

Purchase College

STATE UNIVERSITY OF NEW YORK

735 Anderson Hill Road, Purchase NY 10577

PROJECT:

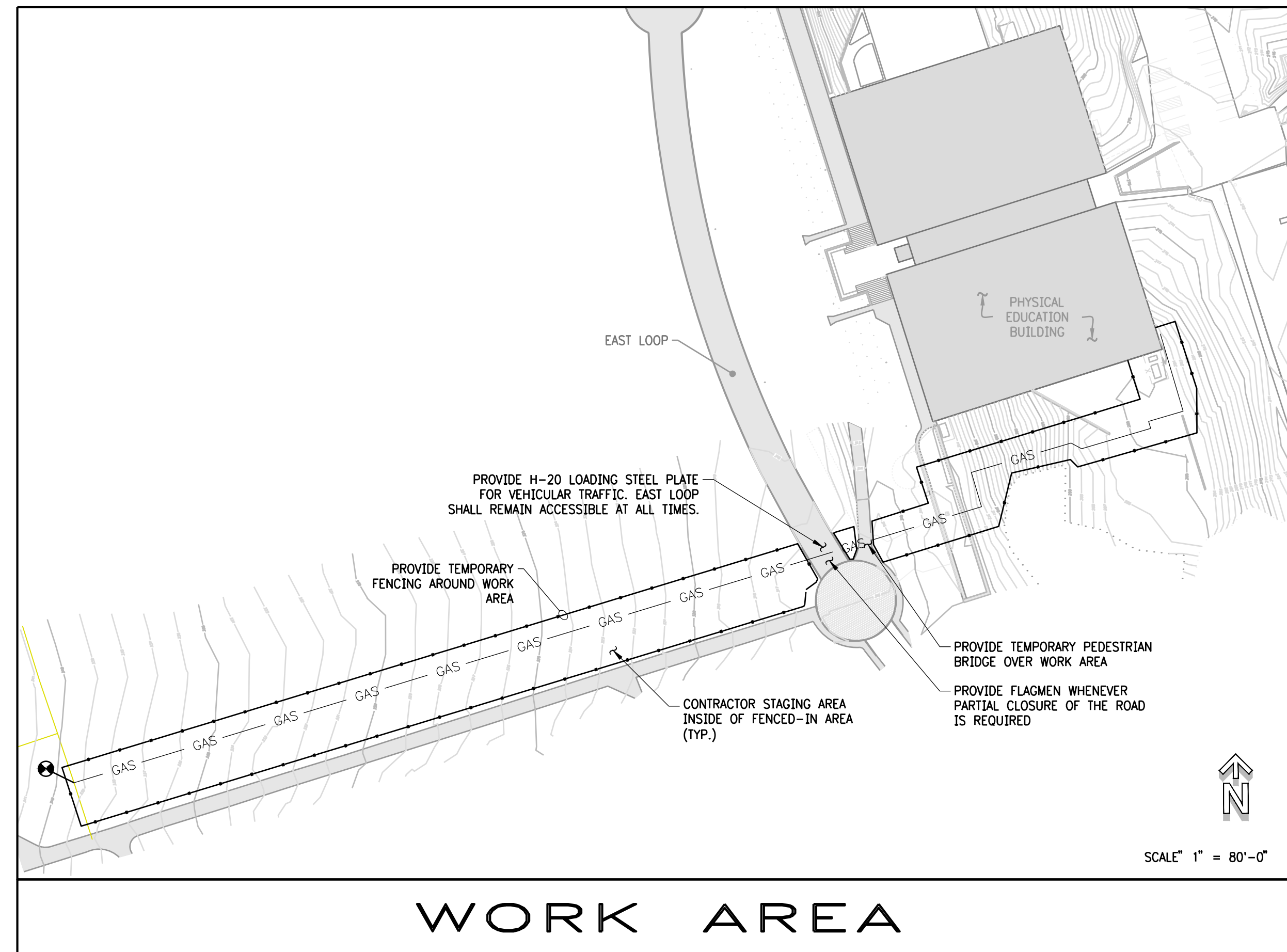
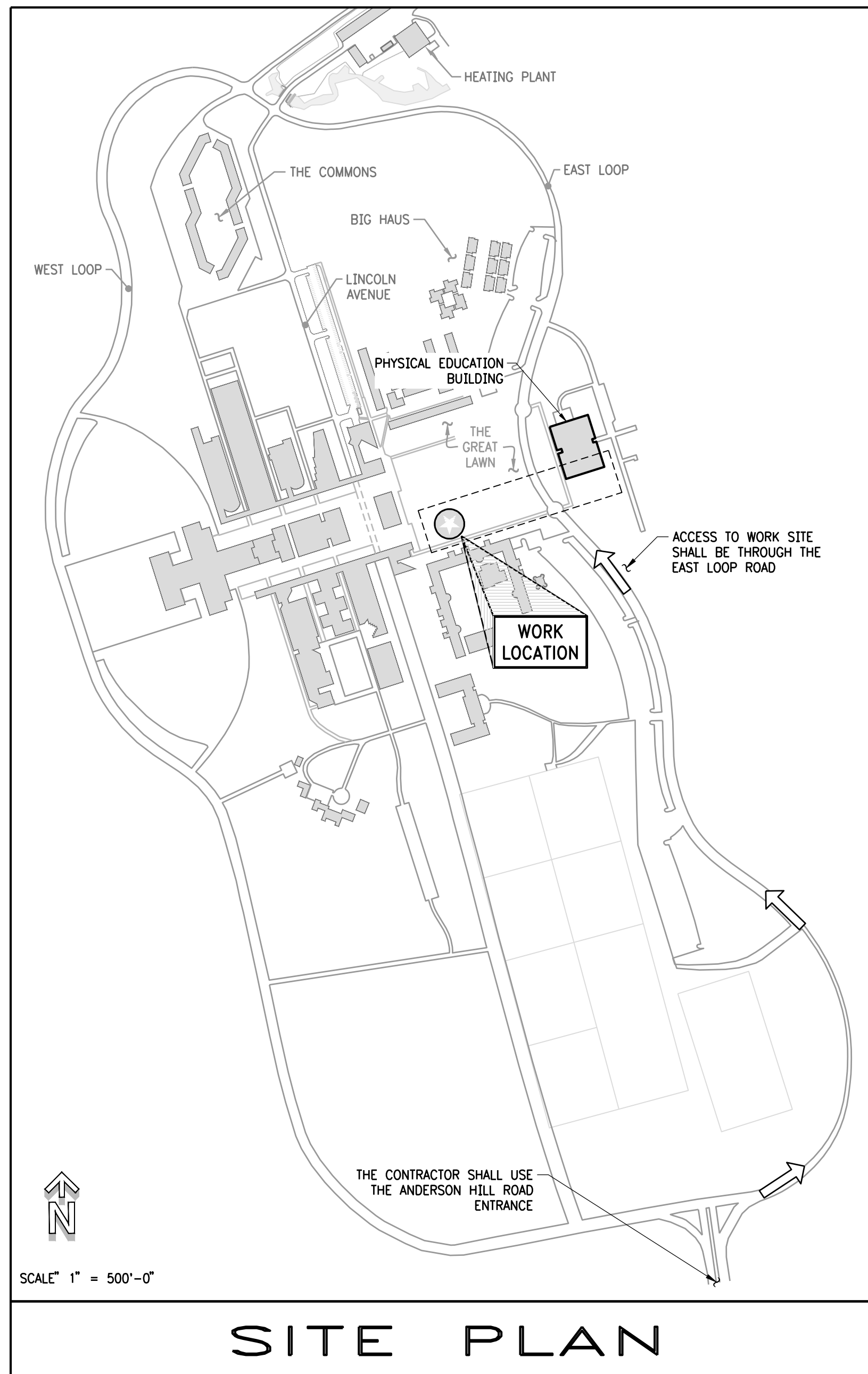
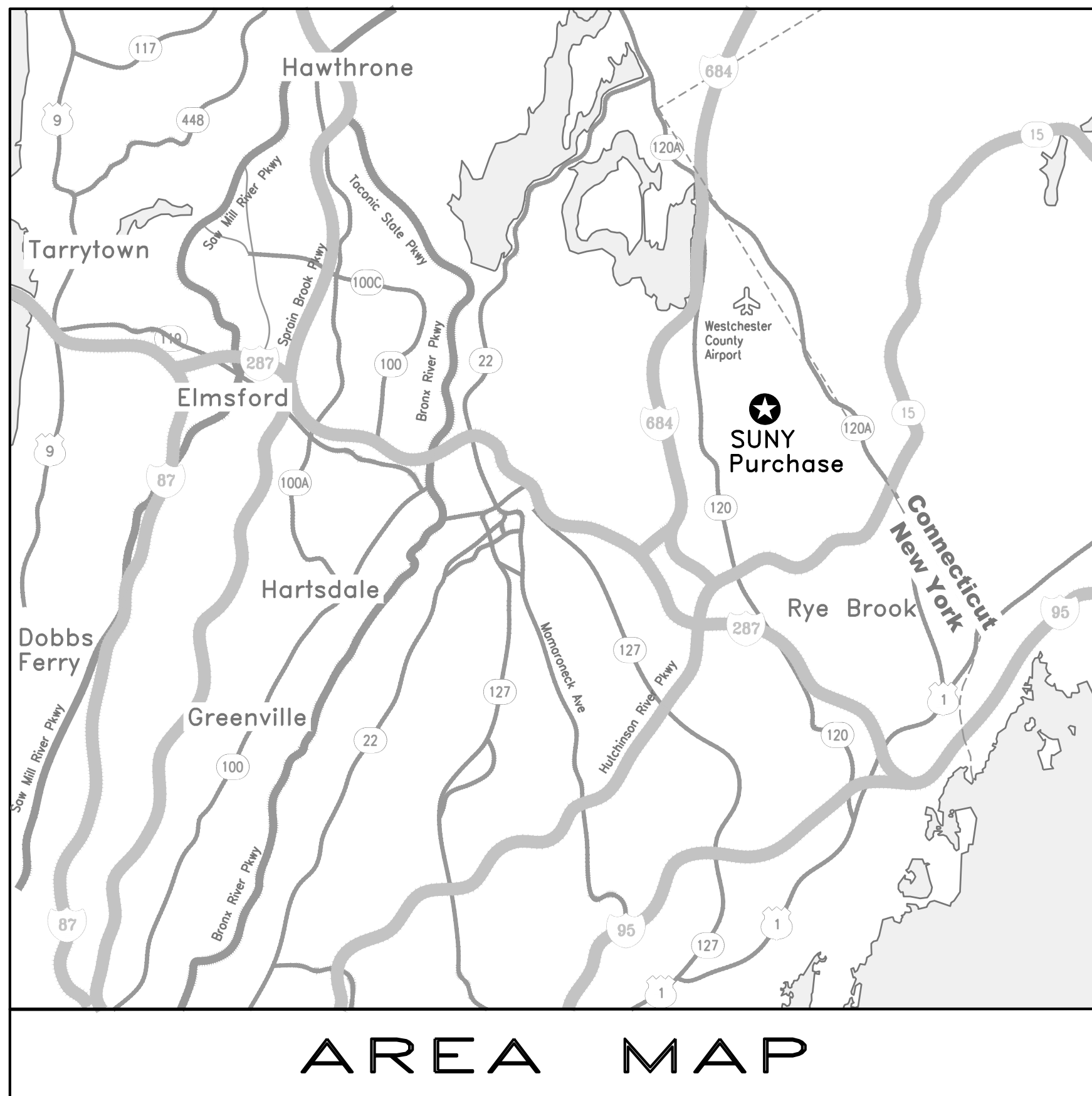
NATURAL GAS LINE TO PHYSICAL EDUCATION BLDG.

SUNY Purchase Project #SU-021919



O'BRIEN & GERE ENGINEERS, INC.

163 North Wellwood Avenue
Lindenhurst, New York 11757



LINE TYPES			
NEW	EXISTING	HIDDEN	FENCE
STORM	CITY WATER	TELEPHONE	FIBER OPTICS
CONDENSER WATER	HIGH-TEMP HOT WATER	ELECTRIC	SANITARY
UNKNOWN	NAT. GAS		

GENERAL SYMBOLS	
CONTRACT BREAK POINT OR CUT LINE	

DRAWING LIST	
DWG.	DRAWING TITLE
1-001	TITLE SHEET, GENERAL NOTES, SPECIAL CONDITIONS & SCOPE OF WORK
ESC-1	EROSION AND SEDIMENT CONTROL PLAN & DETAILS
SU-101	NATURAL GAS LINE INSTALLATION - PLAN
SU-102	NATURAL GAS LINE INSTALLATION - PROFILES
SU-103	DETAILS - SHEET 1 OF 2
SU-104	DETAILS - SHEET 2 OF 2
SU-105	TOPOGRAPHIC & UTILITY SURVEY SHEET 1 OF 2 (REFERENCE ONLY)
SU-106	TOPOGRAPHIC & UTILITY SURVEY SHEET 2 OF 2 (REFERENCE ONLY)

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163 North Wellwood Avenue
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TITLE SHEET, GENERAL NOTES, SPECIAL CONDITIONS & SCOPE OF WORK

SCALE	PROJECT NO.	DRAWING NUMBER	REVISION
As Noted	SU-021919	T-001	0
Drawn By: J. D. Gordon	65274		
Checked By: J. D. Gordon	February 19, 2019		



UNAUTHORIZED ALTERATION OR ADDITION TO THESE PLANS IS A VIOLATION OF SECTION 7209 OF THE NEW YORK STATE EDUCATION LAW. COPIES OF THESE PLANS NOT BEARING THE PROFESSIONAL ENGINEER'S INKED SEAL OR EMBOSSED SEAL SHALL NOT BE CONSIDERED TO BE A VALID TRUE COPY.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THIS PROJECT PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR APPLICABLE CODES, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE PROJECT ENGINEER OF RECORD IN WRITING PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE PROJECT ENGINEER SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF WORK AS DEFINED BY THE DRAWINGS AND IN FULL CONFORMANCE WITH LOCAL REGULATIONS AND CODES.

DO NOT SCALE DRAWING

GENERAL NOTES

- THE CONTRACTOR SHALL FIELD-VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS BEFORE STARTING WORK.
- EQUIPMENT DIMENSIONAL INFORMATION IS PRESENTED FOR REFERENCE ONLY. DIMENSIONS MAY VARY ACCORDING TO THE EQUIPMENT MANUFACTURER SELECTED AND FIELD VARIATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE ANY DIMENSIONAL VARIATIONS BETWEEN THESE CONSTRUCTION DOCUMENTS AND THE AS-DELIVERED EQUIPMENT.
- THE CONTRACTOR IS RESPONSIBLE TO CONFIRM AND COORDINATE JOBSITE DIMENSIONS THAT AFFECT THE ERECTION OR OPERATION OF SYSTEMS, AS INTENDED BY THESE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL ENSURE INSTALLED EQUIPMENT MAINTAINS ADEQUATE CLEARANCES FOR OPERATIONAL ACCESS AND SERVICE, AND SHALL MAINTAIN ANY CLEARANCES REQUIRED BY ANY APPLICABLE CODES.
- THE CONTRACTOR SHALL INFORM THE OWNER/ENGINEER OF ANY DISCREPANCIES BETWEEN THE CONSTRUCTION DOCUMENTS AND FIELD CONDITIONS THAT AFFECT THE WORK DESCRIBED HEREIN.
- IF, DURING THE COURSE OF CONSTRUCTION, A CONDITION EXISTS WHICH DISAGREES OR CONFLICTS WITH THE DRAWINGS OR SPECIFICATIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER. IF THE CONTRACTOR FAILS TO FOLLOW THIS PROCEDURE, HE SHALL ASSUME ALL RESPONSIBILITY AND LIABILITY ARISING THEREOF.
- THESE CONSTRUCTION DOCUMENTS ARE INTENDED TO INDICATE THE WORK NEEDED TO PROVIDE A COMPLETE AND READY-TO-OPERATE INSTALLATION. THESE DOCUMENTS ARE INTENDED TO GUIDE THE CONTRACTOR. THESE DOCUMENTS ARE NOT INTENDED TO SHOW EVERY DETAIL OF THE EXISTING CONDITIONS OR NEW INSTALLATIONS, NOR DO THEY DESCRIBE EVERY FITTING REQUIRED FOR THE INSTALLATION OF THE WORK.
- "PROVIDE" SHALL MEAN "FURNISH AND INSTALL" AND SHALL INCLUDE ALL EQUIPMENT, DEVICES, HARDWARE, MOUNTS, LABOR, RIGGING, SUBCONTRACTORS, ETC., THAT RESULT IN A COMPLETE AND FUNCTIONAL JOB.
- THE CONTRACTOR SHALL FURNISH AND INSTALL ALL EQUIPMENT, ACCESSORIES, SUPPORTS, FITTINGS, AND ALL OTHER INCIDENTAL MATERIAL NEEDED FOR THE COMPLETE AND OPERATING INSTALLATION. MINOR ITEMS TO FINISH THE WORK SUCH AS PATCHING, BLOCKING, TRIM, TOUCH-UP PAINT, ETC., SHALL BE PROVIDED WHETHER OR NOT INDICATED IN THE CONSTRUCTION DOCUMENTS.
- THE CONTRACTOR SHALL PROVIDE ALL LABOR AND MATERIALS REQUIRED TO ASSEMBLE LOOSE EQUIPMENT AND PARTS AS SHIPPED BY THE EQUIPMENT MANUFACTURERS FOR ALL OWNER-FURNISHED EQUIPMENT.
- THE CONTRACTOR'S BID SHALL BE BASED ON THE EQUIPMENT LISTED IN THESE CONSTRUCTION DOCUMENTS. SHOULD THE CONTRACTOR WISH TO SUBSTITUTE ALTERNATE EQUIPMENT, HE SHALL LIST SUCH ALTERNATES DURING THE BIDDING PROCESS AND HE SHALL LIST THE AMOUNT OF MONEY TO BE ADDED OR DEDUCTED FROM HIS PRICE. FINAL APPROVAL FOR SUBSTITUTES SHALL BE OBTAINED FROM THE CONSTRUCTION MANAGER PRIOR TO PURCHASING THE EQUIPMENT. IF THE CONTRACTOR NAMES NO SUBSTITUTES WITH HIS BID, THE EQUIPMENT INDICATED IN THESE DRAWINGS OR SPECIFICATIONS SHALL BE USED.
- THE CONTRACTOR SHALL ASSUME ALL COSTS ASSOCIATED WITH PROVIDING SUBSTITUTES. "SUBSTITUTES" SHALL INCLUDE ACCEPTABLE ALTERNATES, ALTERNATES TO THE SCOPE OF WORK, OR ANY MODIFICATIONS THAT DEVIATE FROM THE BASE-BID DESIGN. THE ASSOCIATED COSTS SHALL INCLUDE, BUT ARE NOT LIMITED TO REDESIGN & ENGINEERING COSTS, CHANGES CAUSED TO INTERRELATED SYSTEMS SUCH AS ELECTRICAL COMPONENTS, WIRING, AND CONNECTIONS, CHANGES TO MOUNTING SYSTEMS OR STRUCTURES, REROUTING OF INTERFERENCES, ETC.
- SIGNIFICANT SUBSTITUTIONS PROPOSED BY THE CONTRACTOR MAY REQUIRE SUBMISSIONS OF STRESS OR SAFETY ANALYSES SEALED BY A REGISTERED PROFESSIONAL ENGINEER AT THE DISCRETION OF THE OWNER'S REPRESENTATIVE AND AT NO COST TO THE OWNER.

- THE CONTRACTOR SHALL GIVE NOTICES, OBTAIN ALL PERMITS, PAY ALL FEES AND COMPLY WITH ALL LAWS, RULES AND REGULATIONS APPLICABLE TO THE WORK.
- THE CONTRACTOR SHALL USE SHOP SUBMITTALS FOR FINAL COORDINATION OF THIS WORK.
- THE CONTRACTOR SHALL SUBMIT EQUIPMENT INFORMATION, SHOP DRAWINGS AND A CONSTRUCTION SCHEDULE TO THE OWNER FOR APPROVAL BEFORE STARTING ANY WORK OR PURCHASING ANY EQUIPMENT.
- ALL MATERIALS PROVIDED SHALL BE NEW AND FREE FROM ANY DEFECT. SALVAGED OR REBUILT EQUIPMENT SHALL NOT BE PERMITTED.
- ALL MATERIALS, PIPING, ETC., SHALL BE PROVIDED AND INSTALLED IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS, AND ALL LOCAL AND NATIONALLY RECOGNIZED STANDARDS, SUCH AS NFPA, NEC, ASTM, UL, ETC., AS EXAMPLES.
- THE CONTRACTOR SHALL ENSURE COORDINATION SO THAT ONCE THE PROJECT IS STARTED, IT SHALL CONTINUE WITHOUT DELAY UNTIL COMPLETION.
- THE CONTRACTOR IS RESPONSIBLE FOR THE WORK OF ALL HIS SUBCONTRACTORS, AND THEIR CONFORMANCE TO THESE CONSTRUCTION DOCUMENTS.
- THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE WORK OF OTHER CONTRACTORS AND THE OWNER'S REPRESENTATIVE.
- THE CONTRACTOR SHALL PROVIDE NOTIFICATION AND OPPORTUNITY FOR INSPECTION TO THE OWNER BEFORE CLOSING UP ANY WORK, EQUIPMENT, OR PIPING SYSTEM.
- THE CONTRACTOR SHALL PROVIDE ALL BUILDING MODIFICATIONS AND CONSEQUENTIAL REPAIRS TO THE BUILDING FOR RIGGING, INSTALLATION OF EGRESSSES, INSTALLATION OF VENTS, ETC., AS REQUIRED TO PERFORM THIS WORK.
- THE CONTRACTOR SHALL PERFORM ALL ACCEPTANCE TESTS IN THE PRESENCE OF THE OWNER OR OWNER'S REPRESENTATIVE.
- THE CONTRACTOR SHALL MAINTAIN THE WORK AREA IN A STATE FREE FROM HAZARDS. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS, FOLLOW SAFE WORKING PRACTICES, AND MAINTAIN THE SITE AND ADJACENT AREAS SAFE FOR WORKERS, INSPECTORS, AND FACILITY EMPLOYEES.
- SITE SAFETY SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- THE OWNER'S REPRESENTATIVE DOES NOT PROFESS TO BE FAMILIAR WITH CONSTRUCTION SITE SAFETY REQUIREMENTS. MEETING SITE SAFETY AND OSHA REQUIREMENTS IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO RETAIN A THIRD PARTY CONSULTANT IF HE OBSERVES PRACTICES THAT APPEAR UNSAFE.
- IF THE OWNER'S REPRESENTATIVE DEEMS THAT ANY UNSAFE CONDITION APPEARS TO EXIST, THE OWNER HAS THE RIGHT TO STOP ALL WORK. ANY STOP-WORK ORDERS BY THE OWNER BECAUSE OF POTENTIALLY UNSAFE CONDITIONS SHALL NOT BE USED BY THE CONTRACTOR TO DELAY THE WORK SCHEDULE, INCREASE THE CONTRACT VALUE, OR AVOID ANY LIQUIDATED-DAMAGE PENALTIES ASSOCIATED WITH THE WORK OR TO MAKE A CLAIM AGAINST THE OWNER OR CONSTRUCTION MANAGER.
- THE OWNER REQUIRES ACCESS TO AND AROUND AREAS OF THE BUILDING IMMEDIATELY ADJACENT TO AREAS OF THE WORK. ALL WORK MUST BE CONDUCTED IN A MANNER TO MINIMIZE DISRUPTION OF NORMAL FACILITY OPERATIONS.
- SAFE AND DIRECT ENTRANCE TO AND FROM THE EXISTING BUILDING SHALL BE MAINTAINED AT ALL TIMES WHILE CONSTRUCTION IS IN PROGRESS.

- ALL CONSTRUCTION MATERIALS AND TOOLS SHALL BE STORED IN AREAS DESIGNATED BY THE OWNER. THE OWNER SHALL NOT BE RESPONSIBLE FOR ANY OF THE CONTRACTOR'S SHIPPING, DELIVERY OR SECURITY ISSUES RELATED TO MATERIALS, EQUIPMENT, OR TOOL STORAGE.
- THE CONTRACTOR SHALL LEAVE THE SITE IN A NEAT, ORDERLY AND SAFE CONDITION AT THE END OF EACH WORK DAY. THE SITE AND BUILDING SHALL BE MADE AS SECURE AS POSSIBLE SO AS TO PREVENT UNAUTHORIZED ENTRY AND ACTIVITY. ATTENTION SHALL BE GIVEN TO WEATHER PROTECTION, INCLUDING UNCONDITIONED AIR INFILTRATION DURING THE CONSTRUCTION PERIOD.
- ALL DEMOLISHED MATERIALS, UNLESS OTHERWISE NOTED, SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE.
- DISPOSAL OF ALL MATERIALS SHALL BE DONE BY THE CONTRACTOR IN ACCORDANCE WITH STATE & LOCAL REQUIREMENTS. THE CONTRACTOR SHALL MAINTAIN THE RECORDS OF PROPER DISPOSAL, WHICH SHALL BE SUBMITTED TO THE OWNER'S REPRESENTATIVE UPON HIS REQUEST.
- THE OWNER SHALL HAVE THE RIGHT AT ALL TIMES TO EXAMINE THE WORK AND DETERMINE THE CONFORMANCE WITH THE REQUIREMENTS AND INTENT OF THE CONSTRUCTION DOCUMENTS.
- THE CONTRACTOR SHALL COMPLETE ALL WORK WITH MINIMAL DISRUPTION OF THE FACILITY'S UTILITIES AND OPERATIONS. ANY WORK REQUIRING A SHUTDOWN OF ANY UTILITIES SHALL BE SCHEDULED 3 DAYS IN ADVANCE. ALL OUTAGES SHALL BE COORDINATED WITH THE FACILITY.
- THE FACILITY OPERATES THROUGHOUT THE ENTIRE YEAR, ALL SHUTDOWNS THAT REQUIRE THE LOSS OF UTILITIES TO THE FACILITY SHALL BE LIMITED TO PERIODS & DURATIONS AS SPECIFIED BY THE FACILITY. THE CONTRACTOR'S BID SHALL ANTICIPATE AND INCLUDE THE NECESSARY WEEKEND/MIDNIGHT PREMIUM TIME TO ACCOMPLISH ALL SHUTDOWN WORK WITHIN THE LIMITATIONS OF MAINTAINING CONTINUOUS SERVICE TO THE FACILITY.
- THE CONTRACTOR SHALL MAINTAIN AWARENESS OF THE FACILITY'S SHUTDOWN RESTRICTIONS AND LIMITATIONS. ANY WORK-SCHEDULING PROBLEMS CAUSED BY SHUTDOWN RESTRICTIONS BY THE FACILITY SHALL NOT BE CAUSE FOR CLAIM OR DELAY BY THE CONTRACTOR.
- THE CONTRACTOR SHALL PROVIDE THE NECESSARY LABOR INCLUDING ANY PREMIUM-TIME AND OVERTIME LABOR REQUIRED TO MAINTAIN THE CONSTRUCTION SCHEDULE.
- ALL WIRE, CABLE, TRANSFORMER WINDINGS, ETC. SHALL BE COPPER.
- ALL STRUCTURAL STEEL, PIPING, REINFORCING STEEL, OR OTHER MAJOR STEEL ITEMS TO BE INCORPORATED IN THE WORK SHALL BE PRODUCED OR MADE IN WHOLE OR SUBSTANTIAL PART IN THE UNITED STATES, ITS TERRITORIES OR POSSESSIONS.
- ALL WORK AND EQUIPMENT SHALL BE FULLY GUARANTEED FOR ONE (1) YEAR FROM DATE OF FINAL PAYMENT AND ACCEPTANCE UNLESS OTHERWISE STATED IN THE SPECIFICATIONS.
- ALL WORK SHALL CONFORM TO NEW YORK STATE BUILDING CONSTRUCTION CODE, THE N.Y.S. ENERGY CONSERVATION CONSTRUCTION CODE AND ALL LOCAL CODES, RULES, REGULATIONS AND ZONING LAWS.
- IT IS A VIOLATION OF NEW YORK STATE LAW FOR ANY PERSON, UNLESS ACTING UNDER DIRECTION OF THE LICENSED ENGINEER, TO ALTER THESE PLANS IN ANY WAY.
- THESE DRAWINGS AND SPECIFICATIONS HAVE BEEN PREPARED BY THE ENGINEER AND TO THE BEST OF HIS KNOWLEDGE AND BELIEF MEET THE REQUIREMENTS OF THE N.Y.S. ENERGY CONSERVATION CONSTRUCTION CODE.

SPECIAL CONDITIONS

- NO WORK SHALL BEGIN BEFORE MAY 20, 2019. ALL WORK SHALL BE COMPLETED BY AUGUST 1, 2019.
- THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND MARK-OUT OF ALL UNDERGROUND UTILITIES. NO EXCAVATION WORK SHALL BE STARTED UNTIL A UTILITY MARK-OUT TAKES PLACE.
- THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL TEMPORARY SUPPORTS THAT ARE REQUIRED FOR THE EXISTING UNDERGROUND UTILITIES THAT ARE UNCOVERED DURING THE EXCAVATION.
- ALL EXPOSED PIPING SHALL HAVE PROTECTIVE END CAPS INSTALLED TO PREVENT WEATHER FROM ENTERING THE PIPE DURING PERIODS WHEN WORK IS NOT BEING PERFORMED.
- ALL EXCAVATED TRENCHES SHALL NOT EXCEED A WIDTH OF 20 FEET. THE CONTRACTOR SHALL PROVIDE SHORING, SHEETING, OR OTHER MEANS AS REQUIRED TO MAINTAIN A SAFE WORKING AREA. ALL EXCAVATION WORK SHALL BE PERFORMED IN ACCORDANCE WITH OSHA AND 29 CFR 1926.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DEWATERING REQUIRED TO COMPLETE THE WORK.
- THE CONTRACTOR SHALL PROVIDE ALL SIGNAGE, FENCING, SHORING, ETC., AS REQUIRED TO MAINTAIN THE SITE SAFE FOR WORKERS AND PEDESTRIANS IN THE AREAS AFFECTED BY THE WORK.

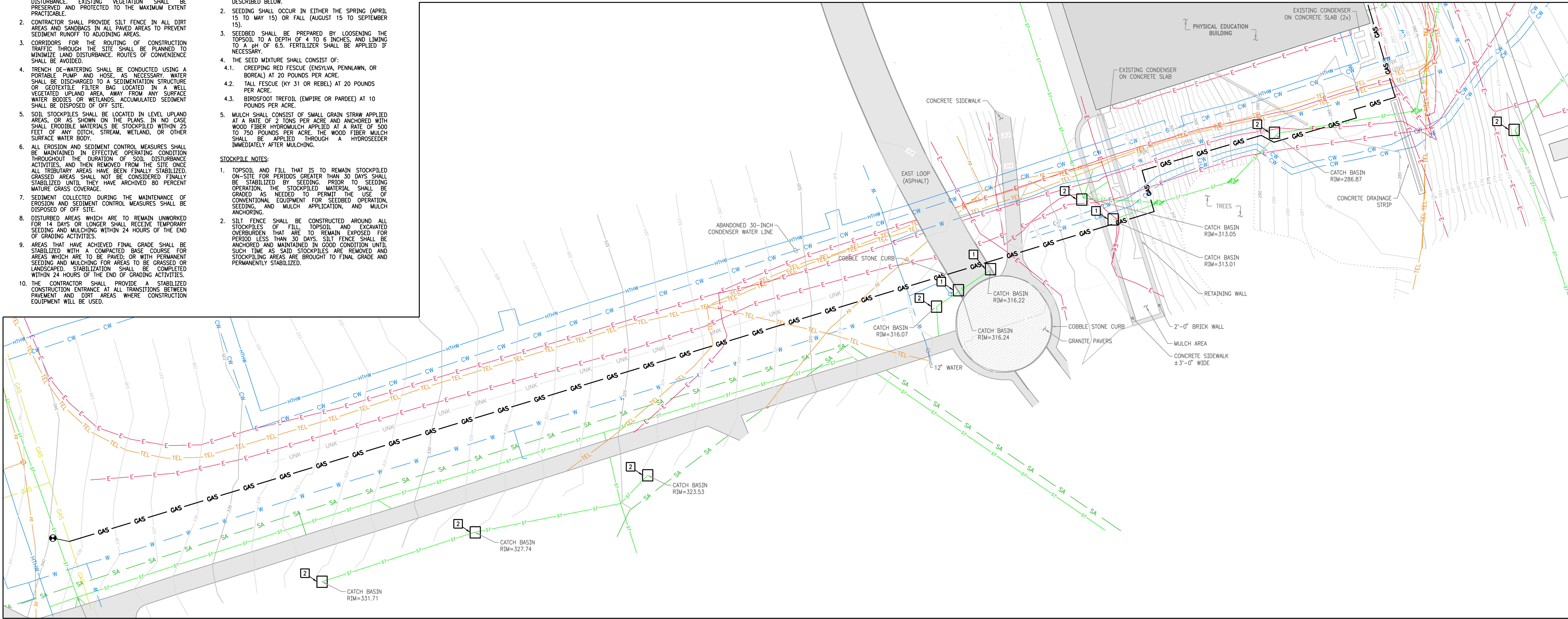
SCOPE OF WORK

- PROVIDE EROSION AND SEDIMENT CONTROL MEASURES AS INDICATED ON DRAWING ESC-1.
- FULLY EXPOSE A 5-FOOT SECTION OF AN EXISTING 16-INCH NATURAL GAS MAIN. ALL EXCAVATION IN THE GAS MAIN AREA SHALL BE PERFORMED BY HAND.
- RETAIN THE SERVICES OF CON EDISON FOR HOT TAPPING OF THE NATURAL GAS MAIN.
- EXCAVATE TRENCH FOR NATURAL GAS LINE BETWEEN THE GAS MAIN AND THE PHYSICAL EDUCATION BUILDING. PROVIDE SAND BEDDING AS PER CON EDISON'S REQUIREMENTS FOR GAS SERVICE INSTALLATION BOOK (YELLOW BOOK).
- FURNISH AND INSTALL A DIRECT-BURIED NATURAL GAS SERVICE BETWEEN THE GAS MAIN AND THE PHYSICAL EDUCATION BUILDING. ALL GAS PIPING WORK SHALL BE PERFORMED BY A CONTRACTOR THAT IS CERTIFIED BY THE NORTHEAST GAS ASSOCIATION (NGA). ALL GAS WORK SHALL CONFORM TO CON EDISON'S REQUIREMENTS FOR GAS SERVICE INSTALLATION BOOK (YELLOW BOOK).
- FURNISH AND INSTALL A GAS PRESSURE REGULATING STATION AT THE PHYSICAL EDUCATION BUILDING. PROVIDE PERMANENT 6'-0" HIGH CHAIN-LINK FENCE AROUND THE GAS REGULATOR. GAS REGULATOR VALVES SHALL BE LOCKED CLOSE.
- PERFORM PRESSURE TEST OF NATURAL GAS SERVICE AS REQUIRED BY CON EDISON PRIOR TO CONNECTION TO THE GAS MAIN.
- BACKFILL TRENCH AND RESTORE ALL AREAS TO ORIGINAL CONDITIONS.

REVISIONS			
REV	DESCRIPTION	DATE	APP'D
ISSUED FOR CONSTRUCTION		02/19/2019	KMD

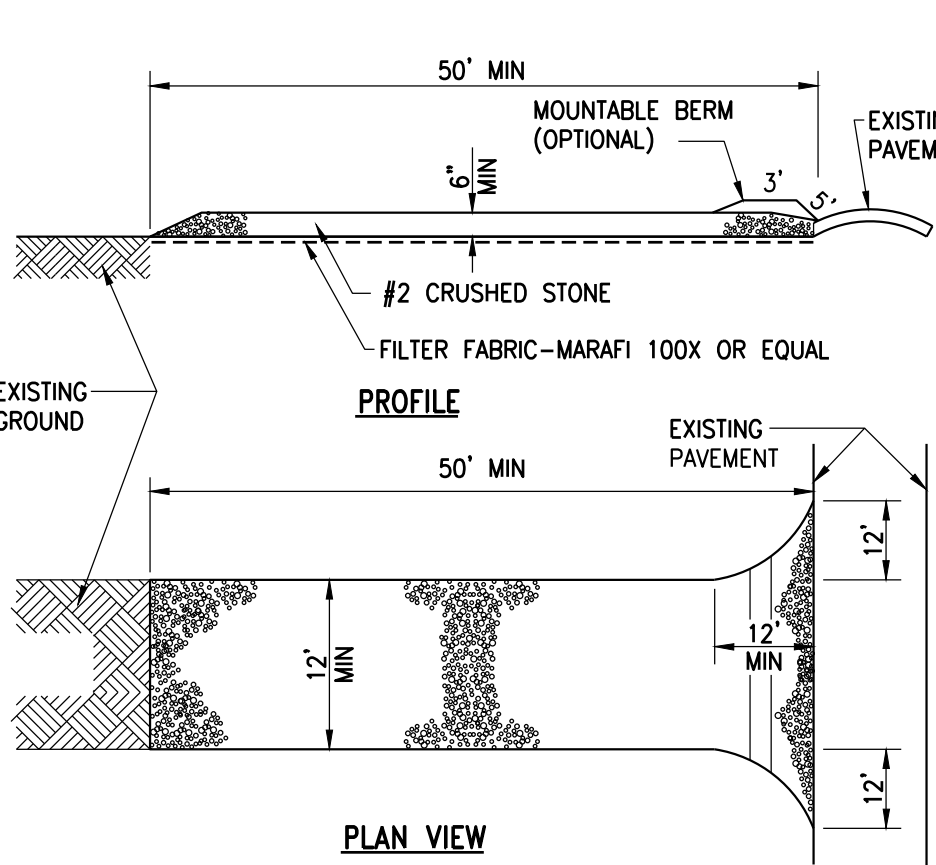
- EROSION AND SEDIMENT CONTROL:**
- CONSTRUCTION ACTIVITIES SHALL BE PLANNED TO MINIMIZE THE AREA AND DURATION OF SOIL DISTURBANCE. EXISTING VEGETATION SHALL BE PRESERVED AND PROTECTED TO THE MAXIMUM EXTENT PRACTICABLE.
 - CONTRACTOR SHALL PROVIDE SILT FENCE IN ALL DIRT AREAS AND SANDBARS IN ALL PAVED AREAS TO PREVENT SEDIMENT RUNOFF TO ADJOINING AREAS.
 - CORRIDORS FOR THE ROUTING OF CONSTRUCTION TRAFFIC THROUGH THE SITE SHALL BE PLANNED TO MINIMIZE LAND DISTURBANCE. ROUTES OF CONVENIENCE SHALL BE AVOIDED.
 - TRENCH DE-WATERING SHALL BE CONDUCTED USING A PORTABLE PUMP AND HOSE. AS NECESSARY, WATER SHALL BE DISCHARGED TO A SEDIMENTATION STRUCTURE OR GEOTEXTILE FILTER BAG LOCATED IN A WELL VEGETATED UPLAND AREA, AWAY FROM ANY SURFACE WATER BODIES OR WETLANDS. ACCUMULATED SEDIMENT SHALL BE DISPOSED OF OFF SITE.
 - SOIL STOCKPILES SHALL BE LOCATED IN LEVEL UPLAND AREAS, OR AS SHOWN ON THE PLANS. IN NO CASE SHALL ERODIBLE MATERIALS BE STOCKPILED WITHIN 25 FEET OF ANY DITCH, STREAM, WETLAND, OR OTHER SURFACE WATER BODY.
 - ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED IN EFFECTIVE OPERATING CONDITION THROUGHOUT THE DURATION OF SOIL DISTURBANCE ACTIVITIES, AND THEN REMOVED FROM THE SITE ONCE ALL TRIBUTARY AREAS HAVE BEEN FINALLY STABILIZED. GRASSED AREAS SHALL NOT BE CONSIDERED FINALLY STABILIZED UNTIL THEY HAVE ARCHIVED 80 PERCENT MATURE GRASS COVERAGE.
 - SEDIMENT COLLECTED DURING THE MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES SHALL BE DISPOSED OF OFF SITE.
 - DISTURBED AREAS WHICH ARE TO REMAIN UNWORKED FOR 14 DAYS OR LONGER SHALL RECEIVE TEMPORARY SEEDING AND MULCHING WITHIN 24 HOURS OF THE END OF GRADING ACTIVITIES.
 - AREAS THAT HAVE ACHIEVED FINAL GRADE SHALL BE STABILIZED WITH A COMPACTED BASE COURSE FOR AREAS WHICH ARE TO BE PAVED, OR WITH PERMANENT SEEDING AND MULCHING FOR AREAS TO BE GRASSED OR LANDSCAPED. STABILIZATION SHALL BE COMPLETED WITHIN 24 HOURS OF THE END OF GRADING ACTIVITIES.
 - THE CONTRACTOR SHALL PROVIDE A STABILIZED CONSTRUCTION ENTRANCE AT ALL TRANSITIONS BETWEEN PAVEMENT AND DIRT AREAS WHERE CONSTRUCTION EQUIPMENT WILL BE USED.

- PERMANENT SEEDING AND MULCHING:**
- AREAS TO RECEIVE PERMANENT SEEDING AND MULCHING SHALL RECEIVE BOTH GRASS SEED AND MULCH, AS DESCRIBED BELOW.
 - SEEDING SHALL OCCUR IN EITHER THE SPRING (APRIL 15 TO MAY 15) OR FALL (AUGUST 15 TO SEPTEMBER 15).
 - SEEDBED SHALL BE PREPARED BY LOOSENING THE TOPSOIL TO A DEPTH OF 4 TO 6 INCHES, AND LIMING TO A pH OF 6.5. FERTILIZER SHALL BE APPLIED IF NECESSARY.
 - THE SEED MIXTURE SHALL CONSIST OF:
 - CREeping RED FESCUE (ENSVLVA, PENNLAWN, OR BOREAL) AT 20 POUNDS PER ACRE.
 - TALL FESCUE (KY 31 OR REBEL) AT 20 POUNDS PER ACRE.
 - BIRDFOOT TREFOIL (EMPIRE OR PARDEE) AT 10 POUNDS PER ACRE.
 - MULCH SHALL CONSIST OF SMALL GRAIN STRAW APPLIED AT A RATE OF 2 TONS PER ACRE AND ANCHORED WITH WOOD FIBER HYDROMULCH APPLIED AT A RATE OF 500 TO 750 POUNDS PER ACRE. THE WOOD FIBER MULCH SHALL BE APPLIED THROUGH A HYDROSEEDER IMMEDIATELY AFTER MULCHING.
- STOCKPILE NOTES:**
- TOPSOIL AND FILL THAT IS TO REMAIN STOCKPILED ON-SITE FOR PERIODS GREATER THAN 30 DAYS SHALL BE STABILIZED BY SEEDING. PRIOR TO SEEDING OPERATION, THE STOCKPILED MATERIAL SHALL BE GRADED AS NEEDED TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED OPERATION, SEEDING, AND MULCH APPLICATION, AND MULCH ANCHORING.
 - SILT FENCE SHALL BE CONSTRUCTED AROUND ALL STOCKPILES OF FILL. TOPSOIL AND EXCAVATED OVERBURDEN THAT ARE TO REMAIN EXPOSED FOR PERIOD LESS THAN 30 DAYS, SILT FENCE SHALL BE ANCHORED AND MAINTAINED IN GOOD CONDITION UNTIL SUCH TIME AS SAID STOCKPILES ARE REMOVED AND STOCKPILING AREAS ARE BROUGHT TO FINAL GRADE AND PERMANENTLY STABILIZED.



NATURAL GAS LINE INSTALLATION

PLAN 1
1"=30'-0"

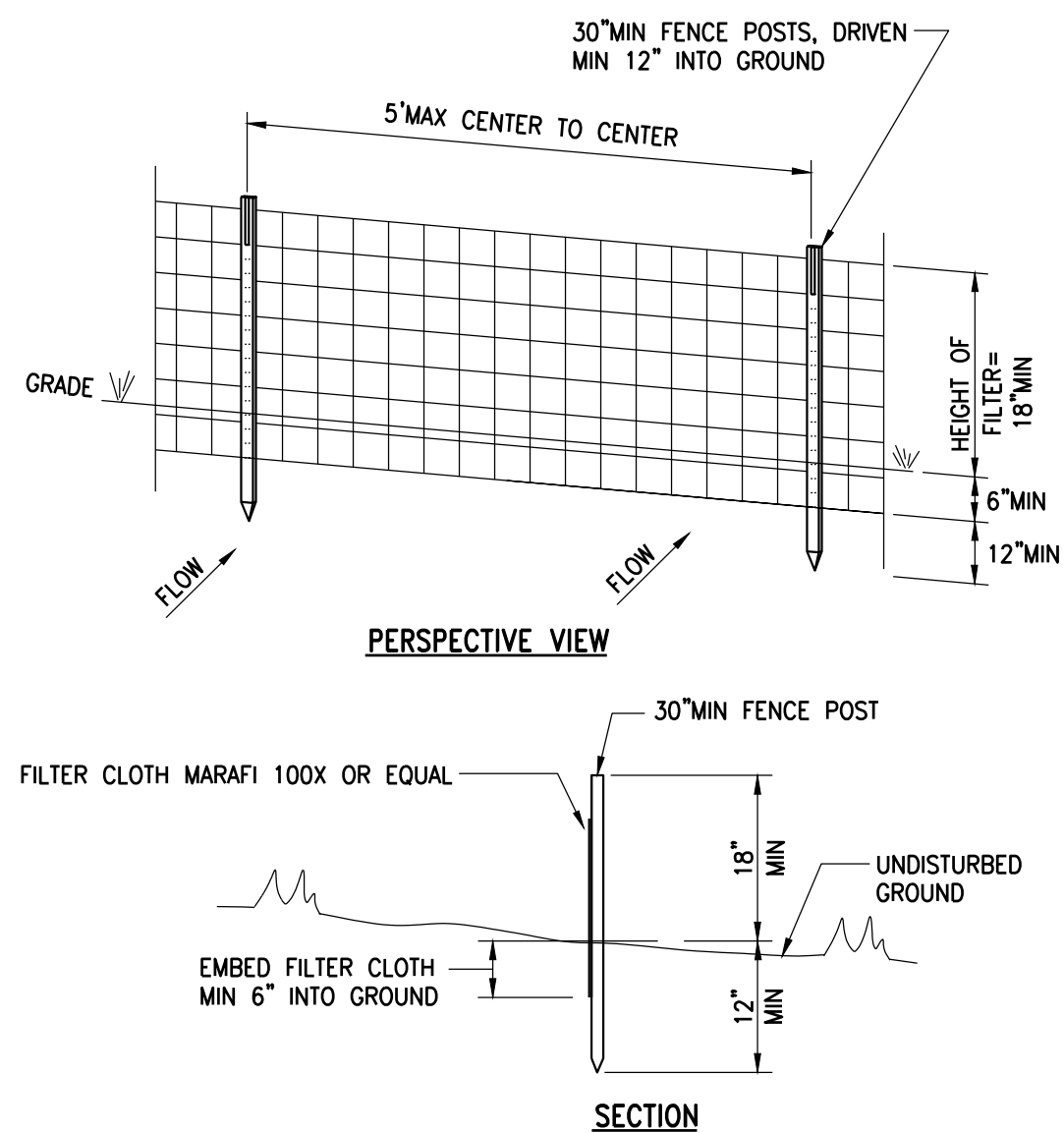


NOTES:

- USE 1"-4" STONE, OR RECLAIMED OR RECYCLED CONCRETE OR APPROVED EQUAL.
- THE LENGTH SHALL NOT BE LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
- CRUSHED STONE SHALL BE MAINTAINED AT A MINIMUM OF 6" IN DEPTH.
- ENTRANCE SHALL HAVE A 12 FOOT MINIMUM WIDTH, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. ENTRANCE SHALL BE AT LEAST 24 FEET WIDE IF SINGLE ENTRANCE TO SITE.
- GEOTEXTILE SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO THE PLACING OF STONE.
- ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS NOT PRACTICAL, A MOUNTABLE BERM WITH 1:5 SLOPES WILL BE PERMITTED.
- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY SHALL BE REMOVED IMMEDIATELY.
- WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE

DETAIL 20
N.T.S.

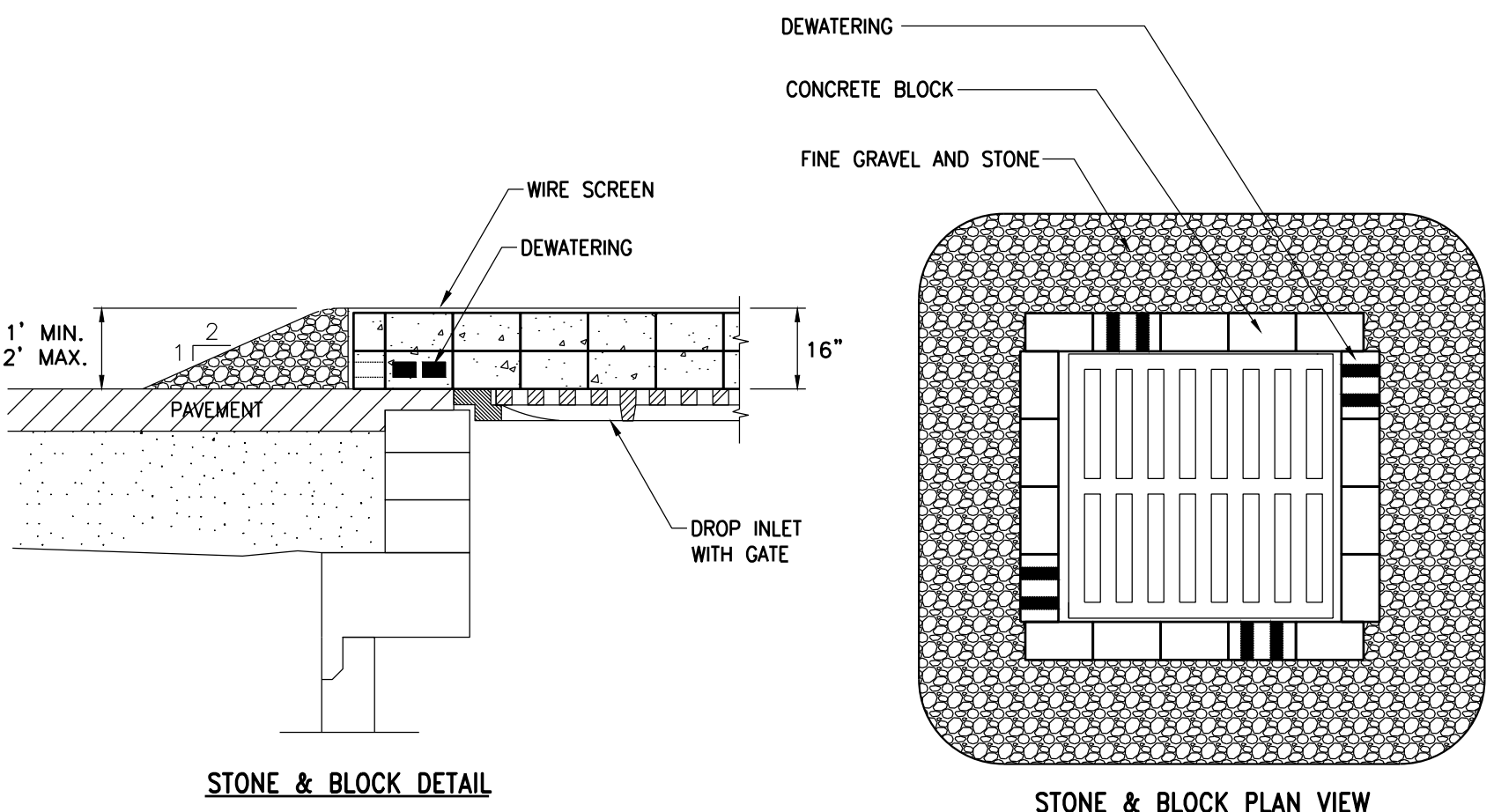


NOTES:

- FILTER CLOTH TO BE FASTENED SECURELY TO WOODEN STAKES
- WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY 6" AND FOLDED.
- MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIALS REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

SILT FENCE

DETAIL 21
N.T.S.



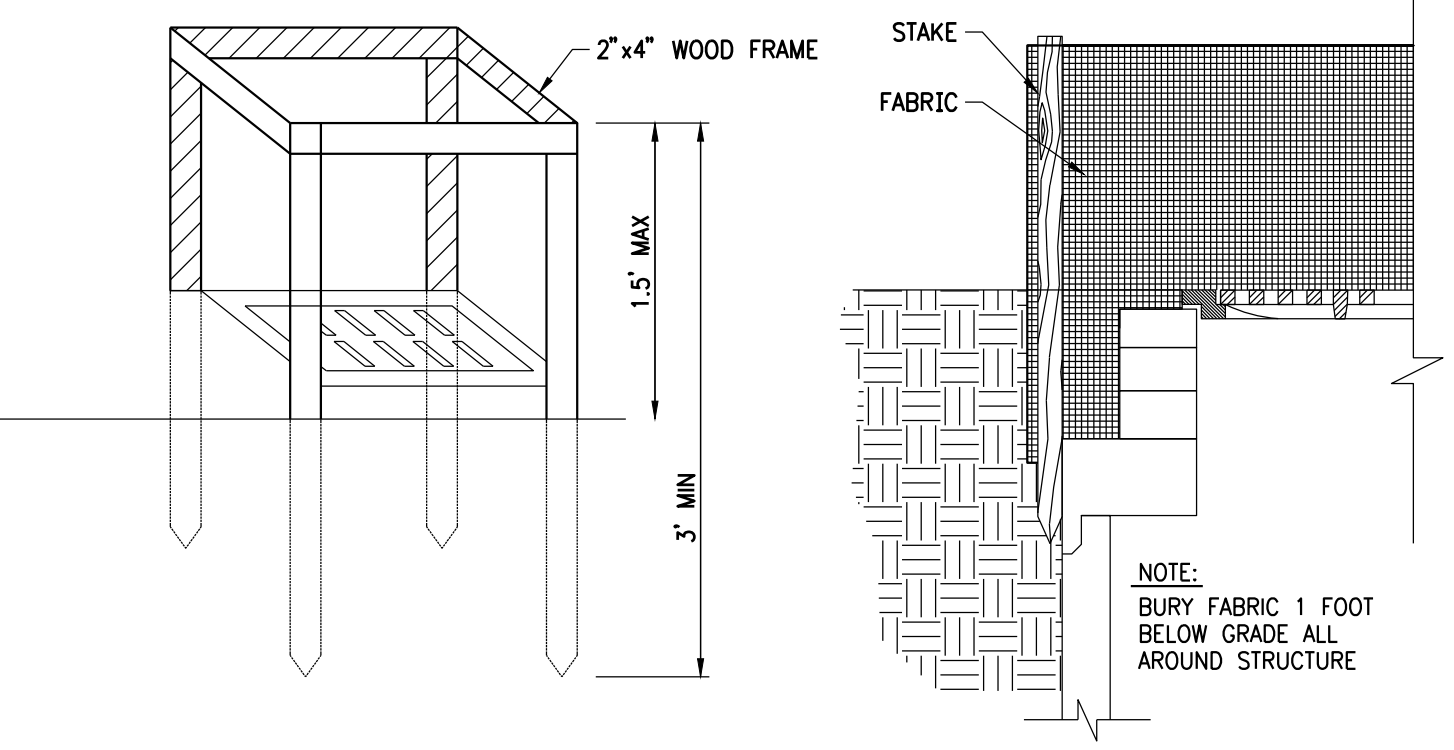
DRAWING NOTES:

- LAY ONE BLOCK ON EACH SIDE OF THE STRUCTURE ON ITS SIDE FOR DEWATERING. FOUNDATION SHALL BE 2 INCHES MINIMUM BELOW REST OF INLET AND BLOCKS SHALL BE PLACED AGAINST INLET FOR SUPPORT.
- HARDWARE CLOTH OR 1/2" WIRE MESH SHALL BE PLACED OVER BLOCK OPENINGS TO SUPPORT STONE.
- USE CLEAN STONE OR GRAVEL 1/2-3/4 INCH IN DIAMETER PLACED 2 INCHES BELOW TOP OF THE BLOCK ON A 2:1 SLOPE OR FLATTER.
- FOR STONE STRUCTURES ONLY, 1" THICK LAYER OF THE FILTER STONE WILL BE PLACED AGAINST THE 3 INCH STONE AS SHOWN ON THE DRAWINGS.

MAXIMUM DRAINAGE AREA 1 ACRE

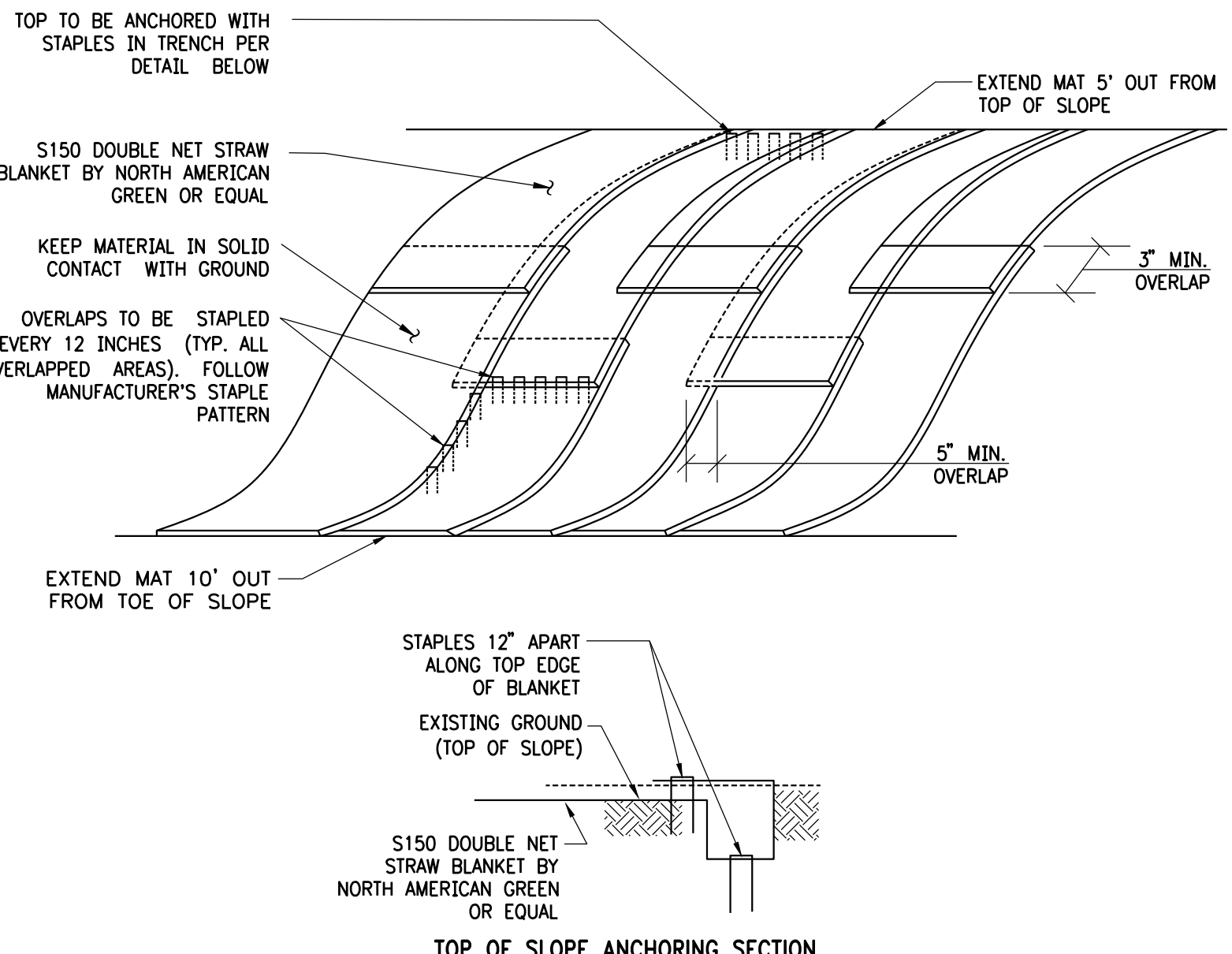
STONE AND BLOCK INLET PROTECTION FOR STRUCTURES IN PAVED AREAS

DETAIL 22
N.T.S.



INLET PROTECTION FOR STRUCTURES IN UNPAVED AREAS

DETAIL 23
N.T.S.

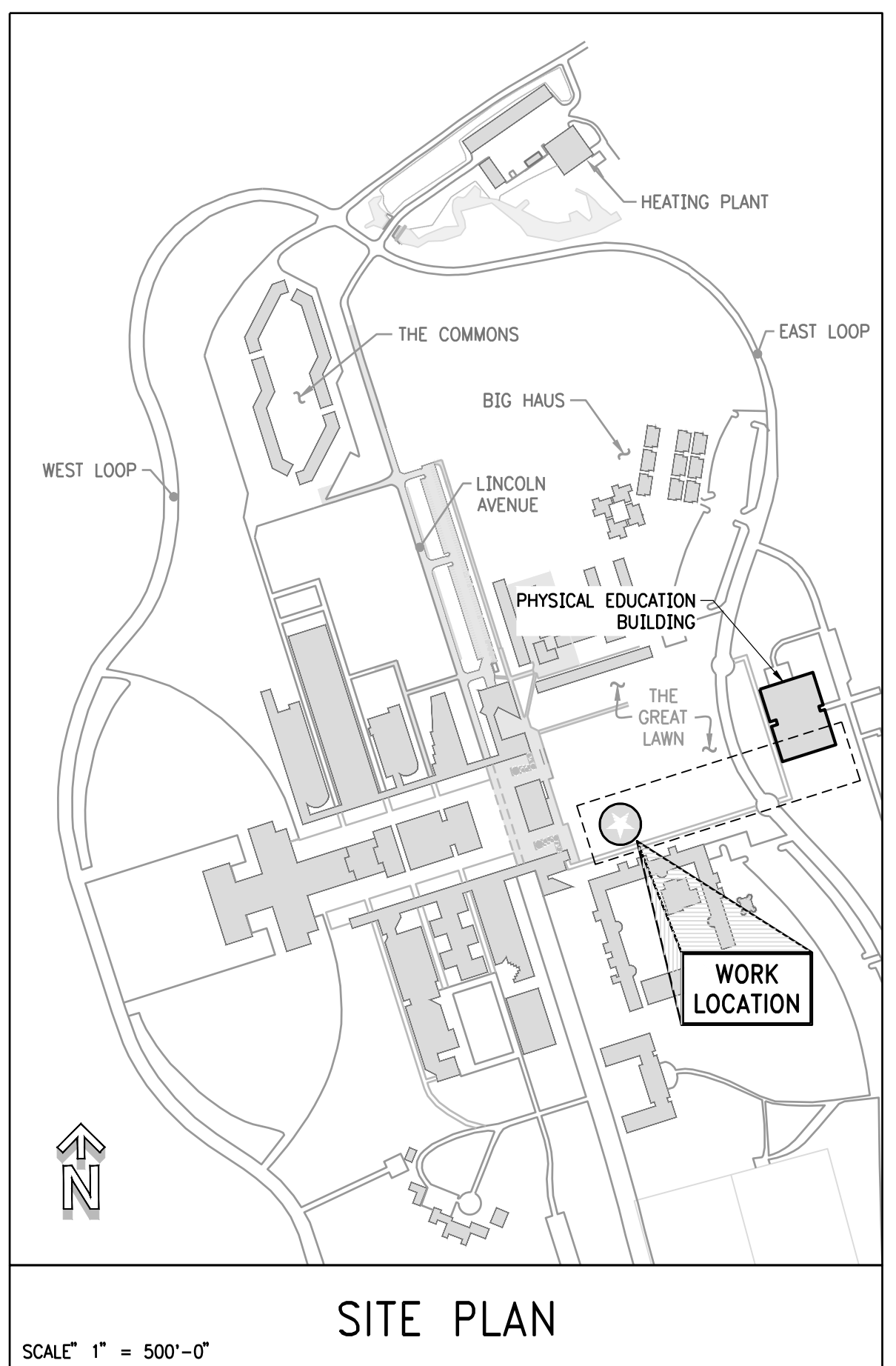


NOTES:

- 1) APPLY APPLICATION OF ANY LIME, FERTILIZER, AND SEED BEFORE INSTALLING TURF REINFORCEMENT MAT.
- 2) INSTALL USING ALL MANUFACTURERS INSTALLATION RECOMMENDATIONS AND GUIDELINES.

EROSION CONTROL BLANKET

DETAIL 24
N.T.S.



SITE PLAN

SCALE 1" = 500'-0"



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STATE UNIVERSITY OF NEW YORK
735 Anderson Hill Rd
Purchase, NY 10577

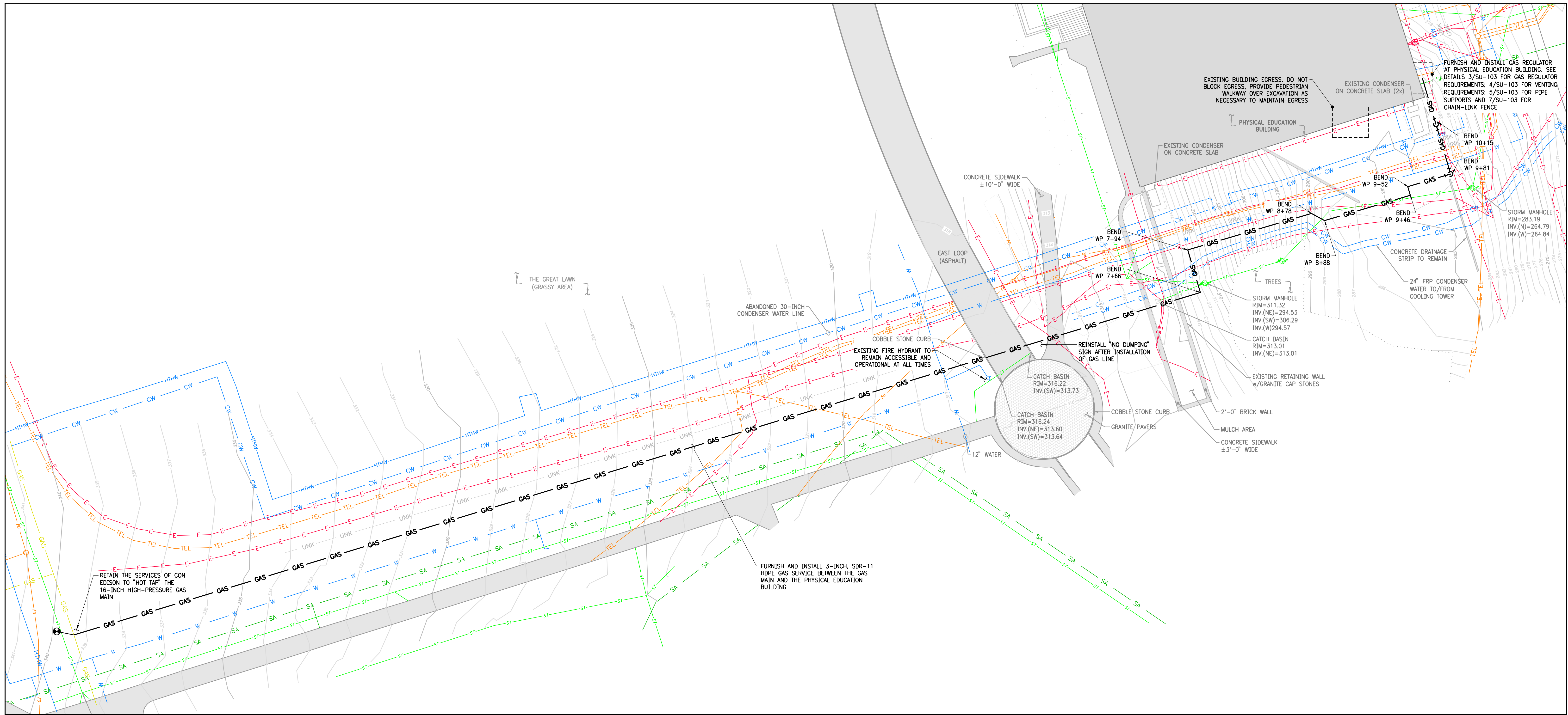
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EROSION AND SEDIMENT CONTROL PLAN & DETAILS

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As Noted	SU-021919	ESC-1	0
Drawn by K. D. Diller	65274		
Checked by K. D. Diller	February 19, 2019		

DO NOT SCALE DRAWING



NATURAL GAS LINE INSTALLATION

PLAN 1
1"=30'-0"



NATURAL GAS MAIN "HOT TAP" NOTES:

1. THE CONTRACTOR SHALL RETAIN THE SERVICES OF CONSOLIDATED EDISON COMPANY OF NEW YORK, INC. (CON EDISON) TO "HOT TAP" THE 16-INCH NARVAL GAS MAIN IN THE GREAT LAWN.
2. THE CONTRACTOR SHALL EXPOSE THE ENTIRE CIRCUMFERENCE OF THE NATURAL GAS MAIN. THE CONTRACTOR SHALL HAVE EXCAVATE A WORK AREA 5 FEET IN BOTH SIDES OF THE GAS MAIN. PROVIDE SLOPING AND/OR SHORING FOR AN OSHA-COMPLIANT EXCAVATION.
3. CON EDISON WILL FURNISH AND INSTALL A CURVE VALVE. THE CONTRACTOR SHALL FURNISH AND INSTALL THE FOLLOWING: A PLASTIC CURVE VALVE BOX, A VALVE COVER, A CONCRETE BASE FOR THE VALVE, AND A CONCRETE PAD FOR THE COVER. SEE DETAIL 15/SU-104 FOR ADDITIONAL INFORMATION.

NATURAL GAS LINE INSTALLATION NOT

- ALL WORK SHALL CONFORM TO CON EDISON'S "REQUIREMENTS FOR GAS SERVICE INSTALLATIONS" BOOK NO. 914-925-6157.
- ALL WORK SHALL BE PERFORMED BY WORKERS WHO ARE CERTIFIED BY THE NORTHEAST GAS ASSOCIATION (NGA) AS REQUIRED BY CON EDISON.
- ALL SERVICE SHALL BE INSTALLED IN ACCORDANCE WITH THE PREVIOUSLY APPROVED EQUIPMENT LISTED IN CON EDISON'S YELLOW BOOK THIS INCLUDES HOPE, TRENCHING AND DEPTH SHALL BE AS PER DETAIL 1/SU-103. 3" SAND SHALL BE USED FROM THE BOTTOM OF THE TRENCH UP TO 6" ABOVE THE NATURAL GAS PIPING.
- NATURAL GAS PIPING SHALL HAVE A MINIMUM OF 2'-0" COVER, WHEREVER 2'-0" COVER IS NOT POSSIBLE, THE 2/SU-103. MINIMUM COVER WITH PROTECTION IS 1'-6".
- THE CONTRACTOR SHALL INSTALL A DETECTABLE MARKING SYSTEM TO INDICATE THE LOCATION OF ALL GASEL FLIES AT A MINIMUM OF 12" ABOVE THE TOP OF THE DIRECT-BURNER GAS LINE. IN ADDITION, ELECTRICITY CANNOT BE INSTALLED NEAR OR ON GAS PIPING ON DETAIL 6/SU-103.
- THE CONTRACTOR SHALL CONTACT THE CON EDISON REGIONAL REPRESENTATIVE AT (914) 925-6157 TO REQUEST A SECOND INSPECTION PRIOR TO BACKFILL. THE COST OF THE INSPECTION WILL BE PAID BY THE CONTRACTOR. AFTER THE VERIFICATION OF THE QUALIFICATIONS OF THE JOINER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE AND INSPECT THE FUSION WELDS.

PRESSURE TEST, PURGING AND GAS-IN NOTES:

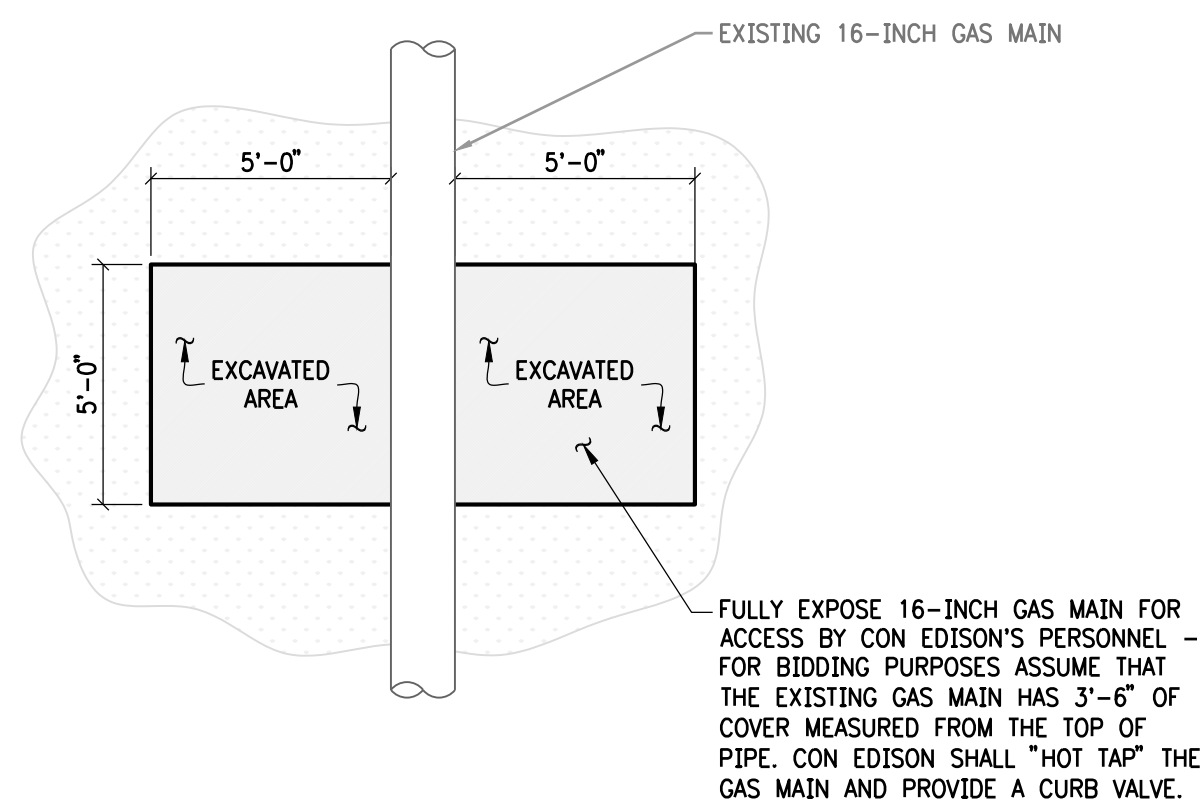
1. PRESSURE TEST THE GAS SERVICE AS PER CON Edison's SPECIFICATION G-8200 "PRESSURE TESTING REQUIREMENTS FOR GAS MAINS AND SERVICES," REFER TO THE SUBJECT MAINS AND SERVICES FOR THE SPECIFIC SPECIFICATION, IN GENERAL THE CONTRACTOR SHALL:
 - 1.1. TEST TO A MINIMUM OF 90 PSIG FOR AT LEAST 2 HOURS.
 - 1.2. THE TEST MEDIUM SHALL BE AIR OR AN INERT GAS. WATER SHALL NOT BE USED.
 - 1.3. DURING THE TESTING OF PE PLASTIC PIPE, THE TEMPERATURE OF THE PE MATERIAL MAY NOT EXCEED 100°F.
 - 1.4. PRESSURE TEST SHALL BE WITNESSED AND DOCUMENTED BY A CON Edison REPRESENTATIVE.
2. FOLLOWING SUCCESSFUL COMPLETION OF THE SERVICE PRESSURE TEST, PURGE THE SERVICE PIPE AS PER CON Edison SPECIFICATION G-8200 "PURGING GAS MAINS, SERVICES AND REGULATOR STATIONS."

GAS REGULATOR NOTES:

1. THE CONTRACTOR SHALL INSTALL A GAS REGULATING STATION, GAS REGULATOR SHOWN ON DETAIL 5/50-103/104. THE CONTRACTOR SHALL PROVIDE THE GAS REGULATOR, FINAL REGULATOR ARRANGEMENT WILL BE DETERMINED BY THE CITY ENGINEER. THE GAS REGULATOR SHALL BE SIZED FOR 100 CPH, INLET PRESSURE OF 10 PSIG AND OUTLET PRESSURE OF 14" W.C. ALL PRESSURES NOT INDICATED TO BE PROVIDED BY CITY ENGINEER.
2. THE CONTRACTOR SHALL PROVIDE A 6"-0" LOCKABLE CHAIN-LINK FENCE AROUND THE REGULATOR STATION. SEE DETAIL 5/50-104 AND 5/50-104 FOR ADDITIONAL INFORMATION.
3. THE CONTRACTOR SHALL FURNISH AND INSTALL 2" REGULATOR VENT PIPING AS PER DETAIL 4/50-103.
4. ABOVEGROUND PIPING SHALL BE STEEL PIPE, FITTINGS AND FLANGES SHALL BE STEEL. SEE DETAIL 5/50-103 FOR ADDITIONAL INFORMATION. SEE DETAIL "REQUIREMENT FOR GAS SERVICE INSTALLATION BOOK (YELLOW BOOK)".
5. THE REGULATOR PIPING SHALL BE PROPERLY SUPPORTED. W/400LDE SUPPORTS. SEE DETAIL 5/50-103.

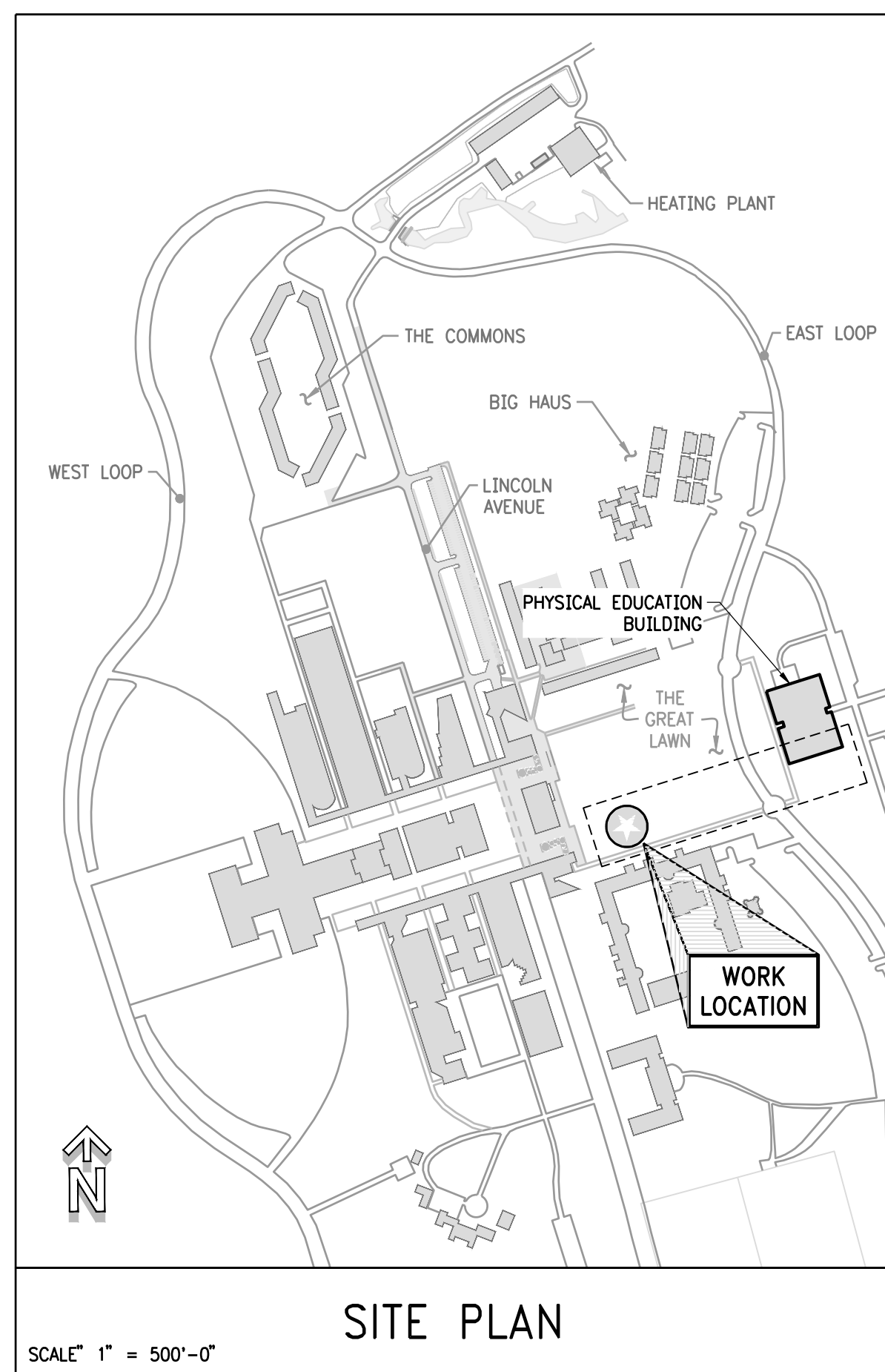
RESTORATION NOTES:

1. ALL AREAS DISTURBED BY THE WORK SHALL BE RESTORE TO THE ORIGINAL CONDITIONS. ALL GRASSY AREAS SHALL BE RE-SEEDDED AS PER SPECIFICATION 32 92 19.
2. ALL EXCAVATED AREAS SHALL BE BACKFILLED TO MATCH ORIGINAL GRADE.
3. RESTORE EAST LOOP ROAD AS PER DETAIL 16/SU-104 AND 17/SU-104. PROVIDE STRIPPING TO MATCH EXISTING.
4. SALVAGE COBBLE STONE CURBS. RESTORE COBBLE STONE CURB ADJACENT TO EAST LOOP ROAD AS PER DETAIL 18/SU-104.
5. RESTORE CONCRETE SIDEWALKS AS PER DETAIL 19/SU-104.



EXCAVATION FOR GAS MAIN HOT TAP

DETAIL 25
N.T.S.



PIPING SCHEDULE

SYSTEM DESIGNATION	SYSTEM TAG	ASTM	CONSTRUCTION MATERIAL	SDR / SCHEDULE	MANUFACTURER / MODEL NO.
NATURAL GAS (UNDERGROUND)	G	D2513	POLYETHYLENE	SDR 11	PERFORMANCE PIPE / YELLOWSTRIPES 8300
NATURAL GAS (ABOVEGROUND)	G	(NOTE 2)	STEEL	(NOTE 2)	(NOTE 2)

NOTES

1. REFER TO CON EDISON'S G-8104 "POLYETHYLENE PIPE, TUBING AND FITTINGS FOR GAS MAINS AND SERVICES" FOR PE PIPE AND FITTINGS REQUIREMENTS.
2. REFER TO CON EDISON'S G-8107 "STEEL PIPE FOR GAS MAINS AND SERVICES" FOR STEEL PIPE AND FITTINGS REQUIREMENTS.

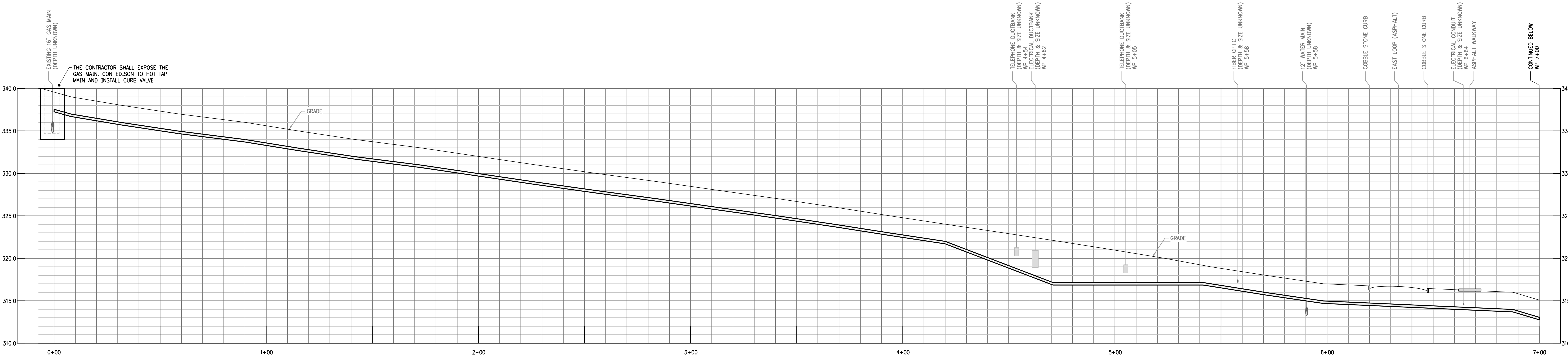
NATURAL GAS PIPE INSTALLATION CLEARANCES

SUBSURFACE FACILITY	GAS SERVICE	MIN. CLEARANCE w/PROTECTION
ELECTRIC CONDUIT OR STRUCTURE	4 INCHES	2 INCHES
ELECTRIC DIRECT-BURIED CABLE	12 INCHES	2 INCHES
WATER & SEWER	6 INCHES	2 INCHES
OTHER (E.G., TELEPHONE, FIBER, ETC.)	4 INCHES	2 INCHES

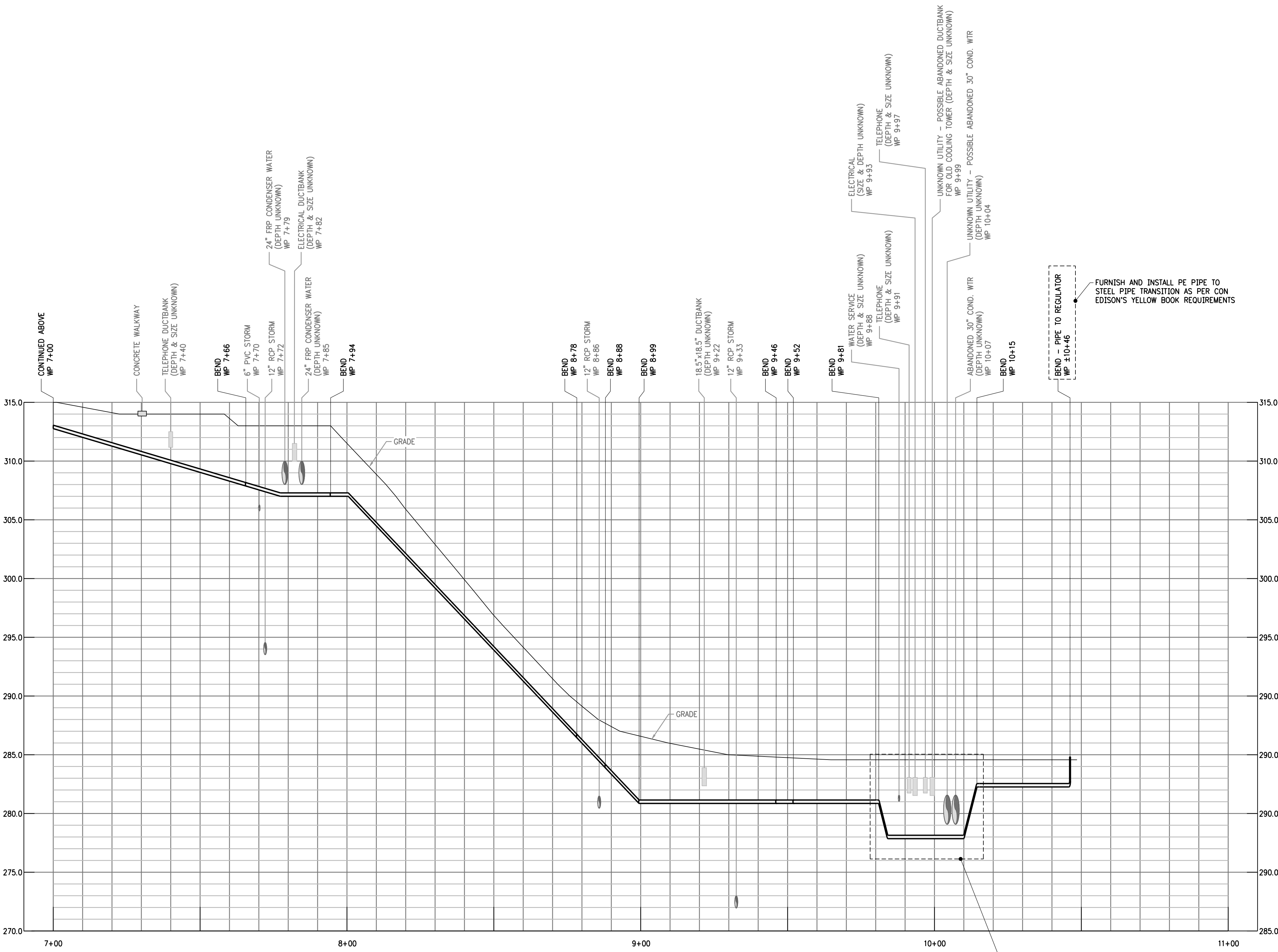
NOTES

1. WHERE POSSIBLE, THE DIRECT BURIAL OF NEW SERVICES SHALL BE INSTALLED WITH THESE MINIMUM CLEARANCES BETWEEN GAS FACILITIES AND OTHER SUBSURFACE FACILITIES.
2. TABLE ABOVE IS BASED ON CON EDISON'S "GENERAL SPECIFICATION FOR THE INSTALLATION OF GAS DISTRIBUTION SERVICES" NUMBER G-8100-13B.
3. REFER TO CON EDISON'S G-8100-13B FOR PROTECTION REQUIREMENTS WHEN THE CLEARANCES SHOWN CANNOT BE ATTAINED.

REVISIONS			
REV	DESCRIPTION	DATE	APP'D
ISSUED FOR CONSTRUCTION		02/19/2019	KMD



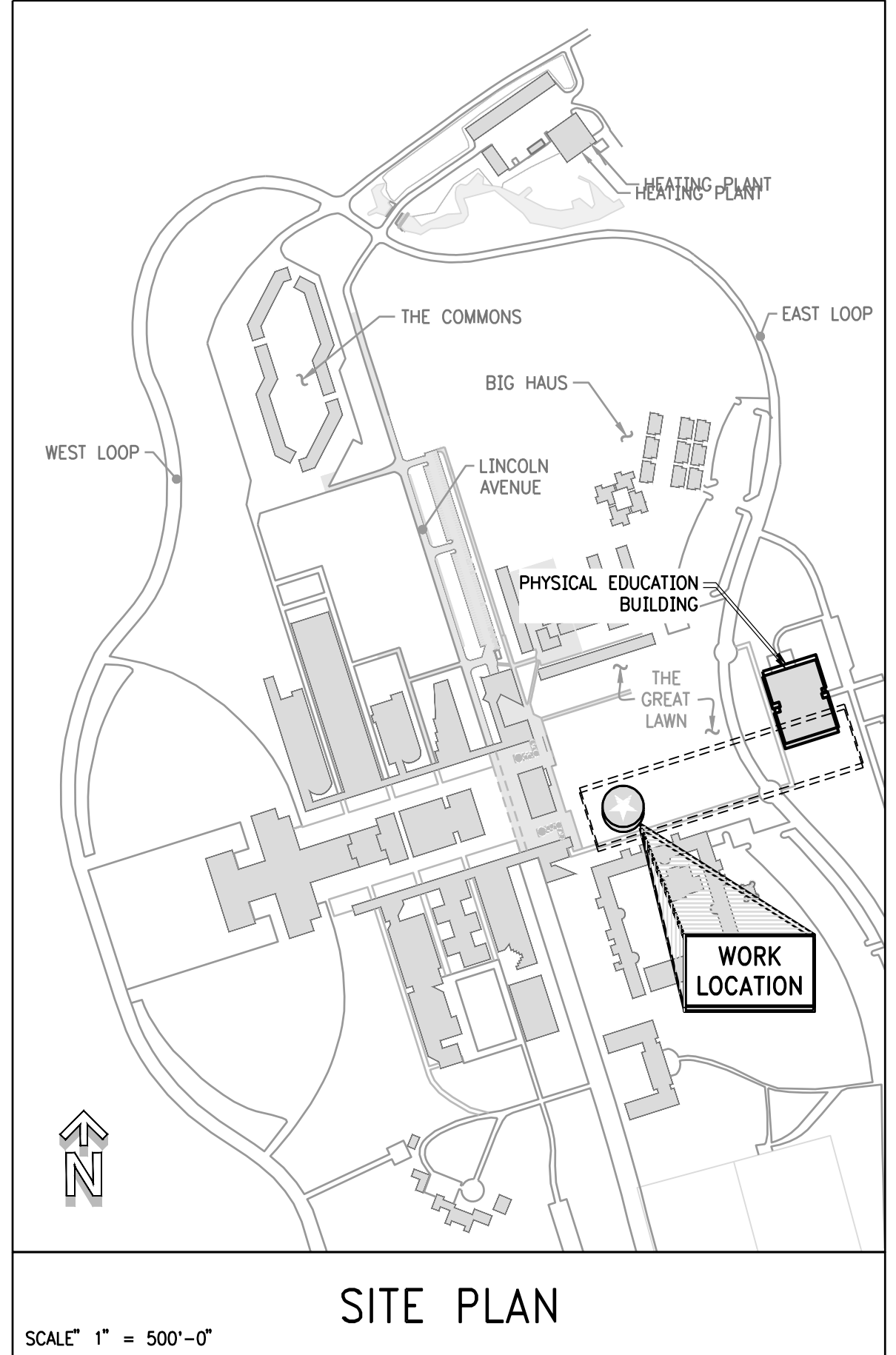
PIPING PROFILE
SCALE: 1"=5' VERTICAL
SCALE: 1"=20' HORIZONTAL



PIPING PROFILE
SCALE: 1"=5' VERTICAL
SCALE: 1"=20' HORIZONTAL

EXACT DEPTH AND SIZE OF UTILITIES ARE UNKNOWN. ROUTE PIPING MAINTAINING THE MINIMUM COVER AND CLEARANCE FROM UTILITIES INDICATED ON DWG. SU-101. AVOID LOW-POINT WHEREVER POSSIBLE.

- DRAWING NOTES:**
- REFER TO DRAWING SU-101 FOR NATURAL GAS PIPING INSTALLATION NOTES AND INSTALLATION CLEARANCES.
 - THE CONTRACTOR SHALL PERFORM TEST PITS TO DETERMINE THE DEPTH OF THE FOLLOWING UTILITIES:
 - CONDENSER WATER WP 7+79
 - CONDENSER WATER WP 7+85
 - UTILITIES BETWEEN WP 9+88 AND 10+07
 - ALL EXCAVATION WITHIN TEN FEET OF EQUIPMENT AND UTILITIES SHALL BE PERFORMED BY HAND UNLESS OTHERWISE INDICATED.



Purchase College
STATE UNIVERSITY OF NEW YORK

735 Anderson Hill Rd
Purchase, NY 10577

O'BRIEN & GERE ENGINEERS, INC.
163 North Wellwood Avenue
Lindenhurst, New York 11757

NATURAL GAS LINE TO PHYSICAL EDUCATION BLDG.

NATURAL GAS LINE INSTALLATION - PROFILES

SCALE	PROJECT NO.	DRAWING NUMBER	REVISION
As Noted	SU-021919	SU-102	0
DRAWN BY R. Jordan	ISS. JOB NO.	65274	
CHECKED BY K. Diller	DATE	February 19, 2019	

DO NOT SCALE DRAWING

REVISIONS			
REV	DESCRIPTION	DATE	APPVD
	ISSUED FOR CONSTRUCTION	02/19/2019	KMD

967603

REVISIONS

K.ORGANO	7/21/88	0
M. BALDWIN 2/02/08 1 REVISD TRENCH WIDTH FOR 4" THING 1/2" MAINS NO REMOVED REQUIREMENT FOR SAND BAGS FOR STEEL DISTRIBUTION MAIN. RA. 2/11/08		
M. BALDWIN 4/04/08 2 ADDED REQUIREMENT OF SAND BAGS FOR STEEL DISTRIBUTION MAIN. RA. 4/11/08		
M. BALDWIN 3/12/08 3 REVISD TRENCH WIDTH OF 14" AND GRADE 5" MAINS IN TABLE I. P.L.S. 1/28/08		
M. BALDWIN 04/29/13 4 REVISD TITLE REVISD DRAWING IN ITS ENTIRETY. HT 04/29/13		

STEEL MAIN OR SERVICE (DISTRIBUTION)

PLASTIC MAIN OR SERVICE (DISTRIBUTION)

STEEL MAIN (TRANSMISSION)

SIZE OF MAIN / SERVICE	TRENCH WIDTH	TRENCH DEPTH (MAIN)	TRENCH DEPTH (SERVICE)
1.5"	0'-0"	3'-0"	2'-0"
1.5"	1'-0"	3'-0"	2'-0"
2"	1'-0"	3'-0"	2'-0"
3"	1'-0"	3'-0"	2'-0"
4"	1'-0"	3'-0"	2'-0"
6"	1'-4"	4'-0"	3'-0"
8"	1'-4"	4'-0"	3'-0"
10"	1'-8"	4'-3"	3'-3"
12"	1'-8"	4'-3"	3'-3"
16"	2'-0"	4'-6"	3'-6"
16"	2'-0"	4'-6"	3'-6"
20"	2'-4"	5'-0"	4'-0"
24"	2'-4"	5'-0"	4'-0"
36"	3'-0"	6'-0"	4'-6"
36"	3'-0"	6'-0"	4'-6"

NOTES:

- DISTRIBUTION MAINS SHOULD BE INSTALLED WITH A MINIMUM 3'-0" COVER SO AS TO ALLOW A MINIMUM COVER OF 2'-0" ON THE SERVICE PIPING.
- FOR DISTRIBUTION MAINS OR SERVICES, STEEL PROTECTIVE PLATES ARE REQUIRED WHEN THE COVER IS LESS THAN 2'-0". (SEE SPECS. G-800S, G-8100, AND DWG. EO-4789-C.)
- FOR TRANSMISSION MAINS, STEEL PROTECTIVE PLATES ARE REQUIRED FOR ALL NEW INSTALLATIONS REGARDLESS OF COVER AND IF FEASIBLE, WHENEVER AN EXISTING TRANSMISSION MAIN IS EXPOSED. (SEE SPECS. G-8051, G-11883, AND DWG. EO-4789-C.)
- ENSURE PROPER CLEARANCES ARE MAINTAINED BETWEEN GAS FACILITIES AND OTHER FACILITIES OR STRUCTURES. (SEE CI-920-1 AND DWG. EO-5870-C.)
- WHEN SHEETING IS USED, THE "TRENCH WIDTH" DIMENSION IN TABLE I SHALL BE MEASURED FROM THE INSIDE OF THE SHEETING.
- WHEN INSTALLING COILED PLASTIC PIPE, THE TRENCH WIDTH MAY BE LESS THAN SHOWN ON TABLE I.
- FOR STEEL MAINS AND SERVICES, INSTALL SANDBAGS AT 10' INTERVALS.
- ALL REPLACEMENT DIRECT BURIED COPPER TUBING AND PLASTIC TUBING SERVICES IN 1" OR 1 1/2" CTS SIZES SHALL HAVE A PROTECTIVE SLEEVE INSTALLED. (SEE G-8100)
- SEE G-8200 FOR MINIMUM SIZES OF NEW DIRECT BURIED PLASTIC, STEEL, AND COPPER SERVICES OF VARIOUS PRESSURES.

REFERENCE SPECS & DWGS:

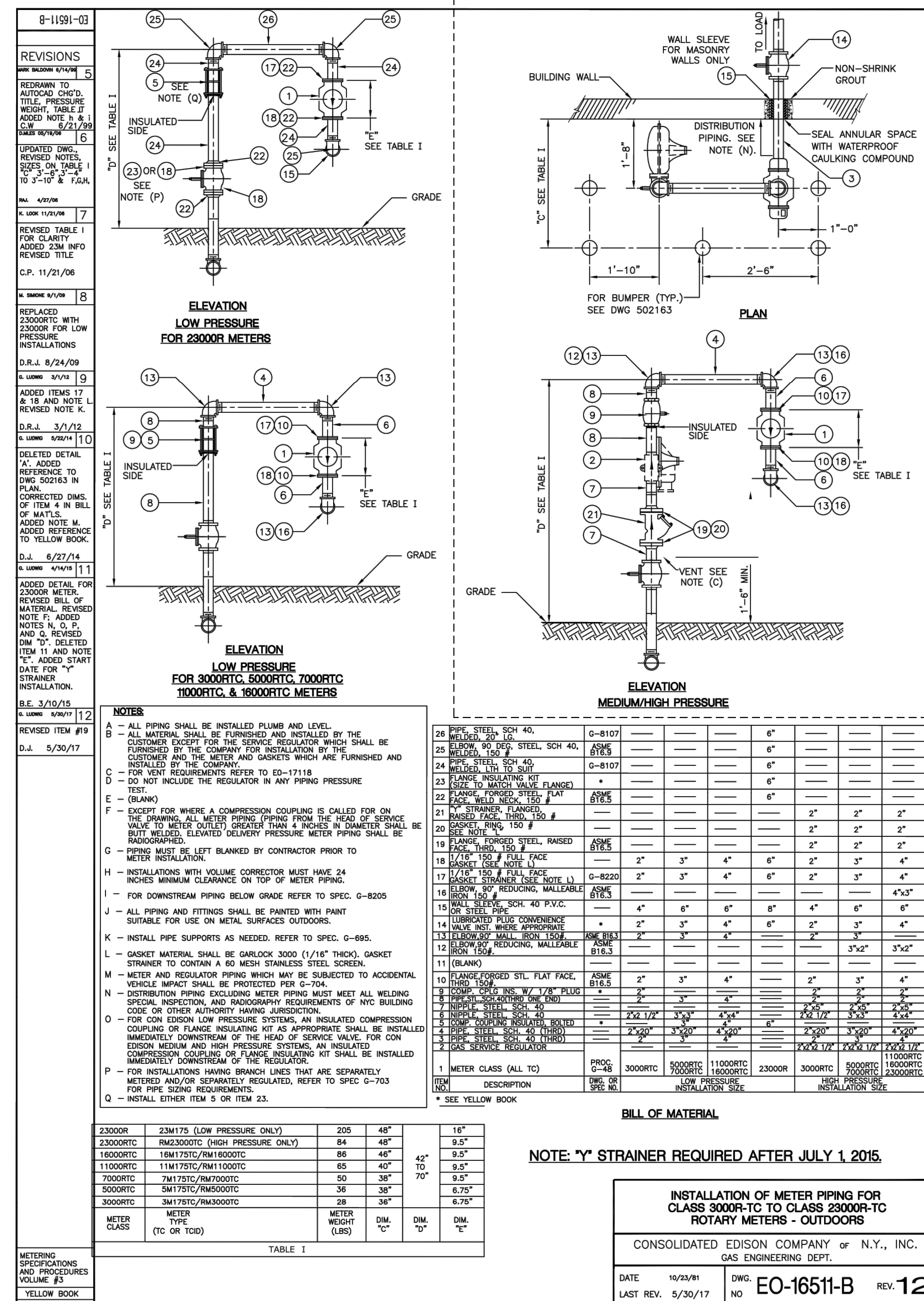
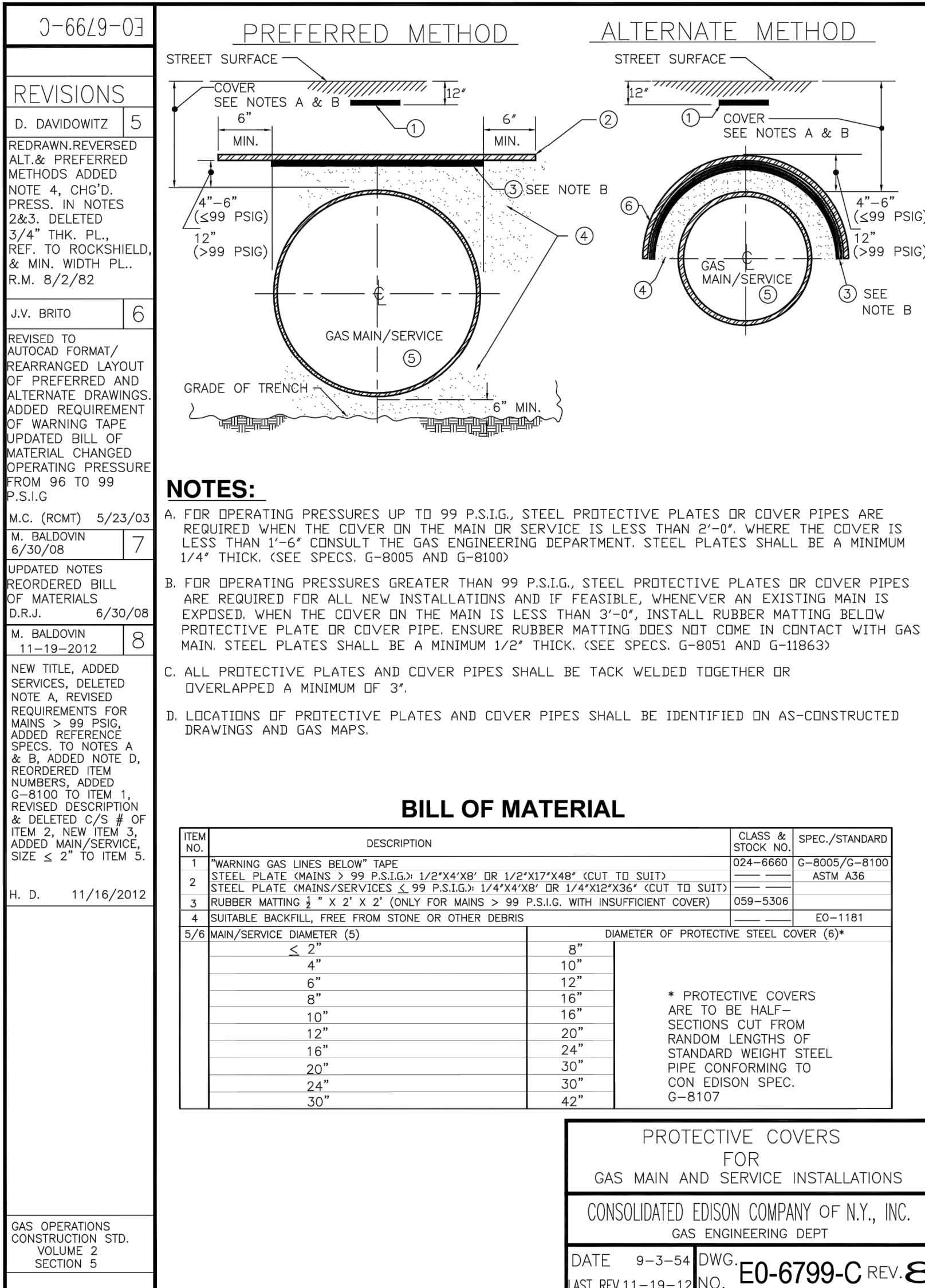
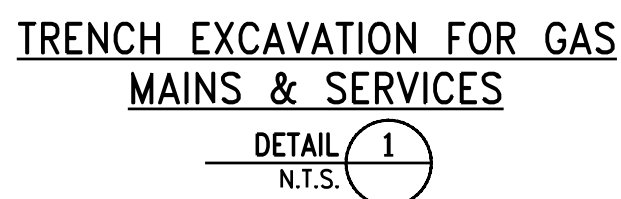
GAS MAIN INSTALLATION	G-8005
GAS SERVICE INSTALLATION	G-8110
GAS SERVICE SIZING	G-8200
STEEL PROTECTION PLATES	G-4789-C, G-8051, G-11883
SHIELDING	CI-920-1, EO-5870-C
SHEETING	EO-1894-B, EO-1895-B
BACKFILLING	EO-1891-1, EO-8665

TRENCH EXCAVATION FOR GAS MAINS & SERVICES UP TO 350 PSIG

CONSOLIDATED EDISON COMPANY OF N.Y., INC.
GAS OPERATIONS DEPT.

DATE 7/21/88 REV. 08/29/13	DWG. NO. 309495 REV. 4
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THIS DWG. SUPERSEDES - - - - EO-7922

[illegible]

3-0-0707-03

REVISIONS

P. BERNASCONI
1/13/06

3

REDRAWN TO CAD
ADDED ANVL INT'L
FIG. 364

REVISED NOTES,
DESCRIPTION AND
SPECIFICATION
VOLUME.

RAI. 1/01/05

ADJUSTABLE PIPE SADDLE SUPPORT;
ANVL INT'L FIG. 264(FORMERLY ITT GRINEL
FIG.264) OR CARPENTER & PATTERSON FIG.101
OR GAS ENGINEERING APPROVED EQUAL.

"S" WITH ADJUSTMENT
APPROX. AT MID-POINT

CAST IRON SADDLE SUPPORT

STEEL LOCKNUT NIPPLE
(APPROX. 4 1/4" TOTAL ADJUSTMENT).

CAST IRON REDUCER

STEEL RISER PIPE THREADED
BOTH ENDS

125# C.I. REDUCING COMPANION
FLANGE WITH STANDARD BOLT
HOLE DRILLING.

PIPE SUPPORT DATA (INCHES)							
SADDLE SUPPORT SIZE	FOR NOMINAL PIPE SIZE	NOMINAL FLANGE SIZE	S	PIPE SIZES		REDUCING COMPANION FLANGE SIZE	STOCK NUMBER
				DIAM	LENGTH		
2	1/2	1 1/2	26	1/4	3 x 18	2 1/4 x 9	—
3	3/4	2	26	1/4	3 x 18	2 1/4 x 9	—
4	1	2 1/2	26	3/8	3 x 17	3 x 9	—
6	1 1/2	3	24	1/2	3 x 16	3 x 9	003 — 3845
8	2	4	23	1/2	3 x 15	3 x 9	003 — 3837
10	2 1/2	5	23	3/4	3 x 13	3 x 9	003 — 3829
12	3	6	22	3/4	3 x 12	3 x 9	003 — 4157
14	3 1/2	8	21	1	4 x 10 1/2	4 x 11	003 — 3803
16	4	10	20	1	4 x 9	4 x 11	003 — 3746
20	5	12	18	6	6 x 6	6 x 13 1/4	003 — 3886
24	6	16	16	6	6 x 6	6 x 13 1/4	—
30	8	20	13	6	6 x 6	6 x 13 1/4	—

NOTES:

- THE MANUFACTURER'S NAME AND PIPE SIZE SHALL BE PERMANENTLY MARKED ON THE PIPE SUPPORT.
- ALL PIECES TO BE GALVANIZED IN ACCORDANCE WITH A.S.T.M. STANDARD A 153/A 153M-05
- FOR OR-11 REGULATOR MANHOLES, THE STEEL RISER PIPE LENGTH SHOULD BE 20" FOR SADDLE SUPPORT SIZES 2 1/4" THROUGH 8" AND 18" FOR SADDLE SUPPORT SIZES 10" THROUGH 16".

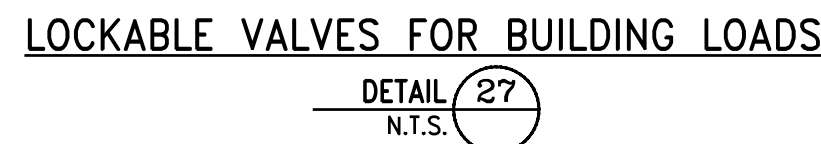
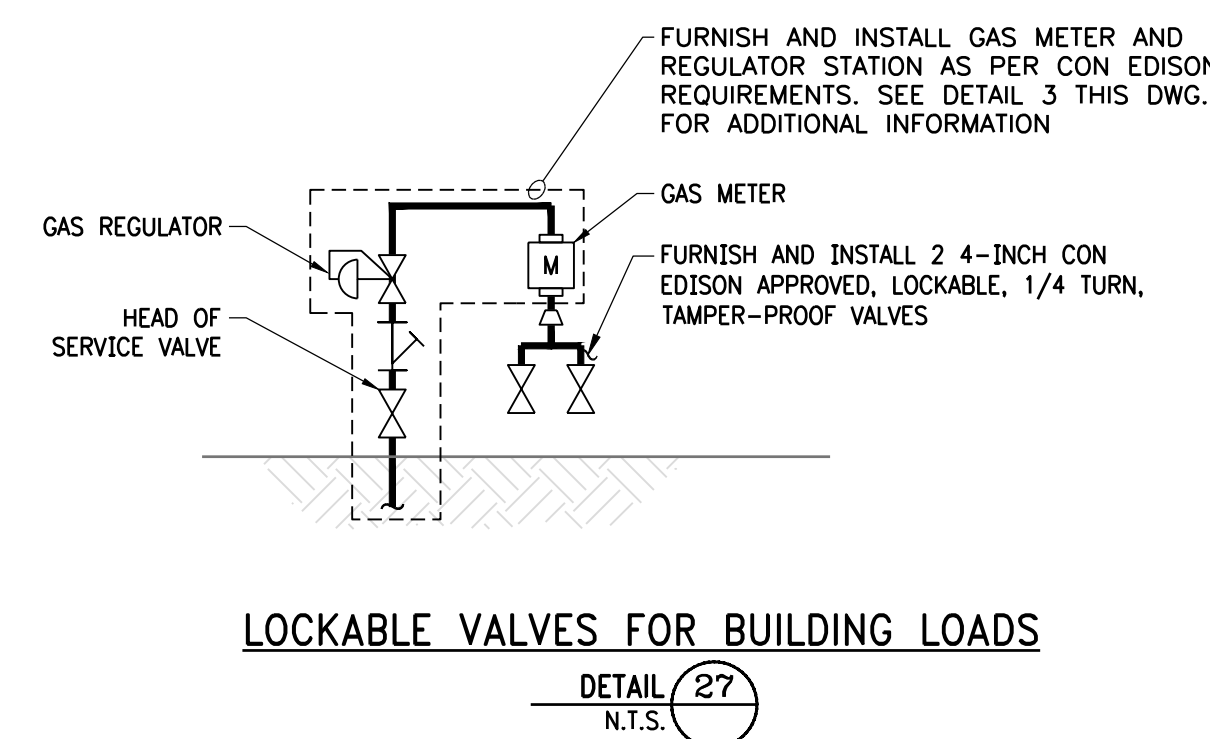
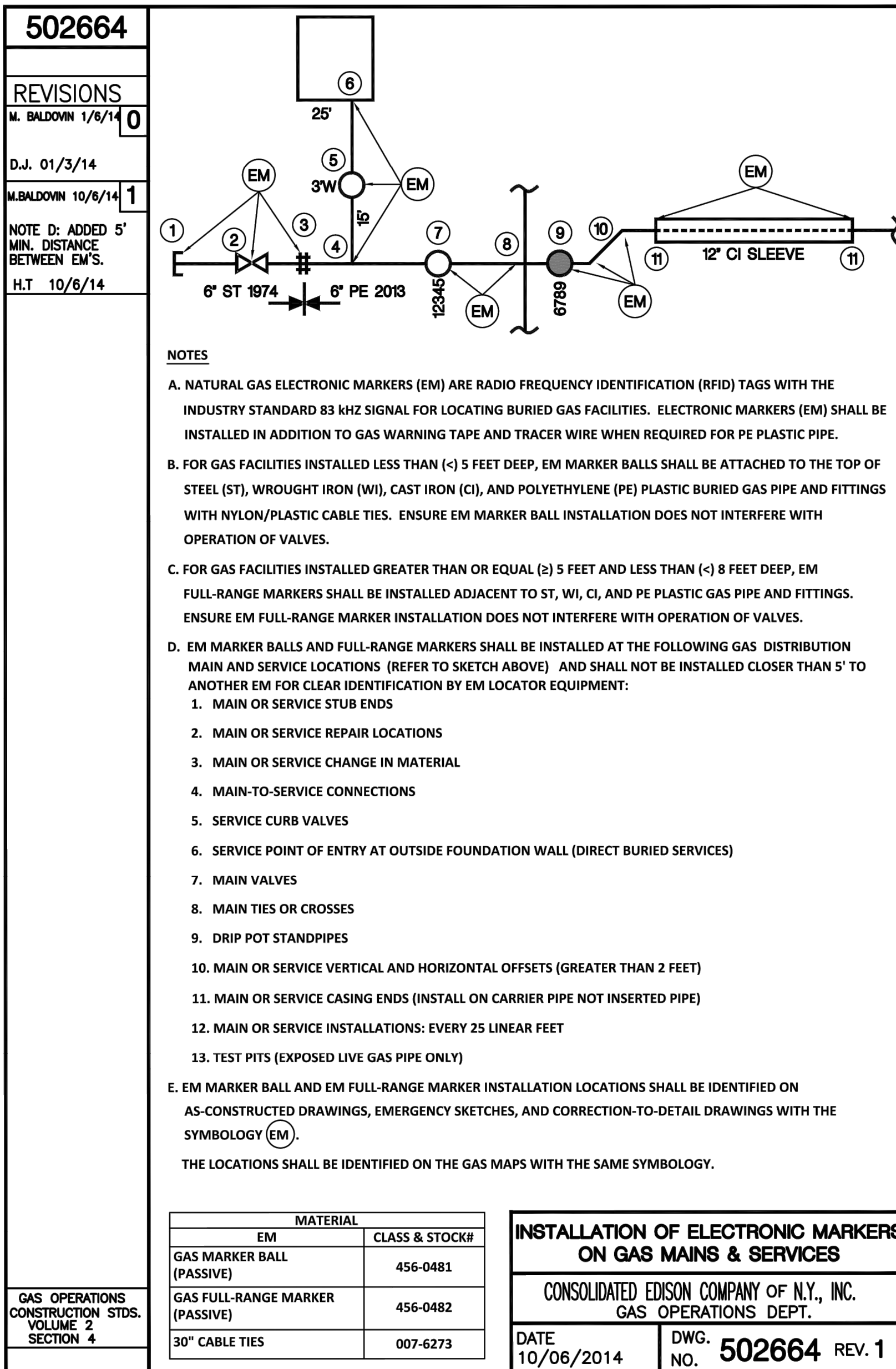
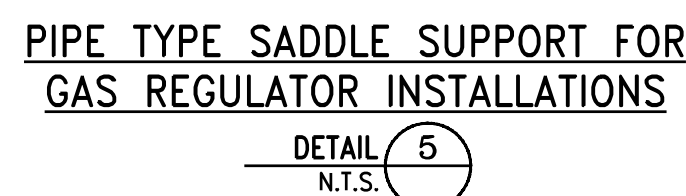
**PIPE TYPE SADDLE SUPPORT
FOR GAS REGULATOR INSTALLATIONS**



CONSOLIDATED EDSON COMPANY
OR, U.S.A. or N.Y., INC.

DATE: 2-16-89 DWG. NO. EO-7043 REV.03
LAST REV. 1-12-86

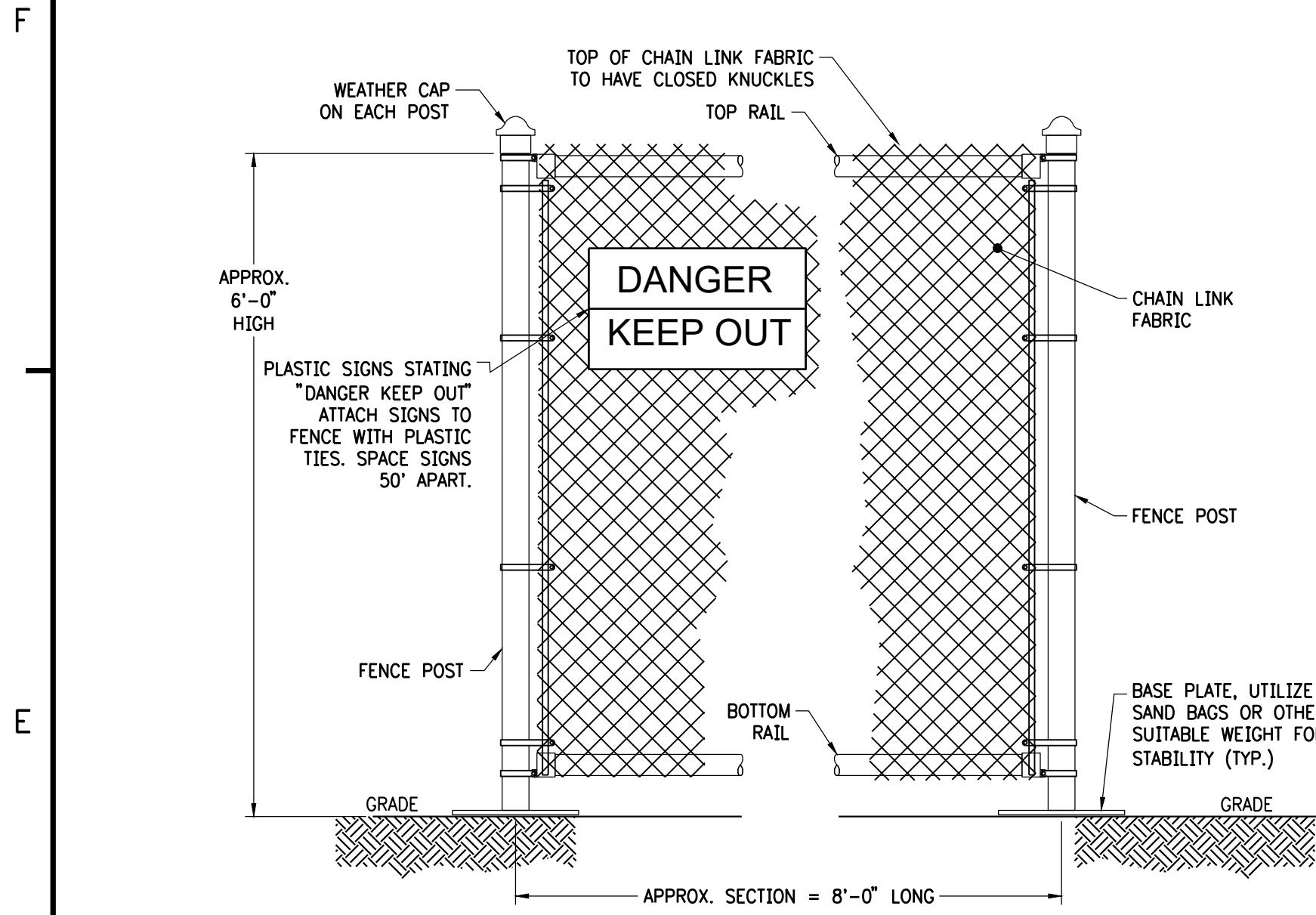
GAS OPERATIONS
VOL. 8

PURCHASE AND TEST



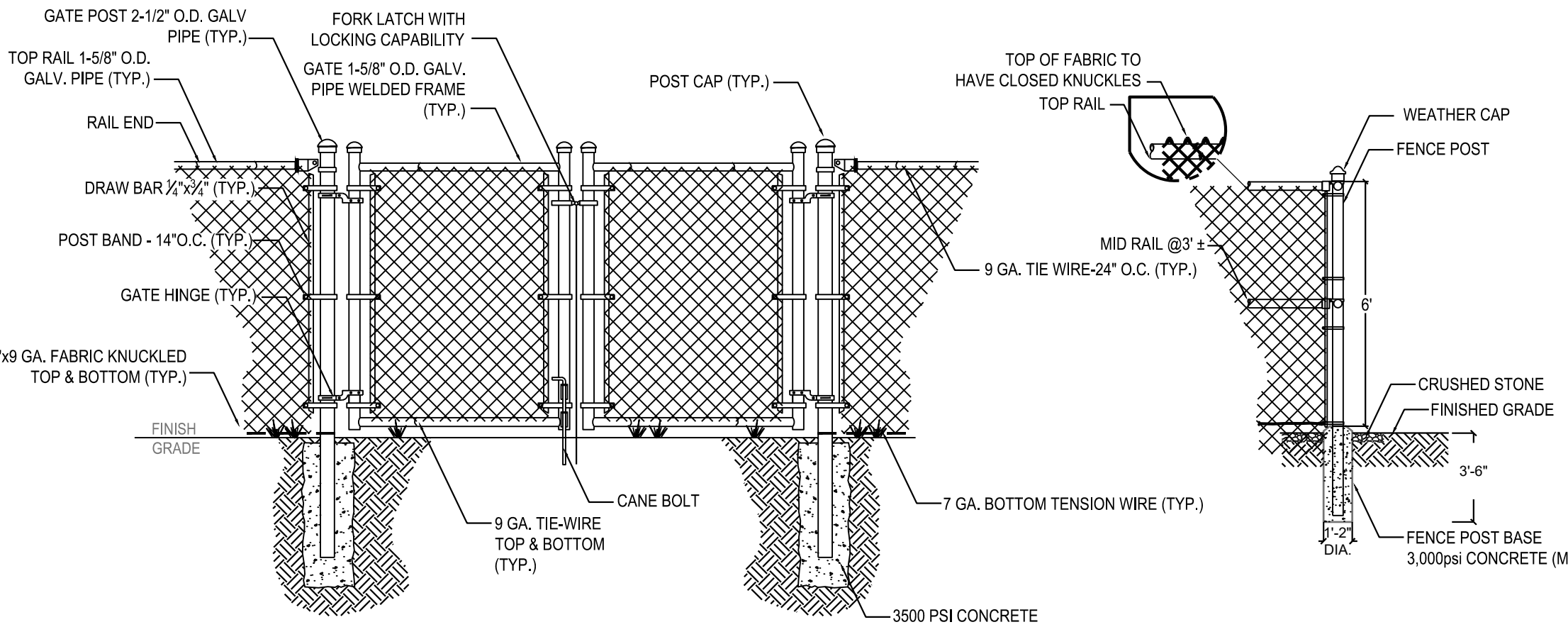
 Purdue College STATE UNIVERSITY OF NEW YORK		735 Anderson Hill Rd Purchase, NY 10577	
 O'BRIEN & GERE ENGINEERS, INC. 163 North Wellwood Avenue Lindenhurst, New York 11757			
NATURAL GAS LINE TO PHYSICAL EDUCATION BLDG.			
<h2 style="text-align: center;">DETAILS - SHEET 1 OF 2</h2>			
SCALE	PROJECT NO.	DRAWING NUMBER	REVISION
As Noted	SU-021919	SU-103	0
DRAWN BY	DWG. JOB NO.		
<i>D. Gordon</i>	65274		
CHECKED BY	DATE		
<i>S. D. M.</i>	February 19, 2019		

REVISIONS			
REV	DESCRIPTION	DATE	APPV
1	ISSUED FOR CONSTRUCTION	02/19/2019	KMD



CONSTRUCTION FENCE – RELOCATABLE
CHAIN LINK FENCE SECTION

DETAIL 7
N.T.S.

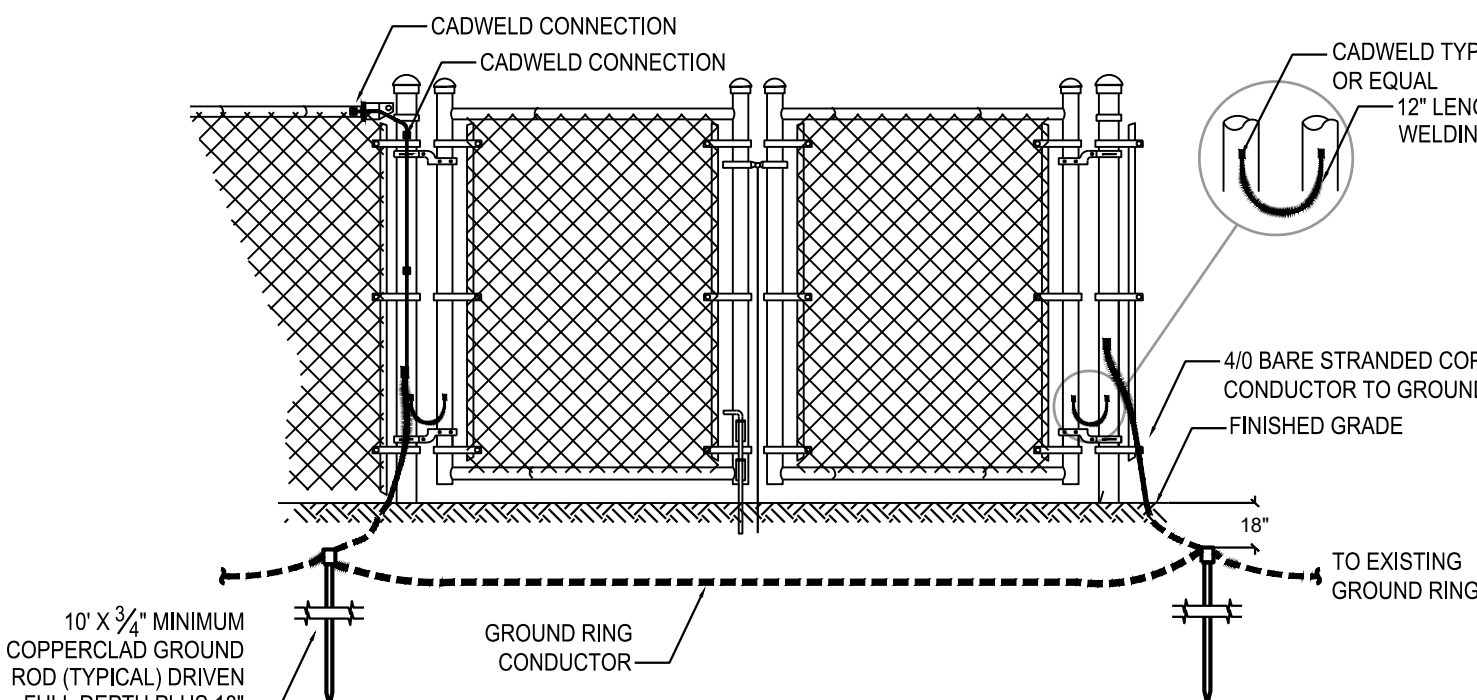


- NOTES:
1. ALL WIRE FABRIC AND FENCE HARDWARE SHALL BE GALVANIZED.
 2. GATE SHALL BE COMPLETED WITH BALL AND SOCKET HINGES OR APPROVED EQUAL.
 3. COORDINATE FINAL LOCATION OF DOUBLE GATE TO CORRESPOND TO THE ACCESS REQUIRED BY UTILITY.
 4. PROVIDE WEED BARRIER AND GRAVEL INSIDE THE FENCE AREA TO 12" OUTSIDE FENCE.
 5. FENCE SHALL BE 8 FEET HIGH.
 6. REFER TO DRAWING E-009 FOR FENCE DIMENSION DETAIL.

- CHAIN LINK FENCE COMPONENTS (ASTM1083, GALVANIZED)
1. LINE POSTS: 2.38 INCH DIAMETER
 2. CORNER AND TERMINAL POSTS: 3.5 INCH DIAMETER
 3. GATE POSTS: 2.38 INCH DIAMETER
 4. TOP AND MID RAIL: 1.66 INCH DIAMETER
 5. GATE FRAME: 1.66 INCH DIAMETER
 6. FABRIC: 2 INCH DIAMOND MESH 9x6
 7. MAXIMUM POST SPACING @ 8FT.
 8. PROVIDE MIDSPAN BRACE.

PERMANENT FENCE – DOUBLE SWING GATE
AND FENCE POST DETAIL

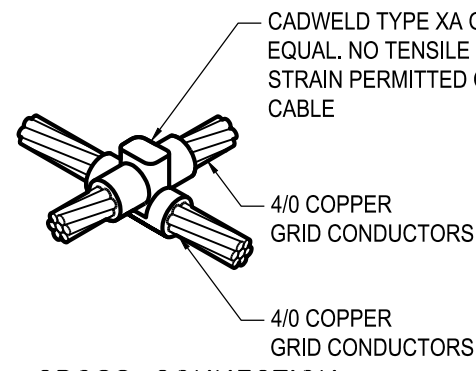
DETAIL 8
N.T.S.



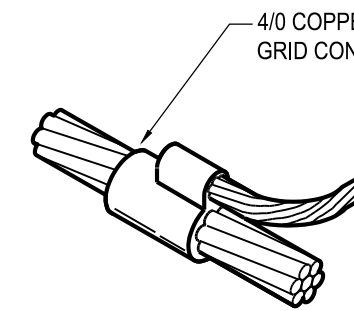
- NOTES:
1. ALL GROUNDING AND BONDING SHALL BE DONE IN STRICT ACCORDANCE WITH THE NATIONAL ELECTRIC CODE.

FENCE GROUND CONNECTION
(PERMANENT FENCE ONLY)

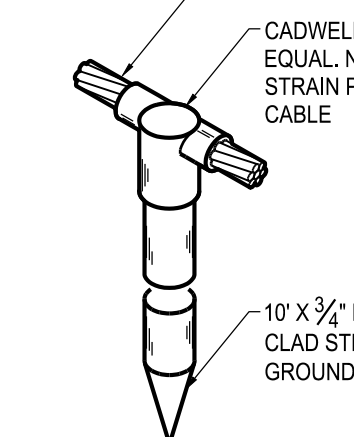
DETAIL 9
N.T.S.



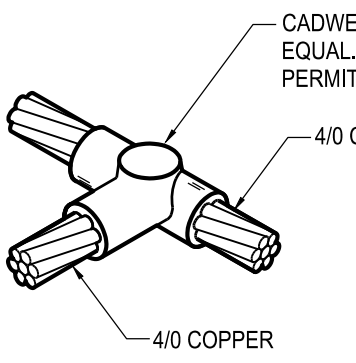
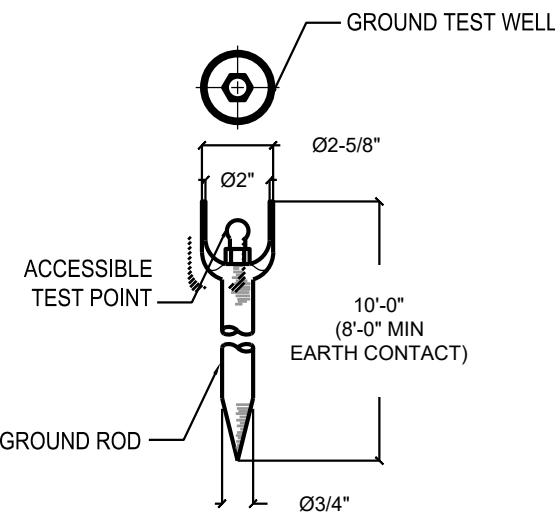
CROSS CONNECTION
EXOTHERMIC WELD DETAIL 10
N.T.S.



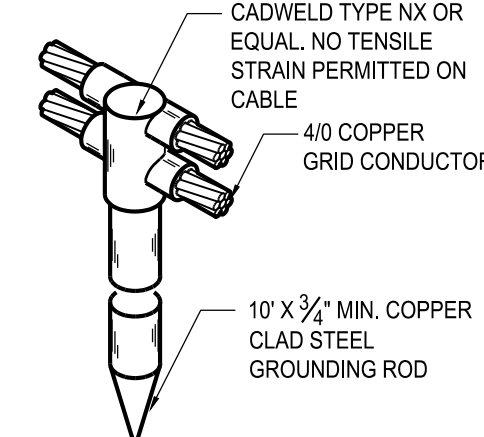
TAP CONNECTION
EXOTHERMIC WELD DETAIL 11
N.T.S.



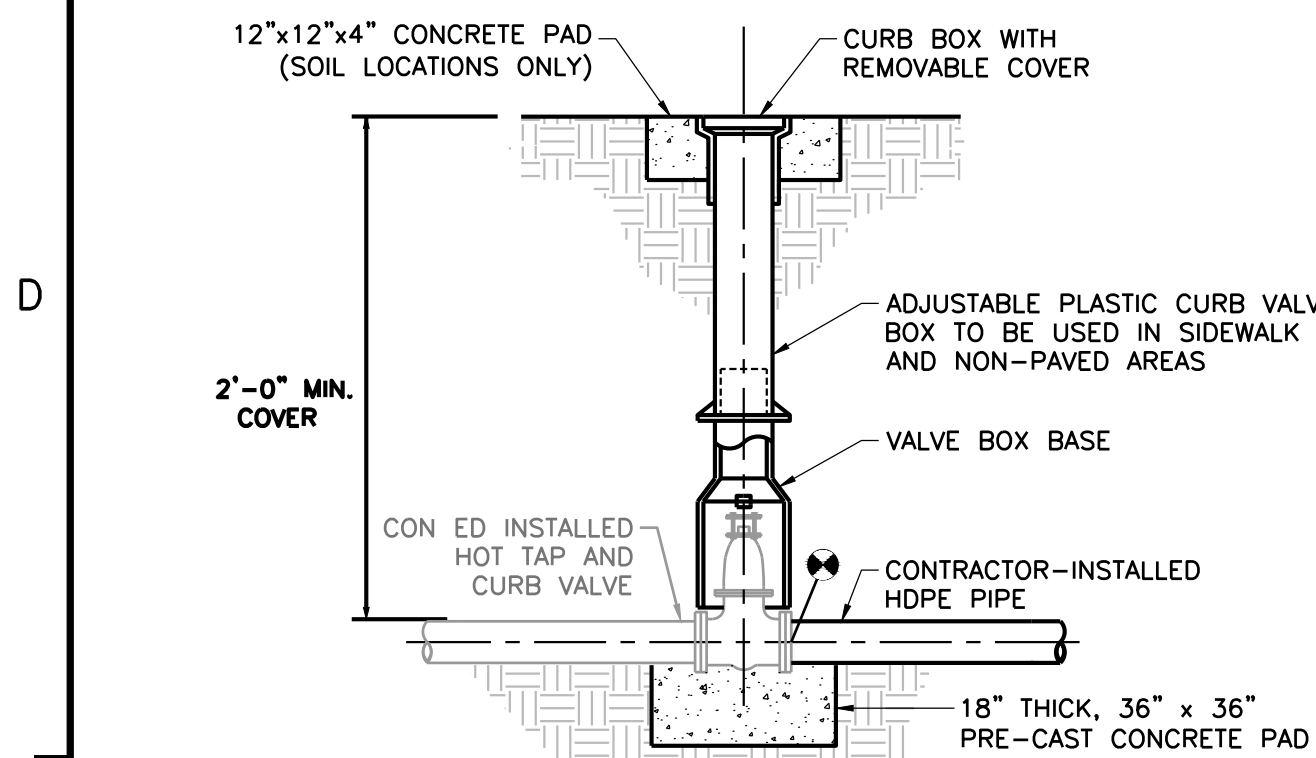
GROUND ROD CONNECTION
EXOTHERMIC WELD DETAIL 13
N.T.S.



TEE CONNECTION
EXOTHERMIC WELD DETAIL 12
N.T.S.

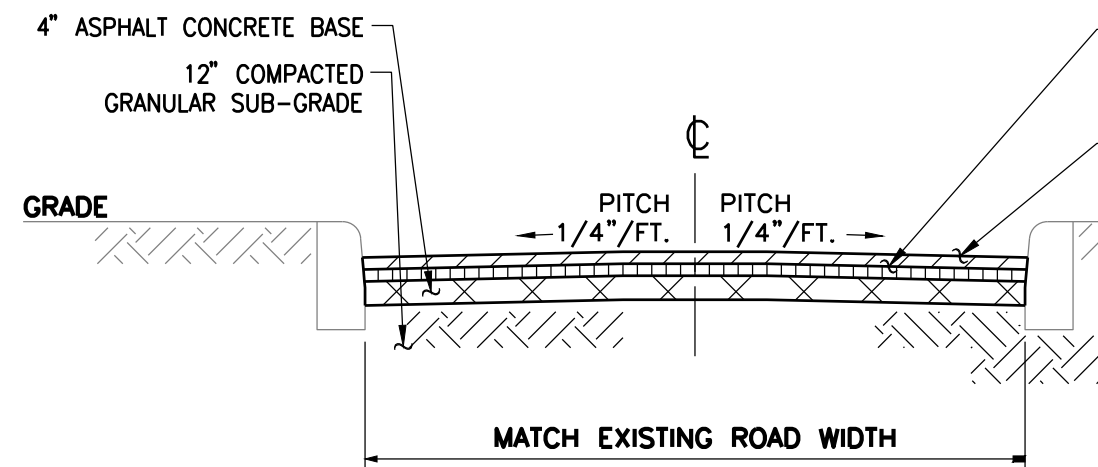


GROUND ROD CONNECTION
W/TAPS
EXOTHERMIC WELD DETAIL 14
N.T.S.



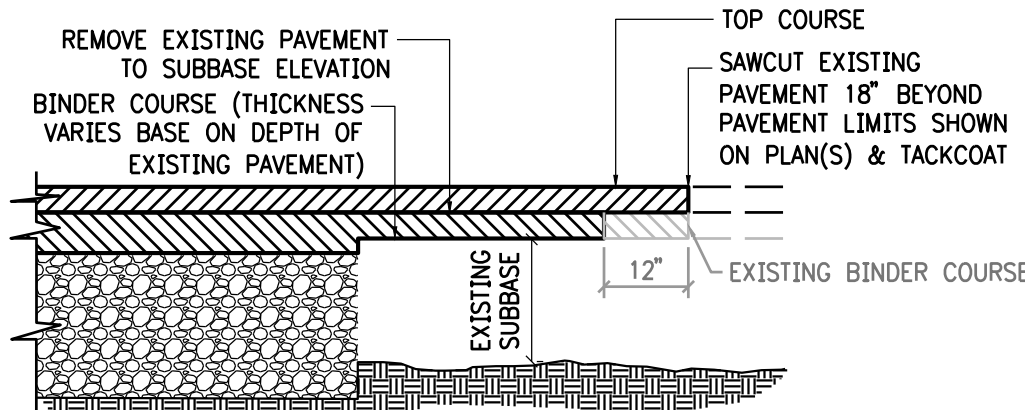
CURB VALVE INSTALLATION

DETAIL 15
N.T.S.



TYPICAL ASPHALT ROAD AND
PAVEMENT

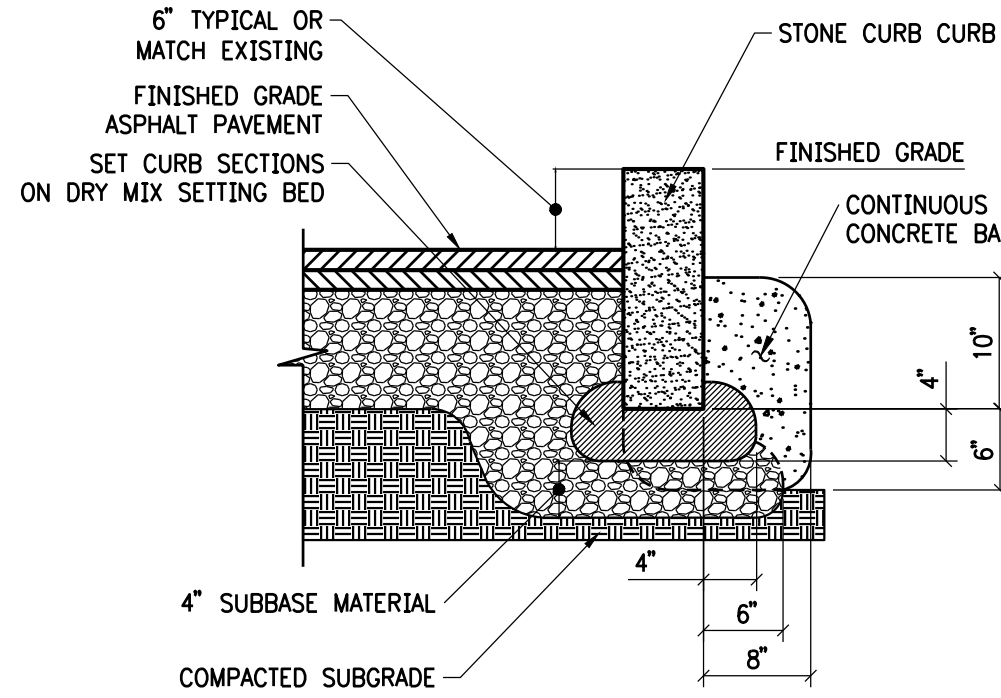
DETAIL 16
N.T.S.



- NOTES:
1. REFER TO PAVEMENT DETAIL THIS DWG. FOR DIMENSION OF LAYERS OF NEW PAVEMENT.

PAVEMENT TRANSITION

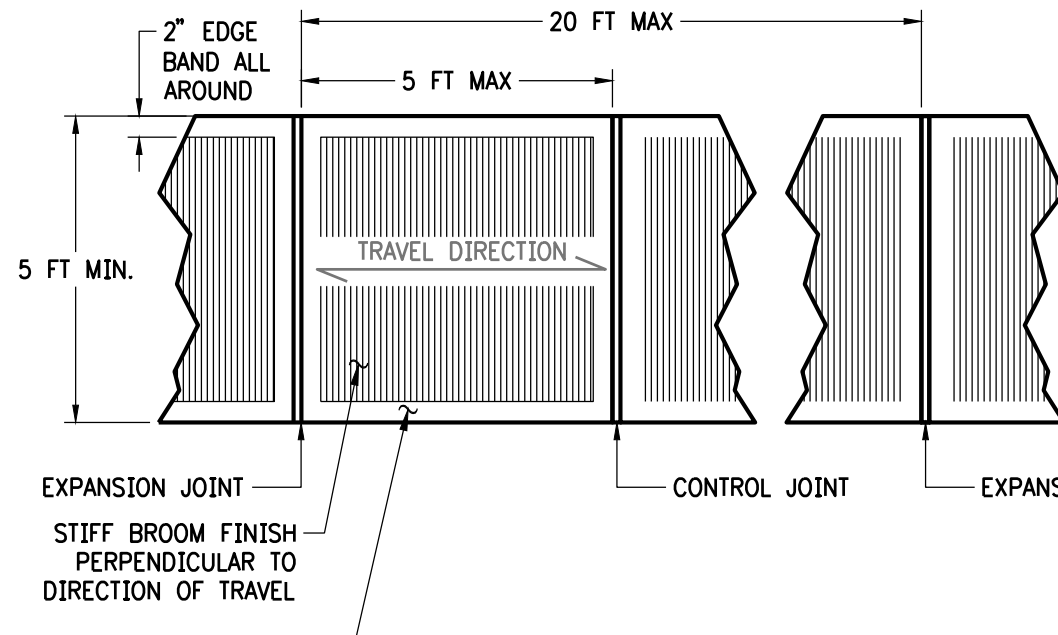
PLAN 17
N.T.S.



- NOTES:
1. CURB JOINTS TO BE POINTED WITH MORTAR.
 2. SALVAGE STONE CURBS BY CHIPPING AND CLEANING OF CONCRETE BEDDING, NUMBER IN SEQUENCE OF ORIGINAL INSTALLATION AND STORE IN WORK AREA.

STONE CURB

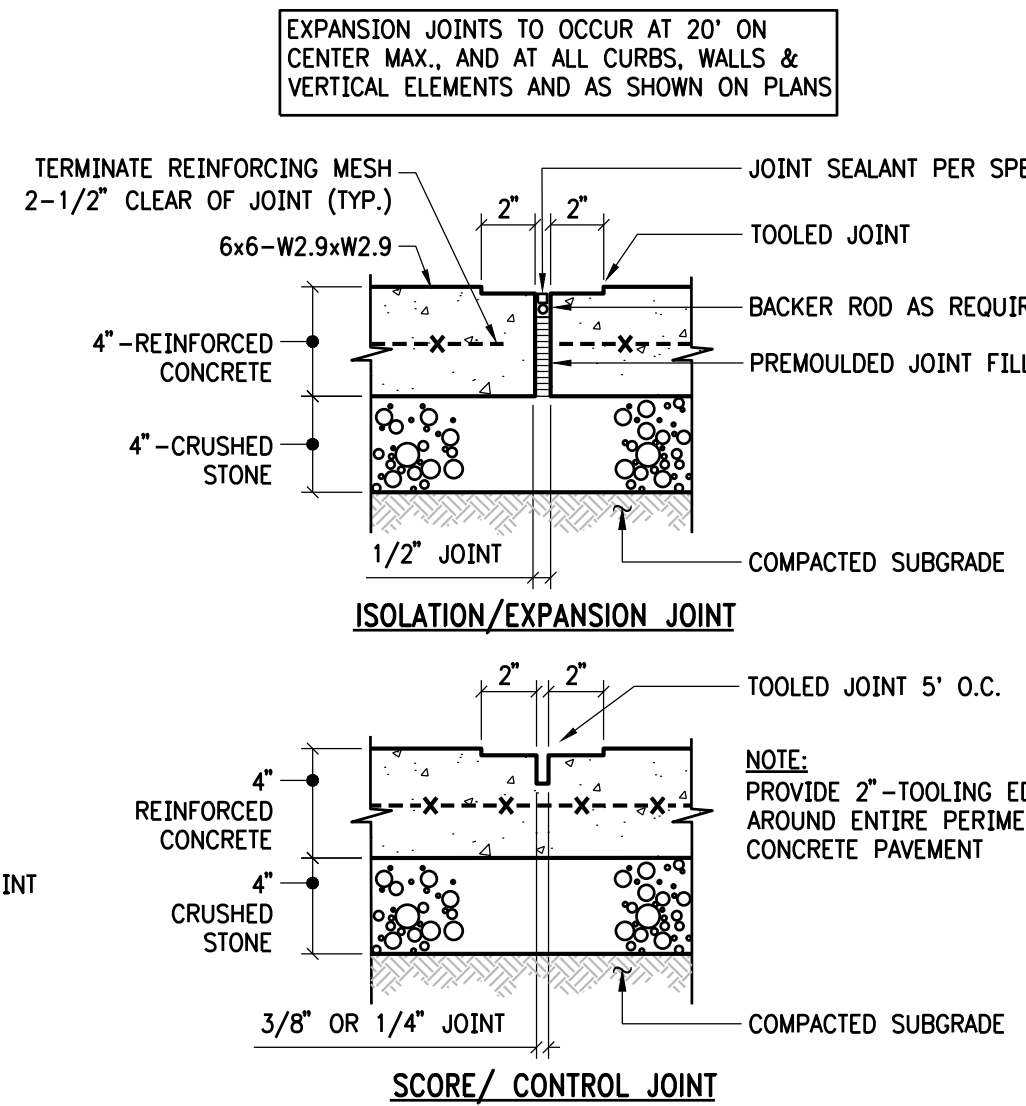
DETAIL 18
N.T.S.



PLAN

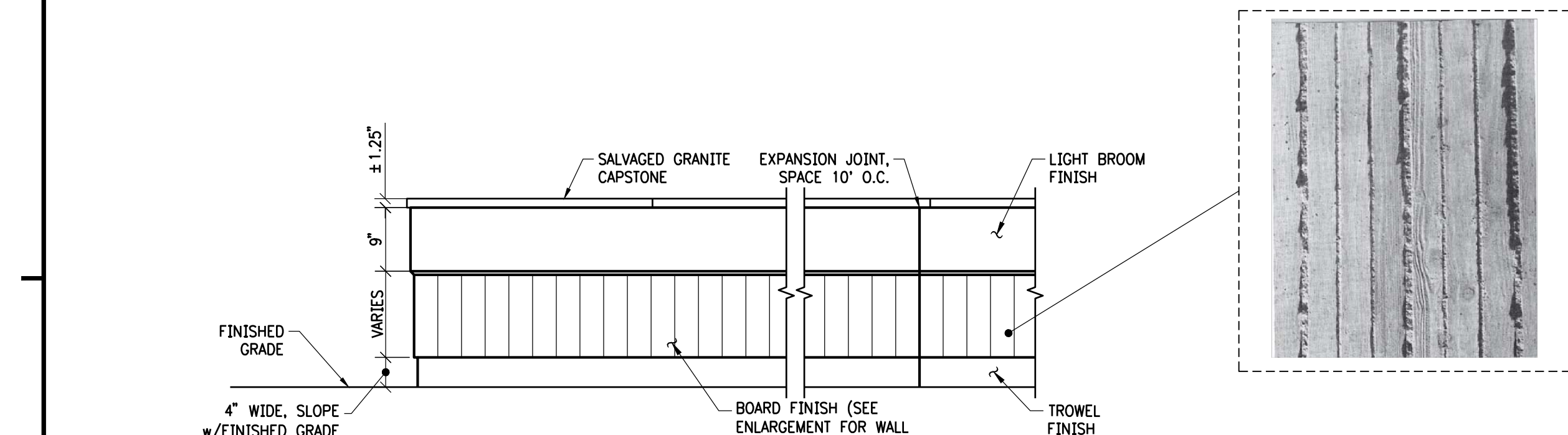
CONCRETE SIDEWALK, FINISHING & JOINTS

DETAIL 19
N.T.S.

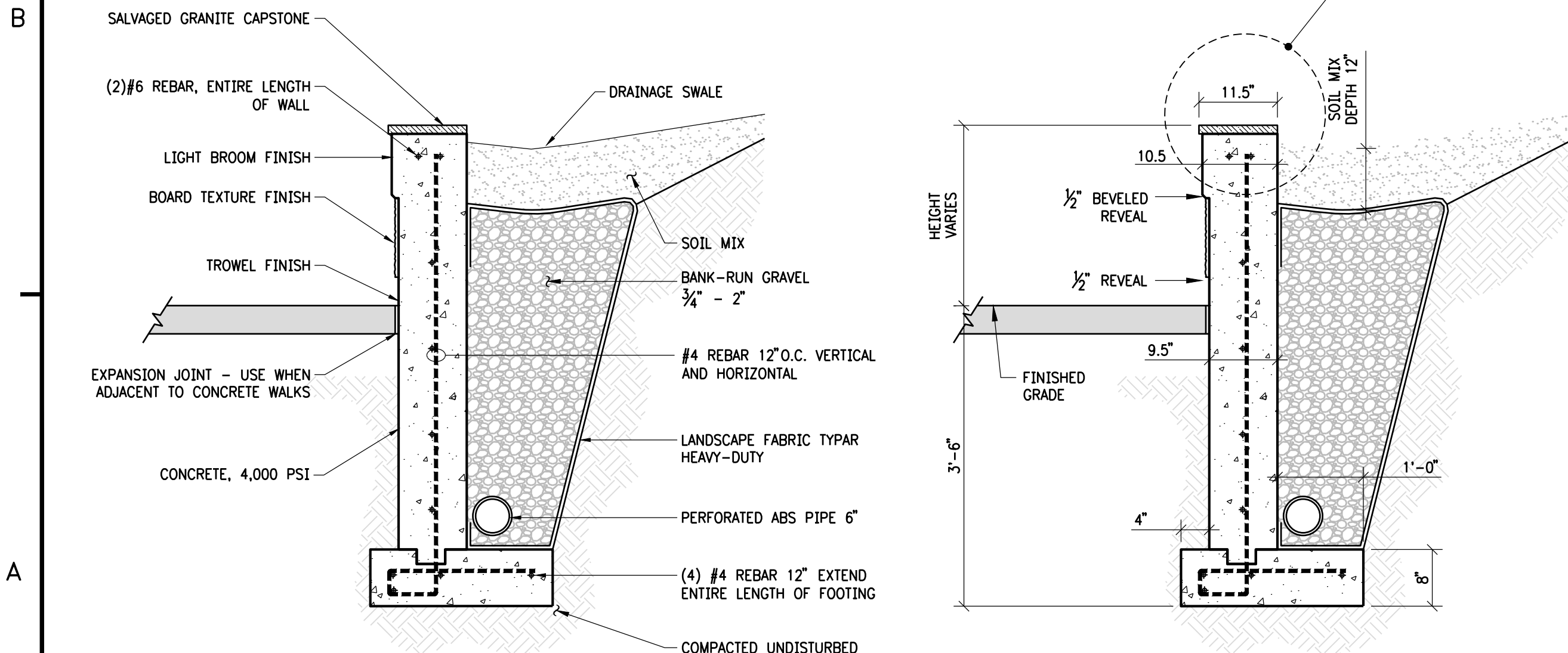


ISOLATION/EXPANSION JOINT

SCORE/CONTROL JOINT

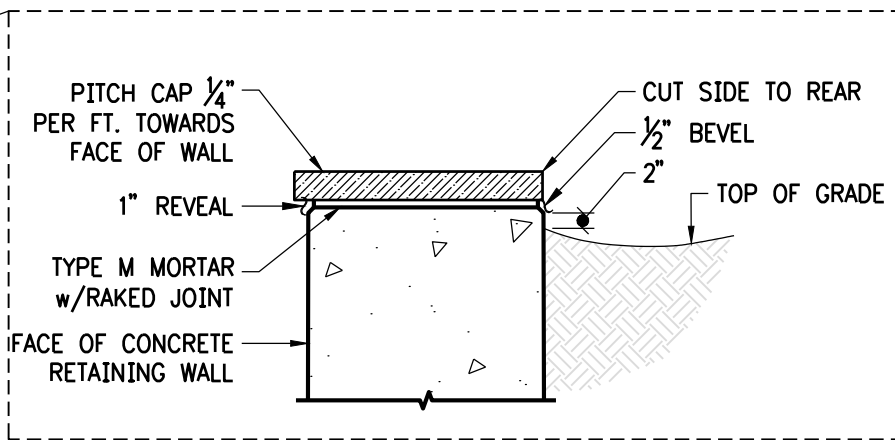


ELEVATION



CONCRETE RETAINING WALL w/GRANITE CAPSTONE

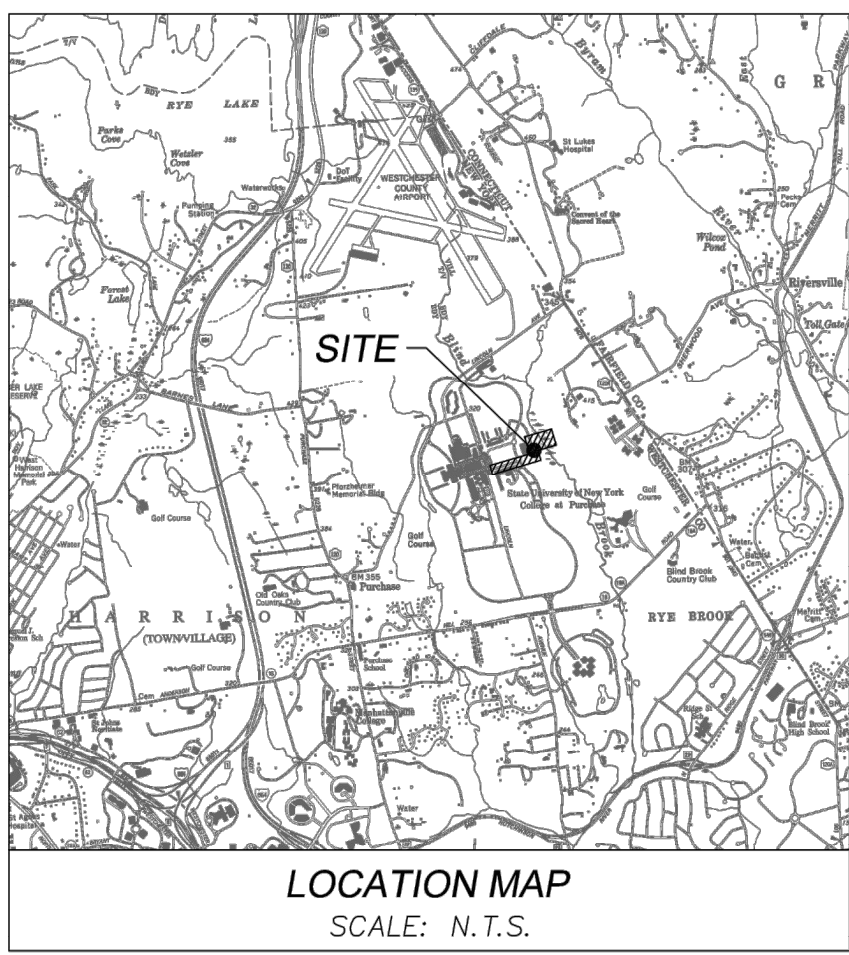
DETAIL 20
N.T.S.



DO NOT SCALE DRAWING

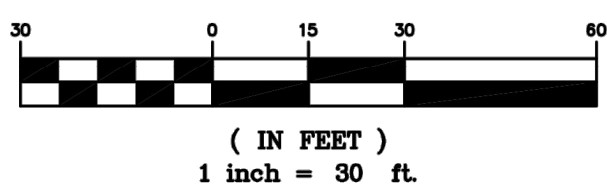
Purchase College STATE UNIVERSITY OF NEW YORK 735 Anderson Hill Rd Purchase, NY 10577	
O'BRIEN & GERE ENGINEERS, INC. 163 North Wellwood Avenue Lindenhurst, New York 11757	
NATURAL GAS LINE TO PHYSICAL EDUCATION BLDG.	
DETAILS – SHEET 2 OF 2	
SCALE As Noted DRAWN J. J. Gordon CHECKED J. J. Gordon	PROJECT NO. SU-021919 JOB NO. 65274 DATE February 19, 2019
DRAWING NUMBER SU-104	REVISION 0

REVISIONS			
REV	DESCRIPTION	DATE	APPV
ISSUED FOR CONSTRUCTION		02/19/2019	KMD



LEGEND	
	BENCHMARK
	CATCH BASIN
	SANITARY SEWER MANHOLE
	STORM MANHOLE
	MANHOLE
	COMMUNICATION MANHOLE
	ELECTRIC MANHOLE
	ELECTRIC JUNCTION BOX
	LIGHT POST
	FIRE HYDRANT
	WATER VALVE-GATE VALVE
	SINGLE POST SIGN
	BOULDER
	DECIDUOUS TREE
	CONIFEROUS TREE
	ELECTRIC LINE
	HOT WATER LINE
	WATER LINE
	CHILLED WATER LINE
	COMMUNICATION LINE
	STORM SEWER LINE
	FIBER OPTIC
	TELEPHONE LINE
	CABLE TV
	UNKNOWN UTILITY LINE
	HANDRAIL
	CHAIN LINK FENCE
	STONE WALL
	WOODS LINE
	PLANTING BED
	BUILDING LINE

- GENERAL NOTES:**
- NORTH IS ORIENTED TO GRID NORTH FROM GPS OBSERVATION.
 - THE VERTICAL DATUM IS THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
 - THE HORIZONTAL DATUM IS ON NORTH AMERICAN DATUM OF 1983, NEW YORK STATE PLANE EAST ZONE 3101.
 - CONTOUR INTERVAL = 1 FOOT.
 - INFORMATION SHOWN HEREON IS FROM A FIELD SURVEY COMPLETED BY MJ ENGINEERING AND LAND SURVEYING, P.C. ON DECEMBER 18, 2017.
 - UTILITIES SHOWN HEREON ARE BASED ON SURFACE MARKINGS PROVIDED BY BL COMPANIES. SURFACE EVIDENCE AND INFORMATION RECORDED DURING CONVENTIONAL SURVEY METHODS. THIS MAPPING DOES NOT PURPORT TO SHOW ALL UNDERGROUND UTILITIES ON SITE AND IS SUBJECT TO FIELD VERIFICATION.
 - UNAUTHORIZED ALTERATIONS OR ADDITION TO THIS SURVEY MAP IS A VIOLATION OF SECTION 7209 OF THE NEW YORK STATE EDUCATION LAW. COPIES OF THIS SURVEY MAP NOT BEARING THE LAND SURVEYORS SEAL AND SIGNED WITH RED INK SHALL NOT BE CONSIDERED TO BE VALID COPIES.



SUBMITTAL / REVISIONS			
No.	DATE	DESCRIPTION	BY

REVIEWED BY:	DATE
PROJ. MANAGER: GMR	
CHIEF DESIGNER:	
DESIGNED BY:	
DRAWN BY: PEM	
CHECKED BY: GMR	

DATE	DATE

THE ALTERATION OF THIS MATERIAL IN ANY WAY, UNLESS DONE UNDER THE DIRECTION OF A COMPARABLE PROFESSIONAL, (I.E.) ARCHITECT FOR AN ARCHITECT, ENGINEER FOR AN ENGINEER OR LANDSCAPE ARCHITECT FOR A LANDSCAPE ARCHITECT, IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW AND/OR REGULATIONS AND IS A CLASS "A" MISDEMEANOR.



**Engineering and
Land Surveying, P.C.**

1533 Crescent Road - Clifton Park, NY 12065

SUNY PURCHASE
PARITAL TOPOGRAPHIC SURVEY
735 ANDERSON HILL RD., PURCHASE
WESTCHESTER COUNTY NEW YORK

SCALE: 1"=30'
CONTRACT No.:
MJ PROJ. No.: MJ1248
DATE: JAN. 4, 2018

1 OF 2

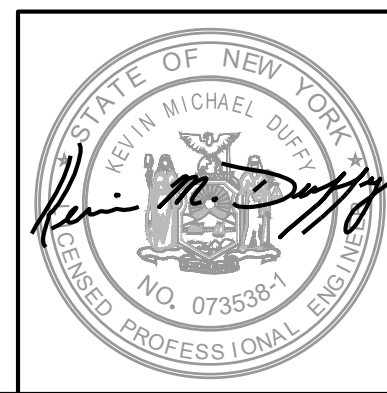
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STATE UNIVERSITY OF NEW YORK
735 Anderson Hill Rd
Purchase, NY 10577

O'BRIEN & GERE ENGINEERS, INC.
163 North Wellwood Avenue
Lindenhurst, New York 11757

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**TOPOGRAPHIC & UTILITY SURVEY SHEET
1 OF 2 (REFERENCE ONLY)**

SCALE As Noted	PROJECT NO. SU-021919	DRAWING NUMBER SU-105	REVISION 0
DRAWN BY J. Jordan	DATE February 19, 2019	CHECKED BY K. Dille	

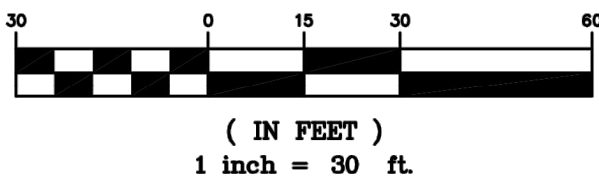


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REVISIONS			
REV	DESCRIPTION	DATE	APPROV
1	ISSUED FOR CONSTRUCTION	02/19/2019	KMD



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SUBMITTAL / REVISIONS				
No.	DATE	DESCRIPTION	BY	REVIEWED BY:

PROJ. MANAGER: GMR
CHIEF DESIGNER:
DESIGNED BY:
DRAWN BY: PEM
CHECKED BY: GMR

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SCALE: 1"=30'
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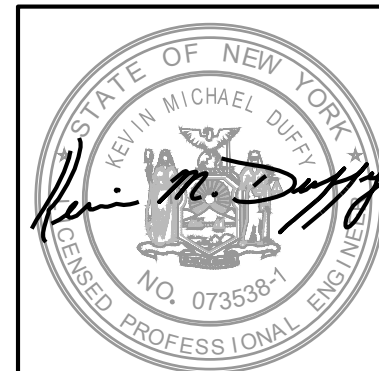
2 OF 2

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**TOPOGRAPHIC & UTILITY SURVEY SHEET
2 OF 2 (REFERENCE ONLY)**



SCALE	PROJECT NO.	DRAWING NUMBER	REVISION
As Noted	SU-021919	SU-106	0
DRAWN BY: J. Darden	DATE: February 19, 2019		
CHECKED BY: K. Duff			

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