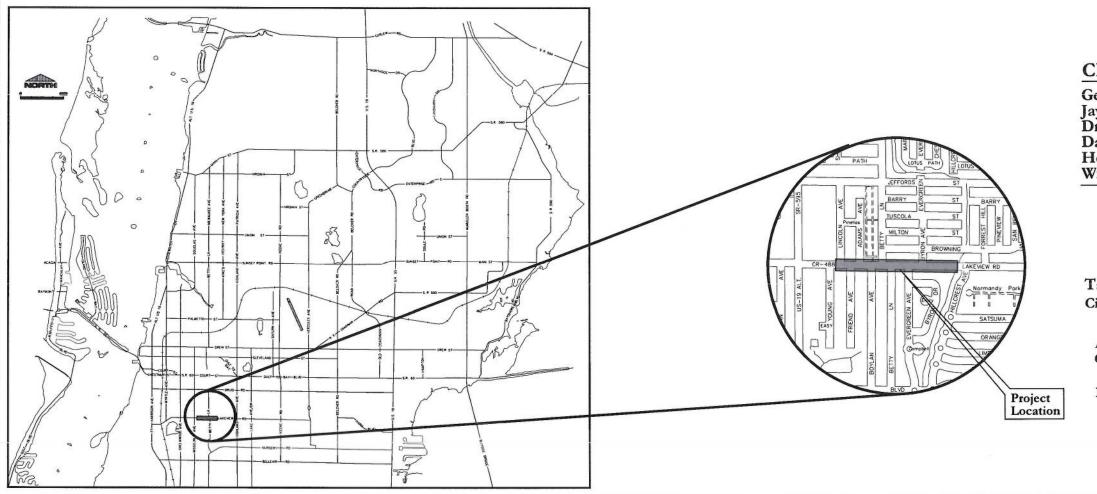
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LAKEVIEW ROAD UTILITY RELOCATION PINELLAS COUNTY JPA





CITY OFFICIALS

George N. Cretekos Jay Polglaze Dr. Bob Cundiff David Allbritton Hoyt Hamilton William B. Horne II

Mayor Councilmember Councilmember Councilmember City Manager

Tara L. Kivett, P.E. City Engineer

Approved For Construction

Date Approved

ISSUED FOR BID 08/01/19 City Project No. 19-0013-UT City Plan Set No. 2019017_

AS-BUILT DRAWINGS NOTES

AS-BUILT DRAWINGS

THE CONTRACTOR SHALL KEEP AND MAINTAIN ONE SET OF BLUEPRINTS, AS-BUILT DRAWINGS, IN GOOD ORDER AND LEGIBLE CONDITION TO BE CONTINUOUSLY MARKED-UP AT THE JOB SITE. THE CONTRACTOR SHALL MARK AND ANNOTATE NEATLY AND CLEARLY ALL PROJECT CONDITIONS, LOCATIONS, CONFIGURATIONS AND ANY OTHER CHANGES OR DEVIATIONS WHICH MAY VARY FROM THE DETAILS REPRESENTED ON THE ORIGINAL CONTRACT PLANS, INCLUDING REVISIONS MADE NECESSARY BY ADDENDA, SHOP DRAWINGS, AND CHANGE ORDERS DURING THE CONSTRUCTION PROCESS. THE CONTRACTOR SHALL RECORD THE HORIZONTAL AND VERTICAL LOCATIONS, IN THE PLAN AND PROFILE, OF ALL BURIED UTILITIES THAT DIFFER FROM THE LOCATIONS INDICATED OR WHICH WERE NOT INDICATED ON THE CONTRACT PLANS AND BURIED (OR CONCEALED), CONSTRUCTION AND UTILITY FEATURES WHICH ARE REVEALED DURING THE CONSTRUCTION PERIOD.

THE AS-BUILT DRAWINGS SHALL BE AVAILABLE FOR INSPECTION BY THE ENGINEER, ENGINEER'S CONSULTANT, AND THE OWNER'S REPRESENTATIVE AT ALL TIMES DURING THE PROGRESS OF THE PROJECT.

THE AS-BUILT DRAWINGS SHALL BE REVIEWED BY THE OWNER'S REPRESENTATIVE, OR HIS DESIGNEE, FOR ACCURACY AND COMPLIANCE WITH THE REQUIREMENTS OF "AS-BUILT DRAWINGS" PRIOR TO SUBMITTAL OF THE MONTHLY PAY REQUESTS. THE PAY REQUESTS SHALL BE REJECTED IF THE MARKED-UP REDLINE PRINTS DO NOT CONFORM TO THE "AS-BUILT DRAWINGS" REQUIREMENTS. AS-BUILT DRAWINGS SHALL BE SUBMITTED TO THE OWNER INSPECTOR FOR APPROVAL UPON COMPLETION OF THE PROJECT AND PRIOR TO ACCEPTANCE OF FINAL PAY REQUEST. FINAL PAY REQUEST SHALL NOT BE PROCESSED UNTIL AS-BUILT DRAWINGS HAVE BEEN REVIEWED BY THE ENGINEER OR THE ENGINEER'S CONSULTANT FOR ACCURACY AND COMPLETENESS.

PRIOR TO PLACING NEW POTABLE WATER MAINS IN SERVICE, THE CONTRACTOR SHALL PROVIDE THE ENGINEER INTERSECTION DRAWINGS, AS SPECIFIED FOR THE WATER MAINS.

THE OWNER'S ACCEPTANCE OF THE "AS-BUILT DRAWINGS" DOES NOT RELIEVE THE CONTRACTOR OF THE SOLE RESPONSIBILITY FOR THE ACCURACY AND COMPLETENESS OF THE AS-BUILT DRAWINGS.

1.1. GENERAL

THE CONTRACTOR SHALL PREPARE AN "AS-BUILT SURVEY" PER CHAPTER 5J-17.052, FLORIDA ADMINISTRATIVE CODE (SEE DEFINITION BELOW), SIGNED AND SEALED BY A FLORIDA REGISTERED LAND SURVEYOR. THE CONTRACTOR WILL DELIVER TO THE OWNER TWO HARD COPIES OF SIGNED AND SEALED AS-BUILT DRAWINGS AND AN AUTOCAD FILE.

5J-17.050 DEFINITION: (10)(A) AS-BUILT SURVEY: A SURVEY PERFORMED TO OBTAIN HORIZONTAL AND/OR VERTICAL DIMENSIONAL DATA SO THAT CONSTRUCTED IMPROVEMENTS MAY BE LOCATED AND DELINEATED: ALSO KNOWN AS RECORD SURVEY. THIS SURVEY SHALL BE CLEARLY TITLED "AS-BUILT SURVEY" AND SHALL BE SIGNED AND

SEALED BY A FLORIDA REGISTERED LAND SURVEYOR. THE SURVEY MUST BE DELIVERED TO THE OWNER OF CLEARWATER CONSTRUCTION DIVISION UPON SUBSTANTIAL COMPLETION OF THE PROJECT.

1.2. SANITARY AND STORM SEWER PIPING SYSTEMS

MANHOLES AND INLETS SHALL BE LOCATED BY SURVEY COORDINATES (NORTHING, EASTING AND ELEVATION) BASED ON THE APPROVED HORIZONTAL AND VERTICAL DATUM OR UTILIZE THE STATIONING SUPPLIED ON THE CONSTRUCTION PLANS. NEW AND REPLACED SERVICE CONNECTIONS SHALL BE DIMENSIONED TO THE NEAREST DOWNSTREAM MANHOLE. ALL MANHOLES, CLEANOUTS AND CATCH BASIN INVERT AND RIM ELEVATIONS, MANHOLE AND

CATCH BASIN DIMENSIONS, PIPE SIZES, AND PIPE MATERIAL SHALL ALSO BE NOTED ON THE PLAN VIEW AND ALSO ON THE PROFILE IF ONE EXISTS. THE TERMINAL ENDS OF ALL SUBDRAINS, INVERTS OF ALL PIPE IN STRUCTURES, AND THE FLOW LINE OF INLETS SHALL ALSO BE NOTED ON THE PLAN VIEW AND ALSO ON THE PROFILE IF ONE EXISTS. PIPE MATERIALS AND AREAS OF SPECIAL CONSTRUCTION SHALL BE NOTED.

1.3. PRESSURE PIPE CONSTRUCTION (WATER, RECLAIMED WATER, FORCEMAIN)

ALL PIPES SHALL BE LOCATED BY SURVEY COORDINATES (NORTHING, EASTING AND ELEVATION) BASED ON THE APPROVED HORIZONTAL AND VERTICAL DATUM OR UTILIZE THE STATIONING SUPPLIED ON THE CONSTRUCTION PLANS. COORDINATES SHALL BE AT ALL PIPE BENDS, TEES, VALVES, REDUCERS, AND DEFLECTIONS, ALSO ALL NEW AND REPLACED SERVICE CONNECTIONS FOR POTABLE AND RECLAIMED WATER WILL BE LOCATED AS DESCRIBED ABOVE. ADDITIONALLY THERE MUST BE SURVEY COORDINATES NO FURTHER THAN 100 FEET APART ON LINEAR TYPE CONSTRUCTION AND SHALL DENOTE TOP OF PIPE AND ADOBE PDF FILES. ELEVATION AT THOSE POINTS.

1.4. HORIZONTAL AND VERTICAL CONTROL

THE AS-BUILT SURVEY SHALL BE BASED ON THE ORIGINAL DATUM USED FOR THE CONSTRUCTION DESIGN PLANS OR IF REQUIRED BY THE OWNER THE DATUM SHALL BE REFERENCED TO THE NORTH AMERICAN DATUM OF 1983/90 (HORIZONTAL) AND THE NORTH AMERICAN VERTICAL DATUM OF 1988. THE UNIT OF MEASUREMENT SHALL BE THE UNITED STATES FOOT. ANY DEVIATION OR USE OF ANY OTHER DATUM, (HORIZONTAL AND OR VERTICAL), MUST BE APPROVED BY THE OWNER OF CLEARWATER ENGINEERING DEPARTMENT.

1.5. STANDARDS

THE AS-BUILT SURVEY SHALL MEET THE MINIMUM TECHNICAL STANDARDS PER CHAPTER 5J-17 AND THE CLEARWATER CAD STANDARDS SET FORTH BELOW. IN ADDITION TO LOCATING ALL IMPROVEMENTS THAT PERTAIN TO THE AS-BUILT SURVEY IT IS THE REQUIREMENT OF THE OWNER TO HAVE MINIMUM LOCATION POINTS AT EVERY CHANGE IN DIRECTION AND NO MORE THAN 100 FEET APART ON ALL PRESSURE PIPES.

1.6. OTHER

THE AS-BUILT DRAWINGS SHALL REFLECT ANY DIFFERENCES FROM THE ORIGINAL CONTRACT PLANS, IN THE SAME LEVEL OF DETAIL AND UNITS OF DIMENSIONS AS THE PLANS.

CAD STANDARDS

2.1. LAYER NAMING

2.1	1.1. PREFIX	ES AND SUFFIXES
	DI	PREFIX DENOTES DIGITIZED OR SCANNED ENTITIES
	EP	PREFIX DENOTES EXISTING POINTS - FIELD COLLECTED
	EX	PREFIX DENOTES EXISTING ENTITIES - LINE WORK AND SYMBOLS
	PR	PREFIX DENOTES PROPOSED ENTITIES - LINE WORK AND SYMBOLS
	FU	PREFIX DENOTES FUTURE ENTITIES (PROPOSED BUT NOT PART (THIS CONTRACT) - LINE WORK AND SYMBOLS

LAYER NAMING DEFINITIONS 2.1.2.

2.1	.2. LAYER	NAMING DEFINITIONS:
	GAS	GAS LINES AND APPURTENANCES
	ELEC	POWER LINES AND APPURTENANCES
	PHONE	TELEPHONE LINES AND APPURTENAN
	CABLE	CABLE TV LINES AND APPURTENANCE
	BOC	CURBS
	WALK	SIDEWALK
	WATER	WATER LINES AND APPURTENANCES,
	STORM	STORM LINES AND APPURTENANCES
	TREES	TREES, BUSHES, PLANTERS
	SANITARY	SANITARY LINES AND APPURTENANCE
В	FENCE	ALL FENCES
	BLDG	BUILDINGS, SHEDS, FINISHED FLOOR
	DRIVE	DRIVEWAYS
	EOP	EDGE OF PAVEMENT WITHOUT CURBS
	TRAFFIC	SIGNAL POLES, CONTROL BOXES
	TOPBANK	TOP OF BANK
	TOESLOPE	TOE OF SLOPE
	TOPBERM	TOP OF BERM
	TOEBERM	TOE OF BERM
	SEAWALL	SEAWALL
	CONCSLAB	CONCRETE SLABS
	WALL	WALLS, EXCEPT SEAWALL
	SHORE	SHORELINE, WATER ELEVATION
	CL	CENTERLINE OF ROAD
	CLD	CENTERLINE OF DITCH
	CLS	CENTERLINE OF SWALE
	CORNER	PROPERTY CORNERS, MONUMENTATI
	BENCH	BENCHMARK, TEMPORARY BENCHMAR
ОТ	HER LAYERS M	AY BE CREATED AS REQUIRED, USING A

2.2. LAYER PROPERTIES

ALL LAYERS WILL USE STANDARD AUTOCAD LINETYPES, BYLAYER. ALL LAYERS WILL USE STANDARD AUTOCAD COLORS, BYLAYER. ALL TEXT WILL USE STANDARD AUTOCAD FONTS.

2.3. TEXT STYLES

TEXT STYLE FOR EX LAYERS WILL USE THE SIMPLEX FONT, OBLIQUE ANGLE OF 0°, AND A TEXT HEIGHT OF .008 TIMES THE PLOT SCALE. TEXT STYLE FOR PR AND FU LAYERS WILL USE THE SIMPLEX FONT, OBLIQUE ANGLE OF 22.5°. AND A TEXT HEIGHT OF .010 TIMES THE PLOT SCALE.

2.4. DELIVERABLES

THE AS-BUILT SURVEY SHALL BE PRODUCED ON BOND MATERIAL, 24" X 36" AT A SCALE OF 1"=20' UNLESS APPROVED OTHERWISE. THE CONSULTANT SHALL DELIVER TWO HARD COPIES AND ONE DIGITAL COPY OF ALL DRAWINGS. REQUESTED FILE FORMATS ARE: AUTODESK DWG

PLEASE ADDRESS ANY QUESTIONS REGARDING FORMAT TO MR. TOM MAHONY, AT (727) 562-4762 OR E-MAIL ADDRESS THOMAS.MAHONY@MYCLEARWATER.COM.

	RECORD DRAWIN	GS			
SURVEYED BY:	DRAWN B	:			
REVIEWED BY:					
	PROJECT ENGINEER	DATE			
APPROVED BY:					
	ENGINEER	DATE	REVISION	BY	DAT

TX SUFFIX DENOTES TEXT – USE FOR ALL TEXT, NO MATTER THE PREFIX

TREE PROTECTION SCOPE:

ICES
ES
, SPRINKLERS
ES
ELEVATION
S
ION
RKS
ABOVE FORMAT.

WHERE PROPOSED SITE IMPROVEMENTS INVOLVE ANY CONSTRUCTION ACTIVITIES ADJACENT TO ANY PROTECTED TREES, PARTICULARLY BENEATH THE DRIPLINE/CANOPY OF AN EXISTING TREE, THE CONTRACTOR WILL BE REQUIRED TO INSTALL THE CITY'S APPROVED TREE BARRICADES. THE REQUIRED CITY TREE BARRICADES MUST BE INSTALLED, INSPECTED AND APPROVED BY THE CITY'S ENGINEERING REPRESENTATIVE, PRIOR TO MOBILIZATION OR THE START OF CONSTRUCTION ACTIVITIES ADJACENT TO ANY PROTECTED TREE. CONSTRUCTION ACTIVITIES INCLUDE, BUT ARE NOT LIMITED TO THE STAGING, STORAGE OR PARKING OF VEHICLES, EQUIPMENT, MATERIALS AND DEBRIS. IN ADDITION, AN INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA) CERTIFIED ARBORIST SHALL PERFORM, OR DIRECTLY SUPERVISE ANY AND ALL REQUIRED TREE TRIMMING/PRUNING ACTIVITIES REQUIRED BY THE CONSTRUCTION. THE CITY'S ENGINEERING REPRESENTATIVE FOR TREE PROTECTION ISSUES IS TIM KURTZ, SENIOR LANDSCAPE ARCHITECT, IN THE CITY OF CLEARWATER'S ENGINEERING DEPARTMENT AT (727) 562-4737.

TREE PROTECTION NOTES:

- 1. THE CONTRACTOR WILL BE RESPONSIBLE FOR ADHERING TO ALL TREE PROTECTION MEASURES REQUIRED BY THE CITY OF CLEARWATER'S CODES, ORDINANCES AND STANDARD SPECIFICATIONS. THIS WILL INCLUDE ALL TREE BARRICADES, ROOT PRUNING AND TREE TRIMMING/PRUNING ACTIVITIES. THESE REQUIREMENTS WILL APPLY WITHIN THE SPECIFIED "LIMITS OF WORK," AND WILL ALSO BE APPLICABLE IN ALL AREAS WHERE THE CONTRACTOR AND/OR HIS SUBCONTRACTORS STAGE, STORE OR PARK VEHICLES, EQUIPMENT, MATERIALS AND DEBRIS.
- 2. ALL TREE PRUNING AND/OR ROOT PRUNING ON EXISTING TREES TO BE PRESERVED WILL ONLY BE PERFORMED BY OR UNDER THE DIRECT SUPERVISION OF AN INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA) CERTIFIED ARBORIST. FURTHERMORE, ALL TREE WORK SHALL CONFORM TO THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) 2001, AMERICAN NATIONAL STANDARD FOR TREE CARE OPERATIONS - TREE, SHRUB AND OTHER WOODY PLANT MAINTENANCE - STANDARD PRACTICES (PRUNING) ANSI A-300.
- 3. WHERE CALLED FOR ON THE PLANS, INSTALL TREE BARRICADES, EROSION CONTROL/SILT FENCING OR OTHER APPROVED PROTECTIVE BARRIERS AROUND ALL TREES TO BE PRESERVED, PER CITY STANDARD DETAIL. WHERE APPLICABLE, PROTECTIVE BARRIERS WILL BE PLACED IN ROOT PRUNE TRENCHES.
- 4. PRIOR TO ANY FIELD CHANGES TAKING PLACE, IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO REVIEW THE POTENTIAL IMPACTS TO EXISTING TREES WITH HIS CERTIFIED ARBORIST, AND INCLUDE ANY AND ALL RECOMMENDED TREE PROTECTION MEASURES IN HIS PROPOSAL TO MODIFY THE APPROVED DESIGN. THE CITY'S ENGINEERING REPRESENTATIVE MUST APPROVE, IN WRITING, ANY CHANGES TO THE APPROVED DESIGN PRIOR TO IMPLEMENTATION OF SAID CHANGE.
- 5. THE CONTRACTOR WILL AVOID ANY OPEN EXCAVATIONS, FILL OR OTHER CONSTRUCTION ACTIVITIES WHENEVER POSSIBLE WITHIN THE "CRITICAL ROOT ZONE" OF ANY EXISTING TREE (I.E., UNDER THE DRIPLINE/CANOPY).
- 6. WHERE CONSTRUCTION ACTIVITIES ARE ANTICIPATED TO LAST FOR AN EXTENDED PERIOD OF TIME NEAR EXISTING TREES, THE CONTRACTOR SHALL INSTALL AND MAINTAIN CITY APPROVED TREE BARRICADES AS SHOWN IN THE STANDARD DETAILS AND APPROVED BY THE CITY'S ENGINEERING REPRESENTATIVE.
- 7. WOODCHIPS, MULCH OR ANOTHER CUSHIONING SURFACE MATERIAL APPROVED BY THE CITY'S ENGINEERING REPRESENTATIVE SHALL BE PLACED TO A MINIMUM DEPTH OF 10" OVER AREAS WHERE ROOTS ARE PRESENT AND CONSTRUCTION TRAFFIC OCCURS.
- 8. ALL TREE PROTECTION MEASURES SHALL REMAIN IN PLACE AT ALL TIMES DURING CONSTRUCTION UNTIL THE CITY'S ENGINEERING REPRESENTATIVE AUTHORIZES REMOVAL.
- 9. THE CONTRACTOR WILL COORDINATE WITH THE CITY'S ENGINEERING REPRESENTATIVE, TIM KURTZ @ (727) 562-4737, TO OBTAIN APPROVAL IN ADVANCE OF ANY AND ALL WORK WITHIN THE CRITICAL ROOT ZONE OF ANY EXISTING TREE.

TREE LOCATION:

- 1. ALL TREE PRUNING AND/OR ROOT PRUNING ON EXISTING TREES TO REMAIN SHALL ONLY BE PERFORMED BY OR UNDER THE DIRECT SUPERVISION OF AN INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA) CERTIFIED ARBORIST. FURTHERMORE, ALL TREE WORK SHALL CONFORM TO THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) 2001, AMERICAN NATIONAL STANDARD FOR TREE CARE OPERATIONS - TREE, SHRUB AND OTHER WOODY PLANT MAINTENANCE - STANDARD PRACTICES (PRUNING) ANSI A300.
- 2. WHERE REQUIRED, INSTALL TREE BARRICADES, EROSION CONTROL/SILT FENCING OR OTHER APPROVED PROTECTIVE BARRIERS AROUND ALL TREES TO BE PRESERVED, PER CITY STANDARD DETAIL. WHERE APPLICABLE PROTECTIVE BARRIERS SHALL BE PLACED IN ROOT PRUNE TRENCHES.
- 3. CONSTRUCTION MATERIALS, VEHICLES, EQUIPMENT, SOILS, DEBRIS AND SUPPLIES SHALL NOT BE STORED WITHIN THE DRIP LINE/PROTECTIVE BARRIER AREA UNDER ANY TREE TO REMAIN.
- 4. VEHICLES UNDER ANY TREE SHALL NOT BE PARKED WITHIN THE DRIP LINE/PROTECTIVE BARRIER AREA OF THE TREE INCLUDING STAGING AREAS.
- 5. WOODCHIPS, MULCH OR ANOTHER CUSHIONING SURFACE MATERIAL APPROVED BY THE CITY'S REPRESENTATIVE SHALL BE PLACED TO A MINIMUM DEPTH OF 10 INCHES OVER AREAS WHERE ROOTS ARE PRESENT AND CONSTRUCTION TRAFFIC OCCURS.
- 6. ALL TREE PROTECTION MEASURES SHALL REMAIN IN PLACE AT ALL TIMES DURING CONSTRUCTION UNTIL THE CITY'S REPRESENTATIVE AUTHORIZES REMOVAL.

CLEARWATER PUBLIC UTILITIES REI JERRY WELLS (727) 562–4960 Ext. 7226 CLEARWATER PUBLIC UTILITIES WA ANDREW BLAUVELT (727) 562–4960 Ext. 7216 CLEARWATER PUBLIC UTILITIES WA ANDREW BLAUVELT (727) 562–4960 Ext. 7216 CLEARWATER PUBLIC UTILITIES PO TERRY LABELLE (727) 562–4960 Ext. 7234 PINELLAS COUNTY UTILITIES JAY PERKINS (727) 464–3536 PINELLAS COUNTY PUBLIC WORKS GENE CROSSON (727) 464–3404 BRIGHTHOUSE NETWORKS,LLC DON ANTHONY (727) 329–2810 FLORIDA DEPARTMENT OF TRANSP CHRISTOPHER GREGORY (727) 570–5101 SOUTHWEST FLORIDA WATER MAN/ CHAZ LARICHE	DEAN BOYERS (972) 729–6016 STEWATER COLLECTION VERIZON FLORIDA, INC. RAUL OJEDA, OSP ENGINEERING (727) 562–1130 TABLE WATER VERIZON FLORIDA, INC. FIOS FIBER OPTIC PETER BRENNAN (727) 462–1760 KNOLOGY BROADBAND OF FLORIDA JAY YOUNG (727) 229–0856 FIBERLIGHT LLC CHRIS PANCIONE (954) 596–5144 P.E.A. Inc. (FOR AT&T AND TELEPORT) STEFAN ERIKSSON (407) 578–8000 TELECOMMINICATIONS MANAGEMENT PINELLAS CHRIS DUSCH
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1-800-432-4770 MIN. 48 HOURS BEFORE YOU EXCAVATE CT27) 562-4960 Ext. 7234 PINELLAS COUNTY UTILITIES JAY PERKINS (727) 464-3536 PINELLAS COUNTY PUBLIC WORKS GENE CROSSON (727) 464-3404 BRIGHTHOUSE NETWORKS,LLC DON ANTHONY (727) 329-2810 FLORIDA DEPARTMENT OF TRANSP CHRISTOPHER GREGORY (727) 570-5101 SOUTHWEST FLORIDA WATER MANA	PORTATION FIOS FIBER OPTIC PETER BRENNAN (727) 462–1760 KNOLOGY BROADBAND OF FLORIDA JAY YOUNG (727) 229–0856 FIBERLIGHT LLC CHRIS PANCIONE (954) 596–5144 P.E.A. Inc. (FOR AT&T AND TELEPORT) STEFAN ERIKSSON (407) 578–8000 TELECOMMINICATIONS MANAGEMENT PINELLAS CHRIS DUSCH
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CHRISTOPHER GREGORY (727) 570–5101 SOUTHWEST FLORIDA WATER MANA	TELECOMMINICATIONS MANAGEMENT PINELLAS CHRIS DUSCH
	AGEMENT DISTRICT (727) 464–3490
(813) 985–7481 ×2092 CLEARWATER GAS	PROGRESS ENERGY DISTRIBUTION NICK KOULIANOS (727) 562–5639
BRUCE GRIFFIN (727) 562–4900 Ext. 7407 FPL FIBERNET	PROGRESS ENERGY TRANSMISSION KAIYA HALL (407) 942–9243
DANNY HASKETT (305) 552–2024 PINELLAS COUNTY HWY/ENG.	PROGRESS ENERGY HOT OIL ANDY DEMPSEY (727) 827-6134
JORGE QUINTAS (727) 464–8900 LEVEL 3 COMMUNICATION LLC	FLORIDA GAS TRANS JOSEPH SANCHEZ (407) 838–7171
RICK MILLER (512) 742–1479	

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ROOT PRUNING SCOPE:

WHERE PROPOSED CONSTRUCTION IMPROVEMENTS INVOLVE EXCAVATION AND/OR IMPACTS TO THE CRITICAL ROOT ZONE OF PROTECTED TREES, THE CONTRACTOR SHALL BE REQUIRED TO HAVE AN INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA) CERTIFIED ARBORIST PERFORM, OR DIRECTLY SUPERVISE ROOT PRUNING TO REDUCE THE IMPACTS OF CONSTRUCTION. THE CRITICAL ROOT ZONE IS EQUIVALENT TO THE TREE'S DRIPLINE. PRIOR TO ANY CLEARING. GRUBBING OR EXCAVATION ACTIVITIES. THE AFFECTED ROOTS MUST BE SEVERED BY CLEAN PRUNING CUTS AT THE POINT WHERE GRUBBING OR EXCAVATION IMPACTS THE ROOT SYSTEM. ROOTS CAN BE PRUNED UTILIZING SPECIFIED ROOT PRUNING EQUIPMENT DESIGNED FOR THAT PURPOSE OR BY HAND DIGGING A TRENCH AND PRUNING ROOTS WITH A PRUNING SAW. CHAIN SAW OR OTHER EQUIPMENT DESIGNED FOR TREE PRUNING. ROOT PRUNING BY TRENCHING FQUIPMENT OR EXCAVATION EQUIPMENT IS STRICTLY PROHIBITED. ROOTS LOCATED IN THE CRITICAL ROOT ZONE THAT WILL BE IMPACTED BY CONSTRUCTION ACTIVITIES SHALL BE PRUNED TO A MINIMUM DEPTH OF 18 INCHES BELOW EXISTING GRADE OR TO THE DEPTH OF THE PROPOSED IMPACT IF LESS THAN 18 INCHES FROM EXISTING GRADE. ON ALL ENGINEERING DEPARTMENT PROJECTS, THE CITY'S REPRESENTATIVE FOR ROOT PRUNING ISSUES IS TIM KURTZ, SENIOR LANDSCAPE ARCHITECT, WHO CAN BE REACHED AT (727) 562-4737.

ROOT PRUNING NOTES:

- 1. ROOT PRUNING CAN ONLY BE PERFORMED BY OR UNDER THE DIRECT SUPERVISION OF AN INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA) CERTIFIED ARBORIST.
- 2. ANY PROPOSED ROOT PRUNING TRENCHES SHALL BE IDENTIFIED (I.E. STAKED OR PAINTED) ON SITE, INSPECTED AND APPROVED BY THE CITY'S ENGINEERING REPRESENTATIVE PRIOR TO ACTUAL ROOT PRUNING.
- 3. ROOT PRUNING WILL BE PREFORMED AS FAR IN ADVANCE OF OTHER CONSTRUCTION ACTIVITIES AS IS FEASIBLE, BUT AT A MINIMUM WILL BE PERFORMED PRIOR TO ANY IMPACTS TO THE SOIL. ASSOCIATED TREE PROTECTION MEASURES SHOULD BE IMPLEMENTED UPON COMPLETION OF SAID ROOT PRUNING.
- 4. IF THERE IS A LIKELIHOOD OF EXCESSIVE WIND AND/OR RAIN EXCEPTIONAL CARE WILL BE TAKEN ON ANY ROOT PRUNING ACTIVITIES.
- 5. ROOT PRUNING WILL BE LIMITED TO A MINIMUM OF TWELVE INCHES PER ONE INCH OF THE TRUNK DIAMETER FROM THE TREE BASE. ANY EXCEPTION MUST BE APPROVED BY THE CITY'S ENGINEERING REPRESENTATIVE PRIOR TO SAID ROOT PRUNING.
- 6. ROOTS WILL BE CUT CLEANLY, AS FAR FROM THE TRUNK OF THE TREE AS POSSIBLE. ROOT PRUNING WILL BE DONE TO A MINIMUM DEPTH OF 18" FROM EXISTING GRADE. OR TO THE DEPTH OF THE DISTURBANCE IF LESS THAN 18".
- 7. ROOT PRUNING WILL BE PERFORMED USING A DOSCOCIL ROOT CUTTING MACHINE OR EQUIVALENT. ALTERNATE EQUIPMENT OR TECHNIQUES MUST BE APPROVED BY THE CITY'S ENGINEERING REPRESENTATIVE, PRIOR TO ANY WORK ADJACENT TO TREES TO BE PRESERVED.
- 8. ROOT PRUNING WILL BE COMPLETED, INSPECTED AND ACCEPTED PRIOR TO THE COMMENCEMENT OF ANY EXCAVATION OR OTHER IMPACTS TO THE CRITICAL ROOT ZONES OF TREES TO BE PROTECTED.
- 9. EXCAVATIONS IN AN AREA WHERE ROOT ARE PRESENT WILL NOT CAUSE THE TEARING OR RIPPING OF TREE ROOTS. ROOTS MUST FIRST BE CLEANLY SEVERED PRIOR TO CONTINUING WITH THE EXCAVATION, OR TUNNELED AROUND TO PREVENT DAMAGE TO THE ROOT.
- 10. TREE ROOTS WILL NOT BE EXPOSED TO DRYING OUT. ROOT ENDS MUST BE COVERED WITH NATIVE SOIL OR BURLAP AND KEPT MOIST UNTIL FINAL BACKFILL OR FINAL GRADES HAVE BEEN ESTABLISHED.
- 11. WHEN DEEMED APPROPRIATE (E.G., DURING PERIODS OF DROUGHT) THE CITY REPRESENTATIVE MAY REQUIRE A TEMPORARY IRRIGATION SYSTEM BE UTILIZED IN THE REMAINING CRITICAL ROOT ZONES OF ROOT PRUNED TREES.

NOTE:

THE ABOVE INFORMATION IS INTENDED FOR USE ON PROJECTS WHERE CONSTRUCTION IMPACTS TO EXISTING TREES ARE LIKELY OR EVEN UNAVOIDABLE. WHILE THIS INFORMATION COVERS A VARIETY OF SITUATIONS, IT CANNOT ADDRESS EVERY ONE. IN THE EVENT THERE ARE QUESTIONS OR CONCERNS REGARDING TREE PROTECTION ON A PROJECT, PLEASE CONTACT THE CITY'S PROJECT INSPECTOR. IF THEY ARE UNAVAILABLE, PLEASE CONTACT TIM KURTZ, SENIOR LANDSCAPE ARCHITECT IN THE PUBLIC WORKS ADMINISTRATION AT 727-562-4737.

EROSION AND SEDIMENT CONTROL:

- 1. CONTRACTOR IS TO PROVIDE EROSION CONTROL/SEDIMENTATION BARRIER (SILTATION CURTAIN) TO PREVENT SILTATION OF ADJACENT PROPERTY STREETS, STORM SEWERS, AND WATERWAYS. IN ADDITION, CONTRACTOR SHALL PLACE SUITABLE MATERIAL ON GROUND IN AREAS WHERE CONSTRUCTION RELATED TRAFFIC IS TO ENTER AND EXIT THE SITE. IF, IN THE OPINION OF THE ENGINEER AND/OR LOCAL AUTHORITIES, EXCESSIVE QUANTITIES OF EARTH ARE TRANSPORTED OFF-SITE EITHER BY NATURAL DRAINAGE OR VEHICULAR TRAFFIC, THE CONTRACTOR IS TO REMOVE AND CLEAN THE SYSTEM TO THE SATISFACTION OF THE ENGINEER AND/OR AUTHORITIES. THE CONTRACTOR IS REQUIRED TO OBTAIN NPDSS, SWPPP PERMITS AND MAINTAIN BMPS.
- 2. THE CONTRACTOR SHALL PROVIDE ROUTINE MAINTENANCE OF PERMANENT AND TEMPORARY EROSION CONTROL FEATURES UNTIL THE PROJECT IS COMPLETE.
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL RETENTION AND DETENTION FACILITIES AND ALL LANDSCAPE BUFFERS, THROUGH THE DURATION OF THE PROJECT. AND UNTIL THE WORK IS ACCEPTED BY THE OWNER. ALL DISRUPTED AREAS SHALL BE RETURNED TO THEIR ORIGINAL CONDITION

DEWATERING:

- 1. CONTRACTOR SHALL BE RESPONSIBLE FOR DEWATERING, TESTING AND OBTAINING ANY PERMITS ASSOCIATED WITH DEWATERING ACTIVITIES AS OUTLINED IN THE CONTRACT DOCUMENTS, INCLUDING FEES FOR SUCH.
- 2. DURING CONSTRUCTION, NO DIRECT DISCHARGE OF WATER TO DOWNSTREAM RECEIVING WATERS WILL BE ALLOWED. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING WATER QUALITY, AND SHALL ROUTE DISCHARGE WATER IN SUCH A MANNER TO ADEQUATELY REMOVE SILT PRIOR TO RUNOFF FROM SITE.
- 4. IF DEWATERING WILL BE NECESSARY FOR EXCAVATION OR UTILITY INSTALLATION, THE CONTRACTOR SHALL OBTAIN A STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION GENERIC PERMIT FOR THE DISCHARGE OF PRODUCED GROUNDWATER FROM ANY UNCONTAMINATED SITE ACTIVITY (FDEP DOCUMENT 62-621.300(2)). COPIES OF THE PERMIT AND REQUIRED TEST RESULTS SHALL BE SUBMITTED TO THE CITY OF CLEARWATER ENGINEERING DEPARTMENT. IF THE CONTRACTOR IS CONSIDERING THE CITY STORMWATER SYSTEM AS A POINT OF DISCHARGE, PRIOR APPROVAL IS REQUIRED.
- 5. FOR MORE DETAILS ON CITY DEWATERING REQUIREMENTS, REFER TO PARAGRAPH 12 OF SECTION IV -TECHNICAL SPECIFICATIONS FROM THE CONTRACT DOCUMENTS.

ISSUED FOR BID

LAKEVIEW ROAD 2 GENERAL NOTES.DWG CITY OF CLW N/A VERT. HORIZ. SEE ABOVE CONTRACT NO. DRAWN BY: RELOCATION PINELLAS COUNTY JPA 19-0013-UT 8/1/19 J. SCHEUERMAN DESIGNED BY CHECKED BY: 60599552 B. HANDJIEV D. WILCOX 2 OF 14 GENERAL NOTES APPROVED BY

08/01/2019

SYMBOLS, STRUCTURES & FEATURES

PIPE SIZE (INCHES)

FLUID DESIGNATION

PIPE FITTING TYPE

PIPE MATERIAL

____ XX _____

🔘 мн

WYE-

VALVE

WM

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-**—** F.H.

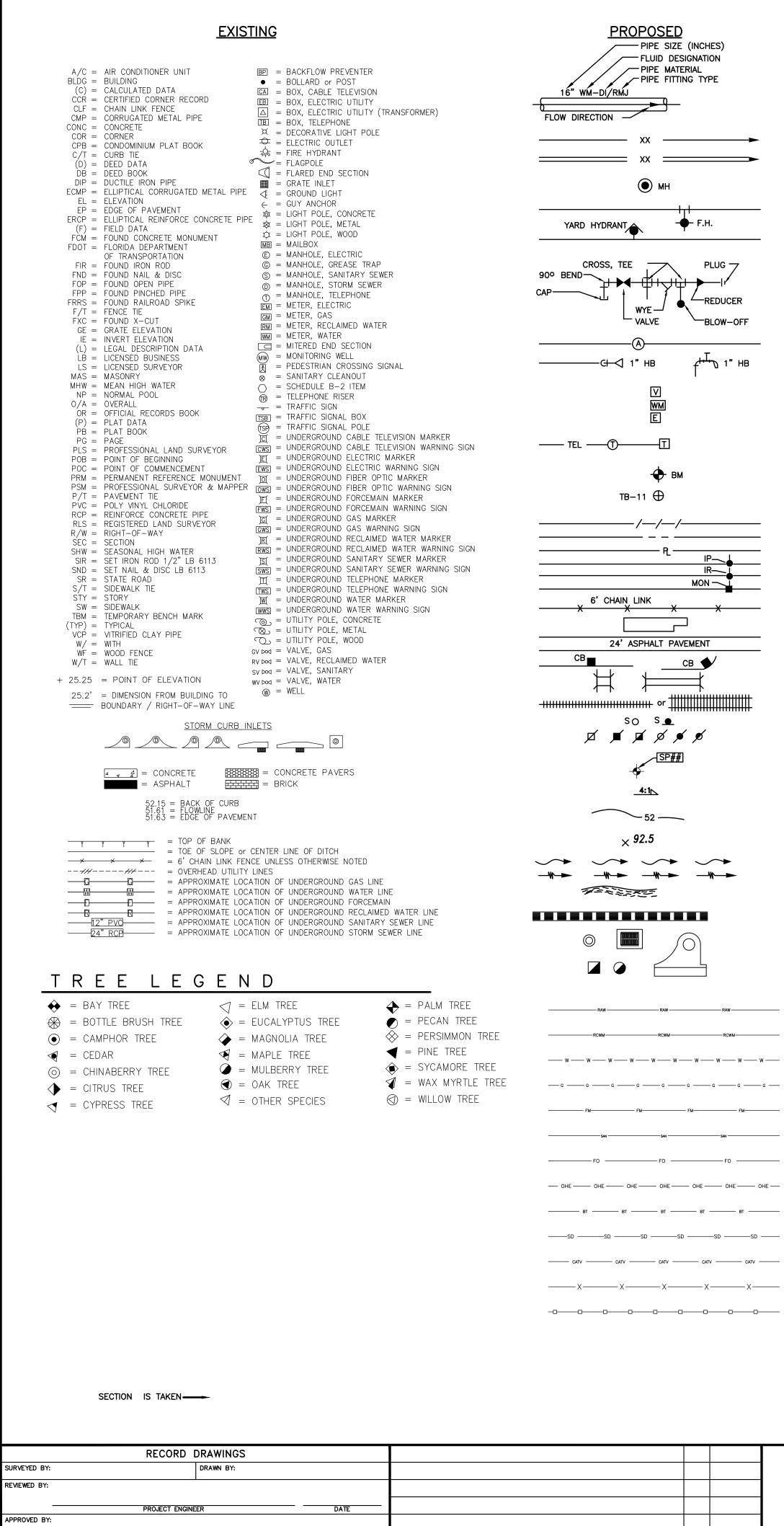
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REDUCER

BLOW-OFF

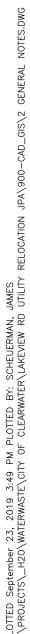
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<u>IR</u>____



DATE

ENGINEER



BY	DATE	

REVISION

DESCRIPTION

TYPICAL PIPE IDENTIFICATION

SINGLE-LINE PIPE DOUBLE-LINE PIPE

MANHOLE, WATER TIGHT

FIRE HYDRANT ASSEMBLY (INCLUDES VALVE)

SINGLE-LINE PIPING, VALVES, AND FITTINGS

AIR RELEASE VALVE HOSE BIBB / CONNECTION, SIZE

VALVE VAULT WATER METER ELECTRIC MANHOLE/VAULT

TELEPHONE CABLE, MANHOLE/VAULT & BOX

BENCHMARK TEST BORING

LIMITED ACCESS RIGHT OF WAY (LA R/W) RIGHT OF WAY (R/W) PROPERTY LINE (P_{L}) PROPERTY CORNERS : IRON PIPE IRON ROD CONCRETE MONUMENT

FENCE, SIZE & TYPE BUILDING/STRUCTURE PAVEMENT, SIZE & TYPE CATCH BASIN

CULVERT OR BRIDGE CROSSING A ROAD RAILROAD TRACKS (R/R) SIGNS

POLE, POWER POLE & COMBINATION POLE SOIL PENETRATIONS

SLOPE

CONTOURS SPOT ELEVATIONS STORM WATER FLOW STREAM (SMALL)/DITCH, SWALE SHORE LINE

STORM DRAINAGE PIPE

STORM DRAINAGE MANHOLE/INLET

RAW WATER

RECLAIMED WATER

POTABLE WATER

GAS MAIN

FORCE MAIN

SANITARY SEWER GRAVITY PIPE FIBER OPTIC

OVER HEAD ELECTRIC BURRIED TELEPHONE

STORM DRAINAGE PIPE CABLE TV

CHAIN LINK FENCE

TREE BARICADE STANDARD VISIBILTY

BLACK PROPOSED FEATURES

EXISTING FEATURES

<u>GENERAL</u> ADJUSTABLE ANGLE APPROXIMATE BENCH MARK BETWEEN BOTTOM OF SLAB BUILDING CAPACITY CENTER LINE CENTER TO CENTER CI FANOUT CONCRETE CONDITION CONTINUATION CONNECTION CUBIC FOOT CUBIC INCH CUBIC YARD DEGREE DIAMETER DIAGONAL DIMENSION DISCHARGE DRAWING EACH EACH WAY EACH FACE ELEVATION EQUIPMENT EXISTING FINISH FINISH FLOOR FLEXIBLE FLOOR DRAIN GALLON GAUGE GRADE HIGH HIGH POINT HIGH WATER LEVEL HORIZONTAL HORSEPOWER INSIDE DIAMETER INTERMEDIATE LINEAR FOOT LONG LOW WATER LEVEL LOW POINT MANHOLE MANUFACTURER MATERIAL MAXIMUM MECHANICAL MINIMUM MOUNTED NOMINAL NOT IN CONTRACT NOT TO SCALE NUMBER ON CENTERS OPERATOR OPTION OPPOSITE OPENING OR EQUAL OUTSIDE DIAMETER PLATE POINT POUND PRESSURE PROPOSED RADIUS REQUIRED RIGHT OF WAY ROOM REVOLUTIONS PER MINUTE R.P.M. SECTION SHEET

SIDEWALK

SPECIFICATIONS

SQUARE FOOT

SQUARE INCH

SQUARE YARD

STANDARD DIMENSION RATIO

UNLESS NOTED OTHERWISE U.N.O.

STANDARD

SYMMETRICAL

TEMPORARY

THREADED

TOP OF SLAB

ULTRAVIOLET

WATER LEVEL

WEATHERPROOF

TOP OF CONCRETE

VENT THROUGH ROOF

WASTE ACTIVATED SLUDGE

STATION

THICK

TYPICAL

VERTICAL

VENT

WIDE

WITH

SIMILAR

SQUARE

ABBREVIATIONS

ADJ.

Ζ

BM

BTWN.

B.O.S.

BLDG.

CAP.

գ c.c.

C.O.

CONC.

COND.

CONT.

CONN.

DEG.

DIAG.

DIM.

DISC.

DWG.

EA.

E.W.

E.F.

EQUIP.

EXIST.

FIN.

F.F.

FLEX.

F.D.

GAL

GA.

GR.

н.

H.PT.

H.W.L.

H.P.

I.D.

INT.

L.F.

LG., L.

L.W.L.

L.PT.

MFR.

MTL.

MAX.

MIN.

MTD.

NOM.

N.I.C.

N.T.S.

NO., #

OPER.

0.C.

OPT.

OPP.

0/E

O.D.

PL.

PT.

LB.

RM.

SEC.

SDWK.

SIM.

SQ.

STD.

STA.

S.D.R.

SYMM.

TEMP.

THK.

THD.

T.O.C.

T.O.S.

TYP.

UV

VT.

VERT.

V.T.R.

W.A.S.

W.L.

WPF.

W.

PRES.

PROP.

OPNG.

MECH.

MH

HORIZ.

DIA.

<u>SYMBOLS</u> <u>SYMBOLS</u> <u>PIPE / JOINTS</u> BLACK IRON PIPE BIP BLACK STEEL PIPE BSP APPROX. BUTT WELD BW CAST IRON CI CAST IRON PIPE CIP CISP CPP COP CAST IRON SOIL PIPE CONCRETE PRESSURE PIPE COPPER PIPE CMP CORRUGATED METAL PIPE DUCTILE IRON DI EXP EXPANSION FLG FLANGE GALVANIZED STEEL PIPE GS HIGH-DENSITY POLYETHYLENE HDPE JOINT JT CU. FT. MECHANICAL JOINT MJ METAL REINFORCED PLASTIC PIPE CU. IN. MRPP CU. YD. POLYETHYLENE PIPE PE POLYVINYLCHLORIDE **PVC** POLYVINYLCHLORIDE (DOUBLE CONTAINED) PVC-D PUSH-ON JOINT PJ REINFORCED CONCRETE PIPE RCP SCHEDULE SCH S.STL STAINLESS STEEL STEEL PIPE STL TIED JOINT ΤJ VITRIFIED CLAY PIPE VCP EL., ELEV. RESTRAINED JOINT RJ WS WALL SLEEVE WALL PIPE (WITH WATER STOP) WP VALVES, FITTINGS, ETC. ACTUATED BUTTERFLY VALVE ABFV AIR CUSHION CHECK VALVE ACCV AIR RELEASE VALVE ARV AIR/VACUUM RELEASE VALVE AVRV BALL CHECK VALVE BACV BV BALL VALVE BLIND FLANGE BF BUTTERFLY VALVE BFV BGO BURIED GEAR OPERATOR CV CHECK VALVE, SWING/GLOBE ELL FI BOW EVA EGO ELECTRIC VALVE ACTUATOR ELEVATED GEAR OPERATOR EXPANSION JOINT EJ FIRE HYDRANT FH FITTING FTG FLANGE FLG FLANGED ADAPTOR FA FLEXIBLE COUPLING FC GATE VALVE GV GLOBE VALVE GL HARNESSED FLANGED COUPLING ADAPTER HFCA HYDRAULIC VALVE ACTUATOR HVA KNIFE GATE VALVE KGV MECHANICAL JOINT MJ ORIFICE PLATE 0.P. PLUG VALVE PV RED REDUCER RUBBER FLAPPER CHECK VALVE RFC SILENT CHECK VALVE SCV SOLENOID VALVE SV VRV VACUUM RELEASE VALVE VALVE BOX VB EQUIPMENT DESIGNATIONS AIR RECEIVER ARC AIR SEPARATOR ASP RAD., R. AMM AMMONIATOR AUTOMATIC STRAINER AS REQ'D. BACKWASH SUPPLY PUMP BSP BF R/W, R.O.W. BIOFILTER BLENDER BLOWER BW BRIDGE CRANE BR BST CSP CFP CHL CCWP CMP DGS DD DTM SH., SHT. BULK STORAGE TANK CHLORINE SOLUTION PUMP CHLORINE FEED PUMP SPECS. CHLORINATOR CLOSED COOLING WATER PUMP SQ. FT. COMPRESSOR SQ. IN. DEGAS SEPERATOR SQ. YD. DESSICANT DRYFR DRAFT TUBE MIXER DRY TANK DT FN EXPANSION TANK EXPT FILTER FLAME ARRESTOR F۵ FLUORINATOR GAS HOLDER GEN GAC HX GENERATOR GRANULAR ACTIVATED CARBON VESSEL HEAT EXCHANGER HIGH SERVICE PUMP HSP HOIST ION EXCHANGE VESSEL MIXFR MX MOTOR OPEN LOOP COOLING WATER PUMP OLCWP OFR OZG OZONE FLASH REACTOR OZONE GENERATOR PNEUMATIC EJECTOR PE PSU POWER SUPPLY UNIT PUMP SIDE STREAM PUMP SSP SILENCER STORAGE TANK TANK TRANSFER PUMP TROLLEY VACUUM COMPRESSOR VC VAPORIZER

NOTE: THIS GENERAL LEGEND IS FOR GENERAL REFERENCE. NOT ALL ABBREVIATIONS, SYMBOLS, MATERIALS, OR FITTINGS, ETC. ARE NECESSARILY USED IN THIS DESIGN. INDIVIDUAL DISCIPLINE STANDARD LEGENDS MAY SUPERCEDE THIS GENERAL LEGEND.

CITY OF CLEARWATER, FLORIDA ENGINEERING DEPARTMENT 100 S. MYRTLE AVE. CLEARWATER, FL 33756

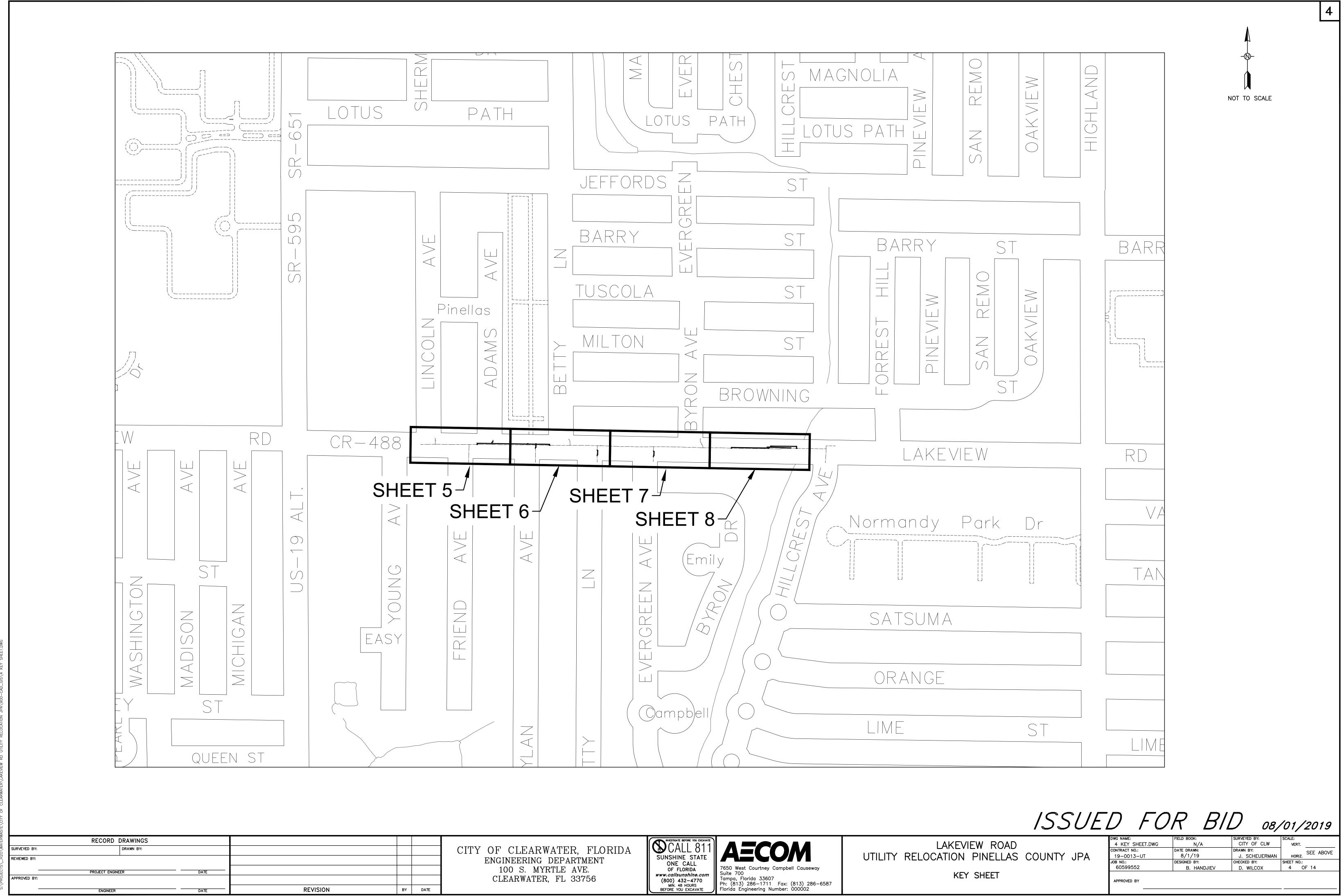
GRAY



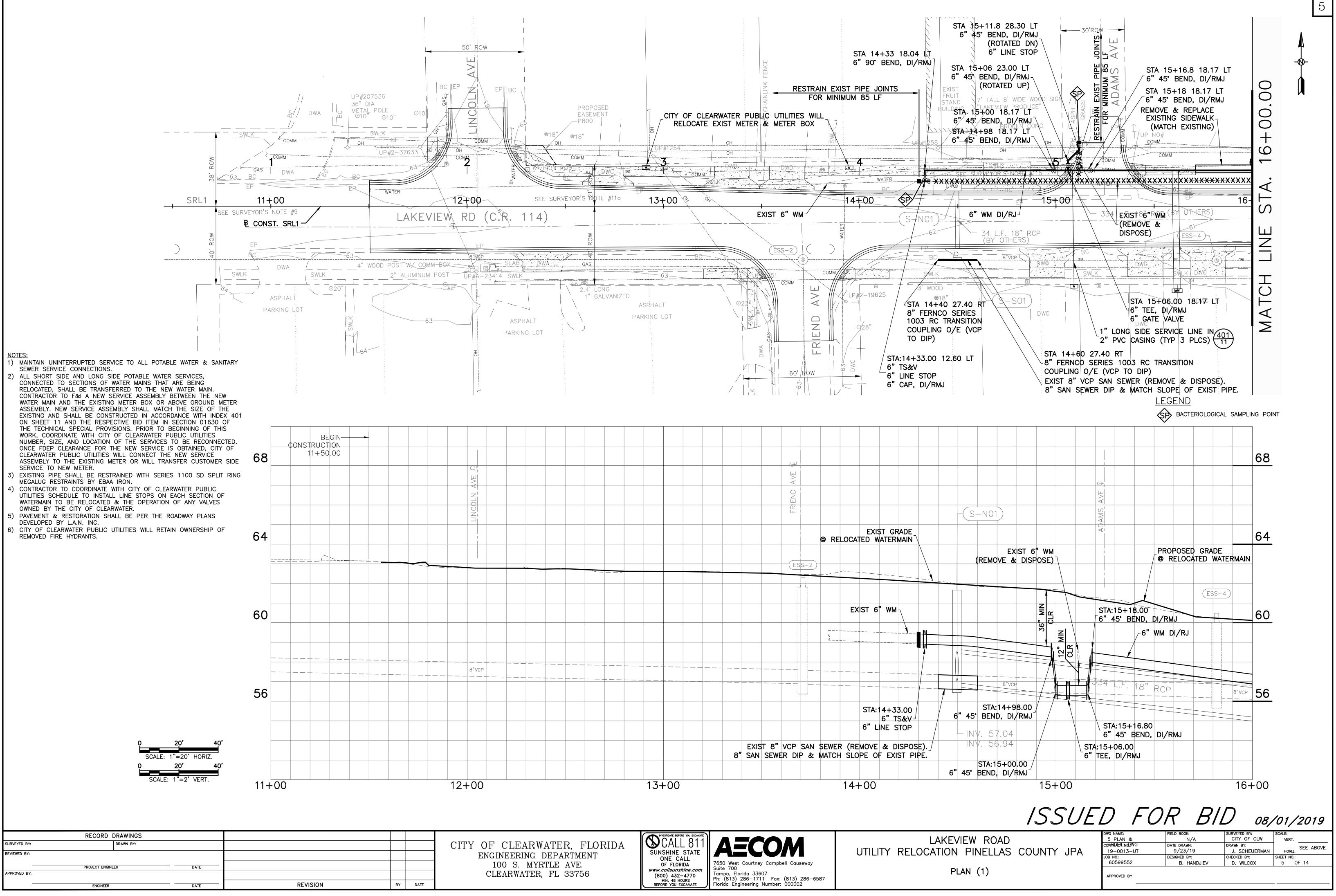
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UTILITY RELOCA LEGEN

		VALVES, PIPES & FITTINGS 3
		(SINGLE-LINE)
PROCESS NOMENCLATURE		SYMBOLSDESCRIPTIONEXISTINGPROPOSED
AIR, INSTRUMENT SUPPLY AIR PIPE AIR PIPE - ATMOSHERIC	IA AIR AAR	UNCLASSIFIED. TYPE AS SHOWN ON THE
AIR PIPE – HIGH PRESSURE PROCESS AIR PIPE – INTAKE PROCESS AIR PIPE – LOW PRESSURE PROCESS	AHP AIP ALP	Image: Discrete symbol Image: Discrete symbol Image: Discrete symbol
AMMONIA GAS AMMONIA SOLUTION	AG AS	Image: Weight of the second
BASIN DRAIN BYPASS CLOSED LOOP COOLING WATER, RETURN	BDR BYP CCWR	QUICK CONNECT COUPLING
CLOSED LOOP COOLING WATER, SUPPLY CHEMICAL DRAIN CHLORINE GAS	CCWS CDR CG	BACKPRESSURE SUSTAINING VALVE
CHLORINE SOLUTION COLD WATER	CS CDW	VALUE WITH HOSE LIND VACUUM VALVE GATE VALVE
COMPRESSED AIR DEIONIZED WATER DILUTION WATER	CPA DIW DW	KNIFE GATE VALVE
DISINFECTED WATER DRAIN EFFLUENT	DW DR EFF	BALL VALVE (GLOBE STILE)
EXHAUST (GAS) FILTER EFFLUENT	EXH FE	
FINISHED WATER FLOOR DRAIN FLUORIDE SOLUTION	FW FD FL	4-WAY BALL VALVE
FLUSH WATER GAC BACKWASH DRAIN GAC BACKWASH SUPPLY	FLW GBD GBS	Image: Construction Construction Image: Construction Image: Construction Image: Cons
GAC TREATED WATER GASEOUS OXYGEN	GTW GOX	PINCH VALVE PINCH VALVE PINCH VALVE
GASEOUS OXYGEN ECONOMIZER GROUND STORAGE TANK HIGH PRESSURE STEAM	GOXE GST HPS	Image: matrix of the second secon
HIGH PRESSURE WATER HYDRAULIC FLUID HYDROGEN SULFIDE	HPW HF H2S	
INFLUENT INFLUENT RECYCLE	INF IR	VALVES, PIPES & FITTINGS
LIQUID OXYGEN LUBRICATION GREASE LUBRICATION OIL	LOX LG LO	(DOUBLE-LINE)
MAIN DRAIN MICROFILTRATION	MDR MF	MJ FITTINGS FLG FITTINGS GATE PLUG BUTTERFLY GLOBE SWING FLANGE PIPE VALVE VALVE VALVE CHECK CHECK COUPLING COUPLING
MIXED LIQUOR NITROGEN GAS NITROGEN SUPPLY GAS	ML N2 NS	
NON-POTABLE WATER OFF GAS OPEN LOOP COOLING WATER, RETURN	NPW OFG OCWR	
OPEN LOOP COOLING WATER, SUPPLY OVERFLOW OZONATED WATER	OCWS OF OZW	
OZONE GAS OZONE PURGE OZONE SYSTEM SUPPLIER	03 OZP OSS	
PERMEATE PLANT WATER	USS PERM WTR	
PLANT SERVICE WATER POTABLE WATER	PSW PW	
POTABLE WATER, COLD POTABLE WATER, HOT RAW SEWAGE	PWC PWH RS	
RAW WATER RAW WATER SIDESTREAM RECIRCULATION PUMP	RAW RWS RP	
RECLAIMED WATER RECYCLE	RCWM REC	SECTION LETTER IDENTIFICATION
REJECT RETURN ACTIVATED SLUDGE RETURN EFFLUENT WATER	REJ RAS REW	M-8 DRAWING NO. WHERE
REUSE EFFLUENT WATER RO REJECT SAMPLE	REEW REJ SAMP	SECTION TARGET
SEAL WATER SECONDARY EFFLUENT SODIUM HYPOCHLORITE	SEW SE NAOCL	
SUMP PUMP DISCHARGE TREATED WATER VACUUM	SPD TW VAC	
VENT VENT, CHEMICAL VENT, INSTRUMENT WASH WATER		<u>SUBTITLE</u> (IF REQUIRED)
WASH WATER WASTE ACTIVATED SLUDGE WATER, CHLORINATED PLANT EFFLUENT	WAW WAS WCL	SECTION LETTER IDENTIFICATION
WATER, DISTILLED WELL WATER	WD WELW	DRAWING NO. WHERE $M-8$ SCALE
SANITARY SEWER DRAIN/SANITARY SEWER SANITARY SEWER, GRAVITY	D SAN	\smile
SANITARY SEWER FORCE MAIN STORMWATER STORM DRAIN	FM SD	DETAIL LETTER IDENTIFICATION
STORM DRAIN STORM FLOW BYPASS STORMWATER UNDERDRAIN	SD SFB SW UD	DRAWING NO. WHERE
<u>POWER & FUEL</u> ELECTRIC CABLE/DUCT BANK	ор 	DETAIL IS DRAWN
FUEL LINE FUEL OIL FUEL OIL RETURN	FL FO FOR	DETAIL TARGET
FUEL OIL SUPPLY LOW PRESSURE NATURAL GAS	FOS LPNG	<u>SUBTITLE</u> (IF REQUIRED)
NATURAL GAS NATURAL GAS LINE <u>COMMUNICATION</u>	LPNG LPNG	DETAIL LETTER
FIBER OPTIC TELEVISION CABLE	FO CATV	$\begin{array}{c c} \text{IDENTIFICATION} \\ \text{DRAWING NO. WHERE} \\ \text{DETAIL IS TAKEN} \\ \hline M-8 \\ \hline SCALE \\ \hline \end{array}$
		DETAIL TITLE
	10011	
	13301	ED FOR BID 08/01/2019
LAKEVIEW ROAD		DWG NAME: FIELD BOOK: SURVEYED BY: SCALE: 2 GENERAL NOTES.DWG N/A CITY OF CLW VERT. CONTRACT NO.: DATE DRAWN: DRAWN BY: SEE ADOVE
LOCATION PINELLAS	COUNTY JPA	19-0013-UT8/1/19J. SCHEUERMANHORIZ.SEE ABOVEJOB NO.:DESIGNED BY:CHECKED BY:SHEET NO.:
LEGEND & ABBREVIATION	S	60599552 B. HANDJIEV D. WILCOX 3 OF 14

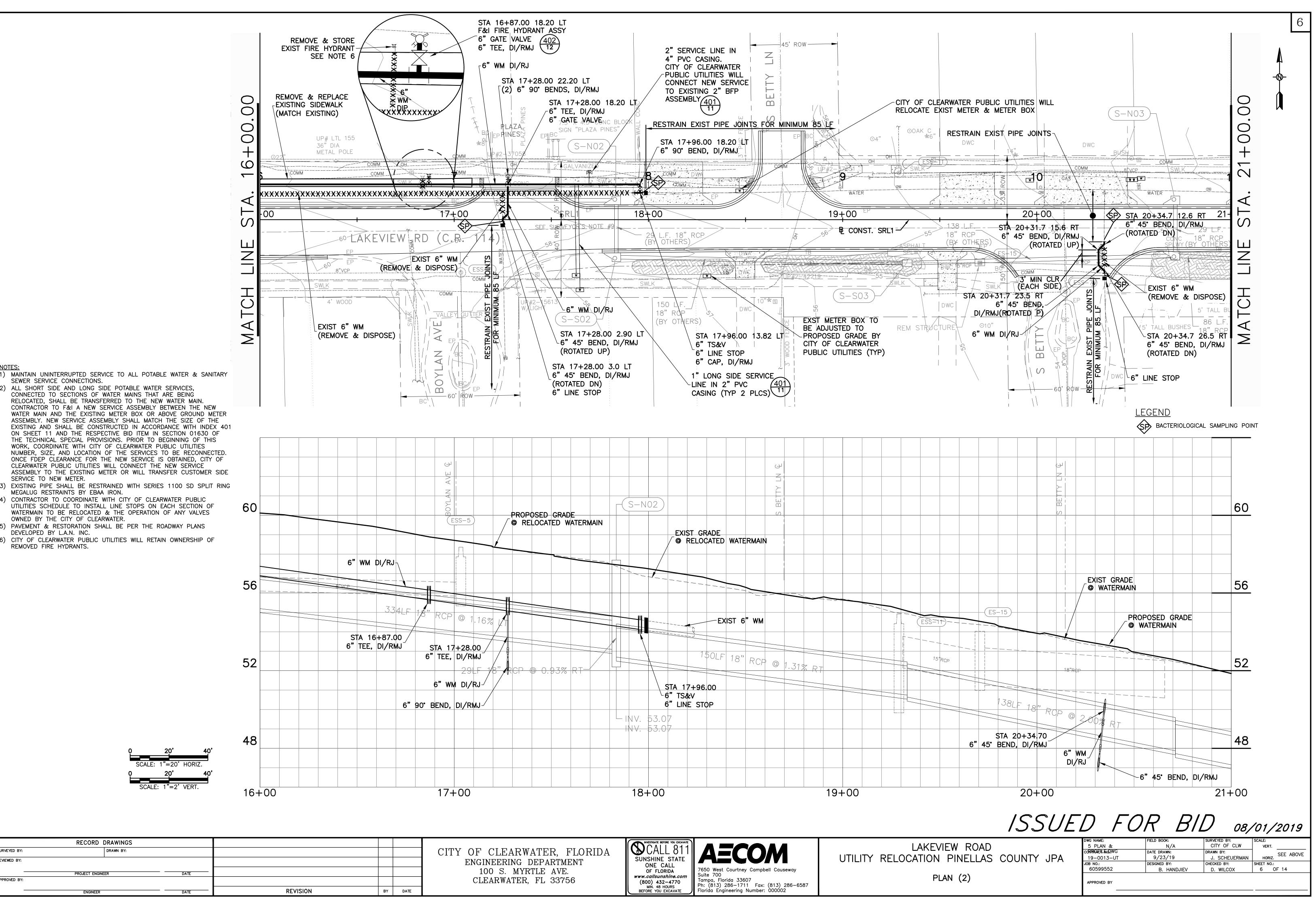


TTED September 23, 2019 3:49 PM PLOTTED BY: SCHEUERMAN, JAMES PROJECTS_H20\WATERWASTE\CITY OF CLEARWATER\LAKEVIEW RD UTILITY RELOCATION JPA\900-CAD_GIS\4 KEY SHEI



CITY OF CLEARWATER, FLORIDA ENGINEERING DEPARTMENT 100 S. MYRTLE AVE. CLEARWATER, FL 33756	NVESTIGATE BEFORE YOU EXCAVATE SUNSHINE STATE ONE CALL OF FLORIDA www.callsunshine.com (800) 432-4770 MIN. 48 HOURS BEFORE YOU EXCAVATE	7650 West Courtney Campbell Causeway Suite 700 Tampa, Florida 33607 Ph: (813) 286–1711 Fax: (813) 286–6587 Florida Engineering Number: 000002	LA UTILITY RELOCAT

		EXIST GRADE © RELOCATED WATERMAIN
		ESS-2
		<u><u> </u></u>
8"VCP		
		STA:14+33.00 6" T\$&V 6" LINE STOP
		EXIST 8" VCP SAN SEWER (REMOVE & DISPOSE). / SAN SEWER DIP & MATCH SLOPE OF EXIST PIPE.
	8"	SAN SEWER DIP & MATCH SLOPE OF EXIST PIPE.
12+00	13+00	14+00

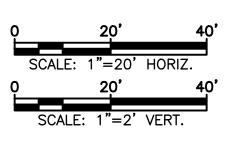


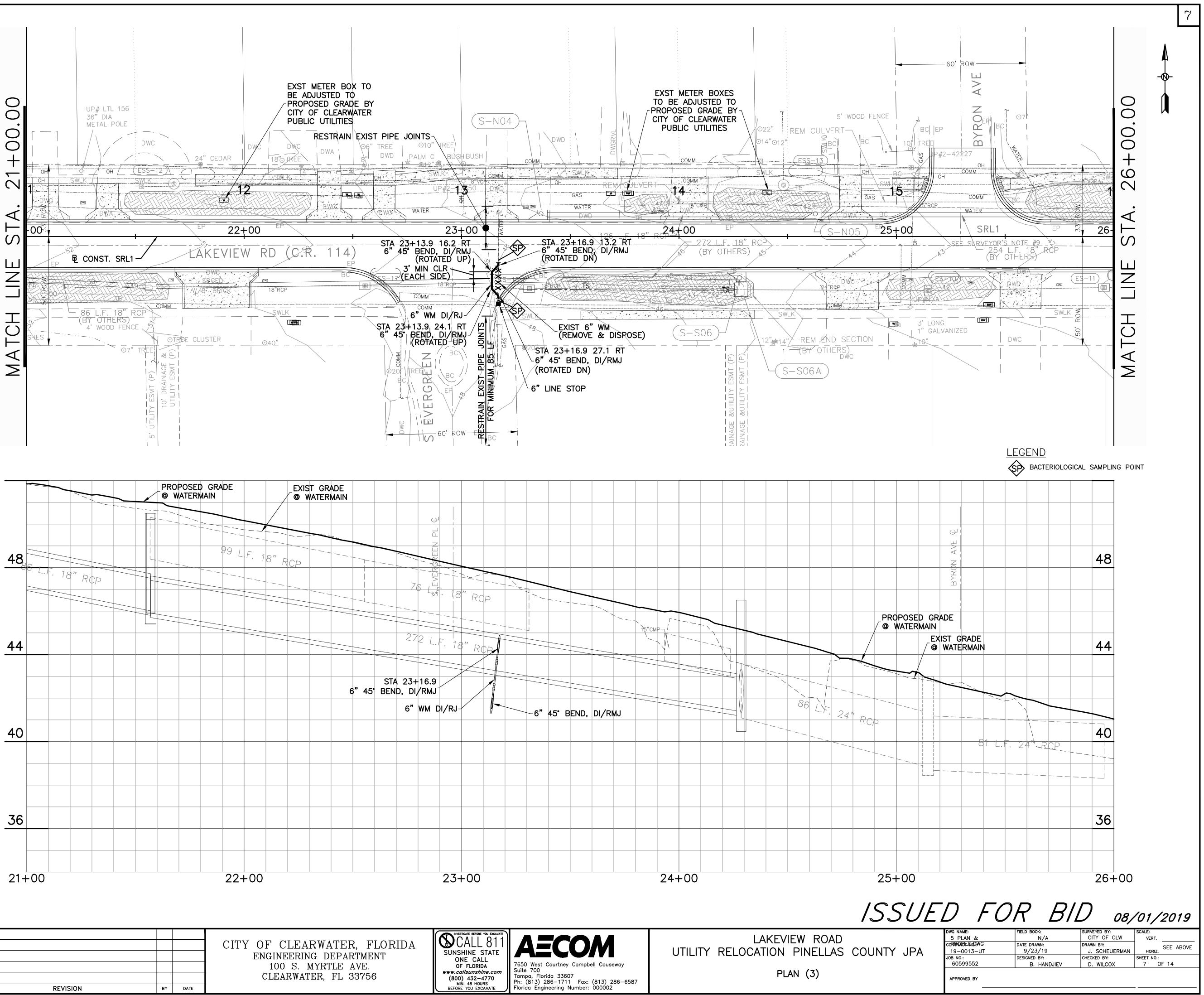
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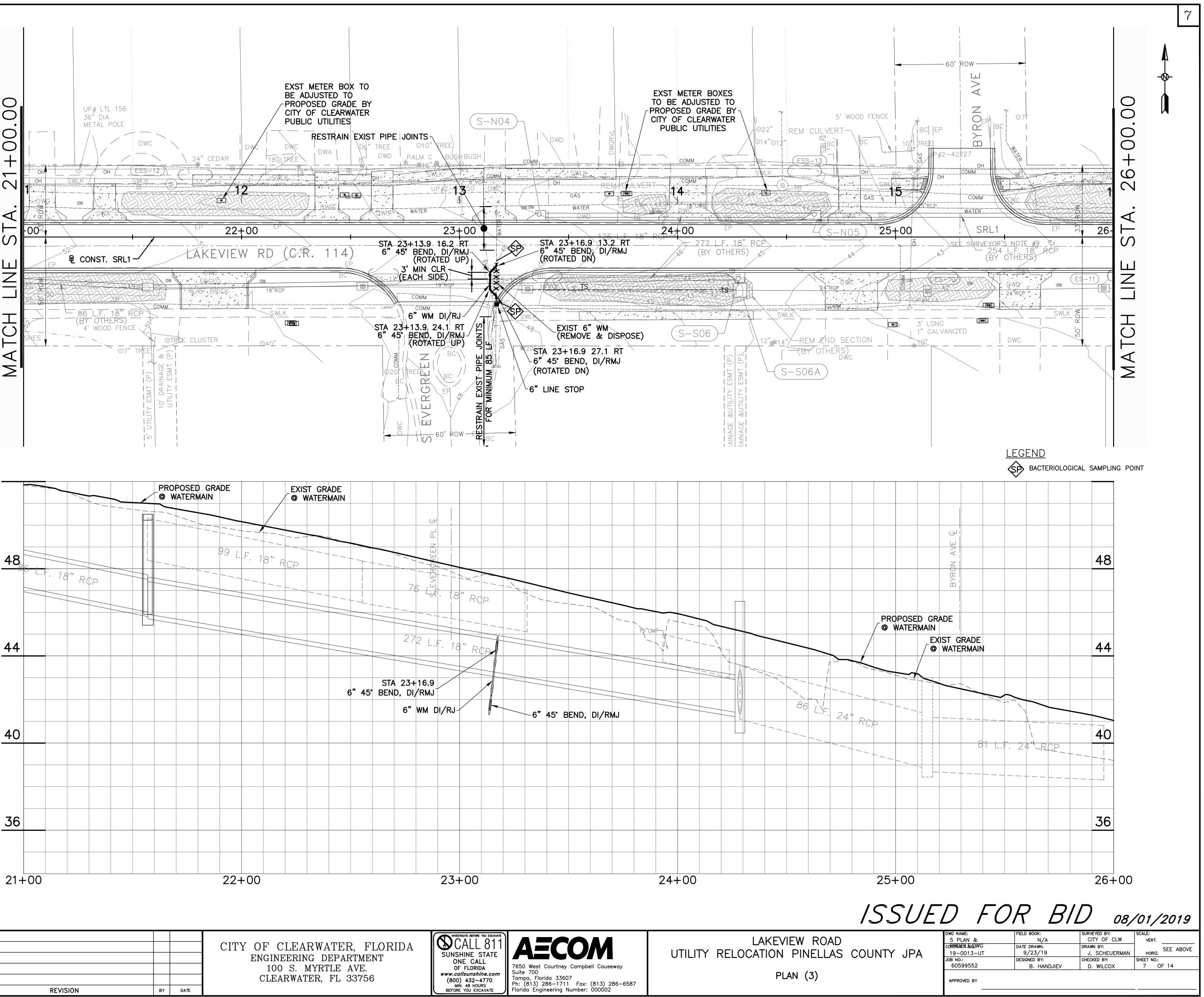
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CITY OF CLEARWATER, FLORIDA ENGINEERING DEPARTMENT 100 S. MYRTLE AVE. CLEARWATER, FL 33756	INVESTIGATE BEFORE YOU EXCAVATE SUNSHINE STATE ONE CALL OF FLORIDA WWW.callsunshine.com (800) 432-4770 MIN. 48 HOURS BEFORE YOU EXCAVATE	7650 West Courtney Campbell Causeway Suite 700 Tampa, Florida 33607 Ph: (813) 286–1711 Fax: (813) 286–6587 Florida Engineering Number: 000002	LA UTILITY RELOCAT



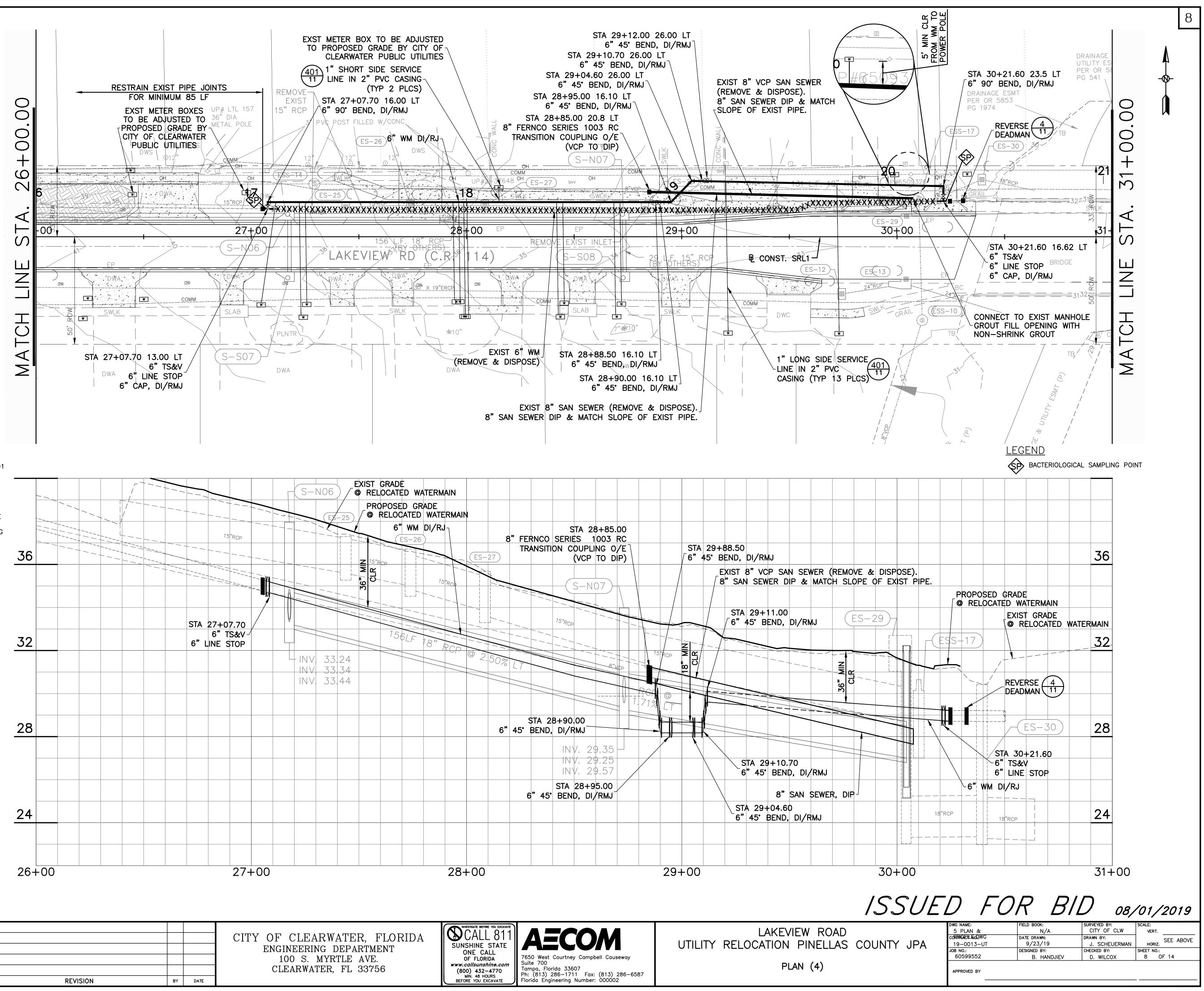
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- 5) PAVEMENT & RESTORATION SHALL BE PER THE ROADWAY PLANS DEVELOPED BY L.A.N. INC.
- 6) CITY OF CLEARWATER PUBLIC UTILITIES WILL RETAIN OWNERSHIP OF REMOVED FIRE HYDRANTS.

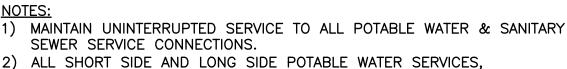




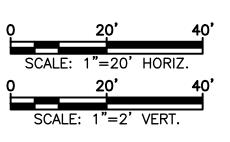


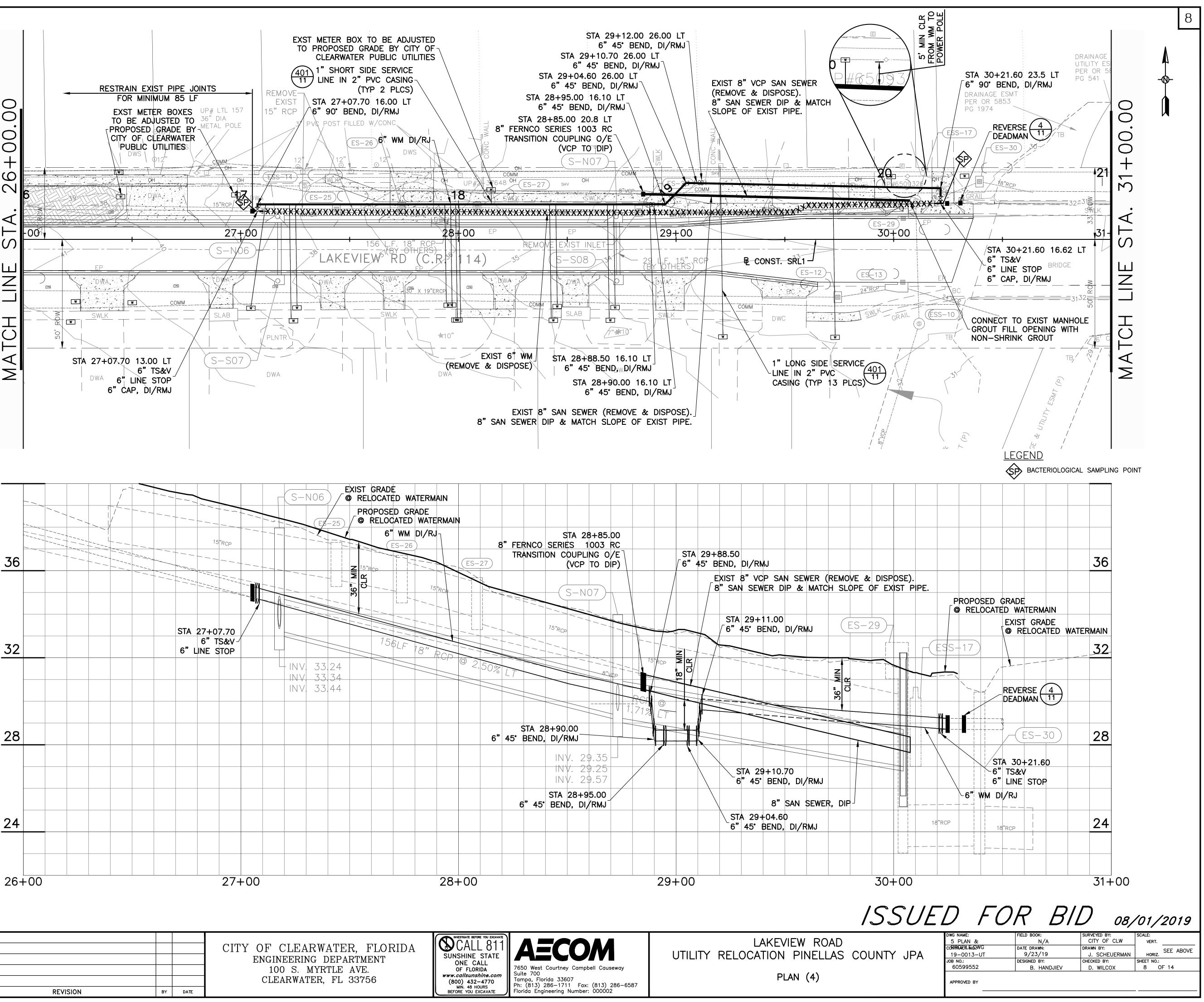
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	RECORD DR	AWINGS						
SURVEYED BY:	DF	RAWN BY:					CITY OF CLEARWATER, FLORIDA	
REVIEWED BY:							ENGINEERING DEPARTMENT	SUNSHINE S
	PROJECT ENGINEER	·	DATE				100 S. MYRTLE AVE.	OF FLORIE www.callsunshi
APPROVED BY:							CLEARWATER, FL 33756	(800) 432-4 MIN. 48 HOU
	ENGINEER		DATE	REVISION	BY	DATE		MIN. 48 HOU BEFORE YOU EXC





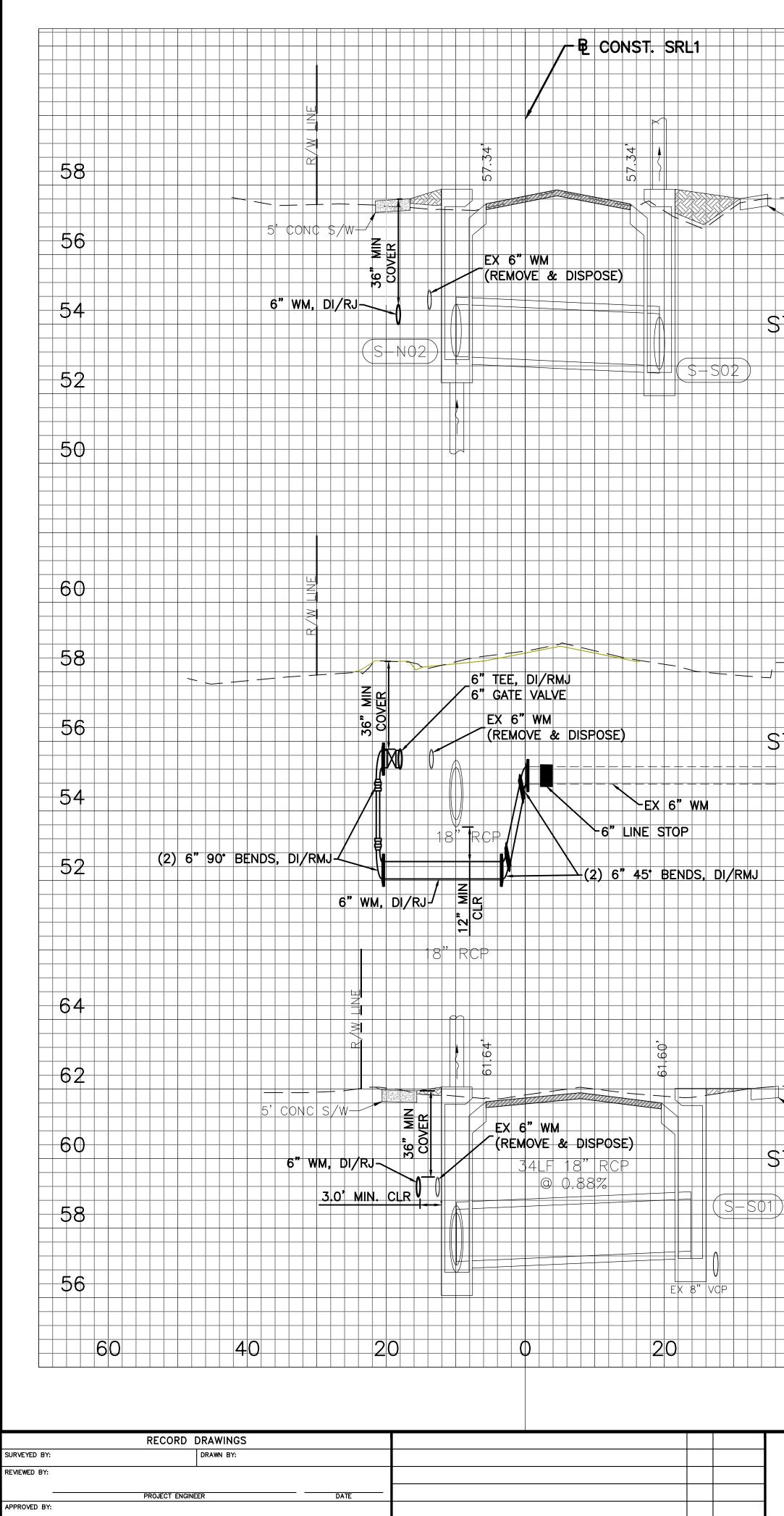
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VAS						
ATERW/	RECORD	DRAWINGS				
20\W	SURVEYED BY:	DRAWN BY:				
H	REVIEWED BY:					
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PROJ	APPROVED BY:					
S:/	ENGINEER	DATE	REVISION	BY	DATE	
S	ENGINEER	DATE	REVISION	BY	DATE	L

CITY OF CLEARWATER, FLORIDA ENGINEERING DEPARTMENT 100 S. MYRTLE AVE. CLEARWATER, FL 33756	NVESTIGATE BEFORE YOU EXCAVATE SUNSHINE STATE ONE CALL OF FLORIDA www.callsunshine.com (800) 432-4770 MIN. 48 HOURS BEFORE YOU EXCAVATE	7650 West Courtney Campbell Causeway Suite 700 Tampa, Florida 33607 Ph: (813) 286–1711 Fax: (813) 286–6587 Florida Engineering Number: 000002	ا /UTILITY RELOC



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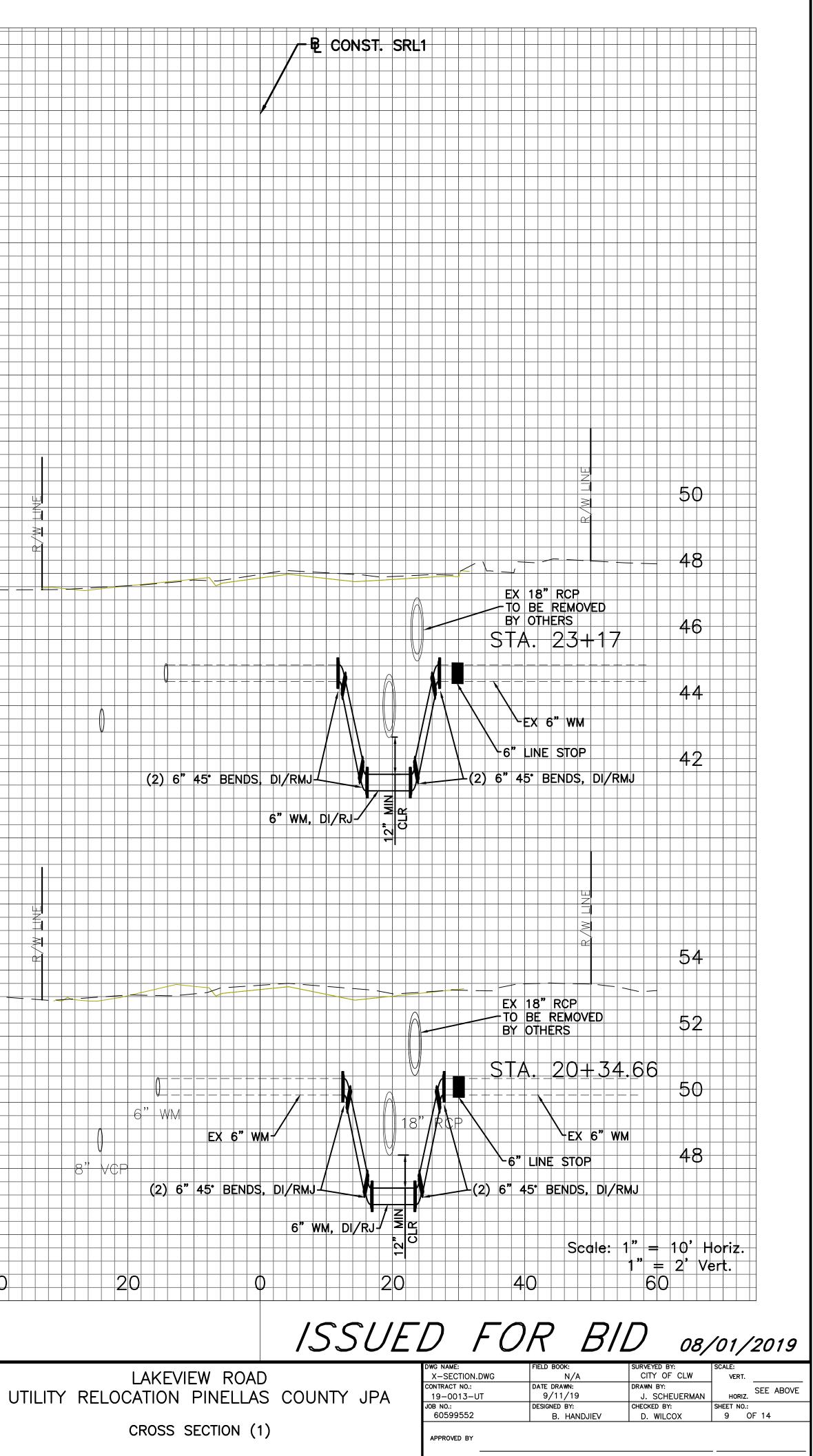
ENGINEER

BY DATE

		58			
		56			
STA. 1	7+83.46	54			
		52			
		50			
			50		
		60	48		
		58	46		
STA. 1	7+25	56	44		
		54	42		
		52			
		64	54		
		62	52		
-EXIST		60	50		
STA. 1	4+49.70				
		58	48		8" VCP
		56			
	Scale: 1" = 1" =				
40	1"=		60	40	20

CITY	OF	CLE	ARV	VATE	lR,	FLOI	RIDA
	ENGI	NEER	ING	DEPA	ARTN	MENT	
	10	00 S.	MY	RTLE	AV	E.	
	CLI	EARWA	ATEF	R, FL	337	756	

INVESTIGATE BEFORE YOU EXCAVATE OCALL 811 JNSHINE STATE ONE CALL OF FLORIDA <i>w.callsunshing.com</i> (800) 432-4770 MIN. 48 HOURS EFORE YOU EXCAVATE	7650 West Courtney Campbell Causeway Suite 700 Tampa, Florida 33607 Ph: (813) 286–1711 Fax: (813) 286–658 Florida Engineering Number: 000002
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- BE CONST. SRL1 EXIST 6" WM 36 (REMOVE & DISPOSE) EX 15" RCP TO BE REMOVED ≥ 36" MIN COVER BY OTHERS 34 -32 -5 <u>6.0' MIN.</u> CLR EXIST 8" VCP SAN SEWER -(REMOVE & DISPOSE) 8" SAN SEWER DIP 30 STA 28+95.00 6"45° BEND, DI/RMJ 28 STA 29+04.60 6" 45" BEND, DI/RMJ " CLRMIN -6" ₩M, DI/RJ -36 EX 15" RCP ΤΟ BE REMOVED ≥ BY OTHERS φ <u>3</u>. . . Ń -34 -32 EX 6 WM -5 6" WM, DI/RJ-(REMOVE & DISPOSE) -30 <u>6.0' MIN.</u> <u>3.0' MIN</u> -28 18" RCF 40 EX 15" RCP TO BE REMOVED BY OTHERS \circ MATCH EXIS -38 EX 6" WM (REMOVE & DISPOSE) -36 \Box 6" WM, DI/RJ-EX 8" VCPV -34 <u>3.0' MIN.</u> -32 60 40 20 20 RECORD DRAWINGS SURVEYED BY: DRAWN BY: REVIEWED BY: PROJECT ENGINEER DATE APPROVED BY:

REVISION

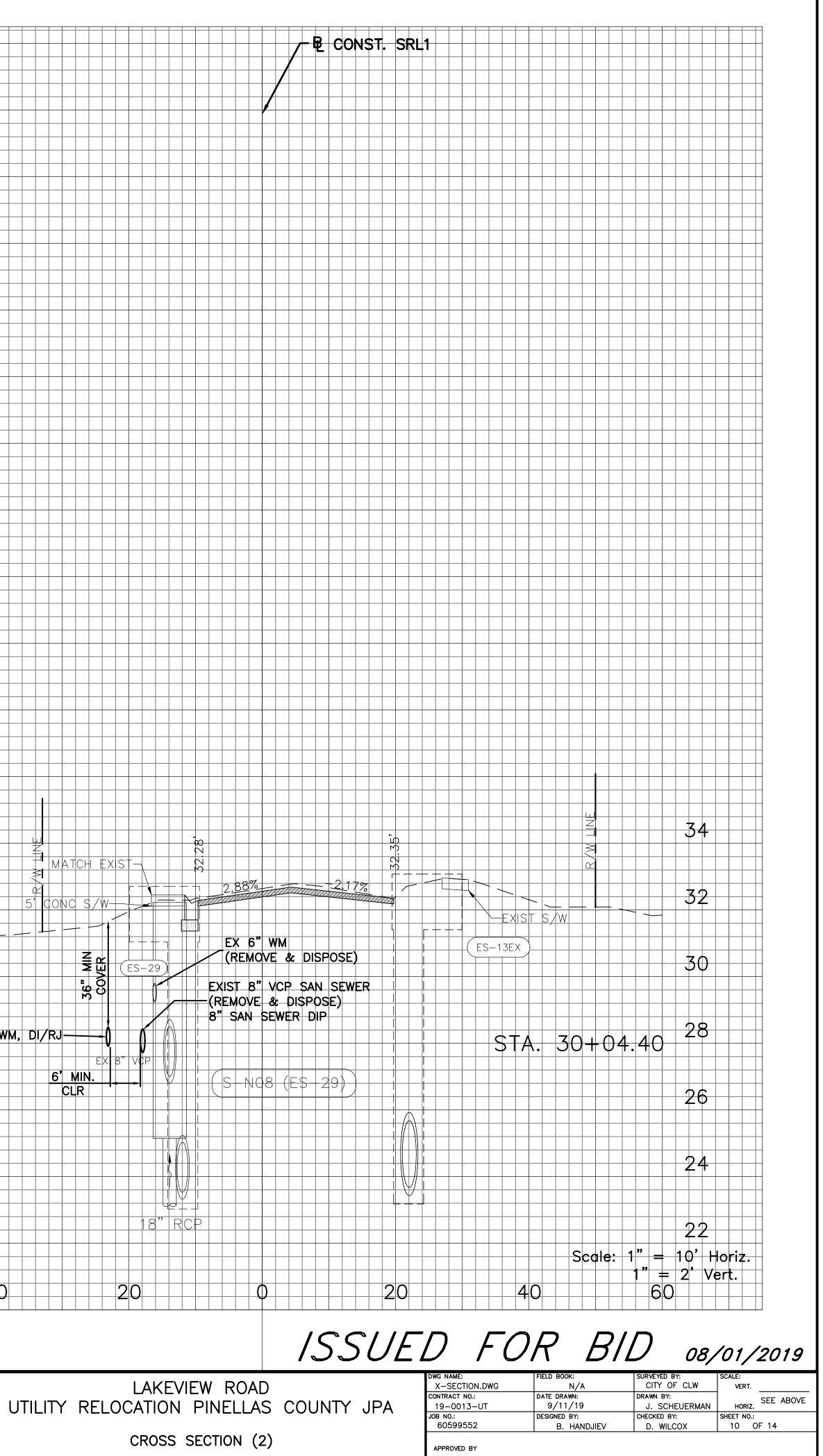
DATE

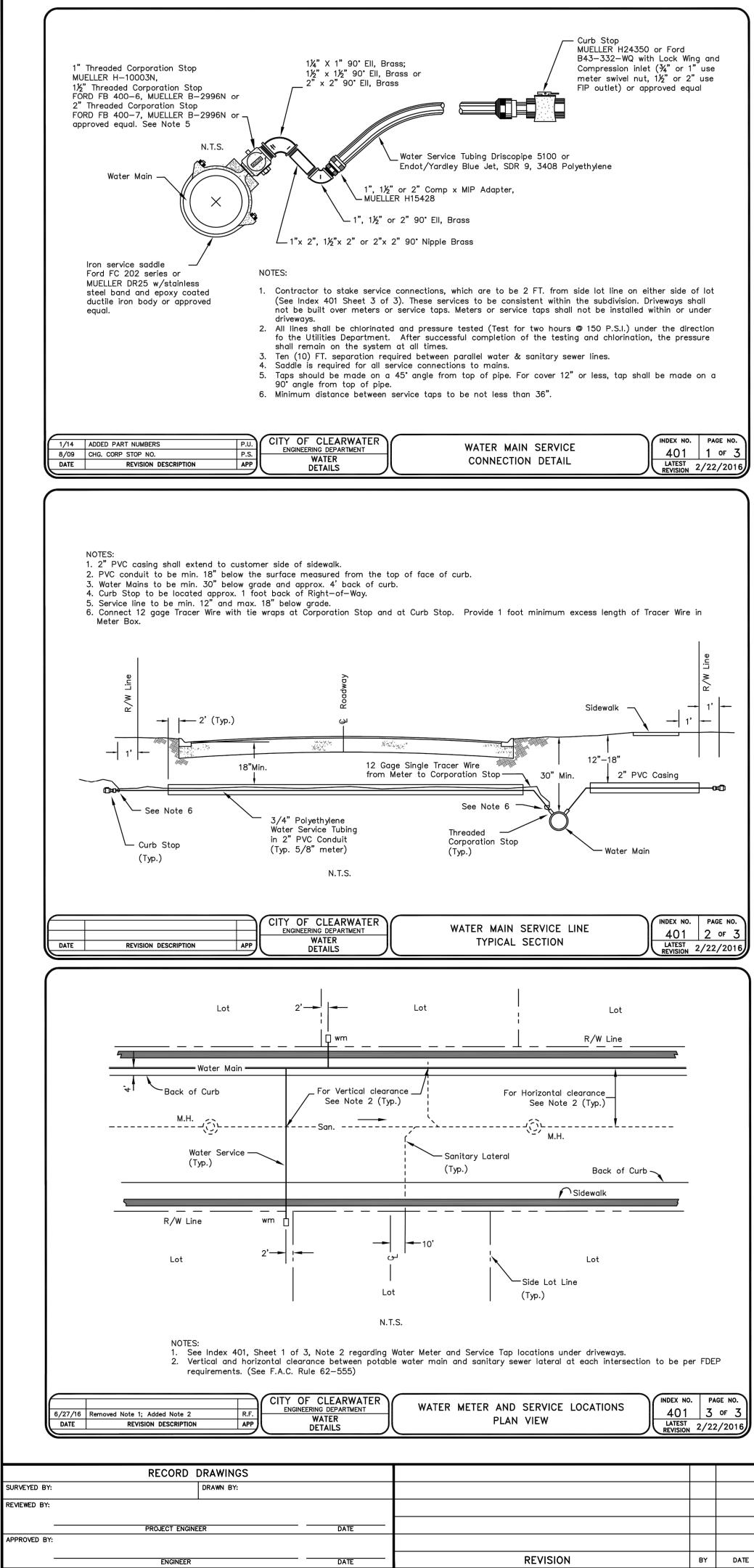
ENGINEER

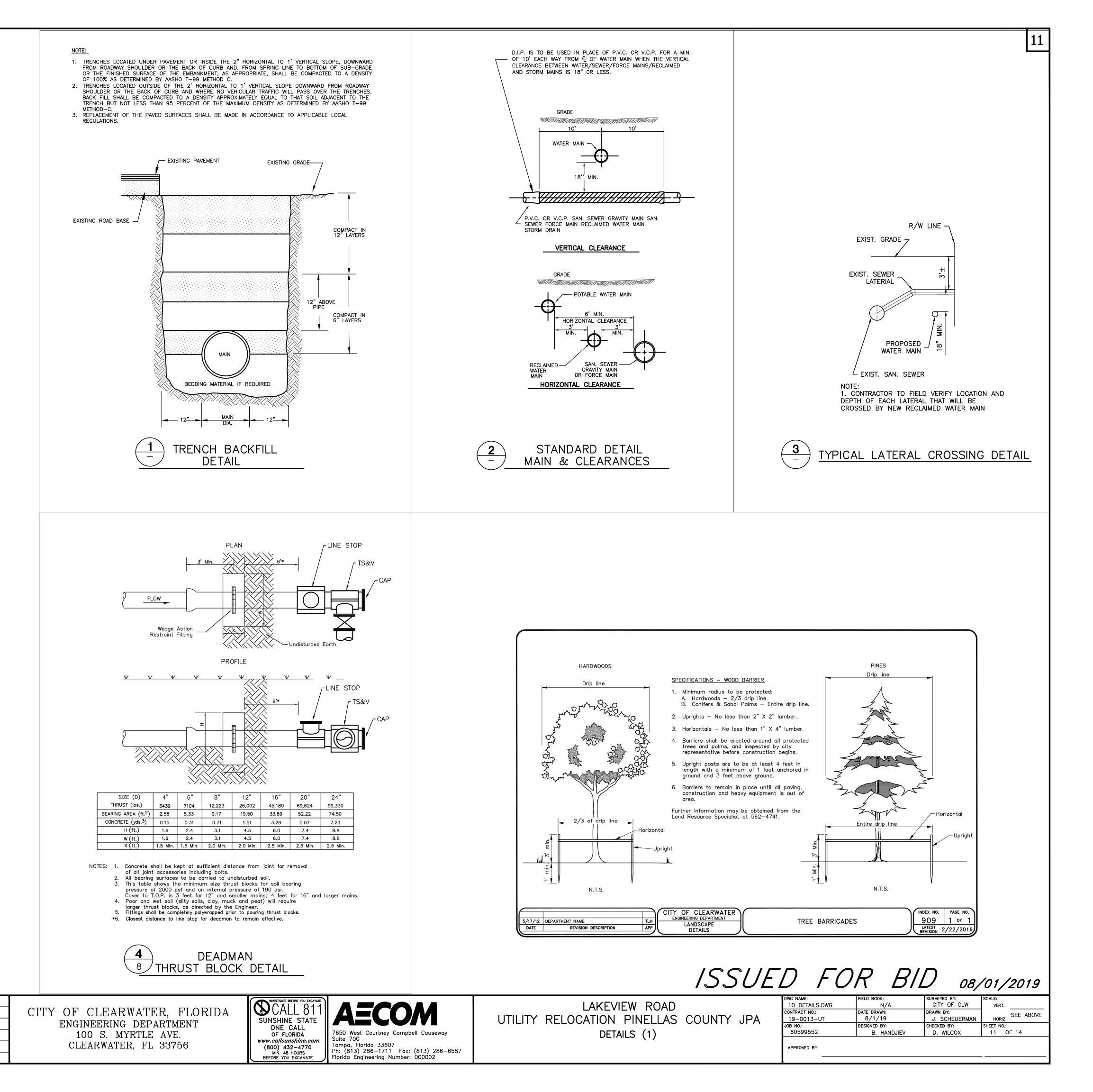
BY DATE

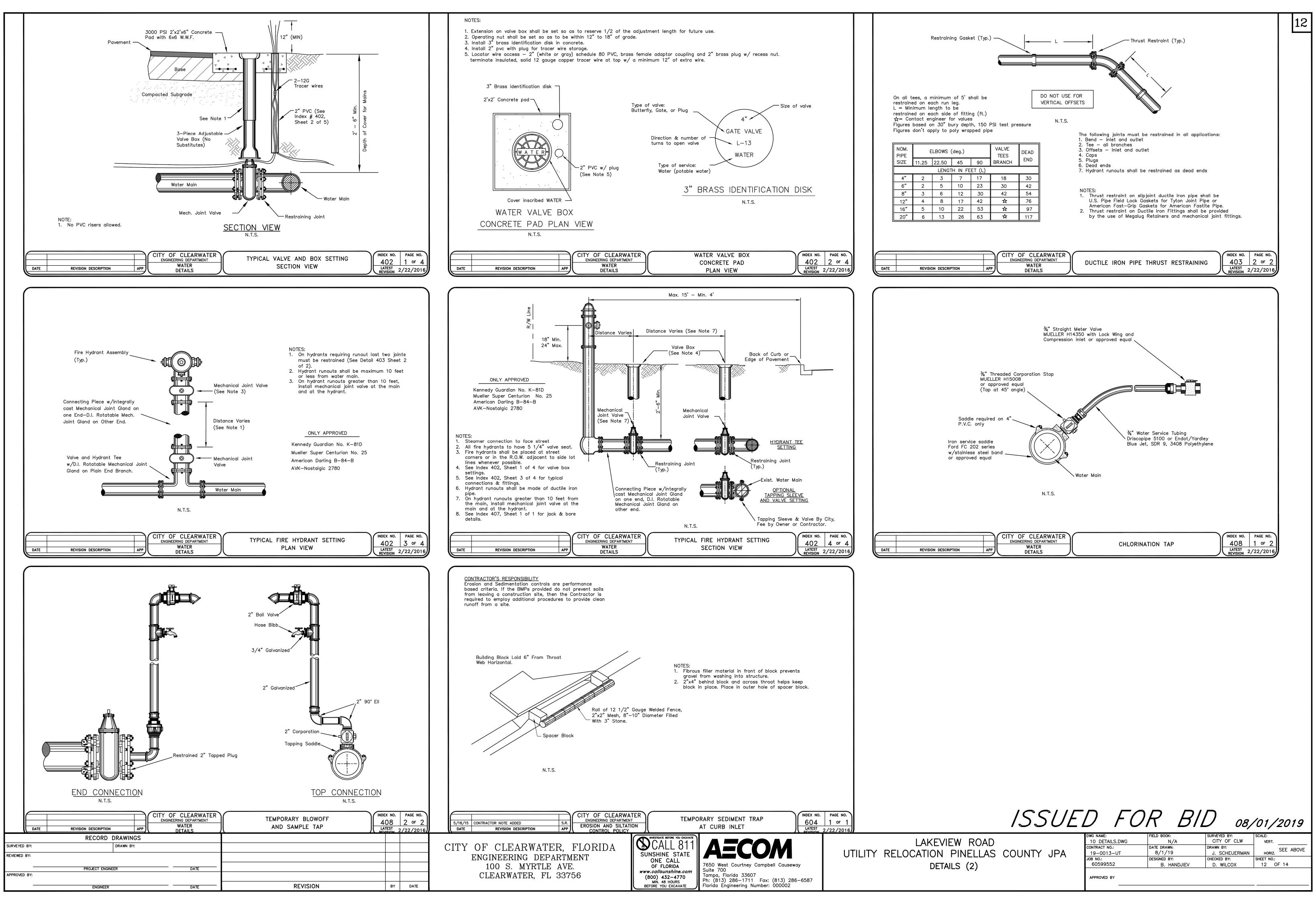
CITY	OF CLEARWATER, FLORIDA					
ENGINEERING DEPARTMENT						
	100 S. MYRTLE AVE.					
	CLEARWATER, FL 33756					



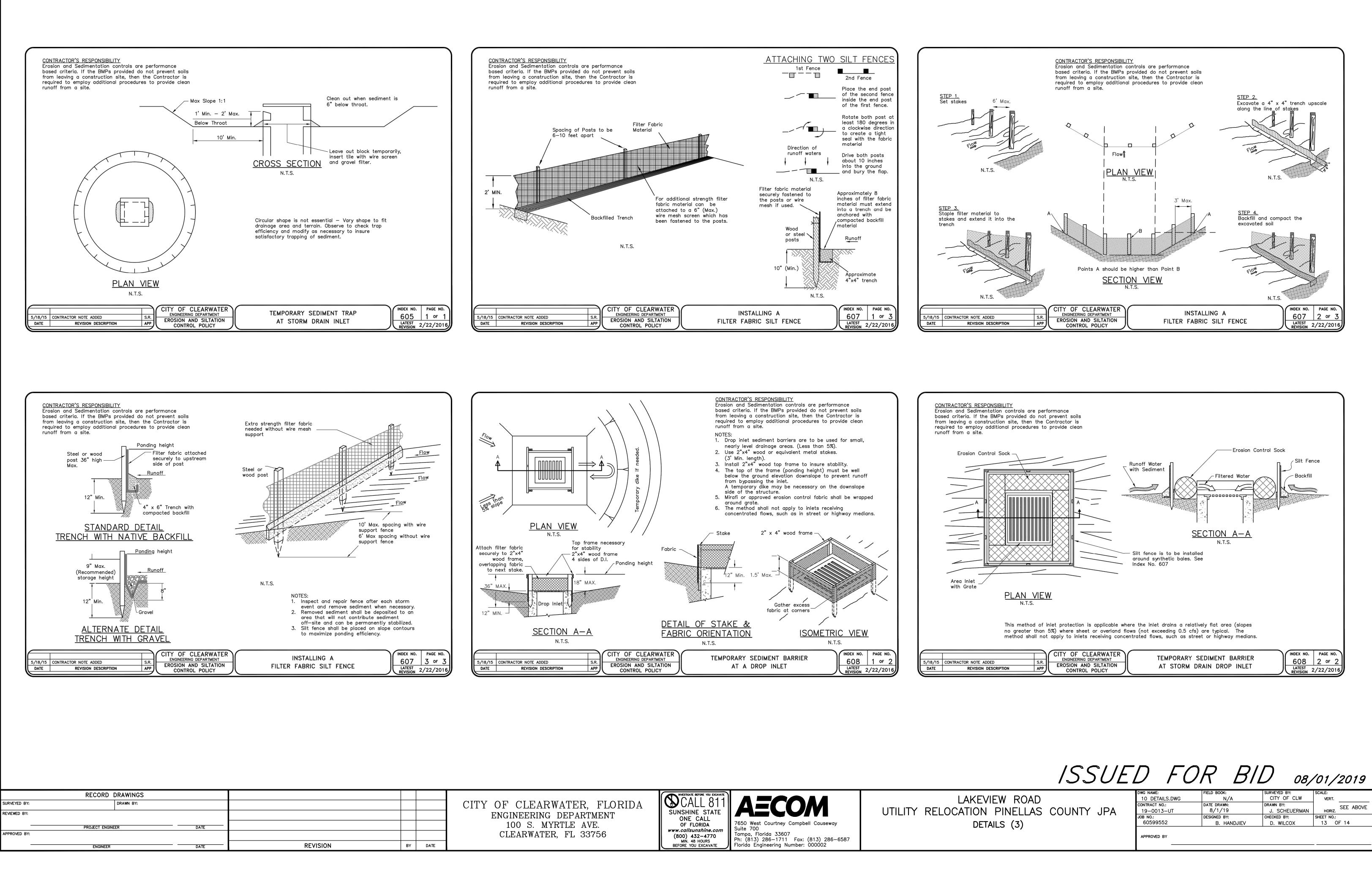




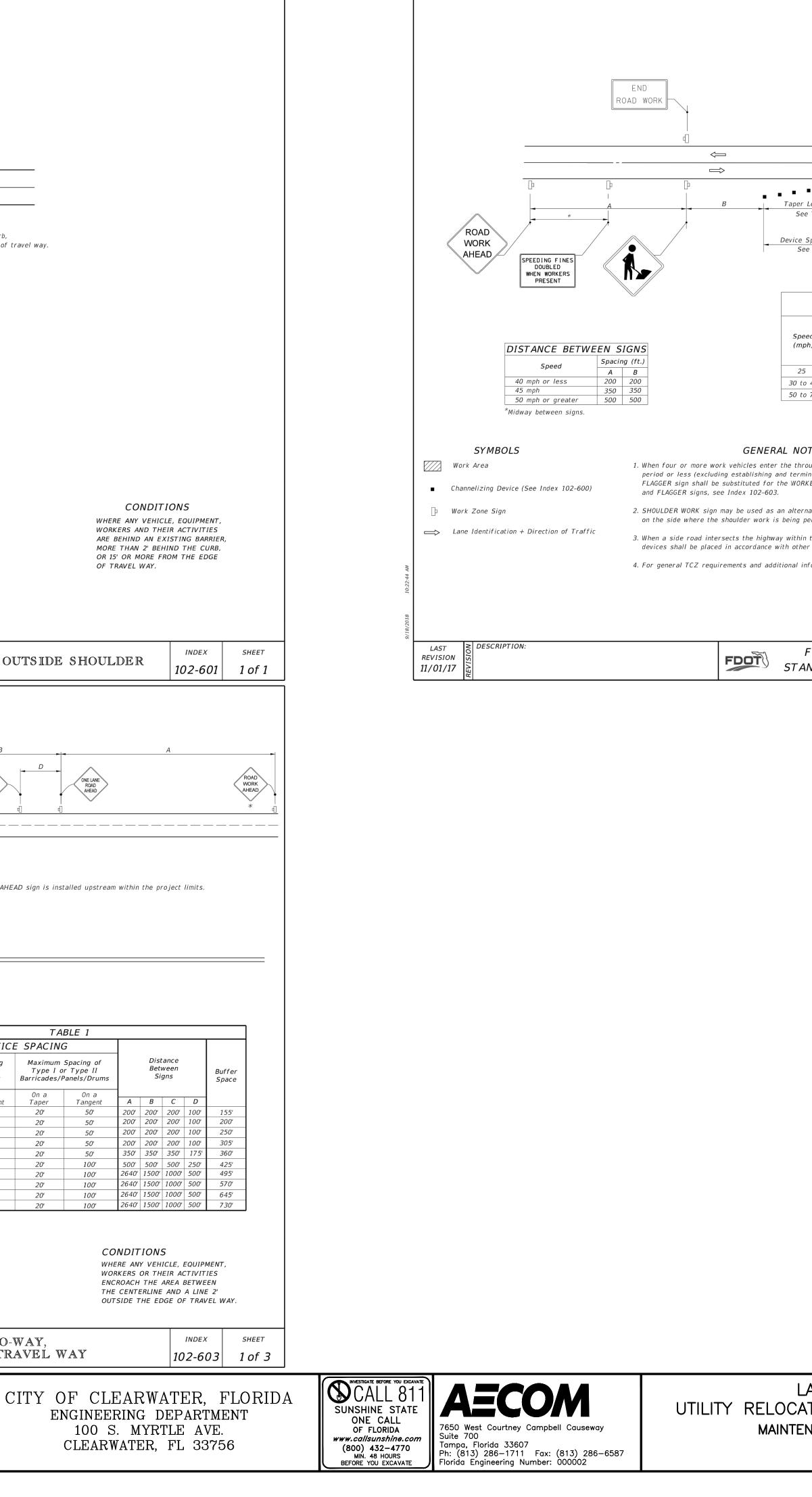




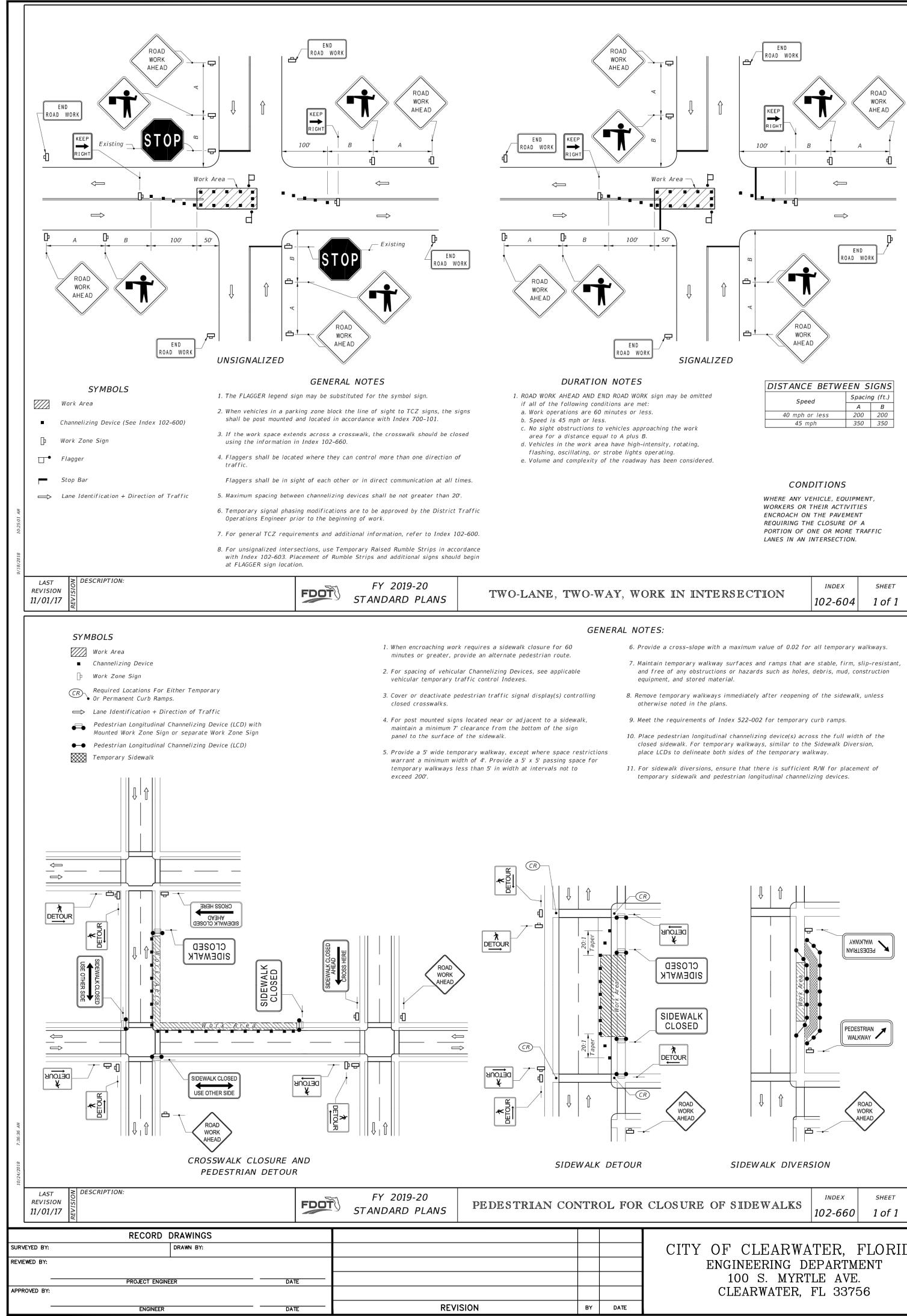
D September 23, 2019 3:52 PM PLOTTED BY: SCHEUERMAN, JAMES JECTS_H20\WATERWASTE\CITY OF CLEARWATER\LAKEVIEW RD UTILITY RELOCATION JPA\900-CAD_GIS\10 DE



					Work Area	Offset zone: a. Behind an b. More than c. 15' or mor	n existing b n 2' behind	⇒ barrier, the curb,
10:22:06 AM	SYMBOLS Image: Symbols Image: Work Area Image: Lane Identification + Direction of Traffic			 If the work operation (exc requires that two or more traffic control will be in c No special signing is required. When a side road intersect devices shall be placed in When construction activitie 	RAL NOTES Iuding establishing and terminating t work vehicles cross the offset zone onformance with Index 102-602. ired. ts the highway within the work area, accordance with other applicable TC as encroach on a sidewalk refer to In ents and additional information, refe	e in any one hour, , additional TTC Z Indexes. ndex 102-660.		
9/18/2018	LAST OESCRIPTION: REVISION 11/01/17		FDOT	FY 2019-20 STANDARD PLAN	TWO-LANE,	TWO-WA	Y, WC)RK (
	SYMBOLS: Work Area Channelizing Device (See Index 102-600) Work Zone Sign Flagger Lane Identification + Direction of Traffic ROAD WORK AHEAD WORK	D C C C C C C C C C C C C C		Buff Space See Table	e 250'	C C Tpacing (See Table * May Be omitte	1)	BE PREPARED TO STOP
	A GENERAL NOTES: 1. Special Conditions may be required in accordance with the and the following sheets: A. Railroad Crossings: a. If an active railroad crossing is located closer to th the queue length plus 300 feet, extend the Buffer S Sheet 3. b. If the queuing of vehicles across an active railroad avoided, provide a uniformed traffic control officer highway-rail grade crossing to prevent vehicles from the highway-rail grade crossing, even if automatic tr devices are in place. B. If the Work Area encroaches on the Centerline, use the Temporary Lane Shift to Shoulder on Sheet 3 only if th Paved Shoulder width is sufficient to provide for an 12 between the Work Area and the Edge of Existing Paved Reduce the posted speed when appropriate.	ase notes a 5. T or Work Area than pace as shown on crossing cannot be or flagger at the n stopping within rain warning the Layout for the Existing 1' Jane B	additional TTC der The two channeliz omitted provided v lashing, oscillatin When Buffer Spac the greatest attai greater than 25 n ROAD WORK AHEA all of the followin A. Work operations Speed limit is There are no s	intersects the highway within vices in accordance with othe redicles in the work area hav ag, or strobe lights operating e cannot be attained due to g hable length, not less than 20 ph. D and the BE PREPARED TO 20 g conditions are met: s are 60 minutes or less. IS mph or less. ght obstructions to vehicles	r applicable TCŻ Indexes. of the work area may be e high-intensity rotating, geometric constraints, use 20 ft, for posted speeds STOP signs may be omitted if approaching the work area for	Posted Speed 25 30 35 40 45	Maximum of Control Tubular On a Taper 20' 20' 20' 20' 20' 20' 20' 20' 20' 20' 20' 20' 20' 20' 20' 20' 20'	nes or Markers 0n a Tangent 50' 50' 50' 50' 50'
9/18/2018 10:24:22 AM	2. Temporary Raised Rumble Strips: A. Use when both of the following conditions are met conc a. Existing Posted Speed is 55 mph or greater; b. Work duration is greater than 60 minutes. B. Use a consistent Strip color throughout the work zone. C. Place each Rumble Strip Set transversely across the la shown. D. Use Option 1 or Option 2 as shown on Sheet 2. Use only throughout work zone. 3. Additional one-way control may be provided by the followin A. Flag-carrying vehicle; B. Official vehicle; C. Pilot vehicles; D. Traffic signals. When flaggers are the sole means of one-way control, the must be in sight of each other or in direct communication LAST REVISION 11/01/17	D urrently: E F G ane at locations 8. S y one option 9. A w ng means: he flaggers	a distance equa D. Vehicles in the or strobe lights E. Volume and con F. If a railroad ci G. AFADs are not See Index 102-60 Automated Flaggei	I to the Buffer Space shown work area have high-intensit operating. plexity of the roadway has l ossing is present, vehicles w in use.	in Table 1. cy, rotating, flashing, oscillating, been considered. vill not queue across rail tracks. nts and additional information. may be used in accordance PL vendor drawings.	50 55 60 65 70 TWO-L RK WITH	20' 20' 20' 20' 20' N TH	50' 50' 50' 50' 50' TW C
	RECORD DRAWINGS EYED BY: WED BY:	I						
APPR	PROJECT ENGINEER	DATE			REVISION	BY	DATE	-



	14
ROA WOR	RK
AHEA	AD
er Length = ½L Work Area	
See Table II END	Table II
e Spacing-Taper Device Spacing-Tangent 500'	Taper Length - Shoulder ½L (ft)
	Speed (mph) 32 (12) Notes
	Shldr. Shldr. 25 28 35 42
Table I	$30 40 50 60 L = \frac{WS^2}{S^2}$
Device Spacing Max. Distance Between Devices (ft.)	35 55 68 82 60 40 72 90 107 60
peed Cones or Type I or Type II Barricades or Vertical	45 120 150 180 50 133 167 200
Taper Tangent Taper Tangent	55 147 183 220
25 25 50 25 50 to 45 25 50 30 50	60 160 200 240 65 173 217 260
to 70 25 50 50 100	70 187 233 280
	8' minimum shoulder width
	$V_{3}L$ = Length of shoulder taper in feet
IOTES DURATION NOTES	W = Width of total shoulder in feet (combined paved and unpaved width)
hrough traffic lanes in a one hour 1. Signs and channelizing devices may be omitted if all of the following conditions are met: rminating the work area), the advanced following conditions are met: DV/SEC class for basic following conditions are met: following conditions are met:	he S = Posted speed limit (mph)
ORKERS sign. For location of flaggers b. Vehicles in the work area have high-intensity, rotating, flaching, assillating, or stropp lights apporting	,
flashing, oscillating, or strobe lights operating. ernate to the WORKER symbol sign only a performed	
g performed. hin the TTC zone, additional TTC	
her applicable TCZ Indexes.	CONDITIONS
information, refer to Index 102–600.	WHERE ANY VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES
	ENCROACH THE AREA CLOSER THAN 15' BUT NOT CLOSER THAN
	2' TO THE EDGE OF TRAVEL WAY.
FY 2019-20	INDEX SHEET
ANDARD PLANS TWO-LANE, TWO-WAY, WORK ON	SHOULDER 102-602 1 of 1
LAKEVIEW ROAD ATION PINELLAS COUNTY JPA ENANCE OF TRAFFIC (1)	DATE DRAWN: DATE DRAWN: 8/1/19 DRAWN BY: J. SCHEUERMAN SEE ABOVE
APPROVED BY	DESIGNED BY: CHECKED BY: SHEET NO.: B. HANDJIEV D. WILCOX 14 OF 14
	DESIGNED BY: CHECKED BY: SHEET NO.:



LOSURE	OF S	IDEWALKS	102-660	1 of 1	
CITY	OF	CLEARWA	TER.	FLORID	[

