TRACT MM OF VENEZIA SOUTH, ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 65, PAGE(S) 92 THROUGH 97, INCLUSIVE, OF THE PUBLIC RECORDS OF LAKE COUNTY, FLORIDA.

FINAL ENGINEERING PLANS FOR VENEZIA TOWNHOMES

PARCEL ID: 35-20-25-0200-0MM-00000 SECTION 36, TOWNSHIP 20 SOUTH, RANGE 25 EAST HOWEY-IN-THE-HILLS, LAKE COUNTY, FLORIDA

FOR

D. R. HORTON

10192 DOWDEN ROAD ORLANDO, FL 32832 (407) 850-5245

INDEX OF SHEETS

C001	COVER SHEET
C002	SYMBOLS AND ABBREVIATIONS
C003	GENERAL NOTES
C005	EXISTING CONDITIONS AND DEMOLITION PLAN
C100	OVERALL SITE PLAN
C101	SITE PLAN
C201	UTILITY PLAN
C301	DRAINAGE PLAN
C302	DRAINAGE PLAN
C401	GRADING PLAN
C601	PLAN AND PROFILE
C602	PLAN AND PROFILE
C603	PLAN AND PROFILE
C701	EROSION CONTROL PLAN
C901 - C903	CONSTRUCTION DETAILS
C911 - C914	TOWN STANDARD DETAILS
INFORMATION PROVID	ED BY OTHERS:
	BOUNDARY AND TOPOGRAPHIC SURVEY
	LANDSCAPE PLANS



431 E. HORATIO AVENUE, SUITE 260 MAITLAND, FLORIDA 32751 PHONE (407) 629-8330 FAX (407) 629-8336

PROJECT TEAM MEMBERS:

VENEZIA PARTNERS, LLC 1190 BUSINESS CENTER DR., SUITE 2000 LAKE MARY, FL 32746

DEVELOPER: D. R. HORTON 10192 DOWDEN ROAD ORLANDO, FL 32832 PHONE: (407) 850-5245

ENVIRONMENTAL:

302 MOHAWK ROAD

CLERMONT, FL 34711 PHONE: (352) 394-2000

SURVEYOR:

MODICA & ASSOCIATES, INC.

AMERICAN SURVEYING & MAPPING, INC. 3191 MAGUIRE BLVD., SUITE 200 ORLANDO, FL 32803 PHONE: (407) 426-7979

MADDEN, MOORHEAD, & STOKES, LLC 431 E HORATIO AVE, STE 260 MAITLAND, FL 32751 PHONE: (407) 629-8330

GEOTECHNICAL:

UNIVERSAL ENGINEERING SCIENCES, LLC 3532 MAGGIE BLVD. ORLANDO, FL 32811 PHONE: (407) 423-0504

UTILITY PROVIDERS:

WATER & WASTE WATER: HOWEY IN THE HILLS

316 W. CENTRAL AVENUE HOWEY-IN-THE-HILLS, FL 34737 PHONE: (352) 324-2290

CABLE:

LUMEN TECHNOLOGIES WINTER GARDEN, FL 34778 PHONE: (407) 553-7111

TECO ENERGY 600 W. ROBINSON ST. ORLANDO, FL 32801

PHONE: (407) 420-6663

8130 CR 44 LEG A

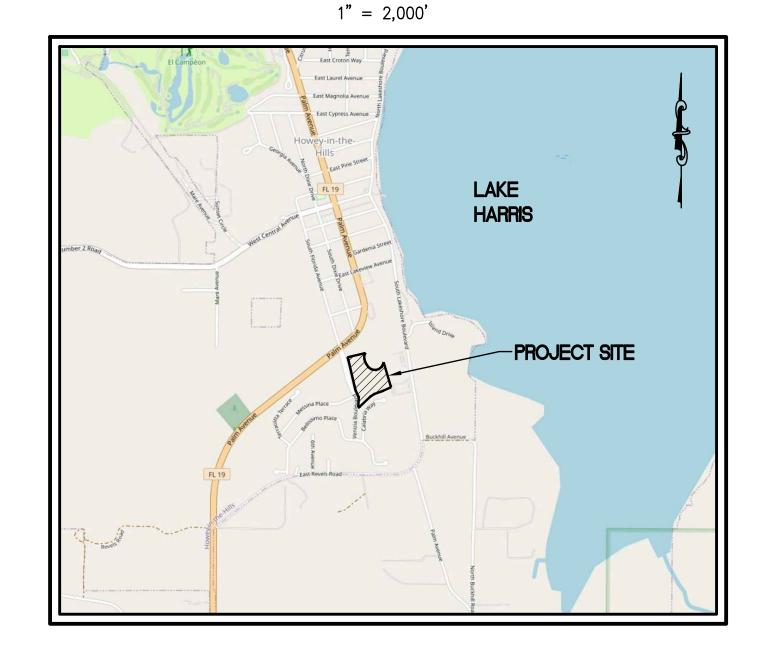
LEESBURG, FL 34788

(352) 315-8527

DUKE ENERGY 3250 BONNETT CREEK RD. P.O. BOX 10000 LAKE BUENA VISTA, FL 32830 PHONE: (407) 938-6611



VICINITY MAP



EXISTING SYMBOLS ABBREVIATIONS PROPOSED SYMBOLS STORM DRAIN LINES LINES OORHEAD & STOKES, LI CIVIL ENGINEERS POINT OF COMPOUND CURVATURE ANCHOR BOLT FLOOR DRAIN ////// BUILDING LINE 431 E. Horatio Avenu CENTER LINE FLORIDA DEPARTMENT POINT OF INTERSECTION BOUNDARY Suite 260 FINISHED FLOOR Maitland, Florida 32751 WIRE FENCE (407) 629-8330 100 LF STS 24 HP @ 0.20% 24" HIGH DENSITY FURNISH AND INSTALL _____ POLYPROPYLENE PIPE @ 0.20% CHAIN LINK FENCE RAILROAD TRACKS CENTER LINE FENCE LINE UNDERDRAIN 6" HDPE PIPE GAS MAIN FLEXIBLE POINT OF REVERSE VERTICAL CURVE WOOD FENCE DRAINAGE FLOW DIRECTION FORCE MAIN UNDERGROUND ELECTRIC GUARDRAIL AVERAGE FEET PER HOUR CONTOUR FEET PER MINUTE PAVEMENT FDOT INLET TYPE 1 FEET PER SECOND EXISTING PLATS UNDERGROUND TELEPHONE FDOT INLET TYPE 2 FLOW RATE BUILDING BOULEVARD RETAINING WALL BENCH MARK GALLON **ABBRE** ₹ Ş FDOT INLET TYPE 3 REINFORCED CONCRETE PIPE GALVANIZED BLOWOFF GAS MAIN RIGHT-OF-WAY LINE BACK OF CURB GALLONS PER DAY ROADWAY GALLONS PER HOUR FDOT INLET TYPE 4 REDUCER GALLONS PER MINUTE BOTTOM OF SLOPE REFERENCE GALLONS PER SECOND REINFORCE(D) GUARD RAIL LOT LINE GROUND/GRADE REQUIRED FDOT INLET TYPE 5 CABLE TELEVISION REVISE/REVISION GALVANIZED STEEL PIPE REVOLÚTIONS PER MINUTE GATE VALVE SWALE RAILROAD — — — EASEMENT GATE VALVE AND BOX PROPERTY LINE CATCH BASIN FDOT INLET TYPE 6 GUY WIRE CENTER TO CENTER GROUND WATER TABLE RIGHT-OF-WAY SANITARY CUBIC FEET CUBIC FEET PER MINUTE CUBIC FEET PER SECOND MANHOLE HDPE HDW HOA HORIZ HIGH DENSITY POLYETHYLENE CURB AND GUTTER HARDWARE SANITARY SEWER CAST IRON HOME OWNERS ASSOCIATION SANITARY SEWER LINE FORCE MAIN MITERED END SECTION SPLASH BLOCK CAST IRON PIPE HORIZONTAL CONSTRUCTION JOIN1 HORSEPOWER CLEANOUT CENTER LINE MANHOLE SLOPE DIRECTION ARROW FOR POND SIDE SLOPE CONCRETE LIGHT POLE HEADWALL HIGH WATER LEVEL WATER & REUSE WATER CONCRETE MONUMENT HIGHWAY SPOT ELEVATION HYDRAULIC CORRUGATED METAL PIPE SEASONAL HIGH GROUND WATER TABLE SETBACK LINE CLEANOU' INTERSECTION ANGLE STORM INLET WATER MAIN DIP PIPE WATER VALVE COLUMN INSIDE DIAMETER , www. INSIDE FACE SPECIFICATION(S) COMPLETE CONCRETE INCHES REUSE WATER MAIN FIRE HYDRANT CONNECTION CONN CONST CONT COORD COR CPLG CPP CONSTRUCT(ION) INSERT INSTALL CONTINUOUS COORDINATE(S) IRON PIPE WATER METER BACKFLOW PREVENTOR HIGHWAY & UTILITIES SANITARY IRON ROD COUPLING INTERSECT/INTERSECTION INVERT CONCRETE POWER POLE STANDARD STORM DRAIN CTG CTR CTV CULV CY JUNCTION BOX JUNCTION 100 LINEAR FEET 100 LF SAN 8 PVC 0.40% **BOUND CORNER** JOIST SANITARY 8" PVC STORM SEWER FDOT TYPE 1 INLET CONCRETE **CLEANOUT** LATITUDE DBL DEG OR DEFL DEPT DET DHWL FDOT TYPE 2 INLET DEGREE LATERAL SYMMETŘIĆAL MANHOLE 520 DEFLECT(ION) COUNTY ROADS DOUBLE SANITARY LINEAR FEET/FOOT SERVICE 901 FDOT TYPE 3 INLET MITERED END DESIGN HIGH WATER LEVEL LIMIT(S) DETAIL REFERENCE LIGHŤ POLE TURFBLOCK DUCTILE IRON DIA DIAG DIM DIP LONG TOP AND BOTTOM FORCE MAIN FDOT TYPE 4 INLET TEMPORARY BENCH MARK DIAGONAL STORM INLET PVC PIPE LOW WATER LEVEL TIME OF CONCENTRATION DIMENSION DUMPSTER PAD DUCTILE IRON PIPE DISCH DIST DMH DN DRN DWG DWY TOTAL DYNAMIC HEAD MANHOLE FDOT TYPE 5 INLET FDOT TYPE 6 INLET MAINTENANCE TECH TEMP TECHNICIAN/TECHNICA DISTANCE FF=98.76 FINISHED FLOOR ELEVATION W/ FHA LOT TYPE MATL MATERIAL TEMPORARY TERMINAL LAMPHOLE MAXIMUM WATER & REUSE WATER TYPE A HIGHWAY & UTILITIES TOB TOC TOS TOT MECHANICAL DRAWING TOE OF SLOPE GUY POLE MANUFACTURER MILLION GALLONS PER DAY TOP OF SLOPE WATER MAIN DIP PIIPE MANHOLE COVER TOWNSHIP BENCHMARK **GUY POLE** BRICK PAVERS HANDICAP PARKING MEAN HIGH WATER LEVEL **TYPICAL** 11 1/2° BEND **MISCELLANEOUS** WOOD UTILITY POLE DIRT ROAD RECOVERED 4x4 CM MECHANICAL JOINT UNDERDRAIN 22 1/2° BEND (95) INTERSTATE ROADS METAL LIGHT POLE UNDERGROUND UNLESS OTHERWISE NOTED EXISTING GRADE MEAN LOW WATER LEVEL 45° BEND CONCRETE UTILITY POLE 8" MAPLE TREE UNDERGROUND TELEPHONE CABLE SET 4x4 CM MILES PER HOUR LIGHT POLE MEAN SEA LEVEL 90. BEND ELEV ELLIP ENC ENG EOP 8" OAK TREE MOUNTING ELECTRIC MANHOLE VERTICAL CURVE ELLIPSE/ELLIPTICAL SET IRON ROD VCP VERT VITRIFIED CLAY PIPE 00 0 SIGNS TEE NORTH TELEPHONE MANHOLE 8" PINE TREE VERTICAL VERTICAL POINT OF CURVE VERTICAL POINT OF INTERSECTION VERTICAL POINT OF TANGENCY VPC VPI EDGE OF PAVEMENT NORTH NOT APPLICABLE RECOVERED IRON ROD CROSS SECTION CORNER NAIL AND CAP TELEPHONE RISER 8" PALM TREE EQUIV ESMT EST NORTHEAST CHECK VALVE -N-NATURAL GROUND CONCRETE NOT IN CONTRACT (50) ELECTRIC BOX STATE ROADS 8" MISC. TREE EACH WAY NUMBER **-NN-**DOUBLE DETECTOR **TRANSFORMER** WATER MAIN CHECK VALVE W/O WP WITHOUT EXCAVATE/EXCAVATION COUNTY ROADS WATER/WEATHER PROOF NORTHWEST SILT FENCE WOOD POWER POLE DOUBLE WATER EXPAND/EXPANSION NORMAL WATER LEVE WATER SURFACE EXTEND/EXTENSION SERVICE WET SEASON WATER TABLE TRAFFIC FLOW INTERSTATE ROADS MONITORING WELL GATE VALVE PAVEMENT MARKING WATER VALVE OUTSIDE DIAMETER WELDED WIRE FABRIC OR EQUAL FIRE HYDRANT OPNG OPP ORCP OS OVFL OVHD WWM WELDED WIRE MESH DUMPSTER STATE ROADS UTILITY POLE OVAL REINFORCED CONCRETE PIPE YARD YEAR METER OUTFALL STRUCTURE RR CROSSING SIGN WOOD AND/OR METAL LIGHT POLE OVERFLOW BLDG OR STRUCTURE OVERHEAD REDUCER RR CROSSING GATE CONCRETE LIGHT POLE **BLOWOFF** TYPE F CURB & GUTTER DELTA -224597860 TRAFFIC SIGNAL POLE **BACKFLOW** GNIVE YARD LIGHT PREVENTER MIAMI CURB SATELLITE DISH SAMPLE POINT MISCELLANEOUS SIGN 10/22/202 GUY WIRE CROSS SECTION DETAIL UNDERDRAIN CEANOUT N.T.S. SECTION CORNER HANDICAP PARKING DESIGNED BY: . RECLAIM WATER MAIN DRAWN BY:_ EDGE OF PAVEMENT W/O CURB 99.50 **SPOT ELEVATION** APPROVED BY: ___ DOUBLE REUSE WATER SERVICE

GENERAL NOTES

- ALL CONSTRUCTION WORK SHALL BE IN ACCORDANCE WITH THE LATEST LOCAL AGENCY DETAILS. THE FDOT "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" ADOPTED IN 1991 BY THE STATE OF FLORIDA. AND ALL SUPPLEMENTS THERETO. AND THE FDOT "DESIGN STANDARDS". WHICHEVER IS MORE STRINGENT.
- ALL FDOT DESIGN INDICES ARE HEREBY INCORPORATED AS PLAN REFERENCES HEREIN. CONTRACTOR IS RESPONSIBLE FOR OBTAINING COMPLETE COPIES OF ALL APPLICABLE INDEX DRAWINGS AND CONSTRUCTING ALL WORKS IN CONFORMANCE WITH THE FDOT DESIGN STANDARDS, LATEST EDITION.
- THE LOCATIONS OF EXISTING UTILITIES SUCH AS WATER MAINS, SEWER MAINS, GAS LINES, ETC., AS SHOWN ON THE PLANS, WITH THE EXCEPTION OF THE LOCATIONS OF EXISTING UTILITIES AT ALL POINTS OF CONNECTION TO AND AT ALL AREAS OF CONFLICT WITH UTILITY PROVIDER MAINS, WHICH HAVE BEEN FIELD VERIFIED, HAVE BEEN DETERMINED FROM THE BEST AVAILABLE INFORMATION AND ARE PROVIDED FOR HE CONVENIENCE OF THE CONTRACTOR, HOWEVER, THE ENGINEER AND OWNER DO NOT ASSUME RESPONSIBILITY FOR THE SIZES AND LOCATIONS SHOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF THE SIZE AND LOCATION OF ALL EXISTING UTILITIES SHOWN AND NOT SHOWN ON THESE PLAN
- 3. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR(S) TO ENSURE THAT ALL REQUIRED PERMITS ARE OBTAINED AND ARE IN HAND AT THE JOB SITE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. CONTRACTOR SHALL ABIDE BY ALL CONDITIONS CONTAINED THEREIN. PERMITS INCLUDED (BUT NOT NECESSARILY LIMITED TO) ARE: ACOE NATIONWIDE OR INDIVIDUAL DREDGE AND FILL
- FDEP SANITARY SEWER COLLECTION AND TRANSMISSION
- FDEP REUSE FDEP NPDES GENERIC PERMIT FOR STORMWATERDISCHARGE FROM LARGE AND
- SMALL CONSTRUCTION ACTIVITIES FDOT DRIVEWAY CONNECTION
- FDOT STORMWATER DISCHARGE CONNECTION FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION PERMIT FOR IMPACTS TO PROTECTED SPECIES
- LOCAL RIGHT OF WAY USE LOCAL UNDERGROUND UTILITIES
- WATER MANAGEMENT DISTRICT CONSUMPTIVE USE FOR CONSTRUCTION DEWATERING
- WATER MANAGEMENT DISTRICT ENVIRONMENTAL RESOURCE PERMIT (ERP) 4. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL SETBACKS AND EASEMENTS BEFORE
- BEGINNING CONSTRUCTION. 5. BENCHMARKS AND OTHER REFERENCE POINTS SHALL BE CAREFULLY MAINTAINED ROUGHOUT THE CONSTRUCTION PERIOD. IF DISTURBED OR DESTROYED, THESE
- (P.L.S.) AT CONTRACTOR'S EXPENSE. DIFFERING SITE CONDITIONS FROM THAT WHICH IS REPRESENTED HEREON, WHETHER ABOVE ON OR BELOW THE SURFACE OF THE GROUND SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER AND OWNER IN WRITING. NO CLAIM FOR BE ALLOWED IF CONTRACTOR FAILS TO PROVIDE THE REQUIRED WRITTEN NOTIFICATION

POINTS SHALL BE REPLACED BY A LICENSED FLORIDA PROFESSIONAL LAND SURVEYOR

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEMOLITION AND REMOVAL OF ALL EXISTING STRUCTURES, ETC., UNLESS OTHERWISE NOTED. ALL SOIL STRIPPINGS AN ANY UNSUITABLE MATERIAL SHALL BE REMOVED FROM THE SITE AND DISPOSED OF BY THE CONTRACTOR UNLESS OTHERWISE DIRECTED BY THE OWNER

OF SUCH CONDITIONS TO THE ENGINEER AND OWNER.

- 8. THE CONTRACTOR SHALL PROTECT ALL EXISTING STRUCTURES AND UTILITIES NOTED TO REMAIN FROM DAMAGE OR DISPLACEMENT DURING CONSTRUCTION. IN THE EVENT OBSTRUCTIONS ARE ENCOUNTERED, THE CONTRACTOR SHALL PROMPTLY NOTIFY THE FNGINFFR AND THE UTILITY COMPANY. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL COSTS INCURRED TO REPAIR DAMAGE OR CORRECT DISPLACEMENT
- CONTRACTOR SHALL BE EXTREMELY CAUTIOUS WHEN WORKING NEAR TREES WHICH ARE) BE SAVED. WHETHER SHOWN IN THE PLANS OR DESIGNATED IN THE FIELD CONTRACTOR SHALL BECOME FAMILIAR WITH AND CONFORM WITH ALL TREE PROTECTION / PRESERVATION PROVISIONS OF THE PRELIMINARY SUBDIVISION PLAN. DEVELOPMENT PLAN AND LOCAL GOVERNMENT, CONTRACTOR SHALL BE RESPONSIBLE OR REPLACEMENT AND MITIGATION COSTS FOR ANY TREES REMOVED THAT WERE DESIGNATED TO BE PRESERVED.
- 10. WHEN DETAILS ARE PROVIDED, CONTRACTOR SHALL CONSTRUCT JOB PER SPECIFIC DETAILS, AND NOT BY SCALING FROM THESE PLANS.
- 11. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ANY REQUIRED TRAFFIC CONTROL PLANS. ALL WORK SHALL BE EXECUTED UNDER THE ESTABLISHED PLAN AND
- 12. THE CONTRACTOR SHALL RESTORE OFF SITE CONSTRUCTION AREAS TO EQUAL OR BETTER CONDITION THAN EXISTED PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- 13. AS-BUILT DRAWINGS SHALL BE KEPT BY THE CONTRACTOR AND SUBMITTED TO THE
- PROJECT ENGINEER UPON PROJECT COMPLETION 14. CONTRACTOR SHALL COMPLY WITH ALL LOCAL AGENCY REQUIREMENTS FOR INSPECTION
- 15. ALL NEW UTILITIES AND UPGRADED UTILITIES PROVIDED TO OR ON THE SITE MUST BE
- 16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE RESTORATION OF ANY TRAFFIC SIGNAL EQUIPMENT INCLUDING BUT NOT LIMITED TO FIBER LOOP SENSORS PULL BOXES, CONDUIT TRAFFIC SIGNALS, AND CABINETS, ANY ITEMS DAMAGED BY THE CONTRACTOR WILL BE RESTORED TO THEIR ORIGINAL CONDITIONS UNLESS OTHERWISE AGREED UPON
- 17. ALL CONSTRUCTION MUST BE IN ACCORDANCE WITH UTILITY PROVIDER'S STANDARDS
- 18. CONTRACTOR SHALL NOTIFY ALL APPROPRIATE UTILITY COMPANIES OF PROPOSED START OF WORK IN ACCORDANCE WITH THEIR STANDARD REQUIREMENTS: INCLUDING BUT NOT LIMITED TO, WATER, RECLAIMED WATER, SEWER, POWER, TELEPHONE, GAS
- 19. PRIOR TO COMMENCEMENT, CONTRACTOR SHALL PROVIDE ENGINEER WITH CONSTRUCTION SCHEDULE FOR VARIOUS SITE WORK ELEMENTS SO THAT PERIODIC SITE VISITS MAY BE COORDINATED TO ENSURE TIMELY CERTIFICATION OF COMPLETION TO AGENCIES AND AVOID DELAYS IN ISSUANCE OF CERTIFICATES OF OCCUPANCY/COMPLETION.
- 20. ALL RECOMMENDATIONS AND REQUIREMENTS OF INSPECTION PERSONNEL OTHER THAN OWNER/OWNER'S REPRESENTATIVE SHALL BE REPORTED TO ENGINEER/OWNER/OWNER'S REPRESENTATIVE PRIOR TO IMPLEMENTATION. COMPENSATION WILL NOT BE ALLOWED FOR WORK THAT IS NOT AUTHORIZED BY ENGINEER/OWNER'S REPRESENTATIVE.
- 21. CONTRACTOR SHALL CONFIRM COMPATIBILITY OF PIPE SLOPES AND INVERTS DURING SHOP DRAWING AND MATERIALS ORDERING PHASE OF PROJECT AND ADVISE ENGINEER OF ANY DISCREPANCIES.
- 22. NO EXISTING MATERIAL SHALL BE USED IN NEW CONSTRUCTION UNLESS APPROVED DURING THE SHOP DRAWING APPROVAL PROCESS BY ENGINEER/OWNER/OWNER'S
- 23. CONTRACTOR SHALL STAKE ALL IMPROVEMENTS USING THE PLAT(S), ROAD CENTERLINE GEOMETRY, AND BUILDING COORDINATES PROVIDED IN THESE PLANS. CONTRACTOR SHALL CONFIRM WITH THE ENGINEER THAT THE PLAT IS CURRENT PRIOR TO
- 24. CONTRACTOR SHALL CONFIRM THE BUILDING DIMENSIONS SHOWN HEREIN WITH THOSE IN THE FINAL ARCHITECTURAL DRAWINGS PRIOR TO STAKEOUT. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO COMPLETELY STAKE AND CHECK ALL IMPROVEMENTS TO ENSURE ADEQUATE POSITIONING, BOTH HORIZONTAL AND VERTICAL, INCLUDING MINIMUM BUILDING SETBACKS PRIOR TO THE INSTALLATION OF ANY IMPROVEMENT.

PAVING AND DRAINAGE

- . THE CONTRACTOR SHALL CONSTRUCT PAVEMENT IN ACCORDANCE WITH TYPICAL PAVEMENT SECTIONS AND LOCAL AGENCY SPECIFICATIONS. THE FINISHED PAVEMENT GRADES SHALL CONFORM TO THOSE SPECIFIED ON THE GRADING PLAN.
- 2. FLORIDA LAW (F.S. 553.851) PROTECTION OF UNDERGROUND PIPELINES MANDATES THAT "NO EXCAVATOR SHALL COMMENCE OR PERFORM ANY EXCAVATION IN ANY PUBLIC OR PRIVATE STREET, ALLEY, RIGHT-OF-WAY DEDICATED TO THE PUBLIC USE OR GAS LITHITY FASFMENT WITHOUT FIRST OBTAINING INFORMATION CONCERNING THE POSSIBLE LOCATION OF GAS PIPELINES IN THE AREA OF THE PROPOSED EXCAVATION. THIS INCLUDES ANY OPERATION UTILIZING HAND TOOLS OR POWER TOOLS WHICH MOVES OR REMOVES ANY STRUCTURE, EARTH, ROCK, OR OTHER MASS OF MATERIAL BY SUCH METHODS AS DIGGING BACKFILLING DEMOLITION GRADING DITCH DRILLING, BORING AND CABLE PLOWING. THE EXCAVATOR MUST NOTICY THE GA UTILITY A MINIMUM OF 48 HOURS AND A MAXIMUM OF 5 DAYS PRIOR TO EXCAVATING (EXCLUDING SATURDAYS, SUNDAYS, AND LEGAL HOLIDAYS).
- 3. EXCAVATION, PAVING, AND STORM SEWER WORK SHALL BE DONE IN ACCORDANCE WITH FDOT "STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION", LATEST EDITION. AND LOCAL AGENCY SPECIFICATIONS.
- UNLESS OTHERWISE NOTED. GRADE TO MEET EXISTING ELEVATIONS AT PROPERTY LINES. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE OF THE SITE TO THE RETENTION PONDS AS SHOWN BY PROPOSED GRADES AND FLOW ARROWS.
- 5. DURING CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE ADEQUATE DRAINAGE AND PROPER SOIL EROSION CONTROL MEASURES FOR PROTECTION OF ALL DRAINAGE AND SEWER STRUCTURES AND AT ALL ADJACENT LANDS AND ROADS.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY AND ALL GEOTECHNICA REPORTS PREPARED FOR THE SITE. GEOTECHNICAL RECOMMENDATIONS ARE NOT THE RESPONSIBILITY OF ENGINEER. ENGINEER HAS RELIED ON THE GEOTECHNICAL REPORT(S) IN PREPARATION OF THE DRAWINGS. ANY CONFLICT BETWEEN INFORMATION WITHIN THE REPORT AND THESE DRAWINGS SHALL BE REPORTED TO ENGINEER/OWNER /OWNER'S REPRESENTATIVE. ENGINEER ASSUMES NO RESPONSIBILITY FOR THE CORRECTNESS, COMPLETENESS, OR ACCURACY OF GEOTECHNICAL INFORMATION.
- 7. THE SITE SHALL BE CLEARED OF ALL TREES EXCEPT THOSE WHICH ARE DESIGNATED TO BE SAVED OR RELOCATED, BEFORE CONSTRUCTION, THE CONTRACTOR SHALL MEET AT THE SITE WITH THE OWNER. AT THIS TIME, ANY TREES TO BE SAVED SHALL BE POINTED OUT AND TAGGED. THESE TREES SHALL BE PROTECTED FROM DAMAGE.
- 8. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE SUPERVISING ENGINEER IF A PAVEMENT OR FOUNDATION STAKE IS DISTURBED.
- THE CONTRACTOR SHALL INSTALL DROP CURBS AND HANDICAP RAMPS AT AL INTERSECTIONS OF THE SIDEWALK WITH THE PROPOSED PAVEMENT, UNLESS OTHERWISE SPECIFIED. 10. FOR HORIZONTAL AND VERTICAL CLEARANCES BETWEEN STORM PIPES AND WATER
- MAINS/SERVICES, SEE WATER NOTES ON THIS SHEET AND FDEP SEPARATION TABLE ON
- 11. ALL PUBLIC STORM PIPE MATERIALS SHALL BE REINFORCED CONCRETE PIPE (RCP) ASTM C-76 CLASS III, OR HIGH PERFORMANCE POLYPROPYLENE (HP) IF PERMITTED, UNLESS OTHERWISE SPECIFIED. LIFTING HOLES ARE PROHIBITED.
- 12. ALL PRIVATE STORM PIPE MATERIALS SHALL BE AS FOLLOWS 12.1. DIAMETERS LESS THAN OR EQUAL TO 12-INCH SHALL BE HIGH DENSITY POLYETHYLENE (HDPE) PIPE FROM AN FDOT APPROVED SUPPLIES LIST. 12.2. DIAMETERS GREATER THAN OR EQUAL TO 15-INCH SHALL BE HIGH PERFORMANCE POLYPROPYLENE (HP) PIPE FROM AN FDOT APPROVED SUPPLIES
- 13. MINIMUM COVER OVER ALL PIPE SHALL BE 36-INCHES FROM TOP OF PIPE TO FINISHED GRADE, UNLESS OTHERWISE NOTED.
- 14. ALL STORM SYSTEM MANHOLE AND INLET STRUCTURES SHALL BE PRECAST CONCRETE. 15. THE CONTRACTOR SHALL USE CONCRETE WITH A MINIMUM 28 DAY STRENGTH OF 3,000
- 16. ALL SIDEWALK WIDTHS SHALL BE AS NOTED ON THE SITE PLAN AND SHALL HAVE 1-INCH DEEP CONTRACTION JOINTS EVERY 5-FEET AND AN EXPANSION JOINT EVERY 20-FEET (MINIMUM), MAXIMUM SIDEWALK CROSS SLOPES SHALL BE 2.00% AND MAXIMUM SIDEWALK RUNNING SLOPES SHALL BE 5.00% EXCEPT AT RAMP LOCATIONS. MAXIMUM RAMP SLOPES SHALL BE 8.33%.
- 17. PROVIDE FDOT TYPE III SILT FENCE ALONG THE PROPERTY LINES AND PHASE LINES AS WELL AS ANY CONSTRUCTION WITHIN THE OTHER PHASES THAT IS DEEMED
- 18. ALL TEST REPORTS GENERATED BY A TESTING FIRM ARE TO HAVE COPIES SENT ' TO THE LOCAL AGENCY AS SOON AS THEY ARE GENERATED. CLEARANCE FROM THE LOCAL AGENCY SHALL BE RECEIVED PRIOR TO PAVING.
- 19. THE BASE COURSE SHALL NOT BE CONSTRUCTED UNTIL AFTER SUBGRADE CONSTRUCTION HAS BEEN COMPLETED AND REQUIRED SUBGRADE TEST RESULTS HAVE BEEN SUBMITTED TO AND APPROVED BY THE LOCAL AGENCY'S ENGINEER. 20. THE FINISHED BASE COURSE SHALL BE PRIMED WITHOUT DELAY, PROTECTED FROM
- HEAVY TRAFFIC, AND CONTINUOUSLY MAINTAINED FREE OF DAMAGE UNTIL THE WEARING SURFACE IS APPLIED. ALL BAD AREAS SHALL BE CUT OUT AND REPLACED PRIOR TO APPLYING WEARING SURFACE.
- 21. ASSUMING ACCEPTABLE CURING, THE WEARING SURFACE SHALL BE APPLIED NO SOONER THAN SEVEN (7) DAYS AND NO LATER THAN THIRTY (30) DAYS AFTER BASE
- 22. ALL CONCRETE PIPE JOINTS SHALL BE WRAPPED IN FILTER FABRIC. 23. ROADWAY MARKING, STRIPING, SIGNS, AND OTHER TRAFFIC CONTROL DEVICES SHALL
- BE IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" (MUTCD), INCLUDING SUBSEQUENT REVISIONS AND ADDENDUMS, AS PUBLISHED BY THE USDOT FEDERAL HIGHWAY ADMINISTRATION AS WELL AS FDOT AND LOCAL AGENCY STANDARDS AND SPECIFICATIONS.
- 24. REGULATORY SIGNS AND MARKINGS SHALL BE IN PLACE PRIOR TO FINAL INSPECTION OF PAVING AND DRAINAGE IMPROVEMENTS. 25. PAVEMENT RETURN RADII SHALL BE MEASURED TO THE EDGE OF PAVEMENT UNLESS
- 26. POND SLOPES AND BERMS SHALL BE SODDED TO TWO (2) FEET BELOW THE NORMAL WATER LINE (N.W.L.). IN THE CASE OF DRY BOTTOM PONDS, THE BOTTOM WILL BE
- SEEDED AND MULCHED UNLESS OTHERWISE SPECIFIED. 27. ALL PRECAST DRAINAGE STRUCTURES TO HAVE STEEL FRAME. ALL STRUCTURES IN PAVED AREAS TO HAVE STEEL RECTILINEAR GRATES WITH H-20 LOADING
- SHALL BE REMOVED AND REPLACED WITH SUITABLE PLANTING SOILS ACCEPTABLE TO 29. YARD DRAINS SHALL BE NYOPLAST INLINE DRAINS AND DRAIN BASINS, OR APPROVED

LANDSCAPE ISLANDS. TRACTS OR MEDIANS. WHERE SUCH TREATMENT DOES OCCUR.

EQUAL, WITH CAST IRON GRATES AND WATERTIGHT ADAPTER CONNECTIONS. DOMED GRATES SHALL BE PROVIDED IN NON-SODDED AREAS. 30. ALL FIRE HYDRANT LOCATIONS SHALL BE MARKED BY PLACING BLUE REFLECTIVE

28. CONTRACTOR SHALL NOT COMPACT, STABILIZE, OR CONSTRUCT BASE COURSE WITHIN

- PAVEMENT MARKERS IN THE CENTER OF THE NEAREST TRAVEL LANE 31. MINIMUM LONGITUDINAL SLOPE OF CURB SHALL BE 0.30% UNLESS SPECIFIED
- 32. FINISHED FLOOR ELEVATION IS TYPICALLY 8" INCHES ABOVE DESIGN FINISHED GRADE AT OUTSIDE PERIMETER OF BUILDINGS EXCEPT AT ENTRIES AND WHERE OTHERWISE

33. CONTRACTOR SHALL REMOVE ALL MUCK DEPOSITS IN CONSTRUCTION AREAS AND

- AREAS TO BE FILLED. SEE GEOTECHNICAL REPORT. 34. DRAINAGE MANHOLES AND INLETS (NOT INCLUDING CONTROL STRUCTURES) IN THE PLANS ARE IDENTIFIED BY TOP TYPE ONLY. CONTRACTOR SHALL PROVIDE STANDARD DITCH BOTTOM INLET TOPS AND TYPE 'J' OR 'P' STRUCTURE BOTTOMS, SIZED AS REQUIRED TO ACCOMMODATE PIPE SIZES AND ORIENTATIONS SHOWN. SHOP DRAWINGS
- SHALL BE SUBMITTED WHICH CLEARLY REPRESENT SUCH DATA. 35. CONTRACTOR SHALL STABILIZE AND PROTECT ALL END WALL, MITERED END SECTION, FLARED END SECTION, ETC. STRUCTURES THROUGHOUT THE PROJECT UNTIL THE BANK

SLOPES OF THE RECEIVING WATER BODY ARE STABILIZED AND ACCEPTED BY OWNER.

SANITARY SEWER

- . ROOF DRAINS, FOUNDATION DRAINS OR OTHER STORM WATER CONNECTIONS TO THE
- 2. GRAVITY SEWER PIPE SHALL BE SDR26 PVC AND SHALL MEET ASTM D3034, UNLESS
- 3. ALL SANITARY SERVICE LATERALS SHALL BE 6-INCH DIAMETER PVC AND SHALL END WITH A CLEAN OUT.
- 4. ALL SANITARY SEWER PIPE SHALL BE COLORED GREEN. 5. ALL SANITARY SEWER MANHOLES SHALL HAVE A MINIMUM DIAMETER OF 48-INCHES
- AND A MINIMUM ACCESS DIAMETER OF 22-INCHES.
- 6. MINIMUM COVER OVER ALL PIPE SHALL BE 36-INCHES FROM TOP OF PIPE TO FINISHED GRADE, UNLESS OTHERWISE NOTED.
- 7. FOR HORIZONTAL AND VERTICAL CLEARANCES BETWEEN SANITARY SEWER MAINS/ LATERALS AND WATER MAINS/SERVICES, SEE WATER NOTES ON THIS SHEET AND FDEP SEPARATION TABLE ON UTILITY PLAN.
- 8. WHERE SOIL REPORT INDICATES THE POSSIBILITY OF UNSUITABLE MATERIAL IN THE VICINITY OF SANITARY LINES, THE CONTRACTOR SHALL DETERMINE THE NATURE AND EXTENT OF THIS UNSUITABLE MATERIAL, PREPARE TRENCH, AND INSTALL THE SEWER LINE IN ACCORDANCE WITH ASTM D-2321. IT WILL BE THE CONTRACTOR'S
- RESPONSIBILITY TO NOTIFY THE ENGINEER OF THIS UNSUITABLE MATERIAL 9. THE CONTRACTOR SHALL BE REQUIRED TO PERFORM INFILTRATION OR EXFILTRATION , WHICHEVER IS APPLICABLE. INFILTRATION SHALL NOT EXCEED 50 GALLONS PER DAY PER INCH OF DIAMETER PER MILE OF LENGTH, OR THE COMPUTED EQUIVALENT FOR SHORTER LENGTHS OF TIME. THE CONTRACTOR SHALL MEET ALL REQUIREMENTS.

ADVANCED NOTIFICATION PRIOR TO CONSTRUCTION AND TESTING.

- 10. MADDEN, MOORHEAD & STOKES, INC. SHALL BE NOTIFIED A MINIMUM OF FIVE (5) FULL WORKING DAYS PRIOR TO CONSTRUCTION AND TESTING OF THE SANITARY SEWER, PHONE (407)-629-8330.
- THE CONTRACTOR SHALL SUPPLY COMPLETE "AS BUILT" INFORMATION RELATIVE TO INVERTS, RIM ELEVATIONS, LOCATION OF MANHOLES AND LENGTHS OF PIPE. LATERALS SHALL BE LOCATED FROM THE CENTERLINE OF THE NEAREST DOWNSTREAM MANHOLE. HE INFORMATION SHALL BE SUBMITTED ON LEGIBLY MARKED—UP PRINTS TO THE ENGINEER WITHIN TWO (2) WEEKS OF COMPLETION OF SEWER CONSTRUCTION.
- 12. CONTRACTOR SHALL RECEIVE SEWER CERTIFICATION PRIOR TO PLACEMENT OF BASE
- 13. MINIMUM SLOPE ON ALL SANITARY SEWER GRAVITY MAINS SHALL BE IN ACCORDANCE WITH UTILITY PROVIDER'S STANDARDS AND CONSTRUCTION SPECIFICATIONS. LATEST
- 14. ALL SANITARY SERVICE LOCATIONS SHALL BE MARKED BY CUTTING AN "S" INTO THE
- 15. MARK RESIDENTIAL LATERALS WITH 6-FOOT HIGH PIECE OF 2"x4" PLANK PAINTED GREEN WITH LOT NUMBER CLEARLY MARKED AND AN 'S' IMPRESSED IN THE CURB.

16. AIR RELEASE VALVES SHALL BE REQUIRED AT ALL HIGH POINTS ALONG THE FORCE

- 17. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT AN EVEN TRANSITION IS MAINTAINED WHERE ASPHALT PAVING ABUTS MANHOLE/VALVE COVERS IN PAVED AREAS. AT EACH OF THESE LOCATIONS THE CONTRACTOR SHALL POUR AN 8-INCH THICK CONCRETE APRON AROUND THE MANHOLE /VALVE COVER A MINIMUM OF 4'x4' AT MANHOLES, AND 2'x2' AT VALVE COVERS LEVEL WITH THE FINAL LIFT OF ASPHALT
- 18. PIPE LENGTHS SHOWN REPRESENT SCALED DISTANCES BETWEEN MANHOLE CENTERLINE 19. INVERTS OF SANITARY SERVICE LATERALS AT THEIR CONNECTION TO SANITARY
- MANHOLES SHALL BE NO MORE THAN ONE (1) FOOT ABOVE THE MANHOLE INVERT. 20. PRIOR TO PAVING, CONTRACTOR SHALL VERIFY THE AS-BUILT SANITARY SEWER PIPE SLOPES. MINIMUM SLOPES SHALL BE IN ACCORDANCE WITH THE GREATER OF FDEP OR THE UTILITY PROVIDER'S MINIMUM CRITERIA. ANY LINE NOT MEETING MINIMUM SLOPES SHALL BE RELAYED BY CONTRACTOR TO MEET THE MINIMUM SLOPE REQUIREMENT AT
- 21. MANHOLE LIFT HOLES AND GRADE ADJUSTMENT RINGS SHALL BE SEALED WITH NON-SHRINKING MORTAR OR OTHER APPROPRIATE MATERIAL.
- 22. INLET AND OUTLET PIPES SHALL BE JOINED TO THE MANHOLE WITH A GASKETED ARRANGEMENT THAT ALLOWS DIFFERENTIAL SETTLEMENT OF THE PIPE AND MANHOLE
- 23. WATER-TIGHT MANHOLE COVERS SHALL BE USED WHEREVER THE MANHOLE TOPS MAY BE FLOODED BY STREET RUNOFF OF HIGH WATER.

WATER

- ALL MATERIALS AND CONSTRUCTION REQUIREMENTS FOR THE FIRE SERVICE, WATER LINES. HECK VALVES, BACKFLOW PREVENTERS, GATE VALVES, ETC., SHALL BE IN ACCORDANCE WITH LOCAL AGENCY STANDARD DETAILS AND CONSTRUCTION SPECIFICATIONS.
- 2. ALL CONSTRUCTION AND MATERIALS SHALL BE IN COMPLIANCE WITH AWWA STANDARDS AND IN ACCORDANCE WITH LOCAL AGENCY STANDARDS.
- 3. ALL PUBLIC WATER SYSTEM COMPONENTS, EXCLUDING FIRE HYDRANTS, THAT WILL BE
- NSTALLED UNDER THIS PROJECT AND THAT WILL COME INTO CONTACT WITH DRINKING WATER WILL CONFORM TO NSF INTERNATIONAL STANDARD 61 AND WILL BE MARKED WITH THE NSF
- 4. CONTRACTOR SHALL VERIFY SIZE AND TYPE OF EXISTING MAIN PRIOR TO ORDERING TAPPING MATERIALS FOR TIE-INS. 5. SITE CONTRACTOR SHALL COORDINATE AND VERIFY ALL UTILITY SERVICES WITH FINAL
- ARCHITECTURAL DRAWINGS AND BUILDING CONTRACTOR. 6. SITE UTILITY WORK SHALL TERMINATE 5-FEET FROM BUILDINGS UNLESS OTHERWISE STATED.
- 7. MINIMUM COVER OVER ALL PIPE SHALL BE 36-INCHES FROM TOP OF PIPE TO FINISHED
- 8. THE WATER MAIN SHALL BE LOCATED ABOVE THE STORMWATER AND SANITARY MAINS AT CONFLICTS, WHERE POSSIBLE.
- 9. VERTICAL SEPARATION BETWEEN UNDERGROUND POTABLE WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, AND RECLAIMED WATER
 - 9.1. NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY- OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW HE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
 - 9.2. NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN. OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE THE WATER MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OUTSIDE OF THI THER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE
 - 10. HORIZONTAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS:
 - 10.1. NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER ORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
 - 10.2. NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROMDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER.
 - 10.3 NEW OR RELOCATED LINDERCROLIND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST SIX FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY- OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610. F.A.C. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY-TYPE SANITARY SEWERS SHALL BE REDUCED TO THREE FEET WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE
 - 10.4. NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST TEN FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AS DEFINED IN SECTION 381.0065(2), F.S., AND RULE
- 11. AT THE UTILITY CROSSINGS DESCRIBED IN NOTES 8 AND 9 ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSING, THE PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FÉET FROM ALL JOINTS IN VACUUM—TYPE SANITARY SEWERS, STORM SEWERS STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER GRAVITY-OR PRESSURE-TYPE SANITARY SEWERS. WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C
- 12. WATER LINES 2-INCHES, OR LESS, IN DIAMETER SHALL BE POLYETHYLENE TUBING. 13. WATER LINES 4-INCH TO 12-INCH IN DIAMETER SHALL BE NSF LOGO PVC PIPE CONFORMING TO AWWA C-900 AND BE DR-18.
- 14. ALL FITTINGS SHALL BE DUCTLE IRON (D.L.) OR GRAY IRON MECHANICAL JOINTS WITH A MINIMUM PRESSURE RATING OF 250 P.S.I. CONFORMING TO ANSI A-21.10 / AWWA C-110, OR D.I. COMPACT FITTINGS FOR DIAMETERS 4-INCH TO 12-INCH CONFORMING TO ANSI A-21.53 / AWWA C-153.
- 15. FROM THE POINT OF SERVICE (P.O.S.) FORWARD AS DESIGNATED BY F.S. 633, FIRE SUPPLY PIPE SHALL BE DR-14 AND TESTED AT 200 PSI FOR TWO HOURS. 16. GATE VALVES SHALL CONFORM TO AWWA C-509-87, WITH WRENCH NUT EXTENSION STEMS
- AND OTHER APPURTENANCES AS REQUIRED AND SHALL BE IRON BODY, FULL BRONZE MOUNTED, DOUBLE DISK, PARALLEL SEAT, NON-RISING STEM VALVES WITH O-RING SEALS AND NECTIONS AS CALLED FOR ON THE PLANS. ALL TEES, CAPS, PLUGS, BENDS, VALVES, ETC., SHALL BE PROVIDED WITH GRIP RING RESTRAINTS 17. ALL NON-METALLIC WATER MAINS SHALL BE INSTALLED WITH A CONTINUOUS, INSULATED 10

GAUGE COPPER WIRE INSTALLED DIRECTLY ON TOP OF THE PIPE FOR LOCATION PURPOSES. IN

- ADDITION, ALL PVC WATER MAINS SHALL BE A SOLID BLUE COLOR. ALL LETTERING SHALL APPEAR LEGIBLY ON PIPE AND SHALL RUN THE ENTIRE LENGTH OF THE PIPE. LETTERING SHALL READ AS IS ACCEPTABLE FOR THE INTENDED USE. 18. SERVICE MAINS FOR FIRE HYDRANTS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 24,
- 19. NEW FIRE HYDRANTS SHALL BE INSTALLED SO THAT 5-1/4" INCH PORT IS FACING THE ROADWAY BY WHICH IT IS ACCESSED. HYDRANTS SHALL BE POSITIONED NOT MORE THAN 5
- FEET AWAY FROM THE CURB OR BERM OF THE ROADWAY 20. HYDROSTATIC TESTING AND THE DISINFECTION OF THE WATER DISTRIBUTION SYSTEM SHALL BE DONE IN ACCORDANCE WITH AWWA STANDARDS. HYDROSTATIC TESTING TO BE DONE IN ACCORDANCE WITH AWWA C-600 FOR DUCTILE IRON PIPE AND C-605 FOR PVC PIPE. DISINFECTING AND BACTERIOLOGICAL EVALUATION TO BE DONE IN ACCORDANCE WITH AWWA
- 21. THE CONTRACTOR SHALL SUPPLY COMPLETE AS-BUILT INFORMATION RELATIVE TO LOCATION AND ELEVATION OF ALL WATER LINES AND SERVICES. THE INFORMATION SHALL BE SUBMITTED ON LEGIBLY MARKED-UP PRINTS TO THE ENGINEER WITHIN TWO (2) WEEKS OF THE COMPLETION OF THE WATER LINE CONSTRUCTION
- 22. CONTRACTOR SHALL COORDINATE ALL UTILITIES SYSTEMS TEST SCHEDULING TO ALLOW ENGINEER'S ATTENDANCE PROVIDING MINIMUM NOTICE OF FIVE (5) WORKING DAYS. CONTRACTOR'S FAILURE TO PROPERLY NOTIFY ENGINEER MAY RESULT IN RETESTING AT ENGINEER'S OPTION AND AT CONTRACTOR'S EXPENSE.
- 23. NEW HYDRANTS SHALL BE TESTED AND IN PROPER WORKING ORDER WITH DUTILITY ROVIDERMENTATION SUPPLIED TO THE FIRE MARSHAL PRIOR TO ANY COMBUSTIBLE

CONSTRUCTION. (I.E. FIRE FLOW TEST SHALL BE PERFORMED)

THE PIPE MANUFACTURER OR UTILITY PROVIDER'S CONSTRUCTION SPECIFICATIONS 25. ALL PIPE AND PIPE FITTINGS INSTALLED UNDER THIS PROJECT SHALL BE COLOR CODED IN ACCORDANCE WITH SUB PARAGRAPH 62-555.320(21)(B)3, F.A.C. USING BLUE AS A PREDOMINANT COLOR. ALL DUCTILE IRON WATER MAINS SHALL BE MARKED WITH A CONTINUOUS STRIPE LOCATED WITHIN THE TOP 90 DEGREES OF THE PIPE. SAID STRIPE SHALL BE A MINIMUM 2 INCHES IN WIDTH AND SHALL BE BLUE IN COLOR. BACKFILL SHALL NOT BE PLACED FOR 30 MINUTES FOLLOWING PAINT APPLICATION. FOR PIPE WITH AN INTERNAL DIAMETER OF 24" OR GREATER, TAPE OR PAINT SHALL BE APPLIED IN CONTINUOUS LINES A LONG EACH

24. DEFLECTIONS AT PIPE JOINTS SHALL NOT EXCEED THE LESSOR OF THOSE RECOMMENDED BY

- SIDE OF THE PIPE AS WELL AS ALONG THE TOP OF THE PIPE 26. MARK RESIDENTIAL SERVICES WITH 6-FOOT HIGH PIECE OF 2"x4" PLANK PAINTED BLUE WITH LOT NUMBER CLEARLY MARKED AND A 'W' IMPRESSED IN THE CURB. IT IS THE INTENT THAT EVERY LOT IS PROVIDED WITH A WATER SERVICE; THEREFORE IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSTALL A WATER SERVICE TO EACH LOT.
- 27. PIPE MATERIALS: PVC ALL PIPE, PIPE FITTINGS, PIPE JOINT PACKING AND JOINTING MATERIALS, VALVES, FIRE HYDRANTS, AND METERS INSTALLED UNDER THIS PROJECT SHALL CONFORM TO APPLICABLE AWWA STANDARDS AND SHALL BE MANUFACTURED IN ACCORDANCE WITH AWWA STANDARD C900, LATEST EDITION. PVC SHALL BE MANUFACTURED IN ACCORDANCE WITH AWWA STANDARD C900. THE PVC SHALL HAVE A MINIMUM WORKING PRESSURE OF 150 P.S.I. AND SHALL HAVE A DIMENSION RATIO (DR) OF 18. PIPE SHALL BE THE SAME O.D. AS DUCTILE IRON PIPE. PVC JOINT - SHALL BE'IN ACCORDANCE WITH ASTM D3139. DUCTILE IRON - SHALL CONFORM TO ANSI/AWWA C150/C151. A MINIMUM OF CLASS 50 PIPE SHALL BE SUPPLIED.
 DUCTILE IRON JOINT — SHALL BE IN ACCORDANCE WITH ANSI A21.11 AND AWWA C111. SERVICES - SHALL BE IN ACCORDANCE WITH AWWA C901/C800 STANDARDS FOR
- 28. WATER MAIN CONNECTION SHALL BE MADE UNDER THE SUPERVISION OF THE UTILITY PROVIDER. ALL VALVES SHALL BE OPERATED BY UTILITY PROVIDER PERSONNEL ONLY

POLYETHYLENE TUBING, CLASS 160.

- 29. ALL PIPE AND PIPE FITTINGS INSTALLED UNDER THIS PROJECT SHALL CONTAIN NO MORE THAN 3.0% LEAD, AND ANY SOLDER OR FLUX USED IN THIS PROJECT SHALL CONTAIN NO MORE
- 30. NEW OR ALTERED FIRE HYDRANT LEADS SHALL HAVE A MINIMUM INSIDE DIAMETER OF 6-INCH AND SHALL INCLUDE AN AUXILIARY VALVE.
- 31. A CONTINUOUS AND UNIFORM BEDDING WILL BE PROVIDED IN TRENCHES FOR UNDERGROUND PIPE INSTALLED UNDER THIS PROJECT; BACKFILL MATERIAL WILL BE TAMPED IN LAYERS AROUND UNDERGROUND PIPE INSTALLED UNDER THIS PROJECT AND TO A SUFFICIENT HEIGHT ABOVE THE PIPE TO ADEQUATELY SUPPORT AND PROTECT THE PIPE: AND UNSUITABLY SIZED STONES (AS DESCRIBED IN APPLICABLE AWWA STANDARDS OR MANUFACTURERS' RECOMMENDED. INSTALLATION PROCEDURES) FOUND IN TRENCHES WILL BE REMOVED FOR A DEPTH OF A LEAST SIX INCHES BELOW THE BOTTOM OF UNDERGROUND PIPE INSTALLED UNDER THIS PROJEC
- 32. CONTRACTOR SHALL NOT ACTIVATE WATER SERVICE UNTIL FDEP HAS CLEARED THE SYSTEM FOR USE AND THE CLEARANCE LETTER HAS BEEN RECEIVED BY THE OWNER.
- 33. ENGINEER RESERVES THE RIGHT TO WITHHOLD AUTHORIZATION OF PAYMENT FOR ANY PORTION OF THE UTILITIES PIPE WORK WHICH HAS NOT BEEN TESTED, OBSERVED BY ENGINEER, AND

RECLAIMED WATER

BARS. PAD IS TO BE SET AT FINISH GRADE.

- 1. POLYVINYL CHLORIDE PLASTIC PIPE (PVC) 4-INCH THROUGH 12-INCH SHALL BE MANUFACTURED IN ACCORDANCE WITH ANSI/AWWA C900 (LATEST EDITION) AND SHALL HAVE A MINIMUM WORKING PRESSURE OF 150 PSI AND HAVE A DR (DIMENSION RATIO) OF 18. PIPE SHALL BE PURPLE AND LABELED "RECLAIMED WATER" OR "NON POTABLE WATER" PROMINENTLY ON EACH PIPE JOINT. JOINTS SHALL BE OF THE PUSH-ON TYPE AND COUPLINGS SHALL CONFORM TO ASTM D3139 DR18 PIPE.
- 2. DUCTILE IRON PIPE (DIP) SHALL BE STANDARD PRESSURE CLASS 350 IN SIZES 4-INCH THROUGH 12-INCH AND CONFORM TO ANSI/AWWA C150/A21.50 (LATEST EDITION). ALL DUCTILE IRON PIPE SHALL HAVE CEMENT MORTAR LINING AS SPECIFIED IN ANSI/AWWA C104/A21.4 (LATEST EDITION). PIPE JOINTS SHALL BE OF THE PUSH-ON RUBBER GASKET TYPE CONFORMING TO ANSI/AWWA C111/A21.11 (LATEST EDITION).
- 3. PIPE SIZES GREATER THAN 12" IN BOTH PVC AND DUCTILE IRON SHALL BE SEPARATELY SPECIFIED ON THE PLANS; WITH THICKNESS CLASSES TO BE SHOWN BASED ON WORKING PRESSURES, PIPE DEPTH AND TRENCH CONDITIONS.
- 4. COMPACT FITTINGS FOR DUCTILE IRON PIPE AND PVC C900 PIPE SHALL BE DUCTILE IRON AND SHALL CONFORM TO ANSI/AWWA C153/A21.53 (LATEST EDITION) AND SHALL BE CEMENT LINED IN CONFORMANCE WITH ANSI/AWWA C104/A21.4 (LATEST EDITION). 350 PSI MINIMUM PRESSURE RATING
- 5. GATE VALVES SHALL BE RESILIENT SEAT AND SHALL CONFORM TO ANSI/AWWA C509 (LATEST EDITION) WITH 2-INCH SQUARE WRENCH NUT, EXTENSION STEMS AND OTHER APPURTENANCES AS REQUIRED. MANUFACTURER'S CERTIFICATION OF THE VALVES' COMPLIANCE WITH AWWA C509 (LATEST EDITION) AND TESTS LISTED THEREIN WILL B REQUIRED. VALVES SHALL BE CLOW, MUELLER, KENNEDY, M&H, AMERICAN DARLING, OR
- 6. VALVE BOX PADS SHALL BE 18"x18"x4" THICK CONCRETE WITH FOUR (4) REINFORCING
- UNDERGROUND VALVE IDENTIFICATION (UVI) MARKERS SHALL BE PROVIDED AT EACH VALVE LOCATION. MARKERS SHALL BE 3-INCH DIAMETER AND 1/8-INCH THICK SOLID HARD BRASS WITH 1/4-INCH ROD ANCHOR WITH "TAMPER-PROOF" HOOK FND. SURFACE SHALL BE ENGRAVED WITH 1/4-INCH TO 3/8-INCH CAPITAL LETTERS APPROXIMATELY .015-INCH DEEP - HÁND PUNCHED LETTERS NOT ACCEPTABLE. FOR MARKER TEXT, REFER TO UNDERGROUND VALVE MARKER DETAIL. SURFACE GROUND SMOOTH AND EPOXY COATED TO PREVENT TARNISHING. MARKERS ARE TO BE WAGCO
- MARKERS, OR APPROVED EQUAL. 8. BUTTERFLY VALVES SHALL MEET OR EXCEED THE DESIGN STRENGTH TESTING AND PERFORMANCE REQUIREMENTS OF AWWA C504 (LATEST EDITION). CLASS 150. VALVES SHALL BE DUCTILE IRON, RESILIENT SEAT, AND BE MANUFACTURED BY KENNED MUELLER, M&H, AMERICAN DARLING, OR APPROVED EQUAL. BUTTERFLY VALVES TO BE USED FOR SIZES GREATER THAN 12-INCH.
- 9. AIR RELEASE VALVES SHALL BE PLACED AT HIGH POINTS OF THE TRANSMISSION MAIN TO PERMIT ESCAPE OF TRAPPED AIR. THE VALVE SIZE, LOCATION, AND METHOD OF INSTALLATION SHALL BE INDICATED ON THE DRAWINGS, OR AS DIRECTED BY THE
- ENGINEER. AIR RELEASE VALVES SHALL BE VALMATIC OR APPROVED EQUAL. 10. VALVE BOXES ON BURIED RECLAIMED WATER SHALL BE ADJUSTABLE. CAST IRON CONSTRUCTION, WITH A MINIMUM INTERIOR DIAMETER OF 5-INCH WITH COVERS CAST WITH THE INSCRIPTION IN LEGIBLE LETTERING ON THE TOP: RECLAIMED WATER. BOXES SHALL BE SUITABLE FOR THE APPLICABLE SURFACE LOADING AND VALVE SIZE, AND SHALL BE MANUFACTURED BY MUELLER COMPANY, MODEL 10364. OR APPROVED
- 11. PIPE INSTALLATION OF PVC RECLAIMED WATER MAIN SHALL BE IN CONFORMANCE WITH ASTM D2774 (LATEST EDITION). INSTALLATION OF DUCTILE IRON PIPE RECLAIMED WATER MAIN SHALL BE IN CONFORMANCE WITH AWWA C600 (LATEST EDITION).
- 12. RECLAIMED WATER SYSTEM PIPES SHALL BE INSTALLED SO AS TO GIVE A MINIMUM HORIZONTAL SEPARATION OF 5 FEET (CENTER OF PIPE TO CENTER OF PIPE) FROM POTABLE WATER LINES AND MINIMUM 3-FOOT SEPARATION FORM OUTSIDE WALL TO OUTSIDE WALL AS WELL AS 18-INCH VERTICAL SEPARATION, IN THE CASE OF A CONFLICT WHERE THESE SEPARATIONS CANNOT BE MAINTAINED THE REUSE MAIN
- SHALL BE UPGRADED TO DIP. 13. COMPACTED BACKFILL SHALL BE TO 98 % MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180 UNDER ALL PAVEMENTS WITH 12-INCH MAXIMUM LIFT THICKNESS. OTHER COMPACTION OF BACKFILL SHALL BE TO 95% MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180 WITH 12-INCH MAXIMUM LIFT THICKNESS. SEE PIPE
- 14. MINIMUM COVER OVER ALL PIPE SHALL BE 36-INCHES FROM TOP OF PIPE TO FINISHED GRADE, UNLESS OTHERWISE NOTED.
- 15. INDICATOR TAPE SHALL BE BURIED IN THE RECLAIMED WATER MAIN TRENCH 18-INCH DIRECTLY ABOVE THE MAIN. A CONTINUOUS COPPER DETECTOR WIRE SHALL BE ATTACHED AS SHOWN ON THE PIPE DETECTOR WIRE MARKER DETAIL. INDICATOR TAPE HALL CALL OUT THAT A RECLAIMED OR NON POTABLE SYSTEM IS BELOW. PIPE SHALL BE COLOR CODED PURPLE IN ADDITION TO MARKINGS, SIGNS IN ENGLISH, SPANISH AND INTERNATIONAL SYMBOLS SHALL BE INSTALLED NOTING THAT NO DRINKING IS
- ALLOWED. CONTINUITY CHECK WILL BE PERFORMED AND MUST BE ACCEPTABLE. 16. ALLOWABLE LEAKAGE FOR PVC PRESSURE MAINS WILL BE IN ACCORDANCE WITH AWWA
- 17. THE CONTRACTOR SHALL PROVIDE AT HIS OWN EXPENSE ALL NECESSARY TEST PUMPING EQUIPMENT, WATER, WATER METERS, PRESSURE GAUGES, AND OTHER FOUIPMENT, MATERIAL AND FACILITIES REQUIRED FOR ALL HYDROSTATIC AND LEAKAGE TESTING. CONTRACTOR SHALL CONTACT LOCAL AGENCY, UTILITY PROVIDER, AND ENGINEER IN WRITTEN FORM, FORTY-EIGHT (48) HOURS IN ADVANCE OF PROPOSED FESTING THE CONTRACTOR SHALL PERFORM SATISFACTORY PRETESTING I
- NOTIFICATION. NO TESTING WILL BE SCHEDULED ON A MONDAY OR FRIDAY. 18. THE RECLAIMED WATER SYSTEM SHALL BE TESTED FOR LEAKAGE AT 150 PSI FOR TWO (2) HOURS PER UTILITY PROVIDER STANDARDS.

20. SIGNS SHALL BE POSTED IN THE VICINITY OF PUBLIC RECLAIMED WATER RECLAIMED

WATER IRRIGATION SYSTEMS, ADVISING THE PUBLIC THAT RECLAIMED WATER IS

19. ALL RECLAIMED WATER PIPES SHALL BE INSTALLED USING WATER PIPE CRITERIA MAINS SHALL BE CLASS 52 D.I. PIPE. IF 24-INCHES TO 30-INCHES OF COVER IS

- PLANS SHALL BE IN ACCORDANCE WITH THE 6TH EDITION OF THE FLORIDA FIRE PREVENTION NFPA 101 2015 FDITION NFPA 1, 2015 EDITION

SPECIAL PURPOSE

NFPA 24, 2013 EDITION

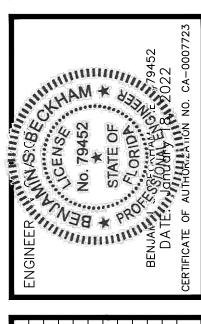
NFPA 13, 2013 EDITION

THE EXISTENCE AND LOCATION OF ANY OVERHEAD OR UNDERGROUND UTILITY LINES PIPES, OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY A RESEARCH OF THE AVAILABLE RECORDS. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO SAME. THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING NEAR OVERHEAD UTILITIES SO AS TO SAFELY PROTECT ALL PERSONNEL AND EQUIPMENT AND SHALL BE RESPONSIBLE FOR ALL COST AND LIABILITY IN CONNECTION THEREWITH.



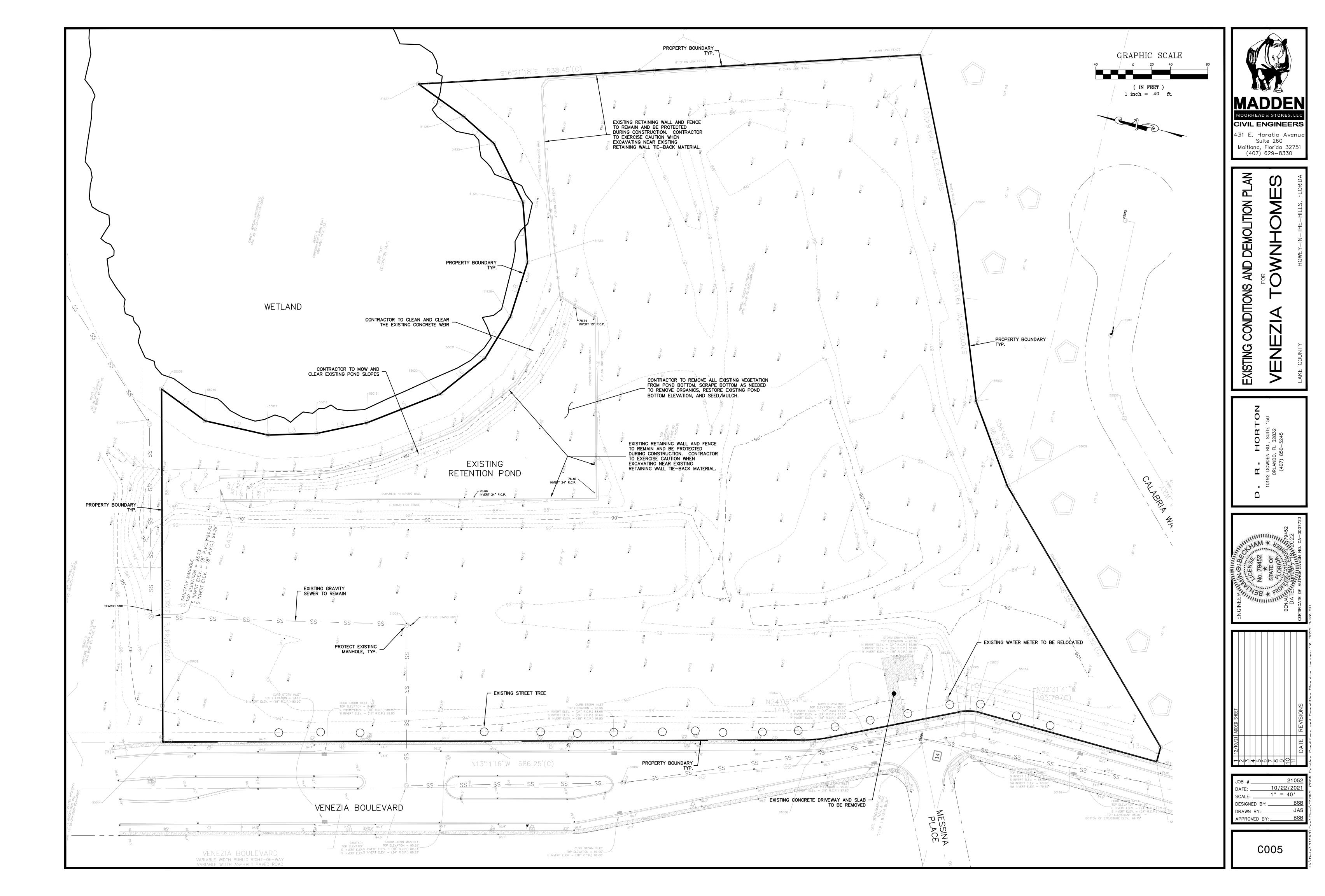
OORHEAD & STOKES, LL CIVIL ENGINEERS

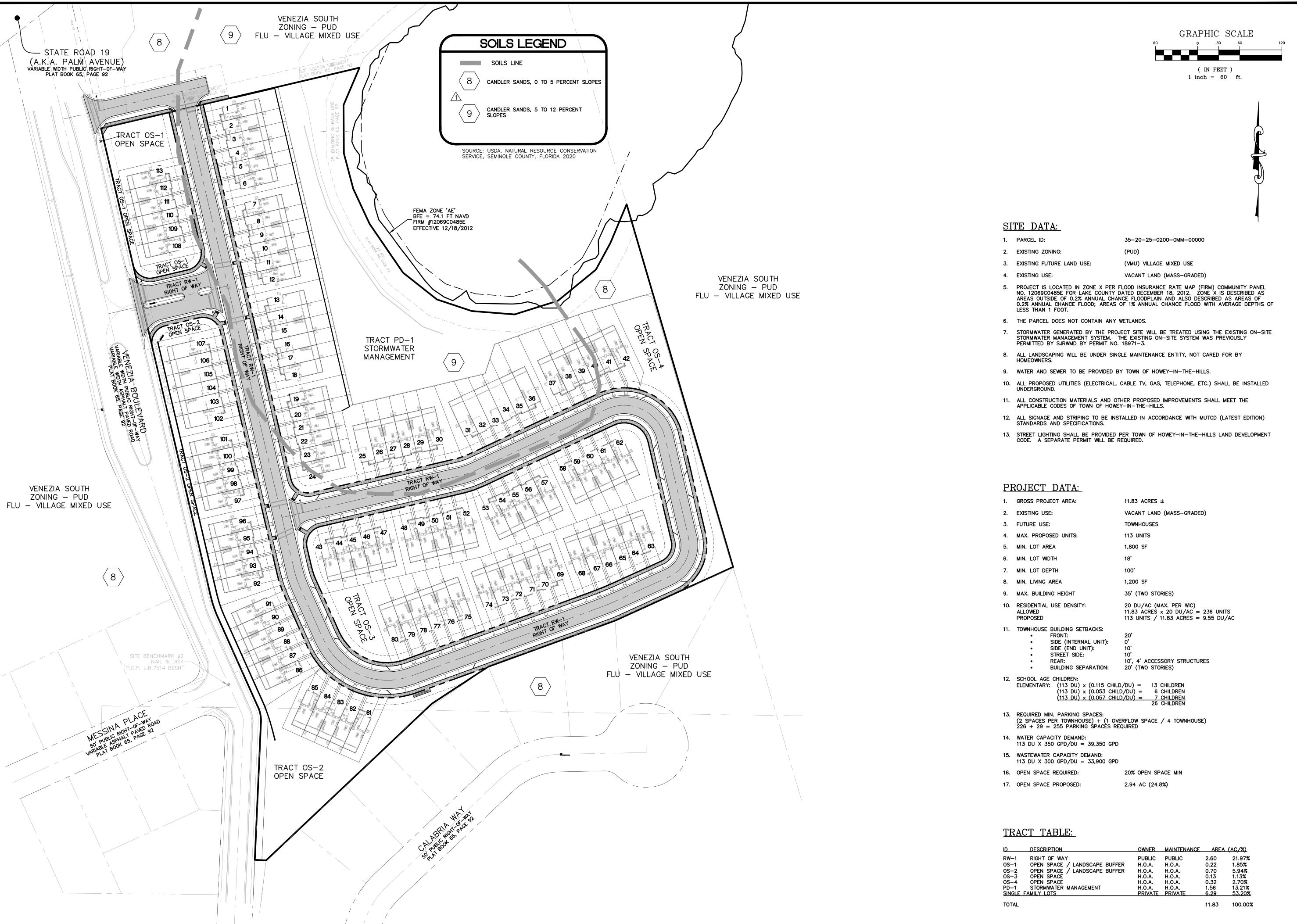
|431 E. Horatio Avenu Suite 260 Maitland, Florida 3275 (407) 629-8330



10/22/202 N.T.S. DESIGNED BY: DRAWN BY: APPROVED BY: _

21m141m101m101p1





MADDEN
MOORHEAD & STOKES, LLC
CIVIL ENGINEERS

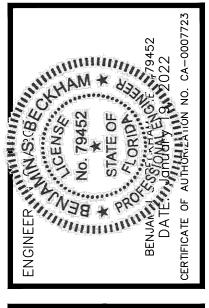
431 E. Horatio Avenue
Suite 260
Maitland, Florida 32751
(407) 629-8330

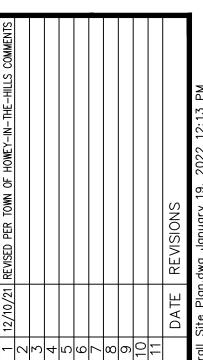
(407) 629–8330

FOR MANADAME.
HOWEY-IN-THE-HILLS, FLOR

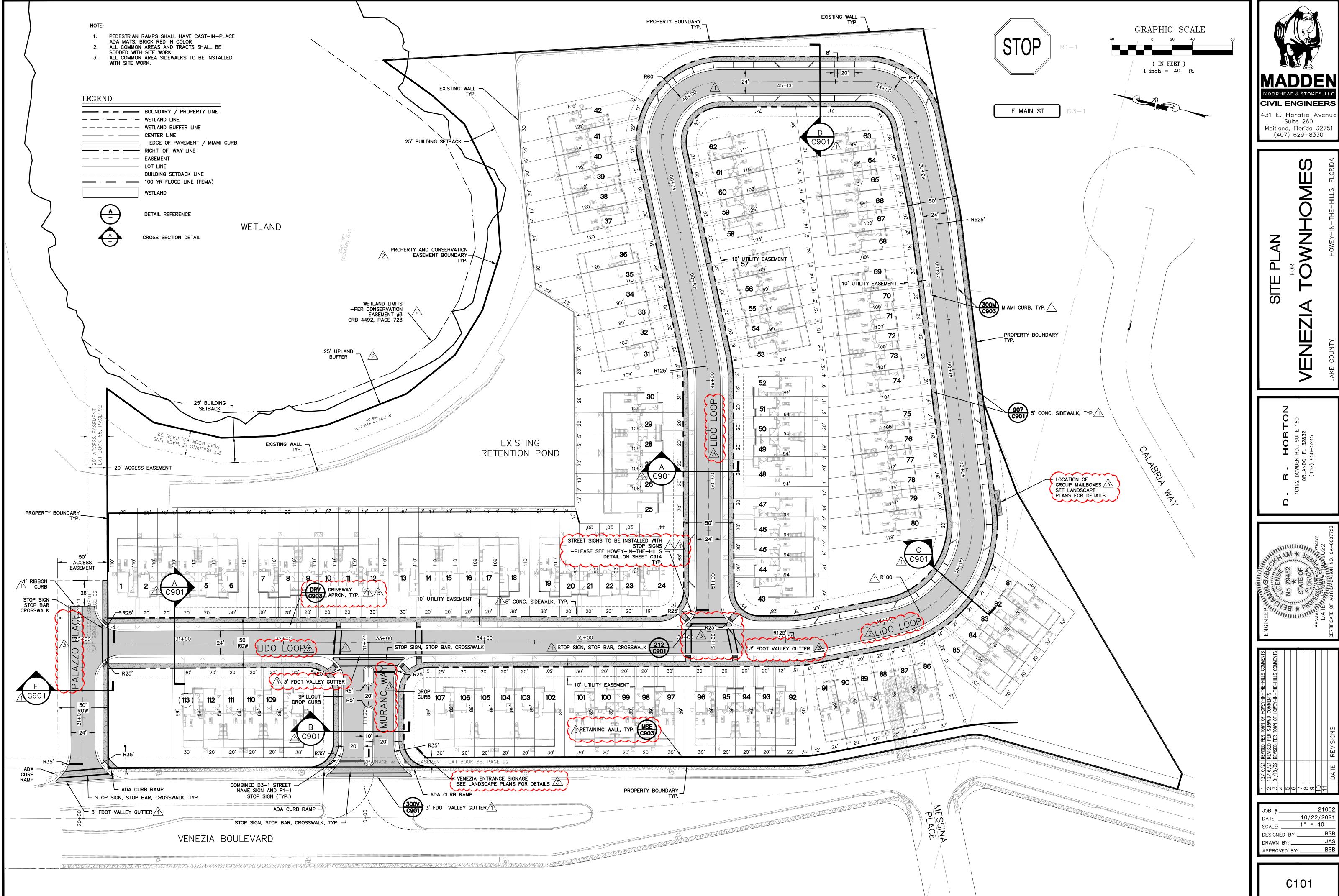
VENEZIA I C

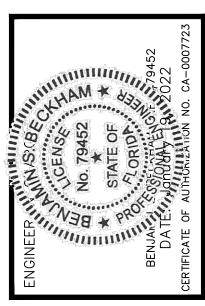
- R - HORTON 10192 DOWDEN RD., SUITE 150 ORLANDO, FL 32832 (407) 850-5245

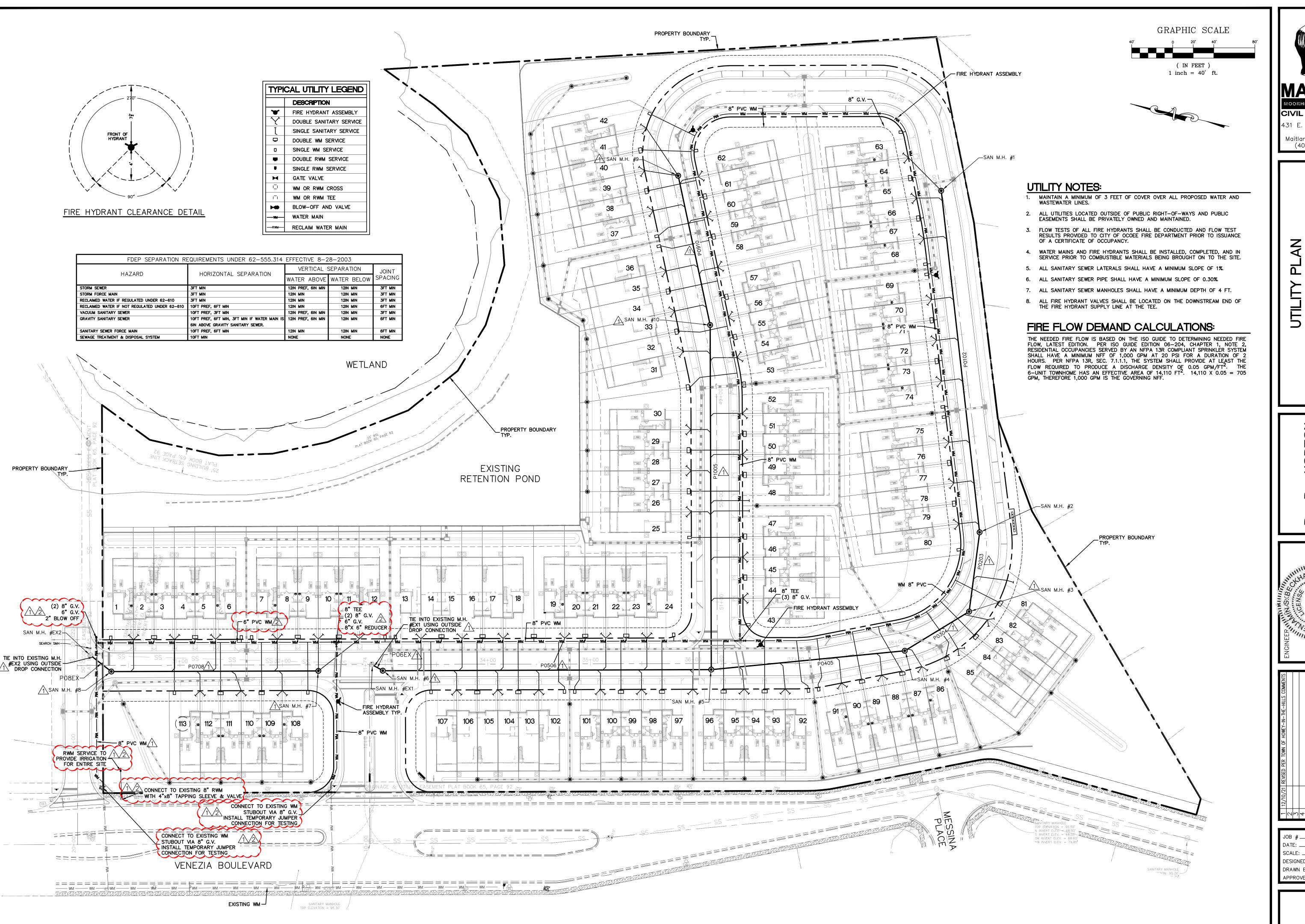


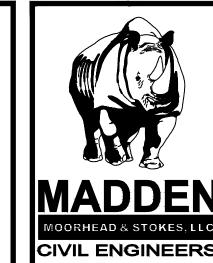


)B #	21052
л АТЕ:	10/22/2021
CALE:	1" = 60'
SIGNED BY: _	BSB
RAWN BY:	JAS
PPROVED BY:	BSB



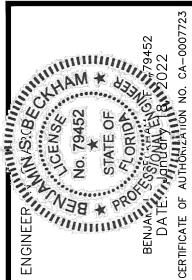


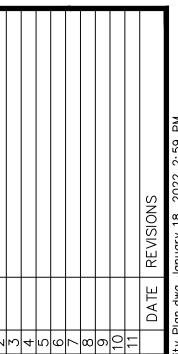




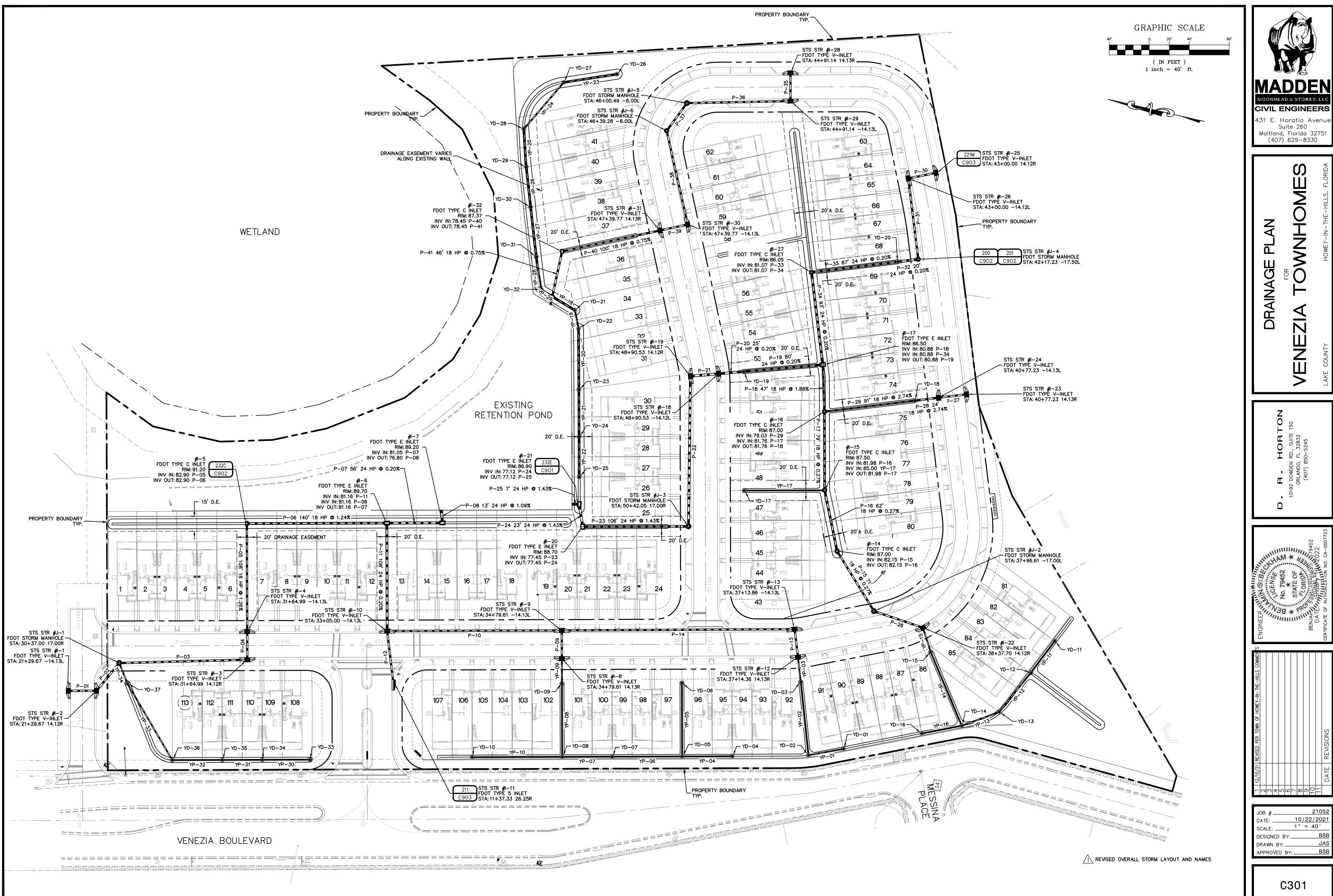
431 E. Horatio Avenu Suite 260 Maitland, Florida 32751 (407) 629-8330

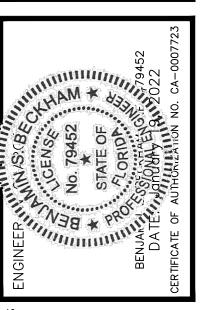
D _ R _ HORTON
10192 DOWDEN RD., SUITE 150
ORLANDO, FL 32832
(407) 850-5245

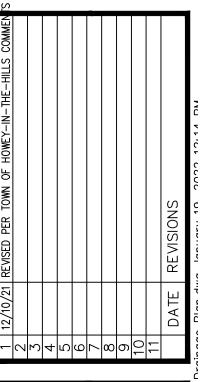




	JOB #	21052
	DATE:	
	SCALE:	1" = 40'
	DESIGNED BY:	BSE
	DRAWN BY:	JAS
	APPROVED BY:	BSE



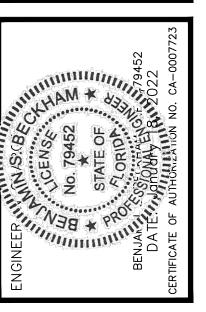




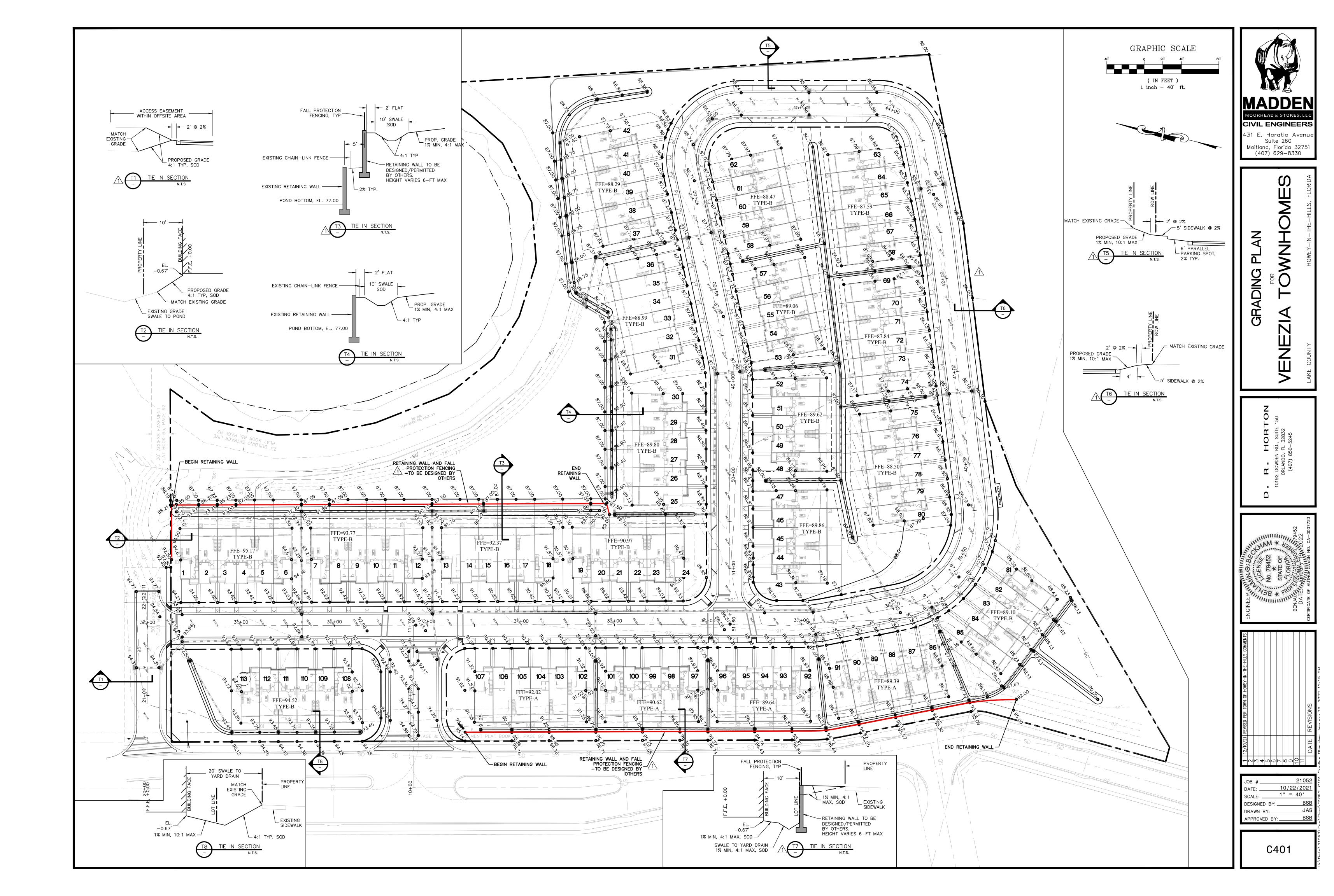
	YARD D	RAIN STRUCTURE TABLE	
TRUCTURE NAME:	DETAILS:	PIPES IN:	PIPES OUT
YD-01	12" RIM = 88.12 SUMP = 85.1 INV OUT = 85.12		YP-01, 12" HP INV OUT =85.12
YD-02	12" RIM = 88.22 SUMP = 84.8 INV IN = 84.76 INV OUT = 84.76	YP-01, 12" HP INV IN =84.76	YP-02, 12" HP INV OUT =84.76
YD-03	12" RIM = 87.56 SUMP = 84.6 INV IN = 84.03 INV OUT = 83.97	YP-02, 12" HP INV IN =84.03	YP-03, 12" HP INV OUT =83.97
YD-04	12" RIM = 88.27 SUMP = 84.5 INV OUT = 84.76		YP-04, 12" HP INV OUT =84.76
YD-05	12" RIM = 88.77 SUMP = 84.0 INV IN = 83.97 INV IN = 83.97 INV OUT = 83.97	YP-04, 12" HP INV IN =83.97 YP-05, 12" HP INV IN =83.97	YP-06, 12" HP INV OUT =83.97
YD-06	12" RIM = 87.50 SUMP = 84.7 INV OUT = 84.70		YP-05, 12" HP INV OUT =84.70
YD-07	12" RIM = 89.25 SUMP = 83.3 INV IN = 83.27 INV OUT = 83.27	YP-06, 12" HP INV IN =83.27	YP-07, 12" HP INV OUT =83.27
YD-08	12" RIM = 89.75 SUMP = 82.8 INV IN = 82.77 INV IN = 82.77 INV IN = 82.04	YP-10, 12" HP INV IN =82.77 YP-07, 12" HP INV IN =82.77 YP-08, 12" HP INV IN =82.04	
YD-09	12" RIM = 89.00 SUMP = 82.0 INV OUT = 82.77 INV OUT = 82.04		YP-08, 12" HP INV OUT =82.77 YP-09, 12" HP INV OUT =82.04
YD-10	12" RIM = 90.55 SUMP = 83.7 INV OUT = 83.67		YP-10, 12" HP INV OUT =83.67
YD-11	12" RIM = 87.63 SUMP = 84.8 INV OUT = 84.83		YP-11, 12" HP INV OUT =84.83
YD-12	12" RIM = 87.63 SUMP = 84.4 INV IN = 84.43 INV OUT = 84.43	YP-11, 12" HP INV IN =84.43	YP-12, 12" HP INV OUT =84.43
YD-13	12" RIM = 87.63 SUMP = 83.9 INV IN = 83.93 INV OUT = 83.93	YP-12, 12" HP INV IN =83.93	YP-13, 12" HP INV OUT =83.93
YD-14	12" RIM = 87.23 SUMP = 83.5 INV IN = 83.53 INV IN = 83.53 INV OUT = 83.53	YP-13, 12" HP INV IN =83.53 YP-16, 12" HP INV IN =83.53	YP-14, 12" HP INV OUT =83.53
YD-15	12" RIM = 87.00 SUMP = 82.1 INV IN = 82.73 INV OUT = 82.73	YP-14, 12" HP INV IN =82.73	YP-15, 12" HP INV OUT =82.73
YD-16	12" RIM = 88.12 SUMP = 83.9 INV OUT = 83.94		YP-16, 12" HP INV OUT =83.94
YD-17	12" $RIM = 2.30$ $SUMP = -3.7$ $INV OUT = 85.50$		YP-17, 12" HP INV OUT =85.50
YD-18	12" RIM = 88.58 SUMP = 82.6 INV IN = 81.53 INV OUT = 81.53	P-28, 18" HP INV IN =81.53	P-29, 18" HP INV OUT =81.53

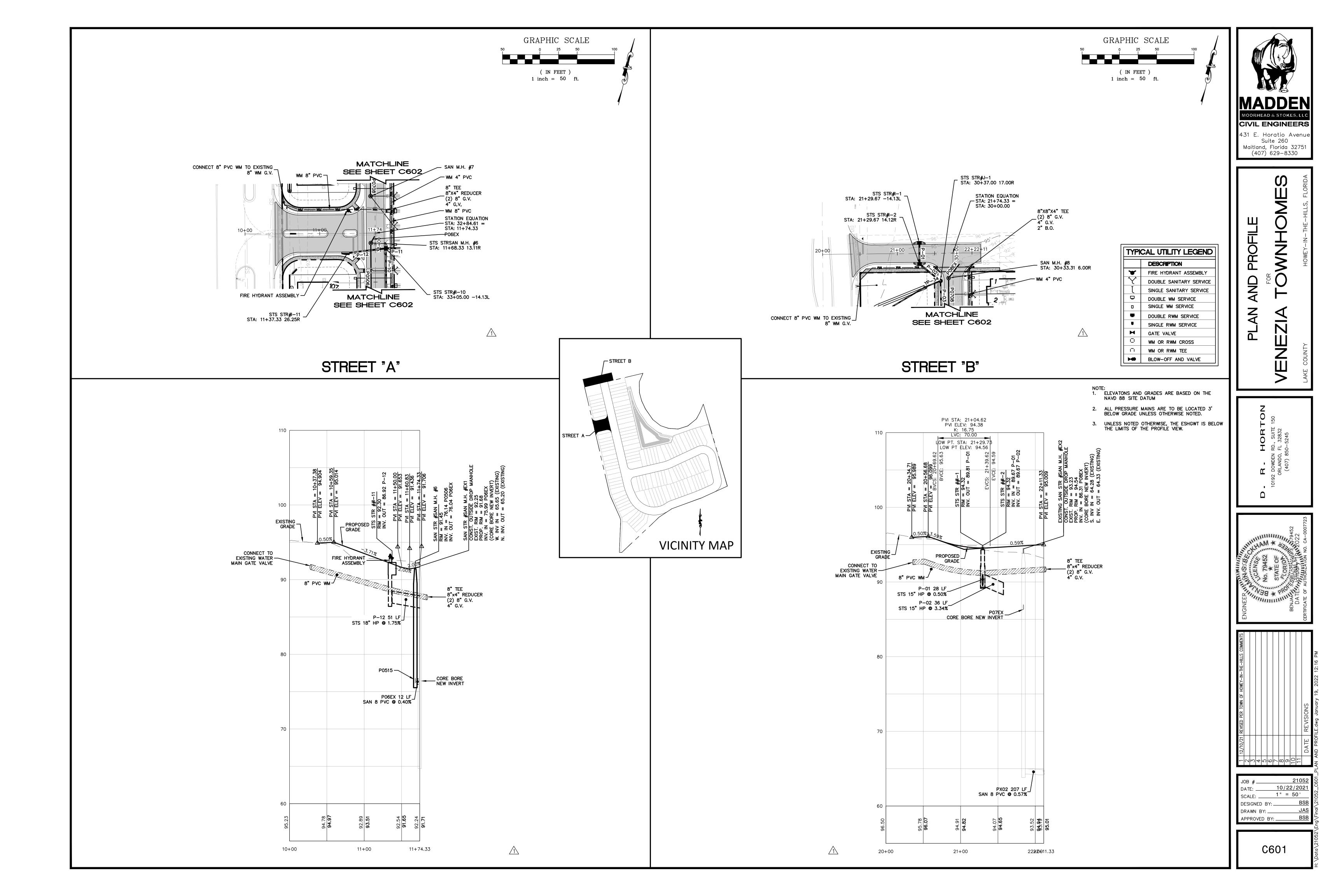
	YARD D	RAIN STRUCTURE TABLE	-
STRUCTURE NAME:	DETAILS:	PIPES IN:	PIPES OUT
YD-19	12" RIM = 88.35 SUMP = 82.4 INV IN = 80.72 INV OUT = 80.72	P-19, 24" HP INV IN =80.72	P-20, 24" HP INV OUT =80.72
YD-20	12" RIM = 87.79 SUMP = 81.8 INV IN = 81.24 INV OUT = 81.24	P-32, 24" HP INV IN =81.24	P-33, 24" HP INV OUT =81.24
YD-22	12" RIM = 89.05 SUMP = 49.0 INV OUT = 82.46 INV OUT = 82.46		YP-20, 12" HP INV OUT =82.46 YP-19, 12" HP INV OUT =82.46
YD-23	12" RIM = 86.25 SUMP = 46.3 INV IN = 83.08 INV OUT = 83.08	YP-20, 12" HP INV IN =83.08	YP-21, 12" HP INV OUT =83.08
YD-24	12" RIM = 86.35 SUMP = 46.3 INV IN = 83.55 INV OUT = 83.55	YP-21, 12" HP INV IN =83.55	YP-22, 12" HP INV OUT =83.55
YD-25	12" RIM = 86.75 SUMP = 46.8 INV IN = 83.95	YP-22, 12" HP INV IN =83.95	
YD-26	12" RIM = 86.52 SUMP = 46.5 INV OUT = 83.82		YP-23, 12" HP INV OUT =83.82
YD-27	12" RIM = 86.52 SUMP = 46.5 INV IN = 83.28 INV OUT = 83.28	YP-23, 12" HP INV IN =83.28	YP-24, 12" HP INV OUT =83.28
YD-28	12" RIM = 87.02 SUMP = 47.0 INV IN = 82.84 INV OUT = 82.84	YP-24, 12" HP INV IN =82.84	YP-25, 12" HP INV OUT =82.84
YD-29	12" RIM = 85.14 SUMP = 45.1 INV IN = 82.34 INV OUT = 82.34	YP-25, 12" HP INV IN =82.34	YP-26, 12" HP INV OUT =82.34
YD-30	12" RIM = 84.74 SUMP = 44.7 INV IN = 81.94 INV OUT = 81.94	YP-26, 12" HP INV IN =81.94	YP-27, 12" HP INV OUT =81.94
YD-31	12" RIM = 83.41 SUMP = 73.9 INV IN = 81.44 INV OUT = -0.50		YP-28, 12" HP INV OUT =-0.50
YD-32	12" RIM = 1.47 SUMP = -0.5 INV IN = -0.50 INV OUT = -0.50	YP-28, 12" HP INV IN =-0.50	YP-29, 12" HP INV OUT =-0.50
YD-33	12" RIM = 93.75 SUMP = 87.8 INV OUT = 90.95		YP-30, 12" HP INV OUT =90.95
YD-34	12" RIM = 93.28 SUMP = 87.3 INV IN = 90.48 INV OUT = 90.48	YP-30, 12" HP INV IN =90.48	YP-31, 12" HP INV OUT =90.48
YD-35	12" RIM = 92.88 SUMP = 86.9 INV IN = 90.08 INV OUT = 90.08	YP-31, 12" HP INV IN =90.08	YP-32, 12" HP INV OUT =90.08
YD-36	12" RIM = 92.38 SUMP = 86.4 INV IN = 89.58 INV OUT = 89.58	YP-32, 12" HP INV IN =89.58	YP-33, 12" HP INV OUT =89.58
YD-37	12" RIM = 91.49 SUMP = 85.5 INV IN = 88.69 INV OUT = 88.69	YP-33, 12" HP INV IN =88.69	YP-34, 12" HP INV OUT =88.69

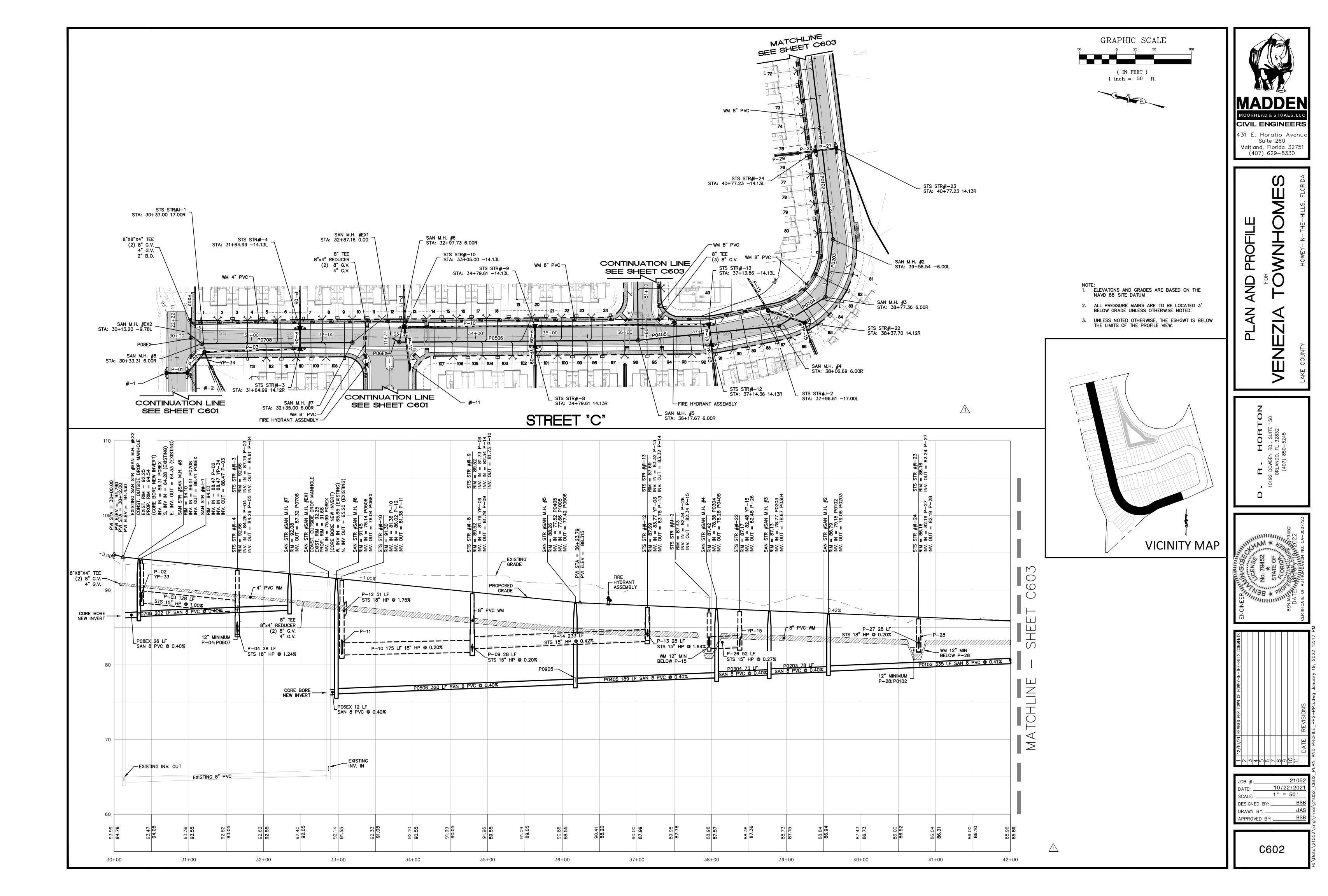
	YARD	DRAIN	PIPE TA	BLE
NAME	SIZE	LENGTH	SLOPE	MATERIAL
YP-01	12"	35.53'	1.00%	HP
YP-02	12"	73.79'	1.00%	HP
YP-03	12"	24.87'	0.80%	HP
YP-04	12"	50.00'	1.58%	HP
YP-05	12"	73.33'	1.00%	HP
YP-06	12"	70.00'	1.00%	HP
YP-07	12"	50.00'	1.00%	HP
YP-08	12"	73.33'	1.00%	HP
YP-09	12"	24.87'	1.00%	HP
YP-10	12"	90.00'	1.00%	HP
YP-11	12"	39.66'	1.00%	HP
YP-12	12"	50.43'	1.00%	HP
YP-13	12"	39.82'	1.00%	HP
YP-14	12"	79.94'	1.00%	HP
YP-15	12"	25.57'	1.00%	HP
YP-16	12"	40.62'	1.00%	HP
YP-17	12"	80.33'	0.62%	HP
YP-20	12"	61.32'	-1.00%	HP
YP-21	12"	47.26'	-1.00%	HP
YP-22	12"	40.00'	-1.00%	HP
YP-23	12"	54.00'	1.00%	HP
YP-24	12"	61.36'	0.71%	HP
YP-25	12"	38.27'	1.31%	HP
YP-26	12"	40.21'	0.99%	HP
YP-27	12"	50.23'	1.00%	HP
YP-28	12"	32.80'	0.00%	HP
YP-29	12"	13.13'	-613.52%	HP
YP-30	12"	47.50'	1.00%	HP
YP-31	12"	40.00'	1.00%	HP
YP-32	12"	50.00'	1.00%	HP
YP-33	12"	88.82'	1.00%	HP
YP-34	12"	22.02'	1.00%	HP

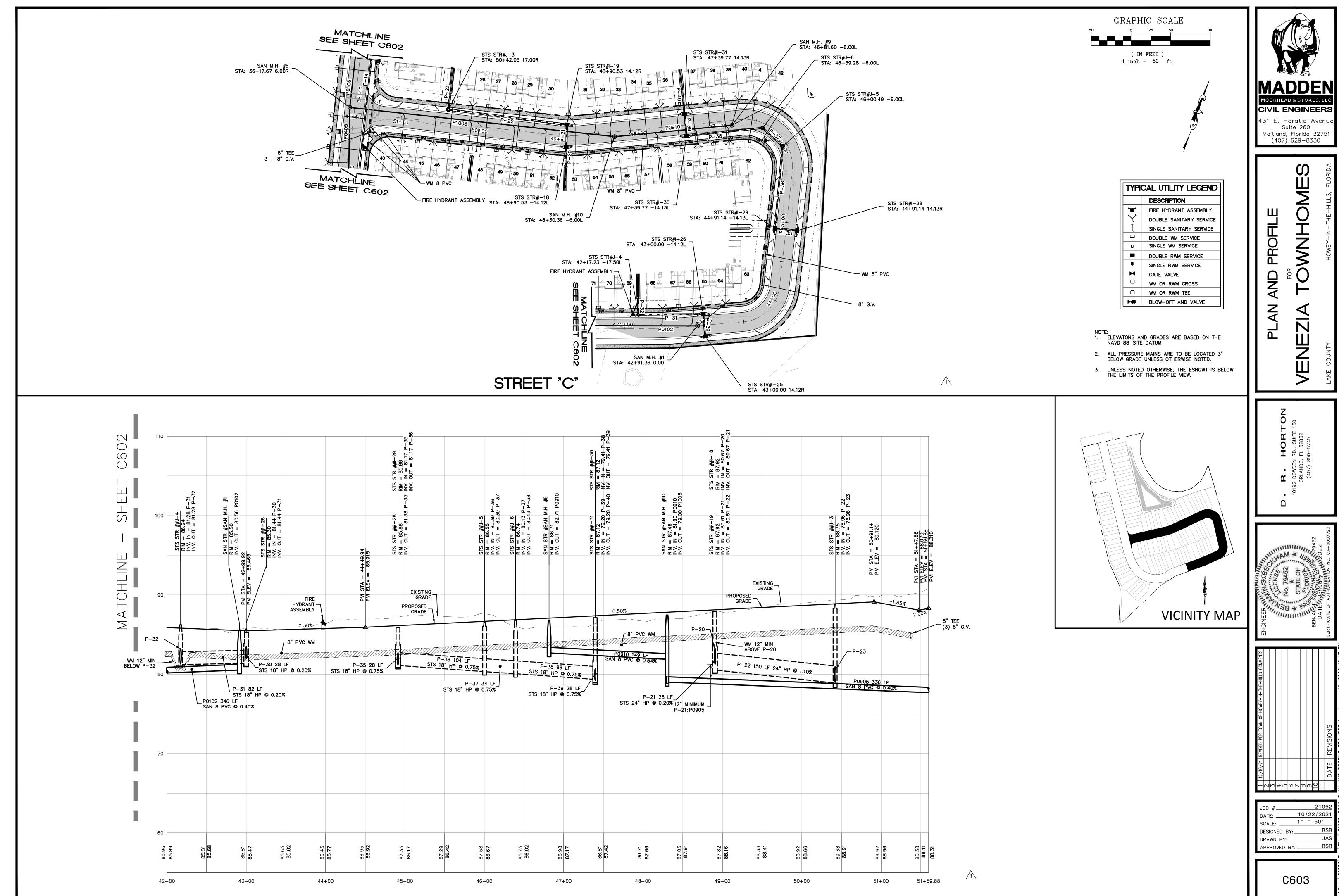


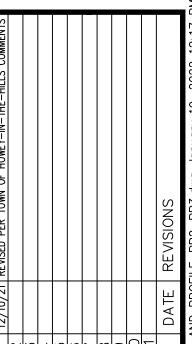
JOB #	21052
DATE:	10/22/2021
SCALE:	N.T.S.
DESIGNED BY: _	BSB
DRAWN BY:	JAS
APPROVED BY:	BSB











ORHEAD & STOKES, LL

CIVIL ENGINEERS

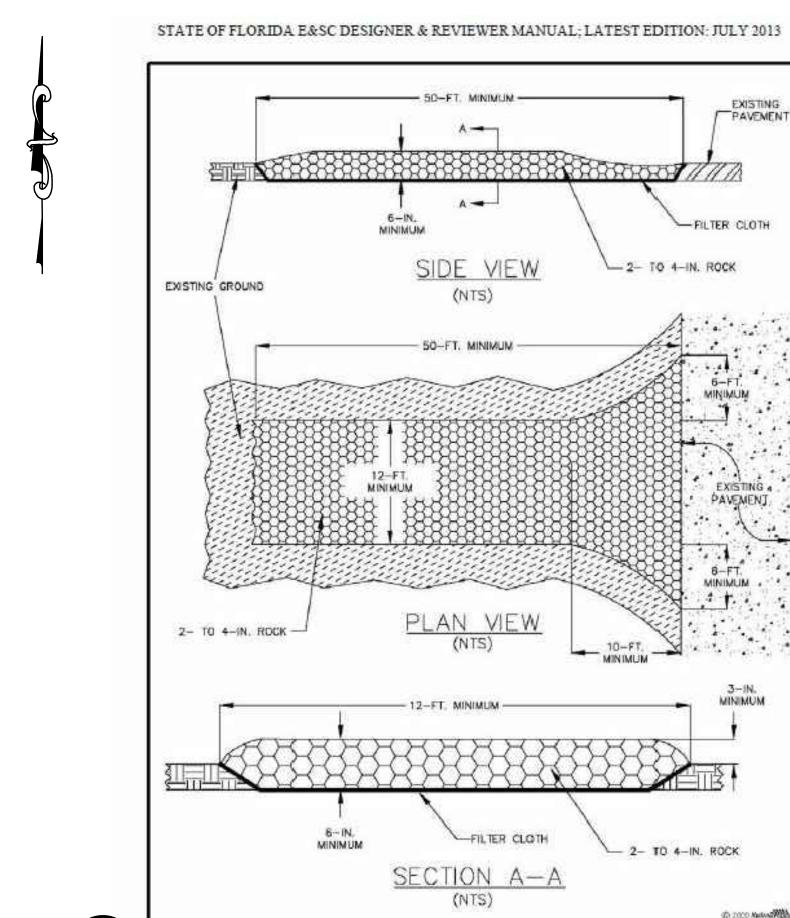
431 E. Horatio Avenue

Suite 260

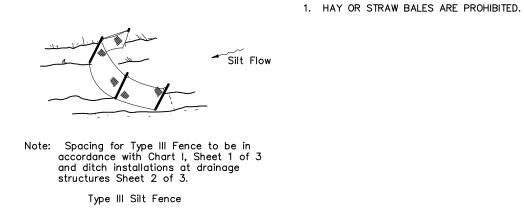
Maitland, Florida 32751

(407) 629-8330

GRAPHIC SCALE (IN FEET)



Optional Post Positions Filter Fabric (In Conformance With – Sec. 985 FDOT Spec.) SECTION 1. Silt Fence to be paid for under the contract unit price for Staked Silt Fence (LF). 2. Double silt fence shall be installed as two rows with a 3' min. clearance between rows. TYPE III SILT FENCE



SOIL TRACKING PREVENTION DEVICE

Type III 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 and turbidity barriers used at permanent bodies of water.

SILT FENCE APPLICATIONS



DEWATERING NOTE:

CONTRACTOR SHALL ACQUIRE A DEWATERING PERMIT THROUGH SJWRMD IF NECESSARY.

1 inch = 100' ft.

CERTIFICATION FOR CONTRACTORS AND SUB-CONTRACTORS

CONDITIONS OF THE GENERIC STORMWATER PERMIT ISSUED PURSUANT TO SECTION 403.0885, F.S., THAT AUTHORIZES THE STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM THE

CICNIA TLIDE:

NAME:	SIGNATURE:	DATE:
ADDRESS:		TELEPHONE:
CONDITIONS OF THE GENER TO SECTION 403.0885, F.S DISCHARGES ASSOCIATED	OF LAW THAT I UNDERSTAIRIC STORMWATER PERMIT IS G., THAT AUTHORIZES THE S' WITH INDUSTRIAL ACTIVITY F IFIED AS PART OF THIS CER	SSUED PURSUANT TORMWATER ROM THE

NAME:	SIGNATURE:	DATE:
ADDRESS:		TELEPHONE:

NAME:	SIGNATURE:	DATE:
ADDRESS:		TELEPHONE:

CONDITIONS OF THE GENERIC STORMWATER PERMIT ISSUED PURSUANT TO SECTION 403.0885, F.S., THAT AUTHORIZES THE STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM THE CONSTRUCTION SITE IDENTIFIED AS PART OF THIS CERTIFICATION.

NAME:	SIGNATURE:	DATE:
ADDRESS:		TELEPHONE:
CONDITIONS OF TO SECTION 403	R PENALTY OF LAW THAT I UNDE THE GENERIC STORMWATER PER 3.0885, F.S., THAT AUTHORIZES T SOCIATED WITH INDUSTRIAL ACTIV SITE IDENTIFIED AS PART OF THE	MIT ISSUED PURSUANT THE STORMWATER VITY FROM THE
CONSTRUCTION	orie ibertii ieb 7.0 i 7.1.tr or 17.1.tr	

STORMWATER POLLUTION PREVENTION NOTES:

- THE CONTRACTOR SHALL EXECUTE ALL MEASURES NECESSARY TO LIMIT THE TRANSPORT OF SEDIMENTS OUTSIDE THE LIMITS OF THE PROJECT TO THE VOLUME AND AMOUNT THAT ARE EXISTING PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. THIS CONDITION WILL BE SATISFIED FOR THE TOTAL ANTICIPATED CONSTRUCTION PERIOD. PROVISION MUST BE MADE TO PRESERVE THE INTEGRITY GRADING PATTERNS, ETC. REQUIRED TO MEET THIS PROVISION THROUGHOUT THE LIFE OF THE CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE SILT BARRIERS, TEMPORARY GRASSING, ETC. AS REQUIRED TO FULLY COMPLY WITH THE INTENT OF THIS SPECIFICATION.
- 2. NO EXCAVATED MATERIAL SHALL BE STOCKPILED IN SUCH A MANNER AS TO DIRECT RUNOFF DIRECTLY OFF THE PROJECT SITE OR INTO ANY ADJACENT WATER BODY OR STORMWATER COLLECTION FACILITY.
- 3. THE SURFACE AREA OF OPEN, RAW ERODIBLE SOIL EXPOSED BY CLEARING AND GRUBBING OPERATIONS OR EXCAVATION AND FILLING OPERATIONS SHALL BE CONTROLLED, SO THAT THIS OPERATION WILL NOT SIGNIFICANTLY AFFECT OFF-SITE DEPOSIT OF SEDIMENTS.
- 4. INLETS AND CATCH BASINS SHALL BE PROTECTED FROM SEDIMENT LADEN STORMWATER RUNOFF UNTIL THE COMPLETION OF ALL CONSTRUCTION OPERATIONS THAT MAY CONTRIBUTE SEDIMENT TO THE INLET.
- AREAS OPENED BY CONSTRUCTION OPERATIONS THAT ARE NOT ANTICIPATED TO BE DRESSED OR RECEIVE FINAL GRASSING TREATMENT WITH IN THIRTY DAYS SHALL BE SEEDED WITH A QUICK GROWING GRASS SPECIES WHICH WILL PROVIDE AN EARLY COVER, DURING THE SEASON IN WHICH IT IS PLANTED. TEMPORARY SEEDING SHALL BE CONTROLLED SO AS TO NOT ALTER OR COMPETE WITH PERMANENT GRASSING. THE RATE OF SEEDING SHALL BE
- 6. THE SEEDED OR SEEDED AND MULCHED AREA(S) SHALL BE ROLLED AND WATERED AS REQUIRED TO ASSURE OPTIMUM GROWING CONDITIONS FOR THE ESTABLISHMENT OF A GOOD GRASS COVER.
- 7. IF AFTER 14 DAYS, THE TEMPORARY GRASSED AREAS HAVE NOT ATTAINED A MINIMUM OF 75% GOOD GRASS COVER, THE AREA WILL BE REWORKED AND ADDITIONAL SEED APPLIED TO ESTABLISH THE DESIRED VEGETATION
- 8. ALL FEATURES OF THE PROJECT SHALL BE CONSTRUCTED TO PREVENT EROSION AND SEDIMENT AND SHALL BE MAINTAINED DURING THE LIFE OF THE CONSTRUCTION SO AS TO FUNCTION PROPERLY WITHOUT THE TRANSPORT OF SEDIMENTS OUTSIDE THE LIMITS OF THE PROJECT.
- 9. ALL DISTURBED AREAS OUTSIDE THE EXCAVATION AND FILL LIMITS WILL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN THEIR CONDITION PRIOR TO CONSTRUCTION.
- 10. THE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTENANCE OF ALL NEWLY PLANTED GRASSES OR VEGETATION AND RETENTION/DETENTION FACILITIES UNTIL THE WORK HAS BEEN ACCEPTED BY THE COUNTY.
- 11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STABILITY OF EMBANKMENTS

 AND SHALL REPLACE ANY PORTION, WHICH IN THE OPINION OF THE ENGINEER, HAS BECOME DISPLACED DUE TO EROSION OR DUE TO CARELESSNESS OR NEGLIGENCE ON THE PART OF THE CONTRACTOR.
- POLLUTION OF THE ENVIRONMENT. MEASURES SHALL BE TAKEN BY THE CONTRACTOR TO CONTROL EROSION AND SEDIMENT RUNOFF FROM THE SITE DURING CONSTRUCTION. SUCH METHODS SHALL BE IN ACCORDANCE WITH THE CURRENT FLORIDA DEPARTMENT OF TRANSPORTATION STANDARDS.

12. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS CONTROLLING

- 13. ABSOLUTELY NO WORK WILL BE ALLOWED WITHIN ANY CONSERVATION AREA, BUFFER AREA, MITIGATION AREA OR DESIGNATED WETLAND AREA UNLESS SO SPECIFICALLY DESCRIBED BY THE PLANS AND GRANTED BY REASON OF PERMIT FROM THE GOVERNMENTAL ENTITY HAVING JURISDICTION OVER SAID AREA. 14. PRIOR TO CLEARING AND GRUBBING, THE LIMITS OF WETLANDS, BUFFERS WETLANDS, BUFFERS AND MITIGATION AREAS SHALL BE CLEARLY MARKED ALONG THE PROPOSED RIGHT OF WAY LINE TO PROTECT THESE AREAS FROM
- ENCROACHMENT FROM CONSTRUCTION ACTIVITIES. 15. ALL FILL EMBANKMENT AND GRADED AREAS SHALL BE PROTECTED AGAINST EROSION BY METHODS STATED IN SECTION 104, F.D.O.T. STANDARD SPECIFICATIONS FOR BRIDGE AND ROAD CONSTRUCTION. SIDE SLOPE MAY BE
- SEED AND MULCHED, PROVIDED THAT THE MULCH MATERIAL IS DISC HARROWED AND THE SIDE SLOPES ARE NEITHER GREATER THAN 3:1 NOR PART OF A DRAINAGE CONVEYANCE. 16. EROSION CONTROL AT ALL INLET DRAINAGE STRUCTURES DURING CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE CITY OF ORLANDO ENGINEERING STANDARDS MANUAL (5TH ED.) AND THE F.D.O.T. EROSION AND
- SEDIMENT CONTROL MANUAL (2013 ED.). 17. INSPECTIONS ON EROSION CONTROL MEASURES WILL BE PERFORMED BY THE CONTRACTOR ONCE PER WEEK AND
- WITHIN 24 HOURS AFTER 1/2 INCH OF RAINFALL. THE INSPECTIONS MUST BE LOGGED BY THE CONTRACTOR AND KEPT WITH THE APPROVED PLANS AND SWPPP.
- 18. GRAVEL CONSTRUCTION ENTRANCES SHALL BE PROVIDED TO MINIMIZE EXPORT OF ONSITE DIRT. IF GRAVEL IS NOT ALLOWED, THE CONSTRUCTION ENTRANCES SHALL BE SWEPT PERIODICALLY AND LOGGED BY THE CONTRACTOR.
- 19. THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES TO PREVENT DUST FROM POLLUTING ADJACENT PROPERTIES.

EROSION CONTROL:

THE CONTRACTOR SHALL PERFORM EROSION CONTROL MEASURES IN ACCORDANCE WITH TO LAKE COUNTY AND THE S.J.R.W.M.D., DETAILS CONTAINED IN THE PLANS, THE FOLLOWING NOTES AND AS DIRECTED BY THE ENGINEER. A. TEMPORARY EROSION CONTROL

1. STOCKPILING MATERIAL. NO EXCAVATING MATERIAL SHALL BE STOCKPILED IN SUCH A MANNER AS TO DIRECT RUNOFF DIRECTLY OFF THE PROJECT SITE OR INTO ANY ADJACENT WATERBODY OR STORMWATER COLLECTION FACILITY. 2. INLET PROTECTION — INLETS AND CATCH BASINS SHALL BE PROTECTED FROM SEDIMENT—LADEN STORM RUNOFF

DIRECTLY OFF THE PROJECT SITE OR INTO ANY ADJACENT WATERBODY OR STORMWATER COLLECTION FACILITY. 3. TEMPORARY SEEDING / STRIP SODDING - AREAS OPENED BY CONSTRUCTION OPERATIONS AND THAT ARE NOT ANTICIPATED TO BE DRESSED AND RECEIVE FINAL GRASSING TREATMENT WITHIN THIRTY DAYS SHALL BE STRIP-SODDED ALONG ALL DEDICATED ROW'S. THIS WILL PREVENT SEDIMENT RUNOFF FROM INDIVIDUAL LOTS INTO THE ROW AND DRAINAGE SYSTEMS, AND WILL NOT LATER COMPETE WITH THE PERMANENT LOT GRASSING.

4. TEMPORARY SEEDING AND MULCHING - SLOPES STEEPER THAN 6:1 THAT FALL WITHIN THE CATEGORY ESTABLISHED IN NOTE 3 ABOVE SHALL ADDITIONALLY RECEIVE MULCHING OF APPROXIMATELY 2 INCHES LOOSE

MEASURE OF MULCH MATERIAL CUT INTO THE SOIL OF THE SEEDED AREA TO A DEPTH OF 4 INCHES.

5. TEMPORARY GRASSING — THE SEEDED OR THE SEEDED AND MULCHED AREA(S) SHALL BE ROLLED AND WATERED AS REQUIRED TO ASSURE OPTIMUM GROWING CONDITIONS FOR THE ESTABLISHMENT OF A GOOD GRASS COVER. 6. TEMPORARY REGRASSING - IF AFTER FOURTEEN DAYS, THE TEMPORARY GRASSED AREAS HAVE NOT ATTAINED A MINIMUM OF 75% GOOD GRASS COVER THE AREA WILL BE REWORKED AND ADDITIONAL SEED APPLIED SUFFICIENT TO

7. THE CONTRACTOR SHALL PLACE HAY BALES AROUND ALL EXISTING AND NEWLY CONSTRUCTED INLETS TO CONTROL EROSION DURING CONSTRUCTION.

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

B. PERMANENT EROSION CONTROL

ESTABLISH THE DESIRED VEGETATION COVER.

THE EROSION CONTROL FACILITIES OF THE PROJECT SHOULD BE DESIGNED TO MINIMIZE THE IMPACT ON OFF-SITE FACILITIES. ALL STORMWATER DISCHARGE FROM THE PROJECT LIMITS SHALL BE ROUTED THROUGH DETENTION BASINS TO TRAP SUSPENDED SEDIMENTS AND DISCHARGE FACILITIES FROM THESE BASINS SHALL BE PROVIDED WITH A SKIMMER DEVICE TO TRAP FLOATABLE DEBRIS.

PERMANENT SEEDING - ALL AREAS WHICH HAVE BEEN DISTURBED BY THE CONSTRUCTION WILL, AS A MINIMUM, BE FERTILIZED AND SEEDED.

2. PERMANENT SEEDING AND MULCHING - SLOPES OF 6:1 TO 4:1 INCLUSIVE WILL BE MULCHED WITH A UNIFORM THICKNESS OF APPROXIMATELY TWO INCHES, LOOSE MEASURE, OF MULCH MATERIAL INCORPORATED INTO THE SOIL BY MIXING TO A DEPTH OF FOUR INCHES.

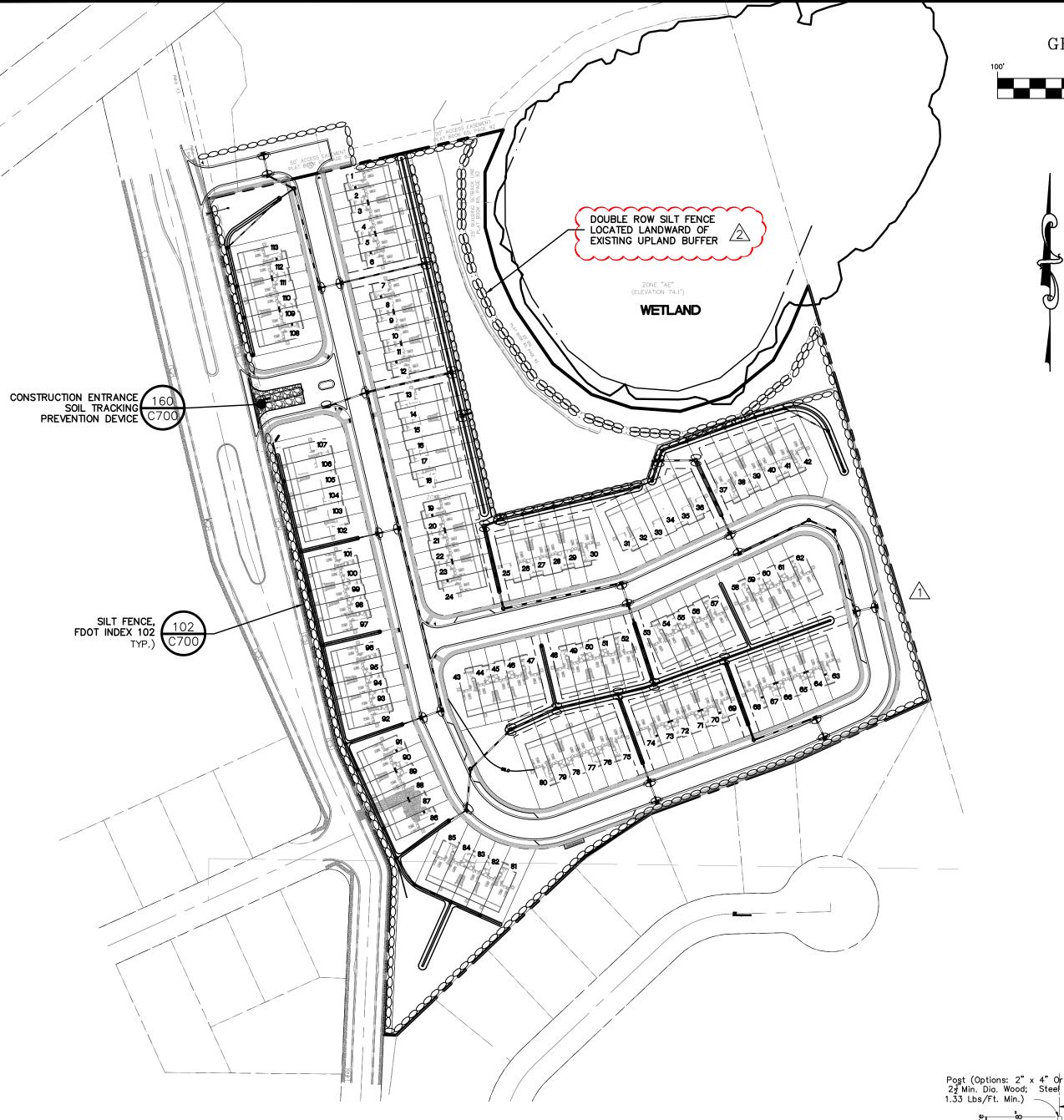
3. PERMANENT SODDING - ALL RETENTION/DETENTION BASINS SHALL BE SODDED WITHIN THEIR LIMITS. ALL EXPOSED AREAS WITHIN PUBLIC RIGHT-OF-WAYS WILL BE SOLID SODDED. OTHER AREAS WITH AREAS WITH SLOPES STEEPER THAN 4:1 WILL BE SODDED.

4. STRIP SODDING - STRIP SOD SHALL BE PLACED ADJACENT TO ALL CURBS, WALKS AND PAVEMENTS.

REGRASSING - ALL GRASSED AREAS WILL BE MAINTAINED TO ASSURE A GOOD STAND AND SUFFICIENT GROUND COVER TO MINIMIZE EROSION. IF, AFTER 60 DAYS AN ADEQUATE GROUND COVER HAS NOT BEEN ESTABLISHED, THE AREA WILL BE REGRASSED.

ADDITIONAL FERTILIZATION - GRASSED AREAS NOT ACCEPTED WITHIN 90 DAYS OF THEIR COMPLETION SHALL BE FERTILIZED.

- 7. FOR ADDITIONAL SODDING REQUIREMENTS, REFER TO THE LANDSCAPE PLANS.
- FERTILIZATION TO COMPLY WITH LOCAL JURISDICTIONAL REQUIREMENTS.



I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND TERMS AND CONSTRUCTION SITE IDENTIFIED AS PART OF THIS CERTIFICATION.

NAME:	SIGNATURE:	DATE:	

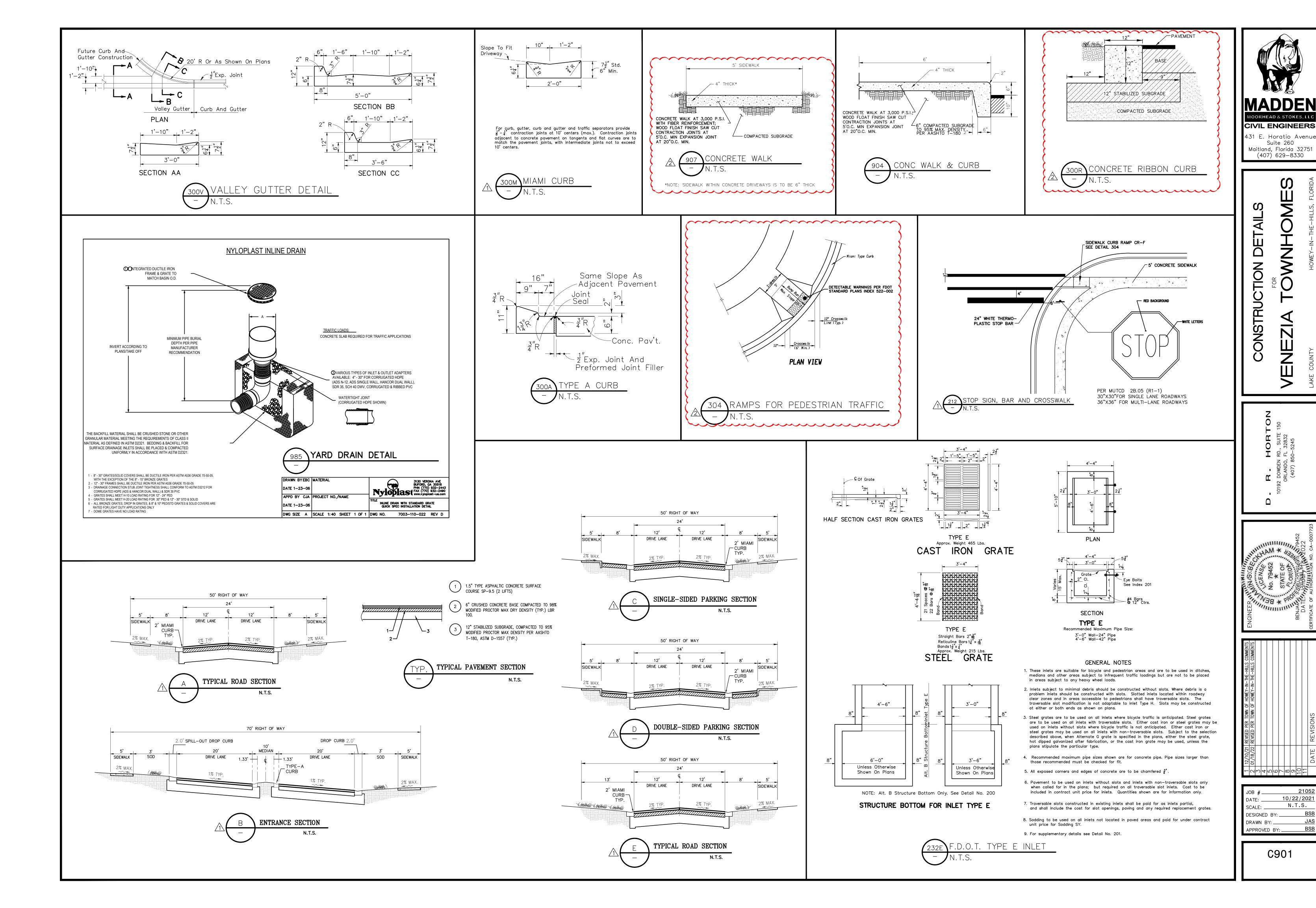
I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND TERMS AND CONDITIONS OF THE GENERIC STORMWATER PERMIT ISSUED PURSUANT TO SECTION 403.0885, F.S., THAT AUTHORIZES THE STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM THE CONSTRUCTION SITE IDENTIFIED AS PART OF THIS CERTIFICATION.

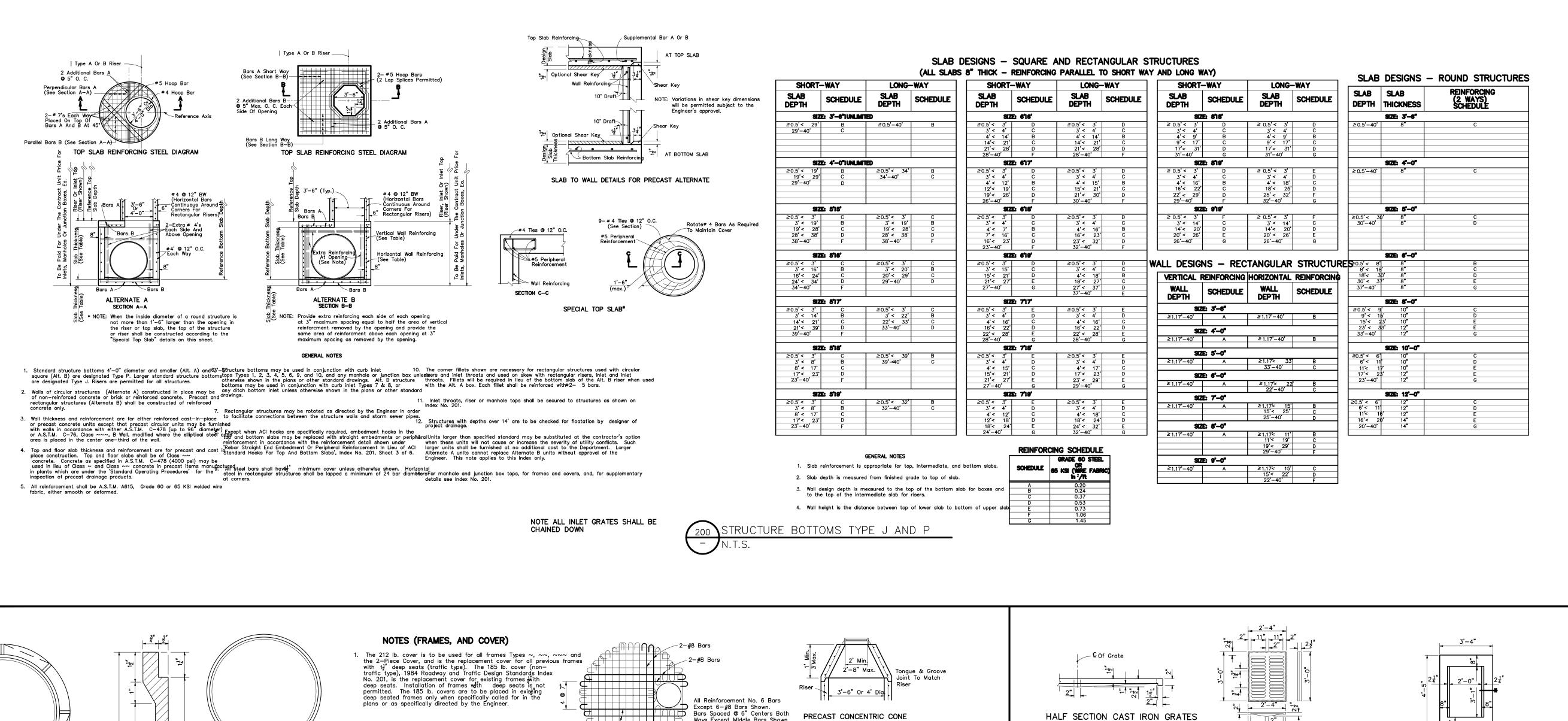
NAME:	SIGNATURE:	DATE:
ADDRESS:		TELEPHONE:

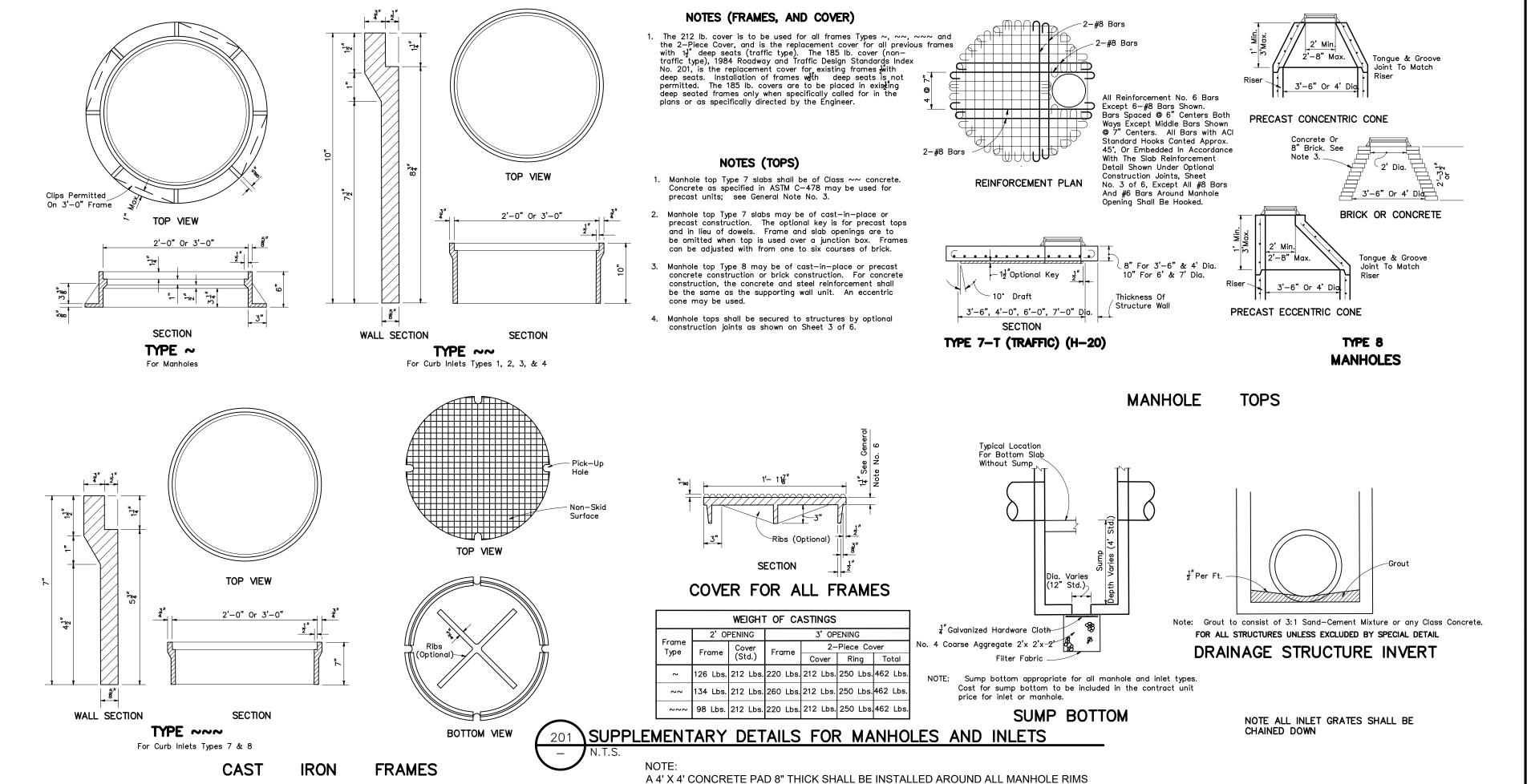
I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND TERMS AND

NAME:	SIGNATURE:	DATE:
ADDRESS:		TELEPHONE:
CONDITIONS OF TO SECTION 403 DISCHARGES ASS	PENALTY OF LAW THAT I UNITHE GENERIC STORMWATER PE .0885, F.S., THAT AUTHORIZES SOCIATED WITH INDUSTRIAL ACT SITE IDENTIFIED AS PART OF TH	RMIT ISSUED PURSUANT THE STORMWATER IVITY FROM THE
NAME:	SIGNATURE:	DATE:

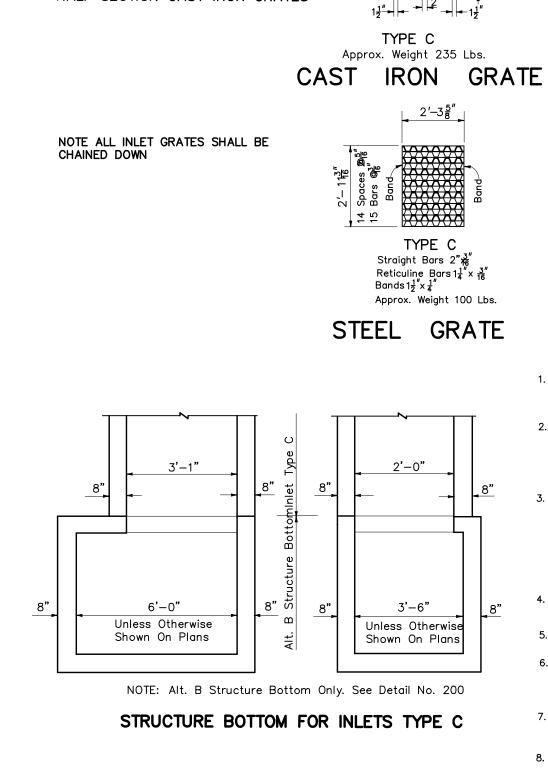
TELEPHONE:

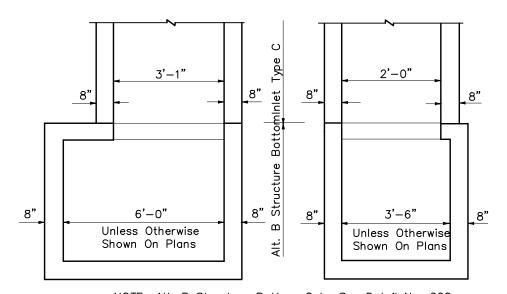






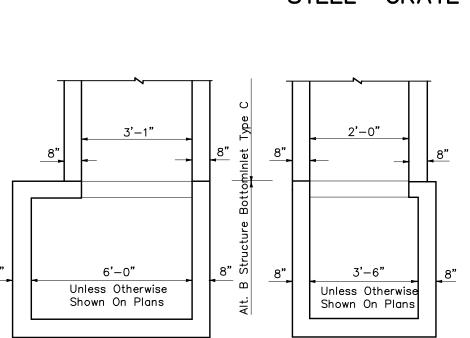
LOCATED JUST BELOW THE ASPHALT SURFACE





NOTE: Alt. B Structure Bottom Only. See Detail No. 200





6. Pavement to be used on inlets without slots and inlets with non-traversable slots only when called for in the plans; but required on all traversable slot inlets. Cost to be included in contract unit price for inlets. Quantities shown are for information only.

8. Sodding to be used on all inlets not located in paved areas and paid for under contract

PLAN

5³" 5³" 5³" 5³"

SECTION

TYPE C

GENERAL NOTES

Recommended Maximum Pipe Size:

2'-0" Wall-18" Pipe

3'-1" Wall-24" Pipe

1. These inlets are suitable for bicycle and pedestrian areas and are to be used in ditches, medians and other areas subject to infrequent traffic loadings but are not to be placed

2. Inlets subject to minimal debris should be constructed without slots. Where debris is a problem inlets should be constructed with slots. Slotted inlets located within roadway clear zones and in areas accessible to pedestrians shall have traversable slots. The traversable slot modification is not adaptable to inlet Type H. Slots may be constructed

3. Steel grates are to be used on all inlets where bicycle traffic is anticipated. Steel grates are to be used on all inlets with traversable slots. Either cast iron or steel grates may be used on inlets without slots where bicycle traffic is not anticipated. Either cast iron or

4. Recommended maximum pipe sizes shown are for concrete pipe. Pipe sizes larger than

steel grates may be used on all inlets with non-traversable slots. Subject to the selection described above, when Alternate G grate is specified in the plans, either the steel grate, hot dipped galvanized after fabrication, or the cast iron grate may be used, unless the

See Index 201

7. Traversable slots constructed in existing inlets shall be paid for as inlets partial,

and shall include the cost for slot openings, paving and any required replacement grates.

9. For supplementary details see Detail No. 201.

unit price for Sodding SY.

in areas subject to any heavy wheel loads.

at either or both ends as shown on plans.

plans stipulate the particular type.

those recommended must be checked for fit.

5. All exposed corners and edges of concrete are to be chamatered

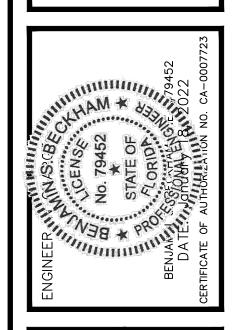
10. When used in traffic areas use four sided bearing grate. U.S. Foundry#6450 or equal.

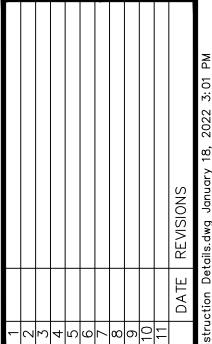
OORHEAD & STOKES, LL

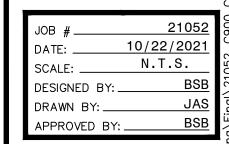
CIVIL ENGINEERS 431 E. Horatio Avenu Suite 260 Maitland, Florida 32751

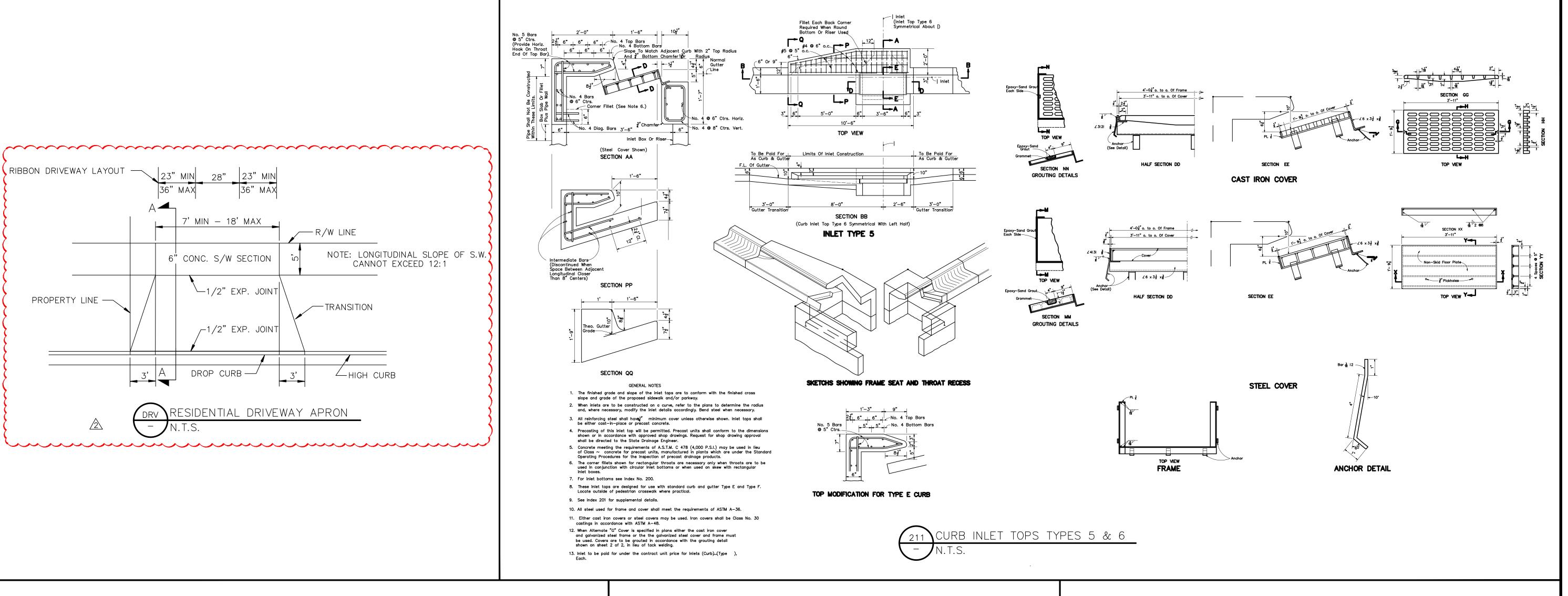
(407) 629-8330

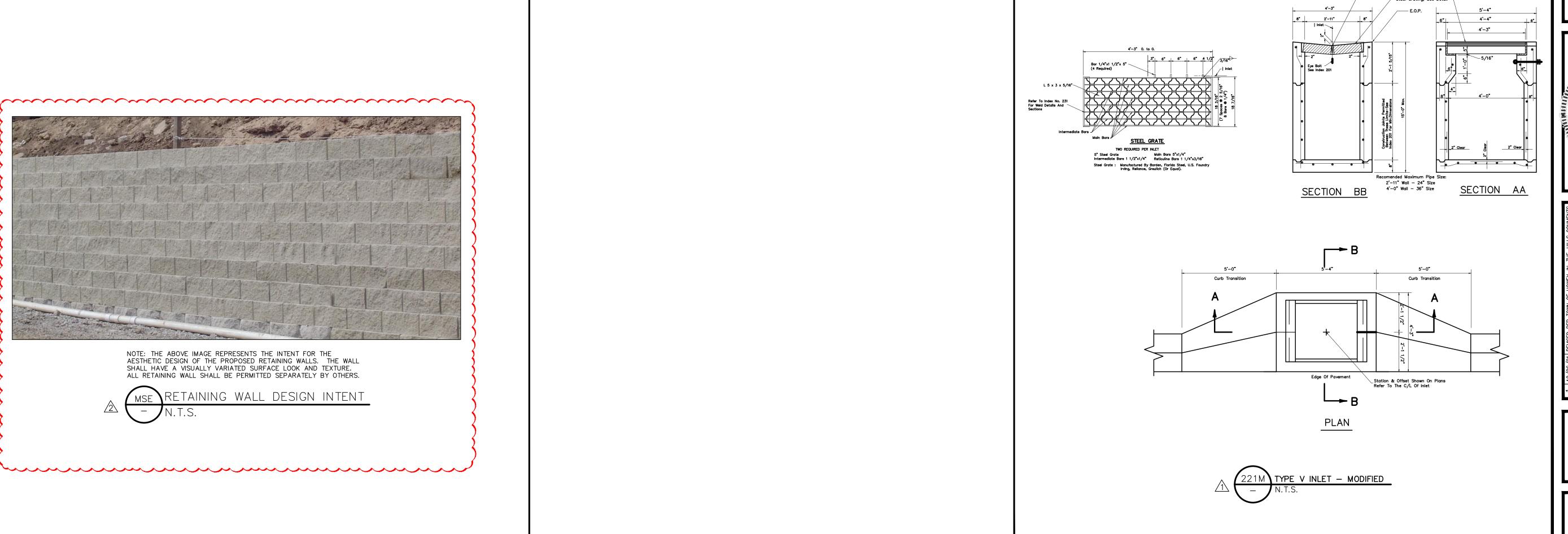
ONSTRUC

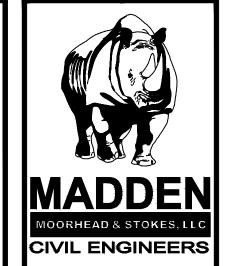












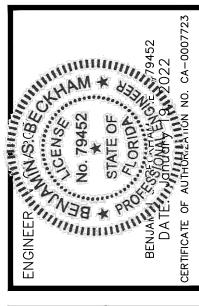
431 E. Horatio Avenu Suite 260 Maitland, Florida 32751 (407) 629-8330

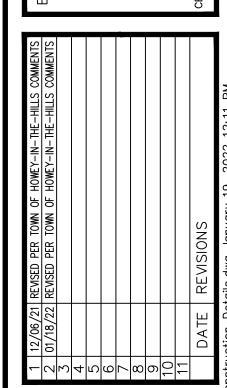
TOWNHOMES

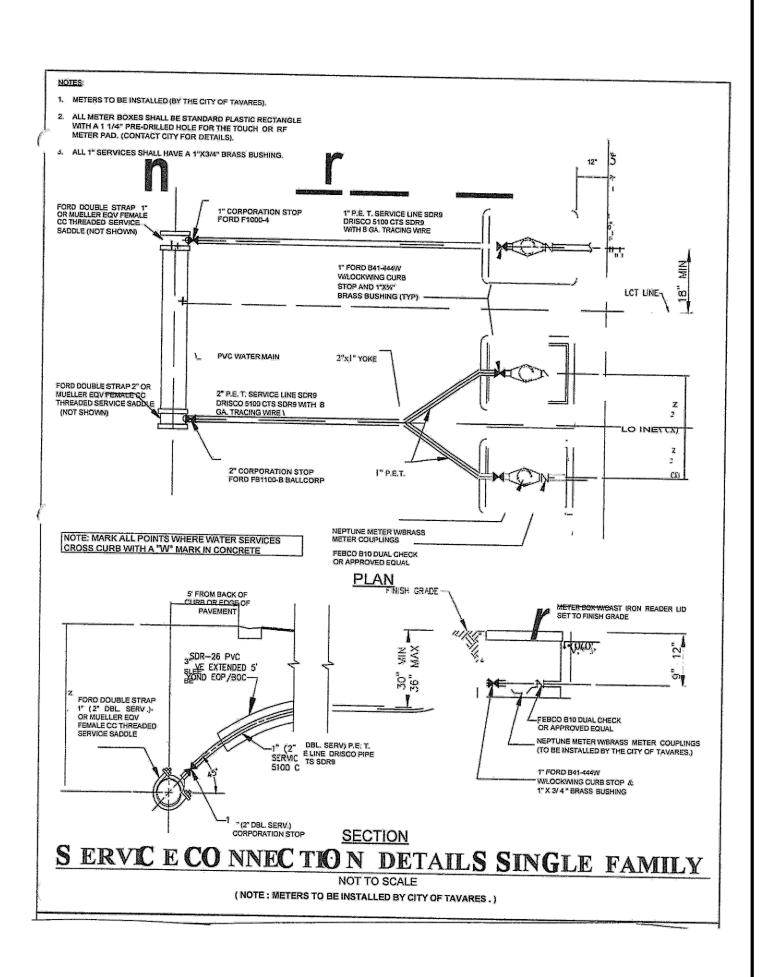
TOWNHOMES

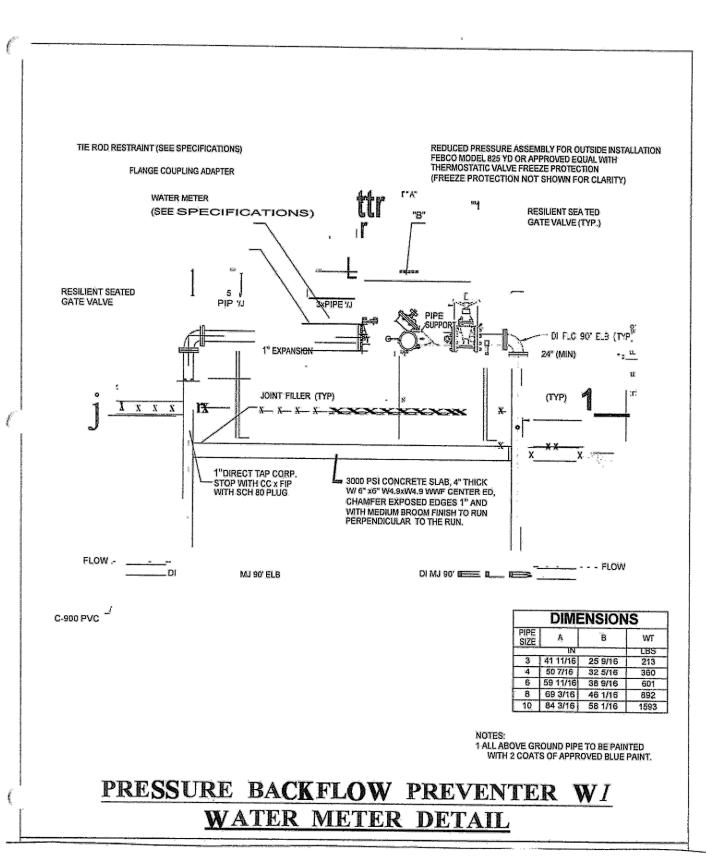
CONSTRUCTION D

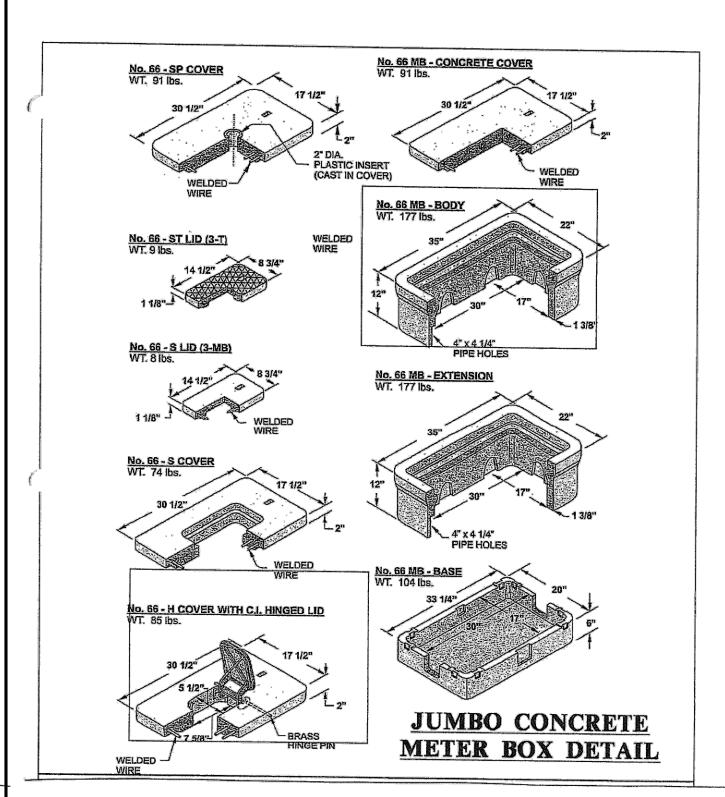
D. R. HORTON
10192 DOWDEN RD., SUITE 150
ORLANDO, FL 32832
(407) 850-5245

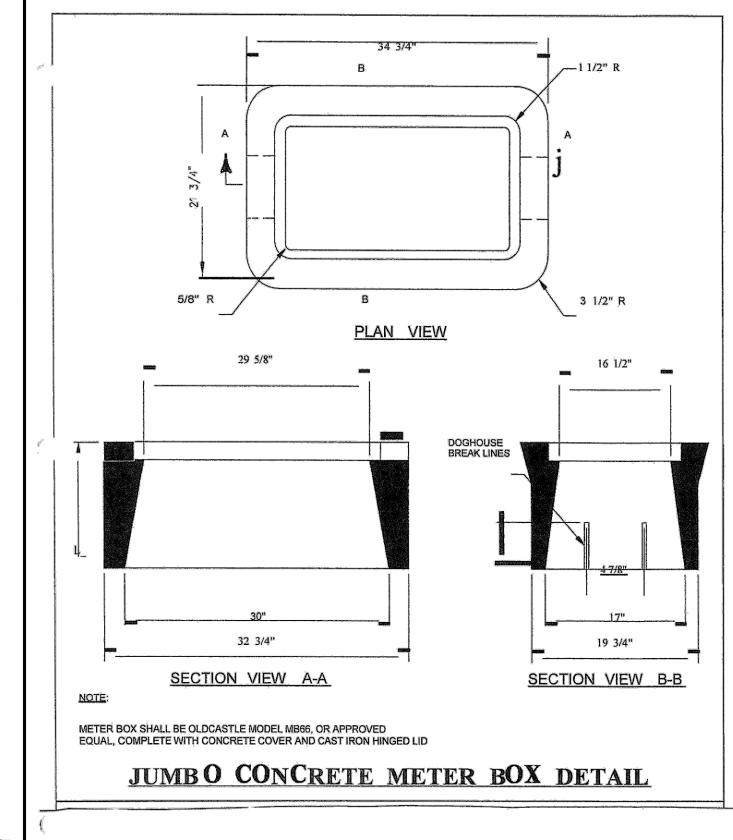


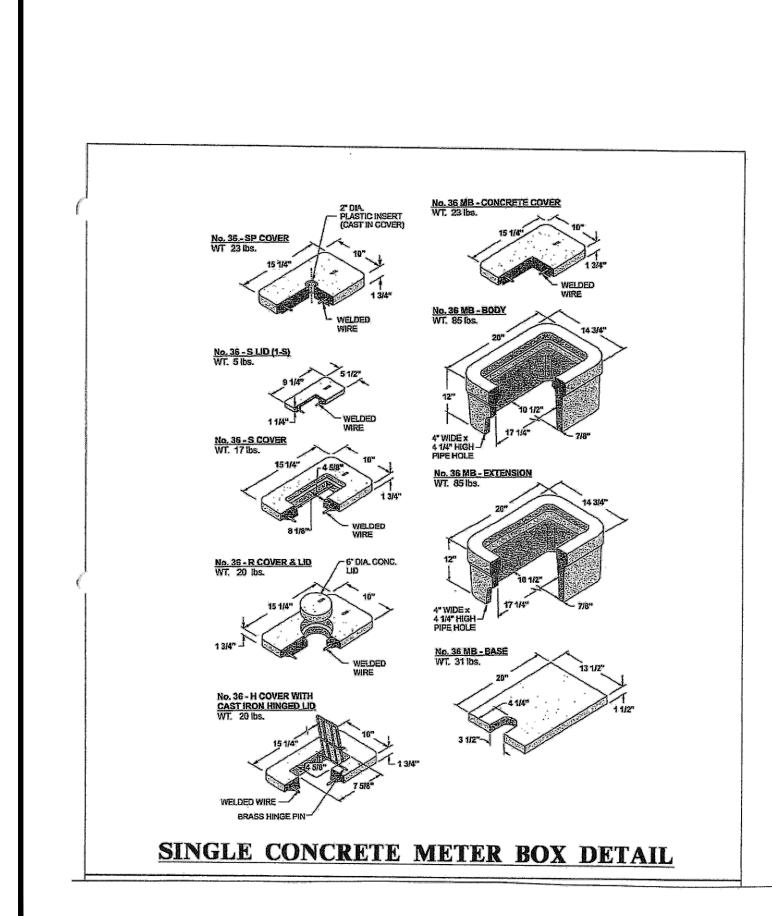


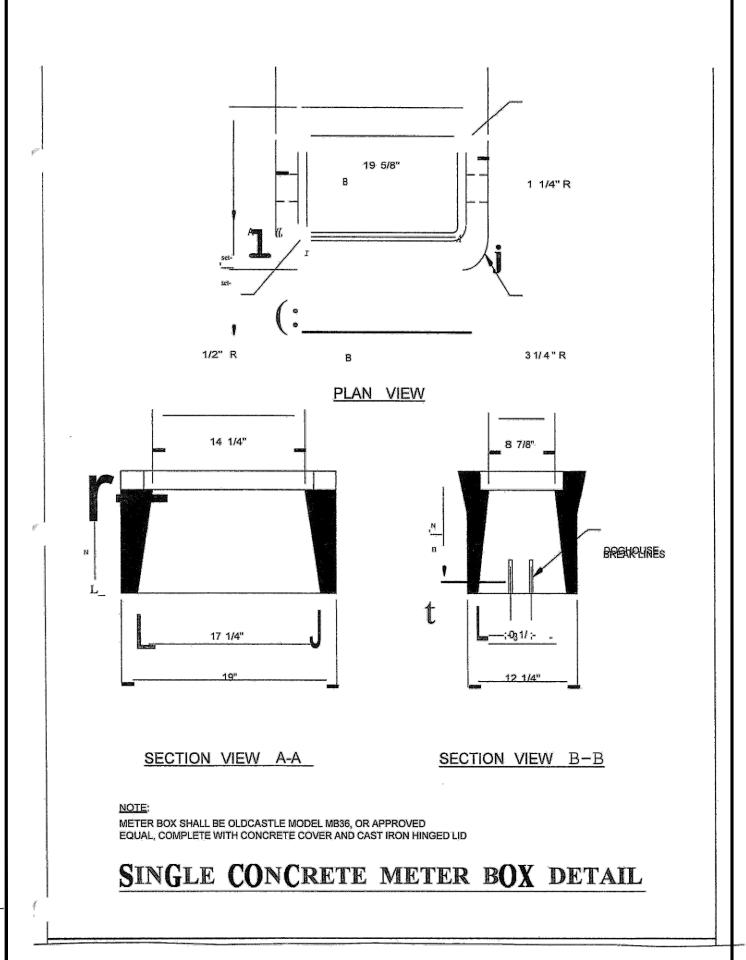


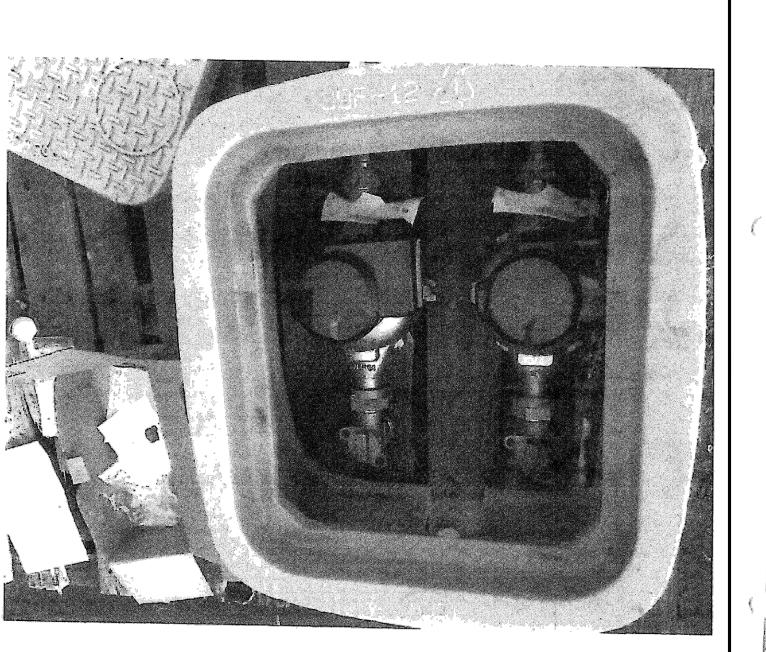


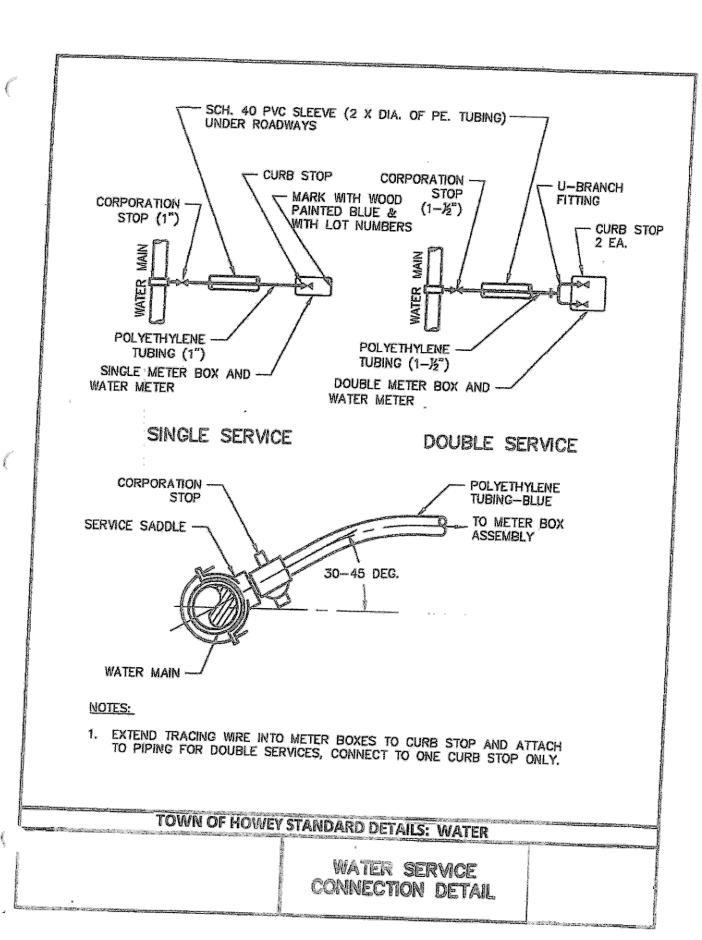


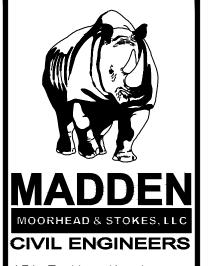












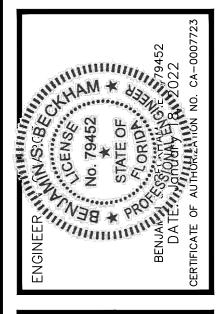
431 E. Horatio Avenu Suite 260 Maitland, Florida 32751 (407) 629-8330

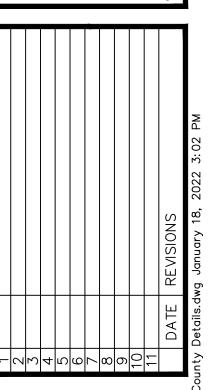
DARD DETAILS

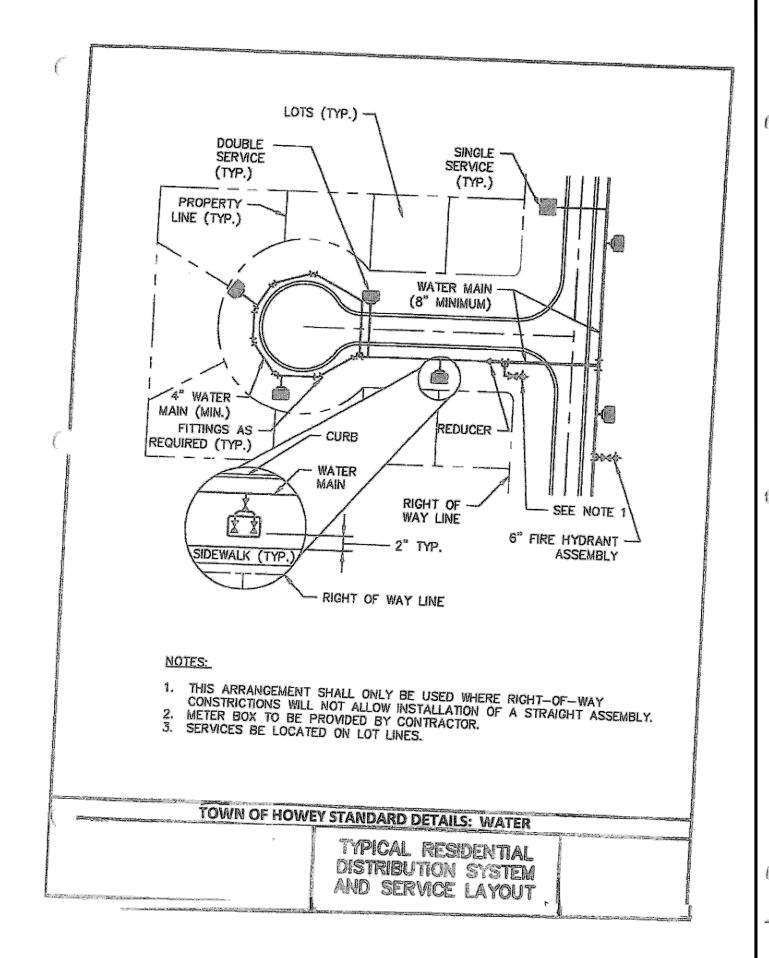
SWINDOMES

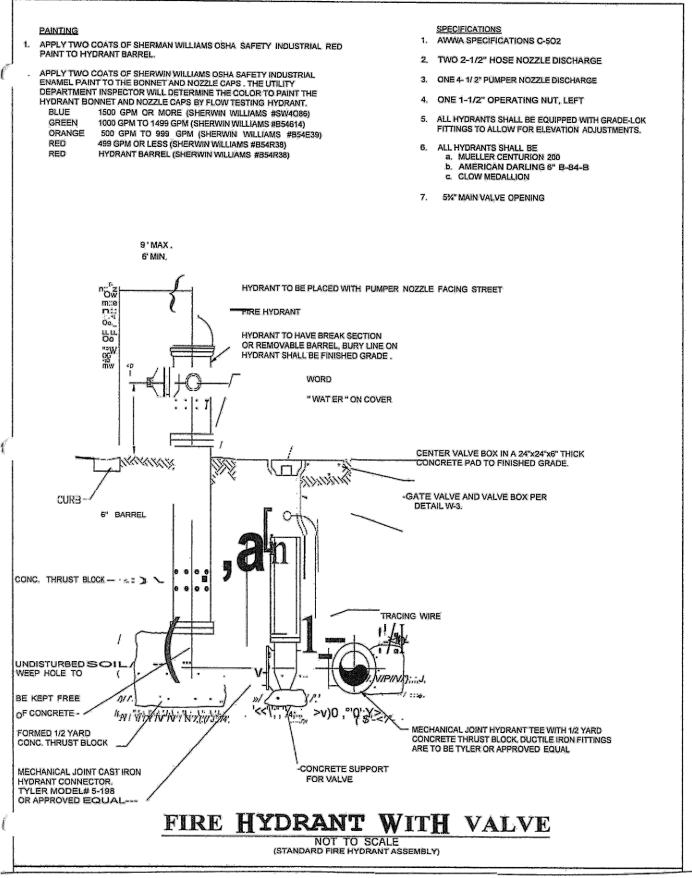
VENEZIA TOWN

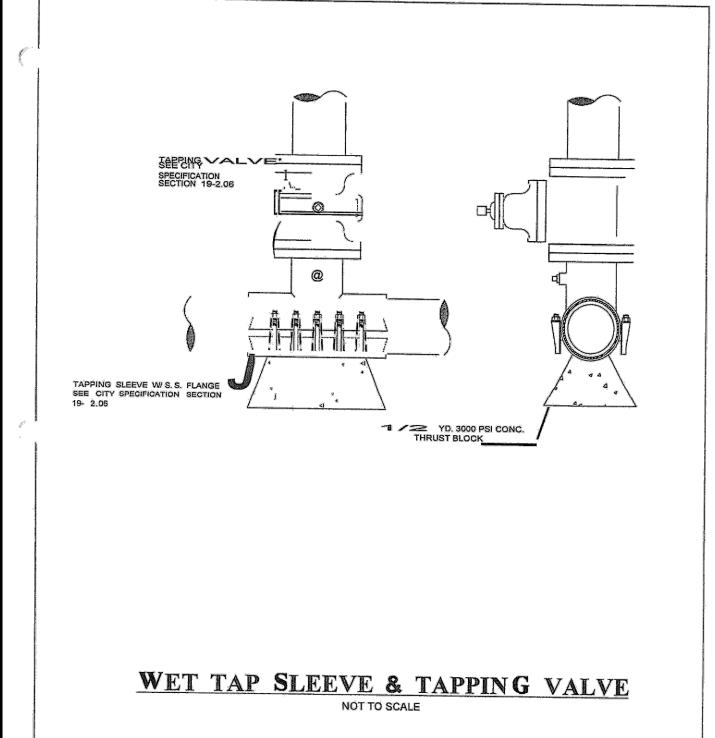
D. R. HORTON 10192 DOWDEN RD., SUITE 150 ORLANDO, FL 32832 (407) 850-5245

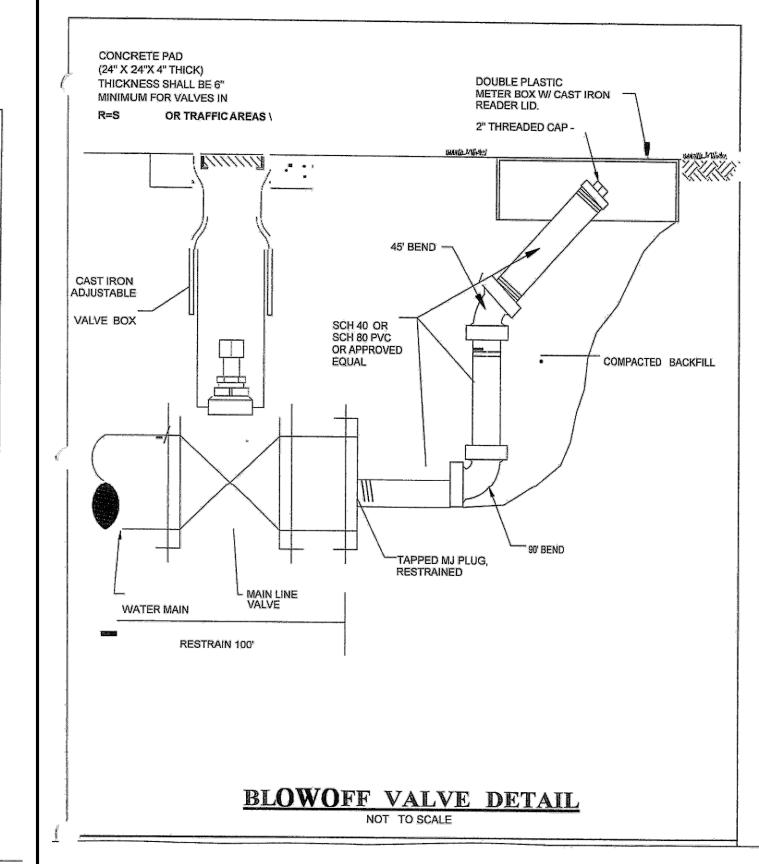












DETECTOR CHECK VALVE

(INSTALLED BY THE

O.S . & Y. VALVES (FL/FL) (2 REQ'D)

DEVICE WHEN REQUIRED BY CITY

6" CONCRETE SLAB W/

NO. 6 x 6,-W10 x W10

(2500 PSI CONCRETE)

THRUST COLLAR IN

ACCORDANCE WITH

STANDARD DRAWING

AND PLANS APPROVED

BY THE CITY (2 REQUIRED)

OWNER/CONTRACTOR)

90° BEND

FLANGE JOINT

CONCRETE SLAB

90° BEND (MJ/MJ) RESTRAINED JOINTS

PROFILE

(2 REQUIRED)

ALL ABOVE GROUND PIPE JOINTS SHALL BE FLANGED.

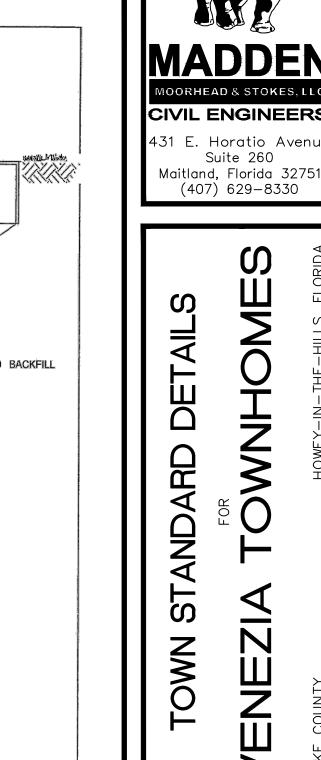
2. DETECTOR CHECK VALVE SHALL BE INSTALLED BY THE CONTRACTOR.

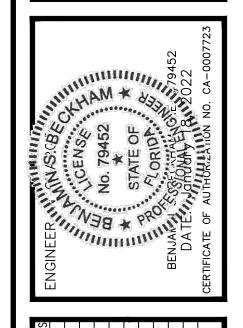
DETECTOR CHECK VALVE ASSEMBLY

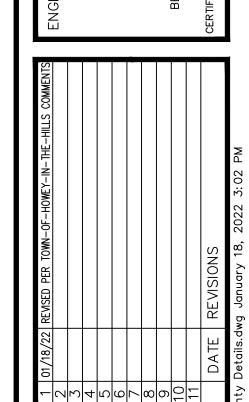
PIPE SUPPORTS (2 REQ'D)

BE PLACED BETWEEN DIP PIPE AND

VALVE SIZE "A'J
4" 16 ½"
6" 22 ½"
8" 26 ½"

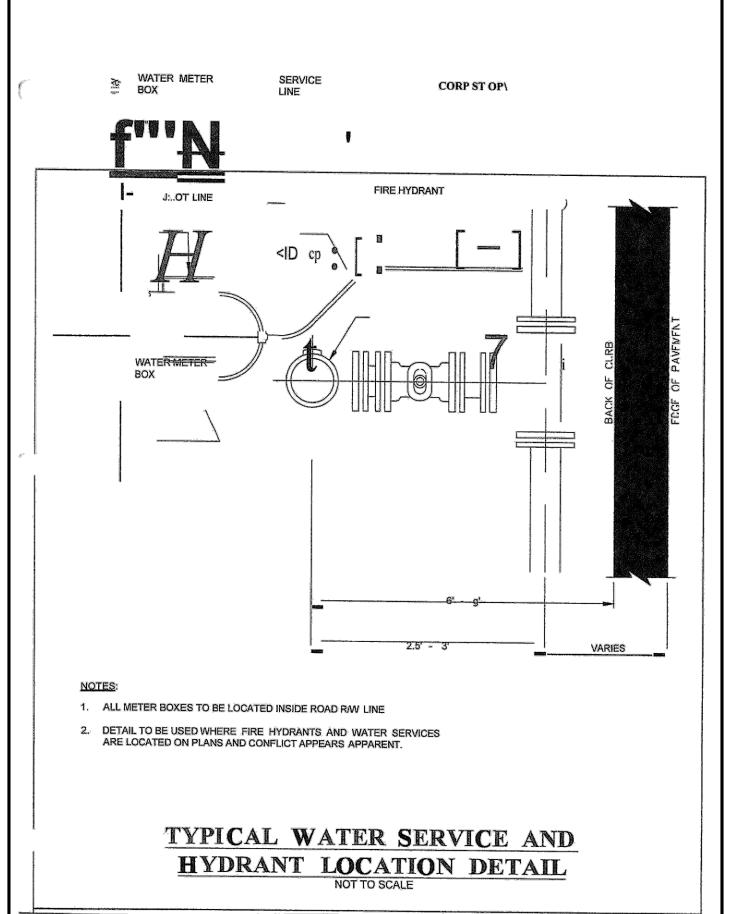


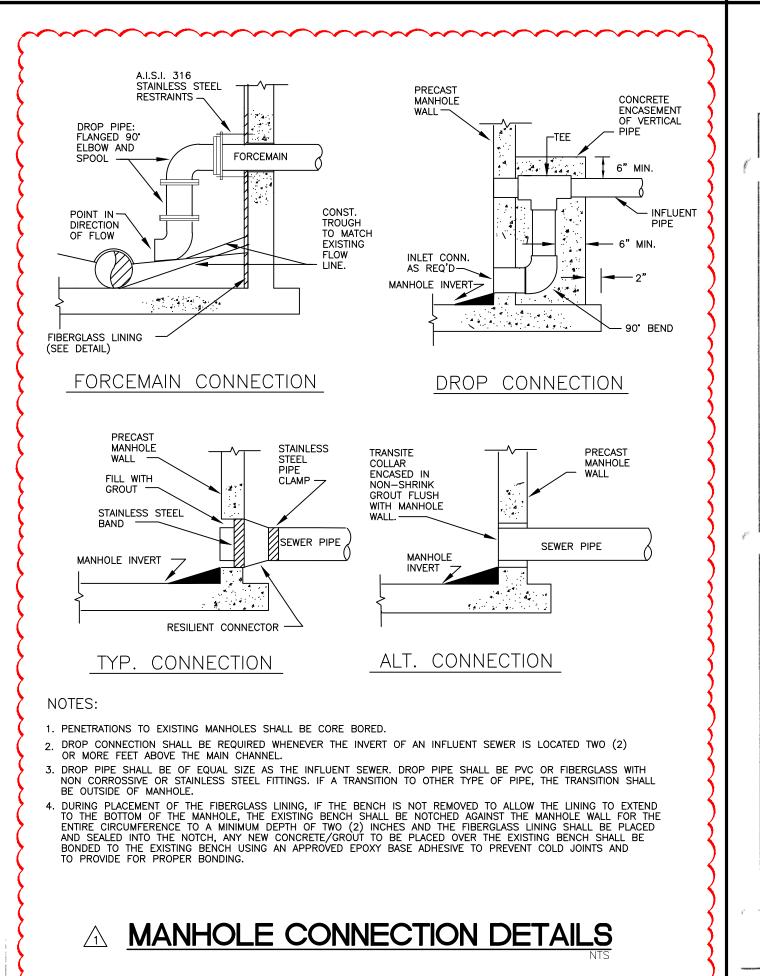


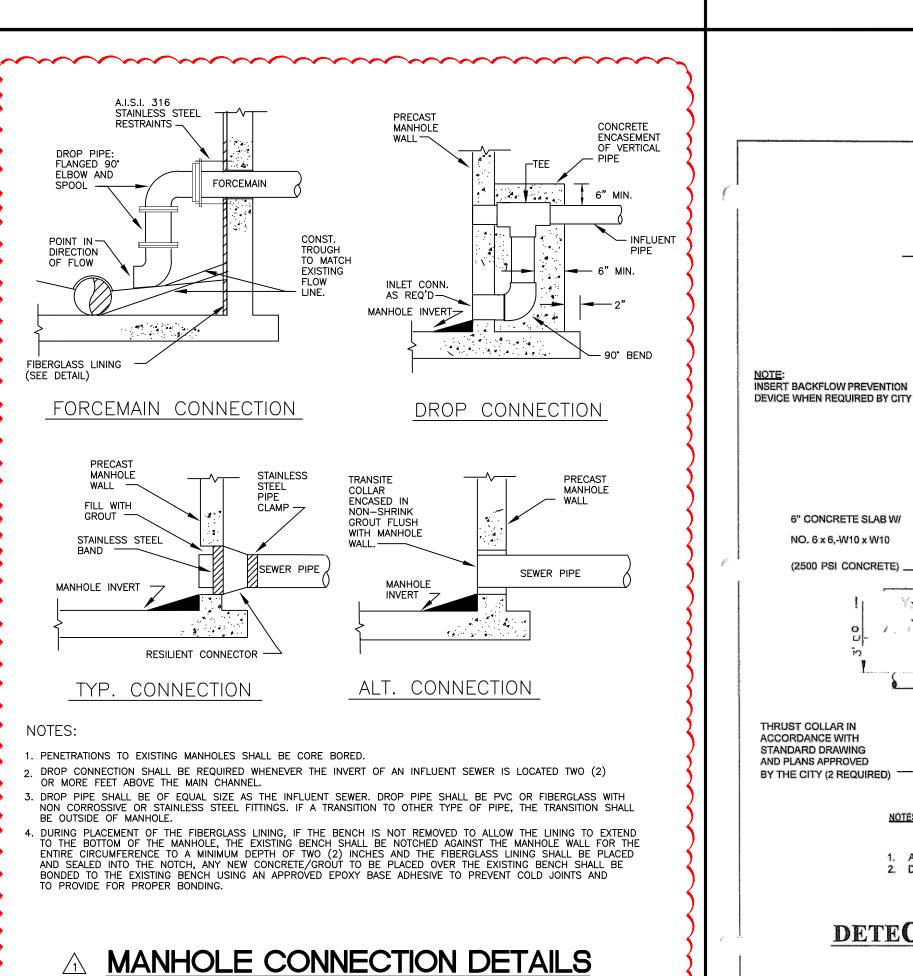


10/22/202 N.T.S. DESIGNED BY DRAWN BY: APPROVED BY: _

BLUE REFLECTOR IN CENTER OF DRIVING FIRE HYDRANT FIRE HYDRANT REFLECTOR DETAIL







GENERAL WATER NOTES

(5) EXCEPTIONS, WHERE IT IS NOT TECHNICALLY FEASIBLE OR ECONOMICALLY SENSIBLE TO COMPLY WITH THE REQUIREMENTS IN SUBSECTION (1) OR (2) ABOVE, THE DEPARTMENT SHALL ALLOW EXCEPTIONS TO THESE REQUIREMENTS IF SUPPLIERS OF WATER OR CONSTRUCTION PERMIT APPLICANTS PROVIDE TECHNICAL OR ECONOMIC JUSTIFICATION FOR EACH EXCEPTION AND PROVIDE ALTERNATIVE CONSTRUCTION FEATURES THAT AFFORD A SIMILAR LEVEL OF RELIABILITY AND PUBLIC HEALTH PROTECTION. ACCEPTABLE ALTERNATIVE CONSTRUCTION FEATURES INCLUDE THE FOLLOWING:

(A) WHERE AN UNDERGROUND WATER MAIN IS BEING LAID LESS THAN THE REQUIRED MINIMUM HORIZONTAL DISTANCE FROM ANOTHER PIPELINE AND WHERE AN UNDERGROUND WATER MAIN IS CROSSING ANOTHER PIPELINE AND JOINTS IN THE WATER MAIN ARE BEING LOCATED LESS THAN THE REQUIRED MINIMUM DISTANCE FROM JOINTS IN THE OTHER PIPELINE: 1. USE OF PRESSURE-RATED PIPE CONFORMING TO THE AMERICAN WATER WORKS ASSOCIATION STANDARDS INCORPORATED INTO RULE 62-555.330, F.A.C., FOR THE OTHER PIPELINE IF IT IS A GRAVITY- OR VACUUM-TYPEPIPELINE;
2. USE OF WELDED, FUSED, OR OTHERWISE RESTRAINED JOINTS FOR EITHER THE WATER MAIN OR THE OTHER PIPELINE; OR 3. USE OF WATERTIGHT CASING PIPE OR CONCRETE ENCASEMENT AT LEAST FOUR INCHES THICK FOR EITHER THE WATER MAIN

(B) WHERE AN UNDERGROUND WATER MAIN IS BEING LAID LESS THAN THREE FEET HORIZONTALLY FROM ANOTHER PIPELINE AND WHERE AN UNDERGROUND WATER MAIN IS CROSSING ANOTHER PIPELINE AND IS BEING LAID LESS THAN THE REQUIRED MINIMUM VERTICAL DISTANCE FROM THE OTHER PIPELINE: 1. USE OF PIPE, OR CASING PIPE, HAVING HIGH IMPACT STRENGTH (I.E., HAVING AN IMPACT STRENGTH AT LEAST EQUAL TO THAT OF 0.25-INCH-THICK DUCTILE IRON PIPE) OR CONCRETE ENCASEMENT AT LEAST FOUR INCHES THICK FOR THE WATER MAIN; AND 2. USE OF PIPE, OR CASING PIPE, HAVING HIGH IMPACT STRENGTH (I.E., HAVING AN IMPACT STRENGTH AT LEAST EQUAL TO THAT OF 0.25-INCH-THICK DUCTILE IRON PIPE) OR CONCRETE ENCASEMENT AT LEAST FOUR INCHES THICK FOR THE OTHER PIPELINE IF

MISCELLANEOUS WATER NOTES

WATER SYSTEM SHALL BE INSTALLED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND REGULATIONS, CLEANED, USNECIEL AND BACIER OLOG CALLY CLEARED FOR SERVICE IN ACCORDANCE WITH THE LAIEST AWWA STANDARDS AND CHAPTER 62-555 FLORDA ADMINISTRATIVE CODE.

2. ALL PPING SHALL BEAR THE "NSF" SEAL FOR POTABLE WATER.

IT IS NEW AND IS CONVEYING WASTEWATER OR RECLAIMED WATER.

3. WATER MAINS SHALL BE PVC CONFORMING TO AWWA C-900, DR 18 FOR PIPE SIZES 4"-12". PIPES 14" OR LARGER SHALL BE AWWA C-905, DR 18. ALL COUPLINGS COMPOUNDS, SOLVENTS, LUBRICANTS AND PIPE PREPARATION, FOR LAYING, SHALL IN ACCORDANCE WITH THE PIPE MANUFACTURERS LATEST RECOMMENDATIONS.

5. DEPTH OF WATER LINES TO BE MINIMUM 36" BELOW FINISHED GRADE.

6. WATER MAINS TO BE LOCATED 5' FROM BACK OF CURE OR EDGE OF PAVEMENT UNLESS OTFERWISE NOTED.

7. ALL WAIER MAINS UNDER PAVEMENT SHALL BE DUCTLE IRON AND SHALL EXIEND 5' BEYOND THE BACK OF CURB.

8. ALL SLEEVES UNDER PAVEMENT SHALL EXTEND 5' BEYOND THE BACK OF CURB.

(D) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST TEN FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AS DEFINED IN SECTION 381,0065(2), F.S., AND RULE 64E-6,002, F.A.C.

(2) VERTICAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS AND RECLAIMED WATER PIPELINES.

GENERAL WATER NOTES

(A) NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY- OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES, AND PREFERABLY 12 INCHES, ABOVE OR AT LEAST 12 INCHES BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.

(3) SEPARATION BETWEEN WATER MAINS AND SANITARY OR STORM SEWER MANHOLES.

(A) NO WATER MAIN SHALL PASS THROUGH, OR COME INTO CONTACT WITH, ANY PART OF A SANITARY SEWER MANHOLE.

(B) EFFECTIVE AUGUST 28, 2003, WATER MAINS SHALL NOT BE CONSTRUCTED OR ALTERED TO PASS THROUGH, OR COME INTO CONTACT WITH, ANY PART OF A STORM SEWER MANHOLE OR INLET STRUCTURE. WHERE IT IS NOT TECHNICALLY FEASIBLE OR ECONOMICALLY SENSIBLE TO COMPLY WITH THIS REQUIREMENT (I.E., WHERE THERE IS A CONFLICT IN THE ROUTING OF A WATER MAIN AND A STORM SEWER AND WHERE ALTERNATIVE ROUTING OF THE WATER MAIN OR THE STORM SEWER IS NOT TECHNICALLY FEASIBLE OR IS NOT ECONOMICALLY SENSIBLE), THE DEPARTMENT SHALL ALLOW EXCEPTIONS TO THIS REQUIREMENT (I.E., THE DEPARTMENT SHALL ALLOW CONSTRUCTION OF CONFLICT MANHOLES), BUT SUPPLIERS OF WATER OR PERSONS PROPOSING TO CONSTRUCT CONFLICT MANHOLES MUST FIRST OBTAIN A SPECIFIC PERMIT FROM THE DEPARTMENT IN ACCORDANCE WITH PART V OF THIS CHAPTER AND MUST PROVIDE IN THE PRELIMINARY DESIGN REPORT OR DRAWINGS, SPECIFICATIONS, AND DESIGN DATA ACCOMPANYING THEIR PERMIT APPLICATION THE FOLLOWING INFORMATION:

1. TECHNICAL OR ECONOMIC JUSTIFICATION FOR EACH CONFLICT MANHOLE. 2. A STATEMENT IDENTIFYING THE PARTY RESPONSIBLE FOR MAINTAINING EACH CONFLICT MANHOLE.

3. ASSURANCE OF COMPLIANCE WITH THE DESIGN AND CONSTRUCTION REQUIREMENTS IN SUB-SUBPARAGRAPHS A. THROUGH D. BELOW. - 361

A. EACH WATER MAIN PASSING THROUGH A CONFLICT MANHOLE SHALL HAVE A FLEXIBLE, WATERTIGHT JOINT ON EACH SIDE OF THE MANHOLE TO ACCOMMODATE DIFFERENTIAL SETTLING BETWEEN THE MAIN AND THE MANHOLE. B. WITHIN EACH CONFLICT MANHOLE, THE WATER MAIN PASSING THROUGH THE MANHOLE SHALL BE INSTALLED IN A WATERTIGHT CASING PIPE HAVING HIGH IMPACT STRENGTH (I.E., HAVING IMPACT STRENGTH AT LEAST EQUAL TO THAT OF

0.25-INCH-THICK DUCTILE IRON PIPE) C. EACH CONFLICT MANHOLE SHALL HAVE AN ACCESS OPENING, AND SHALL BE SIZED, TO ALLOW FOR EASY CLEANING OF THE MANHOLE.

D. GRATINGS SHALL BE INSTALLED AT ALL STORM SEWER INLETS UPSTREAM OF EACH CONFLICT MANHOLE TO PREVENT LARGE OBJECTS FROM ENTERING THE MANHOLE.

(4) SEPARATION BETWEEN FIRE HYDRANT DRAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS. NEW OR RELOCATED FIRE HYDRANTS WITH UNDERGROUND DRAINS SHALL BE LOCATED SO THAT THE DRAINS ARE AT LEAST THREE FEET FROM ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.; AT LEAST THREE FEET, AND PREFERABLY TEN FEET, FROM ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER; AT LEAST SIX FEET, AND PREFERABLY TEN FEET, FROM ANY EXISTING OR PROPOSED GRAVITY-OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.; AND AT LEAST TEN FEET FROM ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AS DEFINED IN SECTION 381,0065(2), F.S., AND RULE 64E-6,002, F.A.C.

GENERAL WATER NOTES

1. WATER SYSTEM COMPONENTS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND REGULATIONS, CLEANED DISINFECTED AND BACTERIOLOGICALLY CLEARED FOR SERVICE IN ACCORDANCE WITH THE LATEST AWWA STANDARDS AND CHAPTER 62-555 FLORIDA ADMINISTRATIVE CODE. 2. ALL PIPING SHALL BEAR THE "NSF" SEAL FOR POTABLE WATER.

3. WATER MAINS SHALL BE PVC CONFORMING TO AWWA C-900, DR 18 FOR PIPE SIZES 4"-12". PIPES 14" OR LARGER SHALL BE AWWA C-905, DR 18. ALL COUPLINGS, CLEANING COMPOUNDS, SOLVENTS, LUBRICANTS, AND PIPE PREPARATION, FOR LAYING, SHALL BE IN ACCORDANCE WITHTHE PIPE MANUFACTURER'S LATEST RECOMMENDATIONS. 4. DEPTH OF WATER LINES TO BE 36" MINIMUM COVER FROM FINISH GRADE.

5. WATER MAINS TO BE LOCATED 6' FROM BACK OF CURB OR EDGE OF PAVEMENT UNLESS OTHERWISENOTED. 6. ALL SLEEVES UNDER PAVEMENT SHALL EXTEND 5' BEYOND THE BACK OF CURB.

7. DISINFECTING: FOLLOWING THE PRESSURE TESTING, THE CONTRACTOR SHALL DISINFECT ALL SECTIONS OF THE WATER DISTRIBUTION SYSTEM. DISINFECTION SHALL BE IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF AWWA STANDARD C651 "DISINFECTING WATER

MAINS", AND ALL APPROPRIATE AGENCY APPROVAL. 8. ALL HYDROSTATIC TESTS SHALL BE IN ACCORDANCE WITH AWWA C600 FOR DUCTILE IRON PIPE AND C605/M23 FOR PVC PIPE. 9. ALL WATER MAINS SHALL BE INSTALLED, PRESSURE AND LEAK TESTED IN ACCORDANCE WITH AWWA C600, (62-555.320(21)(B)1 AND 62-555.330, F.A.C. ALL INSTALLATION, TESTING AND FIELD PROCEDURES MUST BE PROVIDED AND MUST CONFORM TO THE APPLICABLE

10.ALL PIPING MATERIALS AND SPECIFICATIONS COVERING PIPES, JOINTS AND PACKING MATERIALS, INTERNAL COATING AND LININGS, FITTINGS, SPECIALS AND APPURTENANCES SHALL ALL BE IN ACCORDANCE WITH THE CORRESPONDING AWWA STANDARDS AND BE CONFORMING TO NSF REQUIREMENTS, AS MAY BE APPLICABLE, WITH EXCEPTIONS ALLOWED ONLY IF DOCUMENTATION AND ASSURANCES ARE PROVIDED IN COMPLIANCE WITH PARAGRAPHS 62-555.320(3) (D), 622-555.320 (3) (B), AND 62-555.320 (21) (C), F.A.C. THE LEAD USE PROHIBITION IN RULE 62-555.322, F.A.C. SHALL ALSO APPLY. POLYETHYLENE TUBING SHALL BE PER AWWA C901. UNDERGROUND SERVICE LINES AND VALVES SHALL BE PER AWWA C800. COLOR CODING

ALL PIPE AND PIPE FITTINGS INSTALLED UNDER THIS PROJECT WILL BE COLOR CODED OR MARKED IN ACCORDANCE WITH SUBPARAGRAPH 62-555.320(21)(B)3, F.A.C., USING BLUE AS A PREDOMINANT COLOR. (UNDERGROUND PLASTIC PIPE WILL BE SOLID-WALL BLUE PIPE, WILL HAVE A CO-EXTRUDED BLUE EXTERNAL SKIN, OR WILL BE WHITE OR BLACK PIPE WITH BLUE STRIPES INCORPORATED INTO, OR APPLIED TO, THE PIPE WALL; AND UNDERGROUND METAL OR CONCRETE PIPE WILL HAVE BLUE STRIPES APPLIED TO THE PIPE WALL. PIPE STRIPED DURING MANUFACTURING OF THE PIPE WILL HAVE CONTINUOUS STRIPES THAT RUN PARALLEL TO THE AXIS OF THE PIPE, THAT ARE LOCATED AT NO GREATER THAN 90-DEGREE INTERVALS AROUND THE PIPE, AND THAT WILL REMAIN INTACT DURING AND AFTER INSTALLATION OF THE PIPE. IF TAPE OR PAINT IS USED TO STRIPE PIPE DURING INSTALLATION OF THE PIPE, THE TAPE OR PAINT WILL BE APPLIED IN A CONTINUOUS LINE THAT RUNS PARALLEL TO THE AXIS OF THE PIPE AND THAT IS LOCATED ALONG THE TOP OF THE PIPE; FOR PIPE WITH AN INTERNAL DIAMETER OF 24 INCHES OR GREATER, TAPE OR PAINT WILL BE APPLIED IN CONTINUOUS LINES ALONG EACH SIDE OF THE PIPE AS WELL AS ALONG THE TOP OF THE PIPE. ABOVEGROUND PIPE WILL BE PAINTED BLUE OR WILL BE COLOR CODED OR MARKED LIKE UNDERGROUND PIPE.) [FAC 62/CELL

ALL WATER MAINS SHALL BE INSTALLED IN ACCORDANCE WITH CHAPTER 62-555.314, F.A.C., AND ANY UPDATES TO THE F.A.C., AND IN CONFORMANCE WITH ALL SEPARATION REQUIREMENTS AS FOUND THEREIN.

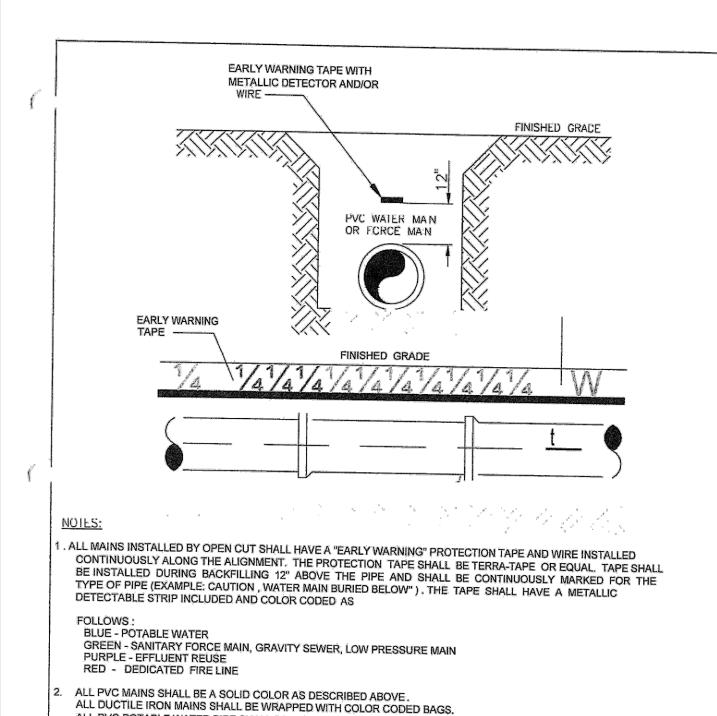
62-555.314 LOCATION OF PUBLIC WATER SYSTEM MAINS.

FOR THE PURPOSE OF THIS SECTION, THE PHRASE "WATER MAINS" SHALL MEAN MAINS, INCLUDING TREATMENT PLANT PROCESS PIPING, CONVEYING EITHER RAW, PARTIALLY TREATED, OR FINISHED DRINKING WATER; FIRE HYDRANT LEADS; AND SERVICE LINES THAT ARE UNDER THE CONTROL OF A PUBLIC WATER SYSTEM AND THAT HAVE AN INSIDE DIAMETER OF THREE INCHES OR GREATER.

(1) HORIZONTAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS.

(A) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C. (B) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED

(C) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST SIX FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY- OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY-TYPE SANITARY SEWERS SHALL BE REDUCED TO THREE FEET WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER.



CIVIL ENGINEERS

431 E. Horatio Avenu

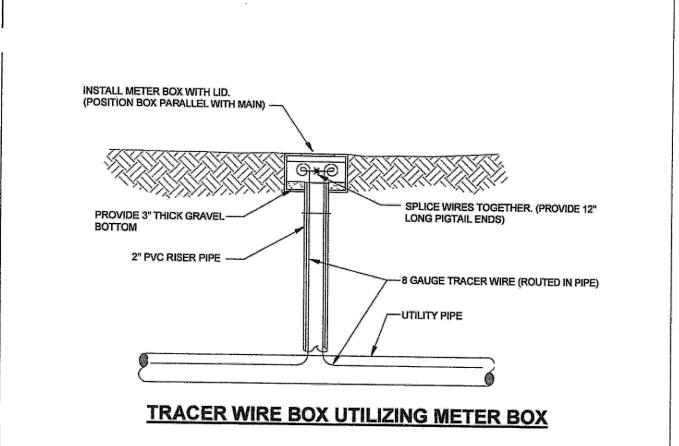
Suite 260

(407) 629-8330

Maitland, Florida 32751

UTILITY PIPE LOCATION MATERIAL

ALL PVC POTABLE WATER PIPE SHALL BEAR THE NATIONAL SANITATION FOUNDATION (NSL) SEAL OF APPROVAL.



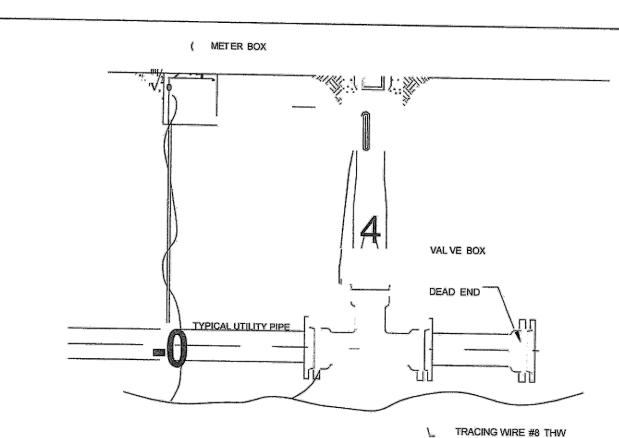
1. TRACER WIRE STATION BOX TO BE INSTALLED WHERE THE WIRE CANNOT BE BROUGHT TO GRADE IN A VALVE BOX WITHIN THE MANDATORY 500 FOOT INTERVAL OR WHERE A SPLICE MUST MUST BE MADE ON THE TRACER

BOXES SHALL NOT BE LOCATED IN ROADWAYS OR DRIVEWAYS.

BOX AND LID PER DETAIL W-19. 4. TRAFFIC RATED LID (STANDARD-NON BOLT DOWN)

5. LID COLOR SHALL BE PRE-MANUFACTURED OR PAINTED TO MATCH SERVICE (BLUE= WATER, GREEN=SEWER, PURPLE=RECLAIM)

TRACER WIRE BOX



SOLID COPPER COATED ALL PIPE INSTALLED VIA OPEN CUT SHALL BE INSTALLED WITH #8 THW SOLID COPPER COATED TRACING WIRE. ALL PIPE INSTALLED VIA HDD SHALL BE INSTALLED WITH TWO #12 COPPER CLAD STEEL WIR ES.

HE TRACING WIRE MUST BE INSTALLED DIRECTLY BELOW THE PIPE AND BROUGHT TO THE SURFACE AT 500' MINIMUM INTERVALS. WIRE SHALL EXTEND A MINIMUM OF 12 " ABOVE GRADE AT EACH INTERVAL AND BE COILED AND PLACED IN A VALVE BOX, METER BOX. MANHOLE, CLEANOUT, LOCATE WIRE BOX, OR OTHER APPLICABLE STRUC TURE.

POTABLE WATER SYSTEM: BLUE REUSE WATER SYSTEM: PURPLE

SANITARY SEWER, FORCE MAINS AND LOW PRESSURE SEWER SYSTEMS: GREEN

FOR LOW PRESSURE SEWER, POTABLE WATER AND REUSE WATER SYSTEMS; WIRE SHALL BE INSTALLED BELOW ALL MAINS AND SERVICE LINES AND ATTACHED TO VALVES, HYDRANTS AND FITTINGS. WIRE INSTALLED WITH SERVICE LINES SHALL CONNECT TO THE WIRE INSTALLED BELOW THE MAIN AND EXTEND TO THE CURB STOP.

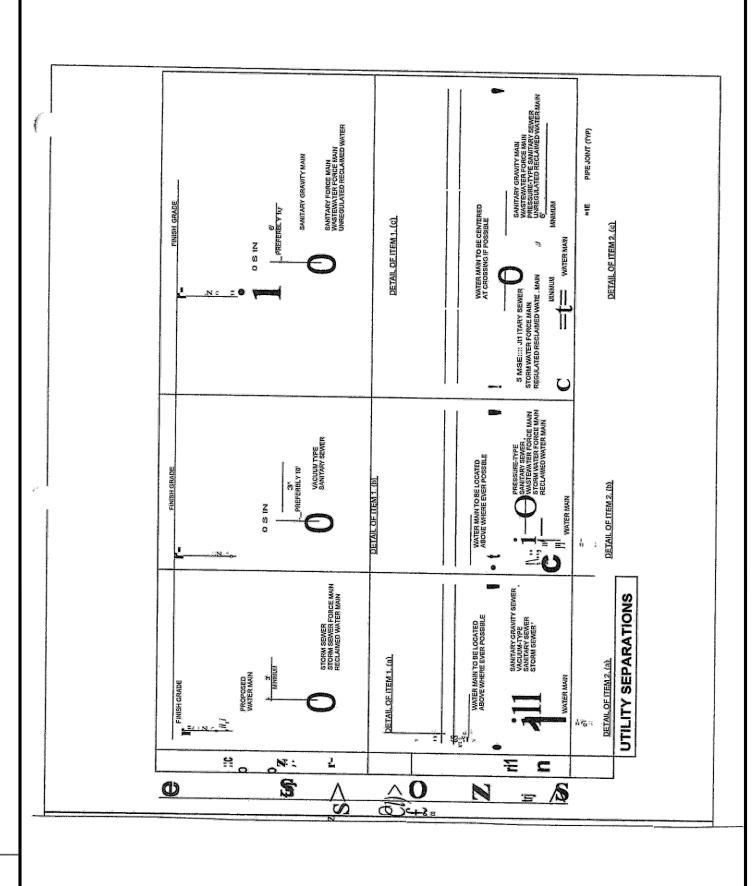
FIRE SPRINKLER LINES: WIRE SHALL CONNECT TO THE WIRE INSTALLED BELOW THE MAIN AND EXTEND TO THE RISER CONNECTION .

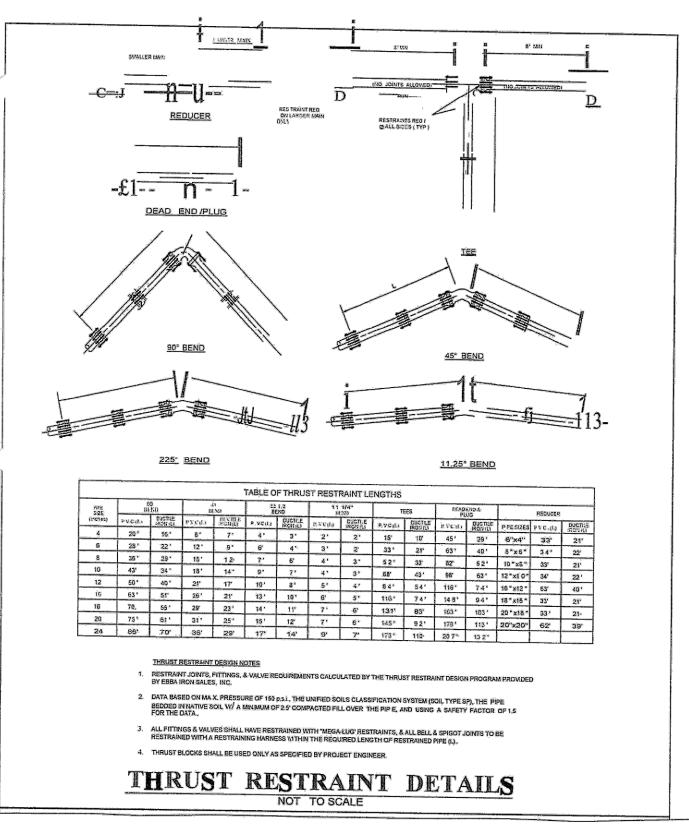
SANITARY SEWER FORCE MAINS: WIRE SHALL BE INSTALLED BELOW THE FORCE MAIN AND ATTACHED TO ALL VALVES AND FITTINGS AND BROUGHT TO THE SURFACE AND PLACED IN A METAL , FLORIDA WATER SERVICE APPROVED , VALVE BOX.

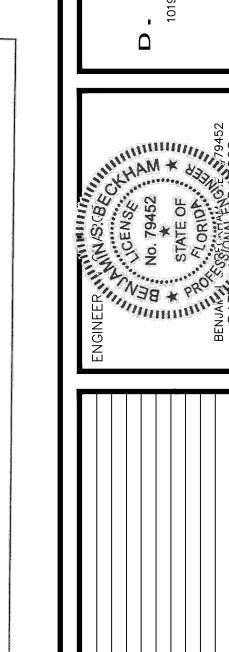
DEAD END MAINS: WIRE SHALL BE PLACED IN A PROPERLY IDENTIFIED METAL VALVE BOX AT THE END OF THE RUN

WIRE SHALL NOT BE FASTENED OR COILED TO VALVE OPERATING NU.T.

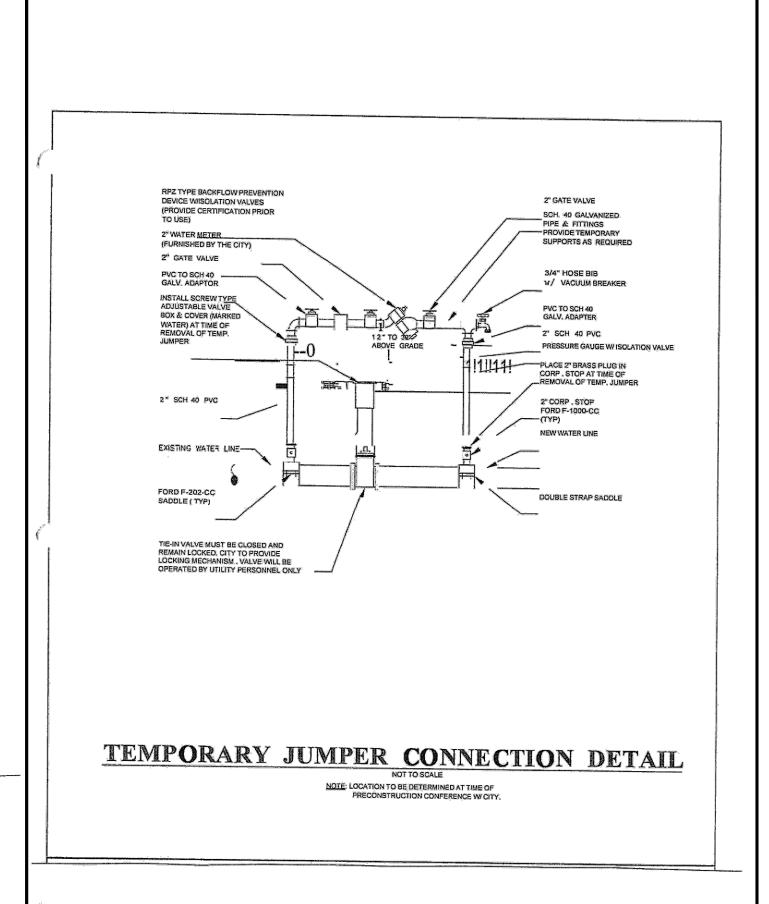
UTILITY PIPE LOCATION MATERIALS

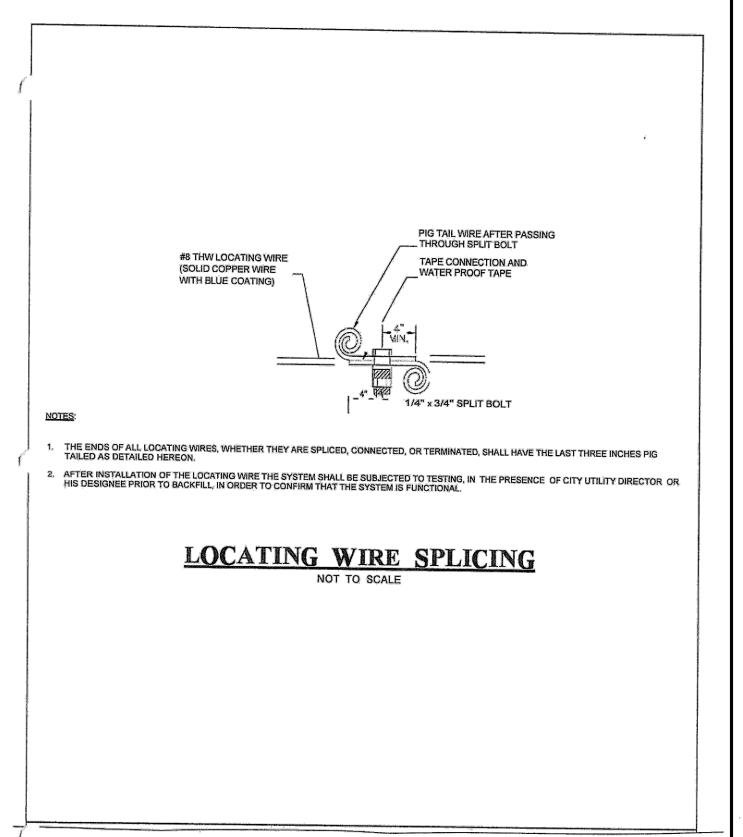


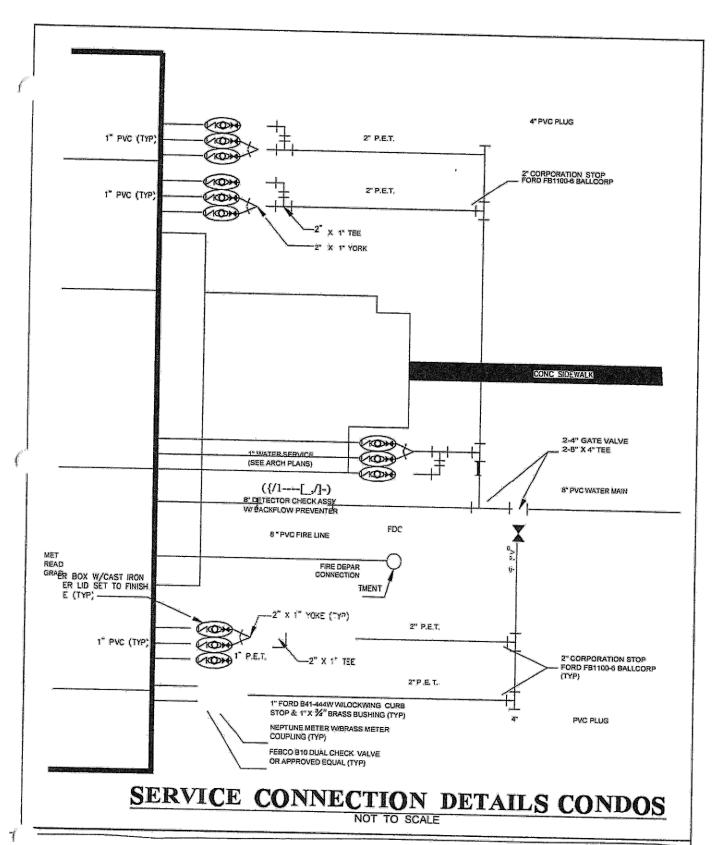




10/22/202 N.T.S. DRAWN BY: APPROVED BY: _







— 24"min. to 54"max. —

BLUE BACKGROUND

_ WHITE LETTERING

└─ ½" WHITE BORDER

2"x2" SQUARE

PERFORATED

METAL TUBE

ONÉ-HALF INCH (1/2") WHITE BORDER, 1/2" FROM

MOUNTING SHALL BE TWO SINGLE-SIDED SIGNS WITH

ATTRIBUTES ABOVE, MOUNTED BACK TO BACK, WITH ENDS POP RIVETED TOGETHER ON 2"x2" METAL POST,

EDGE-CLAMPING STYLE MOUNTING BLOCKS ARE TO BE

STREET NAMES SHALL BE 6" or 8" SERIES B

THE ABBREVIATED SUFFIX "Rd", "Ave", "Dr", ETC.,

ATTACHED WITH ALUMINUM DRIVE PINS. NO

SHALL BE 3" or 4" SERIES B.

LEGEND/LETTERING:

THE EDGE.

(2) SINGLE-SIDED SIGNS PLACED BACK-TO-BACK

> POP RIVETS (SYM.)

ALUMINUM

DIMENSIONS FOR STREET NAME SIGNS ALONG

ROADWAYS WITH SPEED LIMITS OF 40 MPH OR

STANDARD (PRE-TREATMENT FOR PAINT OR REFLECTIVE

MINIMUM TO 54" MAXIMUM LENGTH. BLANK LENGTH TO

DIMENSIONS ARE TO BE 9" or 12" HEIGHT X 24"

BE DETERMINED BY ROAD NAME LENGTH AND BE

ESTABLISHED IN 6" INCREMENTS, I.E.

(24",30",36",42",48" OR 54")

TRANSPARENT FILM OVERLAY.

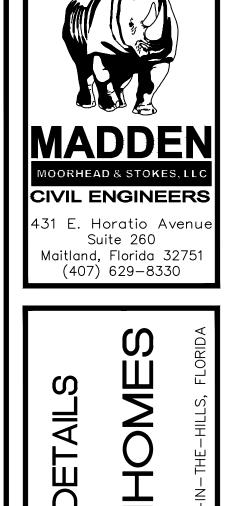
DRIVE PINS

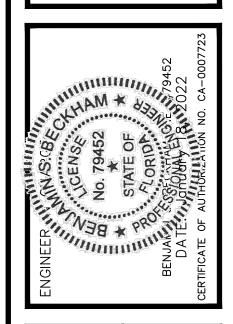
(SYM.)

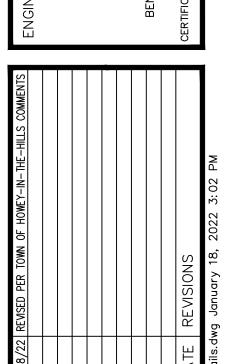
BLANK HEIGHT OF 12" LETTER HEIGHT OF 8" SUFFIX LETTERS OF 4"

ABOVE SHALL BE:

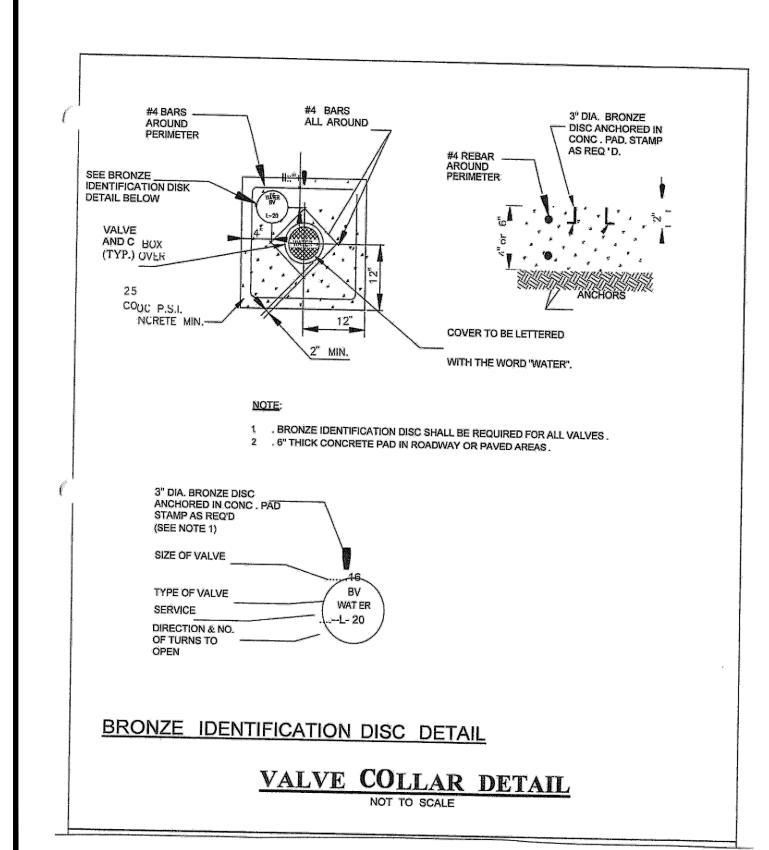
SHEETING)







10/22/202 N.T.S. DESIGNED BY: DRAWN BY: APPROVED BY: __



TEMPORARY JUMPER CONNECTION NOTES A TEMPOR AR Y JUMPER CONNECTION IS REQUIRED AT ALL CONNECTIONS BETWEEN EXISTING ACTIVE

JUMPER CONNECTION SHALL BE MAINTAINED UNTIL AFTER FILLING, FLUSHING, TESTING AND DISINFECTION

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) AND OTHER PERTINENT AGENCIES HAS BEEN REC EIVED. THE JUMPER CONNECTION SHALL ALSO BE USED TO MAINTAIN A MINIMUM PRESSURE

LETTER IS OBTAINED. ADEQUA TE THRUST BLOCKING AND JOR RESTRAINTS SHALL BE PROVIDED TEMPORARILY, AS REQUIR ED. PIPE AND FITTINGS USED FOR CONNECTING THE NEW PIPE TO THE EXISTING

PIPE SHALL BE DISINFECTED PRIOR TO INSTALLATION IN ACCORDANCE WITH AWWA C6 51, LATEST EDITION.
THIS TAPPING SLEEVE AND THE EXTERIOR OF THE MAIN TO BE TAPPED SHALL BE DISINFECTED BY

3. FLUSHING OF 10" DIAMETER AND LARGE WATER MAINS MAY BE DONE THROUGH THE TIE-IN VALVE, IN THE PRESENCE OF THE UTILITY DIRECTOR OR HIS DESIGNEE. THE UTILITY DEPARTMENT WILL NOTIFIED IN WRITING 48 HOURS PRIOR TO THE FLUSHING OF SAID MAINS.

B. THE TEMPORARY JUMPER CONNECTION SHALL BE CONSTRUCTED AS DETAIL ED. THE JUMPER

FOR BACTERIOLOGICAL SAMPLING OF THE NEW MAIN AS REQUIRED BY THE FDEP PERMIT.

A. THE TIE-IN VALVES SHALL BE OPERATED AND PRESSURE TESTED IN THE PRESENCE OF THE UTILITY

CONNECTION SHALL BE USED TO FILL THE NEW WATER MAIN AND FOR PROVIDING WATER

FLUSHING SHALL NOT BE ATTEMPTED DURING PEAK DEMAND HOURS OF THE EXISTING

ALL DOWNSTREAM VALVES IN THE NEW SYSTEM MUST BE OPEN PRIOR TO OPENING THE TIE-IN VALVE .

PROVIDE FOR AND MONITOR THE PRESSURE AT THE TIE-IN POINT, THE PRESSURE IN THE EXISTING MAIN MUST NOT DROP BELOW 35 psi.

TIE-IN VALVE SHALL BE OPENED A FEW TURNS ONLY, ENSURING A PRESSURE DROP

D. THE TIE-IN VALVE SHALL BE OPENED ONLY A FEW TURNS FOR FLUSHING OF THE NEW MAIN. THE PROCEDURE SHALL BE DIRECTED BY THE CITY AND OBSERVED BY THE ENGINEER.

ACROSS THE VALE IS ALWAYS GRATER THAN 10 psi.

C. THE TIE-IN VALVE SHALL BE LOCKED CLOSED BY THE CITY UNTIL FLUSHING BEGINS.

E. AFTER FLUSHING, THE TIE-IN VALVE SHALL BE CLOSED AND LOCKED IN THE CLOSED

4. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION DEMONSTRATING THAT THE RPZ BACKFLOW PREVENTION DEVICE HAS BEEN TESTED WITHIN ONE YEAR AT THE TIME OF INSTALLATION AND IS IN GOOD WORK ING

ORDER AT THE TIME OF INSTALLATION. THE TEST SHALL BE PERFORMED BY A QUALIFIED BACKFLOW

5. EXCEPT AS REQUIRED TO FLUSH LINES OF GREATER THAN 8" IN DIAMETER, THE TIE-IN VALVE SHALL REMAIN CLOSED AND SHALL BE LOCKED IN THE CLOSED POSITION BY THE CITY. THE TIE-IN

6. UPON RECEIPT OF CLEARANCE FOR USE FROM FDEP AND ALL OTHER PERTINENT AGENCIES, THE

ALL INSTALLATION AND MAINTENANCE OF THE TEMPORARY JUMPER CONNECTION AND ASSOCIATED BACKFLOW PREVENTION DEVICE FITTINGS, VALVE, ETC., SHALL BE THE RESPONSIBILITY OF THE

VALVE SHALL REMAIN LOCKED CLOSED UNTIL THE NEW SYSTEM HAS BEEN CLEARED FOR USE BY FDEP

CONTRACTOR SHALL REMOVE THE JUMPER CONNECTION. THE CORPORATION STOPS ARE TO BE CLOSED AND PLUGGED WITH 2" BRASS PLUGS.

COMPANY AND ENGINEER TO VERIFY WATER TIGHTNESS PRIOR TO THE TIE- IN. VALVES WHICH ARE NOT WATERTIGHT SHALL BE REPLACED OR A NEW VALVE INSTALLED IMMEDIATELY ADJACENT TO THE

OF 20 psi IN THE NEW MAINS ALL THE TIME AFTER DISINFECTION AND UNTIL THE FDEP CLEARANCE

THE DETAILS TO BE USED FOR FILLING ANY WATER MAIN OF ANY SIZE FROM EXISTING ACTIVE WATER MAINS AND FOR FLUSHING OF NEW MAINS UP TO 8" DIAMETER (2.5 FPS MINIMUM VELOCITY) AND FOR PULLING BACTERIOLOGICAL SAMPLES FROM ANY NEW WATER MAIN OF ANY SIZE. THE

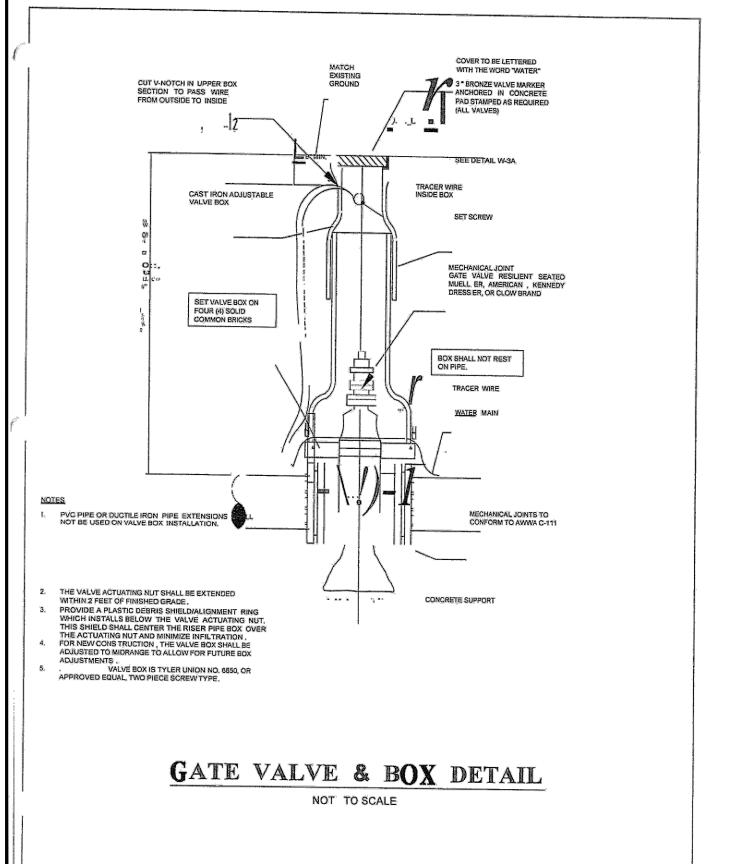
OF THE NEW MAIN HAS BEEN SUCCESSFULLY COMPLETED AND CLEARANCE FOR USE FROM THE

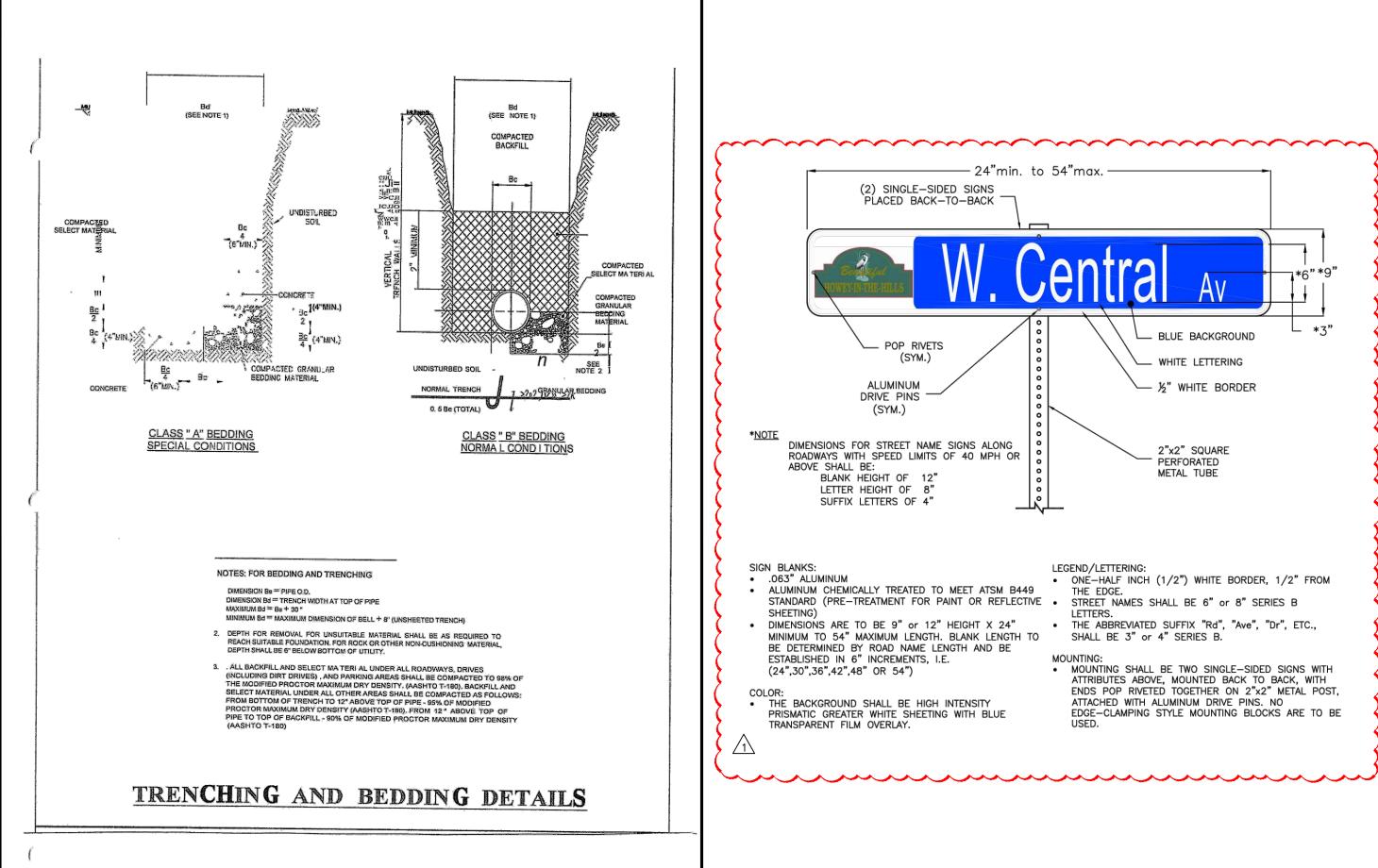
WATER MAINS AND PROPOSED NEW WATER MAIN IMPROVEMENTS.

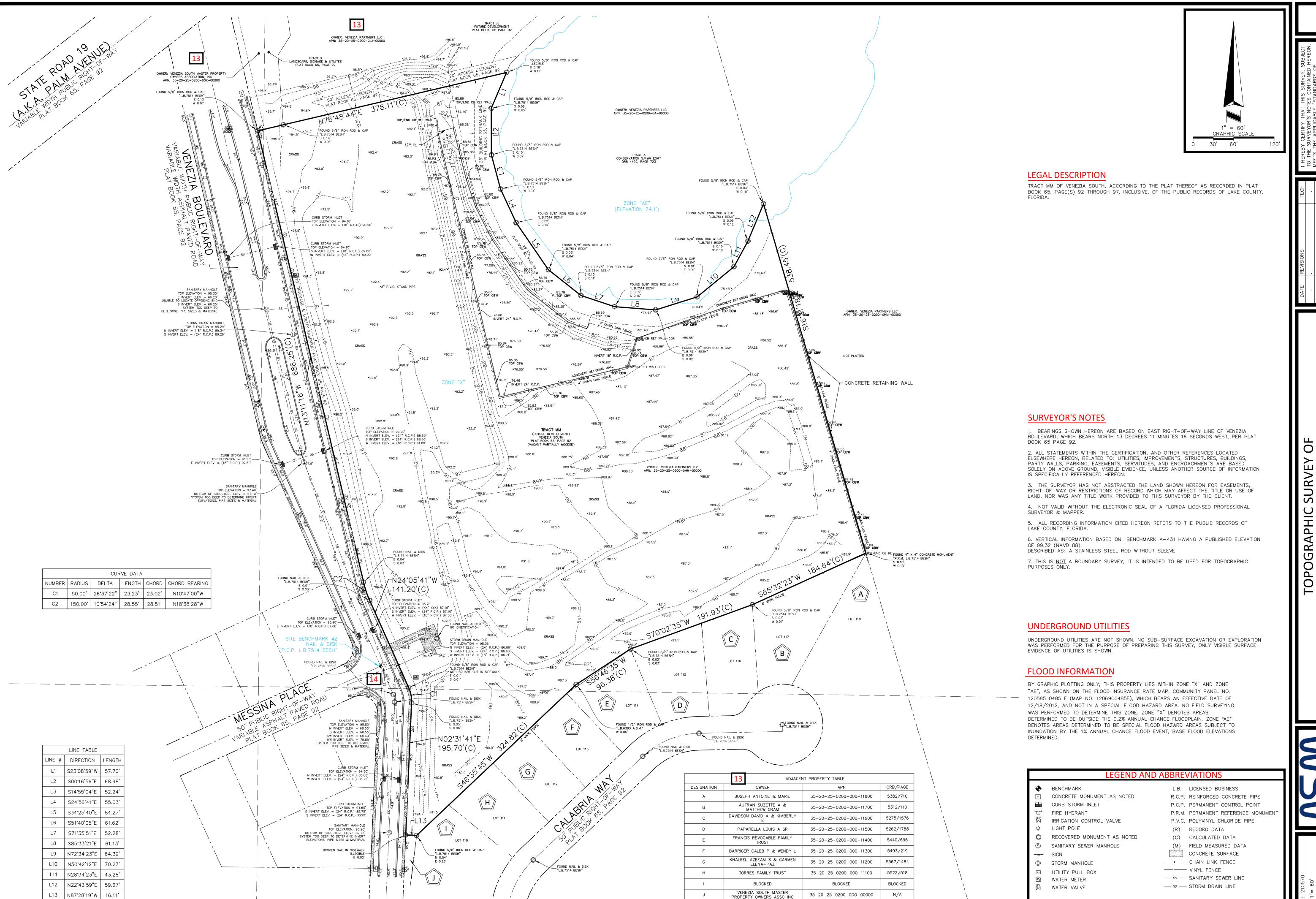
SPRAYING OR SWABBING PER SECTION II OF AWWA C561, LATEST EDITION .

THE FOLLOWING PROCEDURES SHALL BE FOLLOWED:

POSITION BY THE CITY.







SHEET 1 OF 1

3Y CERTIFY THAT THIS SURVEY, SUBJECT SURVEYOR'S NOTES CONTAINED HEREON, THE APPLICABLE "STANDARDS OF DE" AS SET FORTH BY THE FLORIDA OF PROFESSIONAL SURVEYORS AND IN CHAPTER 5J-17, FLORIDA STRATIVE CODE, PURSUANT TO SECTION 7, FLORIDA STATUTES.

A LLS, FLORIDA OUTH, RANGE 25 EAST

> HOWEY IN SECTION 35, TOWNSE

MERICAN SURVEYING
& MAPPING, INC.

ELD DATE: 06/30/21
ELD BY: JW
RAWN BY: KLKL
PPROVED BY: GT
RAWING FILE #
10570 - VENEZIA
LA.DWG