

SITE LOCATION MAP
NO SCALE

MAALWYCK IMPROVEMENT PROJECT - PHASE 2

SHEET 1 EXISTING CONDITIONS

SHEET 3 SITE PLAN EAST

SHEET 5 SEWER PROFILES

ORIGINAL PARCEL: 41.347± ACRES NORTH PARCEL: 17.95± ACRES 59.297± ACRES

(BOTH PARCELS COMBINED)

0" - 18" DARK TOPSOIL 18"-54" SANDY SILTY LOAM NO ROCK, LITTLE CLAY

0" - 18" DARK TOPSOIL 18"-54" SANDY SILTY LOAM NO ROCK, LITTLE CLAY

0" - "18" DARK TOPSOIL MORE LAYER DIFFERENTATION AT 12" 18"-54" SANDY SILTY LOAM NO ROCK, LITTLE CLAY

NO ROCK, DRIER THAN 1-3

NO ROCK, SLIGHT DRIER THAN #4

EMEN.

IMPRO

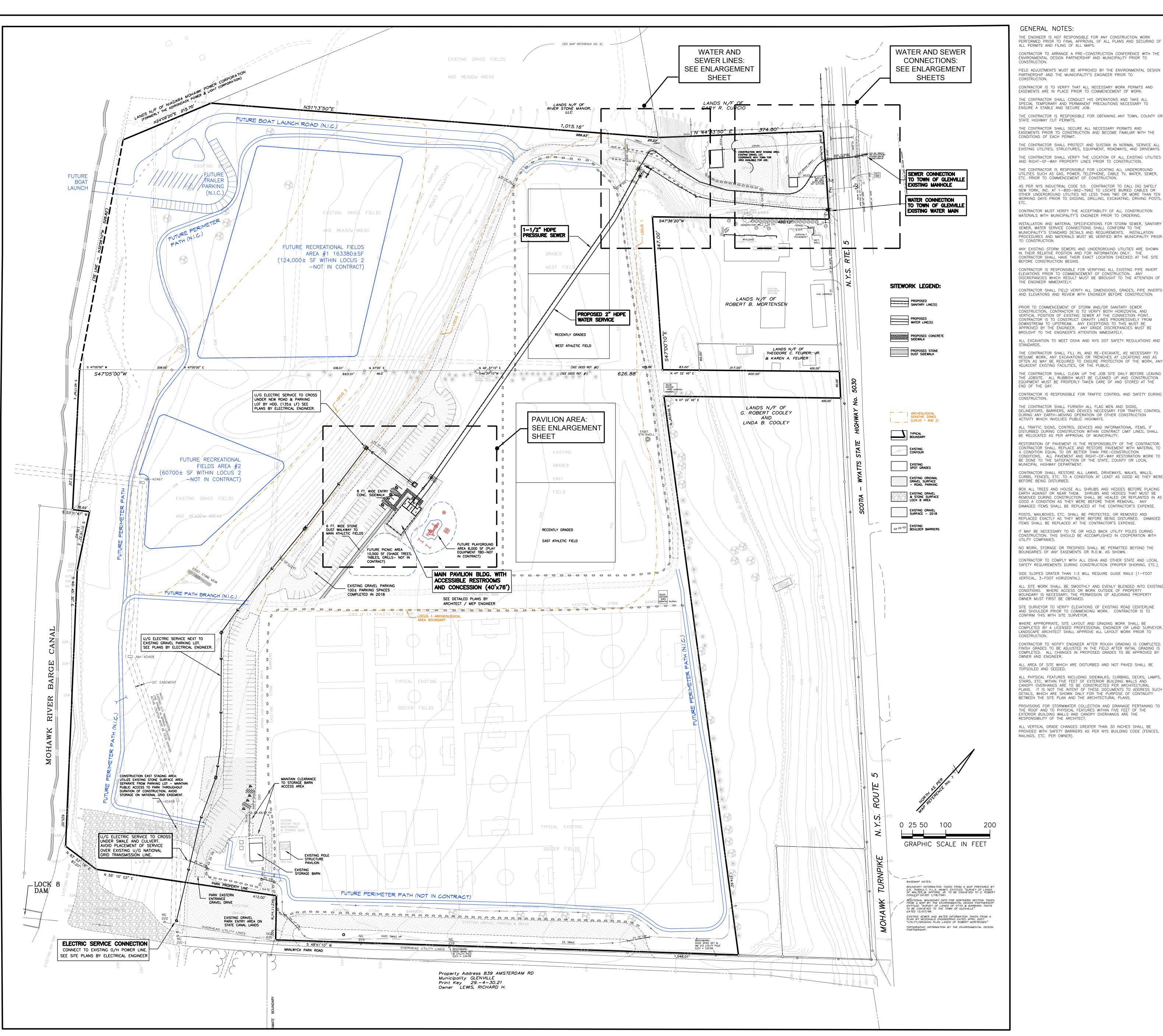
1" = 80' BID SET ISSUED: 03/17/2020 ENVIRONMENTAL DESIGN PARTNERSHIP, LLF HEET TITLE:

EXISTING CONDITIONS

PAUL LESLIE OLUND LA 1413

BRANDON M.

FERGUSON



GENERAL NOTES: THE ENGINEER IS NOT RESPONSIBLE FOR ANY CONSTRUCTION WORK

PERFORMED PRIOR TO FINAL APPROVAL OF ALL PLANS AND SECURING OF ALL PERMITS AND FILING OF ALL MAPS. CONTRACTOR TO ARRANGE A PRE-CONSTRUCTION CONFERENCE WITH THE ENVIRONMENTAL DESIGN PARTNERSHIP AND MUNICIPALITY PRIOR TO FIELD ADJUSTMENTS MUST BE APPROVED BY THE ENVIRONMENTAL DESIGN PARTNERSHIP AND THE MUNICIPALITY'S ENGINEER PRIOR TO

CONTRACTOR IS TO VERIFY THAT ALL NECESSARY WORK PERMITS AND EASEMENTS ARE IN PLACE PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS AND TAKE ALL SPECIAL TEMPORARY AND PERMANENT PRECAUTIONS NECESSARY TO ENSURE A STABLE AND SECURE JOB. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY TOWN, COUNTY OR

STATE HIGHWAY CUT PERMITS. THE CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS AND EASEMENTS PRIOR TO CONSTRUCTION AND BECOME FAMILIAR WITH THE CONDITIONS OF EACH PERMIT. THE CONTRACTOR SHALL PROTECT AND SUSTAIN IN NORMAL SERVICE ALL EXISTING UTILITIES, STRUCTURES, EQUIPMENT, ROADWAYS, AND DRIVEWAYS. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES AND RIGHT-OF-WAY PROPERTY LINES PRIOR TO CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES SUCH AS GAS, POWER, TELEPHONE, CABLE TV, WATER, SEWER, ETC. PRIOR TO COMMENCEMENT OF CONSTRUCTION. AS PER NYS INDUCTRIAL CODE 53: CONTRACTOR TO CALL DIG SAFELY NEW YORK, INC. AT 1-800-962-7962 TO LOCATE BURIED CABLES OR OTHER UNDERGROUND UTILITIES NO LESS THAN TWO OR MORE THAN TEN WORKING DAYS PRIOR TO DIGGING, DRILLING, EXCAVATING, DRIVING POSTS,

CONTRACTOR MUST VERIFY THE ACCEPTABILITY OF ALL CONSTRUCTION MATERIALS WITH MUNICIPALITY'S ENGINEER PRIOR TO ORDERING. INSTALLATION AND MATERIAL SPECIFICATIONS FOR STORM SEWER, SANITARY SEWER, WATER SERVICE CONNECTIONS SHALL CONFORM TO THE MUNICIPALITY'S STANDARD DETAILS AND REQUIREMENTS. INSTALLATION PROCEDURES AND MATERIALS MUST BE VERIFIED WITH MUNICIPALITY PRIOR

ANY EXISTING STORM SEWERS AND UNDERGROUND UTILITIES ARE SHOWN IN THEIR RELATIVE POSITION AND FOR INFORMATION ONLY. THI CONTRACTOR SHALL HAVE THEIR EXACT LOCATION CHECKED AT THE SITE BEFORE CONSTRUCTION BEGINS. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING PIPE INVERT ELEVATIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION. ANY DISCREPANCIES WHICH RESULT MUST BE BROUGHT TO THE ATTENTION OF

THE ENGINEER IMMEDIATELY. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, GRADES, PIPE INVERTS AND ELEVATIONS AND REVIEW WITH ENGINEER BEFORE CONSTRUCTION.

APPROVED BY THE ENGINEER. ANY GRADE DISCREPANCIES MUST BE BROUGHT TO THE ENGINEER'S ATTENTION IMMEDIATELY. ALL EXCAVATION TO MEET OSHA AND NYS DOT SAFETY REGULATIONS AND THE CONTRACTOR SHALL FILL IN, AND RE-EXCAVATE, AS NECESSARY TO RESUME WORK, ANY EXCAVATIONS OR TRENCHES AT LOCATIONS AND AS OFTEN AS MAY BE REQUIRED TO ENSURE PROTECTION OF THE WORK, ANY ADJACENT EXISTING FACILITIES, OR THE PUBLIC. THE CONTRACTOR SHALL CLEAN UP THE JOB SITE DAILY BEFORE LEAVING THE JOBSITE. ALL RUBBISH MUST BE CLEANED UP AND CONSTRUCTION EQUIPMENT MUST BE PROPERLY TAKEN CARE OF AND STORED AT THE CONTRACTOR IS RESPONSIBLE FOR TRAFFIC CONTROL AND SAFETY DURING THE CONTRACTOR SHALL FURNISH ALL FLAG MEN AND SIGNS, DELINEATORS, BARRIERS, AND DEVICES NECESSARY FOR TRAFFIC CONTROL DURING ANY EARTH-MOVING OPERATION OR OTHER CONSTRUCTION ACTIVITY WHICH INVOLVES PUBLIC HIGHWAYS. ALL TRAFFIC SIGNS, CONTROL DEVICES AND INFORMATIONAL ITEMS, IF BE RELOCATED AS PER APPROVAL OF MUNICIPALITY. RESTORATION OF PAVEMENT IS THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL REPLACE AND RESTORE PAVEMENT WITH MATERIAL TO A CONDITION EQUAL TO OR BETTER THAN PRE-CONSTRUCTION CONDITIONS. ALL PAVEMENT AND RIGHT-OF-WAY RESTORATION WORK TO BE DONE TO THE SATISFACTION OF THE STATE, COUNTY OR LOCAL MUNICIPAL HIGHWAY DEPARTMENT.

CONTRACTOR SHALL RESTORE ALL LAWNS, DRIVEWAYS, WALKS, WALLS, CURBS, FENCES, ETC. TO A CONDITION AT LEAST AS GOOD AS THEY WERE BEFORE BEING DISTURBED. BOX ALL TREES AND HOUSE ALL SHRUBS AND HEDGES BEFORE PLACING EARTH AGAINST OR NEAR THEM. SHRUBS AND HEDGES THAT MUST BE REMOVED DURING CONSTRUCTION SHALL BE HEALED OR REPLANTED IN AS GOOD A CONDITION AS THEY WERE BEFORE THEIR REMOVAL. ANY DAMAGED ITEMS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. POSTS, MAILBOXES, ETC. SHALL BE PROTECTED, OR REMOVED AND REPLACED EXACTLY AS THEY WERE BEFORE BEING DISTURBED. DAMAGED ITEMS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. IT MAY BE NECESSARY TO TIE OR HOLD BACK UTILITY POLES DURING CONSTRUCTION. THIS SHOULD BE ACCOMPLISHED IN COOPERATION WITH UTILITY COMPANIES. NO WORK, STORAGE OR TRESPASS SHALL BE PERMITTED BEYOND THE BOUNDARIES OF ANY EASEMENTS OR R.O.W. AS SHOWN.

CONTRACTOR TO COMPLY WITH ALL OSHA AND OTHER STATE AND LOCAL SAFETY REQUIREMENTS DURING CONSTRUCTION (PROPER SHORING, ETC.). SIDE SLOPES GRATER THAN 1:3 WILL REQUIRE GUIDE RAILS (1-FOOT VERTICAL, 3-FOOT HORIZONTAL). ALL SITE WORK SHALL BE SMOOTHLY AND EVENLY BLENDED INTO EXISTING CONDITIONS. WHERE ACCESS OR WORK OUTSIDE OF PROPERTY BOUNDARY IS NECESSARY, THE PERMISSION OF ADJOINING PROPERTY OWNER MUST FIRST BE OBTAINED.

SITE SURVEYOR TO VERIFY ELEVATIONS OF EXISTING ROAD CENTERLINE AND SHOULDER PRIOR TO COMMENCING WORK. CONTRACTOR IS TO CONFIRM THIS WITH SITE SURVEYOR. WHERE APPROPRIATE, SITE LAYOUT AND GRADING WORK SHALL BE COMPLETED BY A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR.

LANDSCAPE ARCHITECT SHALL APPROVE ALL LAYOUT WORK PRIOR TO CONTRACTOR TO NOTIFY ENGINEER AFTER ROUGH GRADING IS COMPLETED. FINISH GRADES TO BE ADJUSTED IN THE FIELD AFTER INITIAL GRADING IS COMPLETED. ALL CHANGES IN PROPOSED GRADES TO BE APPROVED BY OWNER AND ENGINEER. ALL AREA OF SITE WHICH ARE DISTURBED AND NOT PAVED SHALL BE TOPSOILED AND SEEDED. ALL PHYSICAL FEATURES INCLUDING SIDEWALKS, CURBING, DECKS, LAMPS, STAIRS, ETC. WITHIN FIVE FEET OF EXTERIOR BUILDING WALLS AND CANOPY OVERHANGS ARE TO BE CONSTRUCTED PER ARCHITECTURAL PLANS. IT IS NOT THE INTENT OF THESE DOCUMENTS TO ADDRESS SUCH DETAILS, WHICH ARE SHOWN ONLY FOR THE PURPOSE OF CONTINUITY BETWEEN THE SITE PLAN AND THE ARCHITECTURAL PLANS.

RESPONSIBILITY OF THE ARCHITECT. ALL VERTICAL GRADE CHANGES GREATER THAN 30 INCHES SHALL BE PROVIDED WITH SAFETY BARRIERS AS PER NYS BUILDING CODE (FENCES, RAILINGS, ETC. PER OWNER).

GENERAL NOTES SANITARY:

ALL GRAVITY SANITARY SEWER PIPE AND FITTINGS SHALL BE PVC SDR-26 HEAVY WALL SEWER PER ASTM D3034, 115 PSI MINIMUM PIPE STIFFNESS FOR BURIAL DEPTHS UP TO 20 FEET. LOW-PRESSURE AIR EXFILTRATION TESTING SHALL BE PERFORMED ON ALL GRAVITY SANITARY SEWER PRIOR TO FINAL APPROVAL SUCH AS THE TIME-PRESSURE DROP METHOD PER IN ASTM F1417-11A (2015), UNI-BELL PVC PIPE ASSOCIATION, STANDARD UNI-B-6, AND SUMMARIZED N, UNI- BELL HANDBOOK OF PVC PIPE, SECOND PRINTING NOVEMBER 2005, PAGES 457, 458 AND, SPECIFICATION TIMES FOR 0.5 PSIG PRESSURE DROP FOR SIZES AND LENGTHS OF PIPE IN TABLE 10.12. PAGE 460. ALL SEWER PIPE ENDS SHALL BE BRACED AND/OR BLOCKED INSIDE EACH MANHOLE AND AT EACH LATERAL END TO PREVENT DISLODGEMENT OF THE PIPE.

PRESSURE SEWER MAIN PIPE SHALL BE: PE 4710 DIPS DR-11 (PR 200 PSI) GREEN STRIPE. LOW-PRESSURE SEWER SERVICE PIPE SHALL BE PE 4710 GREEN-SHELL OR GREEN STRIPE IPS (ASTM D3035) DR-11 ALL PRESSURE SANITARY SEWER PIPE SHALL BE BURIED WITH TRACER WIRE SECURED TO THE PIPE WITH GORRILLA TAPE. TRACER WIRE SHALL BE 12 AWG, SINGLE CONDUCTOR, HIGH STRENGTH, FLEXIBLE, STRANDED STAINLESS STEEL, WITH HMWPE GREEN-COLORED INSULATION SUCH AS #10 AS MANUFACTURED BY KRIS-TECH WIRE CO. MAIN BRANCHES AND SERVICE CONNECTIONS SHALL BE MADE WITHOUT CUTTING THE MAIN WIRE, USING 3-WAY DIRECT-BURY LUGS WITH SILICONE GEL ENCAPSULATOR. SPLICES AT ROLL ENDS SHALL BE MECHANICALLY AND ELECTRICALLY FASTENED BY TYING WIRE IN A KNOT AND CONNECTING EXPOSED CONDUCTORS IN SILICONE GEL TWIST ENCAPSULATORS. DIRECT-BURY TRACER WIRE CONNECTORS SUCH AS DRYCONN CONNECTORS BY COPPERHEAD INDUSTRIES, LLC. TRACER WIRE SHALL BE BROUGHT UP 12" MIN. ABOVE GRADE ON THE OUTSIDE OF ALL GATE & CURB BOXES. ALL SEWER PIPE SHALL HAVE 6-INCH WIDE, GREEN-COLORED PLASTIC SEWER UTILITY I.D. MARKING TAPE BURIED ON TOP OF THE COMPACTED INITIAL PIPE BACKFILL, 12" MIN. ABOVE THE PIPE. SANITARY PRESSURE SEWERS, BOTH FORCE MAINS AND SERVICES, SHALL HYDROSTATICALLY TESTED IN ACCORDANCE WITH WATER MAIN LEAKAGE TESTING STANDARDS, AT MINIMUM 150 PSIG AS MEASURED AT THE LOWEST POINT OF THE LINE(S) BEING TESTED, 150 PSIG WHERE ANY POTABLE WELL IS, OR IS LIKELY TO BE, WITHIN 50 FEET OF FORCE MAIN.

GENERAL NOTES WATER:

MANUAL M55 FOR PE.

ALL NEW WATER MAIN WORKS ARE TO BE HYDROSTATICALLY TESTED AT 150 PSIG MIN. (AS MEASURED AT THE LOWEST POINT) IN ACCORDANCE WITH AWWA STANDARDS: C600-10 FOR DUCTILE IRON PIPE, MANUAL M23 FOR PVC. AND MANUAL M55 FOR PE. RESULTS TO BE SUBMITTED TO MUNICIPAL ENGINEER. MODIFICATIONS TO EXISTING WORKS SHALL BE VISUALLY TESTED FOR LEAKS UNDER NORMAL WORKING PRESSURE PRIOR

AWWA: C600-10, FOR DUCTILE IRON PIPE, MANUAL M23 FOR PVC, AND

ALL WATER MAIN WORKS SHALL BE DISINFECTED AND BACTERIOLOGICALLY TESTED IN ACCORDANCE WITH AWWA STANDARD C651-14 (SFF DISINFECTION PROCEDURE ON WATER DETAIL SHEET). RESULTS TO BE SUBMITTED TO THE MUNICIPAL ENGINEER.

POTABLE WATER MAIN PIPE TO BE: DUCTILE IRON PIPE, CLASS 52 OR 50; BLUE-COLORED PVC DR-18 AWWA C-900;

 WHITE OR BLUE—COLORED PVC OR PVCO SDR—21; • PE 4710 IPS OR DIPS, DR-11 (PR 200 PSI) BLUESTRIPE AWWA POTABLE WATER SERVICE TUBING TO BE:

 TYPE K COPPER • PE 4710 BLUE WATER SERVICE PIPE (IPS) ASTM D3035 DR-11 (200 PSI) AWWA C-901-17 COMMERCIAL SERVICE ≥ 3" DIA.

ALL PLASTIC WATER MAIN AND WATER SERVICE TUBING SHALL BE BURIED WITH TRACER WIRE SECURED TO THE PIPE WITH GORILLA TAPE. BLUE-COLORED #10 BY KRIS-TECH WIRE CO. MAIN BRANCHES AND SERVICE CONNECTIONS SHALL BE MADE WITHOUT CUTTING THE MAIN WIRE, USING 3-WAY DIRECT-BURY LUGS WITH SILICONE GEL ENCAPSULATOR. SPLICES AT ROLL ENDS SHALL BE MECHANICALLY AND ELECTRICALLY FASTENED BY TYING WIRE IN A KNOT AND CONNECTING EXPOSED CONDUCTORS IN SILICONE GEL TWIST ENCAPSULATORS. DIRECT-BURY TRACER WIRE CONNECTORS SUCH AS DRYCONN CONNECTORS BY COPPERHEAD INDUSTRIES. LLC. TRACER WIRE SHALL BE BROUGHT UP 12" MIN. ABOVE GRADE ON THE OUTSIDE OF ALL HYDRANTS, GATE &

ALL WATER PIPE SHALL HAVE 6-INCH WIDE. BLUE-COLORED PLASTIC WATER UTILITY I.D. MARKING TAPE BURIED ON TOP OF THE COMPACTED THRUST BLOCKING TO COMPLY WITH THE MUNICIPAL STANDARDS. THRUST BLOCKS TO BE CAST-IN-PLACE CONCRETE MIN. 3,000 PSI (SEE DETAIL).

WATER AND SEWER SEPARATION REQUIREMENTS: MINIMUM 18 INCHES VERTICAL SEPARATION IS REQUIRED BETWEEN WATER MAINS AND ANY EXISTING OR PROPOSED SANITARY AND STORM SEWER AT ALL CROSSINGS, MEASURED OUTSIDE TO OUTSIDE OF PIPES, WITH JOINTS EQUIDISTANT FROM CROSSING POINT, PER NY STATE HEALTH DEPARTMENT REQUIREMENTS. PARALLEL LINES MUST BE SEPARATED A MIN. OF 10

CASE-BY-CASE-APPROVAL FROM NYS DOH: NEW SEWERS SHALL BE CONSTRUCTED OF MIN. PR 150 PSI AWWA WATER GRADE MATERIALS AND SHALL BE PRESSURE TESTED TO ENSURE WATER TIGHTNESS. LESS THAN 10 FT. SEPARATION ONLY IF WATER MAIN IS LAID IN A SEPARATION TRENCH OR ON AN EARTH SHELF LOCATED ON ONE SIDE OF THE SEWER AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER

MAIN IS AT LEAST 18" ABOVE THE TOP OF THE GRAVITY SEWER.

WHERE MINIMUM SEPARATIONS CANNOT BE MET, WITH

 WHERE FORCE AND GRAVITY SEWERS PRE-EXIST: THE WATER MAIN SHALL BE INSTALLED WITHIN A PROTECTIVE CASING PIPE, CONSTRUCTED OF MIN. PR 150 PSI AWWA WATER GRADE MATERIALS. AND EXTEND 10 FT. MIN. ON BOTH SIDE OF THE SEWER BEING CROSSED OR, WHERE PARALLEL, TO A POINT WHERE THE LINES ARE SEPARATED BY 10 FT.

WHERE A WATER MAIN AND/OR WATER WELLS PRE-EXIST AND A FORCE MAIN IS BEING CONSTRUCTÉD: THE FORCE MAIN SHALL BE INSTALLED WITHIN A PROTECTIVE CASING PIPE, CONSTRUCTED OF MIN. PR 150 PSI AWWA WATER GRADE MATERIALS, AND EXTEND 10 FT. MIN. ON BOTH SIDES OF THE WATER MAIN BEING CROSSED: WHERE PARALLEL, TO A POINT WHERE THE LINES ARE SEPARATED BY 10 FT.; OR TO A POINT WHERE THE ENDS OF THE CASING PIPE ARE 150 FT. MIN. FROM ANY

CONTRACTOR TO VERIFY THE ELEVATION OF THE EXISTING WATER MAIN, TO AVOID CONFLICTS, PRIOR TO CONSTRUCTING OTHER UTILITIES.

THE INFORMATION REPRESENTED WITHIN THESE DOCUMENTS DOES NOT IMPLY ANY CONTRACT WITH, OR OBLIGATION FOR, PERFORMING ANY OR ALL TOWN, COUNTY, OR STATE REQUIRED INSPECTIONS DURING THE COURSE OF CONSTRUCTION OR PURSUANT TO OBTAINING CERTIFICATE OF OCCUPANCY. SUCH INSPECTION SERVICES, IF PERFORMED BY THIS OFFICE, SHALL BE ESTABLISHED BY SEPARATE CONTRACT. IN THE EVENT THAT THE CONSTRUCTION STAKEOUT AND INSPECTION OF

THE WORK IS NOT PERFORMED BY THE ENVIRONMENTAL DESIGN PARTNERSHIP (EDP), EDP WILL NOT BE HELD RESPONSIBLE FOR ANY ERRORS, OMISSIONS, COSTS, EXPENSES OR LIABILITY OF WHATEVER KIND AND NATURE RESULTING FROM FIELD CHANGES AND/OR ERRORS WHICH EDP WOULD OTHERWISE HAVE HAD AN OPPORTUNITY TO CHECK AND CORRECT WERE THEY IN A POSITION TO CONTROL THE PROJECT THROUGH STAKEOUT AND INSPECTION.

CLAIMS MADE AGAINST CONSULTANT FOR SURVEY STAKEOUT ERRORS WILL BE HONORED ONLY IF CONSULTANT IS NOTIFIED FOR VERIFICATION OF THE ERROR IMMEDIATELY UPON DISCOVERY AND BEFORE ANY CONTROL STAKES ARE DISTURBED. IF, AFTER VERIFICATION, IT IS DETERMINED THAT NO STAKEOUT ERROR OCCURRED, THE CLIENT SHALL REIMBURSE THE CONSULTANTFOR ADDITIONAL EXPENSES INCURRED FOR SUCH

ALL ERRORS, OMISSIONS AND DISCREPANCIES MUST BE BROUGHT TO THE

ATTENTION OF THE ENVIRONMENTAL DESIGN PARTNERSHIP IMMEDIATELY UPON DISCOVERY, OTHERWISE, THE ENVIRONMENTAL DESIGN PARTNERSHIP WILL ACCEPT NO RESPONSIBILITY. INSPECTION SERVICES BY THE ENVIRONMENTAL DESIGN PARTNERSHIP ARE NOT SUPERVISORY. ACCORDINGLY, THE ENVIRONMENTAL DESIGN PARTNERSHIP CAN NEITHER GUARANTEE THE PERFORMANCE OF THE CONSTRUCTION CONTRACTS BY CONTRACTORS NOR ASSUME RESPONSIBILITY FOR THE CONTRACTOR'S FAILURE TO FURNISH AND

PERFORM WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

BRANDON M FERGUSON

PAUL LESLIE

OLUND

LA 1413

P PROJECT NUMBER

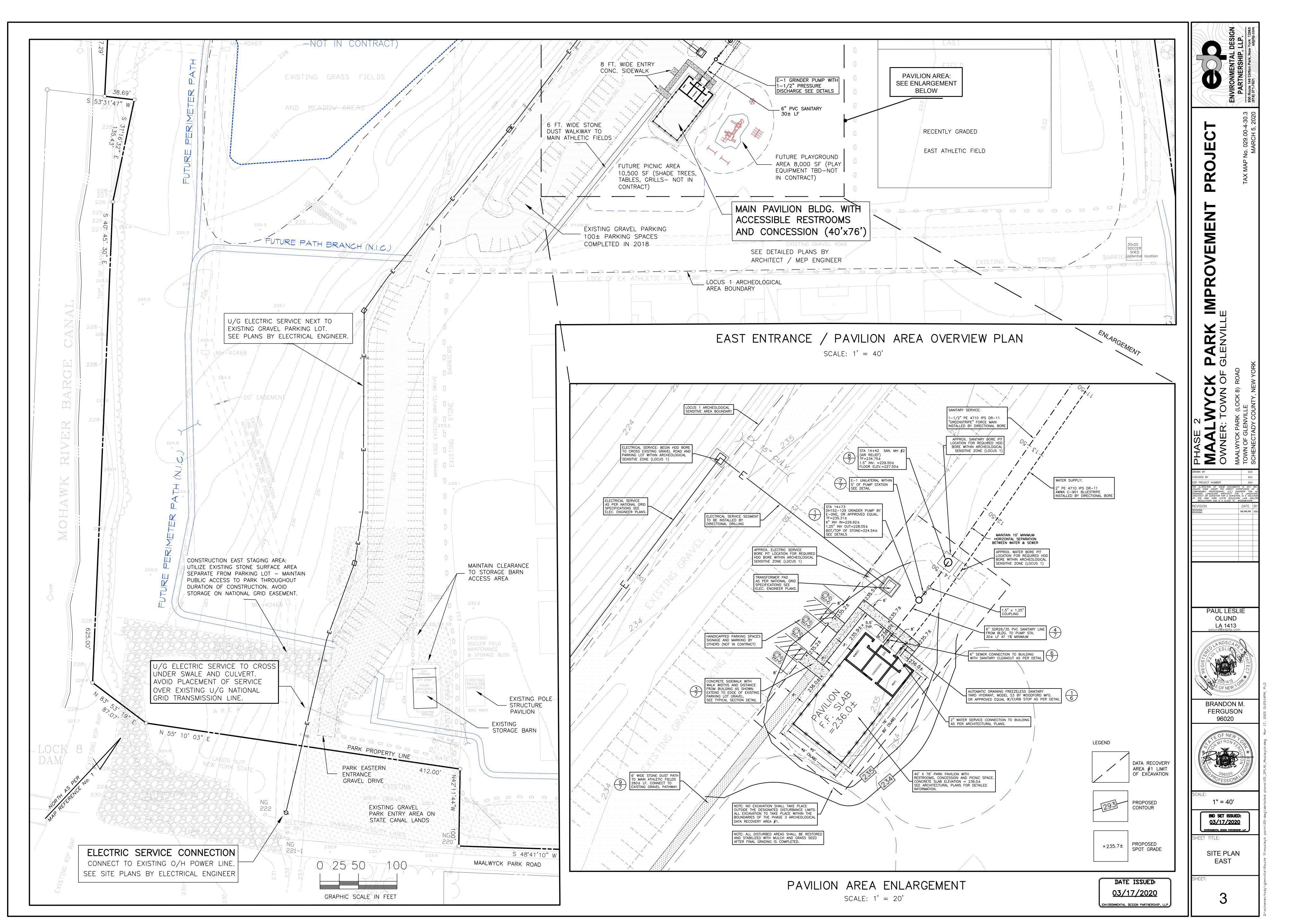
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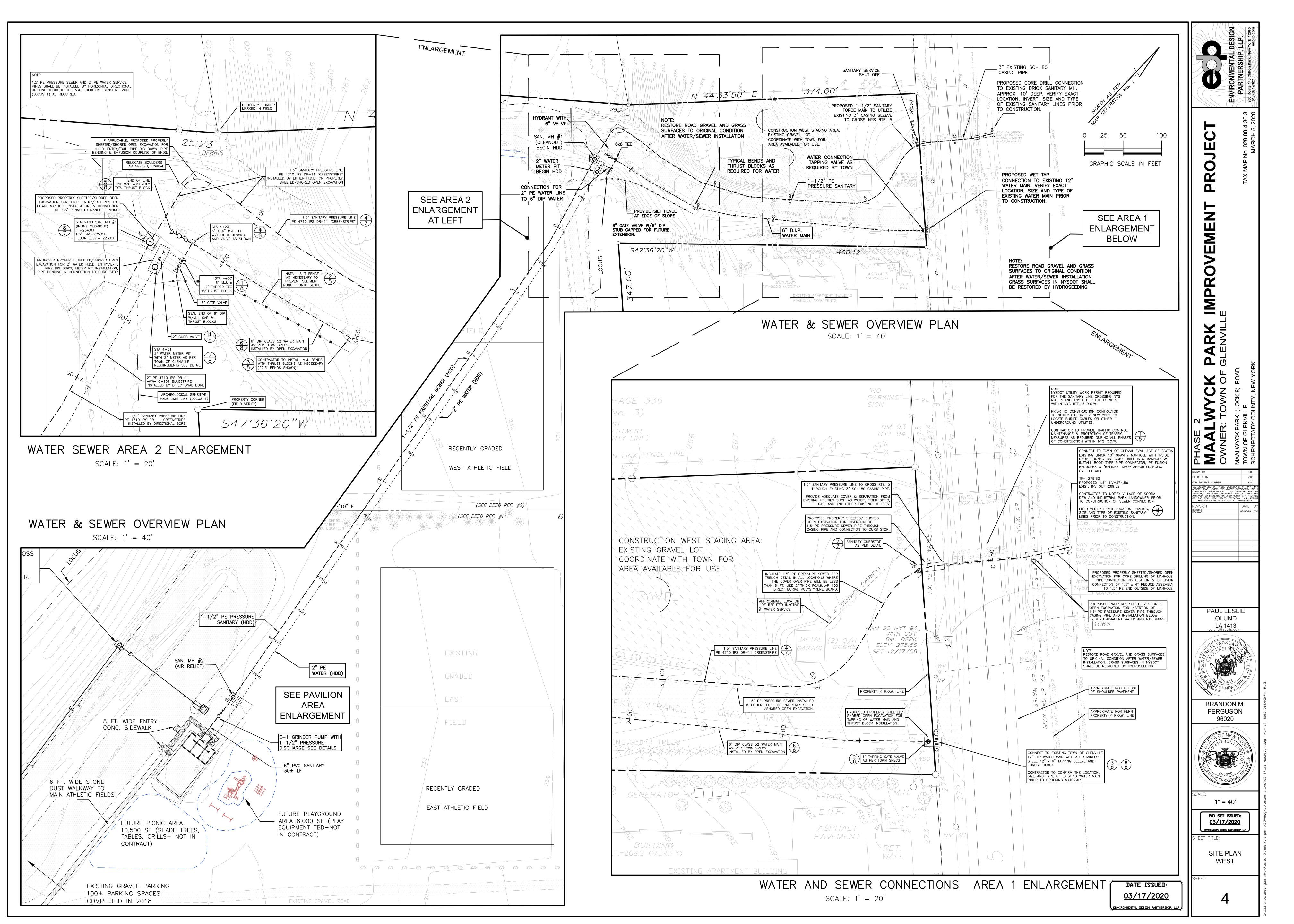


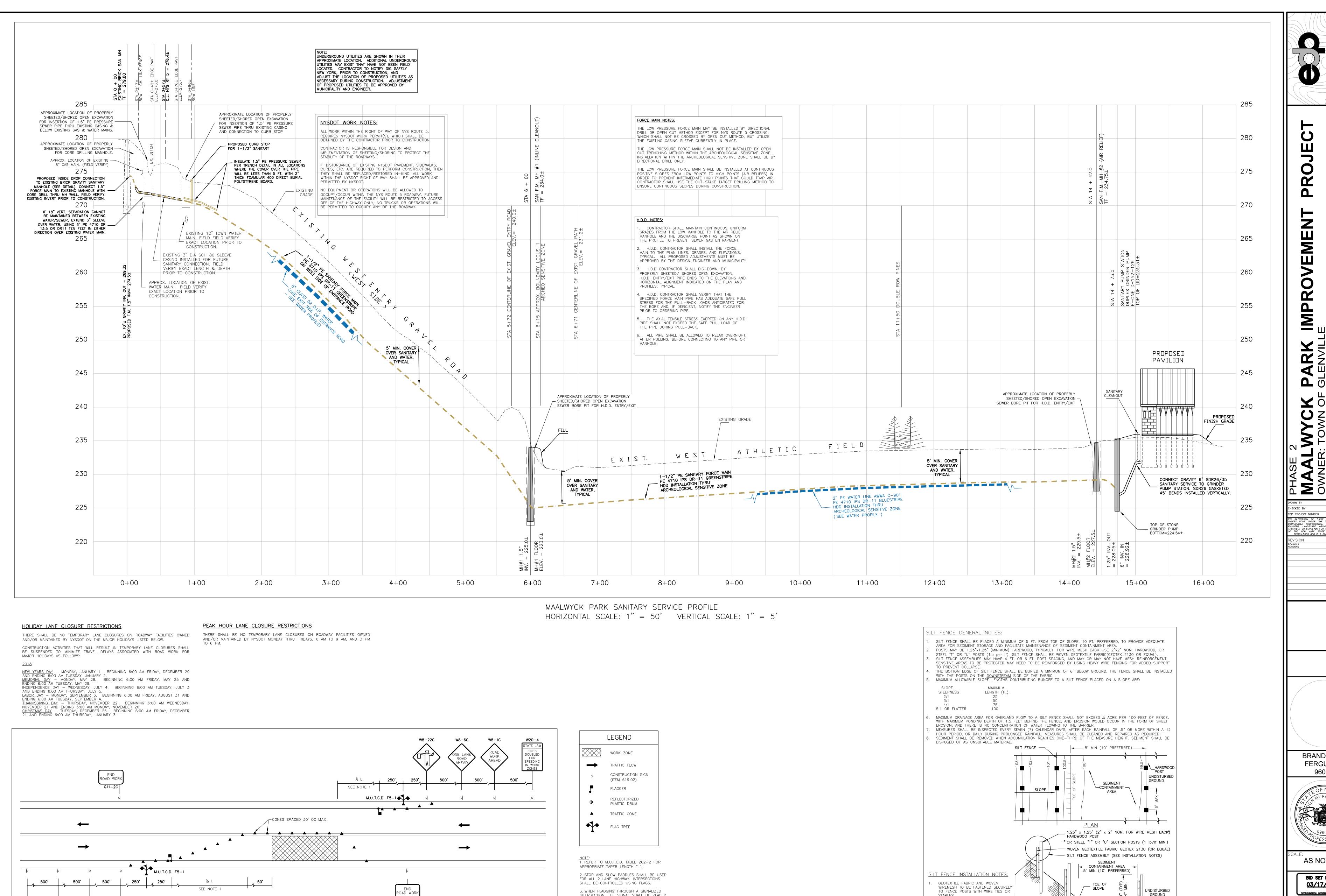
1" = 80'

BID SET ISSUED: 03/17/2020

MASTER SITE PLAN







3. WHEN FLAGGING THROUGH A SIGNALIZED

4. THE CONTRACTOR SHALL USE DRUMS INSTEAD OF CONES IF THE SHOULDER IS

CLOSED OVERNIGHT.

INTERSECTION, THE SIGNAL SHALL BE PLACED ON FLASH FOR THE DURATION OF THE LANE

5. WORK RESTRICTIONS FOR MAINTAINING ONE

LANE OF TRAFFIC SHALL BE THE HOURS OF

9:00 AM TO 3:00 PM FOR WORK ON STATE

ROADS IF TWO LANES OF TRAFFIC ARE

MAINTAINED USING CONES AND PROPER SIGNAGE, THEN THE WORK HOUR RESTRICTION

SEE NOTE 1

MAINTENANCE & PROTECTION OF TRAFFIC

5 NOT TO SCALE

88/88/88 Q BRANDON M. **FERGUSON** 96020 AS NOTED BID SET ISSUED: 03/17/2020 UNDISTURBED ENVIRONMENTAL DESIGN PARTNERSHIP, GROUND SEWER UTILITY **PROFILES** DATE ISSUED: 03/17/2020 ENVIRONMENTAL DESIGN PARTNERSHIP, LL

SLOPE

→ 4" ←

WOVEN WIRE MESH

EXCAVATE TRENCH, BURY SILT FENCE FABRIC

AND BACKFILL/COMPACT EXCAVATED EARTH

RENFORCEMENT (IF

WITH TIES SPACES EVERY 24 AT TOP NECESSARY) MIN. 14

WHEN TWO SECTIONS OF FILTER CLOTH GAUGE WITH MAX. 6"

VEGETATION, IF

OPENING

SILT FENCE (TEMPORARY)

5 NOT TO SCALE

FILTER CLOTH TO BE FASTENED

SECURELY TO WOVEN WIRE FENCE WITH TIES SPACES EVERY 24" AT TOP

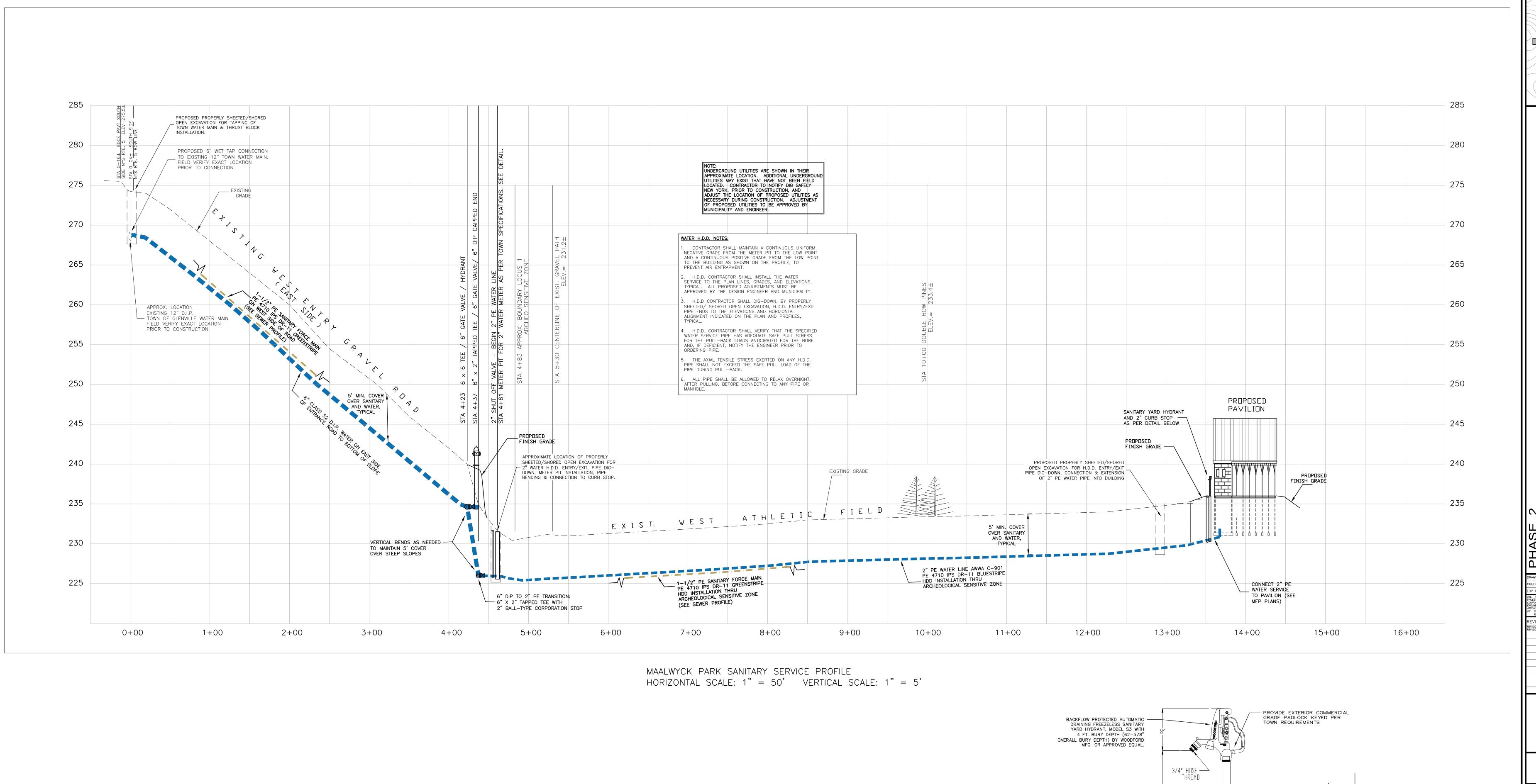
ADJOIN EACH OTHER THEY SHALL BE

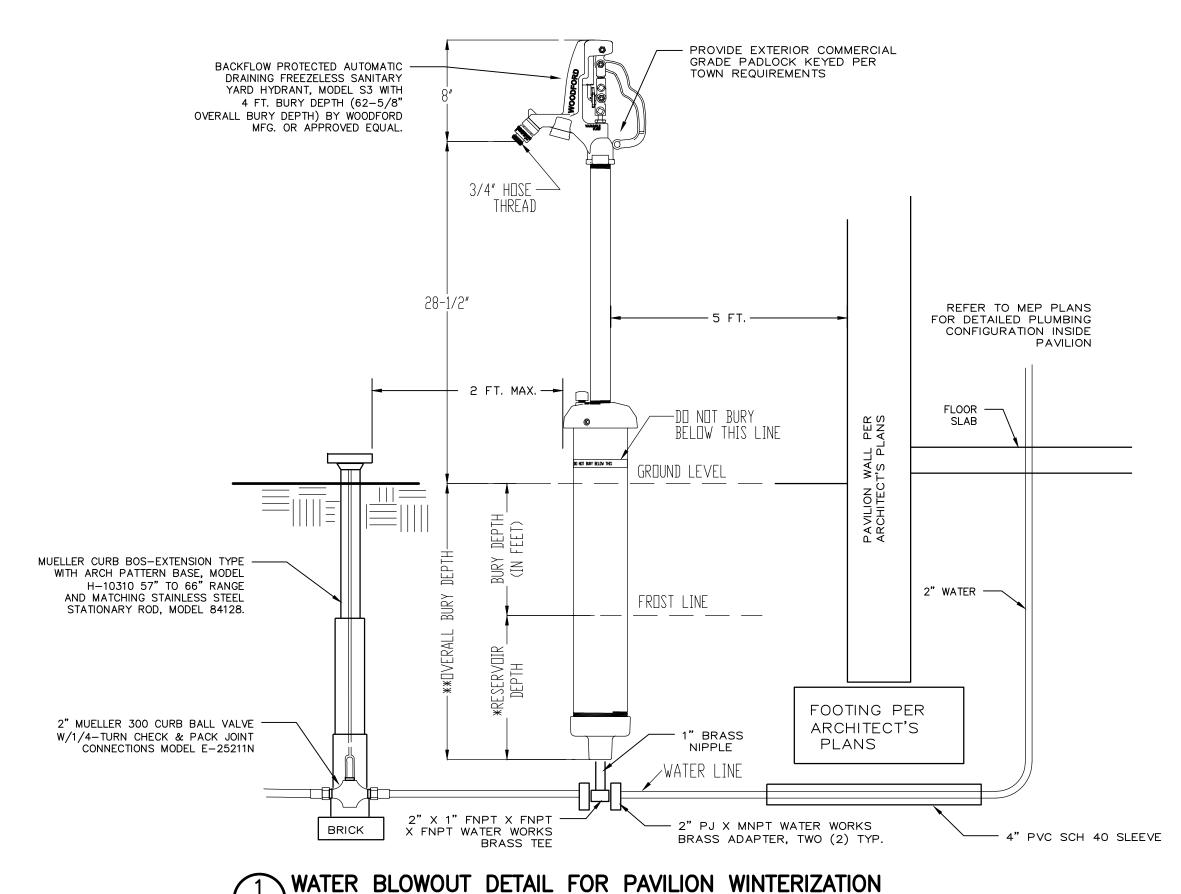
OVERLAPPED BY SIX INCHES, FOLDED

MAINTENANCE SHALL BE PERFFORMED

AS NEEDED AND MATERIAL REMOVED

WHEN "BULGES" DEVELOP IN THE SILT





WATER BLOWOUT DETAIL FOR PAVILION WINTERIZATION

Not to scale

DATE ISSUED:

03/17/2020

ENVIRONMENTAL DESIGN PARTNERSHIP, LLP

ENVIRONMENTAL DE PARTNERSHIP, LL 5, 2020 (518) 371-7621

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BRANDON M.

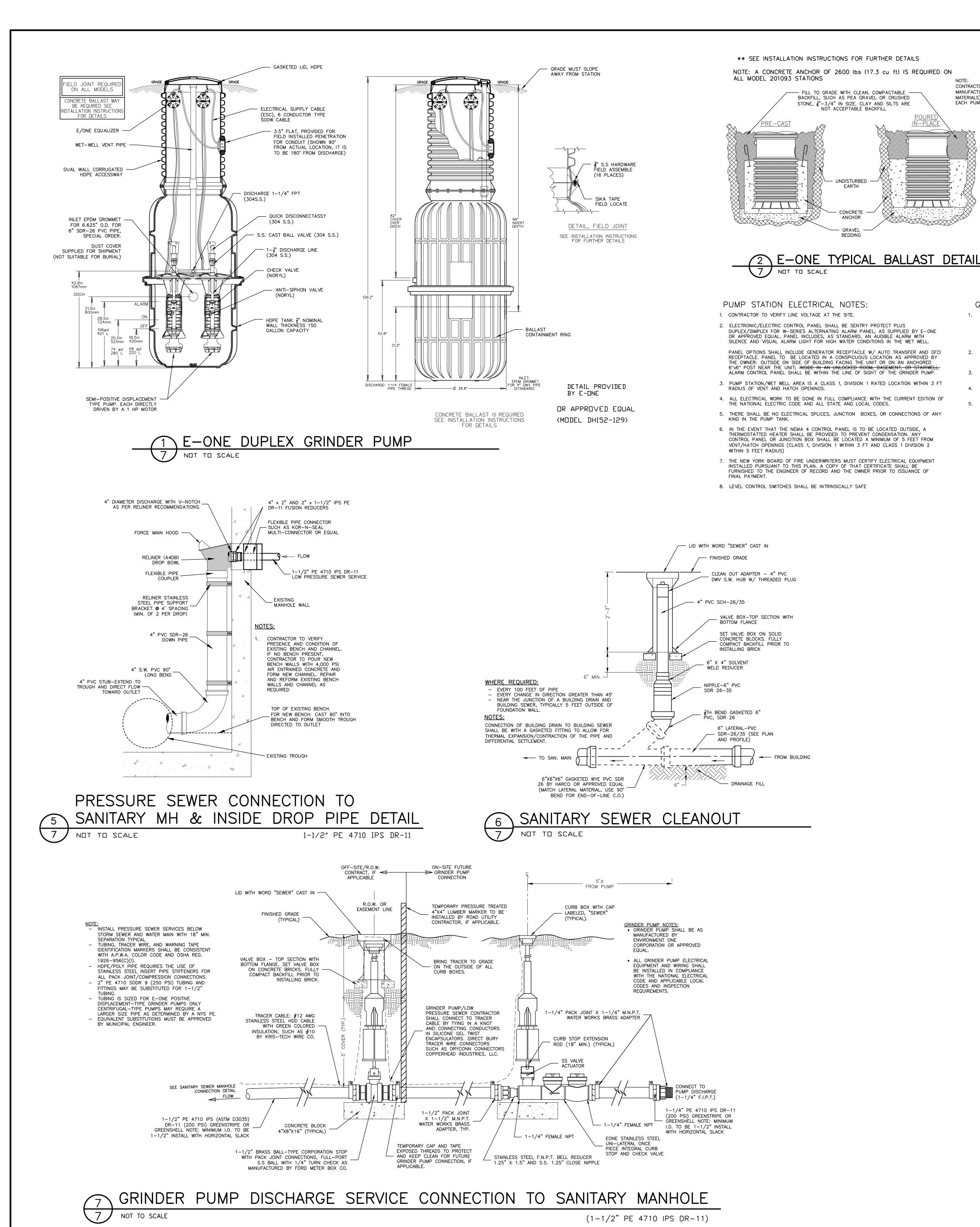
FERGUSON 96020

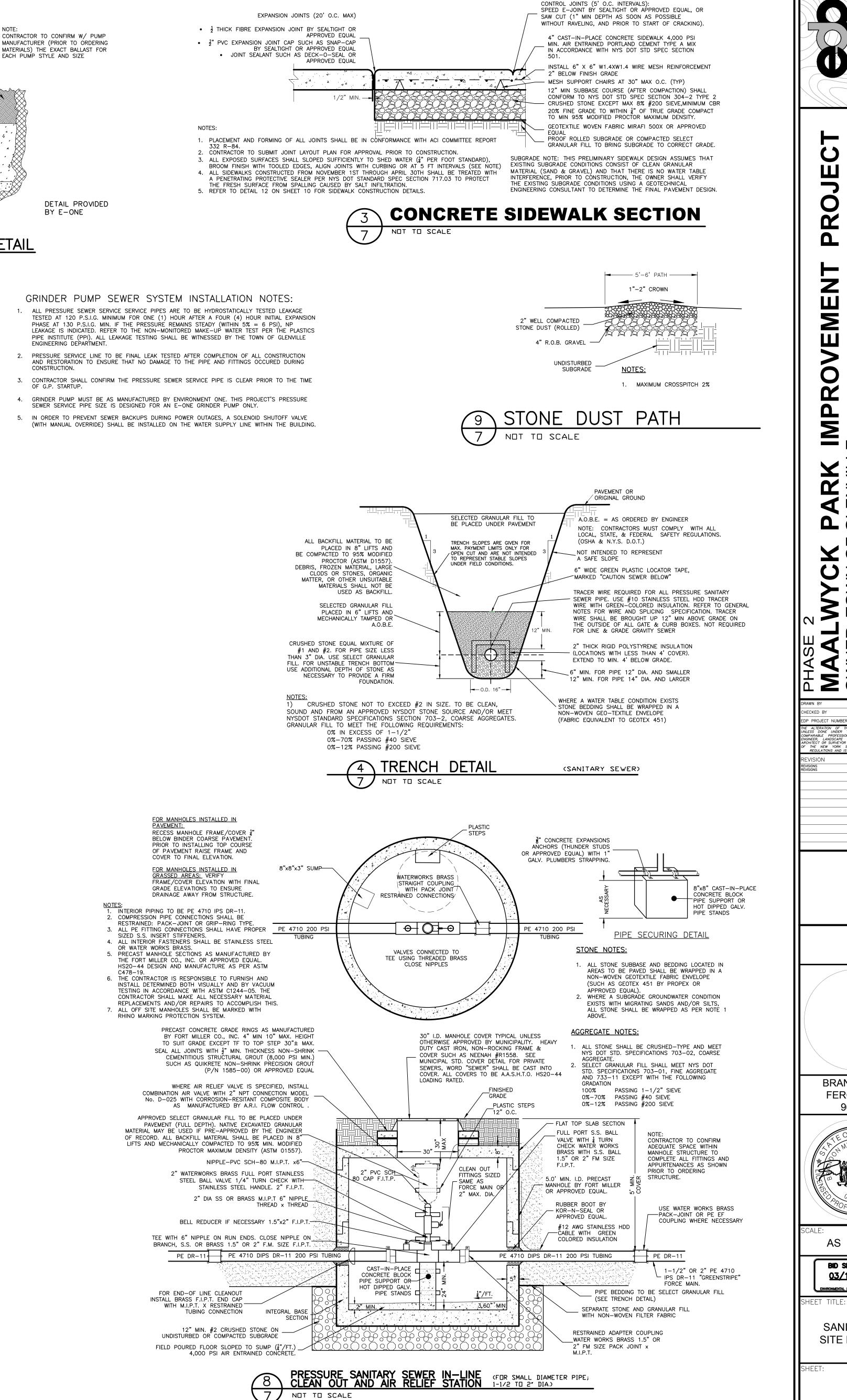
AS NOTED

BID SET ISSUED: 03/17/2020

ENVIRONMENTAL DESIGN PARTNERSHIP, LLP

WATER UTILITY PROFILES





CONSTRUCTION.

AS NOTED BID SET ISSUED: 03/17/2020

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SANITARY & SITE DETAILS

BRANDON M

FERGUSON

96020

WATER AND SEWER SEPARATION: PLAN VIEW AT ALL CROSSINGS OF SEWER AND WATER MINIMUM 150 PSI PRESSURE—RATED AWWA WATER GRADE MATERIALS, AND EXTEND 10 FT. MIN. ON

<u>ARALLEL INSTALLATIONS:</u> WATER MAINS SHALL LAID AT LEAST 10 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED GRAVITY (OR FORCE) SANITARY OR STORM SEWER, MEASURED OUTSIDE TO OUTSIDE OF PIPE. CROSSINGS: WATER MAINS CROSSING SEWERS SHALL BE INSTALLED TO PROVIDE A MINIMUM VERTICAL SEPARATIONS OF 18 INCHES, MEASURED OUTSIDE TO OUTSIDE OF PIPE, WITH A FULL 20 FOOT LENGTH OF WATER MAIN WATER MAIN PIPE CENTERED SUCH THAT THE JOINTS ARE EQUIDISTANT FROM THE POINT OF CROSSING. WHERE MINIMUM SEPARATIONS CANNOT BE MET, WITH CASE—BY—CASE APPROVAL FROM NYS DOH:
A. NEW SEWERS SHALL BE CONSTRUCTED OF MINIMUM 150 PSI PRESSURE— RATED AWWA WATER GRADE MATERIALS AND SHALL BE PRESSURE TESTED TO ENSURE WATER TIGHTNESS. B. INSTALLATIONS CLOSER THAN 10 FOOT SEPARATION ONLY IF WATER MAIN IS LAID IN A SEPERATE

TRENCH OR ON AN UNDISTURBED EARTH SHELF LOCATED ON ONE SIDE OF THE SEWER AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE C. WHERE PRESSURE AND GRAVITY SEWERS PRE-EXIST: THE WATER MAIN SHALL BE INSTALLED WITHIN A PROTECTIVE CASING PIPE, CONSTRUCTED OF A MINIMUM 150 PSI PRESSURE-RATED AWWA WATER GRADE MATERIALS AND EXTEND 10 FT. MIN. ON BOTH SIDES OF THE SEWER BEING CROSSED OR, WHERE PARALLEL, TO A POINT WHERE THE LINES ARE SEPARATED BY 10 FEET. . WHERE A WATER MAIN AND/OR WATER WELLS PRE-EXIST AND A FORCE MAIN IS BEING CONSTRUCTED: THE FORCE MAIN SHALL BE INSTALLED WITHIN A PROTECTIVE CASING PIPE, CONSTRUCTED OF A

BOTH SIDES OF THE WATER MAIN BEING CROSSED: WHERE PARALLEL. TO A POINT WHERE THE LINES

MIN. FROM ANY WATER LEVEL

ARE SEPARATED BY 10 FEET; OR TO A POINT WHERE THE ENDS OF THE CASING PIPE ARE 150 FEET

THRUST BLOCK DIMENSIONS ON VERTICAL THRUST REACTIONS — R(LB required areas (sq. f.t. TRENCH WALL ORIGINAL GROUND (FEET) PER 100PSI INTERNAL PRESSURE FOR THRUST BLOCKS 1.0X2.0 | 1.0X2.8 | 0.75X2.0 | 0.8X1.0 2.8 0.8 1.5X2.8 1.5X4.0 1.0X3.2 1.0X1.6 4.2 5.9 3.2 3,739 5,288 2,862 733 0.8 1,459 2.0X3.6 | 2.0X5.1 | 1.4X3.9 | 1.4X2.0 | 4,923 10.1 5.5 6,433 9.097 2,510 MINIMUM 18 2.5X4.4 | 2.5X6.2 | 1.7X4.9 | 1.75X2.4 | 10.9 13,685 7,406 15.4 9.677 3.0X5.2 3.0X7.3 2.0X5.8 2.0X3.0 13,685 3.5X5.9 3.5X8.3 2.5X6.3 2.5X3.2 1.75X2.3 4.0X6.7 | 4.0X9.5 | 2.7X7.6 | 2.75X3.8 | 2.0X2.6 23,779 | 33,628 - SANITARY SEWER 29,865 41.2 58.2 31.5 16.1 51,822 28,046 7.183 36.644 14.298 SECTION VIEW 73,934 | 40,013 | 20,398 58.8 24 83.1 45.0 22.9 11.5 52,279 10,249 90.5 128.0 69.2 35.3 17.7 80,425 13,738 61,554 31,380 15,766 115,209 | 162,931 | 88,177 | 44,952

SB

MUCK

SOFT CLAY

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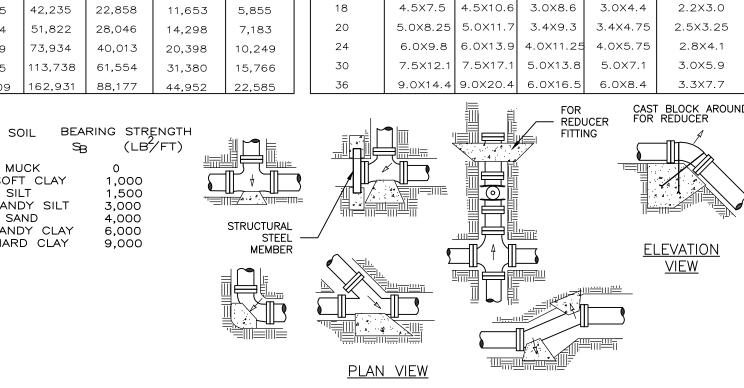
HARD CLAY

SAND

* = FACTOR SAFETY OF 1.5 SOIL BEARING OF 3.000 PSI 225 DESIGN PRESSURE

THRUST BLOCK NOTES:

- 1. VALUES FOR TEE APPLY TO TEES, END PLUGS, CAPS, AND TAPPING SLEEVES REQUIRED BEARING AREAS ARE DUE TO THRUSTS CAUSED BY 150 PSI WORKING PRESSURE PLUS 50% (75 PSI) SURGE ALLOWANCE RESULTING IN 225 PSI TOTAL INTERNAL PRESSURE.
- 3. REQUIRED BEARING AREAS ARE BASED ON ALLOWABLE SOIL BEARING CAPACITY F 3000 POUNDS PER SQ. FT. IF OTHER SOIL CONDITIONS ENCOUNTERED, BEARING AREAS MAY BE MODIFIED BY THE WATER SUPERINTENDENT.
- 4. IN MUCK, PEAT OR RECENTLY PLACED FILL ALL THRUSTS SHALL BE RESISTED BY PILES OR TIE RODS TO SOLID FOLINDATIONS OR BY REMOVAL OF SLICH LINSTABLE MATERIAL AND REPLACEMENT WITH BALLAST OF SUFFICIENT STABILITY TO RESIST THE THRUSTS. ALL AS REQUIRED BY THE WATER SUPERINTENDENT
- ALL THRUST BLOCKS SHALL BE CAST-IN-PLACE CONCRETE, 4,000 PSI PORTLAND CEMENT TYPE A MIX.





TOWN OF GLENVILLE TECHNICAL SPECIFICATIONS FOR WATER **WORKS MATERIALS**

NOTE: ALL REFERENCE TO STANDARD ANSI. AWWA OR ASTM SPECIFICATIONS SHALL BE THE LATEST EDITION

1. DUCTILE IRON PIPE AND FITTINGS: A. ALL PIPE FOR WATER MAINS SHALL BE DUCTILE IRON PIPE FURNISHED 18 OR 20 FOOT NOMINAL

- B. ALL DUCTILE IRON PIPE SHALL BE CENTRIFUGALLY CAST IN METAL MOLDS OR SAND-LINED MOLDS WITH ALL DETAILS OF MANUFACTURE AND SUPPLY IN COMPLETE CONFORMANCE WITH ANSI/AWWA C151/A21.51. ALL DUCTILE IRON PIPE SHALL BE DESIGNATED AND SELECTED IN ACCORDANCE WITH
- NSI/AWWA C 150/A21.50. ALL DUCTILE IRON PIPE SHALL BE MINIMUM PIPE WALL THICKNESS OF 0.25 INCHES (CLASS '52) PER ANSI/AWWA C150/A21.501. C. ALL PIPE SHALL HAVE PUSH-ON JOINTS IN COMPLETE CONFORMANCE ANSI/AWWA C111/A21.11.
- IPE MANUFACTURER SHALL FURNISH THE REQUIRED RUBBER JOINT GASKETS AND JOINT LUBRICANT TOGETHER WITH FOUR (4) SILICON BRONZE WEDGES WITH EACH LENGTH OF PIPE. D. ALL PIPE FITTINGS SHALL BE DUCTILE IRON AND SHALL BE SHORT BODY IN COMPLETE CONFORMANCE WITH ANSI/AWWA C110. ALL FITTINGS SHALL HAVE A MINIMUM PRESSURE RATING OF 350 POUNDS
- PER SQUARE INCH (PSI). ALL FITTINGS SHALL HAVE MECHANICAL JOINTS IN COMPLETE CONFORMANCE WITH ANSI/AWWA C111/A21.11. THE PIPE MANUFACTURER SHALL FURNISH THE EQUIRED JOINT ACCESSORIES CONSISTING OF DUCTILE IRON AND REQUIRED JOINT LUBRICANT E. ALL DUCTILE IRON PIPE AND DUCTILE IRON FILLINGS SHALL BE CEMENT MORTAR LINED AND PAINT
- SEAL COATED IN CONFORMANCE WITH ANSI/AWWA C104/AS14 THE THICKNESS OF THE LINING SHALL BE TWICE THE STANDARD AND SHALL BE NOT LESS THAN 1/8-INCH THICK FOR ALL PIPES. 2. GATE VALVES AND TAPPING SLEEVES AND VALVE BOXES:
- A. ALL GATE VALVES SHALL BE EDDY CLOW F-6100 RESIDUAL WEDGE OR APPROVED EQUAL. B. ALL GATE VALVES FOR WATER MAINS SHALL CONFORM TO ANSI/AWWA C500 AND SHALL BE
- ALL GATE VALVES FOR WATER MAINS SHALL CONFORM TO ANSTAUMAN COOL AND SHALL BE SUITABLE FOR MINIMUM WORKING PRESSURE OF 200 PSI AFTER HAVING BEEN HYDROSTATICALLY TESTED TO 400 PSI AFTER MANUFACTURE. ALL VALVES SHALL OPEN LEFT WITH A STANDARD 2 INCH SQUARE OPERATING NUT. ALL VALVES SHALL BE FURNISHED WITH MECHANICAL JOINT ENDS COMPLETE WITH DUTTILE IRON RETAINER GLANDS CLOW F-6100. ALL T-HEADED BOLTS SHALL BE
- C. ALL GATE VALVES SHALL BE R/W, IRON BODY, BRONZE MOUNTED, NON—RISING STEM, AND SHALL BE FURNISHED WITH DOUBLE O—RING PACKING. D. ALL TAPPING SLEEVES SHALL BE <u>SMITH BLAIR 663 STAINLESS STEEL</u> FOR CAST IRON OR DUCTILE IRON PIPE. THE TAPPING VALVE SHALL BE <u>EDDY CLOW F-205</u> OR APPROVED EQUAL WITH (O-RING
- AND SHALL <u>OPEN LEFT</u>). E. ALL VALVES BOXES SHALL BE OF CAST IRON, TELESCOPIC PATTERN, AT LEAST FIVE AND ONE
- QUARTER INCH (5-1/4") IN DIAMETER. VALVE BOXES FOR 6-INCH DIAMETER VALVES SHALL GENERALLY HAVE A 26 INCH TOP SECTION AND A 36 INCH BOTTOM SECTION, BUT IN ALL CASES, ALL VALVE BOXES SHALL BE FURNISHED TO MATCH THE SPECIFIC VALVE DIMENSIONS AND TRENCH DEPTH INVOLVED (5 FEET OF COVER OVER PIPE BARREL) IF. ALL VALVE BOXES SHALL BE FURNISHED WITH A CAST IRON COVER, DROP STYLE, WITH BOTH THE
- WORD "WATER" AND AN ARROW INDICATING THE DIRECTION OF THE VALVE OPENING (OPEN LEFT) CAST ON THE COVER IN RAISED CHARACTERS. VALVE BOXES SHALL BE CLOW F-2452 MODEL 664-A WITH A F-2490 COVER OR APPROVED EQUAL.

FIRE HYDRANTS: A ALL FIRE HYDRANTS SHALL BE EDDY F-2640.

- B. ALL FIRE HYDRANTS SHALL CONFORM TO ANSI/AWWA C302 WITH FIVE AND ONE QUARTER INCH (5-1/4") MAIN VALVE OPENING AND SIX-INCH (6") MECHANICAL JOINT INLET CONNECTION FURNISHED COMPLETE WITH DUCTILE IRON RETAINER GLANDS CLOW F-2640, ONLY FLUOROCARBON BOLTS AND NUTS, PLAIN BACKED RUBBER GASKETS, AND REQUIRED JOINT LUBRICANT. HYDRANTS SHALL BE SUITABLE FOR A FIVE AND ONE HALF FOOT (5—1/2') DEEP TRENCH. EACH HYDRANT SHALL HAVE TWO (2) TWO AND ONE HALF INCH (2-1/2") HOSE CONNECTIONS AND ONE (1) FOUR AND ONE HALF NCH (4-1/2") PUMPER CONNECTION, ALL WITH NATIONAL STANDARD HOSE THREADS AND WITH OUTLET NOZZLE CAPS AND CAP CHAINS. ALL HYDRANTS SHALL HAVE DOUBLE O—RING PACKING AND SHALL BE WITH NATIONAL STANDARD FIVE SIDED OPERATING NUT NEASURING ONE AND ONE HALF INCH (1-1/2") FLAT TO POINT. THE OUTLET NOZZLE CAP NUTS SHALL BE THE SAME AS THE OPEARTING NUT.
- C. ALL FIRE HYDRANTS SHALL BE TRUE TRAFFIC TYPE WITH BREAK FLANGE CONSTRUCTION WITH A FLANGIBLE BREAK FLANGE LOCATED SLIGHTLY ABOVE THE GROUND LINE AND A CAST IRON BREAK COUPLING ON THE STEM AT THE SAME LOCATION, WHICH SHALL BE SO DESIGNED THAT IN CASE OF BREAKAGE, ONLY THE BREAK FLANGE AND CAST IRON COUPLING NEED TO BE REPLACED TO
- D. ALL HYDRANTS SHALL RECEIVE A FINISH COAT OF WEATHER RESISTANT PAINT ABOVE THE GROUND LINE AFTER INSTALLATION. THE FINISH COAT MUST MEET THE TOWN OF GLENVILLE REQUIREMENTS. E. ALL HYDRANTS SHALL HAVE A BOLT ON SPRING LOADED HYDRANT MARKER WITH MINIMUM 4 FOOT
- 4. CORPORATION STOPS:
- A. CORPORATION STOPS SHALL BE *4-INCH OR 1-INCH IN DIAMETER WITH COMPRESSION CONNECTIONS AND SHALL BE MUELLER H-15000 SERIES OR APPROVED EQUAL BY TOWN OF GLENVILLE WATER DEPARTMENT INSPECTOR.
- 5. CURB STOPS AND BOXES:
- A. CURB STOPS SHALL BE AS NOTED ON PLANS AND DETAILS. SERVICE PIPE:

A. AS NOTED ON PLANS AND DETAILS.

ALL BELOW GRADE WATER MAIN FITTINGS SHALL USE "BLUE BOLTS".

DISINFECTION PROCEDURE:

DISINFECTION: ALL POTABLE WATER PIPE SHALL BE DISINFECTED AND BACTERIOLOGICALLY VERIFIED (TESTED) PRIOR TO USE IN ACCORDANCE WITH AWWA C651-14 AS FOLLOWS:

NEW MAINS SHALL BE DISINFECTED IN ACCORDANCE WITH THE CURRENT AWWA STANDARD FOR DISINFECTING WATER MAINS. ANSI/AWWA C-651-14, SECTION 4.4, CONTINUOUS FEED THE TABLET METHOD IS NOT PERMITTED BY NYSDOH AND SHALL NOT BE USED. THE SLUG METHOD, SECTION 4.5, MAY BE USED WHEN APPROVED BY THE ENGINEER. SPRAY OR SWAB, PER PARAGRAPH 4.11.3.2, WHEN CUTTING INTO OR REPAIRING EXISTING MAINS. REQUIRED STEPS

WORK CLEAN: PREVENT CONTAMINATING MATERIALS FROM ENTERING THE WATER MAIN DURING STORAGE, CONSTRUCTION, OR REPAIR.

2. PREVENT BACKFLOW: PROTECT THE EXISTING DISTRIBUTION SYSTEM FROM ANY BACKFLOW CAUSED BY

- IYDROSTATIC PRESSURE TESTING AND DISINFECTION PROCEDURES. THE SUPPLY VALVE SHALL BE KEPT CLOSED AT ALL TIMES, EXCEPT DURING FLUSHING AND DISINFECTANT FEED OPERATIONS.
- PRE-FLUSH: A. FILL THE WATER MAIN AND ELIMINATE ALL AIR POCKETS.
- B. FLUSH THE WATER MAIN AT A VELOCITY NOT LESS THAN 3.0 FT/SEC TO REMOVE PARTICULATES.
- 4. DOSE CHLORINE (CONTINUOUS METHOD): A. INSTALL A TEST TAP NOT MORE THAN 10 FT. DOWNSTREAM FROM THE BEGINNING OF THE NEW MAIN. B. TO WATER ENTERING THE NEW MAIN, FEED A DOSE OF CHLORINE AT A CONSTANT RATE SUCH THAT THE WATER SHALL HAVE A RESIDUAL NOT LESS THAN 25 MG/L OF FREE CHLORINE. VERIFY CHLORINE CONCENTRATIONS AT ALL HYDRANTS, TAPS, AND SERVICE LATERALS. DOSING SHALL CONTINUE UNTIL HEAVILY CHLORINATED WATER IS CONTINUOUS THROUGHOUT THE NEW MAIN AND ALL VALVES AND HYDRANTS HAVE BEEN OPERATED TO PROVIDE CHLORINE CONTACT.
- 5. CONTACT TIME: AFTER A 24-HOUR MINIMUM RETENTION PERIOD, THE TREATED WATER SHALL HAVE A RESIDUAL OF NOT LESS THAN 10 MG/L OF FREE CHLORINE. VERIFY CHLORINE CONCENTRATIONS AT ALL HYDRANTS, TAPS, AND SERVICE LATERALS. REPEAT STEP 4.B. IF RESIDUAL IS LESS THAN 10 MG/L.
- 6. FLUSH/ NEUTRALIZE: FLUSH THE HEAVILY CHLORINATED WATER FROM THE MAIN UNTIL A RESIDUAL OF NOT MORE THAN 1.0 MG/L REMAINS. APPLY A NEUTRALIZING CHEMICAL TO ELIMINATE THE RESIDUAL CHLORINE IF THERE IS ANY POSSIBILITY THAT HEAVILY CHLORINATED WATER DISCHARGE WILL CAUSE DAMAGE TO THE ENVIRONMENT. 7. BACTERIOLOGICAL VERIFICATION PER SECTION 5.1: TWO CONSECUTIVE SETS OF ACCEPTABLE SAMPLES, TAKEN FROM THE SAME SAMPLING SITES, A MINIMUM OF 16 HOURS APART, SHALL BE COLLECTED FROM THE NEW WORKS

AS FOLLOWS: ONE SET PER 1200 LF OF NEW MAIN PLUS ONE SET FROM THE END-OF-THE-LINE AND ONE SE FROM EACH BRANCH -AT A MINIMUM. EACH SAMPLE SHALL BE TESTED FOR BOTH HPC (HETEROTROPHIC PLATE COUNT) AND TOTAL COLIFORM (TC). THE HPC TEST IS WAIVED FOR THE REPEAT SAMPLES IF THE INITIAL RESULTS ARE LESS THAN 500 CFU/mi. WHEN HPC RESULTS EXCEED 500 CFU/mi, THE WORKS SHALL BE FLUSHED AND SAMPLED UNTIL NO COLIFORM ARE PRESENT AND THE HPC IS LESS THAN 500 CFU/ml. IF REPEAT SAMPLES FAIL, THE MAIN SHALL BE RECHLORINATED, FLUSHED AND SAMPLED UNTIL SATISFAĆTORY RESULTS ARE OBTAINED. ALL TEST RESULTS SHALL BE FURNISHED TO THE ENGINEER.

WATER NOTES:

MODIFIED PROCTOR MAXIMUM DENSITY (ASTM D1557).

. ALL PIPE MATERIALS AND APPURTENANCES ARE SUBJECT TO APPROVAL BY THE MUNICIPAL ENGINEER. CONTRACTOR TO CONFIRM WITH MUNICIPALITY PRIOR TO ORDERING.

2. ALL PIPES AND APPURTENANCES SHALL BE INSTALLED ACCORDING TO THE MUNICIPALITY'S STANDARD SPECIFICATIONS.

3. THE CONTRACTOR SHALL VERIFY THE SIZE, TYPE, HORIZONTAL AND VERTICAL LOCATION OF THE EXISTING MAIN AT THE PROPOSED CONNECTION POINT(S) PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS. CONFLICTS WITH OTHER LITH ITIES TO BE CONSTRUCTED ARE TO BE AVOIDED. DISCREPANCIES OR CONFLICTS WITH EXISTING UTILITIES SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY

4. MINIMUM WATER MAIN DEPTH-OF-COVER (TOP OF PIPE TO FINISH GRADE) SHALL BE 5' - 0".

5. WATER MAINS PIPE SHALL BE: • 6"DUCTILE IRON PIPE CLASS 52 AND CONFORM TO ANSI/AWWA C150/A21.50.

6. WATER SERVICE PIPE SHALL BE: • 2" PE 4710 IPS DR-11 AWWA C-901 BLUE SHELL OR STRIPE ASTM D3035 SIDR-11. 7. ALL FILL BELOW WATER MAIN SHALL BE MECHANICALLY COMPACTED GRANULAR MATERIAL TO MIN. 95%

ALL TRENCH BACKFILL SHALL BE MECHANICALLY COMPACTED TO PREVENT SETTLEMENT. TOP TRENCH WITH 12" MIN. APPROVED GRAVEL IN PAVED AREAS AND ALONG SIDE OF EXISTING ROAD FOR SHOULDER BASE. REPLACE DAMAGED PAVEMENTS WITH LIKE KIND AND LIKE THICKNESS.

9. WATER MAINS SHALL BE INSTALLED IN ACCORDANCE WITH AWWA STANDARDS: C600-10 FOR D.I.P.; C900-16 OR MANUAL M23 FOR PVC; AND AWWA C906-15 OR MANUAL M55 FOR PE PIPE.

10. ALL DUCTILE IRON PIPE AND APPURTENANCES SHALL BE CEMENT-LINED IN ACCORDANCE WITH AWWA STANDARD C602-LATEST.

11. ALL DUCTILE IRON PIPE SHALL BE POLYETHYLENE ENCASED IN ACCORDANCE WITH AWWA C105 UNLESS TEST RESULTS PROVIDED BY THE CONTRACTOR INDICATE THE ABSENCE OF SEVERELY AGGRESSIVE

12. ALL PIPE AND APPURTENANCES SHALL BE EITHER NSF OR UL APPROVED FOR USE WITH POTABLE WATER AND SHALL BEAR THEIR RESPECTIVE SEAL.

13. GATE VALVES SHALL CONFORM TO AWWA C500-09. HYDRANTS SHALL CONFORM TO AWWA C502-14. 14. HYDRANTS SHALL BE LOCATED AT STREET INTERSECTIONS AND AT INTERMEDIATE POINTS INDICATED ON THE PLANS.

CARE SHALL BE USED, WHEN LAYING MAINS, SO AS TO AVOID CREATING HIGH POINTS BETWEEN HYDRANTS. 15. WATER AND SEWER SEPARATION REQUIREMENTS: MINIMUM 18 INCHES VERTICAL SEPARATION IS REQUIRED BETWEEN WATER MAINS AND ANY EXISTING OR PROPOSED SANITARY AND STORM SEWER AT ALL CROSSINGS, MEASURED OUTSIDE TO OUTSIDE OF PIPES. WITH JOINTS EQUIDISTANT FROM CROSSING POINT PER NY STATE HEALTH DEPARTMENT REQUIREMENTS. PARALLEL LINES MUST BE SEPARATED A MIN. OF 10 FEET (MEASURED O.D. TO O.D.).

WHERE MINIMUM SEPARATIONS CANNOT BE MET, WITH CASE-BY-CASE-APPROVAL FROM NYS DOH: NEW SEWERS SHALL BE CONSTRUCTED OF MIN. PR 150 PSI AWWA WATER GRADE MATERIALS AND SHALL BE PRESSURE TESTED TO ENSURE WATER TIGHTNESS. • LESS THAN 10 FT. SEPARATION ONLY IF WATER MAIN IS LAID IN A SEPARATION TRENCH OR ON AN EARTH SHELF LOCATED ON ONE SIDE OF THE SEWER AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18" ABOVE THE TOP OF THE GRAVITY SEWER. WHERE FORCE AND GRAVITY SEWERS PRE-EXIST: THE WATER MAIN SHALL BE INSTALLED WITHIN A

PROTECTIVE CASING PIPE, CONSTRUCTED OF MIN. PR 150 PSI AWWA WATER GRADE MATERIALS, AND EXTEND 10 FT. MIN. ON BOTH SIDE OF THE SEWER BEING CROSSED OR, WHERE PARALLEL, TO A POINT WHERE THE LINES ARE SEPARATED BY 10 FT. WHERE A WATER MAIN AND/OR WATER WELLS PRE-EXIST AND A FORCE MAIN IS BEING CONSTRUCTED THE FORCE MAIN SHALL BE INSTALLED WITHIN A PROTECTIVE CASING PIPE, CONSTRUCTED OF MIN. PR 150 PSI AWWA WATER GRADE MATERIALS. AND EXTEND 10 FT. MIN. ON BOTH SIDES OF THE WATER MAIN BEING CROSSED; WHERE PARALLEL, TO A POINT WHERE THE LINES ARE SEPARATED BY 10 FT.; OR TO A

POINT WHERE THE ENDS OF THE CASING PIPE ARE 150 FT. MIN. FROM ANY WATER WELL. 16.. ALL WATER PIPE SHALL HAVE 6-INCH WIDE, BLUE-COLORED PLASTIC WATER UTILITY I.D. MARKING TAPE BURIED ON TOP OF THE COMPACTED INITIAL PIPE BACKFILL, 12" MIN. ABOVE THE PIPE. 17. ALL PLASTIC WATER MAIN AND WATER SERVICE TUBING SHALL BE BURIED WITH TRACER WIRE

SECURED TO THE PIPE WITH GORILLA TAPE. BLUE-COLORED #10 BY KRIS-TECH WIRE CO. MAIN BRANCHES AND SERVICE CONNECTIONS SHALL BE MADE WITHOUT CUTTING THE MAIN WIRE, USING 3-WAY DIRECT-BURY LUGS WITH SILICONE GEL ENCAPSULATOR. SPLICES AT ROLL ENDS SHALL BE MECHANICALLY AND ELECTRICALLY FASTENED BY TYING WIRE IN A KNOT AND CONNECTING EXPOSED CONDUCTORS IN SILICONE GEL TWIST ENCAPSULATORS. DIRECT-BURY TRACER WIRE CONNECTORS SUCH AS DRYCONN CONNECTORS BY COPPERHEAD INDUSTRIES, LLC. TRACER WIRE SHALL BE BROUGHT UP 12" MIN. ABOVE GRADE ON THE OUTSIDE OF ALL HYDRANTS, GATE & CURB BOXES.

18. CURB BOXES ARE TO BE INSTALLED SO THAT CAPS EXTEND ABOVE FINISHED GRADE 1-INCH AND IDENTIFIED WITH PRESSURE TREATED 2 × 4 DIMENSION LUMBER MARKER IN GRASSY AREAS. IN PAVED AREAS, USE TWO-PIECE CURB BOX CAP (WITH PENTAGONAL PLUCG) AND CAST IRON CURB BOX SLEEVE TO ALLOW ADJUSTMENT OF THE GROUND KEY LID (MUELLER H-10432 OR APPROVED EQUAL).

19. THRUST BLOCKING SHALL BE CAST-IN-PLACE CONCRETE MIN. 3,000 PSI AND SHALL BE SIZED AS PER

THRUST BLOCK SCHEDULE (SEE DETAIL). THE USE OF MECHANICAL RESTRAINT GLANDS WITH FITTINGS AND VALVES DO NOT ELIMINATE THE NEED FOR THRUST BLOCKS. 20. ALL NEW WATER MAIN WORKS ARE TO BE HYDROSTATICALLY TESTED AT 150 PSIG MIN. (AS MEASURED AT THE LOWEST POINT) IN ACCORDANCE WITH AWWA STANDARDS: C600-10 FOR DUCTILE IRON PIPE, MANUAL M23 FOR PVC, AND MANUAL M55 FOR PE. RESULTS TO BE SUBMITTED TO MUNICIPAL ENGINEER.

MODIFICATIONS TO EXISTING WORKS SHALL BE VISUALLY TESTED FOR LEAKS UNDER NORMAL WORKING

PRESSURE PRIOR TO BACKFILL. 21. ALL WATER MAIN WORKS SHALL BE DISINFECTED AND BACTERIOLOGICALLY TESTED IN ACCORDANCE WITH AWWA STANDARD C651-14 (SEE DISINFECTION PROCEDURE ON THIS SHEET) AND NYS DOH REQUIREMENTS. RESULTS TO BE SUBMITTED TO THE MUNICIPAL ENGINEER.

22. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO ADHERE STRICTLY TO ALL RELEVANT FEDERAL OSHA AND NYS LABOR SAFETY STANDARDS INCLUDING, BUT NOT LIMITED TO, THOSE RELATED TO

CONSRTUCTION SAFETY AND TRENCH SHORING.

23. IT MAY BE NECESSARY TO, "TIE-BACK" OR HOLD UTILITY POLES DURING CONSTRUCTION. THIS SHOULD BE ACCOMPLISHED IN COOPERATION WITH THE LOCAL UTILITY COMPANIES DIRECTLY BY THE CONTRACTOR. 24. THE INFORMATION REPRESENTED WITHIN THESE DOCUMENTS DOES NOT IMPLY ANY CONTRACT OF OBLIGATION FOR PERFORMING ANDY OR ALL TOWN, COUNTY, OR STATE REQUIRED INSPECTIONS DURING THE COURSE OF CONSTRUCTION OR PURSUANT TO OBTAINING CERTIFICATE OF OCCUPANCY. SUCH INSPECTION SERVICES, IF PERFORMED BY THIS OFFICE, SHALL BE ESTABLISHED BY SEPARATE CONTRACT.

25. ALL GENERAL AND SPECIFIC NOTES AND DETAILS ON OTHER PLAN SHEETS THAT ARE A PART OF THESE

26. ALL LOCATIONS OF UTILITIES SHOWN ARE APPROXIMATE. CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES SUCH AS GAS, ELECTRIC, CABLE TV, FIBER OPTICS, TELEPHONE, WATER, SANITARY AND STORM SEWERS, ETC. PRIOR TO COMMENCEMENT OF CONSTRUCTION

27. AS PER NYS INDUSTRIAL CODE 53, CONTRACTOR TO CALL DIG SAFE NY AT 1-800-962-7962 TO HAVE UNDERGROUND UTILITIES LOCATED NOT LESS THAN TWO OR MORE THAN TEN WORKING DAYS PRIOR TO DIGGING, DRILLING, EXCAVATING, DRIVING POSTS, ETC.

28. INDIVIDUAL WATER METERS SHALL BE INSTALLED FOR EACH BUILDING. METERS TO BE AS PER THE WATER SYSTEM'S SPECIFICATIONS.

P PROJECT NUMBER

88/88/88

0.4X1.0

0.8X1.0

1.0X1.4

1.25X1.7

1.5X2.0

BID SET ISSUED: 03/17/2020

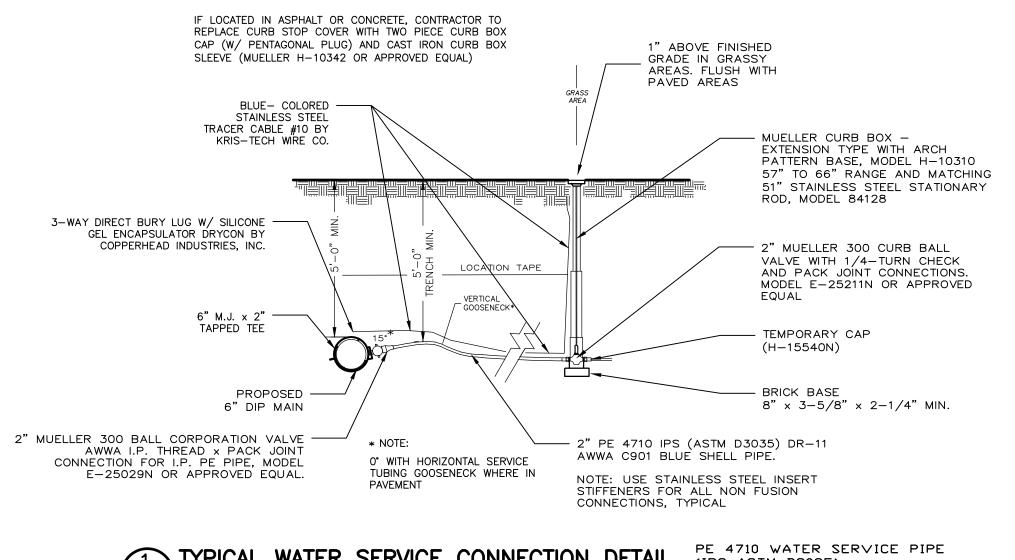
WATER SITE DETAILS

AS NOTED

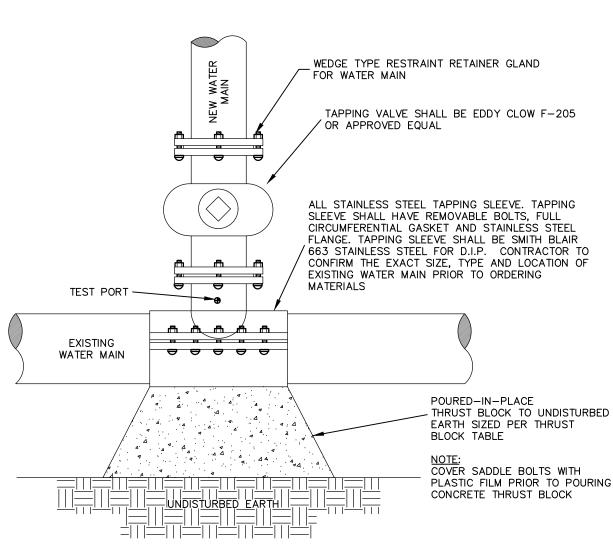
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FERGUSON

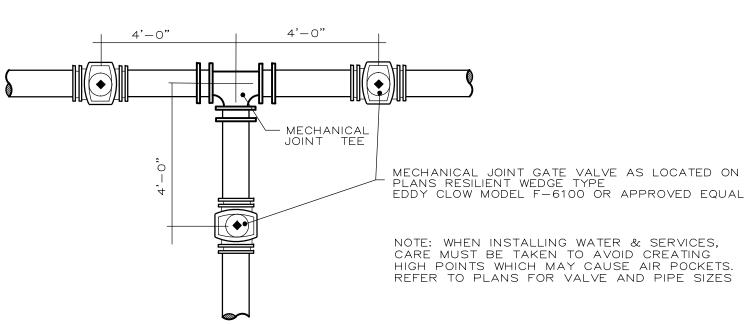
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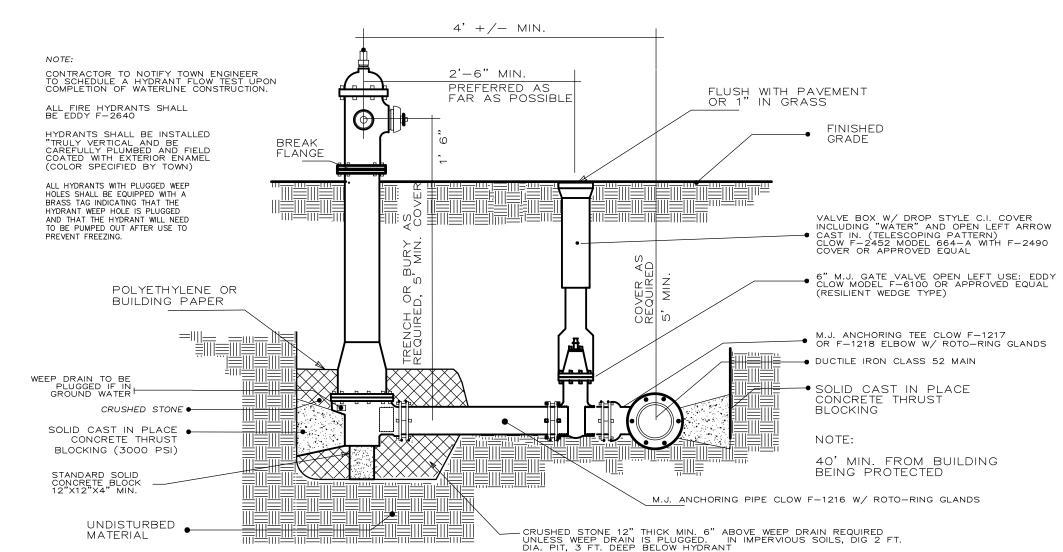




2 TAPPING SADDLE VALVE

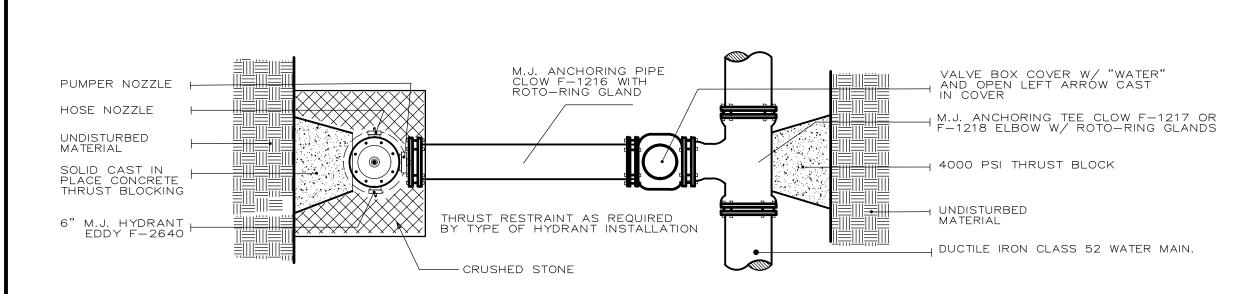


4 TYPICAL JUNCTION LAYOUT

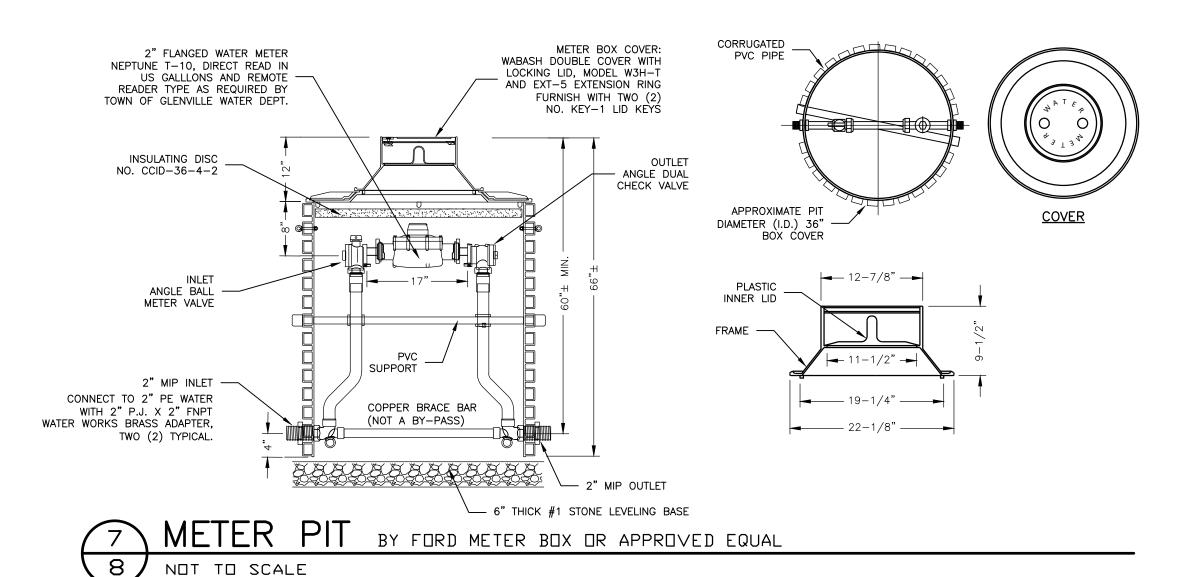


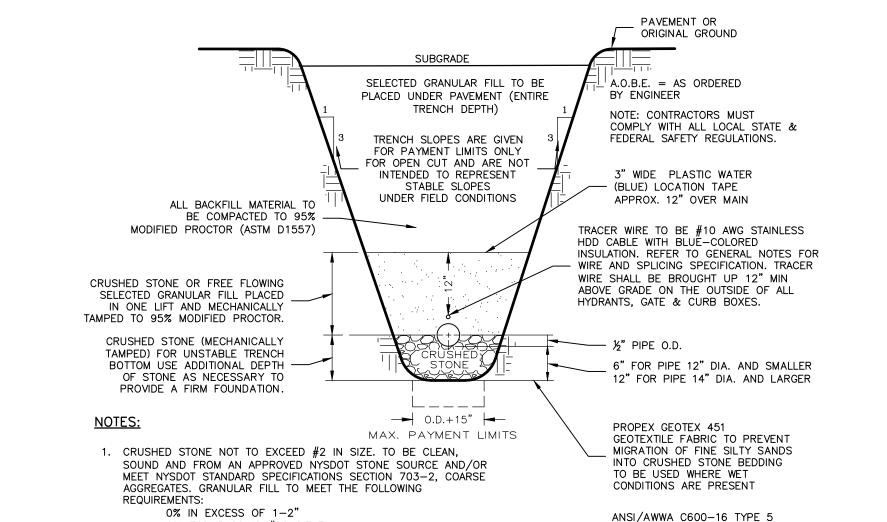
TYPICAL HYDRANT INSTALLATION NOT TO SCALE

TYPICAL HYDRANT INSTALLATION



PLAN VIEW





LAYING CONDITION

WATER TRENCH DETAIL NOT TO SCALE

0%-70% PASSING #40 SIEVE

0%-12% PASSING #200 SIEVE