

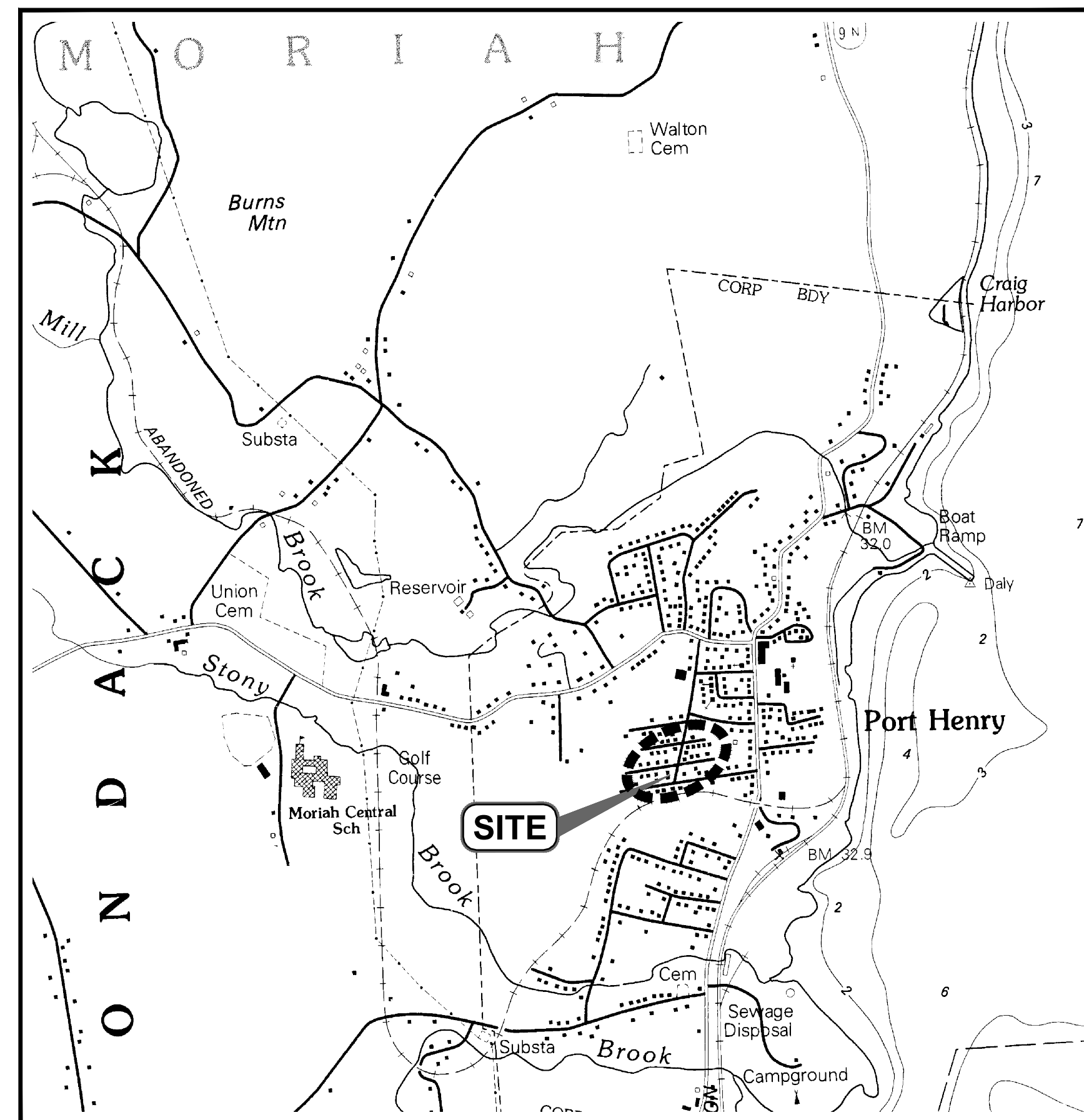
WATER AND SEWER UPGRADES

TOWN OF MORIAH ESSEX COUNTY, NEW YORK

SUPERVISOR
THOMAS R. SCOZZAFAVA

TOWN BOARD/COUNCILMEN
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WATER AND SEWER DEPARTMENT
CARL (CHIP) PERRY
ARTHUR MORGAN



SITE LOCATION
SCALE: N.T.S.

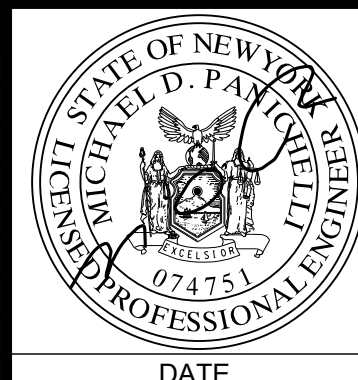
DRAWING INDEX

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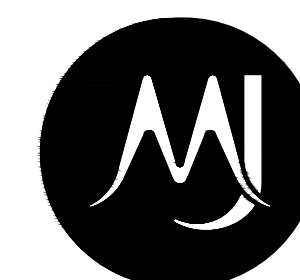
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No.	DATE	DESCRIPTION	BY	REVIEWED BY:	DATE
1	12/18/19	BID DOCUMENTS	MLB	C. DOOLEY	

PROJ. MANAGER: CLD
CHIEF DESIGNER: MLB
DESIGNED BY: MLB
DRAWN BY: MLB
CHECKED BY: CLD



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**Engineering and
Land Surveying, P.C.**
1533 Crescent Road - Clifton Park, NY 12065

TOWN OF MORIAH
**COVER SHEET AND
DRAWING INDEX**
WATER AND SEWER UPGRADES
ESSEX COUNTY NEW YORK

SCALE: -
CONTRACT No.: -
MJ PROJ. No.: 1075.03
DATE: 12/18/19

G-001

EXISTING LEGEND:

- BENCHMARK
NAIL FOUND
CAPPED IRON ROD
IRON PIPE
SANITARY MANHOLE
CATCH BASIN
STORM MANHOLE
FIRE HYDRANT
GATE VALVE
ELECTRIC METER
UTILITY POLE
DECIDUOUS TREE
DECIDUOUS SHRUB
CONIFEROUS SHRUB
TREE STUMP
SINGLE POST SIGN
BOLLARD
GUY WIRE
UNKNOWN VALVE
DRAINAGE INVERT
CURB STOP
FLAG POLE
MAILBOX
UTILITY POLE WITH LIGHT
BUILDING LINE
SPOT ELEVATION
MINOR CONTOUR
MAJOR CONTOUR
WOODS LINE
PLANTING BED
STORM LINE
SANITARY LINE
OVERHEAD ELECTRIC, TELEPHONE AND CABLE LINES
DITCH
CHAIN LINK FENCE
RAILING
APPROXIMATE PROPERTY LINE
SOIL BORING

PROPOSED LEGEND:

- 22.5' BEND
45' BEND
TEE
FIRE HYDRANT
GATE VALVE
CURB STOP
CAP/PLUG
SANITARY CLEANOUT
SANITARY SEWER MANHOLE
OUT-OF-PAVEMENT INLET PROTECTION
OBJECT TO BE REMOVED
SILT FENCE
WATER MAIN/SERVICE
SANITARY SEWER LINE
SANITARY SEWER CIPP LINING
UTILITY TO BE ABANDONED
UTILITY TO BE REMOVED
PAVEMENT SAWCUT
ASPHALT PAVEMENT REMOVAL
CONCRETE SIDEWALK REMOVAL
ASPHALT PAVEMENT RESTORATION
CONCRETE SIDEWALK RESTORATION
ASPHALT WING GUTTER RESTORATION

SURVEY MAP NOTES:

- 1. INFORMATION SHOWN HEREON IS FROM A FIELD SURVEY CONDUCTED BY MJ ENGINEERING AND LAND SURVEYING, PC ON MAY 31, 2019 AND JUNE 4, 2019.
2. UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON SURFACE EVIDENCE AND INFORMATION RECORDED DURING CONVENTIONAL SURVEY METHODS...
3. THE HORIZONTAL DATUM IS REFERENCED TO NORTH AMERICAN DATUM OF 1983...
4. THE VERTICAL DATUM IS REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988...
5. CONTOUR INTERVAL = 1 FOOT.

GENERAL NOTES:

- 1. THE CONTRACTOR SHALL VERIFY BOTH HORIZONTAL AND VERTICAL CONTROL INFORMATION PRIOR TO THE START OF CONSTRUCTION.
2. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY CONDITIONS THAT VARY FROM THOSE SHOWN ON THE PLANS...
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND INCURRING THE COST OF ALL REQUIRED PERMITS...
4. ALL WORK SHALL BE DONE IN STRICT COMPLIANCE WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES...

- 11. CONTRACTOR SHALL BE RESPONSIBLE FOR DEWATERING AND THE MAINTENANCE OF SURFACE DRAINAGE DURING THE COURSE OF WORK...
12. CONTRACTOR SHALL TAKE CARE TO PREVENT DAMAGE TO EXISTING UTILITIES...
13. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY EROSION CONTROL MEASURES...
14. CHLORINATED WATER SHALL NOT BE DISCHARGED TO THE ENVIRONMENT...
15. ALL UTILITY WORK INVOLVING CONNECTIONS TO THE EXISTING SYSTEMS SHALL BE COORDINATED WITH THE ENGINEER...
16. MAINTAIN FLOW FOR ALL EXISTING UTILITIES.

RECONSTRUCTION NOTES:

- 1. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FACT THAT, DUE TO THE NATURE OF RECONSTRUCTION PROJECTS...
2. THE CONTRACTOR SHALL EXERCISE CARE IN HIS REMOVAL OPERATIONS SO AS NOT TO UNNecessarily DISTURB UNDERLYING MATERIALS...
3. DURING REMOVAL OPERATIONS, THE CONTRACTOR SHALL NOT BE ALLOWED TO DROP WASTE CONCRETE, DEBRIS OR OTHER MATERIAL...
4. THE CONTRACTOR SHALL RESTORE ROADS, LAWNS, DRIVEWAYS, GUARDRAILS, CULVERTS...

UNDERGROUND UTILITY NOTES:

- 1. CALL BEFORE YOU DIG:
IF YOU PLAN TO DIG OR DO ANY TYPE OF EXCAVATION WORK...
2. WAIT THE REQUIRED TIME:
YOU NEED TO PROVIDE TWO FULL WORKING DAYS NOTICE PRIOR TO STARTING YOUR WORK...
3. CONFIRM UTILITY RESPONSE:
DIG SAFELY NEW YORK WILL NOTIFY ALL MEMBER UTILITIES OF THE PENDING EXCAVATION...
4. RESPECT THE MARKS:
BEFORE YOU BEGIN YOUR EXCAVATION, WALK THROUGH THE SITE TO FAMILIARIZE YOURSELF WITH THE MARKINGS...

WATER MAIN AND SERVICES INSTALLATION NOTES:

- 1. ALL NEW WATER MAIN PIPING SHALL BE CL52 DUCTILE IRON PIPE, UNLESS OTHERWISE NOTED.
2. ALL DUCTILE IRON FITTINGS, PIPING, VALVES AND APPURTENANCES SHALL BE WRAPPED WITH POLYETHYLENE ENCASEMENT...
3. CONTRACTOR SHALL COORDINATE ALL CONNECTIONS TO EXISTING WATER MAINS AND SERVICES...
4. WATER SERVICE LOCATIONS SHOWN ON THE DRAWINGS ARE FOR ESTIMATING PURPOSES ONLY...
5. EXISTING WATER SERVICES SHALL BE REPLACED AS FOLLOWS:
A. EXISTING WATER SERVICES SHALL BE REPLACED FROM NEW WATER MAIN TO PROPERTY LINE...

SANITARY SEWER MAIN AND LATERALS INSTALLATION NOTES:

- 1. ALL NEW SANITARY SEWER MAIN SHALL BE SDR35 PVC, UNLESS OTHERWISE NOTED.
2. SANITARY SEWER LATERALS AND CLEANOUT LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE AND FOR ESTIMATING PURPOSES ONLY...
3. CONDUCT EXPLORATORY TEST PITS AT ALL UTILITY CROSSINGS TO DETERMINE LOCATION AND DEPTH OF EXISTING UTILITIES...
4. CONTRACTOR SHALL COORDINATE LATERAL REPLACEMENT WITH TOWN AND ENGINEER...
5. EXISTING SANITARY SEWER LATERALS SHALL BE REPLACED AS FOLLOWS:
A. EXISTING LATERALS SHALL BE REPLACED FROM NEW SANITARY SEWER MAIN TO PROPERTY LINE...

MATERIAL STOCKPILE NOTES:

- 1. EXISTING EXCESS TOPSOIL SHALL BE REMOVED AND STORED IN STOCKPILES. THE STOCKPILES SHALL BE SUFFICIENTLY REMOVED FROM ALL OTHER EXCAVATION...
2. EXCESS SOIL TO BE STOCKPILED AS DESIGNATED BY THE TOWN...
3. IN NO CASE SHALL ERODIBLE MATERIALS BE STOCKPILED WITHIN 25'-0" OF ANY DITCH, STREAM OR OTHER SURFACE WATER BODY.

LITTER AND CONSTRUCTION DEBRIS CONTROL MEASURES:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH THE FOLLOWING LITTER AND CONSTRUCTION DEBRIS CONTROL MEASURES:

- 1. THE CONTRACTOR SHALL DISPOSE OF ALL CONSTRUCTION DEBRIS AT AN OFF-SITE FACILITY APPROVED FOR THE TYPE OF MATERIAL GENERATED AT THE SITE.
2. NO BURNING OR BURY PITS WILL BE PERMITTED ON SITE.
3. TEMPORARY STORAGE CONTAINERS SHALL BE PROVIDED, AS NECESSARY, TO CONTROL LITTER AND CONSTRUCTION DEBRIS FROM ENTERING ON-SITE STORMWATER DISCHARGES...
4. PRIOR TO LEAVING THE SITE EACH DAY, THE CONTRACTOR SHALL INSPECT THE PROJECT SITE AND PLACE ALL LITTER AND CONSTRUCTION DEBRIS IN APPROPRIATE STORAGE CONTAINERS.

MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES:

- 1. INSPECT ALL AREAS THAT HAVE RECEIVED VEGETATION EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. ALL AREAS DAMAGED BY EROSION OR WHERE SEED HAS NOT ESTABLISHED SHALL BE REPAIRED AND RE-STABILIZED IMMEDIATELY.
2. INSPECT SILT FENCE FOR DAMAGE EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. MAKE ALL REPAIRS IMMEDIATELY...
3. INSPECT SEDIMENT CONTROL BARRIERS (SILT FENCE OR HAY BALE) AND VEGETATION AROUND SOIL STOCKPILES FOR DAMAGE EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT...
4. IN ORDER TO MAXIMIZE DUST CONTROL, SCHEDULE CONSTRUCTION OPERATIONS TO MINIMIZE THE AMOUNT OF DISTURBED AREAS AT ANY ONE TIME...
5. INSPECT ALL STORM DRAIN INLET PROTECTION DEVICES WITHIN PROJECT AREA EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT.

BYPASS PUMPING NOTES:

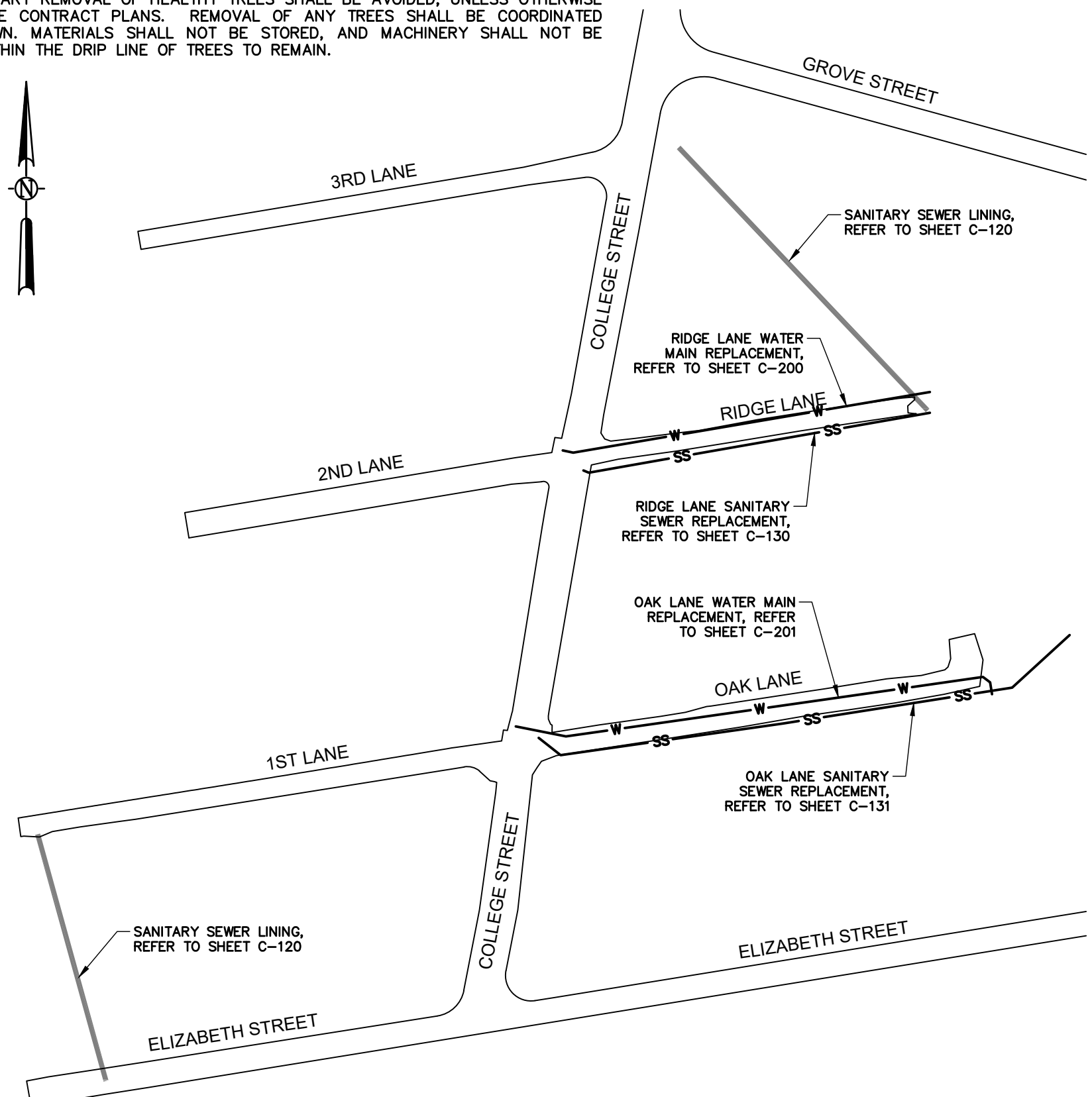
- 1. CONTRACTOR SHALL PROVIDE BYPASS PUMPING TO MAINTAIN SANITARY SEWER FLOWS THROUGHOUT THE DURATION OF THE CONTRACT.
2. PERFORM BYPASS PUMPING IN ACCORDANCE WITH SPECIFICATION 015720.

WORK ZONE TRAFFIC CONTROL NOTES:

- 1. CONTRACTOR SHALL PROVIDE TEMPORARY WORK ZONE TRAFFIC CONTROL FOR ALL IMPACTS TO ROADWAY TRAVEL WIDTH...
2. CONTRACTOR SHALL RESTORE ROADWAY TRAVEL WIDTHS AT THE END OF EACH WORK DAY.

TREE PROTECTION NOTES:

- 1. PROVIDE TEMPORARY FENCING, BARRICADES OR OTHER SUITABLE REMAINING GUARDS LOCATED OUTSIDE THE TREE DRIP LINE (OUTER PERIMETER OF BRANCHES) TO PROTECT TREES AND OTHER PLANTS FROM DAMAGE.
2. DO NOT STORE CONSTRUCTION MATERIALS, DEBRIS OR EXCAVATED MATERIAL WITHIN THE TREE DRIP LINE OF REMAINING TREES.
3. WHERE EXCAVATION FOR NEW CONSTRUCTION IS REQUIRED WITHIN TREE DRIP LINES, HAND EXCAVATE TO MINIMIZE DAMAGE TO ROOT SYSTEMS...
4. DO NOT ALLOW EXPOSED ROOTS TO DRY OUT BEFORE PLACING PERMANENT BACKFILL...
5. WHERE UTILITY TRENCHES ARE REQUIRED WITHIN TREE DRIP LINES, TUNNEL UNDER OR AROUND THE ROOTS...
6. ROOT PRUNING: DO NOT CUT MAIN LATERAL ROOTS OR TAP ROOTS...
7. DO NOT REGRADE MORE THAN 6" ABOVE EXISTING GRADE AROUND TREES...
8. PRUNE REMAINING TREES AFFECTED BY TEMPORARY AND NEW CONSTRUCTION...
9. PRUNE REMAINING TREES TO COMPENSATE FOR ROOT LOSS CAUSED BY DAMAGING OR CUTTING ROOT SYSTEM...
10. PRUNE TREES ACCORDING TO THE NATIONAL ARBORIST ASSOCIATION'S "PRUNING STANDARDS FOR SHADE TREES."
11. CHIP BRANCHES REMOVED FROM TREES. SPREAD MATERIALS WHERE INDICATED...
12. ALL UNNECESSARY REMOVAL OF HEALTHY TREES SHALL BE AVOIDED, UNLESS OTHERWISE NOTED ON THE CONTRACT PLANS.



KEY PLAN

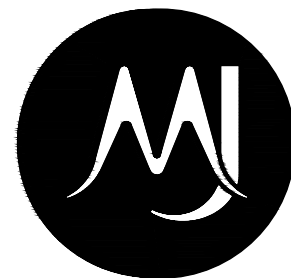
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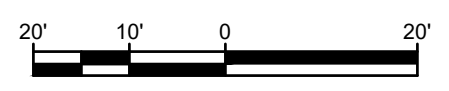
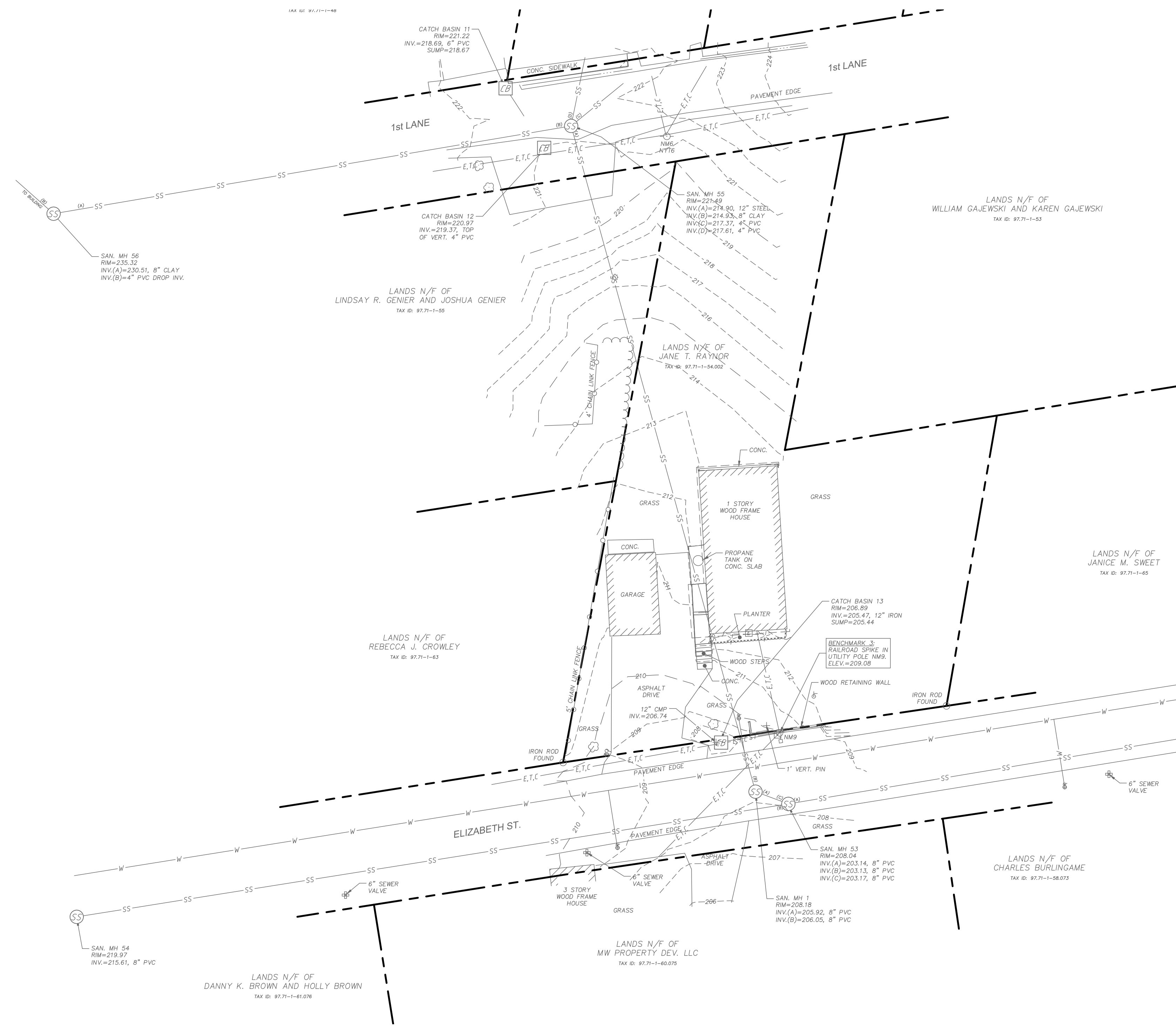
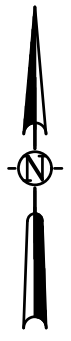
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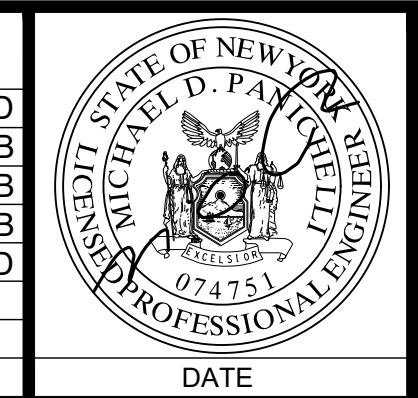
TOWN OF MORIAH GENERAL NOTES, LEGEND, AND KEY PLAN WATER AND SEWER UPGRADES ESSEX COUNTY NEW YORK. Includes Contract No., MJ PROJ. No., DATE, and large G-002 label.



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 CHIEF DESIGNER: MLB
 DESIGNED BY: MLB
 DRAWN BY: MLB
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DATE

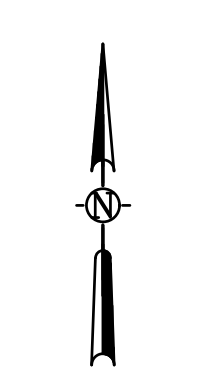
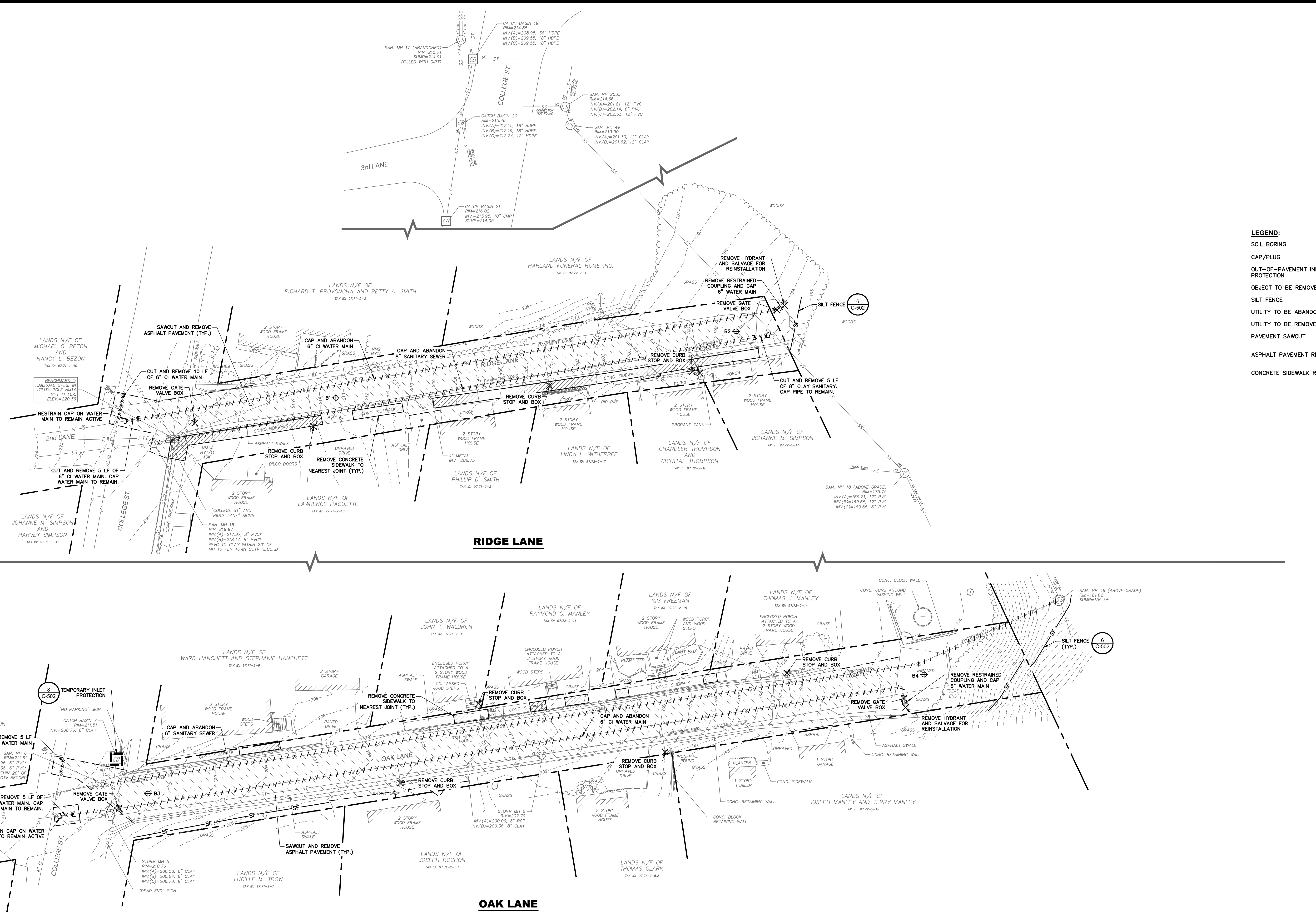
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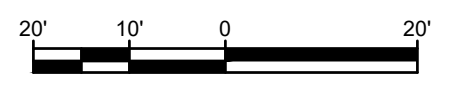
TOWN OF MORIAH
**EXISTING CONDITIONS PLAN:
 1ST LANE TO ELIZABETH ST.**
 WATER AND SEWER UPGRADES
 ESSEX COUNTY NEW YORK

SCALE: 1"=20'
 CONTRACT No. -
 MJ PROJ. No.: 1075.03
 DATE: 12/18/19
C-100

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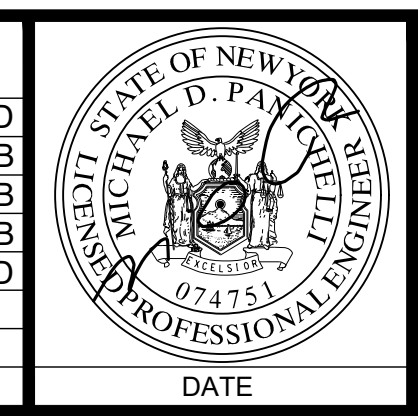


- LEGEND:**
- SOIL BORING
 - CAP/PLUG
 - OUT-OF-PAVEMENT INLET PROTECTION
 - OBJECT TO BE REMOVED
 - SILT FENCE
 - UTILITY TO BE ABANDONED
 - UTILITY TO BE REMOVED
 - PAVEMENT SAWCUT
 - ASPHALT PAVEMENT REMOVAL
 - CONCRETE SIDEWALK REMOVAL



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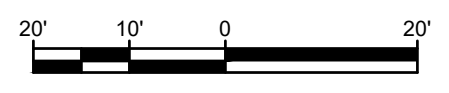
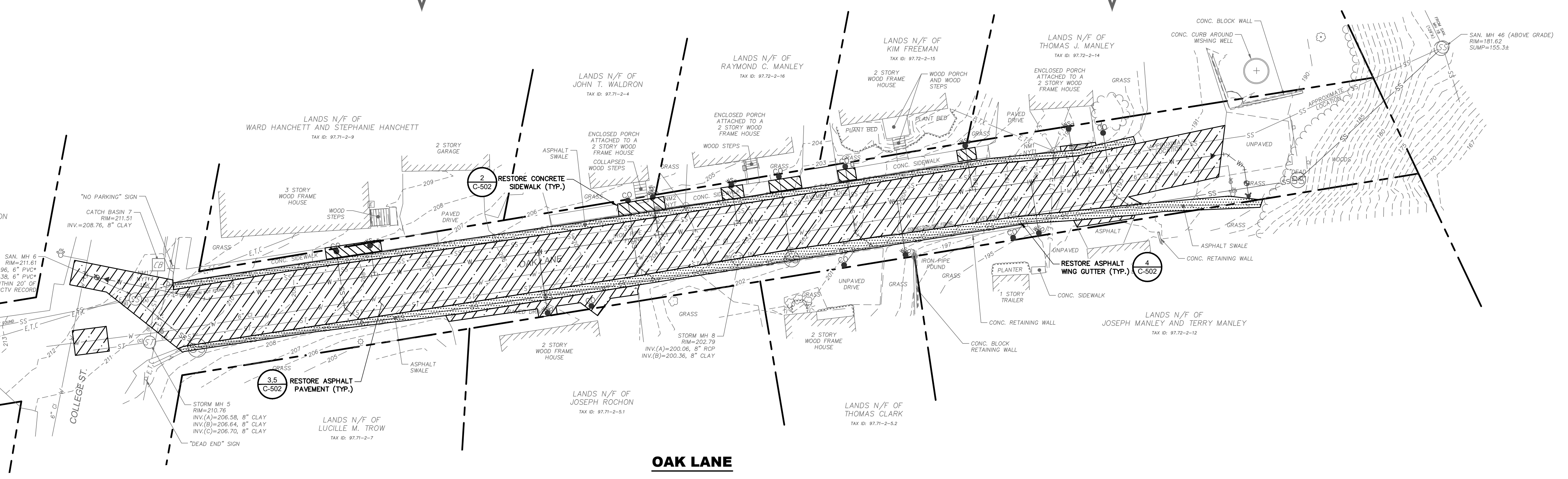
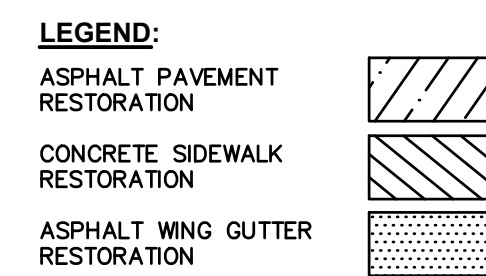
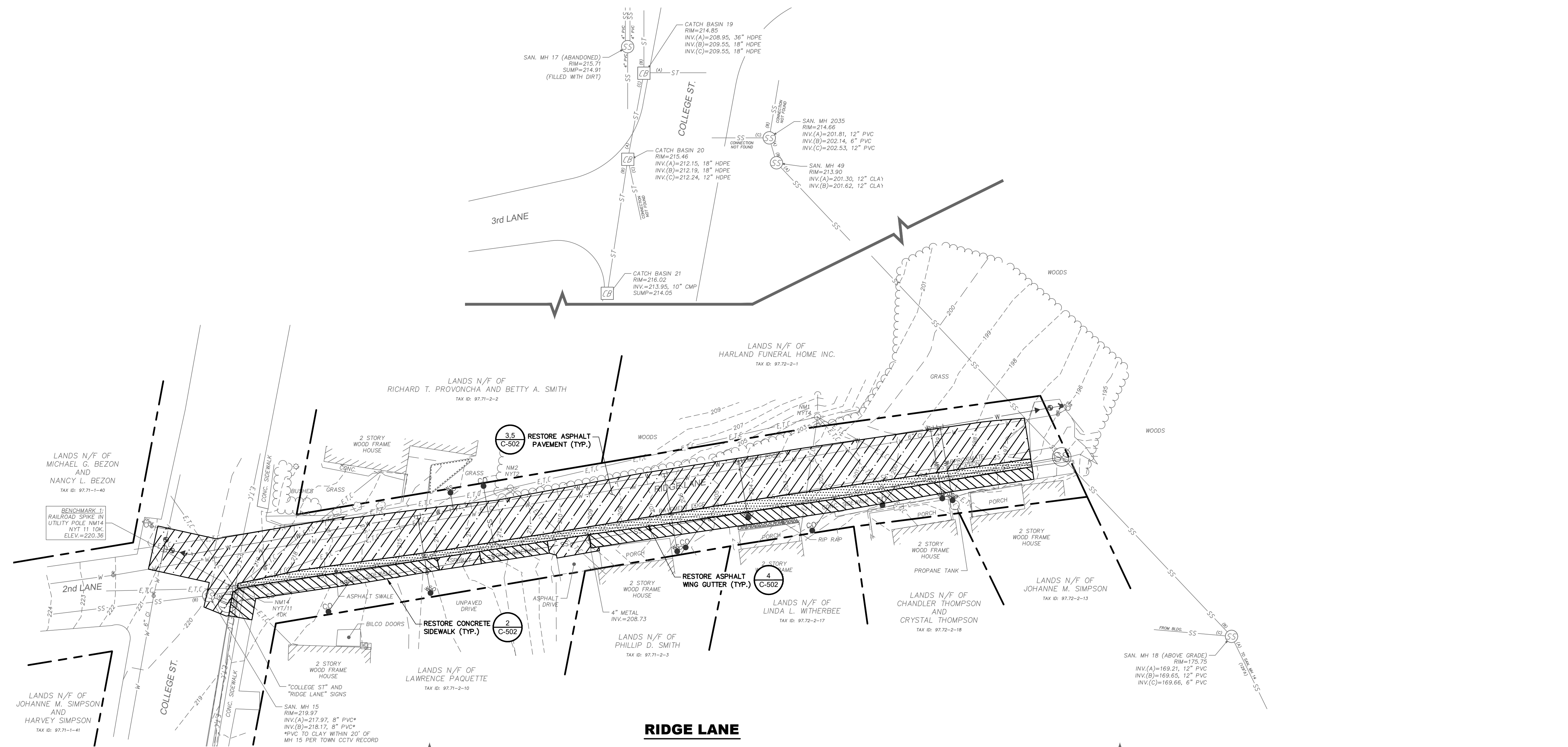
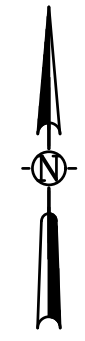
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TOWN OF MORIAH
EXISTING CONDITIONS AND REMOVALS PLAN: COLLEGE ST., RIDGE LANE, OAK LANE
 WATER AND SEWER UPGRADES
 ESSEX COUNTY NEW YORK

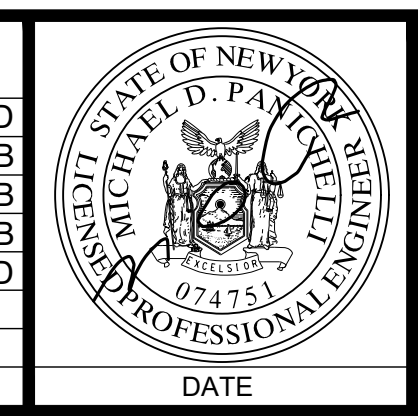
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 MJ PROJ. No.: 1075.03
 DATE: 12/18/19
C-101



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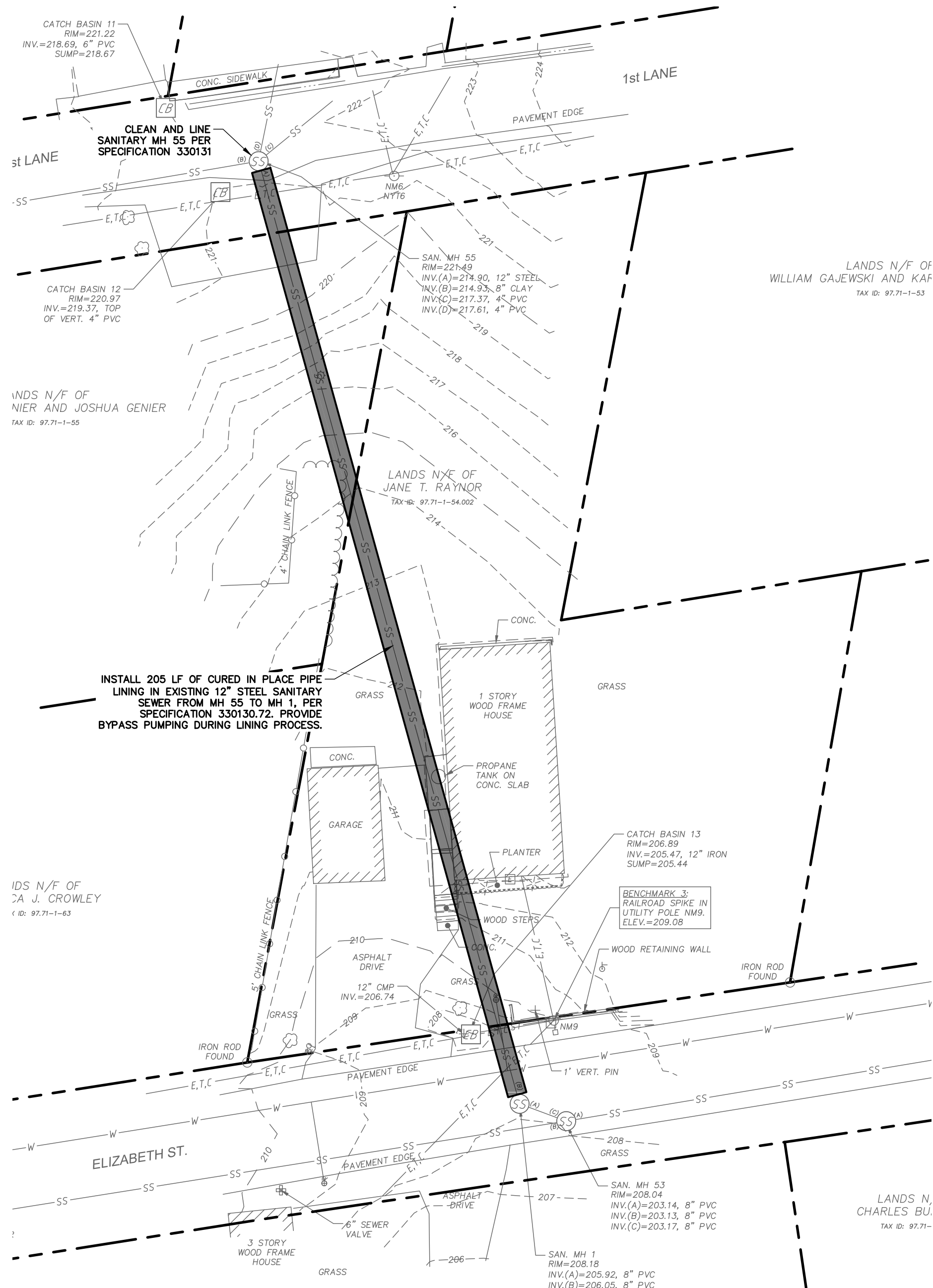
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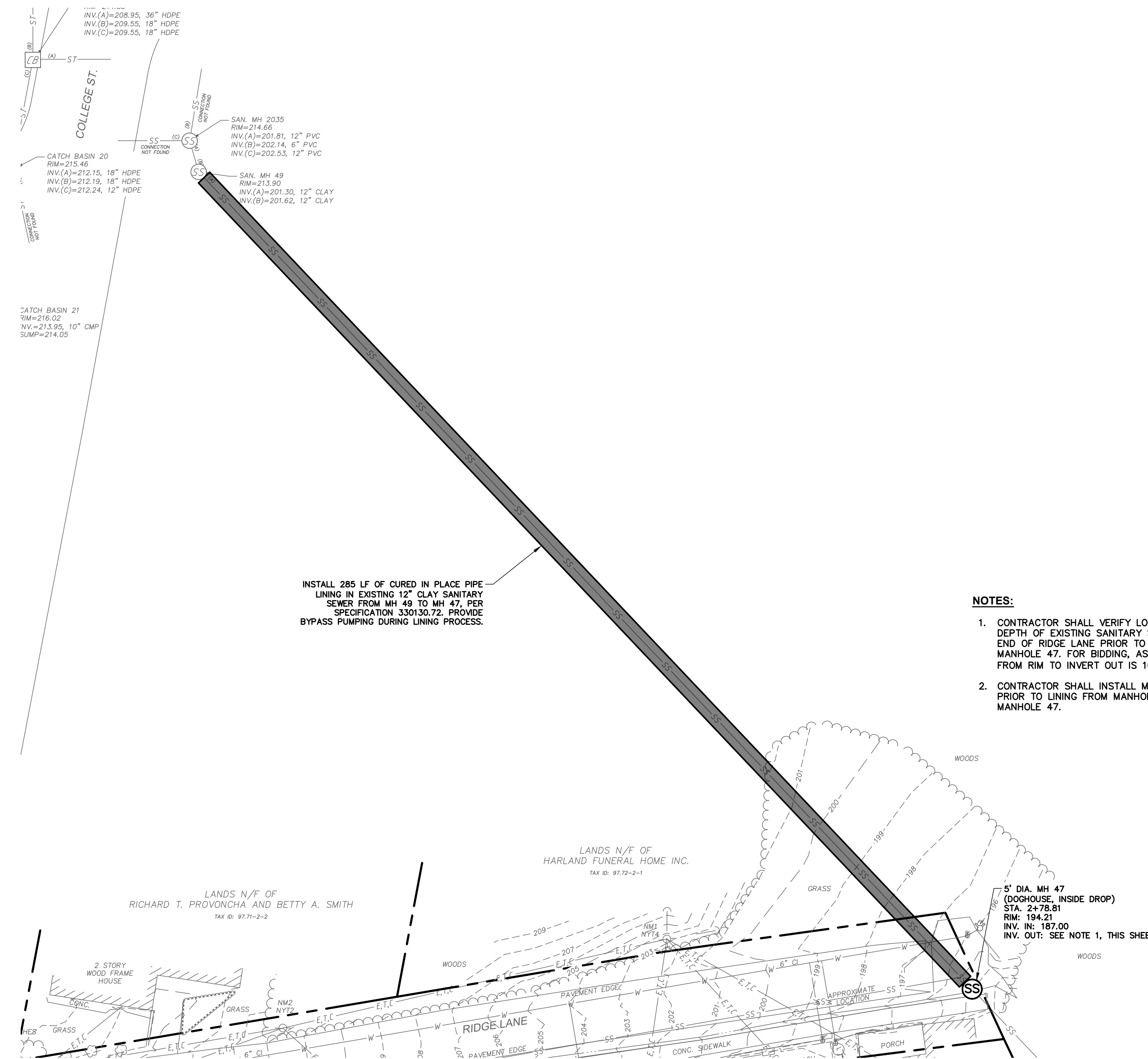
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TOWN OF MORIAH
SITE RESTORATION PLAN:
COLLEGE ST., RIDGE LANE, OAK LANE
 WATER AND SEWER UPGRADES
 ESSEX COUNTY NEW YORK

SCALE: 1"=20'
 CONTRACT No. -
 MJ PROJ. No.: 1075.03
 DATE: 12/18/19
C-110

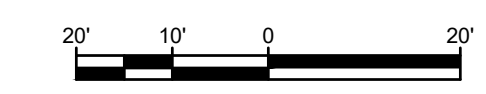


1 SANITARY SEWER LINING MH 55 TO MH 1
 SCALE: 1"=20'



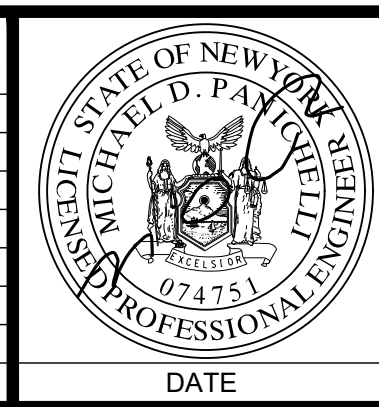
2 SANITARY SEWER LINING MH 49 TO MH 47
 SCALE: 1"=20'

- NOTES:**
1. CONTRACTOR SHALL VERIFY LOCATION AND DEPTH OF EXISTING SANITARY SEWER AT THE END OF RIDGE LANE PRIOR TO ORDERING MANHOLE 47. FOR BIDDING, ASSUME DEPTH FROM RIM TO INVERT IS 10'.
 2. CONTRACTOR SHALL INSTALL MANHOLE 47 PRIOR TO LINING FROM MANHOLE 49 TO MANHOLE 47.



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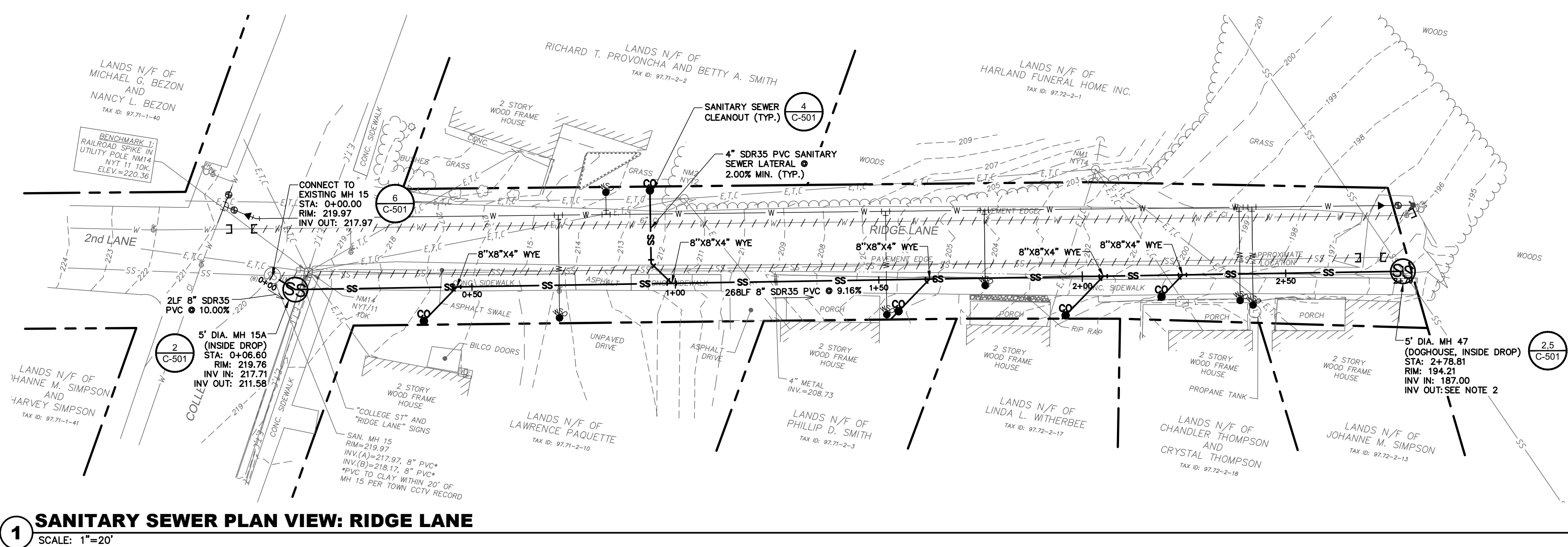
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TOWN OF MORIAH
SANITARY SEWER LINING PLAN
 WATER AND SEWER UPGRADES
 ESSEX COUNTY NEW YORK

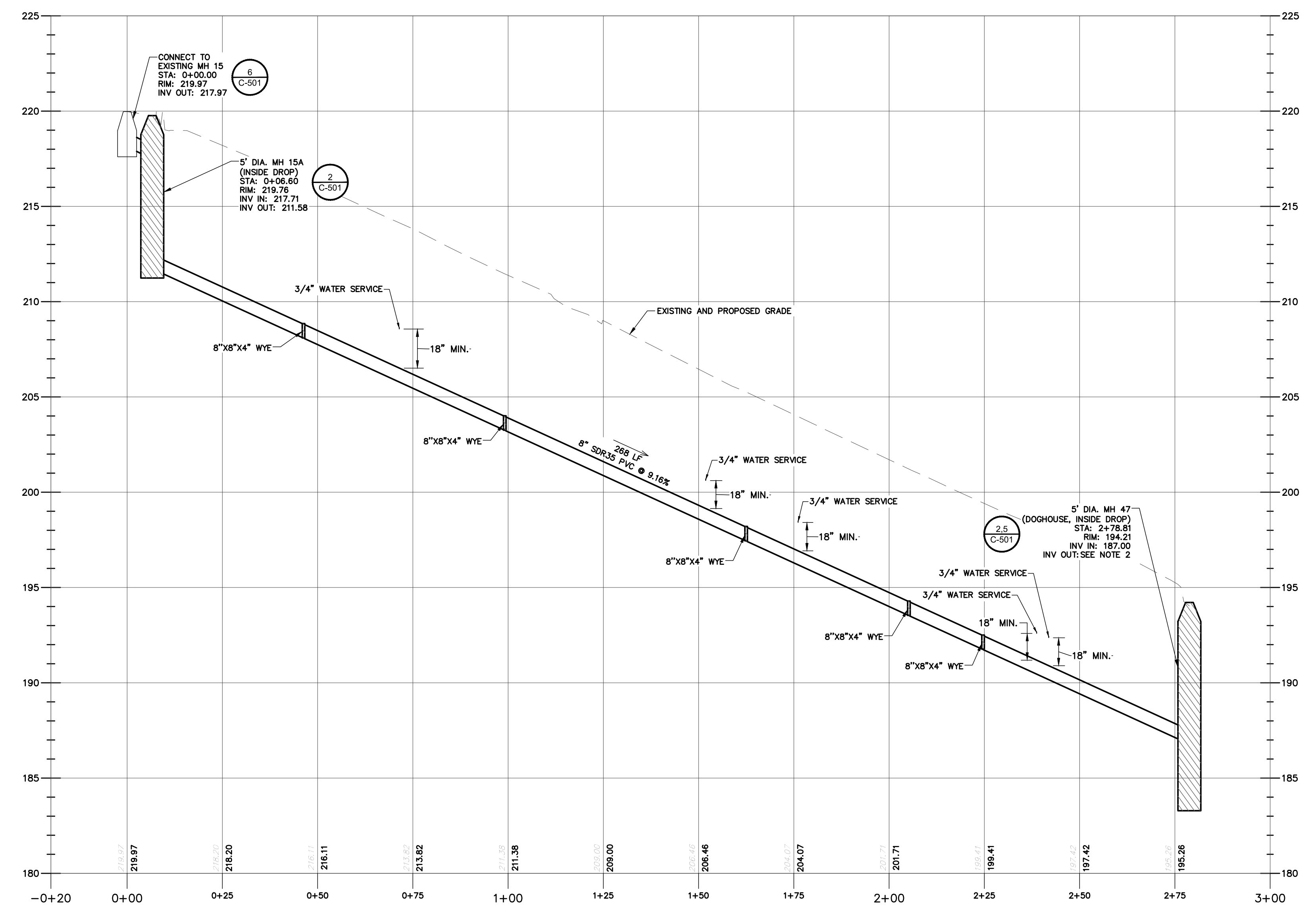
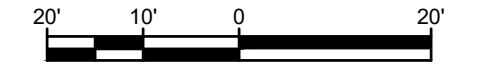
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C-120

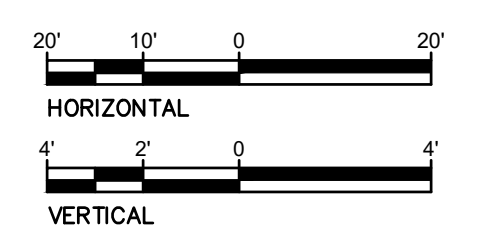
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 Date: Thu, Dec 19, 2019 - 3:33 PM (Name: mbrower)



1 SANITARY SEWER PLAN VIEW: RIDGE LANE
 SCALE: 1"=20'



2 SANITARY SEWER PROFILE VIEW: RIDGE LANE
 SCALE (HOR): 1"=20'
 SCALE (VERT): 1"=4'

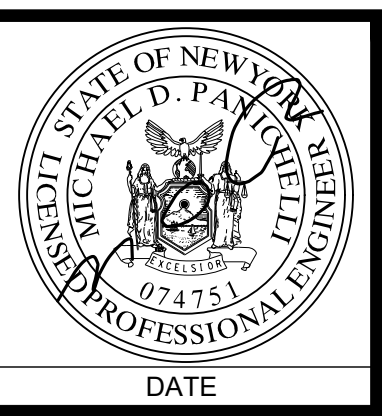


NOTES:

- SANITARY SEWER LATERALS AND CLEANOUT LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE AND FOR ESTIMATING PURPOSES ONLY. CONTRACTOR SHALL COORDINATE EXACT LOCATION WITH HOMEOWNER, ENGINEER AND TOWN. CONTRACTOR SHALL VERIFY SIZE AND DEPTH OF EXISTING SANITARY SEWER LATERALS PRIOR TO RECONNECTION.
- CONTRACTOR SHALL VERIFY LOCATION AND DEPTH OF EXISTING SANITARY SEWER AT THE END OF RIDGE LANE PRIOR TO ORDERING MANHOLE 47. FOR BIDDING, ASSUME DEPTH FROM RIM TO INVERT OUT IS 10'.
- CONDUCT EXPLORATORY TEST PITS AT ALL UTILITY CROSSINGS TO DETERMINE LOCATION AND DEPTH OF EXISTING UTILITIES. IN THE EVENT UTILITIES ARE NOT AT THE VERTICAL DEPTHS SHOWN, IMMEDIATELY NOTIFY THE ENGINEER FOR ADJUSTMENT OF THE PIPING VERTICAL ALIGNMENT.
- CONTRACTOR SHALL COORDINATE LATERAL REPLACEMENT WITH TOWN AND ENGINEER, TOWN TO CCTV EXISTING LATERAL FROM CLEANOUT TO HOUSE PRIOR TO RECONNECTION.
- EXISTING SANITARY SEWER LATERALS SHALL BE REPLACED AS FOLLOWS:
 - EXISTING LATERALS SHALL BE REPLACED FROM NEW SANITARY SEWER MAIN TO PROPERTY LINE. PROVIDE NEW 4" SDR35 LATERALS EXTENDING FROM NEW SANITARY SEWER MAIN TO THE PROPERTY LINE. INSTALL NEW CLEANOUTS AT THE PROPERTY LINE. REMOVE AND DISPOSE OF EXISTING PIPING AND CLEANOUT IN LOCATIONS WHERE THE EXISTING CLEANOUT IS BEYOND THE R.O.W. CONTRACTOR SHALL EXTEND NEW LATERAL FROM CLEANOUT AT PROPERTY LINE TO CONNECT TO EXISTING LATERAL. PROVIDE NECESSARY COUPLINGS/ADAPTERS TO CONNECT TO EXISTING LATERAL.
 - ADD ALTERNATE NO. 1: EXISTING SEWER LATERALS SHALL BE REPLACED FROM NEW CLEANOUT TO HOUSE. PROVIDE 4" SDR35 EXTENDING FROM NEW CLEANOUT TO THE HOUSE. PROVIDE NECESSARY COUPLINGS/ADAPTERS TO CONNECT TO EXISTING LATERAL AT HOUSE. CONNECTION TO EXISTING LATERAL SHALL BE MADE 2' OUTSIDE BUILDING FOUNDATION. NO WORK SHALL BE CONDUCTED INSIDE BUILDING.

SUBMITTAL / REVISIONS					
No.	DATE	DESCRIPTION	BY	REVIEWED BY:	DATE
1	12/18/19	BID DOCUMENTS	MLB	C. DOOLEY	

PROJ. MANAGER: CLD
 CHIEF DESIGNER: MLB
 DESIGNED BY: MLB
 DRAWN BY: MLB
 CHECKED BY: CLD

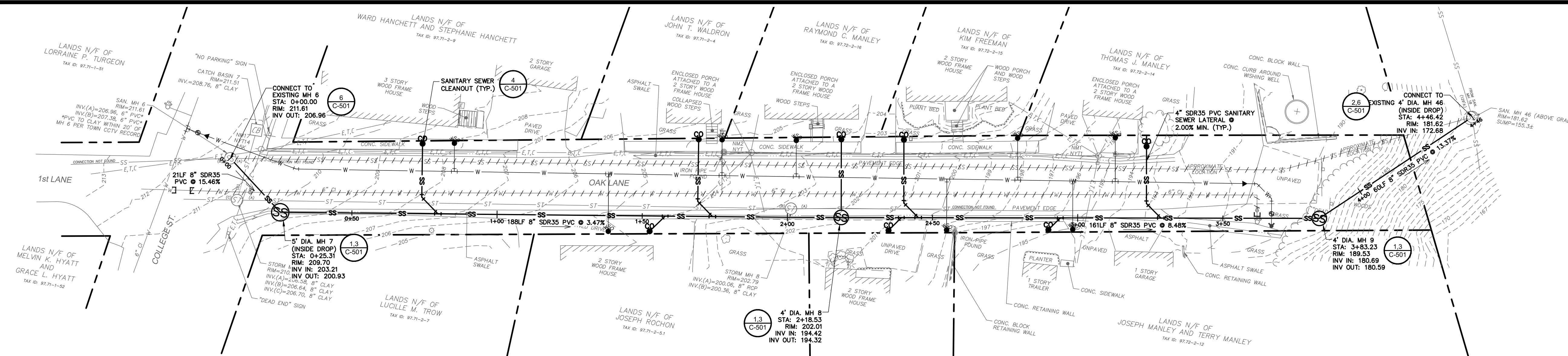
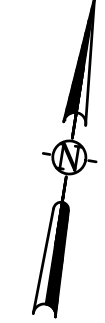


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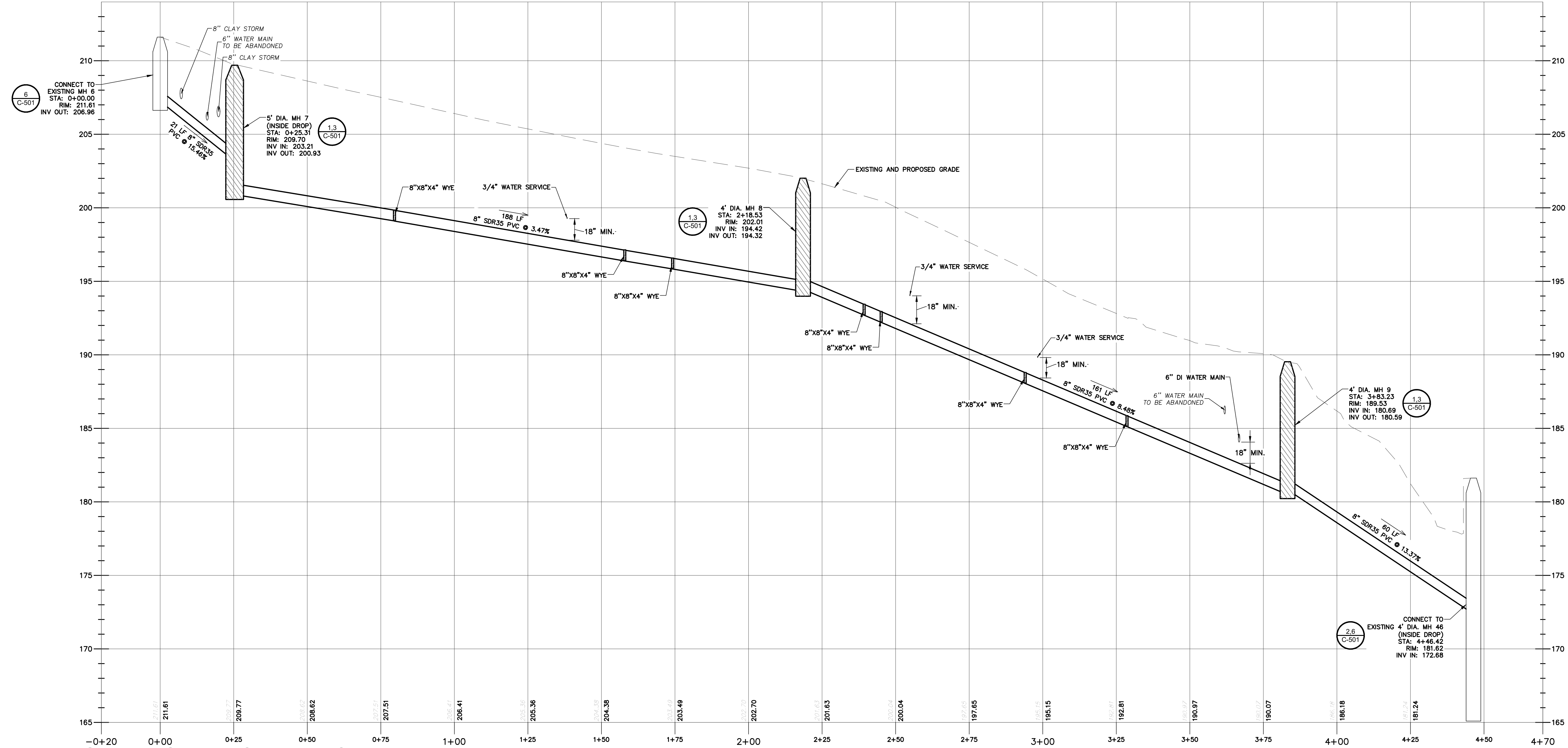
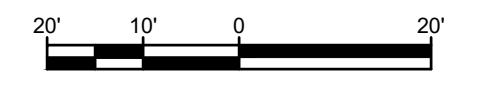
Engineering and Land Surveying, P.C.
 1533 Crescent Road - Clifton Park, NY 12065

TOWN OF MORIAH
SANITARY SEWER PLAN AND PROFILE: RIDGE LANE
 WATER AND SEWER UPGRADES
 ESSEX COUNTY NEW YORK

SCALE: 1"=20'
 CONTRACT No. :-
 MJ PROJ. No.: 1075.03
 DATE: 12/18/19
C-130

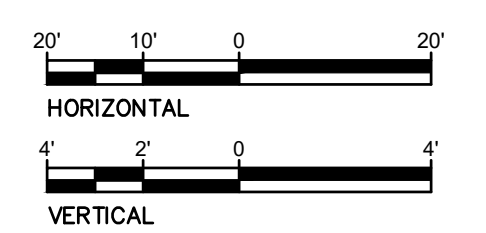


1 SANITARY SEWER PLAN VIEW: OAK LANE
SCALE: 1"=20'



2 SANITARY SEWER PROFILE VIEW: OAK LANE
SCALE(HOR): 1"=20'
SCALE(VERT): SCALE VERT

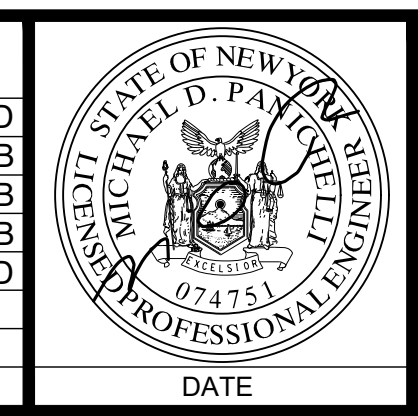
- NOTES:**
- SANITARY SEWER LATERALS AND CLEANOUT LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE AND FOR ESTIMATING PURPOSES ONLY. CONTRACTOR SHALL COORDINATE EXACT LOCATION WITH HOMEOWNER, ENGINEER AND TOWN. CONTRACTOR SHALL VERIFY SIZE AND DEPTH OF EXISTING SANITARY SEWER LATERALS PRIOR TO RECONNECTION.
 - CONDUCT EXPLORATORY TEST PITS AT ALL UTILITY CROSSINGS TO DETERMINE LOCATION AND DEPTH OF EXISTING UTILITIES. IN THE EVENT UTILITIES ARE NOT AT THE VERTICAL DEPTHS SHOWN, IMMEDIATELY NOTIFY THE ENGINEER FOR ADJUSTMENT OF THE PIPING VERTICAL ALIGNMENT.
 - CONTRACTOR SHALL COORDINATE LATERAL REPLACEMENT WITH TOWN AND ENGINEER, TOWN TO CCTV EXISTING LATERAL FROM CLEANOUT TO HOUSE PRIOR TO RECONNECTION.
 - EXISTING SANITARY SEWER LATERALS SHALL BE REPLACED AS FOLLOWS:
 - EXISTING LATERALS SHALL BE REPLACED FROM NEW SANITARY SEWER MAIN TO PROPERTY LINE. PROVIDE NEW 4" SDR35 LATERALS EXTENDING FROM NEW SANITARY SEWER MAIN TO THE PROPERTY LINE. INSTALL NEW CLEANOUTS AT THE PROPERTY LINE. REMOVE AND DISPOSE OF EXISTING PIPING AND CLEANOUT IN LOCATIONS WHERE THE EXISTING CLEANOUT IS BEYOND THE R.O.W. CONTRACTOR SHALL EXTEND NEW LATERAL FROM CLEANOUT AT PROPERTY LINE TO CONNECT TO EXISTING LATERAL. PROVIDE NECESSARY COUPLINGS/ADAPTERS TO CONNECT TO EXISTING LATERAL.
 - ADD ALTERNATE NO. 1: EXISTING SEWER LATERALS SHALL BE REPLACED FROM NEW CLEANOUT TO HOUSE. PROVIDE 4" SDR35 EXTENDING FROM NEW CLEANOUT TO THE HOUSE. PROVIDE NECESSARY COUPLINGS/ADAPTERS TO CONNECT TO EXISTING LATERAL. AT HOUSE CONNECTION TO EXISTING LATERAL SHALL BE MADE 2' OUTSIDE BUILDING FOUNDATION. NO WORK SHALL BE CONDUCTED INSIDE BUILDING.



File Name: F:\MJ\10751075.03 Town of Moriah Water and Sewer\MJ1075.03 C-130 SAN P&P.dwg (Layout: C-131)
Date: Thu, Dec 19, 2019 - 3:33 PM (Name: mbrower)

SUBMITTAL / REVISIONS					
No.	DATE	DESCRIPTION	BY	REVIEWED BY:	DATE
1	12/18/19	BID DOCUMENTS	MLB	C. DOOLEY	

PROJ. MANAGER: CLD
CHIEF DESIGNER: MLB
DESIGNED BY: MLB
DRAWN BY: MLB
CHECKED BY: CLD

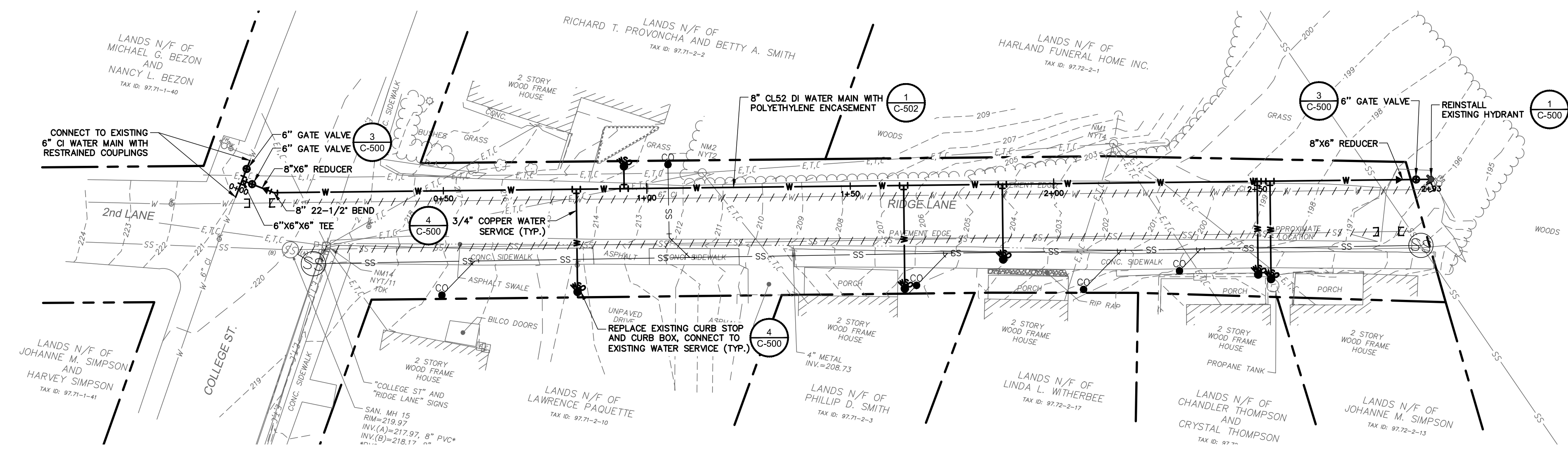


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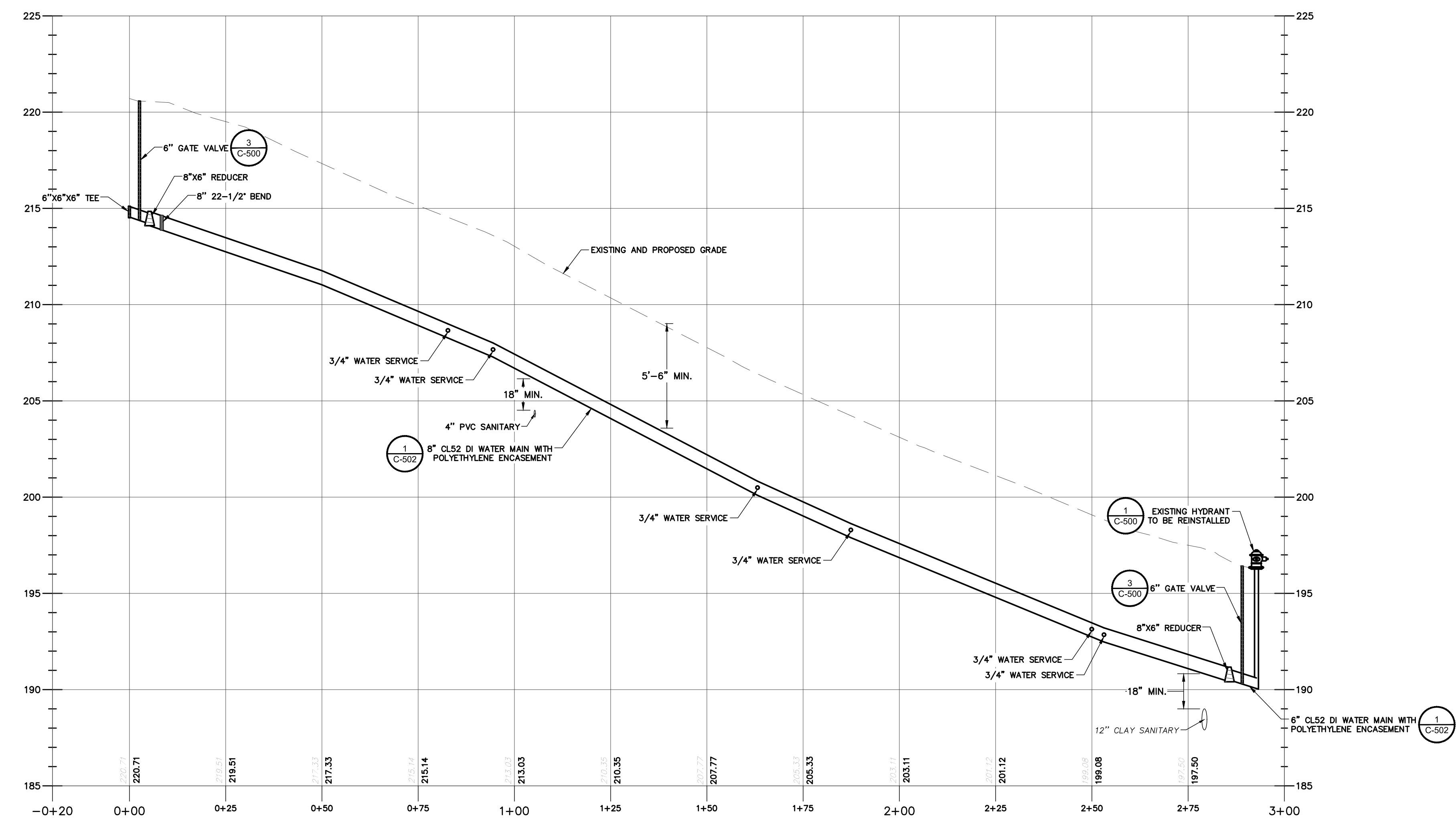
Engineering and Land Surveying, P.C.
1533 Crescent Road - Clifton Park, NY 12065

TOWN OF MORIAH
SANITARY SEWER PLAN AND PROFILE: OAK LANE
WATER AND SEWER UPGRADES
ESSEX COUNTY NEW YORK

SCALE: 1"=20'
CONTRACT No.: -
MJ PROJ. No.: 1075.03
DATE: 12/18/19
C-131



1 WATER MAIN PLAN VIEW: RIDGE LANE
SCALE: 1"=20'



2 WATER MAIN PROFILE VIEW: RIDGE LANE
SCALE(HOR): 1"=20'
SCALE(VERT): 1"=4'

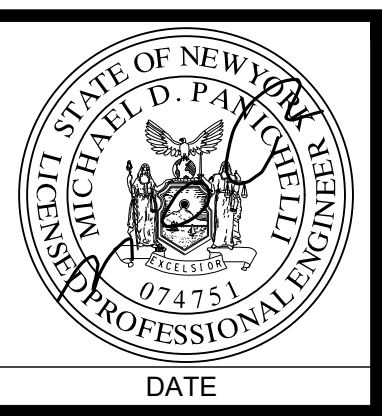
NOTES:

1. CONTRACTOR TO VERIFY SIZE AND LOCATION OF EXISTING WATER SERVICES PRIOR TO RECONNECTION.
2. CONDUCT EXPLORATORY TEST PITS AT ALL UTILITY CROSSINGS TO DETERMINE LOCATION AND DEPTH OF EXISTING UTILITIES. IN THE EVENT UTILITIES ARE NOT AT THE VERTICAL DEPTHS SHOWN, IMMEDIATELY NOTIFY THE ENGINEER FOR ADJUSTMENT OF THE PIPING VERTICAL ALIGNMENT.
3. ALL NEW WATER MAIN PIPING SHALL BE CL52 DUCTILE IRON PIPE, UNLESS OTHERWISE NOTED.
4. ALL DUCTILE IRON FITTINGS, PIPING, VALVES AND APPURTENANCES SHALL BE WRAPPED WITH POLYETHYLENE ENCASEMENT. POLYETHYLENE ENCASEMENT ON EXISTING DUCTILE IRON WATER MAINS SHALL BE REPAIRED AFTER CONNECTION IS MADE.
5. CONTRACTOR SHALL COORDINATE ALL CONNECTIONS TO EXISTING WATER MAINS AND SERVICES WITH THE TOWN. CONTRACTOR SHALL NOTIFY TOWN NO LESS THAN ONE WEEK PRIOR TO TEMPORARY SHUTDOWN OF WATER MAINS AND SERVICES.
6. WATER SERVICE AND SHUT OFF LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE AND FOR ESTIMATING PURPOSES ONLY. CONTRACTOR SHALL COORDINATE EXACT LOCATION WITH HOMEOWNER, ENGINEER AND TOWN.
7. EXISTING WATER SERVICES SHALL BE REPLACED AS FOLLOWS:
 - A. EXISTING WATER SERVICES SHALL BE REPLACED FROM NEW WATER MAIN TO PROPERTY LINE. PROVIDE NEW 3/4" TYPE K COPPER SERVICE LINES EXTENDING FROM NEW WATER MAIN TO THE PROPERTY LINE. INSTALL NEW CURB STOPS AND CURB BOXES WITH STAINLESS STEEL RODS AT THE PROPERTY LINE. REMOVE AND DISPOSE OF EXISTING PIPING AND CURB BOX. IF EXISTING SERVICE IS DIFFERENT THAN 3/4", MATCH EXISTING SERVICE SIZE. IN LOCATIONS WHERE THE EXISTING CURB STOP IS BEYOND THE R.O.W., CONTRACTOR SHALL EXTEND NEW SERVICE FROM CURB STOP AT PROPERTY LINE TO CONNECT TO EXISTING SERVICE. PROVIDE NECESSARY COUPLINGS/ADAPTERS TO CONNECT TO EXISTING SERVICE.
 - B. ADD ALTERNATE NO. 1: EXISTING LEAD OR GALVANIZED WATER SERVICES SHALL BE REPLACED FROM NEW CURB STOP TO HOUSE. PROVIDE NEW 3/4" TYPE K COPPER SERVICE LINES EXTENDING FROM NEW CURB STOP TO THE HOUSE. PROVIDE NECESSARY COUPLINGS/ADAPTERS TO CONNECT TO EXISTING SERVICE AT HOUSE. CONNECTION TO EXISTING WATER SERVICE SHALL BE MADE 2' OUTSIDE BUILDING FOUNDATION. NO WORK SHALL BE CONDUCTED INSIDE BUILDING.
8. ALL NEW WATER MAIN PIPING, INCLUDING SERVICE LINES, SHALL BE TESTED AND DISINFECTED IN ACCORDANCE WITH SECTION 330500.

File Name: F:\MJ1075\1075.03 Town of Moriah Water and Sewer\MJ1075.03 C-200 WATER P&P.dwg (Layout: C-200)
Date: Thu, Dec 19, 2019 - 3:33 PM (Name: mbrower)

SUBMITTAL / REVISIONS					
No.	DATE	DESCRIPTION	BY	REVIEWED BY:	DATE
1	12/18/19	BID DOCUMENTS	MLB	C. DOOLEY	

PROJ. MANAGER: CLD
CHIEF DESIGNER: MLB
DESIGNED BY: MLB
DRAWN BY: MLB
CHECKED BY: CLD



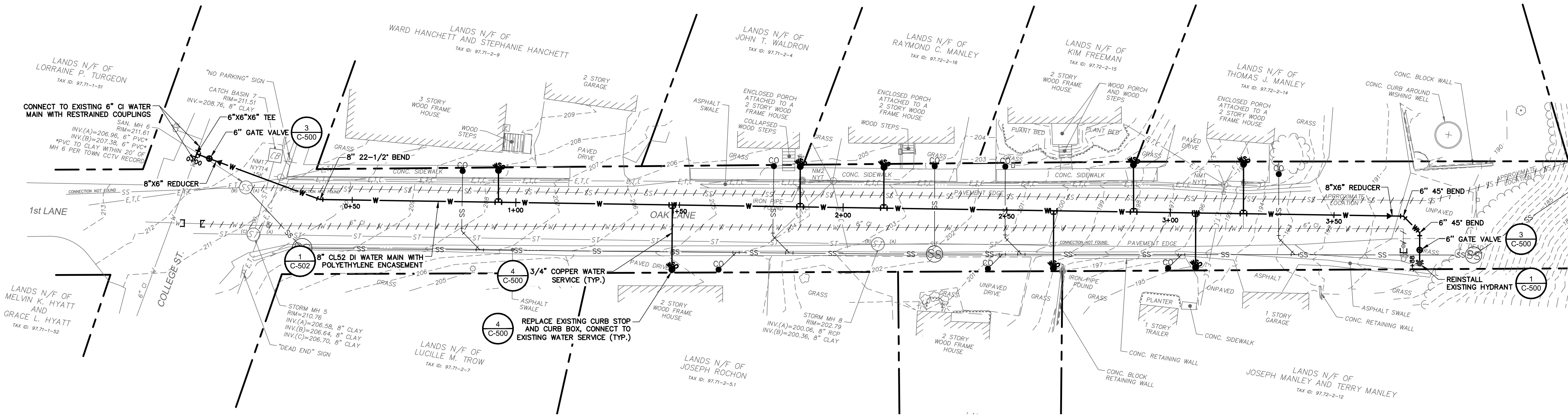
DATE DATE

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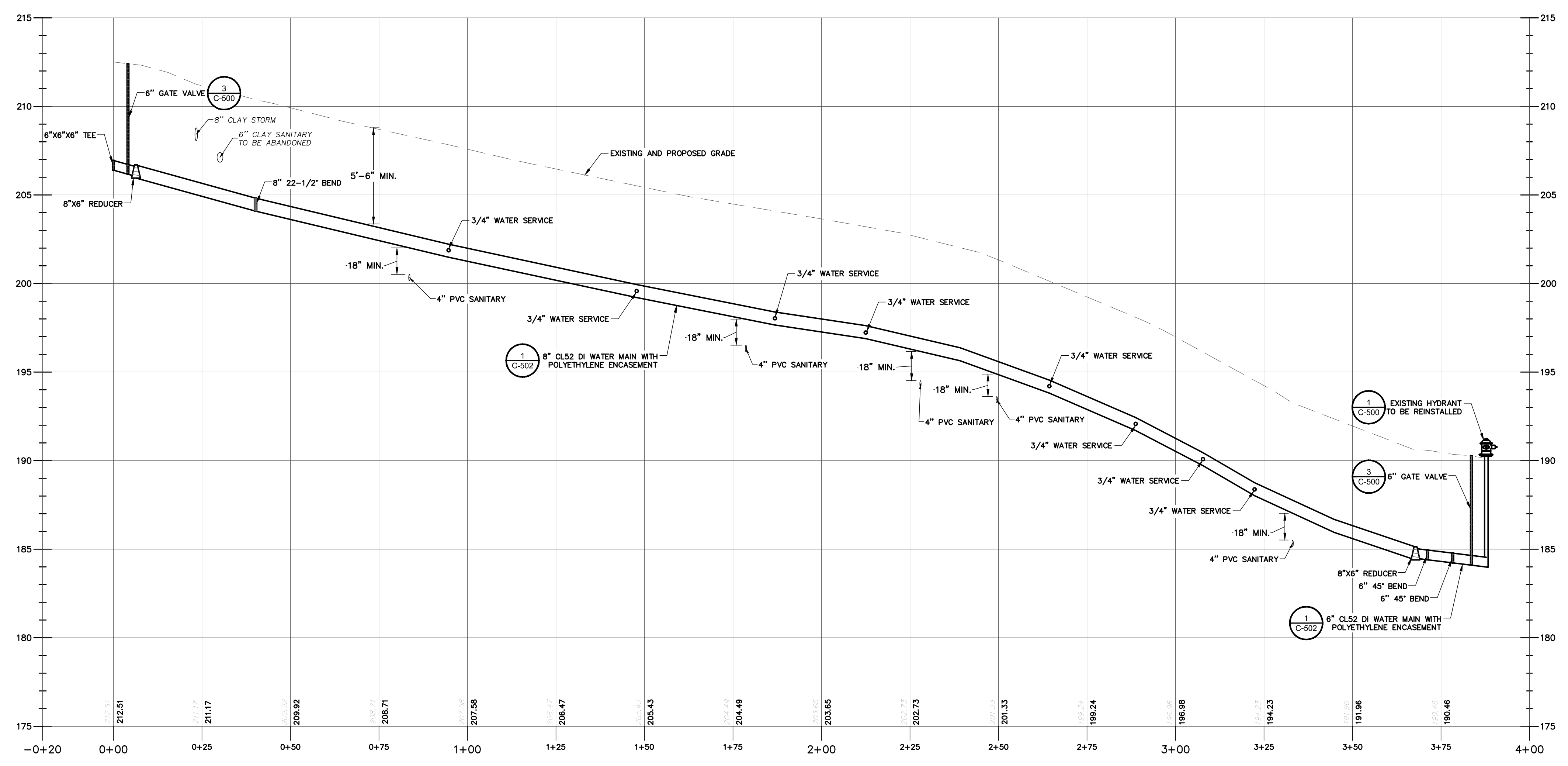
Engineering and Land Surveying, P.C.
1533 Crescent Road - Clifton Park, NY 12065

TOWN OF MORIAH
WATER MAIN PLAN AND PROFILE: RIDGE LANE
WATER AND SEWER UPGRADES
ESSEX COUNTY NEW YORK

SCALE: 1"=20'
CONTRACT No. :-
MJ PROJ. No.: 1075.03
DATE: 12/18/19
C-200



1 WATER MAIN PLAN VIEW: OAK LANE
SCALE: 1"=20'



2 WATER MAIN PROFILE VIEW: OAK LANE
SCALE(HOR): 1"=20'
SCALE(VERT): 1"=4'

NOTES:

- CONTRACTOR TO VERIFY SIZE AND LOCATION OF EXISTING WATER SERVICES PRIOR TO RECONNECTION.
- CONDUCT EXPLORATORY TEST PITS AT ALL UTILITY CROSSINGS TO DETERMINE LOCATION AND DEPTH OF EXISTING UTILITIES. IN THE EVENT UTILITIES ARE NOT AT THE VERTICAL DEPTHS SHOWN, IMMEDIATELY NOTIFY THE ENGINEER FOR ADJUSTMENT OF THE PIPING VERTICAL ALIGNMENT.
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- ALL NEW WATER MAIN PIPING, INCLUDING SERVICE LINES, SHALL BE TESTED AND DISINFECTED IN ACCORDANCE WITH SECTION 330500.

File Name: F:\MJ\1075\1075.03 Town of Moriah Water and Sewer\MJ1075.03 C-200 WATER P&P.dwg (Layout: C-201)
Date: Thu, Dec 19, 2019 - 3:33 PM (Name: mbrower)

SUBMITTAL / REVISIONS					
No.	DATE	DESCRIPTION	BY	REVIEWED BY:	DATE
1	12/18/19	BID DOCUMENTS	MLB	C. DOOLEY	

PROJ. MANAGER: CLD
CHIEF DESIGNER: MLB
DESIGNED BY: MLB
DRAWN BY: MLB
CHECKED BY: CLD



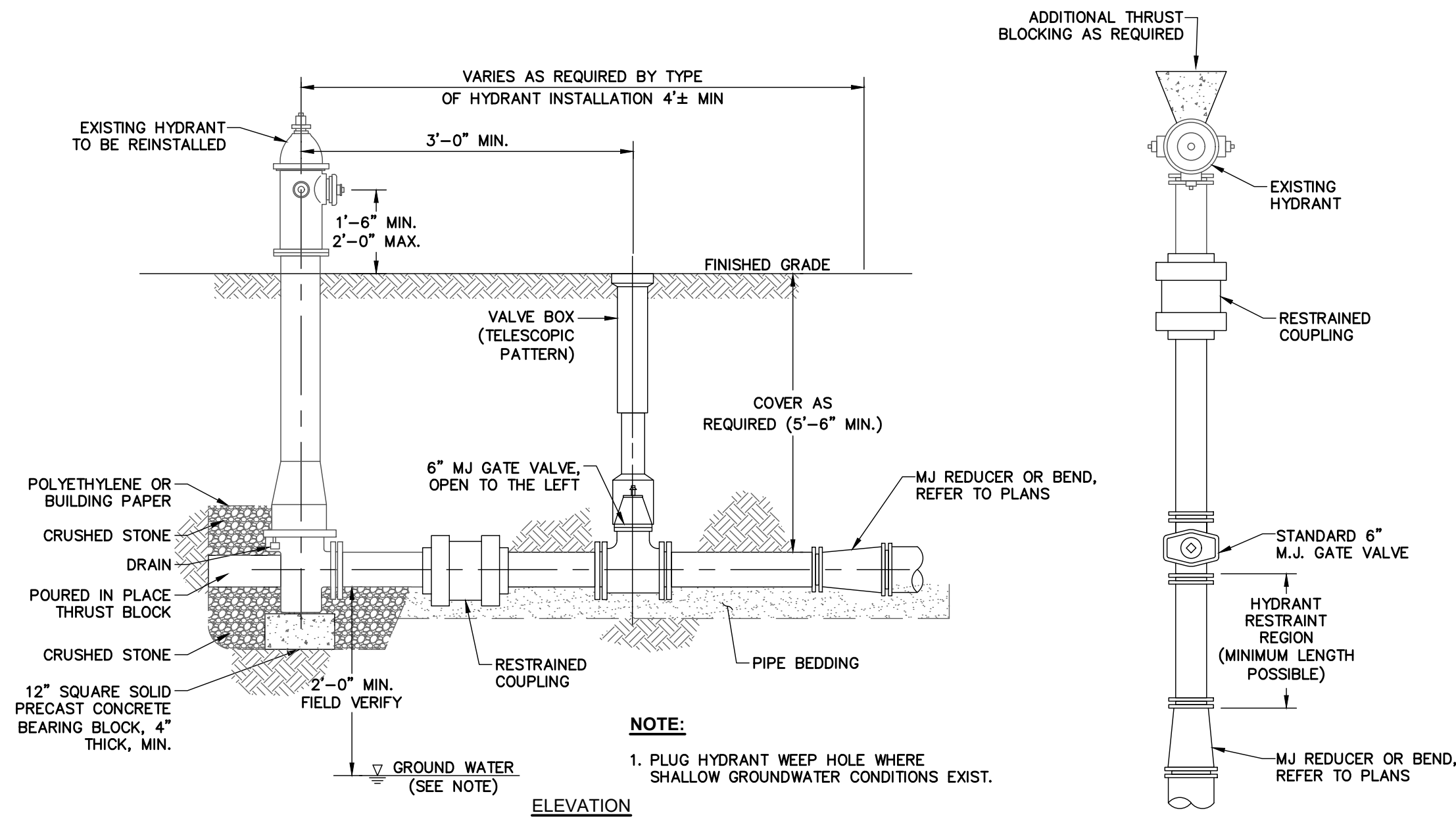
DATE DATE

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1533 Crescent Road - Clifton Park, NY 12065

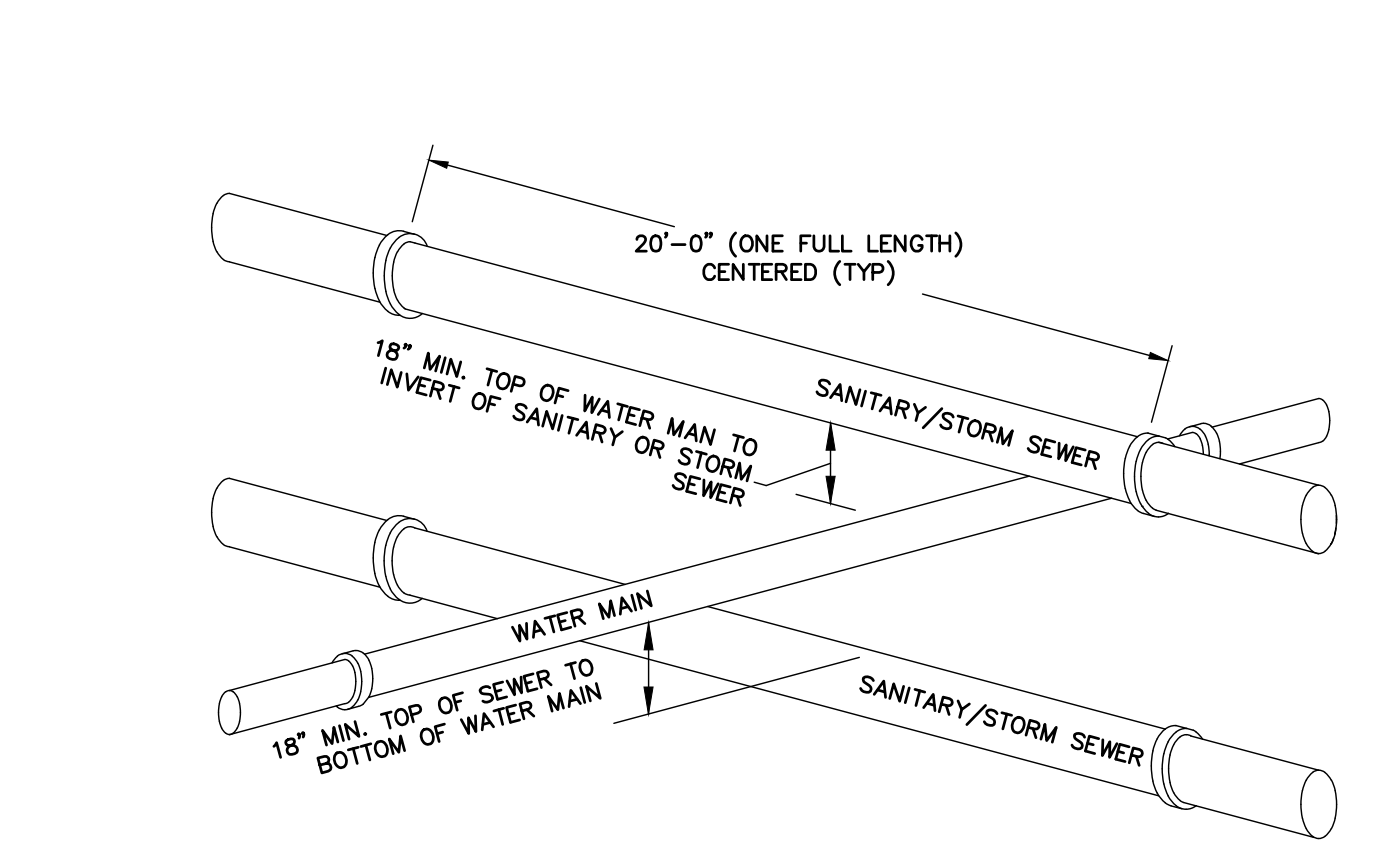
TOWN OF MORIAH
WATER MAIN PLAN AND PROFILE: OAK LANE
WATER AND SEWER UPGRADES
ESSEX COUNTY NEW YORK

SCALE: 1"=20'
CONTRACT No. :-
MJ PROJ. No.: 1075.03
DATE: 12/18/19
C-201



1 HYDRANT REINSTALLATION

SCALE: N.T.S.

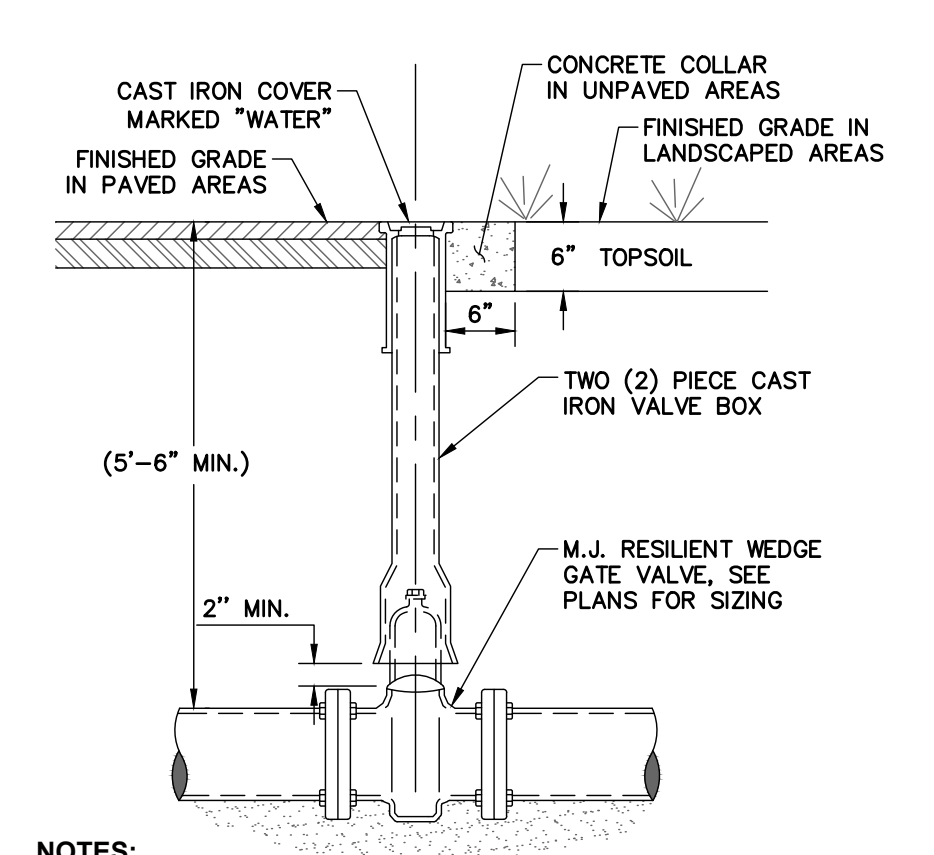


NOTES:

1. WHEN INSTALLED PARALLEL, ALL WATER AND SANITARY/STORM SEWER LINES SHALL HAVE A MINIMUM SEPARATION OF 10' EDGE TO EDGE. IF MINIMUM CANNOT BE MAINTAINED, WATER MAIN SHALL BE IN SEPARATE TRENCH OR ON AN UNDISTURBED EARTH SHELVE TO ONE SIDE OF SANITARY/STORM SEWER, WITH BOTTOM OF WATER MAIN 18" MINIMUM ABOVE TOP OF SEWER PIPE. WHEN CROSSING, MAINS SHALL BE INSTALLED TO INSURE 18" MINIMUM VERTICAL SEPARATION BETWEEN PIPES, OUTSIDE TO OUTSIDE. WHERE WATER MAIN IS UNDERNEATH SEWER, ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SANITARY/STORM SEWER TO PREVENT DAMAGE TO WATER MAIN. WHEN IT IS IMPOSSIBLE TO PROVIDE THE ABOVE MINIMUMS, THE SANITARY/STORM SEWER SHALL BE DESIGNED AND CONSTRUCTED EQUAL TO WATER PIPE, AND SHALL BE PRESSURE TESTED TO ASSURE WATER TIGHTNESS PRIOR TO BACKFILLING.

2 UTILITY SEPARATION REQUIREMENTS

SCALE: N.T.S.

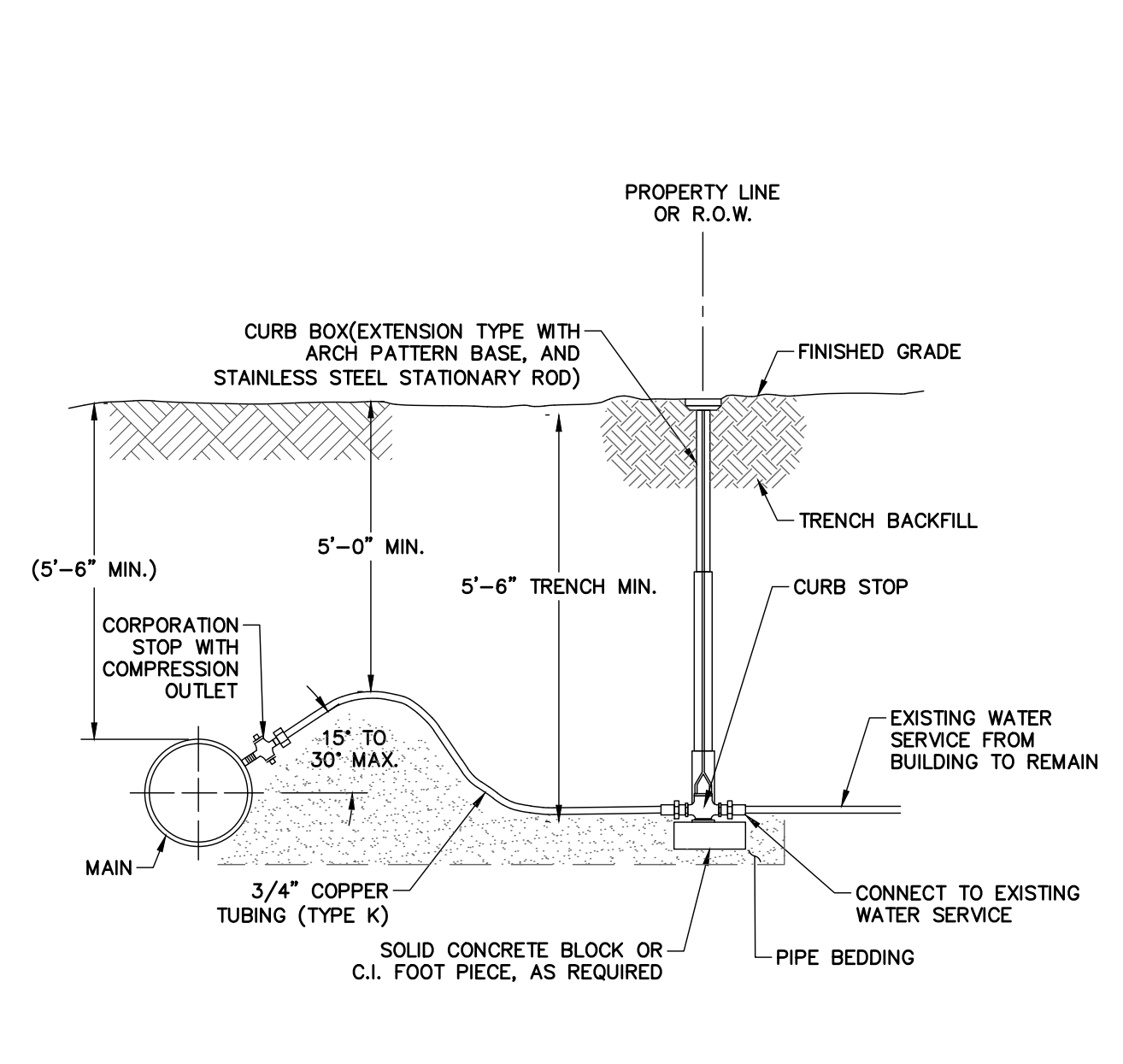


NOTES:

1. WATER VALVES SHALL HAVE THEIR INTERIOR AND EXTERIOR SURFACES FUSION EPOXY COATED CONFORMING TO AWWA C550-81. WATER VALVES SHALL BE MECHANICAL JOINT, NON-RISING STEM RESILIENT WEDGE GATE VALVES.
2. WATER VALVES SHALL OPEN TO THE LEFT (COUNTERCLOCKWISE) WITH A 2-INCH OPERATING NUT AND HAVE STAINLESS STEEL HARDWARE.
3. MINIMUM DISTANCE TO JOINTS, FITTINGS, OR OTHER WET TAPS OR STOPS SHALL BE 3'-FEET.
4. MAKE AND MODEL OF GATE VALVE AND VALVE BOX SHALL BE IN ACCORDANCE WITH PROJECT SPECIFICATIONS. SEE SECTION 331100.

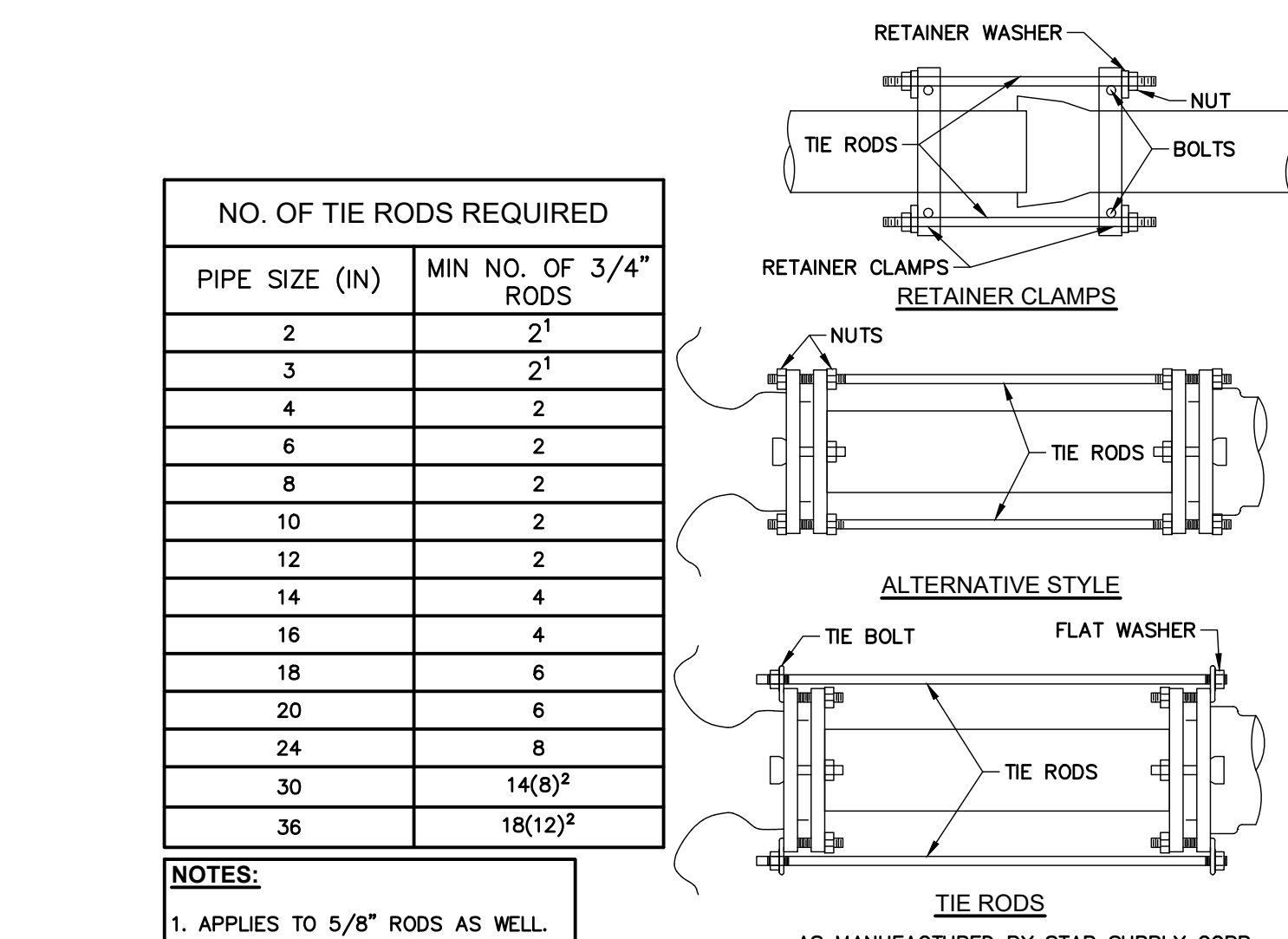
3 TYPICAL UNDERGROUND GATE VALVE

SCALE: N.T.S.



4 WATER SERVICE

SCALE: N.T.S.



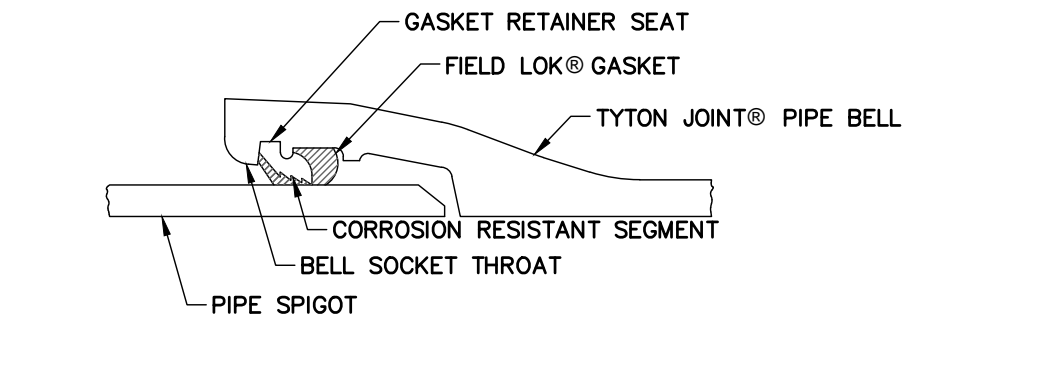
NO. OF TIE RODS REQUIRED	
PIPE SIZE (IN)	MIN NO. OF 3/4" RODS
2	2 ¹
3	2 ¹
4	2
6	2
8	2
10	2
12	2
14	4
16	4
18	6
20	6
24	8
30	14(8) ²
36	18(12) ²

NOTES:

1. APPLIES TO 5/8" RODS AS WELL.
2. MINIMUM NO. OF 1" RODS.

5 THRUST RESTRAINT OPTIONS

SCALE: N.T.S.

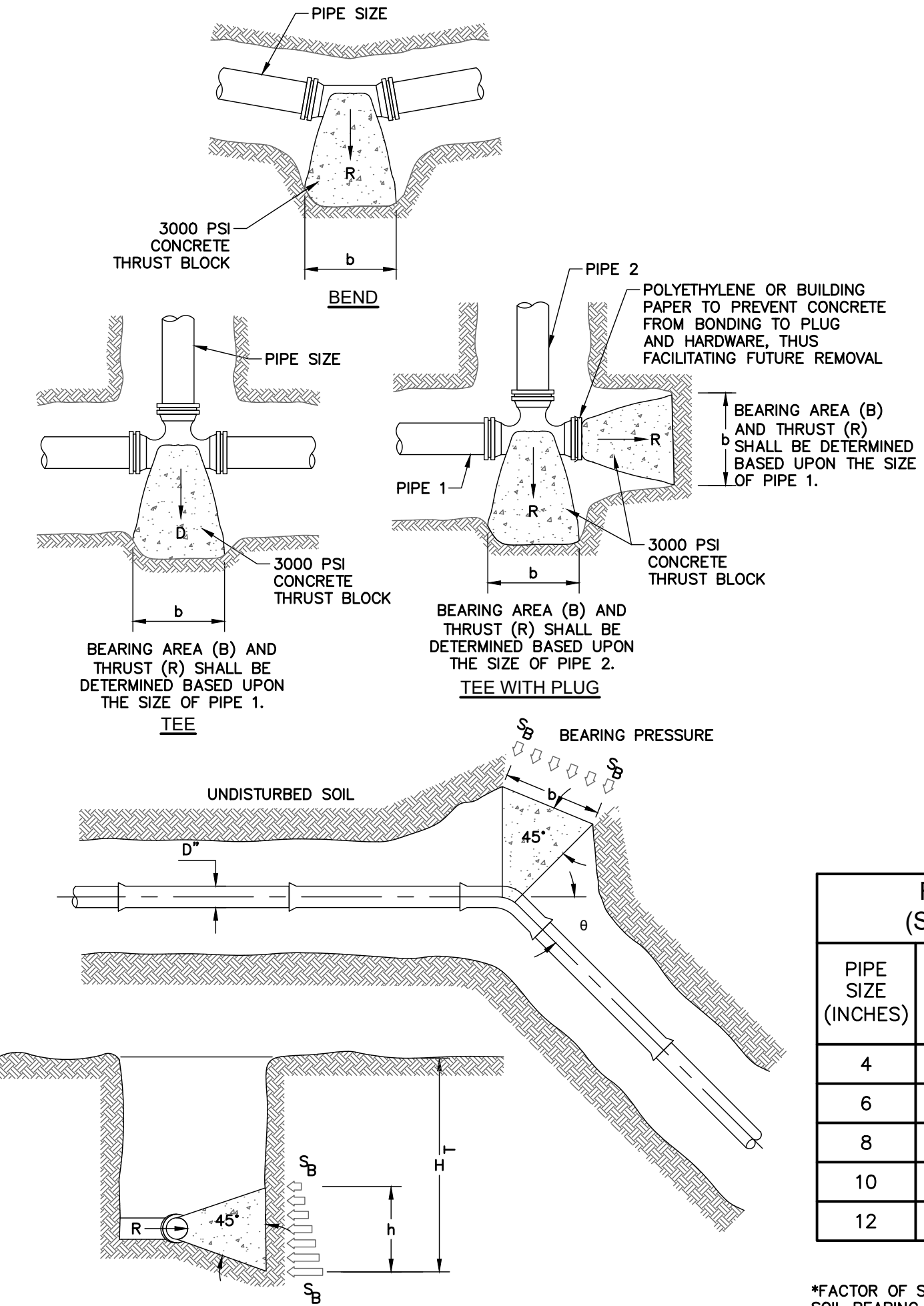


NOTES:

1. ALL UNDERGROUND DUCTILE IRON PIPE JOINTS SHALL BE RESTRAINED WITH FIELD LOK® GASKETS.
2. PROVIDE TWO BRONZE WEDGES AT EACH JOINT TO MAINTAIN ELECTRICAL CONDUCTIVITY.

6 RESTRAINED JOINT

SCALE: N.T.S.



REQUIRED BEARING AREAS -b (SQ. FT.) FOR BEARING BLOCKS*					
PIPE SIZE (INCHES)	TEE	90° BEND	45° BEND	22-1/2° BEND	11-1/4° BEND
4	2.0	2.8	1.5	0.8	0.4
6	4.2	5.9	3.2	1.6	0.8
8	7.2	10.1	5.5	2.8	1.4
10	10.9	15.4	8.3	4.2	2.1
12	15.4	21.8	11.8	6.0	3.0

THRUST REACTIONS-R(LB) PER 100PSI INTERNAL PRESSURE					
NOM. PIPE DIA (IN)	DEAD END	90° BEND	45° BEND	22-1/2° BEND	11-1/4° BEND
4	1,810	2,559	1,385	706	355
6	3,739	5,288	2,862	1,459	733
8	6,433	9,097	4,923	2,510	1,261
10	9,677	13,685	7,406	3,776	1,897
12	13,685	19,353	10,474	5,340	2,683

*FACTOR OF SAFETY=1.5
SOIL BEARING OF 3,000 PSF
225 PSI DESIGN PRESSURE

*BEARING AREA (B) = bsh

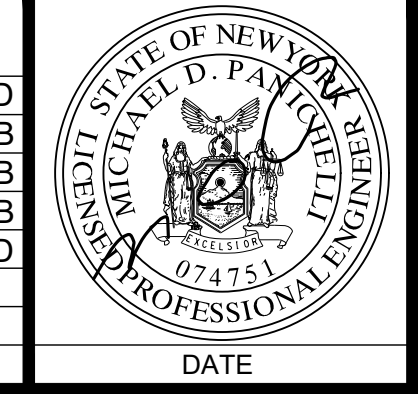
7 THRUST BLOCK

SCALE: N.T.S.

File Name: F:\MJ10751075.03 Town of Moriah Water and Sewer\MJ1075.03 C-500 DETAILS.dwg (Layout: C-500) Date: Thu, Dec 19, 2019 - 3:33 PM (Name: mbrower)

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PROJ. MANAGER: CLD
CHIEF DESIGNER: MLB
DESIGNED BY: MLB
DRAWN BY: MLB
CHECKED BY: CLD

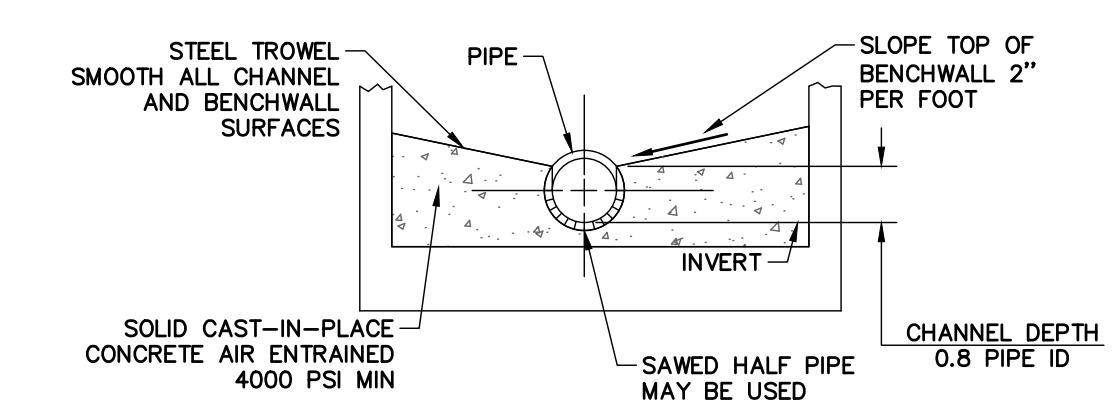
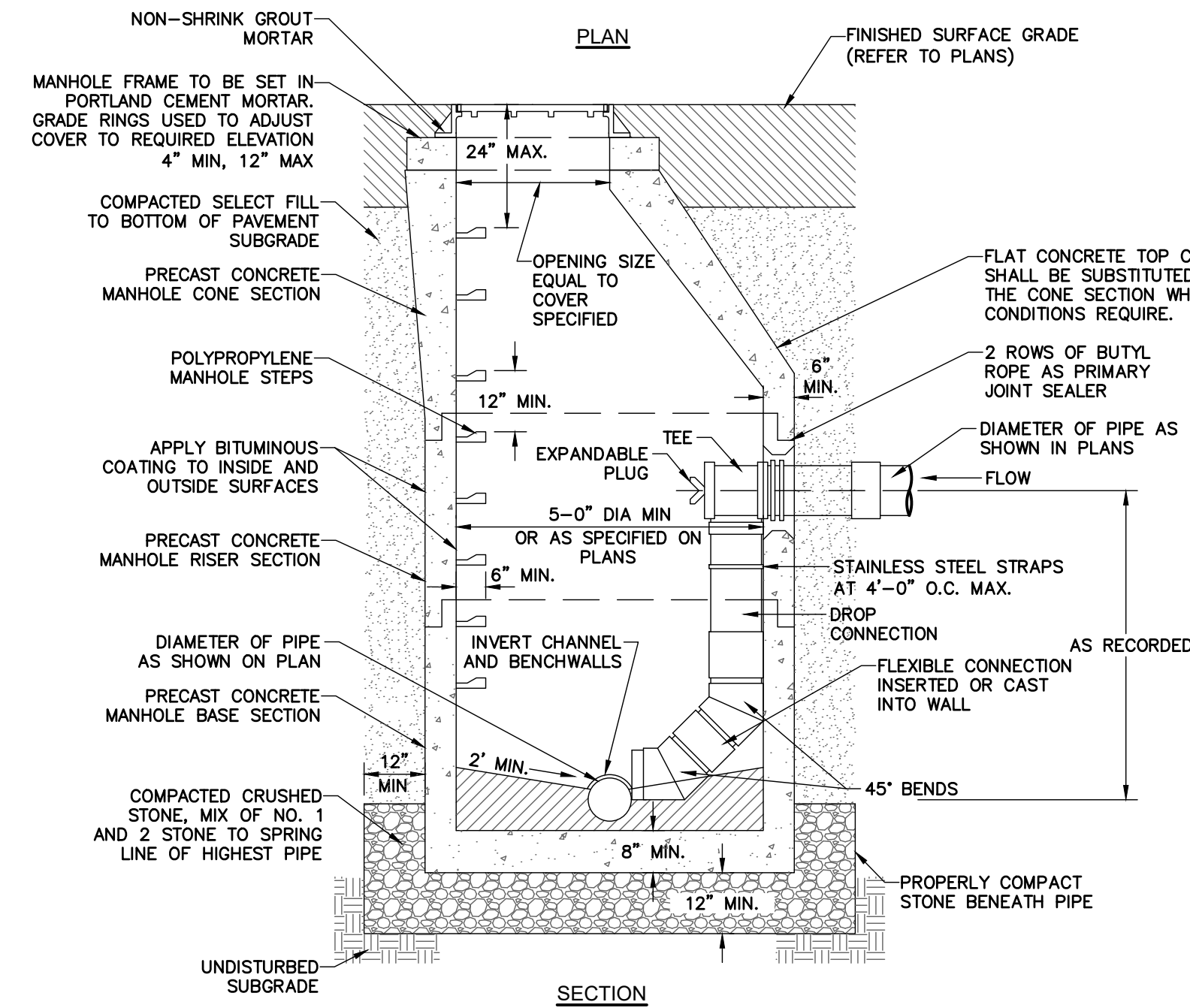
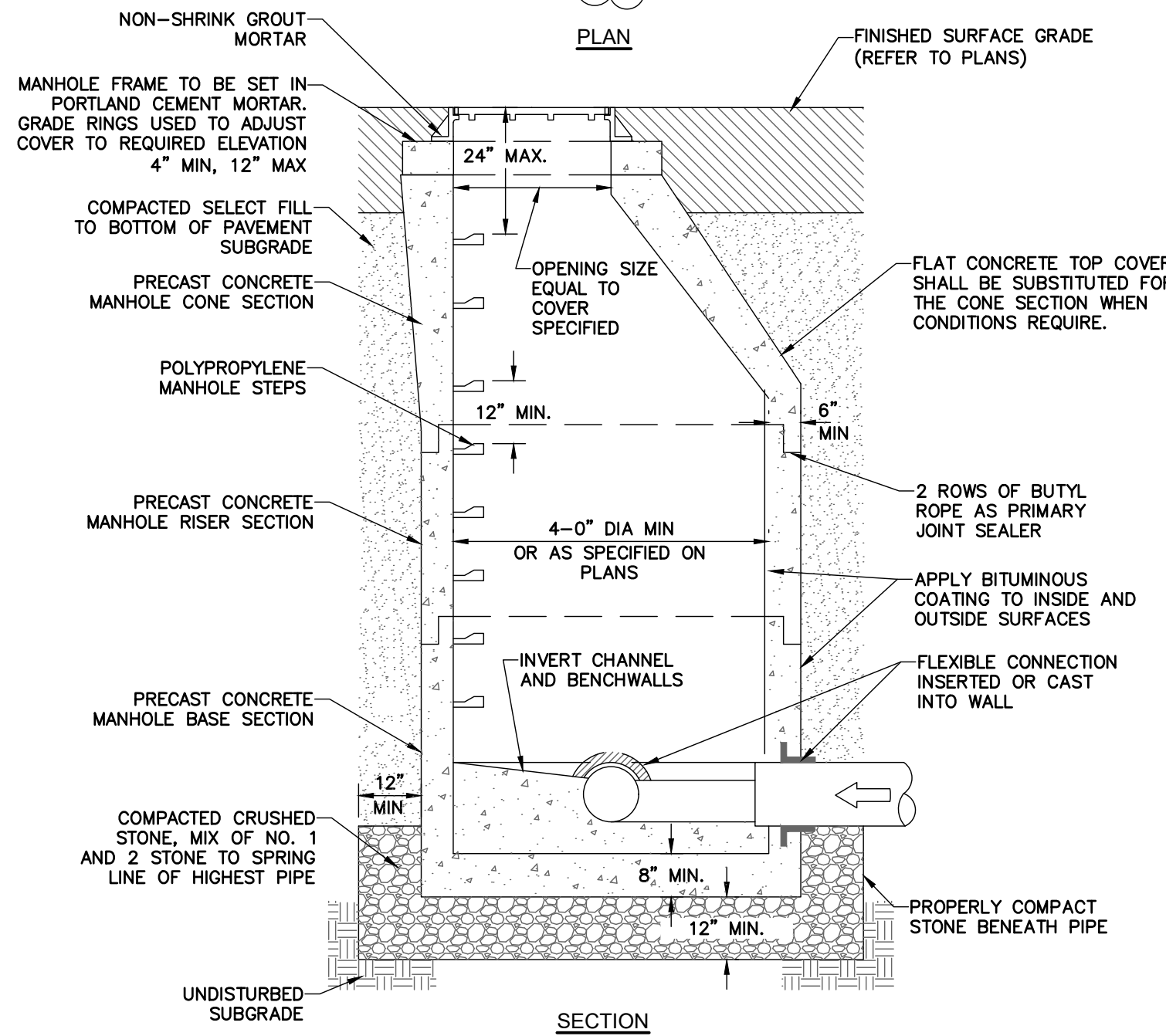
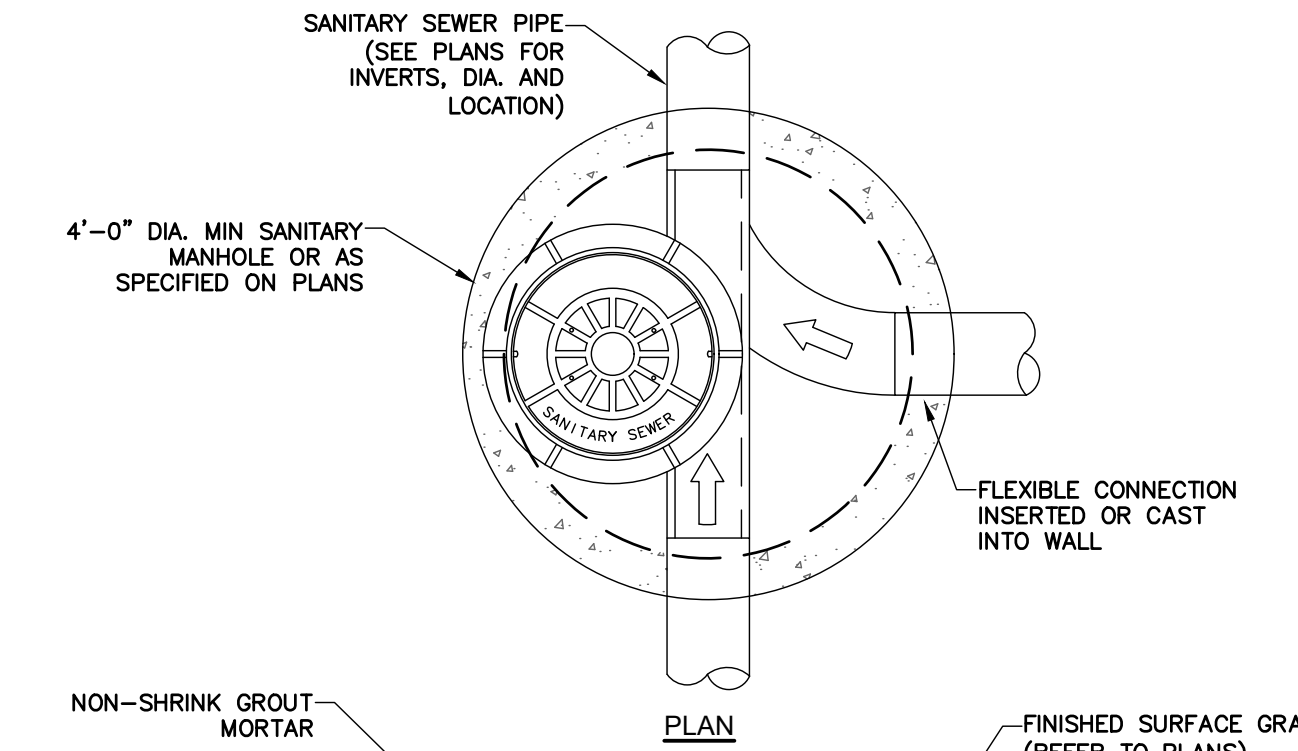
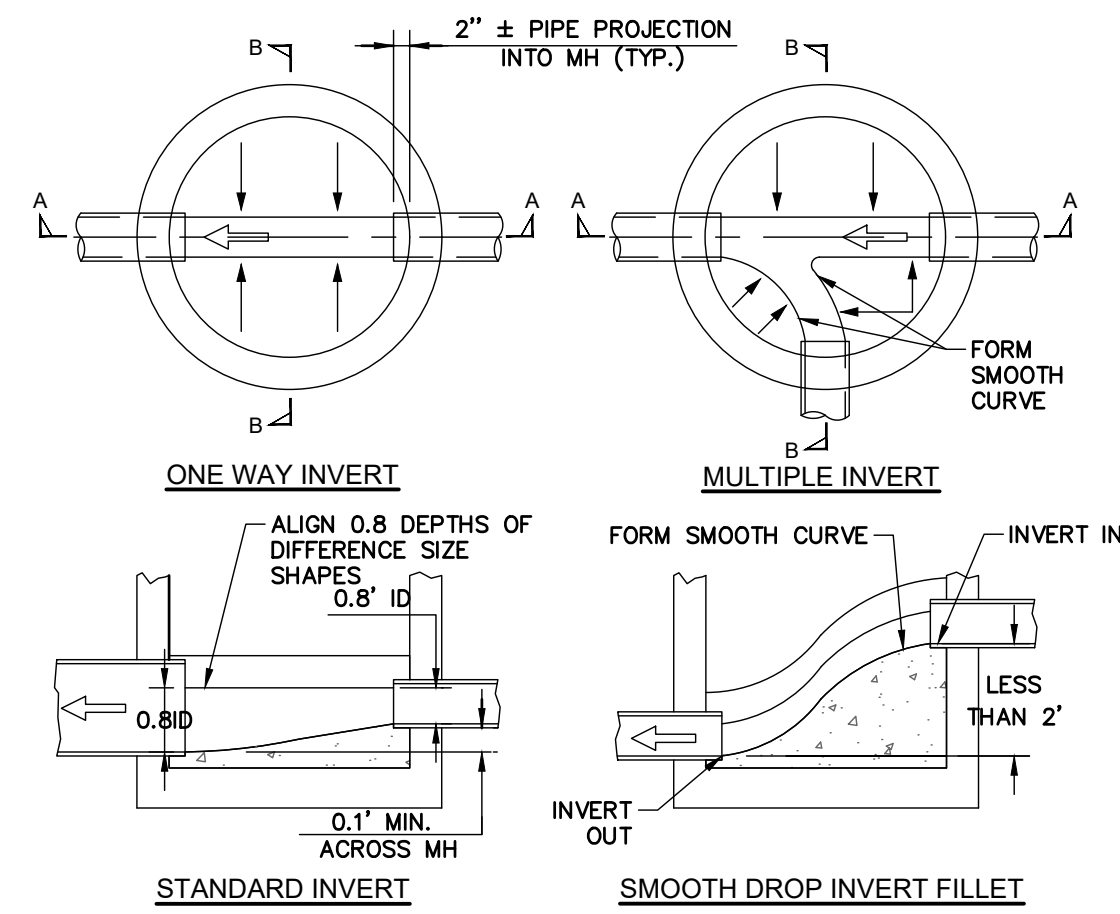
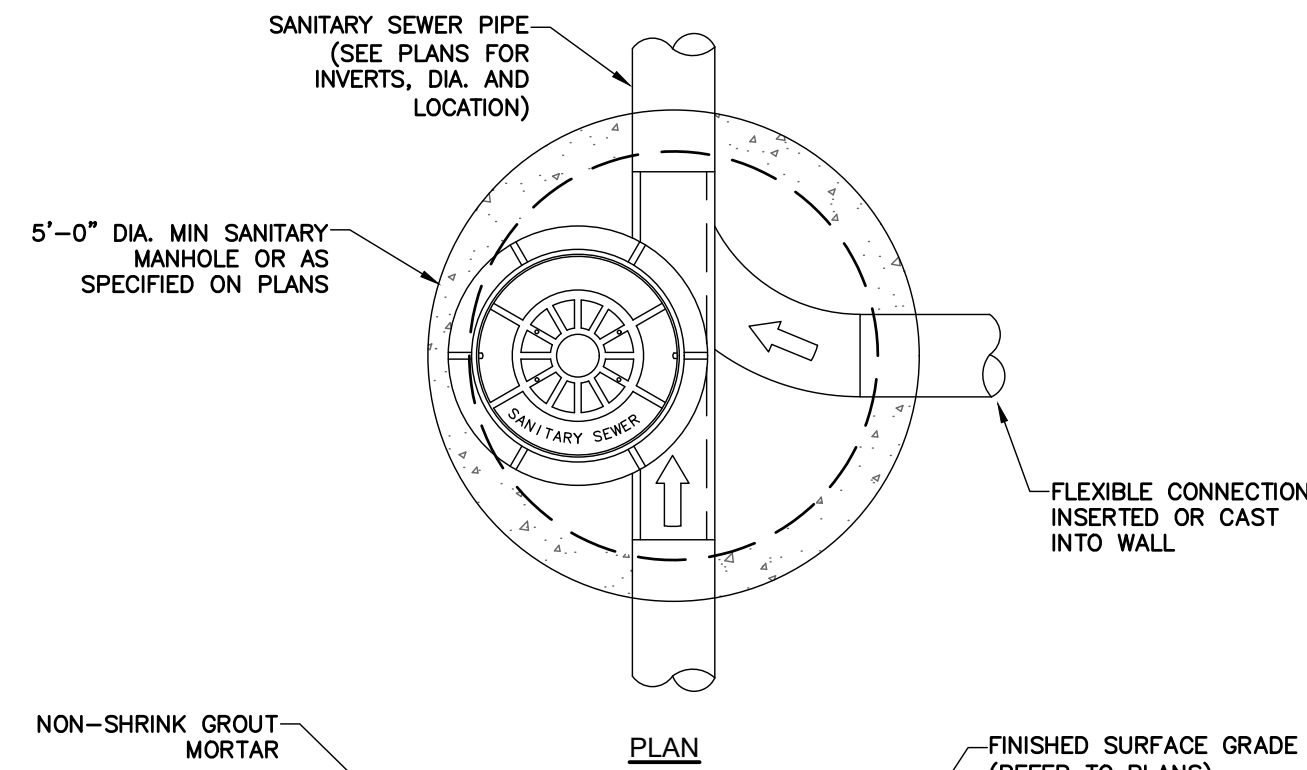
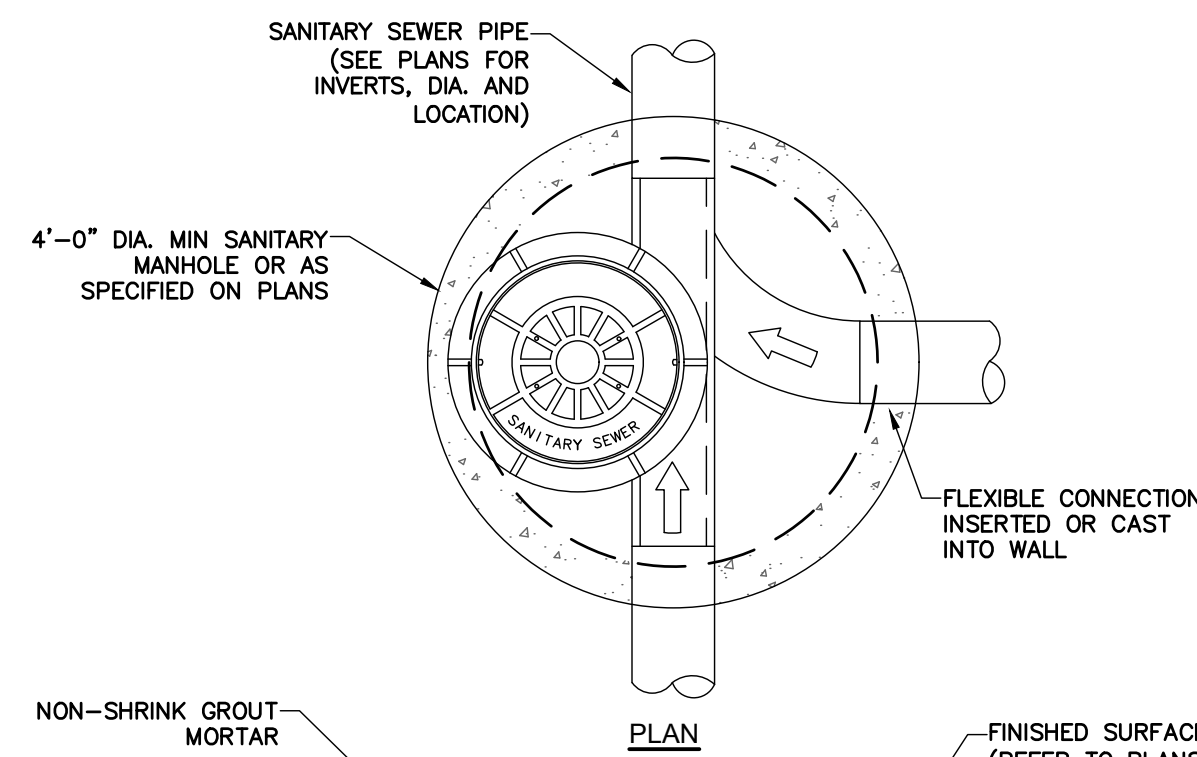


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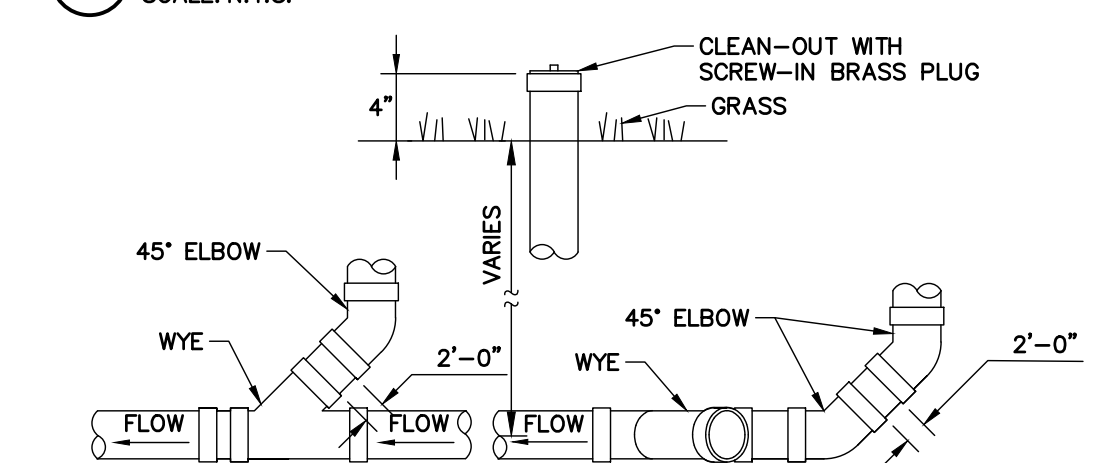
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MJ PROJ. No.: 1075.03
DATE: 12/18/19
C-500



1 PRECAST CONCRETE MANHOLE
SCALE: N.T.S.

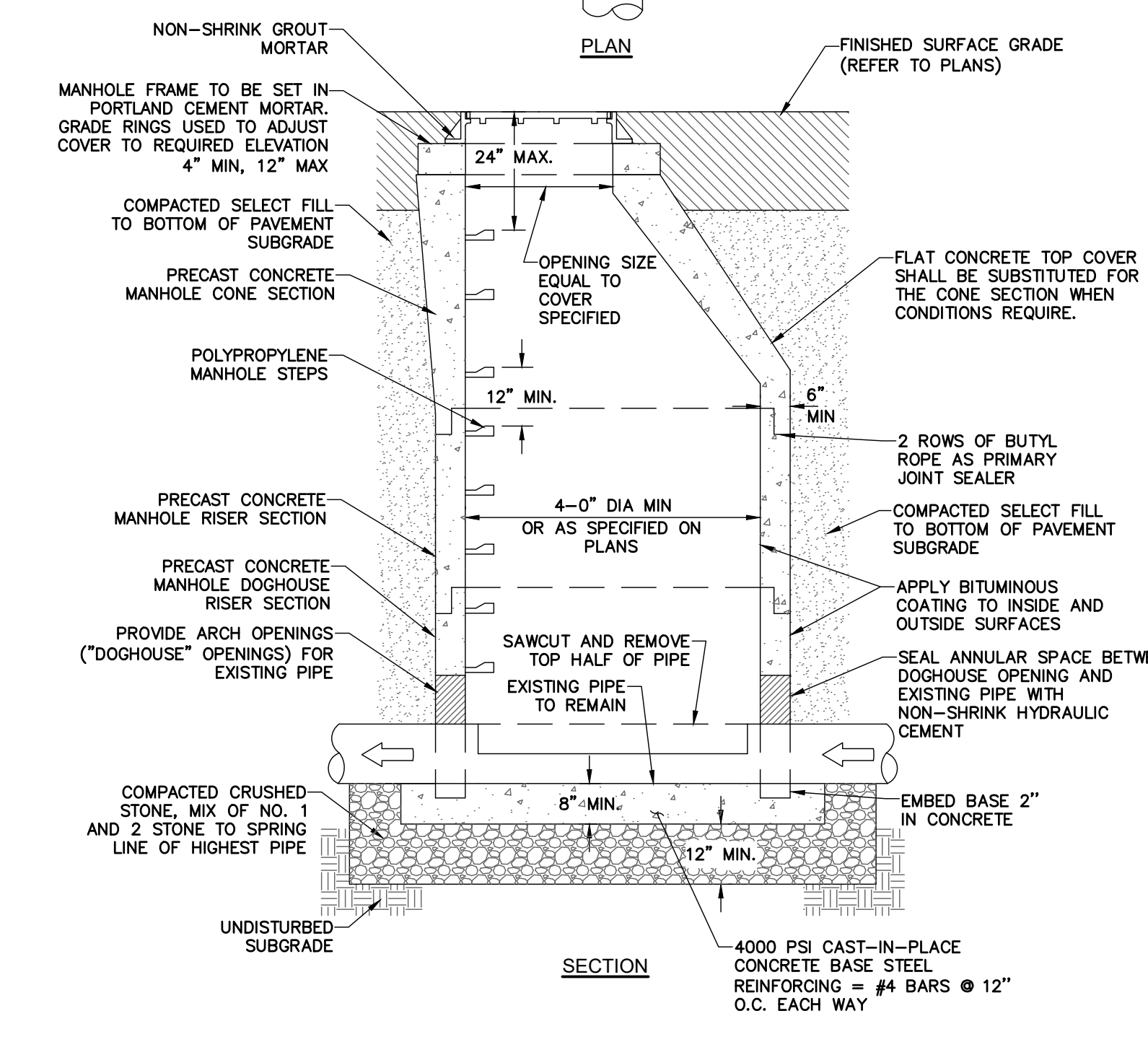
2 PRECAST CONCRETE INSIDE DROP MANHOLE
SCALE: N.T.S.

NOTES:
ENLARGED 50%
1. INLET AND OUTLET OF PIPES SHOWN ON PLAN VIEW OF BASE ARE NOT NECESSARILY TYPICAL OF ALL MANHOLES. REFER TO UTILITY PLAN FOR INLET AND OUTLET ORIENTATION.

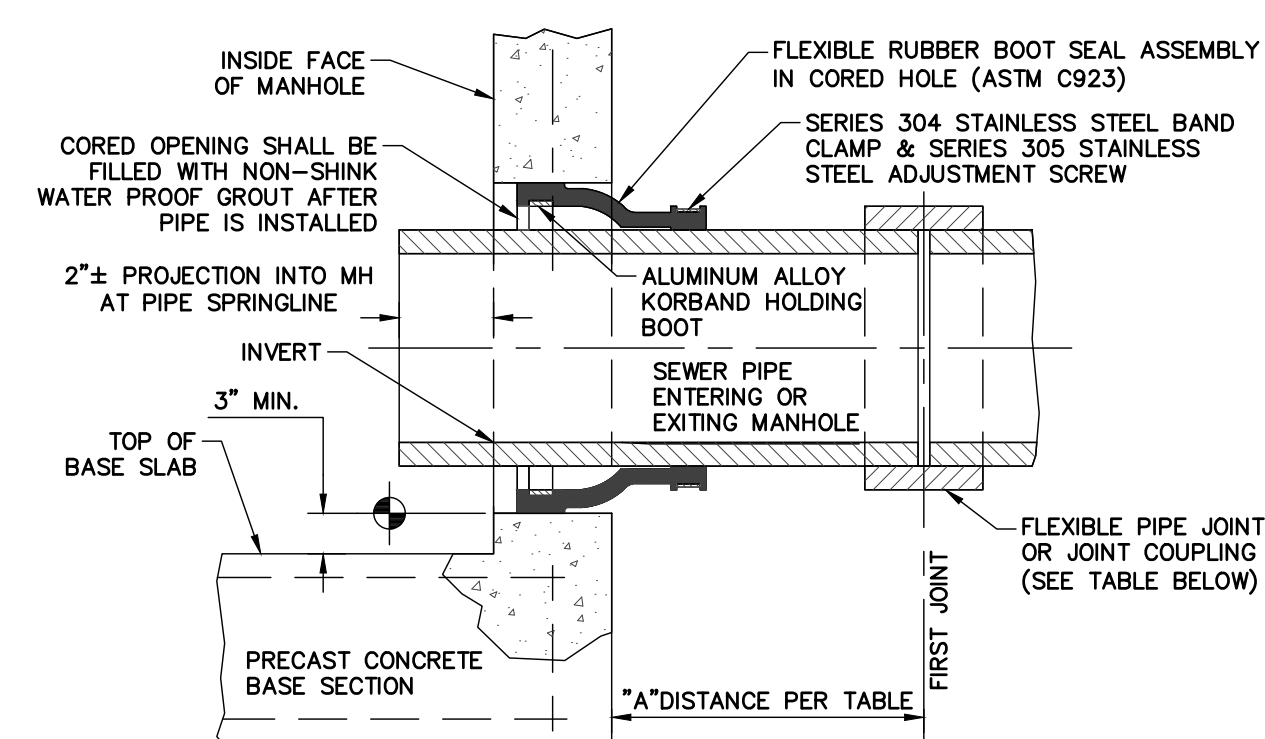


NOTES:
1. SEWER PIPE FITTINGS TO BE ASTM D-3033 OR D-3034 SDR-35.

4 CLEAN OUT - NON TRAFFIC AREAS
SCALE: N.T.S.



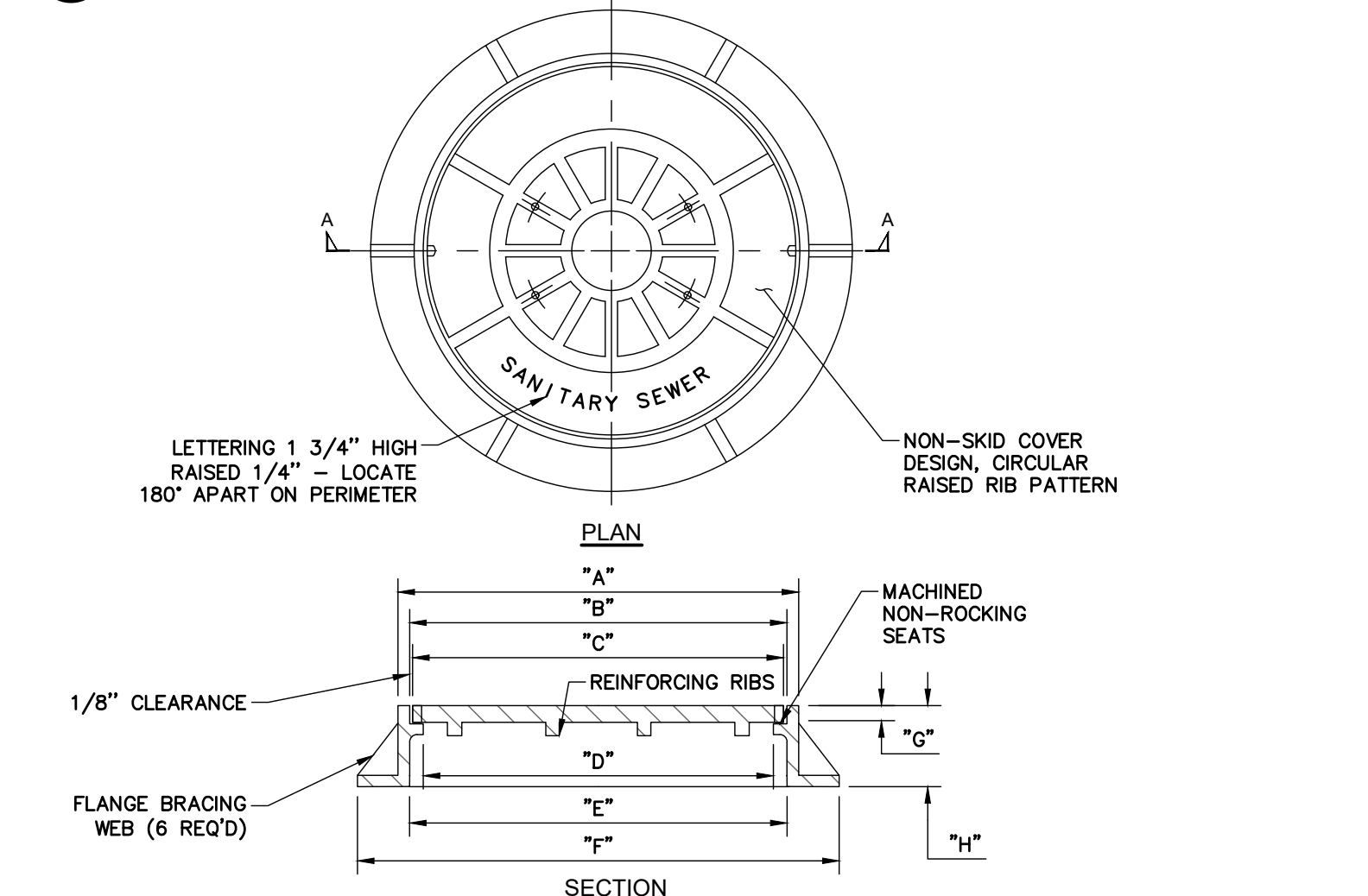
5 PRECAST CONCRETE SANITARY MANHOLE (DOGHOUSE)
SCALE: N.T.S.



NOTE:
1. REFERENCE MANHOLE DETAIL(S) FOR REQUIRED INVERT CHANNEL CONFIGURATION.

FLEXIBLE JOINT REQUIREMENT		
SEWER PIPE TYPE	FLEXIBLE JOINT TYPE IN & OUT	"A" DISTANCE (FEET)
PVC	STANDARD RUBBER GASKET PIPE JOINT ONLY	3' MAX.

6 PIPE CONNECTION TO MANHOLE RUBBER GASKET PIPE JOINT
SCALE: N.T.S.



ACCEPTABLE MANHOLE FRAMES & COVER
(ALL DIMENSIONS ARE IN INCHES)

MANUFACTURER	PATTERN NUMBER	"A"	"B"	"C"	"D"	"E"	"F"	"G"	"H"	COVER	FRAME
NEENAH FOUNDRY*	1682	28 1/2"	27 7/8"	26"		38 1/4"		4"		160	220
SYRACUSE CASTING*	SC 1009	27 7/8"				34 1/2"	1 3/8"	8"		165	240
RICHARD FOUNDRY*	A-2780	28"	26"	25 3/4"	24"	27"				165	240
WOODWARD FOUNDRY*	W-1213					34"				165	215

* OR APPROVED EQUAL

7 STANDARD MANHOLE FRAME AND COVER
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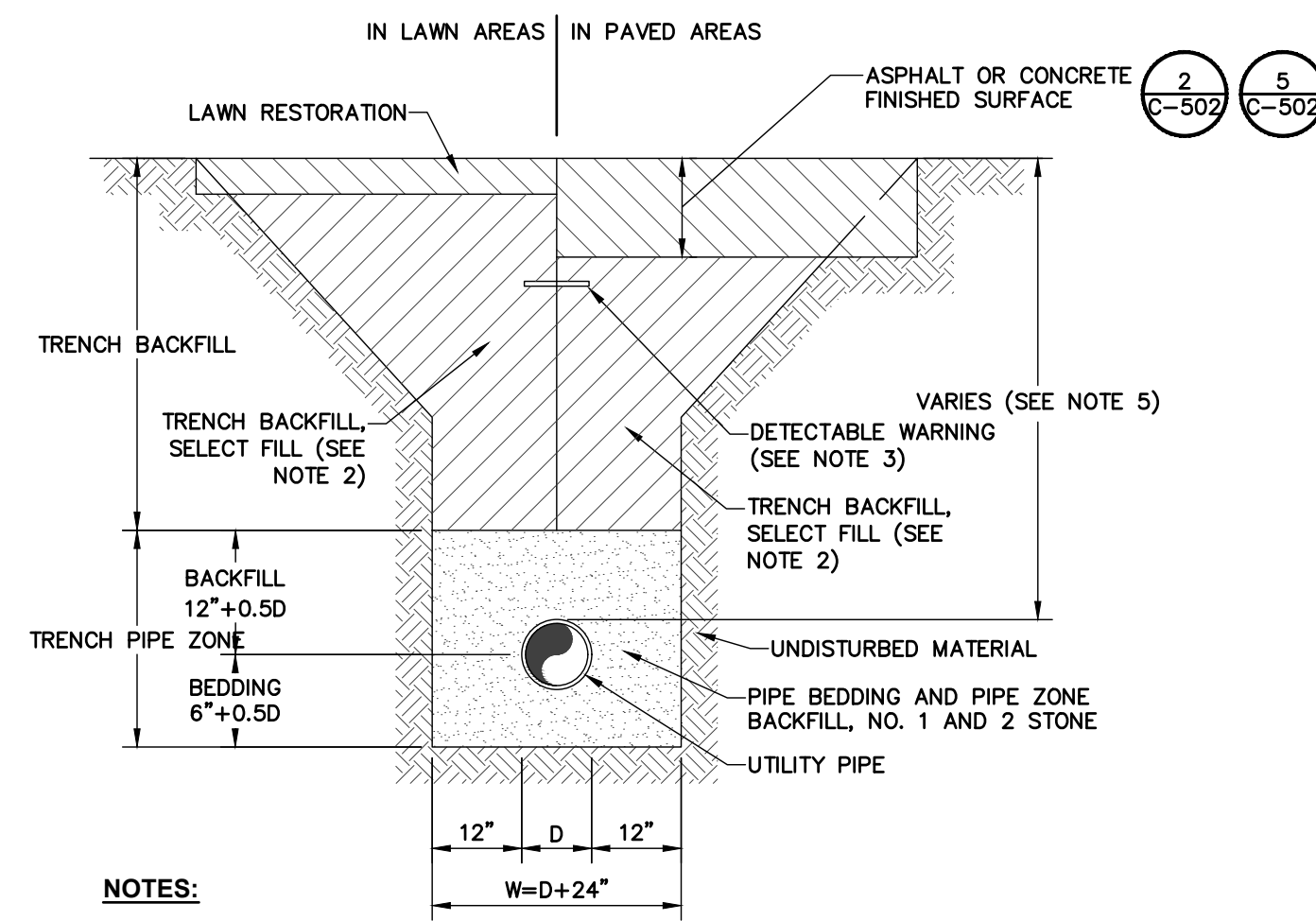
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CHIEF DESIGNER: MLB
DESIGNED BY: MLB
DRAWN BY: MLB
CHECKED BY: CLD

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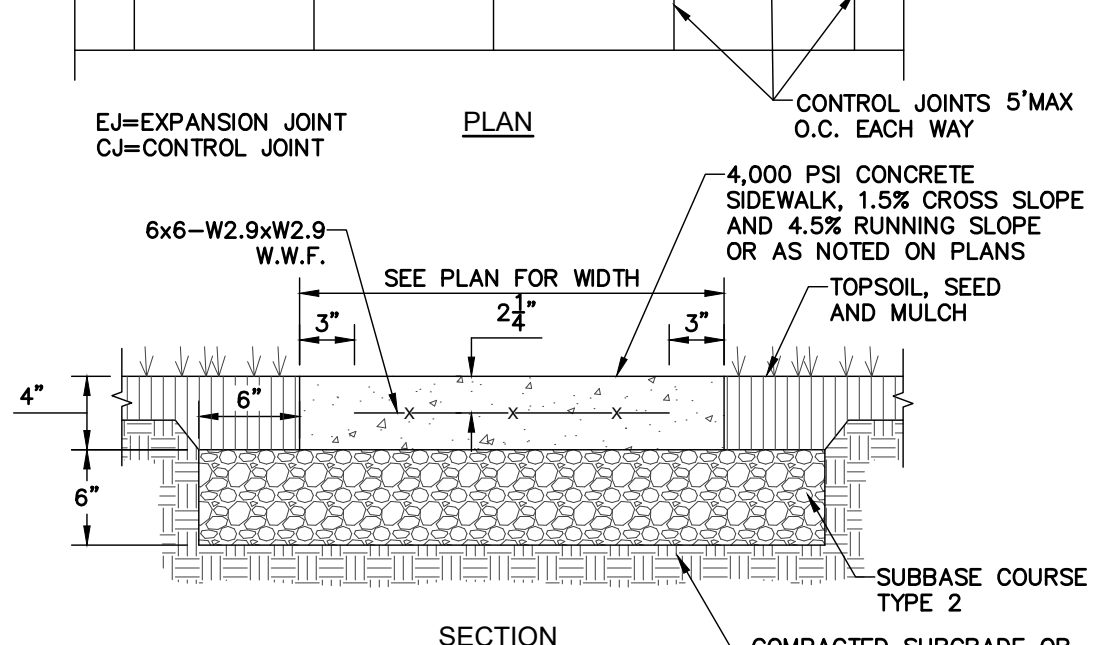
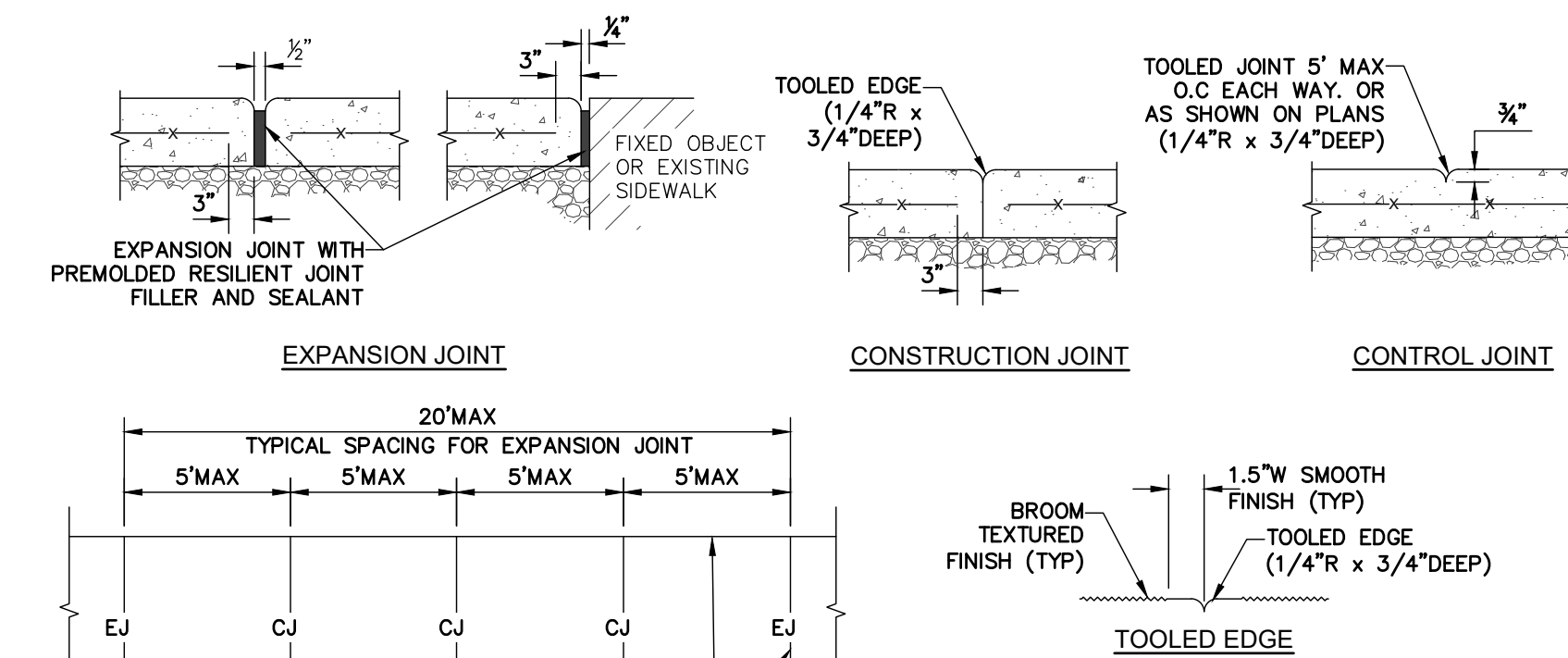


NOTES:

1. D=OUTSIDE PIPE DIAMETER.
2. ON-SITE EXCAVATED TRENCH MATERIAL MAY BE USED FOR TRENCH BACKFILL IF MEETING THE REQUIREMENTS OF SELECT FILL MATERIAL.
3. PLACE DETECTABLE WARNING TAPE 6" BELOW SUBBASE IN PAVED AREAS AND 12" BELOW FINISHED GRADE IN LAWN OR LANDSCAPING AREAS.
4. TRENCHING SHALL BE IMPLEMENTED IN ACCORDANCE WITH O.S.H.A. STANDARDS.
5. THE MINIMUM DEPTH TO TOP OF UTILITY PIPE SHALL BE:
POTABLE WATER: 5'-6"
SANITARY SEWER: 4'-0"
6. REFER TO SPECIFICATION SECTION 312333 FOR TRENCH BACKFILL, PIPE BEDDING AND PIPE ZONE BACKFILL GRADATION AND COMPACTION REQUIREMENTS.

1 PIPE TRENCH AND BEDDING

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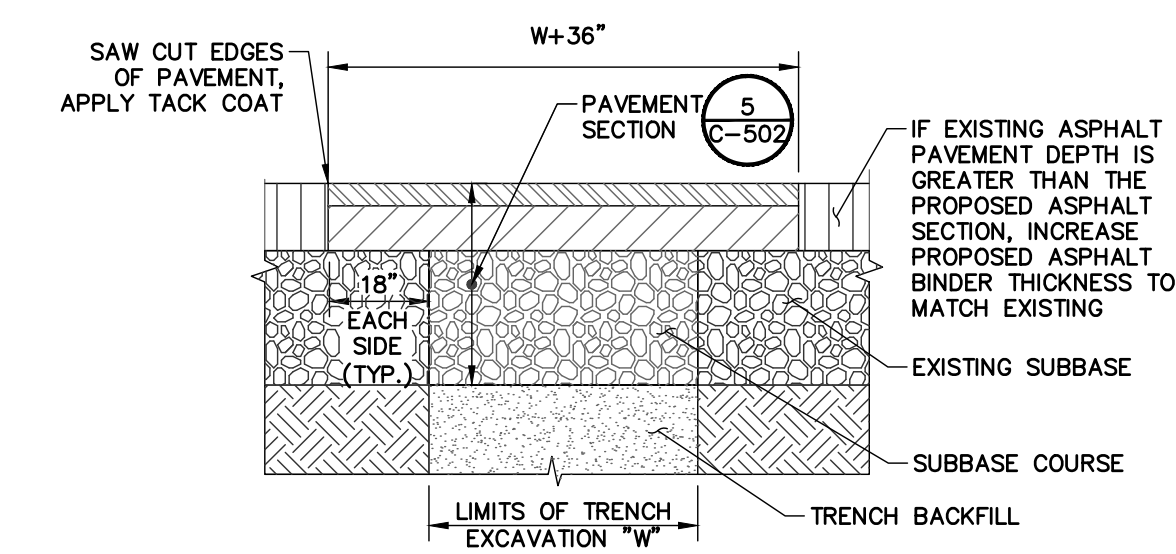


NOTES:

1. ALL CONCRETE SHALL BE 4000 PSI CONCRETE. CONCRETE MATERIALS, PLACEMENT, AND CONSTRUCTION SHALL CONFORM WITH SPECIFICATION SECTION 312123.
2. ALL EXPOSED SURFACES SHALL HAVE A BROOM TEXTURED FINISH & TOOLED EDGES. TOOL SHALL PROVIDE MAX 1-1/2" WIDE SMOOTH TROWEL FINISH AT JOINT.
3. EXPANSION JOINTS SHALL BE LOCATED A MAXIMUM OF 20' ON CENTER, OR AS INDICATED ON PLANS.
4. JOINTS SHALL NOT BE SAW CUT.
5. SUBBASE MATERIAL SHALL CONFORM WITH SPECIFICATION SECTION 312000.
6. WHERE IT IS NECESSARY TO PLACE FILL FOR PURPOSE OF BRINGING THE SUBGRADE ELEVATION TO A SPECIFIED GRADE, THE FILL MATERIAL PLACED SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION 312000.

2 CONCRETE SIDEWALK

SCALE: N.T.S.

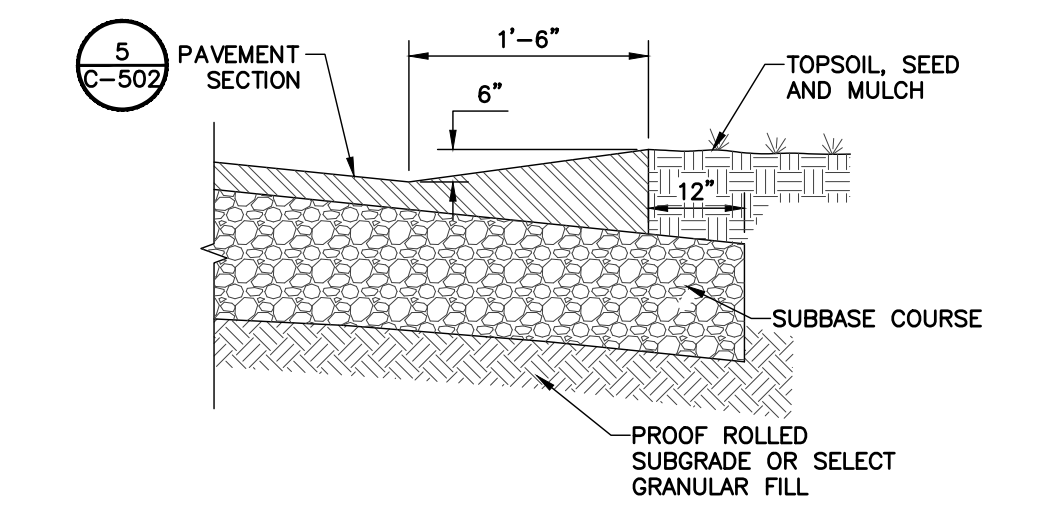


NOTES:

1. SAW CUT AS INDICATED, 18" BEYOND EXCAVATION.
2. FURNISH, PLACE AND COMPACT SURFACE.
3. TACK COAT IN ACCORDANCE WITH NYSOT STANDARD SPEC.
4. FURNISH AND PLACE ASPHALT CONCRETE PAVEMENT AS SPECIFIED.

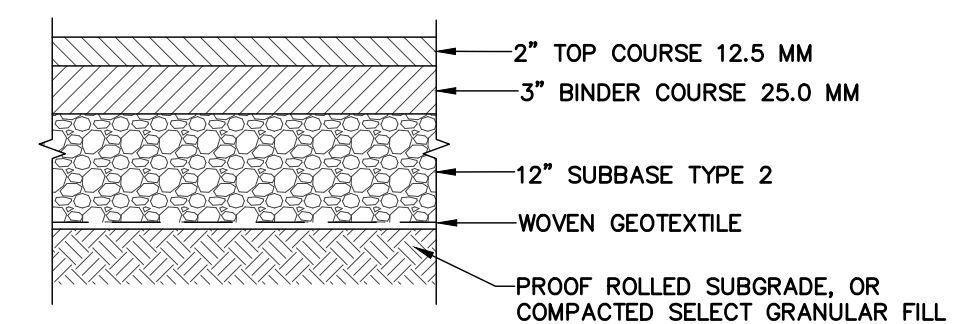
3 TRENCH SURFACE RESTORATION IN ASPHALT PAVEMENT

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4 ASPHALT WING GUTTER

SCALE: N.T.S.

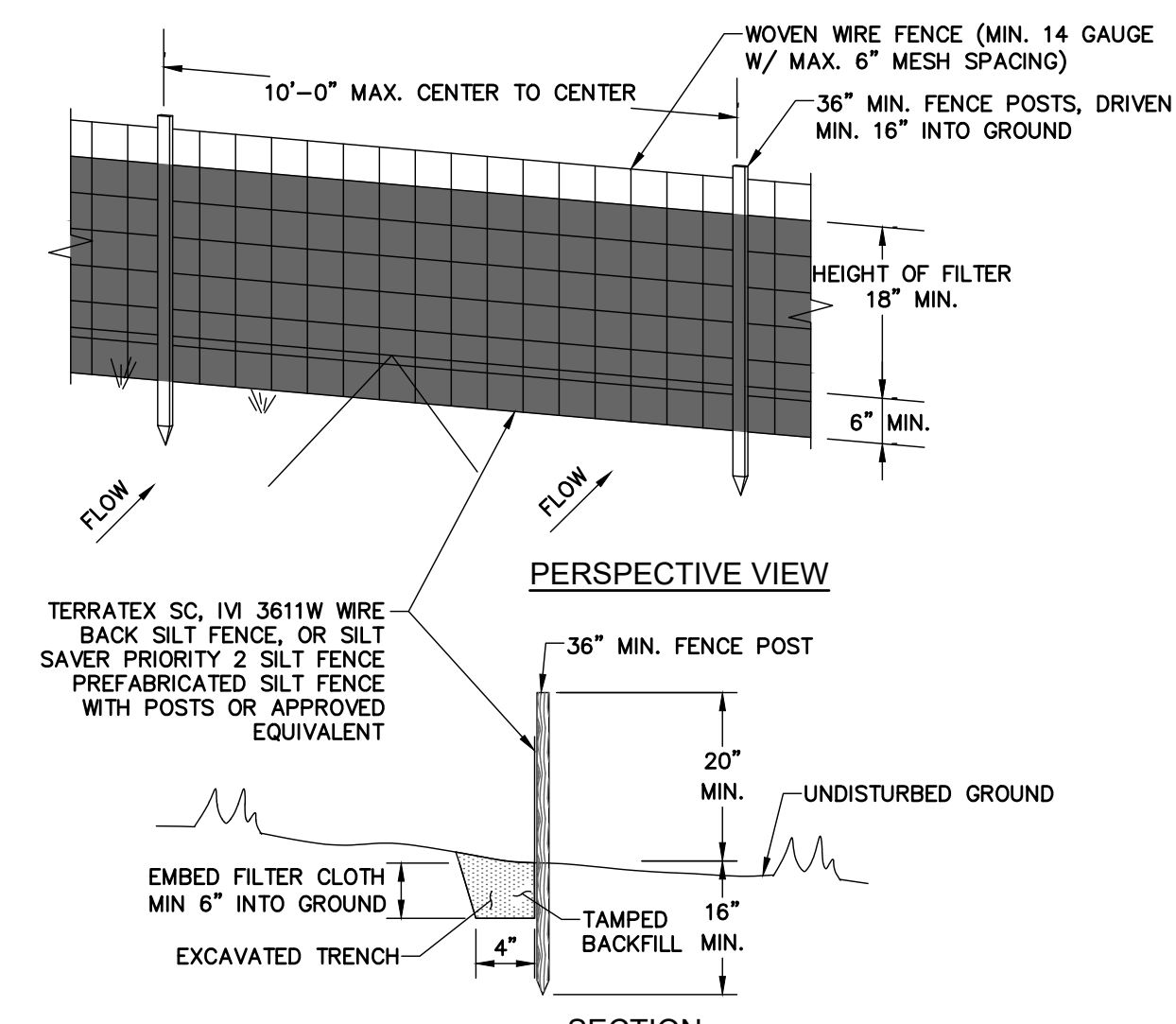


NOTES:

1. TACK COAT WHEN SPECIFIED OR CALLED OUT IN THESE DRAWINGS OR WHEN PAVEMENT COURSES ARE NOT INSTALLED IMMEDIATELY AFTER ONE ANOTHER.
2. REFER TO SPECIFICATION SECTION 31216 FOR PAVEMENT MATERIAL REQUIREMENTS.

5 ASPHALT PAVEMENT SECTION

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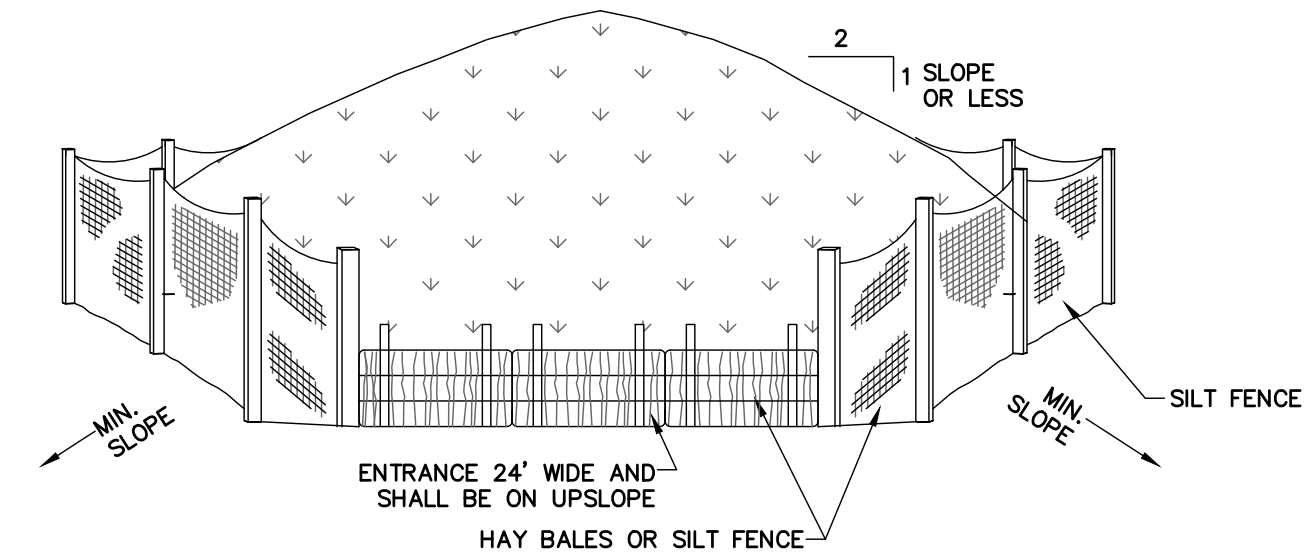


NOTES:

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL "T" OR "U" TYPE OR HARDWOOD.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 6" MAX. MESH OPENING.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY 6" AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIALS REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.
5. MAXIMUM DRAINAGE AREA FOR OVERLAND FLOW TO A SILT FENCE SHALL NOT EXCEED 1/4 ACRE PER 100 FEET OF FENCE.
6. SILT FENCE SHALL BE USED WHERE EROSION COULD OCCUR IN THE FORM OF SHEET EROSION.
7. SILT FENCE SHALL NOT BE USED WHEN A CONCENTRATION OF WATER IS FLOWING TO THE BARRIER.

6 SILT FENCE INSTALLATION

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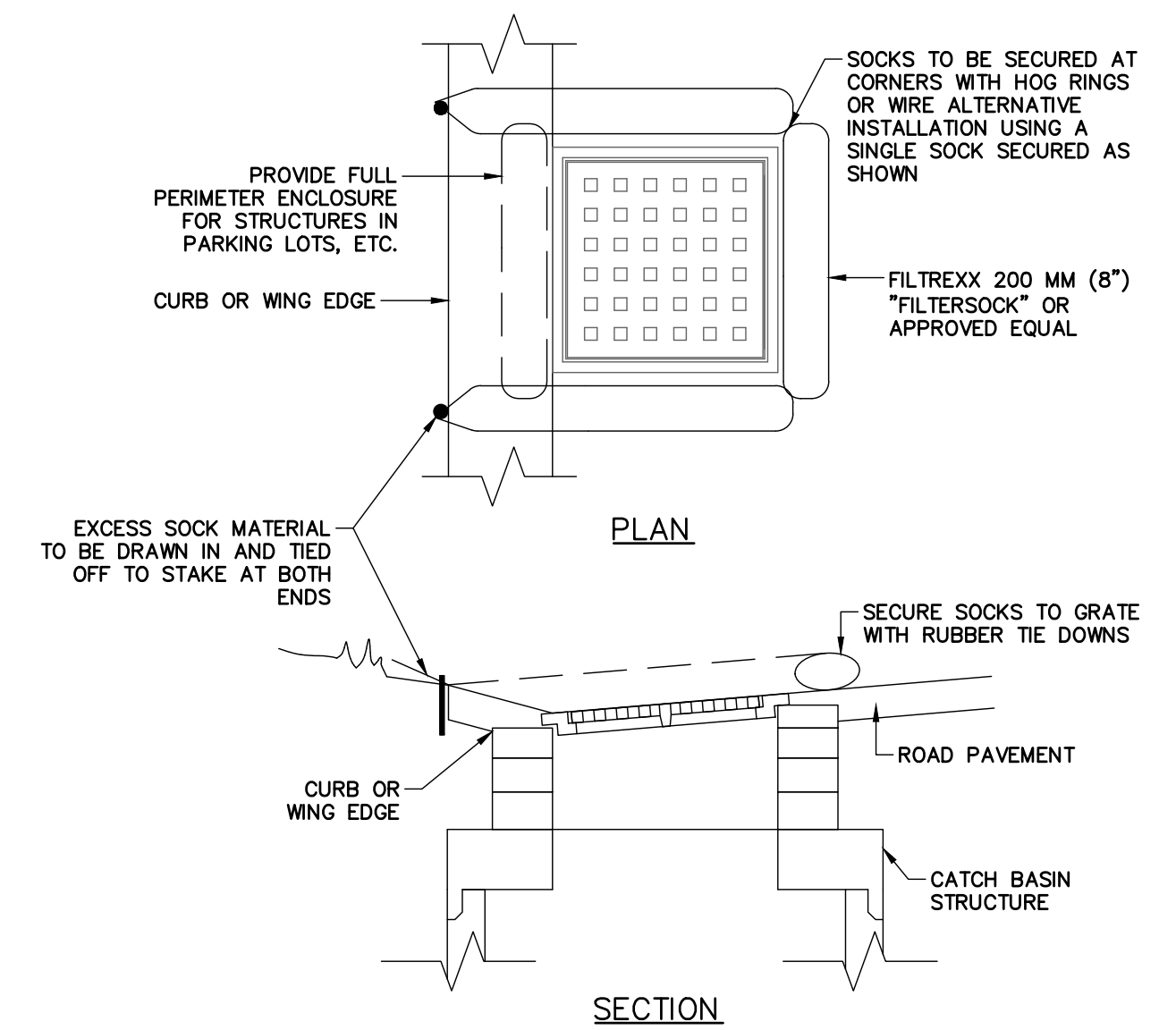


NOTES:

1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 2 HORIZ ON 1 VERT.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH EITHER SILT FENCING OR HAY BALES, THEN STABILIZED WITH VEGETATION OR COVERED.

7 TEMPORARY SOIL STOCKPILE

SCALE: N.T.S.



NOTES:

1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. SECURE FILTER SOCK TO GROUND AT BOTH ENDS.
3. INLET PROTECTION SHALL REMAIN IN-PLACE UNTIL SITE HAS BEEN STABILIZED.

8 IN-PAVEMENT TEMPORARY CATCH BASIN GRATE INLET FILTER

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