PROJECT:

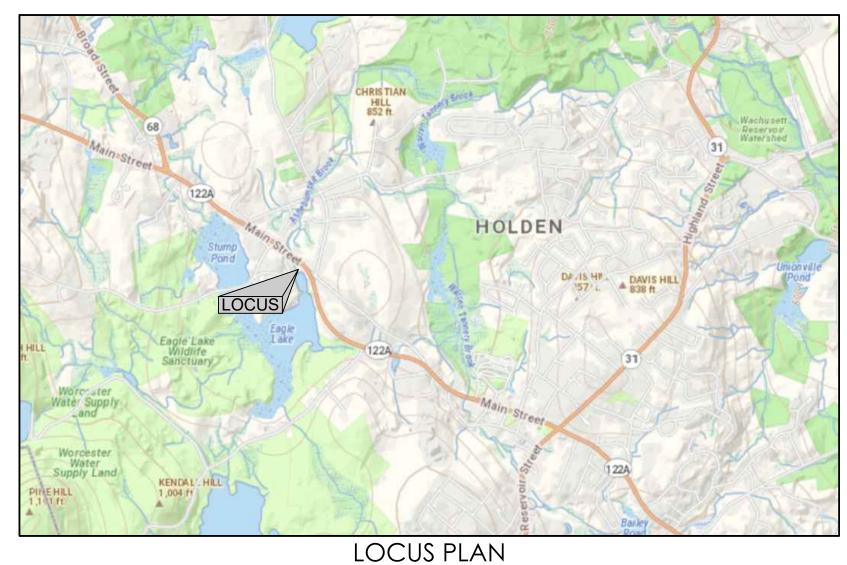
JEFFERSON MILL REDEVELOPMENT

1665 MAIN STREET, HOLDEN, MA

APPLICANT:

NORTH VILLAGE LOFTS, LLC

NEWTON, MA



DRAWING LIST:

SHEET #

EXISTING CONDITIONS PLAN (BY ANDRYSICK LAND SURVEYING)

C001 SITE PREPARATION PLAN

C100 **OVERALL SITE PLAN**

C101 LAYOUT AND MATERIALS PLAN

C102 GRADING AND DRAINAGE PLAN

C103 UTILITY PLAN

C104 **PROFILES**

C201 **DETAILS 1**

C202 DETAILS 2 C203 LINE OF SIGHT



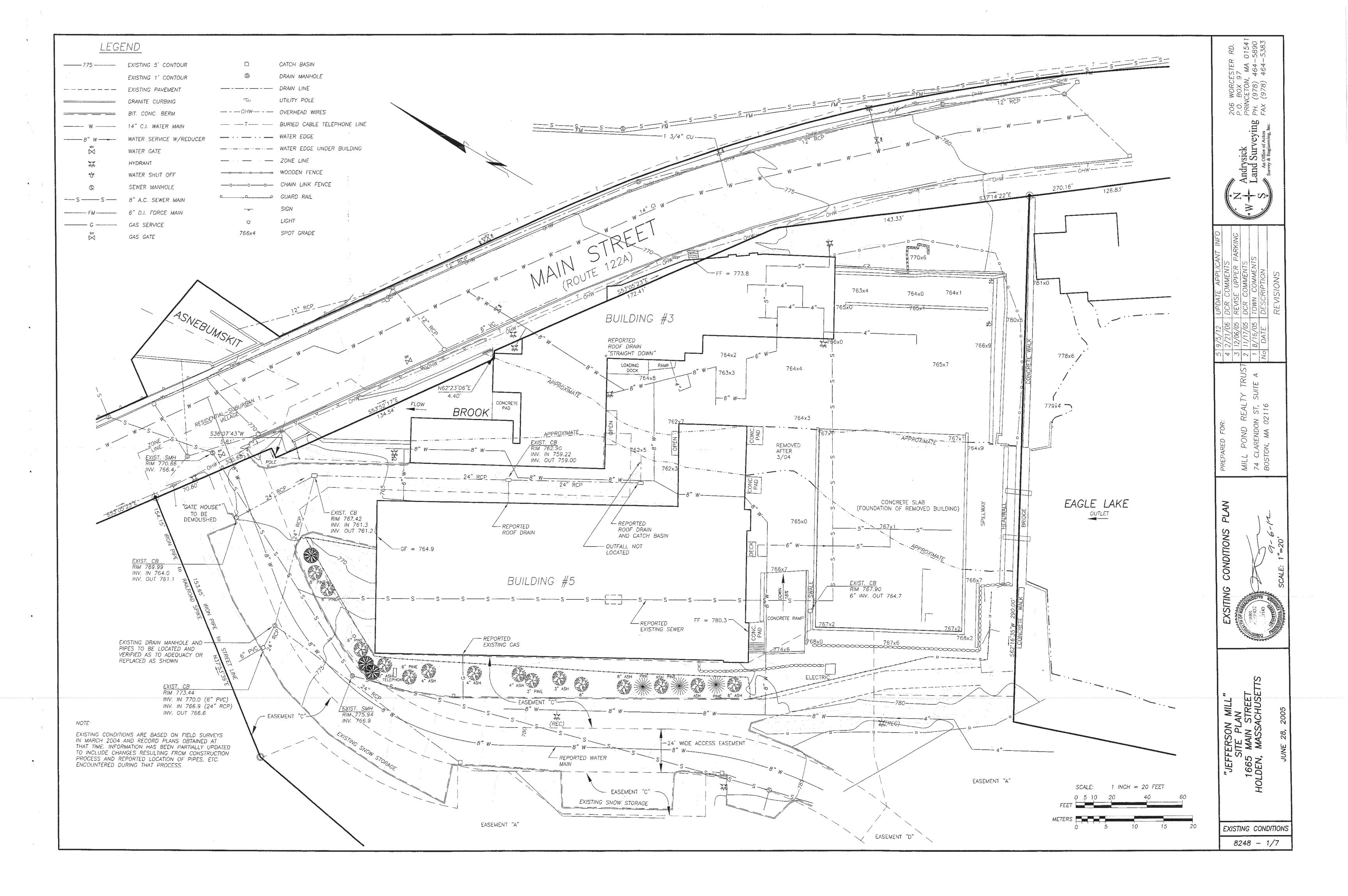
NORTH VILLAGE LOFTS, LLC 35 NORWOOD AVE **NEWTON, MA 02459**

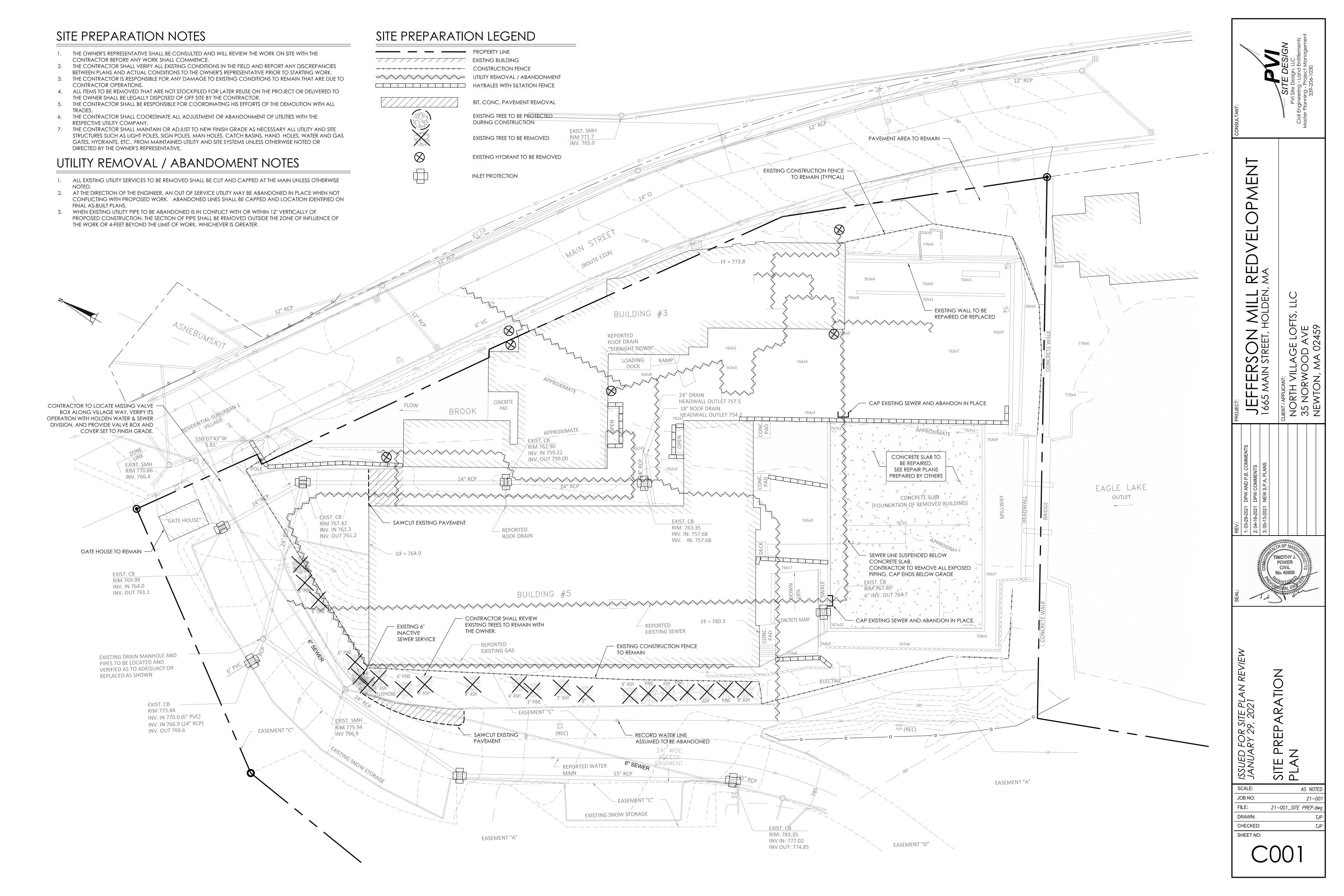
> CIVIL ENGINEER PVI SITE DESIGN, LLC 18 GLENDALE ROAD NORWOOD, MA 02062

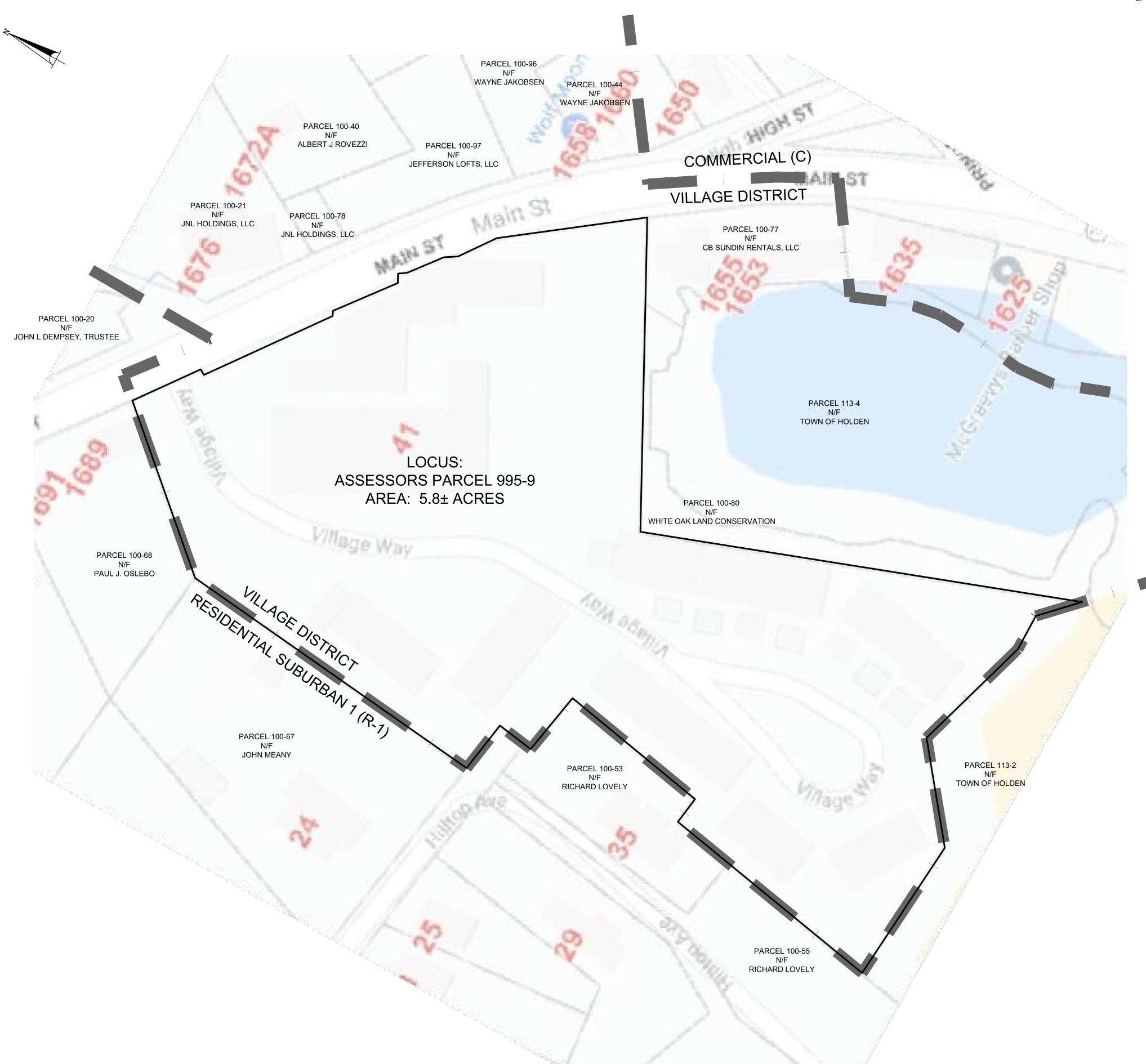
LAND SURVEYOR ANDRYSICK LAND SURVEYING 206 WORCESTER ROAD PRINCETON, MA 01541







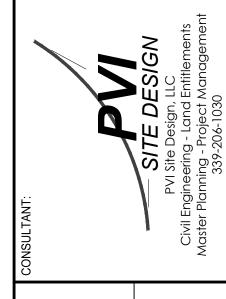




NOTES

- 1. OVERALL LOT BOUNDARIES ARE BASED ON GIS INFORMAITON OBTAINED BY THE MAPS ONLINE WEBSITE FOR THE
- TOWN OF HOLDEN AND SHOULD BE CONSIDERED APPROXIMATE.

 2. ABUTTER INFORMATION OBTAINED FROM TOWN OF HOLDEN GIS SYSTEM.



PROJECT:

-2021 DPW AND P.B. COMMENTS

-2021 DPW COMMENTS

-2021 DPW COMMENTS

-2021 DPW COMMENTS

1 665 MAIN STREET, HOLDEN, MA

CLIENT / APPLICANT:

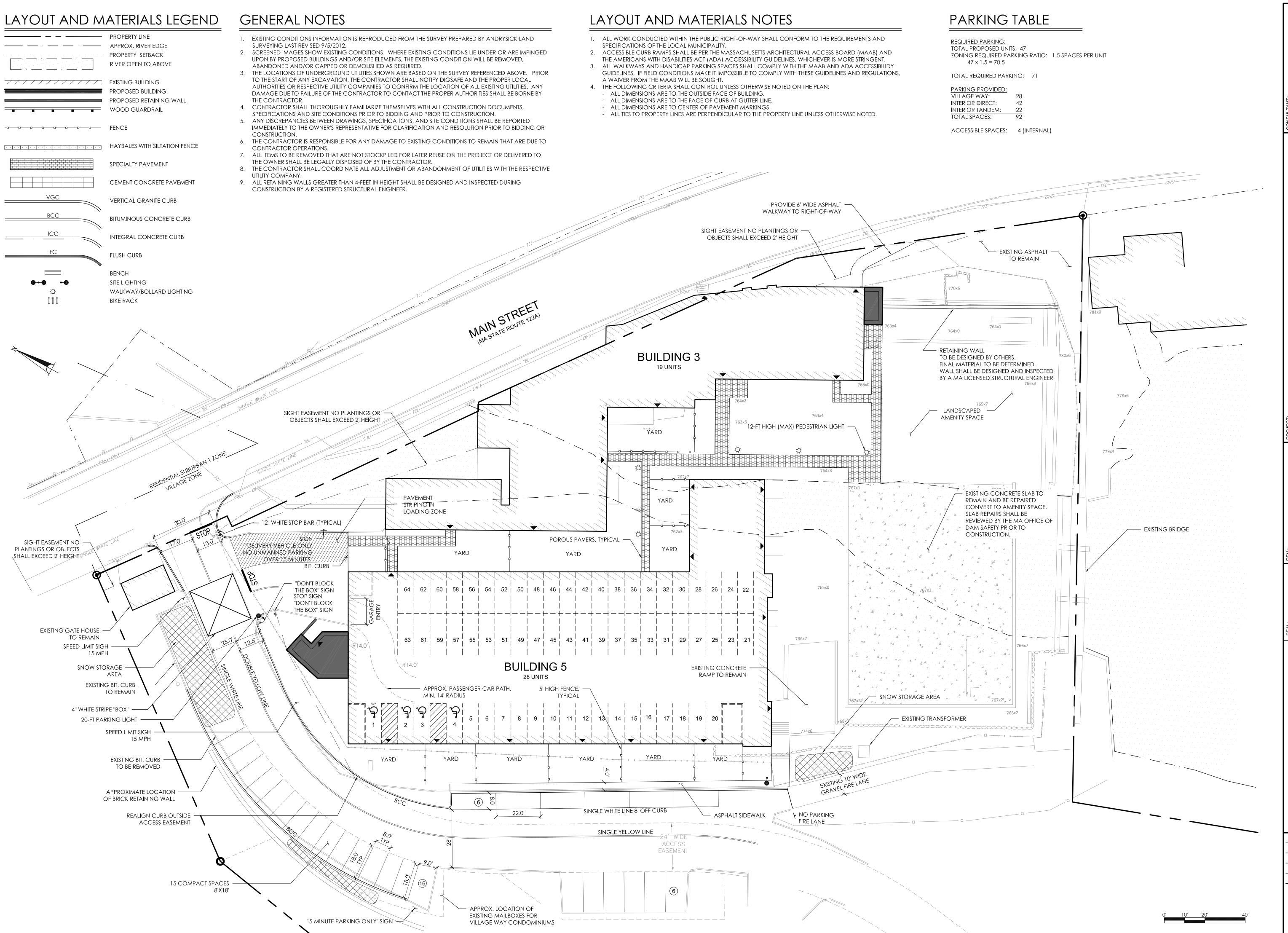
TIMOTHY POWER CIVIL No. 46906

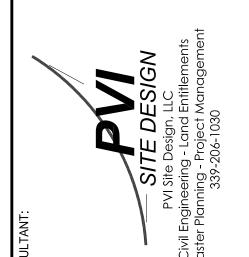
SSUED FOR SITE PLAN REVIEW
ANUARY 29, 2021

VERALL PROPERTY PLAN

S1 J	O
SCALE:	AS NOTED
JOB NO:	21-001
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CHECKED:	TJP
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C100

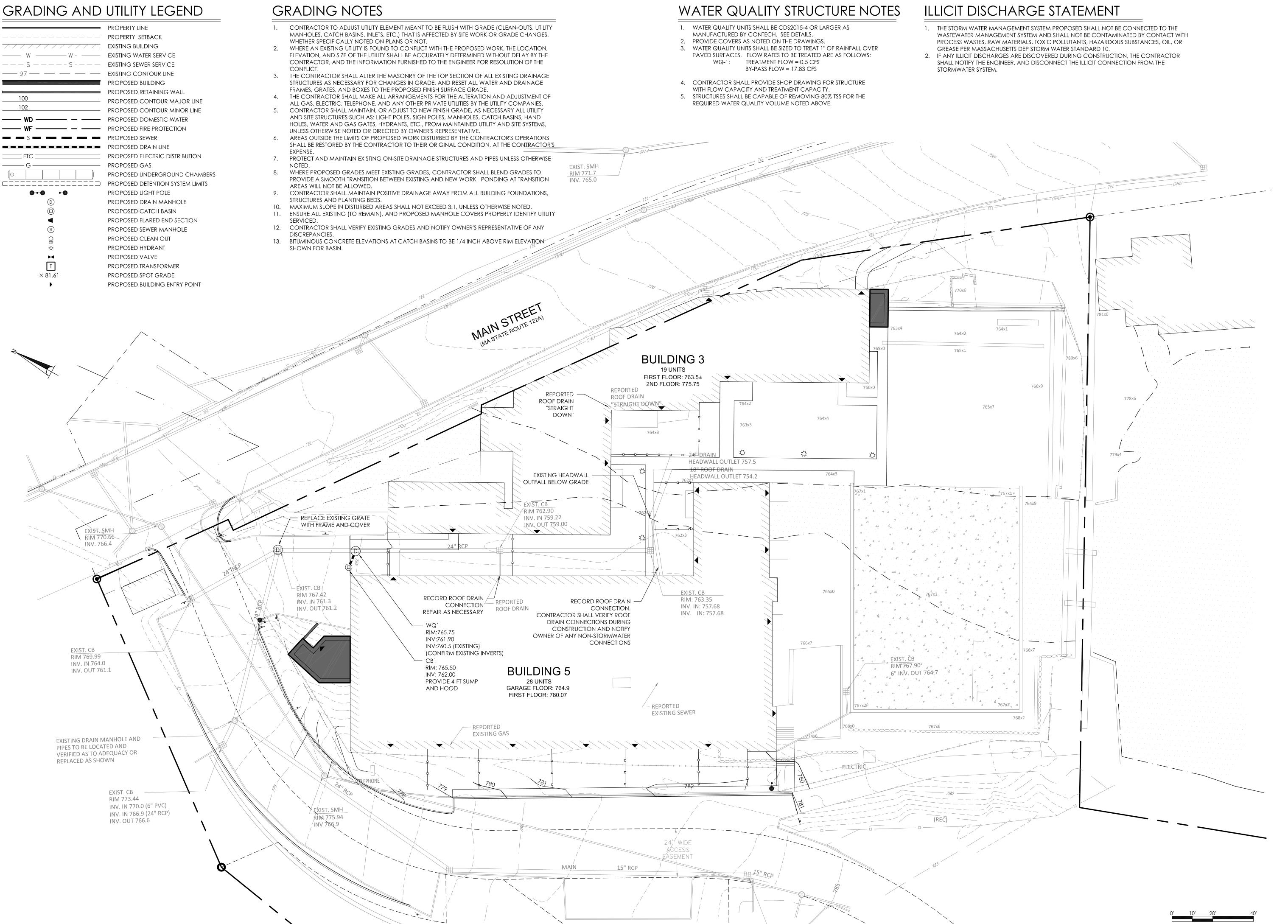




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SCALE: AS NOTE JOB NO: 21-00 21-001_LM.dwg DRAWN: CHECKED: SHEET NO:





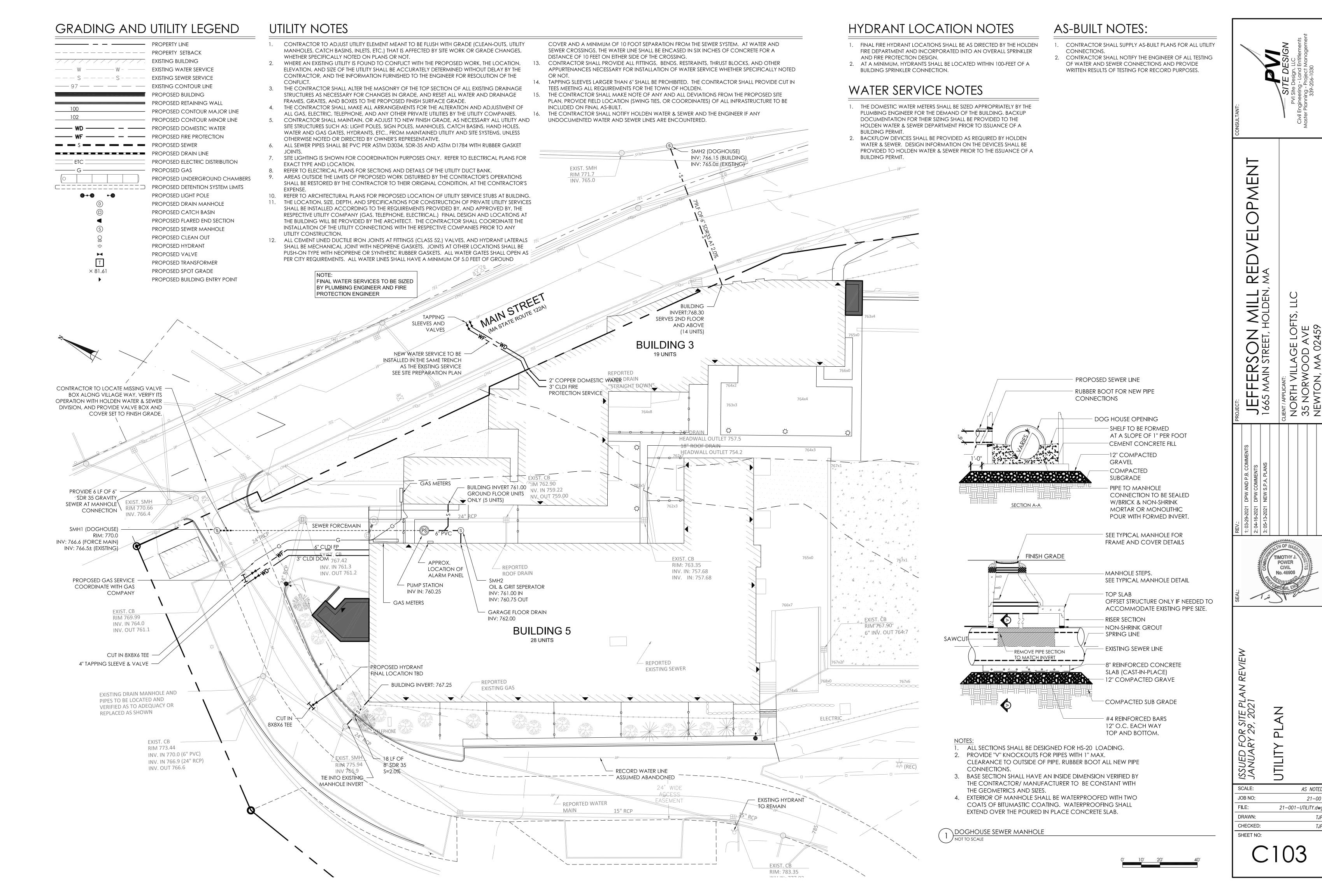
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ISSUED FOR SITE PL JANUARY 29, 2021

GRADING 8 DRAINAGE AS NOTE 21-001

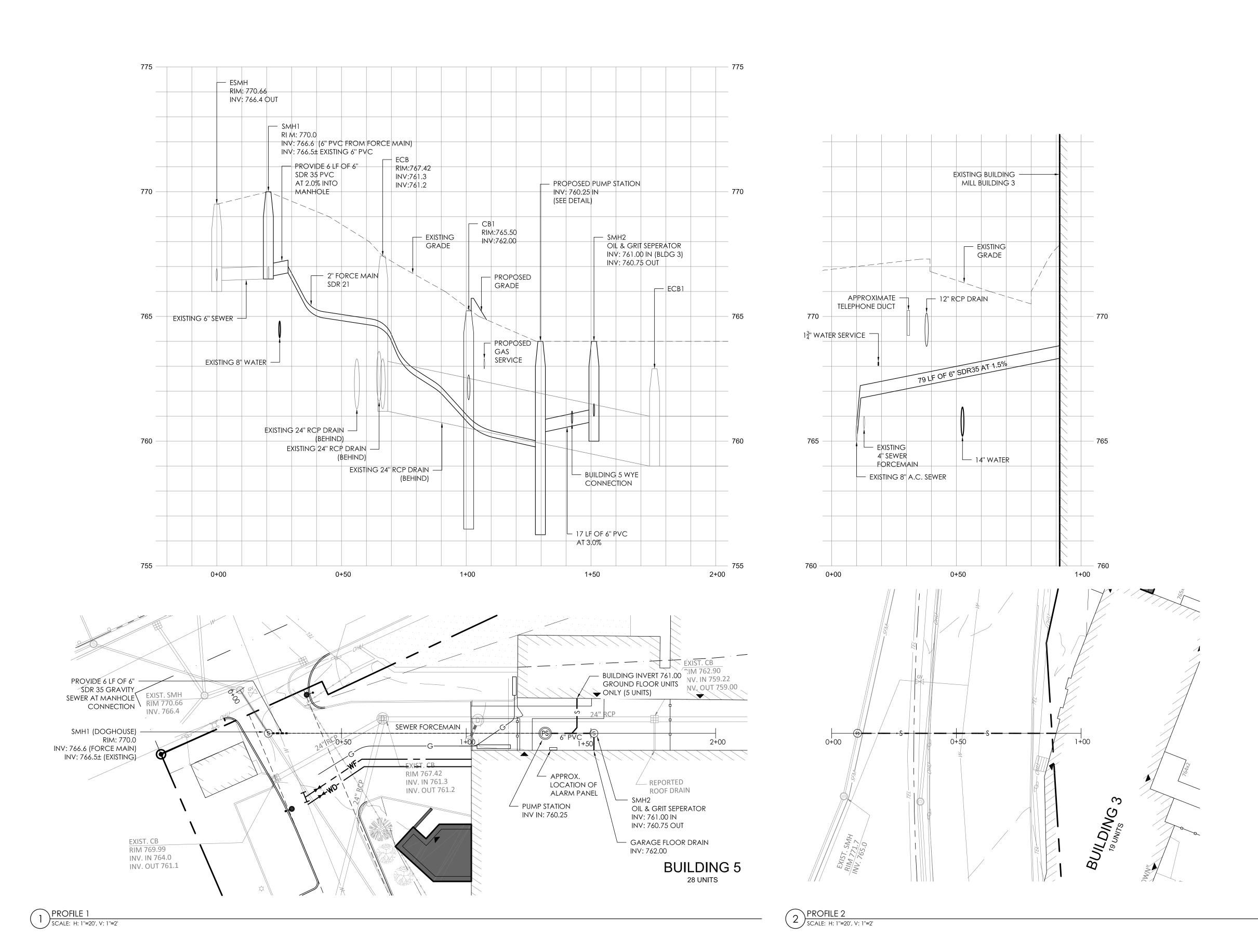
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SCALE:



AS NOTE

21-001



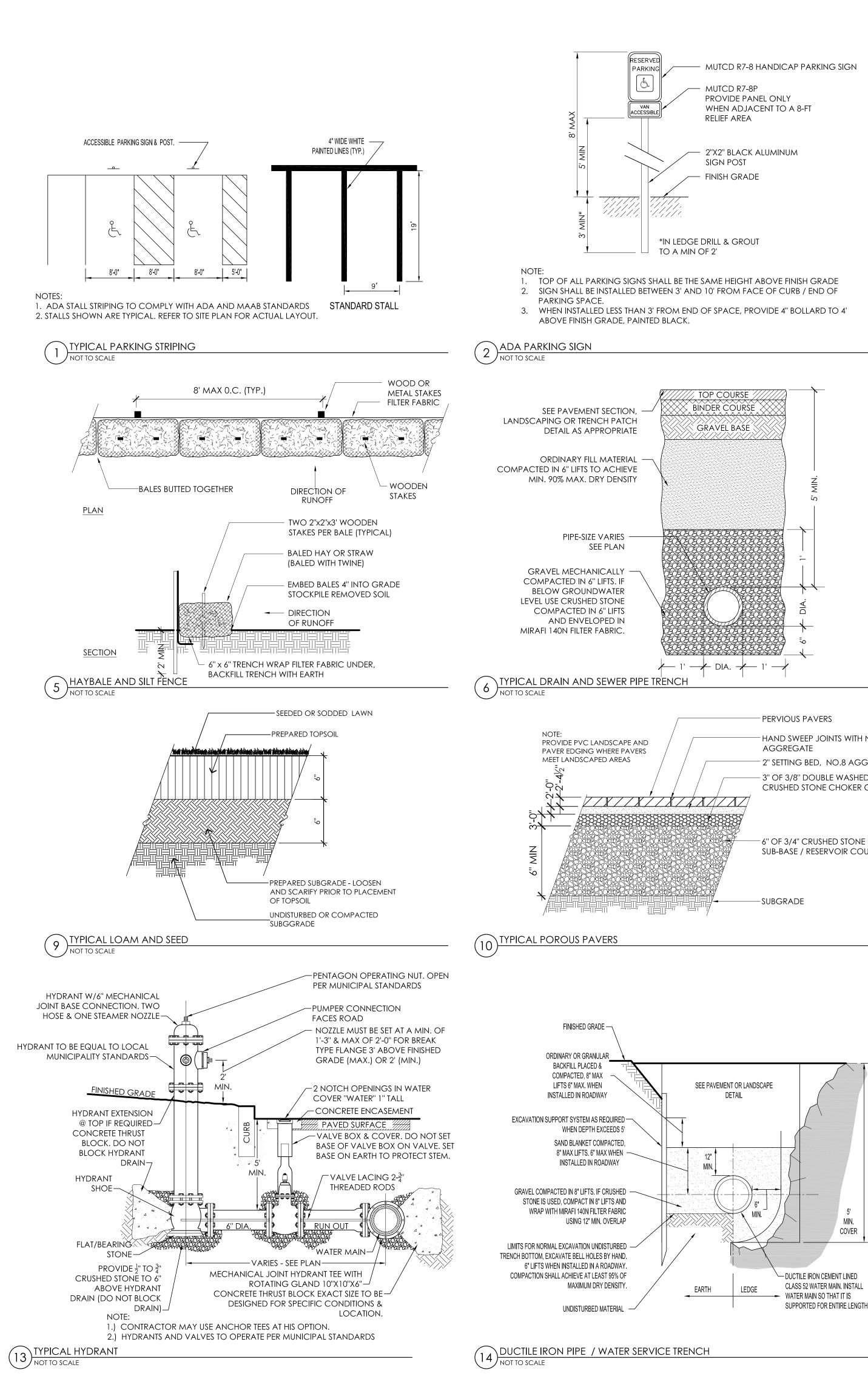


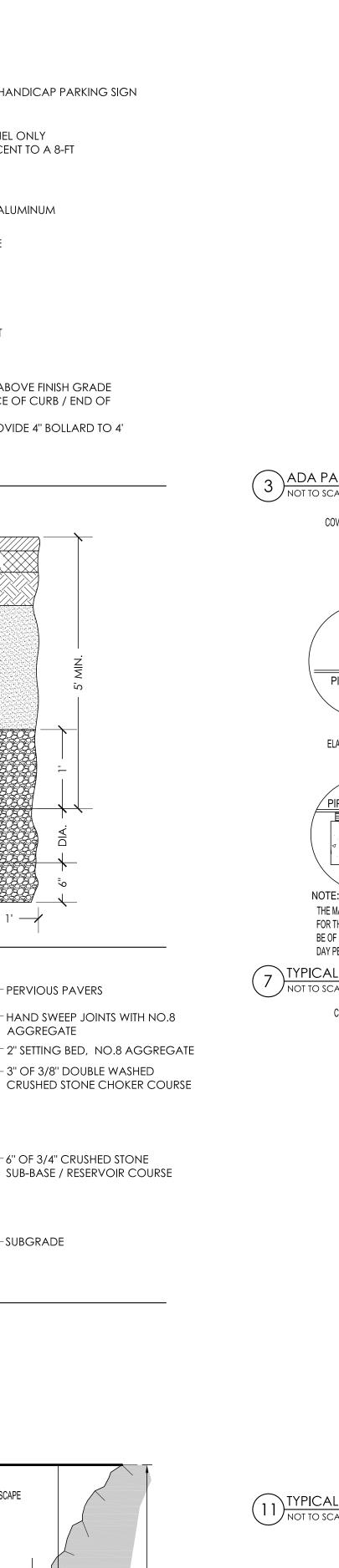
OPMENT REDVEL JEFFERSON MILL 1665 MAIN STREET, HOLDEN, SEWER PROFILES

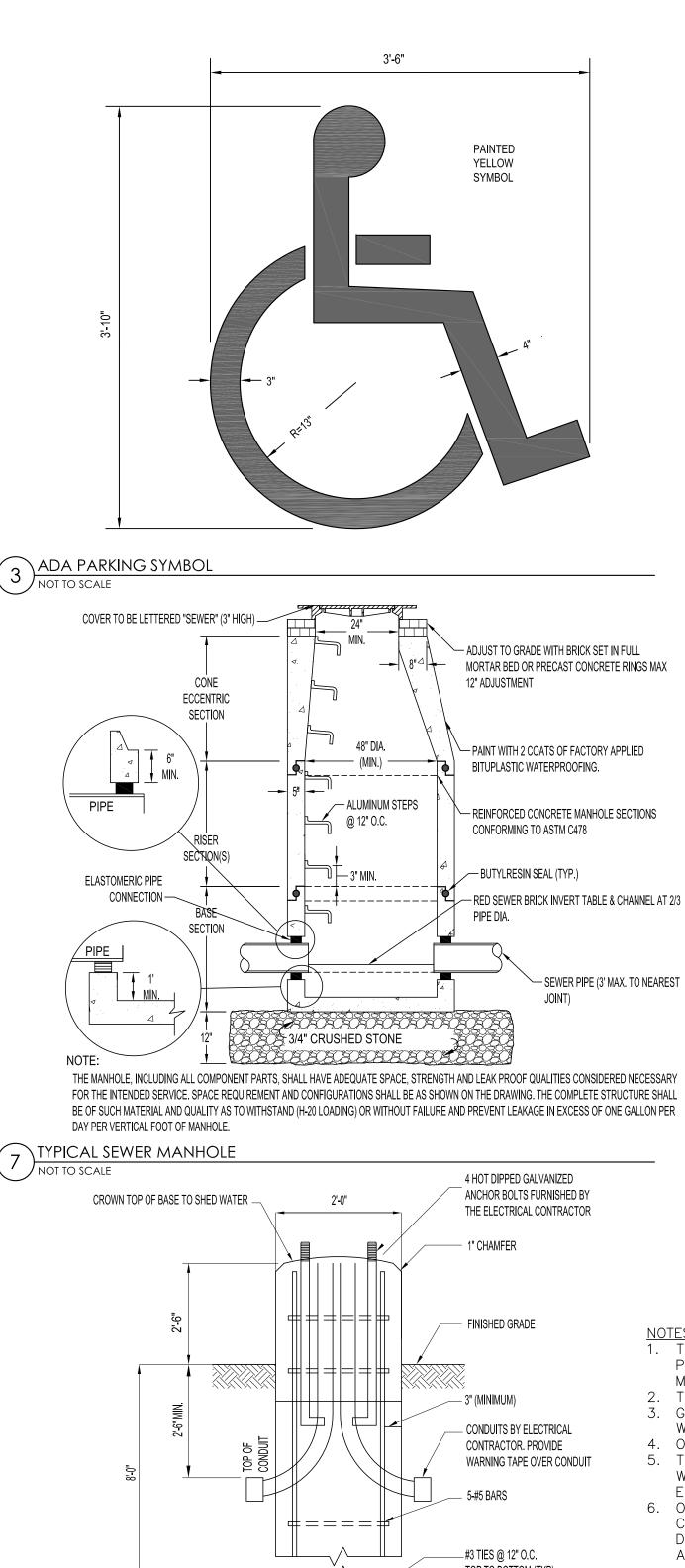
ISSUED FOR SITE PLAN REVIEW JANUARY 29, 2021

SCALE:	AS NOTED
JOB NO:	21-001
FILE:	21-001-UTILITY.dwg
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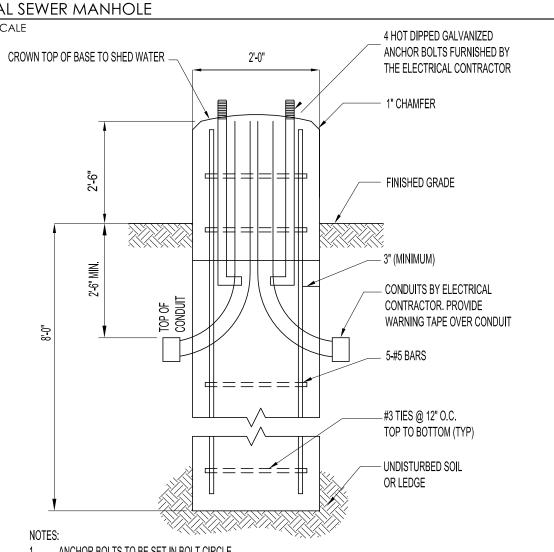
C104





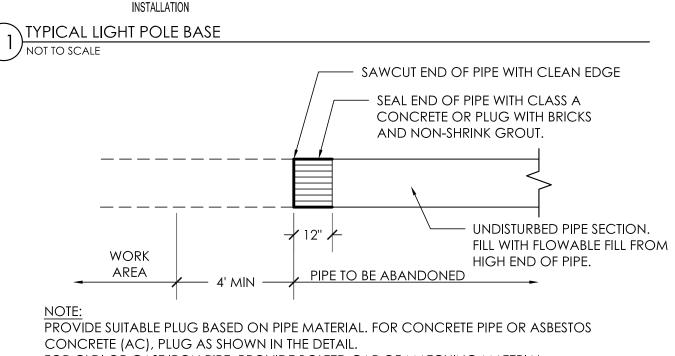


THE MANHOLE, INCLUDING ALL COMPONENT PARTS, SHALL HAVE ADEQUATE SPACE, STRENGTH AND LEAK PROOF QUALITIES CONSIDERED NECESSARY FOR THE INTENDED SERVICE. SPACE REQUIREMENT AND CONFIGURATIONS SHALL BE AS SHOWN ON THE DRAWING. THE COMPLETE STRUCTURE SHALL BE OF SUCH MATERIAL AND QUALITY AS TO WITHSTAND (H-20 LOADING) OR WITHOUT FAILURE AND PREVENT LEAKAGE IN EXCESS OF ONE GALLON PER



ANCHOR BOLTS TO BE SET IN BOLT CIRCLE EXACT SIZE AND LOCATION OF BOLTS MUST BE VERIFIED WITH ELECTRIC CONTRACTOR BEFORE SETTING. GROUNDING PER LIGHTING PLANS.

4. CONTRACTOR TO PROVIDE LIGHT POLE BASE SHOP DRAWING STAMPED BY A STRUCTURAL ENGINEER PRIOR TO



FOR CLDI OR CAST IRON PIPE, PROVIDE BOLTED CAP OF MATCHING MATERIAL FOR PVC PROVIDE WATERTIGHT PLUG IF A SUITABLE WATERTIGHT PLUG CANNOT BE ACHIEVED, THE PIPE SHALL BE REMOVED.

PIPE ABANDONMENT DETAIL (15) NOT TO SCALE

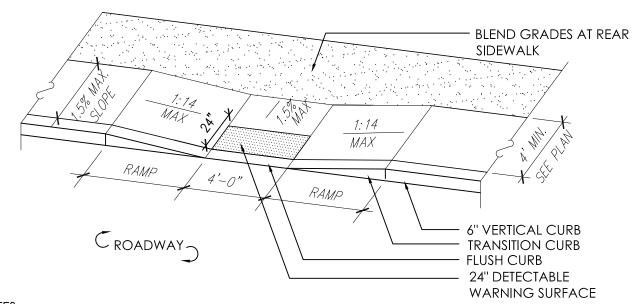
COVER

- DUCTILE IRON CEMENT LINED

CLASS 52 WATER MAIN. INSTALL

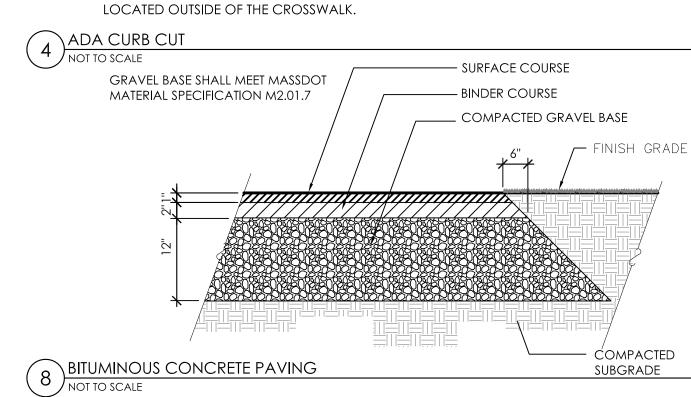
SUPPORTED FOR ENTIRE LENGTH.

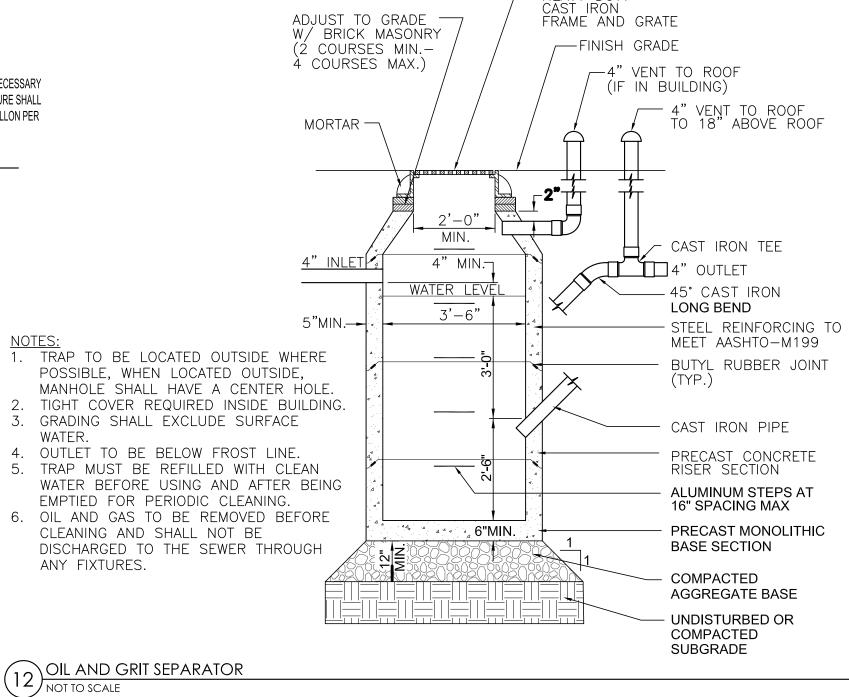
WATER MAIN SO THAT IT IS

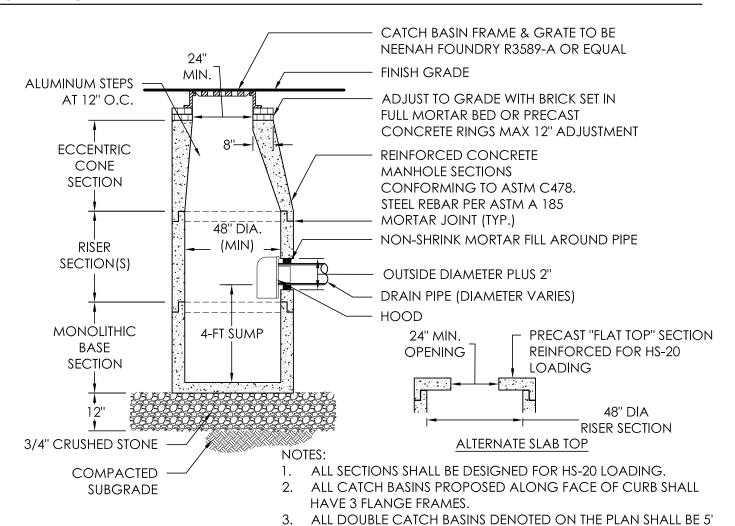


1. RAMP CROSS SECTION TO BE THE SAME AS ADJACENT SIDEWALK; I.E. DEPTH OF SURFACE AND FOUNDATION.

- 2. DIMENSIONS ARE SUBJECT TO CHANGE IN FIELD. ALL SLOPES AND DIMENSIONS TO COMPLY WITH A.D.A. AND MAAB REQUIREMENTS.
- 3. PROVIDE EXPANSION JOINT AT TOPS OF RAMP AND AT BACK OF WALK AT INTERFACE OF
- 4. PROVIDE HEAVY BROOM FINISH ON RAMP AND SIDE SLOPES PERPENDICULAR TO FLOW OF
- 5. MINIMUM WALK DIMENSIONS ARE FROM BACK OF CURB.
- 6. TRANSITION CURB LENGTH AS REQUIRED TO MEET CODE.
- 7. FIXED OBJECTS (i.e. UTILITY POLES, HYDRANTS ETC.) MUST NOT ENCROACH ON ANY PART OF A WHEELCHAIR RAMP, INCLUDING TRANSITION SLOPES.
- 8. AT NO TIME IS ANY PART OF THE WHEELCHAIR RAMP, EXCLUDING CURB TRANSITIONS, TO BE







TYPICAL CATCH BASIN

NOT TO SCALE

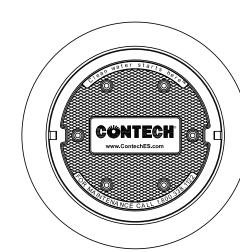




AS NOTE 21-00 21-001-DETAILS.dwg DRAWN: CHECKED: SHEET NO:

3. ALL DOUBLE CATCH BASINS DENOTED ON THE PLAN SHALL BE 5 DIAMETER STRUCTURES

DESIGN NOTES ###### RATED TREATMENT CAPACITY IS 1.4 CFS, OR PER LOCAL REGULATIONS. THE STANDARD ############### CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS CONFIGURATION DESCRIPTION GRATED INLET ONLY (NO INLET PIPE GRATED INLET WITH INLET PIPE OR PIPES CURB INLET ONLY (NO INLET PIPE CURB INLET WITH INLET PIPE OR PIPES



N.T.S.

<u>GENERAL NOTES</u>
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE. 2. DIMENSIONS MARKED WITH () ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY 3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS,

PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com I. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. 5. STRUCTURE SHALL MEET AASHTO HS20 AND CASTINGS SHALL MEET HS20 (AASHTO M 306)

LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE

INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER

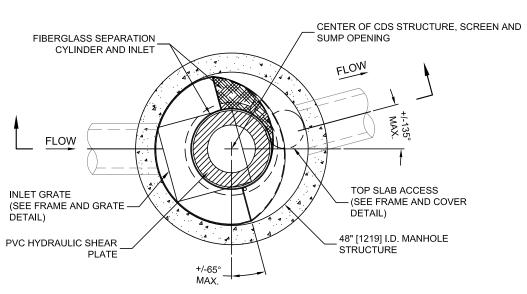
6. PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING

ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF

B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY

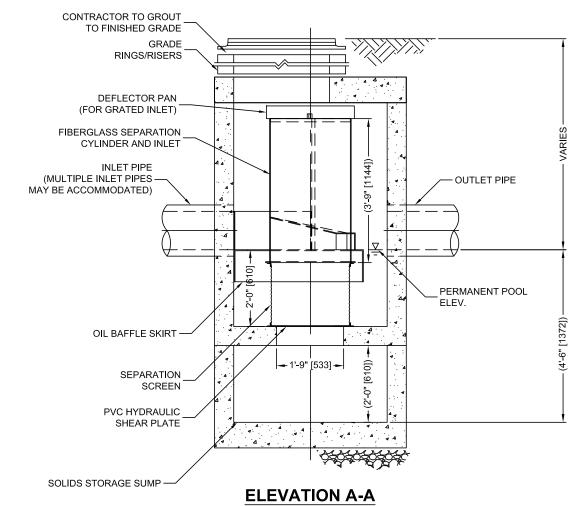
TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED). C. CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH

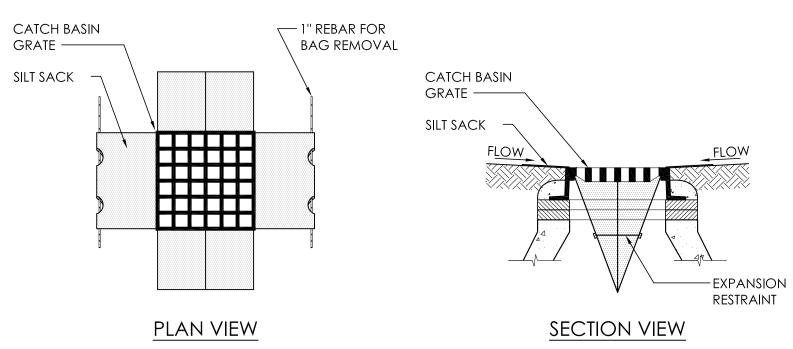
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS



BELOW PIPE INVERTS ARE GROUTED.







CONSTRUCTION NOTES

INSTALL SILT SACKS IN ALL CATCH BASINS WHERE INDICATED ON THE SITE PLANS BEFORE COMMENCING WORK OR IN PAVED AREAS AFTER THE BINDER COURSE IS PLACED AND EROSION CONTROL BARRIERS HAVE BEEN REMOVED.

GRATE TO BE PLACED OVER SILT SACK.

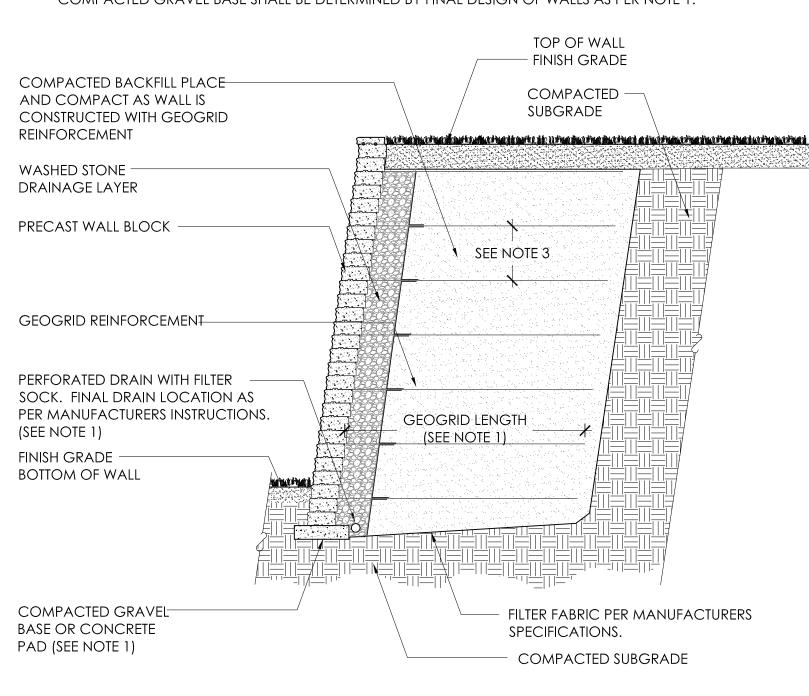
SILT SACKS SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS. CLEANING OR REPLACEMENT SHALL BE PERFORMED AS NEEDED. MAINTAIN SILT SACKS UNTIL UPSTREAM AREAS HAVE BEEN PERMANENTLY STABILIZED.

NOTES:

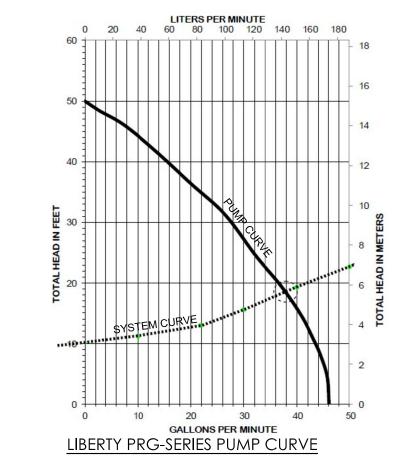
THIS DETAIL IS PROVIDED TO ILLUSTRATE THE GENERAL ARRANGEMENT OF A SEGMENTAL BLOCK RETAINING WALL STRUCTURE. THIS DRAWING MUST BE USED IN CONJUNCTION WITH THE RELATED DETAIL DRAWINGS AND SPECIFICATIONS FOR PROPER DESIGN AND CONSTRUCTION, AS PREPARED BY A MASSACHUSETTS REGISTERED STRUCTURAL ENGINEER AS SUBMITTED BY THE CONTRACTOR.

STRUCTURES SUCH AS HANDRAILS, GUARDRAILS, FENCES, TERRACES, AND SITE CONDITIONS SUCH AS WATER APPLICATIONS, DRAINAGE AND SOIL CONDITIONS, ADDITIONAL LIVE AND DEAD LOADS, ETC., HAVE SIGNIFICANT EFFECTS ON THE WALL DESIGN. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR SUCH SPECIFIC CONDITIONS AS PER NOTE 1.

DISTANCE BETWEEN GEOGRID LAYERS, THICKNESS OF WASHED STONE, DRAINAGE LAYER, SIZE OF COMPACTED GRAVEL BASE SHALL BE DETERMINED BY FINAL DESIGN OF WALLS AS PER NOTE 1.







TOWN OF HOLDEN WATER & SEWER SPECIFICATIONS

AND AT DEAD ENDS. GATE VALVES SHALL BE RESILIENT WEDGE, OPEN LEFT MEETING ALL AWWA STANDARDS.

HOLDEN WATER MAIN SPECIFICATIONS WATER MAINS SHALL BE DUCTILE IRON PIPE TO BE A MINIMUM OF 8 INCHES IN DIAMETER.

WATER MAINS SHALL BE LAID TO PROVIDE A MINIMUM COVER OF FIVE (5) FEET FROM THE FINISHED GRADE, AND SHALL NOT BE DEEPER THAN EIGHT (8) FEET. ALL PIPING SHALL BE CLASS 52 DUCTILE-IRON PIPE DESIGNED FOR ON INTERNAL WORKING PRESSURE. AIL FITTINGS AND HYDRANTS SHALL HAVE PROPERLY DESIGNED CONCRETE THRUST BLOCKS INSTALLED BEHIND THEM.

GATE VALVES SHALL BE INSTALLED ON EACH OUTLET OF ALL TEES AND CROSSES, EVERY 500 FEET OF MAIN, ON HYDRANT BRANCHES,

HYDRANTS SHALL BE LOCATED EVERY 500 FEET ON ONE SIDE OF EACH STREET UNLESS A GREATER DISTANCE IS APPROVED, AND SHALL HAVE A ONE (1) INCH WASHED STONE DRAINAGE SUMP ONE-HALF (1/2) CUBIC YARD IN VOLUME AT ITS BASE.

GATE VALVES, ROAD BOXES AND HYDRANTS SHALL BE EQUAL IN QUALITY TO THOSE PRESENTLY BEING PURCHASED BY THE TOWN'S WATER DEPARTMENT.

WATER SERVICE SHALL BE MINIMUM 1" COPPER TYPE K AT A BURIAL DEPTH OF SIX (6) FEET. CLEAN SAND SHALL FULLY ENCOMPASS THE

UPON COMPLETION OF THE WATER MAIN CONSTRUCTION AND PRIOR TO PUTTING INTO SERVICE A PRESSURE AND LEAKAGE TEST WILL BE MODE. ANY DEFECTS FOUND SHALL BE CORRECTED IMMEDIATELY. ONCE A SUCCESSFUL TEST HAS BEEN RUN, THE LINES SHALL BE CHLORINATED BEFORE THEY ARE PUT INTO SERVICE. THE DEVELOPER SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY EQUIPMENT AND LABOR TO CONDUCT THE TESTS AND CHLORINATION WHICH MUST BE WITNESSED BY A REPRESENTATIVE OF THE

PRIOR TO THE CONSTRUCTION OF BUILDINGS IN A SUBDIVISION, OR IN ANY PHASE OF A SUBDIVISION APPROVED BY THE PLANNING BOARD, THE WATER SUPPLY AND HYDRANTS FOR FIRE PROTECTION SHALL BE INSTALLED AND MAINTAINED BY THE APPLICANT IN A MANNER ACCEPTABLE TO THE FIRE CHIEF AND THE DEPARTMENT OF PUBLIC WORKS UNTIL ACCEPTANCE OF THE WATER LINES BY THE

TOWN OF HOLDEN LIST OF APPROVED MATERIALS FOR WATER SYSTEM INFRASTRUCTURE JANUARY 2006

CASTINGS: ALL CASTINGS AND FITTINGS SHALL BE MANUFACTURED IN NORTH AMERICAN AS REQUIRED BY HOLDEN DPW.

WATER MAINS: SHALL BE DUCTILE IRON CENTRIFUGALLY CAST WITH PUSH-ON JOINTS CONFORMING TO AWWA/ANSI C151. PIPE SHALL BE CLASS 52, DOUBLE CEMENT LINED AND BITUMINOUS COATED CONFORMING TO AWWA/ANSI C104. NO MANUFACTURER

GATE VALVE: (12-INCH DIAMETER OR LESS): SHALL BE 200 PSI WORKING PRESSURE, NON-RISING STEM, "O" RING, OPEN LEFT, MECHANICAL JOINT, TWO-INCH DUCTILE IRON OPERATING NUT WITH STAINLESS STEEL BOLT, RESILIENT SEATED (RESILIENT WEDGE) GATE VALVE CONFORMING TO ANSI/AWWA C509 - KENNEDY, CLOW OR MUELLER. VALVES SHALL BE EPOXY COATED AND SUPPLIED WITH MECHANICAL JOINT ACCESSORIES, HIGH STRENGTH ALLOY STEEL BOLTS AND HEAVY HEXAGON NUTS CONFORMING TO ANSI/AWWA

GATE VALVE BOXES: SHALL BE CAST IRON, TWO PIECE, SLIDING TYPE WITH A NON-FLANGE TOP SECTION, NO INSIDE STOPS, AND AN OUTSIDE SHAFT DIAMETER OF SIX INCHES. BOTTOM SECTION SHALL BE BELLED BASE. LENGTH OF TOP SECTION SHALL BE MINIMUM OF 24 INCHES. MIDDLE AND BOTTOM SECTION LENGTH AS NEEDED. BOXES SHALL HAVE THE WORD "WATER" CAST INTO COVER. NO MANUFACTURER SPECIFIED

DUCTILE IRON FITTINGS: PIPE FITTINGS SHALL HAVE MECHANICAL JOINT ENDS CONFORMING TO ANSI/AWWA C1/A21.11, DOUBLE CEMENT LINING AND BITUMINOUS COATING CONFORMING TO ANSI/AWWA C104.A21.4. FITTINGS SHALL BE SUPPLIED WITH MECHANICAL JOINT ACCESSORIES UNLESS SPECIFIED OTHERS, WITH HIGH STRENGTH LOW ALLOY STEEL BOLTS AND HEAVY HEXAGON NUTS CONFORMING TO ANSI/AWWA C111.A21.11. LONG BODY FITTINGS SHALL BE CLASS 350 DUCTILE IRON CONFORMING TO ANSI/AWWA C110/A21.10. COMPACT BODY FITTINGS SHALL BE CLASS 350 DUCTILE IRON CONFORMING TO ANSI/AWWA

HYDRANTS: ALL HYDRANTS MUST BE EDDY MODEL F-2640, OPEN LEFT, WITH BREAK FLANGE. HYDRANTS ARE TO BE FACTORY PAINTED YELLOW WITH REFLECTIVE WHITE ON BONNET AND COPS WITH OIL BASED PAINT.

SERVICE LINE FROM CURB TO HOUSE: TYPE K COPPER (ASTM B88) OR PLASTIC WITH MINIMUM PRESSURE RATING OF 200 PSI.

SERVICE LINE FROM MAIN TO CURB: TYPE K COPPER (ASTM B88), MINIMUM SIZE 1".

CORPORATION: BALL VALVE TYPE CONSTRUCTION WITH INLET CC THREAD AND COMPRESSION POCK JOINT ON THE OUTLET, HEAVY PATTERNS, AND CONFORMING TO AWWA/ANSI C800 - MCDONALD, FORD OR APPROVED EQUAL. INLET IRON PIPE THREADS ORE REQUIRED FOR 1-1/2" AND LARGER CORPORATIONS. BRASS SHALL HAVE MINIMUM LEAD CONTENT; TOWN MAY REQUEST LEAD CONTENT OF ANY BRASS OR COPPER MATERIALS.

CURB STOP: MCDONALD BALL VALVE TYPE CONSTRUCTION WITH INLET COMPRESSION AND COMPRESSION PACK JOINT ON THE OUTLET, HEAVY PATTERNS, AND CONFORMING TO AWWA/ANSI C800 - BRASS SHALL HAVE MINIMUM LEAD CONTENT, TOWN MAY REQUEST LEAD CONTENT OF ANY BRASS OR COPPER MATERIALS.

CURB BOX: SHALL BE ERIE STYLE WITH ARCH PATTERN, ONE-INCH IN DIAMETER, CONSTRUCTED FROM SCH40 BLOCK STEEL, ADJUSTABLE IN LENGTH FROM FIVE FEET TO SIX FEET, AND HAVE 5/8-DIAMETER STAINLESS STEEL ROD 36-INCHES IN LENGTH WITH HEAVY BRASS PINS ONE-INCH CAPS SHALL BE EXTRA HEAVY WITH BRASS PENTAGON PLUG AND COARSE "ROPE" THREAD TO FIT A ONE-INCH ERIE STYLE BOX.

TWO-INCH CAPS SHALL BE A #3 COVER, CAST IRON WITH BRASS BUSHING AND BRAS PENTAGON PLUG TO FIT A TWO-INCH ERIE ALL CAPS SHALL BE CONSTRUCTED OF MAGNETIC MATERIAL AND HAVE THE WORD "WATER" CAST INTO COVER - MADE IN

METERS: BADGER METER WITH LTRON ERT PURCHASED THROUGH THE TOWN AND INSTALLED BY THE TOWN FOR STANDARD (5/8") SIZE. NON-STANDARD LARGER METERS INSTALLED BY CONTRACTOR.

METER SETTERS: METER SETTERS SHALL HAVE COMPRESSION PACK JOINT CONNECTIONS ON THE INLET AND OUTLET ENDS SUITABLE FOR 3/4-INCH COPPER TUBING. METER SETTERS FOR ONE-INCH METERS SHALL HAVE FEMALE IRON PIPE THREAD CONNECTIONS ON THE INLET AND OUTLET ENDS. TWO METER GASKETS SHALL BE SUPPLIED WITH EACH HORN - NO MANUFACTURER SPECIFIED.

HOLDEN SEWERAGE SPECIFICATIONS:

SEWER PIPES AND RELATED EQUIPMENT, SUCH AS MANHOLES AND CONNECTING Y'S SHALL BE CONSTRUCTED IN CONFORMITY WITH THE SPECIFICATIONS OF THE TOWN OF HOLDEN PUBLIC WORKS DEPARTMENT.

THE INSTALLATION OF WATER AND SEWER PIPES AND RELATED EQUIPMENT SHALL NOT BE BACKFILLED UNTIL INSPECTED BY THE PROPER AUTHORITY.

SEWER MAINS SHALL BE MINIMUM 8" SDR 35 PVC LAID TO A MINIMUM SLOPE OF ONE-HALF (1/2) FOOT PER 100 FEET. ALL SEWER LATERALS SHALL BE 6" SDR 35 PVC LAID AT A MINIMUM PITCH OF ONE-QUARTER (1 /4) INCH PER FOOT. ALL SEWERS, INCLUDING HOUSE SERVICES, SHALL BE LAID IN ON ENVELOPE OF THREE-QUARTER (3/4) INCH WASHED GRAVEL. DEFLECTIONS IN LINE OR GRADE IN EXCESS OF ONE-HALF (1/2) INCH WILL BE CAUSE FOR REJECTION.

LINE AND GRADE SHALL BE CONTROLLED BY THE USE OF LASER INSTRUMENTS.

ALL CASTINGS AND FITTING SHALL BE MANUFACTURED IN NORTH AMERICA

ALL SEWER MANHOLES SHALL BE VACUUM TESTED IN ACCORDANCE WITH ASTM C1244.

EXFILTRATION/INFILTRATION, AIR TESTS AND TV INSPECTION TIME FOR MAKING TESTS: AFTER THE PIPE HAS BEEN LAID AND BACKFILLED, AN INFILTRATION, EXFILTRATION OR LOW PRESSURE AIR TEST SHALL BE MADE ON EACH SECTION OF PIPELINE BETWEEN MANHOLES. WHEN NO GROUNDWATER EXISTS AT THE TIME OF THE TEST, THE PIPELINE SHALL BE SUBJECTED TO AN EXFILTRATION TEST OR AN AIR TEST. TESTING SHALL BE COMPLETED BASED UPON DEP REQUIREMENTS BELOW.

TV INSPECTION: WHEN THE PIPE LINES PASS AN EXFILTRATION/INFILTRATION OR AIR TEST, THEY SHALL BE SUBJECT TO A TV INSPECTION PERFORMED UNDER THE SUPERVISION OF THE ENGINEER. A RECORDING OF THE TV INSPECTION SHALL BE PROVIDED TO THE TOWN ENGINEER. ANY SECTIONS FOUND TO BE DAMAGED OR BLOCKED SHALL BE REPAIRED TO THE SATISFACTION OF THE TOWN ENGINEER OR RETESTED

MINIMUM STANDARDS FOR WATERTIGHT CONSTRUCTION FOR SEWER PIPING

ALLOWABLE INFILTRATION OR EXFILTRATION SHOULD NOT EXCEED 100 GPD/INCH-DIAM/MILE OF SEWER, LEAKAGE TEST SHALL BE SPECIFIED IN THE SPECIFICATION AND MAY INCLUDE WATER OR LOW PRESSURE AIR TESTING. WATERTIGHT CONSTRUCTION CONSISTS OF THE USE OF DUCTILE IRON, MECHANICAL JOINT PIPE, PRESTRESSED CONCRETE CYLINDER PIPE, AND SOLVENT WELDED JOINT PVC PIPE AND ANY COMBINATION OF THE ABOVE. PRESSURE TESTING SHOULD BE PERFORMED BY THE OWNER AFTER COMPLETION OF CONSTRUCTION, PRIOR TO STARTUP AND AFTER ON YEAR OF NATURAL SETTLING IN ORDER TO ENSURE THE WATERTIGHTNESS OF THE AFFECTED COLLECTION SYSTEMS, MANHOLES AND PUMP STATION WET WELLS.

ACCEPTABLE AIR TESTING PROCEDURES ARE PRESENTED IN AMERICAN SOCIETY OF TESTING AND MATERIAL STANDARD C828-90T "STANDARD TEST METHOD FOR LOW-PRESSURE AIR TEST OF VITRIFIED CLAY PIPE". IN LIEU OF THAT STANDARD THE FOLLOWING TEST PROCEDURE IS ACCEPTABLE:

PLUG ALL OPENINGS IN THE SECTION OF SEWER PIPING TO BE TESTED Pressurize the system to be tested to an air pressure of 5 psig. Shut off the pressurized air source. ALLOW THE PRESSURE TO STABILIZE FOR A MINIMUM OF 5 MINUTES

RECORD THE STABILIZED PRESSURE IN THE TEST SECTION. RECORD THE TEST START TIME. THE MINIMUM TEST PRESSURE IS 4 PSIG. THE MINIMUM TEST TIME IS 5 MINUTES. AT THE END OF THE PRESSURE TESTING TIME PERIOD RECORD THE TEST PRESSURE AND THE TEST TERMINATION TIME. IF THE PRESSURE DROP IS GREATER THAN 2 PSIG DURING THE DURATION OF THE TEST, THE TESTED SECTION HAS FAILED THE TEST.

IF THE TESTES ARE FAILED, REPAIRS MUST BE MADE TO THE AFFECTED SEWER PIPE AND RESTESTED.

INSPECTIONS WILL ONLY BE MADE DURING THE HOURS OF 8:00 AM TO 4:00 PM MONDAYS THROUGHT THURSDAYS AND 8:00 AM TO NOON ON FRIDAYS EXCEPT HOLIDAYS. PLEASE NOTE: A MINIMUM TWO (2) HOUR NOTIFICATION SHALL BE GIVEN BY THE CONTRACTOR FOR REQUESTED INSPECTIONS.

THE FOLLOWING IS A LIST OF REQUIREMENTS FOR HOUSE CONNECTIONS TO THE SANITARY SEWER LINES:

. A VALID PERMIT MUST BE ISSUED PRIOR TO THE START OF WORK TO INSTALL A PARTICULAR SEWER CONNECTION. LACK OF AN APPROVED PERMIT MAY RESULT IN SUSPENSION OR REVOCATION OF YOUR DRAINLAYERS LICENSE.

2. PROPER NOTIFICATION TO ALL REQUIRED AGENCIES MUST BE MADE WITHIN REQUIRED TIME PERIODS. NOTIFICATION TO DIG-SAFE (888-344-7233) MUST BE MADE 72 HOURS PRIOR TO THE START OF WORK. THE HOLDEN WATER DEPORTMENT (508-210-5550) MUST BE NOTIFIED 48 HOURS PRIOR TO THE START OF WORK FOR INFORMATION AND LOCATION MARKING OF WATER LINES.

THE CONTRACTOR IS RESPONSIBLE TO COMPLY WITH ALL APPLICABLE OSHA OPEN TRENCH SAFETY REQUIREMENTS. IT IS NOT THE TOWN'S RESPONSIBILITY TO INSPECT EACH SITE FOR COMPLIANCE.

4. EACH PARTICULAR SEWER SHALL BE LAID DIRECTLY TO THE BUILDING SEWERED, NOT MORE THAN ONE BUILDING CAN BE CONNECTED WITH A PARTICULAR SEWER THROUGH THE SAME PIPE.

5. SIX INCH (6") SCHEDULE 35 PVC PIPE AS APPROVED BY THE DPW DIRECTOR WILL BE USED TO MAKE CONNECTIONS OF ALL PARTICULAR SEWERS TO WITHIN FIVE FEET OF THE FOUNDATION WALL OF THE BUILDING TO BE SEWERED. A FOUR-INCH (4") HEAVY CAST IRON PIPE OR EQUIVALENT PVC PIPE (SCHEDULE 40) SHALL BE USED THROUGH THE FOUNDATION WALL.

6. MINIMUM ALLOWABLE SLOPE IS 2% OR 1/4 INCH PER FOOT.

7. CLEANOUTS SHALL BE PROVIDED EVERY THREE (3) BENDS OR 100 FEET.

8. ALL PIPES SHALL BE LAID WITH THE BELL END TOWARD THE OUTLET AT THE FOUNDATION (BELL END UPHILL). PIPES SHALL NOT BE REVERSED TO ELIMINATE FITTINGS.

9. ALL JOINTS SHALL BE PUSH ON RUBBER TYPE FITTINGS. NO GLUED PVC JOINTS WILL BE ALLOWED OUTSIDE THE FOUNDATION WALLS. THE CONNECTION TO BE MADE FROM THE SIX-INCH (6") PVC PIPE TO THE FOUR-INCH (4") HEAVY CAST IRON PIPE SHALL BE MADE WITH O RUBBER BOOT ADAPTER. THIS ADAPTER SHALL BE OF AN APPROVED TYPE WITH STAINLESS STEEL COMPRESSION RINGS DESIGNED TO CREATE A WATER-TIGHT SEAL.

PUMP STATION CALCULATIONS:

BUILDING 3, 1ST FLOOR: 14 BEDROOMS

14 X 110 GPD = 1,540 GPD BUILDING 5 GARAGE: FLOOR DRAINS ONLY, FLOW NEGLIGIBLE.

FLOW RATE CONVERSION HOURS PER DAY: 16 (RESIDENTIAL USE) 1,540 GPD ÷ 16 = 96 GPH 96 GPH ÷ 60 MIN/HR = 1.6 GALLONS PER MINUTE (GPM) 1.6 GPM \div 7.48 GAL/CFS \div 60 SEC/MIN = 0.004 CFS WET WELL DESIGN: PROVIDE MIN. 8 HOUR EMERGENCY VOLUME: TITLE 5 DESIGN FLOW: 1,540 GPD

ACTUAL FLOW (60% OF DESIGN) = 924 GPD 924 / 16 HOURS = 58 GPH 58 GPH X 8 HR = 462 GAL

USE 4-FT DIAMETER MANHOLE.

WORKING VOLUME: † = MINIMUM TIME BETWEEN PUMP START-UPS = 60 MINUTES Q = DESIGN FLOW RATE = 1.6 GPM 60 MIN X 1.6 GPM = 96 GALLONS

INSIDE DIMENSIONS (4' INSIDE DIA): 4 X 3.14 X 7.48 GAL/CF = 94 GALS PER FOOT

PUMP ON TO PUMP OFF: 11.75 INCHES (USE 11 INCHES)

TOTAL HEAD CALCULATION: PUMP ELEVATION: 755.25 FORCE MAIN END: 766.60 TOTAL LIFT HEAD: 11.35 FT

FORCEMAIN SIZE: 2" SDR 21 FORCEMAIN LENGTH: 104 FEET TOTAL FRICTION HEAD (DARCY): 7.06'

PUMP CUVE OPERATING POINT: 38 GPM AT 18.4 FT HEAD

PUMP STATION NOTES

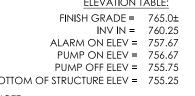
- CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
- ALL REINFORCEMENT PER ASTM C1227-93. TANK SHALL BE RATED FOR H-20 LOADING.
- JOINT SEALED WITH BUTYL RESIN.
- 5. ALL CONSTRUCTION FOR THE PUMP CHAMBER AND THE VALVE CHAMBER SHALL BE WATER TIGHT. 6. CONTRACTOR/CHAMBER MANUFACTURER RESPONSIBLE FOR BUOYANCY COMPENSATION @ 100% SUBMERSION FOR PUMP AND

VALVE CHAMBERS. CONTRACTOR IS TO SUBMIT SHOP DRAWINGS

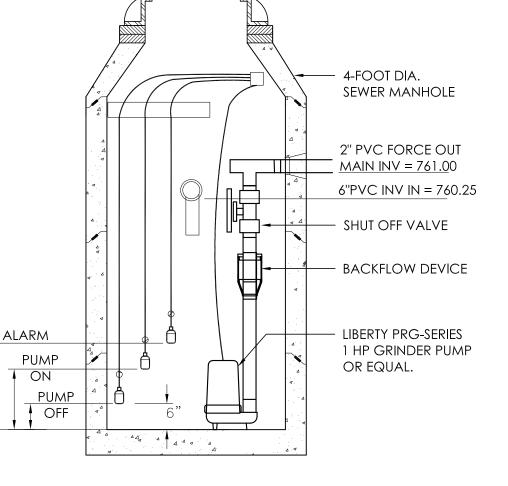
- TO THE ENGINEER THAT CONFIRM THAT THE TANK WILL RESIST BUOYANCY ON ITS OWN. 7. 2" SDR21 PVC FORCE MAIN. FORCE MAIN IS TO HAVE A MINIMUM COVER OF 4' AND HAVE A MINIMUM SLOPE OF 1%.. WHERE THE
- FORCE MAIN HAS THE POTENTIAL FOR AN AIR LOCK, AN AIR RELEASE ASSEMBLY AND MANHOLE SHOULD BE USED.
- STAINLESS STEEL SLIDE RAILS ARE TO BE PROVIDED FOR ALL PUMPS. INVERTED J PIPE VENT TO BE INSTALLED TO PROVIDE VENTILATION TO PUMP CHAMBER, OR PROVIDE VENT TO BUILDING SYSTEM.
- 10. TANK IS TO HAVE A CONTINUOUS SLOPE ALONG TANK BOTTOM TOWARDS PUMP. A BRICK FILLET CAN ALSO BE USED TO PREVENT SEWAGE COLLECTING AT INSIDE BOTTOM CORNERS OF TANK. 11. PUMP STATION MUST HAVE ADEQUATE FORCE MAIN SUPPORT.
- 12. THRUST BLOCKS ARE TO BE CONSTRUCTED AT ALL CHANGES IN DIRECTION OF THE FORCEMAIN. 13. ALL PUMP STATION STRUCTURES ARE TO BE WATERTIGHT.
- 14. PUMPS SHALL BE CONNECTED TO THE FACILITY BACK UP GENERATOR OR PROVIDE 8 HOUR BATTERY BACK UP SYSTEM. 15. CONTROL PANEL SHALL BE EQUIPPED WITH AUDIBLE ALARMS AND AUTOMATIC TELEPHONE DIALER IN THE EVENT OF PUMP FAILURE. AUDIBLE ALARM SHALL ME MOUNTED IN A PUBLIC LOCATION IN
- CLOSE PROXIMITY TO THE PUMPS. SEE PLAN. 16. ALARM SYSTEM SHALL ALARM FOR HIGH LEVEL, LOW LEVEL AND AVAILABLE PUMP FAILURE.

17. CONTRACTOR SHALL OBTAIN A COPY OF THE O&M PLAN PREPARED

BY PVI AND MODIFY IF NEEDED BASED ON AS-BUILT CONDITIONS.



BOTTOM OF STRUCTURE ELEV = 755.25 FINAL FLOAT ELEVATIONS SHALL BE DETERMINED BY THE ENGINEER UPON RECIEPT OF WET WELL SHOP DRAWING



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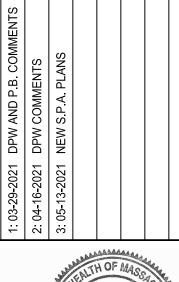
MARKED "SEWER"

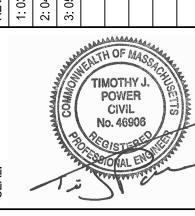
SCHEMATIC SECTION PUMP CHAMBER DETAIL



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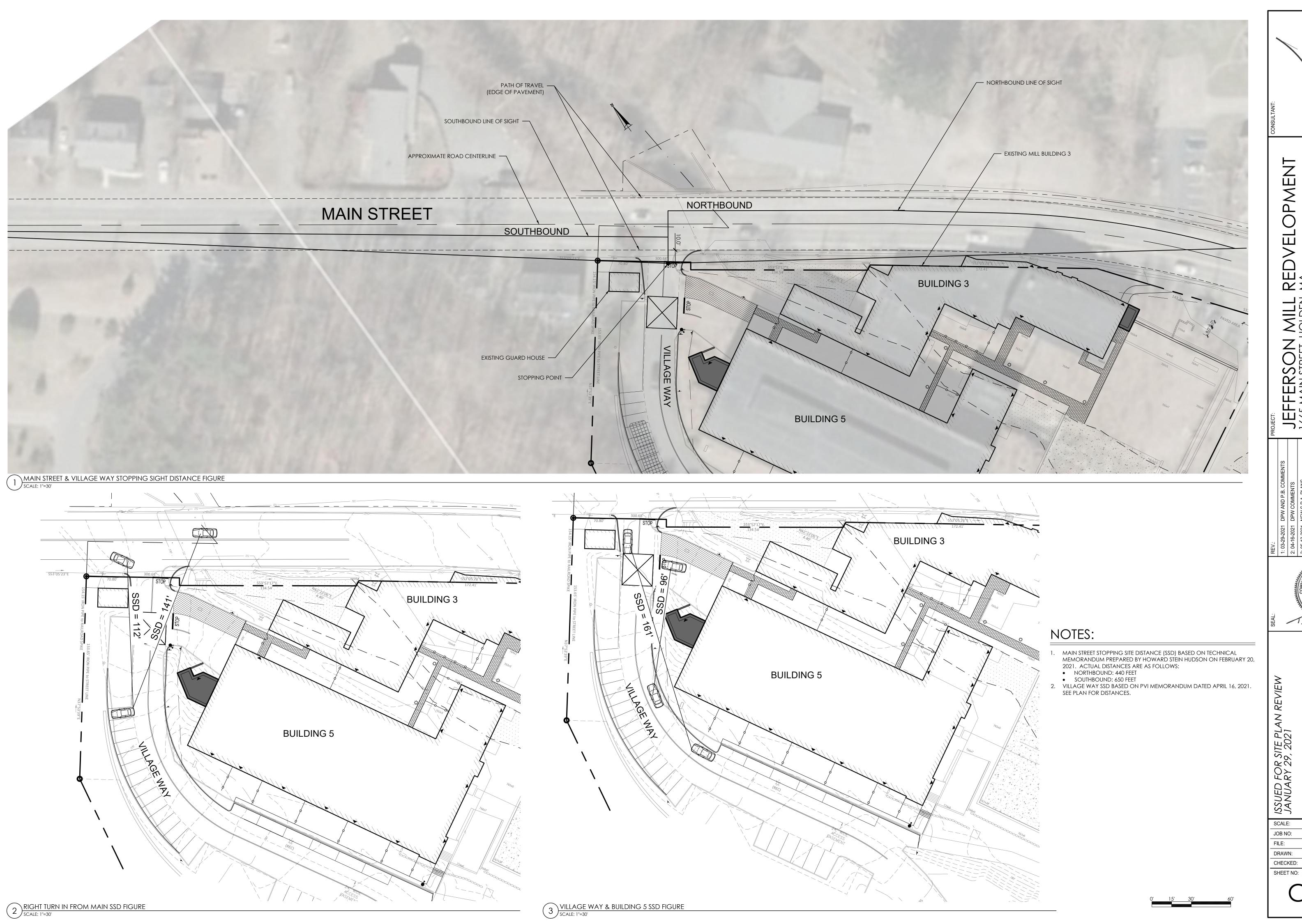




PROVIDE 30" FRAME AND COVER

15/9 るる FO RY ISSUED JANUA

SCALE: AS NOTE JOB NO: 21-00 21-001-DETAILS.dw DRAWN: CHECKED: SHEET NO:





REDVELOPMENT

ISSUED FOR SITE PLAN JANUARY 29, 2021 SITE

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