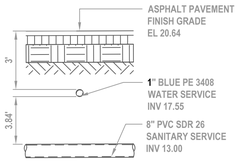
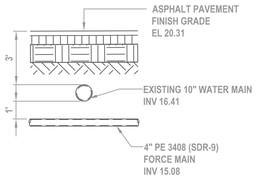



## PROPOSED UTILITY LEGEND

- FM — FORCE MAIN (# INDICATES SIZE)
- SAN — SANITARY SEWER (# INDICATES SIZE)
- WS — POLYETHYLENE WATER SERVICE (# INDICATES SIZE)
- WM — WATER MAIN (# INDICATES SIZE)
- REC — RECLAIM SERVICE (# INDICATES SIZE)
- GAS — GAS SERVICE (# INDICATES SIZE)
- UGP — UNDERGROUND ELECTRICAL CONDUIT (4")
- UTEL — UNDERGROUND TELEPHONE CONDUIT (4")




CONFLICT POINT 1




CONFLICT POINT 2

## UTILITY CONFLICT DETAIL

NOT TO SCALE

## GENERAL UTILITY NOTES:

1. THE CITY OF TITUSVILLE UTILITY DEPARTMENT SHALL BE NOTIFIED PRIOR TO BEGINNING ANY WATER SYSTEM OR SEWER CONSTRUCTION.
2. SEE CITY OF TITUSVILLE UTILITY COMMON DETAILS, SHEET No. **27**.
3. ALL SANITARY SEWER CLEANOUTS TO BE 6-INCHES AND LOCATED IN A TRAFFIC BEARING BOX.
4. GREASE TRAPS WILL BE REQUIRED TO FOLLOW CITY DETAILS. SEE DETAILS, SHEET No. **25**.
5. UNLESS OTHERWISE NOTED OR APPROVED BY THE WATER RESOURCES DEPARTMENT, ALL MATERIALS SHALL BE MANUFACTURED IN THE UNITED STATES.

## REQUIRED FIRE FLOW:

"SITE DESIGNED IN ACCORDANCE TO THE CURRENT FLORIDA FIRE PREVENTION CODE"

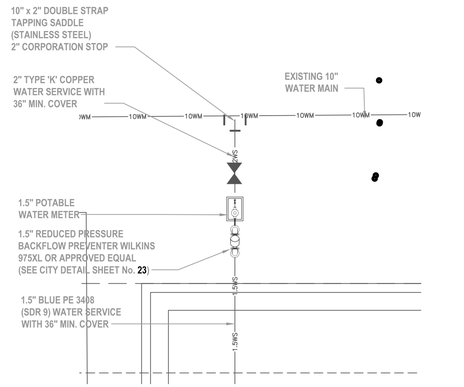
| | |
|---|---|
| FLORIDA BUILDING CODE CONSTRUCTION TYPE: | VB (UNPROTECTED) |
| FIRE AREA: | 4,460 SF |
| REQUIRED FIRE FLOW: | 1,750 GPM @ 2 HOURS |
| PROVIDED FIRE FLOW: | 3,611 GPM @ 20 PSI |

## GENERAL SEWER NOTES:

1. CITY OF TITUSVILLE SHALL BE NOTIFIED PRIOR TO ANY SEWER CONSTRUCTION.
2. ALL SEWER CONSTRUCTION MUST COMPLY WITH FDEP REGULATIONS AND THE CITY OF TITUSVILLE UTILITY DETAILS AND SPECIFICATIONS (LATEST EDITION).
3. ALL SANITARY SEWER LINES SHALL BE PVC SDR 26 DUE TO THE MINIMUM AMOUNT OF COVER. WATER LINES, RECLAIMED LINES AND STORM DRAINAGE CROSSINGS SHALL FOLLOW THE C-900 OR CONCRETE ENCASEMENT REQUIREMENT PER THESE STANDARDS AND AS FDEP REQUIREMENTS. STANDARDS AND AS PER FDEP REQUIREMENTS.
4. SEWER LINE CONSTRUCTION SHALL BE ACCOMPLISHED BY THE USE OF A LASER INSTRUMENT UNLESS ANOTHER METHOD IS PREVIOUSLY APPROVED BY CITY.
5. THE CONTRACTOR SHALL AT ALL TIMES, DURING PIPE LAYING, DEWATER THE GROUND SUFFICIENTLY TO KEEP THE GROUNDWATER ELEVATION A MINIMUM OF 6" BELOW THE PIPE BEING LAID WITHIN THE AREA OF THE TRENCH.
6. ALL PIPES SHALL BE LAID ON A FIRM FOUNDATION. SOFT OR SPONGY BEDDING FOR PIPES WILL NOT BE ACCEPTED. ANY UNSUITABLE MATERIAL SHALL BE REMOVED AND REPLACED WITH A DRY, COMPACTED, GRANULAR MATERIAL SATISFACTORY TO THE CITY.
7. SANITARY SEWER PIPE SHALL BE PVC SDR 26.
8. EXCAVATION AND BACKFILL: THE CONTRACTOR SHALL PROVIDE ADEQUATE SHEETING AND BRACING OF EXCAVATION WORK IN ORDER TO PROVIDE FOR THE SAFETY OF WORKMEN, AS WELL AS REPRESENTATIVES OF THE CITY OF TITUSVILLE, THE DESIGN ENGINEER, AND THE DEVELOPER.
9. ALL TRENCHES SHALL BE BACKFILLED WITH ACCEPTABLE MATERIAL AND COMPACTED TO MINIMUM COMPACTION OF (95) PERCENT OF THE OPTIMUM DENSITY OF THAT MATERIAL BASED ON THE AASHTO T-180 MODIFIED PROCTOR TEST.
10. ALL TESTING REQUIRED BY THE CITY SHALL BE PAID FOR BY THE CONTRACTOR.
11. SEWER CLEANOUT LOCATED ON PAVEMENT AND SIDEWALK AREA SHALL BE TRAFFIC BEARING FLAT TOP BRASS CAP.

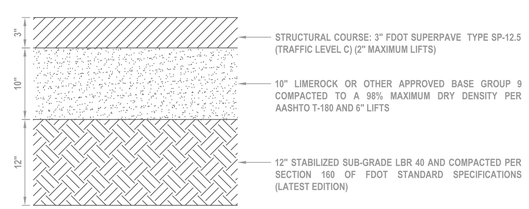
## GENERAL WATER NOTES:

1. THE CITY OF TITUSVILLE WATER UTILITY DEPARTMENT SHALL BE NOTIFIED PRIOR TO BEGINNING ANY WATER SYSTEM CONSTRUCTION.
2. ALL WATER DISTRIBUTION CONSTRUCTION SHALL BE IN ACCORDANCE WITH FDEP REGULATIONS AND THE CITY OF TITUSVILLE UTILITY DETAILS AND SPECIFICATIONS (LATEST EDITION).
3. CONTRACTOR IS TO VERIFY THE LOCATION (HORIZONTAL AND VERTICAL) OF ALL EXISTING UTILITIES (UNDERGROUND AND OVERHEAD) PRIOR TO COMMENCEMENT OF CONSTRUCTION. ANY CONFLICTS SHALL BE REPORTED TO THE ENGINEER.
4. CONTRACTOR IS RESPONSIBLE FOR RESTORATION OF ANY EXISTING PAVEMENT, SIDEWALK, CURBING, UTILITIES AND DRAINAGE SYSTEMS DAMAGED DURING CONSTRUCTION. ALL DAMAGED AREAS TO BE RESTORED TO ORIGINAL CONDITION OR BETTER.
5. LOCATION OF TELEPHONE, T.V. CABLE AND ELECTRICAL SERVICE CONNECTIONS TO BE DETERMINED BY APPROPRIATE UTILITIES PERSONNEL IN COOPERATION WITH CONTRACTOR.
6. ALL WATER MAINS SHALL BE LAID ON A FIRM FOUNDATION WITH ALL UNSUITABLE MATERIAL (MUCK, ROCK, COQUINA, ETC.) REMOVED AND REPLACED WITH CLEAN GRANULAR MATERIAL.
7. TRENCHES SHALL BE BACKFILLED WITH MATERIAL ACCEPTABLE TO THE CITY WITH A MINIMUM COMPACTION OF 95 PERCENT (AASHTO-T180).
8. WATER SERVICES FROM 3/4" TO 2" POLYETHYLENE (ENDOT ENDOPURE) WITH 36" MINIMUM COVER.
9. WATER MAIN FROM 4" TO 12" SHALL BE PVC CLASS 150 (DR 18) WITH 36" MINIMUM COVER.
10. ALL WATER AND FIRE SERVICES ARE REQUIRED TO HAVE A HARD BODY GATE VALVE OFF THE MAIN LINE.
11. ALL VALVES SHALL BE BOLTED TO TEES.
12. ALL POTABLE WATER PIPE SHALL HAVE "NSF POTABLE WATER" IMPRINTED ON THE PIPE.
13. A TAPPING CONTRACTOR ACCEPTABLE TO THE CITY OF TITUSVILLE WILL BE REQUIRED FOR TAPS.
14. THE CONTRACTOR SHALL MAKE ALL ATTEMPTS TO LOCATE BURIED UTILITIES AND NOTIFY THE UTILITY COMPANIES 48 HR. PRIOR TO CONSTRUCTION.
15. UTILITY TRENCH CONSTRUCTION SHALL CONFORM TO CITY OF TITUSVILLE AND OSHA REQUIREMENTS.
16. IN THE CASE WHERE SOLVENT CONTAMINATION IS FOUND IN THE TRENCH, WORK WILL BE STOPPED AND THE PROPER AUTHORITIES NOTIFIED. WITH THE APPROVAL OF THE CITY OF TITUSVILLE UTILITY DEPARTMENT, DUCTILE IRON PIPE, FITTINGS AND APPROVED SOLVENT RESISTANT GASKET MATERIAL SHALL BE USED IN THE CONTAMINATED AREA. THE DUCTILE IRON PIPE WILL EXTEND AT LEAST 100 FEET BEYOND ANY DISCOVERED SOLVENT.
17. BACKFLOW PREVENTERS TO BE TESTED BY A CERTIFIED TESTER WITH RESULTS TO BE SENT TO THE CITY OF TITUSVILLE WATER DEPARTMENT (FAX No. (321) 383-5653).




## UTILITY SCHEMATIC DETAIL

NOT TO SCALE




NOTE:
ALL ASPHALT MIX DESIGNS MUST BE PREAPPROVED BY FDOT BEFORE PLACEMENT.
MILL AND RESURFACE 50 FT. EACH SIDE OF PATCH FULL LANE WIDTH IF TRAVEL LANE IS CUT. (REPLACE WITH 1.5" OF FC- 12.5 (TRAFFIC C) (RUBBER))

## OPEN CUT REPAIR DETAILS

NOT TO SCALE

### GENERAL NOTES

1. ADDITIONS OR DELETIONS TO SURVEY MAPS OR REPORTS BY OTHER THAN THE SIGNING PARTY OR PARTIES IS PROHIBITED WITHOUT THE WRITTEN CONSENT OF THE SIGNING PARTY OR PARTIES. (SECTION 5J-17.050 THROUGH 5J-17.052, F.A.C.)
2. WHEN MULTIPLE SHEETS COMPRISE THE PLAT OR MAP, NO SINGLE SHEET SHALL BE CONSIDERED FULL AND COMPLETE WITHOUT THE OTHER(S).
3. HORIZONTAL AND VERTICAL CONTROL WERE PROVIDED WITHIN THE AUTOCAD DRAWINGS BY NEWKIRK ENGINEERING.
4. SOME FEATURES SHOWN HEREON MAY BE EXAGGERATED FOR PICTORIAL PURPOSES PUBLISHED DIMENSIONS WILL PRECEDE MAP SCALINGS.
5. NOT ALL MEASUREMENTS (SIZE, TYPES & ELEVATION OF LINES) WERE OBTAINABLE BY CONVENTIONAL METHODS. THE CONTRACTORS NOTES, PICTURES AND OR BORE LOGS MAY HAVE BEEN RELIED UPON.
6. AS-BUILT DATA SHOWN HEREON INDICATED BY BOLD TEXT AND/OR BOLD ITALIC TEXT.
7. AS-BUILT/RECORD SURVEYS WHEN IDENTIFIED AS TYPE OF SURVEY.
   a.) WHEN UNDERGROUND UTILITIES, SUCH AS UNDERGROUND CABLES, GAS MAINS, WATER MAINS, SANITARY SEWER SYSTEMS AND STORM COLLECTIONS SYSTEMS ARE SHOWN, THE LIMITS OF THIS SURVEY INCLUDE VISIBLE STRUCTURES/ IMPROVEMENTS IN COMBINATION WITH AS-BUILT/RECORD DRAWINGS SUPPLIED BY OTHERS.
   b.) WHEN THE PERCENTAGE OF SLOPES ARE SHOWN IT IS BASED ON THE INVERTS BETWEEN VISIBLE STRUCTURES. THIS SURVEY DOES NOT INCLUDE VIDEO PIPELINE INSPECTIONS. VERIFICATION OF LINE OR SITE HAS NOT BEEN VERIFIED. THIS SURVEYOR SUGGESTS VIDEO PIPELINE INSPECTION BY A PROFESSIONAL PROVIDING SERVICE OF THAT SPECIALTY.


SAIA SURVEYING, INC.
Professional Surveyor
Phone: 386.679.2363
Residential Commercial Construction
711 Pineland Trail, Ormond Beach, Florida 32174 LB 8205


AS-BUILT INFORMATION SHOWN IN BOLD AND/OR BOLD ITALICS SURVEY TO SHOW AS-BUILT OF DRAINAGE PLAN DATED 10/24/2023

THE FOREGOING AS-BUILT IS CERTIFIED TO MEET THE STANDARDS OF PRACTICE SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL LAND SURVEYORS AS PER CHAPTER 5J-17, FLORIDA ADMINISTRATIVE CODE, AS PURSUANT TO SECTION 472.027, FLORIDA STATUTES.

NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.

LS # 6378
10/24/2023
DAVID McMILLEN

### AS-BUILT LEGEND

| | |
|---|---|
| 28.46 | AS-BUILT ELEVATION |
| EL | ELEVATION |
| INV | INVERT |

**WARNING !!**
CONTRACTOR SHALL TAKE ALL PRECAUTIONS DURING CONSTRUCTION TO AVOID CONTACT WITH EXISTING UNDERGROUND UTILITIES, GAS MAINS AND OVERHEAD ELECTRIC IN THE RIGHT-OF-WAY.

.\IMG\SUN811_BLUEPRINT LOGO.png

## REVISIONS

| DATE | DESCRIPTION |
|---|---|
| 08/03/22 | CITY COMMENTS |
| 01/05/23 | FDOT COMMENTS |
| 07/18/23 | DIRECTIONAL DRILL |
| | |
| | |
| | |
| | |
| | |


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C.A. # 30209
L.C. # 26000584


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Civil Engineering,
Transportation, CEI &
Landscape Architecture

NEWKIRK ENGINEERING INC.

# ASBUILT UTILITY PLAN
## CULVER'S - TITUSVILLE
2855 CHENEY HIGHWAY (SR - 50)
TITUSVILLE, FL 32780


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THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY SHAMUS SCHROEDER, PE # 94217 ON

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

| | |
|---|---|
| PROJECT No: | 2021-357 |
| DATE: | MAY 2022 |
| DESIGN BY: | STS |
| DRAWN BY: | MLH |
| CHECKED BY: | HHN |
| SCALE: | 1" = 30' |

DRAWING NUMBER

**17**