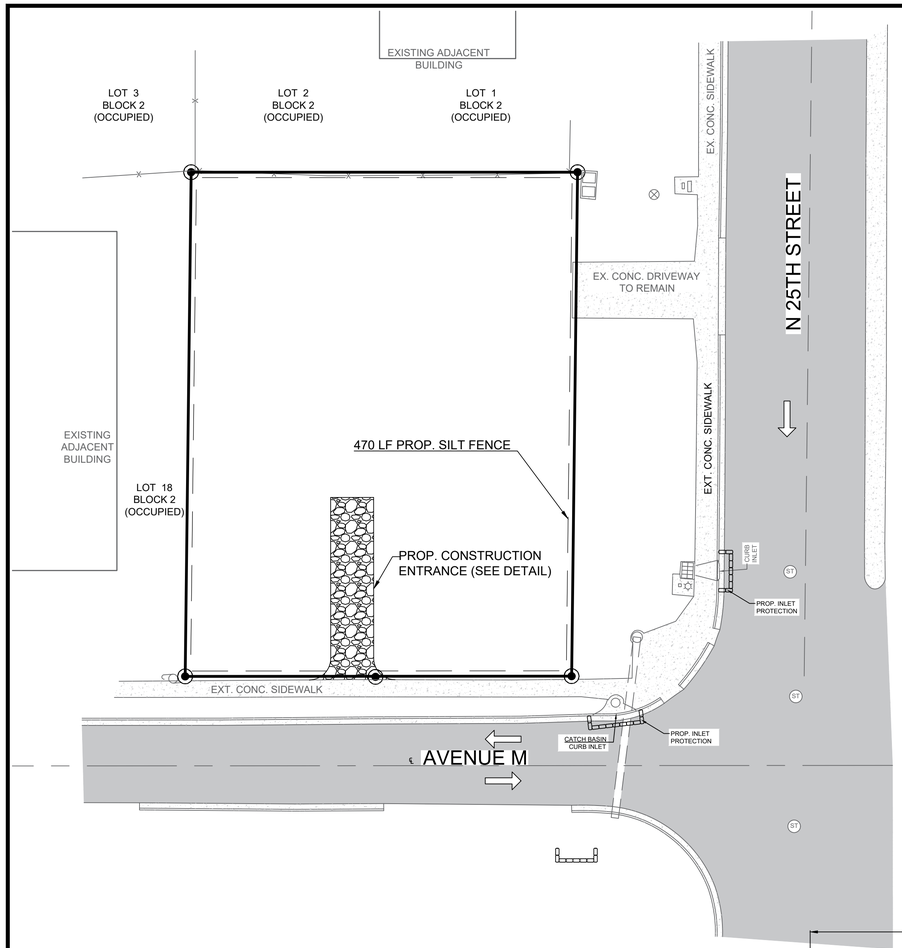
SHEET TITLE
UTILITY PLAN

DATE
08/27/2025

SCALE
1"=10'

DRAWN BY
L.S

SHEET
C-104

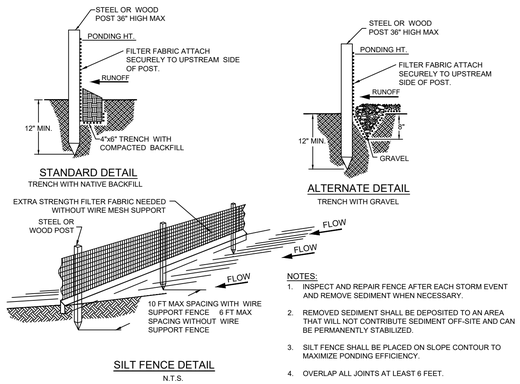


EROSION CONTROL NOTES:

1. THIS PROJECT IS SUBJECT TO ALL RELATED ENVIRONMENTAL REQUIREMENTS WHICH INCLUDE A "CONTROL OF EROSION AND SEDIMENTATION PLAN". THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING NECESSARY AND ADEQUATE MEASURES FOR PROPER CONTROL OF EROSION DUE TO SEDIMENTATION RUNOFF FROM THE SITE PRIOR TO CONSTRUCTION OPERATIONS IN A PARTICULAR AREA. ALL SEDIMENTATION AND EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO START OF CONSTRUCTION. FIELD ADJUSTMENTS WITH RESPECT TO LOCATIONS AND DIMENSIONS MAY BE DIRECTED BY THE ENGINEER AS REQUIRED.
2. EROSION CONTROL MEASURES SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RAIN EVENT FOR DAMAGE AND GENERAL EFFECTIVENESS. ANY DAMAGED OR INEFFECTIVE CONTROLS SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR.
3. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED, IF DEEMED NECESSARY, BY THE ON-SITE INSPECTOR.
4. EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. TEMPORARY AND PERMANENT MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
5. ALL TEMPORARY SEDIMENT CONTROL DEVICES SHALL BE LEFT IN PLACE AND MAINTAINED UNTIL THE AREA HAS BEEN COMPLETELY STABILIZED WITH PERMANENT VEGETATION.
6. ALL CONSTRUCTION EXITS SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ON TO ANY PUBLIC RIGHT-OF-WAY. THIS SHALL REQUIRE PERIODIC TOP DRESSING WITH STONE, AS CONDITIONS REQUIRE. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED ON TO PUBLIC RIGHT-OF-WAY OR INTO STORM DRAINS SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR.
7. TURBIDITY SCREENS OR EQUIVALENT SHALL BE PROPERLY EMPLOYED AND MAINTAINED AS NECESSARY DURING CONSTRUCTION ACTIVITIES SO THAT TURBIDITY LEVELS DO NOT EXCEED 29 NTU'S ABOVE NATURAL BACKGROUND 50 FEET DOWNSTREAM OF POINT OF DISCHARGE. IF TURBIDITY LEVELS EXCEED THESE LIMITS, PROJECT ACTIVITIES SHALL IMMEDIATELY CEASE, AND WORK SHALL NOT RESUME UNTIL TURBIDITY LEVELS DROP TO WITHIN THESE LIMITS.
8. CONTRACTOR SHALL SOD GRASS AREAS DAMAGED DURING CONSTRUCTION AT NO ADDITIONAL COST TO OWNER.
9. CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE ENVIRONMENTAL PROTECTION AGENCY (EPA) AND THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES).
11. SEDIMENT BARRIERS SHALL BE PLACED PRIOR TO ANY WORK ON THE SITE. SEDIMENT BARRIERS SHALL PLACED AS DEPICTED AS SHOWN ON THESE CONSTRUCTION PLANS.
12. PRESERVE AREAS ARE TO REMAIN UNDISTURBED. VEHICLE AND CONSTRUCTION EQUIPMENT TRAFFIC IS PROHIBITED WITHIN THESE AREAS.
13. DAMAGED TURBIDITY CONTROLS SHALL BE REPAIRED PROMPTLY AND BEFORE ANY SUBSEQUENT RAINFALL.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PREPARATION AND IMPLEMENTATION OF THE NPDES AND RELATED STORM WATER PLAN FOR THE DURATION OF THE PROJECT. UPON COMPLETION THE CONTRACTOR SHALL REMOVED ALL TEMPORARY STORM WATER MANAGEMENT MEASURES AND SHALL DISPOSE OF THEM AS REQUIRED.
15. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY TEMPORARILY CEASES FOR AT LEAST 21 DAYS SHALL BE STABILIZED WITH SEED & MULCH NO LATER THAN 14 DAYS FROM THE LAST CONSTRUCTION ACTIVITY IN THAT AREAS. THE SEEDING SHALL FOLLOWING TYPICAL CONSTRUCTION PRACTICES TO INSURE A YEAR ROUND STABILIZED AREA.
16. CONTRACTOR SHALL COMPLY WITH SPILL PREVENTION, CONTROL AND COUNTER MEASURES (SPEC) REQUIREMENTS PURSUANT TO EPA RULES AND REGULATIONS.
17. ALL CONSTRUCTION WASTE MATERIAL SHALL BE COLLECTED AND STORED IN A SECURED METAL DUMPSTER RENTED / LEASED FROM A LOCAL WASTE MANAGEMENT COMPANY. THE DUMPSTER SHALL MEET ALL LOCAL AND STATE SOLID WASTE MANAGEMENT REGULATIONS. ALL PERSONNEL SHALL BE INSTRUCTED REGARDING THE CORRECT PROCEDURES FOR WASTE DISPOSAL. NOTICES STATING THESE PRACTICES SHALL BE POSTED IN THE OFFICE TRAILER / CONSTRUCTION TRAILER AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE FOLLOWED.
18. ALL SANITARY WASTE SHALL BE COLLECTED FROM THE PORTABLE UNITS AT A MINIMUM OF ONCE PER WEEK BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR.
19. TRUCKS / EQUIPMENT IMPORTING OR EXPORTING FILL SHALL COVER THEIR LOADS WITH A TARPAULIN TO AVOID UNNECESSARY GENERATION OF DUST.
20. ALL HAZARDOUS WATER MATERIAL SHALL BE DISPOSED OF AS PER LOCAL / STATE REGULATIONS OR AS RECOMMENDED BY THE MANUFACTURER. SITE PERSONNEL SHALL BE INSTRUCTED IN THESE PRACTICES AND THE CONTRACTOR IS RESPONSIBLE TO FOLLOW THESE PRACTICES.
21. THE GENERAL CONTRACTOR'S SITE SUPERINTENDENT SHALL SELECT INDIVIDUALS, TYPICALLY THREE, WHO WILL BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE AND REPAIR ACTIVITIES AND FILLING OUT OF INSPECTION REPORTS. PERSONNEL SELECTED SHALL BE RECEIVE PROPER TRAINING, AT THE CONTRACTORS EXPENSE, PRIOR TO SITE CONSTRUCTION COMMENCEMENT.
22. ALL EROSION AND SEDIMENTATION CONTROLS SHALL BE INSPECTED EVERY 7 DAYS OR WITHIN 24 HOURS OF A STORM OF 0.5 INCHES OR MORE IN RAINFALL. ALL CONTROLS MUST BE IN PROPER ORDER AS REQUIRED UNTIL SITE COMPLETION.
23. SILT FENCE SHALL BE INSPECTED FOR TEARS, DEPTH OF SEDIMENT, AND TO INSURE THE FENCE IS SECURELY FASTENED TO THE POSTS AND ALSO THAT POSTS ARE FIRMLY IN PLACE. SEDIMENT SHALL BE REMOVED IF THE DEPTH OF SEDIMENT IS GREATER THAN ONE-THIRD THE HEIGHT OF THE SILT FENCE.
24. THE INSPECTOR SHALL RECORD ANY DAMAGES OR DEFICIENCIES IN THE TURBIDITY CONTROLS IN THE REPORT FORM FOR THIS PURPOSE. A COPY OF ALL RECORDING AND REPORTS SHALL BE FORWARDED TO THE ENGINEER FOR REVIEW.
25. THE REQUIREMENTS LISTED ABOVE AND DETAILS PRESENTED ON THIS SHEET SHALL BE CONSIDERED MINIMUM REQUIREMENTS AND THE CONTRACTOR SHALL USE WHATEVER METHODS THE CONTRACTOR DEEMS NECESSARY TO PREVENT EROSION AND SILTATION AS MAY BE REQUIRED FOR THE PROJECT.
26. LOCATIONS OF ANY MATERIALS TO BE TEMPORARILY STOCKPILED TO INCLUDE LAND CLEARING DEBRIS OR EXCAVATED MATERIALS SHALL BE PER THE DIRECTION OF THE MARTIN COUNTY PROJECT MANAGER.
27. PROPERTY CORNERS SHALL BE LOCATED BY A LICENSED LAND SURVEYOR AND CLEARLY MARKED IN THE FIELD PRIOR TO THE ENGINEERING DEPARTMENT'S PRE-CONSTRUCTION MEETING FOR SITE DEVELOPMENT.
28. AUTHORIZATION TO INSTALL EROSION CONTROL DEVICES AND PRESERVE BARRICADES WILL BE GRANTED AT THE PRE-CONSTRUCTION MEETING. THIS AUTHORIZATION SHALL BE POSTED ON THE SITE, IN THE PERMIT BOX, ITS LOCATION SHOWN ELSEWHERE ON THIS PAGE.
29. NO ADDITIONAL LAND CLEARING SHALL COMMENCE UNTIL A SATISFACTORY INSPECTION OF THE REQUIRED EROSION CONTROL BARRICADES HAS BEEN OBTAINED.
30. ALL CONSTRUCTION BARRICADES AND SILT FENCES WILL REMAIN IN PLACE AND BE MONITORED FOR COMPLIANCE BY THE PERMIT HOLDER DURING THE PERMITTED DEVELOPMENT ACTIVITIES.
31. PRIOR TO SCHEDULING A FINAL ENVIRONMENTAL INSPECTION FOR THE INFRASTRUCTURE, ALL BARRICADES AND EROSION CONTROL DEVICES SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.

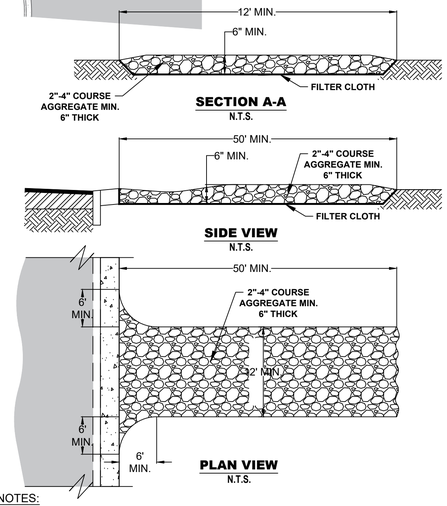
LEGEND

- EXISTING CHAIN LINK FENCE
- EXISTING UTILITY EASEMENT (UE)
- PROPERTY BOUNDARY
- ROAD CENTERLINE ℄
- EXISTING EDGE OF PAVEMENT
- PROPOSED SILT FENCE
- EXISTING CONCRETE
- EXISTING ASPHALT



NOTES:

1. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY.
2. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
3. SILT FENCE SHALL BE PLACED ON SLOPE CONTOUR TO MAXIMIZE PONDING EFFICIENCY.
4. OVERLAP ALL JOINTS AT LEAST 6 FEET.

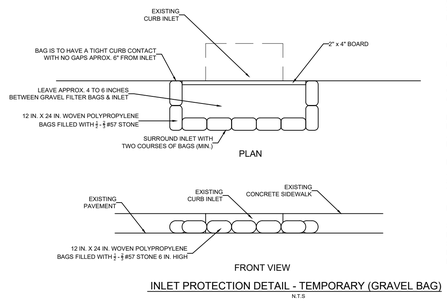


NOTES:

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

CONSTRUCTION ENTRANCE DETAIL

N.T.S.



INLET PROTECTION DETAIL - TEMPORARY (GRAVEL BAG)

N.T.S

INSTALLATION:
STONE FILLED BAGS SHALL BE WOVEN POLYPROPYLENE BAGS WITH APPROXIMATE DIMENSIONS OF 12 INCHES BY 24 INCHES.

THE BAGS SHALL BE FILLED ½ TO ¾ FULL WITH KTC #57 STONE. TIE THE ENDS OF FILLED BAGS USING EITHER DRAW STRINGS OR WIRE TIES.

INTERWEAVE THE LOSE ENDS OF THE BAGS SO THAT THE GAPS BETWEEN BAGS ARE FILLED AND THE ENDS OF THE BAGS ARE SEALED.

COMPLETELY SURROUND THE INLET WITH A MINIMUM OF TWO (2) ROWS OF BAGS TO A MINIMUM OF 12 INCHES IN HEIGHT.

INSPECTION AND MAINTENANCE:
INSPECTION SHOULD BE MADE EVERY SEVEN (7) CALENDAR DAYS AND WHITEN 24-HOURS AFTER EACH RAINFALL EVENT THAT PRODUCES 1/2-INCHES OF MORE OF PRECIPITATION. ANY NEEDED REPAIRS SHOULD BE HANDLED IMMEDIATELY.

IF SEDIMENT ACCUMULATES, REMOVE IT FROM THE FACE OF THE BAGS BEFORE IT ACCUMULATES TO A HEIGHT EQUAL TO ½ THE STRUCTURAL HEIGHT. ANY NEEDED REPAIRS SHOULD BE HANDLED IMMEDIATELY. TAKE CARE NOT TO DAMAGE OR UNDERCUT THE BAGS WHEN REMOVING SEDIMENT.

REMOVE AND REPLACE ANY DAMAGED BAGS AND DISPOSE OF THEM PROPERLY.

STORM DRAIN INLET PROTECTION STRUCTURES SHOULD BE REMOVED ONLY AFTER THE DISTURBED AREA ARE PERMANENTLY STABILIZED. REMOVE ALL CONSTRUCTION MATERIAL AND SEDIMENT, AND DISPOSE OF THEM PROPERLY. GRADE THE DISTURBED AREA TO THE ELEVATION OF THE DROP INLET STRUCTURE CREST. USE APPROPRIATE STABILIZATION METHODS TO STABILIZE BARE AREAS AROUND THE INLET.

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NO.	REVISIONS	DATE

PROPOSED CONVENIENCE STORE
TONY PHILLIP

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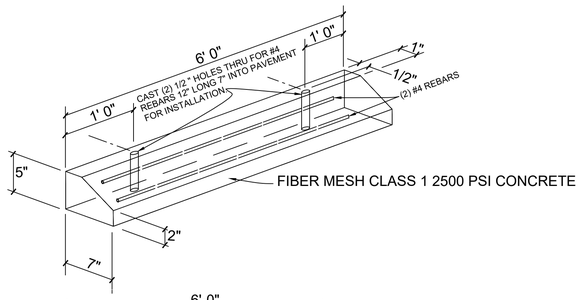
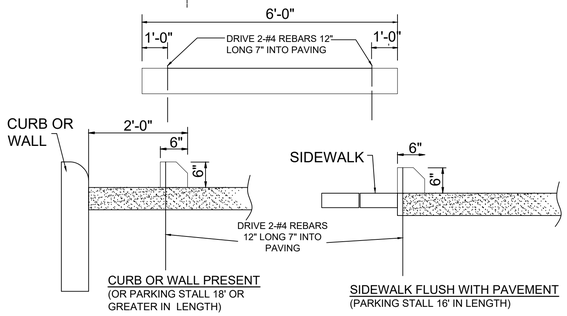
FORT PIERCE, FL 34947

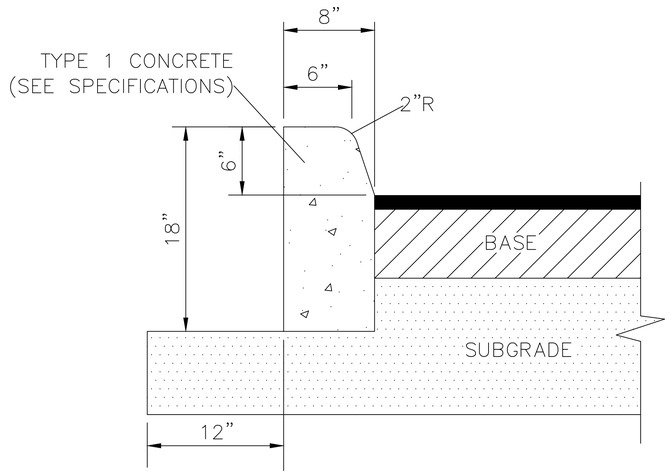
SHEET TITLE
EROSION CONTROL PLAN

DATE 08/27/2025
SCALE 1"=20'
DRAWN BY L.S

SHEET C-105





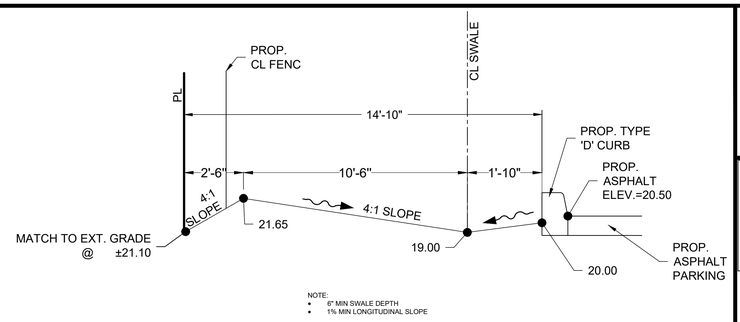


SECTION VIEW

NOTES:

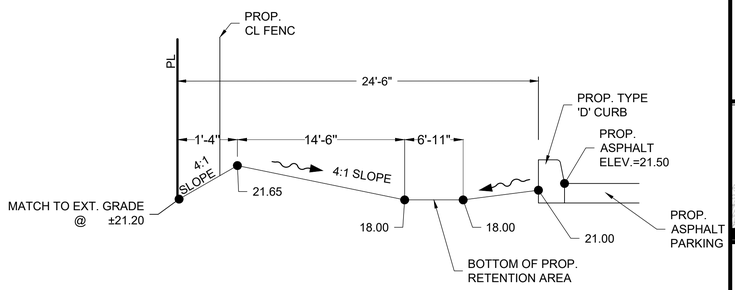
1. SAW CUT CONTRACTION JOINTS ON 10' CENTERS MAX. WITHIN 48 HOURS AFTER POURING CURB.

2. ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH FDOT SPECIFICATIONS SECTION 520 AND FDOT ROADWAY & TRAFFIC DESIGN STANDARDS INDEX NUMBER 300.

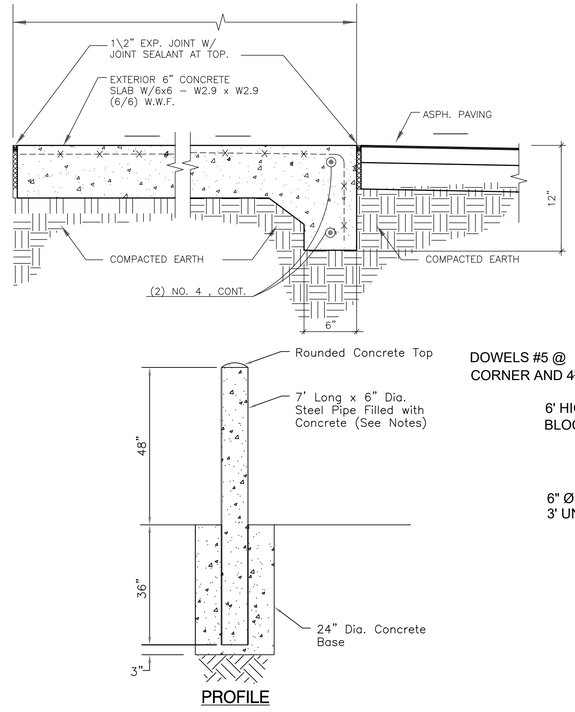


NOTE:
- 6" MIN SWALE DEPTH
- 1% MIN LONGITUDINAL SLOPE

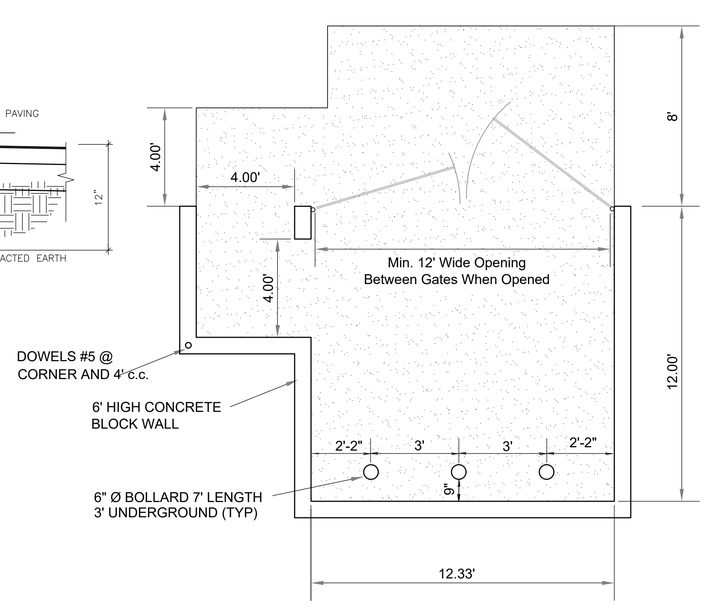
SWALE SECTION
N.T.S



RETENTION AREA SECTION
N.T.S



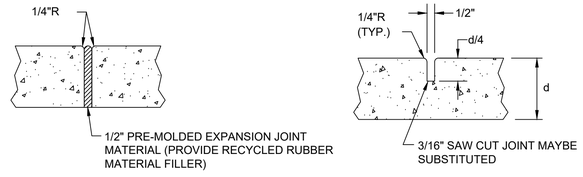
PROFILE



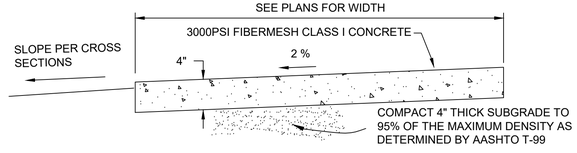
DUMPSTER DETAIL

NOTES:

1. The minimum wall thickness of the pipe shall be 0.188".
2. All posts shall have 2 coats of primer and 2 coats of Yell w top coat, unless otherwise noted.
3. The primer c at shall meet the requirements of FDOT 971–5.
4. All concrete shall be FDOT class 1.



EXPANSION JOINTS **CONTRACTION JOINTS**



NOTES:

1. PROVIDE EXPANSION JOINTS 20' CENTER TO CENTER, AT PC & PT OF CURVES, JUNCTIONS OF EXISTING & NEW SIDEWALKS, AND WHERE SIDEWALK ABUTS CURBS, DRIVEWAYS & SIMILAR STRUCTURES.
2. PROVIDE CONTRACTION JOINTS EQUAL TO WIDTH OF 6' SIDEWALK AND 5' CENTER TO CENTER ALL OTHERS.
3. SOD SHALL BE PLACED BELOW EDGE OF SIDEWALK TO ALLOW DRAINAGE.
4. FIBERMESH TO BE INCLUDED WRITHEN CONCRETE MIX.

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PERMIT#

NO.	REVISIONS	DATE

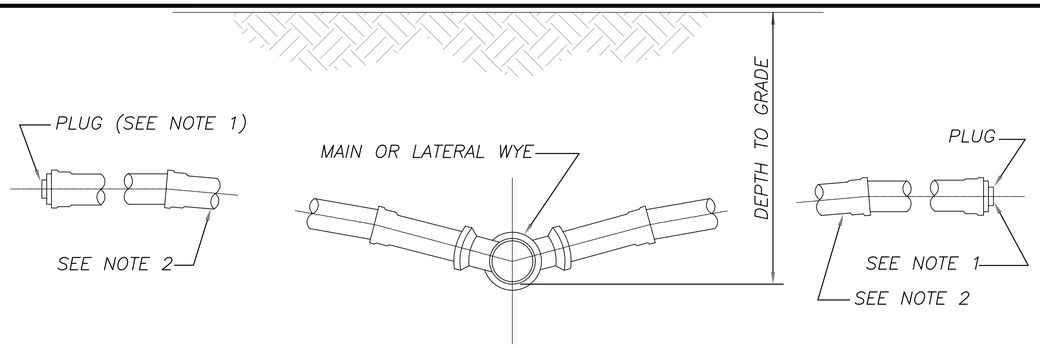
PROPOSED
CONVENIENCE
STORE
TONY PHILLIP

2502 & 2504 AVENUE M
FORT PIERCE, FL 34947

SHEET TITLE
SITE DETAILS

DATE 08/27/2025
SCALE N.T.S
DRAWN BY L.S

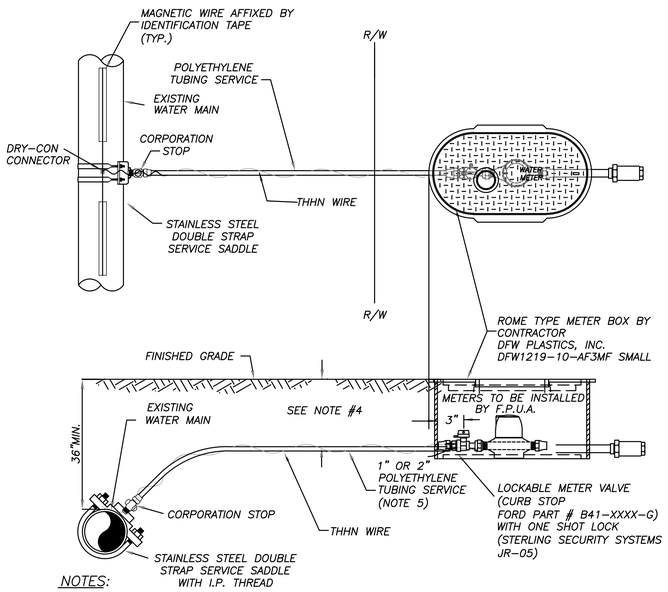
SHEET
C-501



NOTES:

1) BALL TYPE WASTEWATER LOCATOR BY 3M CORP. OR APPROVED EQUAL.
2) MINIMUM SLOPE OF 1/8" PER FOOT, USE GREATER SLOPE WHERE POSSIBLE.
3) SERVICE LATERAL SHALL TERMINATE WITH A CLEANOUT.
4) INSTALL CLEANOUT AT THE PROPERTY LINE. REFER TO DETAIL S-1 FOR SPECIFIC PROPERTY LAYOUT.

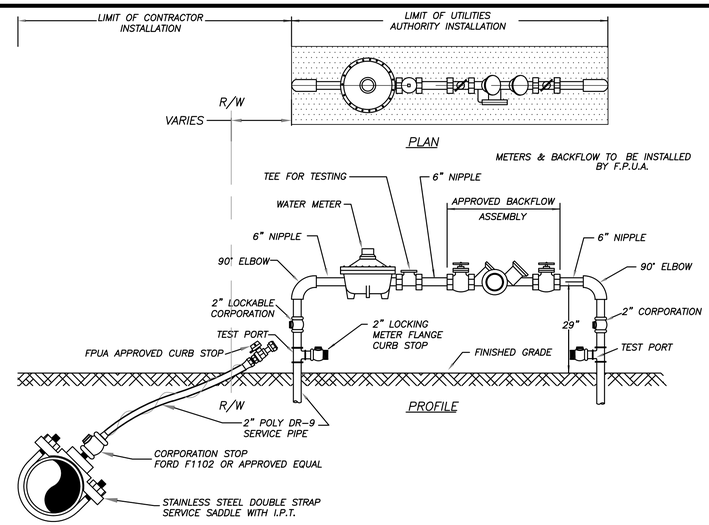
SERVICE CONNECTION
(N.T.S.)



NOTES:

1. BLUE 10 GAUGE THHN WIRE SHALL BE ATTACHED TO THE SERVICE LINE.
2. WHERE SERVICES UNDER PAVEMENT ARE REQUIRED, THE POLYETHYLENE TUBING SHALL BE INSTALLED WITHIN SCHEDULE 40 PVC CASING PIPE.
3. 1" & 3/4" METER SIZES SHALL REQUIRE A LOCKABLE METER VALVE. (CURB STOP)
4. MINIMUM COVER IN UNPAVED AREAS SHALL BE 30", IN PAVED AREAS OR PLANNED ROADWAYS OR SWALES MIN. COVER SHALL BE 36".
5. FOR 2" COMMERCIAL SERVICE INSTALLATIONS, FPUA WILL INSTALL ABOVE GROUND METER PER DETAIL W-8.

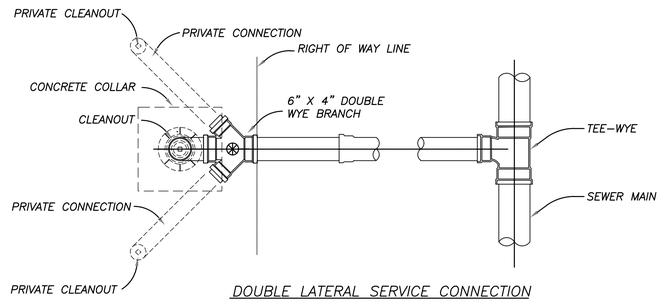
TYPICAL SINGLE WATER SERVICE CONNECTION
(N.T.S.)



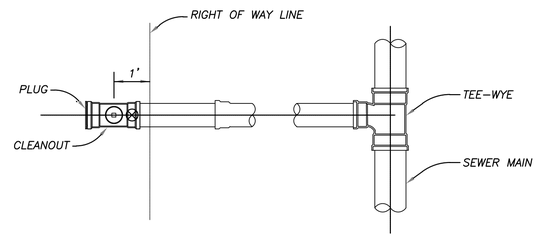
NOTES:

1. LANDSCAPING REQUIRED PER CITY OF FORT PIERCE OR ST. LUCIE COUNTY ORDINANCE. NO PLANTS OR TREES WITHIN 18" AROUND METER OR BACKFLOW. NO SOLDER JOINTS.
2. ASSEMBLY TO BE 29" FROM FINISH GRADE TO CENTERLINE OF THE FLANGED 90° BEND.

WATER METER/BACKFLOW PREVENTER ASSEMBLY
DOMESTIC SERVICE (COMMERCIAL)
(N.T.S.)



DOUBLE LATERAL SERVICE CONNECTION
AT PROPERTY LINE



SINGLE SERVICE LATERAL CONNECTION

⊛ = BALL TYPE WASTEWATER LOCATOR INSTALLED ABOVE THIS POINT
BALL BY 3M CORP. OR APPROVED EQUAL

SERVICE LATERAL SHALL TERMINATE WITH A CLEANOUT

WASTEWATER SERVICE CONNECTION
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TONY PHILLIP

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SHEET TITLE
UTILITY DETAILS

DATE
08/27/2025

SCALE
N.T.S

DRAWN BY
L.S

SHEET
C-502

FORT PIERCE UTILITIES AUTHORITY
WATER DISTRIBUTION NOTES

1. ALL CONSTRUCTION MATERIAL, INSTALLATION AND TESTING SHALL CONFORM TO THE STANDARD SPECIFICATIONS OF THE FORT PIERCE UTILITIES AUTHORITY.
2. WATER MAINS WHERE SPECIFIED AS POLYVINYL CHLORIDE (PVC) SHALL CONFORM TO AWWA C-900 OR C-905, PRESSURE CLASS 150, DR (18). WATER MAINS WHERE SPECIFIED AS POLYETHYLENE (PE) SHALL CONFORM TO AWWA C-901 OR C-906, STANDARD CODE DESIGNATION PE3408, PIPE CLASS 200, DIMENSION RATIO (DR) 17 FOR DIRECT BURY, (DR) 11 FOR DIRECTIONAL BORING, AND (DR) 9 FOR 2 INCH AND SMALLER PIPELINES.
3. WATER MAIN, WHERE SPECIFIED AS DUCTILE IRON PIPE , SHALL CONFORM TO ANSI/AWWA C151/A21.51 AND SHALL BE PRESSURE CLASS 250 (MINIMUM).
4. POLYVINYL CHLORIDE WATER MAIN SHALL BE BLUE IN COLOR OR WHITE IN COLOR WITH BLUE STRIPES. THE USE OF IDENTIFICATION TAPE ATTACHED TO THE TOP OF THE PIPE MAY BE USED IN LIEU OF MARKING ON THE PIPE, ALSO DIP PIPE SHALL REQUIRE THE USE OF IDENTIFICATION TAPE AND THHN WIRE.
5. FITTINGS SHALL BE DUCTILE IRON CONFORMING TO ANSI/AWWA C-110/A21.10, CLASS 250 MIN., CEMENT LINED AND FACTORY COATED
6. GATE VALVES SHALL BE MUELLER RESILIENT SEAT, KENNDY KEN-SEAL, AMERICAN OR APPROVED EQUAL. VALVES SHALL CONFORM TO AWWA C-509.
7. WATER LINES SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH FPUA DESIGN AND CONSTRUCTION STANDARDS. THE CONTRACTOR SHALL SUBMIT CERTIFIED DENSITY TESTS AS REQUIRED BY FPUA ENGINEERING AND THE CITY, COUNTY, FDOT. IN CASES WHERE PAVED AREAS FALL WITHIN THE JURISDICTION OF LOCAL OR STATE AGENCIES, THE COMPACTION REQUIREMENTS SHALL NOT BE LESS THAN THE MINIMUM REQUIRED BY THE APPROPRIATE RESPONSIBLE AGENCY.
8. NO FIELD CHANGES OR DEVIATIONS FROM THE DESIGN SHALL BE MADE WITHOUT PRIOR APPROVAL OF THE FPUA ENGINEER AND CITY/COUNTY/FDOT ENGINEER.
9. THE CONTRACTOR SHALL NOTIFY FPUA ENGINEERING AND CITY/COUNTY/FDOT ENGINEERING 48 HOURS PRIOR TO COMMENCING CONSTRUCTION.
10. A PRE-CONSTRUCTION CONFERENCE BETWEEN THE ENGINEER, THE CONTRACTOR, FPUA, AND CITY/ COUNTY/FDOT ENGINEER SHALL BE MANDATORY PRIOR TO COMMENCEMENT OF CONSTRUCTION.
11. TRAFFIC CONTROL, BARRICADES, ETC., SHALL BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF OF TRANSPORTATION STANDARDS AND APPROVED BY THE CITY ENGINEER.
12. MINIMUM COVER SHALL BE 36 INCHES EXCEPT AS APPROVED BY THE UTILITIES ENGINEER AND CITY/ COUNTY/FDOT ENGINEER. PIPES WITH COVER LESS THAN 30 INCHES SHALL BE CONSTRUCTED OF DUCTILE IRON OR IN PVC CASING.
13. DISTURBED AREAS SHALL BE RESTORED IN CONFORMANCE WITH THE APPLICABLE GOVERNING AGENCY REQUIREMENTS.
14. EXISTING UTILITIES AND DRAINAGE SHALL BE FIELD VERIFIED PRIOR TO CONSTRUCTION AND PROTECTED BY THE CONTRACTOR.
15. WATER MAINS SHALL BE TESTED AND DISINFECTED IN ACCORDANCE WITH THE APPLICABLE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION AND AWWA C-651 FOR DISINFECTION.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EXISTING UTILITIES AND DRAINAGE.
17. THE CONTRACTOR SHALL FURNISH RECORD DRAWING INFORMATION TO THE ENGINEER INCLUDING LOCATIONS OF VALVES, FITTINGS, SERVICE CONNECTIONS, BLOWOFFS, AIR RELEASE VALVES, AND ANY OTHER PERTINENT INFORMATION NECESSARY TO LOCATE ITEMS CONSTRUCTED UNDER THIS PROJECT, AS REQUIRED BY THE UTILITIES ENGINEER.
18. THE CONTRACTOR SHALL TAP EXISTING LINES UNDER THE SUPERVISION OF THE FORT PIERCE UTILITIES AUTHORITY ONLY AFTER TESTING AND DISINFECTION HAS BEEN COMPLETED AND APPROVED ON THE TAPPING VALVE AND SLEEVE.
19. WATER MAIN SHALL BE MARKED BY THE USE OF CONTINUOUS 10 GAUGE THHN MULTI STRANDED WIRE (BLUE IN COLOR) AND IDENTIFCATION TAPE WITH "WATER" MARKED ON TAPE, PERMANENTLY ATTACHED TO THE TOP OF THE WATER MAIN IN ACCORDANCE WITH THE FORT PIERCE UTILITES AUTHORITY SPECIFICATIONS.
20. SERVICE TAPS SHALL BE PLACED APPROXIMATELY TEN FEET AWAY FROM GATE VALVES, AS SHOWN, FOR TESTING. FOLLOWING TESTING AND STERILIZATION OF WATER LINE. CONTRACTOR SHALL PLACE A BRASS PLUG IN CORPORATION STOPS AND CURB STOPS SHALL BE REMOVED FROM TESTING LOCATIONS.
21. MECHANICAL RESTRAINTS TO BE USED ON ALL FITTINGS AND PLACED IN ACCORDANCE WITH MANUFACTURER'S OR ENGINEER'S RECOMMENDATIONS (WHICHEVER IS MORE STRINGENT) AND FPUA REQUIREMENTS.
22. ALL MAINS SHALL BE TESTED AT A MINIMUM OF 150 PSI. TESTING METHODS SHALL CONFORM TO AWWA C-600. – 2 HR MINIMUM TEST

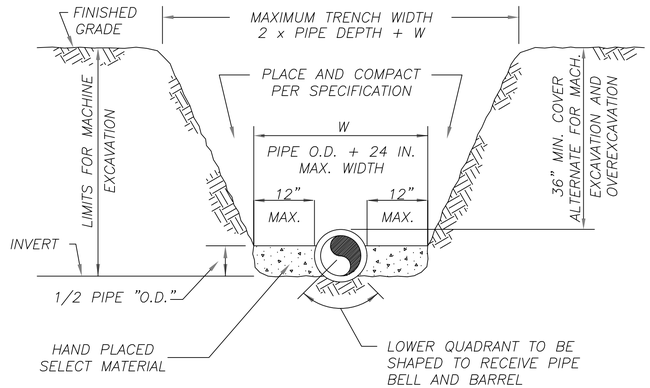
$$L = \frac{SD(P)^{1/2}}{148{,}000}$$

L= LEAKAGE IN GPH
S= LENGTH OF PIPE IN FEET
D= PIPE DIAMETER IN INCHES
P= TESTING PRESSURE IN PSI

23. PRIOR TO ANY TESTING, ALL MAINS 6" IN DIA. AND LARGER SHALL HAVE A SWAB PASSED THRU THE ENTIRE LENGTH OF THE LINE. NOTE: SWAB SHOULD BE PLACED IN 1st. JOINT OF NEW LINE. END OF MAIN SHOULD BE "TURNED UP" AT 45% AND EXTENDED SO THAT SWABBING AND A FULL BORE FLUSH CAN BE ACCOMPLISHED. BLOW-OFF ASSY CAN THEN BE PLACED. WHERE LINES BRANCH, SWABS WILL BE PLACED IN BRANCH LINES AND SEQUENTIALLY SWABBED AND FLUSHED.
24. A MINIMUM SIX FEET AND PREFERABLY TEN FEET HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN THE WATER MAIN AND ANY WASTEWATER LINES. 6 INCHES MINIMUM VERTICAL SEPARATION IF WATER MAIN IS OVER WASTEWATER AND 12 INCHES IF WATER MAIN IS UNDER SHALL BE MAINTAINED BETWEEN THE WATER MAIN AND ANY WASTWATER LINES. THE DISTANCE SHALL BE MEASURED FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE OR STRUCTURE. WHERE THIS MINIMUM SEPARATION CANNOT BE MAINTAINED, THE CROSSING SHALL BE ARRANGED SO THAT THE WASTEWATER PIPE JOINTS AND THE WATER MAIN PIPE JOINTS ARE EQUIDISTANT FROM THE POINT OF CROSSING, AND THE WATER MAIN SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE (DIP) AT THE CROSSING. SUFFICIENT LENGHTS OF DIP MUST BE USED TO PROVIDE A MINIMUM SEPARATION OF 10 FEET BETWEEN ANY TWO JOINTS. ALL JOINTS ON THE WATER MAIN WITHIN 20 FEET OF THE CROSSING MUST BE MECHANICALLY RESTRAINED. A MINIMUM VERTICAL CLEARANCE OF 6 INCHES MUST BE MAINTAINED AT ALL CROSSINGS.
25. WHERE A WATER MAIN IS TO BE INSTALLED BELOW A STORM DRAIN PIPE, A MINIMUM OF 6 INCHES OF VERTICAL CLEARANCE BETWEEN PIPES SHALL BE CONSTRUCTED OF DIP AT THE CROSSING, AND SHALL BE MECHANICALLY RESTRAINED WITHIN 20 FEET OF THE CROSSING.
26. CONTRACTOR SHALL COMPLY WITH FLORIDA TRENCH SAFETY ACT REQUIREMENTS.

FORT PIERCE UTILITIES AUTHORITY WASTEWATER CONSTRUCTION NOTES

1. ALL CONSTRUCTION MATERIAL, INSTALLATION AND TESTING SHALL CONFORM TO THE STANDARD SPECIFICATIONS OF THE FORT PIERCE UTILITIES AUTHORITY.
2. GRAVITY SEWER MAIN SHALL BE POLYVINYL CHLORIDE SDR-26, GREEN OR WHITE IN COLOR, GRAVITY SEWER MAIN SHALL HAVE LOCATOR TAPE WITH "SEWER" MARKED ON TAPE AND SHALL CONFORM TO ASTM D-3034.
3. THE MANHOLE BASE SHALL BE SET ON A FIRM, DRY AND STABLE OR COMPACTED BASE FOUNDATION. IF NECESSARY, THE CONTRACTOR SHALL UTILIZE ROCK TO PROVIDE A FIRM AND SUITABLE MANHOLE BASE FOUNDATION.
4. WASTEWATER LINES SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH FPUA DESIGN AND CONSTRUCTION STANDARDS. THE CONTRACTOR SHALL SUBMIT CERTIFIED DENSITY TESTS AS REQUIRED BY FPUA ENGINEERING AND THE CITY ENGINEERING DEPARTMENT. IN CASES WHERE PAVED AREAS FALL WITHIN THE JURISDICTION OF LOCAL OR STATE AGENCIES, THE COMPACTION REQUIREMENTS SHALL NOT BE LESS THEN THE MINIMUM REQUIRED BY THE APPROPRIATE RESPONSIBLE AGENCY.
5. A 1% MINIMUM SLOPE SHALL BE MAINTAINED ON ALL SANITARY SERVICE LATERALS.
6. THE CONTRACTOR SHALL FURNISH RECORD DRAWING INFORMATION TO THE ENGINEER CONSISITING OF PIPE SIZES, LOCATION OF SERVICE TEE WYES, DIAMETER OF SERVICES, LOCATION OF ANY FITTINGS, FINAL RIM AND INVERT ELEVATION OF ALL MANHOLES AND ANY OTHER PERTINENT INFORMATION NECESSARY TO LOCATE ITEMS CONSTRUCTED UNDER THIS PROJECT.
7. MAINTAIN SIX FEET AND PREFERABLY 10 FEET HORIZONTAL DISTANCE BETWEEN WATER MAINS AND SEWER MAINS AS A MINIMUM.
8. WASTEWATER FORCE MAINS, WASTEWATER COLLECTION LINES, AND STORM SEWERS SHOULD CROSS UNDER WATER MAINS WHENEVER POSSIBLE. A MINIMUM VERTICAL DISTANCE OF 12 INCHES BETWEEN THE INVERT OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE SHALL BE PROVIDED WHENEVER POSSIBLE. WHERE THIS MINIMUM SEPARATION CANNOT BE MAINTAINED, THE CROSSING SHALL BE ARRANGED SO THAT THE WASTEWATER PIPE JOINTS AND THE WATER PIPE JOINTS ARE EQUIDISTANCE FROM THE POINT OF CROSSING, AND THE WATER MAIN SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE (DIP) AT THE CROSSING. SUFFICIENT LENGTHS OF DIP MUST BE USED TO PROVIDE A MINIMUM SEPARATION OF 10 FEET BETWEEN ANY TWO JOINTS. ALL JOINTS ON THE WATER MAIN WITHIN 20 FEET OF THE CROSSING MUST BE MECHANICALLY RESTRAINED. A MINIMUM VERTICAL CLEARANCE OF 6 INCHES MUST BE MAINTAINED AT ALL CROSSINGS.
9. A PRE-CONSTRUCTION CONFERENCE BETWEEN THE ENGINEER, THE CONTRACTOR, AND FPUA/CITY COUNTY/FDOT SHALL BE MANDATORY PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
10. NO FIELD CHANGES OR DEVIATIONS FORM THE DESIGN SHALL BE MADE WITHOUT PRIOR APPROVAL FPUA/CITY/COUNTY/FDOT ENGINEER,
11. TRAFFIC CONTROL, BARRICADES, ETC. SHALL BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARDS.
12. CONTRACTOR SHALL NOTIFY FORT PIERCE UTILITIES AUTHORITY 48 HOURS PRIOR TO COMMMENCING CONSTRUCTION.
13. WASTEWATER FORCE MAIN SHALL BE POLYVINYL CHLORIDE CONFORMING TO AWWA C-900, AND SHALL BE CLASS 150, DR-18.
14. WASTEWATER FORCE MAIN SHALL BE GREEN IN COLOR.
15. FITTINGS SHALL BE DUCTILE IRON, CONFORMING TO ANSI/AWWA C-110/A21.10 CLASS 250 MIN. AND INTERIOR EPOXY COATED.
16. WASTEWATER FORCE MAIN SHALL BE MARKED BY THE USE OF CONTINUOUS 10 GAUGE THHN WIRE (GREEN IN COLOR) PERMANENTLY ATTACHED TO THE TOP OF THE FORCE MAIN WITH LOCATOR TAPE MARKED "SEWER" ON TAPE IN ACCORDANCE WITH FPUA SPECIFICATIONS.
17. MINIMUM COVER SHALL BE 36 INCHES, PIPES WITH COVER LESS THAN 30 INCHES SHALL REQUIRE PRIOR APPROVAL OF THE UTILITES ENGINEER AND SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE.
18. EACH SERVICE LATERAL WILL BE MARKED WITH A LOCATOR BALL AS MANUFACTURED BY 3M CORPORATION, OR APPROVED EQUAL AS REQUIRED BY FPUA ENGINEER.
19. ALL MANHOLES SHALL HAVE SEWER RAIN GUARDS INSTALLED AS REQUIRED BY FPUA ENGINEER.
20. THE CONTRACTOR SHALL COMPLY WITH THE FLORIDA TRENCH SAFETY ACT REQUIREMENTS.



NOTES:

1) THE CONTRACTOR SHALL COMPLY WITH REQUIREMENTS OF THE FLORIDA TRENCH SAFETY ACT.
2) INITIAL BACKFILL SHALL BE HAND PLACED TO 12" ABOVE THE PIPE. BACKFILL SHALL BE MECHANICALLY TAMPED TO A MINIMUM OF 100% OF MAX. DENSITY AS DETERMINED BY AASHTO METHOD T-99.

TYPICAL TRENCH DETAIL
N.T.S.

STANDARD SEPARATION STATEMENT FOR WATER / SEWER CONFLICTS

1. SANITARY SEWER, FORCE MAINS, AND STORM SEWERS SHOULD CROSS UNDER WATER MAINS WHENEVER POSSIBLE. SANITARY SEWERS, FORCE MAINS AND STORM SEWERS CROSSING UNDER WATER MAINS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 6 INCHES, PREFERABLY 12 INCHES BETWEEN THE INVERT OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE WHEN ABOVE, AND AT LEAST 12 INCHES OF SEPARATION WHEN THE WATER MAIN IS BELOW.

WHERE SANITARY SEWER, FORCE MAINS, STORM SEWERS MUST CROSS A WATER MAIN WITH LESS THAN 6 INCHES VERTICAL SEPARATION, BOTH THE SEWER AND WATER MAIN SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE (DIP) CENTERED ON THE CROSSING. (DIP IS NOT REQUIRED FOR STORM SEWERS.) SUFFICIENT LENGTHS OF DIP MUST BE USED TO PROVIDE A MINIMUM SEPARATION OF 10 FEET BETWEEN TWO JOINTS. ALL JOINTS ON THE WATER MAIN WITHIN 20 FEET OF THE CROSSING MUST BE MECHANICALLY RESTRAINED.

ALL CROSSINGS SHALL BE ARRANGED SO THAT THE SEWER PIPE JOINTS AND WATER MAIN PIPE JOINTS ARE EQUIDISTANT FROM THE POINT OF CROSSING (PIPES CENTERED ON THE CROSSING). AT SUCH CROSSINGS PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C., AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY OR PRESSURE TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.

WHERE A NEW PIPE CONFLICTS WITH AN EXISTING PIPE WITH LESS THAN 6 INCHES VERTICAL CLEARANCE, THE NEW PIPE SHALL BE CONSTRUCTED OF DIP (EXCEPT STORM SEWERS) AND NEW PIPES SHALL BE ARRANGED TO MEET THE CROSSING REQUIREMENTS ABOVE.

2. A MINIMUM 3-FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN ANY TYPE OF STORM SEWER AND WATER MAIN IN PARALLEL INSTALLATIONS WHENEVER POSSIBLE.

A MINIMUM 3-FOOT, AND PREFERABLE 10-FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN VACUUM TYPE SANITARY SEWER AND WATER MAIN IN PARALLEL INSTALLATIONS WHENEVER POSSIBLE.

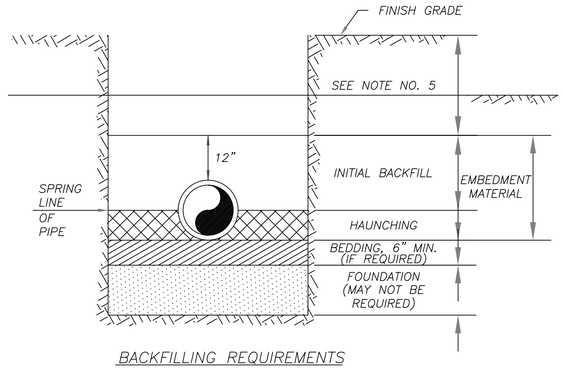
A MINIMUM 10-FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN "ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AND WATER MAIN IN PARALLEL INSTALLATIONS WHENEVER POSSIBLE.

A MINIMUM 6-FOOT, AND PREFERABLE 10-FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN GRAVITY OR PRESSURE TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER AND WATER MAIN IN PARALLEL INSTALLATIONS WHENEVER POSSIBLE. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY-TYPE SANITARY SEWERS SHALL BE REDUCED TO 3 FOOT WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER

IN CASES WHERE IT IS NOT POSSIBLE TO MAINTAIN A 10-FOOT HORIZONTAL SEPARATION, THE WATER MAIN MUST BE LAID IN A SEPARATE TRENCH OR ON A UNDISTURBED EARTH SHELF LOCATED ON ONE SIDE OF THE SEWER OR FORCE MAIN AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 6 INCHES ABOVE THE TOP OF THE SEWER.

WHERE IT IS NOT POSSIBLE TO MAINTAIN A VERTICAL DISTANCE OF 6 INCHES IN PARALLEL INSTALLATIONS, THE WATER MAIN SHALL BE CONSTRUCTED OF DIP AND THE SEWER OR THE FORCE MAIN SHALL BE CONSTRUCTED OF DIP (EXCEPT STORM SEWER) WITH A MINIMUM VERTICAL DISTANCE OF 6 INCHES. THE WATER MAIN SHOULD ALWAYS BE ABOVE THE SEWER. JOINTS ON THE WATER MAIN SHALL BE LOCATED AS FAR APART AS POSSIBLE FROM JOINTS ON THE SEWER OR FORCE MAIN (STAGGERED JOINTS).

3. ALL DIP SHALL BE PRESSURE CLASS 250 MIN.. ADEQUATE PROTECTIVE MEASURES AGAINST CORROSION SHALL BE USED AS DETERMINED BY THE DESIGN ENGINEER.



BACKFILLING REQUIREMENTS
N.T.S.

NOTES:

1) IN CERTAIN SOIL CONDITIONS A FOUNDATION MAY BE REQUIRED.
2) BEDDING IS REQUIRED PRIMARILY TO BRING THE TRENCH BOTTOM UP TO GRADE. BEDDING MATERIALS SHALL PROVIDE A UNIFORM AND ADEQUATE LONGITUDINAL SUPPORT UNDER THE PIPE.
3) HAUNCHING MATERIAL SHALL BE HAND PLACED TO THE SPRINGLINE OF THE PIPE. MATERIAL SHALL BE CONSOLIDATED UNDER THE PIPE AND HAND TAMPED TO PROVIDE ADEQUATE SIDE SUPPORT.
4) INITIAL BACKFILL MATERIAL SHALL BE HAND PLACED TO 12" ABOVE THE TOP OF PIPE. THE SOIL SHALL BE COMPACTED TO 100% MAX. DENSITY.(AASHTO T-99)
5) BACKFILL SHALL BE COMPACTED TO 100% OF MAX. DENSITY AS PER AASHTO T-99, TO A POINT 30" BELOW PROPOSED PROFILE GRADE OR EXISTING GRADE. THE FINAL 30" OF BACKFILL SHALL BE COMPACTED TO 98% OF MAX. DENSITY AS PER AASHTO T-180.
6) DENSITY TEST SHALL BE PERFORMED AT AREAS DETERMINED BY THE UTILITIES ENGINEER OR PERMIT AGENCY HAVING JURISDICTION, AT THE CONTRACTORS EXPENSE.
7) CONTRACTOR TO COMPLY WITH ALL FEDERAL, STATE AND LOCAL TRENCH SAFETY REGULATIONS.

N

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smithlandel@outlook.com

PERMITS REQUIRED
☐ CITY OF FORT PIERCE
PERMIT#

NO.	REVISIONS	DATE

PROPOSED CONVENIENCE STORE
TONY PHILLIP

2502 & 2504 AVENUE M
FORT PIERCE, FL 34947

SHEET TITLE: UTILITY NOTES & DETAILS
DATE: 08/27/2025
SCALE: N.T.S
DRAWN BY: L.S
SHEET: C-503

PROJECT DATA:

ADDRESS:	2502 AVENUE M FORT PIERCE, FL
BUILDING AREA:	2799 SQ. FT. (ALLOWABLE: 9000 S.F. PER FBC TBL 506.2)
OCCUPANCY CLASSIFICATION:	GROUP M (PER FBC309.1)
HAZARDOUS MATERIALS:	NO HAZARDOUS MATERIALS TO BE STORED ON SITE
OCCUPANCY LOAD:	(PER FBC TBL 1004.5) MERCANTILE [1993 S.F.] [@ 1/60] = 34 PEOPLE STORAGE [671 S.F.] [@ 1/300] = 3 PEOPLE TOTAL OCCUPANTS = 37 PEOPLE
TYPE OF CONSTRUCTION:	V B
FIRE SPRINKLERS:	NOT PROPOSED
BUILDING HEIGHT:	18' MAX (ALLOWABLE: 40' PER FBC TBL 504.3)
NUMBER OF STORIES:	1 (ALLOWABLE: 1 STORY PER FBC TBL 504.4)

SCOPE OF WORK

CONSTRUCT A NEW STAND-ALONE, ONE-STORY COMMERCIAL CONVENIENCE STORE BUILDING, INCLUDING ASSOCIATED INTERIOR LAYOUT FOR RETAIL SALES AND SUPPORT SPACES, AND ARCHITECTURAL FACADE ELEMENTS AS SHOWN.

SITE PLAN REVIEW NOTE:

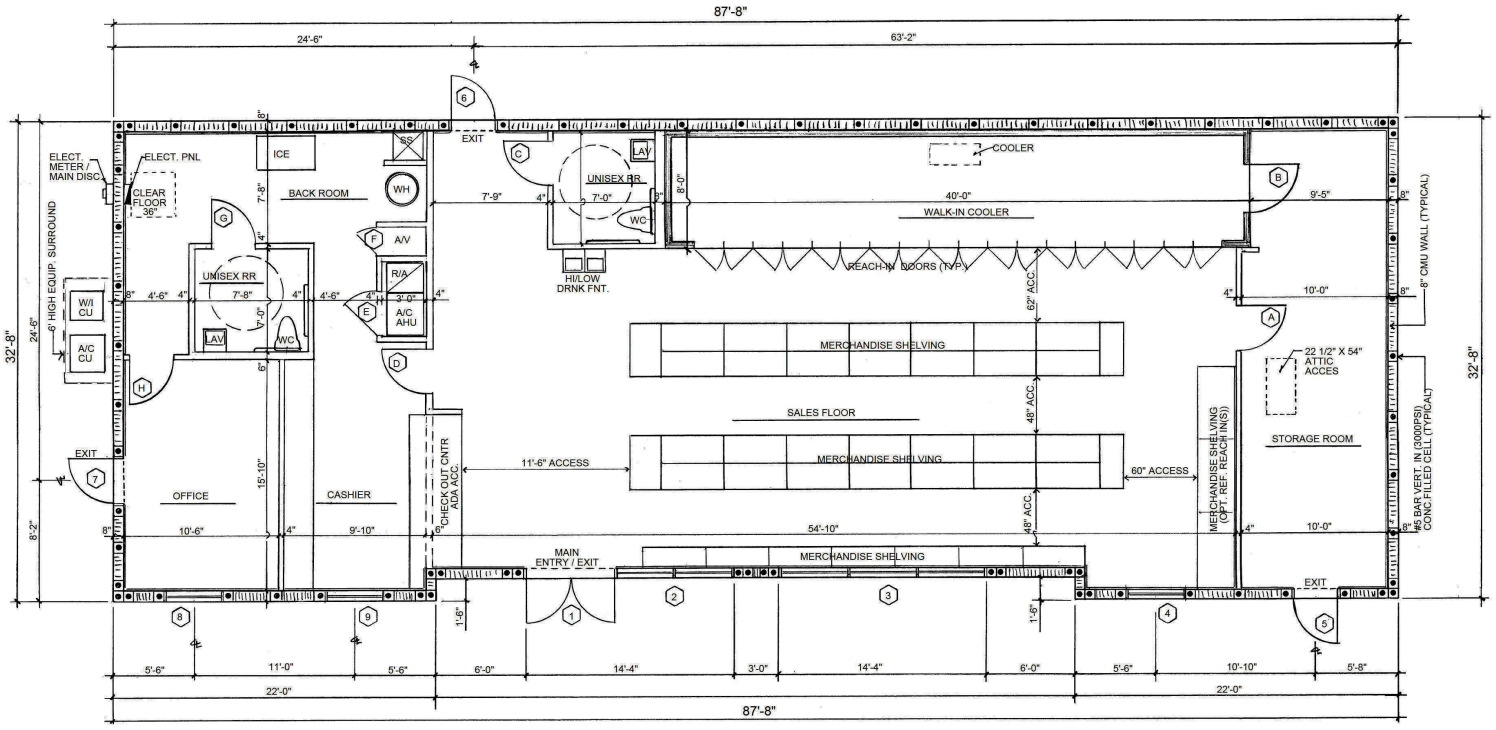
THESE PLANS HAVE BEEN PREPARED FOR SITE PLAN REVIEW PURPOSES ONLY. STRUCTURAL, ELECTRICAL, MECHANICAL, PLUMBING, FIRE PROTECTION, AND ALL OTHER DSISCIPLINE-SPECIFIC CONSTRUCTION DOCUMENTS ARE NOT PART OF THIS SUBMITTAL AND SHALL BE PROVIDED AS DEFERRED SUBMITTALS FOR SEPARATE BUILDING DEPARTMENT REVIEW AND PERMITTING.

EXTERIOR SIGN:

EXTERIOR SIGNAGE IS NOT INCLUDED IN THIS SUBMITTAL AND IS PROPOSED AS A DEFERRED SUBMITTAL, AND SHALL BE DESIGNED, REVIEWED, AND PERMITTED SEPARATELY IN ACCORDANCE WITH APPLICABLE CITY OF FORT PIERCE SIGN REGULATIONS.

ART DYLAN O'BERRY LICENSE No88512 STATE OF FLORIDA PROFESSIONAL ENGINEER

Digitally signed by Art D O'Berry
Location: Plan Masters, Inc, Port St. Lucie, Florida
Reason: I attest to the accuracy and integrity of this document
Contact Info: email: planmastersinc@gmail.com phone: (772) 249-0930
Date: 2026.03.04 17:10:12-05'00'



FLOOR PLAN SCALE: 1/4" = 1'-0"

NORTH

PLAN MASTERS INC.
1984 SW Biltmore St. Suite #114 Port Saint Lucie, FL 34984
Phone: (772) 249-0930 / Email: planmastersinc@gmail.com

CONVENIENCE STORE
2502 AVENUE M FORT PIERCE, FL

SHEET # 1 OF 2

EXTERIOR COLOR SELECTIONS

FROM CITY OF FORT PIERCE ARCHITECTURAL STANDARDS

Pantone Cool Gray 1 C

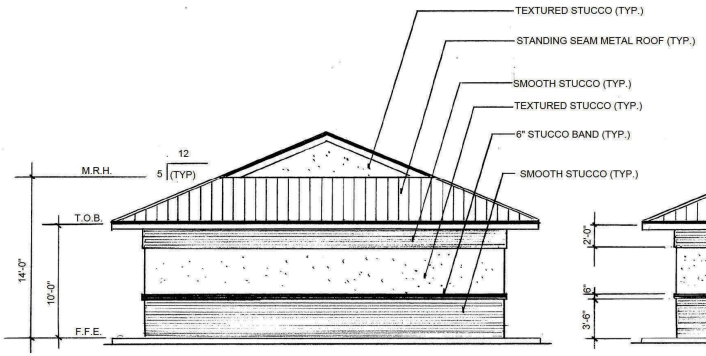
PRIMARY COLOR

Pantone 2767 C

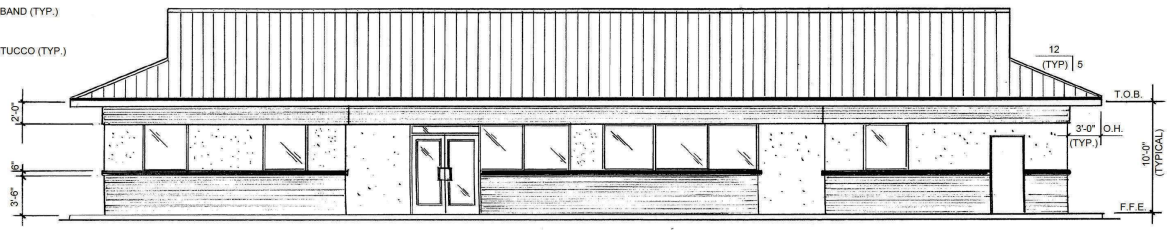
SECONDARY COLOR FOR 6" STUCCO BAND ONLY

FORT PIERCE ARCHITECTURAL DESIGN STANDARDS COMPLIANCE STATEMENT:

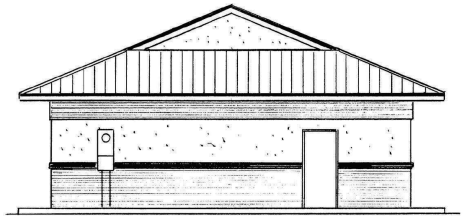
THE PROPOSED ONE-STORY COMMERCIAL BUILDING HAS BEEN DESIGNED IN ACCORDANCE WITH THE CITY OF FORT PIERCE ARCHITECTURAL DESIGN STANDARDS. THE BUILDING SCALE, ROOF FORMS, AND PROPORTIONS ARE COMPATIBLE WITH SURROUNDING DEVELOPMENT AND PROVIDE AN APPROPRIATE STREET-ORIENTED PRESENCE. ARCHITECTURAL ARTICULATION, INCLUDING STUCCO FINISH VARIATION AND HORIZONTAL BANDING, IS PROVIDED ON ALL ELEVATIONS TO AVOID LARGE UNBROKEN WALL PLANES. DURABLE MATERIALS, INCLUDING STUCCO WALL SYSTEMS AND STANDING-SEAM METAL ROOFING, ARE UTILIZED TO CREATE A COHESIVE ARCHITECTURAL CHARACTER. MECHANICAL EQUIPMENT SHALL BE SCREENED FROM PUBLIC VIEW IN COMPLIANCE WITH CITY REQUIREMENTS.



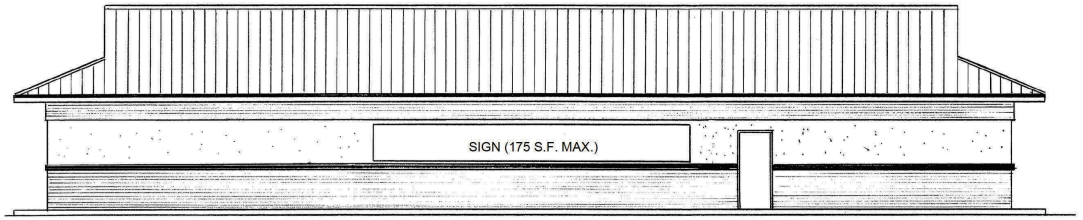
NORTH ELEVATION SCALE: 3/16" = 1'-0"



WEST ELEVATION SCALE: 3/16" = 1'-0"



SOUTH ELEVATION SCALE: 3/16" = 1'-0"



EAST ELEVATION SCALE: 3/16" = 1'-0"

PLAN MASTERS INC.
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Phone: (772) 249-0930 / Email: planmasterspi@gmail.com

CONVENIENCE STORE
2502 AVENUE M FORT PIERCE, FL

SHEET # 2
OF 2

Landscape Data:

Zoning: General CO	Required	Provided
Perimeter Trees Abutting ROW Perimeter Landscape Strip (abutting row)= 205.16 LF x 10' Width = 2,051.6 SF / 300 = 7 trees required.	7 Trees	7 Trees (3 Palms) *Note: Trees proposed elsewhere onsite due to limited landscape space adjacent to ROW.*
Perimeter Trees Abutting Properties Perimeter Landscape Strip (abutting row)= 248.96 LF x 10' Width = 2,489.6 SF / 200 = 13 Trees Required.	13 Trees	13 Trees (5 Palms)
Interior Vehicular Use Area Trees 5,920.46 SF Vehicular Use Area / 15 = 394.69 SF required planting area / 100 = 4 Trees Required.	4 Trees	4 Trees (1 Palm)
Perimeter Shrubs Abutting ROW Continuous hedge @ 36" OC = Perimeter Landscape Strip (abutting row) = 205.16 LF / 3 = xx Shrubs Required.	69 Shrubs	13 Shrubs
Perimeter Shrubs Abutting Properties Continuous hedge @ 36" OC = Perimeter Landscape Strip (abutting row) = 248.96 LF / 3 = 83 Shrubs Required.	83 Shrubs	83 Shrubs

Landscape Notes:

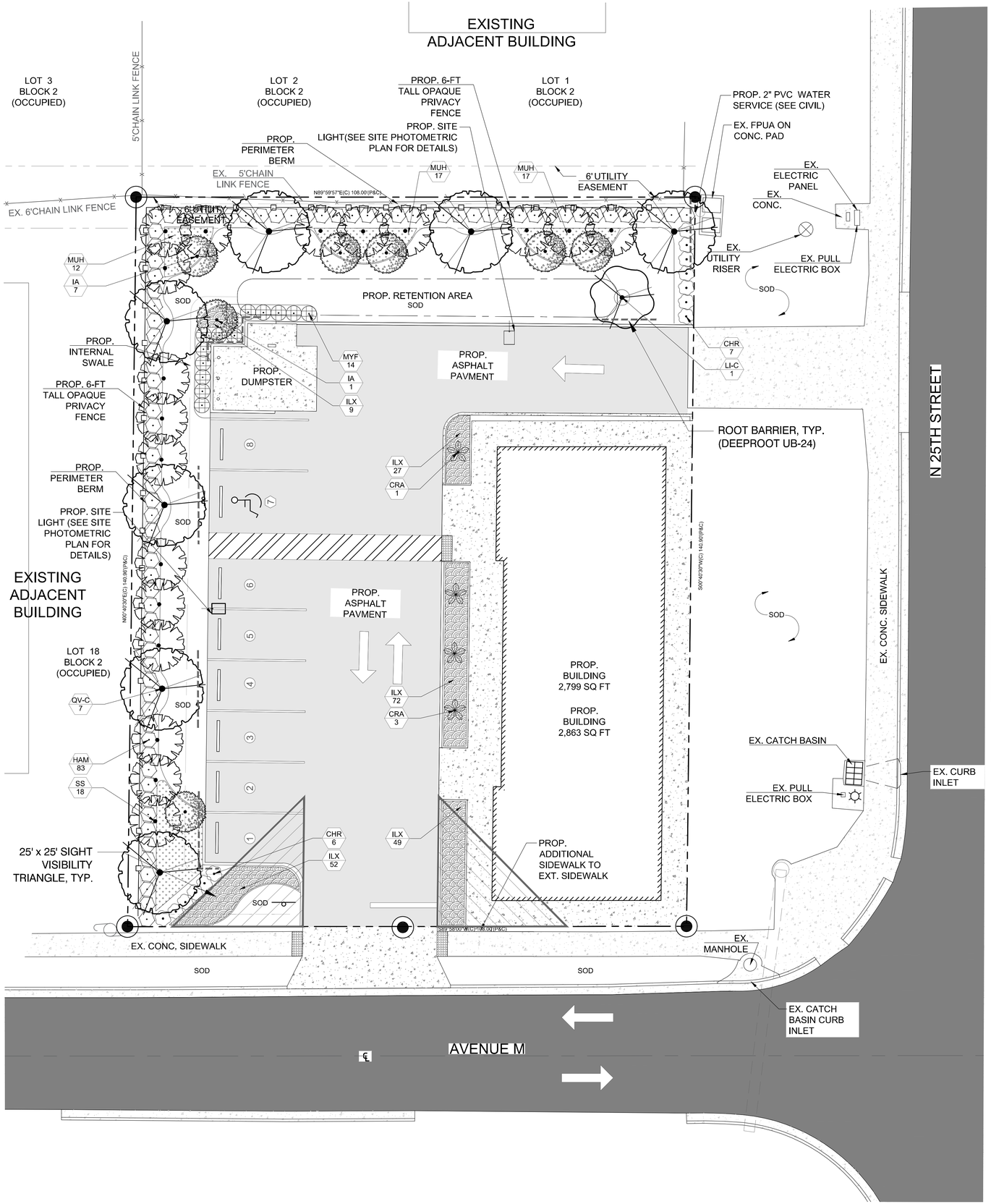
1. All plants shall conform to established nursery grades and standards, to be Florida No. 1 or better, and shall be free of disease and insects at the time of installation.
2. Trees shall be a minimum of twelve (12) feet in height and have a caliper of two and one-half (2 1/2) inches at four and one-half (4 1/2) feet above the ground when installed.
3. All required trees, except palms, shall have a minimum of five (5) feet of clear trunk and a minimum five (5) foot canopy spread at the time of planting.
4. All palm trees shall have a minimum clear trunk of ten (10) feet when installed. Three palm trees are equal to one shade tree having a mature canopy spread of fifteen (15) feet.
5. Shrubs shall be a minimum of twenty-four (24) inches in height above grade immediately after planting.
6. Groundcovers, other than grass, shall be planted in a manner as to present a finished appearance and reasonably complete coverage within four (4) months after planting.
7. Turf grass shall be installed using solid sod and shall be either Bahia or St. Augustine sod.
8. All landscape areas other than sod will be provided a mulch cover of at least three (3) inches. Cypress mulch shall not be used.
9. All existing native vegetation found on the site and is not in direct conflict with the proposed buildings or parking areas shall be left undisturbed. A suitable protective barrier, constructed of metal, wood, safety fencing, or other durable material, will be placed around the staked out locations of existing native vegetation.
10. No fill materials, construction materials, concrete, paint, chemicals, or other foreign materials shall be stored, deposited, or disposed of within any areas that have been staked or fenced off as being undisturbed native vegetation areas.
11. Existing understory shall be maintained in areas of undisturbed native vegetation.
12. All Category 1 exotic plant species will be eradicated from the site.
13. Conspicuous, durable barricades will be erected around each individual tree or areas of vegetation that are to be preserved. In the event that any protective barricades are removed or altered and land clearing or construction work is being conducted on the site, all work at the site will be stopped until the barriers are restored and any necessary corrective actions taken to repair or replant any vegetation removed or damaged as a result of these encroachments.
14. Irrigation to conform to all local and State regulations with regard to water consumption.
15. All new landscaping shall be provided with 100% irrigation coverage through the establishment period, not less than 1-year.

Plant Schedule:

CODE	QTY	BOTANICAL NAME	COMMON NAME	CONTAINER	HEIGHT	WIDTH	NOTES	NATIVE	CALIPER
PALM TREES									
SS	18	Sabal palmetto	Sabal Palm	FG	10`-18` CT		SLK, HC, SP	Yes	HVY CAL
CODE TREES									
IA	7	Ilex x attenuata `Eagleston`	Eagleston Holly	CG	12` HT	5' W	5` CT, SP	Yes	2.5" DBH
LI-C	1	Lagerstroemia indica	Crape Myrtle	FG	12` HT	5' W	SP	Yes	2.5" DBH
QV-C	7	Quercus virginiana	Live Oak	FG	12` HT	5' W	6' CT, SP	Yes	2.5" DBH

CODE	QTY	BOTANICAL NAME	COMMON NAME	CONTAINER	HEIGHT	WIDTH	NOTES	NATIVE	SPACING
SHRUBS									
CHR	13	Chrysobalanus icaco `Redtip`	Red Tip Cocoplum	CG	36" HT	36" W	F	Yes	36" o.c.
CRA	4	Crinum augustum `Queen Emma`	`Queen Emma` Crinum	CG	3` HT	2` W	F, SP	No	48" o.c.
HAM	83	Hamilia patens	Native Firebush	CG	36" HT	36" W	FTB	Yes	36" o.c.
MYF	14	Myrcianthes fragrans	Simpson`s Stopper	CG	36" HT	36" W	F	Yes	36" o.c.
SHRUB AREAS									
ILX	209	Ilex vomitoria `Stokes Dwarf`	Dwarf Yaupon Holly	CG	12"HT	12"W	F	Yes	18" o.c.
MUH	74	Muhlenbergia capillaris	Pink Muhly Grass	CG	18" HT	12" W	F	Yes	30" o.c.
SOD		Paspalum notatum `Flugge`	Argentine Bahiagrass	Sod	Free of weeds, pests, and debris.				

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



Project Team

Landscape Architect:

LANDSCAPE ARCHITECTURAL SERVICES, LLC

Brandon White | Owner
772-834-1357 | brandon@las-fl.com
Paul Goulas | Owner
772-631-8400 | paul@las-fl.com
1708 SE Joy Haven Street
Port St. Lucie, Fl. 34983

Civil Engineer:

Dylan O'Berry, P.E.
Art of Engineering.
Port St. Lucie, FLorida
772-203-0664
dylan@artofengineering.net

Proposed Convenience Store

2502 Avenue M, Fort Pierce, FL 34947

Landscape Plan

Revisions		
Date	Init.	Description
03.09.26	BW	Initial Submittal

REGISTERED LANDSCAPE ARCHITECT PAUL A. GOULAS LA 6666807 STATE OF FLORIDA

PAUL GOULAS, RLA
FLORIDA REG. # LA6666807

Drawn By: BW
Checked By: BW
Municipal Project:
Scale:

NORTH

SCALE: 1" = 10'

0 5' 10' 20'

LS-1

LANDSCAPE SPECIFICATIONS

PART 1: GENERAL CONDITIONS

1.01 SCOPE:
A. The landscape contract includes the supplying and planting of all trees, shrubs, vines, and ground cover together with all necessary labor, equipment, tools and materials needed for the successful completion, execution and maintenance of the landscape plans.

1.02 AGENCY STANDARDS:
A. Grades and standards of plant materials to be used shall be true to name, size, condition and graded Florida #1 or better as stated in: Grades and Standards of Florida Plant Materials published by the State of Florida Department of Agriculture, Tallahassee, Florida.

1.03 SITE EXAMINATION:
A. The Landscape Contractor shall personally examine the site and fully acquaint him/herself with all of the existing conditions in order that no mis-understanding may afterwards arise as to the character or extent of the work to be performed, and additionally, in order to acquaint him/herself with all precautions to be taken in order to avoid injury to property or persons. No additional compensation will be granted because of any unusual difficulties which may be encountered in the execution or maintenance of any portion of the work.

1.04 ERRORS AND OMISSIONS:
A. The plant list is a part of the drawings and is furnished as a convenience. The plant list indicates the name, size and quantities of specific plant materials as called for and is located on the drawings. The Landscape Contractor is responsible for his/her own quantity count, and any discrepancy between drawings and plant list shall be considered as correct on the drawings.

B. The Landscape Contractor shall not take advantage of errors or omissions in the specifications or contract drawings. Full instruction will be given if such errors are discovered. Upon the discovery of any discrepancies in, or omissions from the drawings or documents, or should the Landscape Contractor be in doubt as to their meaning, the Landscape Architect shall be notified and will determine the actions necessary to each query.

C. If plans and specifications are found to disagree after the contract is awarded, the Landscape Architect shall be the judge as to which was intended.

1.05 EXECUTION OF THE WORK:
A. The Landscape Contractor shall have his labor crews controlled and directed by a Foreman well versed in plant materials, planting methods, reading blueprints, and coordination between job and nursery in order to execute installation correctly and in a timely manner.

B. The Landscape Contractor shall provide a competent English-speaking Foreman on the project at all times, who shall be fully authorized as the Contractor's agent on the work. The Superintendent shall be capable of reading and thoroughly understanding the Plans, Specifications and other Contract Documents. If the Superintendent is deemed incompetent by the Landscape Architect, he (the superintendent) shall be immediately replaced.

C. The Landscape Contractor shall be available for any meetings with the Owner and/or Landscape Architect during implementation of the job. Any additional work or changes required as a result of failure to communicate with the Owner or Landscape Architect during implementation will be the responsibility of the Landscape Contractor.

1.06 PROTECTION OF PUBLIC AND PROPERTY:
A. The Landscape Contractor shall protect all materials and work against injury from any cause and shall provide and maintain all necessary safeguards for the protection of the public. He shall be held responsible for any damage or injury to persons or property which may occur as a result of his fault or negligence in the execution of the work, i.e. damage to underground pipes or cables.

1.07 CHANGES AND EXTRAS:
A. The Contractor shall not start work on any changes or "extras" in the project until a written agreement setting forth the adjusted prices has been executed by the Owner and the Contractor. Any work performed on changes or "extras" prior to execution of a written agreement may or may not be compensated for by the Owner at his discretion.

1.08 GUARANTEE:
A. The Landscape Contractor shall furnish a written guarantee warranting all materials, workmanship and plant materials, except sod, for a period of ONE (1) YEAR from the time of completion and acceptance by the Landscape Architect and Owner. Sod shall be guaranteed to 90 calendar days after acceptance by the Landscape Architect and Owner. All plant material shall be alive and in satisfactory condition and growth for each specific kind of plant at the end of the guarantee period. The guaranteeing of plant material shall be construed to mean complete and immediate replacement with plant material of the same variety, type, size, quality and grade as that of the originally specified material. During the guarantee period it shall be the Landscape Contractor's responsibility to immediately replace any dead or unhealthy material as determined by the Landscape Architect. The guarantee will be null and void if plant material is damaged by lightning, hurricane force winds, or any other acts of God, as well as vandalism or lack of proper maintenance.

B. At the end of the specified guarantee period, any plant required under this contract that is dead or not in satisfactory condition, as determined by the Landscape Architect, shall be replaced. The Landscape Contractor shall be responsible for the full replacement cost of plant materials for the first replacement and share subsequent replacement (s) costs equally with the Owner, should the replacement plant fail to survive.

1.09 CARE AND MAINTENANCE:
A. The Landscape Contractor shall be responsible for the care and maintenance of all plant materials and irrigation when applicable until final acceptance by the Owner or Landscape Architect.

B. The Owner agrees to execute the instructions for such care and maintenance.

1.10 SAFETY:
A. It shall be the responsibility of the Landscape Contractor to protect all persons from injury and to avoid property damage. Adequate warning devices shall be placed and maintained during the progress of the work.

B. It shall be the contractor's responsibility to conform to all local, state, and federal safety laws and codes including the Federal Occupational Safety And Health Act (O.S.H.A) .

1.11 CONTRACTOR QUALIFICATION:
A. The Owner may require the apparent contractor (s) to qualify him/herself to be a responsible entity by furnishing any or all of the following documentary data:
1. A financial statement showing assets and liabilities of the company current to date.
2. A listing of not less than (3) completed projects of similar scope and nature.
3. Permanent name and address of place of business.
4. The number of regular employees of the organization and length of time the organization has been in business under the present name.

1.12 INSURANCE AND BONDING:
A. The contractor (s) shall submit proof of insurance for this job for the time period that the work is done. The minimum amount of insurance shall be $300,000.00 per person and $300,000.00 per aggregate or as required by owner and agreed to in the contract. The successful bidder shall be required to have this coverage in effect before beginning work on the site.

B. The Owner shall have the right to require the Contractor to furnish bonds covering faithful performance of the Contract and payment obligations arising thereunder as stipulated in bidding requirements or specifically required in the Contract Documents on the date of execution of the Contract.

1.13 PERMITS AND CERTIFICATES:
A. All contractors shall secure and pay for all permits and certificates required for his/her class of work.

PART 2: MATERIALS

2.01 PLANT MATERIALS:
A. A complete list of plants is shown on the drawings, including a schedule of quantities, sizes, and such other requirements deemed necessary. In the event discrepancies occur, the specifications on the drawings shall govern.

B. Substitutions: Substitutions of plant materials or changes in size or spacing of materials will be permitted ONLY upon written authorization by the Owner or the Landscape Architect. If plant material is not of sufficient size to meet applicable codes, a letter of variance from the appropriate agency must be obtained by the Contractor prior to issuance of any change order. If material of smaller size is to be accepted, the quantity of material shall be increased, at no additional cost to the Owner, to meet the intent of the drawings.

C. All plant materials shall have a habit of growth that is normal for the species and shall be healthy, vigorous and equal to or exceed the measurements specified in the plant list, which are the minimum acceptable sizes. Plants shall be measured before pruning with branches in normal position. Any necessary pruning shall be done at the time of planting.

D. All plant materials shall be nursery grown, unless otherwise noted, Florida #1 or better and shall comply with all required inspections, grading standards and plant regulations as set forth by the Florida Department of Agriculture's Grades and Standards for Nursery Plants, most current addition and Grades and Standards for Nursery Plants, most current addition.

E. Plants that do not have the normal balance of height and spread typical for the respective plant shall not be acceptable.

F. The Landscape Contractor shall install each plant to display its best side. Adjustments may be required if plants are not installed properly and/or approved by the Landscape Architect at no additional cost to owner.

2.02 INSPECTION
A. The Landscape Architect and Owner may inspect trees and shrubs at place of growth or at site before planting, for compliance with requirements for genus, species, variety, size and quality. The Landscape Architect and Owner retain the right to further inspect trees and shrubs for size and condition of balls and root systems, insects, injuries and latent defects, and to reject unsatisfactory or defective material at any time during progress of work. Rejected plant materials shall be immediately removed from project site.

2.03 PROTECTION OF PLANT MATERIALS:
A. Balled and burlapped plants (B & B) shall be dug with firm natural balls of earth of sufficient diameter and depth to encompass the fibrous and feeding root system necessary for full recovery of the plant. Balls shall be firmly wrapped with burlap similar materials and bound with cord, rope, or wire mesh. All collected plants shall be balled and burlapped.

B. Plants with broken, damaged or insufficient rootballs will be rejected.

C. All plant material shall be protected from possible bark injury or breakage of branches. All plants transported by open trucks shall be adequately covered to prevent windburn, drying or damage to plants.

D. Plants which cannot be planted immediately on delivery to the site shall be covered with moist soil, mulch or other protection from the drying of wind and sun. All plants shall be watered as necessary by the Landscape Contractor until planted.

2.04 STORAGE:
A. All plant materials shall be stored on the site in designated areas, specified by the Landscape Architect or Owner's agent.

B. No plant material shall be stored longer than seventy-two (72) hours unless approved by by Landscape Architect and/or owner.

C. The Landscape Architect reserves the right to reject any plant materials not in conformance with these specifications.

D. All rejected material shall be immediately removed from the site and replaced with acceptable material at no cost to the Owner.

2.05 PROTECTION DURING PLANTING:
A. Trees moved by winch or crane shall be thoroughly protected from chain marks, girdling or bark slippage by means of burlap, wood battens or other approved methods. Battens shall NOT be attached to the tree with nails.

2.06 PLANTING SOIL:
A. Planting soil for all plantings shall consist of existing native soil and shall be free of debris, roots, clay, stones, plants or other foreign materials which might be a hindrance to planting operations or be detrimental to good growth.

2.07 FERTILIZER:
A. Commercial fertilizer shall comply with the state fertilizer laws. Nitrogen shall not be less than 40% from organic source. Inorganic chemical nitrogen shall not be derived from the sodium form of nitrate. Fertilizers shall be delivered to the site in unopened original containers, each bearing the manufacturer's guaranteed analysis. Any fertilizer that becomes caked or otherwise damaged shall be rejected.

B. Thoroughly mixed 3 lbs. of commercial fertilizer to each cubic yard of planting soil.

C. Tabletized fertilizer shall be Agriform planting tablets 20-10-5 formula, 21 gram or equal. All trees and shrubs shall be fertilized with tabletized fertilizer as follows. While backfilling plant holes, fertilizer tablets shall be equally spaced and placed adjacent to the ball mid-way in depth in accordance with the following rates:

1 gallon container	1 tablet
3 gallon container	2 tablets
5 gallon container	3 tablets
7 gallon	5 tablets

Large tubs, wire baskets, grow bags, and balled and burlapped material shall have 1 tablet for each 1/2 inch of trunk diameter (measured 3 feet from ground) or for each foot of height or spread of larger shrub material.
The Landscape Architect reserves the right to inspect and review the application of fertilizer.

2.08 MULCH:
A. Mulch material shall be clean, dry, free of weeds, seeds and pests, moistened at the time of application to prevent wind displacement. Cypress &/or Red mulch is prohibited.

B. All trees and shrub beds shall receive 3" mulch immediately after planting and thoroughly watered.
or as required by local jusidiction. Apply 2" max on tree & palm rootballs, keep away from tree & palm trunks

PART 3: EXECUTION
3.01 DIGGING:
A. The Landscape Contractor shall exercise care in digging and other work so as not to damage existing work, including overhead wires, underground pipes and cables and the pipes and hydrants of watering systems. Should such overhead or underground obstructions be encountered which interfere with planting, the Owner shall be consulted and contractor will adjust the location of plants to clear such obstruction. The Contractor shall be responsible for the immediate repair of any damage caused by his work.

3.02 GRADING:
A. Grading for drainage, swales, etc. to within 4 inches of the finished grade to be provided by others.

B. It shall be the responsibility of the Landscape Contractor to provide the final grading during the course of landscape installation so as to bring sod and planting areas to their proper elevations in relation to walks, paving, drain structures, and other site conditions. The site grading plan must be checked prior to installation of sod to insure that drainage and other conditions will NOT be modified.

3.03 PLANTING:
A. Planting shall take place during favorable weather conditions.

B. The Contractor shall call for utility locates and ascertain the location of all utilities and easements so proper precautions can be taken not to damage or encroach on them.

C. Tree Planting shall be located where it is shown on the plan. No planting holes shall be dug until the proposed locations have been staked on the ground by the Contractor.

D. Excavation of holes shall extend to the required subgrades as specified on the planting diagrams located in the planting plans. Plant pits shall be circular in outline and shall have a profile which conforms to the aforementioned "Tree and Shrub Planting Diagrams".

E. A representative number of planting pits (a minimum of one in every 25 feet throughout the entire site) shall be tested for proper drainage. See Landscape Plan for complete testing methods and requirements.

F. Planting pits shall be excavated to the following dimensions and refilled with a mixture of (1/2) planting soil (1/2) existing native soil];
1 Gallon material (1 gal.): 12" x 12" x 12" min.
3 Gallon material (3 gal.): 20" x 20" x 18" min.
Lerio material (7 gal.): 30" x 30" x 24" min.
Field grown material and trees: 1-1/2 times width of ball and depth of ball plus 12" min.

G. No planting or laying of sod shall be initiated until the area has been cleaned of existing sod or other plant materials, rough grass, weeds, debris, stones etc. and the ground has been brought to an even grade, with positive drainage away from buildings and towards drain inlets and swales and approved by Landscape Architect or owner's rep.

H. Each plant shall be planted in an individual hole as specified for trees, shrubs, and vines.

I. All plants shall be set to ultimate finished grade. No filling will be permitted around trunks or stems. All ropes, wire, stakes, etc., shall be removed from sides and top of the ball and removed from hole before filling in.

J. All flagging ribbon shall be removed from trees and shrubs before planting.

K. Excess excavation (fill) from all holes shall be removed from the site, at no additional expense to Owner.

L. All palms shall be backfilled with sand, thoroughly washed in during planting operations and with a shallow saucer depression left at the soil line for future waterings. Saucer areas shall be top-dressed two (2") inches deep with topsoil raked and left in a neat, clean manner.

3.04 PRUNING:
A. Remove dead and broken branches from all plant material. Prune to retain typical growth habit of individual plants with as much height and spread as possible in a manner which will preserve the plant's natural character.

B. Make all cuts with sharp instruments flush with trunk or adjacent branch, in such a manner as to insure elimination of stubs. Cuts made at right angles to line of growth will not be permitted.

C. Trees shall not be poled or topped.

D. Remove all trimmings from site.

3.05 GUYING:
A. All trees over six (6') feet in height shall, immediately after setting to proper grade, be guyed with three sets of two strands, No. 12 gauge malleable galvanized iron, in tripod fashion. See Detail.

B. Wires shall not come in direct contact with the tree but shall be covered with an approved protection device at all contact points. Wires shall be fastened in such a manner as to avoid pulling crotches apart.

D. Stake & Brace all treess larger than 12' oa. See detail.
Stakes shall be 2" x 2" lumber of sufficient length to satisfactorily support each tree.

E. Turnbuckles for guying trees shall be galvanized or cadmium plated and shall be of adequate size and strength to properly maintain tight guy wires.

3.06 WATER:
A. Each plant or tree shall be thoroughly watered in after planting. Watering of all newly installed plant materials shall be the responsibility of the Landscape Contractor until final acceptance by the Landscape Architect.

B. See General Notes of Landscape Plan for water source.

3.07 SOD:

A. The Landscape Contractor shall sod all areas indicated on the drawings.

B. It shall be the responsibility of the Landscape Contractor to fine grade all landscape areas, eliminating all bumps, depressions, sticks, stones, and other debris.

C. The sod shall be firm, tough texture, having a compacted growth of grass with good root development. It shall contain no noxious weeds, or any other objectionable vegetation, fungus, insects, or disease. The soil embedded in the sod shall be good clean earth, free from stones and debris.

D. Before being cut and lifted, the sod shall have been mowed at least three times with a lawn mower, with the final mowing not more than seven days before the sod is cut. The sod shall be carefully cut into uniform dimensions.

E. 6-6-6 fertilizer with all trace elements is to be applied at the rate of 40 lbs. per 1,000 sq. ft. prior to laying sod.

F. Solid sod shall be laid with closely abutting, staggered joints with a tamped or rolled, even surface.

G. The finished level of all sod areas after settlement shall be one (1") inch below the top of abutting curbs, walks, paving and wood borders to allow for building turf.

H. If in the opinion of the Landscape Architect, top dressing is necessary after rolling, clean yellow sand will be evenly applied over the entire surface and thoroughly washed in.

3.08 SEEDING:
A. The Landscape Contractor shall remove all vegetation and rocks larger than (1") in diameter from areas to be seeded, scarify the area, then apply fertilizer at a rate of 500 lbs. per acre.

B. Application: Argentine Bahia Grass seed - 200 Pounds per acre mixed with common hulled Bermuda seed - 30 lbs. per acre. All other seed mixtures shall be applied per the manufacturer's instructions.

C. Roll immediately after seeding with a minimum 500 pound roller, then apply straw mulch at the rate of 2,500 pounds per acre.

D. Apply fertilizer at the rate of 150 lbs. per acre 45-60 days after seeding.

3.09 CLEANING UP:
A. The contractor shall at all times keep the premises free from accumulations of waste materials or rubbish caused by his employees or work. He shall leave all paved areas "broom clean" when completed with his work.

3.10 MAINTENANCE:
A. Maintenance shall begin immediately after each plant is installed and shall continue until all planting has been accepted by the Owner or Landscape Architect. Maintenance shall include watering, weeding, removal of dead materials, resetting plants to proper grades or upright positions, spraying, restoration of planting saucer and/or any other necessary operations.

B. Proper protection to lawn areas shall be provided and any damage resulting from planting operations shall be repaired promptly.

C. Replacement of plants during the maintenance period shall be the responsibility of the Contractor, excluding vandalism or damage on the part of others, lighting, or hurricane force winds, until final acceptance.

D. In the event that weeds or other undesirable vegetation become prevalent, it shall be the Contractor's responsibility to remove them.

E. Trees or other plant material which fall or are blown over during the maintenance period will be reset by the Contractor at no additional expense to the Owner, the only exception being hurricane force winds.

3.11 COMPLETION, INSPECTION AND ACCEPTANCE:
A. Completion of the work shall mean the full and exact compliance and conformity with the provisions expressed or implied in the Drawings and in the Specifications, including the complete removal of all trash, debris, soil or other waste created by the Landscape Contractor.

B. Inspection of work to determine completion of contract, exclusive of the possible replacement of plants, will be made by the Owner and/or Landscape Architect at the conclusion of all planting and at the request of the Landscape Contractor.

C. All plant material shall be alive and in good growing condition for each specified kind of plant at the time of acceptance. The rating of each plant according to Florida Grades and Standards shall be equal to or better than that called for on the plans and in these Specifications at the time of final inspection and acceptance.

D. After inspection, the Landscape Contractor will be notified by the Owner of the acceptance of all plant material and workmanship, exclusive of the possible replacement of plants subject to guarantee.

DRAINAGE TESTING/DRAINAGE CHANNEL REQUIREMENTS

PRIOR TO PLANTING ALL PLANTING PITS SELECTED FOR TESTING SHALL BE TESTED IN THE FOLLOWING MANNER

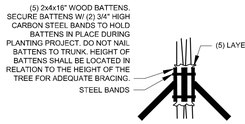
A. DIG EACH PLANTING PIT TO THE MINIMUM SPECIFIED SIZE.

B. FILL PLANTING PIT WITH TWELVE INCHES (12") OF WATER. IF THE WATER LEVEL DROPS FOUR (4") OR MORE WITHIN FOUR (4) HOURS, THE DRAINAGE IS SUFFICIENT AND A DRAINAGE CHANNEL IS NOT REQUIRED IF THE WATER LEVEL DROPS LESS THAN FOUR INCHES (4") WITHIN THE FOUR (4) HOUR PERIOD, A DRAINAGE CHANNEL IS REQUIRED.

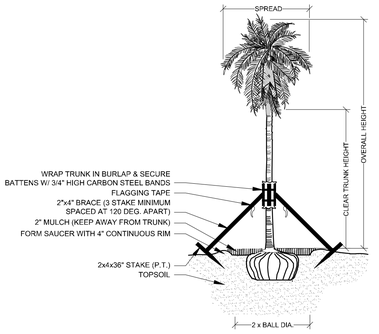
C. WHERE REQUIRED, THE DRAINAGE CHANNEL MUST EXTEND DOWN THROUGH THE NON POROUS SOIL AND INTO POROUS SOIL. (SEE DETAIL)

D. ALL MATERIAL REMOVED FROM THE DRAINAGE CHANNEL SHALL BE DISCARDED.

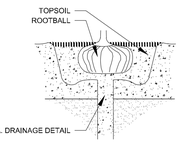
E. WHEN BACKFILLING PLANTING PITS WITH PLANTING MIXTURE, CARE MUST BE TAKEN TO KEEP THE CONSISTENCY OF THE SOIL MIX THE SAME THROUGHOUT THE PLANTING PIT AND DRAINAGE CHANNEL.



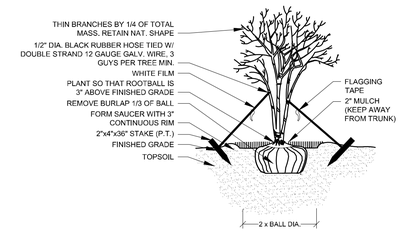
BRACING DETAIL
NOT TO SCALE



PALM PLANTING - ANGLE STAKE
NOT TO SCALE



DRAINAGE TESTING DETAIL
NOT TO SCALE



MULTI-TRUNK PLANTING & GUYING
NOT TO SCALE

DRAINAGE TESTING/DRAINAGE CHANNEL REQUIREMENTS.

PRIOR TO PLANTING, ALL PLANTING PITS SELECTED FOR TESTING SHALL BE TESTED IN THE FOLLOWING MANNER.

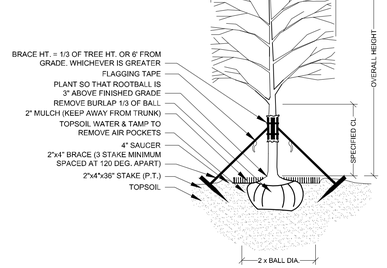
A. DIG EACH PLANTING PIT TO THE MINIMUM SPECIFIED SIZE.

B. FILL PLANTING PIT WITH TWELVE INCHES (12") OF WATER. IF THE WATER LEVEL DROPS FOUR (4") OR MORE WITHIN FOUR (4) HOURS, THE DRAINAGE IS SUFFICIENT AND A DRAINAGE CHANNEL IS NOT REQUIRED. IF THE WATER LEVEL DROPS LESS THAN FOUR INCHES (4") WITHIN THE FOUR (4) HOUR PERIOD, A DRAINAGE CHANNEL IS REQUIRED.

C. WHERE REQUIRED, THE DRAINAGE CHANNEL MUST EXTEND DOWN THROUGH THE NON POROUS SOIL AND INTO POROUS SOIL. (SEE DETAIL)

D. ALL MATERIAL REMOVED FROM THE DRAINAGE CHANNEL SHALL BE DISCARDED.

E. WHEN BACKFILLING PLANTING PITS WITH NATIVE TOPSOIL, CARE MUST BE TAKEN TO KEEP THE CONSISTENCY OF THE SOIL MIX THE SAME THROUGHOUT THE PLANTING PIT AND DRAINAGE CHANNEL.



TREE PLANTING & STAKING
NOT TO SCALE

DRAINAGE TESTING/DRAINAGE CHANNEL REQUIREMENTS

PRIOR TO PLANTING ALL PLANTING PITS SELECTED FOR TESTING SHALL BE TESTED IN THE FOLLOWING MANNER

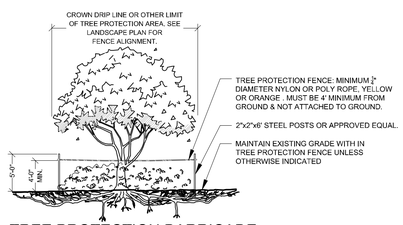
A. DIG EACH PLANTING PIT TO THE MINIMUM SPECIFIED SIZE.

B. FILL PLANTING PIT WITH TWELVE INCHES (12") OF WATER. IF THE WATER LEVEL DROPS FOUR (4") OR MORE WITHIN FOUR (4) HOURS, THE DRAINAGE IS SUFFICIENT AND A DRAINAGE CHANNEL IS NOT REQUIRED IF THE WATER LEVEL DROPS LESS THAN FOUR INCHES (4") WITHIN THE FOUR (4) HOUR PERIOD. A DRAINAGE CHANNEL IS REQUIRED.

C. WHERE REQUIRED, THE DRAINAGE CHANNEL MUST EXTEND DOWN THROUGH THE NON POROUS SOIL AND INTO POROUS SOIL.

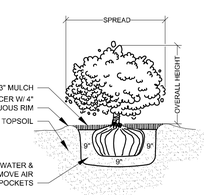
D. ALL MATERIAL REMOVED FROM THE DRAINAGE CHANNEL SHALL BE DISCARDED.

E. WHEN BACKFILLING PLANTING PITS WITH PLANTING MIXTURE, CARE MUST BE TAKEN TO KEEP THE CONSISTENCY OF THE SOIL MIX THE SAME THROUGHOUT THE PLANTING PIT AND DRAINAGE CHANNEL.



TREE PROTECTION BARRICADE
NOT TO SCALE

NOTES:
1- SEE LANDSCAPE PLAN FOR FENCE ALIGNMENT.
3- NO PRUNING SHALL BE PERFORMED EXCEPT BY APPROVED ARBORIST.
4- NO EQUIPMENT SHALL OPERATE INSIDE THE PROTECTIVE FENCING INCLUDING DURING FENCE INSTALLATION AND REMOVAL.



SHRUB PLANTING
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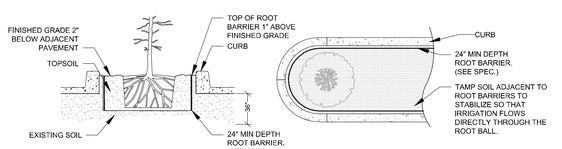
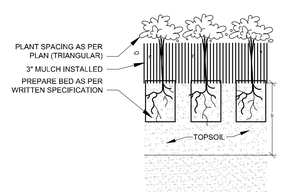


SPECIAL APPLICATIONS ROOT BARRIER DETAIL
NOT TO SCALE

NOTES:
1- ROOT BARRIER SHALL BE "DEEP ROOT UB-24, 24" DEPTH OR APPROVED EQUAL.
2- ROOT BARRIER SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.



GROUNDCOVER PLANTING DETAIL
NOT TO SCALE

Project Team
Landscape Architect:
LANDSCAPE ARCHITECTURAL SERVICES, LLC
Brandon White | Owner
772-834-1357 | brandon@las-fl.com
Paul Goulas | Owner
772-631-8400 | paul@las-fl.com
1708 SE Joy Haven Street
Port St. Lucie, Fl, 34983
Civil Engineer:
Dylan O'Berry, P.E.
Art of Engineering.
Port St. Lucie, FLorida
772-203-0664
dylan@artofengineering.net

Proposed Convenience Store

2502 Avenue M, Fort Pierce, FL 34947

Details & Specifications

Revisions		
Date	Init.	Description
03.09.26	BW	Initial Submittal

REGISTERED LANDSCAPE ARCHITECT
PAUL A. GOULAS
LA 6666807
STATE OF FLORIDA

PAUL GOULAS, RLA
FLORIDA REG. # LA6666807

Drawn By:	BW
Checked By:	BW
Municipal Project:	
Scale:	

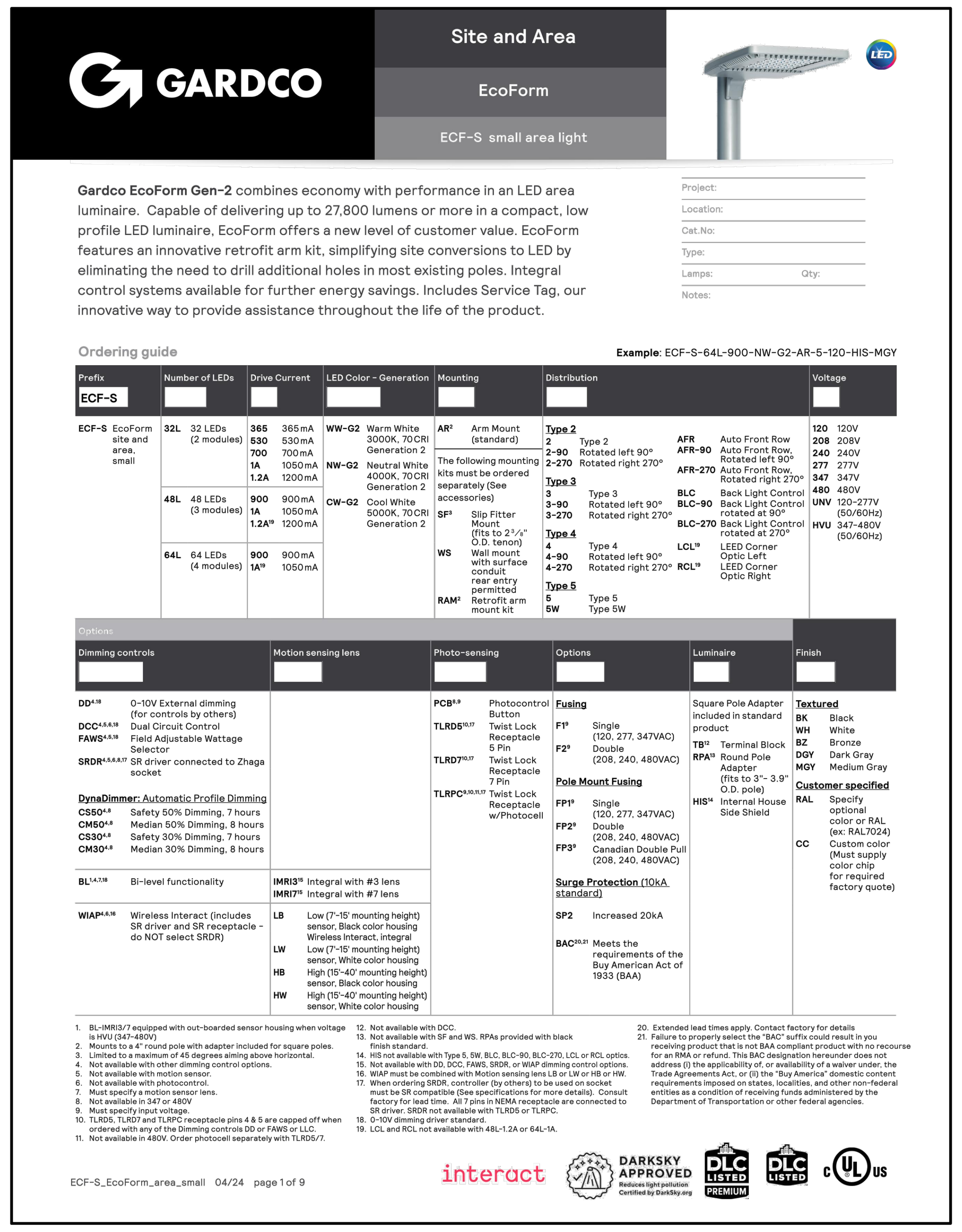
NORTH

SCALE: 1" = NTS

0 0 0 0

LS-2

GARDCO FIXTURE

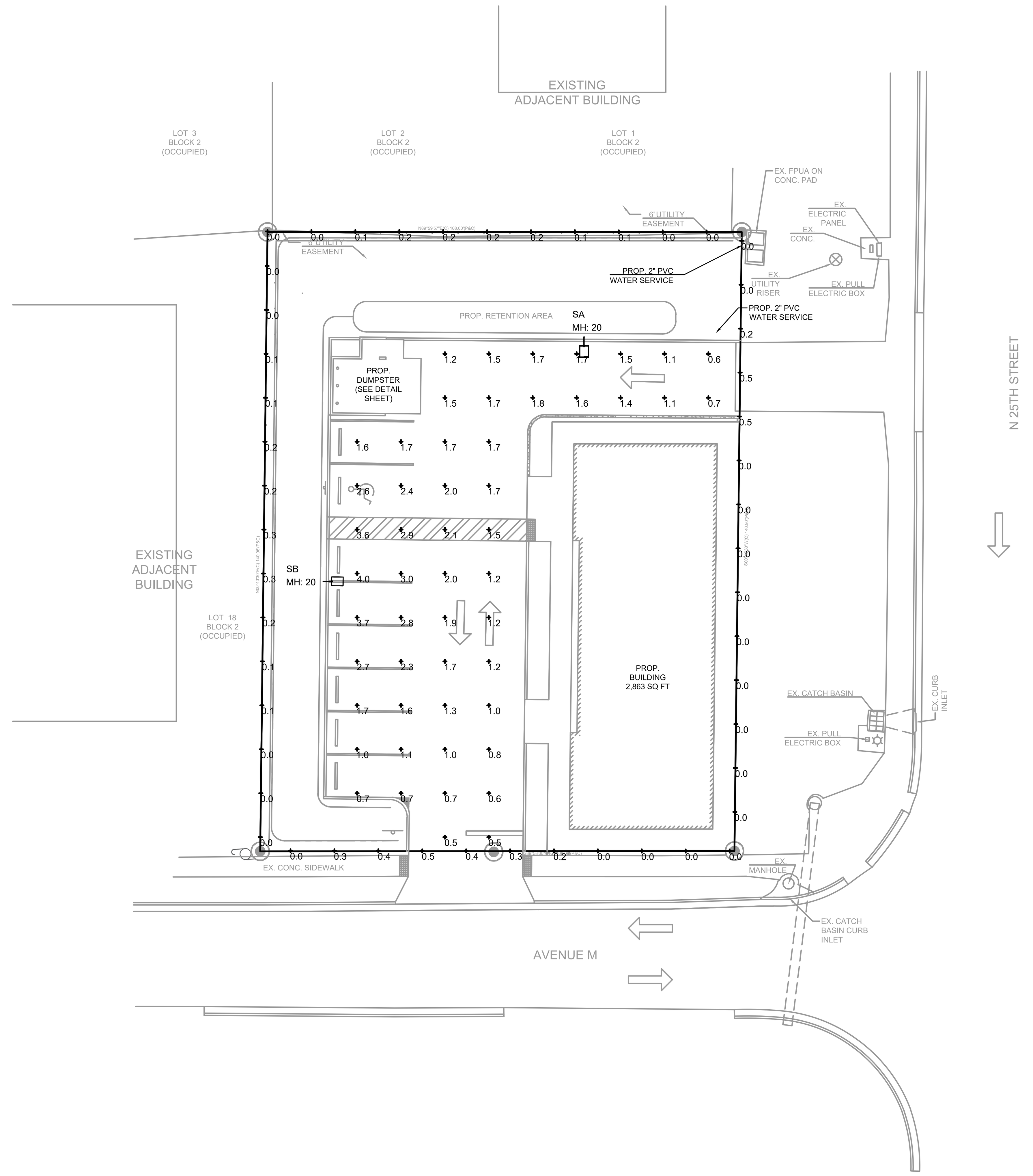


Luminaire Schedule

Symbol	Qty	Label	[MANUFAC]	Description	Arr. Lum. Lumens	LLF	Lum. Watts	Total Watts
	1	SA	Gardco	ECF-S-32L-365-NW-G2-3-HIS POLE MOUNT 20' AFG	4518	0.900	40	40
	1	SB	Gardco	ECF-S-32L-1A-NW-G2-3-HIS POLE MOUNT 20' AFG	10665	0.900	105.6	105.6

Calculation Summary

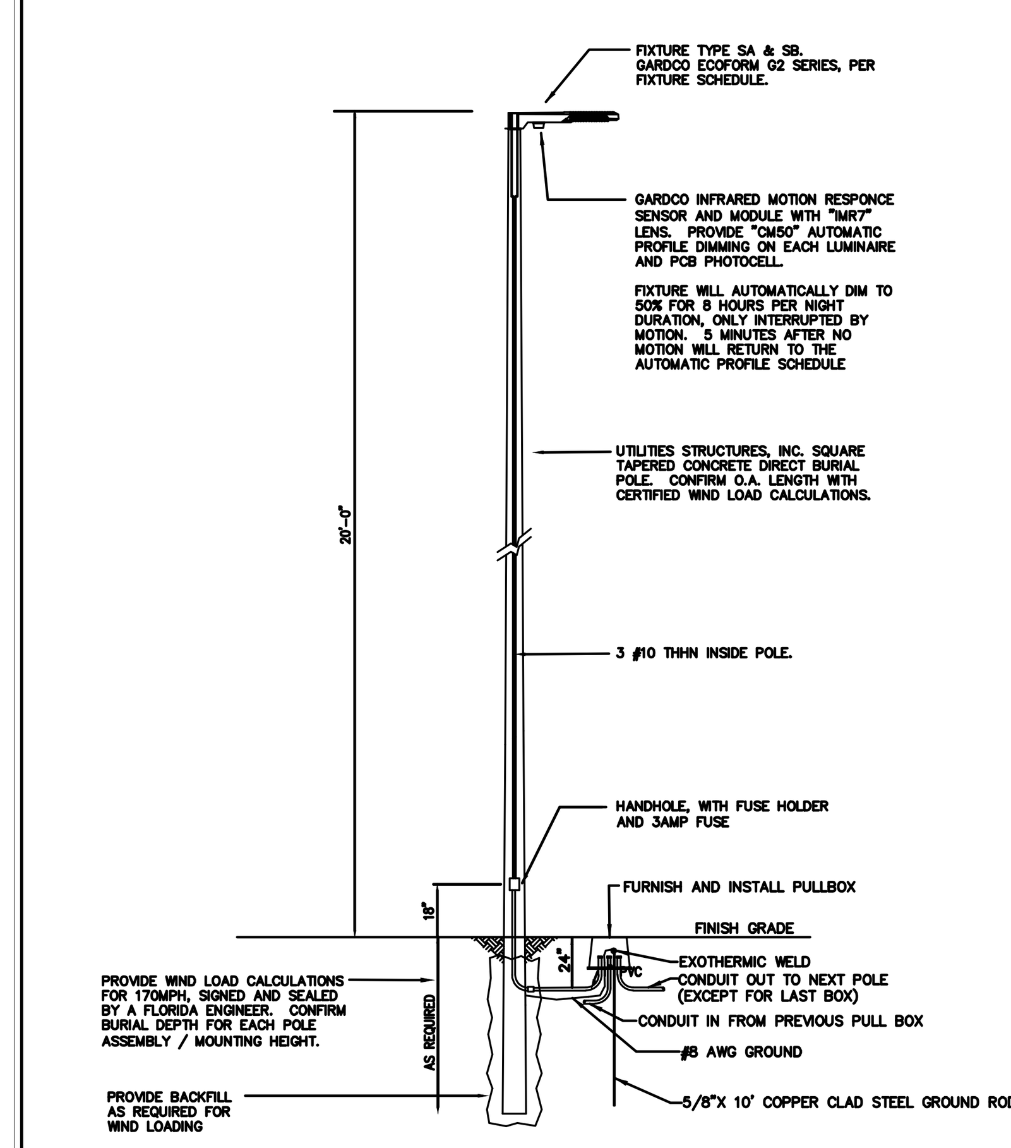
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
PROPERTY LINE	Illuminance	Fc	0.12	0.5	0.0	N.A.	N.A.
SITE & PARKING_Planar	Illuminance	Fc	1.64	4.0	0.5	3.28	8.00
EXTERIOR EGRESS PATH	Illuminance	Fc	2.53	3.6	1.5	1.69	2.40



SITE PHOTOMETRIC PLAN

1"=30'-0"

NORTH



LIGHT POLE DETAIL

date | revision

PRECISION TECHNICAL
PO BOX 12823
FORT PIERCE, FL 34979
JohnMayrLLC@gmail.com
772-528-0416

project title: CONVENIENCE STORE SITE LIGHTING
2502 AVENUE M, FORT PIERCE, FL

sheet title: **SITE PHOTOMETRIC PLAN**

projt. no.: 2026–0007
project manager: JM
scale: AS NOTED
date: 02/11/2026

sheet
E1.1

MacKenzie
Engineering & Planning, Inc.

1172 SW 30th Street, Suite 500 • Palm City • Florida • 34990
(772) 286-8030• www.mackenzieengineeringinc.com

Traffic Statement

To: City of Fort Pierce Public Works Department
From: Shaun G. Mackenzie, P.E.
Date: March 2, 2026
Re: Tony Philip Convenience Store - Traffic Study Methodology

---

City of Fort Pierce Acceptance

The Tony Philip Convenience Store Traffic Study Methodology was

Approved on _____, 20__ by _____

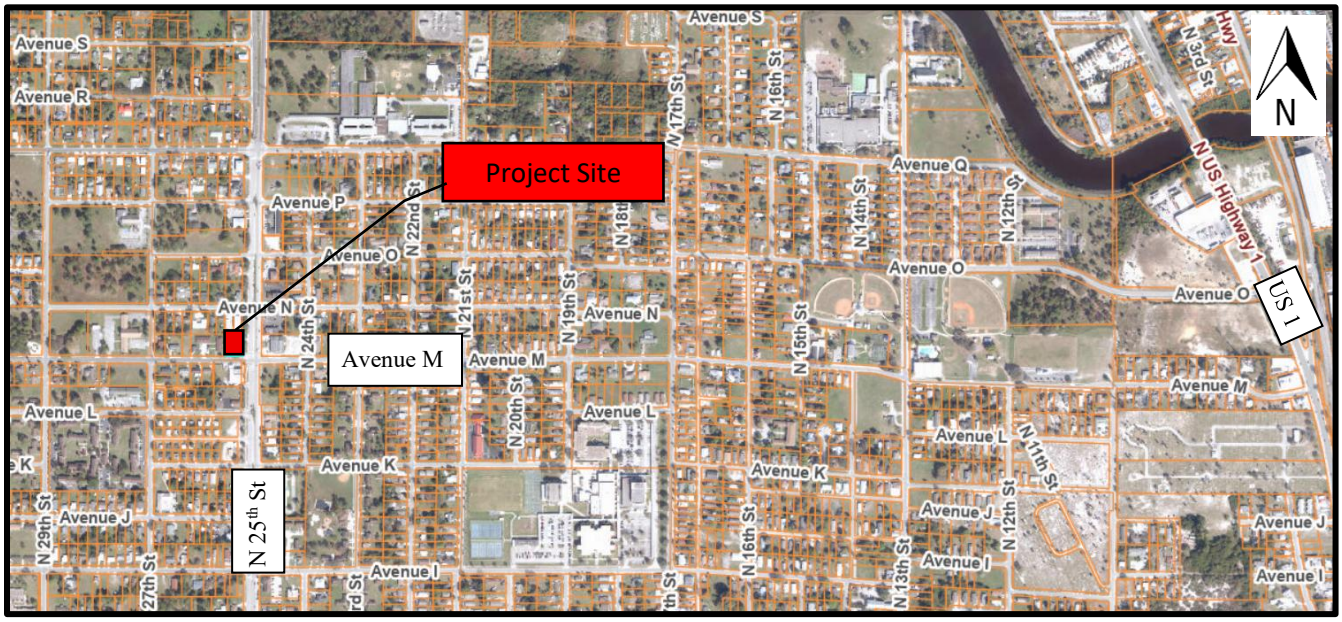
INTRODUCTION

MacKenzie Engineering and Planning, Inc. (MEP) was retained by Art of Engineering, Inc. to perform a traffic analysis for Tony Philip Convenience Store. The existing property is located at 2502 Avenue M, Fort Pierce, FL 34947 (Parcel ID: 2405-524-0039-000-0). The applicant proposes to construct a 2,799 SF Convenience Store. The buildout year is 2031.

The methodology was prepared in accordance with the Standardized Transportation Impact Studies (TIS) Methodology and procedures (STIP) (Updated August 2023). We are submitting the information to the City of Fort Pierce Public Works Department for review, and upon approval, will continue with the traffic analysis.

Figure 1 illustrates the proposed development location.

Figure 1: Proposed Site Location



TRIP GENERATION

Trip Generation

The study uses trip generation rates for Convenience Store (ITE Land Use 851) published in the Institute of Transportation Engineering's (ITE) manual, *Trip Generation Manual (12th Edition).*

Proposed Use

The proposed project is expected to generate the following net external trips:

- 828 daily, 87 AM peak hour (44 in/43 out), and 66 PM peak hour (34 in/32 out) trips.

The proposed project is expected to generate the following driveway trips:

- 1,690 daily, 178 AM peak hour (89 in/89 out), and 135 PM peak hour (69 in/66 out) trips.

Internal Capture Rate

Internal capture is 0.

Pass-by Rate Factor

The proposed pass-by capture of 51% is used for the Convenience Store (ITE Land Use 851).

INVENTORY & PLANNING DATA

Availability / Use of County & State Data

MEP will obtain count data, use FDOT's Florida Traffic Online traffic counts, and supplement from the St. Lucie County TPO Traffic Counts and Level of Service Report (2025) for current traffic counts. Counts from 2024, 2025, or 2026 will be used.

Procedures for Intersection Analysis

MEP will utilize the software identified in the STIP.

STUDY AREA

Traffic Distribution / Assignment Technique and Approach

The traffic assignment was developed based upon PM traffic counts. As shown in Exhibit 9 (PDF Page 20), 49 percent travel north, 41 percent south, 4 percent west, and 6 percent east based on PM peak hour traffic counts at N 25th Street and Avenue M. The overall assignment is shown in Exhibit 3.

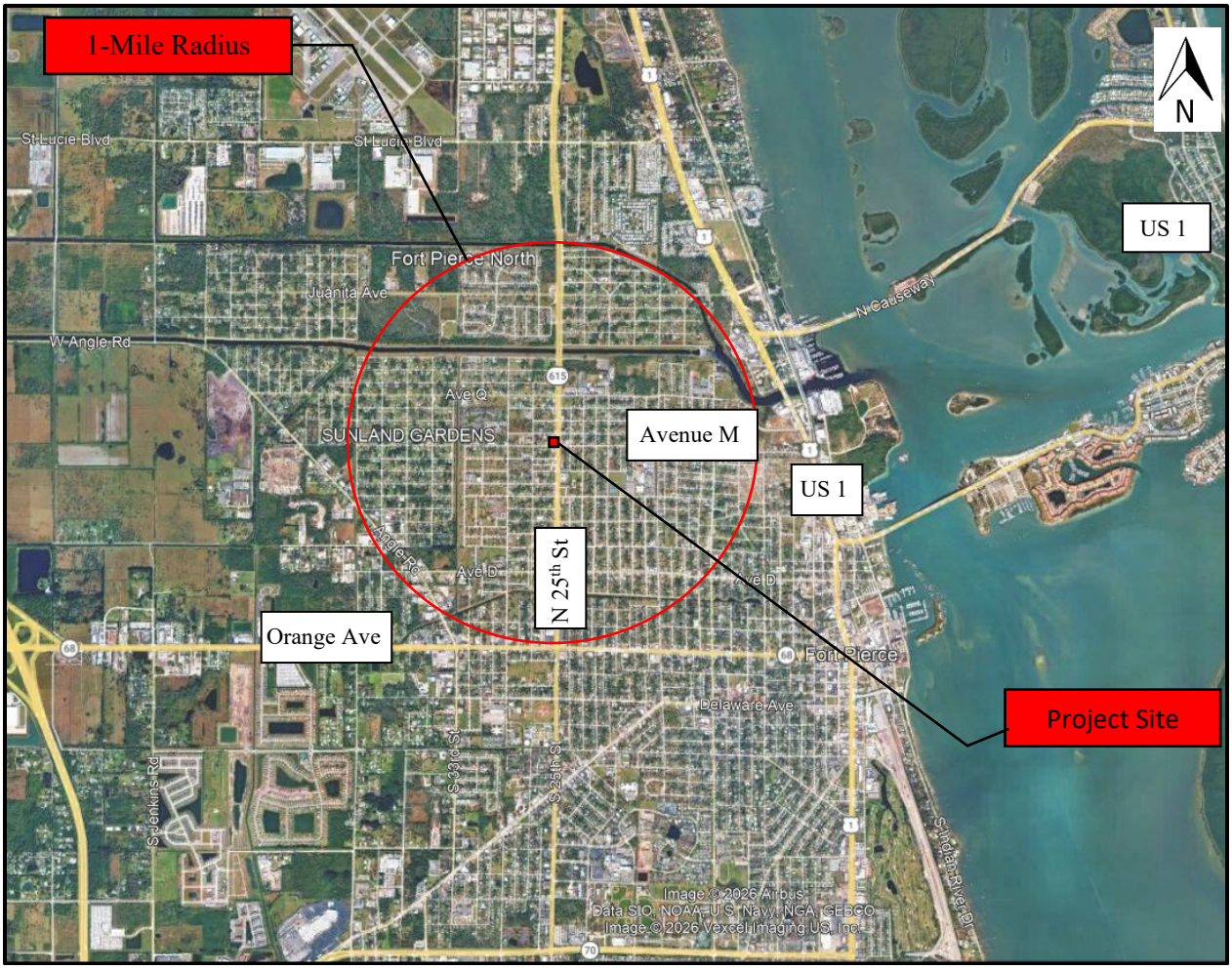
Radius of Impact (ROI)

Based on the STIP, Appendix B, the area of influence for transportation concurrency is 1 mile. City of Fort Pierce LDC evaluates concurrency based on the new external daily trips on the surrounding roads. Figure 2 illustrates the one-mile radius.

In addition, the study will analyze impacted roadways, which are any Major Road Segment on which the peak-hour project traffic consumes more than 1 percent of the roadway capacity within the ROI or 5 (five) percent or more of the existing or committed peak-hour peak direction service capacity (consistent with the STIP) outside the ROI.

Based on the significance analysis shown in Exhibit 5, the study will analyze N 25th Street Avenue M to Avenue Q.

Figure 2. One Mile (1 Mile) Radius Map



Study Intersections

The project will study the following intersections:

1. S 25th Street & Avenue M

Intersections will be analyzed using the HCM methodology using Synchro 12. Right-turns on red, as estimated by Synchro 12, will be utilized in the study.

ROADWAY ANALYSIS

Roadway Analysis

MEP will utilize AM & PM peak-hour traffic data for each roadway segment within the study area. The traffic data for each segment will be compared with the service volumes for each respective segment to determine if adequate capacity is available on each roadway segment.

Historical Growth Rate

Historic growth rates were developed based on available FDOT Traffic Online data. The historic annual growth on the surrounding facilities between 2020 and 2024 is -0.7%. Therefore, a conservative growth rate of 2.5% was used for this analysis. Data showing the growth calculations are contained in Exhibit 4.

Service Volume

MEP will utilize the TPO service volumes on all non-state study roadways. State improved or unclassified roads will utilize Service Volumes from FDOT's 2023 Multimodal Quality/Level of Service Handbook.

Background Traffic

Background traffic identifies how the study area's transportation system is forecast to operate in the buildout year. This includes traffic growth that is associated with the general (historic) growth in the area and the growth due to the development of unbuilt portions of approved major developments. The existing peak hour traffic volumes will be increased based on the greater of the annual compound growth rate or committed traffic plus 1 percent annual growth to develop the projected year 2031 background traffic volumes.

The following approved or nearly approved projects and their traffic were included in the analysis based on the Engineers' knowledge of the area and a review of the County and City of Fort Pierce Approved/Proposed Project GIS websites:

- Causeway Cove
- Millcreek
- Eagle Bend

Segment Analysis

Should an arterial analysis become necessary, an arterial analysis will be performed using the most current version of Synchro V12. The green times, cycle lengths, and volumes will be provided by St. Lucie County Traffic Timing Data or field-obtained signal timing results.

DRIVEWAY ANALYSIS

Site Access

The proposed conceptual site plan has been provided by the owner and is located in the Appendix. The project proposes the following driveways:

- Existing Driveway 1 (N 25th Street) – Right-in/Right-out only
- Proposed Driveway 2 (Avenue M) – Full opening

All full openings will be analyzed during AM & PM peak hours. All driveways connected to State or County facilities will be evaluated for turn lanes. Ingress right and left turn lane analysis at the project driveway will be performed using National Cooperative Highway research Program (NCHRP) Report 457.

COMMITTED IMPROVEMENTS

Based on review of FDOT's 5-Year Work Program and the St. Lucie TPO's Transportation Improvement Program, which includes St. Lucie County's 5-Year Capital Improvement Plan. No improvement is identified in the plans to add capacity within the study area.

APPENDIX

1. Trip Generation
2. Driveway Figure
   A. Net Change in Trips
   B. Pass-By Trips
   C. Total Driveway Trips
3. Assignment Map
4. Growth Rate Calculation
5. Projected Roadway Significance (Study Roads)
6. ITE Pass-By Rates
7. FDOT's Traffic Data
   a. Annual Average Daily Traffic Report (2024)
8. FDOT's Q/LOS – Manual 2023
9. Traffic Counts
10. ITE Land Use 851
11. Site Plan

Exhibit 1: Trip Generation

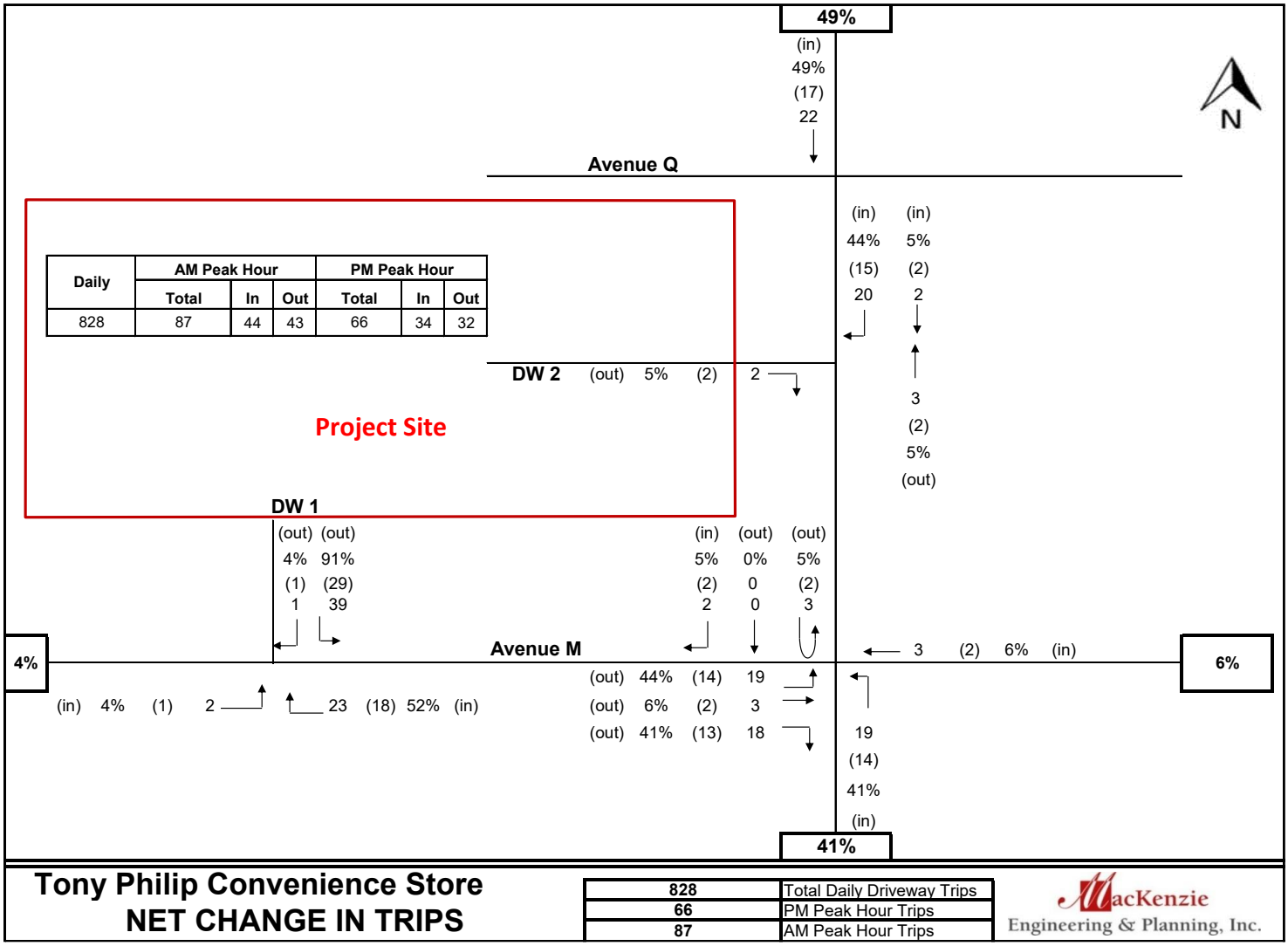
Land Use	Intensity	Daily Trips	AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out
Proposed Traffic								
Convenience Store	2.799 1000 SF	1,690	178	89	89	135	69	66
Subtotal		1,690	178	89	89	135	69	66
Pass-By Traffic	AM PM							
Convenience Store	51.0% 51.0%	862	91	45	46	69	35	34
Subtotal		862	91	45	46	69	35	34
NET CHANGE IN TRIPS (FOR THE PURPOSES OF CONCURRENCY)		***828***	***87***	***44***	***43***	***66***	***34***	***32***
NET CHANGE IN DRIVEWAY VOLUMES		***1,690***	***178***	***89***	***89***	***135***	***69***	***66***

Note: Trip generation was calculated using the following data:

Land Use	ITE Code	Unit	Daily Rate	Pass-by Rate	AM Peak Hour in/out	AM Peak Hour Rate	PM Peak Hour in/out	PM Peak Hour Equation
Convenience Store	851	1000 SF	T = 1042.07(X) - 1227.13	51%	50/50	63.76	51/49	48.3

ITE 12th Edition

Exhibit 2A: Net Change in Driveway Trips

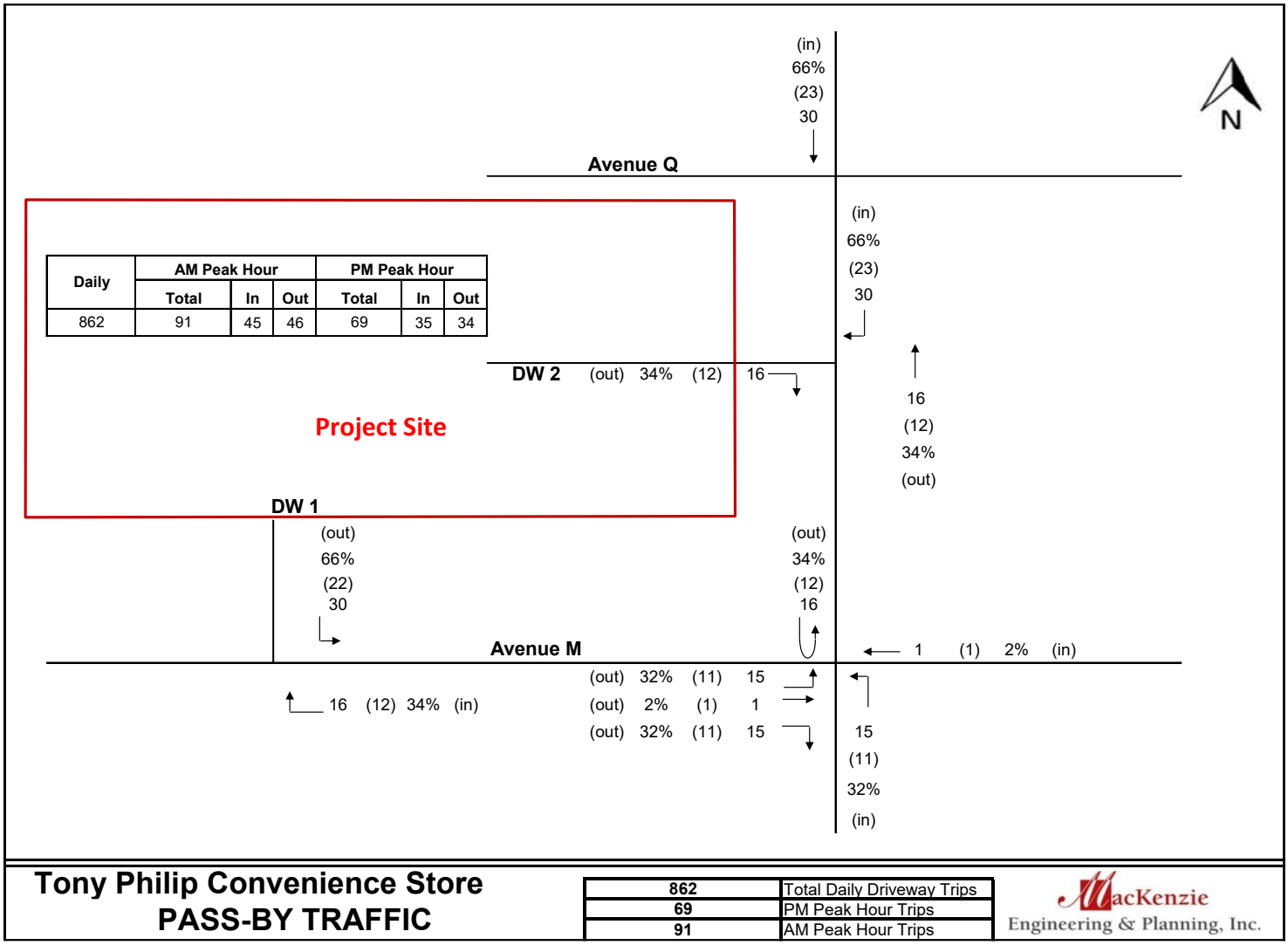


Tony Philip Convenience Store
NET CHANGE IN TRIPS

828	Total Daily Driveway Trips
66	PM Peak Hour Trips
87	AM Peak Hour Trips

MacKenzie Engineering & Planning, Inc.

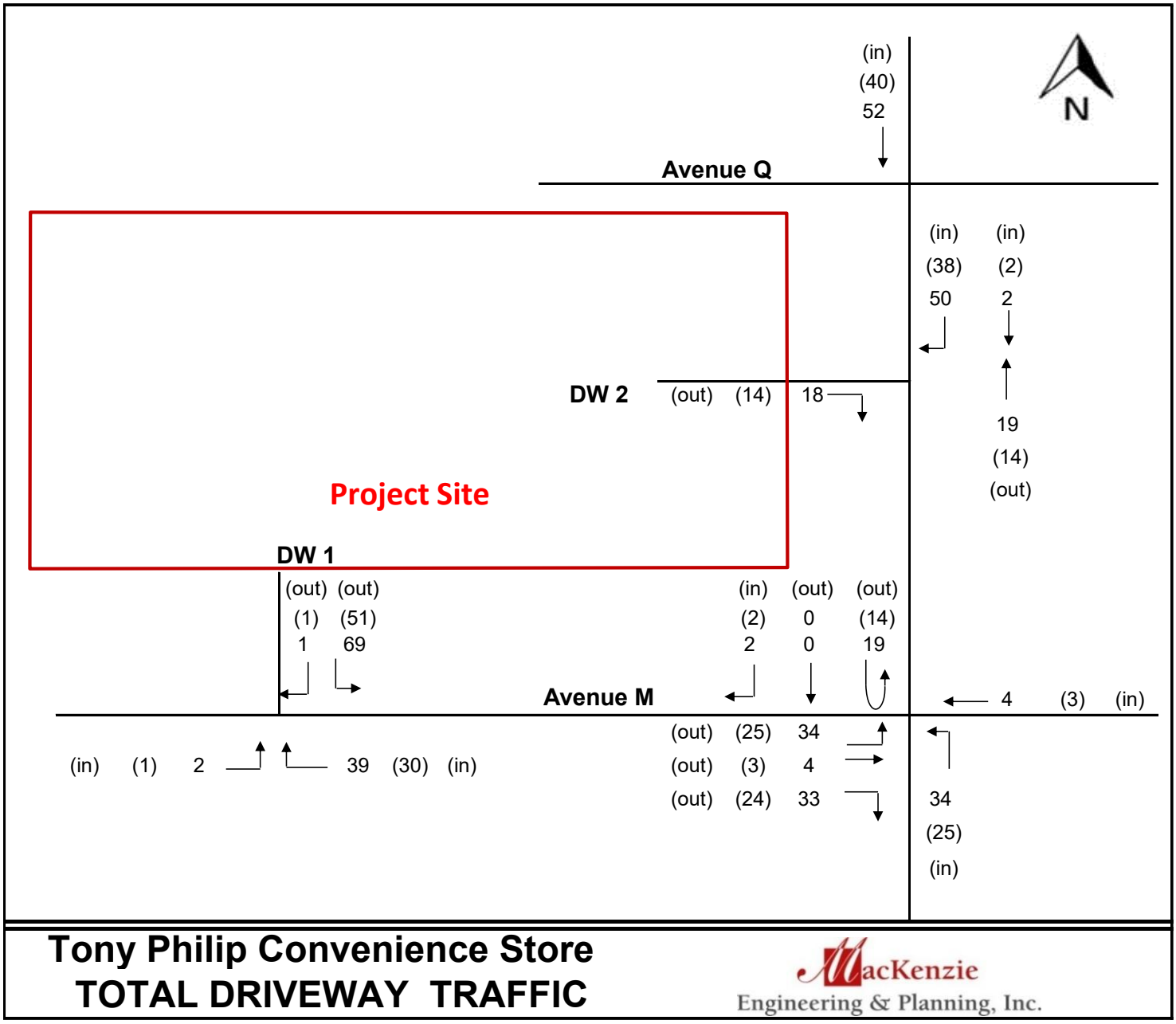
Exhibit 2B: Pass-By Trips



Tony Philip Convenience Store PASS-BY TRAFFIC		
	862	Total Daily Driveway Trips
	69	PM Peak Hour Trips
	91	AM Peak Hour Trips

MacKenzie Engineering & Planning, Inc.

Exhibit 2C: Total Driveway Trips



Tony Philip Convenience Store
TOTAL DRIVEWAY TRAFFIC

MacKenzie
Engineering & Planning, Inc.

Exhibit 3: Trip Assignment

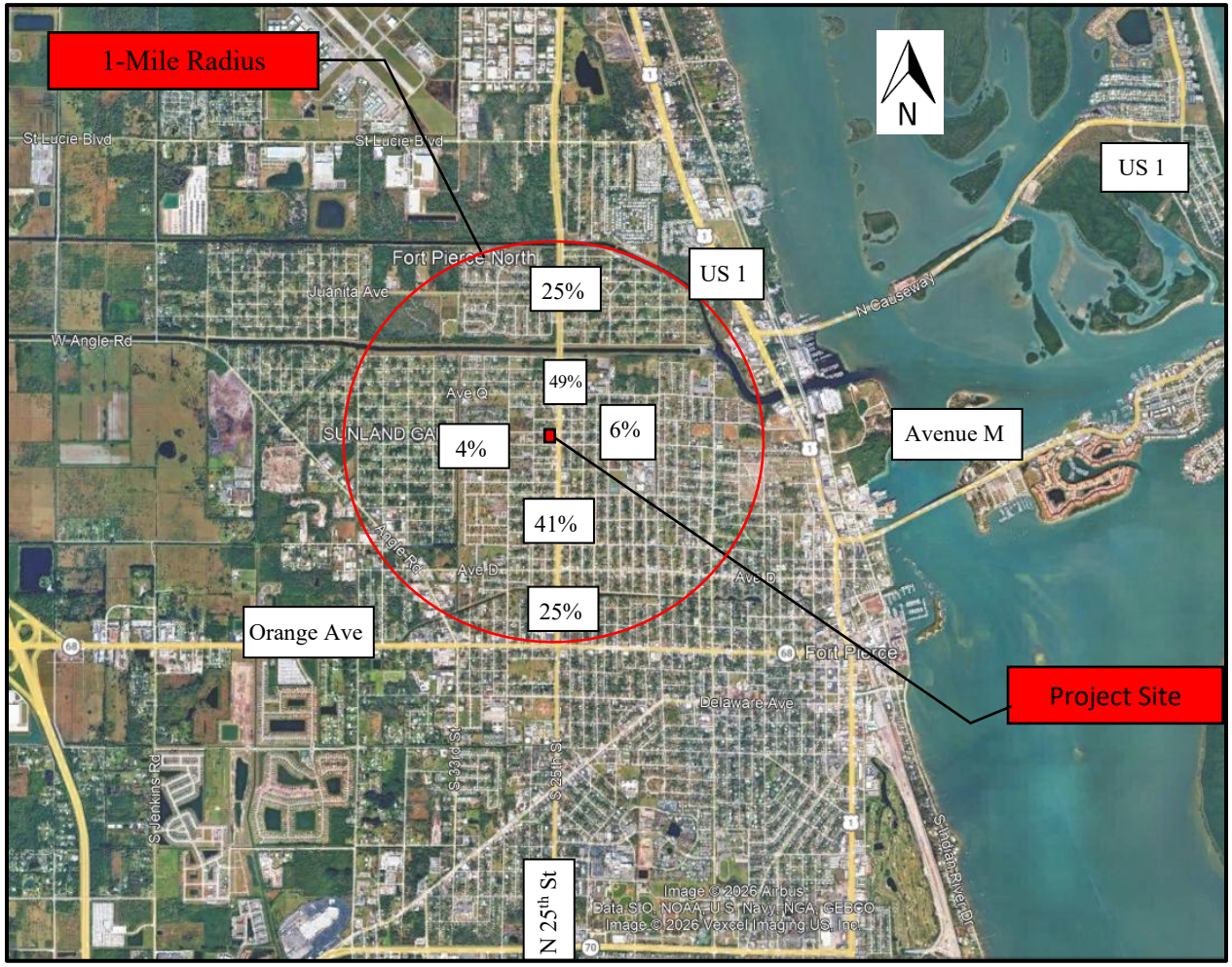


Exhibit 4: Growth Rate

Station	Description	Average Daily Traffic					Annual Absolute Growth	Growth Rate
		2020*	2021	2022	2023	2024		
94-0050	SR 615 / 25 ST - S OF AVE E & SR 68		19,300	21,000	21,000	21,000	510	2.4%
94-5152	SR 615 / 25 ST - S OF BELCHER CANAL		21,000	18,800		18,600	-700	-3.8%
94-8506	N 29TH ST FROM AVENUE D TO AVENUE Q		3,500			3,200	-100	-3.1%
							Weighted Average	-0.7%
							Growth Rate Used	**2.5%**

* 2020 Data were excluded due to COVID

Exhibit 5: Projected Roadway Significance (Study Roads)

Roadway	From	To	E + C Lanes	Content Class	Two-Way Roadway Capacity	Assign	Two-way Project Traffic	Impact	Significant 1%/5%	Significant Impact? (Y/N)
N 25th Street	Orange Ave	Avenue D	4	C4*	3,250	25%	17	0.52%	5%	NO
	Avenue D	Avenue E	4	C4*	3,250	36%	24	0.74%	1%	NO
	Avenue E	Avenue M	4	C4*	3,250	41%	27	0.83%	1%	NO
	Avenue M	Avenue Q	4	C4*	3,250	49%	33	1.02%	1%	**YES**
	Avenue Q	Juanita Ave	4	C4*	3,250	25%	9	0.28%	1%	NO

* Roadway Capacity based on FDOT Area Type

Table E.14 Pass-By and Non-Pass-By Trips Weekday, PM Peak Period Land Use Code 851—Convenience Market (Open 24 Hours)

SIZE (1,000 SQ. FT. GFA)	LOCATION	WEEKDAY SURVEY DATE	NO. OF INTERVIEWS	TIME PERIOD	PASS-BY TRIP (%)	NON-PASS-BY TRIPS (%)			ADJ. STREET PEAK HOUR VOLUME	SOURCE
						PRIMARY	DIVERTED	TOTAL		
3	Overland Park, KS	Aug. 1987	68	4:30–5:30 p.m.	34	53	13	66	—	—
3	Overland Park, KS	July 1987	68	4:30–5:30 p.m.	28	50	22	72	—	—
~1.9	Billings, MT	1987	461	4:00–6:00 p.m.	62	13	25	38	—	ITE Montana Section Tech Comm
<50.0	Chicago suburbs, IL	1987	72	3:00–6:00 p.m.	28	—	—	72	—	Kenig, O'Hara, Humes, Flock
<50.0	Chicago suburbs, IL	1987	54	3:00–6:00 p.m.	78	—	—	22	—	Kenig, O'Hara, Humes, Flock
<50.0	Chicago suburbs, IL	1987	34	3:00–6:00 p.m.	69	—	—	31	—	Kenig, O'Hara, Humes, Flock
<50.0	Chicago suburbs, IL	1987	100	3:00–6:00 p.m.	63	—	—	37	—	Kenig, O'Hara, Humes, Flock
<50.0	Chicago suburbs, IL	1987	43	3:00–6:00 p.m.	43	—	—	57	—	Kenig, O'Hara, Humes, Flock
<50.0	Chicago suburbs, IL	1987	135	3:00–6:00 p.m.	39	—	—	61	—	Kenig, O'Hara, Humes, Flock
<50.0	Chicago suburbs, IL	1987	74	3:00–6:00 p.m.	53	—	—	47	—	Kenig, O'Hara, Humes, Flock
<50.0	Chicago suburbs, IL	1987	80	3:00–6:00 p.m.	64	—	—	36	—	Kenig, O'Hara, Humes, Flock

Average Pass-By Trip Percentage: 51
"—" means no data were provided

Table E.15 Pass-By and Non-Pass-By Trips Weekday, AM Peak Period Land Use Code 853—Convenience Market with Gasoline Pumps

SIZE (1,000 SQ. FT. GFA)	LOCATION	WEEKDAY SURVEY DATE	NO. OF INTERVIEWS	TIME PERIOD	PASS-BY TRIP (%)	NON-PASS-BY TRIPS (%)			ADJ. STREET PEAK HOUR VOLUME	SOURCE
						PRIMARY	DIVERTED	TOTAL		
2.8	Louisville area, KY	1993	—	7:00–9:00 a.m.	54	11	35	46	1,240	Barton-Aschman Assoc.
2.4	Louisville area, KY	1993	—	7:00–9:00 a.m.	48	17	35	52	1,210	Barton-Aschman Assoc.
4.2	Louisville area, KY	1993	47	7:00–9:00 a.m.	62	19	19	38	1,705	Barton-Aschman Assoc.
2.6	Crestwood, KY	1993	—	7:00–9:00 a.m.	72	15	13	28	940	Barton-Aschman Assoc.
3.7	Louisville area, KY	1993	49	7:00–9:00 a.m.	66	16	18	34	990	Barton-Aschman Assoc.
3.0	New Albany, IN	1993	62	7:00–9:00 a.m.	74	10	16	26	790	Barton-Aschman Assoc.
2.3	Louisville, KY	1993	58	7:00–9:00 a.m.	64	5	31	36	1,255	Barton-Aschman Assoc.
2.2	New Albany, IN	1993	79	7:00–9:00 a.m.	56	6	38	44	635	Barton-Aschman Assoc.
3.6	Louisville area, KY	1993	49	7:00–9:00 a.m.	67	4	29	33	1,985	Barton-Aschman Assoc.

Average Pass-By Trip Percentage: 63
"—" means no data were provided

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2024 HISTORICAL AADT REPORT

EXHIBIT 7

COUNTY: 94 - ST.LUCIE

SITE: 0050 - SR 615 / 25 ST - S OF AVE E & SR 68 (COUNTY 50)

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2024	21000 C	N 10500	S 10500	9.00	51.10	4.10
2023	21000 C	N 10500	S 10500	9.00	51.60	4.10
2022	21000 C	N 10500	S 10500	9.00	51.40	4.10
2021	19300 C	N 9300	S 10000	9.00	50.90	7.00
2020	18900 F	N 9600	S 9300	9.00	51.30	7.00
2019	19700 C	N 10000	S 9700	9.00	51.00	7.00
2018	17800 C	N 9000	S 8800	9.00	51.30	5.10
2017	19900 C	N 10000	S 9900	9.00	50.90	5.10
2016	15800 C	N 8200	S 7600	9.00	50.90	5.10
2015	15900 C	N 8200	S 7700	9.00	51.00	3.10
2014	14700 C	N 7800	S 6900	9.00	50.80	3.10
2013	15800 C	N 8000	S 7800	9.00	50.80	3.10
2012	15400 C	N 7600	S 7800	9.00	56.80	2.40
2011	15800 C	N 7900	S 7900	9.00	57.20	2.40
2010	15600 C	N 7800	S 7800	10.32	55.40	2.40
2009	15800 C	N 7900	S 7900	10.27	57.35	4.60

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2024 HISTORICAL AADT REPORT

COUNTY: 94 - ST.LUCIE

SITE: 5152 - SR 615 / 25 ST - S OF BELCHER CANAL (AVENUE T -COUNTY 5152)

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2024	18600 C	N 9400	S 9200	9.00	51.10	6.70
2023	19400 F	N 9900	S 9500	9.00	51.60	8.10
2022	18800 C	N 9600	S 9200	9.00	51.40	8.10
2021	21100 C	N 6600	S 14500	9.00	50.90	8.10
2020	17200 F	N 8700	S 8500	9.00	51.30	7.00
2019	18000 C	N 9100	S 8900	9.00	51.00	7.00
2018	15500 C	N 7900	S 7600	9.00	51.30	7.00
2017	14300 C	N 7900	S 6400	9.00	50.90	5.20
2016	14300 C	N 7300	S 7000	9.00	50.90	5.20
2015	14500 C	N 7400	S 7100	9.00	51.00	5.20
2014	13800 C	N 6900	S 6900	9.00	50.80	8.50
2013	13900 C	N 7100	S 6800	9.00	50.80	8.50
2012	13200 C	N 6800	S 6400	9.00	56.80	5.60
2011	13300 C	N 6800	S 6500	9.00	57.20	5.60
2010	14200 C	N 7300	S 6900	10.32	55.40	5.60
2009	13600 C	N 6800	S 6800	10.27	57.35	4.90

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
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*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2024 HISTORICAL AADT REPORT

COUNTY: 94 - ST.LUCIE

SITE: 8506 - N 29TH ST FROM AVENUE D TO AVENUE Q (HPMS)

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2024	3200 C	N 1700	S 1500	9.00	51.10	3.90
2023	3600 S	N 2000	S 1600	9.00	51.60	7.10
2022	3500 F	N 1900	S 1600	9.00	51.40	7.10
2021	3500 C	N 1900	S 1600	9.00	50.90	7.10
2020	3300 S	N 1800	S 1500	9.00	51.30	3.00
2019	3500 F	N 1900	S 1600	9.00	51.00	3.00
2018	3500 C	N 1900	S 1600	9.00	51.30	3.00
2017	4700 S	N 1900	S 2800	9.00	50.90	5.60
2016	4700 F	N 1900	S 2800	9.00	50.90	5.60
2015	4700 C	N 1900	S 2800	9.00	51.00	5.60
2014	3800 F	N 1700	S 2100	9.00	50.80	5.50
2013	3800 C	N 1700	S 2100	9.00	50.80	5.50
2012	3300 C	N 1800	S 1500	9.00	56.80	5.50
2011	3400 T	0	0	9.00	57.20	7.60
2010	3400 S	N 1900	S 1500	10.32	55.40	12.50
2009	3400 F	N 1900	S 1500	10.27	57.35	12.50

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

EXHIBIT 8

C2T, C4, C5, & C6 Motor Vehicle Arterial Generalized Service Volume Tables

(C2T-Rural Town)

Peak Hour Directional

	B	C	D	E
1 Lane	*	720	940	**
2 Lane	*	1,140	1,640	**
3 Lane	*	2,120	2,510	**

Peak Hour Two-Way

	B	C	D	E
2 Lane	*	1,310	1,710	**
4 Lane	*	2,070	2,980	**
6 Lane	*	3,850	4,560	**

AADT

	B	C	D	E
2 Lane	*	13,800	18,000	**
4 Lane	*	21,800	31,400	**
6 Lane	*	40,500	48,000	**

(C4-Urban General)

	B	C	D	E
1 Lane	*	*	870	1,190
2 Lane	*	1,210	1,790	2,020
3 Lane	*	2,210	2,810	2,990
4 Lane	*	2,590	3,310	3,510

	B	C	D	E
2 Lane	*	*	1,580	2,160
4 Lane	*	2,200	3,250	3,670
6 Lane	*	4,020	5,110	5,440
8 Lane	*	4,710	6,020	6,380

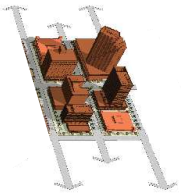
	B	C	D	E
2 Lane	*	*	17,600	24,000
4 Lane	*	24,400	36,100	40,800
6 Lane	*	44,700	56,800	60,400
8 Lane	*	52,300	66,900	70,900

(C5-Urban Center)

	B	C	D	E
1 Lane	*	*	690	1,080
2 Lane	*	1,290	1,900	2,130
3 Lane	*	1,410	2,670	3,110
4 Lane	*	2,910	3,560	3,640

	B	C	D	E
2 Lane	*	*	1,250	1,960
4 Lane	*	2,350	3,450	3,870
6 Lane	*	2,560	4,850	5,650
8 Lane	*	5,290	6,470	6,620

	B	C	D	E
2 Lane	*	*	13,900	21,800
4 Lane	*	26,100	38,300	43,000
6 Lane	*	28,400	53,900	62,800
8 Lane	*	58,800	71,900	73,600



(C6-Urban Core)

	B	C	D	E
1 Lane	*	***	790	1,030
2 Lane	*	***	1,490	1,920
3 Lane	*	***	2,730	2,940
4 Lane	*	***	3,250	3,490

	B	C	D	E
2 Lane	*	***	1,440	1,870
4 Lane	*	***	2,710	3,490
6 Lane	*	***	4,960	5,350
8 Lane	*	***	5,910	6,350

	B	C	D	E
2 Lane	*	***	16,000	20,800
4 Lane	*	***	30,100	38,800
6 Lane	*	***	55,100	59,400
8 Lane	*	***	65,700	70,600

Adjustment Factors

The peak hour directional service volumes should be adjust by multiplying by 1.2 for one-way facilities
The AADT service volumes should be adjusted by multiplying 0.6 for one way facilities
2 Lane Divided Roadway with an Exclusive Left Turn Lane(s): Multiply by 1.05
2 lane Undivided Roadway with No Exclusive Left Turn Lane(s): Multiply by 0.80
Exclusive right turn lane(s): Multiply by 1.05
Multilane Undivided Roadway with an Exclusive Left Turn Lane(s): Multiply by 0.95
Multilane Roadway with No Exclusive Left Turn Lane(s): Multiply by 0.75
Non-State Signalized Roadway: Multiply by 0.90

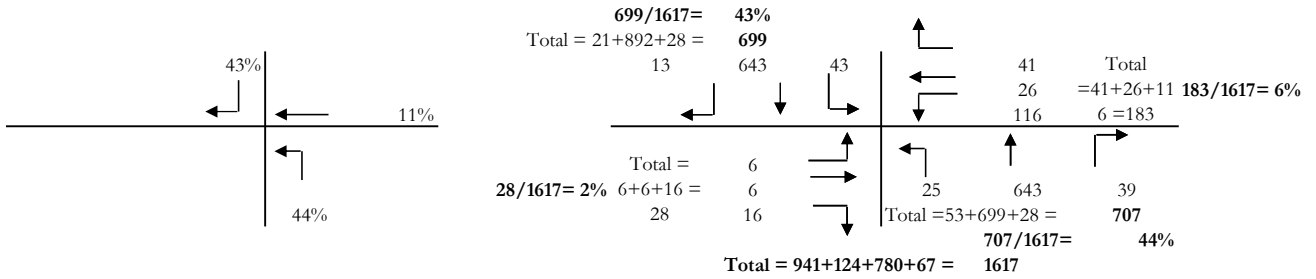
This table does not constitute a standard and should be used only for general planning applications. The table should not be used for corridor or intersection design, where more refined techniques exist.
* Cannot be achieved using table input value defaults.
** Not applicable for that level of service letter grade. For the automobile mode, volumes greater than level of service D become F because intersection capacities have been reached.

Tony Philip Convenience Store
AM PEAK HOUR TURNING MOVEMENTS
EXHIBIT 9
N 25th ST & Avenue M

		ebu	ebl	ebt	ebr	wbu	wbl	wbt	wbr	nbu	nbl	nbt	nbr	sbu	sbl	sbt	sbr	totals
7:00 AM	7:15 AM	0	1	2	2	0	50	6	15	0	5	130	19	0	22	125	3	380
7:15 AM	7:30 AM	0	1	0	4	0	49	5	15	1	5	181	6	1	11	172	3	454
7:30 AM	7:45 AM	0	2	2	3	0	6	10	8	0	6	146	6	0	7	186	6	388
7:45 AM	8:00 AM	0	2	2	7	0	11	5	3	3	5	186	8	0	2	160	1	395
8:00 AM	8:15 AM	0	2	6	2	0	12	8	7	2	4	146	9	0	5	155	2	360
8:15 AM	8:30 AM	0	0	5	4	0	8	6	4	2	5	149	2	0	3	167	4	359
8:30 AM	8:45 AM	0	3	5	4	0	11	3	3	1	5	123	5	0	5	131	4	303
8:45 AM	9:00 AM	0	4	3	4	0	10	9	5	1	10	121	3	0	5	109	2	286
		0	16	25	31	0	157	54	60	10	45	1182	58	1	60	1205	25	2929
Peak Hour Traffic Volume																		
7:00 AM	8:00 AM	0	6	6	16	0	116	26	41	4	21	643	39	1	42	643	13	1617

Count Taken: 2/24/2026
Buildout year: 2031
Growth Rate: 2.0%
Seasonal Factor: 1.00

	ebu	ebl	ebt	ebr	wbu	wbl	wbt	wbr	nbu	nbl	nbt	nbr	sbu	sbl	sbt	sbr
2/24/2026																
Existing Volumes	0	6	6	16	0	116	26	41	4	21	643	39	1	42	643	13
Seasonal Factor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjusted Volumes		6	**6**	**16**		116	**26**	**41**		25	**643**	**39**		43	**643**	**13**



Tony Philip Convenience Store
PM PEAK HOUR TURNING MOVEMENTS
EXHIBIT 9
N 25th St & Avenue M

		ebu	ebl	ebt	ebr	wbu	wbl	wbt	wbr	nbu	nbl	nbt	nbr	sbu	sbl	sbt	sbr	totals
4:00 PM	4:15 PM	0	3	5	5	0	10	9	3	4	6	172	8	1	2	220	6	454
4:15 PM	4:30 PM	0	3	6	3	0	6	10	11	1	6	170	5	1	4	181	9	416
4:30 PM	4:45 PM	0	1	4	2	0	15	12	3	0	10	169	5	1	6	234	5	467
4:45 PM	5:00 PM	0	5	4	6	0	10	12	3	2	11	197	8	3	3	211	7	482
5:00 PM	5:15 PM	0	5	6	6	0	12	12	11	3	12	154	5	1	5	231	5	468
5:15 PM	5:30 PM	0	6	8	14	0	16	9	9	2	13	179	10	1	8	216	4	495
5:30 PM	5:45 PM	0	3	4	4	0	17	12	16	1	9	118	5	4	9	164	9	375
5:45 PM	6:00 PM	0	2	11	4	0	12	14	12	6	10	168	8	1	11	178	5	442
		0	32	52	53	0	203	111	106	20	93	1784	85	14	88	2118	62	4821
Peak Hour Traffic Volume																		
4:30 PM	5:30 PM	0	17	22	28	0	53	45	26	7	46	699	28	6	22	892	21	1912

Count Taken: 2/24/2026
Buildout year: 2031
Growth Rate: 2.0%
Seasonal Factor: 1.00

	ebu	ebl	ebt	ebr	wbu	wbl	wbt	wbr	nbu	nbl	nbt	nbr	sbu	sbl	sbt	sbr
2/24/2026																
Existing Volumes	0	17	22	28	0	53	45	26	7	46	699	28	6	22	892	21
Seasonal Factor	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjusted Volumes		**17**	**22**	**28**		**53**	**45**	**26**	**0**	**53**	**699**	**28**		**28**	**892**	**21**

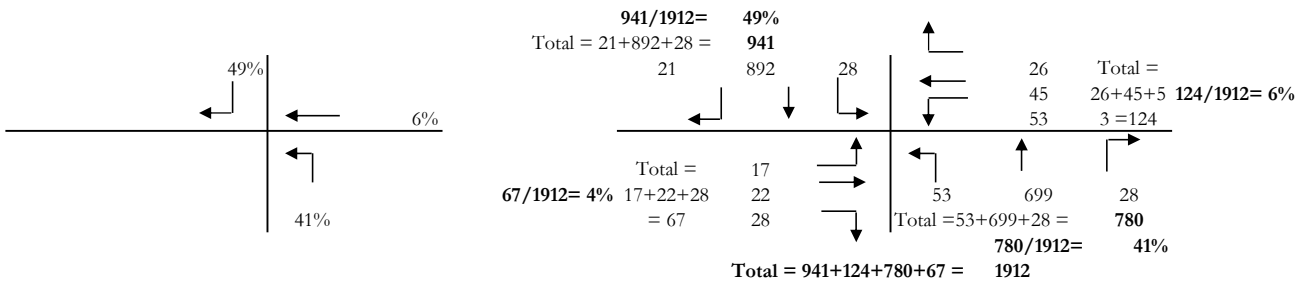


EXHIBIT 10

Land Use: 851
Convenience Store

Description

A convenience store is a small retail business that sells groceries and other everyday items that a person may need or want as a matter of convenience. Convenience stores are typically located along major thoroughfares to optimize motorist convenience. Extended hours of operation (with many open 24 hours, 7 days a week) further support the convenience of the store. A convenience store is also commonly called a convenience market. The product mix typically includes pre-packaged grocery items, beverages, dairy products, snack foods, confectionary, tobacco products, over-the-counter drugs, and toiletries. A convenience store commonly sells coffee and pre-made sandwiches and may sell alcohol, often limited to beer and wine. Made-to-order food orders are sometimes offered. Some stores offer limited seating. Convenience store/gas station (Land Use 945) is a related use.

Additional Data

The sites were surveyed in the 1990s, the 2000s, the 2010s, and the 2020s in Alberta (CAN), Arizona, California, New Jersey, and New York.

Source Numbers

542, 550, 862, 863, 931, 955, 975, 1236

Convenience Store
(851)

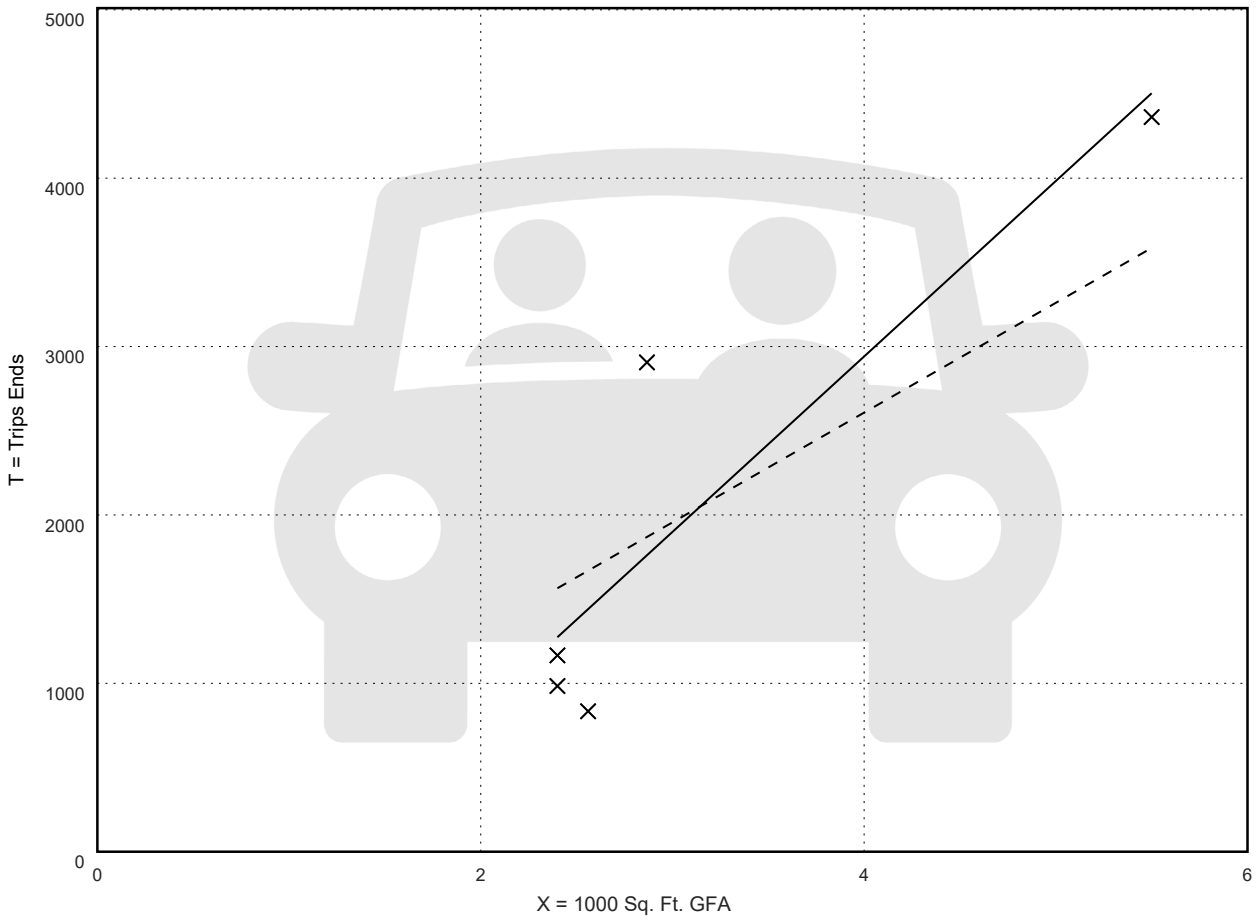
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 5
Avg. 1000 Sq. Ft. GFA: 3
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
651.94	325.78 - 1013.60	276.79

Data Plot and Equation



Fitted Curve Equation: T = 1042.07(X) - 1227.13

R^2= 0.81

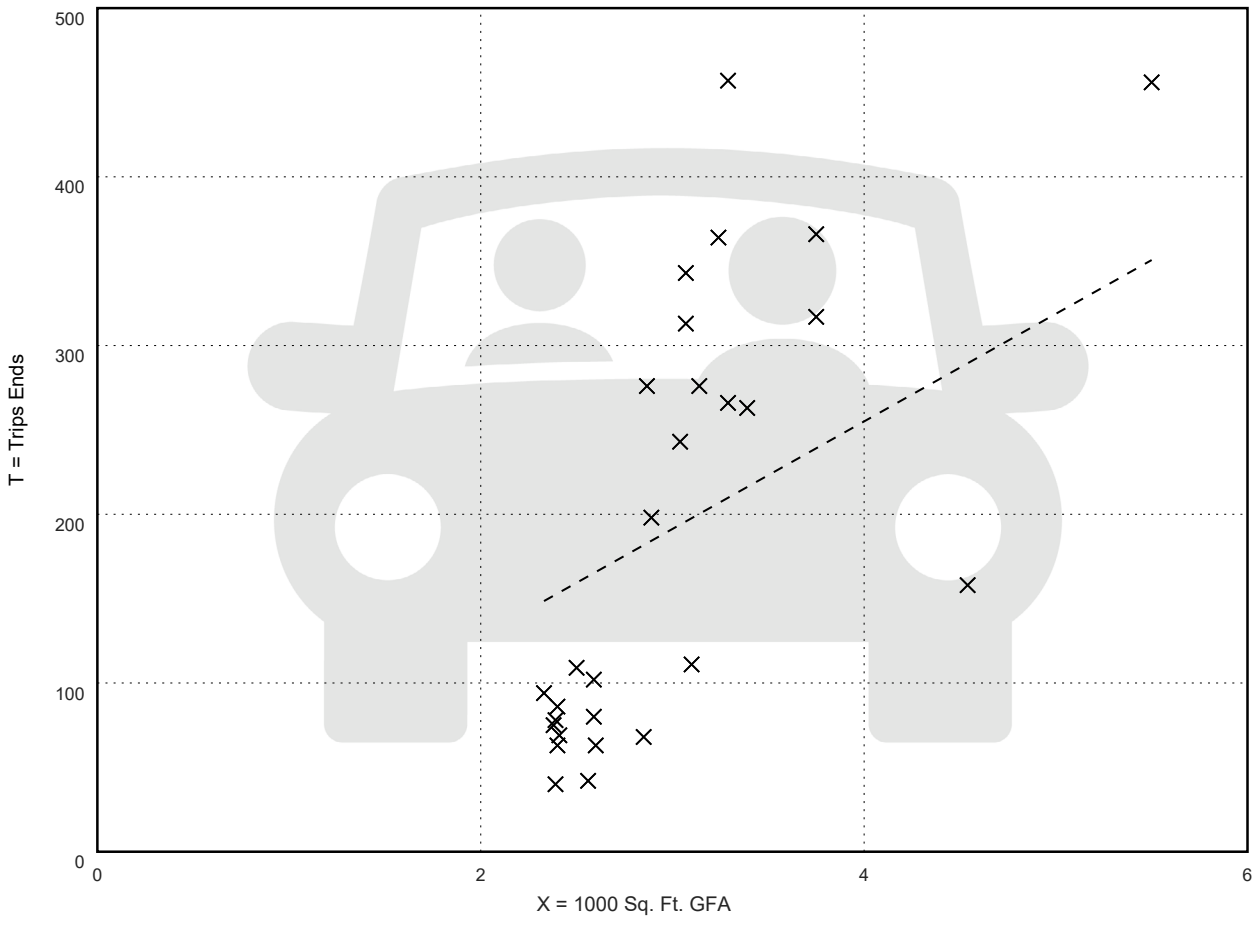
Convenience Store
(851)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 28
Avg. 1000 Sq. Ft. GFA: 3
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
63.76	16.41 - 138.91	34.81

Data Plot and Equation



Fitted Curve Equation: Not Given

R^2= *

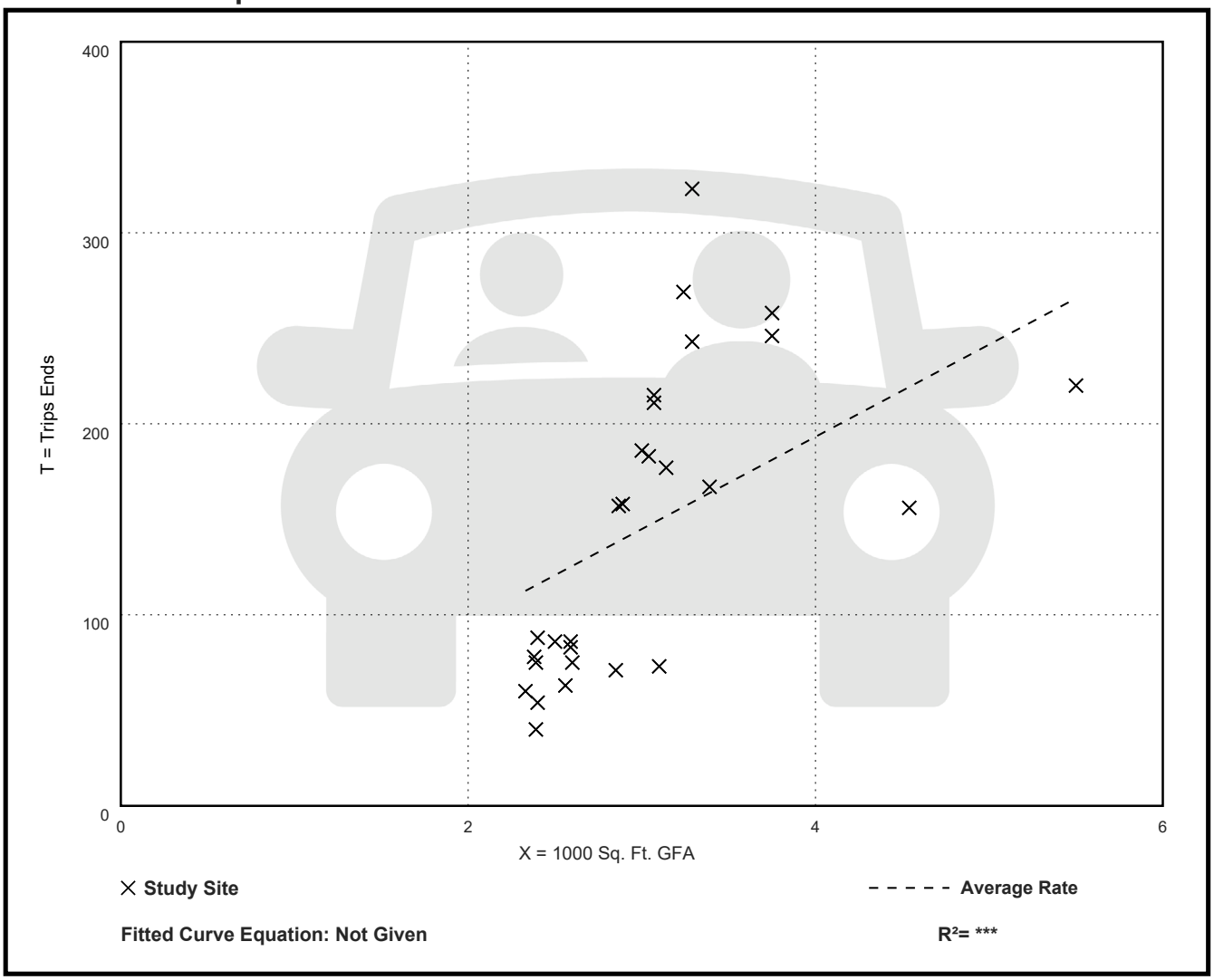
Convenience Store
(851)

Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 28
Avg. 1000 Sq. Ft. GFA: 3
Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
48.30	16.74 - 98.18	21.19

Data Plot and Equation



Drainage Report

for

2502 Avenue M
FT. Pierce, Florida 34947

Prepared By:

Civil Engineering | Drainage Design
Art of Engineering
Professional Engineering Since 2020
Port St Lucie, Florida | (772) 203-0664
www.artofengineering.net

January 2026

DRAINAGE REPORT

Property Address: Tony Phillip
2502 Avenue M, Fort Pierce, Florida 34947

Engineer of Record: Dylan OBerry PE
Art of Engineering Inc
2674 SE Ruffin Ter Port St Lucie, FL 34952

SUMMARY

The existing site is a vacant (0.35 ac) lot. Aerial maps indicate a structure on the property prior to 2014. The site is located along Avenue M with surrounding residential and commercial development. It is within FEMA Flood Zone X. The proposed site consists of a building, sidewalk, parking lot, driveway, dumpster enclosure, green space and landscaping. The building FFE was set to be 18" above the adjacent road crown which is also above the 100-yr 3-day storm event. The site drainage is designed to fully contain the water quality treatment volume as well as the 25-yr 3-day storm event. The drainage system consists of dry retention, a side swale which leads towards the dry retention as well as a perimeter berm to the sides adjacent to neighboring residential properties.

The following table defines the required and provided on-site retention volumes per SWMD standards.

Storm Event	Required	Provided	Results
Water Quality Treatment	0.04 ac-ft at EL = 20.04	0.04 ac-ft at EL = 20.04	GOOD
10yr-1day (parking lot)	0.14 ac-ft at EL = 21.06	Parking lot EL = 21.50	GOOD
25yr-3day (perimeter)	0.26 ac-ft at EL = 21.61	0.17 ac-ft at EL = 21.65	GOOD
100yr-3day (FFE)	min FFE is EL = 22.10	FFE set at EL = 22.40	GOOD

The total nutrient loading of the 0.35 ac site was also analyzed. The swale and retention area were calculated and determined to reduce the TN and TP to an acceptable post-development condition per SFWMD standards.

Nutrient Load	Required	Provided
Total Nitrogen	80% Efficiency	94% Efficiency
Total Phosphorus	80% Efficiency	94% Efficiency

The results set forth provide the project with sufficient water quality treatment volume as well as storm water retention to fully comply with the requirements of the City of Fort Pierce. Please refer to the following calculations and analysis for reference. Additionally, the Stormwater Management Plan is included at the end of the report.

Art of Engineering, Inc.

Pre-Development Land Use Calculations
Project Explanation

Project Name: PROPOSED CONVENIENCE STORE, 2502 & 2504 AVENUE M
Project #: 2025-422
Engineer: Landel Smith
Date: 1/26/2026

Engineer:
Revision Date:

Computation Type: Land Use & Stage-Storage
Datum: NAVD

Average Ground Elevation (EL_{grnd}) = 21.35 ft-NAVD **Source:** Survey
Control Elevation (CE) = 14.90 ft-NAVD **Source:** USDA Soils Report

Site Land Use

	Open Space	Building	Asphalt	Sidewalk	Exist. Area 5	Exist. Area 6	Exist. Area 7	Exist. Area 8	Exist. Area 9	Total
	(ac)	(ac)	(ac)	(ac)	(ac)	(ac)	(ac)	(ac)	(ac)	(ac)
Percentage of On-Site	100.0%	0.0%	0.0%	0.00%	0.00%	0.0%	0.0%	0.00%	0.00%	
Total Areas (SF)	15,219 SF	0 SF	0 SF	0 SF	0 SF	0 SF	0 SF	0 SF	0 SF	15,219 SF
Total Areas (A_t)	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35
Bldg. %	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Bldg. Area (A_r)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pervious %	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
Pervious Area (A_p)	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35
Impervious %	0.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	0.00%
Impervious Area (A_i)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Open Water %	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Open Water Area (Ac.)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Pre-Development Stage-Storage Calculations
Project Explanation

Storage Type: Stage-Volume
Starting Stage = 20.00
Ending Stage = 24.00
Stage Increment = 0.10

Name	Open Space	Building	Asphalt	Sidewalk	Exist. Area 5	Exist. Area 6	Exist. Area 7	Exist. Area 8	Exist. Area 9	
Area	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Start Elev	20.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
End Elev	21.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Stage	Linear	Vert	Vert	Vert	Vert	Vert	Vert	Vert	Vert	Total
Feet	Storage	Storage	Storage	Storage	Storage	Storage	Storage	Storage	Storage	Storage
NAVD	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft	Ac-ft
20.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21.10	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
21.20	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
21.30	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
21.40	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05
21.50	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07
21.60	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10
21.70	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12
21.80	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16
21.90	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19
22.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23
22.10	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26
22.20	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30
22.30	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.33
22.40	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37

22.50	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.40
22.60	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.44
22.70	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.47
22.80	0.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.51
22.90	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.54
23.00	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.58
23.10	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.61
23.20	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65
23.30	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.68
23.40	0.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.72
23.50	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.75
23.60	0.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.79
23.70	0.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.82
23.80	0.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.86
23.90	0.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.89

Pre-Development Stage-Area Calculations
Project Explanation

Storage Type: Stage-Area
Starting Stage = 20.00
Ending Stage = 24.00
Stage Increment = 0.10

Name	Open Space	Building	Asphalt	Sidewalk	Exist. Area 5	Exist. Area 6	Exist. Area 7	Exist. Area 8	Exist. Area 9	
Area	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Start Elev	20.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
End Elev	21.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Stage	Linear	Vert	Vert	Vert	Vert	Vert	Vert	Vert	Vert	Total
Feet	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area
NAVD	Ac	Ac	Ac	Ac	Ac	Ac	Ac	Ac	Ac	Ac
20.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
21.10	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08
21.20	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12
21.30	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16
21.40	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19
21.50	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23
21.60	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27
21.70	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.31
21.80	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35
21.90	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35
22.00	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35
22.10	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35
22.20	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35
22.30	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35
22.40	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35

22.50	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35
22.60	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35
22.70	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35
22.80	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35
22.90	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35
23.00	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35
23.10	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35
23.20	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35
23.30	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35
23.40	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35
23.50	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35
23.60	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35
23.70	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35
23.80	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35
23.90	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35

Art of Engineering, Inc.

PRE-Development Stormwater Calculations

Project Explanation

Revised:

Project: PROPOSED CONVENIENCE STORE, 2502 & 250 **Engineer:** 46048.00

Project #: 2025-422 **Date:** #REF!

Land Use Table

Use	Imp. (ac)	Bldg. (ac)	Pervious (ac)	Total (ac)
Basin =	0.00	0.00	0.35	0.35
TOTAL =	0.00	0.00	0.35	0.35

Find Curve Number:

Avg. Pervious Ground El. =	21.35
Control Elev. =	14.90
Distance to Water Table =	6.45

Soil Storage Table

Depth to W.T. (ft)	Coastal Storage (in)	Flatwoods Storage (in)	Depression Storage (in)
0.0	0.0	0.0	0.0
1.0	0.6	0.6	0.6
1.5	1.6	1.6	1.4
2.0	2.5	2.5	2.1
2.5	4.6	4.0	3.3
3.0	6.6	5.4	4.4
3.5	8.8	7.2	5.6
4.0	10.9	9.0	6.8

Find the basin's soil classification and input below as "Soil Storage" using the above "Depth to W.T.".

Soil Type =	Flatwoods		
Max. Available Soil Storage (S_{max}) =	9.00	inches	
Compaction Factor ($F_{compact}$) =	0%		(Use 25% for developed site)
Compacted Soil Storage ($S_{compact}$) =	9.00	inches	$(S_{max})(F_{compact})$
Available Soil Storage (S_{avail}) =	9.00	inches	$(A_p)(S_{compact})/(A_t)$
Curve Number (CN) =	**53**		1000 / (S_{avail}+10)

Notes:

1. Soil Storage Table taken from Section 5.7.4.2 of the SFWMD ERP Applicant's Handbook Volume II.
2. Curve Number determination based on method presented in USDA NRCS Technical Release 55 (TR-55) "Urban Hydrology for Small Watersheds".

Art of Engineering, Inc.

Post-Development Water Quality Calculations

Revised: _____

Project: PROPOSED CONVENIENCE STORE, 2502 & 2504 AVI **Engineer:** Landel Smith

Project #: 2025-422 **Date:** 15-Jan-26

1-inch Over the Project Area

(Treated Volume) 1-inch * 1-ft/12-in * 0.35 = 0.03 ac-ft

PROJECT AREA TREATED VOLUME

Treatment System Type Retention

Treatment Volume Required = **0.05** ac-ft

Water Quality Elevation (EL_{wq}) = **20.34** ft NAVD

Art of Engineering, Inc.

Estimated Required Attenuation

Project Explanation

Revised:

Project: PROPOSED CONVENIENCE STORE, 250 Engineer: Landel Smith

Project #: 2025-422 Date: 1/15/2026

Pre-Developed Runoff

10 Year - 1 Day

Area, A (ac) = 0.35

Soil Storage, S (inches) = 9.00

Curve Number, CN = 1000/(S+10)

= 53

10 Year - 1 Day Rainfall, P (inches) = 6 (From Fort Pierce, Fla., Code of Ordinances § 119-3(e)(7))

Depth of Runoff, Q (inches) = $(P - 0.2S)^2/(P + 0.8S)$

= 1.34

Volume, V (AC-FT) = A * Q

= 0.04

Post Developed Runoff

10 Year - 1 Day

Area, A (ac) = 0.35

Soil Storage, S (inches) = 2.37

Curve Number, CN = 1000/(S+10) =

81

10 Year - 1 Day Rainfall, P (inches) = 6 (From Fort Pierce, Fla., Code of Ordinances § 119-3(e)(7)

Depth of Runoff, Q (inches) = $(P - 0.2S)^2/(P + 0.8S)$

= 3.87

Volume, V (AC-FT) = A * Q

= 0.11

10Y-1D Elevation = **21.13** ft NAVD

Art of Engineering, Inc.

Estimated Required Attenuation

Project Explanation

Revised:
Project: PROPOSED CONVENIENCE STORE, 2502 & **Engineer:** Landel Smith
Project #: 2025-422 **Date:** 1/15/2026

Pre-Developed Runoff

25 Year - 3 Day

Area, A (ac) = 0.35
Soil Storage, S (inches) = 9.00
Curve Number, CN = 1000/(S+10)
= 53

25 Year - 3 Day Rainfall, P (inches) = 9.5 (From Fort Pierce, Fla., Code of Ordinances § 119-3(e)(7))

Depth of Runoff, Q (inches) = $(P - 0.2S)^2/(P + 0.8S)$
= 3.55

Volume, V (AC-FT) = A * Q
= 0.10

Post Developed Runoff

25 Year - 3 Day

Area, A (ac) = 0.35
Soil Storage, S (inches) = 2.37
Curve Number, CN = 1000/(S+10) =
81

25 Year - 3 Day Rainfall, P (inches) = 9.5 (From Fort Pierce, Fla., Code of Ordinances § 119-3(e)(7))

Depth of Runoff, Q (inches) = $(P - 0.2S)^2/(P + 0.8S)$
= 7.15

Volume, V (AC-FT) = A * Q
= 0.21

25Y-3D Elevation = **21.65** ft NAVD

Art of Engineering, Inc.

Estimated Required Attenuation

Project Explanation

Revised:

Project: PROPOSED CONVENIENCE STORE, 250 Engineer: Landel Smith

Project #: 2025-422 Date: 1/15/2026

Pre-Developed Runoff

100 Year - 3 Day

Area, A (ac) = 0.35

Soil Storage, S (inches) = 9.00

Curve Number, CN = 1000/(S+10)

= 53

00 Year - 1 Day Rainfall, P (inches) = 12.23 (From Fort Pierce, Fla., Code of Ordinances § 119-3(e)(7))

Depth of Runoff, Q (inches) = $(P - 0.2S)^2/(P + 0.8S)$

= 5.60

Volume, V (AC-FT) = A * Q

= 0.16

Post Developed Runoff

100 Year - 3 Day

Area, A (ac) = 0.35

Soil Storage, S (inches) = 2.37

Curve Number, CN = 1000/(S+10) =

81

00 Year - 1 Day Rainfall, P (inches) = 12.23 (From Fort Pierce, Fla., Code of Ordinances § 119-3(e)(7)

Depth of Runoff, Q (inches) = $(P - 0.2S)^2/(P + 0.8S)$

= 9.78

Volume, V (AC-FT) = A * Q

= 0.28

100Y-3D Elevation = **21.96** ft NAVD

Summary Treatment Report Version: 2.0.2

Project: 2502 Avenue M

Date:2/6/2026

Analysis Type: Specified Removal Efficiency

BMP Types:

Catchment 1 – Swale

Routing Summary
Catchment 1 Routed to Retention

Total nitrogen target removal met? YES
Total phosphorus target removal met? YES

Summary Report

Nitrogen

Surface Water Discharge

Total N pre load	.24 kg/yr	
Total N post load	.95 kg/yr	
Target N load reduction	80 %	
Target N discharge load	.19 kg/yr	
Percent N load reduction	94 %	
Provided N discharge load	.06 kg/yr	.13 lb/yr
Provided N load removed	.89 kg/yr	1.97 lb/yr

Phosphorus

Surface Water Discharge

Total P pre load	.01 kg/yr	
Total P post load	.159 kg/yr	
Target P load reduction	80 %	
Target P discharge load	.032 kg/yr	
Percent P load reduction	94 %	
Provided P discharge load	.01 kg/yr	.02 lb/yr
Provided P load removed	.149 kg/yr	.328 lb/yr

From Pre-Condition Loads

Existing N Discharge	.19 (kg/yr)
Existing P Discharge	.032 (kg/yr)

Fort Pierce, Fla., Code of Ordinances § 119-3(e)(7)

"Rainfall quantities to be used for stormwater management design and calculations shall be as follows:

Ten-year-one-day storm = 6.00 inches (for minimum roadway/parking lot elevation).

Ten-year one-hour storm = 3.20 inches (for exfiltration trench design).

Twenty-five-year-three-day storm = 9.50 inches (for off-site discharge & min. perimeter elevation).

One-hundred-year-three-day storm = 12.23 inches (for minimum floor elevation)."

Map Scale: 1:367 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 5 10 20 30

Feet
0 15 30 60 90

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: St. Lucie County, Florida
Survey Area Data: Version 19, Aug 29, 2025

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jan 18, 2022—Jan 30, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
50	Waveland and Immokalee fine sands	0.6	100.0%
Totals for Area of Interest		**0.6**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

St. Lucie County, Florida

50—Waveland and Immokalee fine sands

Map Unit Setting

National map unit symbol: 1jpwd
Elevation: 0 to 200 feet
Mean annual precipitation: 49 to 58 inches
Mean annual air temperature: 70 to 77 degrees F
Frost-free period: 350 to 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Waveland and similar soils: 45 percent
Immokalee and similar soils: 43 percent
Minor components: 12 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Waveland

Setting

Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Sandy marine deposits

Typical profile

A - 0 to 4 inches: fine sand
Eg - 4 to 32 inches: sand
Bh1 - 32 to 40 inches: loamy sand
Bh2 - 40 to 53 inches: sand
Cg1 - 53 to 66 inches: sand
Cg2 - 66 to 80 inches: sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: 31 to 50 inches to ortstein
Drainage class: Poorly drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 6 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water supply, 0 to 60 inches: Very low (about 0.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: C/D
Ecological site: F155XY120FL - Sandy Flatwoods and Hammocks

Forage suitability group: Sandy soils on flats of mesic or hydric lowlands (G156BC141FL)
Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G156BC141FL)
Hydric soil rating: No

Description of Immokalee

Setting

Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Sandy marine deposits

Typical profile

A - 0 to 6 inches: fine sand
E - 6 to 35 inches: fine sand
Bh - 35 to 54 inches: fine sand
Cg - 54 to 72 inches: fine sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: About 6 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water supply, 0 to 60 inches: Low (about 5.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: B/D
Ecological site: F155XY120FL - Sandy Flatwoods and Hammocks
Forage suitability group: Sandy soils on flats of mesic or hydric lowlands (G156BC141FL)
Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G156BC141FL)
Hydric soil rating: No

Minor Components

Jonathan

Percent of map unit: 3 percent
Landform: Ridges on marine terraces, knolls on marine terraces
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: R155XY180FL - Sandy Scrub on Rises, Ridges, and Knolls of Mesic Uplands

Other vegetative classification: Sandy soils on rises, knolls, and ridges of mesic uplands (G156BC121FL)
Hydric soil rating: No

Salerno

Percent of map unit: 3 percent
Landform: Flatwoods on marine terraces
Landform position (three-dimensional): Talf
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: F155XY120FL - Sandy Flatwoods and Hammocks
Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G156BC141FL)
Hydric soil rating: No

Lawnwood

Percent of map unit: 3 percent
Landform: Marine terraces on flatwoods
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: F155XY120FL - Sandy Flatwoods and Hammocks
Other vegetative classification: Sandy soils on flats of mesic or hydric lowlands (G156BC141FL)
Hydric soil rating: No

Electra

Percent of map unit: 3 percent
Landform: Rises on marine terraces, knolls on marine terraces
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: F155XY150FL - Sandy Flatwoods and Hammocks on Rises and Knolls of Mesic Uplands
Other vegetative classification: Sandy soils on rises and knolls of mesic uplands (G156BC131FL)
Hydric soil rating: No

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
ENVIRONMENTAL RESOURCE
STANDARD GENERAL PERMIT NO. 56-01288-P

Form #0941
08/95

DATE ISSUED: October 14, 1996

PERMITTEE: ST. LUCIE COUNTY SCHOOL BOARD
2909 DELAWARE AVENUE
FORT PIERCE, FL 34947

REFERENCE PERMIT FOR
CONTROL ELEVATION

PROJECT DESCRIPTION: A SURFACE WATER MANAGEMENT SYSTEM SERVING 6 ACRE(S) OF INSTITUTIONAL DEVELOPMENT KNOWN AS LINCOLN PARK ACADEMY HIGH SCHOOL ADDITION.

PROJECT LOCATION: ST LUCIE COUNTY, SECTION 4 TWP 35S RGE 40E

This is to notify you of the District's agency action concerning Notice of Intent for Permit Application No. 960729-15, dated July 29, 1996. This action is taken pursuant to Rule 40E-1.603 and Chapters 40E-40, Florida Administrative Code (F.A.C.).

Based on the information provided, District rules have been adhered to and an Environmental Resource General Permit is in effect for this project subject to:

1. Not receiving a filed request for a Chapter 120, Florida Statutes, administrative hearing,

2. the attached General Conditions,

3. the attached 8 Special Conditions, and

4. the attached 10 Exhibit(s).

Should you object to these Conditions, please refer to the attached "Notice of Rights" which addresses the procedures to be followed if you desire a public hearing or other review of the proposed agency action. Please contact this office if you have any questions concerning this matter. If we do not hear from you in accordance with the "Notice of Rights," we will assume that you concur with the District's action.

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a "Notice of Rights" has been mailed to the Permittee (and the persons listed in the attached distribution list) no later than 5:00 p.m. on the 14th day of October, 1996, in accordance with Section 120.60(3), Florida Statutes.

BY: _____

Anthony M. Waterhouse, P.E.
Director - Surface Water Management
West Palm Beach Service Center

Certified Mail No. P 370 995 835

Enclosures

SPECIAL CONDITIONS

1. MINIMUM BUILDING FLOOR ELEVATION: 22.2 FEET NGVD.

2. MINIMUM PARKING LOT ELEVATION: 20.3 FEET NGVD.

3. DISCHARGE FACILITIES:

   1-.33' WIDE SHARP CRESTED WEIR WITH CREST AT ELEV. 17.88' NGVD.
   1-.25' DIA. CIRCULAR ORIFICE WITH INVERT AT ELEV. 16' NGVD.
   20 LF OF 1.5' WIDE X 1' HIGH ELLIPTICAL CULVERT.

   RECEIVING BODY : NORTH 17TH STREET SYSTEM

   CONTROL ELEV : 16 FEET NGVD.

4. THE PERMITTEE SHALL BE RESPONSIBLE FOR THE CORRECTION OF ANY EROSION, SHOALING OR WATER QUALITY PROBLEMS THAT RESULT FROM THE CONSTRUCTION OR OPERATION OF THE SURFACE WATER MANAGEMENT SYSTEM.

5. MEASURES SHALL BE TAKEN DURING CONSTRUCTION TO INSURE THAT SEDIMENTATION AND/OR TURBIDITY PROBLEMS ARE NOT CREATED IN THE RECEIVING WATER.

6. THE DISTRICT RESERVES THE RIGHT TO REQUIRE THAT ADDITIONAL WATER QUALITY TREATMENT METHODS BE INCORPORATED INTO THE DRAINAGE SYSTEM IF SUCH MEASURES ARE SHOWN TO BE NECESSARY.

7. FACILITIES OTHER THAN THOSE STATED HEREIN SHALL NOT BE CONSTRUCTED WITHOUT AN APPROVED MODIFICATION OF THIS PERMIT.

8. OPERATION OF THE SURFACE WATER MANAGEMENT SYSTEM SHALL BE THE RESPONSIBILITY OF THE PERMITTEE. PRIOR TO TRANSFER OF TITLE FOR ANY PORTION OF THE PROJECT TO A THIRD PARTY, MODIFICATION OF THE PERMIT WILL BE REQUIRED.

STORMWATER MANAGEMENT PLAN

Property Address: Tony Philip
2502 Avenue M, FT. Pierce, Florida 34947

Engineer of Record: Dylan OBerry PE
Art of Engineering Inc
2674 SE Ruffin Ter Port St Lucie, FL 34952

OPERATION & MAINTENANCE PLAN

The operation and maintenance apply to the new dry retention area to be constructed. Maintenance of this overall facility will fall under the responsibility of the owner.

OPERATION

GRADING

The runoff from the improved portion of the project will be directed into a dry retention swale and ultimately towards a dry retention area.

STORAGE

The dry retention area of the Storm Water Management System will store and thus provide water quality treatment and attenuation. The system is designed to have the capacity to provide the required water quality treatment as well as the 25-year 72-hour storm event.

DISCHARGE

The system consists of dry retention.

MAINTENANCE

The OWNER will be responsible for the maintenance of the Storm Water Management System and will complete the following tasks yearly, at a minimum:

1. Inspect all surfaces of the detention areas to confirm that erosion has not occurred and that specified ground cover is in good condition. Grassed areas should be mowed on a regular basis, and any areas that have eroded should be repaired with new sod. Other materials may be necessary based on the frequency of erosion.
2. Review the remaining site to ensure that no nuisance exotics have returned to the site. If exotics are found, they should be removed from the site.
3. Although this area is not anticipated to be prone or contain sink holes, the following action should be completed upon the discovery and/or observation of a sink hole within the surface water management system. The Florida Department of Environmental Protection should be contacted within 48 hours after the discovery.
4. File a report for future review as follows:

INSPECTION REPORT

Date of Inspection: _____

Inspector: _____

1. **Culverts and Pipes Inspection** Corrective Action Required: YES NO

   Action taken: _____

2. **Catch Basin Inspection** Corrective Action Required: YES NO

   Action taken: _____

3. **Dry Retention Area Inspection** Corrective Action Required: YES NO

   Action taken: _____

4. **Swales and Berms Inspection** Corrective Action Required: YES NO

   Action taken: _____

5. **Exotics Inspection** Corrective Action Required: YES NO

   Action taken: _____

6. **Sink Hole Inspection** Corrective Action Required: YES NO

   Action taken: _____

   Note: If sink hole is discovered within the surface water management system the Florida Department of Environmental Protection shall be contacted within 48 hours of its discovery.

Advanced Restoration Ecology

2405-524-0039-000-0

Saint Lucie County, FL

Environmental Assessment

Prepared For:
Art of Engineering

Prepared By:

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The environmental assessment report below has been compiled in accordance with the Saint Lucie County Development Review Division and provisions set forth by the State of Florida. The parcel is listed by the Saint Lucie County Property Appraiser as Parcel ID number 2405-524-0039-000-0 and is a total of .35 acres. The property is located at 2502 Avenue M, in Fort Pierce, Florida. The following report describes the findings of our recent on-site review and database research as it pertains to Saint Lucie County and the State of Florida.

LAND USE RECORDS

The Saint Lucie County Property Appraiser's Report lists this property as 1000 Vacant Commercial.

SOIL COMPOSITION

Based on a review of the United States Department of Agriculture's Web Soil Survey database the site's soils are comprised of the following:

Waveland & Immokalee fine sand - is poorly drained soil is found in broad areas of flatwoods. Typically the surface layer is very dark gray fine sand about 6 inches thick. The subsurface layer extends to a depth of 35 inches and is fine sand. The seasonal high water table in the soil is at a depth of 6 to 8 inches from June through September. During the remainder of the year it is typically at a depth of 18 to 40 inches. Natural vegetation consists of slash pine and scattered oak with an understory of saw palmetto, gallberry, fetterbush, pineland threeawn, chalky bluestem, and Indiangrass. This soil is poorly suited for crops and citrus. Water control measures are needed to overcome excessive wetness.

WILDLIFE EVALUATION

On February 4, 2026, ARE conducted pedestrian transects across 100% of the property looking for local, state, and federally listed or endangered species present on the site. This survey included searching for the presence of gopher tortoise burrows or recent activity, and included the species listed below. During the pedestrian transects of the property, no gopher tortoise activity was observed on site. No other listed plant or animal species were observed on site during the site visit. An IPaC report was generated for the project area and as well as a review of the following sources: Treasure Coast Regional Planning Council's Strategic Regional Policy Plan, Florida Fish and Wildlife Conservation Commission and U.S. Fish and Wildlife Service. The species included the following:

Puma (*Puma concolor* all subsp. except *coryi*)
Southeastern Beach mouse (*Peromyscus polionotus niveiventris*)
Crested Catacara (*Caracara plancus audubonii*)
Eastern Black Rail (*Laterallus jamaicensis ssp. jamaicensis*)
Everglades Snail Kite (*Rostrhamus sociabilis plumbeus*)
Florida Scrub-jay (*Aphelocoma coerulescens*)
American Alligator (*Alligator mississippiensis*)
Eastern Indigo Snake (*Dymarchon couperi*)
Monarch Butterfly (*Danaus plexippus*)
Beach Jacquemontia *(Jacquemontia reclinata*)
Fragrant Prickly-apple (*Cereus eriophorus var. fragrans*)
Tiny Polygala (*Polygala smallii*)

There are no critical habitats at this location.

NATIVE HABITAT

The site investigation conducted by ARE, Inc. did not find native upland habitat on the site. The site consists of urban open land. Species observed during the site reconnaissance included the following:

Laurel Oak (*Quercus laurifolia*) Cabbage Palm (*Sabal palmetto*)
Bahia grass (*Paspalum notatum*)

WETLAND DELINEATION

Based on the State of Florida definition of a wetland in 62-340 FAC, there are three components: hydric soils, wetland plants, and hydrologic indicators. Based on the characteristics of the site, ARE concludes this property does not include wetlands under the jurisdiction of the State of Florida or the federal government on site in its current configuration.

COUNTY REQUIREMENTS

The County will require proof of a completed gopher tortoise survey by a licensed agent. Please submit this document with any applications to use as the needed verification of a 100% gopher tortoise survey has been completed on the site. Per FWC regulations a gopher tortoise survey is good for 90 days, and any clearing must have a valid survey prior to commencement. The County will not authorize/issue any permitting without a current gopher tortoise survey.

CONCLUSION

Based on County requirements, ARE, Inc. conducted a site investigation throughout the property to survey for the presence of any listed plant or animal species. No gopher tortoise burrows were observed on site. No other species listed by the State of Florida or the federal government were observed on the property during the site visit. A 100% gopher tortoise survey of the property was conducted and completed by an FWC licensed gopher tortoise agent during the site investigation. Native upland habitat was determined not to be on site. It is the professional opinion of ARE, Inc., that based on the site's characteristics, there are no wetlands under the jurisdiction of the State of Florida or the federal government on the site.