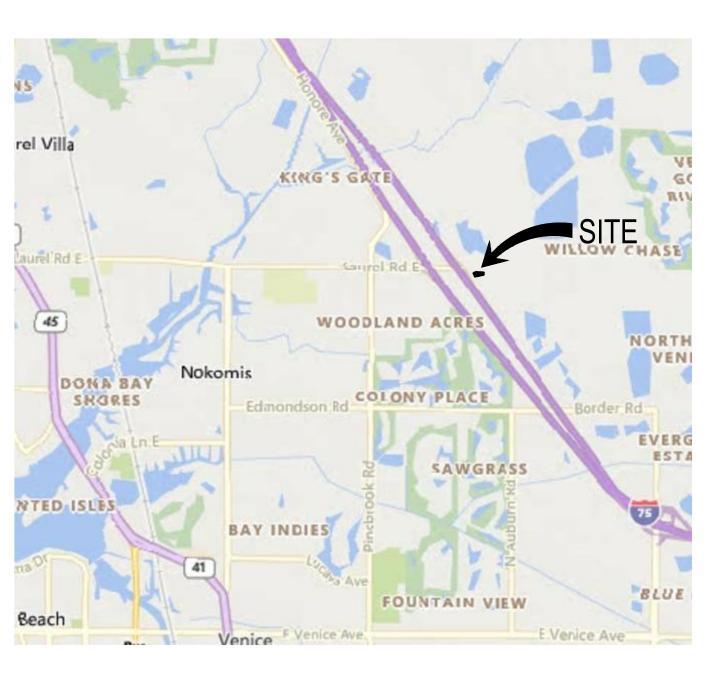
LAUREL STORAGE





GENERAL LOCATION MAP





LOCATION MAP

SECTION 33, TOWNSHIP 38 SOUTH, RANGE 19 EAST SARASOTA COUNTY, FLORIDA

SITE INFORMATION

PROJECT AREA: 2.26 ACRES PARCEL STRAP NO.: 0387010001

PARCEL ADDRESS: 3480 E. LAUREL RD. NOKOMIS, FL 34275 **CURRENT ZONING:** LE-LAUREL EAST

MIXED -USE CORRIDOR **CURRENT LAND USE:** PROPOSED USE:

SELF STORAGE

SITE DEVELOPMENT PLANS

PREPARED FOR:

LAUREL STORAGE, LLC

5784 LAKE FORREST DRIVE, SUITE 275 ATLANTA, GA. 30328

UTILITY SERVICE PROVIDERS

WATER: CITY OF VENICE UTILITIES DEPARTMENT

SEWER: CITY OF VENICE UTILITIES DEPARTMENT

200 NORTH WARFIELD AVENUE VENICE FLORIDA 34285 PHONE: (941) 480-3333

200 NORTH WARFIELD AVENUE VENICE FLORIDA 34285 PHONE: (941) 480-3333

2245 MURPHY CT. NORTH PORT, FLORIDA 34289 PHONE: (800) 375-8490

PHONE: VERIZON

1701 RINGLING BOULEVARD SARASOTA FLORIDA 34236 PHONE: (941) 952-5482

1617 US 41 BY-PASS SOUTH VENICE, FLORIDA 34293

FIRE PROTECTION:

5300 EAST LAUREL RD. VENICE, FLORIDA 34275 PHONE: (941) 480-3030

SOLID WASTE DISPOSAL: CITY OF VENICE, WASTE AND RECYCLING

221 SOUTH SEABOARD AVENUE VENICE, FL. 34285 PHONE: (941) 486-2422

PROJECT CONTACTS

CIVIL ENGINEER:

STEVEN R. SONBERG, P.E., P.S.M. PROJECT MANAGER

4161 TAMIAMI TRAIL - BLDG 5 UNIT 501 PORT CHARLOTTE, FLORIDA 33952 PHONE: (941) 625-1165

SURVEYOR: BRITT SURVEYING, INC. RANDALL E. BRITT, RLS

680 US 41 BYPASS NORTH VENICE, FLORIDA 34285 PHONE: (941) 493-1396

ENVIRONMENTAL:

IVA ENVIRONMENTAL SERVICES

22102 KIMBLE AVE. PORT CHARLOTTE, FLORIDA 33952 PHONE: (941) 457-6272

ARCHITECT: PATRICK HIGGINS

LANDSCAPE ARCHITECT: JOHN T. SWEN, P.A.

MONTICELLO, GEORGIA 31064 PHONE: (770) 655-8905

131 SWAN COURT

P.O. BOX 494466 PORT CHARLOTTE, FLORIDA 33949 PHONE: (941) 626-7365

BANKS

Professional Engineers, Planners, & Land Surveyors Serving The State Of Florida

4161 TAMIAMI TRAIL - BLDG 5 UNIT 501 PORT CHARLOTTE, FLORIDA 33952 PHONE: (941) 625-1165 FAX: (941) 625-1149 ENGINEERING LICENSE # EB 6469 SURVEY LICENSE # LB 6690 WWW.BANKSENG.COM

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ENGINEERING

ALL ELEVATIONS ON CIVIL ENGINEERING PLANS REFERENCE: NAVD88 REVISION DESCRIPTION

CONSTRUCTION SAFETY & LIABILITY:

THE CONTRACTOR MUST TAKE PROPER SAFETY & HEALTH PRECAUTIONS TO PROTECT THE WORK THE WORKERS, THE PUBLIC, & THE PROPERTY OF OTHERS. THE CONTRACTOR IS RESPONSIBLE ALSO FOR ALL MATERIALS DELIVERED & WORK PERFORMED UNTIL COMPLETION & ALL ACCEPTANCES HAVE BEEN OBTAINED. THE CONTRACTOR SHALL MAINTAIN TRAFFIC DURING CONSTRUCTION IN ACCORDANCE WITH THE STATE OF FLORIDA ROADWAY & TRAFFIC DESIGN STANDARDS (LATEST EDITION). THE CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGE TO PERSONS OR PROPERTY THAT OCCURS AS A RESULT OF THE CONTRACTOR'S NEGLIGENCE. THE CONTRACTOR MUST SAVE HARMLESS & INDEMNIFY THE OWNER & THE ENGINEER OF RECORD, ITS OFFICERS, REPRESENTATIVES & EMPLOYEES FROM ALL CLAIMS, LOSS, DAMAGE, ACTIONS, CAUSES OF ACTION, &/OR EXPENSES RESULTING FROM, BROUGHT FOR, OR ON ACCOUNT OF ANY PERSONAL INJURY OR PROPERTY DAMAGE RECEIVED OR SUSTAINED BY ANY PERSONS OR PROPERTY GROWING OUT OF OCCURRING OR ATTRIBUTABLE TO ANY WORK PERFORMED UNDER OR RELATED TO THIS CONTRACT RESULTING IN WHOLE OR IN PART FROM THE NEGLIGENT ACTS OR OMISSIONS OF THE CONTRACTOR, ANY SUBCONTRACTOR, OR ANY EMPLOYEE, AGENT, OR REPRESENTATIVE OF THE CONTRACTOR OR

PRE-CONSTRUCTION:

THE OWNER SHALL SECURE PRIOR TO CONSTRUCTION A PROFESSIONAL LAND SURVEYOR TO PERFORM AN "AS-BUILT" SURVEY OF ALL COMPLETED IMPROVEMENTS. THE OWNER SHALL ALSO SECURE PRIOR TO CONSTRUCTION A PROFESSIONAL ENGINEER TO PROVIDE THE APPROPRIATE SERVICES NEEDED IN ORDER TO CERTIFY TO ALL APPLICABLE REGULATORY AGENCIES THAT THE IMPROVEMENTS WERE CONSTRUCTED IN SUBSTANTIAL COMPLIANCE WITH ALL APPLICABLE PERMITS & APPROVALS. THE OWNER SHALL COORDINATE A PRE-CONSTRUCTION MEETING WITH THE ENGINEER, SURVEYOR, CONTRACTOR, TESTING LAB, UTILITY COMPANIES, & APPROPRIATE REGULATORY AGENCIES. THE CONTRACTOR SHALL PROVIDE A SHOP DRAWING SUBMISSION SCHEDULE FOR AL PROJECT MATERIALS & COMPONENTS. THE CONTRACTOR SHALL NOT INITIATE CONSTRUCTION OF ANY PORTION OF THE IMPROVEMENTS UNTIL THE SHOP DRAWINGS HAVE BEEN REVIEWED & APPROVED FOR THAT PORTION BY THE ENGINEER. THE OWNER, CONTRACTOR, ENGINEER & UTILITY COMPANY SHALL ALSO DISCUSS ALL DOCUMENTATION REQUIRED FOR CONTRIBUTED FACILITIES TRANSFER FROM THE OWNER/DEVELOPER TO THE UTILITY COMPANY UPON PROJECT COMPLETION UNLESS OTHERWISE SPECIFIED BY THE UTILITY COMPANY, THE FOLLOWING DOCUMENTS SHALL BE

DOCUMENTS REQUIRED FOR CONTRIBUTED FACILITIES FROM DEVELOPER TO UTILITY COMPANY: 1. UTILITY EASEMENT(S): MUST BE RECORDED AT COUNTY CLERK OF COURT OFFICE BEFORE SUBMITTING TO UTILITY.

- . EASEMENT ACKNOWLEDGEMENT.
- RELEASE OF LIEN. BILL OF SALF.
- 6. ASSIGNMENT OF RIGHTS UNDER UTILITY AGREEMENT: WHEN PROPERTY HAS BEEN TRANSFERRED TO A NEW OWNER.
- 7. RECORD DRAWINGS (AS-BUILT): MUST BE SIGNED & SEALED BY ENGINEER OF RECORD, SUBMIT TWO REPRODUCIBLE CÓPIES OF PRINTS.
- 8. DETAILED COST OF CONSTRUCTION: MUST INCLUDE INDIVIDUAL ITEMS OR APPURTENANCES, UNIT COST & TOTAL COST OF EACH. DO NOT INCLUDE WATER SERVICE
- LINES OR SEWER LATERALS. 9. DESCRIPTION OF FACILITIES: A SHORT EXPLANATION DEPICTING WHAT HAS BEEN CONSTRUCTED.
- 10. D.E.P. APPLICATION(S). 11. INSPECTION REPORT(S)
- 12. PRESSURE TEST REPORT(S)
- 13. INFILITRATION-EXFILTRATION TEST REPORT(S), INCLUDING VIDEO TAPES & LAMPING
- 14. LIFT STATION INSPECTION (START-UP) REPORT(S) & EQUIPMENT SHOP DRAWINGS. 15. BACTERIOLOGICAL TEST REPORT(S).
- 16. ENGINEER'S CERTIFICATE OF SUBSTANTIAL COMPLETION TO D.E.P. 17. SYSTEM(S) ACCEPTANCE LETTER(S) FROM D.E.P.

NOTES: ITEM 1-6 & 8 TO BE SUPPLIED BY OWNER. ITEMS 7 & 9-17 TO BE SUPPLIED TO ENGINEER OF RECORD.

UNLESS OTHERWISE SPECIFIED BY THE UTILITY, THE CONTRACTOR SHALL NOTIFY THE SUPERINTENDENTS OF THE WATER, GAS, SEWER, TELEPHONE, & POWER COMPANIES, 10 DAYS IN ADVANCE, THAT THE CONTRACTOR INTENDS TO START WORK IN A SPECIFIC AREA, THE OWNER & ENGINEER DISCLAIM ANY RESPONSIBILITY FOR THE SUPPORT & PROTECTION OF SEWERS, DRAINS, WATER LINES, GAS LINES, CONDUITS OF ANY KIND, UTILITIES OR OTHER STRUCTURES OWNED BY THE CITY, COUNTY, STATE OR BY PRIVATE OR PUBLIC UTILITIES LEGALLY OCCUPYING ANY STREET, ALLEY, PUBLIC PLACE, RIGHT-OF-WAY, OR EASEMENT.

THE CONTRACTOR SHALL PROVIDE & MAINTAIN A CONSTRUCTION PROJECT SIGN AT A LOCATION DIRECTED BY THE OWNER. BANKS ENGINEERING, INC. SHALL PROVIDE A SEPARATE SIGN FOR INSTALLATION BY THE CONTRACTOR AT THIS LOCATION. THESE SIGNS SHALL BE ERECTED WITHIN 15 DAYS AFTER RECEIVING A NOTICE TO PROCEED. UPON PROJECT COMPLETION, THE CONTRACTOR SHALL REMOVE THESE SIGNS & RETURN TO BANKS ENGINEERING, INC. THEIR SIGN.

ENVIRONMENTAL PROTECTION DURING CONSTRUCTION:

PROTECTION OF L& RESOURCES — EXCEPT IN AREAS IDENTIFIED ON THE PLANS TO BE CLEARED THE CONTRACTOR MUST NOT DEFACE, INJURE, OR DESTROY TREES OR SHRUBS OR REMOVE OR CUT THEM WITHOUT WRITTEN AUTHORIZATION FROM THE OWNER. IN THE ABSENCE OF A CLEARING PLAN, AREAS SHOWN FOR IMPROVEMENTS SHALL BE CLEARED UNLESS NOTED OTHERWISE.

PROTECTION OF WATER RESOURCES — IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INVESTIGATE & COMPLY WITH ALL APPLICABLE FEDERAL, STATE, REGIONAL COUNTY & MUNICIPAL LAWS CONCERNING POLLUTION OF WATER RESOURCES. ALL WORK MUST BE PERFORMED IN SUCH A MANNER THAT OBJECTIONABLE CONDITIONS WILL NOT BE CREATED IN PUBLIC WATERS RUNNING THROUGH, OR ADJACENT TO THE PROJECT AREA.

- EROSION & SEDIMENT CONTROL ALL PRACTICAL & NECESSARY EFFORT SHOULD BE TAKEN DURING CONSTRUCTION TO CONTROL & PREVENT EROSION & THE TRANSPORT OF SEDIMENT TO SURFACE DRAINS, SURFACE WATER, OR ONTO OTHER PROPERTY BY ANY OR
- ALL OF THE FOLLOWING METHODS: A. STORMWATER FACILITIES ARE TO BE BUILT AS EARLY IN THE CONSTRUCTION PHASE AS POSSIBLE TO ENSURE THE TREATMENT OF STORMWATER RUNOFF. TEMPORARY EROSION & SEDIMENT CONTROL MEASURES, HOWEVER, SUCH AS BERMS, SEDIMENT BASINS, GRASSING, SODDING, SAND BAGGING, BALED HAY OR STRAW, FLOATING SILT
- BARRIERS, STACKED SILT BARRIERS, ETC., MUST BE PROVIDED & MAINTAINED UNTIL THE PERMANENT FACILITIES ARE COMPLETED & OPERATIONAL.

 B. REVEGETATION & STABILIZATION OF DISTURBED GROUND SURFACES SHOULD BE
- ACCOMPLISHED AS SOON AS POSSIBLE. C. FULL COMPACTION OF ANY FILL MATERIAL PLACED AROUND NEWLY INSTALLED D. PROHIBIT THE USE OF ANY CONSTRUCTION EQUIPMENT THAT LEAKS EXCESSIVE
- 2. ALL DISTURBED AREAS SHALL BE GRADED FOR POSITIVE DRAINAGE, EXCEPT RETENTION AREAS, & SHALL BE STABILIZED BY SODDING, EXCEPT WHERE SEEDING & MULCHING ARE CALLED FOR ON THE PLANS. THE LATEST VERSION OF THE F.D.O.T. ROAD & BRIDGE SPECIFICATIONS SHALL BE USED UNLESS MORE RESTRICTIVE LOCAL SPECIFICATIONS EXIST.

AMOUNTS OF FUEL OIL, OR HYDRAULIC FLUID.

CONTRACTOR RESPONSIBLE FOR STABILIZING & MAINTAINING SLOPES & SOD THROUGHOUT CONSTRUCTION UNTIL SUCH TIME AS APPROVED BY THE ENGINEER.

PROTECTION OF FISH & WILDLIFE:

THE CONTRACTOR MUST AT ALL TIMES PERFORM ALL WORK IN A WAY & TAKE SUCH STEPS AS REQUIRED TO PREVENT ANY INTERFERENCE WITH OR DISTURBANCE TO FISH & WILDLIFE. THE CONTRACTOR SHALL NOT ALTER WATER FLOWS OR OTHERWISE DISTURB NATIVE HABITATS & JURISDICTIONAL WETLANDS LOCATED WITHIN & / OR ADJACENT TO THE PROJECT AREA.

RECORDING & PRESERVING HISTORICAL & ARCHEOLOGICAL FINDS:

ALL ITEMS HAVING ANY APPARENT HISTORICAL OR ARCHEOLOGICAL INTEREST THAT ARE DISCOVERED IN THE COURSE OF ANY CONSTRUCTION ACTIVITIES MUST BE CAREFULLY PRESERVED. THE CONTRACTOR MUST LEAVE THE ARCHEOLOGICAL FIND UNDISTURBED & MUST IMMEDIATELY REPORT THE FIND TO THE OWNER SO THAT THE PROPER AUTHORITY MAY BE NOTIFIED.

1.01 SUBMITTALS

D. PRESERVATION PLANS

- A. EROSION & CONTROL MEASURES
- B. COMPACTION TESTS C. SOIL CLASSIFICATION TESTS

1.02 SITE EXAMINATION

GENERAL

A. CONTRACTORS, BEFORE SUBMITTING BIDS, SHALL INFORM THEMSELVES AS TO LOCATION & NATURE OF THE WORK, CHARACTER OF EQUIPMENT & FACILITIES NEEDED FOR PERFORMANCE OF THE WORK, GENERAL & LOCAL CONDITIONS PREVAILING AT THE SITE, & OTHER MATTERS WHICH MAY IN ANY WAY, AFFECT THE WORK UNDER CONTRACT. B. EXAMINE SOURCES OF INFORMATION CONCERNING GROUND WATER LEVEL, WHETHER SURFACE OR SUBSURFACE. EACH BIDDER TO DRAW HIS OWN CONCLUSION CONCERNING GROUND WATER LEVELS & HOW WATER AFFECTS HIS WORK.

1.03 SUBSURFACE INVESTIGATIONS

A. SUBSURFACE DATA, INCLUDING GROUND WATER ELEVATIONS OR CONDITIONS, IF SHOWN ON THE DRAWINGS OR ATTACHED TO THESE SPECIFICATIONS, ARE PRESENTED ONLY AS INFORMATION THAT IS AVAILABLE WHICH INDICATED CERTAIN CONDITIONS FOUND & LIMITED TO THE EXACT LOCATIONS, SHALL NOT BE INTERPRETED AS AN INDICATION OF CONDITIONS THAT MAY ACTUALLY BE DEVELOPED THROUGH THE PERIOD OF CONSTRUCTION. BIDDERS SHALL EXAMINE THE SITE OF THE WORK & MAKE THEIR OWN DETERMINATION OF THE CHARACTER OF MATERIALS & THE CONDITIONS TO BE ENCOUNTERED ON THE WORK, & THEIR PROPOSAL SHALL BE BASED UPON THEIR OWN INVESTIGATIONS. THE OWNER & ENGINEER SHALL NOT BE HELD RESPONSIBLE FOR VARIATIONS FOUND TO EXIST BETWEEN THE ATTACHED DATA ABOVE REFERRED TO & ACTUAL FIELD CONDITIONS THAT DEVELOP THROUGH THE PERIOD OF CONSTRUCTION. B. WHERE EXISTING GRADES, UTILITY LINES & SUBSTRUCTURES ARE SHOWN ON THE DRAWINGS, THE OWNER & ENGINEER ASSUME NO RESPONSIBILITY FOR CORRECTNESS OF EXISTING CONDITIONS INDICATED. THE CONTRACTOR SHALL ASCERTAIN EXACT LOCATIONS OF UTILITIES & SUBSTRUCTURES THAT MAY BE AFFECTED BY THIS PROJECT, & SHALL

OR NEAR THOSE UTILITIES, SUBSTRUCTURES WHICH ARE NOT TO BE REMOVED OR C. THE CONTRACTOR SHALL MAKE HIS OWN DEDUCTIONS OF THE SUBSURFACE CONDITIONS WHICH MAY AFFECT METHODS OR COST OF CONSTRUCTION & HE AGREES THAT THE CONTRACTOR WILL MAKE NO CLAIM FOR DAMAGES OR OTHER COMPENSATION EXCEP' SUCH AS ARE PROVIDED FOR IN THE AGREEMENT, SHOULD THE CONTRACTOR FIND CONDITIONS DURING THE PROGRESS OF THE WORK DIFFERENT FROM THOSE AS

CALCULATED OR ANTICIPATED BY THE CONTRACTOR.

BE RESPONSIBLE FOR ANY DAMAGE OR INJURY THAT MAY RESULT FROM WORKING ON

1.04 BENCHMARKS & MONUMENTS

A. MAINTAIN CAREFULLY EXISTING BENCH MARKS, MONUMENTS, & OTHER REFERENCE POINTS IF DISTURBED OR DESTROYED, REPLACE AS DIRECTED.

A. CONDITION OF PREMISES: ACCEPT SITE AS FOUND & EXCAVATE, FILL, COMPACT, & BACKFILL SITE AS HEREINAFTER SPECIFIED. B. PROTECTION

a. EXISTING STRUCTURES & PROPERTY: TAKE PRECAUTIONS TO GUARD AGAINST MOVEMENT OR SETTLEMENT OF ADJACENT STRUCTURES & FACILITIES; PROVIDE & PLACE BRACING OR SHORING AS NECESSARY OR PROPER IN CONNECTION THEREWITH; BE RESPONSIBLE FOR SAFETY & SUPPORT OF SUCH STRUCTURES; BE LIABLE FOR ANY MOVEMENT OR SETTLEMENT, ANY DAMAGE OR INJURY CAUSED THEREBY OR RESULTING THEREFROM. IF AT ANY SAFETY OR ANY ADJACENT STRUCTURES APPEARS TO BE ENDANGERED, CEASE OPERATION, TAKE PRECAUTIONS TO SUPPORT SUCH STRUCTURES & NOTIFY THE OWNER. RESUME OPERATIONS ONLY AFTER PERMISSION HAS BEEN CHANGED BY THE OWNER.

b. SIDEWALKS & STREETS: TAKE PRECAUTIONS TO GUARD AGAINST MOVEMENT, SETTLEMENT OR COLLAPSE OF ANY SIDEWALKS, CURBS OR STREET PASSAGES ON ADJOINING SITE; BE LIABLE FOR ANY SUCH MOVEMENT, SETTLEMENT OR COLLAPSE; REPAIR PROMPTLY SUCH DAMAGE WHEN SO ORDERED; INSTALL SUCH SHORING, INCLUDING SHEET PILING, AS MAY BE REQUIRED DURING EXCAVATION, TO PROTECT BANKS, ADJACENT PAVING, STRUCTURES & UTILITIES.

c. RESPONSIBILITY: BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING STRUCTURES OR TO EQUIPMENT & FURNISHINGS HOUSED THEREIN WHICH ARE DUE DIRECTLY OR INDIRECTLY TO CONSTRUCTION OPERATIONS, EXCEPT WHERE REMOVAL IS NECESSITATED BY SITE GRADING OR LOCATION OF NEW BUILDING, USE EVERY POSSIBLE PRECAUTION TO PREVENT INJURIES TO LANDSCAPING, DRIVES, CURBS & WALKS ON OR ADJACENT TO SITE OF THE WORK & REPLACE, AT NO EXPENSE TO OWNER, ANY OF SUCH DESTROYED.

EXECUTION

A. ACCOMPLISH IN A MANNER THAT PROVIDES FOR THE SAFETY OF THE PUBLIC & WORKMEN & PROVIDE FOR THE PROTECTION OF ALL PROPERTY.

- B. CONSTRUCTION: DO NOT CLOSE, OBSTRUCT OR STORE MATERIAL OR EQUIPMENT IN STREETS, SIDEWALKS, ALLEYS OR PASSAGEWAYS WITHOUT A PERMIT IN ACCORDANCE WITH LOCAL ORDINANCES, REGULATIONS & CODES.
- C. INTERFERENCE: CONDUCT OPERATIONS WITH MINIMUM INTERFERENCE WITH ROADS, STREETS, DRIVEWAYS, ALLEYS, SIDEWALKS & OTHER FACILITIES. D. PNEUMATIC TOOLS: WORK WITH PNEUMATIC OR VIBRATORY TOOLS WILL BE PERMITTED
- ONLY IN A MANNER WHICH CAUSES NO RELATED DAMAGES. E. REMOVAL: UNLESS OTHERWISE NOTED OR SPECIFIED TO BE RELOCATED OR STORED, ALL MATERIALS REMOVED BECOME THE PROPERTY OF THE CONTRACTOR & ARE TO BE
- REMOVED COMPLETELY AWAY FROM THE SITE BY THE CONTRACTOR. DO NOT STORE OR PERMIT DEBRIS TO ACCUMULATE ON THE SITE. F. TEMPORARY STRUCTURES: REMOVE ALL TEMPORARY STRUCTURES WHEN THEY ARE NO
- G. REPAIR: CLEAN UP. REPAIR OR REPLACE AT NO COST TO OWNER ALL PROPERTY DAMAGED BY REASON OF REQUIRED WORK. ALL PATCHWORK SHALL MATCH EXISTING & BE PERFORMED IN A NEAT & WORKMANLIKE MANNER BY CRAFTSMEN SKILLED IN THE TRADE INVOLVED. IN NEWLY GRADED AREAS TAKE EVERY PRECAUTION & TEMPORARY MEASURE NECESSARY. TO PREVENT DAMAGE FROM EROSION OF FRESHLY GRADED AREA. WHERE ANY SETTLEMENT OR WASHING MAY OCCUR PRIOR TO ACCEPTANCE OF THE WORK, REPAIR & RE-ESTABLISH GRADES TO THE REQUIRED ELEVATIONS & SLOPES AT NO ADDITIONAL COST TO THE OWNER. THIS APPLIES TO DAMAGE TO THE NEWLY GRADED AREAS WITHIN THE CONSTRUCTION LIMITS & DAMAGE TO ADJACENT PROPERTIES BY ERODED MATERIAL.

2.02 LOCATIONS & ELEVATIONS

A. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SURVEYS, MEASUREMENTS & LAYOUTS REQUIRED FOR PROPER EXECUTION OF THE WORK. LAY OUT LINES & GRADES FROM EXISTING SURVEY CONTROL SYSTEM & AS SHOWN ON DRAWINGS.

2.03 CLEARING & GRUBBING

A. WITHIN LIMITS OF AREA DESIGNATED FOR GRADING & SITE CONSTRUCTION WORK REMOVE TREES, BRUSH, STUMPS, WOOD, DEBRIS & OTHER DELETERIOUS MATERIALS NOT REQUIRED TO REMAIN AS PART OF FINISHED WORK. B. REMOVE ALL GRASS, PLANTS, VEGETATION & ORGANIC MATERIAL FROM SAME AREA.

A. STRIP ALL TOPSOIL ORGANIC MATERIAL SURFACE LITTER, RUBBLE & OVERBURDEN FOR ENTIRE DEPTH OF ROOT SYSTEM OF GRASS OR OTHER VEGETATION OVER THE LIMITS OF CONSTRUCTION. B. STOCKPILE TOPSOIL ON SITE WHERE DIRECTED.

REPARED FOR:

- A. BEGIN EXCAVATION AFTER STRIPPING, CLEARING & GRUBBING WHERE APPLICABLE, HAS BEEN COMPLETED.
- B. EXCAVATE TO GRADES REQUIRED TO ACCOMMODATE THE PROPOSED CONSTRUCTION. DEWATER AS NEEDED. C. REMOVE "UNSATISFACTORY MATERIALS" ENCOUNTERED FROM THE BUILDING AREAS, &
- OTHER NON-LANDSCAPED AREAS. D. EXCAVATE IN SUCH A MANNER THAT QUICK & EFFICIENT DRAINAGE OF STORMWATER
- WILL BE AFFECTED. E. CLASSIFY EXCAVATED MATERIALS & STOCKPILE SEPARATELY SUITABLE SOILS FOR USE AS BACKFILL MATERIALS. IF SUFFICIENT QUANTITIES OF EXCAVATED MATERIALS MEETING REQUIREMENTS FOR BACKFILL ARE NOT AVAILABLE ON SITE, PROVIDE MATERIALS

MEETING THESE REQUIREMENTS. F. STOCKPILE EXCAVATED MATERIAL SUITABLE FOR USE AS FILL & BACKFILL.

MATERIAL SHALL BE PLACED ON SURFACES THAT ARE MUDDY.

2.06 FILLING, BACKFILLING & COMPACTING

- A. THE WORK CONSISTS OF COMPACTION OF EXISTING EARTH (EXCLUDE ROCK), SURFACES AFTER EXCAVATION, FILLING & COMPACTION OF SAID AREA TO LEVELS REQUIRED WITH SUITABLE BACKFILL MATERIAL.
- B. MATERIALS: "SATISFACTORY FILL MATERIALS" AASHTO CLASSIFICATION A-3 OR BETTER
- SHALL BE USED IN FILLS & BACKFILLS. C. FILLING & BACKFILLING: PLACE "SATISFACTORY FILL MATERIAL" IN HORIZONTAL LAYERS NOT EXCEEDING 6 INCHES IN LOOSE DEPTH. COMPACT AS SPECIFIED HEREIN NO

D. COMPACTION: COMPACTION SHALL BE WITH EQUIPMENT SUITED TO SOIL BEING COMPACTED. MOISTEN OR AERATE MATERIAL AS NECESSARY TO PROVIDE MOISTURE CONTENT THAT WILL READILY FACILITATE OBTAINING SPECIFIED COMPACTION WITH EQUIPMENT USED. COMPACT EACH LAYER TO NOT LESS THAN PERCENTAGE OF MAXIMUM DENSITY SPECIFIED BELOW DETERMINED IN ACCORDANCE WITH AASHTO T-180. INSURE THAT THE COMPACTION OF PREVIOUSLY PREPARED FILL AREAS HAS BEEN MAINTAINED PRIOR TO PLACING NEW LAYERS.

E. RECONDITIONING OF SUBGRADE: WHERE APPROVED COMPACTED SUBGRADES ARE DISTURBED BY THE CONTRACTOR'S SUBSEQUENT OPERATIONS OF ADVERSE WEATHER SUBGRADE SHALL BE SCARIFIED & COMPACTED AS SPECIFIED HEREIN BEFORE TO REQUIRED DENSITY PRIOR TO FURTHER CONSTRUCTION THEREON. RE-COMPACTION OVER

- UNDERGROUND UTILITIES SHALL BE BY POWER-DRIVEN HAND TAMPERS. F. COMPACTION REQUIREMENTS
- a. FILL UNDER LAWNS & PLANTED: 95%
- b. BELOW SLABS ON GRADE & CONCRETE WALKS: 98%

c. UNDER PAVING PARKING AREAS: 98%

- A. THE CONTRACTOR WILL PROVIDE THE SERVICES OF A TESTING LABORATORY TO PERFORM SPECIFIED TESTS, INSPECTIONS, INSTRUMENTATION & INSPECTION OF WORK. B. TESTS OF MATERIALS SHALL BE AS FOLLOWS: a. SOIL CLASSIFICATION: ONE TEST FROM EACH TYPE OF MATERIAL ENCOUNTERED & /
- b. LABORATORY TESTS FOR MOISTURE-CONTEST & DENSITY ACCORDING TO AASHTO T-180: ONE TEST FOR EACH MATERIAL ENCOUNTERED & / OR PROPOSED TO BE
- c. FIELD TESTS FOR MOISTURE CONTEST & DENSITY: ONE TEST PER LAYER OF FILL PER

SUPPLEMENTAL SPECIFICATIONS:

OR PROPOSED TO BE USED.

THE CONTRACTOR SHALL BECOME FAMILIAR WITH & ADHERE TO THE SPECIFICATIONS & STANDARDS OF THE UTILITY COMPANIES WHICH ARE SERVING THE PROJECT SITE. CONTRACTOR SHALL BECOME FAMILIAR WITH & COMPLY WITH ALL SITE DEVELOPMENT STANDARDS & CODES OF THE REGULATORY AGENCIES ASSOCIATED WITH THIS PROJECT. THE LATEST VERSION OF THE FLORIDA DEPARTMENT OF TRANSPORTATION ROAD & BRIDGE CONSTRUCTION STANDARD SPECIFICATIONS & THE LATEST FLORIDA DEPARTMENT OF TRANSPORTATION ROADWAY & TRAFFIC DESIGN STANDARDS SHALL BE INCLUDED WITHIN TH PROJECT SPECIFICATIONS. UNLESS OTHERWISE NOTED, EITHER ON THE PLANS OR WITHIN THE SPECIFICATIONS, THE APPLICABLE SECTIONS OF THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS & THE LATEST FLORIDA DEPARTMENT OF TRANSPORTATION ROADWAY & TRAFFIC DESIGN STANDARDS SHALL APPLY INCLUDIN REFERENCES THEREIN. THE GENERAL DESCRIPTION OF THE NATURE OF THE WORK SHALL BE SUFFICIENT CORRELATION TO THE FLORIDA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS, EXACT ITEM DESCRIPTION IS NOT REQUIRED. IN THE EVENT THERE ARE CONFLICTS BETWEEN SPECIFICATIONS OR REQUIREMENTS, THE MOST RESTRICTIVE (CONSERVATIVE) SPECIFICATION OR REQUIREMENT SHALL BE USED.

2. POTABLE WATER DISTRIBUTION/ WASTEWATER COLLECTION INSTALLATION

UNLESS OTHERWISE NOTED ON THE PLANS, THE STANDARDS & SPECIFICATIONS OF THE ASSOCIATED UTILITY COMPANY SERVING THE PROJECT SITE SHALL BE ADHERED TO FOR ALL MATERIALS, INSTALLATION, TESTING, & CERTIFICATION ACTIVITIES FOR ALL PUMP STATIONS. MAIN LINES, SERVICES, & APPURTENANCES, IF STANDARDS & SPECIFICATIONS ARE NOT AVAILABLE, THE CONTRACTOR SHALL CONFORM WITH THE LATEST STANDARDS & SPECIFICATIONS ADOPTED BY CITY OF VENICE UTILITIES, LOCAL GOVERNMENTAL REGULATIONS, OR THE MANUFACTURERS RECOMMENDED INSTALLATION PROCEDURES, WHICHEVER IS SPECIFICALLY THE MOST RESTRICTIVE. A COPY OF CITY OF VENICE UTILITIES SPECIFICATIONS CAN BE REVIEWED AT THE OFFICE OF BANKS ENGINEERING, INC.

3. STORMWATER PIPE INSTALLATION & MISCELLANEOUS EXCAVATIONS

UNIESS OTHERWISE NOTED ON THE PLANS OR SPECIFICATIONS. THE CONTRACTOR SHALL PERFORM THE EXCAVATION, BEDDING, JOINTS, & BACKFILLING OPERATIONS IN ACCORDANCE WITH THE POTABLE WATER / WASTEWATER INSTALLATION SPECIFICATIONS, LOCAL GOVERNMENTAL REGULATIONS OR STANDARDS, F.D.O.T. STANDARDS & SPECIFICATIONS OR MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES, WHICHEVER IS SPECIFICALLY

4. UNSUITABLE MATERIALS

THE GROUND WATER TABLE

IF UNSUITABLE MATERIAL IS ENCOUNTERED WITHIN THE ROADWAY AREA & / OR UTILITY AREAS IT SHALL BE REMOVED TO A DEPTH OF THREE (3) FEET BELOW THE SUB-BASE OR TRENCH BOTTOM & SHALL BE BACKFILLED WITH THE AASHTO A-3 MATERIAL OR BETTER WITH PLACEMENT & COMPACTION METHODS IN ACCORDANCE WITH THE LATEST EDITION O THE FLORIDA DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS OR AS OTHERWISE NOTED ON THE PLANS. UNSUITABLE MATERIALS SHALL BE REMOVED FROM SITE, UNLESS THE ENGINEER APPROVES USE WITHIN LANDSCAPED AREAS.

DEWATERING:

- A. DEWATERING CONSISTS OF PERFORMING ALL WORK NECESSARY TO REMOVE SURFACE WATER & / OR CONTROL THE GROUND WATER LEVELS & HYDROSTATIC PRESSURES IN ORDER TO PERMIT ALL EXCAVATION & CONSTRUCTION UNDER THIS CONTRACT TO BE PERFORMED IN
- B. WORK OF THIS SECTION INCLUDES INSTALLATION, OPERATIONS, MAINTENANCE, SUPERVISION, SUPPLY, DISMANTLING, & REMOVAL FROM THE SITE OF THE DEWATERING EQUIPMEN C. THE CONTRACTOR MUST FAMILIARIZE HIMSELF WITH THE POTENTIAL FOR EXCESSIVE RAINFALL, THE GROUND CONDITIONS, & THE GROUND WATER CONDITIONS, GROUND WATER ELEVATION CAN FLUCTUATE. IT IS ANTICIPATED THAT ANY EXCAVATIONS MAY ENCOUNTER
- D. DRAINAGE OF THE SITE: AT ALL TIMES THE CONTRACTOR SHALL MAINTAIN & OPERATE ADEQUATE SURFACE & SUBSURFACE DRAINAGE METHODS IN ORDER TO KEEP THE CONSTRUCTION SITE DRY & IN SUCH CONDITION THAT PLACEMENT & COMPACTION OF FILL MAY PROCEED UNHINDERED BY SATURATION OF THE AREA DURING CONSTRUCTION, THE SURFACE OF THE BACKFILL AREA SHALL BE LEFT IN SUCH CONDITION THAT PRECIPITATION & / OR SURFACE WATER WILL RUN OFF WITHOUT PONDING.

1.02 METHOD

- A. THE CONTROL OF ALL SURFACE & SUBSURFACE WATER IS PART OF THE DEWATERING REQUIREMENTS, MAINTAIN ADEQUATE CONTROL SO THAT THE STABILITY OF EXCAVATED & CONSTRUCTION SLOPES IS NOT ADVERSELY AFFECTED BY WATER, THAT EROSION IS CONTROLLED, & THE FLOODING OF EXCAVATIONS OR DAMAGE TO STRUCTURES DOES NOT OCCUR. DRAIN SURFACE WATER AWAY FROM THE EXCAVATION.
- B. DISPOSE OF ALL WATER REMOVED FROM THE EXCAVATION IN A MANNER THAT WILL NOT ENDANGER PUBLIC HEALTH, PROPERTY, OR PORTIONS OF THE WORK UNDER CONSTRUCTION OR COMPLETED. DISPOSE OF WATER IN A MANNER THAT WILL CAUSE NO INCONVENIENCE WHATSOEVER TO THE OWNER OR TO OTHERS ENGAGED IN WORK AT THE SITE.
- C. DISPOSE OF WATER RESULTING FROM DEWATERING OPERATIONS IN ACCORDANCE WITH CITY, COUNTY, STATE & FEDERAL REGULATIONS. D. CONDUCT OPERATIONS SO THAT STORMWATER RUNOFF, SEDIMENT IS NOT DISCHARGED TO THE ADJACENT WATER BODIES, SEWERS, STREETS & ADJACENT PROPERTIES.
- E. DEWATERING SYSTEM SHALL BE SO DESIGNED AS TO PREVENT REMOVAL OF SOIL FINES FROM THE SITE DURING THE DEWATERING OPERATION.

PORTLAND CEMENT CONCRETE PAVING:

1.01 QUALITY ASSURANCE

A. COMPLY WITH ACI STANDARDS RECOMMENDED PRACTICES FOR CONSTRUCTION OF CONCRETE PAVEMENTS & CONCRETE BASES (ACI 325.9R, LATEST EDITION)

1.02 REFERENCE STANDARDS

- A. THE FOLLOWING REFERENCE STANDARDS OF THE ISSUES LISTED BELOW BUT REFERRED TO THEREAFTER BY BASIC DESIGNATION ONLY, FORM A PART OF THIS SPECIFICATION TO THE EXTENT INDICATED BY THE REFERENCES THERETO. TESTS SHALL BE PERFORMED IN ACCORDANCE WITH HEREINAFTER SPECIFIED STANDARDS. a. AMERICAN SOCIETY FOR TESTING & MATERIALS (ASTM)
- b. AMERICAN ASSOCIATION OF STATE HIGHWAY & TRANSPORTATION OFFICIALS (AASHTO)
- c. FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) STANDARDS & SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION-SECTION 350- "CEMENT CONCRETE PAVEMENT". d. T-180 MOISTURE- DENSITY RELATIONS OF SOILS

A. THE CONTRACTOR SHALL SUBMIT TWO COPIES OF TEST REPORTS PREPARED BY AN INDEPENDENT TESTING LABORATORY & CERTIFIED BY A PROFESSIONAL ENGINEER REGISTERED TO PRACTICE IN THE STATE OF FLORIDA. THESE REPORTS SHALL INDICATE ALL TESTS PERFORMED & SHALL INCLUDE A CERTIFICATION STATEMENT OF COMPLIANCE WITH THE PROJECT SPECIFICATIONS. TESTS SHALL BE PERFORMED AS SPECIFIED UNDER THIS

a. SUBMIT FOR REVIEW THE FOLLOWING:

- 1. CONCRETE DESIGN MIX & PROVING FLEXURAL STRENGTH (MODULUS OF RUPTURE) TESTS
- EXPANSION JOINT FILLER DATE JOINT SEALER DATE
- PROPOSED PAVING CONSTRUCTION PLAN WHICH SHALL SHOW THE CONCRETE PAVING JOINT TYPES & LOCATIONS & SHALL INCLUDE A STATEMENT OF
- PROPOSED SEQUENCE & SCHEDULE OF PAVING OPERATIONS RESULTS OF CONCRETE TESTS 6. RESULTS OF FIELD TESTS OF LBR & COMPACTION OF STABILIZED SUBGRADE.

1.04 MATERIALS

- A. STABILIZED SUBGRADE: PROVIDE 12 INCH STABILIZED SUBGRADE (LBR 40 MIN) COMPACTED TO A MINIMUM DENSITY OF 98% AS DETERMINED BY AASHTO T-180 B. CONCRETE: CONCRETE FOR CONCRETE PAVEMENT SHALL HAVE A COMPRESSIVE STRENGTH
- MODULES OR RUPTURE OF 650 PSI AS DETERMINED BY THE REQUIREMENTS OF PARAGRAPH TESTING SPECIFIED HEREINAFTER. C. JOINT SEALER: JOINT SEALING SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR

OF 3000 PSI AT 28 DAYS. A SLUMP RANGE BETWEEN 2 TO 4 INCHES & A 28 DAY

- CONSTRUCTION OF ROADS & BRIDGES ON FEDERAL HIGHWAY PROJECTS, LATEST EDITION, SECTION 712
- D. PREFORMED EXPANSION JOINT FILLER: PREFORMED EXPANSION JOINT FILLER SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS & BRIDGES ON FEDERAL HIGHWAY PROJECTS, LATEST EDITION, SECTION 712

- A. COMPLY WITH ACI STANDARD 316-74 & SECTION 350, FDOT STANDARDS & SPECIFICATIONS, UNLESS OTHERWISE SPECIFIED HEREIN.
- B. FINAL GRADING: ALL CONCRETE PAVEMENT SHALL HAVE A MAXIMUM DEVIATION OF 1/8 INCH (PLUS/ MINUS) FROM THE SPECIFIED SURFACE PLANE & PLAN GRADES. C. THE SURFACE FINISH SHALL BE APPROVED BY THE OWNER OR HIS REPRESENTATIVE. IN
- GENERAL THE TEXTURE IS OF A MEDIUM BROOM FINISH AFTER FLOATING. D. JOINTS
- a. CONTRACTION JOINTS INDICATED ON DRAWINGS, OR AS REQUIRED SHALL BE PLACED PERPENDICULAR TO THE FINISH GRADE OF THE CONCRETE. JOINTS SHALL BE CUT TO A DEPTH OF 1/4 OF THE SLAB THICKNESS BY CUTTING WITH AN EDGING TOOL HAVING A 1/4 INCH RADIUS OR BY SAWING WITH A BLADE PRODUCING A CUT NOT LESS THAN 1/8 INCH IN WIDTH. SAW JOINTS WITHIN 4 TO 6 HOURS OF CONCRETE PLACEMENT. b. EXPANSION JOINTS SHALL BE PLACED WHERE INDICATED ON DRAWINGS, OR AS
- REQUIRED, USING 1/2 INCH THICK PREFORMED EXPANSION JOINT MATERIAL ANCHOR WITH APPROVED DEVICES TO PREVENT DISPLACEMENT DURING PLACEMENT & FINISHING. EDGES SHALL BE ROUNDED WITH AN EDGING TOOL. JOINTS SHALL BE FULL DEPTH OF CONCRETE EXCEPT THAT TOP EDGES SHALL BE ½ INCH BELOW THE FINISH CONCRETE SURFACE. EXPANSION JOINTS SHALL BE SEALED TO THE SURFACE BY FILLING WITH JOINT SEALING COMPOUND. JOINTS SHALL BE CLEAN & DRY BEFORE SEALING COMPOUND IS PUT IN PLACE.

c. CONSTRUCTION JOINTS ARE TO BE USED AT CONTRACTION JOINT LOCATIONS TO STOP

- E. CURING: CONCRETE SHALL BE CURED BY PROTECTING IT AGAINST LOSS OF MOISTURE & MECHANICAL INJURY FOR AT LEAST THREE DAYS AFTER PLACEMENT. A PIGMENTED LIQUID
- CURING MEMBRANE SHALL BE APPLIED IMMEDIATELY AFTER FINISHING; OPERATION AT THE RATE OF ONE GALLON TO NOT MORE THAN 200 SQUARE FEET. F. CLEANING & SEALING JOINTS: JOINTS SHALL BE FILLED WITH JOINT-SEALING MATERIAL NO
- LESS THAN 8 HOURS & WITHIN 2 WEEKS AFTER THOROUGHLY CLEANED OF ALL FOREIGN MATERIAL INCLUDING ANY MEMBRANE CURING COMPOUND. G. TESTING: LABORATORY & FIELD TESTING SHALL BE AT THE CONTRACTOR'S EXPENSE. IN

ADDITION, ALL RETESTING SHALL BE DONE AT CONTRACTOR'S EXPENSE.

- a. DESIGN MIXES & TESTING REQUIREMENTS FOR THE CONCRETE PAVEMENT SHALL BE FLEXURAL STRENGTH TESTS OF CONCRETE AS BASIS FOR DESIGN SLUMP, MODULES OF RUPTURE & 7-& 20 DAY COMPRESSIVE STRENGTH TESTS
- SHALL BE PERFORMED ON SAMPLES TAKEN AT THE SITE AT A FREQUENCY OF TWO PER ACRE b. WHERE THE FLEXURAL STRENGTH OF THE CONCRETE IS SPECIFIED, MAKE ONE STRENGTH TEST & ONE FLEXURAL TEST FOLLOWING (ASTM C192 & ASTM C78) FOR EACH 100 CUBIC YARDS OR FRACTION THEREOF PLACED PER DAY. NUMBER OF CYLINDERS SHALL BE THREE FOR STRENGTH TEST & THREE FOR FLEXURAL TEST. TEST ONE AT THREE DAYS, ONE AT SEVEN DAYS & ONE AT 28 DAYS.

PAVEMENT MARKING:

1.01 QUALITY ASSURANCE

A. WORK SHALL BE PREFORMED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS IN A NEAT & ACCURATE MANNER.

B. ALL EQUIPMENT SHALL BE OF A TYPE & DESIGN WHICH WILL READILY OBTAIN THE REQUIRED UNIFORMITY OF APPLICATION OF THE PAVEMENT MARKINGS BOTH AS TO THICKNESS OF COATING & AS TO ALIGNMENT.

1.02 REFERENCE STANDARDS

- A. THE FOLLOWING PUBLICATIONS OF THE ISSUE LISTED BELOW, BUT REFERRED TO THEREAFTER BY BASIC DESIGNATION ONLY, FORM A PART OF THIS SPECIFICATION TO THE EXTENT INDICATED BY THE REFERENCES THERETO;
- FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION, LATEST EDITION. 2. MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS & HIGHWAYS PUBLISHED BY THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY

A. SUBMIT PAINT TESTS, AS SPECIFIED IN SECTION 971 OF FDOT SPECIFICATIONS & AS APPLICABLE TO HEREINAFTER SPECIFIED MATERIAL.

A. THERMOPLASTIC: IN ACCORDANCE WITH REQUIREMENTS AS SPECIFIED IN SECTION 711 & 971 OF THE FDOT SPECIFICATIONS, LATEST EDITION B. PAINT: IN ACCORDANCE WITH REQUIREMENTS AS SPECIFIED IN SECTION 710 & 971 OF THE FDOT SPECIFICATIONS, LATEST EDITION. LATEX PAINT ONLY.

C. COLORS: YELLOW & WHITE PER FOOT, OR AS INDICATED ON DRAWINGS.

- A. TIME OF APPLICATION: PAINTING SHALL BE DONE ONLY DURING DAYLIGHT HOURS & AS FAR AS PRACTICAL, SHALL BE TERMINATED IN TIME TO PERMIT SUFFICIENT DRYING BY SUNSET. B. WEATHER LIMITATIONS: NO PAINT SHALL BE APPLIED WHEN ANY MOISTURE IS PRESENT ON THE SURFACE TO BE PAINTED OR WHEN THE AIR TEMPERATURE IS BELOW 40 DEGREES F
- PAINTING SHALL NOT BE DONE WHEN WINDS ARE SUFFICIENT TO CAUSE SPRAY DUST C. PREPARATION OF SURFACE TO BE PAINTED: THE SURFACE WHICH IS TO BE PAINTED SHALL BE CLEANED, BY COMPRESSED AIR OR OTHER EFFECTIVE MEANS, IMMEDIATELY BEFORE THE START OF PAINTING & SHALL BE CLEAN & DRY WHEN THE PAINT IS APPLIED. ANY VEGETATION OR LOOSE SOIL SHALL BE REMOVED FROM THE PAVEMENT BEFORE STRIPING IS
- D. MIXING PAINT: THE PAINT SHALL BE THOROUGHLY MIXED BEFORE IT IS POURED INTO THE PAINTING MACHINE & NO THINNING OF THE PAINT IN THE MACHINE WILL BE ALLOWED AT ANY TIME. BEFORE THE START OF EACH DAY'S WORK THE PAINT CONTAINER, THE CONNECTIONS & THE SPRAY NOZZLES ON THE MACHINE SHALL BE THOROUGHLY CLEANED WITH PAINT THINNER OR OTHER SUITABLE CLEANER. E. PAINT APPLICATION: THE TRAFFIC MARKINGS SHALL BE OF THE SPECIFIED DIMENSIONS WITH
- CLEAN, TRUE EDGES & WITHOUT SHARP BREAKS IN THE ALIGNMENT, A UNIFORM COATING OF PAINT SHALL BE OBTAINED & THE FINISHED MARKINGS SHALL CONTAIN NO LIGHT SPOTS OR PAINT SKIPS. ANY STRIPES WHICH DO NOT HAVE A UNIFORM, SATISFACTORY APPEARANCE, BOTH DAY & NIGHT, SHALL BE CORRECTED. F. RATE OF APPLICATION: THE MINIMUM RATE OF APPLICATION FOR PAINT SHALL BE AS
- 1. FOUR INCH SOLID: 20 GALLONS PER MILE 2. ANY OTHER WIDTH STRIPE OR MARKINGS: A DIRECT PROPORTION OF THE ABOVE. 3. HANDICAP LOGO: IN CONFORMANCE TO THE REQUIREMENTS OF THIS SECTION & LOCAL CODES.
- G. REQUIRED FILM THICKNESS: THE MINIMUM WET FILM THICKNESS FOR ALL PAINTED AREAS SHALL BE 15 MILS. H. ALIGNMENT OF STRIPES: WHERE A STRIPE DEVIATES FROM THE CORRECT ALIGNMENT, AS INDICATED BY THE STRING LINE, BY MORE THAN ONE INCH IN ANY 20 FOOT LENGTH, IT SHALL BE OBLITERATED & THE STRIPE CORRECTED HEREINAFTER AS SPECIFIED IN

PARAGRAPH "CORRECTIVE MEASURES".

- 1.06 PROTECTION OF PAINTED MARKINGS A. PROTECTION OF STRIPES: ALL NEWLY PAINTED STRIPES, OR OTHER MARKINGS, SHALL BE PROTECTED UNTIL THE PAINT IS SUFFICIENTLY DRY TO PERMIT VEHICLES TO CROSS THE
- MARKING WITHOUT DAMAGE FROM THE TIRES. B. REPAIR OF DAMAGED AREAS: ANY PORTION OF THE STRIPES DAMAGED BY PASSING TRAFFIC OR FROM ANY OTHER CAUSE, SHALL BE REPAINTED AT THE CONTRACTOR'S

1.07 DIMENSION & ALIGNMENT TOLERANCE

- A. DIMENSIONS: NO MARKING SHALL BE LESS THAN THE SPECIFIED WIDTH. NO MARKINGS
- SHALL EXCEED THE SPECIFIED WIDTH BY MORE THAN $\frac{1}{2}$ INCH. ALIGNMENT TOLERANCES SHALL BE AS SPECIFIED IN 1.05—H. B. CORRECTION RATES: ANY CORRECTIONS OF VARIATION IN THE WIDTH OF OR IN THE ALIGNMENT OF STRIPES SHALL NOT BE MADE ABRUPTLY BUT THE STRIPES SHALL BE

RETURNED TO THE DESIGN WIDTH AT THE RATE OF AT LEAST 10 FEET FOR EACH ½ INCH. 1.08 CORRECTIVE MEASURES

- A. ALL PAVEMENT MARKINGS WHICH FAIL TO MEET THE SPECIFICATIONS, INCLUDING THE PERMISSIBLE TOLERANCES & THE APPEARANCE REQUIREMENTS, OR ARE MARRED OR DAMAGED BY TRAFFIC OR FROM OTHER CAUSES, SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE. ALL DRIP & SPATTERED PAINT SHALL BE REMOVED. WHENEVER IT IS NECESSARY TO REMOVE PAINT IT SHALL BE DONE BY MEANS WHICH WILL NOT DAMAGE THE UNDERLYING SURFACE OF THE PAVEMENT. WHEN NECESSARY TO CORRECT A DEVIATION WHICH EXCEEDS THE PERMISSIBLE TOLERANCE IN ALIGNMENT. THAT PORTION OF THE STRIPF
- AFFECTED SHALL BE REMOVED & REPAINTED IN ACCORDANCE WITH THESE SPECIFICATIONS. B. CORRECTIVE DEVICES: MISALIGNMENT, DEFECTIVE SURFACES, ETC., SHALL BE CORRECTED BY CHEMICAL AGENTS, OR BY ANY OTHER TYPE OF MECHANICAL DEVICE WHICH WILL EFFECTIVELY REMOVE THE PAINT WITHOUT DAMAGE TO THE PAVEMENT SURFACE, OR PREVENT THE REAPPLICATION OF MARKINGS.

4161 TAMIAMI TRAIL - BLDG 5 UNIT 501 PORT CHARLOTTE, FLORIDA 33952 PHONE: (941) 625-1165 FAX: (941) 625-1149 FNGINFFRING LICENSE # FB 6469

1.09 SPARE PAINT

A. PROVIDE THE OWNER WITH A MINIMUM OF FIVE GALLONS OF TRAFFIC PAINT FROM THE SAME BATCH USED IN APPLICATION OF PAVEMENT MARKINGS. ALSO PROVIDE PAINT SPECIFICATIONS & THE MANUFACTURER'S IDENTIFICATION NUMBER OF THE PAINT USED.

A. ANY PAVEMENT MARKINGS LOCATED WITHIN PUBLIC RIGHTS-OR-WAY SHALL BE

THERMOPLASTIC UNLESS OTHERWISE INDICATED. B. ANY PAVEMENT MARKINGS LOCATED ON-SITE SHALL BE PAINT UNLESS OTHERWISE

CONSTRUCTION TOLERANCES:

THE FOLLOWING ARE THE ALLOWABLE DEVIATIONS FROM PROJECT DESIGN GRADES & GRADIENTS. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONFIRM & DOCUMENT COMPLIANCE WITH THESE TOLERANCES PRIOR TO PROCEEDING FROM ONE PHASE OF CONSTRUCTION TO THE NEXT:

1. STORMWATER MANAGEMENT/ DRAINAGE FACILITIES

- A. PERIMETER CONTAINMENT BERM: MINIMUM ELEVATION = DESIGN GRADE
- MAXIMUM ELEVATION= DESIGN GRADE + 0.10 FEET B. WATER CONTROL STRUCTURE: MINIMUM GRATE ELEVATION = DESIGN GRADE MAXIMUM GRATE ELEVATION = DESIGN GRADE + 0.10 FEET

MINIMUM CREST ELEVATION = DESIGN GRADE

- MAXIMUM CREST ELEVATION = DESIGN GRADE + 0.05 FEET MINIMUM BLEEDER ELEVATION = DESIGN GRADE MAXIMUM BLEEDER ELEVATION = DESIGN GRADE + 0.05 FEET
- MINIMUM TOP OF FILTER ELEVATION = DESIGN GRADE MAXIMUM TOP OF FILTER ELEVATION = DESIGN GRADE + 0.05 FEET C. CATCH BASINS/INLETS/PIPE INVERTS:
- MINIMUM ELEVATION = DESIGN GRADE 0.05 FEET MAXIMUM ELEVATION = DESIGN GRADE + 0.05 FEET D. SWALE GRADES / GRADIENTS: MINIMUM ELEVATION = DESIGN GRADE - 0.10 FEET
- MINIMUM FLOWLINE GRADIENT = 90% OF DESIGN GRADIENT E. PAVEMENT GRADES / GRADIENTS: a. FLEXIBLE PAVEMENT GRADE:

MAXIMUM ELEVATION = DESIGN GRADE +0.10 FEET

- MINIMUM ELEVATION = DESIGN GRADE 0.10 FEET MAXIMUM ELEVATION = DESIGN GRADE + 0.10 FEET b. FLEXIBLE PAVEMENT GRADIENTS: MINIMUM GRADIENTS = 90% DESIGN GRADIENT
- (CROSS SLOPE & LONGITUDINAL SLOPE) c. RIGID (CONCRETE) PAVEMENT GRADE: MINIMUM ELEVATION = DESIGN GRADE - 0.05 FEET MAXIMUM ELEVATION = DESIGN GRADE + 0.05 FEET d. RIGID PAVEMENT GRADIENTS: MINIMUM GRADIENTS = 90% OF DESIGN GRADIENT
- (CROSS SLOPE & LONGITUDINAL SLOPE) MAXIMUM HANDICAP RAMP = 1:12 (GRADIENT UNLESS OTHERWISE SPECIFIED BY LOCAL CODES)
- 2. WATER DISTRIBUTION/ WASTEWATER COLLECTION FACILITIES UNLESS OTHERWISE SPECIFIED BY THE LOCAL UTILITY COMPANIES, THE FOLLOWING ARE THE ALLOWABLE TOLERANCES FOR THESE ACTIVITIES:
- MAXIMUM ELEVATION = DESIGN GRADE + 0.05 FEET MINIMUM LINE GRADIENT = 90% OF DESIGN GRADIENT B. ALIGNMENT/ LOCATION OF APPURTENANCES:

MINIMUM ELEVATION = DESIGN GRADE - 0.05 FEET

AS ALLOWED BY THE APPLICABLE UTILITY & /OR LOCAL GOVERNMENTAL ENTITY. CONTRACTOR SHALL CONFIRM & DOCUMENT THIS PRIOR TO CONSTRUCTION. NOTE: THE AFOREMENTIONED TOLERANCES DO NOT APPLY TO DESIGN SECTIONS THAT FALL UNDER THE MORE STRINGENT AMERICANS WITH DISABILITIES ACT (ADA) GUIDELINES.

A. MANHOLES & PIPE INVERTS:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING, COORDINATING, DOCUMENTING, &

PROVIDING THE FOLLOWING MINIMUM TESTING: WATER DISTRIBUTION (REFER TO PUBLIC WORKS SPECIFICATIONS)
UNLESS OTHERWISE SPECIFIED BY THE UTILITY COMPANY, THE LINES SHALL BE PRESSURE
TESTED TO THE RATING OF THE PIPE. THE LINES SHALL BE TESTED IN SEGMENTS BETWEEN MAINLINE VALVES. BACTERIOLOGICAL TEST SAMPLES SHALL BE TAKEN AT ALL BRANCH LINE TERMINATION POINTS OR CONNECTION POINTS & ALONG THE MAIN LINES AT DISTANCES NOT TO EXCEED 2,640 FEET. ALL HYDRANTS & VALVES SHALL BE OPERATED TO TEST

WASTEWATER COLLECTION (REFER TO PUBLIC WORKS SPECIFICATIONS)
UNLESS OTHERWISE SPECIFIED BY THE UTILITY COMPANY, THE FORCE MAIN SHALL BE
PRESSURE TESTED TO THE RATING OF THE PIPE. VALVES SHALL BE OPERATED TO TEST PERFORMANCE. DEPENDING UPON WATER TABLE CONDITIONS DETERMINED BY THE ENGINEER, THE GRAVITY LINES SHALL BE TESTED FOR EITHER INFILTRATION OR EXFILTRATION & INFLOW THERE SHALL BE NO PIPE, FITTING OR MANHOLE AS REQUIRED. THE CONTRACTOR SHALL PROVIDE A VIDEO TAPE OF ALL MAIN GRAVITY LINES. ALONG WITH A LOG OF LATERAL

LOCATIONS. ALL ELECTRICAL & MECHANICAL DEVICES AT LIFT STATIONS SHALL BE TESTED

- O VERIFY PROPER OPERATIONAL STATUS. MAINTENANCE MANUALS SHALL BE PROVIDED. PRIVATE ROADWAY / PARKING SUBGRADE (REFER TO PUBLIC WORKS SPECIFICATIONS)
 THE SUBGRADE SHALL BE TESTED FOR THE LBR VALUE AT A FREQUENCY OF ONE PER 10,000 SF, DENSITY TESTS SHALL BE PERFORMED AT A FREQUENCY OF TWO PER 20,000 SF THICKNESS SHALL BE MEASURED AT EACH DENSITY TEST LOCATION. A PROFESSIONAL ENGINEER'S CERTIFICATION OF COMPLIANCE SHALL BE PROVIDED BY THE TESTING LAB. PRIVATE ROADWAY/ PARKING BASE (REFER TO PUBLIC WORKS SPECIFICATIONS)
 THE BASE SHALL BE TESTED FOR THE LBR VALUE AT A FREQUENCY OF ONE PER 10,000 SF.
 DENSITY TESTS SHALL BE PERFORMED AT A FREQUENCY OF TWO PER 10,000 SF. A SIEVE
- ANALYSIS SHALL BE PERFORMED AT A FREQUENCY OF ONE PER ACRE. THICKNESS SHALL BE MEASURED AT EACH DENSITY TEST LOCATION. A PROFESSIONAL ENGINEER'S CERTIFICATION OF COMPLIANCE SHALL BE PROVIDED BY THE TESTING LAB. PRIVATE ASPHALT PAVING (REFER TO PUBLIC WORKS SPECIFICATIONS)
 ASPHALTIC CONCRETE SHALL BE TESTED FOR THE FOLLOWING PARAMETERS: THICKNESS,
- SIEVE ANALYSIS MIX TYPE, STABILITY %, BITUMAN & DENSITY. THE ASPHALT SHALL BE TESTED AT A FREQUENCY OF TWO PER ACRE. A PROFESSIONAL ENGINEER'S CERTIFICATION OF COMPLIANCE SHALL BE PROVIDED BY THE TESTING LAB. PUBLIC ROADWAYS (REFER TO PUBLIC WORKS SPECIFICATIONS AS REQUIRED BY THE ENTITY HAVING JURISDICTION, BUT NOT LESS THAN REQUIRED FOR PRIVATE ROADWAYS AS OUTLINED ABOVE.
- PORTLAND CEMENT CONCRETE (REFER TO PUBLIC WORKS SPECIFICATIONS)
 CONCRETE SHALL BE TESTED FOR THE FOLLOWING PARAMETERS: SLUMP, MODULES OF RUPTURE, & 7 AND 28 DAY COMPRESSIVE STRENGTH TESTS SHALL BE PERFORMED ON SAMPLES TAKEN AT THE SITE AT A FREQUENCY OF TWO PER ACRE. A PROFESSIONAL ENGINEER'S CERTIFICATION OF COMPLIANCE SHALL BE PROVIDED BY THE TESTING LAB. RETENTION DETENTION FACILITIES (REFER TO PUBLIC WORKS SPECIFICATIONS)
 IF INCLUDED WITHIN THE PROJECT, THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER & PERFORM A DRAW DOWN & CAPACITY TEST OF THE FACILITIES. THE CONTRACTOR SHALL

PROVIDE SUFFICIENT WATER & ACCEPTABLE MEANS TO MEASURE THE WATER VOLUMES

PROJECT. THE FILTER MEDIA SHALL BE TESTED FOR COMPLIANCE WITH ALL CURRENT

SPECIFICATIONS OF THE WATER MANAGEMENT DISTRICT. A PROFESSIONAL ENGINEER'S

PROVIDED, IF REQUIRED BY THE ENGINEER, IF A FILTRATION SYSTEM IS INCLUDED WITHIN THE

ERECT A TURBIDITY SCREEN ON ANY DOWNSTREAM SYSTEM WHICH RECEIVES RUNOFF

CERTIFICATION OF COMPLIANCE SHALL BE PROVIDED BY THE TESTING LAB.

- IN ADDITION TO THE ENVIRONMENTAL PROTECTION DURING CONSTRUCTION SPECIFICATIONS, THE CONTRACTOR SHALL PERFORM THE FOLLOWING IN THE ORDER LISTED: PRIOR TO COMMENCEMENT, PROVIDE NOTIFICATIONS TO THE LOCAL WATER MANAGEMENT DISTRICT & LOCAL GOVERNMENT.
- FROM THE PROJECT. INSTALL OUTFALL CONTROL STRUCTURE & FILTRATION SYSTEM IF PROVIDE A TEMPORARY FILTER CLOTH COVERED WITH GRAVEL OVER ANY PROPOSED INSTALL A TEMPORARY TURBIDITY SCREEN AT ALL CONTROL STRUCTURES.
- CONSTRUCT A TEMPORARY PERIMETER BERM AS NECESSARY TO DIRECT ALL RUNOFF WITHIN ANY AREA PLANNED FOR CLEARING. MAINTAIN FILTER DURING CONSTRUCTION TO PROVIDE CONTINUOUS OPERATION. UPON PERFORMING FINAL GRADING, THE CONTRACTOR SHALL REMOVE ALL SILTS, CLAYS & OTHER DELETERIOUS MATERIAL FROM THE BOTTOM OF ALL STORMWATER

MANAGEMENT AREAS PRIOR TO GRASSING

CONTROL FACILITIES.

AFTER ACHIEVING A NON-ERODIBLE COVER OF GRASS, REMOVE TEMPORARY FILTER CLOTH & GRAVEL OVER FILTERS & REPLACE WITH NEW FILTER CLOTH & COVER MATERIAL IN ACCORDANCE WITH THE PLANS & SPECIFICATIONS. NOTIFY THE OWNER FOR FINAL INSPECTION. UPON FINAL APPROVAL FROM OWNER, REMOVE ALL TEMPORARY EROSION & SEDIMENT

NOTE: GENERAL NOTES & SPECIFICATIONS SHOWN ON THIS SHEET ARE APPLICABLE TO THIS PROJECT UNLESS OTHERWISE NOTED. THE PROJECT NOTES & PLANS SHALL TAKE PRECEDENCE OVER THE

> LAUREL STORAGE SARASOTA COUNTY, FLORIDA

DESIGN PROJECT DRAWING DRAWN CHECKED SCALE STEVEN R. SONBERG, P.E., P.S.M. 4393C GN&S 01/19/24 FL LIC #92103

LAUREL STORAGE, LLC 5784 LAKE FORREST DRIVE, SUITE 275

ATLANTA, GA. 30328

REVISION DESCRIPTION

ALL ELEVATIONS ON CIVIL ENGINEERING PLANS REFERENCE: NAVD88

Protessional Engineers, Planners, & Land Surveyors Serving The State Of Florida

SURVEY LICENSE # LB 6690 WWW.BANKSENG.COM

SHEET

GENERAL NOTES & SPECIFICATIONS SHOWN ON THIS SHEET. GENERAL NOTES AND SPECIFICATIONS

FRENCH DRAIN

FLOOR ELEVATION

FLARED END SECTION

FINISHED FLOOR ELEVATION

FLOATING TURBIDITY BARRIER

FLORIDA DEPARTMENT OF TRANSPORTATION

FOUNDATION

FIRE HYDRANT

FIGURE

FLORIDA

FLEXIBLE

FURNISH

FORCE MAIN

FOOT OR FEET

FIBER OPTIC CABLE

FINISH

FDOT

FIG

FLEX

FOC

FURN

PRCST

PREST

PRM

PSF

PSU

ROW

PRECAST

PRODUCT

PROPOSED

PROJECT

RADIUS

RIGHT

PRESTRESSED

PERMANENT REFERENCE MONUMENT

PEAK DISCHARGE OR FLOW VOLUME

POUNDS PER SQUARE FOOT

POUNDS PER SQUARE INCH

PRESTRESSED SLAB UNIT

PUBLIC UTILITY EASEMENT

POINT OF TANGENCY

POLYVINYL CHLORIDE

POTABLE WATER

RIGHT OF WAY

REVERSE CROWN

GENERAL SPECIFICATIONS:

- 1. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH FLORIDA DEPT. OF TRANSPORTATION (F.D.O.T.) STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION, CURRENT EDITION.
- 2. THE CONTRACTOR SHALL SUPPLY SATISFACTORY DENSITY TESTS OF SUBGRADE & LIMEROCK BASE MATERIALS TO THE ENGINEER PRIOR TO PAYMENT &/OR FINAL ACCEPTANCE. ONE TEST PER COURSE PER 600 SQUARE YARDS.
- 3. ALL REINFORCED CONCRETE PIPE (RCP) CULVERTS SHALL MEET ASTM C 76, CLASS III, TYPE "B" WALL FOR ROUND PIPE & MEET ASTM C 507, TABLE I FOR ELLIPTICAL PIPE & OTHERWISE BE INSTALLED & MANUFACTURED IN ACCORDANCE WITH F.D.O.T. SECTIONS 430 & 941.
- 4. CONTRACTOR SHALL PROVIDE & MAINTAIN TRAFFIC CONTROL IN ACCORDANCE WITH F.D.O.T. ROADWAY & TRAFFIC DESIGN STANDARDS CURRENT EDITION & THE FEDERAL HIGHWAY ADMINISTRATION'S MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), CURRENT EDITION.
- 5. CONTRACTOR SHALL SOD OR SEED & MULCH ALL ON-SITE DISTURBED AREAS, SWALE & TREATMENT AREAS AND DISTURBED AREAS WITHIN CITY, COUNTY OR F.D.O.T. RIGHT-OF-WAY AND OTHERWISE RESTORE ALL AREAS TO EXISTING CONDITION.
- 6. ALL PAVEMENT STRIPING TO BE TWO COATS OF HEAVY DUTY ACRYLIC BASED TRAFFIC PAINT.
- 7. ALL TRAFFIC SIGNS TO BE DRIVEN STEEL POST TYPE GROUND SIGNS IN ACCORDANCE WITH F.D.O.T. INDEX DRAWINGS 11860 & 11863 (80 M.P.H. WIND LOAD) & F.D.O.T. SPECIFICATIONS SECTION 700-HIGHWAY SIGNING
- 8. ALL WORK SHOWN BY INDEX NO. SHALL BE IN ACCORDANCE WITH F.D.O.T. ROADWAY & TRAFFIC DESIGN STANDARDS, CURRENT EDITION.

DRAINAGE GENERAL NOTES:

- 1. ALL EXISTING ELEVATIONS IN PLAN SET ARE IN NAVD 1988 DATUM.
- 2. ALL PROPOSED ELEVATIONS ARE IN NAVD 1988 DATUM.
- 3. CONTRACTOR SHALL MAINTAIN A CURRENT AND UPDATED SET OF AS-BUILT DRAWINGS AT ALL TIMES AND PROVIDE ONE COPY TO THE ENGINEER UPON COMPLETION OF CONSTRUCTION.
- 4. ALL BACKFILL SHALL BE COMPACTED IN STRICT ACCORDANCE WITH THE BEDDING DETAILS.
- 5. CONTRACTOR SHALL COORDINATE ALL WORK IN THE CITY RIGHT-OF-WAY WITH THE CITY OF VENICE D.O.T.&E.
- 6. ALL ROOF TOP DRAINS ARE TO BE DIRECTED TO STORM WATER MANAGEMENT AREA.
- 7. THE GRADES REPRESENT THE FINISHED GRADE ON TOP OF THE SOD.
- 9. A RIGHT-OF-WAY USE PERMIT WILL BE REQUIRED FOR ALL WORK WITHIN RIGHT-OF-WAY.
- 10. SHOP DRAWINGS ARE REQUIRED FOR ALL STRUCTURES.
- 11. THE PROPOSED MITERED END SECTIONS WITHIN CITY RIGHT OF WAY, SHALL EXTEND BEYOND THE PROPOSED EDGE OF PAVEMENT A MINIMUM OF 6'-0".
- 12. CONTRACTOR RESPONSIBLE FOR WATERING AND MOWING OF SOD PLACED IN THE ROW UNTIL ESTABLISHMENT AND FINAL ACCEPTANCE BY THE CITY OF VENICE.
- 13. CURB ELEVATIONS SHOWN ARE FOR THE LOW SIDE OF THE CURB UNLESS OTHERWISE NOTED.
- 14. ALL SLOPES TO BE 4:1 MAXIMUM. (UNLESS NOTED OTHERWISE)
- 15 ALL WORK SHOWN BY INDEX NO. (DESIGN STANDARDS/STANDARD PLANS) SHALL BE IN ACCORDANCE WITH FDOT STANDARD PLANS FOR ROAD & BRIDGE CONSTRUCTION OR FDOT DESIGN MANUAL, LATEST EDITION.

BMP GENERAL NOTES:

SCHEDULE OF BMP IMPLEMENTATION:

- 1. INSTALL ALL TEMPORARY BMP MEASURES PRIOR TO START OF
- 2. INSTALL ALL PERMANENT BMP MEASURES IMMEDIATELY AFTER FINAL GRADING.
- 3. REMOVE TEMPORARY BMP FEATURES AS APPLICABLE.

PROJECT INFORMATION:

- 1. THIS PROJECT PRESENTS NO ADVERSE IMPACTS ON LOCAL GROUNDS OR SURFACE WATERS, AND DOES NOT ADVERSELY IMPACT THE FLOOD ZONE.
- 2. THIS SITE CAN BE USED FOR THE DEVELOPMENT AS SHOWN. WITHOUT UNIQUE DANGER FROM FLOOD, ADVERSE SOIL, AND/OR FOUNDATION CONDITIONS, SUBJECT TO PROPER GEOTECHNICAL INVESTIGATION, SITE DESIGN, AND STRUCTURE DESIGN.
- 3. THE PROJECT DOES NOT IMPACT ANY KNOWN UNMITIGATED
- 4. NO KNOWN ARCHAEOLOGICAL SITES EXIST WITHIN THE PROJECT AREA.
- 5. THE CONTRACTOR SHALL SUPPLY BATHYMETRIC SURVEY ON ALL LAKES GREATER THAN 12' DEEP PRIOR TO FINAL ACCEPTANCE.

NOTES:

REVISION DESCRIPTION

- 1. SURVEY LOCATION INFORMATION PROVIDED BY BANKS ENGINEERING.
- 2. A SEPARATE RIGHT-OF-WAY USE PERMIT WILL BE REQUIRED FOR ALL UTILITY WORK WITHIN THE PUBLIC RIGHT-OF-WAY. SPECIFIC STIPULATIONS OR CONDITIONS WILL BE IMPOSED A THE TIME OF PERMIT APPLICATION.
- 3. ALL SIDEWALKS SHALL MEET ADA STANDARDS.
- 4. ALL SIDEWALKS SHALL NOT EXCEED 2% CROSS SLOPE.
- 5. ALL ELEVATIONS SHOWN ARE IN NGVD 1929, TO CONVERT ELEVATIONS INTO NAVD 1988: 1.132 FEET CONVERSION FACTOR.
- 6. ALL DISTURBED AREAS IN THE FDOT RIGHT OF WAY WILL BE SODDED

SITE DATA TABLE:

PROJECT SITE ACREAGE: 2.26 ACRES SITE CURRENT ZONING: VACANT LE (LAUREL EAST) PROPOSED USE: LE, 3-STORY SELF STORAGE FLOOD ZONES: FLOOD ZONE "X", BASE FLOOD ELEVATION NOT DETERMINED, AND FLOOD ZONE "AE" BASE FLOOD ELEVATION = 14.1 FEET PER FLOOD INSURANCE RATE MAP 12115C0244F, INDEX MAP DATED NOVEMBER 4, 2016 ALL ELEVATIONS SHOWN ARE IN NAVD88. THE NAVD88 TO NGVD29 CONVERSION IS +1.112' LOT STANDARDS: LE ZONING YARD REQUIREMENTS:

FRONT SETBACK: 15' MIN / 100' MAX SIDE SETBACK: 10' MIN / 50' MAX REAR SETBACK: 10' MIN / 0' MAX MAXIMUM BUILDING COVERAGE: 35% MAXIMUM BUILDING HEIGHT: 35'** ** BUILDING HEIGHT IS MEASURED FROM 18" ABOVE AVERAGE ADJACENT CROWN OF ROAD

MINIMUM LOT COVERAGE: MAXIMUM LOT COVERAGE:

LANDUSE BREAKDOWN:

TOTAL PARCEL: 2.26 AC (100%)— **BUILDINGS:** 0.80 AC (35.4%) SWMA DETENTION: 0.29 AC (12.8%) PERVIOUS: CALCULATED 0.32 AC (14.2%) IMPERVIOUS: 0.85 AC (37.6%)

PARKING CALCULATION:

SELF STORAGE (INDOOR), 3-STORY 0.5 SPACE PER 1,000 SF 34,768 SF/FLOOR (104,304 GFA/1,000) 0.5 = 53 PARKING SPACES

TOTAL PARKING REQUIRED 53 SPACES TOTAL PARKING PROVIDED: 11 SPACES HANDICAPPED SPACES REQUIRED: 3 SPACES HANDICAPPED SPACES PROVIDED: 1 SPACES

(PARKING VARIANCE APPLIED FOR)

LOADING ZONES REQUIRED: 60,000 TO 120,000 SF=3 SPACES LOADING ZONES PROVIDED: 4 (10'x20') SPACES.

LOADING AND UNLOADING SPACES ARE INTENDED FOR PERSONAL/ NON COMMERCIAL VEHICLES (CARS, TRUCKS, VANS)

FLOOR AREA RATIO (FAR)

GFA (EXCLUDING PUBLIC AREAS) = 85,847 SF PROPERTY AREA = 98,445.6 SF FAR = 85,847 SF / 98,445.6 SF = 0.87

ALL EXISTING UTILITY LOCATIONS ARE APPROXIMATE. CONTRACTOR IS RESPONSIBLE TO FIELD LOCATE HORIZONTAL & VERTICAL LOCATION PRIOR

2. IT SHALL BE THE DEVELOPERS' RESPONSIBILITY TO PROTECT ALL CITY / COUNTY AND FLORIDA DEPARTMENT OF TRANSPORTATION OWNED AND RELOCATION OR REPAIRS MADE NECESSARY BY THIS DEVELOPMENT SHALL BE BORNE BY EITHER THE OWNER, DEVELOPER AND/OR CONTRACTOR. SPLICES IN THE FIBER OPTIC CABLE OR THE ADDITION OF ADDITIONAL PULL/JUNCTION BOXES WILL NOT BE PERMITTED. IN THE EVENT A CABLE IS CUT, DAMAGED OR REQUIRES RELOCATION, THE CABLE(S) SHALL BE RESTORED BACK TO THE ORIGINAL CONFIGURATION. ORIGINAL CONFIGURATION IS DEFINED AS SYSTEM STATUS, LAYOUT AND DESIGN PRIOR TO ANY WORK COMMENCING

Adjacent Future Land Use/Zoning North- Mixed Use Corridor/Laurel East South- Mixed Use Corridor/Laurel East East-Mixed Use Corridor/Laurel East West-Mixed Use Corridor/Laurel West

LEGEND

DRAINAGE DIDE		
DRAINAGE PIPE		
DRAINAGE STRUCTURES		
FINISHED FLOOR ELEVATION	N/A	<19.0>
ON-SITE STORM STRUCTURE NUMBER	N/A	<u>S-1</u>
OFF-SITE STORM STRUCTURE NUMBER	N/A	<u> </u>
SPOT GRADE ELEVATION	+150	10.74
TOP OF BERM		
RUBBLE RIP-RAP		
PAVEMENT		
PAVEMENT TO BE REMOVED		N/A
CONCRETE		The second secon
RIGHT-OF-WAY		
CURB	======	
EASEMENT		
SWALE/DITCH	>>>>	>>>>>
TOP OF BANK		Y
LAKE		
STORMWATER MANAGMENT AREA (DRY)		
WETLANDS	[\psi \ \psi \ \psi \ \psi \]	v v
PROPERTY LINE		<u> </u>
POTABLE WATER LINE	E8"W	8*W
FORCE MAIN	———E8"F———	8*F
SANITARY SEWER MAIN	——E8"SS——	8*SS
IRRIGATION WATER MAIN	E8"I	8"I
REUSE WATER MAIN	E8"RU	8"RU
GATE VALVE	—————————————————————————————————————	×
REDUCER		-
BLOW-OFF	O E	● E
AIR RELEASE VALVE	±	#
FIRE HYDRANT ASSEMBLY		*
SINGLE WATER SERVICE	<u> </u>	<u> </u>
DOUBLE WATER SERVICE		
SINGLE IRRIGATION SERVICE	<u> </u>	•
DOUBLE IRRIGATION SERVICE		
SINGLE SEWER SERVICE		
DOUBLE SEWER SERVICE		
SANITARY MANHOLE & ID		
LIFT STATION & ID		

PROPOSED

FXISTING

NOTE:

- 1. ALL ELEVATIONS SHOWN REFERENCE NAVD88 DATUM. THE DATUM SHIFT CONVERSION FACTOR FROM NAVD88 TO NGVD29 FOR THIS PARCEL IN THIS LOCATION IS +1.112'
- 2. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO FIELD VERIFY ALL LOCATIONS, SIZES AND DEPTHS OF ANY EXISTING UTILITIES THAT WILL BE UTILIZED BEFORE ANY DEMOLITION OR CONSTRUCTION CAN BEGIN.
- 3. IT WILL ALSO BE THE CONTRACTORS RESPONSIBILITY TO COORDINATE WITH THE CITY OF VENICE UTILITIES AS TO LOCATIONS OF CONNECTION POINTS AND TYPES OF
- 4. CONTRACTOR / DEVELOPER TO COORDINATE WITH ADS / NYLOPLAST ON MATERIAL SELECTION, SPECIFICATIONS AND INSTALLATION REQUIREMENTS.

FL LIC #92103

01/19/24

PRIOR TO EXCAVATION CONTACT SUNSHINE STATE ONE - CALL OF FLORIDA **(1 (800) 432 - 4770**

CONTRACTOR SHALL SUBMIT FOR N.P.D.E.S. PERMIT A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION. PERMIT APPLICATION SHALL BE SUBMITTED TO:

N.P.D.E.S. STORMWATER NOTICES CENTER, MS # 2510, FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION 2600 BLAIR STONE ROAD, TALLAHASSEE, FLORIDA

SHEET

REPARED FOR: LAUREL STORAGE, LLC

ATLANTA, GA. 30328

ALL ELEVATIONS ON CIVIL ENGINEERING PLANS REFERENCE: NAVD88 5784 LAKE FORREST DRIVE, SUITE 275

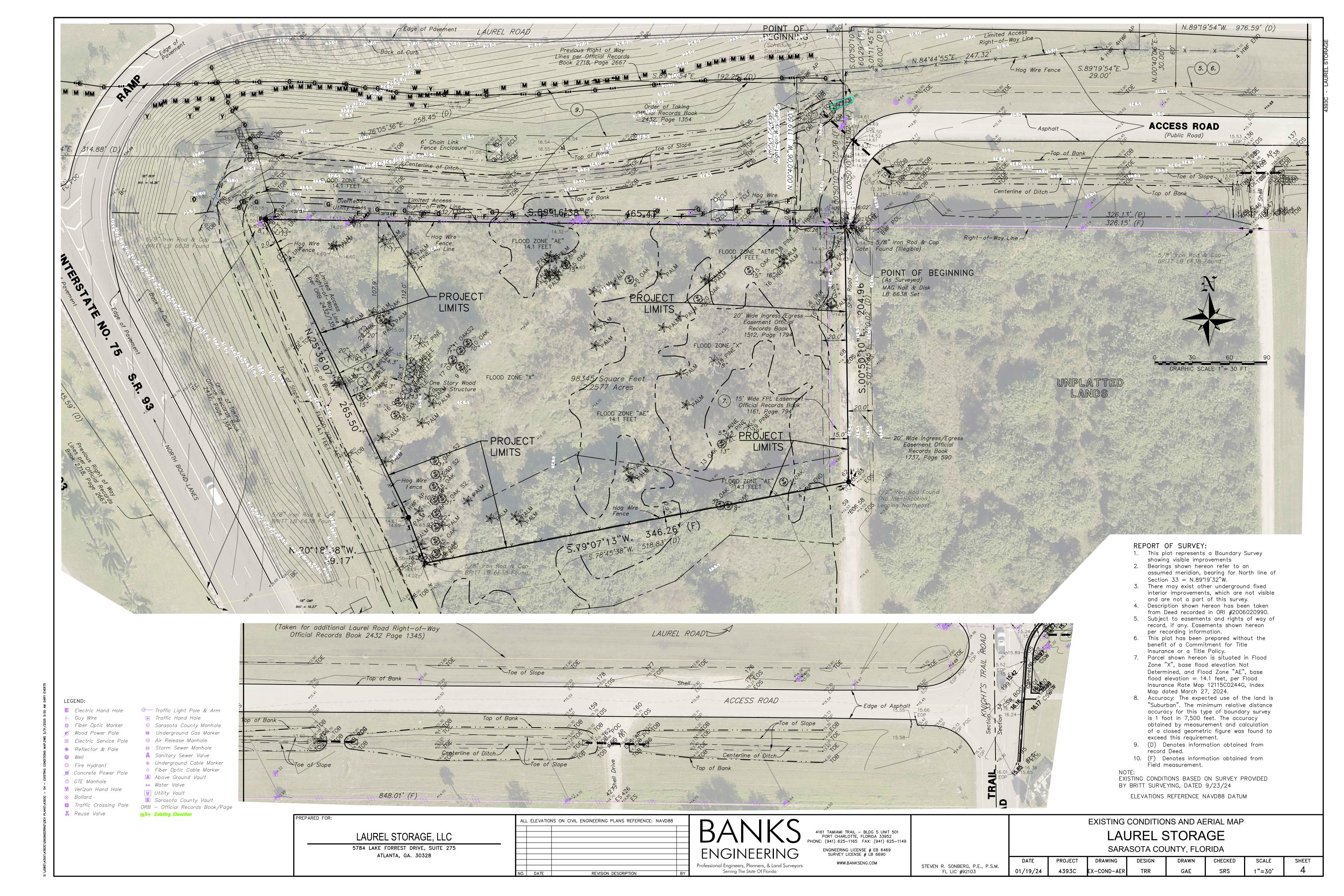
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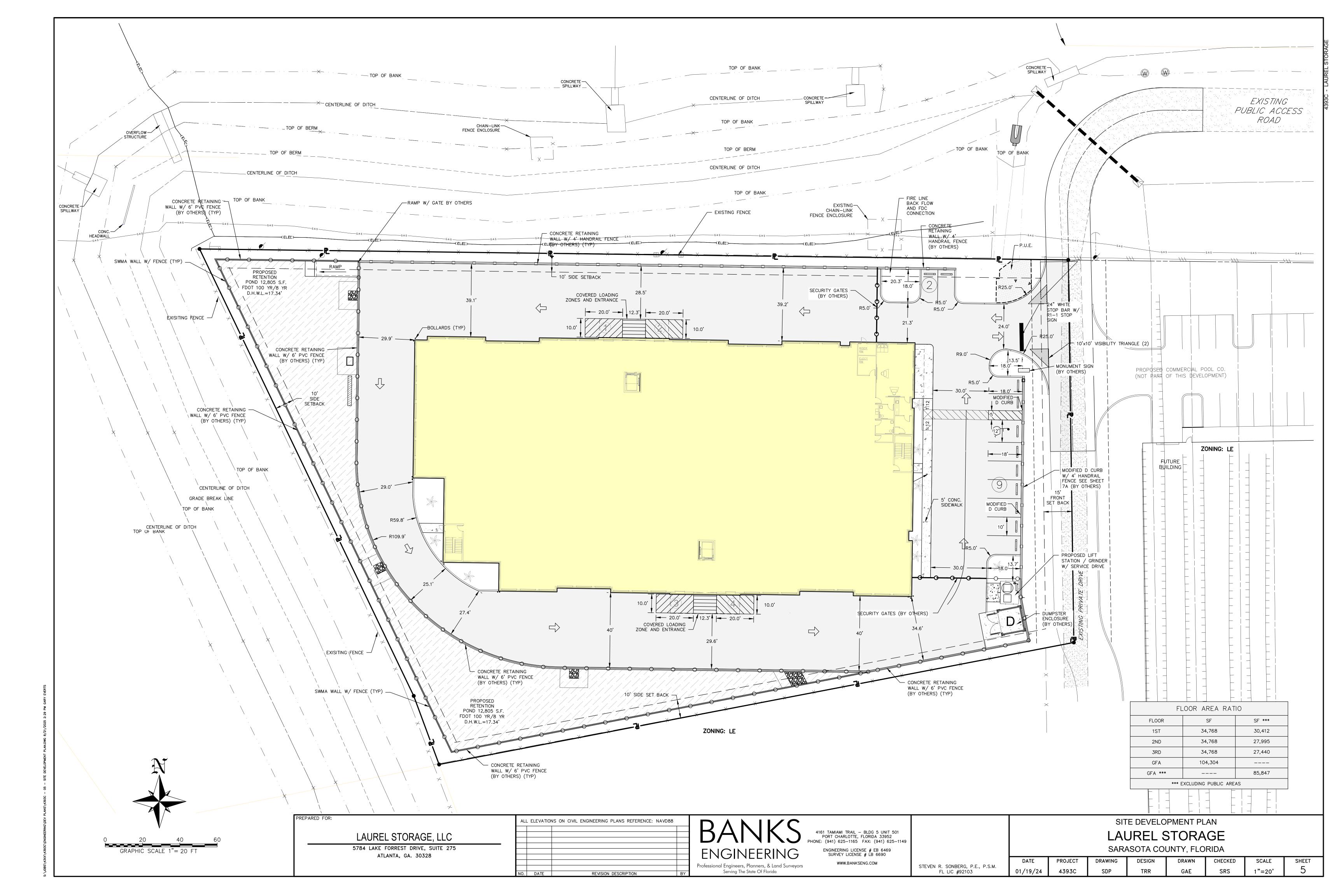
4161 TAMIAMI TRAIL - BLDG 5 UNIT 501 PORT CHARLOTTE, FLORIDA 33952 ONE: (941) 625-1165 FAX: (941) 625-1149 ENGINEERING LICENSE # EB 6469 SURVEY LICENSE # LB 6690 WWW.BANKSENG.COM

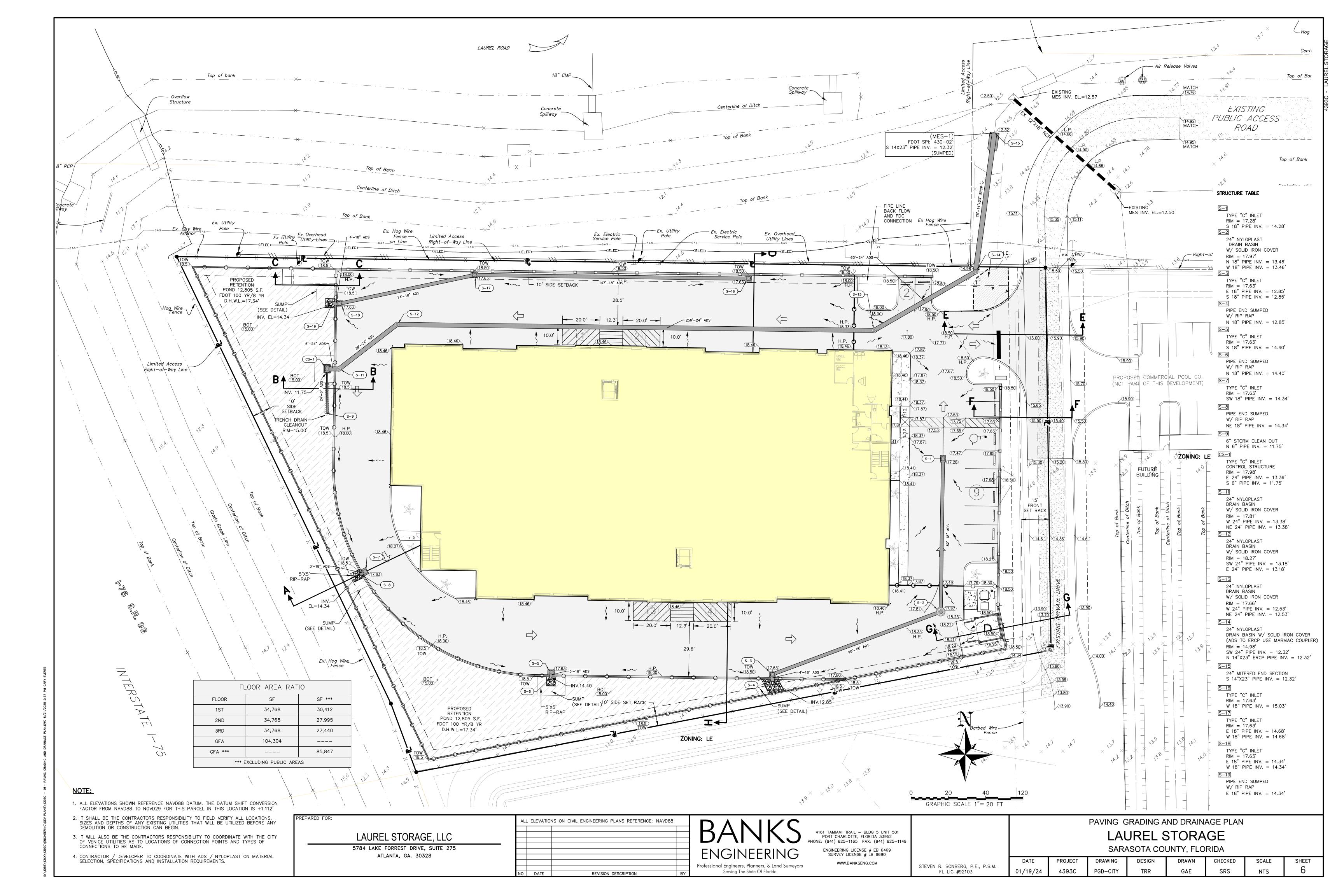
STEVEN R. SONBERG, P.E., P.S.M.

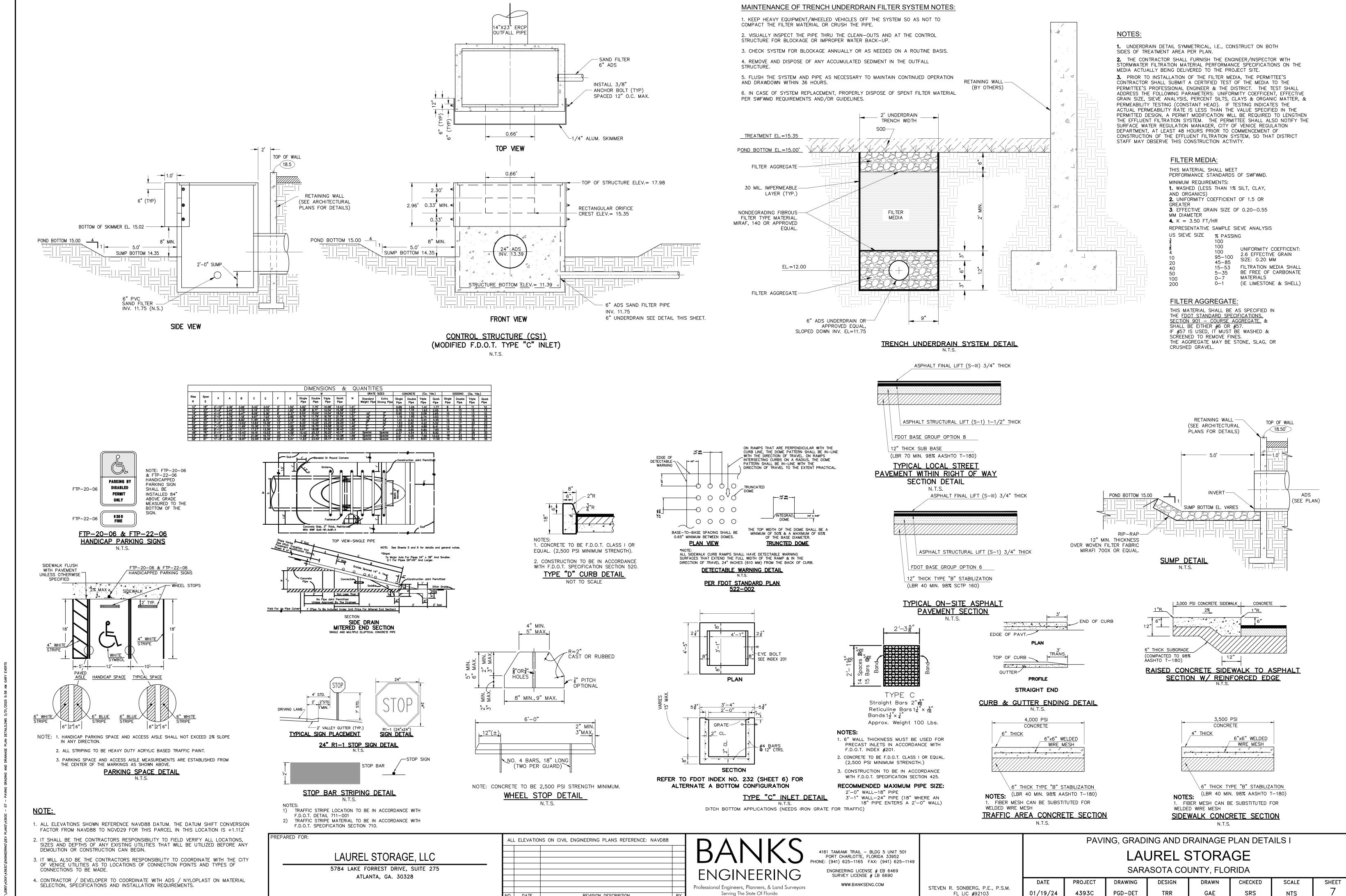
PROJECT NOTES AND LEGEND LAUREL STORAGE

SARASOTA COUNTY, FLORIDA PROJECT DRAWING DESIGN DRAWN CHECKED SCALE 4393C



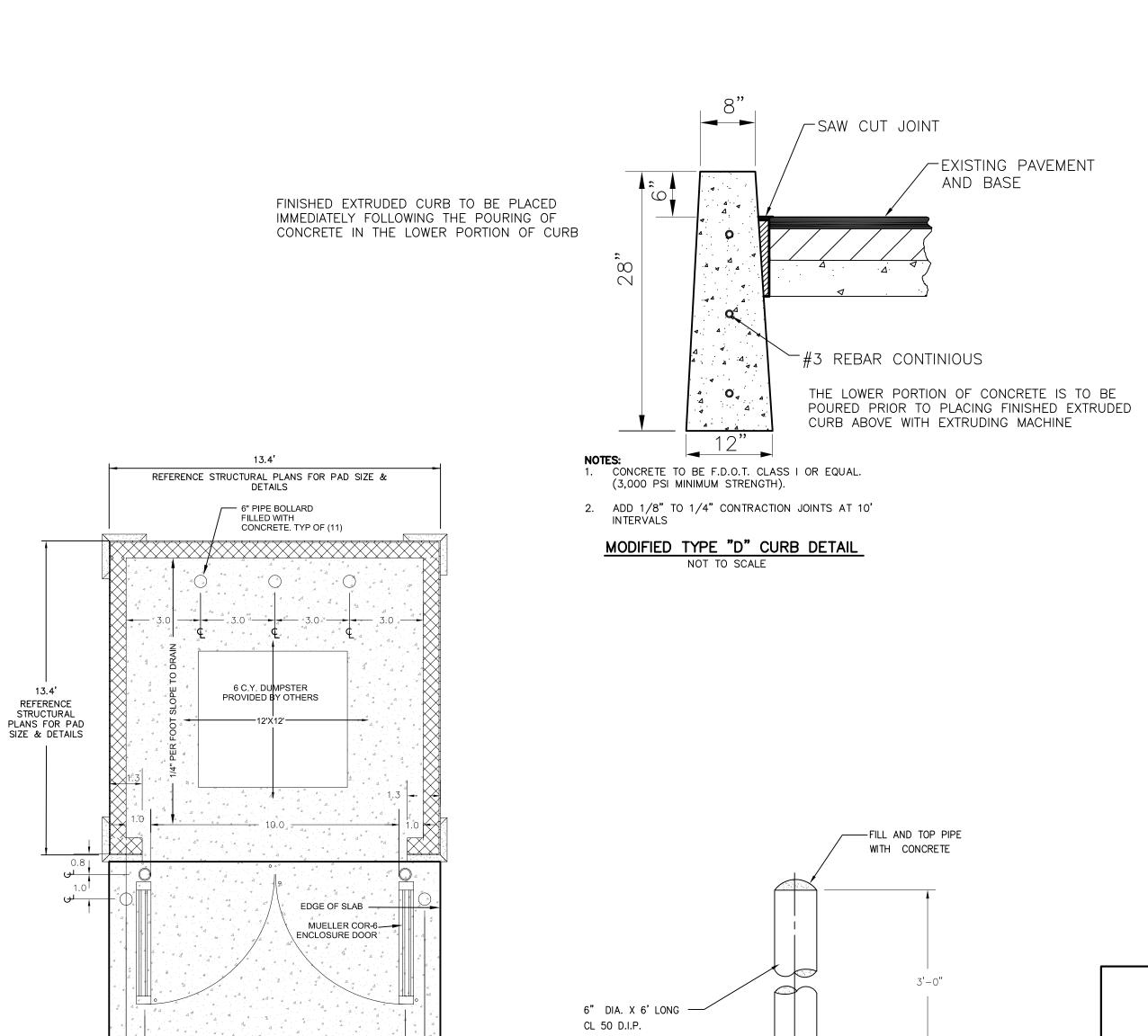


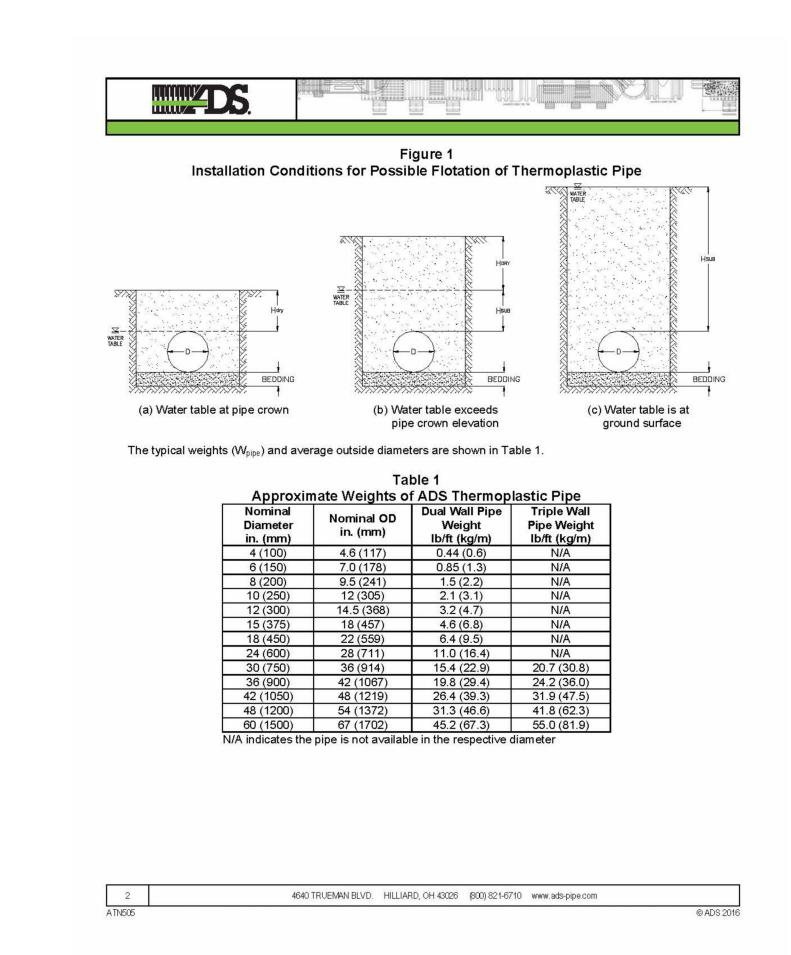


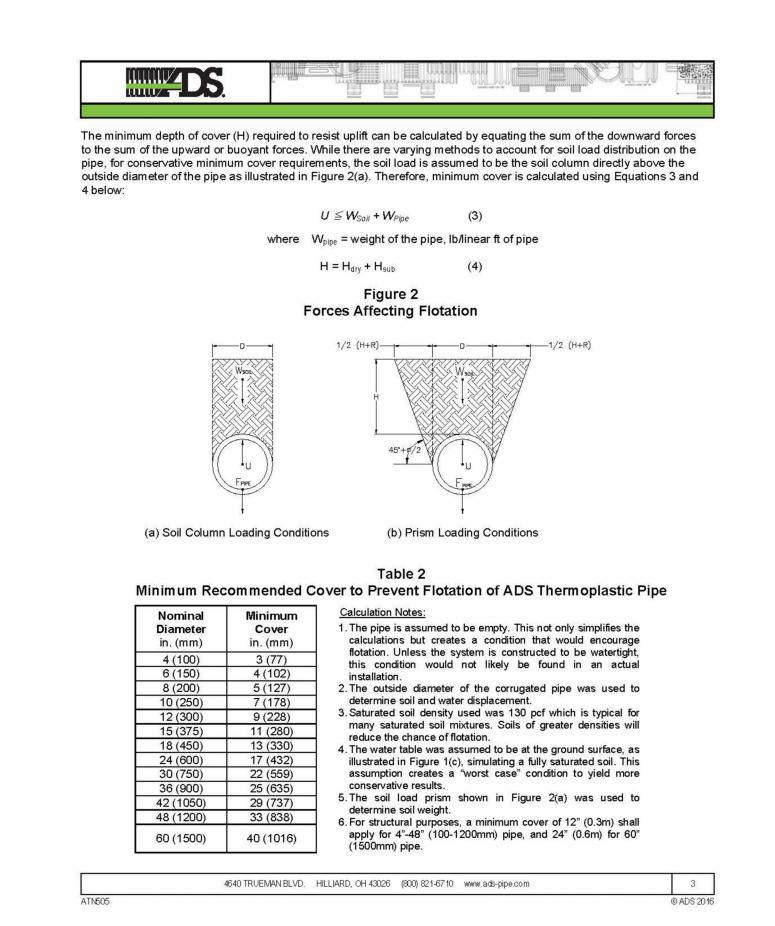


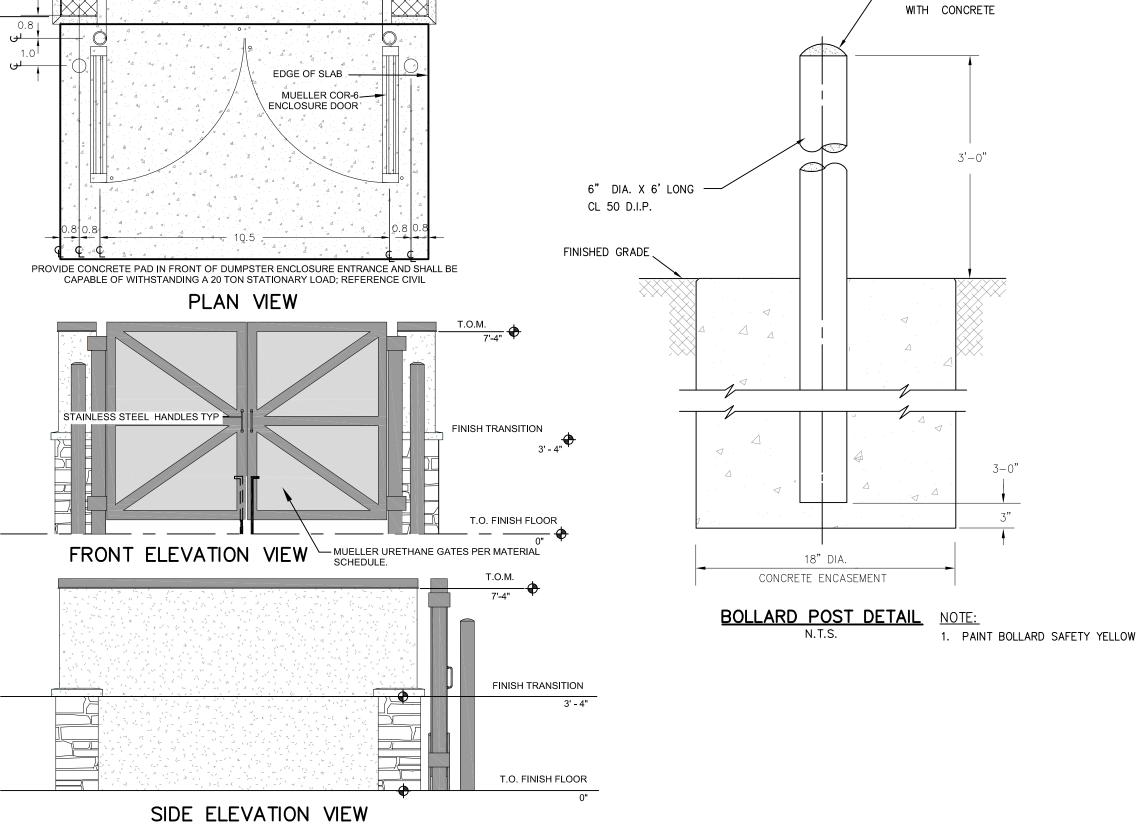
01/19/24

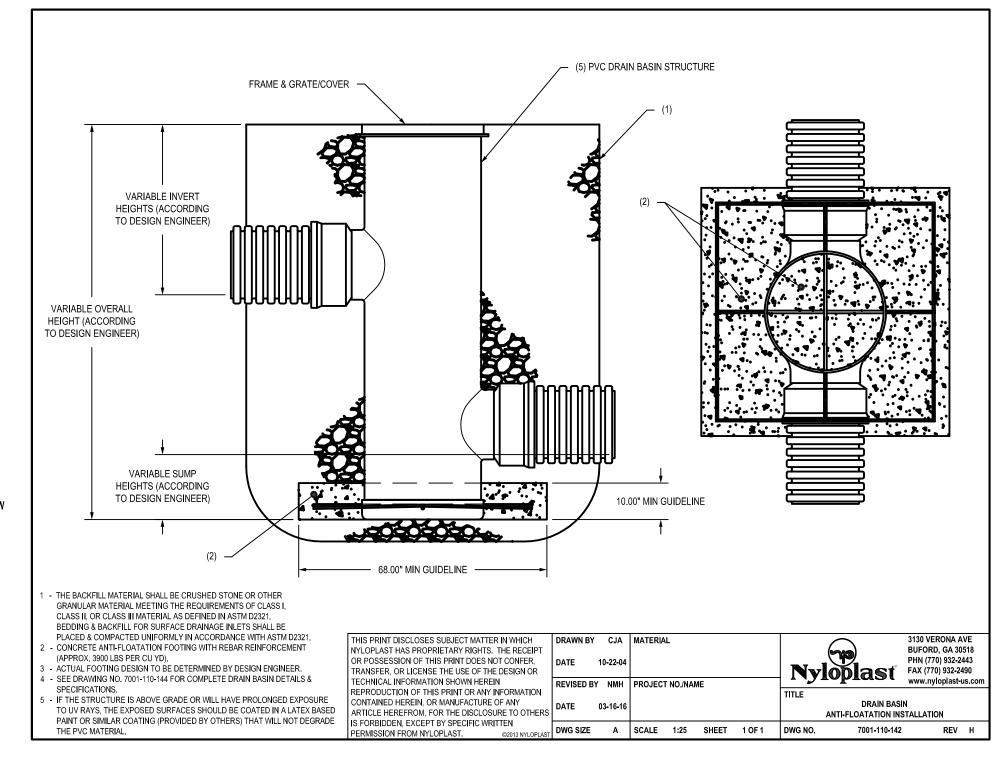
FL LIC #92103

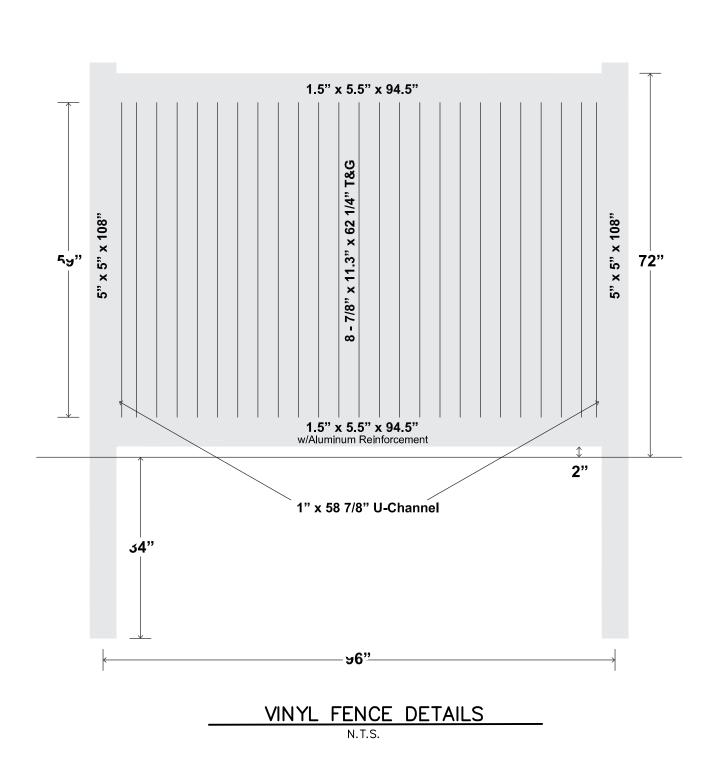












1. ALL ELEVATIONS SHOWN REFERENCE NAVD88 DATUM. THE DATUM SHIFT CONVERSION FACTOR FROM NAVD88 TO NGVD29 FOR THIS PARCEL IN THIS LOCATION IS +1.112'

13.4" X 13.4' DUMPSTER DETAIL

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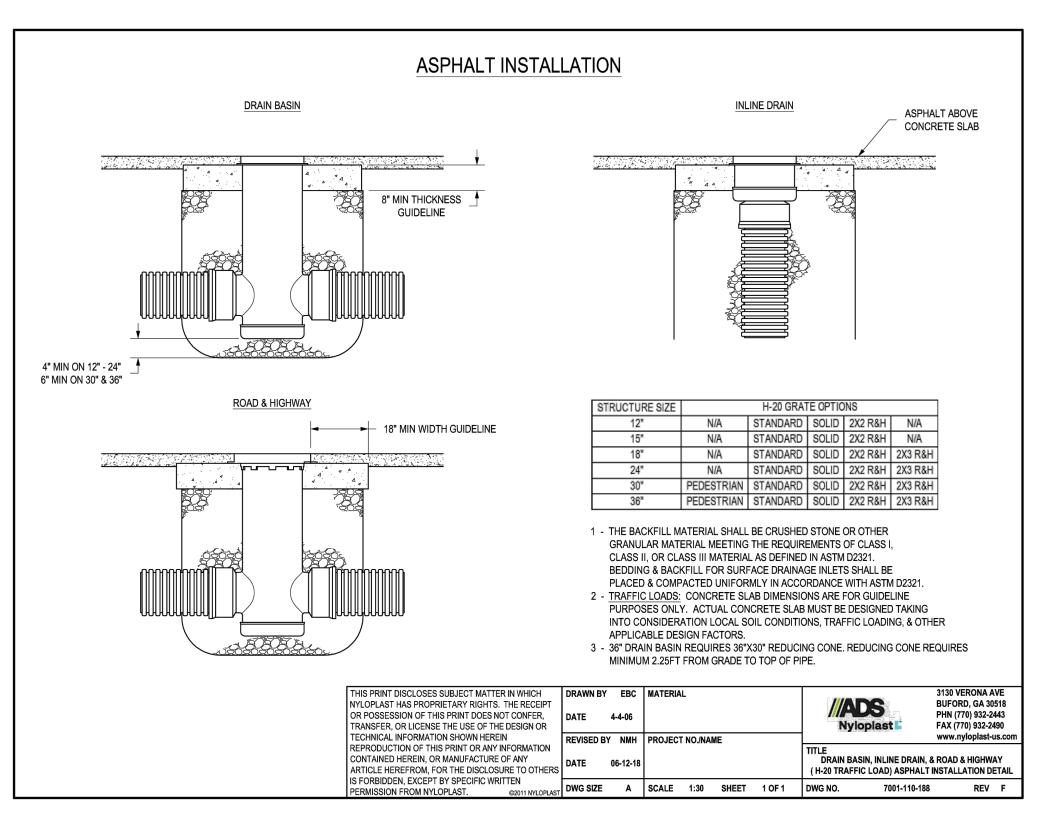
4161 TAMIAMI TRAIL - BLDG 5 UNIT 501 PORT CHARLOTTE, FLORIDA 33952 (941) 625-1165 FAX: (941) 625-1149 ENGINEERING LICENSE # EB 6469 SURVEY LICENSE # LB 6690 WWW.BANKSENG.COM

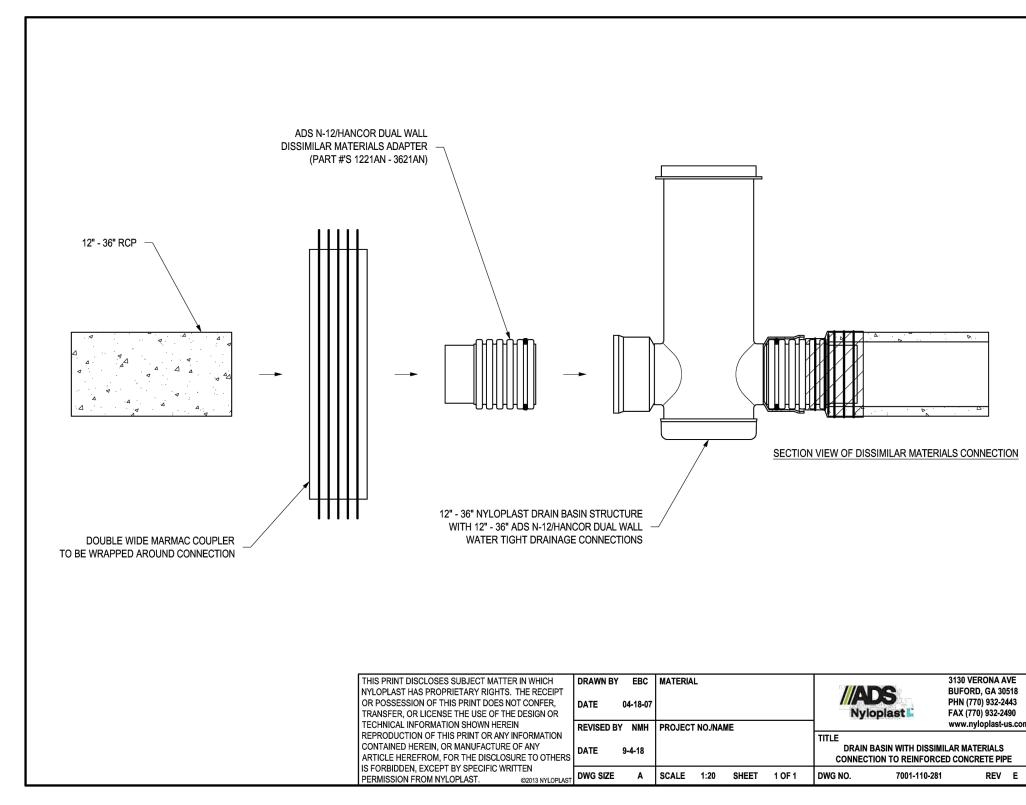
PAVING, GRADING AND DRAINAGE PLAN DETAILS II

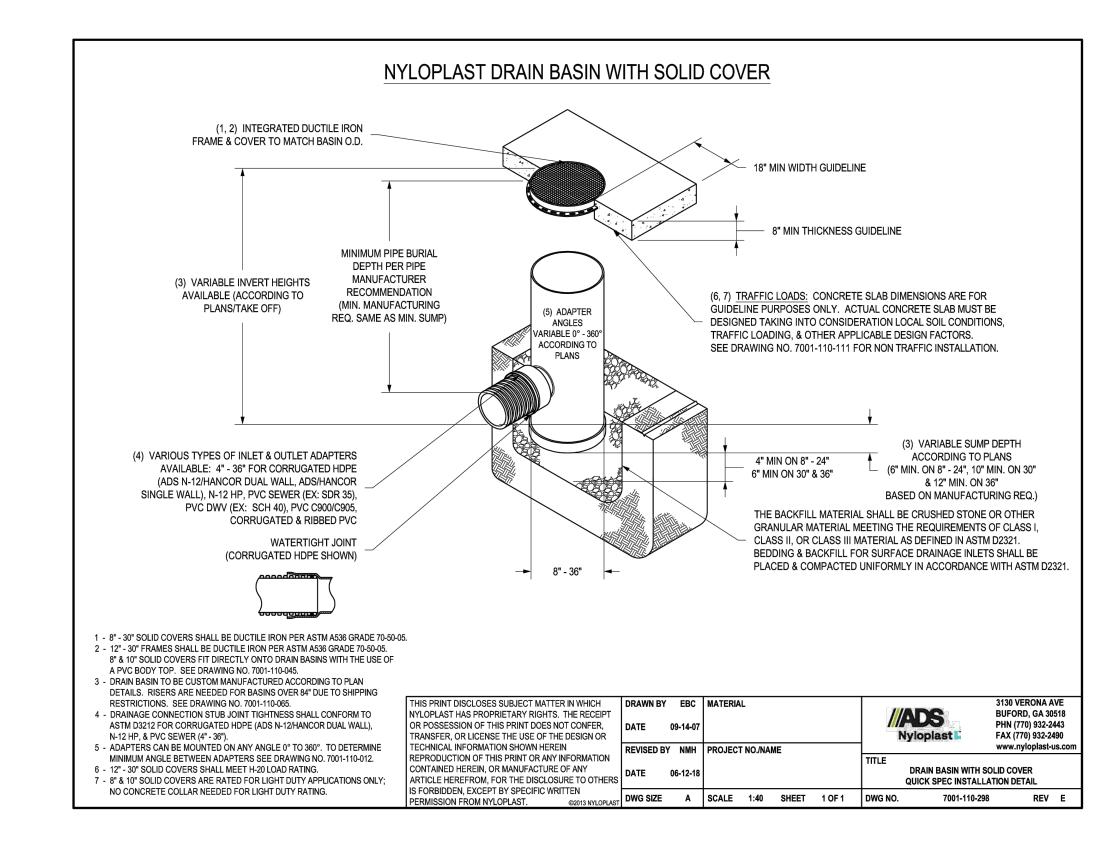
LAUREL STORAGE

SARASOTA COUNTY, FLORIDA DRAWING DESIGN DRAWN SCALE SHEET 4393C 01/19/24

STEVEN R. SONBERG, P.E., P.S.M. FL LIC #92103

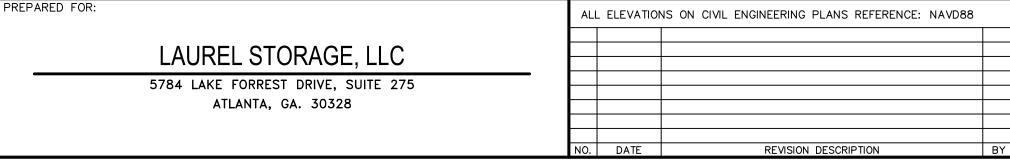






NOTE

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SURVEY LICENSE # LB 6690

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PAVING, GRADING AND DRAINAGE PLAN DETAILS III

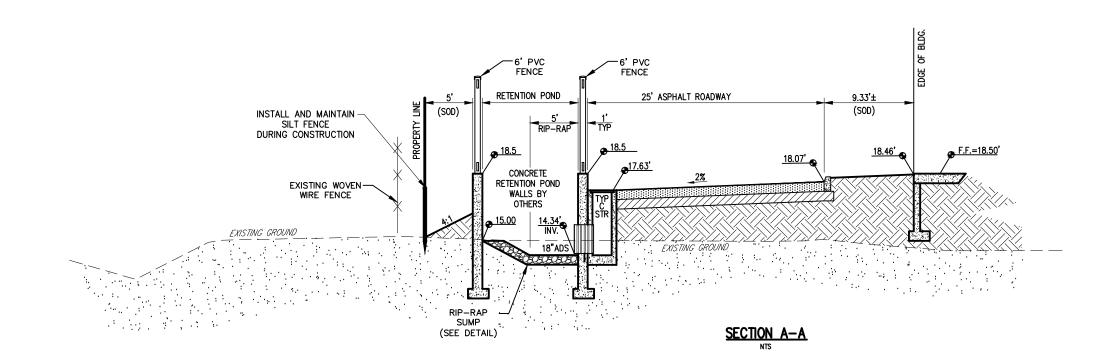
LAUREL STORAGE

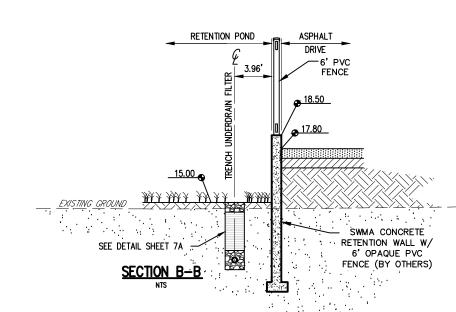
SARASOTA COUNTY, FLORIDA

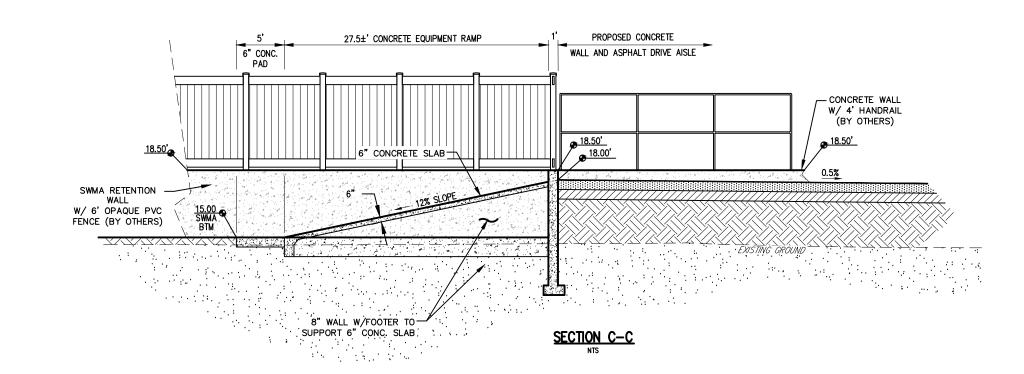
SARASOTA COUNTY, FLORIDA

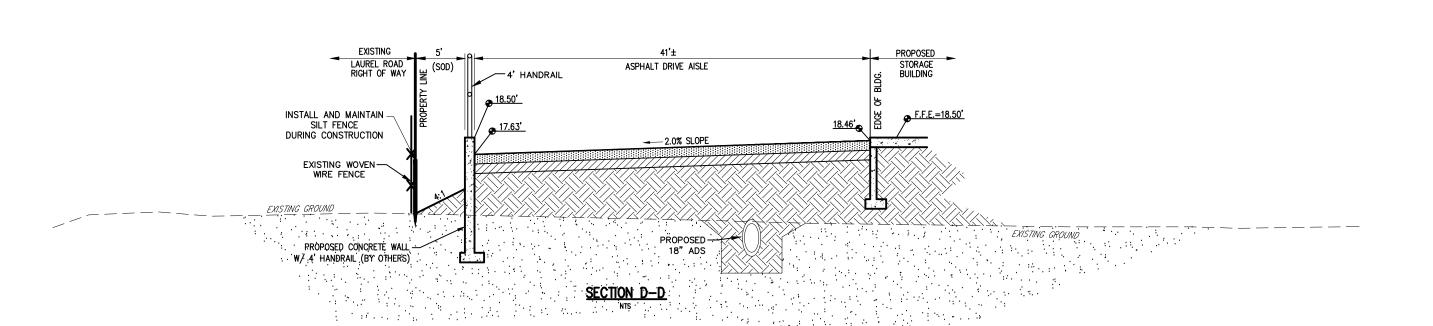
DATE PROJECT DRAWING DESIGN DRAWN CHECKED SCALE SHEET FL LIC #92103

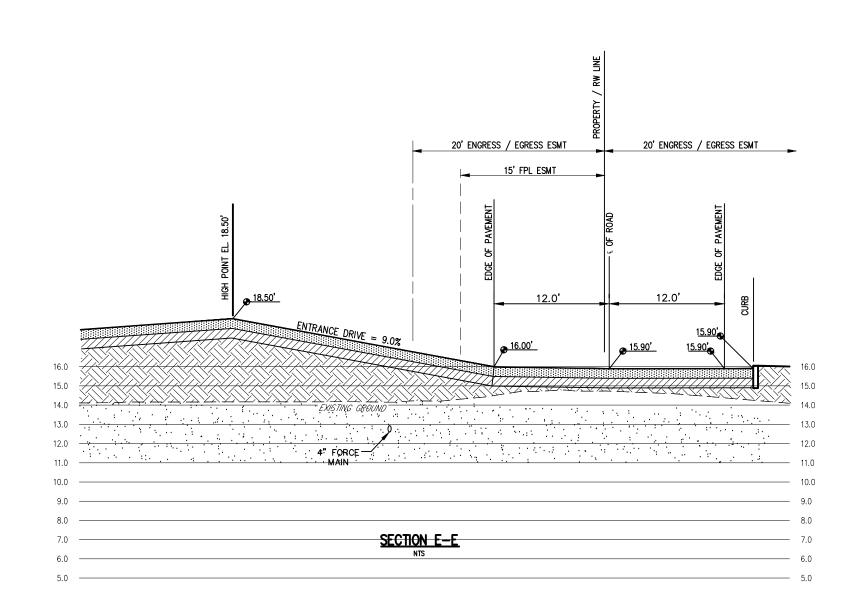
DATE PROJECT DRAWING DESIGN DRAWN CHECKED SCALE SHEET TRR GAE SRS NTS 7B

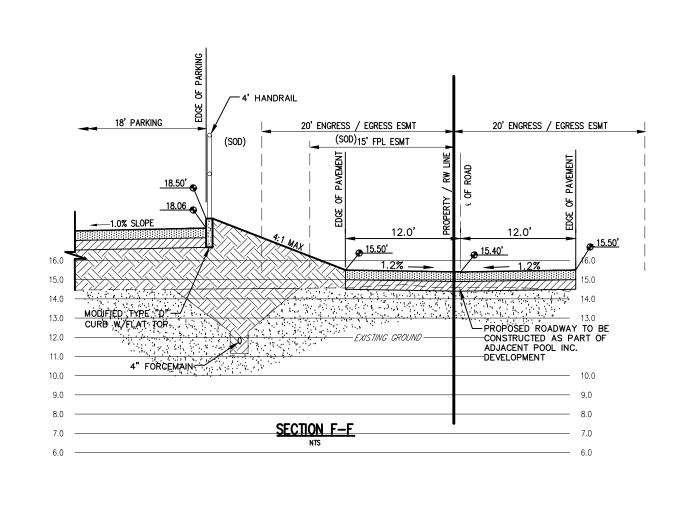


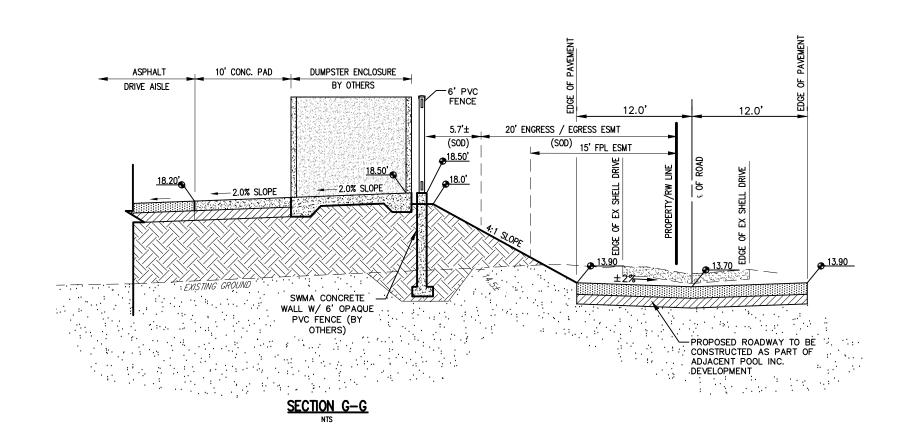




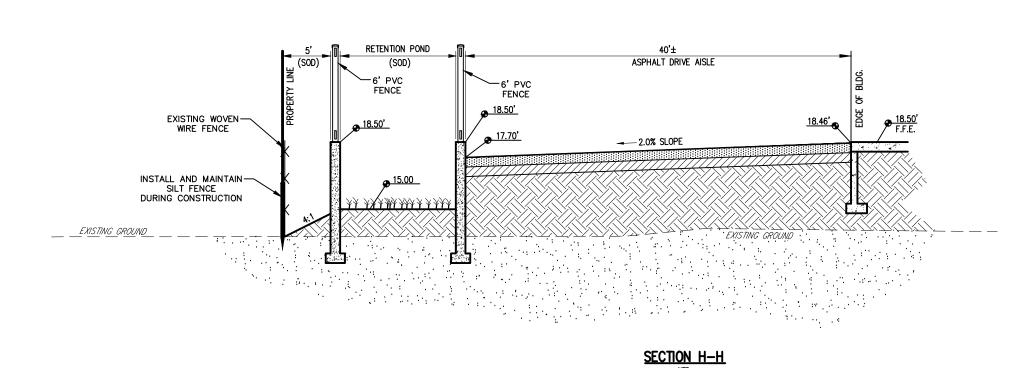








ALL ELEVATIONS ON CIVIL ENGINEERING PLANS REFERENCE: NAVD88



NOTE

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LAUREL STORAGE, LLC
5784 LAKE FORREST DRIVE, SUITE 275
ATLANTA, GA. 30328

PREPARED FOR:

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STEVEN R. SONBERG, P.E., P.S.M.

FL LIC #92103

SITE CROSS SECTIONS

LAUREL STORAGE

SARASOTA COUNTY, FLORIDA

4393C

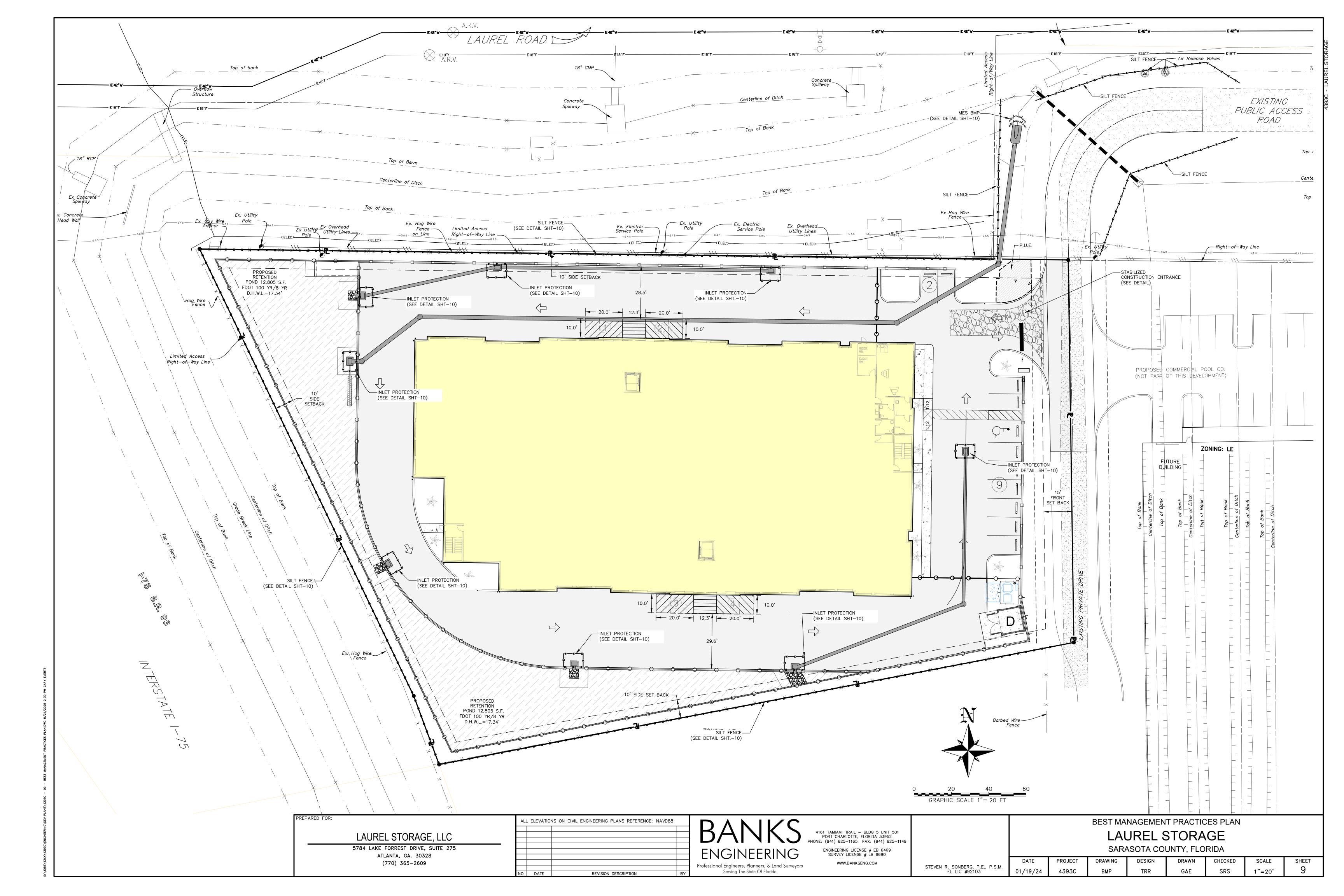
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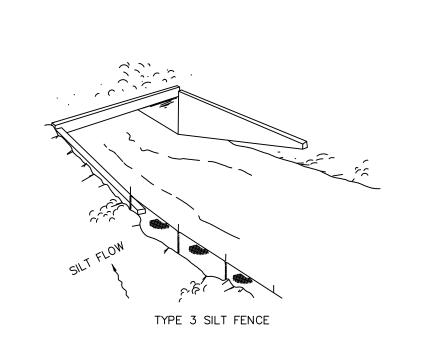
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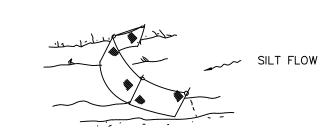
DRAWING DESIGN DRAWN CHECKED SCALE SHEET

V SEC. TRD. CAF. SDS. NITS. 8

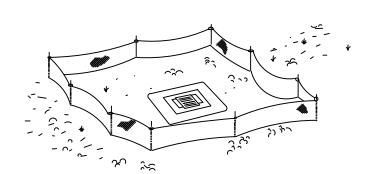
SS\43xX\4383C\ENGINEERING\DEV PLANS\4383C - 08 - SITE GROSS SECTIONS.DWG 3/31/2025 6:02







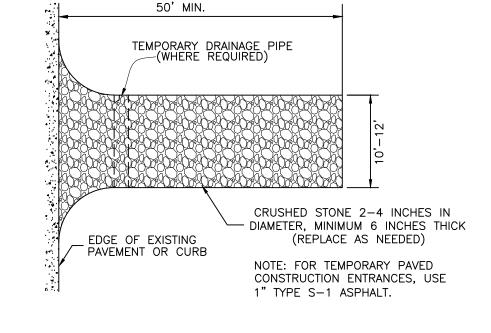
TYPE 3 SILT FENCE



TYPE 3 SILT FENCE PROTECTION AROUND DITCH BOTTOM INLETS.

DO NOT DEPLOY IN A MANNER THAT SILT FENCES WILL ACT AS A DAM ACROSS PERMANENT FLOWING WATERCOURSES. SILT FENCES ARE TO BE USED AT UPLAND LOCATIONS & TURBIDITY BARRIERS

SILT FENCE APPLICATIONS DETAIL N.T.S.



-50' ON CENTERS (TYP.)

ANCHOR BALES WITH 2 - 2" X 2" X 4'

OVERLAP ENDS

NOTE: BALES TO BE STAKED AT THE DIRECTION OF THE ENGINEER.

LOOSE SOIL PLACED BY SHOVEL & LIGHTLY COMPACTED ALONG UPSTREAM

STAKES PER BALE.

TO BE USED AT SELECTED SITES WHERE THE

NATURAL GROUND SLOPES TOWARD THE TOE OF SLOPE

TYPE A OR B FENCE

FACE OF BALES.

BALES BACKED BY FENCE DETAIL

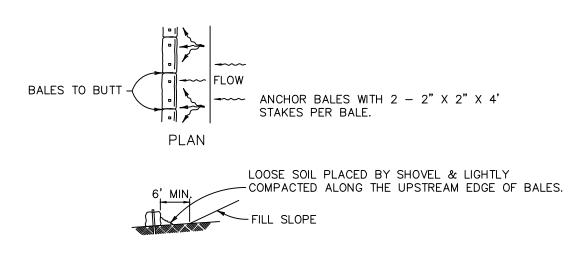
N.T.S.

ELEVATION

PLAN

STABILIZED CONSTRUCTION ENTRANCE/EXIT PLAN VIEW

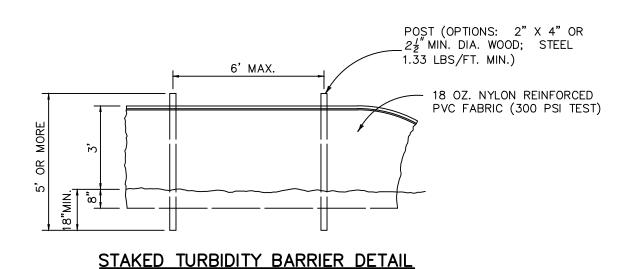
OPTIONAL POST POSITIONS —

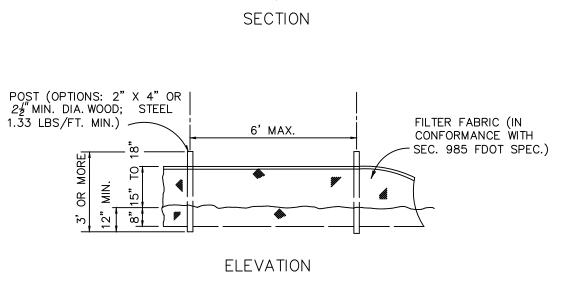


TO BE USED AT SELECTED SITES WHERE THE NATURAL GROUND SLOPES AWAY FROM THE TOE OF SLOPE ELEVATION

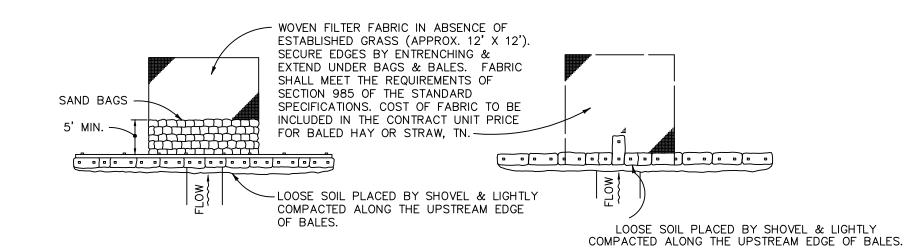
USED AT PERMANENT BODIES OF WATER.

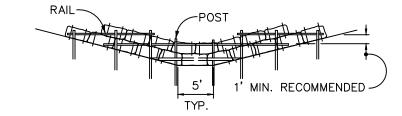
BARRIERS FOR FILL SLOPES DETAIL N.T.S.

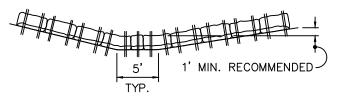




NOTE: SILT FENCE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR STAKED SILT FENCE (LF). TYPE 3 SILT FENCE DETAIL







ANCHOR LOWER BALES WITH 2-2" X 2" X 4' STAKES PER BALE. ANCHOR TOP BALES TO LOWER BALES WITH 2-2" X 2" X 4' STAKES PER BALE. ANCHOR BALES WITH 2-2" X 2" X 4' STAKES PER BALE ELEVATION ELEVATION

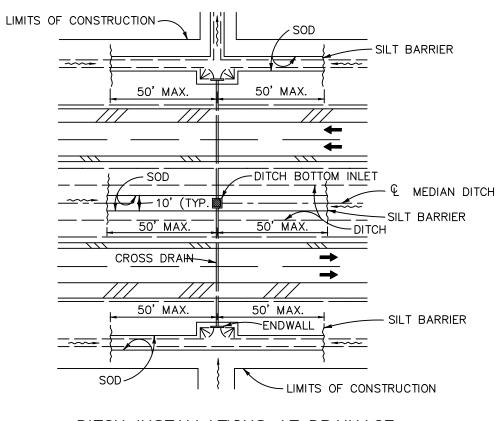
APPLICATION & SPACING: THE USE OF TYPES I & II BALE BARRIERS SHOULD BE LIMITED TO THE CONDITIONS OUTLINED IN CHART I, SHEET 1 OF 3, INDEX NO. 102

TYPE II TYPE I

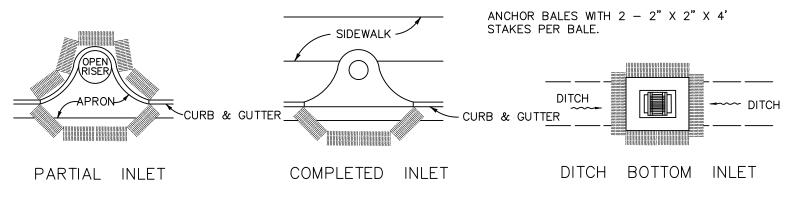
BARRIER FOR UNPAVED DITCHES DETAIL

GENERAL NOTES

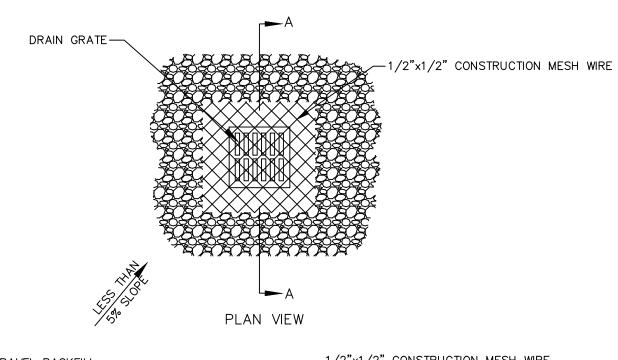
- 1. EROSION CONTROL DETAILS ARE APPLICABLE TO NEW CONSTRUCTION, RECONSTRUCTION & RRR PROJECTS.
- 2. FOR SODDING ADJACENT TO DITCHES & AT HEADWALLS, SEE INDEX NO. 281.
- 3. ALL FRONT SLOPES STEEPER THAN 3:1 ARE TO BE SODDED.

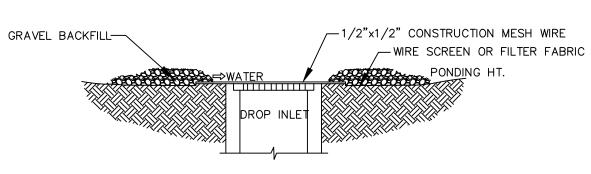






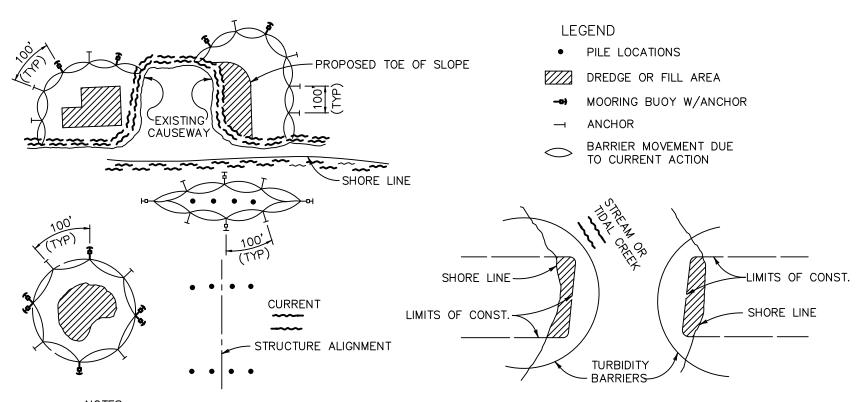
PROTECTION AROUND INLETS OR SIMILAR STRUCTURES DETAIL





SECTION A-A 1. DROP INLET SEDIMENT BARRIERS ARE TO 3. THE TOP OF THE STRUCTURE (PONDING BE USED FOR SMALL, NEARLY LEVEL HEIGHT) MUST BE WELL BELOW THE GROUND ELEVATION DOWNSLOPE TO 2. DRAINAGE AREAS. (LESS THAN 5%) EXCAVATE A BASIN OF SUFFICIENT SIZE PREVENT RUNOFF FROM BY-PASSING ADJACENT TO THE DROP INLET. THE INLET. A TEMPORARY DIKE MAY BE NECESSARY ON THE DOWNSLOPE SIDE OF THE STRUCTURE. 4. MAINTAIN TOP OF PROTECTION ELEVATION

PROTECTION AROUND INLETS OR SIMILAR STRUCTURES N.T.S.



1. TURBIDITY BARRIERS ARE TO BE USED IN ALL PERMANENT BODIES OF WATER REGARDLESS OF WATER DEPTH. 2. NUMBER AND SPACING OF ANCHORS DEPENDENT ON CURRENT VELOCITIES. . DEPLOYMENT OF BARRIER AROUND PILE LOCATIONS MAY VARY TO ACCOMMODATE CONSTRUCTION OPERATIONS. 4. NAVIGATION MAY REQUIRE SEGMENTING BARRIER DURING CONSTRUCTION OPERATIONS. 5. FOR ADDITIONAL INFORMATION SEE SECTION 104 OF THE STANDARD SPECIFICATIONS.

TURBIDITY BARRIER APPLICATION DETAIL

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

TURBIDITY BARRIERS TO BE INSTALLED IN VERTICAL POSITION UNLESS OTHERWISE DIRECTED BY

LAUREL STORAGE, LLC 5784 LAKE FORREST DRIVE, SUITE 275 ATLANTA, GA. 30328

ALL ELEVATIONS ON CIVIL ENGINEERING PLANS REFERENCE: NAVD88

REVISION DESCRIPTION

PRINCIPLE POST POSITION

-FILTER FABRIC

SILT FLOW

(CANTED 20° TOWARD FLOW)

Professional Engineers, Planners, & Land Surveyors

Serving The State Of Florida

4161 TAMIAMI TRAIL - BLDG 5 UNIT 501 PORT CHARLOTTE, FLORIDA 33952 ONE: (941) 625-1165 FAX: (941) 625-1149 ENGINEERING LICENSE # EB 6469 SURVEY LICENSE # LB 6690

WWW.BANKSENG.COM

BELOW EDGE OF PAVEMENT.

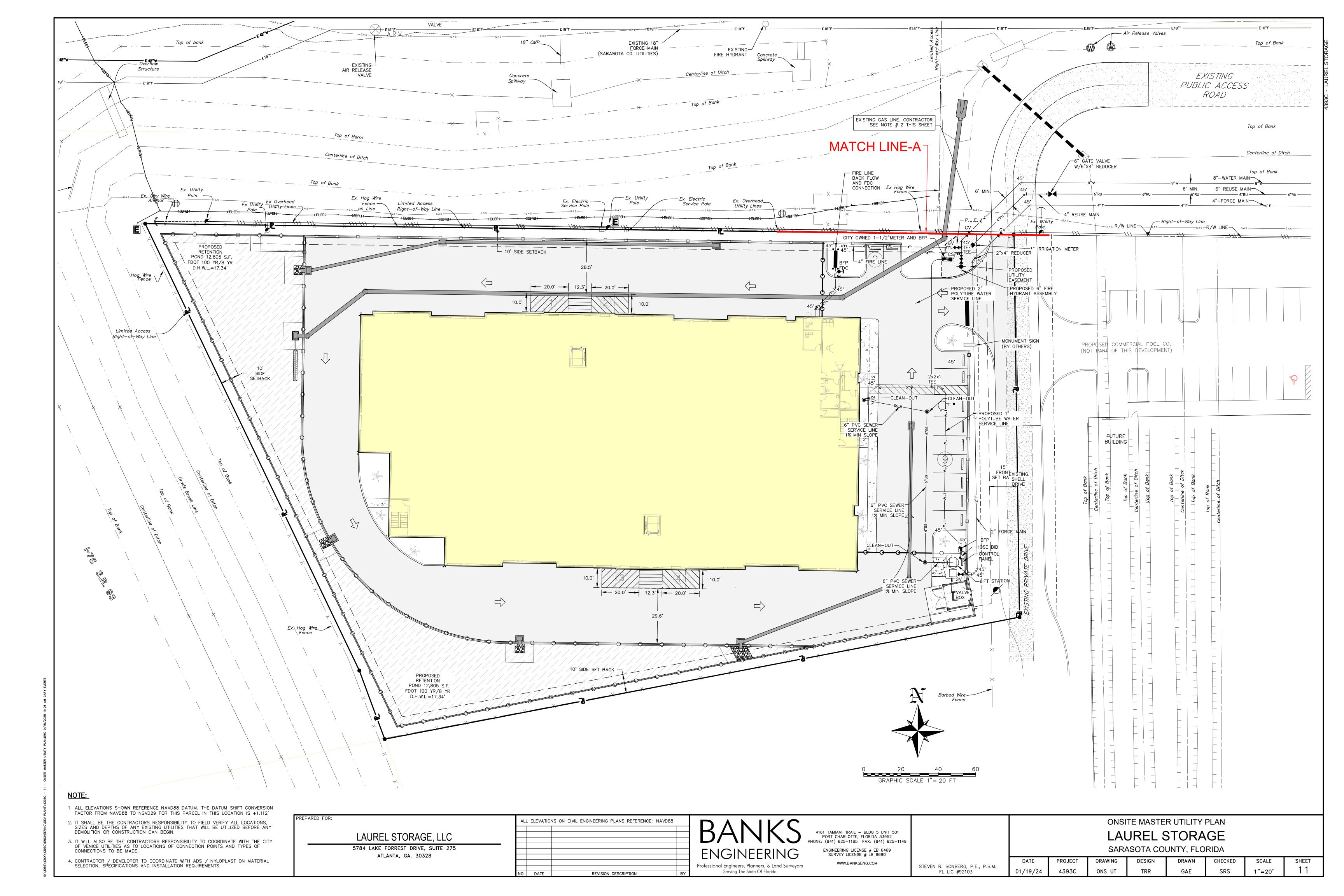
STEVEN R. SONBERG, P.E., P.S.M.

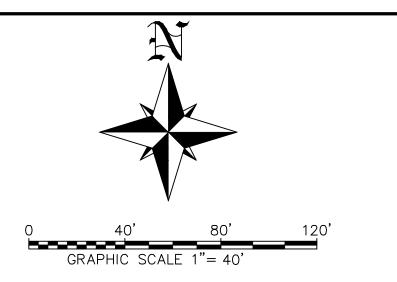
FL LIC #92103

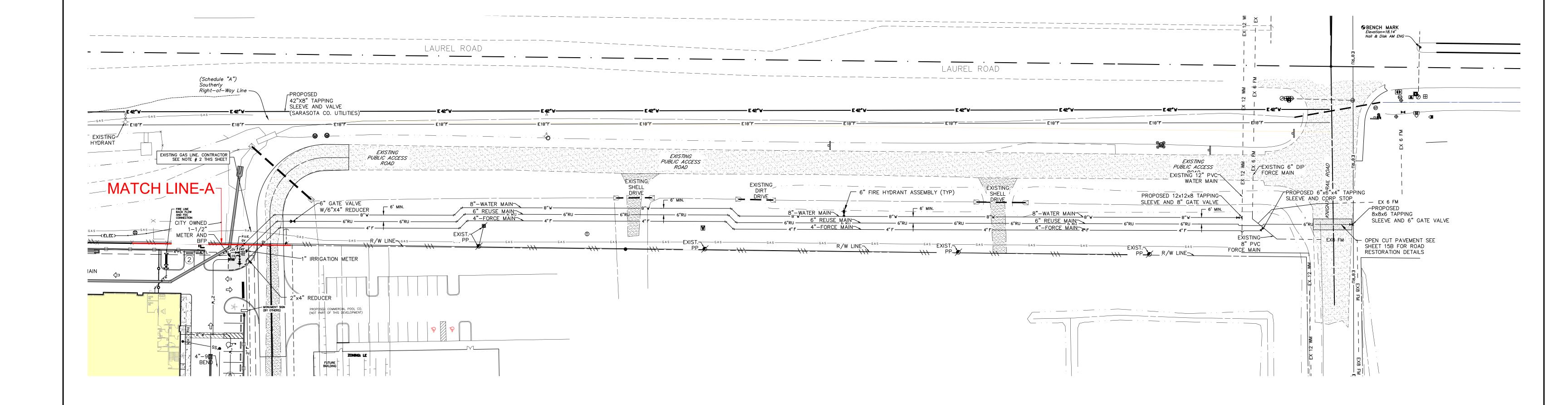
BEST MANAGEMENT PRACTICES PLAN DETAILS LAUREL STORAGE

SARASOTA COUNTY, FLORIDA

PROJECT DRAWING DESIGN DRAWN CHECKED SCALE SHEET 4393C GAE NTS 01/19/24







- 1. ALL ELEVATIONS SHOWN REFERENCE NAVD88 DATUM. THE DATUM SHIFT CONVERSION FACTOR FROM NAVD88 TO NGVD29 FOR THIS PARCEL IN THIS LOCATION IS +1.112'
- IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO FIELD VERIFY ALL LOCATIONS, SIZES AND DEPTHS OF ANY EXISTING UTILITIES THAT WILL BE UTILIZED BEFORE ANY DEMOLITION OR CONSTRUCTION CAN BEGIN.
- 3. IT WILL ALSO BE THE CONTRACTORS RESPONSIBILITY TO COORDINATE WITH THE CITY OF VENICE UTILITIES AS TO LOCATIONS OF CONNECTION POINTS AND TYPES OF CONNECTIONS TO BE MADE.
- 4. CONTRACTOR / DEVELOPER TO COORDINATE WITH ADS / NYLOPLAST ON MATERIAL SELECTION, SPECIFICATIONS AND INSTALLATION REQUIREMENTS.

PREPARED FOR: ALL ELEVATIONS ON CIVIL ENGINEERING PLANS REFERENCE: NAVD88 LAUREL STORAGE, LLC 5784 LAKE FORREST DRIVE, SUITE 275 ATLANTA, GA. 30328

Professional Engineers, Planners, & Land Surveyors

Serving The State Of Florida

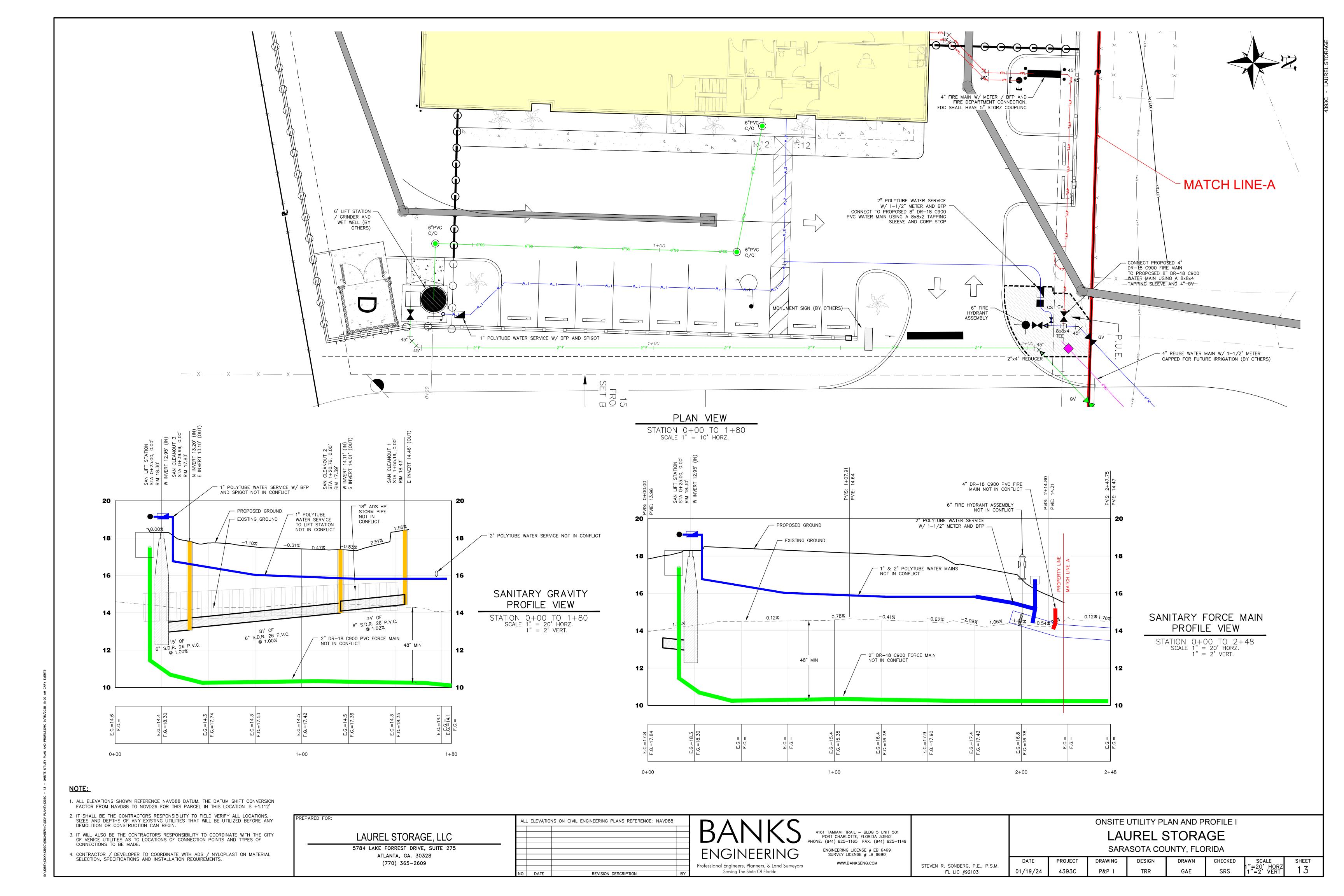
4161 TAMIAMI TRAIL — BLDG 5 UNIT 501 PORT CHARLOTTE, FLORIDA 33952 PHONE: (941) 625—1165 FAX: (941) 625—1149 ENGINEERING LICENSE # EB 6469 SURVEY LICENSE # LB 6690 WWW.BANKSENG.COM

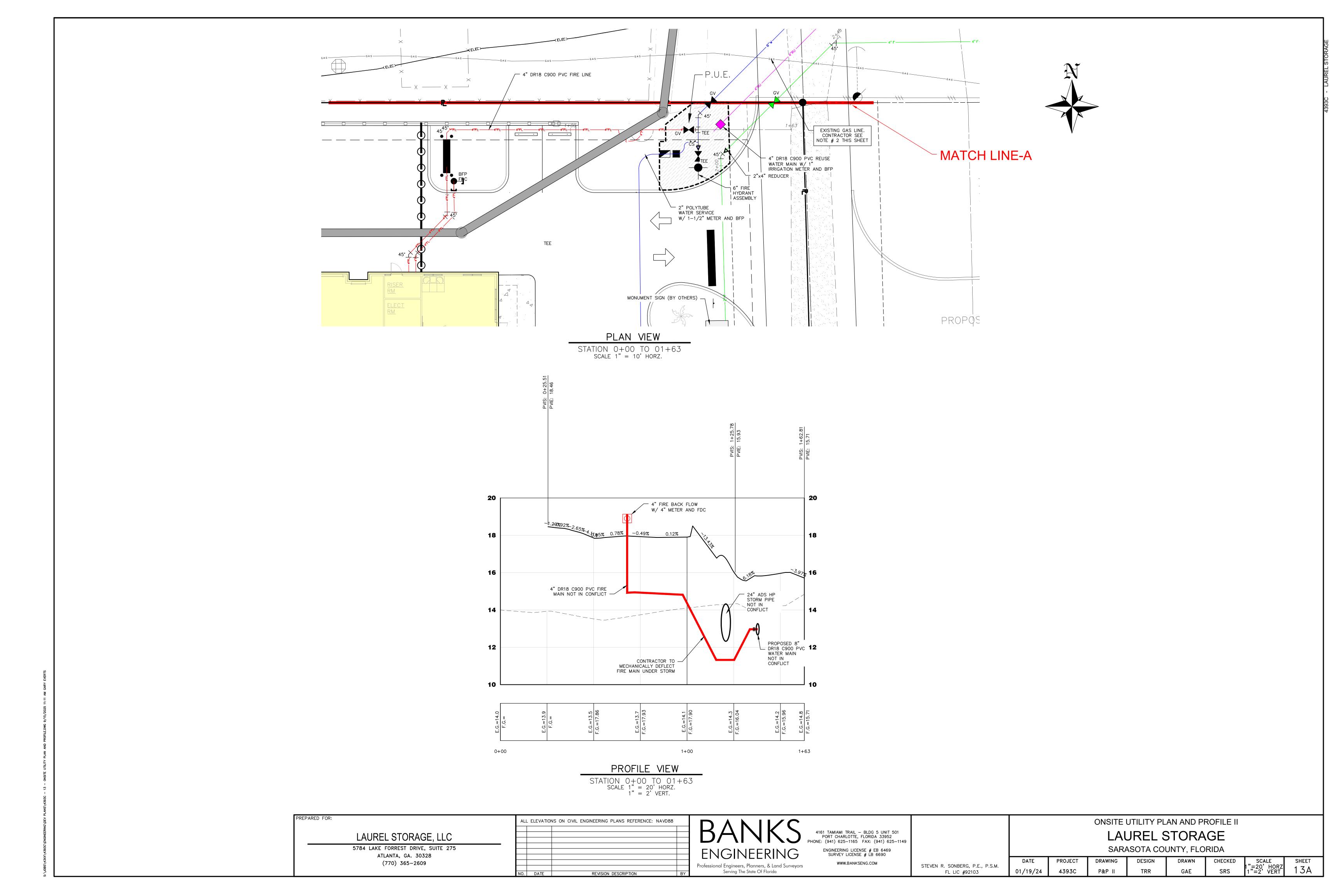
FL LIC #92103

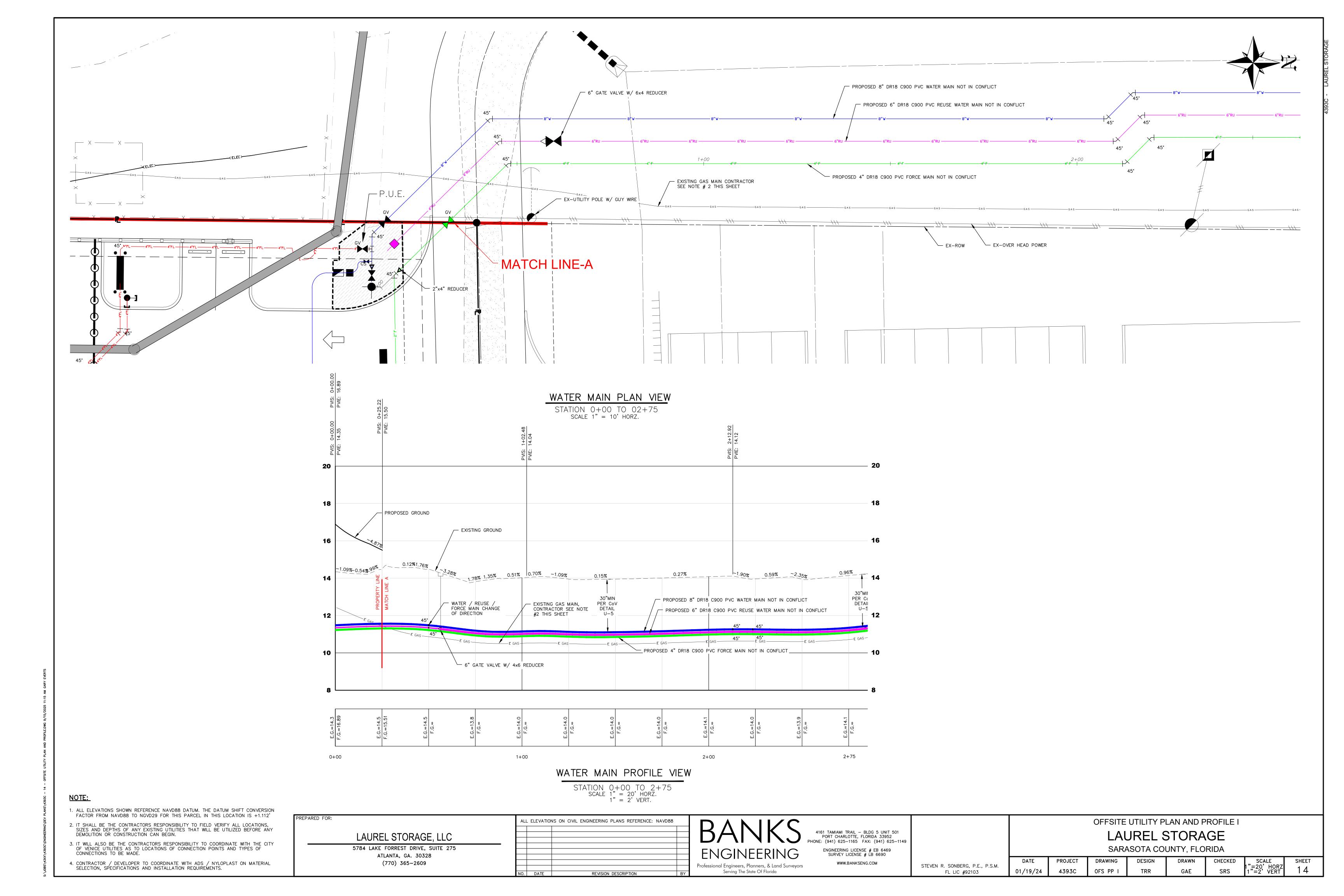
OFFSITE MASTER UTILITY PLAN LAUREL STORAGE SARASOTA COUNTY, FLORIDA

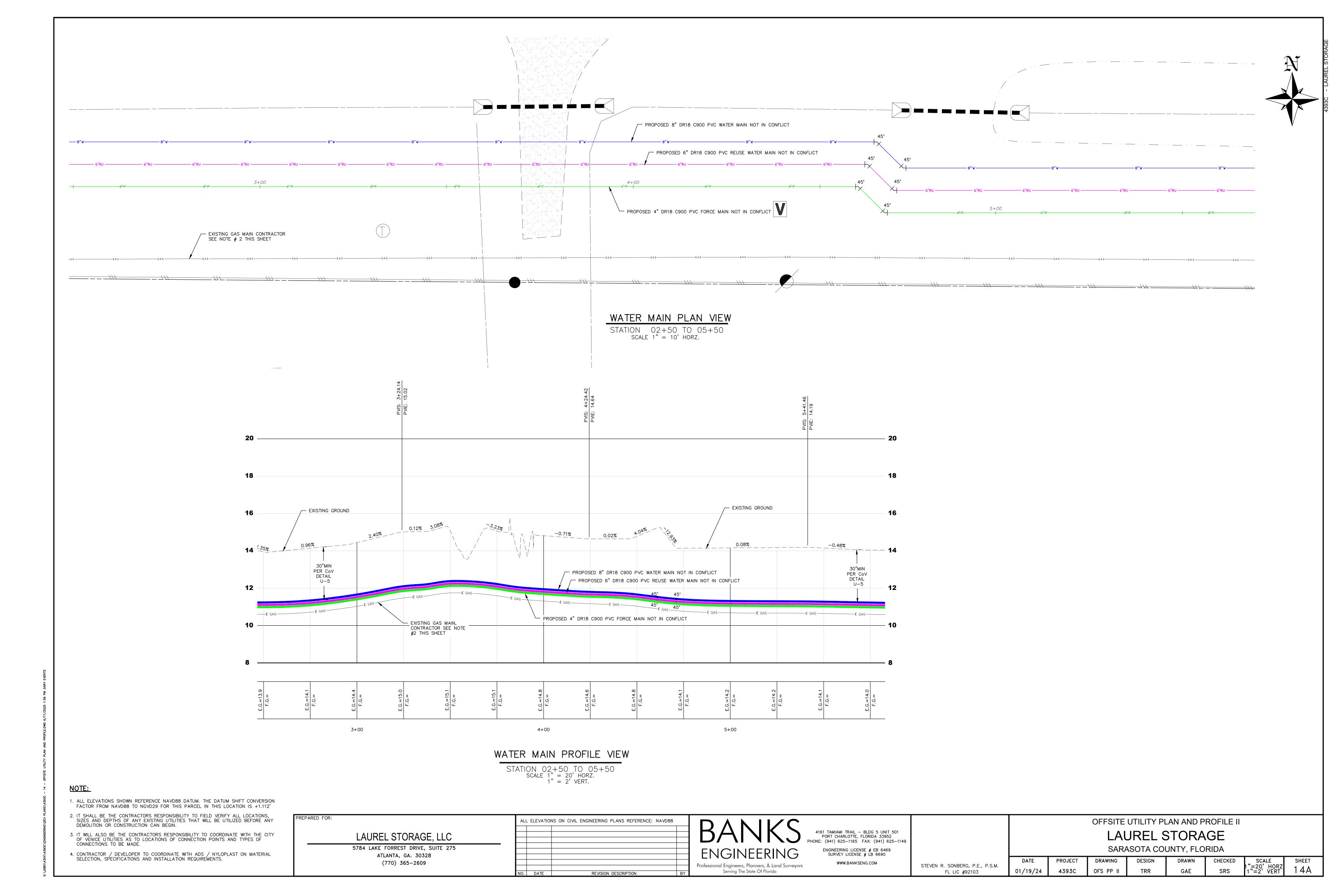
SHEET

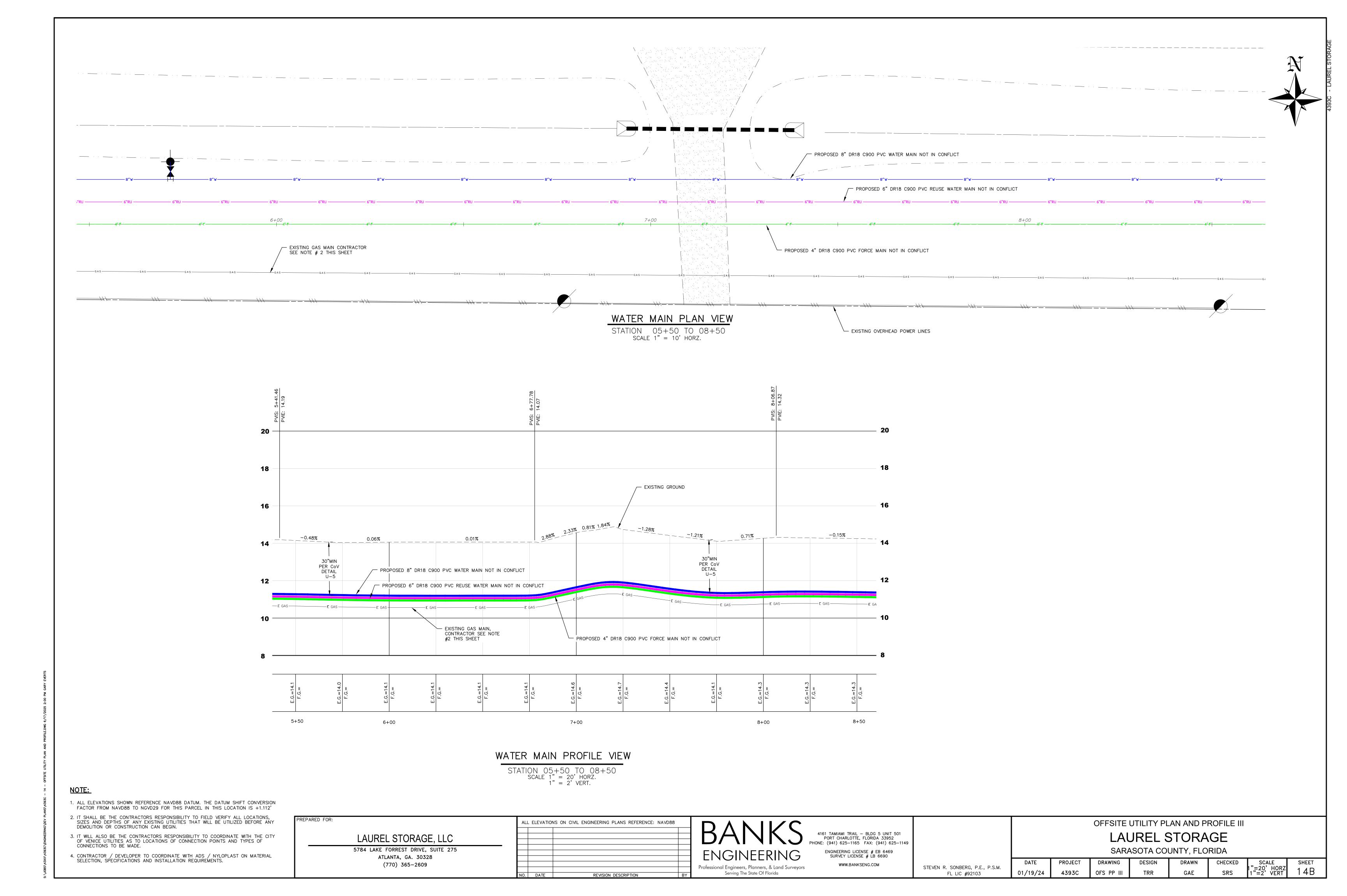
DRAWING DESIGN DRAWN STEVEN R. SONBERG, P.E., P.S.M. 4393C

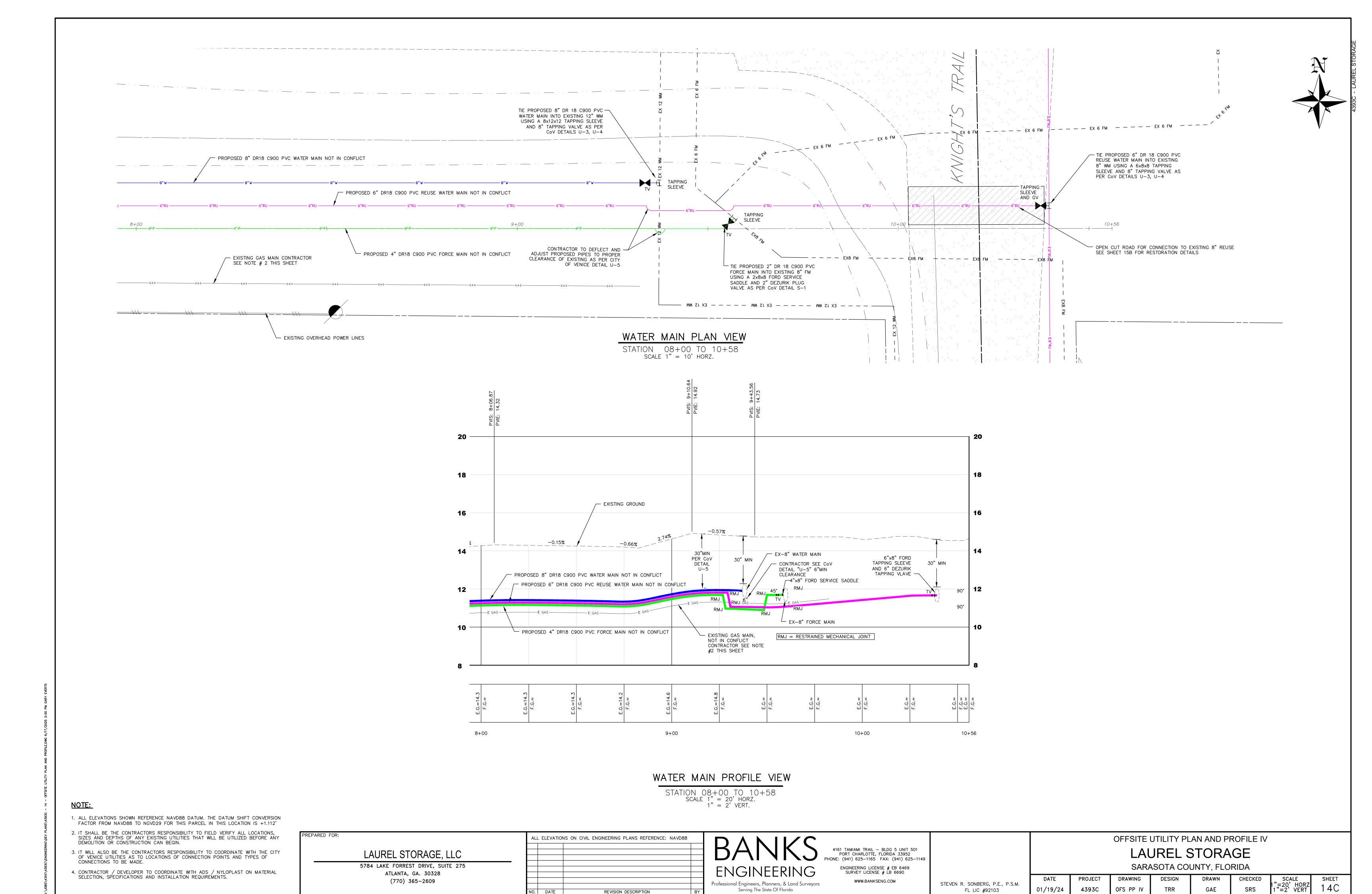


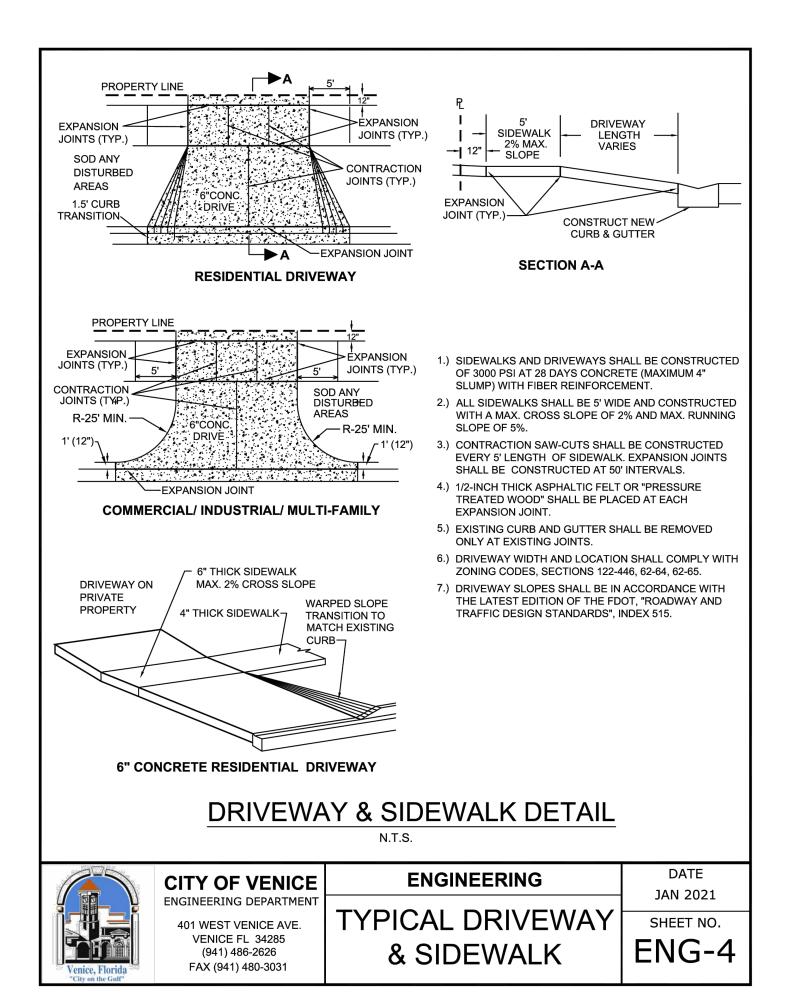


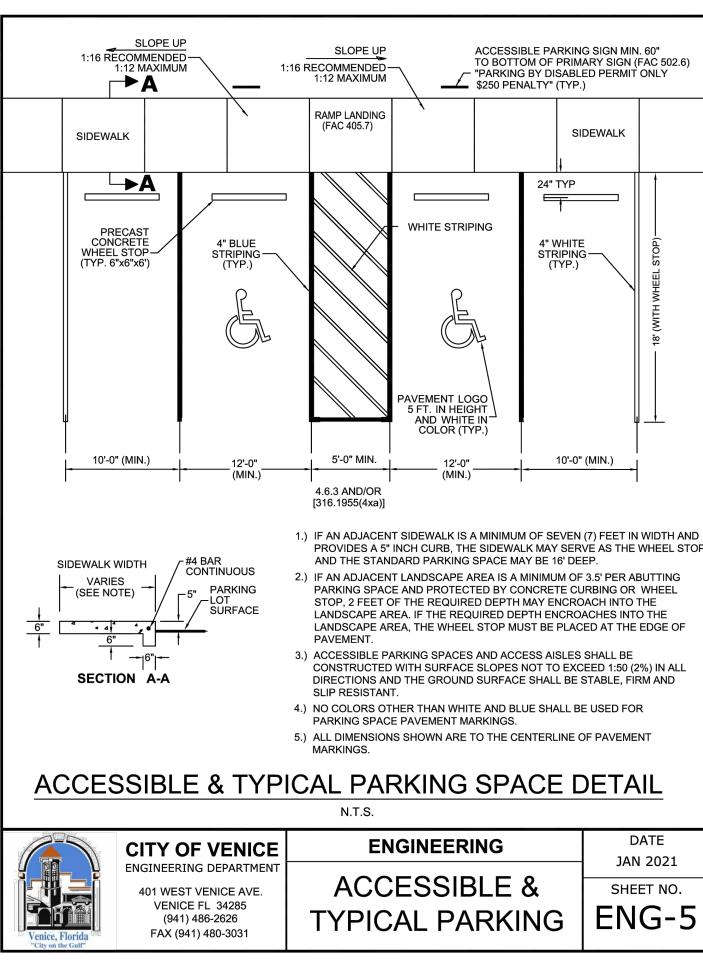


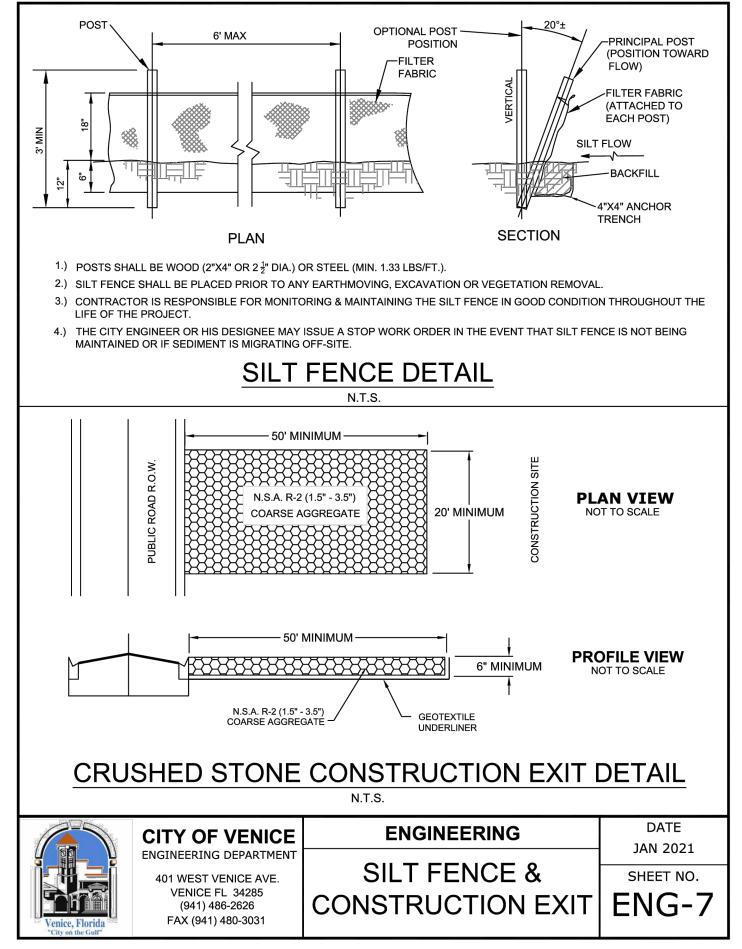


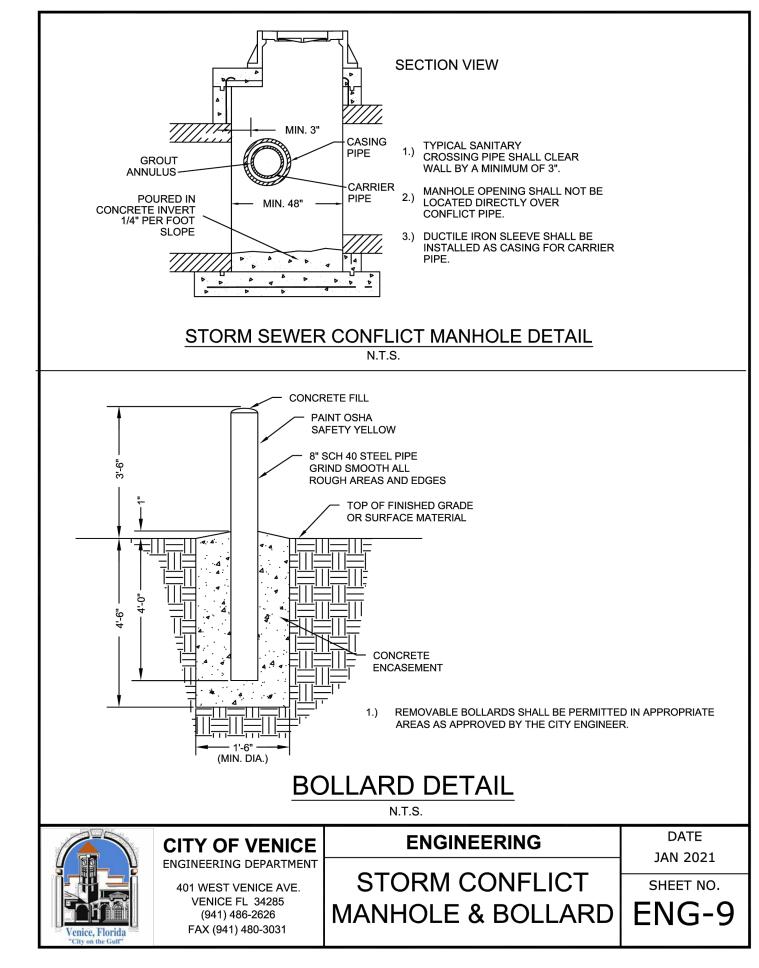


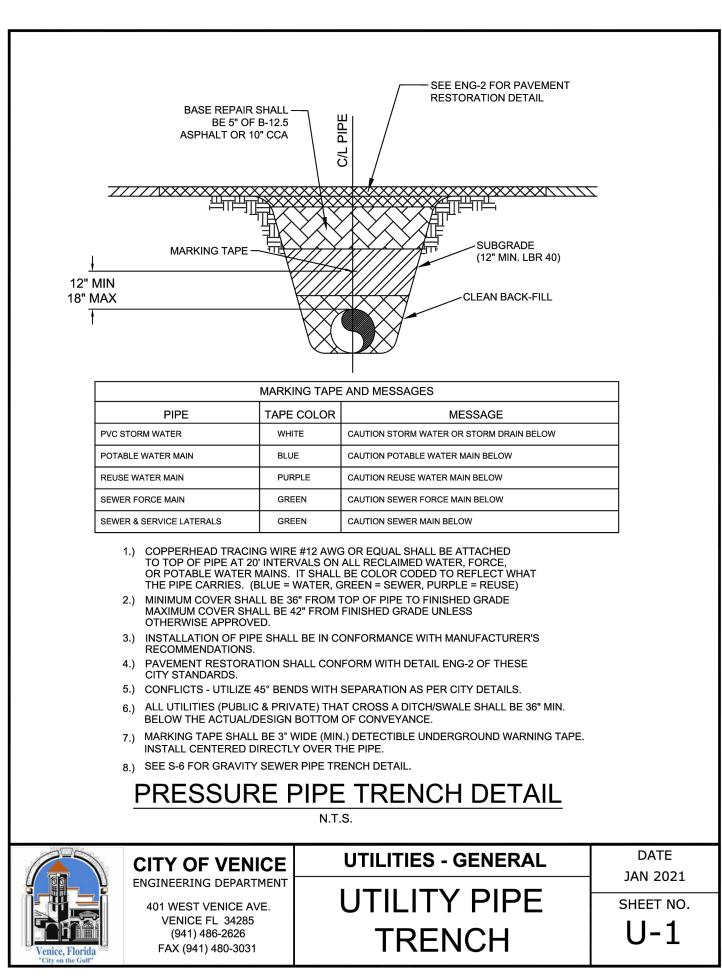


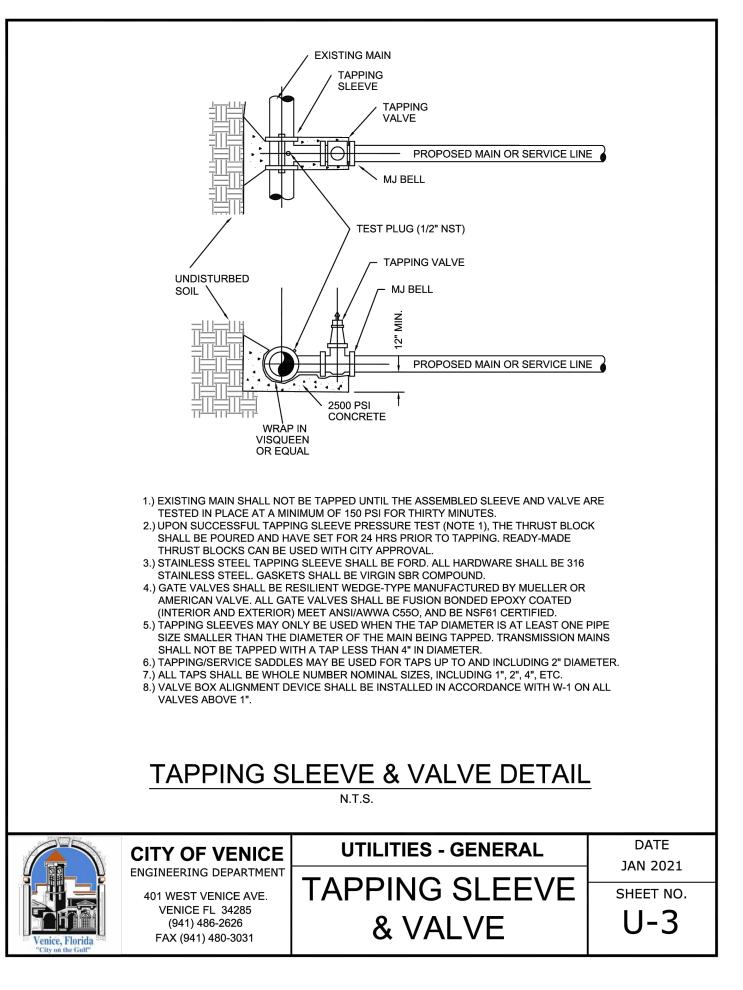


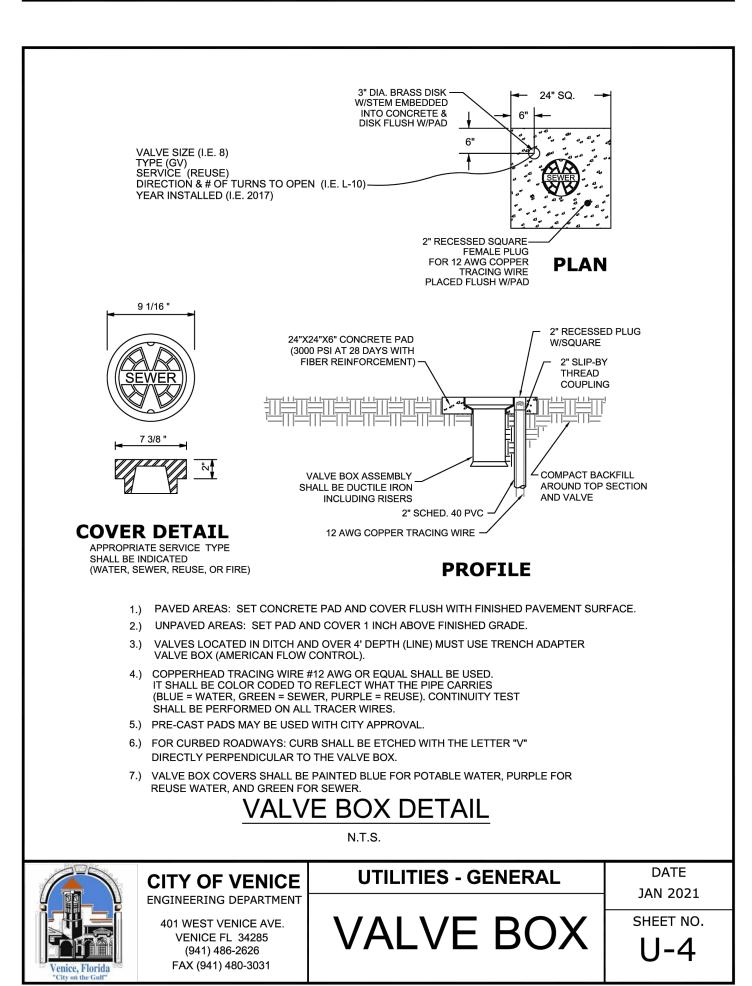


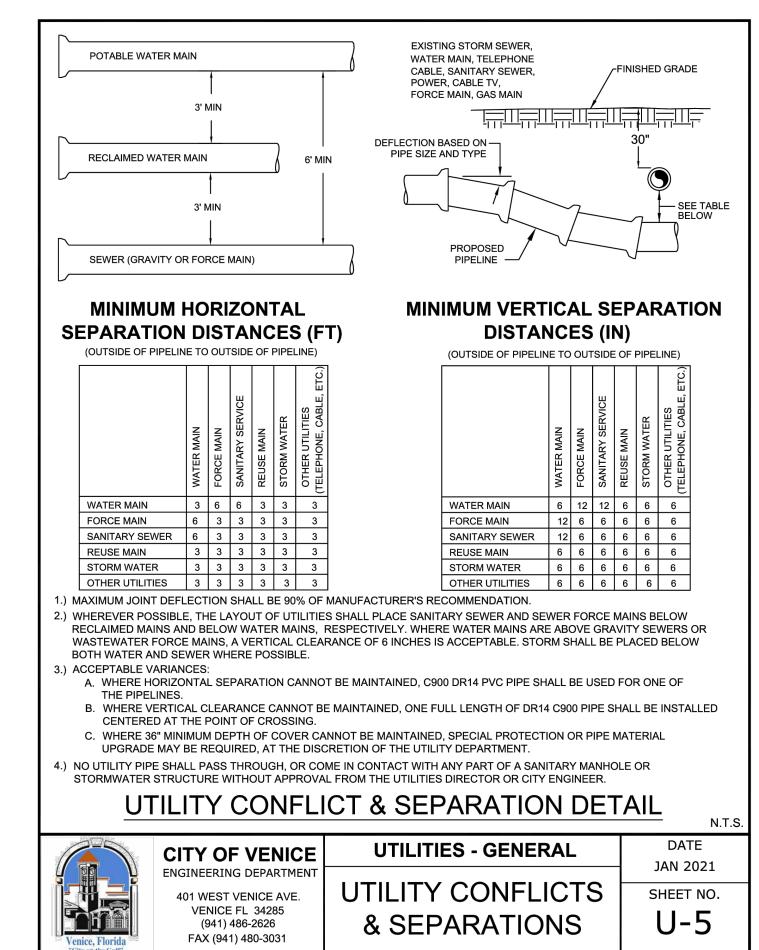


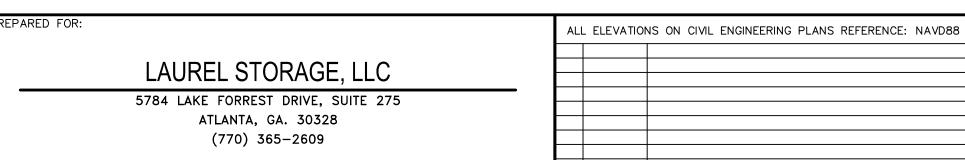














4161 TAMIAMI TRAIL — BLDG 5 UNIT 501
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ENGINEERING LICENSE # EB 6469
SURVEY LICENSE # LB 6690

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STEVEN R. SONBERG, P.E., P.S.M.

DATE PROJECT

01/19/24

FL LIC #92103

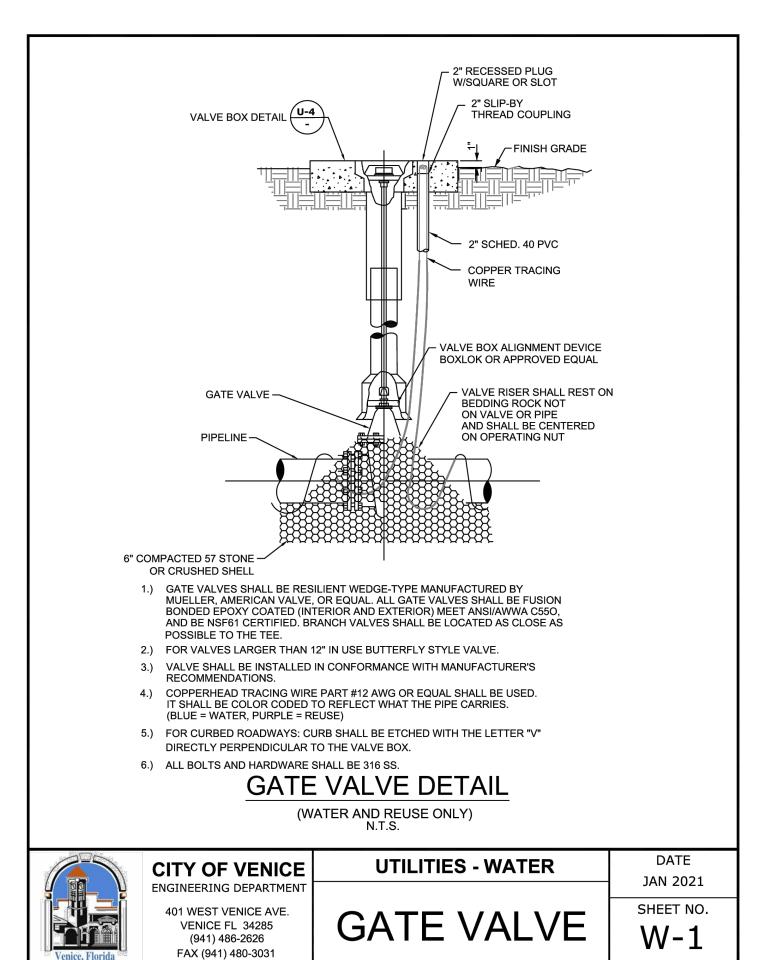
4393C

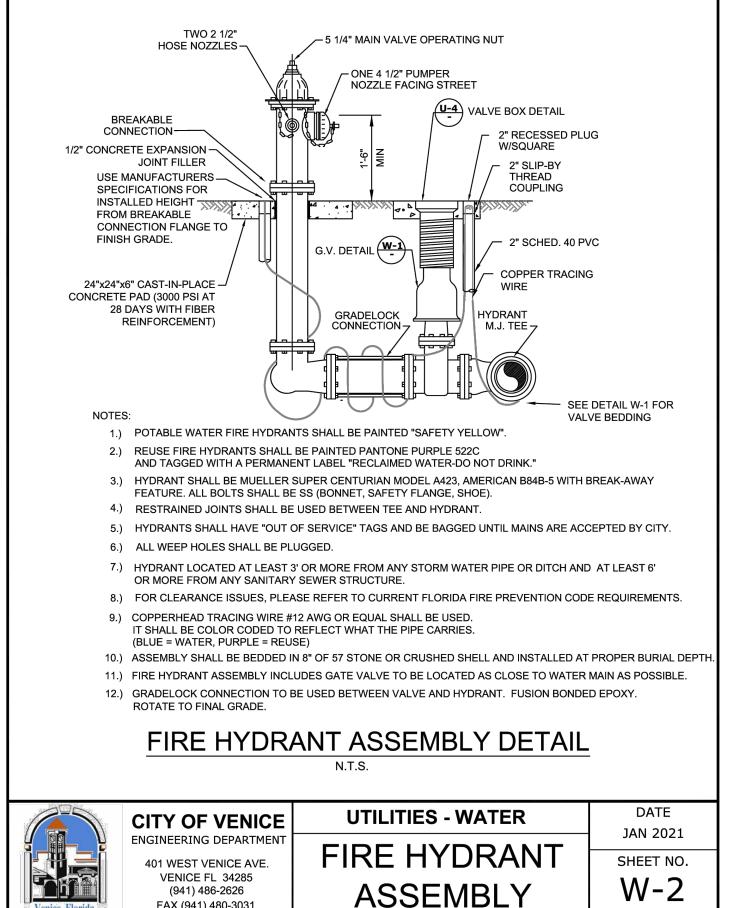
UTILITY DETAILS I

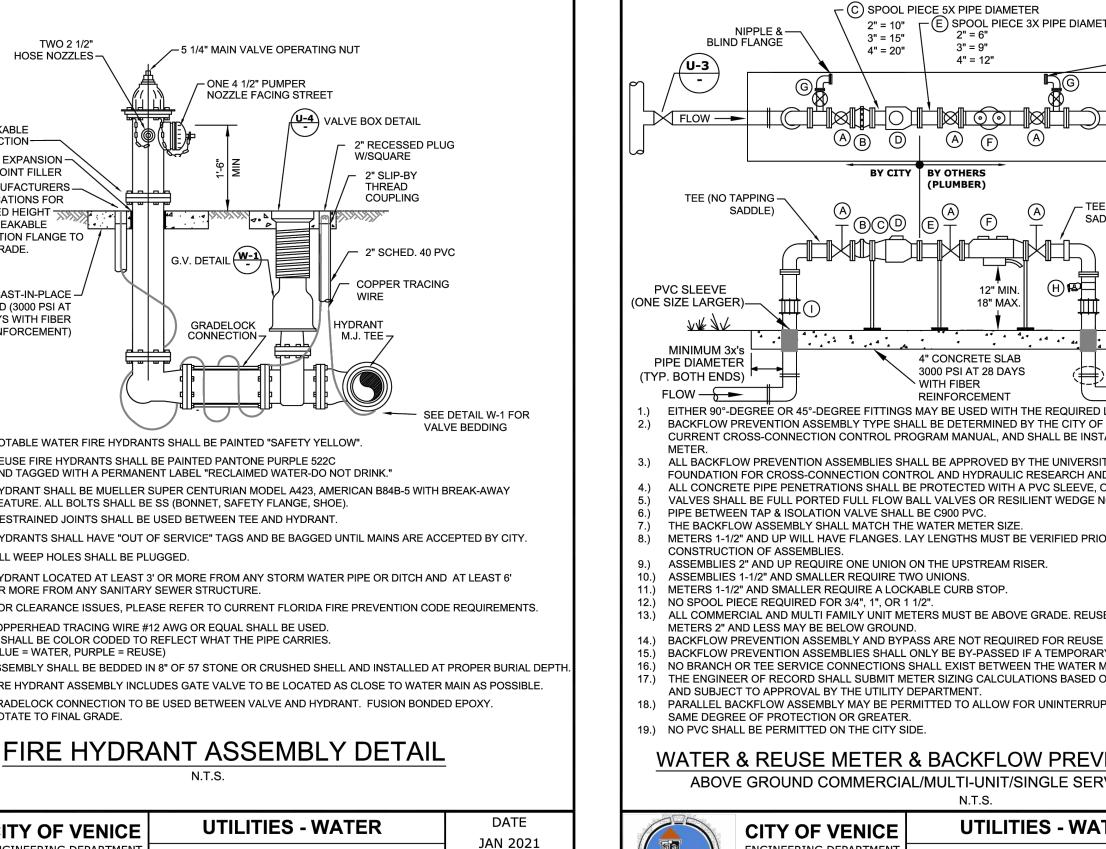
LAUREL STORAGE

LAUREL STORAGE
SARASOTA COUNTY, FLORIDA

DRAWING DESIGN DRAWN CHECKED SCALE SHEET
1.5







→ INSTALLED BY PLUMBER

N.T.S.

N.T.S.

DATE

JAN 2021

SHEET NO.

W-7

LOCKABLE CURBSTOP

FOR TESTING

2" TAPPING

SADDLE &

STOP (TYP.)

CORPORATION

PURPOSES ONLY

TEMPORARY

BLOCK ENDS OF METER

– BOX WITH FI FXIBI F WATERPROOF SHEETING

2"X4" POST

BACKFLOW PREVENTION

REUSE METER AND COUPLING

1.) THE REUSE SYSTEM SHALL USE AN OLDCASTLE CARSON MODEL #1220 OR APPROVED EQUAL, THE LID SHALL BE

WITH THE OPERATING NUT ON TOP AND ACCESSIBLE FOR SERVICE BY A CURB STOP KEY

SHEETING. SHEETING SHALL BE A PVC TYPE MATERIAL WITH MINIMUM 40 MIL THICKNESS.

M I

INLINE GATE VALVE REQUIRED

IN CLOSED POSITION

(DETAIL 2, SHEET 4)

STAMPED "NON-POTABLE" & "DO NOT DRINK" IN BOTH ENGLISH AND SPANISH AND MUST BE LOCKABLE, METER BOX

.) CENTER METER IN BOX AND BLOCK ENDS OF BOX TO PREVENT DIRT FROM ENTERING WITH FLEXIBLE WATERPROOF

4.) COPPERHEAD TRACING WIRE #12 AWG OR EQUAL SHALL BE USED. IT SHALL BE COLOR CODED TO REFLECT WHAT THE

REUSE METER

18" MAX

MAIN LINE

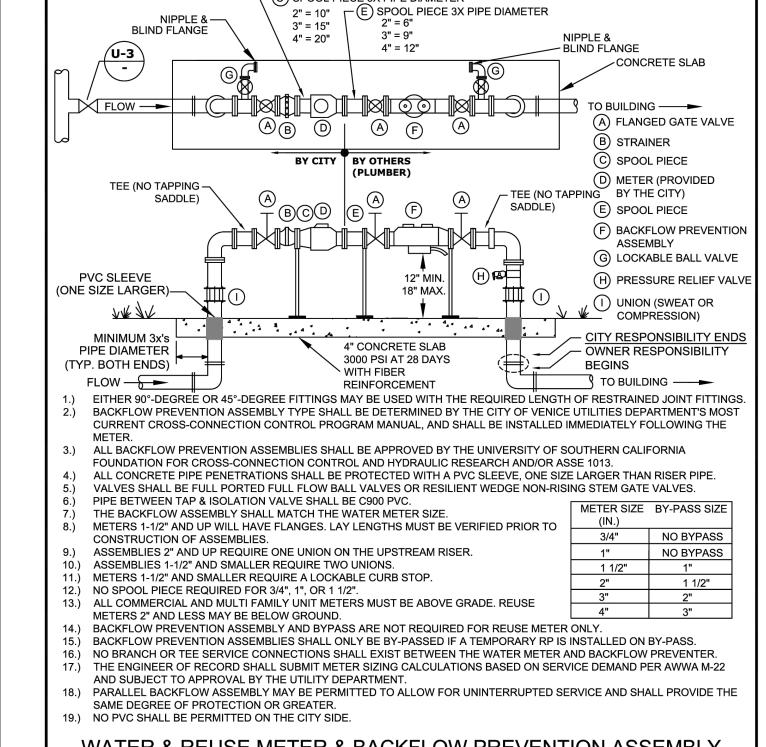
1.) BACKFLOW PREVENTION ASSEMBLY MUST BE CERTIFIED WITHIN THE PAST YEAR AND A VISIBLE TAG INSTALLED.

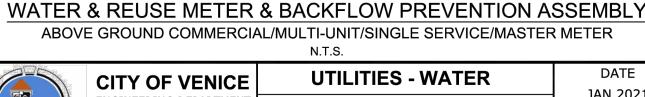
2.) INLINE MAIN VALVE MUST REMAIN CLOSED UNTIL FINAL CITY TURNOVER IS COMPLETE AND FDEP CLEARANCE IS ISSUED

RESIDENTIAL & COMMERCIAL 2" AND BELOW

) CURB STOP MUST BE LOCATED INSIDE THE METER BOX AND SHALL BE LOCKED IN THE CLOSED POSITION WITH A LOCK SUPPLIED BY THE UTILITIES DEPARTMENT AT THE TIME OF SERVICE LINE INSTALLATION. LOCK TO BE REMOVED BY THE UTILITIES DEPARTMENT ONLY AFTER STANDARD DETAIL REQUIREMENTS ARE MET. ALL CURB STOPS SHALL BE ORIENTED

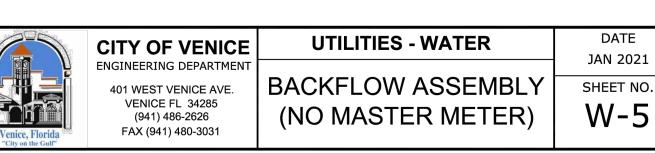
INSTALLED BY THE CITY OF VENICE (SEE NOTE 3)







JAN 2021 WATER & REUSE SHEET NO. **METER & BACKFLOW**



BLOCK ENDS OF METER

WATERPROOF SHEETING

BOX WITH FLEXIBLE

1.) BACKFLOW PREVENTION ASSEMBLY TYPE SHALL BE DETERMINED BY THE CITY OF VENICE UTILITIES

FOUNDATION FOR CROSS-CONNECTION CONTROL AND HYDRAULIC RESEARCH AND/OR ASSE 1013.

2.) ALL BACKFLOW PREVENTION ASSEMBLIES SHALL BE APPROVED BY THE UNIVERSITY OF SOUTHERN CALIFORNIA

5.) INSTALLED IMMEDIATELY AFTER THE UTILITY WATER METER. PER THE CROSS CONNECTION CONTROL MANUAL.

6.) NO BRANCH OR TEE CONNECTIONS SHALL EXIST BETWEEN THE WATER METER AND BACKFLOW PREVENTER.

9.) PROTECTIVE PIPE SLEEVES MAY BE PVC PIPE ONE SIZE LARGER THAN RISER OR OTHER CITY APPROVED

BACKFLOW PREVENTION ASSEMBLY

(RESIDENTIAL, NOT MASTER METERED)

N.T.S.

UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY OF VENICE UTILITIES DIRECTOR AND WITH A SIGNED

DEPARTMENT'S MOST CURRENT CROSS-CONNECTION CONTROL PROGRAM

8.) SHEETING SHALL BE A PVC TYPE MATERIAL WITH A MINIMUM OF 40 MIL. THICKNESS.

12.) LINE DOWNSTREAM OF METER AND PRIOR TO BACKFLOW SHALL BE POLYETHYLENE.

13.) NO PVC SMALLER THAN 4" DIAMETER SHALL BE INSTALLED ON CITY-OWNED UTILITIES.

4.) THE WATER METER AND BACKFLOW PREVENTER SHALL BE THE SAME SIZE

7.) ALL METER BOXES SHALL BE SET FLUSH WITH FINISHED GRADE.

3.) ALL ABOVE GROUND PIPING SHALL BE RIGID COPPER.

WAIVER AGREEMENT BY THE CUSTOMER.

11.) PRESSURE RELIEF VALVE SHALL BE INSTALLED.

10.) UNIONS ARE REQUIRED ON THE RISERS.

PROTECTIVE PVC PIPE -

SLEEVES AROUND

VERTICAL PIPING

- PRESSURE RELIEF VALVE

- CITY RESPONSIBILITY ENDS

OWNER RESPONSIBILITY

12" WIDE, 3" THICK CONCRETE SLAB

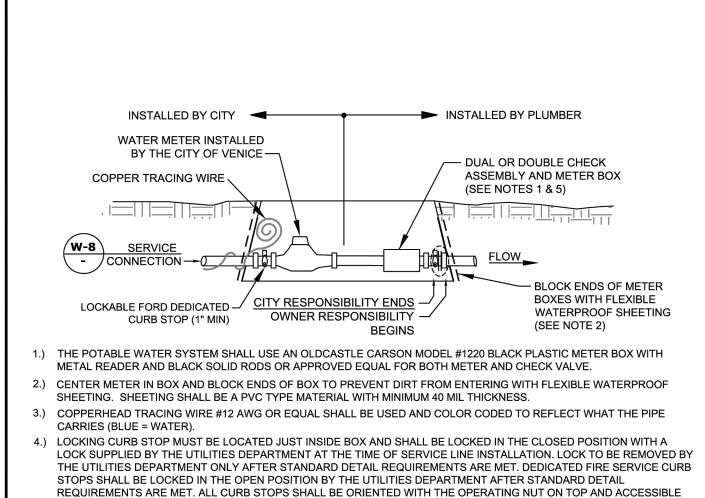
CENTERED BENEATH BACKFLOW.

3000 PSI AT 28 DAYS WITH FIBER

REINFORCEMENT.

BEGINS

UNION (TYP 2)



REQUIREMENTS ARE MET. ALL CURB STOPS SHALL BE ORIENTED WITH THE OPERATING NUT ON TOP AND ACCESSIBLE FOR SERVICE BY A CURB STOP KEY. 5.) DUAL CHECK ASSEMBLY, WHEN REQUIRED BY THE CITY OF VENICE UTILITIES DEPARTMENT'S MOST CURRENT

CROSS-CONNECTION CONTROL PROGRAM, SHALL BE INSTALLED BY A PLUMBER IMMEDIATELY AFTER THE WATER METER. 6.) RESIDENTIAL FIRE SERVICE SPRINKLERS INCORPORATED INTO DOMESTIC RESIDENTIAL PLUMBING SHALL BE

SERVICED BY AN ELECTRONIC WATER METER MEETING NFPA STANDARDS FOR FLOW AND PRESSURE LOSS. 7.) THE ENGINEER OF RECORD SHALL SUBMIT METER SIZING CALCULATIONS BASED ON SERVICE DEMAND PER

AWWA M-22 AND SUBJECT TO APPROVAL BY THE UTILITIES DEPARTMENT. 8.) ALL METER BOXES SHALL BE SET FLUSH WITH FINISHED GRADE.

9.) NO PVC SMALLER THAN 4" DIAMETER SHALL BE INSTALLED ON CITY-OWNED UTILITIES.

RESIDENTIAL WATER & FIRE METER

(RESIDENTIAL USE ONLY)

CITY OF VENICE NGINEERING DEPARTMENT 101 WEST VENICE AVE. VENICE FL 34285 (941) 486-2626 FAX (941) 480-3031

UTILITIES - WATER RESIDENTIAL WATER &

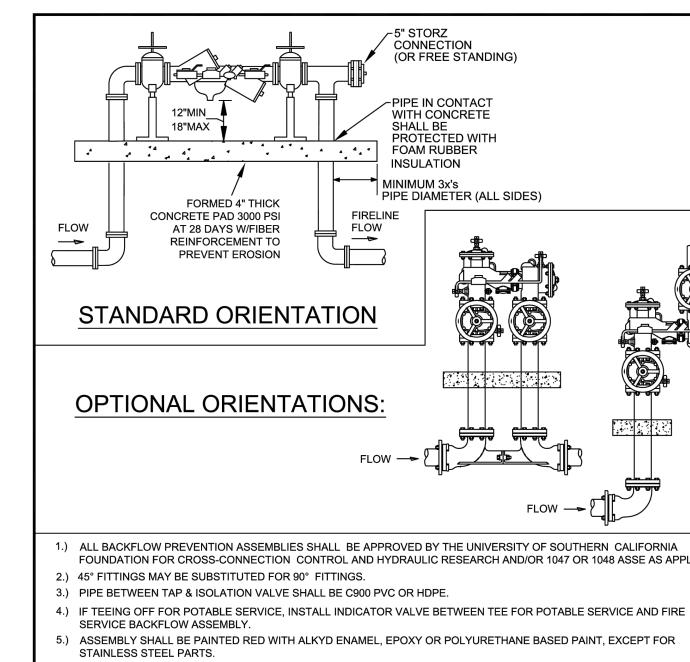
JAN 2021 SHEET NO. FIRE METER

DATE W-6

(770) 365-2609

4.) DURING JUMPER REMOVAL, CORPORATION STOPS SHALL BE SHUT OFF AND PLUGGED WITH LEAD FREE BRASS PLUGS. TEMPORARY MAIN-LINE JUMPER DETAIL **UTILITIES - WATER** CITY OF VENICE **REUSE METER &** 401 WEST VENICE AVE. VENICE FL 34285 **TEMPORARY JUMPER** (941) 486-2626

3.) JUMPER ASSEMBLY SHALL BE REMOVED ONCE MAIN LINE IS CLEARED AND TURNED OVER TO CITY.



FOUNDATION FOR CROSS-CONNECTION CONTROL AND HYDRAULIC RESEARCH AND/OR 1047 OR 1048 ASSE AS APPLICABLE

6.) VALVE ASSEMBLIES SHALL MEET NFPA 24 REQUIREMENTS AND INDICATOR VALVES SHALL BE PROVIDED. 7.) FOR CLEARANCE ISSUES, PLEASE REFER TO THE CURRENT FLORIDA FIRE PREVENTION CODE REQUIREMENTS.

8.) FOR FIRE PROTECTION SYSTEMS EQUIPPED WITH A FIRE PUMP, THE PIPE BETWEEN THE CHECK VALVE AND THE OUTSIDE CONNECTION SHALL BE EQUIPPED WITH AN APPROVED BALL DRIP.

9.) BACKFLOW PREVENTION ASSEMBLY TYPE SHALL BE DETERMINED BY THE CITY OF VENICE UTILITIES DEPARTMENT'S MOST CURRENT CROSS-CONNECTION CONTROL PROGRAM.

10.) 5" STORZ INLET CONNECTION MAY BE REDUCED FOR PIPE SIZES LESS THAN 5" FIRE SERVICE BACKFLOW ASSEMBY

SIZE 2" - 10" **UTILITIES - WATER**

CITY OF VENICE ENGINEERING DEPARTMENT 401 WEST VENICE AVE. VENICE FL 34285 (941) 486-2626 FAX (941) 480-3031

FIRE SERVICE **BACKFLOW ASSEMBL**

JAN 2021 SHEET NO. W-9

DATE

N.T.S

4 PLACES ON 10 1/2 DIA, B.C -12.00 DIA: 1) INDICATOR POST REQUIRED WHEN FIRE SERVICE POINT OF CONNECTION IS ON A POTABLE WATER SERVICE. 2) INSTALL INDICATOR POST AND VALVE BETWEEN TEE FOR POTABLE SERVICE AND FIRE SERVICE BACKFLOW 3.) AMERICAN FLOW CONTROL IP-71 INDICATOR POST OR EQUIVALENT SHALL BE INSTALLED. 4.) UNDERWRITERS LABORATORIES LISTED AND FACTORY MUTUAL RESEARCH APPROVED. 5.) FOR USE WITH VALVES WITH O-RING STEM SEALS. 6.) ALL EXPOSED EXTERIOR SURFACES COATED WITH TNEMEC 140 EPOXY AND TOP COATED WITH "RED" ENAMEL PER MANUFACTURER'S STANDARD PAINT. FIRE SERVICE VALVE INDICATOR POST N.T.S DATE **UTILITIES - WATER** CITY OF VENICE JAN 2021 ENGINEERING DEPARTMENT FIRE SERVICE SHEET NO. 401 WEST VENICE AVE. VENICE FL 34285 **INDICATOR POST** (941) 486-2626

FAX (941) 480-3031

ALL ELEVATIONS ON CIVIL ENGINEERING PLANS REFERENCE: NAVD88 LAUREL STORAGE, LLC 5784 LAKE FORREST DRIVE, SUITE 275 ATLANTA, GA. 30328

FAX (941) 480-3031

FAX (941) 480-3031

INSTALLED BY CITY

AND LID SHALL BE PURPLE (COLOR PANTONE 522C).

5.) ALL METER BOXES SHALL BE SET FLUSH WITH FINISHED GRADE.

COPPER TRACING WIRE -

FORD CURB STOP FOR —

PIPE CARRIES. (PURPLE = REUSE)

NUTATING WATER METER \

CONTRACTOR TO PROVIDE

(SIZE TO MATCH BACKFLOW)

LOCKABLE:

CURB STOP

RECLAIMED WATER OR EQUAL

Professional Engineers, Planners, & Land Surveyors

Serving The State Of Florida

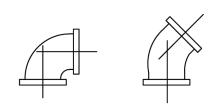
4161 TAMIAMI TRAIL - BLDG 5 UNIT 501 PORT CHARLOTTE, FLORIDA 33952 : (941) 625-1165 FAX: (941) 625-1149 ENGINEERING LICENSE # EB 6469 SURVEY LICENSE # LB 6690 WWW.BANKSENG.COM

STEVEN R. SONBERG, P.E., P.S.M.

FL LIC #92103

UTILITY DETAILS II LAUREL STORAGE

SARASOTA COUNTY, FLORIDA **PROJECT** DRAWING DESIGN DRAWN CHECKED SCALE SHEET 4393C 01/19/24



- 1.) ALL PIPE FITTINGS SHALL BE COMPACT, DUCTILE IRON.
- 2.) ALL APPLICATIONS (RAW, POTABLE, REUSE, SEWER) SHALL BE FUSION BONDED EPOXY COATED INSIDE AND OUT. 3.) ALL FITTINGS SHALL MEET ANSI/AWWA C116/A21.16 STANDARDS.

PIPE FITTINGS

SERVICE	COLOR	MATERIAL/CLASS
POTABLE WATER MAIN	BLUE	
RAW WATER MAIN	WHITE	AWWA C900 PVC / DR 18 FUSIBLE C900 PVC / DR 18
REUSE MAIN	PURPLE	HDPE PPI PE 4710 / DR 11
FORCE MAIN (MIN. 4" DIAMETER)	GREEN	(DUCTILE IRON PIPE SIZE)
WATER SERVICE	BLUE	PE (POLYTUBING) / DR 9
REUSE SERVICE	PURPLE	PE (POLYTUBING) / DR 9
GRAVITY SEWER MAIN MIN. 8" DIAMETER)	GREEN	ASTMD3034 / SDR 26 FUSIBLE PVC / SDR 26
SEWER LATERAL (MIN. 6" DIAMETER)	GREEN	ASTMD3034 / SDR 26 / SDR 35 / SCH 40 PVC

PIPE MATERIAL SCHEDULE

16	
[

CITY OF VENICE ENGINEERING DEPARTMENT 401 WEST VENICE AVE VENICE FL 34285 (941) 486-2626 FAX (941) 480-3031

PIPE FITTINGS & **MATERIAL**

UTILITIES - GENERAL

JAN 2021 SHEET NO. U-6

DATE

MINIMUM LENGTH (FT) OF FORCE MAIN TO BE RESTRAINED ON EACH SIDE OF FITTING									
FITTING			PIP	E SIZE (INCHES)				
11111110	4	6	8	10	12	16	18	20	24
45 BEND: H	6	9	12	14	16	21	23	25	29
VU	4	6	7	9	10	13	15	16	19
VD	12	20	26	32	37	48	53	28	68
22.5 BEND: H	3	4	6	7	8	10	11	12	14
VU	2	3	4	4	5	6	7	8	9
VD	7	10	13	15	18	23	26	28	33
11.25 BEND: H	2	2	3	3	4	5	5	6	7

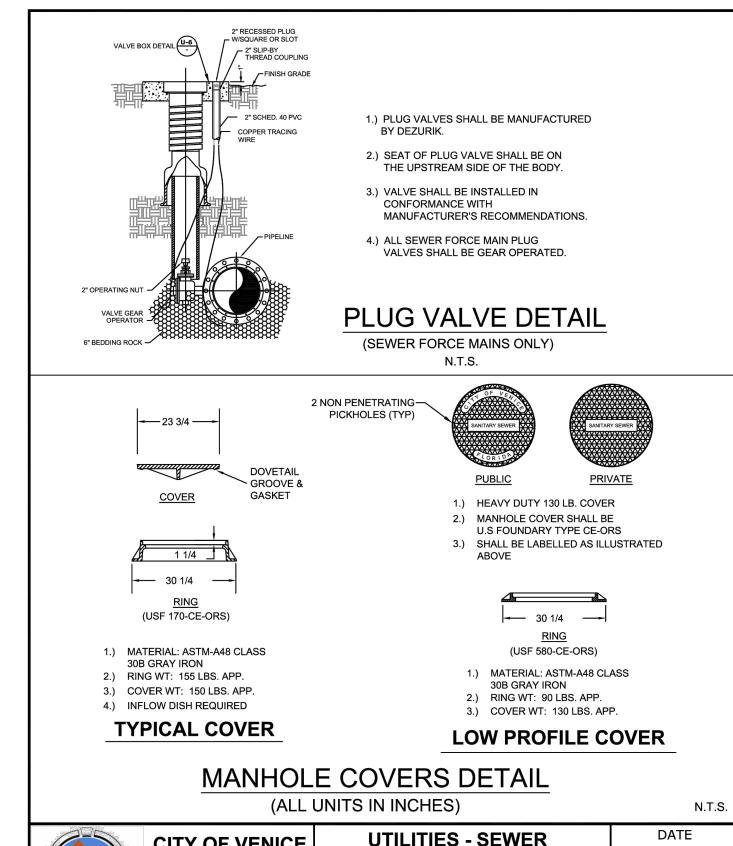
	MINIM	UM LENG	GTH (FT)	OF WA	TER OR F	REUSE M	1AIN		
TO BE RESTRAINED ON EACH SIDE OF FITTING									
FITTING			PIP	E SIZE (INCHES)				
11111110	4	6	8	10	12	16	18	20	24
90 BEND: H	23	33	43	51	60	76	83	90	104
45 BEND: H	10	14	18	21	25	31	34	37	43
VU	6	8	11	13	16	20	22	24	28
VD	22	30	40	48	56	72	80	87	102
22.5 BEND: H	5	7	8	10	12	15	17	18	21
VU	3	4	5	6	7	10	11	12	14
VD	10	15	19	23	27	35	38	42	49
11.25 BEND: H	2	3	4	5	6	7	8	9	10
PLUGS:	52	73	96	115	136	174	193	211	246

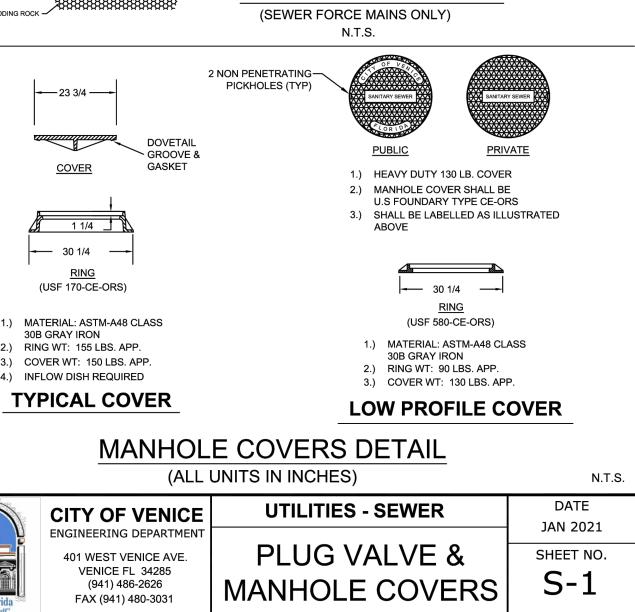
- ABBREVIATIONS: H=HORIZONTAL, VU=VERTICAL UP, VD=VERTICAL DOWN. 1.) FOR TEE OR REDUCER FITTINGS SUBMIT RESTRAINED JOINT LENGTH CALCULATIONS TO CITY ENGINEER FOR REVIEW AND APPROVAL, USING THE ASSUMPTIONS LISTED ABOVE.
- 2.) RESTRAINED JOINT LENGTH FOR WATER AND REUSE MAINS BASED ON TEST PRESSURE OF 150 PSI. RESTRAINED JOINT LENGTH FOR FORCE (SEWER) MAINS BASED ON TEST PRESSURE OF 100 PSI. CALCULATIONS WERE MADE USING EBAA IRON SOFTWARE (AVAILABLE AT WWW FRAA COM) AND THE FOLLOWING ASSUMPTIONS: GRANULAR MATERIAL (GM) SOIL TYPE, TRENCH TYPE 3, BURY DEPTH OF 3 FT, AND SAFETY FACTOR OF 2 TO 1. IF FIELD CONDITIONS DIFFER FROM ABOVE ASSUMPTIONS EOR SHALL PROVIDE CALCULATIONS BASED ON ACTUAL CONDITIONS.
- 3.) RESTRAINED JOINT SHALL BE USED ON ALL JOINTS FROM ANY MAIN TEE TO ANY FIRE HYDRANT ASSEMBLY.
- 4.) THRUST BLOCKS WILL NOT BE ACCEPTED, UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER. 5.) ALL HARDWARE SHALL BE 316 SS.

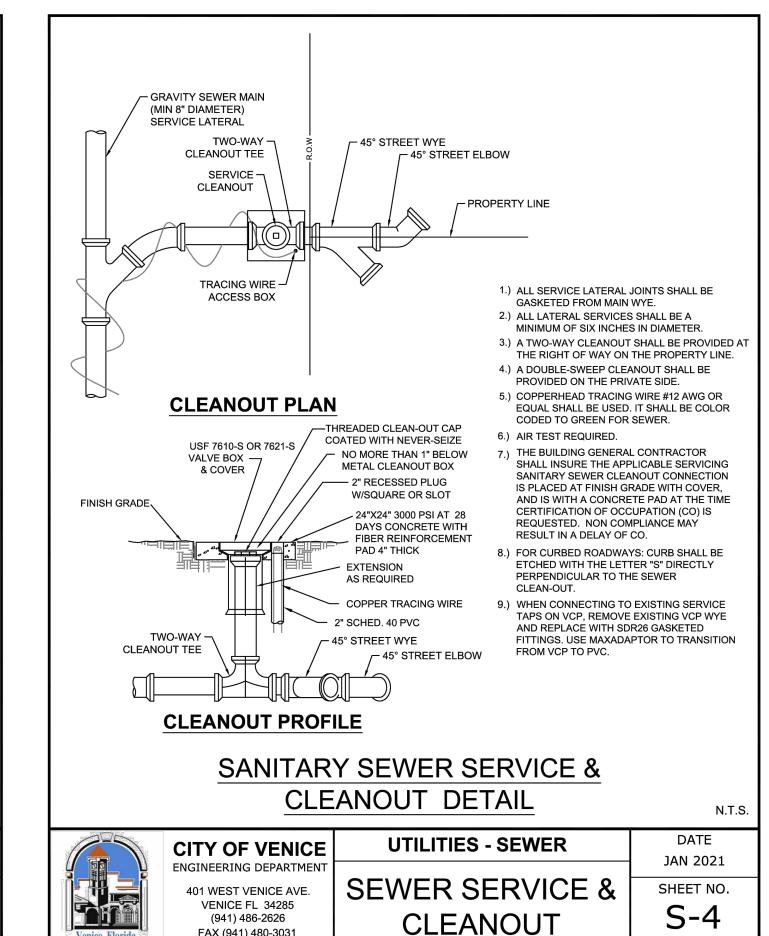
PRESSURE MAIN RESTRAINED **JOINT TABLE**

N.T.S.

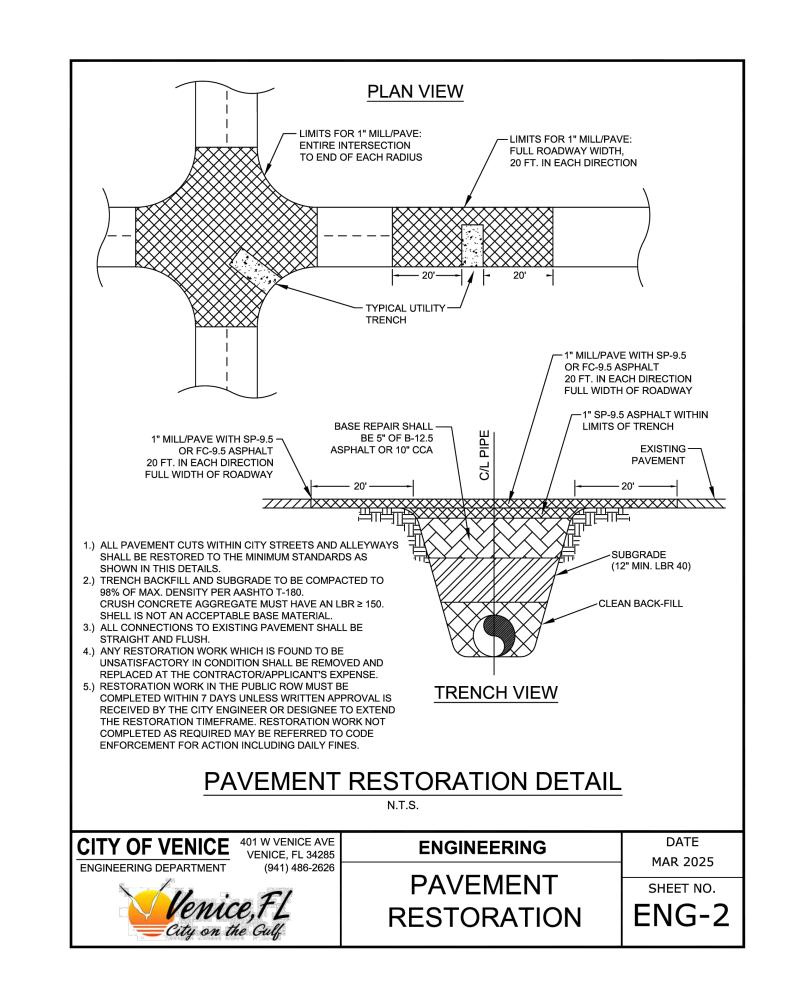
	CITY OF VENICE	UTILITIES - GENERAL	DATE JAN 2021
nice, Florida	ENGINEERING DEPARTMENT 401 WEST VENICE AVE. VENICE FL 34285 (941) 486-2626 FAX (941) 480-3031	RESTRAINED JOINT TABLE	SHEET NO. U-7

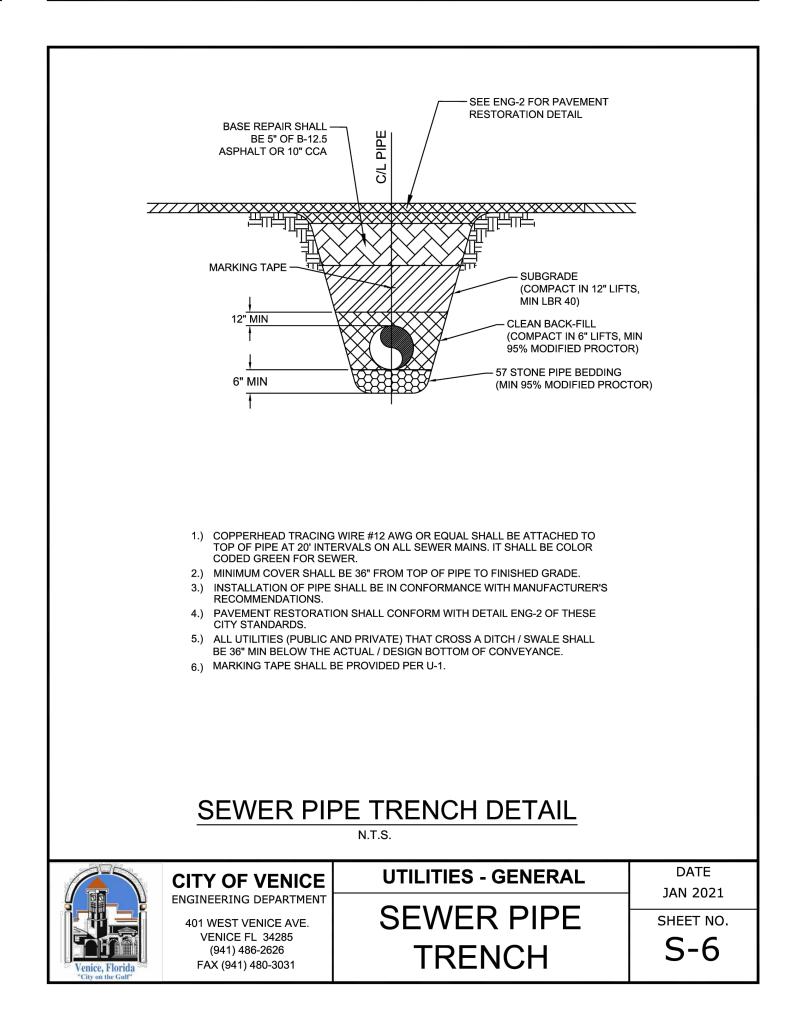






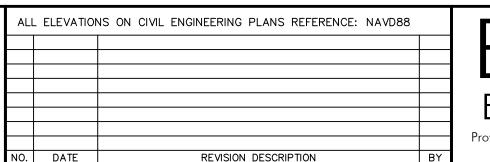
FAX (941) 480-3031







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STEVEN R. SONBERG, P.E., P.S.M.

FL LIC #92103

UTILITY DETAILS III LAUREL STORAGE

SARASOTA COUNTY, FLORIDA PROJECT DESIGN DRAWN CHECKED SCALE DRAWING 4393C 01/19/24

SHEET

COMPLETE SYSTEM SHALL BE SUPPLIED BY SOUTH FLORIDA LIFT STATION, INC. FORT MYERS, FL. 33901

(239) 332-0041 FAX (239) 332-0045

SPECIFICATION

DESIGN CONDITION	NS
MODEL_LIBERTY LSG202M_	H.P. <u>2.00</u>
VOLT208/230V	PHASE_1
DISCHARGE 2"	IMPELLER N/A GRINDER
GPM 35 GPM	TDH_30 FT.

SUBMERSIBLE GRINDER PUMP

PUMPS:

SUBMERSIBLE GRINDER PUMPS SHALL BE LIBERTY LGV-03. THE PUMPS SHALL BE INSTALLED IN THE H-20 GRP FRP WETWELL UTILIZING A STAINLESS STEEL SLIDE RAIL SYESTEM. THE GRINDER UNIT SHALL BE CAPABLE OF MACERATING ALL MATERIALS IN NORMAL DOMESTIC AND COMMERCIAL SEWAGE, INCLUDING FOREIGN OBJECTS SUCH AS PLASTIC, SANITARY NAPKINS, AND DISPOSSIBLE DIAPERS INTO A FIRE SLURRY WHICH WILL PASS THROUGH THE PUMP AND THE SCH.80 PVC DISCHARGE PIPING.

SINGLE PHASE MOTORS SHALL BE OF THE CAPACITOR START, CAPACITOR RUN TYPE FOR HIGH STARTING TORQUE. STATOR WINDING SHALL BE OPEN TYPE WITH CLASS F INSULATION AND SHALL BE HEAT-SHRINK FITTED INTO THE STATOR HOUSING. THE USE OF PINS, BOLTS, OR OTHER FASTENING DEVICES IS NOT ACCEPTABLE.

A HEAT SENSOR THERMOSTAT SHALL BE ATTACHED TO THE TOP END OF THE MOTOR WINDING AND SHALL BE CONNECTED IN SERIES WITH THE MAGNETIC CONTATOR COIL IN THE CONTOR PANEL TO STOP MOTOR IF WINDING TEMPERATURE EXCEEDS 140 C., BUT SHALL AUTOMATICALLY RESET WITHIN TEMPERATURE RETURNS TO NORMAL. TWO HEAT SNESOR THERMOSTATS SHALL BE USED ON THREE PHASE MOTORS.

H-20 LOAD RATED WETWELL WITH LIFTING LUGS:

THE FIBERGLASS WETWELL MUST BE H-20 LOAD RATED W/INTEGRAL LIFTING LUGS, AND CERTIFICATION OF THIS RATING MUST BE SUPPLIED AT TIME OF SUBMITTAL. THE WETWELL SHALL BE MANUFACTURED OF FIBERGLASS REINFORCED POLYESTER (FRP) OF DIAMETER AND DEPTH AS SHOWN ON THE LIFT STATION ELEVATION DETAIL. THE WALL THICKNESS SHALL BE ADEQUATE FOR THE DEPTH OF THE WETWELL TO MAINTAIN THE H-20 LOAD RATING.

REINFORCING MATERIALS: THE REINFORCING MATERIAL SHALL BE COMMERCIAL GRADE "E" TYPE GLASS IN THE FORM OF MAT, CHOPPED OR ROVING FABRIC, HAVING A COUPLING AGENT THAT WILL PROVIDE A SUITABLE BOND BETWEEN THE GLASS REINFORCEMENT AND THE RESIN ADDTITIVES, SUCH AS THIXOTOPIC AGENTS, CATALYSTS, PROMOTERS, ETC., MAY BE ADDED AS REQUIRED BY THE SPECIFIC MANUFACTURING PROCESS TO BE USED TO MEET THE REQUIREMENTS OF THIS SPECIFICATION.

THE RESIN SYSTEM SHALL BE SUTIABLE FOR ATMOSPHERES CONTAINING HYDROGEN SULFIDE AND DILUTE SULFURIC ACID AS WELL AS OTHER GASES ASSOCIATED WITH THE WASTEWATER COLLECTION SYSTEMS, WET WELL SHALL BE A ONE PIECE UNIT MANUFACTURED BY L.F. MAUFACTURING, INC. OR AN APPROVED EQUAL.

EACH WET WELL IS FACTORY SERIAL NUBERED FOR QUALITY AND LOW GRADE TESTING AND TRACKING PURPOSES.

H-20 LOAD RATING

THE COMPLETE WET WELL SHALL HAVE A MINIMUM DYNAMIC-LOAD RATING OR 16,000 FT-LB WHEN TESTED. THE COMPLETE WET WELL SHALL NOT HAVE LEAKS, CRACKS, OR SUFFER FROM DELAMINATION, BLISTERS, WRINKLES, DRY AREAS, OR OTHER DAMAGES WHEH LOAD TESTED TO 40,000 FT-LBS. AND SHALL NO DEFLECT VERTICALLY DOWNWARD MORE THAN 1/4" AT THE POINT OF LOAD APPLICATION WHEN LOADED TO 24,000 LBS.

WATER TIGHT INTEGRITY

ALL WET WELLS ARE 100% WATER TIGHT PUMP MOUNTING BOLTS ARE INSTALLED FOR EASIER INSTALLATION AND TO INSURE BASIN WATERTIGHT INTEGRITY. AN INTEGRAL FIBERGLASS SLOPED BOTTOM CAN BE INSTALLED UPON REQUEST FROM CONTRACTOR OR ENGINEER LENGTH AND HEIGHT OF SLOPE CAN CHAGE DUE TO DIAMETER OF WET WELL AND SIZE OF PUMPS.

VALVE BOX

FIBERGLASS VALVE BOX INNER SURFACE SHALL BE EQUIPPED WITH GEL COAT TO PROVIDE A SMOOTH INNER SURFACE. ALUMINUM HATCH COVER SHALL BE DIAMOND PLATE150 LB P.S.F AND SHALL BE MANUFACTURED BY HALLIDAY PRODUCTS, INC. STAINLESS STEEL BOLTS, NUTS, AND HINGES WITH LOCKING STAPLE OR APPROVED EQUAL. VALVE BOX SHALL BE PRE PLUMBED USING ALL SCH 80 PVC PIPING AND FITTINGS AND SHALL INCLUDE: (3) 2" BRASS 1/4 TURN BALL VALVES, AND (2) BRASS SWING CHECK VALVES. (1) 2" BRASS 1/4 TURN BALL VALVE IS SUPPLIED AS AN EMERGENCY PUMP OUT. ALL VALVES TO BE FLANGED FOR QUICK AND EASY CHANGE OUT. AN INTEGRAL FIBERGLASS SLOPED BOTTOM SHALL BE SUPPLIED TO PREVENT STANDING WATER FROM SITTING IN VALVE BOX. STRENGTHENER RODS SHALL BE APPLIED TO OUTSIDE OF VALVE BOX TO INCREASE STRUCTURAL INTEGRITY. SYSTEM SHALL BE RATED FOR 150 PSI.

ALUMINUM HATCH COVERS

SHALL BE FABRICATED FROM 1/4" ALUMINUM DIAMOND PLATE AND BUILT TO WITHSTAND A LOAD OF 150 LB P.S.F AND SHALL BE MANUFACTURED BY HALLIDAY PRODUCTS, OR EQUAL

STAINGLESS STEEL BOLTS, NUTS, AND HINGES-W/LOCKING STAPLE

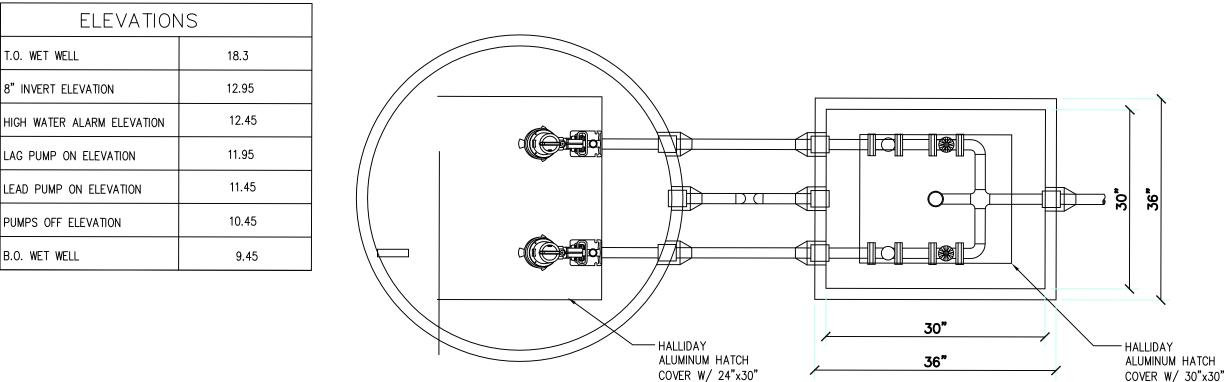
FLOATS

SHALL BE ANCHOR SCIENTIFIC POLYPROYLENE FLOAT SWITCHES RATED AT 5 AMPS AT 120V, OR APPROVED EQUAL.

FOR TECHNICAL ASSISTANCE, CONTACT

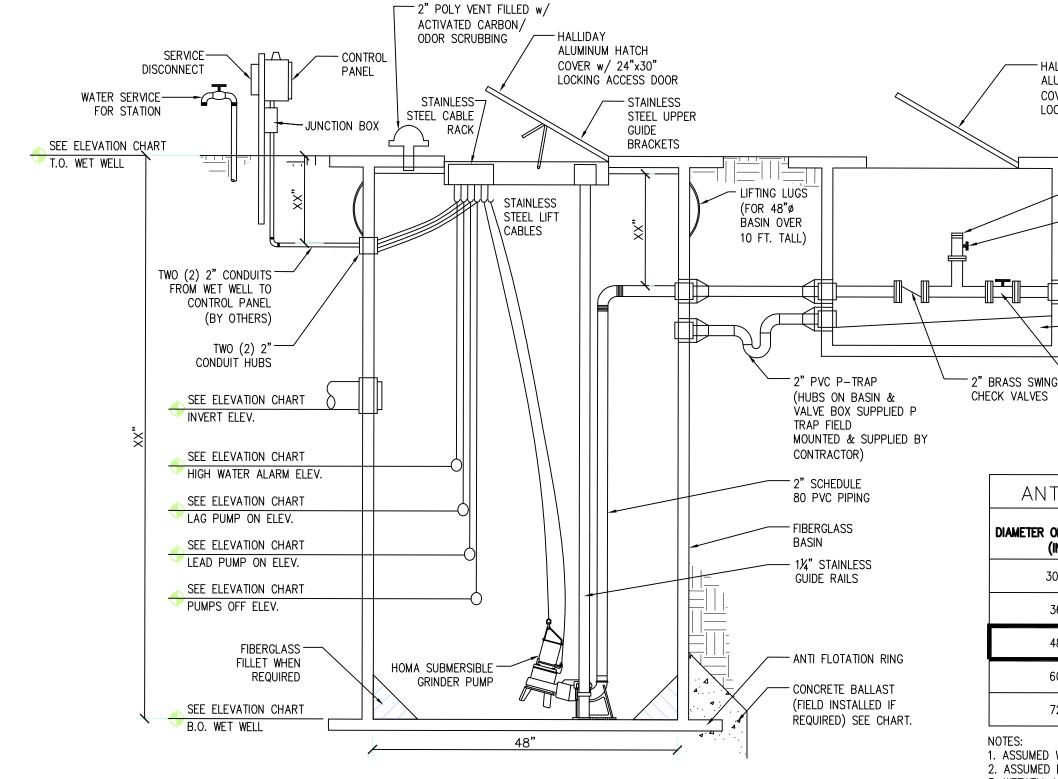
SOUTH FLORIDA LIFT STATION, INC. FT. MYERS, FL 33901 TEL# (239) 332-0041 FAX# (239) 332-0045

REPARED FOR:



LOCKING ACCESS

DOOR



Pump **Specification**

LSGX200-Series (2-Stage)

LSG200-Series (Single-Stage)

Omnivore® 2 HP Submersible Grinder Pumps

LITERS PER MINUTE

ANTI-BOUYANCY CALCS							
DIAMETER OF WET WELL (IN)	FORMULA FOR VOLUME OF CONCRETE NEEDED AT BALLAST (YD³)						
30 " ø	0.13 x H						
36 " ø	0.19 x H						
48 " ø	0.33 x H						
60 " ø	0.52 x H						
72 " ø	0.75 x H						

LOCKING ACCESS

DOOR

EMERGENCY PUMP OUT

BRASS 1/4

FIBERGLASS VALVE BOX

TURN BALL

VALVES

- HALLIDAY APS-150

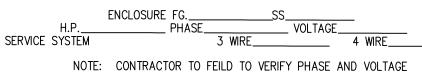
COVER w/ 30"x30

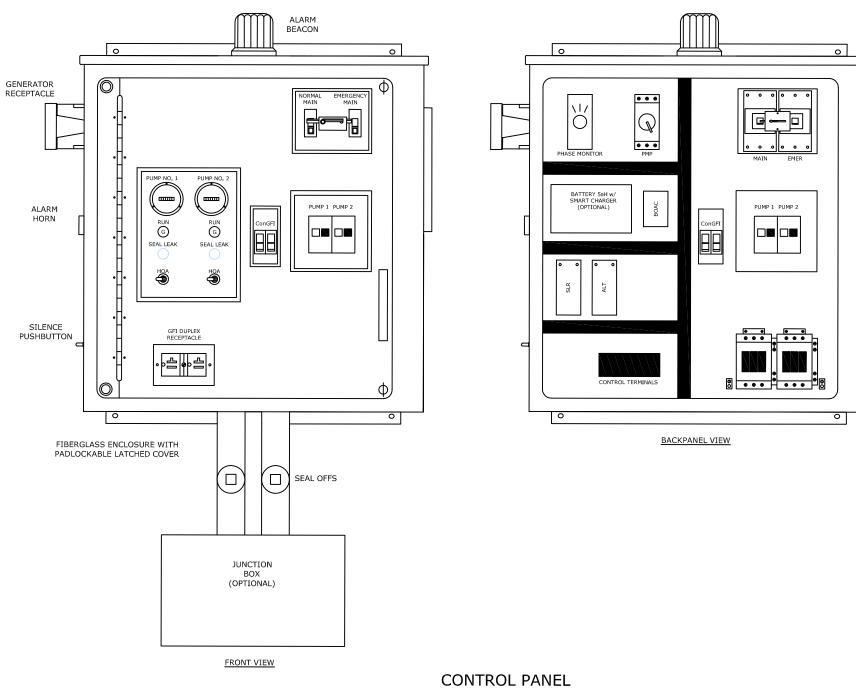
ALUMINUM VALVE BOX

LOCKING ACCESS DOOR

1. ASSUMED WETWELL AND PUMPS HAVE ZERO WEIGHT 2. ASSUMED EARTH LOAD AND SOIL FRICTION EQUAL ZERO 3. WETWELL HAS INTEGRAL ANTI-FLOTATION COLLAR 4. WHEN BALLAST EQUALS BUOYANCY, BASIN WILL NOT FLOAT AND SAFETY FACTOR HAS BEEN PROVIDED BY NOTES 1 & 2. 5. H= HEIGHT OF WETWELL

VALVE BOX EQUIPPED WITH 1½" INTEGRALLY SLOPED BOTTOM 2" BRASS 1/4 ALL VALVES TO BE TURN BALL FLANGED FOR QUICK & VALVES EASY CHANGE OUT.





SPECIFICATIONS FOR DUPLEX D.E.P. TYPE CONTROL PANEL

EACH PANEL SHALL CONTROL TWO 2 HP, 208 VOLT, 1 PHASE, 60 HZ PUMPS. A NEUTRAL SHALL BE SUPPLIED TO THE PANEL FOR 120 VOLT CONTROL POWER.

PANEL ENCLOSURE

ENCLOSURE SHALL BE NEMA ____FABRICATED FROMMATERIAL OUTER DOOR SHALL HAVE HINGES AND MEANS FOR PADLOCKING. INNER DEADFRONT DOOR SHALL BE 5052-H32 ALLOY ALUMINUM. ALL MOUNTING HOLES SHALL BE DRILLED AND TAPPED, SELF TAPPING SCREWS NOT ACCEPTABLE. ALL BOLTS, NUTS, LOCK WASHERS, AND MACHINE SCREWS SHALL BE STAINLESS STEEL.

THE FOLLOWING COMPONENTS ARE REQUIRED:

- 1. MAIN BREAKER 2. EMERGENCY BREAKER AND GENERATOR RECEPTACLE- RUSSEL STOLL
- 3. PUMP BREAKERS 4. CONTROL CIRCUIT BREAKER
- ALTERNATOR
- 6. HIGH LEVEL FLASHING ALARM LIGHT 7. HIGH LEVEL HORN ALARM WITH SILENCE- WHEN SILENCE LIGHT STAYS ON
- 8. LIGHTING ARRESTOR 9. SURGE SUPPRESSOR
- 10. PHASE/UNDER VOLTAGE MONITORING RELAY IF 3 PHASE, UNDER VOLTAGE MOUNTING RELAY IF SINGLE
- 11. NEMA RATED MOTOR STARTERS WITH OVERLOAD PROTECTION FOR ALL POWER LEGS
- 12. ELAPSE TIME METERS 13. RUN LIGHTS
- 14. CAPACITORS AND START-RELAYS AS APPROVED FOR HOMA PUMPS ON SINGLE PHASE SYSTEMS. 15. SEAL LEAK PILOT LIGHTS (OPTIONAL)
- 16. PUMP 1 & 2 SEAL LEAK MONITOR (OPTIONAL)
- 17. BATTERY BACKUP w/ SMART CHARGER (OPTIONAL)

TYPICAL SEQUENCE OF OPERATION

ON RISE LEVEL:

LOWEST FLOAT WILL CLOSE CIRCUIT TO RELAY. LEAD PUMP ON FLOAT CLOSES TO BRING LEAD PUMP ON. IF LEAD DOES NOT RECEDE AND CONTINUES TO RISE, THE LAG FLOAT WILL CLOSE AND BRING ON THE LAG PUMP. FURTHER RISING OF LEVEL IN WETWELL WILL CLOSE 4TH FLOAT (HIGH LEVEL) AND ACTIVATE THE HIGH LEVEL ALARM LIGHT AND HORNS.

ON FALLING LEVEL:

ALL PUMPS WILL DE-ENERGIZE AT THE OPENING OF THE LOWEST (OFF) FLOAT

CONTROL CIRCUITRY WILL BE SUCH THAT NO FLOAT WILL DEPEND ON ANOTHER FLOAT FOR ITS CONTROL POWER.

CONTROL PANEL SCHEMATIC, IN PLASTIC LAMINATE, IS TO BE AFFIXED TO THE INSIDE OF THE OUTER DOOR.

ALL WIRING SHALL BE NUMBERED.

IN THE EVENT THE PUMPS BEING FURNISHED REQUIRE SEAL FAILURE COMPONENTS AND INDICATION TO VALIDATE WARRANTY. THESE COMPONENTS SHALL BE FURNISHED AS REQUIRED.

ALL COMPONENT LABELS SHALL BE OF LASER PRINTED MYLAR PLASTIC LABELS.

A 24 HOUR EMERGENCY TELEPHONE CONTACT SHALL BE DISPLAYED BY THE OWNER.

TOLERANCES		REVISIONS		SOUT	H FLORIDA LII	FT STATION, INC.
	NO.	DATE	BY	F	T. MYERS, FL	<u>TEL</u> # (239) 332-0041 <u>FAX</u> # (239) 332-0045
DECIMAL	1				PACKAGED	GRINDER
FRACTIONAL	2			PUMI	P - FIBERGLAS	SS LIFT STATION
	3			DRAWN BY:	SCALE: NTS	MATERIAL
ANGULAR	4			CHK'D	DATE:	DRAWING NO.
	5			TRACED	APP'D	

7000 Apple Tree Avenue Bergen NY 14416 Phone 800-543-2550 Fax 585-494-1839 Email Liberty@Liberty@LibertyPumps.com Web www.LibertyPumps.com UTILITY DETAILS IV

4161 TAMIAMI TRAIL - BLDG 5 UNIT 501 PORT CHARLOTTE, FLORIDA 33952

LAUREL STORAGE

SARASOTA COUNTY, FLORIDA PROJECT DESIGN DRAWN DRAWING

ALL ELEVATIONS ON CIVIL ENGINEERING PLANS REFERENCE: NAVD88

GALLONS PER MINUTE

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SHEET

